fu
tu
re

Annual Report and Accounts 2019

efacec

future

Annual Report and Accounts 2019

efacec Empowering the future

Know what we did

Chapter 1
Shaping the future

efacec Empowering the future

"Even in the context of the crisis of the century, Efacec proves to be a resilient, viable, and profitable company with a strong potential in its sectors."

Ângelo Ramalho,
Chairman of the Executive Committee

1. Message from the Chairman of the Executive Committee

We are living in times of uncertainty. It seems that everything can be questioned, all the truths we took for granted seem threatened and the world (as we know it) has become more volatile than ever.
In just over a month, the Coronavirus blocked people and property.

I am a prudent optimist and that is why I see this crisis as an opportunity for a greener and more circular economy. Not only because the world needs it, but also because of the growing awareness of consumers.

Societies and economies will organize around the digital and the cyberspace. Human abilities will be amplified by cognitive interaction aids, from machine learning to artificial intelligence. Physical production will be organized in a decentralized manner, closer to the end consumer. Additive manufacturing and robotics will be the technologies that will support the entire production process. Cities will continue to grow and their management will demand technology that guarantees security and quality of life for citizens. Hydrocarbons will continue to be a key issue.

In this context, there are two strategic pillars for the evolution of today's societies - Energy and Mobility, around which Efacec has developed, having all the skills for the ongoing energy transition, creating a more sustainable world.

Efacec faced on the first half of 2020 perhaps the most challenging moment in its history, resulting from three external factors to the company:

i. the shareholder crisis caused by the Luanda Leaks episode;

ii. the crisis resulting from the COVID-19 pandemic.

iii. the blocking of a significant part of the financial system following the two preceding crises.

Despite the adversities we are facing, Efacec is, in 2020, a **significantly more solid company than the one I found at the end of 2015**, when I became the Chairman of the Executive Committee. Over the past four years, Efacec has proven to be sustainable, improving the efficiency in the development of its operations and laying the foundations for its future growth: geographic reorientation of its markets, investment in business key to the energy transition, such as Electric Mobility or Biogas, the modernization of the information systems and access to financial markets.

Additionally, it has always kept in mind the trend analysis of the sectors in which it operates, which, together with the intended positioning for the Group, allowed informed decisions on divestment in non-core or strategic business areas, such as the case of the Environment, whose divestment was decided at the end of 2019.

I&TD
25 projects in progress

+70
/merit scholar-ships
Awarded to the best students, our Employees' children

Only in **2019, it was not possible to materialize the expected growth**, having presenting a negative performance mainly due to simultaneous delays in the implementation of some important projects, with a direct impact on the company's liquidity. In 2019, Efacec's treasury was also negatively impacted by the combined effect of the effort made to improve the Clients' geographic and risk profile and the temporal concentration of projects with needs in terms of investment in Working Capital.

Despite the circumstantial problems, duly identified and currently already under normalization, Efacec strengthened its order book in 2019, having recorded a volume of **projects with notice to proceed 16% higher than in 2016**. In addition to strengthening its position with historic Clients, Efacec witnessed, in 2019, the entry into new reference Clients such as Nova Scotia Power in Canada, Société Monégasque de l'Electricité et du Gaz or Instituto de Previsión Social (IPS) of Paraguay.

We continued to strengthen our position as a technological reference company with our Clients. Total investment in R&TD amounted to 3.1% of the year's revenue:

- Eight new projects, in a total of 25 R&TD projects in progress;
- Success rate, at European and National level, in the approval of R&TD projects with external incentives for technological development and high innovation and well above the general average.

2019 was also marked by the **formalization and start of the VASCO DA GAMA Collaborative Laboratory (CoLAB)**, dedicated to the design and development of innovative technological solutions, on an international scale, for energy storage exploring complementary technologies.

We maintained the strong social conscience that has characterized us since 2016:

- We made salary adjustments for Employees with lower wages;
- We invested in the improvement of our facilities with the opening of a more modern canteen in the Arroteia centre, new workspaces for the Automation area in the Maia centre and new offices in the Lisbon centre;
- We promoted internal mobility, between business areas, ensuring the development of our People;
- We awarded more than 70 merit scholarships to the best students, our Employees' children, between the 1st and the 12th grades, with the objective of promoting the value of study and learning.

We strengthened our public commitment to Sustainability by joining the "Business Ambition for 1.5°C", the EV100 movement, the Business Mobility Pact for the City of Lisbon and the Call to Action Anticorruption Campaign. Additionally, we co-founded the Católica Lisbon's Centre For Responsible Business & Leadership (CRBL), whose main purpose is to *"contribute to sustainability and responsible leadership becoming the cornerstones of the manner in which we operate on our planet"* (Nuno Moreira da Cruz, Executive Director of CRBL).

Despite the circumstantial challenges that emerged in 2019 and the crisis we are experiencing, **Efacec is a company with an absolutely crucial Economic and Strategic Value for the country**:

- It is a **National Strategic company with *know-how* and unique presence** in the production, transmission and distribution of energy sectors and in the mobility and transport systems, being a crucial supplier of vital systems for the national electricity network. Efacec's pioneering nature in electric mobility was a determining factor for Portugal's positioning at the forefront of the development of public and integrated sustainable mobility solutions;
- Efacec is an **Export Company and of strategic importance for the affirmation of Portugal in the World**, with the exports representing about 75% of the revenue;
- Efacec is the direct employer of about 2,500 people, most of them working in the Greater Porto region. In addition, it feeds an ecosystem of SME suppliers that depend on Efacec as the main Client;
- And, above all, Efacec is a **knowledge organization**, and this knowledge lies with our Employees. From our qualified operational staff to our experts in cutting-edge technologies who, with the support of the Portuguese scientific and technological system and its universities, managed to build distinctive competences, solutions and products that play a role in the four corners of the world. People who always knew how to respond to the greatest challenges they faced, people who innovated beyond what was imaginable or who developed projects in harsh locations, such as the Atacama desert in Chile or in Kenya's tropical depths. Stoic people that makes a difference!

2020 is again a year of shareholder change for Efacec. The Council of Ministers of Portugal announced the decision, already promulgated by the President of the Republic, to nationalize 71.7% of Efacec's capital, with the objective of solving the deadlock experienced in the shareholder reconfiguration process, enabling the continuity of the company and ensuring the stability of its financial and operational value. This nationalization takes place with the objective of reprivatising in the shortest possible time, as established in DL 33-A / 2020. Thus, this intervention by the State is of a provisional nature, and the opening of the company's re-privatization process was immediately determined.

Combined with the already ongoing actions to reduce the capital used in our activities and cash generation, the shareholder change will allow Efacec to resume the implementation of contracts already signed and participate in national and international tenders. Also the contractualization, in the first four months, and despite a highly adverse context (shareholder crisis, financial system deadlock and pandemic crisis), of 100 million euros in new Orders, allows us to believe in a recovery of the company and a positive start for 2021, resuming the sustained growth trajectory started in 2015.

"Efacec is a Portuguese Brand. I strongly believe in its future. And I know that I am not alone."

Ângelo Ramalho,
Chairman of the Executive Committee
of the Efacec Power Solutions

Chapter 2 Connecting expertise

efacec Empowering the future

2. Key Facts 2019

2.1. Efacec in 2019

€ 355M
in orders

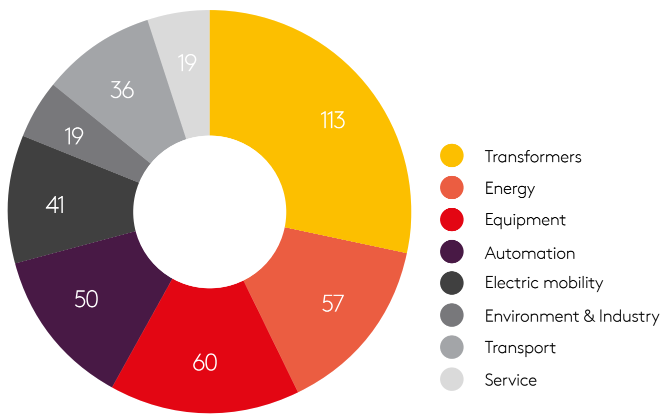
€ 354M
in revenue

€ 22M
in EBITDA

€ -21.6M
in EBT

Revenue per business unit

Million euros, not consolidated

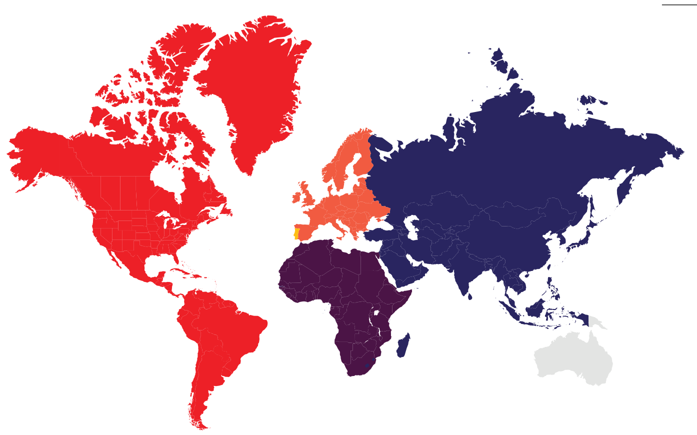


Active Markets

Revenue per region, million euros

27%
in Portugal

73%
Worldwide



- Portugal → 100
- Europe → 138
- Americas → 64
- Africa → 52
- Middle East and Asia → 19

71 years of technological innovation

57
number of patent applications

6
accident frequency index

37
number of active patents

10%
reduction in the accident severity index (2018/2019)

3,1%
Investment in TR&D

74%
Client satisfaction

> 50
number of entities with technological and scientific cooperation

8%
reduction in CO_2 emissions (2018/2019)

2.531
Employees

87%
in Portugal

13%
Worldwide

57.000h
Employees' training

98%
waste recovery index

27,8h
training per Employee

12%
reduction in water consumption (2018/2019)

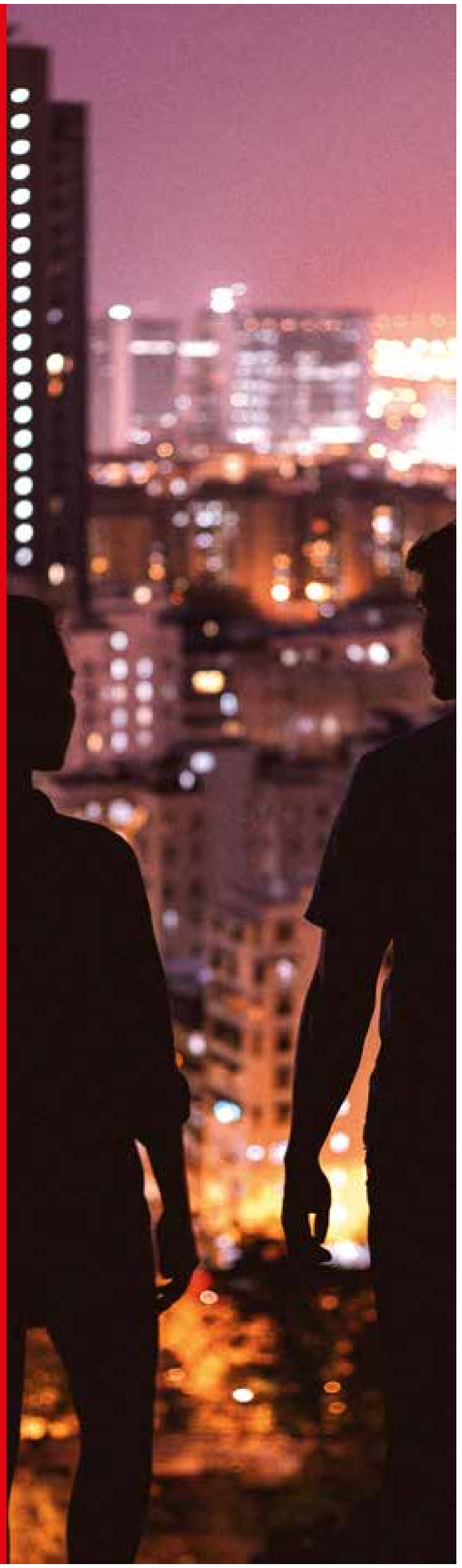
1.044h
volunteering work

2.2. Most relevant achievements in 2019

2.2.1. Business

"Over 75% of the orders in 2019 came from developed and demanding markets in Europe and North American, which reflects the technological and commercial quality of the Efacec solutions. The products developed by Efacec are, among others, responsible for the operation of several nuclear power plants in the USA or Spain, for the distribution of energy to New York city or Paris, for the operation of the transport systems of cities such as Dublin, Odense, Bergen or Algiers. The Athens electrical distribution management software was developed and is operated exclusively by Efacec. Most of the electrical system in Algeria and Tunisia is based on electrical transmission substations built by Efacec. Efacec's products are installed in the power grids of the major utilitiesin France, the United Kingdom and Spain, Czech Republic and Romania, and also in Argentina and Chile, Costa Rica, Zimbabwe and Rwanda, Qatar and Saudi Arabia, India, Singapore and Malaysia and even in Australia and Russia".

Ângelo Ramalho



Transformers

- Several high power **Core and Shell transformers (> 500MVA, 400kV) were shipped to the USA**.
- The **third 170MVA transformer for the Haute-Durance project**, of which the Réseau de Transport d'Électricité (RTE) is in charge was successfully tested and installed. This was a highly complex project, with transformers being assembled and tested on site, due to geographical constraints.
- Nova Scotia Power, the utility which guarantees 95% of the production, transmission and distribution of electricity in the province of Nova Scotia, in Canada, awarded a contract for the supply of the **first mobile substation**.

Equipment

- The **The RMU compact medium voltage outdoor equipment - Fluofix GCT Kingdom**, was approved by the UK Power Network (UKPN), one of the main utilities in the United Kingdom.
- The presence at ENEL was strengthened globally, with the award of several **framework contracts** to Chile, Spain, Italy and Argentina.
- **Primary distribution equipment** (Normacel model) in the Abu Dhabi utility, ADWEA, was homologated.

Automation

- Infratec awarded the supply of **six EFASOLAR PVStations 1MVA**, for installation in Minde, Portugal.
- The Instituto de Previsión Social (IPS) of Paraguay awarded the supply of an **automation, protection and control system** for the Ingavi 66kV SS.
- The supply of a **PAC system for the Tirana Ring 400/110/20kV substations** of the company OTS, in Albania, was awarded within the scope of the modernization and strengthening of the electric transmission network interconnections between the countries of the Balkan region.

Service

- Efacec entered the digital asset management market, with a new **range of online monitoring and diagnostic solutions for the Transmission, Distribution, Renewables, Industry and Microgeneration segments** in cooperation with Doble. One of the largest international companies of on-line condition monitoring systems for the Energy sector.
- A **contract for the provision of preventive maintenance services for the auxiliary equipment of EDP Renováveis** (Portugal) wind farms, was awarded for a period of four years, 24 hours a day, 365 days a year.

Energy

- Ten substations were completed and commissioned under the contract signed in 2016 with STEG (Société Tunisienne de l'Electricité et du Gaz), for the construction and expansion of **25 electrical substations for the Tunisian Electricity Transport Network**.
- The execution of **four new photovoltaic plants in Portugal** (Azores, Beja, Vila Nova de Famalicão and Guimarães) was awarded. These will be responsible for generating energy for more than 2,000 homes.
- The EPC contract was signed for the operation and maintenance of a **41 MWp solar power plant**, in Metoro, in northern Mozambique, which will have a production capacity of 68GWh/year.

Environment

- The **largest biogas plant in Europe**, located in Korskro, in Denmark, in whose construction Efacec took on a reference role, started operating to produce around 37 million Nm3 of biogas per year, which will be treated and sent to the country's natural gas network.
- The contract for the **construction, supply and assembly of the Paradela Mechanical and Biological Treatment** (Portugal), with capacity for treating and recovering 125,000 tonnes/years Urban Solid Waste was awarded.
- The contract for the design, construction and supply of **improvements in the packaging line at the Western Sorting Centre** (Cadaval, Portugal), for VALORSUL.

Transport

- Efacec provided Trafikverket, the entity in charge of all the infrastructures and transport in Sweden, with the first **electronic level crossing systems**.
- Bybanen Utbygging awarded the construction of the **electrification system for the extension of the trolleybus line of Bergen** (Norway) to an electric bus line, in a recognition of Efacec's competence and reliability.

Electric mobility

- Efacec supplied **40 public charging stations** to COPEC Oil & Gas no Chile, with an additional 85 units expected to be delivered in 2020.
- Through the Société Monégasque de l'Electricité et du Gaz (SMEG), the first **ultra-fast charger was installed in the Principality of Monaco**, which with 160kW of power will allow to charge normal and long-range electric vehicles.
- As part of the creation of a pilot network for ultra-fast charging in Europe, led by Allego, the installation of **90 ultrafast chargers, model HV350**, in Central Europe.

2.2.2. Technological Innovation

- Eight **new Technological Research and Development (TR&D) projects** started with external incentives, resulting in a total of 25 TR&D projects under development.
- The start of the **VASCO DA GAMA** Collaborative Laboratory (CoLAB) **– Energy Storage**, Led by Efacec and dedicated to the design and development of innovative technological solutions, on an international scale, for energy storage exploring complementary technologies.
- The **Intellectual Property Management System** (SGPI) strengthened its key role in promoting the registration and protection of Intellectual Property (IP) in a unified manner at Efacec.
- An **Incentive System** was approved that aims to not only rewarding and encouraging the innovative capacity of our teams, but also recognizing the intellectual effort and dedication as essential factors in the creative process.

2.2.3. Governance

- We strengthened the **Code of Conduct** with policies that supplement the fundamental ethical guidelines applicable to all stakeholders:
  - → Anticorruption Policy;
  - → Conflict of Interest Policy;
  - → Gift and Hospitality Policy.
- We implemented policies, procedures and tools, as well as an extensive awareness campaign to comply with the **General Data Protection Regulation** (GDPR), which enabled as to achieve an above average maturity level.
- We subscribed to the APEE – Portuguese Association of Business Ethics and GCNP – Global Compact Network Portugal **Call to Action Anticorruption** campaign.
- We strengthened the **Employees' engagement** in topics that are transversal to the entire organization and that aim at sharing information between co-workers and the alignment of objectives:
  - → Marketing & Sales Community Day 2019;
  - → Technology Community Day;
  - → International Network Meeting (1st edition,which was attended by Employees from the international structures).
- We launched the **we.co.lab platform**, which offers a market surveillance service, ensuring that the most relevant information on sectors, products and competition reach all Employees.

Mast3r Academia Efacec Training – Portugal

1St Edition of the International Network Meeting – Portugal

Technology Community Day – Portugal

2.2.4. People

- We continued to **invest heavily in training** our Employees at the Mast3r Academia Efacec:
  - → 2,052 Employees;
  - → 7,256 trainees;
  - → more than 57,000 hours of training;
  - → 54% increased compared to 2018.
- We trained **40 new internal Employees**.
- We are founding Partners of the **Centre for Responsible Business & Leadership**, of Católica-Lisbon, which aims to be an academic reference in Europe in terms of research, teaching and consultancy in Responsible Business Management themes.
- We extended the **The Talent assessment and management process to the 3rd lines** or equivalent, covering about 395 Employees.
- We publicly committed to the **Charter of Principles of BCSD Portugal**, which includes several Human Rights principles.
- We invested in the improvement of our facilities with the objective **of improving the working conditions of our People and strengthening the organizational culture**: the new canteen in Arroteia, the new Automation offices in Maia and the new offices in Quinta da Fonte in Lisbon.
- We extended the **Valor Segurança project**, which initially focused on the Transformers and Services areas, to the Equipment and Electric Mobility areas, with the objective of achieving "Zero Accidents" in 2020.

2.2.5. Management of Suppliers and Clients

- We strengthened **local purchases**, with 53% of the purchases originated from Suppliers located in the country where the Efacec entity that originated the Purchase Order is located.

- We reviewed the **Supplier qualification and assessment processes**, which is considered as essential for the company to respond to the challenges of its business ecosystem in an adequate manner.

- In terms of **Client Satisfaction**, Environment and Energy reached 100% in the question "Do you consider Efacec for future supplies?".

2.2.6. Environment

- We subscribed to two public commitments with the objective of limiting global warming and promoting the transition to electric mobility: **Business Ambition for 1.5°C and EV100**.

- We are one of 56 institutions that signed the **Business Mobility Pact for the City of Lisbon**, with the commitment of converting our local fleet into electric and hybrid vehicles.

- We installed **12 charging points for electric vehicles** in Arroteia and Maia to support the conversion of our Employees' car fleet, with 4% of the Efacec's fleet vehicles already being purely electric or hybrid.

- We obtained **the ISO 14.067** certification (Carbon Footprint) for the Fluofix Circuit Breaker.

- We planted **more than 40 trees** to revitalize Efacec's green areas.

2.2.7. Citizenship

- We awarded **74 School Merit Scholarships** to the Employee's children with the best academic results in each school year.

- We supported the victims of **Cyclone Idai** by making our vehicles available to the Portuguese and Mozambican authorities for rescue missions and our local engineering team to restore the supply of electricity and communications in the Beira region.

2.2.8. Brand

- We developed a Brand and Communication strategy that included, among other aspects, the creation of a set of **elements aimed at communicating Efacec's new strategic positioning and increasing the engagement with the Brand, internally and externally**:

  → Corporate Purpose;
  → Strategic clusters for Business Communication;
  → Corporate Values;
  → Communication Line;
  → Employer Branding Campaign;
  → Digitization of communication tools.

- We gathered more than 1,700 Employees, on February 19, 2019, at the Coliseu do Porto, for the **2nd edition of Power – the company's annual event** – to disclose the new positioning of the Efacec Brand, to present the winners of the Star Awards, Efacec's internal recognition program and to promote interaction among all the Employees.
- We promoted an **Employer Branding initiative, Fórmula Efacec**, focused on the dissemination of Efacec culture and values, with two distinct objectives i) presenting Efacec's new image and ii) identifying new talents for the different business areas of the company. The campaign received **more than 1,200 applications from university students** from different areas of knowledge, from all over the country. There were 150 finalists who, over the course of a day, responded to challenges in the key areas of Efacec's performance: Energy, Mobility and Environment.

Our Purpose — To create a smarter future for a better life.

For this greater purpose, a new set of values has been identified, which guides our conduct and our way of being, in the organization, and representing Efacec.

Reliability – We are rigorous in all stages of our production cycle: innovation, creation, development and delivery. So that our Clients and users can trust each solution.

Sustainability – we are oriented towards integrated and efficient solutions that have a significant impact on economy, society and environment.

Competence – We are guided by innovation and experience. Our know-how allows us to think about each project in all its aspects, offering integrated and turnkey solutions.

Boldness – We are eager and pursue new challenges that allow us to overcome our own achievements and anticipate solutions. And that is why we do not have a comfort zone.

Humanism – We are a team made of people and for people. Our team together with Suppliers, Clients and users are part of our essence. This is the main reason for us to believe and work for a better future.

2.2.9. Public recognition

- **Efacec's business contribution recognized by the Matosinhos City Council**

→ The Municipality of Matosinhos awarded the **Medal of Golden Merit**, Medal of Golden Merit to Efacec for its contribution to the economic and social dynamism of the Municipality. The largest exporter in the Municipality of Matosinhos, Efacec is recognized as one of the economic drivers of the country and, in particular, of the North region, with a positive impact on the generation of direct and indirect jobs, the generation of product and raw material flows and the design of added value products and solutions that are exported to more than 90 countries.

- **Efacec was distinguished for continuous improvement practices**

→ Efacec received an **honourable mention awarded by the Kaizen Institute Portugal in the Growth Strategy category for the Kaizen Improvement project** developed in the Electric Mobility area. This award intends to reward companies with strategies that have enabled them to achieve three to five year growth goals while maintaining or increasing profitability.

→ Efacec was awarded the **2019 Erising Award**, which recognized the quality of the Transformers area project named "Lean Transformation of the LDT (Large Distribution Transformers) product line", which aims at increasing the efficiency and capacity of the product line through its re-layout.

- **Efacec receives awards in the Purchasing and Procurement area**

→ Efacec was awarded the B**est Purchasing and Procurement Organization Award** by the Portuguese Association for Purchasing and Procurement (APCADEC) together with The European Institute of Purchasing Management (EIPM).

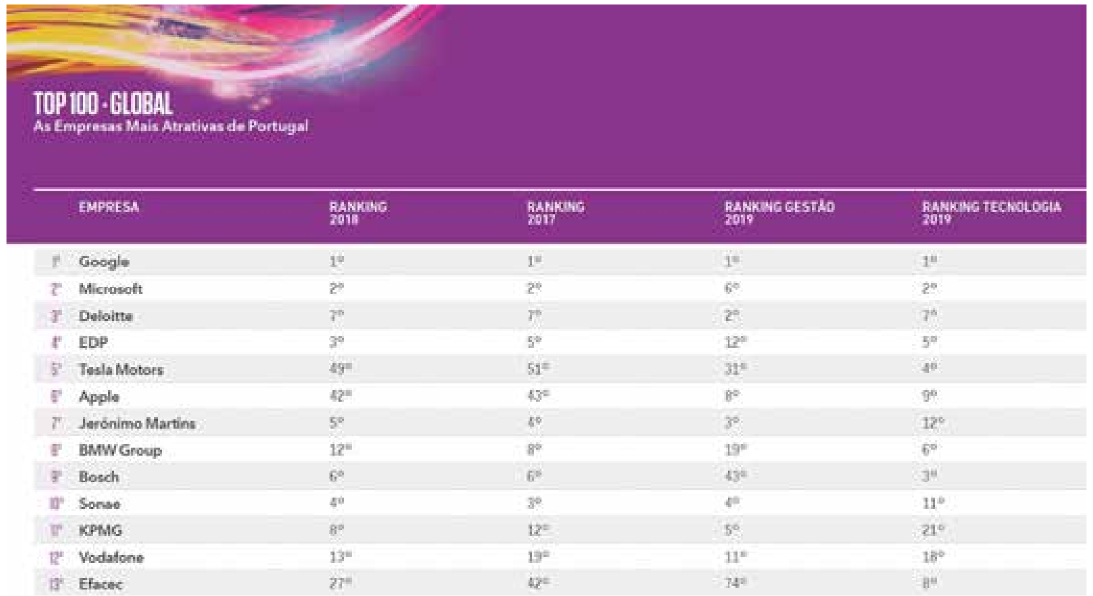
→ Efacec won the **international Peter Kraljic 2019 award**, awarded by EIPM - European Institute of Purchasing Management, which annually recognizes the excellence of European Purchasing organizations.

- **Experts recognize the reputation of the Efacec Brand**

→ According to the 2019 RepScore – Companies & Brands, **Efacec is one of the five most reputable brands in Portugal in the Energy and Utilities sector**, having grown in reputation and reached the top positions of the ranking of the 100 most attractive companies to work for in Portugal. The Global RepScore Pulse is an annual study carried out by ONSTRATEGY in partnership with the Corporate Excellence Foundation that assesses the reputation of organizations and brands with various stakeholders (general public, businessmen and company directors, journalists, opinion leaders, university teachers and market analysts).

→ As the result of the employer branding work that has been carried out, **Efacec Brand is currently a reference as an employer company, more appealing and stronger among students from the best target Portuguese universities target**. Since 2017, Efacec has climbed 29 positions in the global ranking, reaching in 2019 the 13th position according to the "Top 100 - The most attractive companies to work for in Portugal", carried out by Spark Agency. The Efacec Formula was assessed as "extremely positive and decisive in changing Efacec's image with universities", by all the stakeholders involved, namely teachers, students and Employees. The study elects the 100 best companies to work for, according to the feedback from 2,408 Management and Technology students from 16 Portuguese universities.

In the Energy sector, Efacec is currently considered the 2nd most reputable brand by the students, and the first choice of the Instituto Superior de Engenharia do Porto (ISEP), one of the best Portuguese universities.


TOP 100 · GLOBAL
As Empresas Mais Atrativas de Portugal

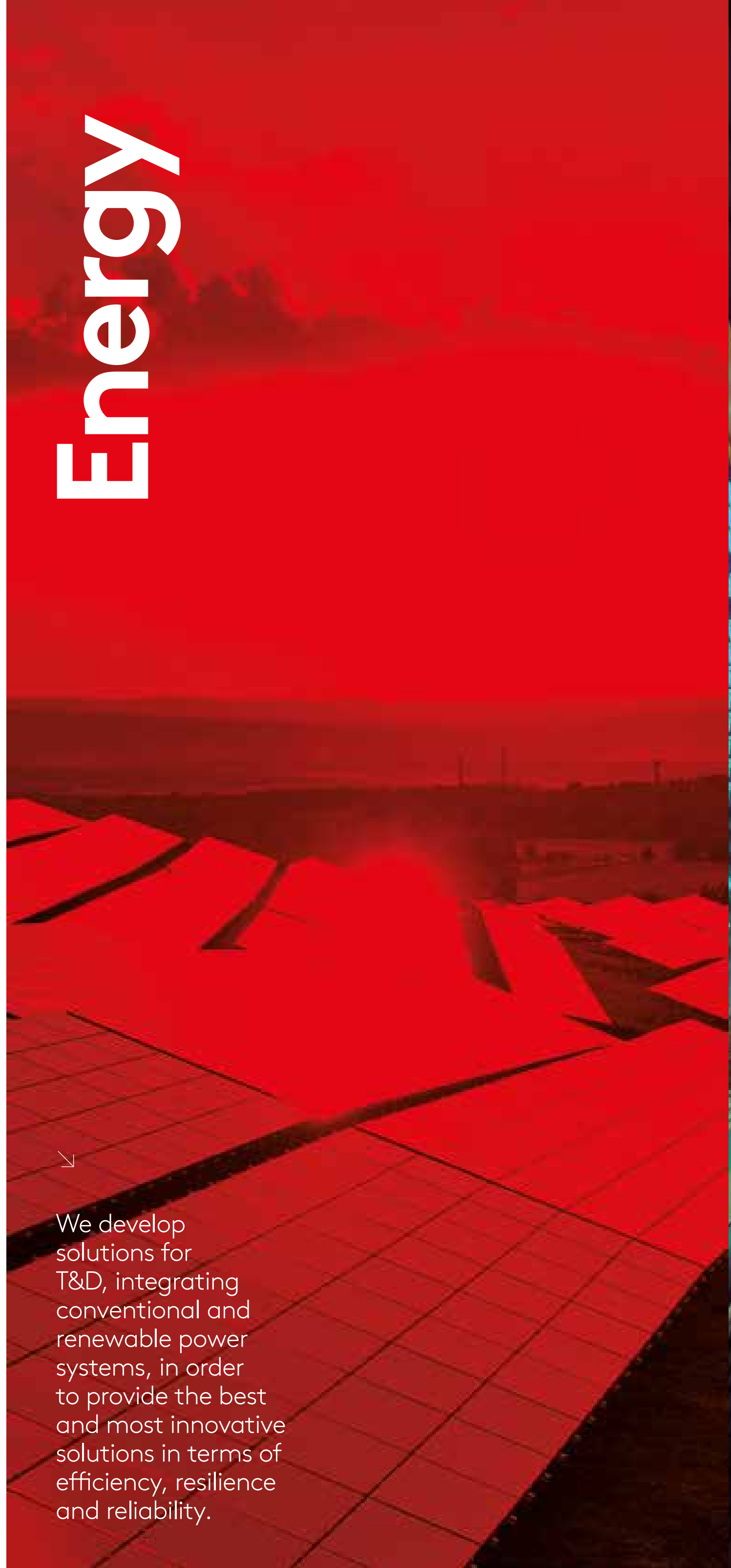
	EMPRESA	RANKING 2018	RANKING 2017	RANKING GESTÃO 2019	RANKING TECNOLOGIA 2019
1º	Google	1º	1º	1º	1º
2º	Microsoft	2º	2º	6º	2º
3º	Deloitte	7º	7º	2º	7º
4º	EDP	3º	5º	12º	5º
5º	Tesla Motors	49º	51º	31º	4º
6º	Apple	42º	43º	8º	9º
7º	Jerónimo Martins	5º	4º	3º	12º
8º	BMW Group	12º	8º	19º	6º
9º	Bosch	6º	6º	43º	3º
10º	Sonae	4º	3º	4º	11º
11º	KPMG	8º	12º	5º	21º
12º	Vodafone	13º	19º	11º	18º
13º	Efacec	27º	42º	74º	8º

Chapter 3
Designing innovation

efacec Empowering the future

3. Strategic positioning

With a 70-year history of technological innovation, Efacec's purpose is to ***"create a smarter future for a better life"***. Anchored in innovation, technology and proximity, Efacec intends to anticipate and shape the future through the development of integrated solutions for the Energy, Mobility and Environment sectors, promoting smart and sustainable solutions for Cities, always taking into account Digital Connectivity.



Energy

↘

We develop solutions for T&D, integrating conventional and renewable power systems, in order to provide the best and most innovative solutions in terms of efficiency, resilience and reliability.

Mobility

↘

Everyday we anticipate breaking trough solutions in electric mobility and transportation. So you have the power to choose how to move forward.

Environment

↘

We manage the wastewater cycles and the solid waste cycles, reducing the carbon footprint and developing *green* solutions that improve the quality of life.

Digital Connectivity

↘

We provide the necessary connections between equipment, systems and applications so that cities, industries and our day-to-day life can become smart, offering the essential elements of the digital infrastructure and future key.

Cities

↘

We think, create, build and offer Client-focused sustainable solutions for smart cities making water, energy, security and mobility work in complex systems and networks.

3.1. Planning the future

Energy Mobility Environment

Sectors in which Efacec operates

The sectors in which Efacec operates – Energy, Mobility and Environment – have been marked by enormous challenges and great dynamics, related to the necessary energy transition and decarbonization. Our strategy seeks to anticipate the needs and trends in these sectors, which are closely related to the electrification of the economy, to innovation, to technological progress and greater consumer connectivity, while ensuring their resilience with regard to different possible futures.

In 2016, in a collaborative and inclusive process, Efacec prepared a **Transformation Program** called **Efacec 2020**, which aimed at rebalancing and position the company as an international reference brand by 2020. Throughout 2019, we continued our efforts to build and consolidate a dynamic, flexible and internationally competitive company in the different activity areas, always seeking to act in a socially responsible manner.

Since 2016, **six Strategic Pillars** have been guiding the establishment of objectives and goals at Efacec, ensuring the necessary balances to be able to exceed the expectations of all Stakeholders, as well as the balance between the short and long term priorities.

The initiatives that, between 2016 and 2018, included the Efacec 2020 Transformation Program reached, in the first quarter of 2019, a cruising speed, being incorporated into Efacec's daily dynamics and processes. The **Transformation Program was, thus redirected to supervise the business drivers**, ensuring the alignment with the tactical and strategic objectives (rule 80/20):

- Repositioning the methodology for close business monitoring:
  - → Focus on the development of value-added initiatives and oriented towards the pain-points of the different businesses;
  - → Focus on monitoring priority initiatives for the achievement of targets (giving up initiatives with lower added value).
- Re-scoping of initiatives:
  - → Focus on cross-cutting strategic projects;
  - → Identification of monitoring indicators adapted to the different typologies of initiatives.
- Integration of the transformation infrastructure (consisting of the Transformation Office and the Transformation Committee) into the already established routines for the operational follow up of the business:
  - → Construction of dynamics to incorporate the "transformation" and "continuous improvement" in day-to-day life.

Pillar	Description	Strategic Objectives	2020 Indicators
Technological Innovation	Innovation in the product and service portfolio to increase competitiveness and profitability.	Bet on technological development based on a I&D and technology integrated vision and strategy, aligned with the market, namely by strengthening the relations with scientific, technological, certifying and corporate institutions. Focus on increasing competitiveness in features, processes and performance. Promotion of the individual profitability of each business, but with a focus on Efacec's global profitability and sustainability.	Investment in I&TD. Revenue from new products and/or services. Volume of funded projects.

Pillar	Description	Strategic Objectives	2020 Indicators
Operational Excellence	Alignment of internal attitudes and practices with the continuous improvement goals.	Review of the organization to maximize synergies and knowledge transfer within the organization. Promotion of an operational excellence culture across the entire business value chain (development of product/solution, manufacturing and assembly/design and logistics based on an integrated and aligned IS architecture). Optimization of instrumental and support processes.	Costs not quality. Productivity. Absenteeism rate.
Commercial Proactivity	Greater organization, pragmatism and commercial aggressiveness, with an export approach.	Export approach led by Business Units in the different geographies. Fostering commercial synergies between businesses through the Market Intelligence and Business Development functions, ensuring systematic coordination and best practices. Bet on strategic commercial geographies complemented by opportunity business.	Tendering efficiency. Orders in new geographies. Orders for new Clients.
Focus on the Client	Focus on our Clients, respecting the commitments made and positioning ourselves as true business partners.	Improvement of the offer and Client service. Focus on the development of new and better solutions in partnerships with Clients. Bet on exceeding Client's expectations, anticipating their needs and market requirements.	Client satisfaction index.
Talent Development	Bet on our employees, ensuring that we have the best in terms of skills, commitment and added value for the company.	Strengthening the employees' behavioural ("know how to behave", in line with the Company's culture, mission, vision and values), functional ("know how to be") and management ("know how to act") skills. Promotion of meritocracy and opportunities for progress, based on a strategic model of Human Capital transversal to the different Business Units and geographies, which promotes the attraction of talent, namely through a structured approach to universities and other recruitment sources. Orientation towards objectives, in an *empowerment* model with accountability.	Number of training hours. Internal climate index. Mobility index.
Sustainability	Balanced development and management of economic, environmental, and social dimensions, guaranteeing and promoting the involvement and alignment of the entire organisation.	Guarantee of governance best practices and transparency, underpinned by the development of relationships characterised by ethics and integrity and a robust and integrated risk management policy, ensuring the protection of assets as well as the safety of the products and services provided throughout the value chain. Focus on the promotion of energy efficiency and prevention/minimisation of negative environmental impacts, participating directly and actively towards a low-carbon economy and circular economy throughout the value chain. An active role in the promotion of human rights and the development of local communities and content, encouraging social, cultural, and technological initiatives with strong potential and impact, and fostering equal opportunities, integration, growth, and participation among all employees, in a positive and balanced organisational environment, always seeking to guarantee health and safety.	Risk management maturity index. Waste recovered. Carbon footprint. Energy intensity. Number of hours of corporate volunteering. Accident frequency index.

3.1.1. Main strategic projects in 2019

Alpha: new central system

In 2018, Efacec started the implementation of a new central system, which will allow to reach a new level of operational excellence for the whole organization. The system selected was the ERP SAP S/4HANA, the latest version of SAP, which offers a customized user experience.

With the implementation of the SAP S/4HANA, supported by the best business practices, the company aims to achieve the following objectives:

- Optimize Efacec's key processes, ensuring the respective design and integration between SAP and a process design/ modelling tool in BPMN;
- Enable the use of mobility solutions to carry out operations and *real-time* available information check;
- Foster the "One Efacec only" vision, ensuring SAP coverage in all geographies.

The project comprises *waves*, structuring the implementation per business areas, adopting a greenfield approach, ensuring the implementation of good SAP practices adjusted to Efacec's reality, using a fit to standard approach for that purpose.

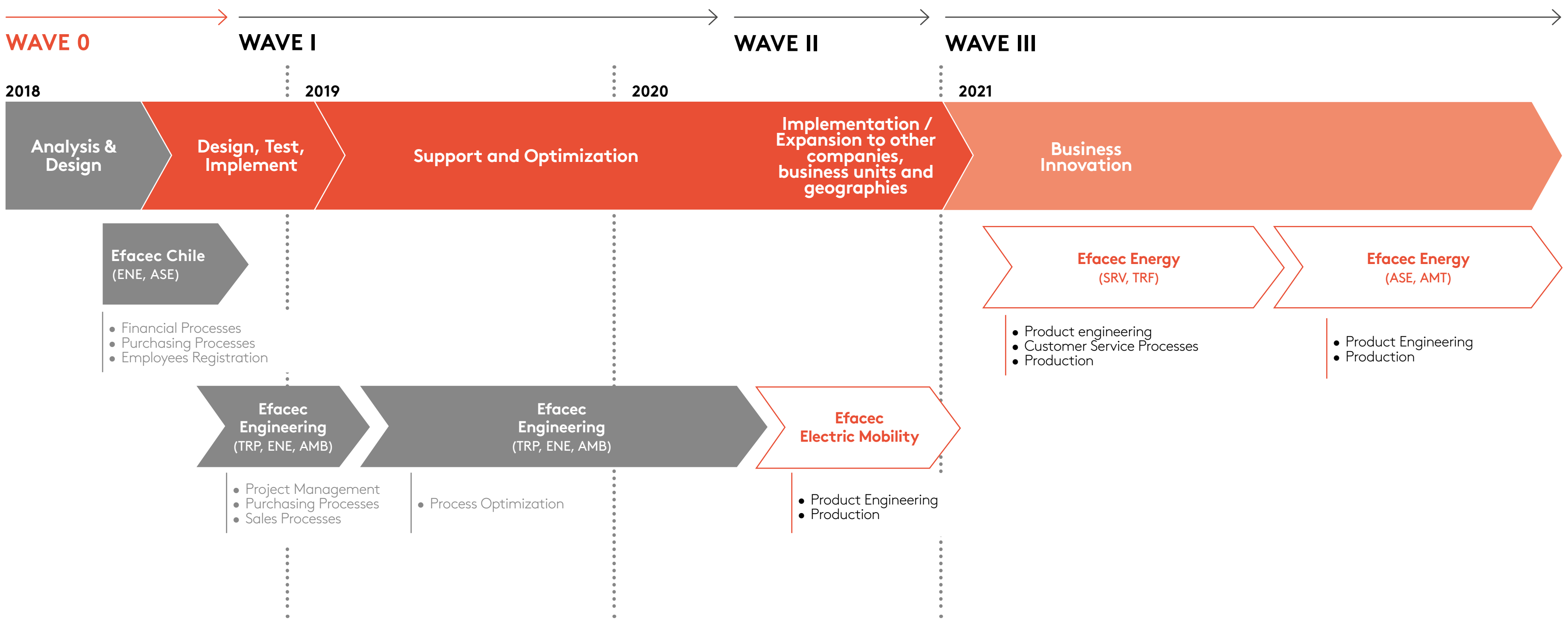
In November 2018, a pilot of the new ERP was launched at Efacec Chile, covering the main financial and purchasing processes (*wave* 0), aimed at testing features and transactions between the different Efacec systems. In March 2019, the SAP S/4HANA ERP went into production at Efacec Power Solutions, Efacec Serviços Corporativos and Efacec Engenharia e Sistemas companies (*wave* 1), introducing new management processes for orders, projects and contracts.

In 2020, the Alpha project will continue, with a special focus on the improvement of processes in the project management area and the quality of management information, also introducing new Product Lifecycle management (PLM) processes, in the product engineering phase as well as in its production and service.

In project management, together with a reference partner, we will continue to optimize the planning, control and monitoring methodologies, also ensuring a relevant progress in the training and certification of the resources associated with this practice.

In the processes associated to product engineering, production and *service*, emphasis should be put on the incorporation of Efacec Electric Mobility, which is expected to be fully based on SAP by the end of the year. Being today a reference area in the market, the project will allow to take another step in Efacec's digitalization towards industry 4.0.

› **Planning the Implementation of the new Central System**



Efacec and SAP together on the digitalization path

The SAP and Efacec teams gathered for the event that celebrated the entry into production of the SAP S/4HANA ERP in the Efacec Power Solutions, Efacec Serviços Corporativos and Efacec Engenharia e Sistemas companies, marking the partnership between the two companies. The meeting, which took place on 22 March 2019, in the Arroteia canteen, included several speeches, namely by the CEO, Ângelo Ramalho, and the director, Vanessa Loureiro.

This project is another step by Efacec in the digitalization and transformation process. Efacec is one of two companies, worldwide, working with the 1809 EPPM version of the SAP S/4HANA, an extremely valuable user-friendly tool for the optimization of internal processes and the development of Efacec's continuous improvement strategy.

Vault: cybersecurity by design

Around the world and in almost all industries, an increasing number of security incidents and computer attacks have been witnessed, with an exponential rise in associated costs. This growth trend in the number of incidents poses a challenge to Efacec and its Clients given the exposure increase caused by the digitization of documents and processes and the increase of vulnerabilities in industrial equipment.

To respond to these challenges, in 2019, Efacec launched a Global Cybersecurity Program, called the Vault project, with three major objectives:

- Implementation of controls, processes and tools allowing to improve the company's resilience and overall responsiveness;
- Implementation of *"Cybersecurity By Design"* in the Product Lifecycle management (PLM) processes and Project and Service Management;
- ISO 27.001 certification, ensuring external recognition and compliance in the application of best security practices.

The Vault project's duration is three years and is organized in three stages:

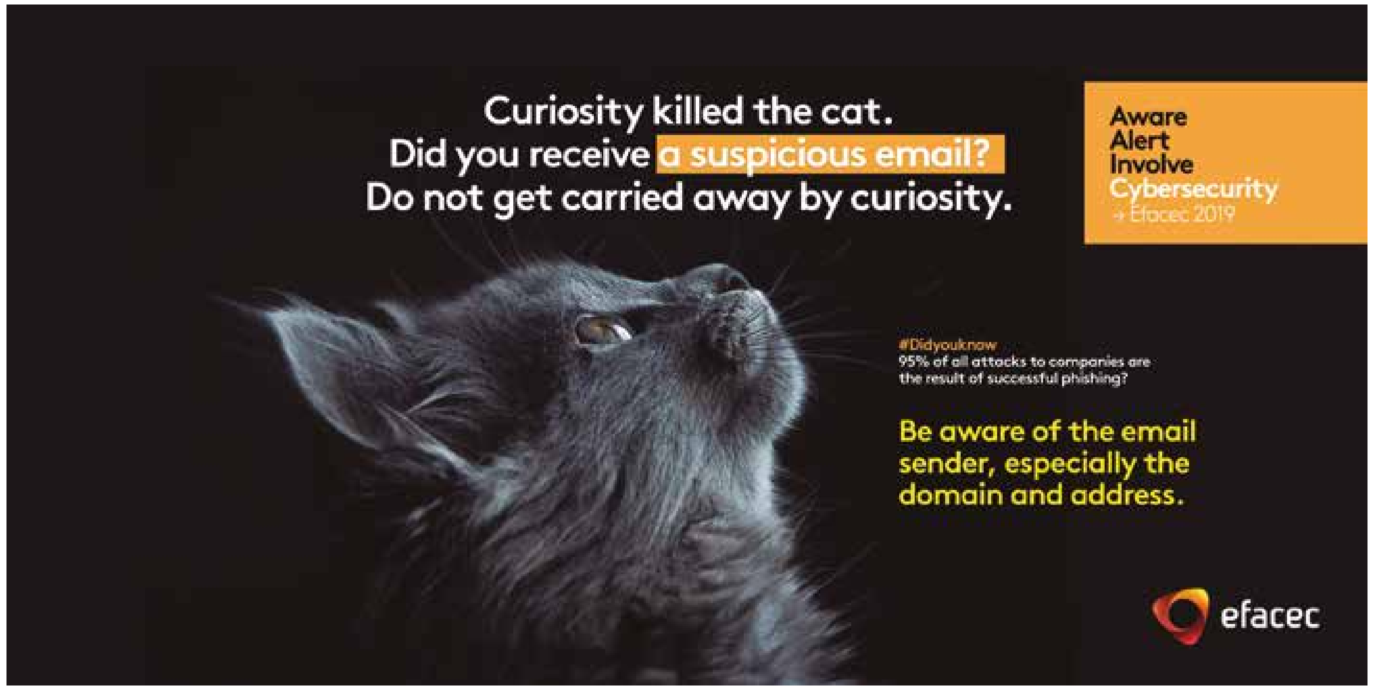
i. ***Foundations:*** creation of the cybersecurity function and internal team, implementation of the main cybersecurity controls and processes, and definition of an Information Security Risk Management model;

ii. ***Industry Reference:*** standardization of operations security and monitoring practices with the objective of protecting information assets and achieving ISO 27.001 certification;

iii. ***Maturity:*** extension of operations and implementation of advanced security components.

2019 was dedicated to the *Foundations* stage and obtained very interesting results, with the reduction in the risk level of the major information assets and the increase in overall sensitivity of Efacec employees to these issues. 2020 will be focused on the *Industry* Reference stage, having as the main milestone the ISO 27.001 certification.

Example of banners used in Vault project raise-awareness campaigns



Driving Logistics Together: supply chain optimization

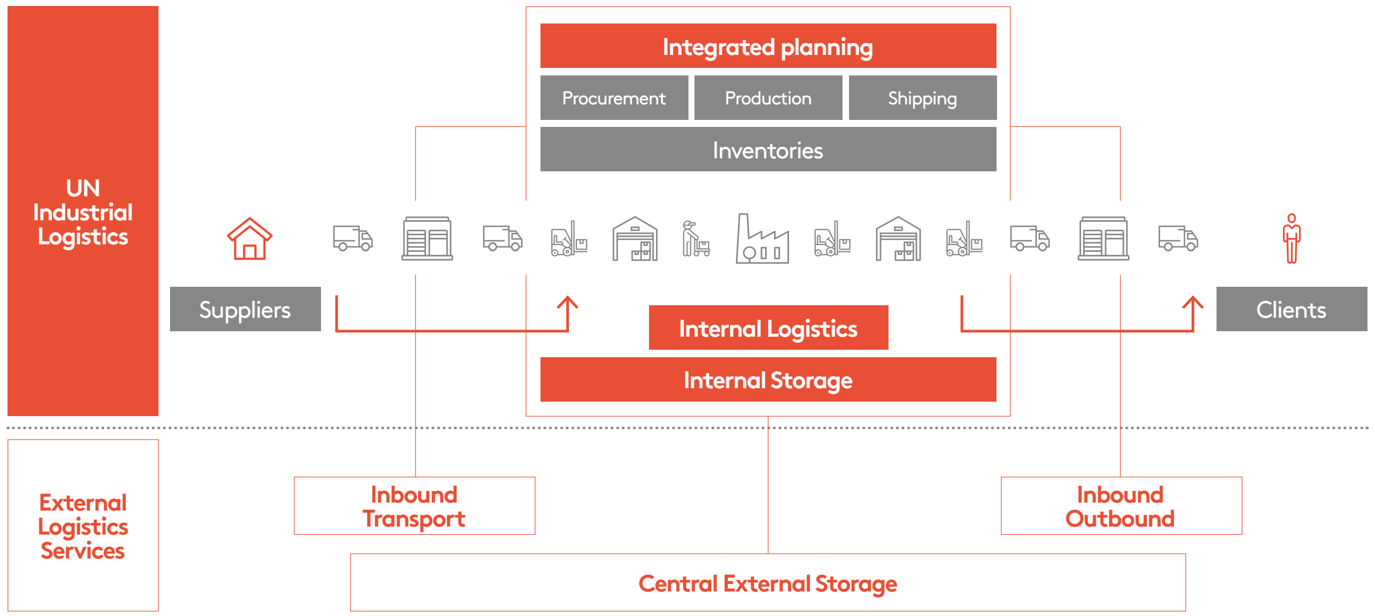
In a context where the organizations' success depends on their ability to adapt to change, while this change increases the complexity and uncertainty of the decision parameters, it is crucial that organizations are able to focus their approach on greater flexibility and agility of the supply chain, facing, in a proactive manner, the variables of uncertainty affecting the decision parameters. Agile and flexible supply chains that adapt effectively to changes are a key dimension in building a sustainable competitive advantage for the business.

Based on this reality, Efacec started, in the fourth quarter of 2019, the Driving Logistics Together logistics program, which aims at i) optimizing financial, human, structural and procedural resources, ii) implementing greater and better control over the entire process and iii) increasing the supply chain efficiency and effectiveness, creating greater sustainability for the entire value chain.

This program is focused on the People where the driving force of all action is focused, involving all Business Units and all Corporate areas that interact with upstream and downstream logistics processes.
The logistics management model to be implemented is based on an integrated management model between industrial logistics and external logistics. The focus of industrial logistics is on the production processes of Business Units, connecting the commercial and purchasing areas to the reality of the manufacturing and project units, through integrated planning processes and internal logistics management.

The program seeks to provide the Business Units with management autonomy supported by centralized policies, processes and procedures and transversal to the entire Group, which responds in an agile and flexible manner to the particularities of each operations model. External logistics, on the other hand, will be focused on capturing synergies from material and information flows external to the industrial and project units, whether in managing locations (warehouses, logistics centre, production centres, etc.) or in managing transport. The objective of external logistics is to operate as a partner of the Business Units, thus contribution to value generation.

› Vision for the Integrated Logistics Management Model at Efacec



The program consists of projects grouped into three streams: industrial logistics, location management and transport management, and all are assessed according to their return, considering the impact on cost reduction, cash generation and/or on the improvement of sustainability and compliance indicators. This is the only way to ensure that the efforts and resources used generate value for Efacec and contribute to its business sustainability.

Also in 2019, special attention was paid to the reduction of external warehouses and the definition of policies and improvement of processes motivated by changes to Incoterms® rules and tax legislation. This program's objective is to end 2020 with the implementation of the centralized management of external logistics, as well as to launch the main industrial logistics cross-cutting policies, processes and procedures to be implemented by the Business Units with the support of the program.

One Efacec: new corporate processes

Also launched in 2018, the One Efacec project aims at optimizing and automating, as far as possible, the main financial, administrative, purchasing, human resources, brand and communication, and legal processes.

Throughout 2019, it continued to prioritize the optimization of financial processes, with a focus on the processes with cash impacts and ensuring the continuity of the implementation of initiatives already initiated or regulatory initiatives (example: electronic invoicing):

- Review of the organizational, procedural model and respective Client's debt collection and recovery tools - *Empower to Collect*;
- Introduction of new management support methodology and dynamic tool in the preparation, implementation and monitoring of the treasury budget, supporting and giving visibility to*cash*allocation decisions;
- Review of order registration criteria and review of the procedure for granting credit to Clients;
- Time consuming process automation (BPA), with significant efficiency impacts, already experienced by the areas (taxation, incentives, among others), whose implementation extents throughout 2020;
- Implementation of saf-t file auditing*software*, ensuring the integrity and quality of the information provided;
- Implementation of a new bank reconciliation and financing management tool, improving cost control;
- Beginning of the review of the internal financial reporting model, ensuring data quality and real-time access to information that supports timely decision-making, strengthening planning and control mechanisms;
- Expansion of the operation scope of shared and corporate services, with new processes being centralized in some branches, namely compliance processes.

3.2. Contribution to Sustainable Development Goals

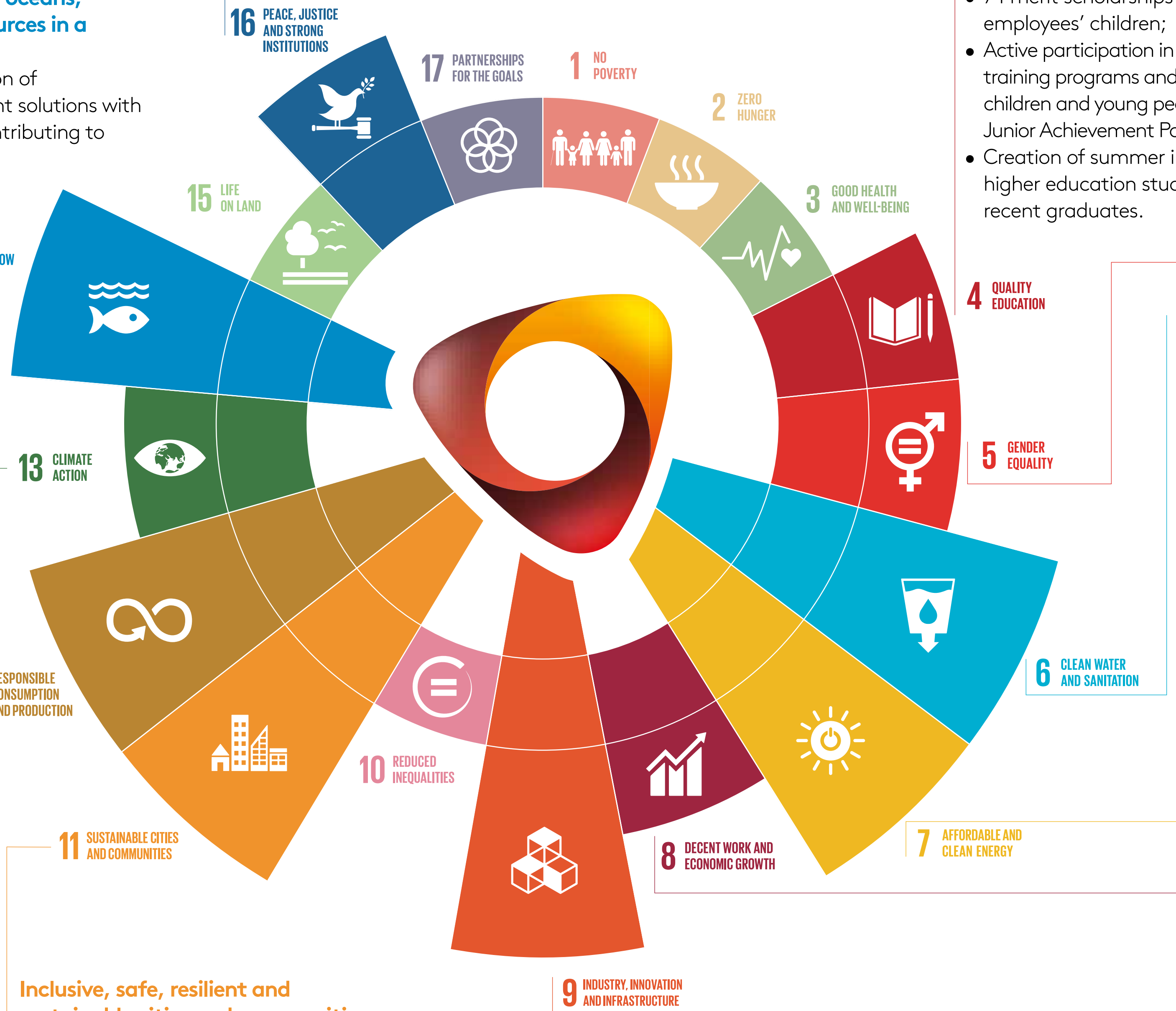
Currently, the double challenge of delivering more energy to a growing society is emerging, reducing greenhouse gas emissions and using technology as one of the vectors in this change, that of the energy transition. The energy transition places the integration of climate variables in the business and decision-making models at the top of the global agenda and of the organizations.

Efacec is committed to achieving the United Nations 2030 Agenda for Sustainable Development, which seeks to reconcile prosperity and protection of the planet, while recognizing that sustainable development requires the simultaneous pursuit of economic growth, social inclusion and environmental protection.

For Efacec, the United Nations Sustainable Development Goals (SDGs) are the basic pillars of a modern and balanced society, capable of generating employment and wealth, while respecting nature and human rights. The spirit of the United Nations 2030 Agenda is embodied in Efacec's strategic positioning - *creating a smarter future for a better life* – and our entire business model is oriented towards the achievement of the SDGs that we classify as material. In its internal performance, as an organization part of society and responsible for the sustainability of the future, Efacec also seeks to establish goals aligned with the SDGs in its decision-making (direct SDGs)

Merit scholarships to Efacec Employees' Children Award Ceremony

Efacec's Contribution to Sustainable Development Goals (SDGs)



Partnerships for the implementation of the objectives

- Member of BCSD Portugal and active participant in the various working groups - Carbon Neutrality, Circular Economy, Value Chain and Sustainable Cities;
- Member of the PPA - Portuguese Partnership for Water Board, APEMETA - Portuguese Association of Environmental Technology Companies and AEPSA - Association of Portuguese Companies for the Environment Sector;
- Member of APREN – Portuguese Renewable Energy Association and ALER - Lusophone Renewable Energy Association;
- Founding member of the Centre for Responsible Business & Leadership at Católica-Lisbon

Conserving and using oceans, seas and marine resources in a sustainable manner

- Design and installation of wastewater treatment solutions with nutrient removal, contributing to marine depollution.

Combating climate changes and their impacts

- The company subscribed to the EV 100 – The Climate Group, Business Ambition 1,5° by UN Global Compact, Pacto Mobilidade Empresarial para a Cidade de Lisboa (Business Mobility Pact for the City of Lisbon), Manifesto Empresas pela Sustentabilidade do BCSD Portugal (BCSD Portugal's Sustainability Companies Manifesto) and BCSD Portugal's Charter of Principles).

Sustainable production and consumption

- Design and installation of waste treatment plants;
- Regeneration of used oil in Transformers installed at Clients;
- APCADEC 2019 Award by EIPM – European Institute of Purchasing Management.

Inclusive, safe, resilient and sustainable cities and communities

- Development of automation equipment and systems, contributing to the progress of smart cities;
- Design and installation of water and waste treatment plants, a crucial element for municipal waste management;
- Development of new urban electrified, road and rail transport systems, contributing to make communities inclusive (facilitating the mobility of people with difficulties), increasing road safety and reducing the environmental impact *per capita*.

SDGs materials
6 | 7 | 9 | 11 | 12 | 14

Direct SDGs
4 | 5 | 8 | 13 | 16

Access to education and promotion of learning opportunities

- 74 merit scholarships awarded to employees' children;
- Active participation in citizenship training programs and actions for children and young people of the Junior Achievement Portugal initiative;
- Creation of summer internships for higher education students and/or recent graduates.

Gender equality and women's empowerment

- 17% of female employees, an increase of 2.3 pp when compared to 2016;
- 11.5% of women in management positions, an increase of 11 pp when compared to 2016.

Drinking water and sanitation availability and sustainable management

- Design, installation and maintenance of water and domestic and industrial wastewater treatment (WTP and WWTP), contributing to guarantee the availability and quality of drinking water and reduce pollution levels, with a special focus on the aquatic environment.

Renewable and accessible energy

- Design, installation and maintenance of photovoltaic and hybrid parks (wind + solar pv), hydroelectric plants and biogas and biomass plants (with waste energy recover), directly contributing to the growth and accessibility to renewable energy sources.
- Implementation of Smart Grids, more sustainable.

Industry, Innovation and Infrastructure

- 3,1% of revenue invested in I&TD;
- 25 I&TD projects co-financed under the H2020, P2020 programs, among others, aiming at the development of technological innovations to support the energy transition, the digitalization and automation of processes, the electrification of mobility and eco-design;
- Partner company of INESC-TEC, CEiiA, INEGI, Instituto das Telecomunicações (Telecommunications Institute), Univ. of Porto, Univ. of Minho, Univ. of Aveiro, among many other European technological entities;
- Design and installation of substations and provision of equipment for the electrical system and digital asset management software, contributing to the reliability and resilience of power networks.
- Construction of innovative and resilient infrastructures for the electrified, road and rail transport, reducing environmental impacts and leading to an increase in the population's well-being.

Decent work and economic growth

- 13% of agreements outside Portugal and 53% of local purchases (from Suppliers in the country where the Efacec entity that originated the PO is located);
- 16,7% of employees under the age of 30;
- 75% of employees covered by health insurance;
- 57,168 hours of training for employees;
- Subscription to the BCSD CEO Guide for Human Rights.

Chapter 4

Moving energy beyond

efacec Empowering the future

4. Business to people

We offer a comprehensive portfolio, delivering custom-made solutions according to the specificities of each Client and market.

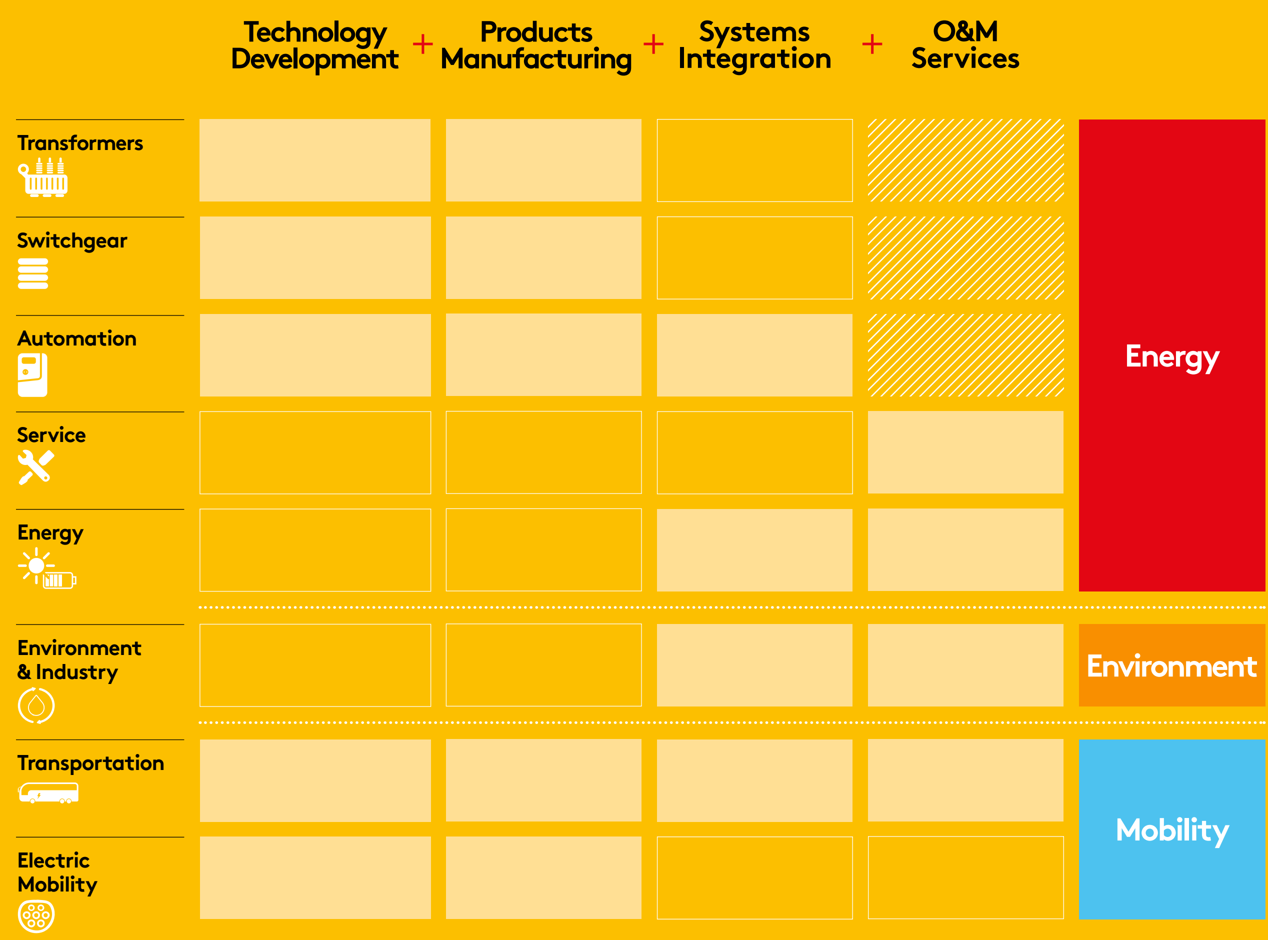
We anticipate and shape the future through Transformers, Switchgear, Service, Sutomation Solutions, Energy Systems, Environment and Industry Projects, Transportation and Electric Mobility Solutions.

Our World

Efacec has a global footprint with presence in 11 countries and sales in over 80 countries.

Headquarters · Manufacturing Units and Branches · Countries where Efacec records sales

Efacec positions itself on the market as a fully integrated solutions provider, from:



Transformers, Switchgear and Automation Service

4.1.1. BUSINESS UNIT
Transformers

We are guided by the highest quality in the technological development of power transformers and mobile substations, ensuring that all solutions are reliable and competitive.

BUSINESS UNITS (M€)

2018	103,2
2019	**113,4**

EBITDA (M€)

2018	7,1
2019	**0,7**

AVERAGE NUMBER OF EMPLOYEES

2019	**645**

Summary Description

The Transformers business unit markets, develops and manufactures products and solutions for the generation, transmission and distribution of electrical power, operating in three market segments: power transformers, distribution transformers and mobile substations.

The transformers are developed and produced at the Arroteia factory located on the outskirts of Porto (Portugal). Efacec's commercial activity is developed through a network of distributors, partners and agents located in the geographies with the greatest potential, as well as through its own commercial team, which monitors and coordinates the Europe, Portugal and Africa, Spain and Latin America, Middle East, North Africa and Asia markets.

Offer Portfolio

Power Transformers
- shell-type and core-type (up to 1500MVA; 550kV)

Mobile Substations
- (up to 60MVA)

Distribution Transformers
- immersed-type (up to 20MVA; 72,5kV)
- dry-type (up to 6300kVA; 36kV)

QAS Certifications

ISO 9001 (Quality)
ISO 14001 (Environment)
OSHAS 18001 (Safety)

Main Geographies

Strategic Markets
Portugal, Spain, France, United Kingdom, The Netherlands and United States of America.

Developing Markets
Northern Europe, Middle East and Latin America.

Empowering Sustainable Development

How do Automation products and solutions contribute to the Sustainable Development Goals?

Building resilient infrastructure, promoting inclusive and sustainable industrialization and fostering innovation.

Efacec Transformers equip the most varied infrastructures, show great reliability, and are subject to permanent technological innovation.

→ *Empowering knowledge*

Efacec participated in a workshop at Instituto Superior de Engenharia do Porto

On 3 and 4 May, the Efacec's Transformers Technology Manager was a speaker at the IV Workshop on Innovative Teaching at Instituto Superior de Engenharia do Porto. He also participated in the roundtable "New trends in higher education - different pedagogical approaches", where he shared his professional experience.

Main facts of the year

In Portugal

→ *Empowering business*

Supply of **three 245MVA 410kV power transformers and various dry-type transformers for the Alto Tâmega – Iberdrola project.** Award of order for several Solar Parks in Portugal, between 3MVA and 25MVA.

EDP Distribuição awarded the supply of three power transformers for the **Guimarães substations (2x31.5MVA 60kV) and Ferreira do Alentejo (1x20MVA 60kV)**.

REN - Rede Elétrica Nacional awarded a contract for the supply of **two power transformers**; one 170MVA 400kV transformer and another 126MVA 150kV transformer.

In the World

→ *Empowering business*

Power Transformers
- United Kingdom
- France
- Spain
- Chile
- United States

Distribution Transformers
- United Kingdom
- The Netherlands
- Malta

Mobile Substation
- Spain
- Argentina
- Canada

In the **United Kingdom, the six (multi-annual) framework contracts for the supply of distribution transformers** to the companies/utilities **Scottish & Southern Energy (SSE), UK Power Networks (UKPN), Scottish Power Energy Networks (SPEN), Electricity North West (ENWL), Northern Powergrid (NPG) e Northern Ireland Electricity (NIE) were maintained**. Efacec also maintained the four framework contracts for power transformers for SSE, UKPN and ENWL. As part of the SSE framework contract, two 480MVA 400kV transformers and one 240MVA 275kV transformer were awarded.

In **France, at Enedis**, the main distribution utility in France, **Efacec maintained the multi-annual contracts for 100MVA power transformers for the Paris Ring**, as well as the contracts for the supply of 63kV (20 and 36MVA), 90kV (20 and 36MVA) and 225kV (40, 70 and 2x40MVA). Also **RTE maintained the framework contract with Efacec for 225kV (100 and 170MVA) and 150kV transformers**. The third **170MVA transformer for the Haute-Durance project in the Alps** was successfuly tested and installed. This is a highly complex project, and the transformers are assembled and tested *on site*, give the constraints imposed by geography (mountains/tunnels/difficulties in transportation).

The program contract for the supply of **mineral-oil-immersed distribution transformers for The Netherlands**, thus consolidating Efacec's position in the Western Europe market – in this case, through a consortium with the main energy distribution utilities, – **Enexis; Alliander; Stedin and DNWG**, for the purchase of standard equipment, making the award process more competitive.

In **Spain**, Efacec supplied **two power transformers for the largest solar energy in Europe - two 220MVA 400kV machines for Iberdrola's mega photovoltaic project – Nuñez de Balboa Power Plant** with 500 MWp of installed capacity that will supply clean energy to more than 250,000 people.

Also in **Spain, Iberdrola awarded three 12.5MVA 45kV and 15MVA 66kV mobile substations**. In the area of renewables, this utility - Iberdrola Renovables - renewed its trust in Efacec products, acquiring **more than two 145MVA 225kV transformers**, destined for Ceclavín Solar Park (PFV).

In **Latin America, ISA – Colombia awarded Efacec a 500kV 50MVA transformer**. In **Argentina EDESUR** ordered a **35MVA 132kV mobile substation**.

NATURGY, through its international company Global Power Generation (GPG), awarded Efacec a **120 MVA 220kV core-type power transformer for the San Pedro Solar Park (San Pedro I e IV Photovoltaic Plant) in Chile**, located in the province of Loa Antofagasta.

For **EDP Renewables (EDP R) from Poland**, Efacec secured the order of **a 40MVA 115/30kV power transformer, for the Korsze III Substation project**. EDP R secured a 15-year contract for the sale of electric power in the Polish market, to be produced by the Korsze wind farm, with a total capacity of 38 MW. The project is scheduled for installation in 2020.

For **Malta, 33 distribution transformers were supplied, divided into 250/500/800 and 1000kVA units**, for ENEMALTA, an Efacec Client since 1990 and the country's main energy distribution utility.

A contract was also awarded for the supply of the **first mobile substation in Canada**, for the Client **Nova Scotia Power**. This utility guarantees 95% of the production, transmission and distribution of electric power in the province of Nova Scotia, Canada. The **25 MVA 138 / 69 / 26,4kV, 60Hz mobile substation** will be supplied with all equipment assembled in a single trailer. The objective is to ensure a solution to quickly replace the need for a complete or partial power transformer/substation.

In the **Middle East**, an order was secured with the Indiana contractor **Kalpa-Taru**, of **six single-phase Shell type 225kV transformers** with final destination in Cameroon, as well as an **order of 120MVA for Larsen & Toubro** with final destination in Algeria.

Core/ Shell

Efacec is a leading manufacturer of Shell-type transformers.

Pacific Gas & Electric Co (PG&E), a reference utility in the **United States**, after the establishment of the master agreement with Efacec for the supply of power transformers and mobile substations, placed the order for **several 100MVA and 150MVA 230kV transformers, as well as 30MVA, 45MVA and 65MVA Core-technology transformers**.

During 2019, several high power Core and Shell transformers (>500MVA, 400kV) were shipped. Efacec, thus, stands as a reference manufacturer of Shell-type transformers that have been replacing, effectively and in a modern manner, relevant transformers in the North American transmission network, characterized by a high number of end-of-life equipment.

Efacec also strengthened its presence in the **United States**, by supplying and commissioning transformers for Wind Farms in the USA, namely the order of **seven three-phase power transformers for four wind farms, with powers of 110MVA and 165MVA (345kV and 230kV)**, para a **Avangrid Renewables (Iberdrola USA)**.

Power transformer, 220MVA 400kV, Nuñez de Balboa Power Plant - Spain

Also for the **United States**, **Iberdrola USA** (through its companies Avangrid, RG&E and NYSEG) awarded Efacec **several transformers - 100 and 75MVA 115kV and two 30 and 40MVA mobile substations**.

Core-type power transformer, 162MVA 345kV - USA

In 2019, the Transformers Unit received external audits from several Clients. EDP, Portland Gas and Electricity, Pacific Gas & Electricity, Kahraman-Qatar and Iberdrola **validated our Quality, Environment and Safety system and the consistency of our processes. Homologation of ACHILLES was also renewed** for the supply of equipment to the United Kingdom market.

A new team, ready to Transform

Efacec completed the organization reformulation of its Transformers area.

The new multidisciplinary team has eclectic professionals with experience in the areas of operations, technology, sales, planning and logistics, quality, contract management and finance. The reformulation aims to adapt the Transformers area to the market requirements by offering solutions that are flexible and, at the same time, standard, through modularization.

The team is currently implementing an ambitious plan focused on regularizing the production and delivery to the Client, as well as in the information technology, manufacturing, digitization and Industry 4.0 areas. In addition to increasing the investment in the development of a new generation of products and solutions, one of the core objectives of the team's intervention strategy is to enhance and create strategic partnerships with public and private institutions, within the scope of partnerships and co-funding.

Management team in the Transformers area - Portugal

2019
Featured I&D projects

Innovation and Development

The production of solutions with value creation and distinguished by excellence boosts the large number of I&D projects in progress in 2019, a significant part of which are financed by the EU or National Framework Programmes for Research and Innovation, these are some examples that stand out:

→ *ICubas5D*
Tank design with new features and innovative industrial design supported by automated configuration and modeling processes. Partnership with the University of Minho and collaboration with ISQ.

→ *QT2 – Quiet Transformers 2*
Creation of very low noise technological solutions aimed at the sustainability requirements of the most demanding markets.

→ *NEXTSTEP*
Development of a solution applicable to the future generation of the Transformation Station equipped with a very low loss level transformer in line with the Ecodesign guidelines of the Regulatory Committee (EU) and immersed in a biodegradable insulating medium derived from renewable vegetable oils. Partnership with Eneida, University of Coimbra, INESC TEC and ITeCons, and the collaboration of EDP.

→ *GreenEst*
Development of a new range of Core and Shell type power transformers immersed in ESTER with optimized thermal and dielectric features, capable of enhancing the manufacture of a new generation of mobile substations. Partnership with the Faculty of Engineering of the University of Porto and REN.

→ *Flexible Smart Transformer*
Design of a modular solution for a Solid State Transformer. This REE private financing project (REE GRID2030) was one of 2 selected from 61 proposed ideas. The project is led by Fundación CIRCE in co-promotion with Efacec (Transformers and Automation).

→ *Nextra*
Development of a new generation of more efficient, reliable, flexible, compact and sustainable transformers through the research and development of new constructive solutions, new materials and condition and diagnostic disruptive techniques. Promoted as a consortium with CICECO, University of Aveiro.

→ *IDCComp*
Development of solutions to mitigate the effect of the DC currents in Power Transformers. Cooperation with the Faculty of Science of the University of Porto (FCUP), EDP Distribuição and EDP LABELEC.

→ *Transformer 4.0*
Structuring of the engineering processes around the product's Digital Twin in order to consolidate the usage path of digital technologies in the production – Industry 4.0.

Market overview and expectations for 2020

Market studies point out that the investments in medium and high voltage Electric Power infrastructures have a growth perspective of 1 to 4% for the coming years.

The transformers manufacturing sector follows the major trends in energy transition to renewable sources with relevant projects:

- The production of renewable energies - in particular, wind and solar - will have a strong growth and it may represent in 2050 almost 50% of the production of electric power;
- The decentralized production and the need for smart grids boost the digitization of Transformers and Substations, essential for the optimization of asset management and for the grid management with the introduction of more renewable energies, which leads us to invest in the introduction of Industry 4.0. and in the digitization of our products (for example, in Digital Twin). This is also an opportunity to invest in our manufacturing processes (for example, through IoT devices);
- Electric Mobility demands the creation of more and new equipment in the area of Transformation Stations, with new resources, including the development of compact solutions aggregating the Grid elements together with the transformer on a single platform;

Distribution transformer, 15MVA - United Kingdom

- The need to modernize the networks that involve the replacement of old equipment (for example, in the USA);
- The growth boosted by the investments in utilities, in the upgrade of the transmission infrastructure, with a 3.6% CAGR;
- The growing need to interconnect the networks and to balance renewable sources with important projects in the HVDC and MVDC areas, requires the application of special solutions, such as Phase Shifters and Shunt Reactors, developed by Efacec, based on Shell Type technology;
- The need for a generalized increase in energy efficiency that leads to the creation of regulations, particularly in Europe, with regulatory requirements in line with new energy policies that lead to the need for new investments and modernization of assets. A specific example is the requirement for transformers to comply with the requirements for lower Tier 2 losses, starting in July 2021;
- The increase in the consumption in the emerging countries economies and the commercial and industrial growth in mature economies create a greater need for distribution transformers.

With the positive market context in the electrical infrastructure areas, and of transformers in particular, we foresee a perspective of growth recovery in 2020, with a more accelerated growth potential in the following years.

The consolidation of the position in the main markets and Clients, together with the resumption of new markets with greater opportunities and growth rates, in particular the Middle East and Latin America, allow for greater diversification and greater growth.

Also the investment and presentation of new technologies, the expansion of the product portfolio for specialized applications and greater added value solutions, including digitization, place Efacec as a reference manufacturer in the most demanding markets.

4.1.2. BUSINESS UNIT

Switchgear

We develop flexible and sustainable solutions. Our product engineering and operations team works all over the world and offers a comprehensive and turnkey service.

BUSINESS UNITS (M€)

2018	72,0
2019	60,4

EBITDA (M€)

2018	8,3
2019	4,7

AVERAGE NUMBER OF EMPLOYEES

2019	368

Summary Description

The Switchgear business unit develops solutions for the generation, transmission and distribution of high and medium voltage electric power, operating in the primary and secondary distribution and supplying transformation stations and switchgear equipment. Its offer is transversal and includes the manufacture, installation and after-sales service.

This unit's target markets are Europe (including Eastern Europe), the Middle East, Latin America and Africa, and supporting its approach on the geographies where it has an industrial presence (Portugal, Spain, Czech Republic and Argentina), on its own commercial teams and, globally, on utilities and on *contractors*. in geographies without an industrial presence, Switchgear is supported on a network of agents, distributors and partners (the latter are selected on the basis of product and/or market synergies).

Offer Portfolio

Primary distribution: medium voltage solutions (up to 36kV; 4000A; 50kVA);

Secondary distribution: AIS and GIS solutions, among which modular switchgear (up to 36kV; 1250A; 20kVA and compact (up to 36kV; 630A; 20kVA);

Transformation: turnkey power distribution solutions (up to 36kV; 1250A; 20kVA);

Switchgear: product range comprising, among others, sectionalizers and circuit breakers up to 500kV, and overhead switches and reconnectors designed to integrate automatic power distribution systems.

QAS Certifications

Portugal
ISO 9001:2015 (Quality)
UNAIDS 14001 2015 (Environment)
OSHAS 18001: 18001 (Safety)
NP4457:2007 (Innovation)

Prague
ISO 9001:2015 (Quality)

India
ISO 9001:2015 (Quality)
UNAIDS 14001 2015 (Environment)
ISO 45001: 2018 (Safety)

Spain
ISO 9001:2015 (Quality)

Argentina
ISO 9001:2015 (Quality)

Main Geographies

Saudi Arabia, Argentina, Dubai, Spain, France, Maghreb (Algeria and Morocco), Portugal, Qatar and Czech Republic.

Empowering Sustainable Development

How does the Switchgear activities contribute to the Sustainable Development Goals?

Ensuring access to reliable, sustainable and modern energy sources for all.

Switchgear products are frequent components of the new photovoltaic parks and, in general, of all renewable sources, integrating and protecting the energy distribution systems.

Building resilient infrastructure, promoting inclusive and sustainable industrialization and fostering innovation.

Switchgear products equip the most varied infrastructures and are subject to ecodesign and permanent technological innovation, including a new innovative product range, free from SF6 and reducing the environmental impact.


High and medium voltage switchgear factory - Portugal

Main facts of the year

Switchgear's global presence is evident on the projects won in 2019. All international players and for the major players in the sector in the respective geography.

Secondary distribution equipment of the Fluofix model

Primary distribution equipment of the Normacel model

In the World

→ Empowering business

In 2019, Switchgear strengthened its global presence, namely through the Client **ENEL**, which awarded Efacec several projects in its different geographies:

- **Chile:** REVAC reconnectors;
- **Spain, Colombia, Chile and Peru:** secondary distribution equipment of the Fluofix model;
- **Italy, Spain, Colombia, Chile and Peru:** high voltage sectionalizers;
- **Argentina:** secondary distribution equipment of the Normafix model.

In the **United Kingdom**, Efacec its **outdoor RMU (Fluofix GC-T) approved by one of the major utilities in the country: UK Power Network (UKPN)**. An extremely important achievement in the development of the Efacec's strategic plan.

In **France, the multiannual contract was renewed (until 2021) with the French Electric Power Distributor ENEDIS** (secondary distribution equipment of the Fluofix model), as well as in **Spain** with the Spanish utility **Iberdrola** (secondary distribution equipment of the Fluofix model).

In **Slovakia,** a **contract for the supply of secondary distribution equipment of the Fluofix model** was homologated and formalized with the reference utility **EON**.

Switchgear further strengthened its presence in the **Middle East** through the homologation of **primary distribution equipment (Normacel model)** in the Abu Dhabi utility, **ADWEA**.

Middle East Electricity: New technologies presented in Dubai

The Middle East Electricity (MEE), the largest electricity trade fair in the Middle East market, took place from 3 to 5 March in Dubai. The event, which had the presence of Efacec, gathered the main players in the sector and presented smart technologies that promise to revolutionize the energy area. Some Efacec Automation solutions (Scada, ADMS and SmartGrid) received special attention at the stand.

Also the Transformers and Switchgear area, with the display of some innovative equipment, received attention from the public. In Efacec's space, there was also an Electric Mobility kiosk (HV 350V) with the latest technologies developed in-house.

The presence at this trade fair represented an opportunity to establish contacts with potential Clients in a geographic area experiencing rapid technological growth. With 1,600 companies, the event brought to the stage several launches of innovative products.

Normacel primary distribution equipment - Middle East

2019
Featured projects

Innovation and Development

The production of solutions with value creation and distinguished by excellence drives the large number of I&D projects in progress in 2019. A significant part of these projects is financed by the EU or National Framework Programmes for Research and Innovation, of which some examples stand out:

Primary Distribution

Two new ranges of cells of the Normacel type were certified with short circuit current *ratings* of 25kA and 31,5kA, with an innovative system of energy absorbers caused by the internal arc current intensity. On the other hand, a new range of 12kV – 3150A – 25kA/31,5kA Normacel cells was launched in the Middle East and a new range of Normacel 24kV cells was developed for the French market.

Secondary Distribution

Normafix and Fluofix cells were certified for the 25kV and 38kV voltages to be introduced into Eastern European markets.

On the other hand, the new IATS 24kV remote controlled overhead switch with a built-in voltage transformer and cable connection to medium voltage overhead lines as placed on the French market, and the development of the new 36kV Revac-type reconnector was completed.

The completion of the development of the new SF6free product and the start of its certification process is the most relevant element in the field of product innovation. This product aims to meet the highest state of the art, trends, needs and challenges in the area of secondary distribution equipment for smart grids. Another objective is to meet a growing demand from Clients through cells which are insensitive to environmental conditions using solid insulation and cutting in vacuum chambers, innocuous in environmental terms, being an alternative for insulation and cutting in SF6 (harmful to the environment).

Additionally, Switchgear also launched in 2019 a project for primary distribution cells of the GIS type, free of SF6, for whose development Corporate I&D European Union funds (P2020) were allocated. This project called GreenGear36 will research and develop 36kV medium voltage cells of the GIS type (Gas Insulated Switchgear), allowing the Switchgear to introduce a new range of products in its strategic markets, thus expanding its portfolio.

Efacec presents neoGEN in Spain

Efacec was present at the International Conference on Electricity Distribution (CIRED), a world reference forum for the electric power distribution community held in Madrid between 3 and 6 June, where it presented neoGEN first hand. With innovative technology and without the harmful SF6 gas, this range of modular medium voltage switchgear is intended for use in Secondary Distribution.

Formed by innovative, ecological components and with SF6-free technology, neoGEN combines resistance to environmental conditions with the flexibility and extensibility of a modular design. The insulation medium is air combined with solid insulation, while all switching operations are carried out using vacuum technology. The equipment is also ready to be used in smart grids and can be equipped with advanced protection, control and monitoring features. neoGEN is an example of Efacec's commitment to designing products with less environmental impact.

Environ-ment

The environmental responsibility will continue to be strengthened

Market overview and expectations for 2020

The Switchgear market has a consistent annual growth trend, namely in the Europe, Middle East and Latin America markets.

During 2019, the Middle East markets, which increasingly demand equipment made in Europe with a high degree of customization, slightly slowed down essentially due to the Saudi Arabia and Dubai markets. At the end of the year, Saudi Arabia had already shown signs of recovery, with a series of projects up for tender, thus revealing perspectives of strong acceleration for 2020. Like Saudi Arabia, the Qatar market also has strong prospects for 2020, with the Switchgear having started the supplies in 2019.

In Europe, Portugal, Spain and France contributed strongly to the activity of the Switchgear area, in line with the growing investment trend seen in these countries, representing almost a third of this year's revenues. On the other hand, we have also witnessed a significant increase in the presence of Switchgear in Eastern Europe (Poland, Czech Republic, Slovakia,...).

In 2019, Maghreb proved to be an important market, namely Morocco and Algeria. This year was also the year in which we supplied equipment to new markets, some traditionally inaccessible, such as Russia and Pakistan, thanks to the excellent level of competitiveness of our products and a perception of quality at the level of the largest players in the market.
Globally, we continue to support and strengthen our partnerships in geographies where we do not have a local presence, from Bolivia to Australia, Morocco and Lebanon.

In technological terms, the environmental rationale will continue to be strengthened in order to impose the fall of SF6-insulated products and, requesting environmentally friendly equipment/materials (recyclable, reusable,SF6free). The asset management market showed clear signs of growth These two factors involver strong developments in terms of launching new products (in 2019 we began the certification of a new SF6-free secondary distribution product), and at the level of the development of the current product range, incorporating sensing/monitoring solutions.

2019 was also the launching year of development project of a new GIS (Gas Insulated Switchgear) product for primary distribution, an innovation project that will take place until 2021. In this activity sector, we continue to see the imposition by the utilities of technical barriers to entry, through a greater requirement in terms of product certification, which leads to strong investments in this area.

4.1.3. BUSINESS UNIT

Automation

With over 30 years of experience in implementing Energy Systems, we provide innovative products and solutions, according to the specific needs of each market.

BUSINESS UNITS (M€)

2018	55,3
2019	**50,4**

EBITDA (M€)

2018	7,8
2019	**5,3**

AVERAGE NUMBER OF EMPLOYEES

2019	**372**

Summary Description

The Automation business unit operates in the development and supply of products and solutions for control, automation and management of electrical power grids. It also includes a division dedicated to aerospace projects.

Bringing together systemic and technological partner competencies, Automation operates as a provider of products, including SCADA software, power grid protection, automation and control equipment, power management software, power systems and inverters. It also operates as a turnkey solution provider, including control centres, substation automation solutions, advanced energy metering systems, photovoltaic stations and electric power storage solutions.

This business area develops its activity globally together with its partners and supported by eight competence centres:

- Maia (Portugal): head office and I&D competence, operation, production and marketing/sales centre;
- Lisbon (Portugal): I&D competence centre;
- Bucharest (Romania): commercial and operational competences centre for the Central and South Eastern Europe region;
- Algiers (Algeria): operational competences centre in the Maghreb;
- Maputo (Mozambique): operational competences centre;
- Luanda (Angola): operational competences centre;
- São Paulo (Brazil): commercial and operational competences centre for Brazil;
- Santiago de Chile (Chile): operational competences centre for the rest of Latin America.

Offer Portfolio

- Grid management solutions;
- Automation, protection and control systems and products;
- Smart grid components and solutions;
- Power systems;
- Solar inverters;
- Solutions for the aerospace industry.

QAS Certifications

Portugal
ISO 9001 (Quality)
ISO 14001 (Environment)
OSHAS 18001 (Safety)

Brazil
ISO 9001 (Quality)

India
ISO 9001:2015 (Quality)
ISO 14001: 2015 (Environment)
ISO 45001: 2018 (Safety)

Central Europe
ISO 9001 (Quality)
ISO 14001 (Environment)
OSHAS 18001 (Safety)

Main Geographies

Algeria, Bahrain, Brazil, Chile, United Arab Emirates, Greece, Holland, India, Portugal, Romania.

EFASOLAR PVstation Solution

Empowering Sustainable Development

How do Automation products and solutions contribute to the Sustainable Development Goals?

Ensuring access to reliable, sustainable and modern energy sources for all.

Implementing smart energy grids (Smart Grids), more sustainable;
Increasing the population's accessibility to renewable energy sources.

Building resilient infrastructure, promoting inclusive and sustainable industrialization and fostering innovation.

Efacec's automation systems make the power grid more reliable and resilient.

Making cities and communities inclusive, safe, resilient and sustainable

The products delivered by Automation are essential to the development of smart cities.

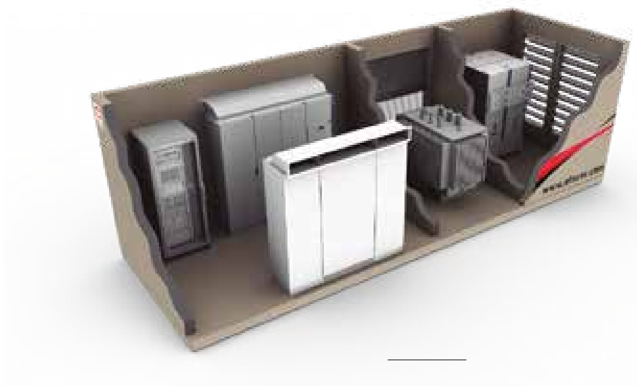
Main facts of the year

In Portugal

→ *Empowering business*

2019 started with the award of **two important orders in the area of Smart Power**, placed by **Infratec** and **Generg SGPS**, reflecting the Clients' trust in Efacec's Automation solutions. These projects strengthen the company's presence in the Portuguese market, which foresees a **sharp growth between 2019 and 2020, in the Automation area**.

- The Portuguese **Infratec**, which has already developed more than 6 GW worldwide, formalized the supply of 12MW, to be installed in Minde, Portugal. The solution includes the supply of **six 1MVA EFASOLAR PVStations**.
- In turn, **Generg SGPS** awarded the supply of 25MW to the Mexeeiro Solar Photovoltaic Plant. This turnkey order **includes the Solar Plant EPC, as well as the supply of nine 3MVA EFASOLAR PVStations and a SCADA EFASOLAR Management system**.



EFASOLAR PVstation Solution 3D

SCADA System

Advanced Management and Operation System (AMOS)

Efacec presented a winning proposal in the tender for the supply of a **new SCADA system to the Remote Control Centre for Hydro Power Plants, called Advanced Management and Operation System (AMOS), which aims to manage EDP Produção's hydro assets in Portugal**. The SCADA system is based on ScateX# and was developed to meet the functional requirements of performance, availability and expansion of the electricity, water, gas and railway utilities. ScateX# is a system based on a distributed architecture in which data is organized in real time databases. The main command centre will be installed at EDP in Porto, where there will be five operating stations, an engineering station plus a videowall for viewing the system. In **Régua,** the contingency site – *Disaster Recovery* –, will be located and it will comprise three operating stations. The supply also includes the *Simulation and Training Module*, which will provide the network operators with "real" training sessions. Over the command centre, 119 groups are controlled from the CTCH distributed by 62 plants, corresponding to a total power of 6,955MW. In terms of pumping capacity, there are 23 generator sets with a pumping capacity of 2,600MW.

DSGrid

The project involved the installation of a new digital substation automation system

At EDP's Montemor-o-Novo substation (60/30/15 kV), on-site acceptance tests (SATs) were carried out under the DSGrid project. The project involved the installation of a new digital substation automation system, including Efacec's protection and control products, namely the **TPU L500** distance protections with **IEC 61850-9-2** digital interference and the new **MCU 500** merging units. For the asset and substation devices management, the **System Point** and **Automation Studio** management software programs are included in the system. The system is based on PRP redundant network architecture, PTPv2 time synchronization, as well as the redundancy of devices suitable for the purpose. The implementation of the digital system was carried out on a 60kV line, the topology of this substation being three high voltage lines, two transformers and two medium voltage levels.

Installation of a digital substation automation system - Portugal

Substation- Portugal

→ *Empowering knowledge*

Efacec participates in C-DAYS 2019

The C-DAYS 2019 event, promoted by the National Cybersecurity Centre (CNCS), took place on 26 and 27 June at Alfândega do Porto.

Efacec's Automation area was invited to be present at the panel "Cybersecurity Competence Centre" and debate in which one of the topics was the participation of Efacec in the European project Concordia (H2020), promoted by the European Commission for the preparation of the European Cybersecurity Competence Centre.

#Upload ASE

The first edition of #Upload took place on 24 September. This was an internal initiative aimed at energizing and mutually enriching Efacec employees, where everyone can participate, attend or suggest topics and/or speakers. The first edition brought together dozens of people from Efacec and was dedicated to the Mobility of the future, technological revolution and analysis of the project with EDA - Eletricidade dos Açores case study.

Internal speakers represented the automation, strategic marketing and transport areas. As an external guest, João Porto, Chief Marketing Officer of Porto Business School, addressed the theme of leadership in the context of organizations and teams in transformation processes.

The second edition of #Upload was held on 10 December dedicated to the following topics:

- Lean thinking in Operations;
- Technological Trends and Eface's Technological Roadmap;
- Building a World-Class Analytics Practice – A Digital Transformation Imperative.

In the World

→ *Empowering business*

In 2019, a new contract was signed with **AMETEL**, a company with several turnkey projects in **Chile**, for the **supply of two substations: SET Quiani 66/13,8 kV and SET Alcones**. The first is the refurbishment of the 66/13.8 kV substation with three transformers, a coupler and a line. The second refers to the refurbishment of the 66/23 kV substation, with two transformers. In both, Efacec is responsible for the design of the substation solutions from the point of view of the electrical scheme and of the automation and protection solutions. Except for the protection of bars, all equipment supplied is of the Efacec brand.

Efacec is in charge of implementing an **integrated control system for the Sitra Tank substation (66 kV), located in Bahrain, through which it will supply substation panel control units (BCU 500), central units, (UC 500E) and user interface software (HMI 500)**. This business strengthens Efacec's presence in Bahrain, where it has already installed more than 50 substations, and with the Client - Electricity and Water Authority (EWA), with whom Efacec has a relationship of more than a decade, through the provision of technology 100% developed by Efacec.

Installation of a substation integrated control system - Bahrain

In **Paraguai**, Efacec won a new contract, through the company Engineering, for the Instituto de Previsión Social (IPS). This is an order for an Automation, Protection and Control System for Ingavi 66 kV Substation. **Both the contractor and the end Client are new to Efacec, which allows strengthening references and presence in the country in the PAC area.** The solution comprises products from the Automation UC 500, HMI 500, BCUs, TPUs, Automation Studio, as well as from other manufacturers. This project also included engineering and testing services at the factory and on site.

The technology designed by Efacec for the real time command and control in the energy production management was also chosen by a multinational, in the renewable sector, for **application, on a global scale, in all its wind farms and solar parks located in Europe, North America and South America**. The contract is valid until 2021. This project is the result of a challenge presented to Efacec by the company for the design of a command and control centre capable of monitoring the different wind farms and solar parks globally, with an installed power of more than 10 GW. To respond to the challenge, Efacec is implementing a **real time SCADA system based on its ScateX# REMS (*Renewable Energy Management System*) solution**, which will manage the production of renewable energy based on three dispatch centres located in **Europe and in the United States**.

The Danish state company **Energinet** awarded the supply of a **control and automation system**. **The project comprises four substations: LYK, KAE, SFE and HESV, each 150 kV. RTUs, HMI and metering equipment will be supplied**, namely BCU 500 (panel control units), UC 500E (installation server) and HMI 500 (user interface software). Energinet is a public company independent of the Danish Ministry of Climate and Energy, which operates and develops electricity and natural gas transmission systems in **Denmark**.

Following the various contracts that were concluded between **ENEL Distribuicion Peru** and Efacec, for the supply of automation, protection and manufacturing control systems, at the Mariategui, Izaguirre and Medio Mundo Substations, a training action was carried out, which took place at the ENEL facilities in Lima. **This training action was intended to provide the ENEL Distribuição Peru's technical staff with the necessary knowledge to manage, operate and configure the protection relays manufactured by Efacec.** These units are suitable for protection in electrical substations, in the area of distribution and transmission.

LYK KAE SFE HESV/ 150kV

Control and automation system with four substations.

In the last quarter of 2019, Efacec received an important order for the **supply of a PAC system for the Tirana Ring 400/110/20 kV substations of the company OTS, in Albania**. This project originates in the context of the modernization and strengthening of the electric transmission networks interconnections between the countries of the Balkan region. The project is funded by KFW and the proposal was won by Efacec Central Europe (Romania). Automation (via ECE), which competes directly with Siemens in the supply of command, control and protection systems, was awarded the **supply of a new system and the modernization/expansion of the systems in more than six substations. The main Efacec products involved in the project are the TPU L500, TPU D500 and TPU S430 protections, the BCU 500 control units and the UC 500E installation server. All integrated in a CLP 500 automation platform**.

→ *Empowering knowledge*

Distributech: New energy products presented in the United States

Distributech 2019, one of the most important exhibitions dedicated to the energy distribution sector, took place between 5 and 7 February in the United States.

The ADMS solution, developed by Efacec, which is the result of more than 30 years of experience in the area of network automation, received a great deal of attention. Designed to combine SCADA, DMS and OMS, ScateX # ADMS combines features for advanced infrastructure management and control operations, on a single SCADA platform. This platform provides a unique user experience, allowing the management of high, medium and low voltage assets, with maximum security and return on investment, in a system in constant operation. ScateX # is based on a cybersecurity infrastructure that provides real-time information.

DEMOCRAT project at Efacec's facilities in Maia - Portugal

2019
Featured projects

Innovation and Development

- **Completion of the P2020 DEMOCRAT project aimed at developing and showing a micro-network solution at Efacec's facilities.** Under this project, the BatLab was installed: a 100 kVA/218 kWh energy storage system, for testing features for the segments that support the charging infrastructure for electric vehicles, integration of renewable energy into the power grid and isolated systems
- **Completion of the Powerflow project, which developed electrochemical energy storage solutions**, conversion with power electronics, based on a new flow battery technology, in order to generate optimized solutions for the residential/condominium (30kW to 60kW) and commercial/industrial segments (up to 500kW), with an emphasis on integration into the power grid.
- **Beginning of the 5Growth project, which is part of the third phase of the public-private partnership Infrastructure H2020 5G**, and aims at capacity building of vertical industries with automated intelligent 5G solutions, which allow industries to achieve their main business and performance objectives.

Efacec develops a solution for automatic recovery of the power grid in a national 5G network I&D project

Within the scope of the 5GO consortium, Efacec is working on the Smart-Healing (intelligent recovery) concept, a new approach to an automatic reconfiguration solution for the power grid, which takes full advantage of 5G communication networks to perform a fast and smart topological reconfiguration in situations in which part of the consumers are without power following a power grid failure. Defects such as these occur in an unpredictable manner and require immediate action in order to ensure the security and integrity of the entire electrical system.

The Smart-Healing solution is an innovative response to traditional Self-Healing solutions, which do not depend on communications and whose operating principle is based on observing the lines voltage levels during relatively long periods, making them inherently time consuming. The Smart-Healing approach uses 5G communications to reconfigure in milliseconds, which brings a noticeable improvement in terms of service quality.

This solution aims to demonstrate that 5G technologies bring significant gains in terms of latency, reliability, availability and security, bringing substantial improvements for applications in the distribution network at the level of automation and protection of power systems, such as protection coordination and automatic reconfiguration solutions of the power grid.

Market overview and expectations for 2020

In the field of power grids, we have been witnessing a turning point in recent years, where the search for increasingly digital solutions has been intensified in areas where we have been very active, such as network operation management, asset management, digital substations, electric mobility, energy storage, dispersed production (DER) from sources such as photovoltaic solar or micro-networks.

The growth prospects for digital-supported businesses continue with growth rates well above the industry average and with strong attributes and advantages that ensure greater flexibility and optimization of resources in a context of increasingly active consumer participation.

In this context, we are witnessing levels of growth in the distribution automation market exceeding 10%, as Distribution Network Operators (DSO) prepare to deal with the increasing penetration of DER (Distributed Energy Resources), as well as to ensure new levels of service quality. In this segment, we are increasing our footprint in international Clients through new orders and with an ambitious product approval program for control of overhead networks and automation of secondary substations.

The transition to active distribution networks and the digitization of the sector introduces relevant business opportunities in the SCADA/ADMS segment, and today Efacec positions itself as a Supplier of its own solution that integrates DMS, OMS, low voltage automation and unconventional typology generation management.

With regard to the automation of transmission and distribution substations, the new Efacec product ranges for digital substations are now in industrial application, with Clients in different geographies and systems in service. This systems' architectural transformation allows obtaining efficiency gains in life cycle, and today a solid transition to this typology of solutions in multiple geographies materializes, with particular focus on transmission Clients.

In summary, the Automation business development strategy for 2020 will involve:

- To continue the homologation effort in progress in several international markets and strengthen the partners and agents network for the sale of products and systems;
- To promote products and solutions that respond to the trend of increasing digitization business (example Digital Substation);
- Extension of low voltage automation (example: ADMS) and micro-networks (inverters and storage) and growing importance of business models based on software-as-a service (SaaS), as well as Cloud environments;
- Strengthening the penetration in the photovoltaic solar segment.

4.1.4. BUSINESS UNIT

Service

Our accumulated experience and competence allow us to add value to all our services, offering solutions with the highest quality standards, always taking into account the circular economy principles in favour of a more sustainable world.

BUSINESS UNITS (M€)

2018 23,2

2019 **18,8**

EBITDA (M€)

2018 2,0

2019 **1,2**

AVERAGE NUMBER OF EMPLOYEES

2019 **197**

Summary Description

The Service business unit provides a large range of highly specialized solutions focused on assessing the asset condition and management, as well as the maintenance, repair and commissioning of the main equipment present in the energy infrastructure.

The Service provides technical assistance, both at the Client's facilities and in the workshop, to transformers, motors, alternators, generators, circuit breakers, sectionalizers, switches, switchgear of different manufacturers and models. It also offers global maintenance contracts that guarantee reduced response times and permanent monitoring of the facilities.

This business area has dedicated teams in Portugal, Angola, Spain, and France, supported by a knowledge and support centre in Portugal.

Offer Portfolio

- Digital asset management solutions;
- Specialized consultancy services;
- Revamping of high, medium and low voltage facilities;
- Multiannual and multidisciplinary maintenance contracts;
- Maintenance and rehabilitation of transformers, engines, alternators and medium and high voltage equipment;
- Specialized technical assistance;
- Decommissioning services;
- Infrastructure transformation service to respond to the energy transition.

QAS Certifications

Portugal
ISO 9001 (Quality)
ISO 14001 (Environment)
OSHAS18001 (Safety)

Spain
ISO 9001 (Quality)
ISO 14001 (Environment)
OSHAS18001 (Safety)

Angola
ISO 9001 (Quality)

Main Geographies

Angola, Algeria, Spain, France, Mozambique and Portugal.

Empowering Sustainable Development

How does the Service activity contribute to the Sustainable Development Goals?

Building resilient infrastructure, promoting inclusive and sustainable industrialization and fostering innovation.

—

The Service activity allows the modernization of infrastructures, with greater resource efficiency, through the supply of refurbished and updated energy equipment.

Ensuring sustainable consumption and production patterns.

—

In addition to the rehabilitation of energy equipment, the Service area also regenerates large quantities of oil used in transformers.

Ensuring access to reliable, sustainable and modern energy sources for all.

—

It has the competences to maximize the incorporation of renewable resources and improve energy efficiency.

Main facts of the year

In Portugal

→ *Empowering business*

Efacec was awarded a **contract for the provision of preventive maintenance services for the electrical auxiliaries of EDP Renováveis wind farms nationwide**, with the exception of wind turbines. This contract, which has a duration of four years, is associated with a 24-hour a day, 365 days a year prevention service.

The Service business area was also responsible for the **maintenance of the electrical auxiliaries of this Client's wind farms, in the North region**. As a result of the good performance of the Efacec team in this project, **EDP Renováveis strengthened its trust, allocating, once again, the same services, this time to all wind farms, at nation level**. In addition to the positive impact on the business, this contract reduces the downtime of wind farms, enhancing the production of renewable energy, making it more accessible to the community and reducing the CO_2 emissions, with a positive impact on combating climate change.

In the World

→ *Empowering business*

In **Spain**, Efacec received a new order from the Client **ANAV** for the **improvement of two 62MVA, 100 / 6.9kV transformers**. The order received refers to starter transformers for the nuclear reactors of Ascó I and Ascó II and the contracted improvement works will be carried out at the Arroteia Industrial Complex, in Portugal. ANAV, a company belonging to the nuclear sector participated by the Spanish electric utilities Endesa and Iberdrola, operated three nuclear reactors in Spain: Ascó I, Ascó II and Vandellós II.

In Spain, it currently operates eight reactors located in six plants spread over the Spanish territory. **This order, the second largest of the Client, stresses the trust placed in Efacec.**

Doble Loat: Efacec discusses power transformers

The Doble's Life of a Transformer Seminar, a training experience on the most critical aspects of power transformers, took place between 11 and 15 February in Las Vegas. Under the partnership signed in 2018 with Doble, Efacec was present at the event with the Service team.

With an agenda focused on the energy sector's practical and specific questions, this forum brought together world experts in the area of transformers, who answered questions from the public in an open forum.

Internal inspection of Core type Power Transformer - Portugal

2019
Featured projects

Innovation and Development

2019 strengthened the transformation of the business in the digital and process components.

As a result of a transversal strategy to the Efacec Group, the digital asset management business developed and materialized with a worldwide reference partnership with Doble Engineering Company, allowing Efacec to offer its Clients a full solution for power transformers comprising a data aggregator and analyzer ("the asset's intelligent brain") and a platform that brings together all the Client's assets, enabling their integrated digital management and the optimization of their performance from any point.
The Service business area technology has evolved through the development of a project with internal and external partnerships with the main objective of developing and showing the digital asset management business potential. This initiative aims at the development of an innovative service platform that responds to the challenges resulting from the digitization of energy networks through the appropriate optimization of assets and resources along the network to achieve the desired reliability and efficiency.

Digital Asset Management

News
Highlights

Digital Asset Management

In cooperation with Doble, one of the largest companies in the energy sector, with more than 20 years of experience in online condition monitoring systems, Efacec entered the market and took the first steps in the digital asset management.

Together, a range of online condition monitoring and diagnostic solutions was created to meet the needs of all Clients in the various energy sectors (Transmission, Distribution, Renewables, Industry and Microgeneration). The solution raises the Asset Management of Power Transformers, new or in service, to a higher level, combining the synchronized aggregation of relevant data with the experience and quality of the analysis, as well as the maintenance services to the condition.

Benefiting from this partnership, Efacec created its own solution. The Automation area has developed an intelligent data aggregator, a full and holistic platform that manages all the assets' information and their performance, managing to provide a full diagnosis about the real condition of the equipment. The sensor aggregator, which has a digital twin of the equipment, is installed and the diagnosis is produced. In addition to realizing the "equipment condition", this system allows you to monitor and foresee the asset's behaviour and needs, thus facilitating the development of an action plan.

In sync, the Service team is prepared to respond to maintenance and support needs with 24-hour service levels. This solution, comprising the platform and the aggregator, allows the Client to manage their entire network, even if it is geographically dispersed. If, in the past, the Supplier had to go to the site, at the Client's request, collect information and then analyse it, today that process becomes simpler, faster and more efficient.

Efacec debates energy industry 4.0 in the USA

Between 7 and 12 April, Efacec participated at the International Conference of Doble Clients, in Boston, which gathered the major players in the sector. After the protocol signed in 2018 at Cigrè, Efacec and Doble Engineering Company have been working in partnership to develop technology that provides data on transformers in a timely manner, making possible faster and more effective decision making.

The work developed under this partnership allows Clients to obtain information at all stages of the equipment's life cycle, minimizing possible failures and obtaining a better return on investments in the transformers management. The two teams thus created a range of digital condition monitoring and diagnosis packages to meet the needs of all Clients in the major energy sectors, including transmission, distribution, renewables, industry and generation, combining relevant and synchronized information with specialized analysis and high quality services.

Market overview and expectations for 2020

2020 will certainly be a **transition and transformation year**. Transition due to the manner in which efficiency and productivity challenges are being addressed so that the Client is better served and that the added value of the services provided by our teams is easily confirmed. Transformation due to the business imperative that will lead us to diversify our offer, increasing the scope of action, growing in the value chain together with partners and Clients and making the most of our competencies, deepening them or even acquiring new ones when necessary.

If, in terms of supply, the Service area is expected to strengthen its presence in the traditional power and distribution transformers, rotating machines, high and medium voltage equipment and revamping of electrical facilities businesses, it is also expected that this business area will consolidate its activity in digital asset management and operate in new sectors such as electric mobility, energy efficiency, supply of full turnkey solutions in the area of micro-networks and energy hubs. Additionally, the service portfolio in the Renewables area is expected to increase.

Sus-taina-bility

It stands as a strategic pillar for the business.

The Service area thus takes on **Sustainability** as a strategic business pillar, providing Clients with the most efficient services for an energy transition.

This entire **offer diversification** process will be supported by several technological and procedural innovation initiatives. There will be several Technological Research and Development projects in which the Service area will participate in collaboration with the Efacec Group business areas and with several partners in the innovation ecosystem Examples of this type of collaboration are the GreenGear36 projects (with the integration of digital asset management solutions in a new 36kV GIS product line free of SF6) and Transformer 4.0 (digital revolution of power transformers with digital management services ubiquity based on multi-physical digital twins).

There are other initiatives in the national territory, also with pilots in Spain and with European projects in the areas of asset life cycle management, circular economy, ecodesign and dynamic management and maximization of the asset's performance.

The key markets will continue to be a combination of a strong local presence in Portugal, Spain, Angola and France with fly-in fly-out businesses in other regions such as Europe, Middle East and Africa. New geographies will also be explored opportunistically and based on strong and lasting partnerships.

For 2020, we intend to strengthen the **investment in work safety and in the improvement of working conditions**. The aim is to introduce new processes (Lean), to improve layouts of the production area for greater productive efficiency and to introduce infrastructure improvements, both in common use areas and in workstations.

Thus, in addition to greater organization and less likelihood of accidents, a significant improvement in the work environment, productivity and quality will be achieved. Efacec has been recognizing the need to optimize the processes that aim to guarantee the safety of employees and to commit to the overcoming of the regulatory standards usual in the sector. Our employees' culture is one of discipline and operational excellence capable of leading to a zero-accident target, thus contributing to the improvement of results, greater Client satisfaction and better working conditions.

Maintenance and diagnostic tests - Portugal

4.1.5. BUSINESS UNIT

Energy

Providing efficient and resilient solutions for a sustainable world is what drives us. We deliver value through our turnkey engineering systems and our Research and Development activity.

BUSINESS UNITS (M€)

2018	97,7
2019	57,5

EBITDA (M€)

2018	7,5
2019	3,8

AVERAGE NUMBER OF EMPLOYEES

2019	222

Summary Description

The Energy business unit is responsible for implementing projects for the construction of electrical and mechanical infrastructures for Clients in the industrial and generation, transmission and distribution sectors in a turnkey/EPC perspective, creating value through the integration of different competencies and technologies. This area also provides Operation & Maintenance (O&M) services for the installed infrastructure.

The Energy unit has a global presence and an international presence, developing its business through five competence centres spread over five geographies: Portugal, Austria, Chile, Angola and Mozambique. In addition to providing services to external Clients, the Energy area develops a close commercial relationship with the other business areas of Efacec, in particular the product areas of Transformers, Switchgear and Automation. Energy develops its activities by strengthening local and technological partnerships, which allow access to specific markets and applications.

Offer Portfolio

- Solutions for VHV (Very High Voltage), HV (High Voltage) and MV (Medium Voltage) substations, digital substation, power transmission lines and power grid improvement systems;
- Turnkey solutions for hydro power plants: plants for the production and storage of energy from water resources;
- Renewable energy solutions: photovoltaic power generation (utility scale and self-consumption solar plants) and hybrid solutions (solar, thermal and storage) for connection to the grid;
- O&M for hydro, wind and photovoltaic plants.

QAS Certifications

Portugal
ISO 9001 (Quality)
ISO 14001 (Environment)
OSHAS 18001 (Safety)

Europe
ISO 9001 (Quality)

Main geographies

Albania, Angola, Chile, France, Georgia, Norway, Portugal, Romania and Mozambique.

Empowering Sustainable Development

How does the Energy activities contribute to the Sustainable Development Goals?

Ensuring access to reliable, sustainable and modern energy sources for all.

—

It designs, installs and maintains photovoltaic parks, hydro power plants and all the necessary energy transformation infrastructure (substations), directly contributing to the growth of renewable energies.

Building resilient infrastructure, promoting inclusive and sustainable industrialization and fostering innovation.

—

It designs and installs substations, a crucial element for the reliability and resilience of energy networks.

Main facts of the year

In Portugal

→ *Empowering business*

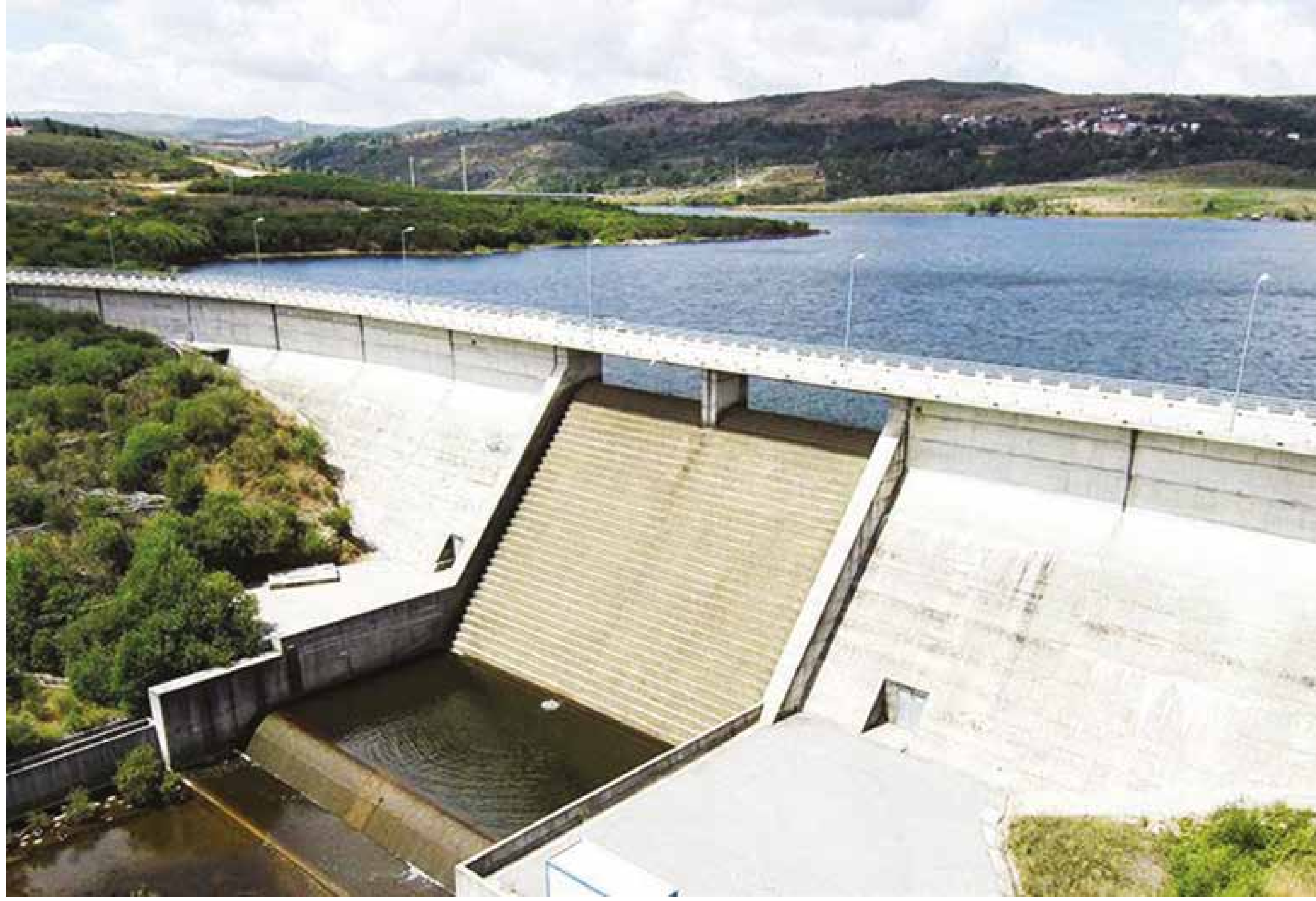
Efacec was chosen for the construction of **four new photovoltaic plants located in the Azores, Beja, Vila Nova de Famalicão and Guimarães. The sustainability gains obtained with these new projects are equivalent to planting around 70 thousand trees. These new infrastructures will generate energy for more than 2,000 homes.** With a **capacity of 1,43MW and 1MW**, Vila Nova de Famalicão and Guimarães photovoltaic plants were awarded, respectively by the Clients **TMG Textile and TMG Automotive** . These projects will prevent the emission of 5,850 tons of CO2, the equivalent of planting 37,000 trees, while generating energy for 1,049 homes.

Efacec was the company chosen, on a turnkey basis (integrated EPC system), for the **construction and O&M of a 24MW solar plant in Salvaterra de Magos. The new Glória photovoltaic plant has been awarded by Blackrock, one of the largest asset management funds in the world and by EXUS Management Partners.** With this contract, Efacec strengthens its positioning in the solar market in Portugal, allying itself with large global Clients. The project will sell energy to the grid on a free market basis (private PPA with the energy trader Axpo) and will have an area of about 50 hectares. The infrastructure will also have a **24MWp production capacity** and should start operating at the beginning of 2020. The new plant will have the capacity to supply energy to more than 11,000 homes annually, thus avoiding the emission of around 12,000 tons of CO_2 per year.

Additionally, also **Águas do Norte selected Efacec for the installation of floodgates in the flood unloader of the Pretarouca dam, located in Lamego. Efacec's intervention will expand the dam's capacity by 30%, allowing the creation of a reserve to support municipalities in the region in the event of prolonged drought.** This intervention increases the infrastructure from the current 3.2 million cubic metres to 4.2 million cubic metres, based on a sustainability principle, increasing the capacity for surface abstractions to the detriment of underground abstractions solutions. The contract was signed at the end of July with the entity Águas do Norte, which is the company that manages the multi-municipal water supply and sanitation system in the North of the country, and with six months duration.

The Renewable Energies area already has an installed capacity of 320MW worldwide and 140MW in Portugal, divided by more than a hundred projects, having recorded a sharp growth in recent years.

Pretarouca - Portugal



*→ **Empowering knowledge***

Future of energy in Africa discussed in Lisbon

Lisbon hosted the 21st edition of the Africa Energy Forum, one of the biggest events in the energy, infrastructure and industry sector on the African continent. The members of the Portuguese Government and African countries, representatives of international institutions, such as the World Bank, IMF and the European Union, as well as dozens of companies and entities related to the energy sector in Africa, met between 11 and 14 June.

Efacec hosted the event and the CEO, Ângelo Ramalho, was one of the speakers in the welcome session. Efacec was also involved in several discussion panels, sharing knowledge:

- Energy Director, was present in the panel "The Rise of Solar in the Energy Mix";
- Business Development Director, represented Efacec in the panel "Development and Implementation of Regional Hydro Projects and Growing Relevance of Mini Hydro";
- Strategic Marketing Director intervened in the panel "The Crucial Role of Multilateral Institutions in Financing Energy Access and Efficiency".

Held for the first time in Portugal, this event was an opportunity to strengthen Efacec's position in Africa, where it has developed projects and contributed to solving the problems of access to energy in various parts of the continent, over the past 50 years.


Substation - Tunisia

In the World

*→ **Empowering business***

In the Substations area, we highlight the **completion and commissioning of ten substations, in Tunisia**, under the contract signed in 2016 with **STEG (Société Tunisienne de l'Electricité et du Gaz)**, which comprises the **construction and expansion of 25 electrical substations, of which six are entirely new and integrate the Tunisian Electric Power Transmission Network**. The last substation, 150/33 kV, was inaugurated on 22 June 2019, in the Ksour Essef region, 200 kilometers from the capital city Tunis.

We also strengthened our presence in **Kenia** with a new order for a **220kV substation** for the interconnection of a photovoltaic park.

Also in **Mozambique**, Efacec strengthened its presence by being selected for the **engineering, purchase and construction (EPC) contract for operation and maintenance (O&M) of a 41MWp solar plant, located in Metoro, northern Mozambique**. Located in an area of about 138 hectares, this infrastructure has a production capacity of 68 GWh per year. The solar plant should start producing energy in late 2020. **It will be the largest solar power plant installed in Mozambique to date** and an emblematic project for Efacec, which has been operating in Mozambique for over 20 years, thus strengthening its presence in the market and in the region. The project was developed by **Neoen**, together with **EDM**, through the company **Central Solar Metoro**. The contract includes the supply of the complete EPC, including the high voltage interconnection to the EDM substation and guarantees associated with the operation of the solar power plant, as well as a long-term contract for the operation and maintenance of the plant This plant contributes to the achievement of the Mozambican objectives in the diversification of energy sources and in the decentralization of its generation, with the objective of giving access to energy to 100% of the Mozambican population by 2030.

2019
Featured projects

Innovation and Development

Munich hosted, between 15 and 17 May, InterSolar Europe, a reference exhibition in the renewable energy sector. Efacec was present with **EFASOLAR 20ft Container**, a compact and transportable integrated energy conversion solution for large photovoltaic plants.

EFASOLAR PV Station integrates products developed in-house, with its own technology, comprising solar inverters, medium voltage switchgear, transformers and energy automation solutions. Efacec disclosed this solution during the event that is ideal for large-scale photovoltaic plants in which transportation is a key point. **EFASOLAR PVStation 20ft** Container is a plug & play solution based on a standard size container, designed for all types of facility, whatever the condition of the facility location. Among the benefits for the Client are:

- Compact integrated solution (3 MVA in an HC 20ft container);
- Reduction of transport and installation costs;
- Plug & play solution;
- Possibility of configuring MT device functions;
- High performance cooling system.

Market overview and expectations for 2020

The ongoing decarbonization and electrification processes create opportunities for Efacec in general, and in particular for the Energy business area. The new major trends have a different impact on each geography, opening up opportunities all over the world, whether they are mature or emerging markets.

Hydro Power Plants

The internationalization objectives are focused on Latin America, in geographies with planned investments in hydro power generation, namely in Colombia, Peru and Mexico. In Africa, projects are being developed in target geographies. In Europe, the focus is on floating solar hybridization/ water generation and modernization and power increase projects for existing facilities.

Transmission & Distribution

The unit seeks to take advantage of the opportunities generated by renewable energy generation projects in mature markets, particularly in Portugal, and Northern Europe. It also continues to develop businesses in geographies with great needs for investment in the power grid and power generation, through competence centres in Portugal and abroad, particularly Chile, Eastern Europe and Africa.

Renewables

There are many opportunities in the renewable energy generation and electrification markets with new technological challenges for which Efacec is at the forefront with the best solutions for the different technical solutions.

The sector is already operating in Europe practically autonomously and without financial support from Governments. Between solar panels and wind farms, the potential does not stop at the European market.

For the next three years, Efacec's Renewables area has already a defined strategic plan which identifies the projects and respective dimension, as well as the markets where it intends to be present. Portugal, where Efacec maintains a solid relationship with the energy distribution and transmission company, will be one of the epicentres of the business in the short and medium term, with the possibility of building more than 2GW in the next two to three years.

Outside Portugal, there is significant investment in several countries, such as Spain, Mexico, Chile, France and the Netherlands, and Efacec is also ready to respond to new applications for floating photovoltaic power generation and storage integration. France is particularly prominent, with an annual potential of 2GW.

Solar Plant - Portugal

4.1.6.» BUSINESS UNIT

Environment & Industry

Green and integrated solutions that improve the quality of life worldwide. That is what we do. We deliver excellence in every project.

BUSINESS UNITS (M€)

2018	38,7
2019	**18,7**

EBITDA (M€)

2018	2,5
2019	**-4,1**

AVERAGE NUMBER OF EMPLOYEES

2019	**175**

Summary Description

The Environment and Industry business unit develops integrated solutions, from the design and project to the implementation, commissioning and operation of systems, in the fields of Water and Solid Waste (Environment) and Thermal and Dedusting Plants (Industry). Efacec also operates in the Operation & Maintenance (O&M) segment, which consists in the operation and maintenance of critical infrastructures in the Water area.

The Environment and Industry area develops its business globally from Portugal, with the support of two centres with commercial, engineering and project management competences, located in Maia and Lisbon.

Considering the main target geographies, this area also has its own local teams with commercial and project management competences in Algeria, Angola, Mozambique and Romania, taking advantage of synergies with other competence areas at Efacec. It also has the support of a network of partnerships/agents that bring Efacec closer to international local markets.

Offer Portfolio

Water
- Water collection, pumping and supply stations and lift stations;
- Water Treatment Plants (WTP);
- Waste Water Treatment Plants (WWTP).

Solid Waste
- Simple, automated and biological mechanical treatments through anaerobic digestion and aerobic composting without or with organic recovery;
- Preparation of Refuse-Derived Fuels (RDF);
- Biogas recovery from anaerobic digestion and landfill;
- Landfill and gas field sealing;
- Remote Infrastructure and supervision management systems.

Thermal Power Plants
- Conventional plants (example: gas, diesel, HFO);
- Combined cycles and cogenerations;
- Biomass power plants;
- Hybrid plants (conventional + photovoltaic);
- Electrical and control systems.

Dedusting
- Sleeve and electrostatic filters;
- Silo and discharge systems;
- Mechanical and pneumatic conveying systems.

QAS Certifications

Portugal
ISO 9001 (Quality)
ISO 14001 (Environment)
OSHAS 18001 (Safety)

Europe
ISO 9001 (Quality)

Main Geographies

Angola, Algeria, Denmark, Guinea-
-Bissau, Ireland, Malta, Morocco,
Mexico, Mozambique, Norway, Portugal,
Romania and Sao Tome and Principe.

Europe's Largest Biogas Plant - Denmark

Empowering Sustainable Development

How does the Environment and Industry activity contribute to the Sustainable Development Goals?

Ensuring the availability and sustainable management of drinking water and sanitation for all.

Design and installation of water treatment plants and domestic and industrial effluents (WTP and WWTP), which ensure the availability of quality drinking water and reduce the levels of pollution, with a special focus on the aquatic environment

Conserve and sustainably use the oceans, seas and marine resources for sustainable development

It contributes to maritime depollution through effluent treatment solutions with nutrient removal.

Ensuring access to reliable, sustainable and modern energy sources for all.

Design and installation of biogas and biomass power plants, with energy recovery from waste, contributing to the growth of renewable energies.

Making cities and communities inclusive, safe, resilient and sustainable.

Design and installation of waste treatment stations, elements that are fundamental for municipal waste management.

Ensuring sustainable consumption and production patterns.

Design and installation of waste treatment plants.

Main facts of the year

In Portugal

→ Empowering business

125,000
tones/year
Paradela Mechanical and Biological Treatment Unit.

As a result of the excellent performance of the construction of biomass boiler dust emission reducing systems at the Setúbal and Cacia facilities already in operation and with a remarkable performance, it was possible to secure a **new project for a dust emission reducing system for Navigator's facilities in Figueira da Foz**. In this case, the direct Client is **Andritz Finland**, and the order was obtained in direct competition with the major players in the sector.

In May, the **contract for the construction, supply, assembly and design of the Paradela Mechanical and Biological Treatment Unit was signed. This unit has the capacity to treat and recover 125,000 tons/year of Urban Solid Waste**, in a consortium between Efacec and **Cimave** for **Resulima - Valorização e Tratamento de Resíduos Sólidos, S.A. Efacec will be responsible for the entire technological design of the unit and for the entire electromechanical component of the project**. Resulima is responsible for sorting/recovering solid urban waste from the municipalities of Arcos de Valdevez, Barcelos, Esposende, Ponte da Barca, Ponte de Lima and Viana do Castelo. In addition to the Mechanical and Biological Treatment Plant, the contract also considers the construction of a Leachate Treatment Plant (LTP).

This project is a key part of the new Paradela Confinement, Preparation and Treatment Unit and represents another step for Efacec in consolidating its role as a technological player in the waste treatment and organic recovery area.

Biomass boiler emission reducing system in Cacia - Portugal

Waste Recovery Centre - Portugal

Efacec won the tender for the **design, construction and supply contract for the implementation of improvements in the packaging line of the West Sorting Centre, for the Client VALORSUL, of the Environmental Global Facilities Group (EGF), in Pero Moniz, Cadaval**. The contract consists of the improvement of the existing facilities, which will increase the line capacity and efficiency. **This project's objective is to avoid the increase in the consumption of "new plastic items"**, through the improvement of the recyclable materials quality, making a strong contribution to increasing the circular economy. The relationship with the Client EGF has lasted since 2008, and shows their trust in Efacec solutions.

Waste Recovery Centre - Portugal

In the final phase of 2019, it was still possible to secure a significant number of very relevant projects within the EGF group:

- **Suldouro** - improvement of the sorting unit located in Sermonde, Vila Nova de Gaia with the objective of increasing the current capacity and maximizing the automation of the packaging line processing and the respective effectiveness;
- **Amarsul** - design, supply and installation of equipment to increase the processing capacity of the Automated Sorting Plant (ASP) of Seixal Ecoparque. In short, the primary objective of the ASP modernization and expansion is to create additional processing capacity necessary for sorting operations of packaging waste from selective collection and rolling fraction from undifferentiated waste, allowing the increase of recycled materials taken up and the achievement of the recovery targets originating in the selective collection;
- **Resulima** – In addition to the construction of the Paradela Mechanical and Biological Treatment Unit, the construction, supply, assembly and design of the Paradela Automated Sorting Plant was also awarded with the objective of treating 12,900 ton/year of packaging waste from selective collection circuits.

All of these successes allowed Efacec to consolidate its leadership position as a technological integrator in the waste area in mainland Portugal.

In the **Azores,** it was possible to continue to deserve trust of **MUSAMI – Operações Municipais do Ambiente, E.I.M., S. A., by winning the tender for a new Mechanical Waste Treatment Plant for the island of São Miguel, responsible for the treatment and forwarding for subsequent recovery of 55,000 tons/year of solid urban waste**. The objective of this plant is to separate different types of waste:

- the recovery of packaging (rolling and/or light, ferrous and paper/cardboard), for further refinement at the plant previously built by Efacec;
- the recovery of plastic film, glass and other valuable materials for sale;
- the organic fraction for processing in the biological treatment unit;
- remaining fraction to be delivered to the energy recovery plant.

Efacec's values are transversal to all of its activities and, therefore, the O&M contracts are managed with Environmental Sustainability objectives. As an example of the measures adopted in 2019 in facilities operated by Efacec, we highlight the investment in photovoltaic plants, the replacement of equipment with more energy efficient ones, the acquisition of electric vehicles for the operating teams, the planting of trees and the maximization of energy production from biogas. As a result of this action, the **Ave WWT (257.000HE) achieved, in 2019,**

70% of energy self-sufficiency. Efacec's objective is to achieve the energy neutrality of this WWTP within two years.

→ Empowering knowledge

Efacec at the 27th European Biomass Conference & Exhibition 2019

The 27th edition of the *European Biomass Conference & Exhibition* took place between 27 and 30 May *2019*, in Lisbon, one of the major conferences dedicated to biomass experts.

Efacec was present, represented by the Environment and Industry Director and an I&D expert. The Efacec team presented the topic *"Full Scale Anaerobic Digestion Plants: a comparison"*.

Ave WWTP - Portugal

In the World

→ Empowering business

Efacec participated in the construction of the largest biogas plant in Europe, located in Korskro, Denmark.

The infrastructure started operating 12 months after the contract was signed and will produce around 37 million Nm3 (normal cubic metres) per year, which will be treated and sent to the country's natural gas network. The opening was attended by the Danish Minister of Planning and Development, Ulla Tørnæs. The biogas plant, which belongs to the company **Nature Energy**, is based on circular economy principle. **Efacec, one of the main companies responsible for the project, was in charge of the design, construction, delivery and installation of the entire electromechanical component, including the SCADA system.** Among the environmental gains of this infrastructure, we highlight the processing of 708 thousand tons of biomass per year, of which 521 thousand are manure, 100 thousand animal bed straw, grass silage and energy crops, and the remaining 87 thousand are organic by-products. **A strong commitment to the circular economy supported by the Efacec team.**

2019
Featured projects

In **Mozambique, GALP GIMTL** awarded Efacec, in the second semester of 2019, the electrical and **instrumentation works contract for the Matola fuel storage and distribution terminal**. The terminal will comprise technical buildings (substation, administrative building, and warehouse), technical areas (pumps, fire fighting network, water treatment, etc.) and storage tanks. The products will be received by ship or train and the unloading will be carried out by trucks or wagons. Efacec's activities include the **supply, assembly and commissioning of electrical and instrumentation works**. The term of the award contract is nine months.

Innovation and Development

Efacec, in partnership with Águas de Portugal, the Alqueva Development and Infrastructure Company and the Competence Centre for National Irrigation, was the company chosen to work on the project for the production and water reuse for the irrigation activity in the Alentejo region (REUSE). The protocol was signed on 22 March, World Water Day.

Efacec is the project's technological partner and is in charge of the installation of a pilot demonstration project of water production for reuse using solar radiation, including the respective laboratory and field tests. With investment by the Ministry of the Environment, the funding is provided through the environmental fund, following the action plan developed by the Government, in the management entities of the 50 largest urban WWTPs with the greatest potential for reuse. **The goal is to achieve 10% treated waste water reuse rate by 2025, and 20% by 2030**

At Environment & Industry, an effort has been made to introduce Industry 4.0 to solid waste treatment plants. The analysis of the state of the art was carried out, the points to be improved were identified and a plan was prepared to achieve them. The possibility of processing data in a centralized manner (for example, applicable to more than one plant) and the necessary improvement in the reliability of connection to the systems was reported as the main opportunity for improvement.
The acquired data will be concentrated on a platform, which will be programmed to analyse it and present it in the form of *graphic* dashboards. Existing platforms on the market were analysed and it was concluded that in the short term there is one capable of meeting our needs; in the long term, we intend to develop a platform as part of an I&D project, with an external partner. **These improvements follow market trends (big data, digitization, among others) and will contribute to the optimization of processes in sorting centres.**

In a context of alignment with the European strategy to obtain a prosperous, competitive economy with a neutral impact on the climate, Efacec led the preparation of the GreenergyUp project application to SI I&DT, which is expected to be completed in 2020. This project focuses on innovation in waste water treatment. It develops in two research axes, sludge hydrolysis and codigestion, which aim to enhance the WWTP energy neutrality and promote circular economy via the incorporation of waste as co-substrates in anaerobic digestion.

Still in the area of Innovation and creation of added value, the Engineering activity of this business area is focused on Mechanics and Process, Electrical, Control and Instrumentation and 3D studies, with the frequent use of different computer tools, the most relevant being:
- THERMOFLOW – simulation of the thermal process;
- ETAP – study for electrical systems;
- EPLAN – blueprints and construction project for electrical panels;
- REVIT – 3D drawing;
- Inventor – 3D drawing;
- AutoCad – 2D drawing;
- AutoCad Plant – procedural diagrams.

This group's activity has focused on the study of typified solutions for automation and supervision systems, incorporating a greater added value in the solutions and applying and developing new technological 4.0 solutions for customer service.

A significant effort has also been made in the digitization of engineering processes for the development of projects using the BIM methodology, with the selection of design platforms and definition of processes for 3D projects with coordination between specialties, creation of intelligent 3D models with technical information on the objects and the ability to obtain automatic listings for materials and equipment, the availability of the model for a 4D solution (planning) and the creation of a library with parameterizable 3D objects.

Efacec paper is presented and receives a prize at the WASTES 2019 conference

Efacec's paper titled "Industry 4.0 in Waste Management" received the "Best abstract" award. This distinction made it possible to present it at the WASTES 2019 conference, organized by the CWR of University of Minho and FST of Nova University Lisbon.

Prepared by I&D specialist in the area of Solid Waste, Environment, and Water and Waste, Environment Director, this paper describes the introduction of industry 4.0 in waste sorting plants. This paper addresses the opportunities and challenges of the 4th industrial revolution, in particular the turning point for the optimization and monitoring processes within the sector. The text also explains the current situation of these plants and presents the first step of industry 4.0 in this sector.

According to the authors, the sorting plants will be able to adapt and optimize, operating as intelligent plants. In 2020, Efacec will start the process of transforming some waste sorting plants.

Market overview and expectations for 2020

The increasing visibility of the effects of climate changes is expected to impose the need to adopt, as swiftly as possible, measures that will indirectly catalyse the activity in the Environment sector, namely:

- The increase in the mandatory percentage of biogas in fuels, with the consequent greater need for biogas generation.
- The need for greater energy efficiency across all systems.
- The need for greater reuse of all raw materials and water.

As an example of this trend, we should mention the emphasis placed by the new presidency of the European Union, namely the following goals/objectives for Europe in 2020:

- 20% reduction in the emission of gases contributing to the greenhouse effect (compared to 1990 figures).
- 20% of the Energy produced must come from renewable sources.
- 20% increase in energy efficiency.

Despite the priority that has been given to the Environment sector and the projects that are expected in Portugal and around the world, the truth is that the Efacec's business in this area has witnessed a sharp fall in revenues and a significant reduction in the EBITDA margin since 2017. This decrease is justified by the greater competitiveness that can be seen in the award of this type of contracts in Portugal, mostly managed by public entities and by the time and referrals necessary to enter the foreign markets.
In the last quarter of 2019, given the expected results for this Business Unit, the Board of Directors decided on the corresponding divestment, mandating the Executive Committee to sell or discontinue this Business Unit (chapter 4.3). At the end of January 2020, potential investors had already been contacted and when it was expected to formally launch the sale process, the so-called Luanda Leaks broke out, leading the majority shareholder to decide to put their entire share up for sale (chapter 4.4) and conditioning the isolated disposal of the Environment and Industry Business Unit. Until the completion of the sale or the discontinuation of this Business Unit, Efacec will continue to explore commercial opportunities, in Portugal and around the work, aiming at its appreciation during this period. The forecast for 2020 is to keep the focus, with regard to Water and Waste, on Northern Europe (including Ireland) and, in the Industry area, to be specially focused on biomass projects in Portugal and abroad, taking advantage of the proximity to some main contractors, namely the projects in the sugar cane sector.

Portugal

An increase in opportunities is expected in Power Generation by thermal effect, because of the need to comply with the rates of production of Energy through renewable sources and to help solve the problem of forest fires. In 2019, the market suffered a halt due to the uncertainty about which tariffs to apply in the projects already running and/or to be started. Clarifying this issue will be crucial for the evolution of opportunities in 2020.

In the Water area, the market is quite mature, with the main existing opportunities being the upgrading of existing infrastructures. In the Waste area, the need to treat organic waste to meet the targets imposed by the European Union makes us expect a considerable volume of opportunities.

Africa

The investment limitations will continue to exist in Angola due to the low oil price and the unavailability of foreign exchange. The volume of opportunities will not be significant in Mozambique also due to the lack of financing capacity of some of our main clients. As a result of the unfavourable external macroeconomic context, it is expected that in Algeria, Morocco, and Tunisia the number of opportunities will not be abundant. However, given our local presence, proximity to clients and referrals, it is expected to be possible to obtain some new projects.

Europe

In the Water area, with the recovery of the Irish economy, a market where Efacec has invested in recent years, investments of more than one billion euros are expected in the next three years with Irish Waters. In Northern Europe, Efacec has already been selected in some relevant pre-qualifications, with the submission of proposals expected in 2020.

In the Waste area, there are several opportunities in terms of design, supply, installation, and commissioning of Biogas production infrastructures. The capitalization of the successful reference obtained in 2019 with the Kroskro project is expected.

Alqueva Dam - Portugal

4.1.7. BUSINESS UNIT

Transport

We operate in the Railway, Light Rail and Highway segments. Our work is focused on energy, telecommunications, signalling, command and control. We are driven by a strong Commitment to the technological development and innovation.

BUSINESS UNITS (M€)

2018	31,3
2019	**36,0**

EBITDA (M€)

2018	4,9
2019	**7,1**

AVERAGE NUMBER OF EMPLOYEES

2019	**237**

Summary Description

The Transportation business unit designs, develops, markets, supplies, commissions and maintains its own and customized products and solutions, in addition to integrating them into turnkey projects for Clients in the public road and railway transport markets.

The Transportation area has an integrated offer dedicated to the supply of energy, telematic and signalling solutions for the railway (light rails, heavy rails and railways) and road transport segment, incorporating products and technology of its own development, which are the basis of the differentiation of its international operations in the most demanding markets It also develops integrated telecommunications projects for fixed and mobile communications operators.

Business development is carried out globally, with projects installed in more than 15 countries, with the Transportation competence centres located in Portugal. The energy competences are based in Oeiras and the telematic and signalling competences are in Maia, where the industrial unit is also located.

Offer Portfolio

- Integrated command, control and operation platforms (EFARAIL and INOSS);
- Operation support systems (OSS) for buses and light rails (TimeKeeper by Efacec ©);
- Operational management systems for rolling stock parks and workshops (TramKeeper);
- Railway signalling systems (AEGIS);
- Automatic level crossing systems (XSafe);
- Public information systems and smart video surveillance;
- Digital transmission and wireless communications systems;
- Integrated communication infrastructure solutions for communications operators (fixed and mobile network) and utilities;
- Traction systems and energy distribution infrastructures;
- Containerized and modular traction system solutions, including mobile traction substations;
- Catenary solutions for light rail and railroad;
- Ventilation, fire detection and extinguishing systems for road and rail tunnels.

QAS Certifications

Portugal
ISO 9001 (Quality)
ISO 14001 (Environment)
OSHAS 18001 (Safety)

Main Geographies

Algeria, Brazil, Denmark, Spain, Ethiopia, Ireland, Norway, Poland, Portugal, United Kingdom, Sweden and Tunisia.

Empowering Sustainable Development

How does the Transportation activity contribute to the Sustainable Development Goals?

Building resilient infrastructure, promoting inclusive and sustainable industrialization and fostering innovation.

The construction of metros and railways in a region, in general, favours their economic development through the construction of innovative and resilient infrastructures for electrified (more efficient) public transport, while reducing environmental impacts and leading to an increase in the population's well-being.

Making cities and communities inclusive, safe, resilient and sustainable.

The implementation of new urban transport systems makes communities inclusive (facilitating the mobility of people with difficulties), increases road safety and reduces the per capita environmental impact through electrification of transport (railway).

Main facts of the year

In Portugal

→ *Empowering business*

In the Portuguese market, Efacec integrates the **CGCs (Complementary Grouping of Companies)** that are carrying out the reformulation and expansion projects of the **Arroios Station and the Areeiro Station North Atrium of the Lisbon Underground green line**. Under these two projects Efacec is in charge of **implementing the pumping system, the main ventilation system and the secondary ventilation system, the low voltage power networks and the telecommunications, CCTV and automatic fire detection system, and the commissioning tests and commissioning of the different facilities**.

In 2019, the Maintenance turnover increased significantly with the instalments at the beginning of December related to the **Dublin Light Rail maintenance contract**, to be carried out in partnership with the company **Transdev**, also in charge of the Light Rail operation.

Dublin Light Rail - Ireland

→ *Empowering knowledge*

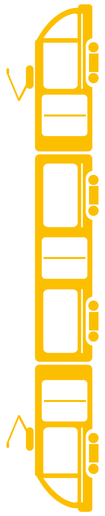
13th ITS European Congress brings together the leading names in the industry

The future of Mobility was the core discussion at the 13th ITS European Congress, the largest event dedicated to digitization and intelligent mobility.

The event took place between 3 and 6 June at Brainport Eindhoven, in The Netherlands. Efacec presented its most recent solutions for the urban mobility sector, taking the opportunity to strengthen its position as one of the major companies in the area of Mobility at European level.

In the World

→ Empowering business



+10km
+9 new stations

Phase 4 -
Bergen Light Rail

In 2019, Efacec was once again recognized for its competence and reliability in the development of urban mobility systems in **Norway**. **Bybanen Utbygging, a department in the municipality of Hordaland**, responsible for the planning, **construction and development of urban transport, awarded Efacec the construction of the electrification system for the extension of the existing trolleybus line in Bergen to an electric bus line**.

In this contract, Efacec will be in charge of the design, supply, installation, test and commissioning of the catenary system, as well as the three traction substations for power supply. This project results from the decision made by the municipality of Hordaland to extend the current 8km trolleybus system to a longer charging electric bus line with an additional 5.8km.

Also in **Norway**, Efacec continued the **implementation of Bergen Light Rail Phase 4, which adds 10km and 9 new stations to the existing system**. After carrying out all the design of the vehicle location, communications, security and passenger information systems, 2019 marked the beginning of supplies and factory tests of all equipment that will begin to be installed in 2020.

In **Denmark**, and in a consortium with the Austrian **Rhomberg Sersa**, Efacec is implementing the **extension of the Copenhagen metro to Sydhavnen, for the Client Metroselskabet**. **The scope of the contract includes energy systems, third rail and track, and Efacec is responsible for the turnkey supply of six substations to supply stations, ventilation wells and traction, as well as the medium voltage network in the tunnel and SCADA system.** The project is currently in the detailed design phase and the start of work on site is scheduled for the first half of 2021.

In **Sweden**, 2019 was the year in which **the first electronic level crossing systems** were supplied to **Trafikverket**, the entity responsible for all infrastructure and transport in Sweden, for the supply of level crossings. This project includes the initial phase of **approval of the current XSafe product by Efacec**, taking into account the particular requirements of the country, and after this phase, which will be completed by September 2020, **the continued supply of level crossings** will begin, during the next five years, in a relationship that may be renewed up to 30 years. **This is the first contract in the Transportation area in Sweden, and shows the competence and know-how of Efacec teams in the field of railway safety systems.**

Also for the Level Crossing product, the implementation of the contract for the **supply of 50 level crossings in Tunisia** started. The contract strengthens the company's presence with SNCFT (Société Nationale des Chemins de Fer Tunisiens) and in the Maghreb market. Efacec is in charge of **the project, supply, installation and commissioning of 45 full crossing levels and the rehabilitation of five existing level crossings**.

Also in **Maghreb**, we should mention the signing in September of the **provisional acceptance of the Dessert Aeroport (DA) airport – the construction of the new railway station at Algiers International Airport**, under the responsibility of the Algerian company **ESTEL** for the Algerian railway operator **ANESRIF**. Efacec's activity comprised **the project, configuration, supply, commissioning and training of video surveillance systems, Information to the Public (visual and sound), anti--intrusion, access control and fire detection** of the new Station.

→ Empowering knowledge

News

Highlights

Public transport trends discussed in Stockholm

Efacec participated at the UITP Global Public Transport Summit, which was held in Stockholm between 9 and 12 June, organized by the International Association of Public Transport.

The event, which gathered the most important Stakeholders in the sector, with the objective of discussing trends. Efacec was present and presented its AEGIS signalling system, which will soon be put into service at the Odense Metro, in Denmark This is a SIL 4 certified system, which is the highest level of safety integrity, according to European standards for railway applications.

Efacec is present at Trako 2019

Trako, the largest railway industry exhibition took place in Poland between 24 and 27 September: Efacec was present through its local partner, Kolster, a company that integrated in its stand the Efacec XSafe Level Crossing, one of the featured products that deserved special attention from visitors.

Efacec was present through its local partner, Kolster, a company that integrated in its stand the Efacec XSafe Level Crossing, one of the featured products that deserved particular attention from visitors. This is a huge market, with one of the largest rail networks in Europe.

In recent years, Poland has been one of the main countries receiving funding from the European Union for the development of transport infrastructure and railway renovation. The Polish market thus represents a strategic investment for Efacec's Transportation area.

Innovation and Development

2019
Featured projects

In 2019, the number of innovation projects in the Transportation unit witnessed a sharp growth with the effective start of two new co-financed projects:

- **NewDimensions** - New generation of a Command Centre application for metro-rail operators. It presents innovative modularity, flexibility, processing capacity and automatic response solutions, responding to the latest cybersecurity requirements, basing its architecture on three pillars: cloud architecture; machine learning applied to data analysis and automatic processing; cybersecurity module for secure operation in a public cloud.

- **5Growth** (*Advanced 5G validation trials across multiple vertical industries*), project in which Efacec will be responsible for validating the safety principles in secure communications for railway signalling.

In addition to these new projects, the I&D team continued to implement the projects started in 2018, namely:

- **DigiXsafe** - Development of innovative solutions connected to the mechanisms and level crossing systems, including a new (modular) software architecture, protocol connection to peripherals and new barrier mechanisms;

- **5G** - Project focused on developing and testing 5G technology products and solutions, with Efacec being responsible for the validation of Level crossing solutions supported by 5G technology, as well as Mobile CCTV applications.

New barrier mechanism for level crossings

Market overview and expectations for 2020

In the last few years, the world market for urban and suburban passenger transport has been growing in recent years, and it is generally expected that this growth will continue for at least the next decade: according to UITP (International Organization for Public Transport), the construction of more than 1,000 km of light rail is expected over the next 3 years, of which 250 km in Europe and Africa, Efacec's main markets in this field.

In addition to this vision of building new projects, there is a constant need to renew obsolete systems aimed at increasing the response capacity of cities and countries. In the specific case of Portugal, the investments foreseen in the growth and modernization of the metro-rail network represent a significant part of the National Investment Plan 2030 - more than 7 billion euros, out of a total of 12 billion dedicated to transport and mobility systems.

Thus, the Transportation business development strategy will be based on:

- Increased activity in Northern European markets, with a major focus on maintaining existing Clients/markets (Norway, Denmark, Sweden and Ireland) and researching opportunities in new geographies (Finland and the Baltic countries);

- Increased maintenance activity for existing Clients and new operators of light rail systems;

- Strengthening the communications infrastructures building activity for mobile operators, mainly due to the investments planned in the implementation of 5G networks.

Electrification for extension of Bergen trolleybus- Norway

4.1.8. BUSINESS UNIT

Electric Mobility

Contribute to making electric mobility a reality in society and in people's lives while contributing to the sustainability and decarbonization of economy.

BUSINESS UNITS (M€)

2018	35,7
2019	**40,8**

EBITDA (M€)

2018	5,2
2019	**4,8**

AVERAGE NUMBER OF EMPLOYEES

2019	**194**

Summary Description

The Electric Mobility business unit is dedicated to the development of innovative energy solutions, with emphasis on solutions for charging, managing and maintaining electric vehicle infrastructures and respective integration into the network management systems.

It aims at contributing to making electric mobility a reality in society and in people's lives, contributing to the sustainability and decarbonisation of the economy, offering a full range of electric vehicle charging solutions for the private and public charging segments, be it the fast, the ultra-fast or the wireless type.

Based on a context and culture of strong innovation, demand and high performance, Electric Mobility is a reference in the sector, contributing to the worldwide development of the electric mobility market, infrastructures and charging solutions and the growth and sustainability of its partners and Clients.

Electric Mobility develops its business on a global level with a large network of commercial partners and after-sales support that allows ensuring close support and a commitment to high levels of service to a high number of Clients in the markets where it operates, specially Europe and the United States of America.

With an industrial unit located in Maia (Portugal), an operation in Norcross-GA (USA) that carries out commercial, project management and customer support activities to Clients in North America and a network of strategic partners, Electric Mobility ensures a response at global level in the electric mobility business.

Offer Portfolio

- Electric chargers for implementation in public or private domain (residential or condos):
  - → AC charging chargers (up to 43kVA), fast and ultra-fast DC charging and wireless charging;
  - → Chargers and specific solutions, namely for charging buses and energy storage capacity through the incorporation of batteries (Energy Storage);
- Charger network management platform (Charge Point Management System CPMS);
- Preventive and corrective curative maintenance of electric vehicle chargers;
- "As a service" software with the development of specific solutions for CPOs.

QAS Certifications

Portugal
ISO 9001 (Quality)
ISO 14001 (Environment)
OSHAS 18001 (Safety)

Product certifications in the World
Europe: CE Marking
USA and Canada: UL and CSA Certifications
Colombia: RE Certifications

Main Geographies

Portugal, Spain, France, Germany, Luxembourg, The Netherlands, United Kingdom, Sweden, Denmark, Finland, Norway, Poland, Switzerland, Croatia, Slovakia, Slovenia, Romania, Greece, Italy, United States of America, Canada, Brazil, Mexico, Colombia, Chile, Hong-Kong, Macao and Thailand.

Easy Mile 10, the first autonomous public transport in Portugal

Empowering Sustainable Development

How does Electric Mobility area contribute to the Sustainable Development Goals?

Building resilient infrastructure, promoting inclusive and sustainable industrialization and fostering innovation.

Electric Mobility contributes to the expansion of electric mobility, which, in turn, requires the modernization and installation of new electric power infrastructures.

Making cities and communities inclusive, safe, resilient and sustainable.

The growth of electric mobility is one of the current trends to reduce CO_2 emissions and pollution, improving the cities' air quality.

Main facts of the year

In Portugal

→ *Empowering business*

Efacec is participating in the pioneering project of the first autonomous public transport in Portugal: Easy Mile 10.

The vehicle is already undergoing tests by the **Cascais City Council**, through **Cascais Próxima**, with the **MobiCascais** platform. With a 30.72kWh battery, which allows it to circulate autonomously for 8/9 hours, EasyMile 10 is 100% electric and **will include the Efacec's Public Charger equipment to charge it**. In addition to ensuring this vehicle charging, installed on the Nova SBE campus in Carcavelos, Efacec will also deliver **seven more public chargers to be installed soon in the municipality of Cascais**.

This equipment will comprise the MobiCascais system network. Also within the scope of this project, Efacec also provided the **view4grid infrastructure management and monitoring solution, which will be integrated into the management platform of the town of Cascais**, and which incorporates, in a single tool, several components for managing and monitoring traffic, transport and road maintenance needs.

News

Highlights

→ Empowering knowledge

MOBINOV brings the automotive sector together

Efacec participated in the Academia Meets Auto-Industry conference, at Instituto Superior Técnico. The event, which took place on 17 May in Lisbon, brought together the main national players in the automotive sector in a discussion about the challenges of mobility and industry.

Efacec's Electric Mobility area, participated as speaker, addressing the opportunities of a rapidly growing sector, with the theme "Challenges and Opportunities of electrified vehicles".

Unravelling myths about the mobility sector

On 19 September, mobility and connectivity were under discussion, in the second AUTOMONITOR conference "Mobility and Connectivity - Myths or Reality?", at the EDP Auditorium, in Lisbon.

The Electric Mobility area, participated in the round table where some myths related with the sector were debated.

Efacec present at Portugal Mobi Summit

Efacec was present at the Portugal Mobi Summit event, which took place between 24 and 27 of October and was promoted by the Global Media Group and EDP.

In addition to its presence with an electric mobility product stand, there were several speakers from Efacec:

- Efacec director, participated in the panel "Energy Transition and Environment";
- Efacec director, was on the panel "Digital solutions for mobility";
- The Business Development Director, participated in a panel that analysed Portugal's position as a starting point to increasingly innovate in new technologies;
- Efacec Technology director, participated in a debate on the industry's relationships with CEiiA.

In the World

→ Empowering business

Efacec was chosen by Société Monégasque de l'Electricité et du Gaz (SMEG) for the design and installation of an ultra-fast charger in the Principality of Monaco, more specifically at the Monte-Carlo Bay Hotel & Resort.

This 160kW equipment will allow charging normal battery and long range electric vehicles, being able to supply up to 920V and 175A. The equipment is similar to others already installed by Efacec in several geographies internationally. The HV family comprises the most powerful chargers and, therefore, the fastest in the world, capable of charging the battery of an electric vehicle in a few minutes, charging about 450km of autonomy in ten minutes. **The opening ceremony of this charger took on particular importance, as this is the first ultra-fast charging point accessible to the end user in Monaco.**

Efacec supplied **seven fast chargers for Nissan electric vehicle charging, intended for VIP guests, before and during the decisive match of the Champions League, played in Madrid**. The League of Nations also used Efacec technology. The company installed **three 7.4kVA chargers in Casa da Música, in Porto, in partnership with Volkswagen**. The seven fast chargers, supplied to Nissan, have the ability to charge an electric vehicle (80%) in less than 30 minutes. The equipment is part of the Nissan and UEFA operations centre and is prepared to meet the car manufacturer's vehicle requirements. **Efacec and the Japanese company have had a relationship in electric mobility for more than a decade. In the same area, around 300 QC45 fast chargers have already been supplied and installed throughout Europe.**

Efacec is actively participating in seven of the largest electric mobility projects worldwide. The technology conceived in Portugal is already equipping centres of excellence and development of major car manufacturers and supporting large-scale charging infrastructures located, predominantly in **Europe and the United States of America**.

Monaco's first ultra-
-fast charging point

Efacec was selected by **Allego for the supply and installation of 90 ultra-fast charges in Central Europe**, over the next two years. This contract is part of the project that is being developed by a consortium, led by Allego, which is aimed at **creating an ultra-fast charging network in Europe**. **The charger will be the HV350 model, the most powerful, safe, robust, durable and environmentally friendly charging system produced by Efacec,** a high-power ultra-fast charging solution, capable of supporting up to 320kW when connecting two HV350 units to a interface with a suitable cable and a connector.

This model is, therefore, prepared to connect more than two chargers to a mechanical connection, providing higher power for heavier vehicles.

In **Estonia**, Efacec completed another project, this time for **Elektrilevi**, the Estonian electricity distribution company. The project consists of the **supply of ten ultra-fast chargers, ten QC45 chargers and 30 public charging stations (Public Charger)**.

Also in Estonia and for the partner **Elektritransport**, **22 QC45 chargers were supplied. These two projects strengthen the investment made in this market in 2019**.

For **COPEC Oil & Gas Chile**, the Electric Mobility will supply **40 public charging stations** until the end of 2019. Additionally, in 2020, **another 85 units** will be supplied to the same Client.

Supply of 90 HV350 ultra-fast chargers - Germany and The Netherlands

Fast chargers for Nissan electric vehicle charging, before and during the decisive Champions League game - Madrid

Supply of 40 public charging stations - Chile

Nissan chooses Efacec as official Supplier of fast chargers

The fast chargers, developed by the Electric Mobility area, were selected by the Japanese brand to supply their cars. It should be noted that, in the last two years, Nissan Europe has acquired around 300 fast chargers (50kW), distributed by dealers and representatives, throughout Europe.

Two million euros are invested in Portugal, which translate into 100 fast charging stations, until the end of 2020, supplied by Efacec As Brice Fabry, head of the Japanese company, mentions: *"The chargers are from Efacec and, therefore, we are including national talent in this project. We buy the best in the market, because the most important thing for the Client is that the equipment works well."*

Owner of the best-selling electric car in Portugal in 2018 - the Nissan Leaf - the car manufacturer wants to be the main reference in fast charging infrastructures, which are essential for electrifying mobility. For this, it chose Efacec as its official partner: *"This is why we have a very strong relationship with the Portuguese company. The products are quality products, and we are working together to develop the next generation of chargers. All 100 chargers will be Efacec: when you have a good partner, you don't change partners"*, explains the Nissan representative.

News
Highlights

→ ***Empowering knowledge***

Efacec participates at the EV Charging Infrastructure: The Future of Energy Industry forum

The second edition of the EV Charging Infrastructure forum was held on 19 and 20 June, in Hamburg, Germany. The Future of Energy Industry, dedicated to the potential of electric mobility.

Efacec was present with two presentations with the titles: "EV Charging War" and "What are the possibilities to pay your charging session". Efacec's two interventions were rated by the 50 speakers present, European leaders in the area of charging infrastructures, as two of the best presentations of the event.

The vision of the future of mobility in the USA was presented

As a pioneer in the sector, Efacec participated in "The Future of Mobility Summit" promoted by Bloomberg, on 4 and 5 February, in San Francisco. During the event, Efacec's vision of the future of mobility and the consolidated experience in the development of projects around the world was shared. This conference brought together the world's largest players in the areas of transport, industry, finance and regulation.

Ângelo Ramalho, Efacec CEO, participated in the panel "EV Charging Infrastructure Business Models", a session dedicated to electric transport and the emergence of new business models for the electric vehicle charging ecosystem: "*For Efacec, participating in this international forum, dedicated exclusively to the future of mobility, is an opportunity to share our experience in the field of mobility, not only as active agents in the design and development of innovative solutions, but also to share our vision on the rapid evolution of the sector*".

2019
Featured projects

Innovation and Development

Within the scope of the development of new products and solutions, and creation of technical knowledge in areas considered of strategic interest, the following achievements stand out:

- Continued development of new functionalities in the HV range (*High Power Chargers DC*), mainly in the HV350 charging system with liquid-cooled cable, including Kiosk Premium with different implementations for various configurations at the Software level, as for example the simultaneous charging feature and load management systems for chargers;
- Development of solutions for implementing energy measuring/metering requirements in Germany ("Eichrecht") for electric vehicle charging systems;
- Development of an electric vehicle charging management platform for condos, based on blockchain technology, with customized development for the mobile app Client;
- Beginning of the development of a low cost range for AC charging, applicable to domestic/private charging (home charging) or public (public charging);
- Development of implementation of communication protocols, such as OCPP1.6 / OCPP2.0 and ISO15118, which are relevant in supporting the development of the "Plug & Charge feature";
- Development of new solutions with batteries and internal layout optimized for QC45 BATT.

Electric Mobility has partnerships with some technological Clients, with which specific developments of new electric vehicle charging infrastructure optimization features and implementation of pilot units are carried out.

Pilot project tests electric vehicle charging without card or app

Virta, an electric vehicle charging points operator, Efacec and SDEY (Department Energy Association of Yonne) are collaborating with Hubject to launch the pioneering "Plug & Charge" project, considered the easiest most integrated and safest charging technology, in Yonne, France.

Until now, electric vehicles drivers needed an RFID (radio frequency identification) card or a Smartphone to access a public charging station. With Plug & Charge technology, which uses ISO 15118 standard, a new form of communication between electric vehicles and the charging network is defined using digital certificates. Once connected to the vehicle, the charger receives encrypted data from the vehicle and the payment is processed in a simple gesture.

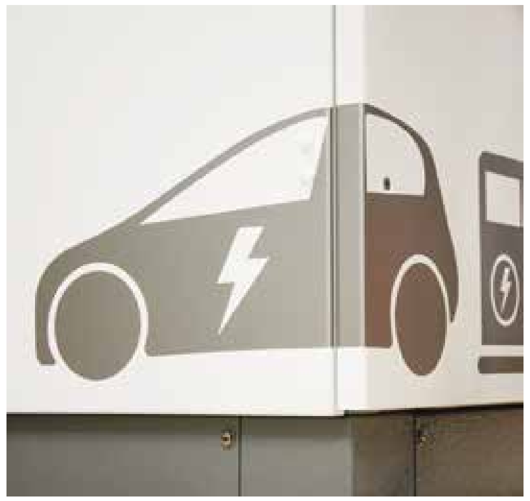
The pilot project is expected to start in early 2020. SDEY will install Plug & Charge chargers, model HV160, produced by Efacec, in Yonne. These entities will provide the Plug & Charge ecosystem and the associated essential public infrastructure. The charging points will be connected to the Hubject multi-operator network through the Virta operator and will be operational on a European scale just like the rest of the SDEY charging network. Virta will be the first charging operator to implement the Plug & Charge technology in the French market.

The NEXT-E project brings together mobility market leaders

NEXT-E represents a cooperation platform between four leading companies in the energy and Oil & Gas sectors, which join forces with car manufacturers to create an interoperability-based charging network, providing a viable alternative to fossil fuels.

In July 2017, the NEXT-E project was selected by the European Commission for co-financing through the Connecting Europe Facility (CEF) The NEXT-E consortium received financing to implement the project, which is the largest CEF financing ever granted to an electric vehicle project. The consortium comprises companies from the E.ON Group, MOL Group, PETROL, as well as Nissan and BMW. As part of this project, Efacec will supply two HV160 chargers and two HV350 chargers to Romania and 40 QC45 chargers to Croatia.

NEXT-E



Market overview and expectations for 2020

Following the trend of recent years, public electric vehicle charging infrastructure grew approximately 40% globally, with the Asian market, in particular China, representing 60% of the growth and Europe and the United States 20%, with 880,000 charging points. A growth trend is expected to continue in 2020 and this will be exponential in the following years, reaching 19 million charging points globally in 2025.

Government policies continue to play a very important role in establishing conditions for the installation and connection to the electric vehicle charging stations network.

From the point of view of the charging infrastructure architecture, there are intense discussions about the best solution between the on-the road model and the "hub" vehicle charging, with the assurance of interoperability between the charging systems and the vehicles that are continuously available on the market being a clear challenge. On the other hand, as a goal for the growth of the Electric Mobility sector, it is necessary to expand the charging network infrastructure outside the big cities and highways.

Contributing to this expansion are the investments of companies of the traditional oil & gas sector in electric vehicle charging operators and the investment of car manufacturers that intend to control not only the vehicle market, but also the charging infrastructure market by exploring new business models.

Engineers, local academics and managers jointly think about the future of electric mobility

The Portuguese Engineers Association - North Region (OERN) and the Division of Electrical Engineering - North held on 12 December a conference titled "There is a future in electric mobility", which gathered a series of specialists from different backgrounds to build such a perspective as diversified as possible.

The panels had the contributions of Ângelo Ramalho (Efacec CEO) and motivated reflections on the trends in this sector. Portugal has been positioning itself as one of the most active countries in the investment in electric mobility and currently ranks third in the European sales of electric vehicles.

On the other hand, the utilities of the electricity sector face several challenges:

i. technological challenge due to the need to manage new charging points and the need to digitize the power grid assets;

ii. operational challenge with the need to optimize the existing electrical infrastructure and deferred investment;

iii. and find new business models in order to retain Clients and explore new forms of business in the electric mobility sector.

These movements create an environment for growth both in the charging infrastructure and in the offer of new models of electric vehicles, which, in parallel with the prospect of reducing the cost of vehicle batteries, are factors that will contribute to the development of the demand and expansion of the number of electric vehicles on the market.

The growth that is being felt is absolutely impacting, and one can consider that the technology had the merit of promoting a real paradigm change in the sector. In this context, the technological and scientific challenges associated with this market evolution are huge and complex, namely, the management of new charging points and the need to digitize the electrical network assets, both at the operational level (optimization of the electrical infrastructure and deferred investments), as well as the operation of new business models and Client retention.

The year 2020 will certainly be another year with important challenges for the Electric Mobility area at Efacec, and the expectation is to resume the 2017 and 2018 growth while following the growth trend of the market for the coming years. Our Clients' trust, the capacity for technological disruption and keeping the culture of permanent innovation alive will be crucial factors for our success.

The relationship of trust with our Clients is crucial for the success of Electric Mobility at Efacec and will continue to be one of the main priorities for the entire organization, which will continue to strengthen a culture of commitment and partnership with its Clients, while ensuring the highest quality and reliability standards in its products and processes.

Expansion to new geographies and new Clients will be one of the priorities for 2020 and it is essential to identify new partners, strengthening the position in the sector and ensuring quality after-sales services to our Clients, particularly for markets that are starting to take their first steps in the mobility sector.

Innovation will be another of the main priorities of Electric Mobility at Efacec, and therefore, the 2020 technological roadmap foresees the development and introduction of new products and works that are considered distinctive. The creative capacity of Electric Mobility will also be decisive to raise the degree of automation of production lines

4.2. Technological Innovation

Innovation is the key for Efacec to anticipate the technological solutions of the future and generate value in a context of change, responding positively to the growing challenges of the markets in which it operates and of each Client in particular.

Efacec's strategic commitment to Technological Innovation based on the existing endogenous know-how skills has led to an update and expansion of the offer portfolio, through own technological solutions, innovative, sustainable and value generating, on an international scale, also enhancing the creation of new technological activity areas.

Hop.in is our invitation to the innovation ecosystem that surrounds us, so that together, and for all, we are more and better.

Aware of the importance of this Technological Innovation pillar, a consistent effort has been made to expand the technological innovation ecosystem with differentiating and complementary partnerships in terms of know-how skills and scientific and technological knowledge in areas that Efacec believes to be of greater future potential.

And, because **creativity** is at the base of Technological Innovation, Efacec maintains a strong commitment to internal programs for generating ideas open to all its Employees, promoting more and better innovation, greater efficiency and continuous improvement.

In terms of technology-based innovation, 2019 was a landmark year for electricity systems and clean mobility. The progressively electric future is promoting rapid mutations in electrical power grids and, in particular, in the medium and low voltage power grids segment, largely due to the growth of distributed renewable generation, self-consumption systems and the accelerated expansion of electric mobility.

In 2019, Efacec started a journey that will contribute to making it increasingly relevant in building a better and more sustainable future. Convinced that in a collaborative manner we have the power to make things happen, we combined innovation and technology, which have always characterized Efacec, and a greater (internal and external) collaboration, putting in motion a strong commitment to open innovation. Thus, **hop.in**, *home of open innovation* was born. This is the Efacec's open innovation strategy, which aims to attract greater creativity, complementary technological skills and out-of-the-box perspectives outside the Efacec ecosystem. The Technology Management area coordinates the definition of Efacec's medium and long-term technological strategy across all Business Units, defining and guiding technological purposes and strategic synergies throughout the internal and external ecosystem, including Clients, partners and Suppliers, SMEs and start-ups, Research Centres and Universities. In this spirit, the definition of the technology and innovation strategy is based on contributions from different sources:

- Current and future needs of Clients and the market sectors in which Efacec operates;
- Evolution of competition, based on technological radar and benchmarking;
- Market development, including technological trends;
- Society requirements and macro trends;
- Internal analysis, namely skills and abilities;
- New business areas: synergies and clusters of skills and development.

VISION FOR TECHNOLOGICAL INNOVATION

At Efacec, Technological Innovation begins by a multidisciplinary team addressing a need experienced by Clients or of a future challenge/opportunity.

This internal endogenization process of vast and complementary technical skills is supported by a strong internal investment in Research and Technological Development (R&TD) and supplemented by a continued technological cooperation policy with leading entities at a global level. It is through innovation that Efacec today develops the right solutions for tomorrow's needs, keeping in mind the energy transition and decarbonisation for a better and more sustainable world.

The Technological Innovation and R&TD strategy focuses on balance and sustainability in the distribution of resources, based on the 70-20-10 principle: 70% of incremental innovation (to keep the current portfolio updated), 20% invested in exploratory activities (for the creation of new solutions in exploratory areas) and 10% allocated to disruptive innovation (seeking to reach future opportunities and create greater differentiation factors for solutions made available).

EFACEC'S TECHNOLOGICAL PARTNERS

- Startups HCapital New Ideas and HiSeedTech Association;
- National Innovation Agency (ANI), Portuguese Agency for Investment and Foreign Trade (AICEP), Foundation for Science and Technology (FCT), Business Association for Innovation (COTEC), Cluster TICE.pt, European Space Agency (ESA) and European Commission;
- Universities, Polytechnics and other Schools in Portugal and Europe;
- Research Centres, Technology Transfer Centres, in Portugal and in Europe;
- Collaborative Laboratories and Technical Laboratories;
- Industrial and business partners;
- City councils, municipalities and associations of energy users;
- World Energy Council, Future Energy Leaders and Portuguese Association of Energy.

4.2.1. Activities and indicators

Important growth in technological development activities, having started eight new R&TD projects with external incentives.

	Our 2020 goals	Our progress
Technological intensity (Inv. in R&TD/ Revenue)	**3.5%**	**3.1%**
Number of entities with technological and scientific cooperation		> 50
Number of strategic R&TD with external partners		25
Number of PhD programs in progress		7
Number of technical papers published		> 30
Number of patents (active or under analysis)		57
Number of participations in *Startups* (*venture capital*)		4

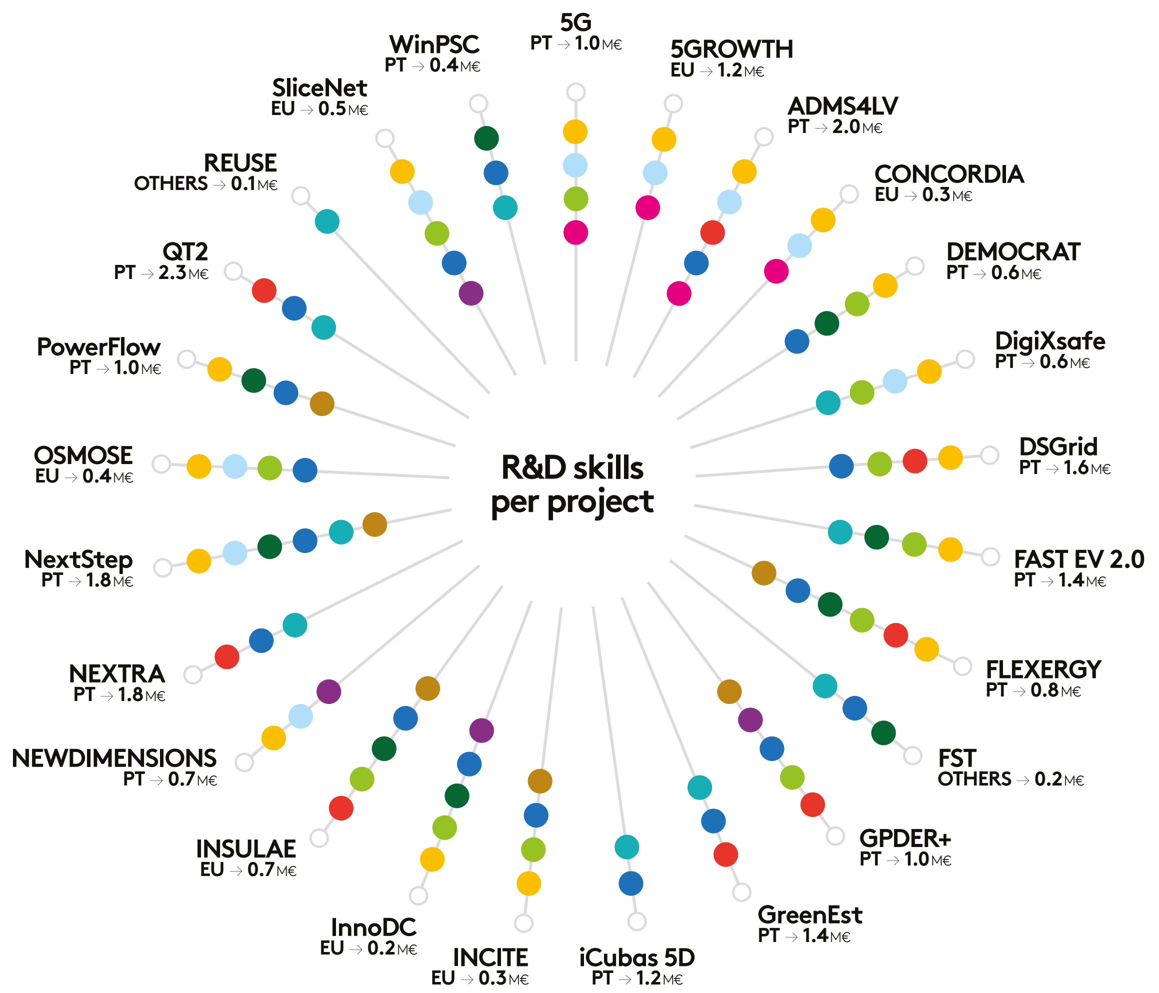
The creation, in 2017, of the **Efacec Technological Radiomap** (ETR) introduced a practical methodology, which we consolidated throughout 2018 and 2019, of strategic definition of the key Technological Innovation activities with a horizon of five years. This occurs in a collaborative and substantiated way in the Strategic Technological Development Plans (PEDT) of each Business Unit, which results from a participatory structured process of the various functional areas of business.

In 2019, there was an important growth in the technological development activities, with **eight new R&TD projects with external incentive having started**, resulting in a total of **25 R&TD projects under execution**. This significant increase is the result of the strong and continued focus on expanding Efacec's R&TD ecosystem and diversifying sources of incentives for R&D.

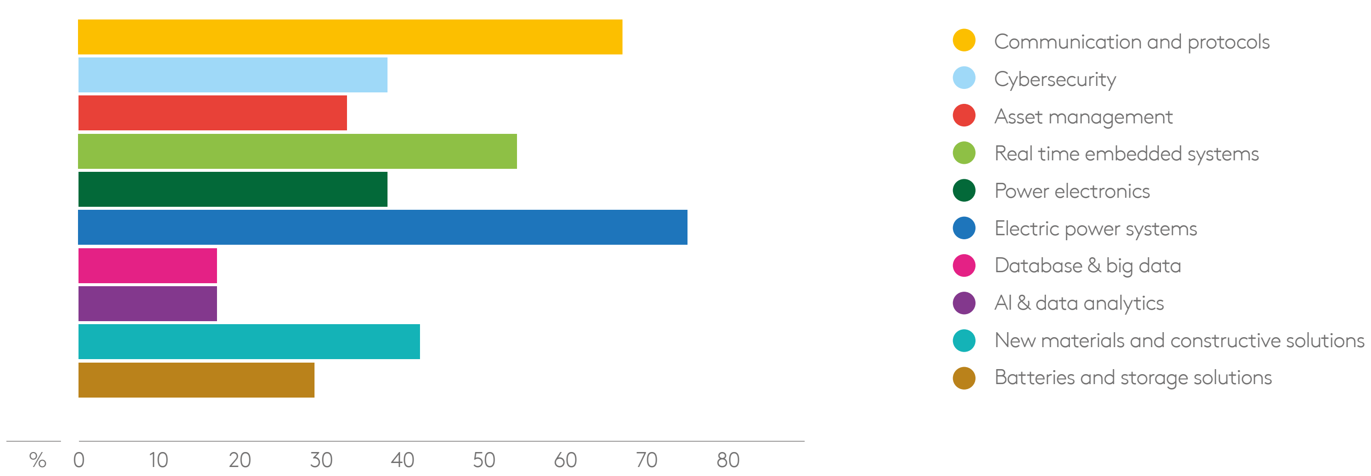
The rate of success in the approval of R&TD projects with external incentives for technological development and innovation, at European and National level, also remained high and well above the general average of these programs. Efacec's commitment to R&TD and innovation activities has resulted in a growth in Technological Intensity, with the total investment in R&TD activities in 2019 reaching **3.1% of the year's revenue volume**.

2019 was also marked by the formalization and start up of the Collaborative Lab (CoLAB) **VASCO DA GAMA – Armazenamento de Energia**, which is led by EFACEC and has the following associates: UP/FEUP, IST, INESC-TEC, VisBlue Portugal, C2C-NewCap, EDP Inovação, A400 and UPTEC. The new CoLAB focuses on the design and development of innovative technological solutions, on an international scale, for energy storage exploring complementary technologies, and is based on a new cooperation model between Companies and the National Scientific and Technological System, supported by FCT.

› R&TD Skills Map



› Intensity of skills
Allocation to ongoing projects



Incentive System for the Intellectual Property Management System

The digital platform - Balcão de Inovação Tecnológica (BIT) (Technological Innovation Office) was created in 2017 aimed at the ideation and consolidation of R&TD initiatives across Efacec.

The Intellectual Property Management System (SGPI), which is an on-line tool designed to facilitate the preparation, registration and management of Efacec's Intellectual Property (IP) is part of the new services powered by BIT.

In 2019, an Incentive System was approved, which provides for the award of Recognition Awards, both pecuniary and non-pecuniary. The main objective of this Incentive System is not only to reward and encourage the innovative capacity of our teams, but also to recognize the intellectual effort and dedication as essential factors in the creative process, privileging and rewarding the group or the person who creates and safeguards Efacec's Intellectual Property, ensuring the value generation.

2018
→ 2 patent applications
→ 3 patents published

2019
→ 1 patent application
→ 2 patents published

Total*
→ 57 patent application
→ 37 patents published

*Applications > BIT > SGPI since 2000

The bet on new technological areas with strong future potential in the construction of electrical power grids and sustainable mobility systems has been continuously strengthened.

In 2019, there was a clear strengthening of technological initiatives of *Digital Asset Management*, in Power Electronics for Electric Grids, in Micro-Electric Grids and in Custom Eletric Mobility Management.

The creation of a culture and a mindset for extended innovation, promoting internal entrepreneurship and facilitating the way new projects are proposed was one of the action focuses of Technology Management in 2019. The systematic use of the **Technological Innovation Office** (BIT) digital platform was the starting point for an efficient and effective operational management of Technological Innovation Proposals at Efacec, from the ideation to the conclusion of their implementation, as well as the regular assessment of their potential impacts and closure of the R&TD project.

The BIT is increasingly the platform where the Incentive and Collaboration Opportunities with the greatest potential for achieving the strategic objectives of the Business Units' technological development are made available, in addition to a historical repository of information, key documents and performance indicators related to technological innovation initiatives. Also the **Intellectual Property Management System** (SGPI), as an integral part of the BIT, strengthened its key role in promoting the registration and protection of Intellectual Property (IP) in a unified manner at Efacec.

Digital asset management

Efacec participations in start-ups

Start-up	Business/Product description	SUPPORT AREA
ENEIDA	Smart sensors and collaborative IoT platform (with machine learning algorithms) for management and monitoring of electrical power grids (typically for Low Voltage power grids)	IoT /Energy
OmniFlow	Smart energy generation platform (wind and solar) for IoT, in the context of the Smart Cities & Territories	IoT /Smart Cities
GLAREVISION	Software solutions to optimize the maintenance processes of industrial equipment, highlighting the use of Augmented Reality in the user interface	Industry /Augmented Reality
LOQR	Digital identity management platform that allows Clients onboarding in a quick, easy and compliant manner, through identity check and digital contract signing	Cybersecurity/ Software as a Service

3D model related to the iCubas 5D R&TD project

2019
Featured projects

4.2.2 Technological projects of the year

Pursuing its strategy of providing Clients with more valuable and more comprehensive technological solutions, Efacec strengthened its commitment to more ecological, efficient and sustainable digital solutions, exploring synergies between multiple existing technological and engineering skills.

Medium and Low Voltage Networks

In the electrical power grids, the low and medium voltage power grids segment has been particularly dynamic through complementary R&TD initiatives that had important milestones in 2019. Examples of this are the **ADMS4LV** projects (integrated management system for low voltage power grids with more assets and greater complexity) and **POWERFLOW** (innovative flow battery technology that could be a competitive alternative to the use of lithium ion batteries) that were completed and feature high potential technologies.

Under the **DEMOCRAT** project, a solution was developed and a technological demonstrator was built at Efacec's hub in Maia: an integrated micro-network solution that includes solar generation and energy storage in lithium batteries. Also within the electrical power grids scope, the bet on digital asset management of electric continued aiming at developing more efficient technological solutions and higher value services, thus enhancing the performance optimization and the predictive maintenance of each asset. More and better digital solutions of and for critical assets are being developed, thus, ensuring a more effective and efficient management of the power grids where they operate.

High Voltage Networks

The high voltage segment is also experiencing very interesting and equally challenging times, in which digitization, full life cycle management and network resilience are particularly important. In 2019, two complementary and very relevant R&TD projects were completed: the **iCubas 5D** (advanced integration of calculation and engineering tools- a first phase of a digital twin of Power Transformers) and the **DSGRID** (digital substation solutions, advanced to international level).

Mobility and Transport

In the scope of Transport, the **DigiXSafe** and **NewDimensions** projects continued at a good pace. At DigiXSafe, the development of an innovative barrier mechanism with a high level of intrinsic safety for level crossings was completed and the respective industrialization process began, with the first demonstrator prototype being built. With regard to the NewDimensions, its implementation proceeded aimed at optimizing the operation of public transport systems, exploring the potential of machine learning and artificial intelligence technologies to increase the global quality of services made available to the user.

In the area of Electric Mobility, the development of technological solutions with high future impact continued in the scope of the **Fast EV 2.0** project, including charging solutions for very high power electric vehicles and advanced smart charging solutions for smart interaction between the charging systems and the electric network.

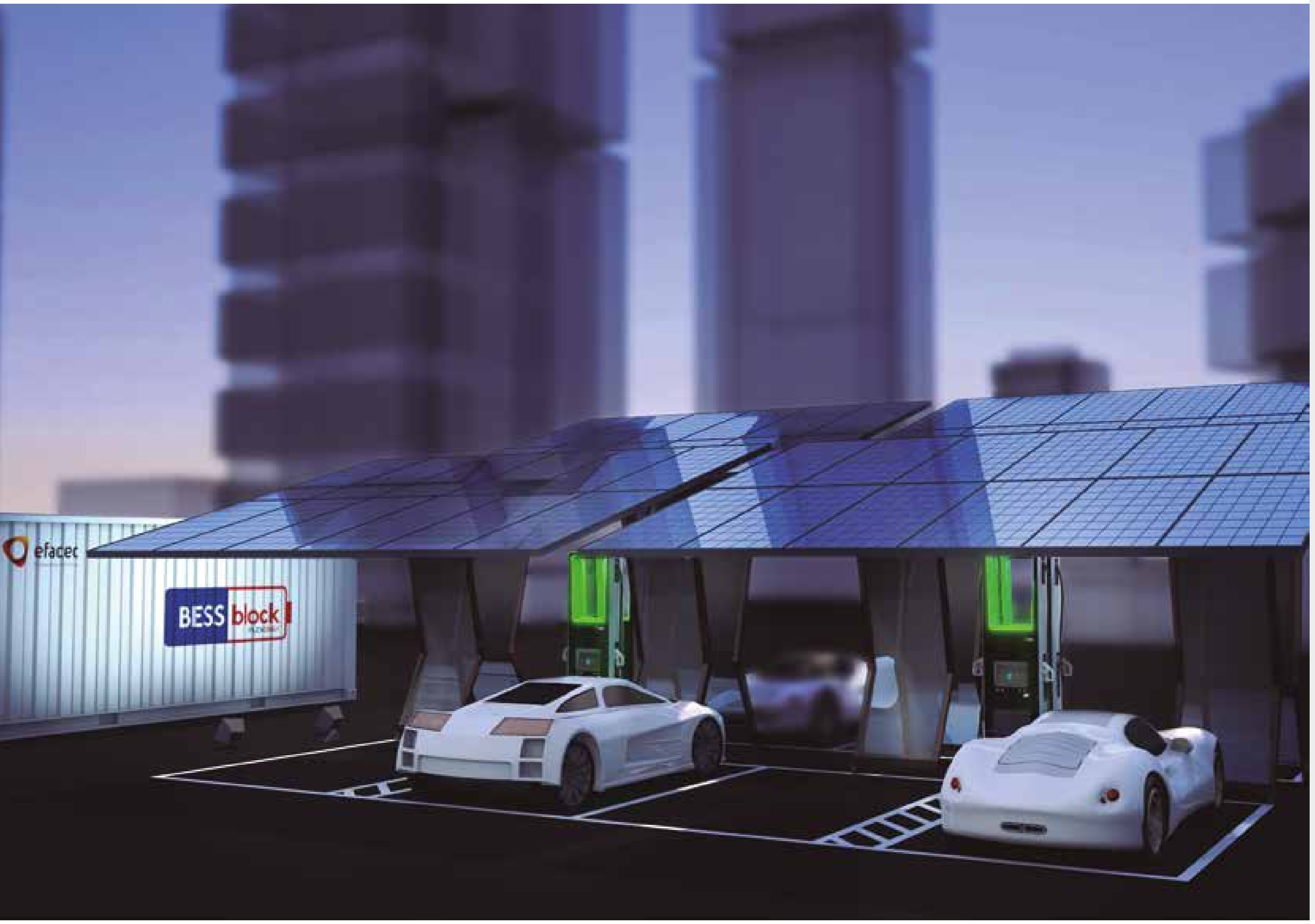
eHUB

In 2019, Efacec introduced an innovative technological solution with a high potential for application in future electrical power grids, called Energy Hub - eHUB.

It is a flexible and scalable solution based on digital orchestration platform, capable of simultaneously managing all the assets of the "local energy community".

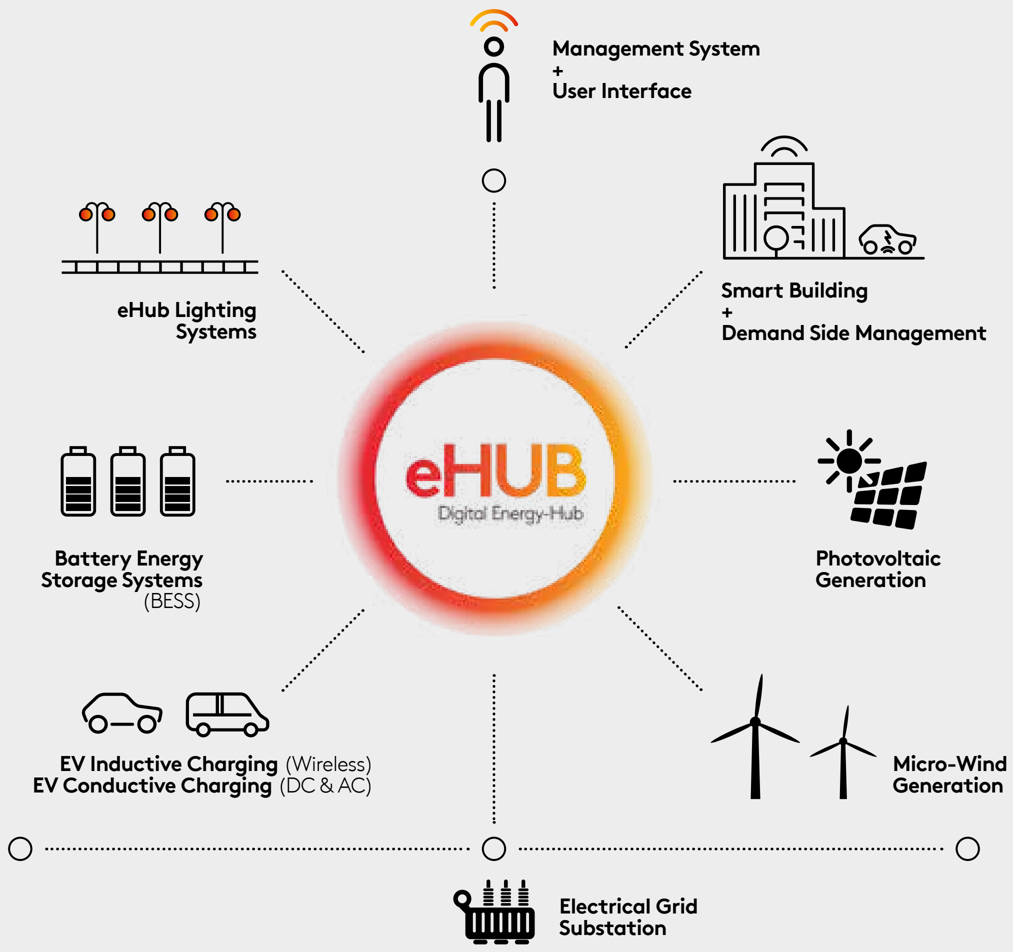
Its concerted performance optimally combines local production (preferably renewable), storage, management of specific consumptions (such as electric vehicles charging systems) and a smart secondary substation to interact with the power grid, to respond optimally to energy needs and leverage new revenue streams.

e-HUB solution



The path to the future is sustainable!

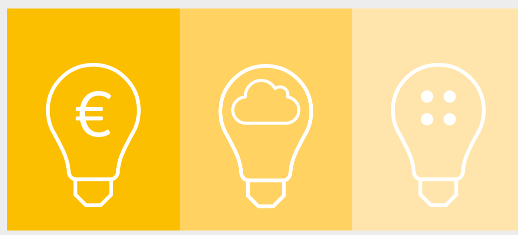
Strengthening our commitment to the United Nations' Sustainable Development Goals and our purpose "Create a smarter future for a better life", the **eHUB** solution was launched, which is Efacec's **Digital Energy Hub**.



The world as we know it is evolving and changing rapidly. With growing ambitions to meet climate goals and other sustainability-related objectives, defined by the Paris Agreement and the United Nations, governments have adopted policies and measures to encourage the use of renewable energy and the use of electric vehicles.

The result? A zero emission decarbonised future. In parallel with the sustainable goals set, the digital industrial transformation, which is emerging all over the world, is also forcing different Stakeholders to keep the supply of electricity on top of their agendas.

The need for a clean and safe energy source, with high levels of availability and reliability, at reduced costs, is increasing on a daily basis.



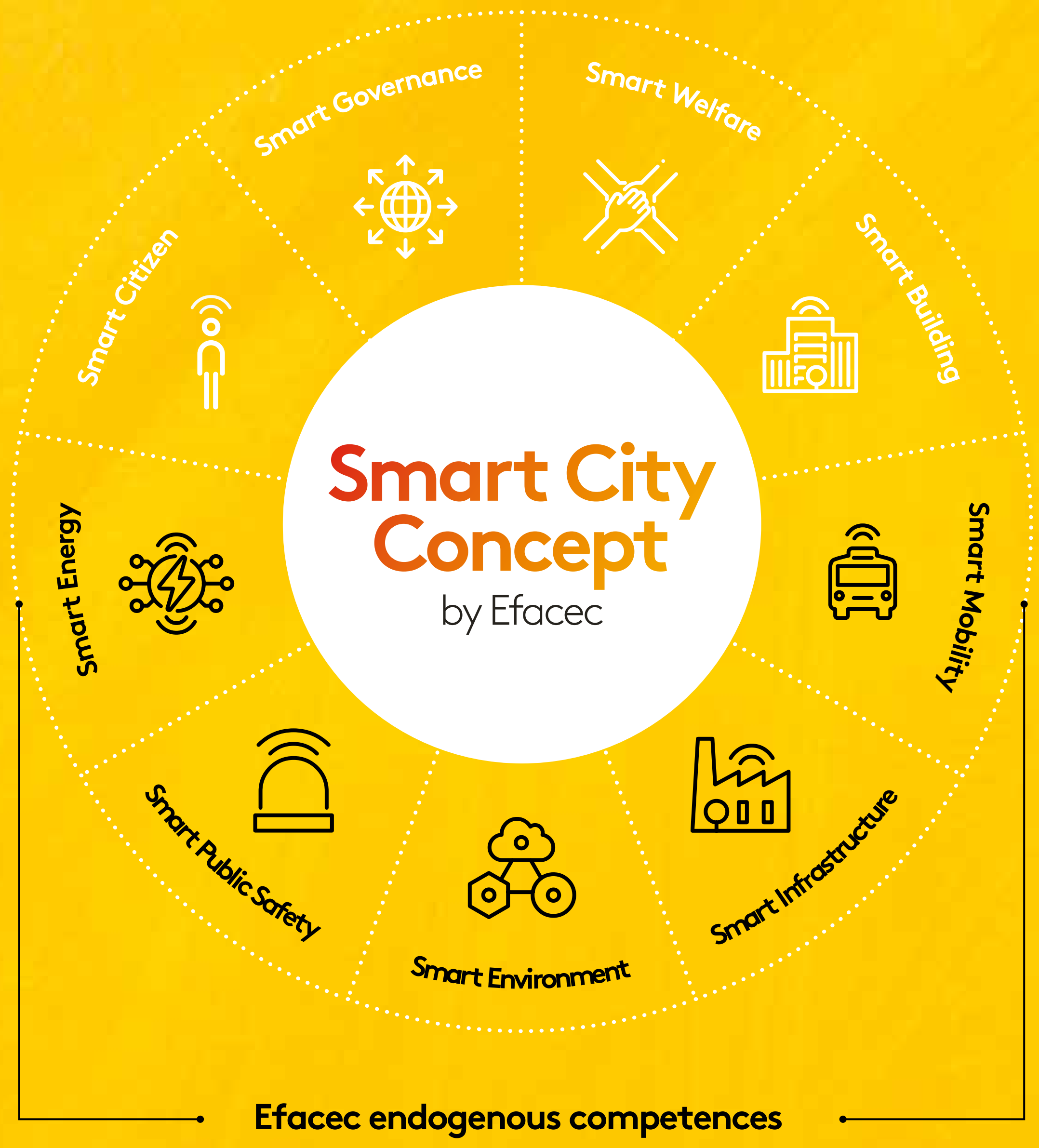
Reduce Costs

Availability Trust Supply

CO_2 reduction

EFACEC's VISION OF THE SMART CITY CONCEPT

Efacec actively contributes to the development of solutions for smart cities, creating the Smart City Concept by Efacec: a smart ecosystem, capable of integrating different technologies and systems present in cities. This ecosystem for collecting, processing and correlating updated information from all subsystems acts in a symbiotic manner to make real-time decisions.



For Efacec, there is the concept of urban sustainability, in which all infrastructures and equipment are monitored and linked to an operation and command centre, through communication systems, for the collection and processing of data, some of them in real time, in order to be able to operate efficiently and in a coordinated manner across all urban infrastructures.

Each of these vertical subsystems has specificities and maintains the appropriate autonomy for optimal operational functioning. However, each one contributes with necessary information for the global operational optimization of the entire city's ecosystem, which is developed around the requirements of the population, evolving and adapting to their needs. Working with each municipality to develop solutions that create value and well-being and that reduce energy dependency is Efacec's major objective, presenting this concept in a unified and comprehensive manner to highlight the added value of our multiple skills.

For Efacec, a smart city comprises smart solutions for the government, well-being, buildings, mobility, infrastructures, environment, public security, energy and citizen areas. The concept of smart city also maps the areas where Efacec has created differentiating solutions: Energy, Environment, Mobility and Digital Connectivity.

What opportunities does the future bring to urban mobility?

The seminar "The Future of Energy in Smart Cities" organized by the Portuguese Association of Environmental Technology Companies (APEMETA) took place on 1 October 2019.

Efacec, one of the world leaders for electric mobility solutions and a reference for the integration of different solutions, was one of the invited players to discuss the emerging opportunities for urban mobility in smart cities.

5GROWTH

The **5Growth** project integrates the third phase of H2020 5G, which is a public-private partnership initiative infrastructure aimed at empowering vertical industries with automated and smart 5G solutions. The 5Growth aims to validate, through pilots in a real environment, the performance of the future 5G system in vertical industrial segments, optimizing its performance and using automation and Artificial Intelligence (AI) solutions. Vertical pilots will be tested in four different locations in Spain, Italy and Portugal, covering 9 use cases, in 3 pilot sectors (Industry 4.0, Transport and Energy).

The project, started in June 2019, is led by a consortium of 21 partners from seven European countries and will last for two and a half years, extending until the end of 2021. The consortium includes global Suppliers (Ericsson, InterDigital, NEC and Nokia), operators (Altice, Telecom Itália and Telefónica), vertical industries (COMAU, Efacec and INNOVALIA), SMEs (Mirantis, Nextworks and Telcaria) and research centres and universities (CTTC, Telecommunications Institute, National and Kapodistrian University of Athens, Polytechnic University of Torino, Scuola Superiore Sant'Anna and University Carlos III de Madrid).

The main objective of Efacec's participation, through the Transport and Automation businesses, is the technical validation of the use of 5G technological solutions to support the operation of critical systems, developing the required technical changes and demonstrating technological pilots in a real environment, in order to boost new opportunities for exploring products, services or even new business models. Within Efacec, the project will end with the demonstration of i) operation of a level crossing using 5G communications on the railway line to the Port of Aveiro and ii) operational management of a small low voltage electrical network supported by 5G communications, in the campus of University of Aveiro.

21 Partners
7 Countries

The project, which started in June 2019, will run until the end of 2021

Innovation and Sustainability highlighted at the Technology Community Day

The third edition of the Technology Community Day took place at Porto Business School on 26 September.

The event featured topics such as technological innovation, the future and sustainability. At the event, which brought together more than one hundred Efacec employees, the technological projects that stood out in 2018/19 were presented by each Unit's ambassadors.

4.2.3. Expectations and plans for 2020

2020 will certainly be a year of great challenges in terms of technological innovation, and Efacec has today a wide range of external incentives to a significant number of strategic R&TD projects.

Lançamento da plataforma digital Hop.in

In this context, we will be implementing about **25 R&TD projects in cooperation** with national and international industrial, technological and scientific partners, which will allow us to continue with the development of differentiating and innovative technological solutions on an international scale.

The areas of particular focus on technological development for 2020 are:

- Integrated energy storage systems;
- Efficient operational management of low and medium voltage electrical power grids and micro-grids;
- Digital modelling of critical assets and their technical and functional optimization using numerical simulation;
- Digital asset management and performance optimization throughout the life cycle;
- Advanced equipment and systems for electrical power grids, using power electronics;
- More environmentally friendly and more sustainable technological solutions;
- Smart solutions to support the operation of mobility systems for people and goods;
- Super-fast DC electric charging systems and smart charging solutions that prevent additional investment in the local power grid.

The launch of the digital platform to support Efacec's open innovation strategy, hop.in, in the first quarter of 2020, will be a very important milestone and a clear sign of the company's greater openness to cooperation, creativity and the sharing of ideas and of challenges with the technical and scientific community in the search for the most advantageous solutions for Clients in the different sectors in which the company operates.

4.3. Economic and Financial Performance

The objective of this chapter is to address the main aspects with financial impact on the Efacec Power Solutions (EPS) Group in 2019, namely with regard to the Group's activity this year, the evolution of its financial situation and the financing policy adopted.

The indicators used are based on reports to the Mangement Bodies that regularly monitor EPS activity (which we call management information). The concepts used in this context differ, in the formation of the result, from the accounting criteria followed in the financial statements. The overall result is obviously the same. This information considers, as in the financial statements, the discontinuing of the Environment & Industry (AMB) Business Unit (BU), whose impacts are presented separately in the Notes to the Accounts (note 4.3) and, briefly, later in this chapter.

For a better understanding of the figures presented in this analysis (management information), compared to the numbers present in the Income and Financial Position Statements (statutory information), a reconciliation of the main indicators presented is included at the end of this chapter.

Analysis of the activity in 2019

The activity in 2019 was strongly marked by the significant increase in the managed working capital (working capital excluding Suppliers) during the first half of the year. This increase caused a **huge pressure on the treasury, creating a negative cycle, with delays in the supply chain** and a corresponding impact on the execution, definitely compromising the performance of the fourth quarter, which historically represents 40% of the Group's annual activity and, thus, justifying the negative deviations compared to 2018, presented in this chapter.

This effect of managed working capital, and the consequent impact on treasury, is explained by the following factors:

- Delays in starting/executing contracted projects, namely Kahramaa (Qatar), Kahrakib (Algeria), Exus (Portugal) and Allego (The Netherlands), in general for reasons external to the company that are mapped, treated and addressed; when the delay occurs, Efacec had already invested resources in the projects, generating a combined effect of 31 million euros (approximately 50%) in the increase in the managed working capital;

- Blocking of strategic projects in Luachimo (Angola) and Kahramaa (Qatar), which caused a delay of 59 million euros in billing/receipts;

- The effort made to improve the geographic and risk profile of EPC (*Engineering, Procurement and Construction*) Clients and delay in the *Notice To Proceed* of some of these projects postponed and reduced the entry of advances (cash *effect*), impacting the typical positive *cash-flow* dynamics and causing a 30 million euros reduction in "Advances from Clients".

It should be noted, however, that this trend to increase the managed working capital began to be reversed during the last two months of 2019, and in December there was even a reduction compared to the same period in 2018. In this chapter, we will analyse, in the Financial Position Statement, the changes in the main working capital headings, where we can see that, at the end of the year, it was possible to make an important recovery in the Clients' debts that contributed a lot to this effect.

By analysing the main headings of results, we can conclude that, during 2019, EPS reached **orders** in the amount of 355.2 million euros, 23% lower than in the preceding year (17% without the discontinuing of AMB), with only the Transport (TRP) BU showing a positive deviation. The main negative contributions occurred in the Transformers (TRF), Automation (ASE), Electric Mobility (EEM), Equipment (AMT) and Service (SRV) BUs.

The **revenues** in the amount of 355,7 million euros represented a 18% reduction compared to the preceding year (14% without the discontinuing of AMB), which results from differentiated developments in the several BUs of the Group (described in this Report, in the chapters dedicated to each BU). The main negative impact occurred in the Energy (ENE) BU, with a reduction of around 40 million euros The TRP and EEM BUs, in turn, had a positive evolution in terms of revenues.

The international market continues to have a fundamental importance in the business, representing 75% of the orders and revenues in the financial year. The European and North American markets (in line with the Group's strategic orientation) have been gaining increasing importance, and that are of particular and additional demand for the BUs that carry out their activity there.

Million euros

	2018	2019	Δ	Δ%
Orders	461.3	**355.2**	-106.1	-23%
Revenues	433.2	**355.7**	-77.5	-18%
Direct costs	-336.4	**-281.2**	55.2	-16%
Gross margin	96.8	**74.5**	-22.3	-23%
Indirect costs	-55.6	**-52.5**	3.0	-5%
Other results	0.0	**0.0**	0.0	n.a.
Management EBITDA	41.2	**22.0**	-19.2	-47%

Management EBITDA, used to measure the performance of the Group and each BU, is obtained by deducting direct and indirect costs from revenues:

- **Direct costs** group all the cost elements allocated to projects or manufactured products (materials, direct labour, outsourced services, general charges and expenses directly related to sales), operational exchange rate differences and other costs necessary for operational activity (quality , logistics and product development). The deduction of direct costs from revenues determines the **gross margin** (GM), whose average value in 2019 was 21.1% compared to the 22.3% recorded in 2018. The fall in GM is affected by 1.3 million euros due to the reduction of positive exchange rate differences, compared to 2018.

- **Indirect costs** essentially include structural costs, comprising commercial, administrative and management functions, and their reduction is essentially related to the discontinuing of the AMB BU (-5.6 million euros).

The management EBITDA, unlike the statutory EBITDA, does not include non-recurring headings (see section on the reconciliation of the main indicators at the end of the chapter)

In 2019, the Group's **management EBITDA** fell 47%, to 22 million euros, representing an EBITDA margin of 6.2% of the turnover, compared to 9.5% in the preceding year. This reduction resulted essentially from a decrease of 22.3 million euros in MB resulting from the reduction in activity previously mentioned that did not allow to cover, in the same proportion as in 2018, the amount of structural costs. This reduction in EBITDA occurred in general in all BUs, with special emphasis on TRF (deterioration of MB%) and AMT (deterioration of MB% and reduction in revenues). The TRP BU managed, in this year, to increase EBITDA compared to the same period last year (improvement of MB% and increase in revenues).

Million euros

	2018	2019	Δ	Δ%
Management EBITDA	41.2	**22.0**	-19.2	-47%
Costs with contract terminations	-2.9	**-1.5**	1.5	
Extra-operational results	-1.0	**5.9**	6.8	
Statutory EBITDA	37.3	**26.4**	-10.9	-29%
Amortization and depreciation	-10.1	**-14.2**	-4.1	
Provisions	-9.7	**-23.7**	-14.0	
Net financial costs	-4.0	**-10.0**	-5.9	
Result before taxes	13.4	**-21.6**	-35.0	-260%
Taxes	0.7	**-0.4**	-1.1	
Discontinuing activities	0.0	**-6.8**	-6.8	
Consolidated net profit/loss for the financial year	14.1	**-28.8**	-42.9	-304%

The amount of Extraoperational Results in 2019 essentially includes debits to MGI Capital (of a nature provided for in the *Transition Agreement* – TA – of October 2015), related to the derecognition of a Deferred Tax Asset (DTA) following a correction made by the Tax Authority (TA), in an inspection of the activity of the Complementary Grouping of Companies (CGC) Ensul Meci. The consequent negative impact of approximately 5.5 million euros on Deferred Tax Assets (DtA) held by EPS, plus 0.7 million euros of current tax, generates, with this entry, an extra-operational profit in terms of the Group's statutory EBITDA of about 6.2 million euros.

The 14 million euros increase in **provisions** recorded in 2019, compared to 2018, results mainly from: i) provisions for contingencies in projects in the Systems BU (ENE and TRP) and ASE; ii) provisions for repairs in the warranty period in some BUs and iii) the need to record Clients impairments.

Financial **costs** increased by 5.9 billion euros:

Million euros

	2018	2019	Δ	Δ%
Interest on gross debt (*all-in*)	-3.3	**-4.3**	-1.0	30%
Financial guarantees	-1.6	**-1.5**	0.1	-5%
Factoring *discounts*	-0.7	**-1.4**	-0.7	95%
Banking services expenses	-0.6	**-0.8**	-0.3	50%
Other net income/losses	2.7	**-1.1**	-3.8	-141%
Subtotal *cash*	-3.5	**-9.1**	-5.7	162%
Amortized cost (impact in result in 2019)	-0.5	**-0.8**	-0.3	
Financial charges	-4.0	**-10.0**	-5.9	148%

The heading other income/net financial net losses is influenced, in 2018, by a gain of 3 million euros in exchange differences, resulting from an investment in Angolan Treasury Bonds (TB), indexed to the US dollar.

The heading interest also increased, as a result of a higher average gross debt (increase of 24.6 million euros in December, compared to the same period in 2018).

The Group's **result before taxes** fell from 13.4 million euros in 2018 to 21.6 million euros in 2019, mainly due to the previously mentioned reduction in EBITDA.

The Group's **net result** was -28.8 million euros in 2019 (without the effect of IFRS16, which includes -6.8 million euros from the AMB BU, which is being discontinued), compared to a positive amount of 14 million euros in 2018.

The main indicators of the AMB BU, which is being discontinued, are the following:

Million euros

	2019
Orders	26.3
Revenues	18.5
Gross margin	1.5
Management EBITDA	-4.2
Costs with contract terminations	-0.3
Statutory EBITDA	-4.5
Result before taxes	-6.8

At the end of 2019, the Group's **consolidated assets** were 732.1 million euros and **equity** was 277.3 million euros, with the **financial autonomy** ratio having achieved 38%.

Million euros

	2018	2019	Δ	Δ%
ASSETS	**730.6**	**732.1**	**1.5**	**0%**
major headings and changes				
Tangible and intangible assets	168.7	**189.9**	21.2	13%
Deferred tax asset	59.7	**60.9**	1.2	2%
Stock and inventory	36.9	**36.0**	-0.8	-2%
Accrued income	105.3	**112.9**	7.6	7%
Trade	167.6	**105.6**	-61.9	-37%
Cash and cash equivalents	38.2	**51.1**	12.9	34%
LIABILITIES	**414.4**	**454.8**	**40.4**	**10%**
major headings and changes				
Debt to credit institutions	94.7	**119.3**	24.6	26%
Suppliers	112.7	**125.7**	12.9	11%
Other creditors and accrued expenses	66.0	**53.7**	-12.3	-19%
Income to be recognized	53.6	**54.1**	0.5	1%
EQUITY	316.2	**277.3**	-38.9	-12%

The preceding table highlights the most relevant balance sheet headings, with a **tangible and intangible asset** increasing 13%, mainly through investments in development, certification and homologation projects, and also through the implementation of a new ERP. **Clients debts** showed a sharp reduction, of around 37% (30% without the discontinuing of AMB), following the trend presented in recent years, as a result of the new collection policy established in this period. The increase in the heading **accrued income**, from 105.3 to 112,9 million euros, results essentially from a higher level of project execution compared to the invoicing that was possible, namely in the ENE BU (this heading has deserved special attention and monitoring, per BU, since the end of 2019, and strengthened in 2020).

The amount recorded in the heading **deferred tax asset** includes the tax effect of 44 million euros recorded by Efacec Energia in 2014, as a result of the sale of assets held by the subsidiary PTI, in the USA. In 2016, PTI was settled, and the effective loss already recognized in previous years materializing and allowing, from that year, the use of the corresponding tax credit.

On the liabilities side, the largest variation was recorded in the heading **Suppliers**, which increased by 11%, essentially due to the need to extend the average payment terms, given the previously mentioned treasury challenge. Gross **financial debt** increased by means of the (i) repayment of additional paid-in capital in the amount of 5 million euros (*cash out*), (ii) investment in fixed assets and development projects and (iii) repayment of shareholder loans to partner Winterfell 2 Limited, in the amount of 5 million euros. The heading **other creditors and accrued expenses** presents around 7.8 million euros of debts to shareholders, mainly due to the distribution of additional paid-in capital decided at the General Meeting and whose payment and/or offsetting of accounts has not yet been made.

Million euros

	2018	2019	△
Equity at the beginning of the year	345.7	**316.2**	-29.5
Capital increase/decrease	-5.3	**0.0**	5.3
Supplementary capital contributions	-24.4	**-11.5**	12.9
Net profit/loss	14.1	**-28.9**	-43.0
Other changes	-13.9	**-10.6**	3.3
Equity at the end of the year	316.2	**265.2**	-51.0

Equity was reduced by about 38.9 million euros resulting mainly from the:

i. Negative impact of net income of 28.9 million euros (with IFRS16);

ii. Unfavourable currency conversion effects in the amount of 7 million euros reflected in "Other changes", resulting from the transposition of the balance sheets of foreign Subsidiaries, which in 2019 had the effect of the strong depreciation occurred in the Kwanza and the Argentine Peso, in line with the provisions of IAS 21, described in the Notes to the financial statements.

In terms of financing, the **net debt** included in the Financial Position Statement at 31 December 2018 and 31 December 2019 was as follows:

Million euros

	2018	2019	△	△%
Financial debt	95.6	**121.1**	25.5	27%
Cash and cash equivalents	-38.2	**-51.1**	-12.9	34%
Financial leasing	0.0	**0.7**	0.7	
Net financial debt	57.4	**70.7**	13.2	23%
Amortized cost	-0.9	**-1.8**	-0.9	101%
IFRS16	0.0	**9.0**	9.0	
Balance sheet net debt	56.6	**77.9**	21.4	38%

During 2019, the Group increased its **financial debt** by 25.5 million euros. The maturity of the medium and long term bank debt extends until 2022, with the bond loan being repaid in 2024 (see the EPS Group's financing policy). The average cost of the Group's debt at the end of 2019 was 3.6%, against 3.5% in the previous year.

At the end of the year, the Group's Financial Position Statement presented **net financial debt** in the amount of 70.7 million euros, which represented a 13.2 million euros increase compared to 2018.

Million euros

	2018	2019	Δ	Δ%
Initial net financial debt	40.9	**57.4**	16.5	40%
Management EBITDA	41.2	**22.0**	-19.2	-47%
AMB discontinued (EBITDA)	0.0	**-4.2**	-4.2	
Capex	-21.3	**-23.1**	-1.8	
Change in the working capital [1]	-7.8	**38.6**	46.4	
Other headings [2]	-9.5	**-20.2**	-10.8	
Operational cash-flow	2.6	**13.0**	10.4	405%
Financial charges [3]	-3.5	**-11.1**	-7.6	
Other entries [4]	-15.6	**-15.2**	0.4	
Net debt reduction	-16.5	**-13.2**	3.3	
Final net financial debt	57.4	**70.7**	13.2	23%

› Notes

		2019	
1	Working capital *	-38.5	Change in the working capital cf. Balance Sheet
		-4.3	Working capital 2019, discontinuing of AMB
		-2.6	Extraoperational
		-5.0	Difference between amounts to be distributed and amounts paid to shareholders, in the year, reclassified to 'Other movements' (4)
		2.8	Clients impairments constituted in 2019
		2.1	Accounting for current taxes
		7.0	Currency conversion differences and others
		-38.6	
2	Other headings	**-20.2**	*Cash-out* related to the use of provisions
3	Interest	-4.3	Interest on gross debt (*all-in*)
		-4.8	Other financial costs
		-9.1	**Sub-total P&L**
		-0.3	Discontinuing of AMB
		-1.8	Amortized cost (new financing)
		-11.1	
4	Other entries	-5.0	Additional paid-in capital
		-5.0	Shareholder loans
		-2.9	Restructuring costs
		-0.3	AMB restructuring costs
		-1.9	Other costs
		-15.2	

* The working capital essentially includes the headings Trade, accrued income, stock and inventories, Suppliers and deferred income. In the management report, non-operating items are disregarded. Despite the increase in the managed working capital during the first half (with a negative impact on the Group's activity in the last quarter), the figures in the Financial Position Statement, in December 2019, show a reduction in the consolidated working capital (in perspective) of 38.6 million euros compared to 2018 (including the AMB BU's flows in 2019). This effect was essentially due, as previously mentioned, to the strong reduction in the heading Trade in the amount of 48.5 million euros, due to collection, with an increase in suppliers and deferred income around 19.3 million euros and a reduction in accrued costs in projects of 10.3 million euros having also contributed, although to a less significant extent.

EPS Group financing policy

The financing policy established for the Group determines that the medium/long-term debt, and the majority of the short-term debt, should be concentrated mainly in Portugal, with companies abroad being able to keep some credit lines to support possible treasury needs.

2019 was marked by the refinancing of a significant part of Efacec's debt, extending its global maturity, and by the continuation of the process of diversifying financing sources, which began in 2017.

In fact, in July 2019, EPS issued a bond loan in the amount of 58 million euros, with a 5-year bullet repayment, and a fixed coupon of 4.5%. This loan was admitted to listing on the *Mercado Alternativo de Renta Fija* (MARF), in Spain, and totally placed with institutional investors, having been 64% of the amount placed in Spain and 36% in Portugal. For this issuance, EPS was assigned a BBB- rating by the Spanish rating agency Axesor.

The result of the bond issuance made it possible to repay, in advance, 39 million euros of the financing contract in force with a banking syndicate comprising Caixa Geral de Depósitos, Novo Banco and Millennium BCP, whose amount still owed, of the initial 90 million euros, was, at the date of issuance, 78 million euros. The remaining unpaid amount of this financing contract, 39 million euros, was subject to a change in maturities, and now 19.5 million euros must be repaid in October 2021 and October 2022 each year.

Thus, with the simultaneous completion of these two operations, the large majority of the medium-term debt maturing in 2019 and 2020 was refinanced, significantly extending its maturity and diversifying the financing sources through a financial instrument for disintermediation.

Simultaneously, throughout 2019, several working capital financing operations were contracted with the relationship banks, adapting the short-term financing instruments to the Group's needs and the *cash-flows* generated by the operation.

Abroad, the operating companies maintained small credit lines to support the treasury, namely in Angola, Algeria, Spain and Mozambique. At 31 December 2019, 2.3 million euros were used in these lines (corresponding to 1.9% of total debt to credit institutions - see note 17 of the Notes to the financial statements).

Reconciliation of management indicators with statutory financial statements

The EPS Group analyses its performance on a monthly basis based on management accounts from a double perspective of: i) organization per BU and ii) functional formation of results. The economic and financial analysis of the consolidated accounts carried out herein is also based on this double perspective, and should therefore be analysed together with the consolidated Income Statement and the Financial Position Statement.

In a context of reconciling these management amounts with the statutory amounts, it should be noted that the Group still includes some *non-core* activities thus defined in the 2015 sales process, the evolution of which is not evidenced in the Group's regular operational management.

These activities relate to specific projects in the closing phase or to discontinued companies that, due to formal and legal issues, could not be separated from the companies that comprised them, continuing to be part of the EPS consolidation perimeter. Despite having a reduced expression, they represent part of the difference between the statutory financial statements and the management statements, influencing the Group's annual result. The impacts of these *non-core* activities will, however, tend to cancel out in the coming financial years.

Below you will find comments, justifications and respective 2019 figures that reconcile management accounts with statutory accounts (amounts in millions of euros).

Indicator	Management accounts	Statutory accounts	Difference	Justification
Revenues	355.7	353.6	-2.2	In its management accounts, the EPS Group adopts the concept of production carried out to report turnover, given that all of its activity is based on contracts and firm orders with Clients, with increases or decreases in production in progress being mere time deviations.
			-2.2	Production variation.
Statutory EBITDA	26.4	29.8	3.4	Management accounts do not include application of IFRS16. In the statutory accounts, EBITDA = Operating income + Amortization and depreciation + Provisions and asset impairment.
			3.4	IFRS16 effect.
Amortization and depreciation	-14.2	-17.4	-3.2	Management accounts do not include application of IFRS16.
Net financial costs	-10.0	-10.3	-0.3	Management accounts do not include application of IFRS16.
Result before taxes	-21.6	-21.7	-0.1	Management accounts do not include application of IFRS16.
Consolidated net profit/loss for the financial year	-28.8	-28.9	-0.1	Management accounts do not include application of IFRS16.

To complement the information in the table above, the main management and statutory headings for the year 2018 (million euros) are also reconciled.

Indicator	Management accounts	Statutory accounts	Difference	Justification
Revenues	433.2	426.6	-6.7	In its management accounts, the EPS Group adopts the concept of production carried out to report turnover, given that all of its activity is based on contracts and firm orders with Clients, with increases or decreases in production in progress being mere time deviations. The EPS Group includes some *non-core* activities, with a marginal contribution and which tend to be completely discontinued. These revenues are not considered for management purposes.
			-6.9	Change in production.
			0.2	Sales of *non-core* activities.

Individual EPS Accounts and Proposed Distribution of Profit/loss

Efacec Power Solutions is a Holding Company that owns, directly or indirectly, the financial investments of the EPS Group companies, to which it provides management services and leases space in its own properties for them to carry out their activities.

EPS's financial statements are prepared taking into account the historical cost convention, except for the financial assets and financial liabilities, and land that are accounted for at their fair value.

Revenues essentially come from management services provided to the subsidiaries and from the debit of rent for the use of space. The Income and Financial Position Statement are shown in the following tables in a summarized manner.

Million euros

	2018	2019	△	△%
Revenue [a]	5.8	**3.8**	-2.0	-34%
ESS	-3.8	**-3.3**	0.5	-14%
Personnel costs	-2.5	**-2.2**	0.3	-11%
Other net operating income	0.8	**0.2**	-0.6	-75%
Operating Income	0.2	**-1.5**	-1.8	-716%
Net financial costs	-2.8	**-4.4**	-1.6	59%
Losses/Gains in subsidiaries	16.4	**0,0**	-16.4	
Result before taxes	13.9	**-5.9**	-19.7	-143%
Taxes	0.5	**0.0**	-0.6	
Net profit/loss	14.4	**-5.9**	-20.3	-141%

[a] Amount related to the provision of management services.

Million euros

	2018	2019	△	△%
Assets	472.4	**486.3**	14.0	3%
major headings and changes				
Financial investments	375.3	**392.1**	16.7	4%
Loans to related entities	48.0	**33.6**	-14.4	-30%
Liabilities	132.6	**162.8**	30.3	23%
major headings and changes				
Loans from related entities	106.8	**60.1**	-46.8	-44%
Equity	339.8	**333.8**	-5.9	-2%

The reduction of equity is exclusively due to the negative contribution of the income for the financial year of 5.9 million euros.

Distribution of profit/loss

Considering that the net result for the financial year of 2019 was negative by 5,941,079.95 euros (five million, nine hundred and forty-one thousand, seventy-nine euros and ninety-five cents), the Board of Directors proposes, under the terms of applicable legal and statutory provisions, that the amount be transferred to results carried forward.

4.4. Subsequent 2020 facts and business impact forecast

In the first quarter of 2020, facts that were extremely relevant to Efacec's activity took place in the same year and subsequent years, so it is necessary to update the future business prospects in the light of these most recent events.

The impact of these events has become especially relevant due to their successive occurrence, in a short period of time, with impact and intensity in several business partners and following a difficult year 2019 for Efacec from the treasury point of view.

Efacec's last four years have been a period of healthy growth in terms of orders and results, as well as strong investment to strengthen the company's competitiveness in international markets and its Employees' skills. However, at the end of 2019, several cyclical factors had negative consequences on the treasury balance.

Delays in some projects, perfectly identified in chapter 4.3 – Economic and Financial Performance, caused throughout 2019 an increase in the managed working capital (excluding Suppliers), forcing the company to accumulate arrears in payments to Suppliers, thus generating from the last four months of 2019, problems in the supply chain, which, in turn, hampered the delivery completion of the production and associated invoicing, thus generating a negative treasury cycle. Difficulties in the supply chain ended up causing and contributing to the circumstantial deterioration in results in 2019, contrary to what was expected given the existing solid backlog order.

This justified problem, which we consider to be occasional in Efacec's treasury, was duly identified, being outlined and in progress, since the end of 2019: (i) a comprehensive and in-depth action plan aimed at quickly reversing the performance of delayed projects – eliminating the causes, and freeing their "captive" cash, (ii) adjusting the cost structure, with relevant annualized savings of capital employed, and (iii) generating additional cash, among others, through the sale of real estate assets. This action plan would allow swift recovery of supply chains, without compromising the extremely positive performance, which was planned for 2020 due to the existing order backlog at the end of the year.

However, the implementation of this recovery plan would end up being conditioned and the negative treasury cycle worsened, as of the beginning of 2020, due to three events external to the company:
i. the Luanda Leaks episode;
ii. consequent financial system deadlock in response to Luanda Leaks;
iii. the COVID-19 pandemic.

4.4.1. Luanda Leaks and the financial system deadlock

The publication of the so-called Luanda Leaks, in mid-January 2020, triggered a succession of reactions which had an impact on Efacec's relationship with its Clients, Suppliers and, in particular, with the financial system.

Since the disclosure of that news, Efacec's Board of Directors sought to protect the company and its assets as much as possible, having formally asked, on 23 January 2020, the majority shareholder to put its stake up for sale and leave the corporate structure of the Efacec Group to the benefit of the company - this request was immediately granted. Additionally, following this decision to exit the shareholder structure, her representatives submitted their resignation from the governing bodies.

The swift announcement of a process to change the shareholder structure and the resignation of the majority shareholder representatives from all positions in Efacec's governing bodies allowed, at first, to minimize damage in terms of Clients, Suppliers and Partners, and the company was able to keep the contracts in force and continue to receive new orders. However, the complex picture of the combined effects of issues of compliance issues, breach of trust and reputational impact led, gradually, the major banks with which Efacec has a relationship to hinder the issuance of trade finance instruments (bank guarantees, letters of credit and confirming) and the granting of treasury financing, subjecting its release to changes in the shareholder structure. For a strongly exporting company such as Efacec, this deadlock by its major banks presented significant difficulties in the execution of projects already contracted or in the signing of new orders.

Also the credit insurers reduced the exposure limits to Efacec, in some cases even suspending its allocation. This action contributed to the increase in suppliers' demands and strongly reduces agreed payment terms, often requiring advanced payment to unlock the production and delivery, with the consequent negative impact on treasury.

The Axessor rating agency, used as a reference in the bond issue process, reduced the company's rating from BBB-, with stable outlook, to BB+, with negative outlook due to shareholder uncertainty and fears of the impact on Efacec's performance.

At the end of March 2020, Efacec was informed of the existence of an agreement between representatives of the majority shareholder and the financing banks, of the majority shareholder and of Efacec, which established a time horizon for the exit of the majority shareholder from the company's corporate structure, stipulating the transfer, in the short term, of the respective stake to a transitional vehicle, whose exclusive purpose would be the sale of Efacec to a final investor within a period of between six and twelve months. For reasons external to Efacec, the preceding conditions required by the mentioned agreement for the creation of the transitional vehicle and the consequent transfer of Efacec's shares did not successively occurred, delaying the lifting of the financial system deadlock, and reinforcing Efacec's operational bottleneck by conditioning the implementation of the action plan outlined at the end of 2019 and, consequently, the regularization of supply chains and operations.

Since the beginning of 2020, Efacec's management has been making efforts to mitigate the damage caused by the dragging out of a shareholder solution with all stakeholders, seeking to reassure them about the swift completion of the sale process and the normalization of the company's operation. However, almost six months after the emergence of Luanda Leaks, it has become more difficult to calm Suppliers that began to demand more severe conditions with fear about their credits, and Clients that began to cancel the contracts already awarded due to the Efacec's inability to comply with its obligations in terms of deadlines, or not to award new orders.

As a way of contributing to solving the shareholder situation, Efacec's Board of Directors launched, in May 2020, a process with to present expressions of interest and non binding offers) for the purchase of the majority shareholder position of Efacec, having received, at the end of June 2020, ten non-binding offers, the majority attributing to the participation a positive equity value and proposing a capital injection in the company.

The lack of an agreement between all stakeholders, despite the existence of formal proposals for the acquisition of Efacec, however, also affected by the effects of the COVID-19 pandemic, threatened the company's sustainability almost irreversibly, forcing the Portuguese State to, on 2 July 2020, and with a view to safeguarding the national public interest, proceed, through Decree-Law No. 33-A, to the nationalization of the shareholder control of Efacec, through the public appropriation of the share held by Winterfell 2 Limited, under the terms of the legal regime approved in annex to Law no. 62 -A/2008, of 11 November (Legal Regime for Public Appropriation through Nationalization), as better detailed in the 2020 outlook (point 4.4.3).

4.4.2 COVID-19 pandemic

The COVID-19 pandemic is a public health crisis, with a very important financial impact on all sectors and countries and which could substantially transform the way we all live.

This crisis demanded, and continues to demand, the ability to manage uncertainty, agility in decision--making, confidence in those around us, institutions and leaders, ability to adapt to the new measures and awareness of the impact of our individual and collective actions on the outcome and/or evolution of the crisis.

“Living and working during COVID-19” guide

We were one of the first companies to act and implement preventive measures, both in Portugal and in the different countries and projects in which we operate, worldwide.

Protection Measures

- Creation of a task-force for the daily operational management of the topic in all geographies;
- We closed canteens and coffee-break spaces;
- We implemented the mandatory use of masks and visors in the manufacturing areas and masks in offices and work sites;
- We replaced face-to-face meetings with digital meetings;
- We suspended external visits and training actions and face-to-face events in a 1st phase, having implemented digital training actions and internal events in a 2nd phase;
- We implemented teleworking for all possible roles;
- We lent computers to Employees with fixed stations and coordinated the transportation of monitors to Employees with specific roles;
- We doubled the available Intranet access bandwidth and tripled the VPN capacity so that it was possible to have the largest number of Employees working remotely, in all geographies.

Information Measures

- We created specific communication channels for the COVID-19 topic management and to clarify our Employees’ doubts, either through our Intranet or through the creation of a specific email;
- We sent daily reports on the topic, with security measures, as well as recommendations for living and working as best as possible in the context of COVID-19;
- We developed and released a guide “Living and working during COVID-19”.

Efacec as an exporting company was strongly impacted by the COVID-19 pandemic due to two effects:

i. about 85% of the company's revenues and activity come from the sale of products and equipment abroad and from the execution of large electrical infrastructure projects abroad;

ii. Efacec also imports a large part of the products in its supply chain and has a large number of relevant Suppliers in Italy, Spain and, obviously, in China, having therefore experienced significant difficulties in obtaining raw materials and components for its products and projects, throughout the first half of 2020.

A large number of Efacec projects and contracts were impacted in their execution for several reasons, from disruptions in the traffic of people and goods by air, sea and even road, to situations of mandatory quarantine and state of emergency declarations in the different countries where the company operates: Spain, India, Chile, United States of America, Argentina, Qatar, Bahrain, Singapore, Mozambique, Angola, Algeria, Czech Republic, Austria, among others.

The containment and protection measures applied in the Portuguese territory also had a considerable impact on the company's productive capacity, since it was necessary to change shifts, reduce teams, create reserve groups to face possible outbreaks in the operations teams and, in specific cases, place teams in mandatory quarantine and stop production lines and areas for total disinfection. This action respected the best international practices in order to effectively protect Employees and their families and to mitigate the spread of potential contagion.

As a result of the pandemic, Efacec's revenues decreased in March 2020, compared to the same period in 2019, by about 48% and receipts by about 30%. This sharp decrease in revenues and receipts, felt since February 2020 and that reached its maximum in April and May, combined with the deadlock promoted by the financial system as a result of the Luanda Leaks episode, challenged Efacec's ability to face, in a timely manner, its primary obligations, in particular the amounts due to its suppliers. As a result of the strong reduction in its activity due to the worldwide impacts of the COVID-19 pandemic, Efacec was forced to adopt one of the measures to support the maintenance of the jobs of companies affected by the pandemic, outlined by the Portuguese Government in Decree-Law no. 10-G/2020 of 25 March: the (total or partial) lay-off. The aforementioned measure allowed minimizing the risk of non-compliance with the obligations to pay its Employees’ salaries while the risks of non-compliance with other stakeholders remaining.

From June 2020, after the most critical phase of the pandemic crisis, our Clients have been gradually resuming their activities. From the commercial point of view, there have been no changes to the Investment Plans of our Clients, namely due to the cancellation of projects, although there is a tendency to postpone investments planned for the second semester to the beginning of 2021. The projects and supplies in progress at the time of the almost global stoppage of the economy are being resumed, after renegotiating the global calendar with the Clients, in line with the unlocking of the supply chains themselves, in order to mitigate potential penalties.
It should be noted that the COVID-19 pandemic crisis is a force majeure event, and therefore the interruption of the large majority of projects and supplies is legally protected.

However, and although we do not expect problems from the contractual point of view with our Clients resulting from the interruptions caused by the COVID-19 pandemic, we foresee changes in the way of contracting and managing projects and supplies in critical infrastructures, such as energy and mobility ones. In order to protect against future pandemic crises, Clients begin to discuss with Efacec alternatives for risk mitigation, such as the constitution of strategic stocks, the provision of mostly local services, the geographical redundancy of Suppliers of raw materials and equipment, among others. The talks that are taking place with Clients will serve as the basis for a strategic discussion on the changes to be made in the way Efacec is present and serves its Clients in different continents and countries.

4.4.3. Outlook for 2020

Any of the episodes described above alone would have a very significant impact on Efacec's activities; their combination made the situation much more complex. The repercussion of the events related to the shareholder structure gradually intensified Efacec's difficulties in the commercial and operational plan, translating into a substantial and accelerated deterioration of the company's financial situation, worsened by the impact of the COVID -19 pandemic.

The need for one-off treasury support at the end of 2019, aimed at reversing the negative treasury cycle and unblocking the supply chain, became an urgent need for immediate liquidity to guarantee the fulfilment of the company's primary obligations towards its employees, the State and its Suppliers.

This treasury support was completely blocked due to standstill in the change of the shareholder structure, having now been made possible with State intervention, ordered to guarantee the stability of Efacec's financial, operational and commercial value, and to allow the safeguarding of jobs, industrial value and technical knowledge.

According to Decree-Law no. 33-A/2020, of 2 July, public appropriation through the nationalization of the share (71.73%) held by Winterfell 2 Limited in Efacec is of a transitory nature, the objective being the immediate opening of the reprivatisation process of the position object of public intervention. In other words, this public appropriation positions itself as a solution of transition between lasting market solutions.

Thanking Efacec Employees for all the work done during the COVID-19 pandemic #wenevergiveup

In this context, Efacec continues to be governed by commercial legislation and by its articles of incorporation, and the legal regime of the public business sector is not applicable, in accordance with the provisions of article 3, number 2, of Decree-Law No. 33-A/2020. Similarly, Efacec remains the holder of the universality of assets, rights and legal and contractual obligations that it holds at the date of entry into force of the mentioned decree-law and continues to exercise all rights and obligations that are committed to it under the law, contract or its articles of incorporation.

Efacec's governing bodies were dissolved, in accordance with Decree-Law No. 33-A/2020, of 2 July, with the outgoing members of governing bodies remaining in office, with limited competence to the practice of day-to-day management acts new members are appointed. We understand that the legal reporting for 2019 is part of the day-to-day management acts.

Also in accordance with the provisions of article 9 of DL no. 33-A/2020, the reprivatisation of Efacec should take place in the shortest possible time and shall be carried out through the direct sale of the shares under the terms of article 6, number 3, subparagraph b) of Law 11/90 of 5 April (Privatization Framework Law). The ten non--binding offers received at the end of June 2020 strengthen the optimism regarding the swift completion of this sale process.

Public appropriation through the nationalization of the social share held by Winterfell 2 Limited in Efacec, provided Efacec with access to financing and liquidity lines to reverse the negative treasury cycle and restore the company, economically viable and with high potential, back on the path of normality. Efacec negotiated with a bank labor union a capital financing contract to support the treasury, which was contracted on August 14th, 2020. This financing allowed the settlement of debts to critical suppliers and, therefore, to initiate the process of standardization of the supply chain and the company's operations.

Despite the challenging context experienced in the first half of 2020, Efacec managed to not significantly impact the level of orders generated in 2020. However, for this year, a reduction of Orders of about 5.5% is expected, given the situation previously mentioned, and a 21% reduction in End--of-Year Revenues, compared to 2019, setting a target of activity volume of 309 million euros, as a result execution delays arising from the supply chain deadlocks and the delay of Orders yet to be executed in the same year. In addition, effective management of fixed costs (with relevant annualized savings) and a significant reduction in the managed working capital (excluding suppliers) allowed the company to remain active and to fulfil its obligations, although with extended payment terms to Suppliers. Given the fall in revenue that is expected for 2020, and the consequent reduction in EBITDA, as well as the need to increase debt to inject liquidity into the business with the objective of normalizing the supply chain and order execution, we believe that there is a very strong probability that Efacec will not be able at 31 December 2020 to comply with the DFL/EBITDA ratios that appear in some of its financing contracts and in the bond loan. In this way, waivers will be requested in time to meet these ratios.

Given the above and despite the negative results expected for 2020, Efacec is expected to start 2021 with a solid backlog and with fully recovered and normalized operations, with a reduction in structure costs and a revisited and strengthened project approach matrix, oriented to cash, returning in 2021 to the profitability and growth trajectory that marked the triennium 2016, 2017 and 2018.

Chapter 5
Improving the power of together

efacec Empowering the future

5. Governance and Organization

5.1. Governance Model

The corporate governance model adopted by Efacec is aligned with the best national and international practices in corporate governance. It is governed by a set of principles with a view to transparency, to the correct control and inspection of the activity, to the adequate corporate strategy implementation and to value creation, following the general recommendations of the Portuguese Securities Market Commission (CMVM) and the Portuguese Corporate Governance Institute (IPCG) on this matter.

Efacec Group's management is carried out through its holding Efacec Power Solutions, SGPS, S.A. ("EPS") which adopts the governance model provided for in subparagraph a) of article 278 of the Portuguese Commercial Companies Code ("CCC"), called classic or monist model.

Under the provisions of subparagraph a) of number 1 and number 3 of article 278 and subparagraph b) of number 1 of article 413, all of the CCC and article 10 of the EPS's Articles of Association, the governing bodies of the Company are the General Meeting, the Board of Directors (responsible for the Company's administration), the Supervisory Board and the Statutory Auditor (responsible for supervising the Company).

The corporate governance model adopted by EPS promotes the segregation of powers between the different governing bodies to ensure adequate control and inspection of the Administration's activities.

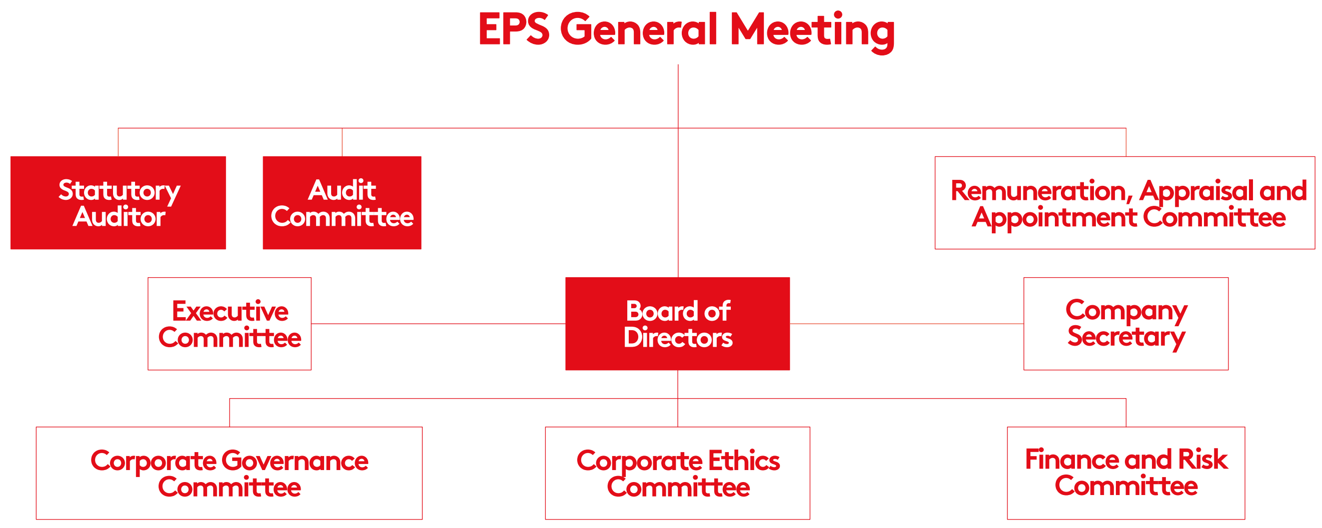
Accordingly, the Board of Directors has delegated to an Executive Committee, under the provisions of article 407 of the CCC, the day-to-day management of the Group, reserving for itself, in addition to the matters that are legally non-delegable, the establishment of the Group's strategic orientation, the approval of its annual and multi-annual budgets, and the resolution on the most relevant businesses, in terms of value and risk, as well as on any relevant change to the Group's business structure.

This division of duties allows the Board of Directors, namely the non-executive directors, to better monitor the management and to supervise and control the Executive Committee's management activity.

The Board of Directors' duties are also supported by three specialized committees - Corporate Governance Committee, Finance and Risk Committee, and Corporate Ethics Committee - which can include independent members, experts in the respective areas of debate, contributing to a an informed and diligent decision-making process by all members of the Board of Directors.

The model in force also comprises a strengthened inspection structure, which includes the Supervisory Board and the Statutory Auditor, as well as a Company Secretary, appointed under the terms of article 446 of the CCC and who is responsible for the specialized support to the governing bodies and the other legally established functions.

In accordance with the recommendations of the CMVM and the IPCG, a Remuneration, Assessment and Appointment Committee was also appointed, under the provisions of article 399 of the CCC, to establish and set the remuneration models for the Efacec Group's directors and officers.



Governance Model of Efacec Power Solutions, SGPS, S.A. on 31 December 2019

GOVERNING BODIES

General Meeting

The General Meeting is the Efacec's maximum body, comprising all shareholders who, up to five days before the General Meeting, hold shares that, under the terms of the law and the articles of association, grant them the right to vote.

The General Meeting is responsible for resolving on matters that are especially assigned to it by law and by the articles of association, namely the election and dismissal of the members of the other governing bodies (Board of Directors, Supervisory Body and Statutory Auditor), the approval of the Management Report and Accounts for the Year, the application of results and distribution of profits, the increase and reduction of capital and other changes to the company's articles of association.

The General Meeting is also responsible for appointing, for three-year terms, the members of the Board of the General Meeting, as well as the members of the Remuneration, Assessment and Appointment Committee, and elect the respective Presidents.

In 2019, the Annual Meeting held one session.

Structure on 31 December 2019:

Chairman
Jorge Manuel de Brito Pereira [1]

Secretary
Rafael Lucas Pires

[1] On 28 January 2020, Jorge Manuel de Brito Pereira resigned as Chairman of the General Meeting and other positions held in Specialized Committees, namely Chairman of the Corporate Governance Committee and the Corporate Ethics Committee.

Board of Directors

Consisting of three to fifteen members, elected every three years by the General Meeting, and on 31 December 2019 consisted of eleven directors.

The Board of Directors is the governing body responsible for managing the company's activity, and its powers are defined in the law and in the Company's Articles of Association. The Board of Directors is responsible for resolving on any matter of the company's management, without prejudice to the delegation of the Company's day-to-day management powers to the Executive Committee. Among the matters that are specially reserved for it are the establishment of the Group's strategic orientation, the decision-making on any relevant change in the Group's business structure, and the decision on the most relevant Company's businesses, in terms of value and risk, including, among others, the acquisition and sale of companies and business units, the contracting of larger financing and the signing of commercial contracts of greater economic relevance for the Group.

It is also the responsibility of the Board of Directors to oversee and supervise the Executive Committee's activity of the Company's business in general, maintaining the power and responsibility over matters delegated to the Executive Committee.

It is also the responsibility of the Board of Directors to appoint the members of the Specialized Commissions, as well as the respective Chairmen.

In 2019, the Board of Directors met ten times.

Executive Committee

The Board of Directors created and delegated the Efacec's day-to-day management to an Executive Committee, having established the respective structure, functioning, the range of delegated powers, as well as the allocation of responsibilities and areas to each of the respective members.

The Executive Committee consists of up to seven members, having, on 31 December 2019, seven members, and has the management powers assigned to it by the Board of Directors, with the Chairman of the Executive Committee being appointed by the Board of Directors.

The Executive Committee meets weekly and often with the extended Board of Directors and, in view of the engagement in the development of the Group, meets regularly with those responsible for top management and the heads of the several Business Units and Corporate areas, for the presentation and discussion of results, monitoring of ongoing projects, establishment of management guidelines, and discussion and disclosure of matters of interest to Efacec and its branches and subsidiaries.

During 2019, the Executive Committee formally met 47 times to make decisions.

[2] On 23 January 2020, Mário Leite da Silva resigned as Chairman of the Board of Directors and other positions held in Specialized Committees, namely Voting Member of the Finance and Risk Committee and the Remuneration, Appraisal and Appointments Committee.

[3] On 21 September 2020, Rui Carlos de Carvalho Lopes resigned as a member of the Board of Directors and member of the Executive Committee.

Board of Directors and Executive Committee Structure

Mário Filipe Moreira Leite da Silva [2]
Chairman of the Board of Directors
Areas: Internal Audit
Date of 1st Appointment: 23 October 2015

Rui Alexandre Pires Diniz
Member of the Board of Directors
Date of 1st Appointment: 14 August 2014

Manuel António Carvalho Gonçalves
Member of the Board of Directors
Date of 1st Appointment: 23 October 2015

Miguel Maria Pereira Vilardebó Loureiro
Voting Member of the Board of Directors
Date of 1st Appointment: 23 October 2015

Ângelo Manuel da Cruz Ramalho
Voting Member of the Board of Directors
Chairman of the Executive Committee
(Chief Executive Officer)
Areas: Strategic Planning and Continuous Improvement | Risk and Contract Management | Brand and Communication | Quality, Environment and Safety | Human Resources
Date of 1st Appointment: 23 October 2015

Francisco José Meira da Silva Nunes
Voting Member of the Board of Directors
Member of the Executive Committee
(Chief Financial Officer)
Areas: Administrative and Financial | Corporate Finance | Management Control | Purchasing and Logistics | Legal and Compliance | Infrastructure and Buildings
Date of 1st Appointment: 23 October 2015

António José Gonzalez Almela
Voting Member of the Board of Directors
Member of the Executive Committee
Areas: Transformers
Date of 1st Appointment: 20 May 2016

Vanessa Ferreira Loureiro
Voting Member of the Board of Directors
Member of the Executive Committee
Areas: International | Business Development | Commercial Products | Switchgear | Information Systems
Date of 1st Appointment: 15 December 2016:

Fernando José Rabaça Vaz
Voting Member of the Board of Directors
Member of the Executive Committee
Areas: Energy | Environment & Industry | Transport
Date of 1st Appointment: 12 October 2018

José Manuel de Oliveira Henriques
Voting Member of the Board of Directors
Member of the Executive Committee
Areas: Automation | Electric Mobility | Service
Date of 1st Appointment: 28 December 2019:

Rui Carlos de Carvalho Lopes [3]
Member of the Board of Directors
Member of the Executive Committee
(Chief Operating Officer)
Date of 1st Appointment: 31 October 2019

Supervisory Board

The Supervisory Board is responsible for supervising Efacec's Management, monitoring compliance with the law and the articles of association, overseeing the financial information preparation and disclosure and accounts auditing processes, and also proposing to the general meeting the appointment of the statutory auditor, in addition to the other competences legally established in articles 420, 420-A and 422 of the CCC.

The Statutory Auditor, in turn, is responsible for the legal certification of the accounts.

The Supervisory Board consists of three effective members and an alternate, elected at the General Meeting, which elects the respective Chairman.

Structure

Chairman
José Manuel Gonçalves de Morais Cabral

Members
Sérgio Paulo Esteves de Poças Falcão e António Manuel de Castro Vieira Rodrigues

Alternate Member
Décio de Jesus Fernandes

Statutory Auditor

The Statutory Auditor is responsible for carrying out the Legal Certification of the Company's Accounts and communicating to the Chairman of the Board of Directors the facts of which he is aware and that he considers to be burdensome for Efacec's activity.

Statutory Auditor
Mazars & Associados, SROC, SA, registered with the Statutory Auditors Association under No. 51 and with the CMVM under number 20161394, represented by Mr. José Fernando Abreu Rebouta, SA No. 1023 and for Dr. Patrícia Alexandra Faria Cardoso, ROC 1483.

Alternate Member
Luis Filipe Soares Gaspar, SA nº 1003

Company Secretary

The Company also has a Company Secretary, appointed by the Board of Directors, under the terms and for the purposes of article 446-A of the CCC, having the powers provided for in the law and leaving office at the end of the term of the Board of Directors that appointed them. In accordance with the legally established powers, the Company Secretary is responsible for assisting the governing bodies, EPS and the respective subsidiaries and other Efacec entities in matters related to commercial companies and corporate governance law, for implementing and ensuring compliance with the formalities necessary to hold meetings of the Board of Directors, Executive Committee and General Meeting and for providing information to shareholders and members of the governing bodieas that have oversight duties on the resolutions of the Board of Directors or the Executive Committee.

SPECIALIZED COMMITTEE [4]

By resolution of 5 November 2015, the Board of Directors, in pursuit of the best corporate governance practices, approved the creation of a Corporate Governance Committee and a Finance and Risk Committee, and on 24 March 2017 also approved the creation of a Corporate Ethics Committee. The major mission and objective of these Specialized Committees is to assist the members of the Board of Directors in making duly informed and diligent decisions, contributing to the collection and processing of information necessary to make these decisions, while also providing contributions to the implementation and monitoring of best corporate governance practices and to the good pursuit of the principles inherent to the Group's corporate strategy. These committees consist of non-executive directors and members outside the Board of Directors with recognized experience in the area in which the Committee operates.

Finally, in compliance with the provisions of article 18 of Efacec's articles of association, the company has a Remuneration, Assessment and Appointment Committee.

[4] Resulting from the nationalization of the shareholder control of Efacec by the Portuguese State (according to point 4.4), held on July 2, 2020 through Decree-Law No. 33-A, the governing bodies were dissolved, remaining in office with limited competence to the practice of day-to-day management acts, in accordance with the article 8, no. 2, from the referred Decree-Law. Thus the Specialized Committees should be considered dissolved.

Competences and Responsibilities of the Specialized Committee

Committee	Major Competences and Responsibilities
Corporate Governance Committee Activity in 2019: 2 meetings	Study and proposal of policies, rules, and procedures with the objective of improving the corporate governance and the structure, competence and functioning of the governing bodies and the remaining Efacec internal management structure. • Study, propose and recommend the adoption by the Board of Directors of the policies, rules and procedures necessary to comply with the applicable legal, regulatory and statutory provisions, as well as national and international recommendations, opinions and best practices in matters of corporate governance, rules of conduct and social responsibility; • Ensure the full compliance with legal and regulatory requirements, recommendations, and good practices, relating to the corporate governance model and ensure the adoption of governance principles and practices, and the respective follow up; • Assist the Board of Directors in carrying out its function of supervising the Company's activity in matters of corporate governance.
Finance and Risk Committee Activity in 2019: 4 meetings	Analysis and follow up of the main risks of the balance sheet and provisional profit and loss accounts, as well as of all aspects of the life of Efacec and its subsidiaries considered to be high risk. • Analyse the annual, biannual, quarterly financial statements and similar and report its conclusions to the Board of Directors; • Advise the Supervisory Board, on behalf of the Board of Directors, on the appointment, duties, and remuneration of the External Auditor; • Analyse the activities of Internal Audit, Management Control and Risk Management as well as their relationship with the External Auditor's work; • Analyse and discuss with the External Auditor, the Internal Auditor, and the head of the risk management about the reports that are being produced, and, consequently, advise the Board of Directors on relevant aspects; • Analyse, discuss, and advise the Board of Directors on the Financing Policy, and the accounting policies and practices adopted; • To comment on the main risks existing in the balance sheet and in the provisional profit and loss accounts, as well as on all other aspects of Efacec's life to which a high risk is allocated.
Corporate Ethics Committee Activity in 2019: 2 meetings	Promotion, implementation and supervision of the Code of Conduct, and other policies of an ethical nature, which establish rules of conduct and rules of an ethical and deontological nature that must be followed by Efacec, employees and partners. • Follow up and check the correct interpretation and implementation of Efacec's Compliance System Compliance da Efacec, including the Code of Conduct and the Regulations that comprise it; • Establish the necessary mechanisms to prevent, detect and investigate behaviours that violate the Compliance System; • Establish communication channels with the recipients of the Code of Conduct and analyse the information addressed to it; • Propose, to the Executive Committee, a training program for Efacec employees regarding the rules of the Compliance System; • Monitor the adequacy of the Code of Conduct and the Regulations, proposing the respective update, when justified; • Be the privileged channel and receiver of any complaints to present about violations of the Code of Conduct rules; • Conduct internal investigations whenever requested by the Executive Committee or the Board of Directors; • Propose, to the Executive Committee, the start of disciplinary proceedings following unlawful investigations.
Remuneration, Assessment and Appointment Committee Activity in 2019: 2 meetings	Establishment of the remuneration of the members of Efacec's governing bodies and establishment of the succession strategy, by delegating of powers to the General Meeting. • Establish the remunerations of each member of the governing bodies; • Plan the succession of the members of the Board of Directors; • Monitor the processes for identifying potential candidates for top positions and 1st management line; • Establish contingency plans for top managers; • Review proposals and remuneration policies on an annual basis; • Conduct, annually, the evaluation of the members of the Executive Committee, the global evaluation of the Board of Directors and its Committees.

Specialized Committees Structure

Corporate Governance Committee

Chairman
Jorge Brito Pereira [1]

Members
Miguel Maria Pereira Vilardebó Loureiro

Finance and Risk Committee

Chairman
António Domingues

Members
Mário Filipe Moreira Leite da Silva [2] e
Miguel Maria Pereira Vilardebó Loureiro

Corporate Ethics Committee

Chairman
Jorge Brito Pereira [1]

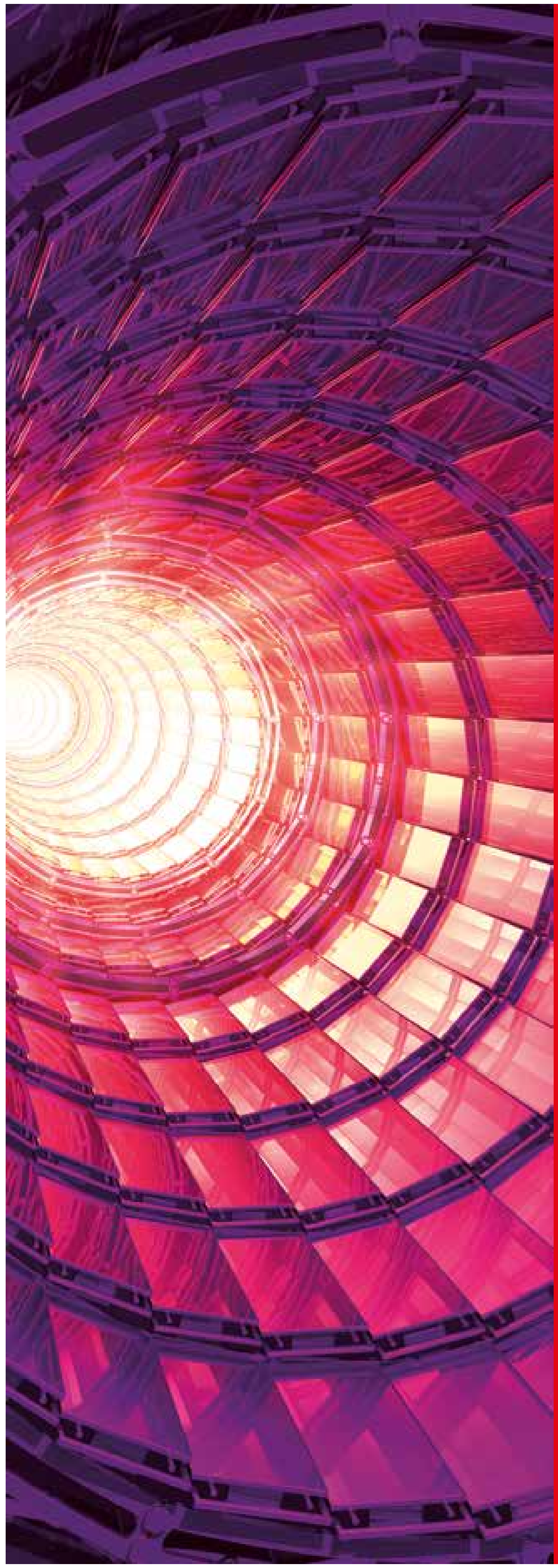
Members
Adeodato Alexandre Freire Valente Lopes Pinto e Alexandra Mendes Ribeiro

Remuneration, Assessment and Appointment Committee

Chairman
Fernando Teixeira dos Santos [5]

Members
Mário Filipe Moreira Leite da Silva [2] and MGI Capital, SGPS, S.A., represented by Luís Miguel Oliveira Nogueira Freire Cortes Martins

[5] On 21 January 2020, Fernando Teixeira dos Santos resigned as a Chairman of the Remuneration, Assessment and Appointment Committee.



ON THE REMUNERATION AND ASSESSMENT POLICY OF THE GOVERNING BODIES

The Remuneration and Assessment Policy of the Efacec's Governing Bodies aims achieving the following objectives:

- Being a good governance instrument;
- Promoting transparency in terms of remuneration policies;
- Aligning, from a medium and long-term perspective, he interests of directors and other governing and supervisory bodies with the interests of the company.

This Policy is based on a set of guiding principles:

- Be simple, clear, transparent, and aligned with Efacec's culture, namely regarding individual accountability, sustainability of results and creation of value for stakeholders;
- Be adequate and adjusted to the dimension, nature, scope, and specificity of Efacec's activity;
- Ensure a competitive and equitable total remuneration, aligned with the best practices and latest trends at national and international level, particularly with companies of a similar dimension to Efacec;
- Relate the remuneration fixed component to the duties and responsibilities of the different members of the Governing and Supervisory bodies, in a coherent and homogeneous manner;
- Establish a variable remuneration, whenever justified, indexed to the assessment of individual and organizational performance, in accordance with the degree of compliance with the performance and/or strategic objectives established and the creation of value for the company and shareholders, including a short term component and another medium term component, both with a threshold;
- Being adjusted to the economic situation.

In the case of the executive directors, the Policy provides for a fixed and variable remuneration, both annual. The allocation of a variable remuneration (deferred over time) is based on the performance assessment process, which includes a quantitative and a qualitative component, defined as follows:

- Quantitative component: assessment of the achievement of a set of objectives aligned with the Annual Budget, the Strategic Plan, or the Business Plan, weighing more than 50%;
- Qualitative component: assessment of the individual and collective performance of the Executive Committee, carried out through the competence's assessment.

The process of assessing the performance of the executive directors is managed by the Human Resources area monitored by the Remuneration, Assessment and Appointment Committees.

RELEVANT CORPORATE FACTS

- On March 12, 2020, PricewaterhouseCoopers & Associados, SROC, Lda, represented by Dr. Joaquim Miguel de Azevedo Barroso, resigned as Statutory Auditor, being replaced by the Statutory Auditor Mazars & Associados, SROC, SA, represented by Dr. José Fernando Abreu Rebouta and Dr. Patrícia Alexandra Faria Cardoso.
- By resolution of the Board of Directors of 28 March 2019, José Manuel de Oliveira Henriques was co-opted as a voting member and member of the executive committee:
- On 30 September 2019, Luís Henrique Marcelino Alves Delgado resigned as a member of the Board of Directors and member of the Executive Committee.
- By resolution of the Board of Directors of 31 October 2019, Rui Carlos de Carvalho Lopes was co-opted voting member of the Board of Directors and member of the Executive Committee.
- On 21 September 2020, Rui Carlos de Carvalho Lopes resigned as a member of the Board of Directors and member of the Executive Committee.

SHAREHOLDER STRUCTURE

Capital structure on 31 December 2019:

→ Share capital
€ 308,949,250.00

→ Total number of shares
61,789,850

→ Nominal value
€ 5.00 /per share

Breakdown of share capital on 31 December 2019:

→ Winterfell 2 Limited
44,319,256 shares
representing
71.73%[6]
of the company's share capital

→ MGI Capital, SGPS, S.A.
17,470,594 shares
representing
28.27%
of the company's share capital

Efacec Power Solutions does not hold shares, nor were the shares acquired or disposed during the year of 2019.

[6] By Decree-Law No. 33-A /2020, of July 2nd, the shareholding held by Winterfell 2 Limited in EPS was subject to public appropriation through nationalization.

5.2. Corporate values and statements

Efacec's corporate culture is defined by all its components: from verbal and visual identity, to its Purpose, set of Values, Sustainability Policy and Code of Conduct to the way in which each employee represents the Group in daily interactions.

A set of corporate statements defines the ethical rules that Efacec obeys in all its businesses

Values

- Principles that guide the posture of Efacec and its employees in all relationships: Clients, Suppliers, Partners, and other Stakeholders;
- They represent everything Efacec believes in, its corporate principles and beliefs.

Sustainability Policy

- Organization of Efacec's policies, values, and principles by the Sustainability components (3P model: economic, environmental, and social) and alignment with the ESG (Environment, Social and Governance) aspects;
- Translation of UN Global Compact principles into Efacec principles;
- Inclusion of the defence of Human Rights in all Efacec Group companies, regardless of the geography where they are located.

Code of Conduct

- Set of principles and rules of behaviour that must be recognized and adopted by all Efacec employees, without prejudice to other applicable rules of conduct;
- Reference regarding Efacec's standards of conduct in its relationship with third parties, to encourage the creation of a climate of trust between the company and all Stakeholders;
- Application to partners and other Stakeholders.

5.3. Internal organization

Efacec is organized into 8 Business Units and five International Units, which support the development of the Group's portfolio, in an integrated and cross-cutting perspective, with international operation. A set of cross-cutting areas, ensuring corporate, shared and business functions, support the Group's operations in any geography:

- **Corporate functions**
  facilitation of strategically and tactically relevant topics;

- **Shared functions**
  provision of services related to business operations;

- **Business functions**
  development of activities related to the commercial, operations and technology functions, while promoting synergies between the different aspects of supply and business.

The Internal Audit Office assists the Board of Directors and the Executive Committee in supervising the activity.

Efacec's organizational structure also provides for the establishment of committees, considered as consultative structures or working groups, permanent or temporary, complementary to the company's formal organization, and which may include internal elements and elements or organizations/companies external to the Group:

- **Technology Committee**
  reflection forum on Efacec's technological competitiveness, responsible for combining competences and responsibilities in the technological field between Business Units, promoting inter-unit projects that enhance the Group's technological diversity as a differentiating factor, and monitoring the implementation of a strategic I&DT in each Business Unit;

- **Organization Committee**
  responsible for ensuring that Efacec's organizational model is a competitiveness element and that the company's structure is oriented towards the achievement of the established strategic and business objectives;

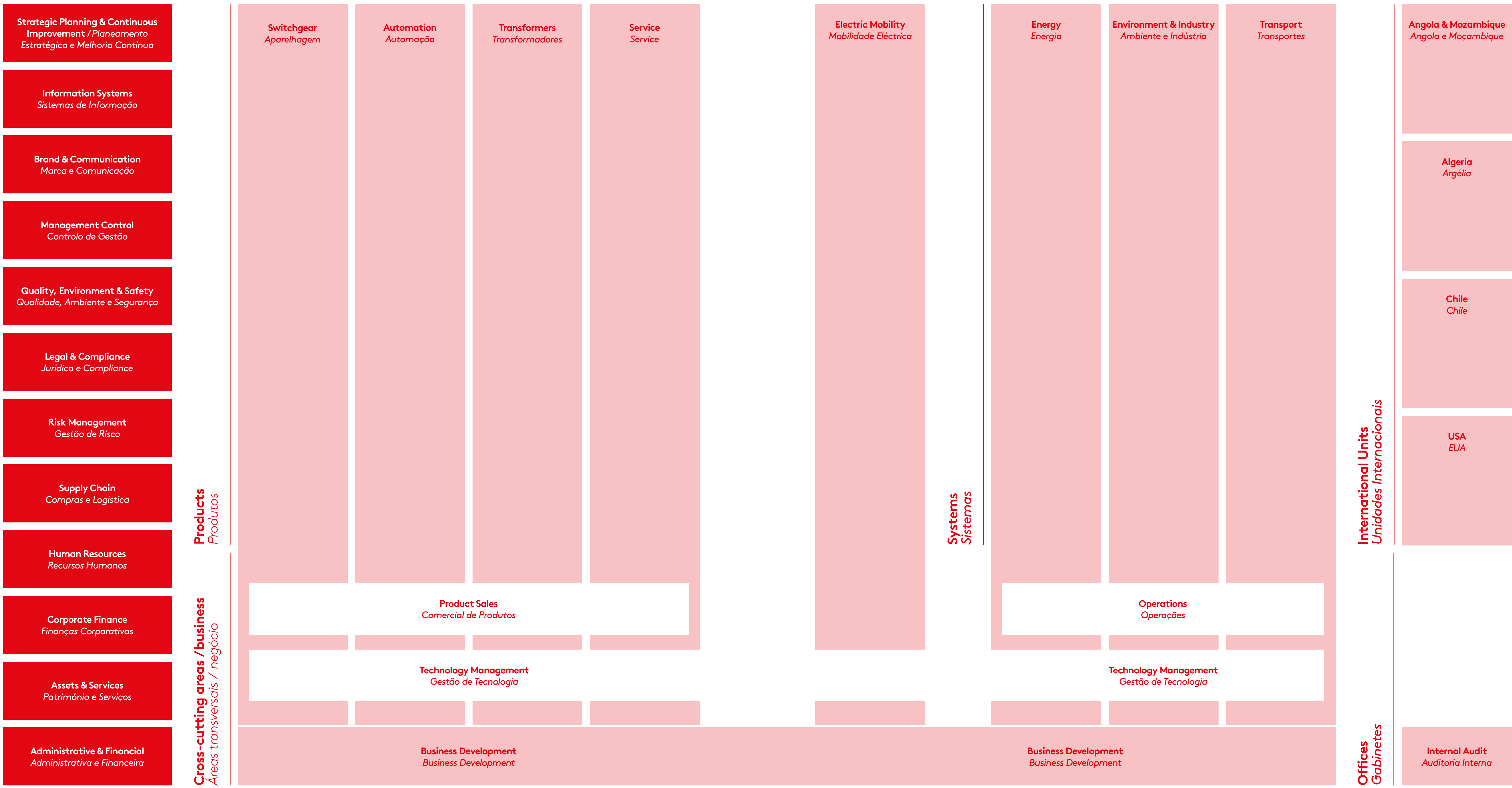
- **IT Committee**
  collegiate body responsible for promoting the delivery of value through Information and Communication Technologies (ICT) and the strategic use of information at Efacec, being responsible for aligning ICT investments with the Group's strategic objectives and prioritizing ICT projects and actions.

Quarterly Management Meeting - Portugal

Executive Committee

Cross-cutting areas / corporate
Áreas transversais / corporativas

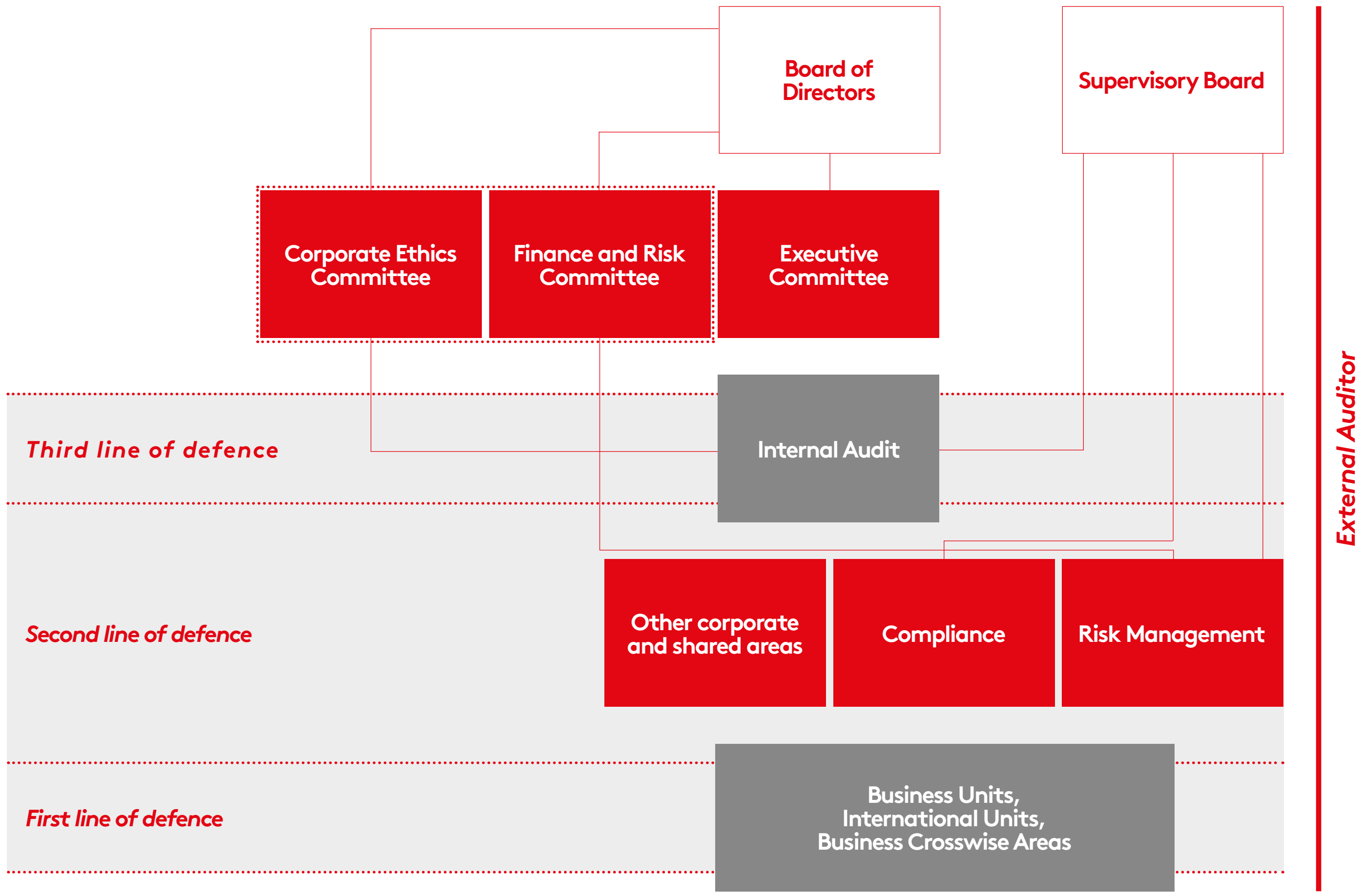
Business units
Unidades de negócio



5.3.1. Internal Control and Risk Management

Efacec's Internal Control System follows the Institute of Internal Audit (IIA) three lines of defence model, as well as the Enterprise Risk Management (ERM) principles and methodology of the Committee of Sponsoring Organizations of the Treadway Commission (COSO) and considers ISO 31.000 standard.

Risk Management and its control is, therefore, continuously promoted through the performance of each of the lines of defence, under the supervision of the Executive Committee and the Finance and Risk Committee. In order to achieve its objectives, Efacec's Internal Control System is based on the performance of the Risk Management, Compliance and Internal Audit functions, centralized and transversal the Group.



Efacec Group's Internal Control System

Responsibility of the Board of Directors

Risk Management

Efacec's policy and risk management are developed through a cross-cutting and international control functional model whose governance is the responsibility of the Board of Directors, which delegates to the Finance and Risk Committee the responsibility for monitoring the global levels of risks incurred, ensuring that they are compatible with the objectives and strategies approved for the development of the activity.

The Risk Management area is responsible for the risk management process that involves defining the context, identifying, assessing, communicating, prioritizing, processing, and monitoring Efacec's corporate risks. It is also responsible for promoting the implementation of risk policies approved by the Board of Directors, ensuring the monitoring of risk management within Efacec, as well as for strengthening the risk management culture within the Group.

Efacec's business, given its diversity and dispersion, turns risk management into a crucial mechanism to mitigate potential risks that may affect the Group and identify future risks. By developing and implementing risk management across the whole Group, Efacec enhances the creation of value, accountability, and the strengthening of its competitiveness.

Efacec regularly assesses the risks that affect its activity and currently recognizes the existence of 6 major risk categories: External, Commercial, Financial, Reputational, Operational, Information and Technology.

The identified risks are aligned with the Group's objectives and strategies. Once they are identified, the different risks are mapped into a risk matrix periodically reviewed, an impact assessment is made, gaps are identified, and existing controls are mapped to reduce the impact of these risks. As a result, mitigation measures are established and implemented for risks with a relevant impact (high and extremely high risk).

The following table summarizes the relevant cross-cutting risks identified in 2019 and which are being monitored:

Category	Risk	Mitigation Measures
External	Change the competitive paradigm	• Adapt Efacec products and systems to Clients' needs; • Develop I&D projects that allow for increased efficiency in terms of production.
	Supply chain disruptions	• Diversify the Supplier base and geographies; • Ensure the effective implementation of a Supplier qualification process.
	Commodities *price*	• Monitor the price evolution of the major commodities; • Plan and negotiate the acquisitions of the major commodities according to the expected operational needs.
Commercial	Counterparty	• Develop control and mitigation procedures for accounts receivable; • Proactively manage Client credit risk; • Disclose and implement the Collection Policy in the organization.
	Portfolio	• Regularly monitor the evolution of the backlog; • Establish portfolio targets to guarantee adequate production levels.
	Tax	• Involve Taxation from the business development phase to its implementation, ensuring the identification and analysis of all tax implications; • Collect, analyse, and process all the Group's tax information in all its geographies.

Financial	Liquidity / Obtaining credit	• Diversify the financing base in terms of the number of bank entities and in the different geographies where Efacec operates; • Work closely with Financial Institutions to guarantee that short and medium-term refinancing needs are not compromised; • Creation of financing lines according to the cash flow plan and cash flow forecast.
Reputational	Fraud and Corruption	• Ensure the effective implementation of the Code of Conduct and Anti-Corruption Policy; • Disseminate and promote the Ethics Line; • Establish contractual procedures and standards in the relationship with counterparties with the highest risk identified; • Regularly audit business practices with the highest identified risk; • Regularly train the different (internal and external) Stakeholders; • Disseminate and promote the implementation of the Gifts, Hospitality and Conflict of Interest Policy.
Operational	Health and Safety	• Develop and promote a Safety culture; • Implement preventive measures to reduce occupational risks; • Carry out regular awareness raising actions.
	Environmental	• Design and implement procedures to ensure compliance with international commitments made by the Group.
	Cash flow	• Regularly monitor the expected cash flow to guarantee the real financing and liquidity needs for the fulfilment of the obligations undertaken by the Group.
	Supply chain delays and inefficient inventory management	• Implement and monitor actions and processes defined within the scope of the "Logistic Excellence" project.
Information & Technology	Cybersecurity	• Disclose and disseminate the Information Security Policy within the Group; • Train employees on information and security management rules; • Raise awareness, alert, and create a cybersecurity culture in the commercial management process and in the project management process.
	Technological Disruption	• Invest in the promotion of new technologies, in the different stages of the value chain.

Risk monitoring is carried out by the designated risk owner and the Risk Management area follows and monitors the action plans to mitigate risks with a relevant impact.

Additionally, the Risk Management area is responsible for identifying and aggregating the risks listed during the projects' commercial process, ensuring the alignment of each potential business with the risk appetite established by the Group, ensuring that the decisions follow the power delegation standard in force and issuing recommendations to reduce the impact of the most relevant risks In the projects' implementation phase, the relevant risks identified in the commercial and operations phases are monitored in periodical meetings (steering committees). At the end of the most important projects, a lessons learned exercise is carried out with the objective of capturing and reflecting on the experience obtained during the project, as well as an analysis of the risks that have actually materialized. This information is recorded and used as an input in the commercial risk management process.

During of 2019, some relevant activities in terms of Risk Management were developed:

- Review of the project risk assessment methodology;
- Establishment of procedures in terms of the operations area involvement during the commercial management process;
- Effective implementation of improvements in the risk management process during the commercial phase;
- Training in the risk management process during the commercial phase;
- Cross-cutting risks review process in coordination with the Corporate areas and Business Units.

In order to strengthen the best practices in terms of risk management (COSO), Efacec is reviewing its project risk assessment methodology, as well as the associated processes and working on the definition of a risk management policy across the whole Group, which allows for the timely identification of risks with a relevant impact and the definition of effective monitoring actions.

The implementation of the risk management policy benefits from the implementation of a risk management tool as a key risk management process, allowing the creation of value and competitiveness for the Group. The risk management process based on a robust tool plays a fundamental role in making the business stronger and resilient to unexpected changes, allowing the improvement of business continuity plans, supporting operational decision making, reducing the level of exposure to risk. The effectiveness of this implementation is guaranteed through the periodic review of the corporate risk matrix, implementation of monitoring and control processes and timely training of the risk owners and Group employees.

Compliance

The compliance of Efacec's Compliance System is the responsibility of the Board of Directors, which includes as its objectives the compliance with applicable national and international legal and regulatory provisions, including those related to the prevention of corruption and related offenses, fraud and money laundering. and financing of terrorism, as well as professional and deontological rules and uses, internal and statutory rules, rules of conduct and relationships with Clients and other Stakeholders, the guidelines of the governing bodies, among others.

The Board of Directors delegates to the Corporate Ethics Committee the monitoring of the Compliance System.

The mission of the Compliance function is to ensure that the management bodies, the functional structures, the Group employees and the representatives acting in its interests, in all geographies, comply with the legislation, rules of conduct and (internal and external) regulations that guide Efacec's activity, in order to avoid the risk of Efacec incurring sanctions of a legal or regulatory nature, in limiting business opportunities or reducing the activity's potential for expansion, as well as financial

Responsibility of the Board of Directors

or reputational losses, arising from the non-compliance with laws, codes of ethics and conduct, good commercial practices and, in general, duties to which it is subject.

Throughout 2019, the main actions taken to strengthen and implement the Compliance system were as follows:

- Approval and disclosure of the Anti-Corruption Policy;
- Approval and disclosure of the Gifts and Hospitality Policy;
- Approval of the Conflict of Interest Policy;
- Improvement of the complaint management system of the Ethics Line through changes to the workflow for receiving and processing the information provided there;
- Implementation of procedures and tools to comply with the General Data Protection Regime (GDPR):
- Monthly training on all topics covered by Efacec's Compliance System, to all employees who joined the Group in that month (integration in the onboarding process for new employees);
- Several training initiatives on topics covered by the Compliance system, namely Anti-Corruption and Partner Management, to specific groups of employees in accordance with their functions within the Group (e.g., purchasing teams, commercial teams, financial teams, project managers, etc.).

In **2020**, the focus will be on training employees, in different geographies, and other Stakeholders in Efacec's Compliance System, aiming, among others, at introducing e-learning solutions for refresher training actions.

Moreover, the scope of compliance due diligence that Efacec conducts on third parties will be extended through the implementation of its own software.

Additionally, and in order to continue the steps taken in 2018 in the robustness of the Compliance System, the Code of Conduct will be revised and updated as recommended by the best international practices, and a specific Code of Conduct for Suppliers will be developed focusing on international regulatory requirements related to the supply chain management.

THE ETHICS LINE

Reporting Irregular situations

Efacec has an Ethics Line comprising different means and specific communication tools for the disclosure of any irregular practices carried out by employees or other Stakeholders, which do not respect the legal rules applicable to the company and its employees, the Code of Conduct and other rules and regulations that are part of the Efacec Compliance System.

The Ethics Line is a communication channel, managed by the Compliance area, which allows sharing, in a safe and confidential way, the occurrence of practices that are contrary to the Code of Conduct.

Confidentiality
Confidentiality is privileged over anonymity, which is, nevertheless, guaranteed whenever requested.
The Compliance area has an obligation of confidentiality, forcing itself not to use the data for different purposes and respecting the data conservation period. Anonymity is ensured in the event of an express request by the user, and the user may only disclose his/her identification to Efacec in the event of a legal dispute.

Independence
Complaints are registered and classified by the Compliance area and subsequently analysed by the Corporate Ethics Committee.

Safety
The use of the Ethics Line cannot determine any retaliation by the company or by anyone against the user, except in cases of abuse and bad faith.

01 **Employee**

Becomes aware of an Irregular practice at Efacec and, and believes that is important to report it, does not want to do it internally (to the superior, to the Compliance area, to the Ethics Committee), for several reasons.

02 **Ethics Line**

The employee reports the irregular practice to the Ethics Line through the means available for this purpose: telephone, mail (using the appropriate form) or email.

03 **Compliance**

It analyses the reported irregular societies and promotes the first screening, checking if the situation is, in fact, a possible violation of the Efacec's Code of Conduct - only these are forwarded to the Ethics Committee.

04 **Corporate Ethics Committee**

Analyses the complaint made and (i) files it because it considers that it does not correspond to any irregular situation or (ii) forwards it to the body that, in its opinion, can better carry out a more in-depth assessment of the complaint (internal audit, HR, police force...).

05 **EC /BD**

Depending on the seriousness of the reported irregular situation, and following the steps taken, it decides (filing, disciplinary proceeding, change of procedure...), based on the recommendation of the Corporate Ethics Committee.

Internal Audit

The Internal Audit Office's mission is to ensure the compliance of operational procedures with the rules and other instructions of the management structure, as well as the identification of opportunities for improvement of the Internal Control System as a whole, aiming at its continuous alignment with the Efacec's risk identification and management processes and governance processes.

Interaction work with other Efacec programs and areas.

The Internal Audit activity is carried out in an independent and objective manner. To guarantee its independence, the Internal Audit reports directly to the Chairman of the Board of Directors and to the Finance and Risk Committee, reporting functionally to the Executive Committee. The objectivity arises from the adoption of internationally recognized internal audit principles.

As a result of its activity, the Internal Audit issues reports with recommendations identified as useful for improving the operations qualitative and quantitative control, seeking to identify added value for the Group and contribute to the achievement of Efacec's strategic goals.

During 2019, Internal Audit sought to interact with other Efacec programs and areas, namely Risk Management, the Compliance and the Corporate Ethics Committee, rationalizing the complementarity of the respective spheres of actions.

During this year, the following were especially relevant:

- Analysis of several projects in the Systems and Products areas;
- Survey of several administrative procedures across the whole Group;
- Special support work for the administrative area related to Efacec Chile.

For **2020**, the type of actions developed in the preceding years will be maintained, with a special focus on the follow up of the issued recommendations aimed at ensuring the full achievement of the expected benefits.

5.4. Relationship with Stakeholders

Efacec recognizes that the engagement with its Stakeholders is a value creation factor and works continuously to develop dialogue strategies that allow to continuously measure and improve their level of satisfaction, as well as to identify risks and opportunities for the business.

Efacec identifies the following as strategic Stakeholders: Clients, Employees, Suppliers/ Partners, Shareholders, the Media, and Society in general.

Efacec's interaction is subject to internal and external requirements, which apply differently to all its processes, and that is why the relationships with Stakeholders are a complex system that uses different consultation mechanisms. All elements obtained from the relationship with the different Stakeholders are analysed and the results considered in the company's continuous improvement processes.

Stakeholder	Consultation Methods	Assessment Methods	Expectations
Clients	Face-to-face and periodic consultation *Voice of the Client*	Client Satisfaction Analysis	Product/service/solution quality
	Satisfaction Questionnaires	Systematic analysis of Client complaints	Product / service / solution innovation
	Complaints system	Permanent analysis of Client information, resulting from visits, facilities, and services	Efacec's credibility and image
	Specific business support communications	Analysis of Client audits results	Adoption and implementation of citizenship values and other aspects related to sustainability
	Communications of bid preparation and contract implementation processes	Analysis and response to questionnaires and other qualification requirements for supply	Corporate Ethics
	Presence at trade and technological fairs and events		Compliance
	Client audits		
Employees	More performance (performance and development management)	Performance analysis, career, mobility, and training needs	Well-being (pride, occupation, compensation, equity, climate)
	Organizational Health Index (organizational climate survey)	Analysis of the results of the *Organizational Health Index*	Socialization
	One-off / planned meetings and knowledge meetings (for example, breakfast with the Chairman, Sales Convention, events to disclose initiatives and results)	Training and development actions assessment	Personal development
	Internal satisfaction surveys relating to training, events, etc.	Assessment of meetings, events, others	Best support services
	Questionnaires to assess the services provided by the Corporate areas	Assessment of the service level and quality of services provided by the Corporate areas	

Suppliers / Partners	Supplier management process (based on the efasst system)	Assessment, qualification and recognition of Suppliers and partners	Corporate ethics
	Visits and audits to Suppliers and partners	Project management analysis	Fair partner and Supplier assessment
	Reciprocal training		Qualification of new Suppliers and partners
	Projects with partners		
	Business projects (contracts)		
	Events with partners		
Shareholders	General meetings and other meetings attended by the shareholders or their representatives	Opinions issued at meetings of the Board of Directors or other	Business growth
	Biannual financial reports		Profitability of activities
	Visits by shareholders (or their representatives), whose meetings include Efacec employees		Group sustainability and risk management
			Project progress
			Compliance and corporate ethics
Media	Conferences	Analysis of references to Efacec in the media	
	Presentations	Reputation reports	
	Interviews		
	Response to specific questions		
Society and all Stakeholders	Efacec Portal / general email	Public recognition application reports	Knowledge and experiences sharing
	Participation in public recognition processes	Support and sponsorship proposals management	Support to society/community initiatives
	Presence at society events (communications, round tables, etc.)	Reflections on Efacec's participation abroad	Collaboration in several studies with information provision
	Communication with community institutions	Internal diagnoses	Participation in community projects
	Participation in publications		Corporate Ethics
	Participation in associations		Compliance

Participating at the 20.Fábrica.30 Conference- Portugal

Chapter 6

Boosting a smarter world

efacec Empowering the future

6. Commitment Sustainability

Emerging challenges such as climate change, the circular economy, human rights, European directives in the area of sustainability, socially responsible investment or the Sustainable Development Goals (SDGs) require transparency and commitment from companies.
We are witnessing increasingly complex value chains: larger in scope, with longer life cycles, with more Stakeholders involved, with more risk factors and with sector specificities.

All of these details result in new forms of management oriented towards innovation and sustainability, and made Efacec subscribe to the Charter of Principles of BCSD Portugal, which establishes the principles that correspond to the good business management guidelines.

Sustainability is one of Efacec's values. We are completely committed to our role in building a better future, inside and outside Efacec, focusing on providing integrated and efficient solutions with a significant impact on the economy, society and the environment. At Efacec, we try to go beyond legal compliance, adopting recognized norms and practices and in line with management, ethical, social, environmental and quality standards, in any area of our operations.

In 2018, we carried out a comprehensive and thorough diagnosis of Sustainability at Efacec, having concluded that, despite a mature model with a large number of duly implemented practices in the company, there was still a set of opportunities for improvement, which were structured in ten intervention areas. Throughout 2019, multidisciplinary teams worked with the objective of contributing to all the internationally established Sustainability benchmarks and principles, focusing essentially on five axes incorporated into our strategy:

- **Disseminate an ethical and responsible governance;**
- **Put People at the centre;**
- **Be sustainable in the management of Suppliers and Clients;**
- **Reduce our ecological footprint and carbon intensity;**
- **Have a conscious impact on the communities where we operate.**

SDGs
Sustainability

4 QUALITY EDUCATION

Efacec supports child and youth development, the promotion of school success and opening up to science and technology in the communities where it operates.

5 GENDER EQUALITY

Efacec makes continuous efforts to avoid discrimination and promote gender diversification, despite the predominance of male Employees - a direct consequence of the sectors in which the company operates, closely linked to engineering and manufacturing operations.

8 DECENT WORK AND ECONOMIC GROWTH

Efacec is an employer that offers excellent working conditions, access to new methodologies and technologies and defends human rights in all regions where it operates.

Efacec is concerned with having a positive impact on all the communities in which it operates, seeking to promote local economic and social development.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Efacec strives to continuously improve the incorporation of ethical and environmental concerns in its supply chains in order to gradually and sustainably reduce the impacts of its activities.

13 CLIMATE ACTION

Efacec is determined to reduce CO_2 emissions resulting from its own activities and is committed to reduce CO_2 emissions to 50% by 2030 and achieving carbon neutrality by 2050.

6.1. Ethical and responsible governance

Efacec strives to improve its governance mechanisms, working continuously to achieve business efficiency while respecting the fair competition principles, and acting in accordance with external controls (laws and regulations) and internal controls to ensure our company's transparency.

Throughout 2019, Efacec's Code of Conduct was strengthened with complementary policies aimed at deepening the fundamental ethical guidelines applicable to all Stakeholders, including Employees, Suppliers, other Partners, members of the governing bodies and shareholders:

Anticorruption Policy
Efacec is committed to a policy for the transparency and zero tolerance to any form of corruption and bribery, regardless of the geography and the public or private nature of the business. In line with Principle 10 of the UN Global Compact and the OECD Anti-Corruption Convention, this Policy lists the internal rules that reflect Efacec's commitment against corruption, seeking to ensure that all actions and decisions are taken in the best interest of Clients, the market and the society in which it operates.

Conflict of Interest Policy
Although, in general, conflicts of interest are not inherently wrong or inappropriate, they have the potential to cause great damage to a company. At Efacec, all real or apparent conflict of interest situations must be immediately declared, in writing, by filling in the Conflict of Interest Statement, prior to any decision making that may reveal the potential conflict.

Gift and Hospitality Policy
The exchange of gifts and hospitality within the commercial scope is not, in itself, illegal or unethical. However, if this is frequent or excessive, it can create (or appear to create) conflicts of interest or inappropriate influences, as well legal and reputational compliance risks.

This Policy establishes what can be offered or received, within the commercial scope, ensuring alignment with five principles:

i. Be permitted by applicable national and international laws (example: UK Bribery Act, US FCPA), as well as the internal rules and regulations of the third party (example: codes of ethics and conduct), sender or recipient of the Gift or Hospitality;

ii. Be transparent, and the Gift or Hospitality can be revealed inside and outside the Efacec;

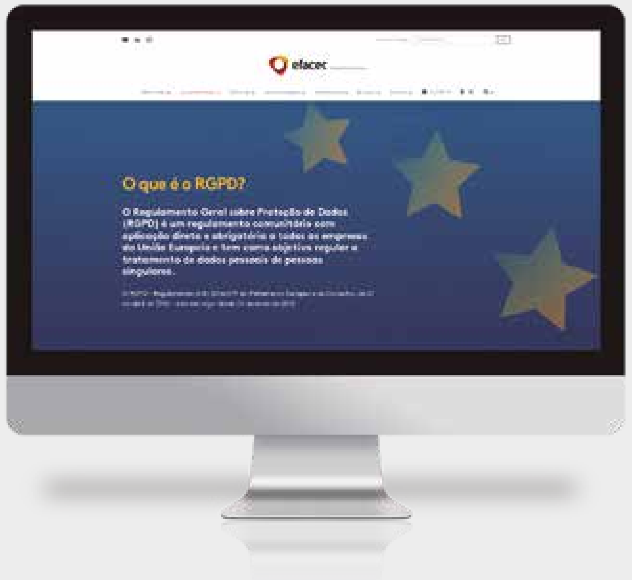
iii. Not be granted for the purpose of obtaining an improper advantage or influencing a particular behaviour or action, such as awarding a contract or granting a license;

iv. Not have content which may be offensive to public morals;

v. Frequency to the same person is not inappropriate;

In 2019, Efacec strengthened training on all topics covered by its Compliance System, promoting sessions on topics such as Anti-Corruption and Partner Management, to specific groups of Employees according to their roles in the Group (example: purchasing teams, commercial teams, financial teams or project managers).

In this context, we joined the Call to Action Anti-Corruption campaign of the Portuguese Association of Business Ethics (APEE) and the Global Compact Network Portugal, following the appeal launched by the UN Global Compact that promotes the adoption of its Principle 10, according to which "organizations must fight corruption in all its forms, including extortion and bribery".



Text published in the internal newsletter power:on

Privacy page on the Intranet

6.1.1. Privacy at Efacec

Efacec is committed to ensuring the security of the personal data of its commercial and non-commercial Partners and its Employees' personal data while respecting the data protection legislation applicable in all jurisdictions where it operates. In 2019, procedures and tools were implemented to comply with the General Data Protection Regime (GDPR), allowing the achievement of an above average maturity level.

Efacec has a Privacy Team, whose primary mission is to ensure the data subjects' rights, promoting clear and objective communication with all Employees about compliance with the GDPR and other legislation applicable to Efacec.

During 2019, this Team's priority was focused on the awareness and training of Employees on the topic of privacy:

- A section with different themes was published quarterly in the internal newsletter aimed at deconstructing concepts and topics related to the regulation, in a clear language accessible to all Employees;
- An e-learning solution was developed internally with GDPR-content related, in addition to classroom training for functional groups that present a greater risk in terms of data protection.

→ **Efacec has a Privacy and Personal Data Protection Policy applicable to all its Partners and Employees, which must be respected and which can be read at**

www.efacec.pt/en/privacy-policy/

6.2. People at the centre

Efacec sees Human Capital as the company's greatest asset and, in recent years, has strengthened its positioning as one of the main promoters of engineering talent in Portugal.

Annual meeting of Efacec Employees - Portugal

	Training per employee	Internal climate	Mobility index	Attendance index	Underrepresented gender
Our 2020 goals	35 hours	65	12.18%	0	500 women
Our progress	27.8h	52[1]	2.7%	6	430 (17%)

[1]Internal Climate Assessment not carried out in 2019. Reported metric related to 2018.

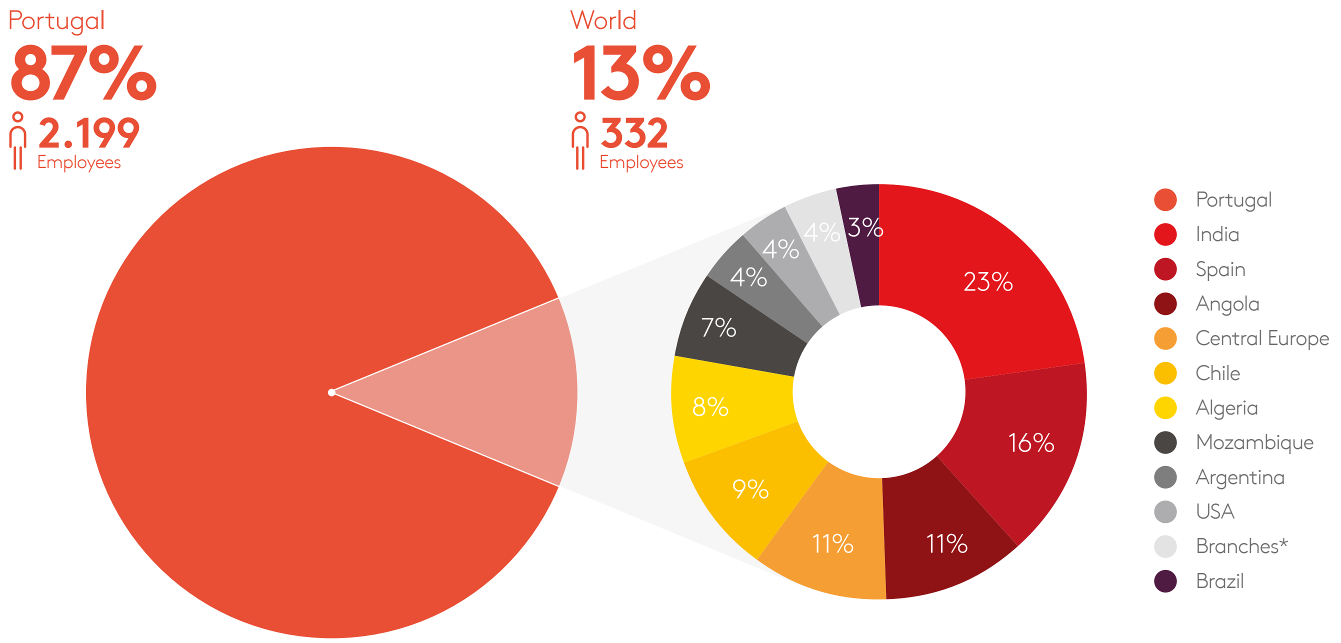
In Efacec's view, bringing the best of Portuguese technology to the four corners of the earth is only possible with a clear commitment to developing its Employees' skills, strengthening mechanisms for recognizing potential and performance.

Efacec also believes in remaining a reference employer in the countries and communities where it operates, privileging local hiring and teamwork, rewarding high potential and performance through career progression and offering fair compensation and benefits. In this way, we remain committed to promoting attraction and retention, creating an increasingly closer connection between our Employees and Efacec.
We also maintain integration and focus on promoting diversity and inclusion, and promoting measures that allow Employees to reconcile personal and family life with their professional life.

6.2.1. Efacec Employee Profile

On 31 December 2019, Efacec had**2,531 Employees** spread across Portugal, Spain, Central Europe, India, Algeria, Angola, Mozambique, Brazil, Chile, Argentina and the USA.

› **Efacec Employees in the World**
*Branches with Efacec Employees: Morocco, Tunisia, Denmark and Dublin



Approximately 42% of the Employees are part of the "Expert" functional group, which demonstrates Efacec's commitment to innovation, product development and new solutions.

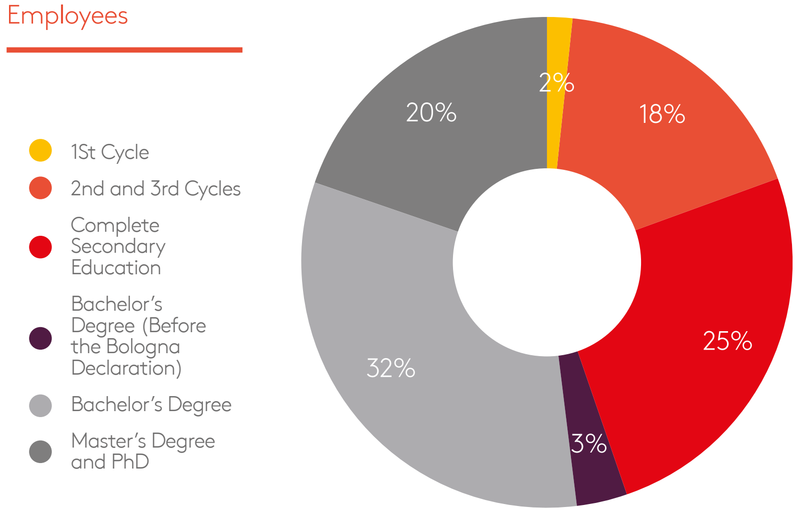
› Distribution of Employees by functional group and location on 31 December 2019

	In Portugal					
Category	**Arroteia**	**May**	**Qta. Fonte**	**Others**	**In the World**	**Total**
Executive Director	7	—	—	—	—	7
Director	27	21	17	—	—	69
Head	55	40	13	2	8	118
Coordinator	95	77	25	1	24	222
Specialist	392	394	161	1	125	1073
Technician	92	125	32	1	52	302
Supervisor	50	31	16	3	19	119
Operational	368	74	15	13	81	551
Administrative	29	12	10	—	19	70
Grand Total	**1115**	**774**	**289**	**21**	**332**	**2531**

2.531
Total Employees

While maintaining the profile of a technological company, Efacec Employees have high academic qualifications: 55% Bachelor's Degree (Before the Bologna Declaration), a bachelor's degree, a master's degree or a PhD, and only 19.6% of Employees have qualifications equal to or lower than the 3rd cycle of basic education.

› Distribution of Efacec Employees by academic qualifications



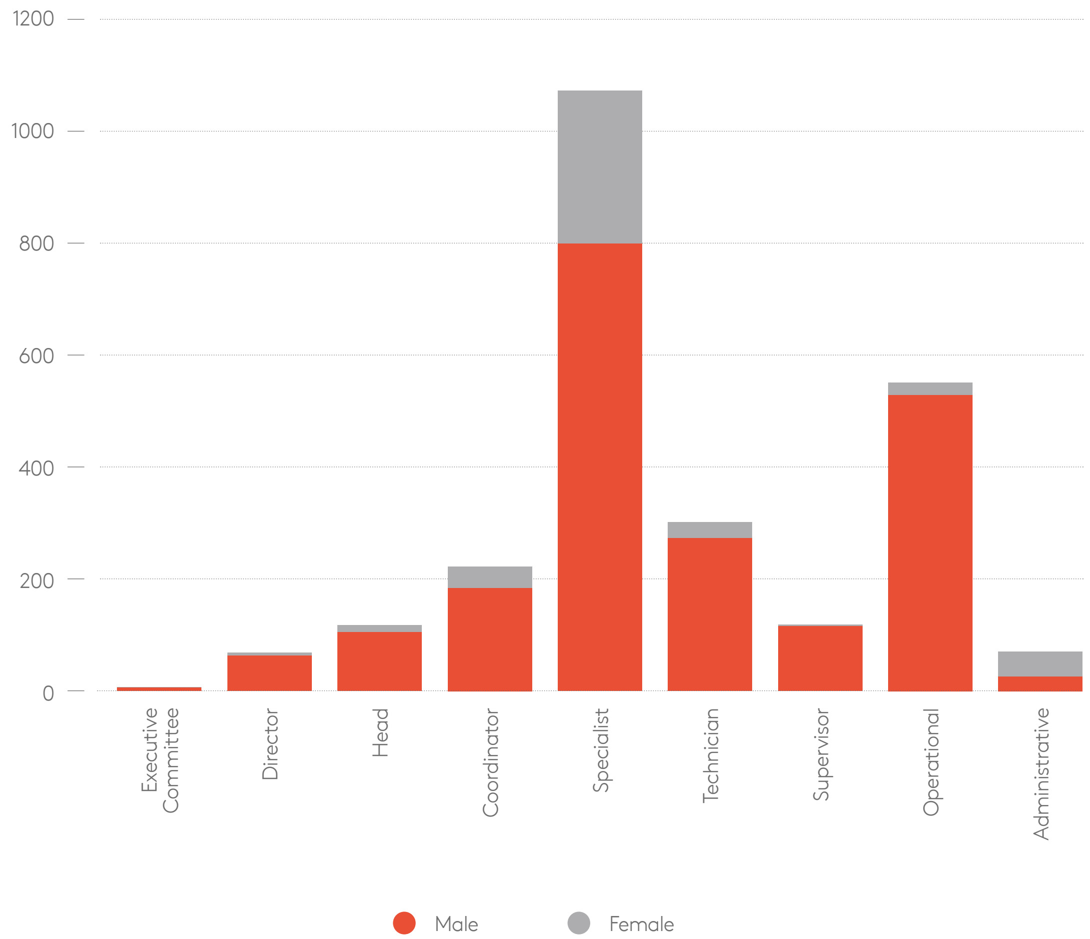
In recent years, Efacec has made continuous efforts to avoid discrimination and gender diversification, despite the predominance of male employees being a direct consequence of the sectors in which the company operates, closely linked to engineering and manufacturing operations. As of 31 December 2019, 17% of the Employees were women, an improvement of 1.2 pp compared to 2018 (15.8%).

In 2018, Efacec made a commitment to increase gender diversity and reach 500 women by 2020 (an increase of more than 40%, in the underrepresented gender), as a way of valuing opportunities for both genders, but also to adapt the Group's response capacity to the challenges brought by the 21st century.

› Distribution of Efacec Employees by gender and functional group

Male
83%
2.101 Employees

Female
17%
430 Employees



6.2.2. Strategic People Management

In 2016, and in the context of the Human Resources transformation and the promotion of the Talent Development strategic pillar, Efacec introduced the "More People" program, which aims to promote greater attraction, development and retention of Employees through five critical aspects.

More Performance

More Performance is Efacec's performance management tool, implemented in 2017 and whose main objectives are:

- Enhance the company's strategic alignment, through objectives established in a top-down logic and transversal skills aligned with Efacec's values;
- Promote the development of each employee's skills to improve their performance through the identification of the main points to strengthen and improve, and the definition of individual development plans that contribute to the excellence of individual performance and that feed each employee's professional aspirations;
- Differentiate individual performances and recognize merit.

In 2019, some improvements were made to the process, with clear purposes:

- Identification of potential successors, with the objective of promoting reflection between the employee and the manager on this topic and giving the "kick-off" to a future model of succession management;
- Strengthening the top-down component for establishing performance objectives, promoting greater strategic alignment with the operational and financial goals/priorities of each business/corporate area;
- Strengthening the alignment of performance objectives within the various existing functional families, promoting greater equity among Employees who perform equivalent duties.

More Training (Mast3r Academia Efacec)

Mast3r Academy was developed with the objective of supporting the promotion of a learning, excellence and continuous improvement culture, proposing to cover all Efacec Group Employees and all areas of knowledge identified as relevant to our sustainability.

Structurally, Mast3r Academy is divided into three schools:

Corporate School

→ training and development of Employees in the most behavioural topics, in the Efacec culture and in the company's corporate processes;

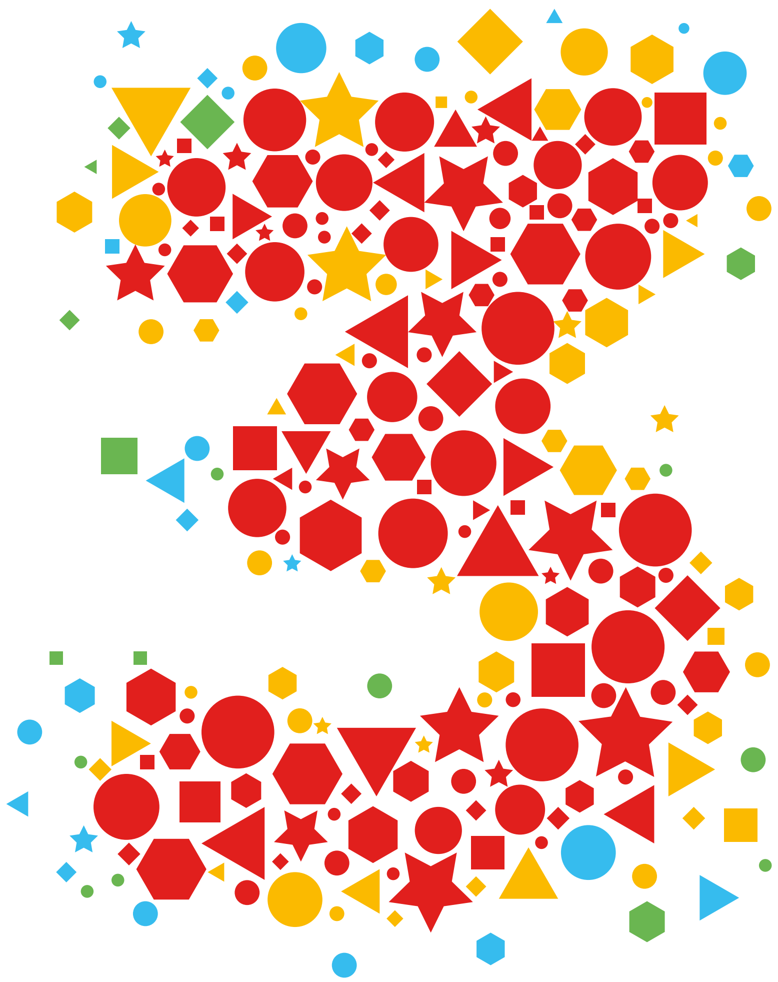
Management School

→ development of project management, business and leadership skills of our current and future managers;

Technological School

→ promotion of a shared vision about the future of Efacec Technology and the development of differentiating technical skills that support the technological roadmap of the Group.

MAST3R ACADEMIA EFACEC



2019 at Mast3r Academy

During 2019, Mast3r Academia Efacec provided

57.168h

→ Number of hours per training
43,716h - 2017 / **37,039h** - 2018

2.052

→ Employees who attended Mast3r Academy Efacec courses in a total of 7,256 employees.

4,2 /in 5

→ Average Global Satisfaction

Distribution of types of training:

- → **Corporate School** **18,553h** (32%)
- → **Management School** **8,339h** (15%)
- → **Technological School** **14,390h** (25%)
- → **Foundations - QAS** **11,070h** (19%)
- → **Foundations – Microcomputers and Languages** **4,816h** (9%)

Corporate School

- Certification of 40 new internal trainers, which is a clear commitment to develop a learning, sharing and growth culture through the retention and promotion of internal knowledge;
- Training programs focused on the development of behavioural skills with a view to strengthening the company's culture and values, which represented 32% of the annual training volume;
- Strengthening, development and certification of skills in the area of Quality, Environment and Safety (19% of the total training), considering the importance of this topic for Efacec's sustainability;
- Protocol with the Centre for Responsible Business & Leadership of Católica-Lisbon to support the creation of the Centre for Responsible Business, an academic reference in Europe in research, teaching and consultancy in the areas of Responsible Business Management.

Management School

- Under the protocol with Porto Business School, two Management and Leadership programs were carried out to strengthen the skills of current and future Efacec leaders;
- Support to Post-Graduation courses or PhD programs in the areas of Management and Process Engineering, Mechanics, Electrotechnics and Computers.

Technological School

- New protocols with FEUP and ISEP to strengthen the proximity of our Employees to national and international R&D communities focused on the technological topics that we develop and/or want to develop in the future;
- Development of the first training modules in Efacec products. These modules were designed, developed and taught by our Employees.

in 2019, following an initiative to improve the internal climate, a new **Efacec Employee Handbook** was created with all the information on the main processes in the Human Resources area.

The purpose of this document is to assist and guide all Employees with clear, direct and transparent information on various issues related to Human Resources that impact the daily lives of all Employees.

Mais Carreiras (More Careers)

The Mais Carreiras model fits the career management of Efacec Employees, allowing the construction of individual paths within a common structure and ensuring the combination of merit with professional development.

Within this model, it is possible that each Employee:

- Evolves within the scope of their role (progression);
- Evolves to lateral roles (mobility);
- Evolves to higher-level responsibility roles (promotion).

In 2019, there were 81 professional progression movements, which correspond to a recognition of the increase in our Employees' proficiency within the scope of their positions and 83 movements of Employees who took on more responsible positions. This mobility reflects a clear commitment to Efacec's internal talent.

More Mobility (EfaMove)

EfaMove is an important management tool that offers professional growth opportunities to Efacec Employees, fostering internal mobility and retaining the best talent and competence within our teams.

Through this program, we disclosed new and diversified internal vacancies, promoting the constant development of our employees' careers, strengthening Efacec's potential.

During 2019, 71 ads were released, with 122 applications, 82 interviews and 19 selected candidates.

More Talent

Efacec is recognized, on its own merit, as an "Engineering school" in an innovation environment. As such, it is natural that the most sought-after profiles are related to the Engineering area, namely in electrical, mechanical, computer and industrial management training. In the context of the strategy that Efacec has been developing to renew its DNA and prepare for future challenges, the company also has opportunities for profiles related to the fields of economics, management and data analysis. Efacec participates and develops large, innovative projects, with cutting edge technology and great technical complexity in the areas of energy, systems and electrical mobility. The Clients' high level of demand makes Efacec seek mainly entrepreneurial profiles, with a desire to make things happen, adaptability to new situations, resilience and no difficulties in dealing with constant change.

Under the implementation of a Talent Management model, in 2018, a *Development Centre* was created. This centre initially covered the 1st and 2nd management lines and some Employees with responsibility in terms of people management. In 2019, the eligibility for this program was extended to the 3rd lines or equivalent, covering about 395 Employees.

The *Development Centre* is a process through which, annually, a group of Employees is invited to participate in simulation exercises, with the objective of collecting information about their skills profile and defining a personalized development plan that reinforces their strengths and helps to develop their areas for improvement.

As a result of this process, an individual feedback report is prepared and shared with the employee and their direct manager. This report includes the mapping of observed skills and suggestions for development initiatives, which must be translated by the employee and the manager into an Individual Development Plan.

In addition to sharing individual feedback, five free registration workshops were also held at the three centres to answer questions about the report and train Employees in the definition of development actions.

Also within the scope of More Talent, we highlight the two Talent Forums with the Executive Committee. The main objective of these sessions is to give visibility to the talent that exists at the various levels of organization and to promote reflection on the best ways to retain and enhance it.

The *Power Summer Interns* internship program took place between June and September2019. The main objectives of this program is attracting and catalysing talent, a closer relationship with the academic population and finally the possibility of capturing creative and innovative ideas.

The "Formula Efacec" was another initiative by Efacec aimed at disclosing the company's culture and values, as well as identifying new talents for the different business areas of the company. The campaign received more than 1,200 applications from university students from different areas of knowledge, from all over the country. There were 150 finalists who, over the course of a day, responded to challenges in the key areas of Efacec's performance: energy, mobility and environment.

Visit to Efacec facilities under the summer internship program - Portugal

Fórmula Efacec - Portugal Initiative

News
Highlights

Efacec present at recruitment events

During 2019, Efacec's Human Resources participated in several events that allowed the Brand to be presented to the job market, as a way of capturing the best talents and the most appropriate profiles for its activities.

Sunset Networking
Municipal Employability Promotion Division (DMPE)

Pitch Bootcamp (SPARK Agency)
Técnico de Lisboa · Instituto Superior de Engenharia de Lisboa (ISEL) · University of Aveiro · University of Coimbra

Career Fair
Faculty of Engineering of University of Porto (FEUP)

Workshop and interviews
Cidade das Profissões do Porto

Star Prize winners participate in a Formula E race!

Two Employees of the Efacec Transformers team, winners of the Star Recognition Awards, had the opportunity to travel, in May, to Berlin and meet the DS TECHEETAH team and experience the atmosphere of a Formula E race.

More Recognition

Efacec's compensation and benefits model aims to ensure the alignment of remuneration practices with the positioning of each position in the company and with the relevant market practices/trends, being an important tool for the recognition, motivation and retention of Talent. In 2019, the Recognition and Reward tools were continued, with emphasis on the Efacec League, the program for awarding pecuniary prizes to Production Employees based on the results obtained.

The Star Recognition Awards initiative was also continued aimed distinguishing Efacec people and teams that have distinguished themselves in various aspects of their activities. The application and eligibility processes for these Awards follow a strict regulation and are awarded to the following categories: Individual Award, Technological Innovation, Operational Excellence, Commercial Proactivity, Focus on External Client, Focus on Internal Client, Talent/Leadership Development, Sustainability/Safety, Sustainability/Zero Accidents and Sustainability/Volunteering. In 2019, ten teams and two Employees were awarded. They received their distinctions during the 2nd edition of the Power Efacec event.

In June, there was yet another ceremony to celebrate and distinguish the winning ideas under the Colombo 2018 Program. Running since 2009, this program is transversal to the entire company and aims to incubate and identify ideas that allow us to continuously improve.

The award ceremony was attended by the authors of the winning ideas, direct managers, directors of the areas represented and members of the Executive Committee, with the awarding of the awards made by the Chairman of the Executive Committee, Ângelo Ramalho.

During the event, where 32 approved initiatives were distinguished, the best ideas of the year were also revealed. Given the quality, potential and impact of the two ideas, the final prize, usually awarded to the best one, was shared between the two ideas, culminating in a tie. The *Ranking* Prize was also awarded to the employee with the highest number of points accumulated throughout the year, that is, with the highest number of approved ideas. Leonel Veiga, from the Electric Mobility area, was the author of 55 ideas.

The program totalled 153 ideas and had the participation of 99 Employees from the most diverse areas, an increase of 50% and 57%, respectively, compared to the last edition.

LEONEL VEIGA, ELECTRIC MOBILITY — *RANKING AWARD WINNER*

"Sometimes, when we talk with some co-workers about things that could be improved and about things that could make our daily lives easier the ideas pop up. The big impact will be to facilitate my work and that of my co-workers. Safe time, reduce costs and reduce efforts.",
Leonel Veiga

6.2.3. Internal Climate

In 2019, several initiatives were planned and developed to improve the internal climate, namely:

- Moments to share results, messages and successes of our teams in all Business Units;
- Recognize moments of celebration of victories through the publication of periodic bulletins;
- Improvement of the KPI structure that supports the More Performance cycle;
- Distribution of a new Employee Handbook with more and better content;
- Implementation of a plan for sharing and transmitting external knowledge (Lunch & Learn);
- Implementation of the various phases of the Development Centre program;
- Rapid training plan for new managers (two sessions held in 2019).

6.2.4. Human Rights

Work Ethics

Within the scope of its Sustainability strategy, Efacec sees a growing concern in order to contribute to the defence of Human Rights. With this regard, it should be noted that Efacec has publicly committed to the Charter of Principles of BCSD Portugal, which includes several Human Rights principles, such as the concern with ethical aspects of work, the elimination of any type of discrimination, the improvement of safety conditions and the strict compliance with local legislation.

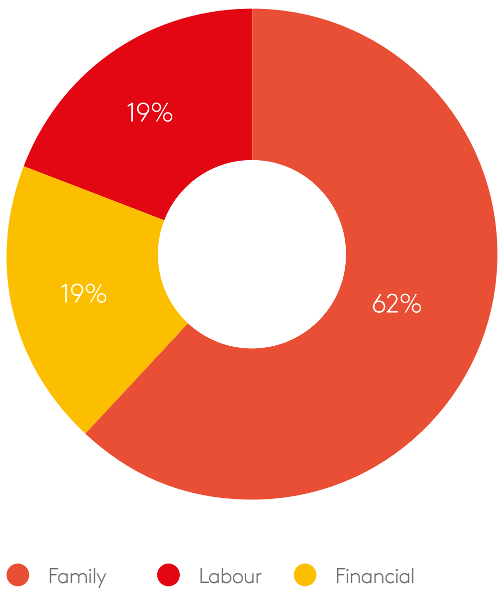
We should also mention the inclusion of four specific Human Rights indicators (in addition to the Safety and Human Resources diversity indicators) referring to the discrimination and risks of operations. These indicators are reported in the appendix related to Social Indicators, and the results obtained do not point out problems in this area.

Social Assistance

Efacec strives to support Employees from a personal and family perspective. In 2019, Efacec continued to provide personalized social assistance services at its national centres.

About 1,290 service sessions (consultations) were carried out with Employees. The main problems dealt with are of a family, financial and labour nature.

› Problems nature



Improvement of working conditions

Throughout 2019, Efacec made several improvements in its workplaces. The openings of the new canteen in Arroteia, the new Automation offices in Maia and the new facilities in Lisbon, located in Quinta da Fonte stand out.

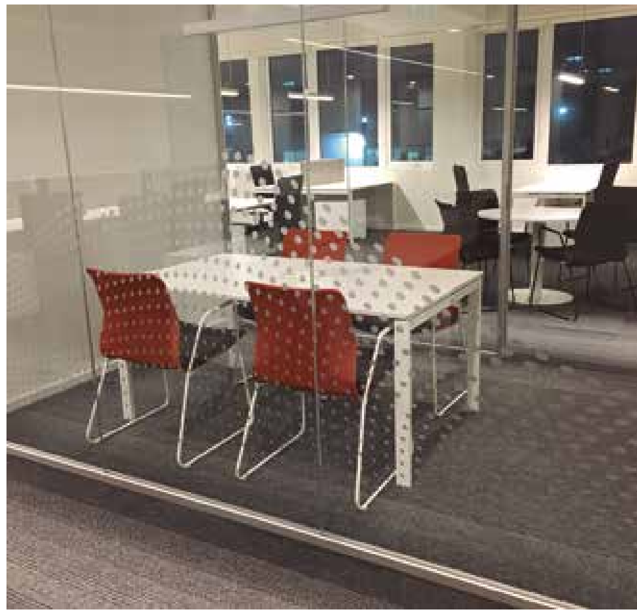
Efacec joins the CEO Guide on Human Rights

In June, the CEO Guide on Human Rights[1] was released by BCSD Portugal (Business Council for Sustainable Development), a non-profit association that aggregates and represents more than 90 leading companies in Portugal that are committed to the transition to sustainability and has the subscription of Efacec's CEO, Ângelo Ramalho.

The CEO Guide to Human Rights aims to identify the four main human rights developments that challenge companies to go further and beyond:

1. Regulation is making expectations feasible;
2. Public interest is high;
3. Expectations for companies are high;
4. Investor expectations are increasingly high.

[1] This guide is the Portuguese version of the *"CEO Guide for Human Rights"* launched by *World Business Council for Sustainable Development* (WBCSD) and subscribed by 43 companies from 17 countries with 2.8 million direct Employees and a large global value chain transversal to 17 business sectors.



New Automation facilities at the Maia Hub - Portugal

New canteen in Arroteia - Portugal

New offices at the Lisbon centre - Portugal

Dynamisation of the Efacec Club

Efacec continued to support the Employee associations - Efacec Club and CCDEL. The main activities developed were divided into three axes:

- **Cultural** – visits to heritage and hiking;
- **Sports** – table tennis, fishing, road running, mountain running;
- **Recreational** – promotion of musical and theatre shows through discounts on the purchase of tickets, support for the creation of summer camps (Parque Aventura Diverlanhoso), toys offer and Christmas circus.

Protocols

Within the scope of its business relations, Efacec has established protocols that provide advantageous conditions to its Employees. These agreements are established with clinics, schools, banks, insurance companies and other entities. In 2019, Efacec's list of protocols grew about eight times, with more than 50 protocols currently in the areas of health, leisure and culture, education, among others.

Safety and Health

Efacec defines People Safety as one of its priorities, a topic under the responsibility of the QES (Quality, Environment and Safety) corporate area and closely monitored by the Executive Committee.

Efacec's industrial operations are covered by a Safety Management System that establishes the principles and practices required for everyone who works and circulates in the company:

- Hazards identification and risk assessment of all activities, products and services, aiming at replacing what is "dangerous" with what "is free from danger or less dangerous";
- Investigation and reporting on work accidents and near-accidents to determine causes;
- Definition of actions to correct deficiencies and prevent recurrence;
- Implementation of the Internal Security Plan, which contains security procedures and instructions.

Since 2016, the "Valor Segurança" project has been active whose ultimate goal is to eliminate accidents at work through the training and awareness of all employees and other interested parties. The results of this program are extremely positive, having seen a 23% reduction in the number of accidents, which responded to the 25% reduction in the frequency index.

DuPont visit to Electric Mobility facilities - Portugal

In 2019, the "Valor Segurança" Project, initially focused on the Transformers and Service areas, was extended to the Equipment and Electric Mobility areas. This extension aims at achieving the “Zero Accidents” vision in 2020. The program, developed in articulation with DuPont Sustainable Solutions (DSS), a consultant specializing in the topic, has helped to change the way safety is perceived at Efacec, ensuring collaboration between all co-workers, who are now much better able to report good and bad examples.

This action plan, which has already led to a significant change in behaviour, reflected in the figures above, and included awareness-raising actions, recurring follow-up visits to the production areas, training at the several hierarchical levels of the areas and accident investigation. In addition to these initiatives, a Preventive Behaviour Observations (OPC) program was also implemented, which is aimed at observing work practices from the point of view of safety. This allows creating greater proximity and identification between those who observe and those who execute. Employees communicate their concerns more easily, which facilitates the analysis of these practices and the achievement of a commitment to improvement. Even with the increase in the number of rules to be followed, the reduction of non-compliances is visible.

In 2020, Efacec will continue to improve several aspects of the Valor Segurança project:

- Strengthen the anticipation culture: reporting “near-accidents”, “safety alerts and OPCs”;
- Strengthen safety thinking from the design conception phase in the Products and Systems portfolio;
- Include Service Providers in KPIs (# of Accidents, IF and IG);
- Make Safety more visible in factories and works abroad;
- Review of Procedures, Training and Skills Matrix with respect to special risks;
- Prepare for the transition to the new ISO 45001 standard.

Electric Mobility focused on safety!

With the shape of an electric charger, the HV Zero Accidents is a pioneering project at Efacec, created under the Zero Accidents awareness program and developed by Employees from different departments in the Electric Mobility area.

The charger has a display where the number of days without accidents is displayed and its main objective is to make visible, in the daily lives of the teams, the importance of safety at work. Every day, the results will be communicated by an employee to his/her own team, boosting the communication of the topic at the start of each shift.

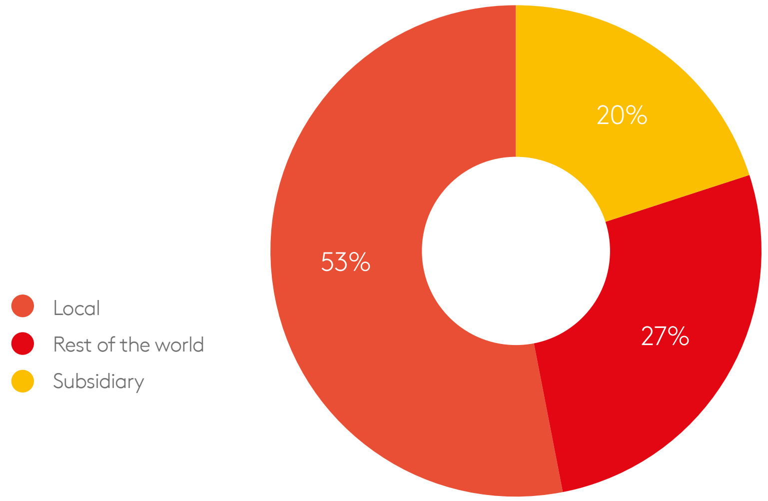
This initiative will extend to all business areas, which will have the opportunity to identify and create their customized piece of safety information, with the support of the QAS and Brand and Communication teams.

6.3. Sustainable management of Suppliers and Client

	Local purchases	Client Satisfaction
Our 2020 goals	> 55%	78%
Our progress	53%	74%

Managing and adopting good relationship practices with Suppliers and Clients is essential for Efacec to continue to be a reference in the markets where it operates. Higher standards of quality, rigour and ethics are increasingly required, and that is only possible through a harmonious management of Suppliers and Clients, among whom an increasingly direct relationship is important.

› **Country of origin of purchases**



Maintaining a reliable relationship with the Suppliers chosen for the business and with our Clients is part of Efacec's corporate culture, requiring long-term planning and constant follow-up of performance levels.

6.3.1. Sustainable Purchases

As a part of several value chains, Efacec has as priority the implementation of a "Sustainable Purchases" strategy, which goes through very significant changes in its processes, involving from simple purchases to high volume contracts.

It is increasingly necessary to strengthen the weight of ethical, environmental and social aspects in the Suppliers selection process. It is a complex process that involves the Product Development and QES (Quality, Environment and Safety) areas, in addition to Purchases. Throughout 2019, Efacec gave a significant boost to the revision of the Supplier Qualification and Assessment procedure in order to ensure greater alignment in meeting these universal challenges.

Efacec defends the principle of selecting Suppliers geographically closest to our facilities or projects. In 2019, 53% of the purchases originated from Suppliers located in the country where the Efacec entity that originated the Purchase Order is located. In addition to having a positive impact at the environmental level by reducing transport distances, this line of action also has a strong social impact, contributing to the development of local communities.

In 2019, Efacec was awarded one of the most prestigious awards for the Purchasing and Procurement function: PCADEC Award 2019 by the EIPM – European Institute of

Purchasing Management, which aimed at distinguishing the best purchasing and procurement organization in Portugal. Through this award, APCADEC - Portuguese Association for Purchasing and Procurement valued and highlighted Efacec's excellence in purchasing and procurement functions, recognizing high levels of creativity, innovation, respect for the environment and the society. Additionally, Efacec won the international Peter Kraljic 2019 award in the Sustainability category awarded by EIPM - European Institute of Purchasing Management, which annually recognizes the excellence of European Purchasing organizations.

Purchase process improvements

In March 2019, the transition process to the new ERP - SAP S4 / HANA started and is currently implemented in four companies: Efacec Power Solutions, Efacec Serviços Corporativos, Efacec Engenharia e Sistemas and Efacec Chile.

The Materials Management (MM) module was one of the implemented modules, through which supply management is currently carried out and the following activities are formalized:

- Recording of materials;
- Confirmation of purchase needs (via MRP);
- Recording of framework agreements;
- Issuance of Purchase Orders;
- Receiving materials/services.

Throughout this implementation, several challenges have already been launched with regard to the purchasing process, with several process changes having been analysed and integrated, with the objective of its continuous improvement.

6.3.2. Satisfied Clients

In order to determine its Clients satisfaction, Efacec uses several evaluation mechanisms, namely:

- Analysis of responses to the Client Satisfaction survey;
- Analysis of Clients complaints;
- Results of Client audits and qualifications;

In 2019, the response rate to Client Satisfaction questionnaires reached 35%, with an increase in the absolute number of questionnaires sent to Clients compared to 2018. Efacec's overall performance stood at 74%, with the following best rated parameters:

- Compliance with Safety requirements;
- Compliance with environmental requirements;
- Availability and courtesy.

In the question "do you consider Efacec for future supplies", the Environment and Industry and Energy businesses obtained high levels of loyalty, reaching 100%.

With regard to improvement opportunities, three aspects were identified:

- Meeting deadlines;
- Supply monitoring and management;
- Efficiency in solving complaints.

In 2019, 349 Client complaints were received and recorded under warranty, as well as 16 reference letters.

Also during 2019, 35 Client audits/ qualifications took place in order to assess the quality, environment and safety management system and/or the product.

6.4. Ecological Footprint and Carbon Intensity

	Recycled waste	Carbon footprint	Energy intensity
Our 2020 goals	> 98%	16,17 CO_2/revenues	170 GJ/revenues
Our progress	**95**	**41.74**	**392.15**

Efacec contributes to the Environment in distinctive manners

- Development of new products with better environmental performance or designed to allow a better environmental performance for Clients;
- Implementation of infrastructures that reduce the environmental impacts of the communities where the projects are located;
- Systematic reduction of environmental impacts resulting from the company's activities.

The Efacec's effort to develop new products with better environmental performance is described in the Technological Innovation chapter. The Efacec's effort to develop new products with strong environmental performance is described in the Technological Innovation chapter. This chapter reviews some aspects of the first two points and focuses especially on the third point.

Efacec's environmental effort can also be seen from the two main objectives of today's society:

- Development and implementation of Low Carbon Economy;
- Development and implementation of Circular Economy.

Advertising campaign on social media of the new equipment product - neoGEN

6.4.1. Efacec and Low Carbon Economy

Efacec contributes significantly to Low Carbon Economy through its portfolio. Its products and systems offer allows its Clients to reduce their CO_2 emissions.

On the other hand, Efacec is also determined to reduce CO_2 emissions resulting from its own activities. In 2019, Efacec joined two important international movements in favour of decarbonising the planet: the Business Ambition for 1.5° and the EV100. The commitments signed require the reduction of CO_2 emissions by about half by 2030 and the achievement of carbon neutrality by 2050.

› Contribution of Efacec's areas to Low Carbon Economy

Areas	Portfolio	Contribution
Products	Transformers	Transformers are among the most efficient on the market, minimizing CO_2. emissions.
	Equipment	Many of the Medium Voltage equipment pieces are designed using ecodesign methodologies and avoiding the use of SF6 (greenhouse gas).
	Automation	Several components are developed for smart energy networks, contributing significantly to increasing their energy efficiency. Interconnection equipment for renewable energy systems is also developed.
Systems	Energy	Renewable and clean energy plants are designed and built, namely wind farms, photovoltaic parks and hydroelectric plants, contributing to the planet decarbonisation. Hybrid plants (solar, thermal, storage) are also developed for a more flexible offer.
	Environment & Industry	Biomass plants are developed and remote management systems are provided

EFACEC MAKES COMMITMENTS TO DECARBONISE THE ECONOMY

In order to limit global warming and promote the transition to electric mobility, Efacec has signed two global commitments in the area of sustainability:

Business Ambition for 1.5°C
Promoted by the United Nations, this initiative focuses on the need to limit global warming to 1.5°C. By joining, Efacec is committed to setting climate goals in its operations and value chains in line with the ambition to limit global warming to 1.5°C above pre-industrial levels. This commitment involves reducing 50% of the greenhouse gas emissions by 2030 and achieving zero net emissions by 2050. The goals that Efacec will implement will be supported and validated by SBTi (Science Based Targets) and will be subject to constant monitoring.

EV100
Promoted by The Climate Group, this initiative brings together companies focused on accelerating the transition to electric vehicles. Following this commitment, Efacec undertook to convert its fleet to electric vehicles by 2030, also providing charging points for its Employees.

Corporate Mobility Pact for the City of Lisbon
Promoted by the Lisbon City Council, the World Business Council for Sustainable Development (WBCSD) and BCSD Portugal, 56 institutions signed the Corporate Mobility Pact for the City of Lisbon. In this way, Efacec is committed to converting its fleet to electric and hybrid vehicles, also providing charging points for its Employees.

Signing of the Business Mobility Pact for the City of Lisbon by the Efacec CEO, Ângelo Ramalho - Portugal

Group of 56 institutions that signed the Business Mobility Pact for the City of Lisbon - Portugal

Charger for the fleet electric vehicles at Efacec facilities - Portugal

Efacec's environmental plan is now strengthened in the following areas:

- Analysis of energy and environmental performance through the assessment of energy performance and procedural compliance indicators, including the breakdown of CO_2 emissions data;
- Establishment of new CO_2 targets that may be validated by the SBTi (Science Based Targets Initiative) methodology;
- Clarification and quantification of CO_2 emissions in the value chain and establishment of partnerships to reduce these emissions;
- Continuous assessment of the need for specific investments to successfully achieve the new CO_2 emission targets;
- Continuous assessment of the results of the conversion of the fleet to electric and hybrid vehicles;
- Promotion of more efficient management behaviours and policies in order to reduce energy consumption and CO_2 emissions.

Efacec has carried out important measures to reduce its carbon footprint. In 2019, investment and use of videoconferencing means increased significantly. Many work meetings have started to use the digital media currently available on each personal computer and which are initiated at any user intervention (for example, Skype for Business and Teams).

Efacec has also started converting its fleet from cars to electric vehicles, having already installed 12 charging points in the Arroteia and Maia Hubs). However, 4% of the Efacec's fleet vehicles are already purely electric or hybrid. To promote electric mobility, Efacec also grants a 20% discount to all its Employees who purchase Efacec electric chargers.

In 2019, the rehabilitation works of Efacec's industrial buildings continued. The most recent investments were made in the Automation buildings and in the new facilities at Quinta da Fonte. In general, these works involved several improvements in the buildings' energy efficiency, using more modern solutions such as:

- Led lightning;
- More natural lighting;
- Solar-thermal systems for heating domestic waters;
- New roofs with better insulation;
- Double glazing with thermal cut;
- VRF ventilation systems (variable refrigerant volume);
- Automatic doors;
- Heat pumps;
- Active/smart lighting and temperature controls.

Efacec's current Energy Efficiency Plan provides for a series of continuous actions, such as optimizing the operation of the service substation transformers, the replacement of T8 luminaries with T5 with electronic ballast, the gradual replacement of mercury vapour luminaries with LED and the replacement of metal halide lamps (400w) with T5 fluorescent lamps (2x80W).

Partnership with APCER supports the environmental performance of DS Techeetah

Efacec has taken a new step in the relationship it started in 2019 with the Formula E team, DS TECHEETAH. Within the scope of this partnership, and together with the Portuguese Certification Association (APCER), Efacec is supporting DS Techeetah in improving its environmental performance and obtaining the Environmental Certification awarded by the International Automobile Federation (FIA), offering the team the right solutions to improve its environmental performance and made it achieve carbon neutrality in its operations.

The certification process was initiated at the Berlin E-Prix in May, with an audit in a racing environment. The second phase of the project consisted of an audit at the PSA Motorsport plant, which took place in June, in Versailles, Paris. The parties are now preparing and implementing the entire structure, processes and documentation necessary to submit the application for environmental certification to the FIA

For Ângelo Ramalho, Efacec CEO, *"this is a reason for satisfaction for the company to continue the technological cooperation of the three-year partnership that started with DS TECHEETAH." "We support Formula E leaders and we want to help them become the champions of sustainability as well. We believe that*

this project will become a case study by showing how different entities combine efforts to reduce the ecological 'footprint' and take care of the future of the environmental ecosystem", he underlines.

The DS Techeetah project follows the Environmental Certification Program promoted by the FIA, aimed at helping all agents involved in sport, at global level, to measure and improve their environmental performance. In order to implement the most suitable solutions, Efacec has the support of APCER, which carried out the assessment of the status of compliance with the "FIA Environmental Certification Framework" and identified the points for improvement. Formula E is the first car competition to achieve ISO 20121 certification, the highest certification for sustainable events.

6.4.2. Efacec and Circular Economy

Through its portfolio, Efacec contributes significantly to Circular Economy, allowing with its products and systems offer to increase the level of circularity of its Clients.

› Contribution of Efacec's areas to Circular Economy

Areas	Portfolio	Contribution
Products	Transformers	Transformers are designed with their entire life cycle in mind. They can also be disassembled and a large part of the raw material can be recovered at the end of the life cycle.
	Equipment	Many of the Medium Voltage equipment is designed using ecodesign methodologies. Much of the raw materials can be recovered at the end of the life cycle.
	Service	The service activity allows rehabilitating and extending the useful life of energy equipment, manufactured by Efacec or by third parties, allowing its reuse and a high saving of materials (about 50%). This activity is prepared to ensure the maximum circularity of rotating machines, transformers and medium and high voltage equipment.
Systems	Environment & Industry	Drinkable and waste water treatment systems are designed and installed, as well as recycling stations for solid waste, with energy recovery. Biomass plants are also developed and remote management systems are provided.

Throughout the years, Efacec has developed circular economy solutions in its products and services. In 2017, a work team was created to develop and implement a Circular Economy program based on six aspects: design, purchasing, production, transportation, use and end of life.

Following current business requirements, Efacec frequently conducts Life Cycle studies for its products. These studies carry out a complete and systematic analysis of the products, identifying environmental aspects and impacts, throughout their history, from the extraction of raw materials, through the production, transportation, use and final destination. The ISO 14067 (Carbon Footprint) certification of the Fluofix Circuit Breaker started in 2019, and the completion of the QC45 Electric Charger Life Cycle Assessment is expected in 2020.

The Service business is a remarkable example of a business model that directly supports the Circular Economy, either through the rehabilitation of energy equipment or through the regeneration of oil (a competence introduced at Efacec in 2018, which allows reusing oil from transformers, thus reducing the quantity purchased and extending its useful life, contributing to waste reduction).

WHAT IS CIRCULAR ECONOMY?

Circular Economy is aimed at replacing the "end-of-life" concept of Linear Economy, based on the production and disposal of waste, with new circular flows of reuse, restoration and renewal of materials and energy.

HOW DOES EFACEC CONTRIBUTE TO CIRCULAR ECONOMY?

- Creating new business models (*Sharing Economy*);
- Using ecodesign solutions;
- Improving production processes;
- Reducing packaging materials and segregating waste in general;
- Regenerating used mineral oils;
- Using vegetable oils;
- Refurbishing its products;
- Developing technologies that allow reducing the use of materials;
- Collaborating with its Partners and Clients for the development of global circular processes;
- Optimizing product/material transports and reducing service trips.

› Number of pieces of equipment rehabilitated in 2019

Type of Equipment	% of Typical Recovered Mass	Number of Pieces of Equipment Rehabilitated
Power Transformations	50	75
Distribution Transformers	60	345
High Voltage Equipment	80	133
Medium Voltage Equipment	90	456
Rotating Machines	60	222

With regard to the Materials Passport, in 2019, the collection of data from Suppliers was intensified in order to know and value the quantities of raw materials that originate in a recycling process and the final use that we can give to our products.

6.4.3. Training and environmental awareness actions

On 21 March 2019, Arbor Day was celebrated at Efacec with a very special action. Dozens of Employees got together to plant trees and give a *greener* touch to the workplace, thus preserving and improving Efacec's green spaces.

A survey and diagnosis was made of the 185 existing trees at the Maia and Arroteia hubs. After this study, trees were identified that needed treatment and that needed to be felled because they were damaged or in danger of falling, in order to safeguard everyone's safety and protect our infrastructure.

As a way of maintaining Efacec's gardens, the registered Employees were able to gather, at the Maia and Arroteia hubs, and return everything that Nature provides, planting a tree, in a symbolic gesture. More than 40 trees were planted by the hands of around 70 Efacec employees!

Volunteer action for planting trees in the gardens of Efacec's facilities - Portugal

6.5. Impact on the community

Our 2020 goals	**Hours of corporate volunteering** 3,200 hours
Our progress	**1,619h**

It is in the citizenship actions that Efacec best translates the meaning of its greatest commitment: supporting the energy of the future. Efacec privileges voluntary and solidarity initiatives aimed at supporting child and youth development, promoting school success, opening up to science and technology and the sustainability of the planet and the communities where Efacec operates.

For these same reasons, Efacec's relationship with Schools and Universities is one of its main vectors of citizenship action, developing, year after year, partnerships and programs with an already proven impact on communities.

Nevertheless, Efacec monitors the situation in the country and around the world, intervening in force majeure situations in which the skills and experience of the company and its Employees can contribute to make a difference.

6.5.1. Involvement in the community

Since 2007, Efacec, as a business group, has partnerships with the Porto City Council and Junior Achievement Portugal (JAP Portugal), participating in an active and corporate manner in the Porto de Futuro program, and challenging its Employees to integrate the different volunteer actions developed throughout the year.

Efacec has been represented on the Filipa de Vilhena School General Council in Porto for several years, thus responding to the need and challenge of civil society participation in schools. Also every year, Efacec opens its doors to students from the Porto region, collaborating with JAP Portugal's initiatives in three fundamental pillars: Citizenship and Financial Literacy, Education for Entrepreneurship and Employability Skills.

In 2019, 15 Efacec Employees participated in the voluntary actions of JAP Portugal, highlighting the Leaders 4 a Day initiative, which aimed at introducing students to the business world, allowing them to accompany, for a day, some Efacec leaders.

Aiming at child and youth development, Efacec again awarded, in 2019, the School Merit Scholarships. This program, which started in 2018, aims at strengthening the connection of the younger generations to Efacec, distinguishing the Employees' children with the best academic results in each academic year. Regarding the academic year 2018/2019, a total of 230 applications were received and 74 children and young people were recognized and awarded, from the 1st to the 12th grade.

Merit scholarships to Efacec Employees' Children Award Ceremony - Portugal

Leaders 4 a Day volunteer action by JAP Portugal at Efacec - Portugal

In 2019, Efacec also made all its efforts to support the victims of Cyclone Idai, in Mozambique. After the news about the tragedy in Mozambique, which decimated thousands of houses, the Efacec team could not remain indifferent and offered to work actively with the Portuguese and Mozambican authorities in supporting the victims, providing their vehicles for rescue missions in the field. Efacec's engineering team in Mozambique was also working in Beira to reestablish the supply of electricity and respective telecommunications.

6.5.2. Participation and presence in external events

Efacec promotes, throughout the year, the participation of its Employees in community events to share and build knowledge and experience. Efacec also participates in events related to trends and the future in its areas of activity - Energy, Environment and Mobility, and can also contribute to more global discussions related to Sustainability.

› Participation and presence in external events

Event	Organizing entity	Nature of participation
Africa Energy Forum (AEF)	EnergyNet	Co-organizer and speaker
The Future of Mobility Summit	Bloomberg	
Congress on Innovation, Energy and Digital Economy	IEP	
Conference 20.Fábrica.30	Serralves Foundation and ECO	Speaker
European Mobility Week	Torres Vedras City Council	
Society 5.0 The Challenge of Sustainable Smart Societies Conference	BCSD	
How can Portugal prepare for the next decade - Challenges and Opportunities	PwC and Dinheiro Vivo	
Metal Digital — Shaping the Future	AIMMAP and Expresso	Participation in panel
Great Women Leadership Conference	Executiva	

News
Highlights

Great Women Leadership Conference

The Executiva magazine held a conference dedicated to women leadership in the city of Porto. One morning, 12 women shared the experiences, perspectives and challenges they face as leaders.

The event ended with a conversation between three executives, with different backgrounds. Vanessa Loureiro, Efacec director, was one of the invited speakers for the round table "How to get to the top" during which she shared her professional career.

Metal Digital — Shaping the Future

Efacec participated in Metal Digital - Shaping the Future, which included a debate on "Industry and Digital Transformation"

Promoted by Expresso in partnership with the Association of Metallurgical, Metalworking and Related Industries of Portugal (AIMMAP), the debate was attended by several representatives from industry and academia, and started with a challenge: Where will Portugal - and this sector - be in ten years?

6.5.3. Support to Universities and Schools

In 2019, Efacec established a protocol with the Catholic University to support, together with BP Portugal, the creation of the Centre for Responsible Business & Leadership, which aims to be an academic reference in Europe in terms of research, teaching and consultancy on Responsible Business Management topics. The objective of this initiative is through research and training to cement, in students and executives, the awareness of the current vulnerability of the planet, from a social and environmental point of view, and to help understand how to include the notion of *Responsible Business* in corporate strategies with a single purpose: to be able to contribute so that sustainability and responsible leadership are the cornerstones of the way we operate on our planet.

Throughout the year, Efacec also participated in several events organized by Portuguese polytechnic schools, through the intervention of its Employees as speakers who shared their experience and vision of the future in various topics of the current sectors in which we operate.

› Participation in events to support Universities and Schools

<table>
<tr><th>Event</th><th>Organizing entity</th><th>Nature of participation</th></tr>
<tr><td>4th Workshop on Innovative Teaching</td><td>Instituto Superior de Engenharia do Porto</td><td rowspan="4">Speaker</td></tr>
<tr><td>Meets Auto-Industry Academy</td><td>Instituto Superior Técnico</td></tr>
<tr><td>Value Chain - The Challenges of the Digital Agenda</td><td>Faculty of Economics of Porto</td></tr>
<tr><td>International Collegiate Programming Contest</td><td>International Collegiate</td></tr>
<tr><td>Responsible Business: Now is the time (strategy and call for action</td><td>Portuguese Catholic University</td><td rowspan="3">Participation in panel</td></tr>
<tr><td>Portuguese Summit on Battery 2030</td><td>International Iberian Nanotechnology Laboratory</td></tr>
<tr><td>Energy Systems of the Future</td><td>Instituto de Engenharia de Sistemas e Computadores, Tecnologia e Ciência (INESC TEC)</td></tr>
</table>

News
Highlights

Efacec participates in a discussion on energy systems

The energy systems of the future were the epicentre of the discussion at the Faculty of Engineering at University of Porto.

Organized by the Instituto de Engenharia de Sistemas e Computadores, Tecnologia e Ciência (INESC TEC), the Energy Systems of the Future event presented several R&D solutions and brought together industry experts. Ângelo Ramalho, Efacec CEO, participated in the round table "The future of energy systems by energy experts", during which he addressed the topic of technology as a key point to achieve a more sustainable future, thus materializing the vision of systems with 100% energy renewable.

Efacec participates at the Portuguese Summit on Battery 2030

The International Iberian Nanotechnology Laboratory (INL) hosted the Portuguese Summit on Battery 2030.

Efacec's Director of Technology and Innovation, and the responsible for coordinating the R&TD projects, were some of the guests who took part in the round table "Is it possible to create a full battery value chain in Portugal?",coordinated by the Chairman of the National Innovation Agency (ANI), José Carlos Caldeira. The event gathered representatives from different phases of the value chain and aimed at discussing Portugal's strategy for the battery sector.

6.5.4. Support to the associative movement

Efacec continues to support the associative movement, having, on 31 December 2019, regular connections with 86 associations, 76% national and 24% foreign, with different objectives and purposes.

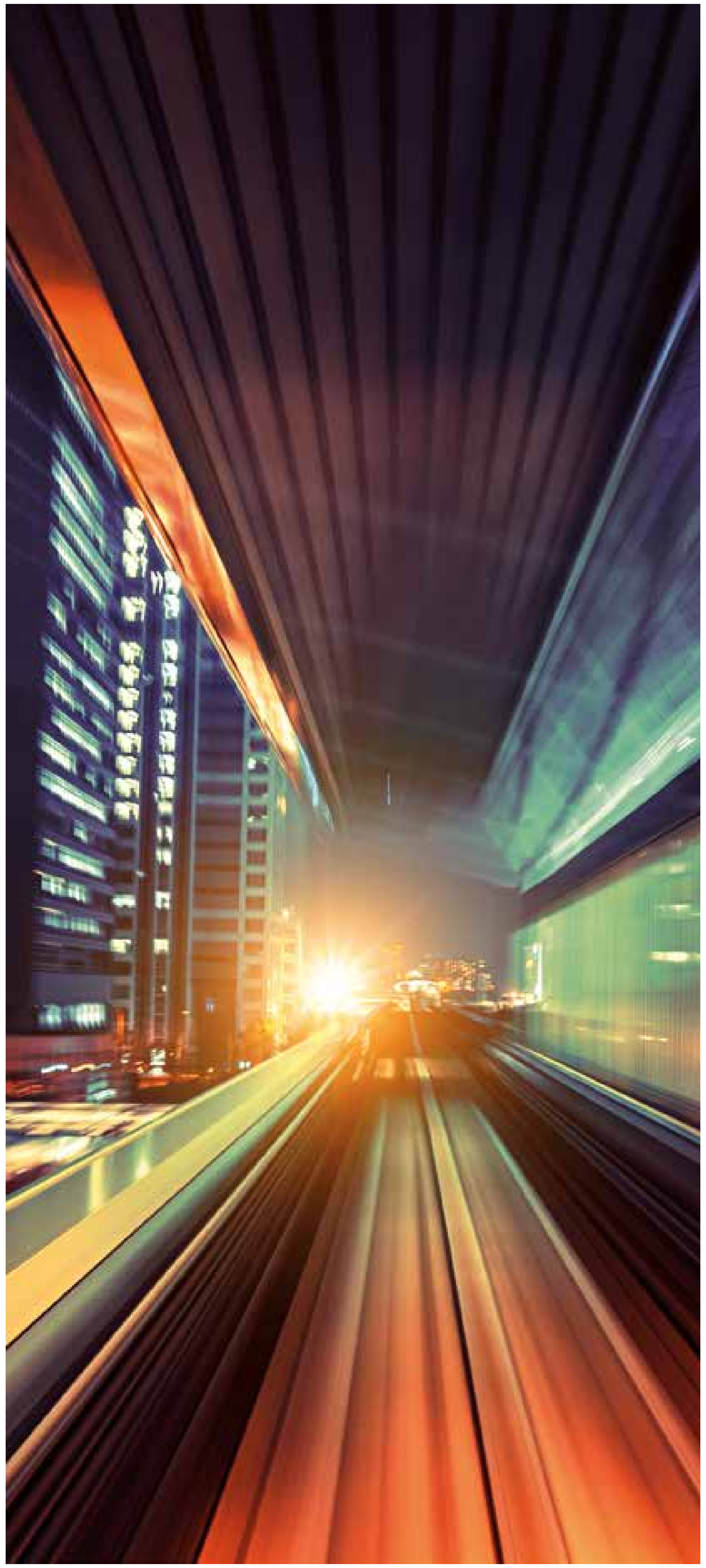
› Support to the associative movement

Associations object	Supported associations
Business	44
Society and Community	22
Management or Technology Development	20

Within the associative scope, Efacec also participated, throughout 2019, in a series of lectures and conferences, as a guest of the associations with which it has relationships.

› Participation in lectures and conferences

Event	Organizing entity	Nature of participation
The Future of Energy in Smart Cities	Apemeta - Portuguese Association of Environmental Technology Companies	Speaker
Portugal Smart Cities Summit 2019	AIP Foundation	
Digitization and Business Models	APREN	
The automotive industry in Portugal: challenges and opportunities	Portuguese-French Chamber of Commerce and Industry	
There is a Future in Electric Mobility	Portuguese Society of Engineers - Northern Region	
A company's reputational value	APD - Association for the Progress of Business Management	
Talent Management		Participation in panel
Cybersecurity Competence Centre	CNCS - National Centre for Cybersecurity	
Society 5.0 The Challenge of Sustainable Smart Societies	BCSD Portugal	
Open Day	ITS Portugal	



Board of Directors

Ângelo Manuel da Cruz Ramalho

Francisco José Meira Silva Nunes

Fernando José Rabaça Vaz

António José Gonzalez Almela

José Manuel de Oliveira Henriques

Vanessa Ferreira Loureiro

Rui Alexandre Pires Diniz

Miguel Maria Pereira Vilardebó Loureiro

Manuel António Carvalho Gonçalves

Chapter 7 Notes

efacec Empowering the future

7. Notes

7.1. Consolidated financial statements

› Consolidated Statement of Financial Position on 31 December, 2019 and 2018

Amounts in euros

	Notes	2019	2018
Assets			
Non-current assets			
Tangible fixed assets	5.1	69 557 637	73 035 743
Right-of-use assets	6	10 208 427	0
Intangible assets	5.2	110 140 623	95 699 466
Goodwill	7	119 967 822	120 039 977
Financial assets available for sale	8	623 632	703 632
Debtors and expenses to be recognized	11	1 141 390	1 261 794
Deferred tax assets	18.1	60 919 222	59 723 993
Derivative financial instruments	9	0	87 026
Total non-current		**372 558 753**	**350 551 631**
Current Assets			
Stock and inventory	12	36 043 966	36 883 082
Clients	10.1	105 629 340	167 557 223
Accrued income	10.2	112 920 959	105 313 342
Loans to related entities	28.2	724 605	724 605
Debtors and expenses to be recognized	11	36 330 808	30 797 197
Derivative financial instruments	9	11 999	608 923
Cash and cash equivalents	13	51 133 667	38 184 891
Total current		**342 795 344**	**380 069 262**
Non-current assets held for sale	4.3	147 744	0
Current assets held for sale	4.3	16 643 932	0
Total Assets		**732 145 772**	**730 620 893**

	Notes	2019	2018
Equity and Liabilities			
Equity			
Capital	21.1	308 949 250	308 949 250
Issue premiums	21.2	1 947 730	1 947 730
Other equity instruments	21.3	11 490 052	11 490 052
Reserves and accumulated results	21.4	-20 214 675	11 412 501
Other accumulated comprehensive income	21.5	-24 837 776	-17 365 120
Non-controlling interests	21.6	9 041	-194 278
Total Equity		**277 343 622**	**316 240 135**
Non-current liabilities			
Provisions	19	13 319 891	9 547 308
Loans obtained	16	88 708 198	69 946 853
Lease liabilities	17	6 649 998	0
Suppliers	14.1	0	43 446
Deferred tax liabilities	18.2	20 750 934	21 401 471
Derivative financial instruments	9	0	109 289
Total non-current liabilities		**129 429 021**	**101 048 368**
Current liabilities			
Loans obtained	16	30 616 277	24 802 889
Loans from related entities	28.2	0	5 000 000
Lease liabilities	17	3 093 387	0
Suppliers	14.1	125 656 801	112 723 474
Invoices - receipt and checking	14.2	35 381 563	48 458 293
Creditors and accrued expenses	15	53 656 592	65 970 962
Corporate income tax	15	1 791 466	1 009 014
Income to be recognized	20	54 123 058	53 628 989
Derivative financial instruments	9	125 646	1 738 769
Total current liabilities		**304 444 790**	**313 332 390**
Liabilities associated with assets held for sale	4.3	20 928 338	0
Total equity and liabilities		**732 145 772**	**730 620 893**

The subsequent Notes are an integral part of these consolidated financial statements

Person in Charge of the Consolidation

The Board of Directors

› Consolidated income statement by nature for the financial years ended 31 December 2019 and 2018

Amounts in euros

	Notes	2019	2018
Sales and provision of services	27 · 32	353 568 818	426 551 800
Change in production		2 190 078	6 873 030
		355 758 896	**433 424 830**
Cost of sales and materials consumed		-159 419 019	-204 295 983
Supplies and external services	22.1	-99 106 202	-109 439 556
Personnel expenses		-92 481 757	-92 662 925
Expenses with contract terminations	22.2	-1 249 272	-1 508 254
Amortization and depreciation	5 · 6 · 22.3	-17 437 545	-10 093 945
Provisions and assets impairment	22.4	-23 747 550	-9 704 262
Other operating expenses	22.5	-3 593 227	-5 327 925
Other operating income	22.5	29 842 453	17 076 720
Operating income		**-11 433 223**	**17 468 700**
Financial losses and expenses	23	-10 577 766	-7 361 446
Financial gains and income	23	403 963	3 329 214
Losses and gains in associate companies	23	-138 001	0
Result before taxes		**-21 745 027**	**13 436 468**
Corporate income tax - Deferred	24	2 397 873	3 869 461
Corporate income tax - Current	24	-2 766 174	-3 140 948
Results from discontinuing operations	4.3	-6 782 198	0
Consolidated net profit/loss		**-28 895 527**	**14 164 981**
Attributable to:			
Efacec Power Solutions Shareholders	25	**-28 935 007**	**14 099 926**
Non-controlling interests	21.6	39 480	65 055
Net earnings per share			
Basic	25	-0.47	0.22
Diluted	25	-0.47	0.22

The subsequent Notes are an integral part of these consolidated financial statements

Person in Charge of the Consolidation

The Board of Directors

› Consolidated comprehensive income statement for the financial years ended 31 December 2019 and 2018

Amounts in euros

	2019	2018
Consolidated net profit/loss [1]	**-28 895 527**	**14 164 982**
Other comprehensive income		
Items reclassifiable to results:		
Change in the currency conversion reserve	-8 565 019	-12 102 095
Change in the fair value of hedging derivative financial instruments	1 667 419	-2 362 558
	-6 897 600	-6 897 600
Items not reclassifiable to results:	0	0
Other comprehensive income for the period	**-6 897 600**	**-14 464 653**
Comprehensive corporate income tax		
Change in the fair value of derivative financial instruments	-375 169	531 575
Comprehensive corporate income tax	**-375 169**	**531 575**
Other comprehensive net income for the period [2]	**-7 272 769**	**-13 933 077**
Total comprehensive income for the period [1+2]	**-36 168 296**	**231 905**
Attributable to:		
Efacec Power Solutions Shareholders	-36 407 663	346 262
Non-controlling interests	239 367	-114 357

The subsequent Notes are an integral part of these consolidated financial statements

Person in Charge of the Consolidation

The Board of Directors

› Consolidated statement of changes in equity for the financial years ended 31 December 2019 and 2018

Amounts in euros

	Notes	Attributable to equity holders: Share Capital	Issue premiums	Other equity instruments	Reserves and Accumulated Results	Other comprehensive income: Financial instruments reserves	Conversion differences	Other comprehensive income	Non-controlling interests	Total Equity
Balance at 1 January 2018		**314 235 160**	**1 947 730**	**35 900 000**	**-2 672 500**	**441 357**	**-4 052 811**	**-3 611 455**	**-78 244**	**345 720 692**
Capital decrease	21.1	-5 285 910			0			0	0	-5 285 910
Other equity instruments	21.3		0	-24 409 948	0			0	0	-24 409 948
Comprehensive income for the period	21.4 · 21.5 · 21.6				14 099 926	-1 830 982	-11 922 683	-13 753 665	-114 357	231 904
Others					-14 926			0	-1 678	-16 604
Balance on 31 December, 2018		**308 949 250**	**1 947 730**	**11 490 052**	**11 412 501**	**-1 389 625**	**-15 975 495**	**-17 365 120**	**-194 278**	**316 240 135**
Balance at 1 January 2019		**308 949 250**	**1 947 730**	**11 490 052**	**11 412 501**	**-1 389 625**	**-15 975 495**	**-17 365 120**	**-194 278**	**316 240 135**
Other equity instruments	21.3		0	0	0			0	0	0
Distribution of reserves	21.4		0		0			0	0	0
Comprehensive income for the period	21.4 · 21.5 · 21.6				-28 935 007	1 292 249	-8 764 906	-7 472 656	239 367	-36 168 296
Others					-2 692 169			0	-36 048	-2 728 217
Balance at 31 December 2019		**308 949 250**	**1 947 730**	**11 490 052**	**-20 214 675**	**-97 376**	**-24 740 400**	**-24 837 776**	**9 041**	**277 343 622**

The subsequent Notes are an integral part of these consolidated financial statements

Person in Charge of the Consolidation

The Board of Directors

› Consolidated Cash Flow statement for the financial years ended 31 December 2019 and 2018

Amounts in euros

	Notes		2019	2018
Operating Activities				
Clients receivables			411 996 786	387 775 540
Payments to Suppliers			322 698 649	296 671 159
Payments to personnel			91 932 330	90 843 105
Flow generated by operations			**(2 634 193)**	**261 277**
Corporate income tax payment/receipt			(1 027 188)	(1 095 058)
Other receipts/payments related to the operating activity			6 137 012	6 276 178
From operating activities	1-		**2 475 631**	**5 442 396**
Investment Activities				
Receipts from:				
Financial investments			397 500	0
Tangible fixed assets			46 883	0
Investment grants			1 756 919	3 985 452
Interest and similar income			316 713	463 842
			2 518 016	**4 449 294**
Payments related to:				
Financial investments			337 500	387 500
Tangible fixed assets			1 272 024	7 134 516
Intangible assets			4 336 840	164 550
			5 946 365	7 686 566
Flows from Investment activities	2-		**(3 428 349)**	**(3 237 272)**
Financing Activities				
Receipts from:				
Non-current loans obtained			92 606 234	45 480 023
Current loans obtained			59 919 866	24 162 262
Shareholder loans			0	5 000 000
			152 526 099	**74 642 285**
Payments related to:				
Non-current loans obtained			72 307 963	33 268 489
Current loans obtained			55 289 728	12 857 053
Shareholder loans			5 000 000	0
Amortization of finance lease contracts			674 147	45 910
Amortization of operating lease contracts			3 060 151	0
Interest and similar expenses			4 020 384	3 608 803
Capital decreases and supplementary capital contributions			5 023 632	11 628 840
			145 376 005	61 409 096
Flows from financing activities	[3]		**7 150 094**	**13 233 189**
Cash variation and its equivalents	[A]-[B]-[C]-[D]=[1]+[2]+[3]		**6 197 376**	**15 438 313**
Effects of exchange differences	[D]		**(2 226 912)**	**(8 401 639)**
Cash and cash equivalents in discontinuing units	[C]		**8 978 313**	**0**
Cash and cash equivalents at the beginning of the financial year	[B]		**38 184 891**	**31 148 216**
Cash and cash equivalents at the end of the financial year	[A]	13	**51 133 667**	**38 184 891**

The subsequent Notes are an integral part of these consolidated financial statements

Person in Charge of the Consolidation

The Board of Directors

Notes to Consolidated Financial Statements

A. General Information

Efacec Power Solutions SGPS, S.A. ("Efacec Power Solutions" or "EPS") is a public limited company with registered office in Portugal. EPS was incorporated on 14 August 2014 having as object the management of shareholdings as an indirect way of exercising economic activities. The incorporation of Efacec Power Solutions was part of the restructuring process that Efacec Capital, SGPS, S.A. ("Efacec Capital") started in late 2013, with the objective of aligning the corporate structure of the Efacec Group with the market segments addressed and the target geographies. At the end of 2014, Efacec Power Solutions became a group of companies that bring together all the technical and human competencies, the means of production and the technologies for the development of products and systems in the fields of Energy, Environment and Mobility. The EPS Group also comprises a wide network of branch offices, branches and agents spread across four continents.

On 23 October 2015, the EPS Group's shareholder structure changed, with the majority of the capital of Efacec Power Solutions being held by the company Winterfell 2 Limited ("Winterfell 2").

The activities of the EPS Group companies comprise a vast range of products and services of a high technological level. This diversity, with competencies at the productive and engineering levels, enables offering technical solutions to a vast range of activity sectors, in the domestic and foreign markets, from the eight Business Units that are part of the Group. Chapter F of this document presents detailed information on the activity and results of these units.

These financial statements were approved by the Board of Directors on 23 September 2020. The members of the Board of Directors who sign this report declare that, to the best of their knowledge, the information contained herein was prepared in accordance with the International Financial Reporting Standards (IFRS), adopted by the European Union, giving a true and appropriate image of the EPS Group's consolidated financial position, results and cash flows.

The financial information is presented in euros, which is the functional and reporting currency of the group of entities, unless otherwise indicated.

Nationalization

On 2 July 2020, Decree-Law No. 33-A/2020 carried out the public appropriation, through the nationalization, of the shareholding held by Winterfell 2 Limited in Efacec Power Solutions, SGPS, SA, corresponding to 71.73% of the share capital. For this reason, some references to Winterfell throughout this document may be subject to adaptation/update.

B. Accounting policies

1. Summary of the main accounting policies

The accounting policies adopted follow the International Financial Reporting Standards (IFRS) in force in each reporting period. They are disclosed in the subsequent notes, having been applied by Efacec Power Solutions since its incorporation, and have been applied consistently by subsidiary companies every year. However, the standards, interpretations and reviews issued by the various bodies that supervise the application of the Standards - IASB, IASC, IFRIC and SIC, when applicable to the EPS Group, are adopted in the period in which they become mandatory. In this financial year, the accounting policies were applied consistently in the comparative periods, except for those that result from the adoption, for the first time, of IFRS 16 - Leases.

1.1. Preparation basis

The consolidated financial statements of Efacec Power Solutions have been prepared assuming the continuity of the operations. As mentioned in the Management Report, and despite the negative cycle of the Efacec Group between the end of 2019 and the first half of 2020, due to the Luanda Leaks episode, the financial blockade and COVID-19, the Board believes in the Group's ability to remain in continuity, this being the assumption used in the preparation of the 2019 Financial Statements. The nationalization, on 2 July 2020, of 71.7% of the Efacec Group's share capital, intends to make its financial and operational value stable This nationalization takes place with the objective of reprivatisation in the shortest possible time, as established in DL 33-A /2020, of 2 July. Thus, in this context, depending on the formalization and realization of financial support from shareholders and other financing entities, and on the expected future profitability of operations, we believe in the continuity of operations and in the reversal of the negative cycle.

The attached consolidated financial statements are in accordance with the International Financial Reporting Standards (IFRS), in effect on 1 January 2019, as adopted in the European Union.

EPS's financial statements are prepared taking into account the historical cost convention, except for land, financial assets and financial liabilities (including derivatives), which are accounted for at their fair value. In addition, production equipment located in industrial facilities in Portugal was included in the EPS perimeter at fair value at the date, in the context of the incorporation of EPS and concentration of shareholdings (see note 5.1).

The preparation of the financial statements in accordance with the IFRS requires the use of some important accounting estimates. It also requires the management body to exercise its judgement in the process of applying the accounting policies of the EPS Group. The areas involving a higher degree of judgement or complexity or the areas where the assumptions and estimates are significant for the financial statements are disclosed in Note 2.

The rules, interpretations and reviews issued by the various bodies that supervise the application of International Financial Reporting Standards - IASB, IASC, IFRIC and SIC - are listed below, as well as the dates of application and approval by the European Union.

The new standards, amendments to standards and interpretations with effective application as of 1 January 2019, were adopted for the first time in the financial year ended 31 December 2019. Their adoption did not materially impact the consolidated financial statements, except for what is mentioned in the following paragraph.

With regard to IFRS 16, the Group applied the "modified retrospective" model, without restating the comparative figures for 2018. The impact on the consolidated financial statements as a result of the incorporation of the assets and the recognition of the liabilities of the lease agreements was not significant, representing approximately 1% of the total net assets.

Description	Change	Effective date
1. New standards, changes to standards and effective interpretations at 1 January 2019		
IFRS 16 – Leases	New definition of lease. New accounting of lease contracts for the lessees. There are no changes to the accounting of leases by the lessors.	01/01/2019
IFRS 9 – Financial instruments	Exemption from the financial assets classification at amortized cost for financial assets with pre-payment conditions with negative offset.	01/01/2019
IAS 19 – Employee benefits	It requires the use of updated assumptions to calculate the remaining liabilities after updating, cutting or settling benefits, with an impact on the income statement, except for the reduction of any excess within the scope of the asset ceiling.	01/01/2019
IAS 28 – Investments in associate companies and joint ventures	Clarification regarding long-term investments in associate companies and joint ventures that are not being measured using the equity method.	01/01/2019
Improvements to standards 2015 - 2017	Several clarifications: IAS 23, IAS 12, IFRS 3 and IFRS 11.	01/01/2019
IFRIC 23 – Uncertainties over income tax treatments	Clarification regarding the application of the principles of recognition and measurement of IAS 12 when there is uncertainty about the tax treatment of a transaction, in terms of income tax.	01/01/2019
2. Amendments to standards that become effective at or after 1 January 2020, already endorsed by the EU		
IAS 1 – Presentation of financial statements; IAS 8 - Accounting policies, changes in accounting estimates and errors	Update of the definition of material, in the application of the standards to the financial statements as a whole.	01/01/2020
Conceptual structure - Changes in reference to other IFRS	Amendment to some IFRS regarding cross-references and clarifications on the application of the new definitions of assets/liabilities and expenses/income.	01/01/2020
3. Standards (new and amended) that become effective at or after 1 January 2020, not yet endorsed by the EU		
IFRS 3 – Business combinations	Change in the definition of business.	01/01/2020
IFRS 9, IAS 39 and IFRS 7 – Interest Rate Benchmark Reform	Introduction of exemptions to hedge accounting with the objective that the reform of the reference interest rates does not result in the termination of hedge accounting.	01/01/2020
IFRS 17 – Insurance contracts	New accounting for insurance contracts, reinsurance contracts and investment contracts with discretionary participation characteristics.	01/01/2020

1.2. Consolidation

1.2.1. Subsidiaries

Subsidiaries are all entities (including Special Purpose Entities) over which the EPS Group has the power to decide on financial and operating policies, generally represented by more than half of the voting rights. The existence and effect of potential voting rights, which are currently exercisable or convertible, are considered when assessing whether the EPS Group has control over another entity. Subsidiaries are consolidated from the date on which control is transferred to the EPS Group, being excluded from consolidation from the date on which control ceases.

The purchase method is used to account for the acquisition of subsidiaries. The cost of an acquisition is measured at the fair value of the goods delivered, equity instruments issued and liabilities incurred or taken on the acquisition date. All costs associated with the acquisition are recorded as expenses for the financial year. Identifiable assets acquired and contingent liabilities assumed in a business combination are initially measured at fair value on the acquisition date, regardless of the existence of uncontrolled interests. The excess of the acquisition cost plus the share - non-controlled interests in the fair value of the acquired assets and liabilities or, alternatively, plus the fair value of the participation of non-controlled interests in the acquired branch office, in relation to the fair value of the assets and total net liabilities of the acquired subsidiary, is recognized as goodwill (Note 1.5.1). If the acquisition cost is less than the fair value of the acquired subsidiary's net assets, the difference is recognized directly in the Income Statement.

Transactions and balances on transactions between Group companies are eliminated in consolidation. Gains and losses on operations carried out between Group companies that have not yet been carried out abroad are also eliminated, except in the case of losses whose transaction may reveal evidence of impairment of a transferred asset The subsidiaries' accounting policies have been changed, whenever necessary, in order to ensure consistency with the policies adopted by the EPS Group.

The amount related to non-controlling interests is included in Equity. Transactions with "non-controlling interests" are recorded in Equity, when there is no change in control over the Entity, with no recording of goodwill or gains or losses. When there is loss of control exercised over the entity, any remaining interest in the entity is remeasured at fair value, with the gain or loss being recognized in the income statement.

The list of subsidiaries included in the consolidation perimeter is presented in Note 4, as well as the changes to the perimeter occurred during the year.

1.2.2. Joint agreements

The international accounting standard IFRS11 jointly qualifies controlled investments as joint-operations or as joint-ventures. The IASB guidelines started to demand a careful analysis of the constitutive contracts and the statutory provisions of the existing entities and the entities to be incorporated, in order to determine the applicable rules and the accounting method.

To determine the existence or not of a joint agreement and its nature, the main parameters of analysis are:

- Existence or not of a separate vehicle entity
- Statutory provisions on decision-making
- Appropriation of assets/liabilities and income/expenses

	Joint Agreements	
	Joint agreements (joint venture)	Joint operations (joint venture)
Existence of a separate vehicle entity	yes	no
Appropriation of assets/ liabilities and income/ expenses	The controlling parties jointly have rights over the JV's net worth	The controlling parties jointly have rights over assets and obligations over liabilities
	Equity Method	**Line-by-line accounting of assets/liabilities, income/ expenses**

1.2.3. Policy on transactions between entities under common control

There are no accounting policies defined in international regulations for transactions between entities under common control, in which the parent company keeps the control of the transferred subsidiary before and after the transactions take place. In its absence, the management takes into account the requirements and guidelines of other standards that address similar topics, having chosen the purchase method of IFRS 3R, and this standard is fully applied (Note 1.2.1). There were no such transactions during 2019.

1.3. Currency conversion

1.3.1. Functional currency and presentation currency

The information included in the Financial Statements of each of the EPS Group entities is measured using the currency of the economic environment in which the entity operates - "functional currency". The consolidated Financial Statements are presented in euros, which is the functional and presentation currency of the EPS Group's accounts.

Exchange differences arising from the EPS Group's operating activities are recorded in the income statement as operating expenses or income. If exchange differences arise from operations of a financial nature they are recorded as financial results.

1.3.2. Balances and transactions

Transactions in currencies other than the euro are converted into a functional currency using the exchange rates at the date of the transactions. Exchange gains or losses resulting from the settlement of transactions and the updating of monetary assets and liabilities denominated in currencies other than the euro at the rate at the closing date are recognized in the Income Statement.

1.3.3. Group Companies

The results and the financial position of all EPS Group entities that have a functional currency other than the presentation currency are converted to the presentation currency as follows:

i. The assets and liabilities of each Statement of Financial Position presented are converted at the exchange rate in force on the date of the Financial Statements;

ii. Income and expenses for each Income Statement are converted at the average exchange rate; and

iii. Exchange differences resulting from the transfer of the individual financial statements of the companies included in the consolidation are recognized in Equity, under the heading Reserves.

1.4. Tangible fixed assets

Land and buildings essentially comprise factories and offices. Land is presented at fair value. The other tangible assets are presented at historical cost, less depreciation, including all expenditures directly attributable to the acquisition of the assets. Following the acquisition of companies by Efacec Power Solutions, industrial equipment was incorporated at the fair value determined at the merger date.

Subsequent expenses are included in the carrying amount of the asset or recognized as separate assets, as appropriate, only when it is probable that economic benefits will flow to the company and the cost can be measured reliably. Other expenses with repairs and maintenance are recognized as expenses in the period in which they are incurred.

In accordance with the accounting policies of the EPS Group, land is subject to three--year valuations by independent experts to determine the fair value. Valuations are based on the use of market comparison criteria and replacement costs. Revaluations are recognized in equity, after deducting the respective deferred tax. Devaluations, if any, are deducted from equity up to the limit of existing revaluation reserves for the same assets In excess of that limit, they are recognized in the income statement.

When tangible assets recorded at fair value are sold, the amount included in revaluation reserves is transferred to results carried forward.

Land is not depreciated. Depreciation of other assets is calculated using the straight--line method, in twelfths over cost or revaluation value, in order to allocate their revalued cost or value to their residual value, according to their estimated useful life, as follows:

Heading	Years
Buildings and Other Constructions	25 – 50
Basic Equipment	8 – 16
Transport Equipment	4 – 5
Tools and Utensils	4 – 8
Administrative Equipment	4 – 6

The depreciation process begins in the month following that in which the asset started operating.

Residual values of assets and useful lives are reviewed and adjusted, if necessary, at the balance sheet date. If the carrying amount is greater than the asset's recoverable amount, it is immediately readjusted to the estimated recoverable amount (Note 1.6).

Gains and/or losses on disposals or write-offs of tangible assets are determined by the difference between their net book value and their disposal or write-off value, in the latter case being null, and included in the income for the financial year.

1.5. Intangible assets

1.5.1. Goodwill

Goodwill represents the excess of the acquisition cost compared to the fair value of the subsidiary's identifiable assets and liabilities at the acquisition date (Note 1.2), and is shown in a separate heading in the Consolidated Statement of Financial Position.

Goodwill is subject to impairment tests on an annual basis and is presented at cost, less accumulated impairment losses. Gains or losses arising from the sale of an entity include the amount of goodwill relating to it.

Goodwill and fair value adjustments resulting from the acquisition of a foreign entity are treated as assets and liabilities of that entity and converted at the closing exchange rate, if its functional currency is different from the euro.

The goodwill is allocated to cash flow generating units (CGU) to perform impairment tests (Note 2.1). The recoverable amount of a CGU is determined based on the use value calculations. These calculations use cash flow projections based on financial budgets approved by the management body, covering a period of at least four years. Under certain conditions, some CGUs can be grouped, when there is a high level of business dependence on one or more CGUs on another integrating CGU, with regard to technical, financial, commercial skills, or the ability to contract new businesses with its Clients.

EPS's management bodies determine the expected operating margin based on past performance and their expectations for the development of the business. The weighted average growth rate used is consistent with the forecasts included in the industry reports. The discount rates used are before taxes and reflect specific risks related to the relevant segments.

1.5.2. Software

The acquisition cost of software licenses is capitalized and comprises all expenses incurred for the acquisition and for making the software available for use. These costs are amortized over the estimated useful life (not exceeding 5 years). Costs associated with software maintenance are recognized as expenses when incurred.

Costs directly associated with the production of identifiable and unique software controlled by the Group and which will probably generate future economic benefits in excess of costs, beyond 1 year, are recognized as intangible assets. Direct costs include personnel expenses for software development and the share of relevant general expenses. Software development costs recognized as assets are amortized over their estimated useful lives (not to exceed 5 years).

1.5.3. Research and development expenses

Research expenses are recognized as expenses when incurred. Expenses incurred in development projects (related to the design and testing of new products or improvements to existing products) are recognized as intangible assets when it is probable that the project will be successful, considering its commercial and technological feasibility and that the costs can be measured with reliability. Other development expenditures are recognized as expenses when incurred. Development costs previously recognized as expenses can be recognized as assets in subsequent periods. Development costs with finite useful life that have been capitalized are amortized from the beginning of the product's commercial production on a straight-line basis over the period of its expected benefit, not exceeding 5 years.

1.5.4. Commissions on contracts

According to IFRS 15, as of 2018 the Group started to capitalize the expenses with commissions paid in the scope of obtaining contracts with Clients. The expense is recorded as an asset as long as its relationship with a given supply or service contract entered into with a Client is unequivocal. The asset will be amortized in accordance with the recognition of the revenue of the contract to which it is related.

1.6. Impairment of non-financial assets, except goodwill

Assets that do not have a defined useful life are not subject to amortization, but are subject to annual impairment tests. Assets subject to amortization are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognized for the excess amount of the asset's carrying amount over its recoverable amount. The recoverable amount is the highest of an asset's fair value less costs to sell and its value in use. In determining the value in use, estimated future cash flows are discounted using a discount rate that reflects current market assessments and the specific risk of the asset.

In order to carry out impairment tests, the assets are grouped at the lowest level at which cash flows can be identified separately (cash flow generating units).

1.7. Financial assets

1.7.1. Classification

Under IFRS 9, the EPS Group classifies its financial assets according to the following categories: debt instruments and accounts receivable, equity instruments designated at fair value through other comprehensive income and financial assets at fair value through the income statement.

a. **Debt instruments and accounts receivable**
   The financial asset is held considering a business model whose objective is to keep it in order to receive its contractual cash

flows and the contractual terms of the financial asset give rise, on specific dates, to cash flows that are only payments of principal and interest on the amount of outstanding principal.

b. Equity instruments designated at fair value through other comprehensive income
Upon initial recognition, the Group may make an irrevocable choice (financial instrument to financial instrument) to designate certain investments in equity instruments (shares) at fair value through the other comprehensive income. The designation at fair value through other comprehensive income is not permitted if the investment is kept for trading purposes or if it results from a contingent consideration recognized in the context of a business combination. A financial asset is held for trading if it is acquired primarily for the purpose of sale in the short term, upon initial recognition, forms part of a portfolio of identified financial instruments that the Group manages together and in which there is evidence of a recent real pattern of making short--term profits, or if it is a derivative financial instrument (unless it is assigned to a hedging operation).

c. Financial assets at fair value through the income statement
Financial assets that do not meet the criteria to be measured at amortized cost or at fair value through other comprehensive income are measured at fair value through the income statement.

1.7.2. Recognition and measurement

All recognized financial assets are subsequently measured at amortized cost or, at their fair value, depending on the business model adopted by the Group and the characteristics of its contractual cash flows.

Debt instruments and accounts receivable are measured at amortized cost using the effective interest rate method. For financial assets that are not acquired or originated with impairment (i.e., assets with impairment at the initial recognition), the effective interest rate is the rate that exactly discounts the estimated future cash flows (including fees and commissions paid or received that are an integral part of the effective interest rate, transaction costs and other premiums or discounts) during the expected life of the instrument in its gross carrying amount on the date of its initial recognition. The amortized cost of a financial asset is the amount by which it is measured at the initial recognition less repayments of principal, plus accumulated amortization, using the effective interest rate method, of any difference between that initial amount and the amount of repayment, adjusted by possible impairment losses.

Investments in equity instruments recognized at fair value through other comprehensive income are initially measured at their fair value plus transaction costs. Subsequently, they are measured at their fair value with the gains and losses arising from their change recognized in other comprehensive income. At the time of its disposal, the accumulated gain or loss generated with these financial instruments is not reclassified to the consolidated income statement, but transferred only to the item "Retained earnings".

Dividends associated with investments in equity instruments are recognized in the consolidated income statement when they are attributed/resolved, unless they clearly represent a recovery of part of the investment cost. Dividends are recorded in the consolidated income statement under "Financial income and gains".

In the first application of IFRS 9, the Group indicated investments in equity instruments that were not held for trading as valued at fair value through other comprehensive income.

Financial assets recorded at fair value through the income statement are measured at the fair value calculated at the end of each reporting period, with the respective gains or losses being recognized in the consolidated income statement, unless they are part of a hedge relationship.

1.7.3. Presentation at net value

Financial assets and liabilities are presented in the statement of financial position at their net value when there is a legal right to make this offset, as well as the intention to do so.

1.7.4. Financial assets impairment

The Group recognizes expected impairment losses for debt instruments measured at amortized cost or at fair value through other comprehensive income, as well as for accounts receivable from Clients, other debtors, and for assets associated with contracts with Clients. The amount of expected impairment losses for loans granted is updated at each reporting date to reflect changes in credit risk that have occurred since the initial recognition of the respective financial instruments. The expected impairment losses for loans granted are estimated using historical information on uncollectibility, adjusted for specific factors attributable to the debtors, as well as for the macroeconomic conditions that are expected for the future.

The Group recognizes the expected impairment losses for credit granted for the entire life of accounts receivable from Clients and other debtors, as well as for assets associated with contracts with Clients.

1.8. Financial instruments accounting - derivatives and hedges

Derivatives are initially recognized at their fair value on the date on which they take part in their contractual provisions, being subsequently measured at their fair value. The method by which changes in fair value are recognized depends on the designation (or not) of that derivative as a hedging instrument and, if designated, the nature of the hedged item. Derivatives used for hedging can be classified into two distinct groups: (1) derivatives for fair value hedging of recognized assets, liabilities or firm commitments (fair value hedging); or (2) derivatives for hedging of a specific risk associated with an asset, liability or highly probable transaction (cash flow hedge).

For each transaction, and at the time of its origin, the EPS Group prepares documentation that justifies the relationship between the hedging instrument and the hedged item, as well as the risk management objective and the strategy for the hedging transaction, which is also documented, either at the hedge trading date or on an ongoing basis, its analysis of the effectiveness with which the hedging instrument compensates for changes in fair value, or the cash flows of hedged instruments. According to IFRS 9, the fair value of option derivatives is separated into their intrinsic value and their time value, given that only the intrinsic value of these instruments can be designated as a hedging instrument. Thus, the effectiveness tests of option derivatives include only the intrinsic value of these instruments.

The fair value of derivatives contracted for hedging purposes, if any, is presented in a separate Note. The total fair value of a hedge derivative is classified as a non-current asset or liability when the residual maturity of the hedged instrument is greater than 12 months, and as a current asset or liability when it is less than 12 months. Trading derivatives are classified as current assets or liabilities.

1.8.1. Fair value hedge

Changes in the fair value of derivatives that are assignable and classified as fair value hedging instruments are recognized in the income statement, together with changes in the fair value of the hedged assets or liabilities attributable to the hedged risk.

If the hedge relationship no longer meets the hedge accounting criteria, then the adjustment to the book value of the hedged item, for which the effective rate method is used, is amortized over the period that extends to its maturity.

1.8.2. Cash Flow Hedging

The effective amount of the change in the fair value of derivatives that are named and classified as cash flow hedges is recognized in equity. The gain or loss related to the ineffective amount is recognized immediately in the income statement.

The cumulative amounts recorded in equity are subsequently recognized to the income statement in the same period in which the instrument affects the income statement (for example, when a hedged sales forecast transaction occurs). The gain or loss relating to the value of interest rate swaps hedging variable rate loans is recognized in the income statement as "Net financial expenses". The gain or loss relating to exchange rate derivatives is recognized in the income statement under the headings "Other operating income" or "Other operating expenses", respectively. The gain or loss relating to derivatives over the commodities price is recognized in the income statement as "Cost of goods sold and materials consumed".

When a hedging instrument maturity date is reached, when it is sold, or when the hedge no longer meets the hedge accounting requirements, any accumulated gain or loss recorded in equity will remain recorded in this way, being recognized in the income statement when the anticipated transaction is. When the occurrence of the anticipated transaction is no longer probable, the accumulated gain or loss recorded in equity is immediately transferred to the income statement, as financial income or expenses.

1.8.3. Derivatives not qualified for hedging

Certain derivatives do not meet the hedging criteria. Changes in their fair value are immediately recognized in the income statement, as financial expenses or income.

1.9. Stock and inventory

Stock and inventory are presented at the lowest of cost and net realizable value. In the case of raw materials, the cost corresponds to the acquisition cost. In the case of finished products and products in progress (Note 12), the cost is calculated using the standard cost (which does not deviate significantly from the real production cost), with the cost of these products integrating raw material costs, direct labour, other direct costs and general manufacturing charges (based on the regular production capacity). Borrowing costs are not considered.

The cost of stock and inventory includes the transfer of equity of any gain or loss classified as a cash flow hedge related to the purchase of raw materials.

The net realizable value corresponds to the estimated selling price in the normal course of business, less variable selling costs.

1.10. Cash and cash equivalents

The heading "Cash and cash equivalents" includes cash, bank deposits and other short-term, highly liquidity investments. Bank overdrafts are presented in the Consolidated Statement of Financial Position, under current liabilities, under Loans.

1.11. Share Capital

Ordinary shares are recorded under equity.

Expenses directly attributable to the issue of new shares or options are included in equity as a deduction, net of taxes, of capital injections.

1.12. Financial debt

The loans obtained are initially recognized at their nominal value. The loans are subsequently presented at amortized cost. Any difference between the receipts (net of transaction costs) and the amortized value is recognized in the income statement over the period of the loan using the effective interest rate method.

Loans obtained are recorded in current liabilities, unless the EPS Group has an unconditional right to defer payment of liabilities for, at least, 12 months after the balance sheet date.

Interest and other financial charges related to loans obtained are generally recognized as an expense in accordance with the accrual principle.

Interest and other financial charges on loans obtained, which are directly related to the acquisition, construction or production of fixed assets, are capitalized, being part of the cost of the asset. The capitalization of these charges starts after the preparation of the construction or development activities of the asset and is interrupted when the asset is ready to be used or when the project is suspended. Any financial income generated by loans obtained, directly related to a specific investment, is deducted from the financial charges eligible for capitalization.

1.13. Amounts payable to Suppliers and other creditors

Amounts payable to Suppliers and other creditors are initially recognized at fair value and subsequently measured at amortized cost using the effective interest method. Supplier accounts are classified as current liabilities if the payment is due within 1 year or less (or in the regular business operating cycle, if longer). If not, Supplier accounts are presented as non-current liabilities.

1.14. Corporate income tax and deferred taxes

Efacec Power Solutions and its national subsidiaries are subject to the Special Taxation Regime for Company Groups (RETGS), applicable to groups that include companies in which they have a shareholding of 75% or more, and which meet the conditions established in article 69 of the Corporate Income Tax Code. The consolidated tax charge is determined by the arithmetic sum of taxable gains and losses as determined by each company on an individual basis.

Income tax includes current tax and deferred tax, and is obtained by adding the tax estimates calculated by the companies that comprise the EPS Group.

Current tax is calculated based on tax legislation in force, or substantively in force, at the date of the statement of financial position in countries where subsidiaries and associate companies operate and generate taxable income. The management periodically reviews its analysis on this matter and recognizes provisions for probable tax contingencies for the cases under analysis, as well as possible adjustments made by the tax authorities. These provisions correspond to the amount that is expected to be paid to the tax authorities.

The deferred tax is calculated based on the amount of temporary differences between the book values of assets and liabilities and the respective tax base. However, the deferred tax is not recorded if it arises through the initial recognition of an asset or a liability, in a transaction that does not correspond to a concentration of business activities that at the date of the transaction does not affect the income or the expenses, neither book nor taxable. The deferred tax is determined in the light of the legislation and rates in force, or substantively in force at the reporting date, and which are expected to apply when realizing deferred tax assets, or settlement of deferred tax liabilities.

Deferred tax assets are recognized only when the existence of future taxable income is expected, under which the temporary difference can be used.

Deferred tax assets and liabilities are presented in the statement of financial position at their net value, when there is a legal right to offset current deferred tax assets and liabilities by that amount, and when deferred tax assets and liabilities are related to income taxes charged by the same tax authority, on the same taxable entity or different entities when there is an intention to settle the amounts at their net value.

Deferred taxes are classified as non-current, as shown in the statement of financial position.

1.15. Provisions

Provisions are recorded at the fair value of expenses that are expected to occur in order to settle the obligation, using discount rates before taxes that reflect the time value of the money, as well as the specific risks of the obligation, as assigned by the market. Provisions for future operating losses are not recognized.

The EPS Group recognizes provisions for onerous contracts when the costs to be incurred to meet the contractual obligations assumed exceed the estimated economic benefits, contract by contract, in accordance with estimates of those responsible for the works/projects.

1.16. Recognition of revenue

From 1 January 2018, the Group applied the new standard IFRS 15 - "Revenue from Contracts with Customers", which replaces IAS 18. The application of this standard did not materially impact the EPS Group's financial statements.

Revenue comprises the fair value of revenues, net of taxes and commercial discounts, and after eliminating internal revenues.

Revenues are recognized at the fair value of the amount received or receivable from transactions with Clients in the normal course of the EPS Group's activities. Revenues are recognized at the net value of the value added tax amount, returns and discounts, and after intra-group revenues have been eliminated.

In determining the amount of revenue, the Group assesses for each transaction the performance obligations it assumes with Clients, the transaction price to be allocated to each performance obligation identified in the transaction and the existence of variable price conditions that may lead to future adjustments to the amount of revenue recorded, and for which the Group makes its best estimate.

The EPS Group recognizes the revenue in the income statement when the control of the product or service is transferred to the Client, that is, at the moment when the Client is able to manage the use of the product or service and obtain all remaining economic benefits associated with it.

The revenue recognition policy for the main economic activities carried out by the Group is described below:

1.16.1. Sales

Revenue recognition occurs when the product is delivered and accepted by the Client and when the receipt of the respective account receivable is reasonably assured.

1.16.2. Provision of services

The provision of services is recognized in the accounting period in which the services are provided and invoiced.

1.16.3. Multi-annual contracts

Revenues generated by contracts that last for periods longer than 1 year are accounted for according to the percentage of completion method, with reference to expenses incurred, partial delivery, or another approach that allows a reliable estimate of the finishing costs of the work. When it is not possible to make a reliable estimate of revenues and costs, revenues are recognized when the product is delivered to the Client. In this case, the expenses incurred until delivery are recorded in the item "Stock and inventories - products and work in progress".

When the amount invoiced to the Client is greater than that determined by the percentage of completion method, a deferred revenue is recognized, representing a liability to the Client regarding the work to be performed, which is recorded under the heading "Income to be recognized - Invoicing to be recognized"(Note 20). When the amount invoiced to the Client is less than that determined by the percentage of completion method, an accrued revenue is recognized and recorded under the heading "Accrued income" (Note 10).

Contractual costs include raw materials and direct materials, direct labour and also indirect costs, distributed as specified in the contract. Selling and administrative expenses are recorded when they occur. Provisions are made for expected losses arising from the performance of the contract, in the period in which they are determined, and are immediately recognized in the income statement. Changes to contracts or to estimates and forecasts of expenses and/or income and margins, resulting from the renegotiation of conditions with Clients or of internal productivity, are recognized in the income statement from the period in which they occur and in accordance with the respective degrees of completion.

Any changes in the work performed or to be performed are only considered after the agreement with the Client. These changes are recorded as a new contract when they correspond to a new scope and the financial conditions negotiated are independent of the initial contract. When these conditions are not met, the Group recalculates the accumulated percentage of completion of the contract.

The materials specific to the contracts, which have not been used or installed, are presented under the heading "Stock and Inventory - products and work in progress".

The penalties and incentives associated with construction contracts are recognized in accordance with the nature of the terms negotiated based on the most likely or expected value method, provided that it is not likely to be reversed.

1.17. Leases

As of 1 January 2019, the Group adopted IFRS 16, a standard promulgated by the IASB that calls for a new orientation on the accounting of lease contracts. Standard IFRS 16 specifies the rules for the recognition, measurement, presentation and disclosure of leases.

The main impact of this standard is the application of identical treatment in the accounting of financial leases and operating leases, provided that they meet a set of requirements, namely regarding the possibility of identifying the asset, the lessee's ability to decide as to its use and the taking of economic benefits by the lessee. In this way, lessees present liabilities resulting from leases on the face of the financial statements, in return recognizing the value of the right-of-use asset they hold.

1st application of IFRS 16:

In implementing the new standard, the Group adopted the "modified retrospective", methodology, with no need to restate comparative amounts.

Contracts with a duration of up to 12 months were excluded, as well as contracts with a unit value of less than 5,000 euros and the conditions for exercising the cancellation and extension options were assessed.

The operating leases obligations were recorded in the statement of financial position by updating rents outstanding on 1 January 2019, under the heading "Lease liabilities". The same amount was recorded as a consideration in a separate heading named "Right-of-use asset".

When updating rents, discount rates differentiated by type of asset and geography are used.

Presentation in financial statements:

Lease liabilities

The rents outstanding are presented in the statement of financial position under the heading "Lease liabilities", classified as current or non-current balances depending on the maturity date of the rents in the period up to 1 year or more than 1 year.

In the Income Statement, the leasing interest is shown under the heading "Borrowing costs". In the cash flow statement, the grouping of Financing activities shows the payments of the nominal value of lease rents in a separate line; the interest payments on lease rents are part of the Interest and similar expenses line.

Right-of-use assets

The amount of the assets under a lease scheme is recorded in a separate heading in the Statement of Financial Position called "Right-of-use assets". Leased assets initially assumed the amount corresponding to the debt on the date the Standard was adopted. Asset depreciation is shown on the face of the Income statement, under the heading "Depreciation and amortization".

The details of entries recorded in the financial year (additions, write-offs, depreciation, etc.) by class of right-of-use assets are disclosed in a separate note in the attached Notes.

1.18. Grants

Grants received are recognized at their fair value when there is reasonable assurance that the subsidy will be received and that the EPS Group will comply with the inherent obligations.

The grants received for the purpose of compensating the EPS Group for investments made in tangible or intangible assets are included in liabilities as income to be recognized (Note 20) and are credited to the income statement in proportion to the useful life of the corresponding assets.

Grants received for the purpose of offsetting expenses incurred are recorded in the income statement systematically during the periods in which the expenses that those grants are intended to offset are recognized.

1.19. Distribution of dividends

The distribution of dividends to equity holders is recognized as a liability in the EPS Group's financial statements in the period in which the dividends are approved by the shareholders at the General Meeting.

1.20. Discontinuing operations

A discontinued operation is a component of an entity that has either been written off or classified as held for sale or liquidation and (a) represents a significant line of business or geographical area of operations, or (b) is part of a restructuring of a business area or geographical area of operations.

Discontinued operations are classified as held for sale if their value is realizable through a sale transaction, rather than continuing to be used. This situation is considered only when: (i) the sale is highly probable and the asset is immediately available for sale, in its current condition, (ii) the group has commissioned its sale and (iii) it is expected that the sale will take place within 12 months. In this case, non-current assets are recorded at the lower of their book value and their fair value, net of selling costs.

1.21. Employee benefits

1.21.1. Pensions

Most Efacec Employees are covered only by the general social security regime.

There is a closed group of retired former Employees who benefit from retirement or survivor pension supplements, which are managed by the EPS Group. The future liability for these payments is shown in the statement of financial position under "Provisions" (Notes 19 and 30.2) and corresponds to the current value of liabilities for defined benefits at the balance sheet date. The appraisal of liabilities is periodically carried out by specialized and independent entities.

In subsidiaries based abroad, Employees are either covered only by local social security schemes, or may benefit from complementary schemes established in accordance with local legislation and conditions.

Remeasurements (actuarial gains and losses) arising from changes in demographic and financial actuarial assumptions are recorded under the heading “Other comprehensive income”.

A defined benefit asset is only recognized to the extent that there may be a refund of funds or a reduction in future payments.

1.21.2. Variable remunerations

The variable remunerations paid to Employees, when they exist, are recorded in the income statement for the year in which they are approved, under the heading “Personnel expenses”.

1.22. Contingent assets and liabilities

Contingent liabilities in which the possibility of an outflow of funds affecting future economic benefits is only possible, are not recognized in the consolidated financial statements, but are disclosed in the notes, unless the possibility of an outflow of funds affecting future economic benefits is remote, in which case they are not disclosed. Provisions for liabilities that meet the conditions set out in Note 1.15 are recognized.

Contingent assets are not recognized in the consolidated financial statements, but are disclosed in the notes to the financial statements when a future economic benefit is probable.

1.23. Cash flow statement

The cash flow statement is prepared in accordance with the direct method. The EPS Group classifies assets with a maturity of up to 1 year, with high liquidity and for which the change in value risk is insignificant under the heading "Cash and cash equivalents".

The cash flow statement is divided by operating activities, investing activities and financing activities. Operating activities include cash receipts from Clients and payments to Suppliers, personnel and other payments related to operating activity.

The cash flows included in investing activities

include acquisitions and disposals of investments in subsidiaries, cash receipts and payments arising from the purchase and sale of tangible and intangible assets.

Financing activities include cash receipts and payments relating to equity and loans, including bank overdrafts. They also include payments related to interest, dividends and financial and operating leases.

1.24. Subsequent events

Events after the date of the statement of financial position that provide additional information on conditions that existed on that date are reflected in the consolidated financial statements. Events after the date of the statement of financial position that provide information on conditions that occur after the same date are disclosed in the notes to the consolidated financial statements, if material.

2. Estimates and accounting judgements

The preparation of the consolidated financial statements requires the management of the EPS Group to make judgements and estimates that affect the amounts of income, expenses, assets and liabilities and disclosures at the date of the financial statements.

These estimates are determined by the judgements of the EPS Group's management, based: (i) on the best information and knowledge of current events and, in certain cases, on reports by independent experts, and (ii) on the actions that the EPS Group considers to be able to develop in the future. However, on the completion date of the operations, its results may differ from these estimates.

The estimates and assumptions that present a significant risk of causing a material adjustment to the book value of assets and liabilities in the following financial year are presented below.

2.1. Goodwill impairment

For the purpose of analysing impairments, the EPS Group tests the goodwill, value annually, recorded in the Consolidated Statement of Financial Position, in accordance with the accounting policy indicated in Note 1.5. The recoverable amounts of the cash flow generating units are determined based on the calculation of use values. These calculations require the use of estimates (Note 7).

2.2. Revenue

The EPS Group uses the percentage of completion method to account for its multi-annual contracts. The use of the percentage of completion requires the formulation of estimates on the degree of construction and services performed to date as a proportion of the total construction and services to be performed. The Management exercises judgements to determine whether the results of a contract can be estimated reliably. The Management also makes estimates of the total cost of services, or in some cases, of the total costs of the contract, which are used to determine the recoverable value of the contracts, which may give rise to the recording of a provision (onerous contract). Estimates are continually revised based on changes and information related to each contract.

2.3. Financial assets and liabilities fair value

The market price is used to determine the fair value of a financial asset or liability when there is an active market. When there is no active market, as is the case with some of the EPS Group's financial assets and liabilities, generally accepted fair value appraisal techniques are used, based on market assumptions.

The EPS Group uses appraisal techniques for unlisted financial instruments, such as derivatives, financial instruments at fair value through profit or loss, and assets available for sale. The appraisal methods used are most often based on discounted cash flow models and option models, including, for example, interest rates, exchange rates, commodity quotes and volatility curves.

2.4. Corporate income tax

The EPS Group recognizes liabilities for additional tax assessments that may result from reviews by tax authorities. When the final result of these situations is different from the amounts initially recorded, the differences will have an impact on the income tax and on tax provisions, in the period in which such differences are identified.

In addition, the EPS Group recognizes deferred tax assets on tax losses and tax benefits, to the extent that future taxable profits are expected. This appraisal requires the use of estimates, and the future taxable profits may differ from the appraisal carried out at each closing date. The difference will have an impact on the corporate income tax.

2.5. Recognition of provisions

The EPS Group periodically reviews the obligations arising from past events that must be recognized or disclosed. The subjectivity involved in the calculation of the probability and amount of internal resources necessary to pay for the obligations may lead to significant adjustments, either due to changes in the assumptions used or due to the future recognition of provisions previously disclosed as contingent liabilities.

The Management makes considerable judgements to determine whether there is a present obligation as a result of a past event, or whether it is probable, on the date of the financial statements, that out of past events may result in outflows, and whether the amount of the obligation can be reliably estimated. The EPS Group periodically reviews the status of these processes with the assistance of internal and external advice. These decisions are subject to change as new information becomes available. The amount to be provisioned may change in the future due to new developments in this particular matter,

2.6. Tangible and intangible assets

The useful life of an asset is the period during which the EPS Group expects the asset to be available for use and must be reviewed at least at the end of each financial year

The determination of the assets' useful lives, the amortization/depreciation method to be applied and the estimated losses resulting from the replacement of the equipment before the end of the useful life due to technological obsolescence is crucial in determining the amortization/depreciation amount to be recognized in the income statement for each financial year.

These assumptions are based on the best knowledge of the Management, and taking into account the best practices adopted by similar companies in the sectors in which the EPS Group operates.

2.7. Impairment losses on accounts receivable

The credit risk on the balances of accounts receivable is assessed at the closing date, taking into account the knowledge of the Client and their risk profile. Accounts receivable are adjusted based on the assessment of the estimated collection risks made by the management on the closing date of the accounts, which may differ from the risks that may actually occur.

C. Risk management

3. Financial risk management

3.1. Financial risk factors

The EPS Group's activities are exposed to a series of financial risks: market risk (including currency risk, price risk and interest rate risk), credit risk and liquidity risk. The EPS Group's risk management program focuses on the unpredictability of the financial markets and seeks to minimize the potential adverse effects on the EPS Group's financial performance. For this purpose, several financial instruments are analysed to minimize the mentioned risks, which, in under certain circumstances, can be contracted exclusively to hedge risks arising from the EPS Group's activity and business.

Financial risk management is carried out by the Corporate Finance Department, within the scope of the policies and guidelines approved by the Board of Directors.
This Department is responsible for the identification, assessment and hedging of financial risks, in close collaboration with the group's operating units. The Board of Directors establishes principles for the

overall management of risks, as well as policies aimed at covering specific areas, such as currency risk, price risk, interest rate risk, credit risk, use of derivative and non-derivative financial instruments and the investment of surplus liquidity. The Board of Directors monitors the mentioned transactions very closely.

3.1.1. Market risks

Exchange rate risk

In the course of its operations, the EPS Group is exposed to the exchange rate risk, arising from proposals presented in foreign currency, supply and construction contracts and future transactions in foreign currency. Additionally, and as a result of its foreign subsidiaries and associate companies, the EPS Group is exposed to foreign exchange risk, due to the recognition of assets and liabilities and net investments in foreign operations. The EPS Group's main source of exposure to foreign exchange risk comes from financial assets and liabilities denominated in US dollars.

The EPS Group has an internal policy on exposure to foreign exchange risk that allows the hedge of the most significant contracts denominated in foreign currency, through the use of short-term derivative financial instruments.

In the specific case of Angola, the Group reduces its exposure to foreign exchange related to cash and cash equivalents in local currency, through cash investments denominated in dollars or indexed to the dollar (Note 13).

Price risk

The EPS Group is exposed to short and long-term changes in raw materials prices in its production processes, in cases where it purchases raw materials whose price is listed in the stock exchange. This exposure essentially relates to copper.

The EPS Group has implemented policies in order to limit the impact that changes in these raw materials price have on the consolidated net profit/loss, having established risk hedging strategies that allow the use of financial derivative instruments.

The Corporate Finance Department is the entity in charge of the EPS Group for ensuring the management of this risk in articulation with the Purchasing Department and the Business Units that use these raw materials.

At 31 December 2019, the EPS Group did not have option contracts on any raw materials in its portfolio.

Cash flow and fair value risks associated with interest rate.

The interest rate risk in the EPS Group essentially arises from non-current loans, since there is no significant amount of interest-bearing non-current assets. Loans contracted with variable interest rates expose the EPS Group to the changes in cash flows risk. The EPS Group's policy is contracting financial liabilities at variable interest rates, thus not being exposed to the fair value risk associated with changes in interest rates.

The EPS Group has implemented a dynamic interest rate risk management policy with the objective of limiting the change risk in cash flows associated with interest rates changes. Supported by the established policies, the Corporate Finance Department analyses and decides on the contracting of derivative financial instruments, being able to do so through the contracting of instruments in which it exchanges flows indexed to the variable interest rate for flows calculated at a fixed rate or through interest rate options.

Exposure to interest rate risk is analysed dynamically. In addition to the evaluation of future charges, based on forward rates, sensitivity tests are carried out to changes in the level of interest rates. Currently, the EPS Group is primarily exposed to the euro area yield curve. The sensitivity analysis is based on the following assumptions:

- Changes in market interest rates affect interest income or expenses with regard to financial instruments with variable interest rates;
- Changes in market interest rates affect interest income and expenses with regard to financial instruments with fixed interest rates, only if these are recognized at fair value;

- Changes in market interest rates affect the fair value of derivative financial instruments and other financial assets and liabilities; and

- Changes in the fair value of other financial assets and liabilities are estimated by discounting future cash flows, using year--end market rates.

The same changes to the interest rate curves are used for each analysis, regardless of the currency. The analyses are carried out for the net financial debt, that is, the loans are deducted from interest-bearing deposits and cash investments. The simulations are carried out based on the net debt values and the fair value of the derivative financial instruments at the reference dates, and the respective change in the interest rate curves.

At 31 December 2019, the EPS Group had no interest rate derivatives contracted. The Group's exposure on the same date was around 121.1 million euros in bank loans, essentially denominated in euros, less 0.5 million euros in cash investments and time deposits. Based on assets and liabilities at the end of the year, if the interest rates on loans and deposits were 0.25% higher or lower, considering all other constant variables, the result before taxes for the financial year would be lower/higher by 301 thousand euros. These effects are essentially due to higher or lower interest expense on variable rate loans.

3.1.2. Credit risk

Credit risk is the risk that a counterparty will fail to meet its contractual obligations, which may originate the recognition of a loss. Credit risk results essentially from the EPS Group's operating activities, specifically Clients credit risks, including receivables and firm commitments, and its investment and hedging activities, including financial derivative instruments and deposits with financial institutions.

Financial institutions

With regard to financial institutions, the EPS Group selects the counterparties with which it does business based on the ratings assigned by one of the independent reference entities, whenever those ratings are available in the markets in which the Group operates. The credit risk resulting from operations with banks and financial institutions is managed by the Corporate Finance Department of the EPS Group.

The following table presents a summary, at 31 December 2019 and 2018, of the credit quality of deposits, investments and other financial investments (including derivative financial instruments with a positive valuation which, at 31 December 2019, amount to 24,115 euros) with reference to external credit ratings:

	31.12.2019	31.12.2018
Rating		
≥ AA-	368 361	808 262
A- to A+	8 384 963	4 862 870
BBB- to BBB+	6 946 327	2 776 432
BB- to BB+	10 001 687	13 094 289
≤ B+	17 860 772	11 219 938
No rating	7 482 539	5 305 351
	51 044 648	**38 067 143**

The ratings presented correspond to the classification given by Standard & Poor's. When these are not available, ratings from Moody's or Fitch are used.

The entities for which no rating is given are essentially financial institutions from Angola, Mozambique and Morocco.

Clients

With regard to the Clients credit risk, the EPS Group considers that the risk of a counterparty not complying with its contractual obligations, which may have an impact on its financial statements, is limited, because we try to ensure that Clients have solid credit profiles or adequate financing, in order to fulfil their obligations. In addition, the EPS Group also tries to reduce Clients' credit risk by negotiating contractual advances for some of the contracts.

Credit risk quality assessment is carried out by the Corporate Finance Department, in accordance with the following methodology: if Clients have an independent external credit rating, these ratings are used; if it does not exist, the quality of the credit risk is assessed considering its financial situation and past experience, among other factors. The individual risk limits are determined according to the guidelines established by the Board of Directors. The approval of high or significant risk projects is also the responsibility of the Board of Directors. The use of credit limits is monitored regularly. See Note 10 for additional credit risk disclosures.

The following table presents an analysis of the credit quality of the balances receivable from Clients and of accrued income related to multi-annual contracts:

	Notes	31.12.2019	31.12.2018
Clients			
New Clients		7 907 132	26 441 678
Institutional Clients		12 035 854	6 354 042
Others		28 086 185	46 517 017
	10.1	**48 029 171**	**79 312 737**
Accrued income - multi-annual contracts			
New Clients		2 822 459	6 251 795
Institutional Clients		18 448 231	20 064 724
Others		82 875 547	74 928 095
	10.2	**104 146 237**	**101 244 614**
TOTAL		**152 175 408**	**180 557 351**

Maximum risk

The following table shows the maximum exposure to the credit risk associated with financial assets held by the EPS Group.

	Notes	31.12.2019	31.12.2018
Clients	10.1	105 629 340	167 557 223
Accrued income	10.2	104 146 237	101 244 614
Other amounts receivable	11	24 243 827	19 431 228
Derivatives	9	11 999	695 948
Loans to related entities	28.2	724 605	724 605
Cash investments	13	206 515	688 895
Bank deposits	13	50 814 018	37 373 658
		285 776 540	**327 716 172**

3.1.3. Liquidity risk

Cash flow forecasting is carried out by the EPS Group's operating entities and aggregated annually by the Administrative and Financial Department in the preparation of the annual budget, this area being responsible for monitoring the EPS Group's liquidity needs forecasts, in order to ensure the maintenance of an adequate level of cash and cash equivalents to meet operational needs, always considering the impacts of possible additional uses of amounts contracted and not used in financing facilities, including credit lines and commercial paper programs (Note 16), in order not to exceed the limits of the financing facilities or debt covenants (when applicable). These forecasts take into account the EPS Group's debt financing plans, the achievement of internal objectives at the level of financial ratios and, if applicable, the compliance with external regulatory or legal requirements - for example, restrictions on foreign currency and compliance with debt covenants, namely: Cross default, Pari Passu, Negative Pledges, ratios on debt, change of shareholders and others related to the EPS Group's operating activities and legal, fiscal and operating obligations.

The cash flow surpluses held by the operating entities, in addition to those required to maintain the balance in working capital management, are managed locally, taking into account the instructions of the Corporate Finance Department regarding maturity, liquidity and counterparty. Any cash flow surpluses held by the group is invested by the Corporate Finance Department by choosing instruments with adequate maturities or sufficient liquidity and that provide sufficient margin as determined by the forecasts mentioned above.

At 31 December 2019, the EPS Group held approximately 50.9 million euros in cash and demand deposits, around 0.3 million euros in time deposits and around 0.2 million euros in cash investments (Note 13), which were expected to promptly generate capital inflows, capable of facilitating liquidity risk management. In addition, the group held, at that date, unused credit facilities amounting to approximately 30 million euros (Note 16).

The table below shows the non-derivative financial liabilities that are settled at their net value (the EPS Group does not have financial instruments that are not settled at their net value) grouped by relevant residual maturities. The amounts shown in the table are the undiscounted contractual cash flows. Foreign currency amounts are converted at the exchange rate at the reporting date. Interest payments associated with liabilities with variable interest rates are included in the table, and are calculated using the spot interest rates available at the reporting date. Assets and liabilities that can be repaid at any time are always allocated to the shortest period.

31 December 2019	Notes	up to 1 year	2-3 years	4-5 years	> 5 years
Bank loans		25 693 328	34 638 192	66 356 775	517 163
Commercial paper loans		8 212 089	4 474 211	0	0
Bond loans		2 610 000	5 220 000	61 915 000	0
Financial lease		220 371	404 578	162 904	0
Operating lease		3 739 154	5 632 902	2 570 620	43 200
Derivative financial instruments	9	125 646	0	0	0
Suppliers	14.1	125 656 801	0	0	0
Other liabilities		66 148 958	0	0	0
Financial guarantees	30.1	48 524 155	0	0	0
		280 930 502	**50 369 883**	**131 005 300**	**560 363**

31 December 2018	Notes	up to 1 year	2-3 years	4-5 years	4-5 years
Bank loans		20 586 916	54 768 654	12 231 980	0
Commercial paper loans		7 486 762	5 895 546	0	0
Shareholders loans	28.2	5 000 000	0	0	0
Derivative financial instruments	9	1 738 769	109 289	0	0
Suppliers	14.1	112 723 474	43 446	0	0
Other liabilities		92 345 534	0	0	0
Financial guarantees	30.1	55 340 499	0	0	0
		295 221 953	**60 816 935**	**12 231 980**	**0**

3.2. Capital risk management

The EPS Group tries to keep an adequate level of equity that allows it not only to ensure its continuity and development, but also to provide an adequate remuneration for its shareholders and the optimization of the capital cost.

The EPS Group may adjust the amount of dividends payable and the return on shareholders' capital or issue new shares or debt in order to keep or adjust its capital structure.

In accordance with market practices, the balance of the capital structure is monitored based on the financial leverage ratio (gearing). The gearing is calculated according to the formula "Net Debt / Total Capital". Net debt comprises the amount of loans (including current and non--current loans, as shown in the consolidated statement of financial position), less cash and cash equivalents. Total capital comprises equity, as presented in the consolidated statements, plus net debt. The gearing at 31 December 2019 and 2018 presents the following calculations:

	Notes	31.12.2019	31.12.2018
Financial debt	16	119 324 475	94 749 743
(-) Cash and cash equivalents	13	51 133 667	38 184 891
Net debt		**68 190 808**	**56 564 852**
Equity		277 343 622	316 240 135
Total equity		**345 534 430**	**372 804 987**
Gearing		**19.7%**	**15.2%**

In addition, and in accordance with the financing facilities contracted at the reporting date, the EPS Group is subject to compliance with covenants related to debt ratios (Note 16).

3.3. Fair value estimate

The following table shows the EPS Group's financial assets and liabilities measured at fair value, according to the following levels of fair value hierarchy provided for in IFRS 7:

- **Level 1:** the fair value of financial instruments is based on active liquid market prices at the reference date of the statement of financial position. This level includes essentially equity and debt instruments (e.g. NYSE Euronext);
- **Level 2:** the fair value of financial instruments is not determined based on active market prices, but rather using valuation models. The main inputs of the models used are observable in the market;
- **Level 3:** the fair value of financial instruments is not determined based on active market prices, but rather using valuation models, the main inputs of which are not observable in the market.

	31 December 2019				31 December 2018			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Assets								
Derivatives								
Trading		11 999		11 999		695 948		695 948
Hedging		0		0		0		0
Tangible fixed assets								
Land at fair value		17 172 711		17 172 711		17 706 897		17 706 897
Financial assets available for sale			623 632	623 632			703 632	703 632
	0	**17 184 710**	**623 632**	**17 808 342**	**0**	**18 402 845**	**703 632**	**19 106 478**
Liabilities								
Derivatives								
Trading		0		0		54 992		54 992
Hedging		125 646		125 646		1 793 065		1 793 065
	0	**125 646**	**0**	**125 646**	**0**	**1 848 057**	**0**	**1 848 057**

The market comparison criterion was used for the valuation of land, using average market values per m^2.

3.4. Financial instruments by category

At 31 December 2019 and 2018, financial assets were classified into the following categories:

Assets	Financial Assets at amortized cost	Derivatives held for trading	Available for sale	Non-financial assets	Total
31 December 2019					
Financial assets available for sale			623 632		623 632
Loans to related entities	724 605				724 605
Derivative financial instruments		11 999			11 999
Clients	105 629 340				105 629 340
Accrued income	104 146 237			8 774 722	112 920 959
Debtors and expenses to be recognized	24 243 827			13 228 372	37 472 198
Cash and cash equivalents	51 133 667				51 133 667
	285 877 675	**11 999**	**623 632**	**22 003 094**	**308 516 400**
31 December 2018					
Financial assets available for sale			703 632		703 632
Loans to related entities	724 605				724 605
Derivative financial instruments		695 948			695 948
Clients	167 557 223				167 557 223
Accrued income	101 244 614			4 068 728	105 313 342
Debtors and expenses to be recognized	19 431 228			12 627 763	32 058 991
Cash and cash equivalents	38 184 891				38 184 891
	327 142 561	**695 948**	**703 632**	**16 696 490**	**345 238 632**

As for financial liabilities, their breakdown by categories was as follows:

Liabilities	Derivatives held for trading	Hedging Derivatives	Other financial liabilities at amortized cost	Non-financial liabilities	Total
31 December 2019					
Loans obtained			119 324 475		119 324 475
Lease liabilities			9 743 385		9 743 385
Suppliers			125 656 801		125 656 801
Invoices - receipt and checking			35 381 563		35 381 563
Creditors and accrued expenses			34 361 751	21 086 308	55 448 058
Derivative financial instruments	0	125 646			125 646
	0	**125 646**	**324 467 975**	**21 086 308**	**345 679 929**
31 December 2018					
Loans obtained			94 749 743		94 749 743
Loans from related entities			5 000 000		5 000 000
Suppliers			112 766 921		112 766 921
Invoices - receipt and checking			48 458 293		48 458 293
Creditors and accrued expenses			46 137 567	20 842 408	66 979 975
Derivative financial instruments	54 992	1 793 065			1 848 057
	54 992	**1 793 065**	**307 112 524**	**20 842 408**	**329 802 989**

D. Consolidation

4. Presentation of accounts

4.1. Perimeter

4.1.1. Companies not included in the consolidation

Below is the list of companies included in the consolidation, the part of capital held by Efacec Power Solutions, directly or indirectly, and the consolidation method.

Name	Head office	% Control	Consol. Method
Efacec Power Solutions, SGPS, SA	Matosinhos	H	INT
Efacec Energia, Máquinas e Equipamentos Eléctricos, SA	Matosinhos	100.00	INT
Efacec Engenharia e Sistemas, SA	Maia	100.00	INT
Efacec Electric Mobility, SA	Maia	100.00	INT
Efacec Serviços Corporativos, SA	Matosinhos.	100.00	INT
Efacec Marketing Internacional, SA	Maia	100.00	INT
Efacec Angola, Lda.	Luanda/Angola	98.33	INT
Efacec Moçambique, Lda.	Maputo/Mozambique	100.00	INT
Efacec Algérie, EURL	Algiers/Algeria	100.00	INT
Efacec USA Inc.	Atlanta/USA	100.00	INT
Efacec Praha, s.r.o.	Prague/Czech Republic	100.00	INT
Efacec Central Europe Limited SRL	Bucharest/Romania	100.00	INT
Efacec Contracting Central Europe GmbH	Vienna/Austria	100.00	INT
Efacec Equipos Electricos, SL	Tarragona/Spain	100.00	INT
Efacec Chile, SA	Santiago/Chile	100.00	INT
Power Solutions Brasil, Sist. Automação e Potência, Ltda	S. Paulo/Brazil	100.00	INT
Efacec Power Solutions Argentina, SA	Buenos Aires/Argentina	99.95	INT
Efacec Índia Pvt. Ltd.	New Delhi/India	100.00	INT
XELA, AB	Malmo/Sweden	66.67	INT
EFASA (Pty) Ltd.	Bedfordview/South Africa	100.00	INT
Efacec Maroc, SARLAU	Casablanca/Morocco	100.00	INT
UTE Efacec Bahía de Cádiz	Seville/Spain	50.00	INT
UTE Efacec Engenharia SA y Cemesa SL	Tenerife/Spain	90.00	PRO
Siemens, Suez e Efacec - Serviços de Manutenção, ACE	Amadora	33.00	PRO
Ensul Meci-Efacec, Cogeração do Porto, ACE	Almada	100.00	MEP
GACE - Gondomar, ACE	Porto	20.00	PRO
EfaServicing, ACE	Matosinhos	100.00	INT
Efacec, Manutenção do Sistema de Saneamento do Oeste, ACE	Maia	100.00	INT
DST/DTE/CARI/EFACEC - Arroios, ACE	Braga	33.60	PRO
DST/DTE/CARI/EFACEC - Areeiro, ACE	Braga	38.00	PRO
ME Water - Manvia Efacec, Exploração Técnica de Sistemas Ambientais do Minho, ACE	Maia	50.00	PRO

Inscription:
INT · Consolidation using the Integral method
PRO · Consolidation using the proportional method
MEP · Consolidation using the equity method

4.1.2. Changes in the consolidation perimeter

In 2019, there were the following entries and exits from the Efacec Group's perimeter.

Name	Notes	% Control	
Entries in the Perimeter			
DST/DTE/CARI/EFACEC, ACE	Braga	38.00	PRO
DST/DTE/CARI/EFACEC - Arroios, ACE	Braga	33.60	PRO
XELA, AB	Malmo/Sweden	66.67	INT
Exits from the Perimeter			
EME2 - Engenharia, Manutenção e Serviços, ACE	Lisbon	40.00	MEP
Companies Excluded from the Perimeter			
S2M Dublin Light Rail Limited	Dublin/Ireland	51.00	a

a The company has not yet started its activity.

4.1.3. List of branches

The Group also has a vast list of branches, which carry out projects essentially of the Systems Units, in very different geographies.

Name	Entity to which it belongs
Bulgaria Branch/CE	Efacec Central Europe SRL
Greece Branch/ECCE	Efacec Contracting Central Europe GmbH
Spain Branch/EN	Efacec Energy
Greece Branch/EN	Efacec Energy
Spain Branch/ENG	Efacec Engenharia e Sistemas, SA
Italy Branch/ENG	Efacec Engenharia e Sistemas, SA
Tunisia Branch/ENG	Efacec Engenharia e Sistemas, SA
Tunisia Branch/SE	Efacec Engenharia e Sistemas, SA
Morocco Branch/EG	Efacec Engenharia e Sistemas, SA
Algeria Branch/SE	Efacec Engenharia e Sistemas, SA
Mozambique Branch/ENG	Efacec Engenharia e Sistemas, SA
Dublin Branch/SE	Efacec Engenharia e Sistemas, SA
Cape Verde Branch/ENG	Efacec Engenharia e Sistemas, SA
Mozambique Branch/AMB	Efacec Engenharia e Sistemas, SA
Bulgaria Branch/ENG	Efacec Engenharia e Sistemas, SA
Paraguay Branch/EG	Efacec Engenharia e Sistemas, SA
Norway Branch/EG	Efacec Engenharia e Sistemas, SA
Mozambique Branch/EG	Efacec Engenharia e Sistemas, SA
Corsica Branch/EG	Efacec Engenharia e Sistemas, SA
India Branch PO ASE	Efacec Engenharia e Sistemas, SA
India Branch PO LOG	Efacec Engenharia e Sistemas, SA
India Branch PO Nagpur	Efacec Engenharia e Sistemas, SA
India Branch PO Aurangabad	Efacec Engenharia e Sistemas, SA
India Branch PO Vizag	Efacec Engenharia e Sistemas, SA
India Branch PO Trichy	Efacec Engenharia e Sistemas, SA
Poland Branch /EG	Efacec Engenharia e Sistemas, SA
Georgia Branch /EG	Efacec Engenharia e Sistemas, SA
Malta Branch /EG	Efacec Engenharia e Sistemas, SA
Armenia Branch /EG	Efacec Engenharia e Sistemas, SA
India Branch PO Mangalore	Efacec Engenharia e Sistemas, SA
Denmark Branch /EG	Efacec Engenharia e Sistemas, SA
Guinea-Bissau Branch /EG	Efacec Engenharia e Sistemas, SA
Albania Branch /EG	Efacec Engenharia e Sistemas, SA
Mexico Branch /EG	Efacec Engenharia e Sistemas, SA
Elecnor Consortium /ENG	Efacec Engenharia e Sistemas, SA

4.2. Exchange rates for foreign currency conversion

In the consolidation of the EPS Group companies based abroad, the amounts in the financial statements relating to assets and liabilities and the amounts included in the income statement were converted into euros, respectively by the application of final and average exchange rates. The rates published by the European Central Bank in the fixings issued daily by this institution are used, the remaining being based on market levels.

The main functional currencies subject to conversion were as follows:

			31.12.2019		31.12.2018	
For 1 currency unit - Euro			**Final**	**Average**	**Final**	**Average**
AOA	Angola	Kwanza	536.56460	405.27326	353.21000	298.93773
ARS	Argentina	Peso	67.11118	53.45342	43.44270	32.27901
BRL	Brazil	Real	4.51280	4.41309	4.44270	4.30959
CLP	Chile	Peso	842.25598	791.43405	792.34000	756.85159
CZK	Czech Republic	Crown	25.46300	25.66244	25.77800	25.68408
DKK	Denmark	Kroner	7.46970	7.46581	7.46730	7.45334
DZD	Algeria	Dinar	133.51104	133.66534	135.37070	137.45289
INR	India	Indian	79.81200	78.71919	80.22550	80.59550
MAD	Morocco	Dirham	10.76243	10.77385	10.92770	11.06794
MZN	Mozambique	New Metical	69.84447	69.89622	70.47170	71.28538
NOK	Norway	Crown	9.84600	9.83943	9.97380	9.62788
RON	Romania	New Leu	4.78210	4.74996	4.66300	4.65521
TND	Tunisia	Dinar	3.13796	3.26452	3.42460	3.12878
USD	United States	Dollar	1.11890	1.11882	1.14540	1.17766

4.3. Discontinuation of the activities of the Environment and Industry Business Unit

The Environment and Industry Business Unit (AMB) develops integrated solutions in the domains of Water, Solid Waste, Thermal Power Plants and Dedusting. It also operates in the O&M segment for the operation and maintenance of infrastructure. The Unit has engineering and project management competencies in Portugal and local teams with commercial competencies in the main target markets, as well as a set of agents and partnerships that allow it to develop business at a global level.

On 17 December 2019, the Board of Directors decided to dispose of the Environment and Industry Business Unit, after considering several relevant factors, which are summarized below:

- Degradation of business margins and profitability in recent years, and high consumption of working capital;
- Difficulties in doing business in traditional markets (Portugal, Algeria, Morocco, Angola and Mozambique), with commercial conditions that highly penalize the projects' cash flows, preventing reaching critical levels of activity;
- Dependence on the performance of Partners in the civil construction sector, which represent a significant part of the contract amounts;
- Low level of synergies with the other activities of the Group, hindering the mobility of technical resources;
- The penetration into new markets, although with potential, requires time and investment.

Following the decision taken, Efacec made the necessary contacts with specialized entities, in order to receive proposals for the sale of the business.

Scope

The Environment and Industry Business Unit is part of Efacec Engenharia e Sistemas where it keeps the business decision and management centre. It is also present in several geographies through its branch network and has teams in some branch offices of the Group abroad. It also has partnerships in Complementary Groupings of Companies for contracts for the operation of water and sanitation infrastructure.

The disposal proposal covers all entities where the Environment & Industry Business Unit is present, and which are listed below:

→ Efacec Engenharia e Sistemas, SA

→ Morocco Branch

→ Algeria Branch

→ Cape Verde Branch

→ Mozambique Branch

→ Malta Branch

→ Denmark Branch

→ Mexico Branch

→ Efacec Angola, Lda.

→ Efacec Moçambique, Lda.

→ Efacec Algérie, EURL

→ Efacec Central Europe Limited SRL

→ Efacec Índia Pvt. Ltd.

→ Siemens, Suez e Efacec - Serviços de Manutenção, ACE

→ Efacec, Manutenção do Sistema de Saneamento do Oeste, ACE

→ ME Water - Manvia Efacec, Expl. Téc. Sist. Ambientais Minho, ACE

Regulatory framework

This transaction is regulated by standard IFRS 5. Some premises stand out from the applied regulations:

- The assets that meet the criteria for classification as held for sale must be measured at the lower of the carrying amount and the fair value less selling costs, and the depreciation of those assets must cease.

The disposal decision concerns a Business Unit with assets held mainly in Portugal and with branches in ten other geographies, through local law branches and branch offices. This is a systemic unit, whose valuation is based on the contracts signed with Clients for the execution of projects in the activity segments covered. These contracts mainly result in current assets, namely balances receivable from Clients and invoicing to be issued for works already carried out. The liabilities related to discontinuing assets are essentially amounts payable to Suppliers and invoicing issued and not yet recognized as revenue.

Non-current assets held for sale were considered and represent less than 1% of the total discontinued.

There are no financial assets identifiable with the discontinuing Business Unit, such as loans or bank current accounts.

Existing assets in shared or corporate areas that provide services to the same Economic Group were not discontinued, since they are not resources with direct and exclusive allocation to the discontinued Business Unit and the effects are difficult to measure.

In cases in which assets are deemed to have depreciated, the respective impairments are recognized. Similarly, there are provisions for projects in which there are risks or expectations of loss. Thus, the company considers that there is no difference between the assets fair value and their book value.

- Assets that meet the criteria for classification as held for sale must be presented separately on the face of the balance sheet and the results of discontinued operating units must be presented separately in the income statement.

The Group segregated the assets held for sale and related liabilities, which it presents in separate lines in the Statement of financial position at 31 December 2019. The results of the discontinued Business Unit generated in 2019 are presented separately in the Income Statement. The comparative results for 2018 were not reclassified in the income statement.

- Events or circumstances may extend the sale closing period beyond 1 year. An extension of the period during which the sale is required to close does not exclude that an asset is classified as held for sale if the delay is caused by events or circumstances beyond the entity's control and if there is sufficient evidence that the entity remains committed with its plan to sell the asset.

Throughout 2020, there were events that tended to extend the period for the disposal of the Business Unit in compliance with the resolution taken. These facts are related to the Luanda Leaks process, which began in January 2020, following which the majority shareholder put its stake in Efacec up for sale, and, more recently, the nationalization process that followed. Also the effects of the COVID-19 pandemic introduced additional delays in the actions to be taken on this sale process. These facts are further developed in the final Note of Subsequent Events. Under the circumstances described, while believing the sale is possible within 1 year, it is uncertain today that the sale process will be concluded within that period.

Effects of discontinued activities on the Financial Statements

Under the circumstances described, and in accordance with the rules, Efacec Power Solutions presents its consolidated accounts discontinuing all assets and liabilities and all income and expenses resulting from the business carried out by the Environment & Industry Business Unit, in all geographies where it is present, and the entities mentioned above.

The flows of this activity to the total of the Efacec Group during the financial year 2019 are deducted in all types of income and expenses, and presented in the Income Statement as Results of discontinuing operations. Similarly, the contributory balances of the Business Unit to be sold are presented in the Statement of Financial Position as Assets and Liabilities held for sale.

As a result of this disposal decision, the heading "Results from discontinuing operations" in the 2019 Income Statement amounts to -6,782,198 euros.

The contribution of each operation to the result for the financial year was as follows:

Income Statement	2019
Sales and provision of services	18 491 938
Operating Income	-6 529 510
Financial result	-252 688
Result before taxes	-6 782 198
Corporate income tax	0
Results from discontinuing operations	**-6 782 198**

The Environment & Industry Business Unit presented the following compared activity indicators:

	2019	2018
Sales and provision of services	18 491 938	38 715 607
EBITDA	-4 538 457	2 407 269

With regard to the statement of financial position, the main contributory balances for each of the operations were as follows:

Statement of financial position	2019
Tangible fixed assets	147 744
Non-current assets held for sale	**147 744**
Stock and Inventory	82 843
Clients	10 733 836
Accrued income	5 726 506
Debtors and Expenses to be recognized	100 747
Current assets held for sale	**16 643 932**
Suppliers	12 193 258
Creditors and accrued expenses	255 561
Income to be recognized	8 479 519
Liabilities associated with assets held for sale	**20 928 338**
Non-current	0
Current	20 928 338

E. Notes to Financial Statements at 31 December 2019 and 2018

5. Tangible and intangible assets

5.1. Tangible fixed asset

Entries during the financial year

The tangible assets at 31 December 2019 and 2018 and the changes in value in both years were as follows:

	Land and buildings	Transp. eq. and basic eq.	Admin. equipment	Others	Total
31 December 2018					
Initial net amount	44 508 475	20 529 530	936 189	6 175 961	72 150 155
Exchange differences	-322 628	-69 097	-26 701	-280 717	-699 143
Increases	698 129	2 032 373	432 848	5 672 960	8 836 310
Decreases	0	-3 513	-459	0	-3 972
Depreciation appropriations	-2 282 636	-3 984 773	-479 520	-2 697	-6 749 625
Transfers and adjustments	1 287 665	2 132 866	474 266	-4 392 778	-497 981
Closing net amount	**43 889 005**	**20 637 386**	**1 336 622**	**7 172 729**	**73 035 743**
Cost or fair value	72 641 336	123 363 560	24 604 913	7 189 847	227 799 657
Accumulated depreciation	-28 752 331	-102 726 175	-23 268 291	-17 118	-154 763 914
Net amount	**43 889 005**	**20 637 386**	**1 336 622**	**7 172 729**	**73 035 743**
31 December 2019					
Initial net amount	43 889 005	20 637 386	1 336 622	7 172 729	73 035 743
Exchange differences	-164 613	-39 073	-13 373	-36 101	-253 159
Increases	667 014	2 790 112	358 751	3 985 973	7 801 850
Decreases	0	-275 285	-340	0	-275 625
Discontinuing activities	-996	-33 401	-17 354	-128 807	-180 558
Impairment	-534 230	0	0	0	-534 230
Depreciation appropriations	-2 000 261	-4 301 743	-476 705	-3 979	-6 782 688
Transfers and adjustments	859 688	487 919	199 386	-4 800 689	-3 253 697
Closing net amount	**42 715 608**	**19 265 914**	**1 386 988**	**6 189 127**	**69 557 637**
Cost or fair value	73 312 496	123 363 560	22 664 580	6 227 542	227 575 761
Accumulated depreciation	-30 596 888	-102 726 175	-21 277 593	-38 415	-158 018 124
Net amount	**42 715 608**	**20 637 386**	**1 386 988**	**6 189 127**	**69 557 637**

Revaluation – Purchase Price Allocation

The production equipment was subject to appraisal by a specialized company in 2014, having been incorporated into the EPS perimeter at fair value at the date of the merger at 19.4 million euros. The reincorporation fell within the scope of the acquisition of financial stakes, in the EPS incorporation process, and consisted of the allocation of purchase values to identifiable assets. The impact on depreciation for the financial year 2019 was 2.5 million euros. In net terms, after deducting depreciation, the net value of the adjustment at 31 December 2019 is 11.2 million euros.

Revaluation – Land

The land included in the Group's assets, except for that recorded in the subsidiary Efacec Equipos Eléctricos, in Spain (immaterial), is presented at fair value. The land value has been updated, in accordance with the rules, based on three-year appraisals carried out by independent experts. The last appraisal carried out resulted in a devaluation in the amount of 392.8 thousand euros, with an impairment loss in the amount of 205.5 thousand euros being recorded in the income statement under "Provisions and assets impairments" and a decrease in reserves in the amount of 187.3 thousand euros in equity. An impairment of 141.4 thousand euros was also recorded with regard to corrections to the Maia centre subdivision.

Investments

During the financial year 2019, the Group invested approximately 7.8 million euros in tangible fixed assets. Important amounts are recorded in the investment in buildings: the new facilities of the Automation Business Unit, which experienced some delay, additional investments in the Electric Mobility factory area, and the adaptation and improvements of the new facilities leased in Oeiras, which, together, represent about 4 million euros. The Group has also made and is currently making several investments in replacing factory equipment and in supporting information systems. At the end of the financial year, a part of these assets was still in progress, not yet allocated to their natures.

Depreciation

Depreciation is carried out in accordance with Note 1.4. The amount of depreciation presented in the Income Statement considers the asset depreciation appropriations, normally deducted from the amount of investment grants recognized in the period. In the period under review, the deduction through the recognition of grants in tangible assets amounted to 28,169 euros (145,592 euros in 2018).

Assets given as collateral

Currently, there are no assets given as collateral.

5.2. Intangible Asset

The entries in intangible assets in 2019 and 2018 and the respective amounts at the end of each financial year were as follows:

	R&D	Contracts	Brand	Others	Total
31 December 2018					
Initial net amount	6 634 519	34 908	79 000 000	789 695	86 459 121
Exchange differences	0	0	0	-13 432	-13 432
Increases	6 608 517	0	0	5 847 858	12 456 375
Amortization	-1 910 446	-34 908	0	-1 659 875	-3 605 228
Transfers and adjustments	632 938	0	0	-230 308	402 630
Closing net amount	**11 965 529**	**0**	**79 000 000**	**4 733 938**	**95 699 466**
31 December 2019					
Initial net amount	11 965 529	0	79 000 000	4 733 938	95 699 466
Exchange differences	0	0	0	-18 426	-18 426
Increases	14 036 146	0	0	6 802 649	20 838 795
Discontinuing activities	0	0	0	-7 472	-7 472
Amortization	-7 366 457	0	0	-2 159 244	-9 525 701
Transfers and adjustments	2 435 917	0	0	718 044	3 153 961
Closing net amount	**21 071 134**	**0**	**79 000 000**	**10 069 489**	**110 140 623**

The sub-headings "Contracts" and "Brand" resulted from the acquisition of companies as part of the incorporation process of Efacec Power Solutions in 2014, and the subsequent allocation of the respective purchase amounts. The amount allocated to contracts was amortized according to their degree of completion, having been fully amortized during the financial year 2018. In 2015, the Efacec Brand was subject to an appraisal by a specialized company, having been assigned the value of 79 million euros. The Brand is included in the Group's annual impairment tests (Note 7).

The investment in intangible assets in the financial year 2019 was 20.8 million euros, of which 13.9 million euros relate to research and development projects and expenses with homologation product and certification. The Group also invested around 3.3 million euros in information technologies, namely in the implementation of the ERP SAP. In addition, 1.1 million euros of commissions paid on product supply contracts were capitalized, almost entirely amortized during the financial year. Commissions recorded as assets were covered by IFRS 15, as described in Note 1.5.4.

The amortization period of the amounts capitalized in research and development projects is determined on a case-by-case basis, depending on the expected yield of the projects. In the Group, the projects recorded as assets normally have a useful life of 5 years.

Homologation expenses are essentially for the Equipment Business Unit and are intended to certify products and manufacturing processes. The approval processes are usually long and comprise several steps aimed at analysing the conformity of the products with the technical requirements and regulations applicable in the different geographies in which the Unit is present, at carrying out tests in internationally accredited laboratories and at carrying out audits to the company's quality management system. For the Business Unit, these processes translate into investments that are indispensable for placing its products in the markets in which it competes, and are therefore capitalized and amortized over three to five years.

Amortization

The amount of amortization presented in the Income Statement considers the assets amortization appropriations, less the investment grants recognized in the period.

In the period under review, the deduction through the recognition of grants in intangible assets amounted to 2,123,547 euros (115,316 euros in 2018).

6. Right-of-use assets

With the adoption of the new standard IFRS 16 (see Note 1.17), this note details the amount of the heading "Right-of-use assets". The table reports the amounts of the lease contracts, broken down by:

- Financial leases - contracts entered into with finance companies, which purchase goods from third parties and make them available to and at the service of the company, and
- Operating leases - rental or lease agreements entered into with third parties, with or without the inclusion of a service component, reclassified in accordance with the requirements of IFRS 16.

The liability related to these contracts is reflected in the heading Lease liabilities (Note 17), and is broken down by current and non-current liabilities, depending on the maturity dates of the instalments, respectively, less than a year or more than a year.

Operating leases that do not meet the requirements established in IFRS 16, in the case of short-term and low-value leases, are not part of the asset, the respective expense being included in the income statement, under the heading "Supplies and external services".

	Buildings	Basic equipment	Transport equipment	Admin. equipment	Total
Financial lease contracts					
Assets at 31.12.2018			85 099		85 099
Exchange differences			-984		-984
Increases		1 287 100	48 979		1 336 079
Depreciation		-32 766	-13 675		-46 440
Closing net amount	**0**	**1 254 334**	**119 419**	**0**	**1 373 754**
Contracts reclassified by application of IFRS 16					
Assets at 31.12.2018	4 261 720		2 246 090	523 134	7 030 944
Increases	2 657 942		1 318 309	1 061 911	5 038 162
Depreciation	-1 817 147		-1 196 556	-220 729	-3 234 432
Closing net amount	**5 102 515**	**0**	**2 367 843**	**1 364 316**	**8 834 674**
	5 102 515	**1 254 334**	**2 487 263**	**1 364 316**	**10 208 427**

7. Goodwill

In the financial year 2019 there were no changes in the heading "Goodwill". Its value was affected only by exchange rate changes, which mainly affected the values of Angola and Brazil.

	31.12.2019	31.12.2018
Initial net amount	120 039 977	120 242 439
Exchange differences	-72 154	-202 462
Closing net amount	**119 967 822**	**120 039 977**

In preparing goodwill impairment tests, the design of business plans was aligned with the Group's organization, based on its several Business Units.

The Group is organized by Business Units (BU) with worldwide management. The information system is fully oriented towards this management model, and the decision making is centred on the BUs' Departments that report directly to the Group's Executive Committee. At the level of the Corporate Areas, the management model is identical, and the heads of the central services of foreign branch offices functionally report to Portugal.

Since 2016, these premises have led to the refocusing of the Group and resulted in the definition of a new organizational chart, in which a Products area, a Systems area and a specific and exclusive unit for Electric Mobility were defined.

The Products area comprises the Transformers, Equipment, Automation and Service BUs, and is centred on the legal entity Efacec Energia. The Systems area covers the Energy and Transport segments, and is part of Efacec Engenharia e Sistemas. Finally, the Electric Mobility unit is developed by Efacec Electric Mobility. These three companies are based in Portugal and they are the three Cash Generating Units (CGU), of global scope, subject to appraisal.

The international structure comprises foreign branch offices located in several geographies. Some of them depend on a single Business Unit, others are multi--business branch offices. In both cases, each business is run from Portugal by the respective Business Units and, by extension, integrated in the respective CGUs.

The activities of the international branch offices Efacec Central Europe, Power Solutions Brasil and, currently, Efacec Algérie are strongly concentrated in the Automation business segment. Similarly, the branch offices Efacec India, Efacec Equipos Eléctricos, Efacec Power Solutions Argentina and Efacec Praha carry out their activity in the Electrical Equipment Business Unit. The management of these branch offices is part of the operational management of the Business Units to which they report and is conducted from Portugal, acting mainly as extensions of Efacec Energia's activity in the respective markets. Based on this assumption, the business plans of these branch offices were consolidated in Efacec Energia.

Based on the same fundamentals, the international branch offices Efacec Contracting Central Europe and Efacec Chile were consolidated into Efacec Engenharia e Sistemas. The operations of these two legal entities are strongly concentrated in the Systems business segments and are particularly dependent on Efacec Engenharia e Sistemas with regard to references, specific technical competencies and financial means, acting essentially as extensions of the Efacec Engenharia e Sistemas activity in their respective markets.

The Angola and Mozambique branch offices develop their activities in different Products and Systems segments with business plans defined by Business Unit. The projections prepared for each BU are allocated to the defined CGUs.

The contribution of each Cash Generating Unit (CGU), grouped by legal entity, to the goodwill presented in the statement of financial position at 31 December 2019 and 2018 was as follows:

	31.12.2019	31.12.2018
Efacec Energia	60 667 344	57 472 977
Efacec Engenharia e Sistemas	51 262 913	54 529 435
Efacec Electric Mobility	8 037 565	8 037 565
Total	**119 967 822**	**120 039 977**

Impairment tests

At the end of the year, impairment tests are carried out for most assets that justify the amounts of goodwill and the Efacec Brand. The tests are carried out to assess the goodwill and the Brand recoverability, which is broken down by the several CGUs, given the historical performance and/or expectations of business development. The aggregate amount of the assets subject to testing is as follows:

	Goodwill	Brand	Total
Efacec Energia	60 667 344	44 008 752	104 676 096
Efacec Engenharia e Sistemas	51 262 913	30 355 589	81 618 502
Efacec Electric Mobility	8 037 565	4 635 659	12 673 224
Total	**119 967 822**	**79 000 000**	**198 967 822**

The recoverable amount of a CGU is calculated based on calculations of the value in use.

The valuations are based on cash flow projections based on financial budgets approved by the management, covering a period of 5 years, which are discounted at a rate calculated in accordance with the CAPM (Capital Asset Pricing Model). After this five-year period, cash flows are extrapolated using the growth rates estimated based on business development expectations.

Assumptions

The assumptions used in the impairment tests performed at 31 December 2019 and 2018 were as follows:

	2019				2018			
	Revenue growth rate	EBITDA margin	Discount rate before tax	Perpetuity growth rate	Revenue growth rate	EBITDA margin	Discount rate before tax	Perpetuity growth rate
Efacec Energia	5.5%	9.4%	9.1%	1.7%	5.0%	9.7%	8.2%	2.0%
Efacec Engenharia e Sistemas,	6.5%	7.8%	9.1%	1.9%	5.0%	7.0%	8.1%	2.3%
Efacec Electric Mobility	12.3%	11.7%	13.0%	4.0%	21.5%	13.7%	13.1%	2.1%

Efacec Electric Mobility has a particularly high revenue growth rate. In 2019, there was a downward revision while keeping an outstanding level of growth, due to the fact of developing its activity with new products and in an area in accelerated expansion.

At the impairment test date, the following assumptions were also considered:

- Obtaining a bridge loan in the amount of 45 million euros, until March 2020 – which has not yet occurred – in order to balance the treasury, of which a tranche of 25 million euros in the immediate period.
- Implementation of fundamental restructuring measures to reduce OPEX in 2020 and 2021, which is expected to have a significant impact on the EBITDA margin, at the end of the projection period, with double-digit growth.
- Growth in turnover based on: (i) Renovation of power plants in developed countries and increased energy needs in developing countries due to the transition to renewable energies, which will involve a major investment in increasing the capacity for energy production, storage and distribution; (ii) expectation of exponential growth in the production and use of electric vehicles, as well as in the search for "fast" charging solutions, which place Efacec in a privileged position to take advantage of these market opportunities.

Results

The tests carried out did not result in the recording of any impairment of goodwill or the Brand.

Sensitivity analyses

The valuations were also subject to sensitivity analyses of the main variables used, in order to test the resistance of the assets recoverable value to unfavourable changes in each one. The variables were thus subject to the following impacts:

	Revenue growth rate	EBITDA margin	Discount rate	Perpetuity growth rate
Change in the assumptions	-10.0%	-10.0%	+1.0 p.p.	-1.0 p.p.

At Efacec Energia and Efacec Engenharia, the discount rate and the EBITDA margin were identified as the most sensitive variables in the tests carried out, without, however, having shown any impairment. In the case of Efacec Electric Mobility, the revenue growth rate is particularly important and, in the background, the contribution of the operating margin. In these two cases, subjecting to the 10% change shows minimal signs of impairment. In the case of the sales growth rate, the critical point is a reduction of 5%; in the margin, and the critical point is for a -8% change.

The projections taken into account by Efacec do not include an impact on the global health crisis caused by COVID-19, the intensity of which is not yet known, namely the immediate effects in the financial year 2020 or the duration of the crisis/spread of the crisis effects beyond a horizon of 2 or 3 years. The context and impacts of COVID-19 do not generate adjustments to the financial statements at 12.31.2019, as they do not reflect conditions that existed at the end of the reporting period. At the date of these financial statements, given the uncertainty of the macroeconomic effects (duration/extension), in addition to the current corporate context of the EPS Group, the Board is not in a position to estimate the magnitude of the impacts on the estimated cash-flows of each CGU and consequently the impacts resulting from the impairment tests on future financial statements.

8. Financial assets available for sale

The amounts classified under the heading "financial assets available for sale" have the following breakdown:

	31.12.2019	31.12.2018
Financial assets available for sale		
Financial holdings		
NET - Novas Empresas e Tecnologias, S.A.	11 132	11 132
Equity securities		
CEIIA- Centro para a Excelência e Inovação na Indústria Automóvel	15 000	15 000
INEGI - Instituto de Ciência e Inovação em Engenharia Mecânica e Industrial	15 000	15 000
HCapital New Ideas - Venture capital fund	582 500	662 500
Total net investment	**623 632**	**703 632**

Financial assets available for sale include shares in unlisted companies and equity securities in other entities, the fair value of which cannot be reliably measured because there are no market prices or comparable transactions and, as such, are recognized at cost.

In 2017, EPS decided to subscribe a 25% stake in the Centure Capital Fund HCapital New Ideas, which is dedicated to investing in technological and innovative national companies, especially SMEs, with the potential to generate synergies with EPS Group activities. Any investment to be subscribed by the Fund is previously subject to approval by EPS.

At the end of 2019, Efacec transferred half of the stake held in the Fund, which, at the date of the sale contract, was 1,165,000 euros. In this operation, the Company recorded a loss of 102,500 euros.

9. Derivative financial instruments

At 31 December 2019, several derivative financial instrument contracts to hedge foreign exchange risk in the total amount of 22.4 million American dollars were in force.

Portfolio contracts were valued at 31 December 2019. The impact of the valuations of these derivative financial instruments on the statement of financial position represented, at that date, the recording of current assets in the amount of 12 thousand euros and current liabilities in the amount of 126 thousand euros. The net amount of the valuation of derivative financial instruments at the closing date of the accounts was negative by -114 thousand euros, including foreign exchange derivatives with accounting for results, with a positive net amount equal to 12 thousand euros and foreign exchange derivatives with accounting for equity, with negative net amount of -126 thousand euros.

The amount recorded in the income statement is under the heading "Other operating income" and affected exchange differences, in the opposite direction to the impact on the hedged instrument.

The following table shows the classification of derivatives and their impact on the statement of financial position:

	31.12.2019		31.12.2018	
	Assets	Liabilities	Assets	Liabilities
Foreign exchange options				
Cash flow hedging	0	125 646	0	1 793 065
Trading	11 999	0	695 949	54 992
Total	**11 999**	**125 646**	**695 949**	**1 848 057**
• Current	11 999	125 646	608 923	1 738 769
• Non-current	0	0	87 026	109 289

10. Clients and Accrued Income

10.1. Clients

At 31 December 2019 and 2018, this heading was detailed as follows:

Clients	Notes	31.12.2019	31.12.2018
Clients - current account	28.2	104 528 673	165 886 767
Clients - related parties	28.2	1 108 896	1 274 386
Clients - securities to be received	28.2	641 557	955 277
Clients - bad debt		16 765 994	22 940 201
		123 045 120	**191 056 631**
Impairment losses of Clients accounts	22.4	-17 415 780	-23 499 408
Total		**105 629 340**	**167 557 223**
• Non-current		0	0
• Current		105 629 340	167 557 223

The EPS Group has a large number of Clients dispersed internationally and covering different market segments. For this reason, it is understood that there is no concentration of credit risk in relation to its Clients. The fair value of accounts receivable does not differ significantly from their book value.

At 31 December 2019, the amount receivable from Clients shows a decrease of approximately 36% compared to the end of 2018, thus confirming the strong downward trend seen in recent years, in which the decrease in turnover and especially the collection effort has significantly reduced Clients accounts.

The amount of Clients bad debt includes a debt in the amount of 6.3 million euros from the Client CPTM, from Brazil, with which Efacec has a contractual dispute, as described in Note 29, a total impairment on that debt having been made in 2017. As part of the Share Purchase Agreement between Winterfell 2 and MGI Capital, the EPS Group has the right to re-charge and has already re-charged the costs associated with this project to MGI Capital.

Clients Seniority – IFRS 7

At 31 December 2019 and 2018, the amounts receivable from Clients presented the following seniority structure, taking into account the maturity dates of outstanding balances:

	Notes	31.12.2019	31.12.2018
Not-overdue balances	3.1.2	48 029 171	79 312 737
Overdue balances			
Up to 90 days		18 972 711	34 598 616
90 to 360 days		15 186 860	17 596 569
More than 360 days		40 856 378	59 548 709
		75 015 949	111 743 894
		123 045 120	**191 056 631**
Impairment	22.4	-17 415 780	-23 499 408
		105 629 340	**167 557 223**

At 31 December 2019, overdue loans amounted to 74,960,288 euros. The amount of these credits, net of impairment, is as follows:

	31.12.2019			31.12.2018		
	Overdue balances	Impairment	Net amount	Overdue balances	Impairment	Net amount
Up to 90 days	18 972 711	-2 616	18 970 094	34 598 616	-34 013	34 564 603
90 to 360 days	15 186 860	-1 008 861	14 177 999	17 596 569	-189 280	17 407 290
More than 360 days	40 856 378	-16 404 303	24 452 075	59 548 709	-23 276 115	36 272 594
	75 015 949	**-17 415 780**	**57 600 169**	**111 743 894**	**-23 499 408**	**88 244 486**

In 2019, accumulated impairment losses decreased by 6.1 million euros. The Group constituted and reversed impairments of 2.9 and 5.5 million euros, respectively, having also reclassified 0.2 million euros to Other debtors and adjusted 0.4 million euros due to the effect of currency devaluation (Note 22.4). Due to the discontinuation of the environment activity, it reclassified 2.9 million euros of impairment losses in Clients to the heading "current assets held for sale".

EPS considers that the estimated impairment losses on accounts receivable are adequately reflected in the financial statements and reflect the real risk of loss.

Denomination

At 31 December 2019 and 2018, the Clients receivables amounts were denominated in the following currencies:

		31.12.2019	31.12.2018
Euro	EUR	80 384 052	122 985 048
American dollar	USD	24 943 453	44 333 427
Algerian dinar	DZD	7 589 162	2 068 434
Brazilian real	BRL	3 308 641	3 981 591
Angolan Kwanza	AOA	2 320 638	1 379 790
Pound sterling	GBP	1 010 276	796 014
Danish crown	DKK	849 469	6 856 630
Indian rupee	INR	843 469	1 006 085
Czech Republic crown	CZK	472 022	310 828
Swedish crown	SEK	253 068	250 815
Chilean peso	CLP	225 438	1 649 520
Tunisia dinar	TND	182 765	556 103
Romenian New Leu	RON	117 434	1 453 012
Others		545 232	3 429 333
		123 045 120	**191 056 631**

Factoring

The EPS Group entered into factoring contracts with specialized financial institutions, with and without recourse, for a total amount of 22 million euros.

	Notes	31.12.2019	31.12.2018
Assets transferred and derecognised in the statement of financial position			
Assets amount		21 039 026	33 330 603
Transferred amount		-21 039 026	-33 330 603
Net amount		0	0
Assets transferred and not derecognised in the statement of financial position	17	924 419	967 449

The transferred assets relate entirely to Clients balances, and the assets not derecognised have associated liabilities recorded in the heading Debts to Credit Institutions (Note 16).

10.2. Increases in income

The amounts of Accrued Income included in this caption relate essentially to the recognition of income associated with projects and works in progress, whose degree of completion is higher than the level of invoicing (Notes 1.16.3 and 32).

The accrued income from non-financial assets relate to income recognitions in the Income Statement that respect the accrual principle, but are not related to multi-year contracts, namely invoicing to be issued and investment incentives to be received. In 2019, this heading included an amount of 6.4 million euros to be charged to MGI Capital, according to the context and description in note 22.5.

Accrued income	Notes	31.12.2019	31.12.2018
Multi-annual contracts	3.1.2 and 32	104 146 237	101 244 614
Non-financial assets		8 774 722	4 068 728
Total		**112 920 959**	**105 313 342**
• Non-current		0	0
• Current		112 920 959	105 313 342

Name

At 31 December 2019 and 2018, the accrued income related to multi-annual contracts were denominated in the following currencies:

		31.12.2019	31.12.2018
Euro	EUR	62 041 007	65 267 199
American dollar	USD	29 300 987	22 157 152
Chilean peso	CLP	6 648 453	4 822 649
Algerian dinar	DZD	3 624 302	4 848 671
Brazilian real	BRL	583 822	548 617
Pound sterling	GBP	538 911	0
West CFA Franc	XOF	328 531	413 509
Angolan Kwanza	AOA	78 869	410 467
Danish crown	DKK	51 300	2 138 619
Others	SEK	950 055	637 731
		104 146 237	**101 244 614**

11. Debtors and Expenses to be Recognized

At 31 December 2019 and 2018, this heading was detailed as follows:

	Notes	31.12.2018	31.12.2018
Other debtors - miscellaneous		16 763 607	11 552 489
Other debtors - related parties	24.2	12 692 886	12 620 638
		29 456 493	24 173 127
- Impairment losses	20.3	-5 212 666	-4 741 899
Other debtors - Financial assets		24 243 827	19 431 228
Other debtors - Non-financial assets		657 524	560 985
State and other public entities		10 438 466	11 722 860
Expenses to be recognized		2 648 833	842 417
- Impairment losses	20.3	-516 451	-498 498
Total		**37 472 198**	**32 058 991**
• Debtors and expenses to be recognized non-current		1 141 390	1 261 794
• Debtors and expenses to be recognized current		36 330 808	30 797 197

This heading includes credits not directly related to the Group's business, current accounts with personnel, security deposits and others.

The balances with related entities refer mainly to the MGI Capital Group. The accumulated impairment loss includes an amount of 4.6 million euros related to credit on an associate company of MGI Capital in China (Note 28.2).

The headings included in the active balances with the State and Other Public Entities decreased their value, essentially in recoverable taxes. At 31 December 2019 and 2018, the breakdown of the balance was as follows

State and other public entities - active balances	31.12.2019	31.12.2018
Corporate income tax	2 514 174	2 417 718
Value Added Tax to be recovered	6 896 646	6 700 966
Other taxes to be recovered	1 027 645	2 604 175
	10 438 466	**11 722 860**
- Impairment losses	-516 451	-498 498
	9 922 015	**11 224 362**

The amounts of VAT to be recovered are of a recurrent nature and relate mainly to the activities of the EPS Group in which there is a reverse charge mechanism and are regularly subject to recovery processes.

The impairment constituted refers to outstanding balances with the State due to tax withholdings in Angola, because they are considered as being difficult to recover.

The heading "corporate income tax" includes the following amounts:

Corporate income tax	Notes	31.12.2019	31.12.2018
Payments on account and withholdings deductible in subsequent exercises		1 566 117	1 469 661
Credits for tax benefits to internationalization	a	948 057	948 057
		2 514 174	**2 417 718**

[a] The Group maintains credits on the State related to tax benefits of two internationalization projects, submitted in 2007 and 2009. The benefits, in the amounts of 448,057 euros and 500,000 euros, respectively, have been approved and are awaiting settlement by the Tax Authority, which should occur only after a decision on another deductibility of financial charges proceeding, in the sphere of MGI Capital.

12. Stock and inventory

	Notes	31.12.2019	31.12.2018
Raw materials		21 660 553	19 410 871
Goods		1 089 306	692 380
Products and work in progress - multi-annual contracts	32	1 790 540	6 288 833
Products in progress		9 480 327	8 250 014
Finished products		2 375 940	2 747 691
Adjustments to Stock and Inventory	22.4	-352 701	-506 707
		36 043 966	**36 883 082**

There was a decrease of about 1 million euros in stock and inventory when compared with the preceding year, essentially in the headings of products and work in progress, resulting from the activity slowdown in global terms.

13. Cash and cash equivalents

Cash and cash equivalents	Notes	31.12.2019	31.12.2018
Cash		113 134	122 337
Demand deposits		50 511 026	36 909 939
Time deposits		302 992	463 719
Cash investments		206 515	688 895
Subtotal	3.1.2	51 020 533	38 062 554
		51 133 667	**38 184 891**

At the end of the year, the Group recorded some important receipts from Clients, mainly from projects in foreign markets, which raised the amount of cash and cash equivalents on 31 December 2019 to 51.4 million euros.

The amounts in the headings cash and cash equivalents, at the end of 2019 and 2018, were denominated in the following currencies:

		31.12.2019	31.12.2018
Euro	European Union	27 986 714	25 022 369
Crown	Denmark	5 229 735	1 685 339
Kwanza	Angola	4 398 942	1 100 820
Dinar	Algeria	3 954 672	217 886
Dollar	United States	3 534 038	5 540 324
Metical	Mozambique	2 138 378	480 819
Dirham	Morocco	1 024 857	624 959
Crown	Czech Republic	524 113	486 529
Rupee	India	459 847	726 018
New Leu	Romania	367 668	363 800
Dinar	Tunisia	326 372	43 644
Crown	Norway	279 849	228 689
Lev	Bulgaria	245 343	524 503
Peso	Chile	232 845	435 161
Others	DKK	430 295	704 031
		51 133 667	**38 184 891**

14. Suppliers

14.1. Suppliers

At 31 December 2019 and 2018, this heading was detailed as follows:

	Notes	31.12.2019	31.12.2018
Suppliers - current account		122 512 763	109 775 472
Suppliers - related parties	28.2	1 312 579	1 355 644
Suppliers - payables		1 392 880	1 033 858
		125 218 222	112 164 974
Investment Suppliers		438 579	601 946
Total		**125 656 801**	**112 766 920**
• Non-current		0	43 446
• Current		125 656 801	112 723 474

Current debts to Suppliers of raw materials and other services are payable, for the majority, within 90 to 120 days, as shown in the following table. With regard to Suppliers of fixed assets, there are some amounts due for more than 1 year, of reduced expression, shown as "Non-current".

Maturity of Supplier balances – IFRS 7

	31.12.2019	31.12.2018
Suppliers		
Accounts payable to Suppliers		
To be settled up to 90 days	119 493 840	106 685 972
To be settled 90 days after	5 724 382	5 479 002
	125 218 222	**112 164 975**
Investment Suppliers		
Accounts payable to Suppliers		
To be settled up to 90 days	438 579	533 986
To be settled 90 days after	0	67 960
	438 579	**601 946**

Name

At 31 December 2019 and 2018, debt to Suppliers was denominated in the following currencies:

		31.12.2019	31.12.2018
Euro	EUR	105 835 572	95 280 415
American dollar	USD	8 162 083	3 111 110
Indian rupee	INR	6 507 990	6 031 303
Algerian dinar	DZD	2 265 916	2 216 725
Chilean peso	CLP	1 825 191	4 703 924
Others		1 060 048	1 423 444
		125 656 801	**112 766 921**

14.2. Invoices - receipt and checking

The heading Invoices - receipt and checking comprises the set of invoices pending approval. It includes situations resulting from (a) purchase orders launched by Efacec that have already been received, that is, that have already led to the recording of the expense, but whose invoices have not yet been recorded in a current account, deducted from (b) invoices that have already been entered and recorded, but have not yet been received affecting the profit and loss account.

At 31 December 2019, this heading had a balance of around 35 million euros, which represented a decrease of 13 million euros compared to the preceding year, which had recorded, at the end of the year, a high concentration of purchasing receipts in projects in the large systems area.

15. Creditors and Accrued Expenses

	Notes	31.12.2019	31.12.2018
Advances from Clients		3 594 356	2 250 326
Other creditors - miscellaneous		1 265 723	1 365 704
Other creditors - related parties	28.2	8 807 713	13 830 227
Other creditors - financial liabilities		**13 667 793**	**17 446 258**
Other creditors - non-financial liabilities		373 100	453 996
State and other public entities		9 745 616	9 876 738
Accrued expenses:		31 661 550	39 202 983
Accrued expenses - expenses with ongoing projects		12 657 276	22 984 349
Accrued expenses - remunerations to be paid		10 829 855	10 511 674
Accrued expenses - interest to be paid		2 116 715	1 371 119
Accrued expenses . others		6 057 704	4 335 841
Total		**55 448 058**	**66 979 975**
• Creditors and accrued expenses non-current		0	0
• Creditors and accrued expenses current		53 656 592	65 970 962
• Corporate income tax		1 791 466	1 009 014

ª These headings are considered by IFRS 7 as non-financial liabilities (Note 3.4)

The section "Other creditors - related parties" shows an increase of approximately 7 million euros compared to the end of the preceding year, which is mainly related to the repayment of additional paid-in capital and distribution of reserves to shareholders, decided at the General Meeting. At the end of the financial year, the outstanding amount to be paid to shareholders was 19.9 million euros (Notes 21.3 and 28.2).

State and other public entities

At 31 December 2019 and 2018, the liability balances with the State and other public entities were detailed as follows:

	31.12.2019	31.12.2018
Corporate income tax	1 939 764	1 049 177
Value Added Tax (VAT) payable	2 829 802	3 906 941
Social Security Contributions	3 079 419	2 980 331
Personal income tax	1 832 678	1 937 729
Other taxes	63 953	2 561
	9 745 616	**9 876 738**

At 31 December 2019. The heading "Corporate income tax" is detailed as follows:

Corporate income tax	Notes	31.12.2019	31.12.2018
Tax estimate for the year	24	2 773 423	2 574 263
Payments on account and deductible withholdings in the financial year		-981 957	-1 565 249
Corporate income tax payable		**1 791 466**	**1 009 014**
Others		148 298	40 163
		1 939 764	**1 049 177**

Accrued Expenses

There is a decrease of around 9.6 million euros in the heading "Accrued expenses", which is essentially related to the slowdown in the activity and projects underway at the end of the year.

16. Loans obtained

This Note discloses the composition, characteristics and conditions of the financial debt recorded in the EPS Group's consolidated financial statements at 31 December 2019 and 2018. On these dates, the debt breakdown by credit instrument was as follows:

	Notes	31.12.2018	31.12.2018
Non-current			
Current account		1 557 546	25 000 000
Bank loans		25 868 709	39 626 813
Commercial paper		4 400 000	5 750 000
Bond loans		58 000 000	0
Amortized cost		-1 118 057	-429 960
		88 708 198	**69 946 853**
Current			
Bank overdrafts		2 132 759	2 838 045
Current account		3 207 454	390 362
Bank loans		16 857 684	13 797 868
Commercial paper		8 000 000	7 250 000
Commercial discount	a	1 051 340	967 449
Amortized cost		-632 961	-440 835
		30 616 277	**24 802 889**
Total loans		**119 324 475**	**94 749 742**

ª Includes commercial discount operations carried out by Efacec Equipos Eléctricos (EUR) and factoring operations using Efacec Algérie (DZD) and Efacec Chile (CLP).

- **Bond Loan**

In July 2019, Efacec Power Solutions issued a bond loan, with the purpose of achieving 3 objectives: (i) the refinancing of the amounts of financial debt to be repaid in the next 18 months, (ii) the extension of the debt maturity and (iii) the diversification of financing sources through a disintermediation instrument.

The issue was fully placed with institutional investors and admitted to listing at the MARF - Mercado Alternativo de Renta Fija (Spain). The amount placed was 58 million euros, with a five-year term, remunerated at a fixed annual rate of 4.5% and with a single repayment at maturity. The bond loan has a covenant according to which the Net Financial Debt / EBITDA ratio must be less than 2.75. This ratio can be seen annually in Efacec's consolidated accounts.

- **Bank loans and Current accounts**

The EPS Group maintains the syndicated loan contracted by its subsidiaries Efacec Energia and Efacec Engenharia e Sistemas in February 2014, and with conditions renegotiated in October 2015, with the entry of the new majority shareholder in the capital. In July 2019, the product of the obligations allowed the partial early repayment of the syndicated loan, the release of the Efacec Energia and Efacec Engenharia e Sistemas pledged shares and the renegotiation of the repayment terms for the remaining debt.

At the end of 2019, the debt was 24.1 million euros in the Mutual tranche, repayable in two equal instalments in 2021 and 2022. The Current Account tranche, with variable use up to the limit of 15 million euros (it was 30 million euros before the renegotiation), was not used at the end of 2019. The current account will be extinguished in 2022.

This loan contract has a covenant based on compliance with the Net Financial Debt/EBITDA ratio lower than 2.75. This ratio is observable annually in Efacec's consolidated accounts (ASS basis, that is, without the IFRS effects). There is also an ownership clause that allows creditors to consider the overdue debt in the event that the reference shareholder has a stake in EPS less than 51%, directly or indirectly.

In addition to this contract, there are other short-term credit lines, contracted in Portugal or directly by the foreign subsidiaries with local financial institutions, whose use at the end of 2019 amounted to approximately 23.4 million euros.

- **Commercial discount**

The EPS Group has contracted some lines for current operations to discount invoices issued to Clients which, at 31 December 2019, amounted globally to approximately 1 million euros. When there are anticipation situations with regard to the dates on which invoices due, the Group recognizes the respective amounts in current liabilities.

- **Bank overdrafts**

Bank overdrafts comprise situations in which credit demand deposit accounts are used, within ceilings and under conditions previously negotiated with the financial institutions and with no defined repayment term, although they take on a short term nature. There are some overdrafts ceilings negotiated in Portugal and in international subsidiaries, generally under a variable interest rate scheme, with reference to a usual reference rate in each country. At the end of the year, around 2.1 million euros were used.

- **Commercial paper**

The EPS Group has three grouped commercial paper programs in a a total amount of 13 million euros. All programs were contracted between 2018 and 2019 and have a maximum term of 3 years. One of the programs ends in 2021, but is subject to annual renewal, being classified under current liabilities. The other two programs end in 2021, with annual value reductions, being classified in non-current liabilities and current liabilities, according to the amortization dates. At 31 December 2019, 12.4 million euros were used in this type of financing.

Debt maturity

Approximately 48% of the bank debt existing on 31 December 2019 is supported by the bond loan launched in 2019, repayable in full in 2024. This operation made it possible to extend the debt maturity period, as shown in the following table:

Type of financing	up to 1 year	2-3 years	4-5 years	Total
Bank overdrafts	2 132 759	0	0	2 132 759
Current account	3 207 454	1 557 546	0	4 765 000
Bank loans	16 857 684	25 868 709	0	42 726 393
Commercial paper	8 000 000	4 400 000	0	12 400 000
Bond loans	0	0	58 000 000	58 000 000
Commercial discount	1 051 340	0	0	1 051 340
Amortized Cost	-632 961	-938 565	-179 492	-1 751 018
Total loans	**30 616 277**	**30 887 690**	**57 820 508**	**119 324 475**

Comparatively, at the end of 2018 the maturity was as follows:

Type of financing	up to 1 year	2-3 years	4-5 years	Total
Bank overdrafts	2 838 045	0	0	2 838 045
Current account	390 362	25 000 000	0	25 390 362
Bank loans	13 797 868	27 586 193	12 040 620	53 424 681
Commercial paper	7 250 000	5 750 000	0	13 000 000
Bond loans	0	0	0	0
Commercial discount	967 449	0	0	967 449
Amortized cost	-440 835	-429 960	0	-870 794
Total loans	**24 802 889**	**57 906 234**	**12 040 620**	**94 749 743**

Loans denomination

The financial debt contracted by the EPS Group companies based in Portugal is denominated in euros, except for a bank loan in the amount of 5.8 million euros, which is denominated in US dollars. Loans taken out by international companies are denominated in the respective functional currencies. The total amount of financing contracted outside Portugal has a value equivalent to approximately 5.2 million euros, of which 2.3 million euros were used at 31 December 2019.

The following table summarizes the financial debt at the end of the financial year divided into the denomination currencies.

Currencies		31.12.2019	31.12.2018
Euro	EUR	111 869 706	88 471 592
American dollar	USD	5 754 261	5 248 842
Algerian dinar	DZD	1 381 579	1 015 949
Angolan Kwanza	AOA	186 371	0
Chilean peso	CLP	126 921	0
Brazilian real	BRL	5 636	13 359
Total		**119 324 475**	**94 749 743**

Effective interest rate

The effective interest rates related per debt instrument and currency, were, at the end of 2019, as follows:

Type of financing	EUR	DZD	USD	AOA	BRL	CLP
Bank overdrafts	3.3%	-	-	-	-	-
Current account	3.3%	-	-	21.7%	-	-
Bank loans	3.6%	8.0%	5.1%	-	15.0%	-
Commercial paper	2.5%	-	-	-	-	-
Bond loans	4.5%	-	-	-	-	-
Commercial discount [a]	2.6%	8.0%	-	-	-	21.0%

[A] Includes commercial discount operations carried out by Efacec Equipos Eléctricos (EUR) and factoring operations using Efacec Algérie (DZD) and Efacec Chile (CLP).

Comparatively, at the end of 2018 the rates were as follows:

Type of financing	EUR	DZD	BRL	USD
Bank overdrafts	3.3%	8.5%	-	-
Current account	3.7%	-	-	-
Bank loans	3.2%	-	15.0%	5.5%
Commercial paper	2.5%	-	-	-
Bond loans	-	-	-	-
Commercial discount [a]	3.0%	8.0%	-	-

[a] Includes commercial discount operations carried out by Efacec Equipos Eléctricos (EUR) and factoring operations using Efacec Algérie (DZD).

Unused credit lines

The EPS Group has the following credit lines not yet used:

	31.12.2019	31.12.2018
At variable rate		
- with maturity up to 1 year	13 216 585	2 408 672
- with maturity after 1 year	16 428 296	5 000 000
At fixed rate		
- with maturity up to 1 year	320 255	417 279
	29 965 136	**7 825 952**

Guarantees

In the syndicated loan mentioned above, contracted jointly by the subsidiaries Efacec Energia and Efacec Engenharia e Sistemas, each of the companies subscribed a promissory note:

i. endorsed by Efacec Power Solutions, by Efacec Electric Mobility and by the other borrower;

ii. endorsed by Efacec Electric Mobility to securitize and endorse Efacec Power Solutions' obligations as guarantor of the promissory note mentioned in (i)

Covenants

The syndicated loan mentioned above includes clauses that define the compliance with a debt ratio, defined as Net Debt/ EBITDA, whose maximum value must be 2.75. This contractual ratio is observable annually in the consolidated accounts of Efacec Power Solutions, on an annual basis. Also, the bond loan contracted in July 2019, stipulates the compliance with a Net Debt /EBITDA ratio, with a maximum value of 2.75. These financial statements show the compliance with the contractual ratio at the end of the financial year 2019, with a value of 2.68.

The evolution recorded in the company's activity, worsened by the external factors described in the Subsequent Events, substantiates the inability to comply with the DFL/EBITDA ratios included in its financing contracts and in the bond loan. In this way, waivers will be requested in time to meet this ratio.

Reconciliation of the debt change with the financing cash flows

The following table reconciles the financial debt with the cash flows from financing activities, in accordance with IAS7, for the financial years 2019 and 2018:

				Non-Cash			
Flows from financing	**Notes**	**31.12.2018**	**Cash Flows**	**Acquisitions**	**Exchange differences**	**Changes at amortization cost**	**31.12.2019**
Non-current loans		85 994 721	10 291 997		908	-164 441	96 123 185
Current loans		8 755 021	14 636 411		1 984	-192 126	23 201 290
Assets held to hedge loans		0					0
Total flows from financing - Loans obtained		**94 749 742**	**24 928 408**	**0**	**2 892**	**-356 567**	**119 324 475**
Loans related entities		4 275 395	-5 000 000				-724 605
Financial leases	a	72 387	-674 147	1 336 079	111		734 430
Operating leases			-3 060 151	12 069 105			9 008 955
Debt interest and similar expenses			-4 020 384				
Capital decreases and supplementary capital contributions			-5 023 632				
Total other flows from financing			**-17 778 314**				
Total cash flows from financing			**7 150 094**				

[a] Until 2018, financial leases were presented under the heading Suppliers. As of 2019, they became part of the heading "Lease liabilities".

Flows from financing 2018	Notes	31.12.2017	Cash Flows	Non-Cash: Acquisitions	Non-Cash: Exchange differences	Non-Cash: Changes at amortization cost	31.12.2018
Non-current loans		69 355 780	16 200 353		-2 247	440 835	85 994 721
Current loans		1 318 404	7 316 390		16 464	103 764	8 755 021
Assets held to hedge loans		0					0
Total flows from financing - Loans obtained		**70 674 185**	**23 516 743**	**0**	**14 217**	**544 598**	**94 749 743**
Loans related entities		-724 605	5 000 000				4 275 395
Financial leases	a	42 286	-45 910	84 510	-8 498		72 387
Debt interest and similar expenses			-3 608 803				
Capital decreases and supplementary capital contributions			-11 628 840				
Total other flows from financing			**-10 283 553**				
Total cash flows from financing			**13 233 189**				

[a] Until 2018, financial leases were presented under the heading Suppliers. As of 2019, they became part of the heading "Lease liabilities".

17. Lease liabilities

This headings records the responsibility for the payment of future rents related to lease contracts, whatever their nature. In contracts treated as operating leases until 31 December 2018, the debt to lessors was recognized in the statement of financial position, with a corresponding entry to the recording of right-of-use assets. The amounts of the financial leasing contracts were added, which, until the preceding financial year, were recorded in the heading Suppliers.

	Lease liabilities
Financial lease contracts	
Liabilities at 31.12.2018	72 387
Exchange differences	111
Increases	1 336 079
Paid rents	-674 147
Closing net amount	**734 430**
Contracts reclassified under IFRS 16	
Liabilities at 31.12.2018	7 030 944
Increases	5 038 162
Paid rents	-3 060 151
Closing net amount	**9 008 955**
	9 743 385
Non-current	6 649 998
Current	3 093 387

18. Deferred Taxes

The deferred tax assets and liabilities were, on the date of the statements of financial position as follows:

	31.12.2019	31.12.2018
Deferred tax assets:		
- Recoverable for more than 12 months	60 919 222	59 723 993
Deferred tax liabilities:		
- Refundable for more than 12 months	20 750 934	21 401 471

18.1. Deferred tax assets

The amount of the heading Deferred tax assets has the following breakdown:

	Impairment losses tang. and intang. assets	Impairment losses Clients/debt.	Tax losses	Financial instruments	Tax benefits to report	Other risks and charges	Total
31 December 2017	**0**	**29 220**	**42 722 178**	**1 500**	**10 332 596**	**2 930 781**	**56 016 275**
Charged to results	0	0	324 433	0	3 855 723	-789 351	3 390 805
Exchange differences	0	0	-178 808	0	0	-7 676	-186 484
Charged to equity	0	0	0	401 939	0	0	401 939
Other changes	0	0	101 457	0	0	0	101 457
31 December 2018	**0**	**29 220**	**42 969 260**	**403 440**	**14 188 319**	**2 133 754**	**59 723 993**
Charged to results	858 530	0	4 426 015	0	-4 305 384	845 059	1 824 219
Exchange differences	0	0	-214 175	0	0	191	-213 984
Charged to equity	0	0	0	-375 169	0	-39 837	-415 006
31 December 2019	**858 530**	**29 220**	**47 181 100**	**28 270**	**9 882 935**	**2 939 167**	**60 919 222**

In 2019, the deferred tax asset was influenced by two relevant variations of the opposite sign: on the one hand, the unfavourable results recorded in the year led to the recording of deferred tax for tax losses in the amount of 3.8 million euros; on the other hand, the Group adjusted the tax benefits associated with R&D activities recorded in previous years by 5.5 million euros, as a result of corrections made by the Portuguese Tax Authority in the context of ACE Ensul Meci-Efacec tax proceeding, which dates back to the years 2013 and 2014. According to the Transition Agreement signed in 2015, the economic effects suffered by the EPS Group in the context of this process are attributable to MGI Capital as a selling entity.

At 31 December 2019, Deferred Tax Assets amounted to 60.9 million euros. The most significant accumulated amount relates to the effective losses from the participation in the Efacec Power Transformers branch office in the United States. In 2016, this subsidiary completed the liquidation process, so Efacec

Energia, the company that held the direct stake, recorded the tax loss as an asset that can be used over a 12-year period. In 2019, no amount was used in the estimated tax, and the amount of the deferred tax asset, at 31 December 2019, was 41.7 million euros, subject to deduction until 2028, under the conditions provided for by law. There are also deferred tax assets related to tax benefits for investments in research and development (SIFIDE), which, at the end of 2019, amounted to approximately 9.9 million euros.

The recoverability of deferred tax assets related to tax losses and tax benefits, in the total amount of approximately 57.1 million euros, was tested through activity projections of the main companies that are part of the RETGS for the mentioned period, and based on following assumptions:

Assumptions	31.12.2019	31.12.2018
Revenue growth rate (CAGR) up to the 6th year	5.5%	6.8%
Average EBITDA margin up to the 6th year	9.4%	8.2%
Growth rate after the 6th year	0.0%	0.0%
Tax rate	21.0%	21.0%

Based on these assumptions, there were no signs of impairment. The business projections attest to the recoverability of the asset within the 12-year period provided for by law.

The EPS Group records deferred tax assets on tax losses to the extent that the respective tax benefit is likely to be realized, through the existence of future taxable profits. In some companies, namely Efacec Contracting Central Europe, Efacec Algérie and Efacec Angola, the EPS Group considers that, at the moment, there is little capacity to deduct tax losses from future taxable profits, therefore not recording deferred taxes.

18.2. Deferred tax liabilities

Deferred tax liabilities essentially result from asset revaluations carried out in some of the subsidiary companies, and had the following evolution:

	Asset valuation	Financial instruments	Equipment[a]	Brand[a]	Contracts[a]	Total
31 December 2017	**348 975**	**129 636**	**3 568 190**	**17 955 108**	**7 854**	**22 009 763**
Charged to results	0	0	-470 801	0	-7 854	-478 656
Charged to equity	0	-129 636	0	0	0	-129 636
31 December 2018	**348 975**	**0**	**3 097 389**	**17 955 108**	**0**	**21 401 471**
Charged to results	0	0	-573 654	0	0	-573 654
Charged to equity	-76 883	0	0	0	0	-76 883
31 December 2019	**272 092**	**0**	**2 523 735**	**17 955 108**	**0**	**20 750 934**

[a] Relating to the adjustments to acquisition differences, according to Note 5.

19. Provisions for risks and charges

In the financial years 2019 and 2018, provisions for miscellaneous risks and charges evolved as follows (see Note 22.4):

	Pensions	Other risks and charges	Total
31 December 2017	**466 898**	**11 425 553**	**11 892 451**
Charged to results:			
- additional provisions	60 000	8 308 300	8 368 300
- reversal of provisions	-59 207	-10 653 158	-10 712 365
Exchange differences	0	-1 134	-1 134
Other changes	0	56	56
31 December 2018	**467 691**	**9 079 617**	**9 547 308**
Charged to results:			
- additional provisions	53 968	23 295 684	23 349 652
- reversal of provisions	-54 658	-19 340 966	-19 395 624
Exchange differences	0	-4 257	-4 257
Other changes	0	-177 188	-177 188
31 December 2019	**467 000**	**12 852 891**	**13 319 891**

Provision for pensions

As indicated in Notes 1.21.1 and 30.2, this heading presents the EPS Group's liability for the payment of retirement pension supplements. The amount recorded corresponds to the valuation of the liability for defined benefits, reported at 31 December 2019. Several factors contribute to the determination of the liability, namely the evolution of wages and pensions. In the financial year 2019, the composition of the group of beneficiaries did not change. The variation recorded was around 1 thousand euros.

Provisions for other risks and charges

This heading mainly includes provisions for repairs and after-sales assistance, penalties and negative deviations in works in progress. These situations correspond to problems under discussion with Clients related to the attribution of responsibilities, and are subject to continuous analysis by the several Business Units where they occur. The provision is constituted or reinforced when there is a reasonable probability of an unfavourable outcome for the Group. On the other hand, the reversals of provisions correspond to their use as the respective expenses are recognized or the cancellation if the risks previously covered no longer exist.

In 2019, the net change in provisions for other risks and charges amounted to 4 million euros. Provisions were set up for projects in progress in the amount of 23.3 million euros and provisions reversed in the amount of 19.3 million euros.

There is no contingent liability of an environmental nature.

20. Income to be recognized

	Notes	31.12.2019	31.12.2018
Invoicing to be recognized		48 181 471	48 511 482
Related to multi-annual contracts	27	46 987 579	46 619 879
Other activities		1 193 893	1 891 604
Investment grants		3 797 731	5 020 108
Exchange differences		2 074 680	0
Others		69 175	97 399
		54 123 058	**53 628 989**

The heading "Investment grants" contains amounts received from public entities as an incentive to make investments from the EPS Group. These amounts are recorded in this heading and recognized as gains in subsequent years, according to the useful life of the assets they financed.

The invoicing plans agreed with the Clients do not strictly correspond to the degrees of completion that end up being recognized in the works. The heading "Invoicing to be recognized" thus includes invoices issued, but not yet recognized in terms of the degree of completion of the respective works (Notes 1.16.3 and 32).

The exchange differences in the amount of 2.1 million euros refer to invoices issued to Clients by the subsidiary Efacec Angola, corresponding to differences of amount in payments made by these entities in kwanzas, and which aim to compensate Efacec for the exchange devaluation that occurred. Although the invoices issued are contractually covered, the company chose to defer the gain until the receipt of the invoiced amounts, as a precautionary measure.

21. Equity

21.1. Share Capital

At 31 December 2019, the fully paid-up capital was represented by 61,789,850 common shares, with a par value per unit of 5 euros. The capital is divided between two shareholders, with the following distribution:

Entity	31.12.2019		31.12.2018	
	No. of shares	%	No. of shares	%
Winterfell 2 Limited	44 319 256	71.73%	41 525 275	67.20%
MGI Capital, SGPS, S.A.	17 470 594	28.27%	20 264 575	32.80%
Total	**61 789 850**	**100.00%**	**61 789 850**	**100.00%**

At 2 July 2020, the Portuguese State appropriated the shares held by Winterfell 2 Limited through the nationalization process. As of the date of this document, the 71.73% shareholding is held by the Directorate-General for Treasury and Finance.

21.2. Issue premiums

Efacec Power Solutions has issue premiums on its own equity, originating from the capital increase carried out in October 2015 by the majority shareholder, which resulted in the amount of 8 million euros. In 2017, by resolution of the General Meeting, EPS transferred the amount of 6,052,270 euros to the heading Reserves and Accumulated Results, to cover losses from previous financial years. The Heading Issue Premiums has maintained, since that date, a balance of 1,947,730 euros.

21.3. Other equity instruments

In this heading, until 2018, the amount of additional paid-in capital made in 2015 in the amount of 35,900,000 euros was recorded. In 2018, the Annual General Meeting decided to repay 16,652,471.66 euros to the shareholder Winterfell and 7,757,475.88 euros to the shareholder MGI Capital. The Annual General Meeting held on 23 May 2019 decided to repay the remaining additional paid-in capital, with the attribution of 9,421,698.34 euros to the shareholder Winterfell and 2,068,354.12 euros to the shareholder MGI Capital, to be paid within one year.
At the end of 2019, 19,247,528 euros related to additional paid-in capital were still pending, of which 9,421,698 euros to the shareholder Winterfell and 9,825,830 euros to the shareholder MGI Capital, recorded under the heading Creditors and accrued expenses, in current liabilities.

21.4. Reserves and accumulated results

This heading is mainly composed of the accumulated and undistributed annual results and, occasionally, of amounts entered directly to reserves, of a contractual or other nature.
In 2019, the Annual General Meeting resolved to distribute reserves in the amount of 619,826.93 euros, to be settled within one year, with 206,608.98 euros attributable to the shareholder Winterfell and 413,217.95 euros to the shareholder MGI Capital.
The amounts are recorded in the heading Creditors and accrued expenses, in current liabilities.
As of the date of conclusion of this report, it is considered to exist expiry of deliberation, which should be submitted, once again, to the appreciation and deliberation of the General Shareholders' Meeting. This fact was adjusted in the accounts of December 31 2019, with the amount of 619,826.93 euros presented on the section "Reserves and Accumulated Results", in the demonstration of the financial position.
In 2019, approximately 2.7 million euros were recorded as a deduction from results carried forward, corresponding to cut-off adjustments.

21.5. Other Accumulated Comprehensive Income

Conversion differences

Currency conversion reserves reflect the exchange rate changes that occurred in the translation of the branch offices' financial statements in a currency other than the euro, in the update of the net investment in the subsidiaries and in the update of goodwill, and are not liable to be distributed or used to absorb losses.

The heading also includes exchange differences found in the Angola, Mozambique and Argentina branch offices in the long-term financing granted by the respective shareholder, considered, in the light of IAS 21, as equivalent to financial investments, and therefore has no defined repayment date.

21.6. Non-controlling interests

At 31 December 2019, the amount of non--controlling interests relates the component of equity attributable to minority shareholders in the entities that comprise the perimeter, as detailed in the table below:

	% Non-controlling interests	31.12.2019	31.12.2018
Efacec Angola, Lda.	1.67	0	-159 742
Efacec Power Solutions Argentina, SA	0.05	23	-2 983
UTE Efacec Bahía de Cádiz	50.00	7 779	-31 553
XELA, AB	66.67	1 239	0
		9 041	**-194 278**

The variation in the year 2019 is explained in the following table:

	31.12.2019	31.12.2018
Initial balance	-194 278	-78 243
Exchange differences	199 887	-179 412
Net profit/loss for the financial year	39 480	65 055
Other changes	-91	0
Other changes	-35 958	-1 678
Closing balance	**9 041**	**-194 278**

22. Expenses and Operating Income

22.1. Supplies and External Services

In the financial years ended 31 December 2019 and 2018, the main supplies and external services were the following:

	31.12.2019	31.12.2018
Subcontracting	46 565 518	58 477 771
Transport of goods	13 100 075	9 880 268
Travel and accommodation	8 367 264	9 259 191
Leases and rentals	5 031 350	8 292 432
Fast wearing tools and utensils	3 290 071	3 069 389
Maintenance and repairs	2 663 773	2 729 909
Advertising and publicity	2 689 166	1 394 753
Electricity	2 056 500	2 689 330
Insurance	2 003 836	1 745 123
Surveillance and security	1 325 030	916 052
Fuel	1 840 920	1 510 644
Cleaning, hygiene and comfort	1 025 808	899 549
Communication	1 126 272	671 386
Fees	666 204	803 621
Commissions	149 333	28 140
Other supplies and services	7 205 082	7 071 999
	99 106 202	**109 439 556**

Overall, the value of Supplies and External Services decreased by approximately 8% compared to the preceding year. The heading Subcontracts is the most expressive of this type of expenses and is mainly related to the operating activity of the EPS Group companies. The degree to which the Group uses subcontracting and specialized services depends on the Group's business mix and the segments in which they develop.

22.2. Expenses with contract terminations

The EPS Group keeps the heading "Expenses with contract terminations", which shows the amounts incurred as compensation for termination of contracts, in its Income Statement. Formally, these amounts are constituted as expenses of an operating nature, but have exceptional characteristics that should be autonomous. The fact that each compensation translates into a non--repeatable expense and takes on a non--recurring nature and with its own pay-back justifies the option of disaggregating it and presenting it in a separate heading in the income statement.

In 2019, approximately 2.7 million euros were recorded in this heading, compared with 1.5 million euros in the preceding year.

22.3. Amortization and depreciation

In the financial years 2019 and 2018, the heading Amortization and depreciation was detailed as follows:

	2019			2019		
	Tangible fixed assets	Intangible assets	Total	Tangible fixed assets	Intangible assets	Total
Amortization and depreciation for the financial year	6 820 337	5 918 162	12 738 499	6 749 625	3 605 228	10 354 853
Extraordinary amortization	0	3 610 176	3 610 176	0	0	0
Investment grants	-28 169	-2 123 547	-2 151 716	-145 592	-115 316	-260 908
Discontinued activities	-37 649	-2 637	-40 286	0	0	0
Depreciation of assets under financial lease	46 440	0	46 440	0	0	0
Depreciation of assets under operating lease (application of IFRS 16)	3 234 432	0	3 234 432	0	0	0
Amortization and depreciation	**10 035 391**	**7 402 154**	**17 437 545**	**6 604 034**	**3 489 912**	**10 093 945**

22.4. Provisions and assets impairment

The following table shows the evolution in the various provisions and impairments headings and their reconciliation with the income statement.

	Assets impairment				Provisions	
2019	Tangible and intangible assets	Debt to be recognized: Clients	Debt to be recognized: Other debtors	Stock and inventory	Other risks and charges	Pensions
Financial position:						
Balance at 31.12.2018	**0**	**23 499 408**	**5 240 397**	**506 707**	**9 079 617**	**467 691**
Increase	534 230	2 864 792	665 491	0	23 295 684	53 968
Reversal	0	-5 484 335	-124 013	-95 625	-19 340 966	-54 658
Transfers and adjustments	0	-3 112 020	181 939	0	-177 188	0
Exchange differences	0	-352 064	-234 698	-58 381	-4 257	0
Balance at 31.12.2019	**534 230**	**17 415 780**	**5 729 117**	**352 701**	**12 852 891**	**467 000**

In the financial statements:	
Provisions and impairments	23 747 550
Operating expenses/income	-18 590 725
Discontinuing operations	1 950 767
Asset decrease	-5 122 052
Equity	329 028

The reversal of **provisions for risks and charges** affects the cost of sales heading when the Group incurs actual expenses in its projects, and the previously established provision is used in the same heading (approximately 18.6 million euros in 2019). The provisions set up in projects of the Environment Unit were reclassified to Results of discontinued operations.

The change in **accumulated impairment in Client accounts** includes a reduction of approximately 5.1 million euros in compensation for the derecognition of balances receivable from Clients declared insolvent, which are no longer part of the Group's assets.

The constitution of **tangible assets impairments** relates to the reappraisal of land recorded in accordance with the policy established in Note 1.4. In the last appraisal carried out by an independent entity, the land at the Matosinhos centre kept the value at the same level as the preceding appraisal, and the land at the Maia centre experienced a 5% devaluation, which led to the recording of an impairment. Part of the devaluation was recorded as an expense for the financial year and another part as a reduction in equity due to the existence of revaluation reserves arising from appraisals in preceding periods.

The comparative amounts for 2018 were as follows:

2018	Assets impairment			Provisions		
	Tangible and intangible assets	Debt to be recognized: Clients	Debt to be recognized: Other debtors	Stock and inventory	Other risks and charges	Pensions
Financial position:						
Balance at 31.12.2017	**642 936**	**21 721 676**	**5 617 669**	**643 284**	**11 425 553**	**466 898**
Increase	0	2 797 103	0	0	8 308 300	60 000
Reversal	0	-235 115	0	0	-10 653 158	-59 207
Transfers and adjustments	-427 974	-9 111	9 074	0	56	0
Exchange differences	-214 962	-775 145	-386 345	-136 578	-1 134	0
Balance at 31.12.2018	**0**	**23 499 408**	**5 240 397**	**506 707**	**9 079 617**	**467 691**

In the financial statements:	
Provisions and impairments	9 704 262
Operating expenses/income	-9 486 339

22.5. Other operating expenses and income

The EPS Group records under the headings "Other operating expenses" and "Other operating income", results of different natures that, while not being part of the operations that are the object of the company and its turnover, are, however, essential to the activity or result from it.

The main amounts of these headings are as follows:

Other Operating Expenses	31.12.2019	31.12.2018
Contractual fines and penalties	1 277 011	2 234 605
Non-deductible taxes	901 620	1 296 227
Contributions	124 208	133 810
Remunerations of interns	1 070 517	1 086 430
Other operating expenses and losses	219 871	576 853
	3 593 227	**5 327 925**

Other Operating Income	31.12.2019	31.12.2018
Favourable exchange differences	3 710 385	5 004 569
Research and development grants	1 269 701	608 098
Work for the company	14 628 908	8 264 024
Services charged to MGI Capital	6 249 266	354 146
Insurance claims	0	989 180
Other operating income and gains	3 984 193	1 856 703
	29 842 453	**17 076 720**

- **Net operating exchange differences**

The EPS Group records, as operating results, the determination of exchange differences resulting from the purchase and sale operations because they arise from its regular activity, according to the policy established within the Group. In the financial year 2019, the Group recorded, in net terms, 3.7 million euros of favourable exchange differences, recorded under the heading "Other operating income", against 5 million euros recorded in 2018.

- **Works for the company**

The increase in the heading "Works for the company" resulted essentially from research and development activities and the capitalization of this type of projects in different Business Units. The investment activity also includes the participation of internal teams in product homologation and certification projects, in the development of new processes and in information systems, namely in the implementation of the new SAP ERP in some of the Group entities. In 2019, work for the company in terms of intangible assets amounted to approximately 12.1 million euros.

- **Research and Development Grants**

This heading relates to the recognition of the incentives attributed to the Group for research and development activities within the programs available to companies, essentially Portugal 2020 and Horizon 2020. The amounts recorded in this heading offset the amounts recorded as expenses in R&D activities.

- **Services charged to MGI**

This heading results from tax expenses of the EPS Group to be charged to MGI Capital within the scope of the ACE Ensul Meci-Efacec proceeding (according to Note 10.2 and Note 18.1 of these Notes and the described in Note 29 of the Notes to the 2018 Financial Statements). This amount results from the use of tax credits from companies in the current EPS tax perimeter, used in assessments related to past years, when those companies still belonged to the MGI Capital tax perimeter. These assessments are in the hierarchical appeal phase. The Board, based on the opinion of the legal and tax departments, considers that the likelihood of an unfavourable outcome of the tax litigation proceedings is very high, reason why the EPS Group will not be able to use the tax credits, thus being the responsibility of MGI as provided for in the Share Purchase Agreement. EPS further considers that the right of recourse is not dependent on the outcome of the litigation.

23. Financial Results

- **Financial Losses and Gains**

	31.12.2019	31.12.2018
Interest paid	-4 390 450	-3 309 381
Lease liabilities charges	-330 234	0
Unfavourable exchange differences	-253 894	0
Other financial expenses and losses	-5 603 188	-4 052 065
Total financial losses and expenses	**-10 577 766**	**-7 361 446**
Interest obtained	401 162	470 848
Favourable exchange differences	0	2 540 862
Other financial income and gains	2 801	317 504
Total financial gains and income	**403 963**	**3 329 214**
Financial expenses - net	**-10 173 803**	**-4 032 232**

In 2019, net financial expenses increased substantially from 4 to 10.1 million euros, partly justified by the heading exchange differences, which in 2019 recorded a loss in the amount of 0.3 million euros against a gain of 2.5 million euros in 2018, originating from financial investments made by the subsidiary in Angola. It should also be noted the lease charges, which result from the application, for the first time, of IFRS 16.

The Group's borrowing costs increased from 3.3 to 4.4 million euros, mainly due to the increase in the average value of the financial debt.

The heading Other financial expenses and losses includes: (a) bank guarantee fees of a financial nature in the amount of 1.4 million euros, (b) 1.5 million euros with invoice commercial discount operations, (c) 0.2 million euros in credit insurance (d) 0.6 million euros in losses on derivative financial instruments, (e) 0.3 million euros in banking services charges, (f) 0.6 million euros in the intermediation of financial services in Angola, (g) 0.8 million euros in stamp duty and (h) 0.8 million euros in expenses related to amortized cost.

- **Losses and Gains in Associate Companies**

At the end of 2019, the EPS Group assigned half of the stake held in the HCapital New Ideas Venture Capital Fund, which was, at the date of the sale contract, 1,165 thousand euros. The Group recorded a loss of 102.5 thousand euros in this operation (Note 8).

A loss of 35,500 euros was also recorded in this financial year due to the liquidation of EME2-Engenharia, Manutenção e Serviços, ACE in which the EPS Group held a 40% stake.

24. Corporate income tax

In Portugal, annual income statements are subject to review and possible corrections by the tax authorities, for a period of 4 years. However, if tax losses are presented, they may be subject to review and liquidation by the authorities for a maximum period of ten years. In the remaining countries where the EPS Group operates, the deadlines are different, as a rule, longer.

The tax estimated in the consolidated Income Statement is as follows:

	Notes	31.12.2019	31.12.2018
Current tax		2 773 423	2 574 263
Deferred tax	18	-8 059 176	-2 409 046
Tax estimate		**-5 285 753**	**165 217**
Insufficient tax estimate from preceding financial years		-7 249	566 685
Deferred tax from previous years	18	5 661 303	-1 460 414
Corporate income tax		**368 301**	**-728 513**

The tax rate reconciliation is as follows:

	Notes	31.12.2019	31.12.2018
Result of continued operations		-21 745 027	13 436 468
Result from discontinuing operations		-6 782 198	0
Result before taxes		**-28 527 225**	**13 436 468**
Theoretical tax rate	a	21.00%	22.50%
Theoretical tax		**-5 990 717**	**3 023 205**
Expenses not accepted for tax purposes		787 782	-447 997
Tax Credits		-137 406	-228 565
Provisions without IDA recorded		150 966	-12 825
Autonomous Taxation		893 772	645 430
State Surcharge		0	74 846
Tax difference in branches		762 693	400 184
Rate difference in foreign subsidiaries		-35 888	682 099
Tax and AID not recorded in the year in foreign subsidiaries		-212 487	-1 718 569
Tax benefits generated and not used		-1 242 591	-2 119 493
Use of double international taxation		0	-74 846
Others		-261 875	-58 252
Corporate income tax for the period		**-5 285 753**	**165 217**
Effective tax rate		24.31%	1.23%

[a] The theoretical rate presented takes into account the estimate of tax results of the RETGS dominated by EPS (on which the application of surcharges depends).

The consolidated income tax reconciliation is presented below:

	Notes	31.12.2019	31.12.2018
Current			
Tax from previous years Excess/Insufficiency		-7 249	566 685
Period estimate	1	2 773 423	2 574 263
Corporate income tax - current		**2 766 174**	**3 140 948**
Deferred			
Use of tax losses	2		
Period estimate		-4 572 418	-600 247
Adjustment to the preceding period's tax estimate		146 403	275 813
		-4 426 015	**-324 433**
Tax benefits	3		
Period estimate		-1 209 516	-2 119 493
Adjustment to preceding financial years		5 514 900	-1 736 229
		4 305 384	**-3 855 723**
Deferred tax associated with provisions		-845 059	789 351
Deferred tax associated with tangible and intangible assets	4	-1 432 184	-478 656
Corporate income tax - deferred		**-2 397 873**	**-3 869 461**
Tax estimate		**368 301**	**-728 513**

[1]Current tax in companies that are part of RETGS relates essentially to autonomous taxation. The tax in foreign branches and branch offices is calculated based on the tax rates in force in the geographies in which they are located.

[2] Additionally, the EPS Group recognizes deferred tax assets on tax losses estimated in the year (3.9 million euros) to the extent that the respective tax benefit is likely to be used through the existence of future taxable profits.

[3] The adjustment of deferred tax related to investment tax benefits is based on i) the existence of estimates made in preceding years, which were adjusted during the validation of the access requirements carried out, namely, by the certifying entities, and ii) adjustment of tax benefits in the amount of 5.4 million euros as a result of corrections made by the Tax Authority within the scope of the ACE Ensul Meci-Efacec tax proceeding, which dates back to 2013 and 2014;

[4] Deferred tax associated with tangible and intangible assets relates to i) the revaluation of production equipment and the valuation of the order book in 2014, when EPS acquired its subsidiaries (the amount indicated is the reversal of the deferred tax liability corresponding to amortizations and depreciations recognized in the period), and ii) acceleration of depreciation/amortization in addition to those accepted for tax purposes

25. Earnings per share

Basic

Basic earnings per share are calculated by dividing the profit attributable to shareholders by the weighted average number of common shares issued during the year, excluding any own shares held by EPS (Note 21).

	31.12.2019	31.12.2018
Profit attributable to equity holders	-28 935 007	14 099 926
Weighted average number of common shares issued	61 789 850	62 847 032
Basic earnings per share (euros per share)	**-0.47**	**0.22**

Diluted

Diluted earnings per share are calculated by adjusting the weighted average number of outstanding common shares, to incorporate the effects of the conversion of all potential diluting common shares, if any. In the financial year 2019 there was no dilutive effect.

26. Dividends per share

In the financial year 2019, Efacec Power Solutions did not pay dividends to its shareholders.

F. Segment reporting

27. Reporting by activity segment

The EPS Group has a functional structure based on business segments. This structure is used in daily management for the purposes of performance analysis and decision making.

Business segment

Business segment is a distinguishable component of the EPS Group, involved in providing an individualized product or service, and which is subject to risks and returns other than those of other business segments.

The EPS Group has its business structure organized, on a worldwide basis, into seven segments, which it calls Business Units:

- Transformers
- Service
- Electrical Equipment
- Automation
- Energy
- Transport
- Electric Mobility

The Group also has the Environment and Industry Business Unit, which in 2019 ceases to contribute to Efacec's activity indicators, following the decision to dispose of this Unit (Note 4.3).

The tables also include a heading called "Other unallocated and adjustments" that groups the assets assigned to the corporate centres and the deletions corresponding to internal operations.

Geographic segment

Currently, EPS does not use the concept of geographic segment in its management information. However, given that it is a strongly exporting Group, it maintains the logic of reporting by country of destination of its products or services.

The relevant markets for this purpose are identified with countries or regions where the EPS Group keeps recurring activity, including markets where it has its own structures and other markets where it maintains important Clients through its commercial network.

The EPS Group's main activity indicators are shown below broken down by the business areas identified above. The transfers or transactions between segments are carried out under normal commercial terms and under conditions applicable to independent third parties.

27.1. Information per business segment

The financial information by business segments for the financial years ended 31 December 2019 and 2018 related to sales and provision of services and with the formation of results, is analysed as follows:

Sales and provision of services	Transformers	Service	Electrical Equipment	Automation	Energy	Environment & Industry	Transport	Electric Mobility	Others unallocated and adjustments	Total
2019	113 421 819	18 822 131	60 399 172	50 376 610	57 459 988	0	36 020 707	40 819 721	-23 751 329	**353 568 818**
2018	102 724 792	23 199 399	71 983 739	55 322 735	97 698 103	38 715 607	31 317 216	35 714 895	-30 124 687	**426 551 800**

Results	Notes	Transformers	Service	Electrical Equipment	Automation	Energy	Environment & Industry	Transport	Electric Mobility	Others unallocated and adjustments	Total
2019											
EBITDA		**-98 421**	**916 332**	**3 763 224**	**4 852 817**	**3 466 582**	**0**	**7 022 704**	**4 650 444**	**5 178 191**	**29 751 871**
Amortization and depreciation		-3 363 626	-256 787	-3 831 903	-1 366 626	-76 530		-186 435	-623 924	-7 731 714	**-17 437 545**
Provisions and assets impairment		-5 543 587	-1 011 794	-381 294	-3 538 352	-8 152 243		-1 228 768	-3 355 571	-535 941	**-23 747 550**
Operating Income		**-9 005 635**	**-352 249**	**-449 972**	**-52 162**	**-4 762 191**	**0**	**5 607 501**	**670 948**	**-3 089 464**	**-11 433 223**
Net financial expenses	23	-1 827 645	-63 327	-1 200 455	-891 753	-1 049 981	0	-109 773	-141 374	-4 889 493	**-10 173 803**
Losses/Gains in assoc./particip.		0	-35 501	0	0	0	0	0	0	-102 500	**-138 001**
Result before taxes		**-10 833 280**	**-451 077**	**-1 650 427**	**-943 915**	**-5 812 173**	**0**	**5 497 728**	**529 574**	**-8 081 457**	**-21 745 027**
Corporate income tax	24										**-368 301**
Results from discontinuing operations											**-6 782 198**
Net profit/loss for the financial year											**-28 895 527**
Attributable to:											
Shareholders											**-28 935 007**
Non-controlling interests											**39 480**
2018											
EBITDA		**3 810 368**	**1 555 354**	**7 570 500**	**7 214 620**	**6 068 308**	**1 802 744**	**4 621 500**	**5 224 632**	**-601 119**	**37 266 908**
Amortization and depreciation		-2 213 580	-329 140	-3 041 391	-122 411	-83 200	-49 856	-84 682	-379 994	-3 789 692	**-10 093 945**
Provisions and assets impairment		-3 932 504	-372 658	-994 517	-6 815	-1 033 525	-3 345 605	-236 490	-50 818	268 670	**-9 704 262**
Operating Income		**-2 335 716**	**853 556**	**3 534 592**	**7 085 394**	**4 951 584**	**-1 592 717**	**4 300 329**	**4 793 821**	**-4 122 142**	**17 468 700**
Net financial expenses	23	-1 109 403	1 022 249	-565 250	-304 085	324 005	724 298	-404 444	-402 219	-3 317 384	**-4 032 232**
Result before taxes		**-3 445 118**	**1 875 804**	**2 969 342**	**6 781 309**	**5 275 589**	**-868 418**	**3 895 884**	**4 391 602**	**-7 439 526**	**13 436 468**
Corporate income tax	24										**728 513**
Attributable to:											**14 164 982**
Shareholders											**14 099 926**
Non-controlling interests											**65 055**

The following table shows the amounts of the statement of financial position broken down by business segment, as well as the breakdown of investments made in the period.

Results	Notes	Transformers	Service	Electrical Equipment	Automation	Energy	Environment & Industry	Transport	Electric Mobility	Others unallocated and adjustments	Total
2019											
Total assets		190 136 019	29 543 789	84 940 054	75 970 962	169 530 224	0	64 065 914	47 229 418	70 729 394	**732 145 772**
Investments	5 and 6	6 845 087	-60 451	6 215 745	6 178 750	50 835	0	1 014 894	1 578 953	8 255 047	**30 078 860**
2018											
Total assets		158 567 599	34 350 463	96 157 587	77 016 226	156 095 411	64 205 878	32 385 266	56 496 899	55 345 565	**730 620 893**
Investments	5 and 6	3 495 579	936 520	5 033 220	4 093 011	164 194	100 635	842 127	1 658 102	4 969 297	**21 292 685**

The segment assets mainly include tangible and intangible assets, stock and inventory, accounts receivable and cash and cash equivalents. Investments comprise, for the periods mentioned, the additions to tangible and intangible assets (Notes 5.1 and 5.2).

As mentioned before, the amounts referred to as "Other unallocated" correspond to the assets assigned to the corporate centres.

27.2. Information by geography

In terms of geography, the EPS Group analyses sales and services from the perspective of the destination markets.

The breakdown of sales and provision of services by destination market for the financial years ended 31 December 2019 and 2018 is as follows:

	31.12.2019	31.12.2018
Portugal	86 651 543	107 815 048
United States	39 688 027	34 593 637
Spain	32 127 873	29 748 540
Maghreb	25 359 884	29 829 105
United Kingdom	24 100 461	22 278 424
France	19 374 719	19 122 688
Denmark	14 871 692	20 567 485
Kwanza	12 798 571	35 173 776
The Netherlands	12 876 463	8 685 728
Central Europe	12 082 127	14 289 993
Chile	10 291 309	23 551 321
Middle East	9 908 038	14 749 038
Germany	8 303 456	8 179 462
Argentina	5 064 572	6 399 966
Ireland	3 776 650	6 326 203
Mozambique	1 104 685	5 744 663
Other Markets	35 188 749	39 496 725
Total	**353 568 818**	**426 551 800**

G. Other Notes

28. Transactions and Balances with related parties

The scope of this note is the disclosure of transactions and balances between the EPS Group, formed by Efacec Power Solutions and its subsidiaries, and entities classified as related parties. Related parties are the Associate companies, Shareholders and Directors. The "Shareholders" category includes the entities in which the shareholders hold a relevant position, with influence on decision making, as well as the entities participating in the direct shareholders.

Transactions and balances between Group companies which were eliminated in the consolidation process are not disclosed.

28.1. Transactions carried out in 2019 and 2018

	Notes	31.12.2019	31.12.2018
Current transactions:			
Shareholders			
Sales and provision of services		145 168	133 941
Operating income and gains	20.4	6 249 266	381 294
Operating expenses and losses		0	180 583
Financial expenses and losses		85 080	0
		6 309 354	**334 652**

The commercial conditions in these transactions are identical to those for independent third parties.

The amount recorded in 2019 in operating income and gains relates to the "Ensul Meci" tax proceeding to be charged to MGI Capital, as described in Notes 18.1 and 22.5.

28.2. Closing balances with related parties

The EPS Group's assets and liabilities balances included in the different headings of the Consolidated Statement of Financial Position, and that refer to related parties, are as follows:

	Notes	31.12.2019	31.12.2018
Debts of related parties			
Shareholders			
Current loans		724 605	724 605
Clients	10.1	1 108 896	1 244 957
Clients - impairment		-11 878	-11 878
Other debtors	11	12 658 132	12 585 883
Other debtors - impairment	11	-4 575 567	-4 575 567
Associate Companies			
Clients	10.1	0	29 429
Other debtors	11	34 755	34 755
		9 938 942	**10 032 184**
Debts to related parties			
Shareholders			
Current loans		0	5 000 000
Suppliers	14.1	1 312 579	1 355 644
Other creditors	15	8 807 713	13 830 227
		10 120 292	**20 185 871**
Total net		**-181 349**	**-10 153 688**

The main changes from 2018 to 2019 are under Other creditors and Shareholder loans.

i. Other creditors: the evolution recorded resulted mainly from the amount of additional paid-in capital to be repaid and the reserves to be distributed to shareholders, which at the end of the financial year together amounted to 19.9 million euros (Notes 15 and 21.3).

ii. Current loans: The 5 million euro loan that the EPS Group had obtained from Winterfell in December 2018 was repaid in this financial year.

Other debtors' impairment relates to an old balance with Liaoyang - Efacec Eletrical Equipment, an associated company of MGI Capital, in the amount of 4.6 million euros (Note 11).

28.3. Detail by entity of balances with related parties

The breakdown of assets and liabilities balances presented above by entity is as follows:

	31.12.2019		31.12.2018	
	Loans	**Current**	**Loans**	**Current**
Shareholders				
Winterfell Group	0	0	-5 000 000	-5 158 757
MGI Capital Group	724 605	3 646 736	724 605	3 803 726
Impairment	0	-4 587 445	0	-4 587 445
	724 605	**-940 709**	**-4 275 395**	**-5 942 476**
Associate Companies				
EME2 - Engenharia, Manutenção e Serviços, ACE	0	0	0	29 429
Ensul Meci-Efacec, Cogeração do Porto, ACE	0	34 755	0	34 755
	0	34 755	0	64 183
Totals	**724 605**	**-905 954**	**-4 275 395**	**-5 878 292**
Total net		**-181 349**		**-10 153 688**

The EPS Group's liabilities with Winterfell at 31 December 2019 are related to additional paid-in capital to be repaid in the amount of 9.4 million euros and 0.2 million euros relating to the distribution of reserves decided at the Annual General Meeting held in May 2019. There are no other assets or liabilities with Winterfell.

Balances with MGI Capital at 31 December 2019 show amounts receivable, net of impairments, of approximately 9.9 million euros, including loans and current balances, and amounts payable of approximately 12.6 million euros, including additional paid-in capital to be repaid of approximately 9.8 million euros (Note 21.3) and 0.4 million euros relating to the distribution of reserves by resolution of the Annual General Meeting held in May 2019.

28.4. Obligations and contingencies with related parties

There are no purchase commitments or contingent liabilities relating to related parties.

28.5. Remunerations of the Board of Directors

In the financial years 2019 and 2018, the Board of Directors of Efacec Power Solutions earned the following remunerations:

	31.12.2019	31.12.2018
Fixed remunerations	1 623 362	1 660 723
Variable remunerations	77 609	332 615
Others	95 667	92 276
	1 796 638	**2 085 614**

29. Contingencies

Contingent assets and liabilities resulting from contractual disputes

The amounts of contingent assets and liabilities resulting from contractual, judicial and tax disputes in which the EPS Group is involved are shown below.

1. CPTM/STM contingency

The contingency with CPTM/STM, which has been reported by Efacec since 2014, relates to the contract for the renovation of the signalling of several lines of the railway system in the State of Sao Paulo, in Brazil, signed between the Brazilian company CPTM and the consortium Union Switch & Signal Internacional Co. and Efacec Engenharia e Sistemas. This contract was terminated, with just cause, by the Consortium, on 24 November 2014.

Following this termination, the Consortium submitted a request for compensation in the amount for the payment of works performed and equipment already manufactured, as well as an amount related to the financial rebalancing of the contract. In November 2016, the Client CPTM/STM filed a counter claim for compensation claiming the reimbursement for costs incurred with equipment and the payment of penalties.

At 30 June 2017, the Consortium initiated an Arbitration Procedure under the jurisdiction of the International Chamber of Commerce to settle this dispute. The Arbitration Court was formally constituted in March 2018 in Sao Paulo. The Consortium of which Efacec Engenharia is a part claims from CPTM/STM an amount of approximately 180 million reais, plus 30 million American dollars and 1 million euros. CPTM/STM counter claimed from the Consortium a compensation of approximately 340 million reais.
During 2019, procedural documents were stabilized, witnesses were heard, and the definition of expert appraisals that will take place during 2020.

Given the probabilities of receiving each of the complaints submitted, there is no need to set up any provision. On the other hand, and under the terms of the Transition Agreement signed between EPS and MGI Capital on 10.23.2015, the EPS Group has the right of recourse with regard to MGI Capital, on any liabilities that it may have to take on in the context of this dispute judicial.

2. Tovisi contingency

In Mozambique there is a lawsuit filed by the company Tovisi Moçambique, a subcontractor to Efacec Mozambique in an engineering project in Maputo. Divergences regarding the conduct of the work led to the termination of the contract by Efacec Mozambique due to contractual breach by Tovisi Mozambique. Following the resolution, Tovisi Mozambique filed a lawsuit seeking compensation of 78,758,069 MZM (approximately 1.6 million euros). Efacec Mozambique fully challenged the claim for damages and filed a counterclaim for approximately 75 thousand euros. The proceeding is pending a judicial decision, with Efacec Mozambique believing in a favourable outcome.

3. Mundotérmica contingency

This is a 2017 lawsuit in which the Plaintiff, Mundotérmica - Sociedade Térmica, SA, demands Efacec Energia to pay the amount of 526,266.00 euros, for alleged losses caused by defective repairs carried out by the Servicing Business Unit in a Mundotérmica mechanical equipment in January 2016. Efacec challenged and rejected the Plaintiff's requests, and also claimed the payment of invoices related to the services provided and not paid by the Plaintiff, in the amount of 63,837.00 euros and additional costs in the amount of 42,004.72 euros. Following what was claimed by Efacec in the challenge, the Plaintiff requested the intervention caused by a third entity, the company Caterpillar Energy Solutions, S.A. The proceeding is currently in the hearing and examination of witnesses phase.

4. Parklake contingency

This is a lawsuit brought in August 2018 at the Bucharest Court, Romania, against Efacec Central Europe (a company under Romanian law) and Efacec Power Solutions, by Parklake Shopping, S.A., a company also under Romanian law, related to a contract for the construction of an electrical substation dedicated to the Shopping, signed in July 2015 between the two companies under Romanian law. The court ruled that Efacec Power Solutions SGPS was an illegitimate party to the lawsuit, and therefore the lawsuit remains against Efacec Central Europe only.

Parklake claims the payment of a compensation of approximately 4.64 million euros (at the current exchange rate) for the damages incurred as a result of non-compliance with the contractual deadlines for completion of the work, attributing the responsibility to Efacec Central Europe. Efacec contested all requests from Parklake Shopping S.A., considering that the delays in the execution of the work are not attributable to it, but to third parties, including Parklake itself, and that the contractually foreseen liability limitations must be maintained. As a result, Efacec filed a counterclaim, claiming from Parklake Shopping the payment of approximately 500,000 euros, corresponding to the amount of bank guarantees executed by Parklake Shopping, prior to the date of the filing of the lawsuit, in the approximate amount of 350,000 euros and invoices not paid by Parklake in the amount of approximately 150,000 euros, as well as the court costs incurred by Efacec to defend the case. The proceeding is in the examination of witnesses phase, which will be followed by technical expertise.

5. Bouaghi contingency

The contingency relates to a contract for the construction of a water treatment plant in the city of Bouaghi in Algeria. The Client ONA terminated the contract on 8 January 2017 due to delays in carrying out the work. The works under Efacec's responsibility had been carried out in a timely manner until that date, and therefore the company considers that it has no responsibility for the facts alleged by ONA for the termination of the contract. ONA submitted to the Consortium a proposal for closing accounts in which it claimed a total compensation in the amount of 1.8 million euros at the current exchange rate, having subsequently executed the bank guarantees that Efacec had provided, as a member of the Consortium, in the global amount of approximately 1 million euros, which was recorded as a cost in the financial year 2018.

Efacec, as a member of the Consortium, rejected the account closure report and presented its reservations with regard to those accounts, having also assigned to its consortium Partner, the company Hidro-Traitment Enterprise Publique Economique, SA, the full responsibility for non-compliance and termination of the contract. Efacec took the necessary steps for the judicial claim of the losses incurred.

6. GeoEnergia contingency

This is a legal proceeding in the State of São Paulo, Brazil, brought by the company GeoEnergia Soluções de Sistemas de Energia, Lda., which claims from Power Solutions Brasil, (PSB) an entity belonging to the EPS Group, the subsidiary payment of a debt of the entity EDB - Engenharia do Brasil, Ltda., in the amount of approximately 530,000 euros. In the first decision, the Court found that

Power Solutions Brasil is an illegitimate party to the lawsuit and cannot be held liable in the alternative for the debt of EDB - Engenharia do Brasil, Ltda. (EDB), having excluded PSB from the lawsuit. This decision was subject to appeal filed by GeoEnergia, which is awaiting a decision by the Supreme Court of Justice. Efacec considers that the materialization risk of this contingency is low, either because it has already been acquitted in a first decision, or because it has, in the event of a contrary outcome, a right of recourse over EDB with regard to this contingency.

30. Obligations

30.1. Guarantees provided

The EPS Group has contingent liabilities related to bank guarantees and other contingencies related to its business. Bank guarantees are mainly linked to projects and orders received and the beneficiaries are the EPS Group Clients.

The following table shows the volume of bank guarantees, distributed by:

i. financial guarantees, which mainly include guarantees issued in favour of Clients to receive advances, amounts related to contractual retentions and stand-by letters of credit, and

ii. other guarantees, mainly guarantees for tenders and supply and performance guarantees.

	31.12.2019	31.12.2018
Financial guarantees	48 524 155	55 340 499
Other guarantees	152 237 784	146 036 610
Total	**200 761 940**	**201 377 109**

It is not expected that these guarantees will result in significant liabilities, except for guarantees relating to projects in which there are relevant contingencies (Note 29).

30.2. Pensions

In the EPS Group, there are benefits attributed with supplementary retirement pensions, as described in Note 1.21.1.

The existing cases are managed internally and are subject to periodic appraisal by specialized and independent entities, the future liability being presented in the statement of financial position under the heading "Provision for pensions" (Note 19), and corresponds to the current value of the liabilities for benefits defined at the closing date of accounts. In 2019, 18 people received this benefit. At the end of the financial year, the provision for the Group's future liability was 467 thousand euros.

31. Joint agreements

The EPS Group has interests in joint operations and joint ventures, which take the legal form of Complementary Groupings of Companies (CGC) (Note 1.2). These entities were created and carry out their activity in compliance with contracts with Clients, inherent to the Service, Energy, Environment and Transport Business Units.

The following table provides information on the main indicators for each of the joint operations included in the Efacec Power Solutions accounts in 2019. The indicators relate to the amounts of assets, equity and total income, and correspond to the entities' social accounts, expressed in euros, before the application of integration fees.

Joint Agreements	Head office	%	Method	Assets	Equity	Total Revenue
Siemens, Suez e Efacec - Serviços Manutenção, ACE	Amadora	33.0%	PRO	273 173	0	220 137
UTE Efacec Engenharia SA y Cemesa SL	Santa Cruz de Tenerife/Spain	100.0%	PRO	194 295	194 295	0
Ensul Meci-Efacec, Cogeração do Porto, ACE	Almada	100.0%	MEP	391 731	-576 117	10
GACE - Gondomar, ACE	Porto	20.0%	PRO	48 228	0	2 083
UTE Efacec Bahía de Cádiz	Seville/Spain	50.0%	INT	790 497	15 558	563 433
EfaServicing, ACE	Matosinhos	100.0%	INT	1 080 336	521 937	1 210 736
Efacec, Manutenção do Sistema de Saneamento do Oeste, ACE	Matosinhos	100.0%	INT	954 616	96 354	785 357
ME Water - Manvia Efacec, Expl. Téc. de Sist. Ambientais Minho, ACE	Maia	50.0%	PRO	615 193	236 372	698 238
DST/DTE/CARI/EFACEC - Arroios, ACE	Braga	33.6%	PRO	13 566	-1 345	0
DST/DTE/CARI/EFACEC - Areeiro, ACE	Braga	38.0%	PRO	333 825	-1 420	111 111

The comparative amounts for the year 2018 are as follows

Joint Agreements	Head office	%	Method	Assets	Equity	Total Revenue
Siemens, Suez e Efacec - Serviços Manutenção, ACE	Amadora	33.0%	PRO	227 487	0	201 605
EME2 - Engenharia, Manutenção e Serviços, ACE	Lisbon	40.0%	MEP	253 175	0	12 557
UTE Efacec Engenharia SA y Cemesa SL	Santa Cruz de Tenerife/Spain	100.0%	PRO	194 295	194 295	0
Ensul Meci-Efacec, Cogeração do Porto, ACE	Almada	100.0%	MEP	397 037	-573 327	4 457
GACE - Gondomar, ACE	Porto	20.0%	PRO	45 861	0	0
UTE Efacec Bahía de Cádiz	Seville/Spain	50.0%	INT	636 558	-63 105	301 270
EfaServicing, ACE	Matosinhos	100.0%	INT	912 308	400 610	1 353 360
Efacec, Manutenção do Sistema de Saneamento do Oeste, ACE	Matosinhos	100.0%	INT	928 625	78 100	996 710
ME Water - Manvia Efacec, Expl. Téc. de Sist. Ambientais Minho, ACE	Maia	50.0%	PRO	701 985	118 445	649 319

Joint operations

The following amounts represent the EPS Group's share of assets, liabilities and net equity of joint operations, and are included in the Consolidated Statement of Financial Position and in the Consolidated Income Statement, through the integration of CGCs.

Joint operations	31.12.2019	31.12.2018
Assets		
Non-current assets	69 111	78 961
Current Assets	1 854 055	2 771 674
	1 923 165	**2 850 635**
Liabilities		
Non-current liabilities	137 517	110 843
Current liabilities	840 310	2 070 670
	977 826	**2 181 513**
Equity	**945 339**	**669 122**
Income	3 591 095	3 502 264
Expenses	3 294 878	3 416 840
Result after taxes	**296 217**	**85 424**

Joint ventures

EPS's interests in joint ventures, indicated in the table above, are included in the financial statements using the equity method.

32. Multi-annual contracts

Multi-annual contracts are accounted for according to the degree of completion method, as defined in Note 1.16.3.

The amounts relating to multi-annual contracts for the financial years ended 31 December 2019 and 2018 are as follows:

	Notes	31.12.2019	31.12.2018
Income recognized in the year (closed and non-closed contracts)		259 315 879	343 777 264
Multi-annual contracts not closed to date:			
Accumulated expenses incurred to date	a	1 244 531 095	1 496 687 777
Margins recognized to date	a	178 328 165	223 924 450
Stock and Inventory - Products and work in progress	12	1 790 540	6 288 833
Accrued income	10.2	104 146 237	101 244 614
Income to be recognized - Advances	20	30 764 340	26 835 218
Income to be recognized - Ongoing projects	20	16 223 239	19 784 661

a Unconsolidated amounts, which include amounts of multi-annual contracts incurred for the financial year 2019, as well as in preceding years.

Stock and inventory related to multi-annual contracts correspond to expenses incurred that have not yet been used in the work or installation, and consequently, the resulting margin is not recognized.

The increases in income represent situations in which the degree of invoicing is lower than the degree of completion, with an increase being made to recognize the respective margin. This situation constitutes a charge to the Client on account of the work/installation already carried out (Note 10.2 - Accrued income). When the opposite situation occurs, the degree of invoicing is higher than the degree of completion and there is an income to be recognized, which represents a Client's credit to the work carried out (Note 20 - Income to be recognized), the margin of which will only be recognized in the following years.

The reconciliation of the amount presented under the heading Income recognized in the financial year, related to closed and non-closed multi-annual contracts with the total consolidated sales and services can be presented as follows:

	31.12.2019	31.12.2018
Income recognized related to multi-annual contracts	259 315 879	343 777 264
Income related to standard manufacturing products	55 504 970	43 286 424
Income related to support and maintenance services	15 807 168	22 417 359
Other income	22 940 800	17 070 755
Consolidated sales and provision of services	**353 568 818**	**426 551 800**

33. Fees paid to auditors

In 2020, Efacec hired the auditing and accounting review services of Mazars e Associados - Sociedade de Revisores Oficial de Contas, S.A. The contract entered into includes the certification of the annual accounts for the financial year 2019, but the applicable fees will only have an impact in 2020.

In the financial years 2019 and 2018, the EPS Group used the services of PricewaterhouseCoopers & Associados, SROC and the respective international network, for which it paid the following fees:

	31.12.2019	31.12.2018
Audit		
Audit and audit of accounts	127 623	193 046
Reliability assurance services	15 896	11 714
Other services	143 518	204 760
Tax consulting services	61 416	40 623
Other consulting services	121 172	313 375
	182 588	353 998
	326 106	**558 758**

34. Subsequent events

In the first quarter of 2020, facts that were extremely relevant to Efacec's activity took place with impact in the same year and subsequent years, and therefore it is necessary to update the future business prospects in the light of these most recent events. The impact of these events has become especially relevant due to their successive occurrence, in a short period of time, and following a difficult 2019 for Efacec from the treasury point of view.

Luanda Leaks and the financial system deadlock

The publication of the so-called Luanda Leaks, in mid-January 2020, triggered a succession of reactions that severely impacted Efacec's relationship with its Clients, Suppliers and, in particular, with the financial system.

Since the disclosure of that news, Efacec's Board of Directors sought to protect the company and its assets as much as possible, having formally asked, on 23 January 2020, the majority shareholder to put their stake up for sale and leave the shareholder structure of the Efacec Group to the benefit of the company - this request was immediately granted. Additionally, following this decision to exit the shareholder structure, her representatives submitted their resignation from the governing bodies.

This measure sought to minimize damage at the level of Clients, Suppliers and Partners, and the company was able to keep the contracts in force and continue to receive new orders. However, the complex setting of the combined effects of compliance issues, breach of trust and reputational impact made, in the first quarter of 2020, the Efacec's main banks block all trade finance relations (factoring, confirming, letters of credit, bank guarantees and existing current account lines) and any treasury financing, thus conditioning their unlocking to the change in the shareholder structure. Also the credit insurers reduced the exposure limits to Efacec, in some cases even suspending its valuation. For a strongly exporting company such as Efacec, this financial system position posed significant difficulties to the execution of projects already contracted or in the signing of new orders.

These actions contributed to the worsening of the cash flow conditions, which have already been manifested since the last four months of 2019, with the subsequent problems in the supply chain, which, in turn, hindered the completion of production and invoicing, thus generating a negative cash flow cycle.

The Axessor rating agency, used as a reference in the bond issue process, reduced the company's rating to "non-investment grade" due to shareholder uncertainty and fears of the impact on Efacec's performance.

At the end of March 2020, Efacec was informed of the existence of an agreement between representatives of the majority shareholder and the financing banks, of the majority shareholder and of Efacec, which established a time horizon for the exit of the majority shareholder from the company's corporate structure, stipulating the transfer, in the short term, of the respective stake to a transitional vehicle, whose exclusive purpose would be the sale of Efacec to a final investor within a period of six to twelve months. For reasons external to Efacec, the conditions required by the agreement for the constitution of the transitional vehicle and the consequent transfer of Efacec's shares was late, delaying the lifting of the financial and insurance system deadlock, and reinforcing the Efacec's operational bottleneck by conditioning the implementation of the action plan outlined at the end of 2019 and, consequently, the regularization of supply chains and operations.

In May 2020, although the constitution of the said transitional vehicle foreseen in the mentioned agreement has not yet occurred, Efacec's Board officially launched the process for the sale of a majority stake in Efacec, having received a significant number of expressions of interest by industrial and financial reference institutions, at national and international scale. The change in Efacec's shareholder structure is expected to be completed by the end of 2020, as detailed in the outlook for 2020 (item 4.4.3).

Nationalization

The lack of an agreement between the interested parties threatened the company's sustainability in an almost irreversible way, leading the Portuguese State, on 2 July, 2020, and with a view to safeguarding the national public interest, to proceed, through Decree-Law no. 33-A, the nationalization of Efacec's shareholder control, through the public appropriation of social participation held by Winterfell 2 Limited. According to the Decree-Law, the nationalization is of a transitory nature, the objective being the immediate opening of the reprivatisation process of the stake which is the object of public intervention.

The State's intervention aimed to ensure the stability of Efacec's financial, operational and commercial value, and to allow the safeguarding of jobs, industrial value and technical knowledge. It should now be possible to establish the required cash flow support, which was blocked due to the impasse in the change in the shareholder structure, through access to financing and liquidity lines to reverse the negative cash flow cycle.

COVID-19 pandemic

The COVID-19 pandemic is a public health crisis, with a very important financial impact on all sectors and countries and which could substantially transform the way we all live. This crisis demanded, and continues to demand, the ability to manage uncertainty, agility in decision-making, confidence in those around us, institutions and leaders, ability to adapt to the new measures and awareness of the impact of our individual and collective actions on the outcome and/or evolution of the crisis.

Efacec as an exporting company was strongly impacted by the COVID-19 pandemic due to two effects:

1. Approximately 85% of the company's revenues and activity come from the sale of products and equipment abroad and from the execution of large electrical infrastructure projects abroad;

2. Efacec also imports a large part of the products in its supply chain and has a large number of relevant Suppliers in Italy, Spain and, obviously, in China, having therefore experienced significant difficulties in obtaining raw materials and components for its products and projects, throughout the first half of 2020.

A large number of Efacec projects and contracts were impacted in their execution for several reasons, from disruptions in the transport of people and goods by air, sea and even road, to situations of mandatory quarantine and state of emergency declarations in the different countries where the company operates.

The containment and protection measures applied in the Portuguese territory also had a considerable impact on the company's productive capacity, since it was necessary to change shifts, reduce teams, and create reserve groups to face possible outbreaks in the operations teams and, in specific cases, place teams in mandatory quarantine and stop production lines and areas for total disinfection. All these actions respected the best international practices in order to effectively protect Employees and their families and to mitigate the spread of potential contagion.

As a result of the pandemic, Efacec's revenues decreased in March 2020, compared to the same period in 2019, by approximately 48% and receipts by approximately 30%. This sharp decrease in revenues and receipts, felt since February 2020 and that reached its maximum in April and May, combined with the deadlock promoted by the financial system as a result of the Luanda Leaks episode, challenged Efacec's ability to face, in a timely manner, its primary obligations, in particular the amounts due to its Suppliers.

As a result of the strong reduction in its activity due to the worldwide impacts of the COVID-19 pandemic, Efacec was forced to adopt one of the measures to support the maintenance of the jobs of companies affected by the pandemic, outlined by the Portuguese Government in Decree--Law no. 10-G/2020 of 25 March: the (total or partial) lay-off. The aforementioned measure allowed minimizing the risk of non--compliance with the obligations to pay its Employees' salaries while the risks of non--compliance with other interested parties remaining.

The context and impacts of COVID-19 do not generate adjustments to the financial statements at 12.31.2019, as they do not reflect conditions that existed at the end of the reporting period.

Contingencies

The events described here, which occurred in the first half of the year 2020, made imperative that Efacec carried out a risk analysis in the projects in course. For this purpose, was carried out a survey of projects, of different dimensions and in different geographies that meet the schedule of delayed execution, and where management considers the possibility of incurring in supplementary expenses for contractual non-compliance. Efacec, therefore, determined a set of potential contingencies, resulting from interactions with customers and estimated the degree of probability of potential losses through the application of contractual penalties. At the conclusion of this potential contingency analysis, arising from the facts and events that took place in 2020, Efacec selected and considered the situations classified as likely to occur, making the decision to reflect on accounts as of June 30, 2020, a reinforcement of provisions of approximately 7.5 million euros.
At the conclusion of this potential contingency analysis, arising from the facts and events that took place in 2020, systematized as of the date of this report, Efacec selected and considered the situations classified as likely to occur, making the decision to reflect and accommodate on accounts as of June 30, 2020, prepared under the terms of IAS 34 - Interim Financial Report, a reinforcement of provisions of approximately 7.5 million euros.

Leça do Balio, 23 September 2020

Charge of the Consolidation

José Carlos Eiras Pinto de Oliveira

The Board of Directors

Ângelo Manuel da Cruz Ramalho

Francisco José Meira Silva Nunes

Fernando José Rabaça Vaz

António José Gonzalez Almela

José Manuel de Oliveira Henriques

Vanessa Ferreira Loureiro

Rui Alexandre Pires Diniz

Miguel Maria Pereira Vilardebó Loureiro

Manuel António Carvalho Gonçalves

7.2. Individual financial statements

› Statement of Financial Position at 31 December 2019 and 2018

Amounts in euros

	Notes	2019	2018
Assets			
Non-current assets			
Tangible fixed assets	4	31 039 434	31 651 199
Right-of-use assets	5	290 138	0
Financial investments	6.1	392 067 490	375 327 833
Financial assets available for sale	6.2	608 632	688 632
Loans to related entities	22	26 100 961	31 246 655
Deferred tax assets	15	1 061 301	454 327
Total non-current		**451 167 957**	**439 368 647**
Current Assets			
Clients	7	679 962	201 007
Accrued income	8	7 874 153	307 223
Loans to related entities	22	7 504 308	16 761 762
Debtors and expenses to be recognized	9	16 895 168	14 862 179
Corporate income tax	9	0	399 491
Cash and cash equivalents	10	2 189 114	453 362
Total current		**35 142 705**	**32 985 024**
Total Assets		**486 310 662**	**472 353 671**
Equity and Liabilities			
Equity			
Capital	16.1	308 949 250	308 949 250
Issue premiums	16.2	1 947 730	1 947 730
Additional paid-in capital	16.3	11 490 052	11 490 052
Reserves and accumulated results	16.4	11 456 376	17 397 456
Total Equity		**333 843 409**	**339 784 489**
Non-current liabilities			
Loans obtained	13	58 711 890	670 000
Loans from related entities	22	60 000 000	50 000 000
Lease liabilities	14	201 571	0
Creditors and accrued expenses	12	6 183 590	0
Total non-current liabilities		**125 097 051**	**50 670 000**
Current liabilities			
Loans obtained	13	669 954	330 000
Loans from related entities	22	67 482	56 840 748
Lease liabilities	14	91 626	0
Suppliers	11	7 191 801	4 769 865
Creditors and accrued expenses	12	19 320 361	19 958 569
Corporate income tax	12	28 979	0
Total current liabilities		**27 370 203**	**81 899 183**
Total equity and liabilities		**486 310 662**	**472 353 671**

The subsequent Notes are an integral part of these consolidated financial statements

The Chartered Accountant

The Board of Directors

› Income statement by nature for the financial years ended 31 December 2019 and 2018

Amounts in euros

	Notes	2019	2018
Sales and provision of services		3 805 500	5 800 008
Supplies and external services	17.1	-3 289 499	-3 833 691
Personnel expenses		-2 222 749	-2 413 201
Expenses with contract terminations		0	-92 276
Amortization and depreciation	4-5-17.3	-981 745	-757 367
Provisions and assets impairment	17.2	-205 510	0
Other operating expenses		-140 403	-295 019
Other operating income		1 525 675	1 836 343
Operating income		**-1 508 730**	**244 797**
Financial expenses	18	-5 645 801	-4 051 209
Financial income	18	1 363 548	1 297 561
Losses/gains in related entities	18	-102 500	16 359 149
Result before taxes		**-5 893 483**	**13 850 298**
Corporate income tax - deferred	19	606 974	109 228
Corporate income tax - current	19	-654 570	397 719
Net profit/loss		**-5 941 080**	**14 357 244**
Net earnings per share			
Basic	20	-0.10	0.23
Diluted	20	-0.10	0.23

The subsequent Notes are an integral part of these consolidated financial statements

The Chartered Accountant

The Board of Directors

› Comprehensive income statement for the financial years ended 31 December 2019 and 2018

Amounts in euros

	2019	2018
Net profit/loss [1]	-5 941 080	14 357 244
Other comprehensive net income for the period [2]	0	0
Total comprehensive income for the period [1+2]	**-5 941 080**	**14 357 244**

The subsequent Notes are an integral part of these consolidated financial statements

The Chartered Accountant | The Board of Directors

› Statement of changes in equity for the financial years ended 31 December 2019 and 2018

Amounts in euros

	Notes	Share Capital	Issue premiums	Additional paid-in capital	Reserves and accumulated results	Other comprehensive income	Total equity
Balance at 1 January 2018		**314 235 160**	**1 947 730**	**35 900 000**	**3 040 212**	**0**	**355 123 102**
Capital decrease		-5 285 910	0	0	0	0	-5 285 910
Additional paid-in capital	16.3	0	0	-24 409 948	0	0	-24 409 948
Comprehensive income for the period		0	0	0	14 357 244	0	14 357 244
Balance at 31 December 2018		**308 949 250**	**1 947 730**	**11 490 052**	**17 397 456**	**0**	**339 784 489**
Balance at 1 January 2019		**308 949 250**	**1 947 730**	**11 490 052**	**17 397 456**	**0**	**339 784 489**
Additional paid-in capital	16.3	0	0	0	0	0	0
Comprehensive income for the period		0	0	0	-5 941 080	0	-5 941 080
Balance at 31 December 2019		**308 949 250**	**1 947 730**	**11 490 052**	**11 456 376**	**0**	**333 843 409**

The subsequent Notes are an integral part of these consolidated financial statements

The Chartered Accountant | The Board of Directors

› Cash Flow statement for the financial years ended 31 December 2019 and 2018

Amounts in euros

	Notes	2019	2018
Operating Activities			
Clients receivables		9 253 007	10 774 808
Payments to Suppliers		10 306 800	12 627 798
Payments to personnel		2 223 069	2 480 183
Flow generated by operations		**(3 276 862)**	**(4 333 173)**
Corporate income tax payment/receipt		247 810	200 102
Other receipts/payments related to the operating activity		(949 127)	156 751
Flows from operating activities	[1]	**(3 978 179)**	**(3 976 320)**
Investment Activities			
Receipts from:			
Financial investments		397 500	0
Interest and similar income		591 228	347 375
Dividends		0	16 359 149
		988 728	**16 706 524**
Payments related to:			
Financial investments		17 077 157	987 500
Tangible fixed assets		40 853	1 143 014
		17 118 010	2 130 514
Flows from investment activities	[2]	**(16 129 282)**	**14 576 010**
Financing Activities			
Receipts from:			
Non-current loans		68 550 000	8 424 053
Current loans		80 156 520	118 214 891
Shareholder loans		0	5 000 000
		148 706 520	**131 638 944**
Payments related to:			
Non-current loans		11 255 621	15 547 011
Current loans		105 365 982	112 777 156
Shareholder loans		5 000 000	0
Amortization of operating lease contracts		132 584	0
Interest and similar expenses		85 489	2 017 270
Capital decreases and supplementary capital contributions		5 023 632	11 628 840
		126 863 308	**141 970 277**
Flows from financing activities	[3]	**21 843 212**	**(10 331 333)**
Cash variation and its equivalents	[A]-[B]-[C]-[D]=[1]+[2]+[3]	**1 735 752**	**268 356**
Cash and cash equivalents at the beginning of the financial year	[B]	**453 362**	**185 006**
Cash and cash equivalents at the end of the financial year	[A] 10	**2 189 114**	**453 362**

The subsequent Notes are an integral part of these consolidated financial statements

The Chartered Accountant | The Board of Directors

Notes to Financial Statements

A. General Information

Efacec Power Solutions SGPS, S.A. ("Efacec Power Solutions" or "EPS") is a public limited company with registered office in Portugal. EPS was incorporated on 14 August 2014 having as object the management of shareholdings as an indirect way of exercising economic activities. The incorporation of Efacec Power Solutions was part of the restructuring process that Efacec Capital, SGPS, S.A. ("Efacec Capital") started in late 2013, with the objective of aligning the corporate structure of the Efacec Group with the market segments addressed and the target geographies. At the end of 2014, Efacec Power Solutions became a group of companies that bring together all the technical and human competencies, the means of production and the technologies for the development of activities in the fields of Energy, Environment and Mobility. The EPS Group also comprises a wide network of branch offices, branches and agents spread across four continents.

On 23 October 2015, the EPS Group's shareholder structure changed, with the majority of the capital of Efacec Power Solutions being held by the company Winterfell 2 Limited ("Winterfell 2").

The financial information is presented in euros, unless otherwise stated.

These financial statements were approved by the Board of Directors on 23 September 2020. The members of the Board of Directors who sign this report declare that, to the best of their knowledge, the information contained herein was prepared in accordance with the International Financial Reporting Standards (IFRS), adopted by the European Union, giving a true and appropriate image of the Efacec Power Solutions SGPS, S.A. consolidated financial position, results and cash flows.

Nationalization

On 2 July 2020, Decree-Law No. 33-A/2020 carried out the public appropriation, through the nationalization, of the shareholding held by Winterfell 2 Limited in Efacec Power Solutions, SGPS, SA, corresponding to 71.73% of the share capital. For this reason, some references to Winterfell throughout this document may be subject to adaptation/update.

B. Summary of the main accounting policies

1. Accounting policies adopted

The accounting policies adopted follow the International Financial Reporting Standards (IFRS) in force in each reporting period. They are disclosed in the subsequent notes and have been applied by Efacec Power Solutions since its incorporation. However, the standards and reviews issued by the various bodies that supervise the application of the Standards - IASB, IASC, IFRIC and SIC, when applicable to the Company, are adopted in the period in which they become mandatory. In this financial year, the accounting policies were applied consistently in the comparative periods, except for those that result from the adoption, for the first time, of IFRS 16 - Leases.

1.1. Preparation basis

The consolidated financial statements of Efacec Power Solutions have been prepared assuming the continuity of the operations. As mentioned in the Management Report, and despite the negative cycle of the Efacec Group between the end of 2019 and the first half of 2020, due to the Luanda Leaks episode, the financial blockade and COVID-19, the Board believes in the Group's ability to remain in continuity, this being the assumption used in the preparation of the 2019 Financial Statements. The nationalization, on 2 July 2020, of 71.7% of the Efacec Group's share capital, intends to make its financial and operational value stable This nationalization takes place with the objective of reprivatizing in the shortest possible time, as established in DL 33-A/2020, of 2 July. Thus, in this context, depending on the formalization and realization of financial support from shareholders and other financing entities, and on the expected future profitability of operations, we believe in the continuity of operations and in the reversal of the negative cycle.

The attached consolidated financial statements are in accordance with the International Financial Reporting Standards (IFRS), in effect on 1 January 2019, as adopted in the European Union.

The financial statements are prepared taking into account the historical cost convention, except for land, financial assets and financial liabilities, which are accounted for at their fair value.

The preparation of the financial statements in accordance with the IFRS requires the use of some important accounting estimates. It also requires the management body to exercise its judgement in the process of applying the Company's accounting policies. The areas involving a higher degree of judgement or complexity or the areas where the assumptions and estimates are significant for the financial statements are disclosed in Note 2.

The rules, interpretations and reviews issued by the various bodies that supervise the application of International Financial Reporting Standards - IASB, IASC, IFRIC and SIC - are listed below, as well as the dates of application and approval by the European Union.

Description	Change	Effective date
1. New standards, changes to standards and effective interpretations at 1 January 2019		
IFRS 16 – Leases	New definition of lease. New accounting of lease contracts for the lessees. There are no changes to the accounting of leases by the lessors.	01/01/2019
IFRS 9 – Financial instruments	Exemption from the financial assets classification at amortized cost for financial assets with pre-payment conditions with negative offset.	01/01/2019
IAS 19 – Employee benefits	It requires the use of updated assumptions to calculate the remaining liabilities after updating, cutting or settling benefits, with an impact on the income statement, except for the reduction of any excess within the scope of the asset ceiling.	01/01/2019
IAS 28 – Investments in associate companies and joint ventures	Clarification regarding long-term investments in associate companies and joint ventures that are not being measured using the equity method.	01/01/2019
Improvements to standards 2015 – 2017	Several clarifications: IAS 23, IAS 12, IFRS 3 and IFRS 11.	01/01/2019
IFRIC 23 – Uncertainties over income tax treatments	Clarification regarding the application of the principles of recognition and measurement of IAS 12 when there is uncertainty about the tax treatment of a transaction, in terms of income tax.	01/01/2019
2. Amendments to standards that become effective at or after 1 January 2020, already endorsed by the EU		
IAS 1 – Presentation of financial statements; IAS 8 - Accounting policies, changes in accounting estimates and errors	Update of the definition of material, in the application of the standards to the financial statements as a whole.	01/01/2020
Conceptual structure - Changes in reference to other IFRS	Amendment to some IFRS regarding cross-references and clarifications on the application of the new definitions of assets/liabilities and expenses/income.	01/01/2020
3. Standards (new and amended) that become effective at or after 1 January 2020, not yet endorsed by the EU		
IFRS 3 – Business combinations	Change in the definition of business.	01/01/2020
IFRS 9, IAS 39 and IFRS 7 – Interest Rate Benchmark Reform	Introduction of exemptions to hedge accounting with the objective that the reform of the reference interest rates does not result in the termination of hedge accounting.	01/01/2020
IFRS 17 – Insurance contracts	New accounting for insurance contracts, reinsurance contracts and investment contracts with discretionary participation characteristics.	01/01/2021

The new standards, amendments to standards and interpretations with effective application as of 1 January 2019, were adopted for the first time in the financial year ended 31 December 2019. Its adoption did not have a material impact on the financial statements.

With regard to IFRS 16, the Company applied the "modified retrospective" model, without restating the comparative figures for 2018. The impact on the consolidated financial statements as a result of the incorporation of the assets and the recognition of the liabilities of the lease agreements was not significant, representing less than 0.1% of the total net assets.

1.2. Tangible fixed assets

Land and buildings essentially comprise factories and offices. Land is presented at fair value. The other tangible assets are presented at historical cost, less depreciation, including all expenditures directly attributable to the acquisition of the assets.

Subsequent expenses are included in the carrying amount of the asset or recognized as separate assets, as appropriate, only when it is probable that economic benefits will flow to the Company and the cost can be measured reliably. Other expenses with repairs and maintenance are recognized as expenses in the period in which they are incurred.

In accordance with the accounting policies of the EPS, land is subject to three-year valuations by independent experts to determine the fair value. Valuations are based on the use of market comparison criteria and replacement costs. Revaluations are recognized in equity, after deducting the respective deferred tax. Devaluations, if any, are deducted from equity up to the limit of existing revaluation reserves for the same assets In excess of that limit, they are recognized in the income statement.

When tangible assets recorded at fair value are sold, the amount included in revaluation reserves is transferred to results carried forward.

Land is not depreciated. Depreciation of other assets is calculated using the straight--line method, in twelfths over cost or revaluation value, in order to allocate their revalued cost or value to their residual value, according to their estimated useful life, as follows:

Heading	Years
Buildings and other constructions	25 – 50
Basic equipment	8 – 16
Transport equipment	4 – 5
Tools and utensils	4 – 8
Administrative equipment	4 – 6

The depreciation process begins in the month following that in which the asset started operating.

Residual values of assets and useful lives are reviewed and adjusted, if necessary, at the balance sheet date. If the carrying amount is greater than the asset's recoverable amount, it is immediately readjusted to the estimated recoverable amount.

Gains and/or losses on disposals or write-offs of tangible assets are determined by the difference between their net book value and their disposal or write-off value, in the latter case being null, and included in the income for the financial year.

1.3. Financial assets

1.3.1. Classification

Under IFRS 9, the Company classifies its financial assets according to the following categories: debt instruments and accounts receivable, equity instruments designated at fair value through other comprehensive income and financial assets at fair value through the income statement.

a. Debt instruments and accounts receivable
The financial asset is held considering a business model whose objective is to keep it in order to receive its contractual cash flows and the contractual terms of the financial asset give rise, on specific dates, to cash flows that are only payments of principal and interest on the amount of outstanding principal

b. Equity instruments designated at fair value through other comprehensive income
Upon initial recognition, the Company may make an irrevocable choice (financial instrument to financial instrument) to designate certain investments in equity instruments (shares) at fair value through the other comprehensive income. The designation at fair value through other comprehensive income is not permitted if the investment is kept for trading purposes or if it results from a contingent consideration recognized in the context of a business combination.
A financial asset is held for trading if it is acquired primarily for the purpose of sale in the short term, upon initial recognition, forms part of a portfolio of identified financial instruments that the Company manages together and in which there is evidence of a recent real pattern of making short-term profits, or if it is a derivative financial instrument (unless it is assigned to a hedging operation).

C. Financial assets at fair value through the income statement
Financial assets that do not meet the criteria to be measured at amortized cost or at fair value through other comprehensive income are measured at fair value through the income statement.

1.3.2. Recognition and measurement

All recognized financial assets are subsequently measured at amortized cost or, at their fair value, depending on the business model adopted by the Company and the characteristics of its contractual cash flows.

Debt instruments and accounts receivable are measured at amortized cost using the effective interest rate method. For financial assets that are not acquired or originated with impairment (i.e., assets with impairment at the initial recognition), the effective interest rate is the rate that exactly discounts the estimated future cash flows (including *fees* and commissions paid or received that are an integral part of the effective interest rate, transaction costs and other premiums or discounts) during the expected life of the instrument in its gross carrying amount on the date of its initial recognition. The amortized cost of a financial asset is the amount by which it is measured at the initial recognition less repayments of principal, plus accumulated amortization, using the effective interest rate method, of any difference between that initial amount and the amount of repayment, adjusted by possible impairment losses.

Investments in equity instruments recognized at fair value through other comprehensive income are initially measured at their fair value plus transaction costs. Subsequently, they are measured at their fair value with the gains and losses arising from their change recognized in other comprehensive income. At the time of its disposal, the accumulated gain or loss generated with these financial instruments is not reclassified to the income statement, but transferred only to the heading "carried forward results".

Dividends associated with investments in equity instruments are recognized in the consolidated income statement when they are attributed/resolved, unless they clearly represent a recovery of part of the investment cost. Dividends are recorded in the income statement under "Financial income and gains".

In the first application of IFRS 9, the Company indicated investments in equity instruments that were not held for trading as valued at fair value through other comprehensive income.

Financial assets recorded at fair value through the income statement are measured at the fair value calculated at the end of each reporting period, with the respective gains or losses being recognized in the consolidated income statement, unless they are part of a hedge relationship.

1.3.3. Presentation at net value

Financial assets and liabilities are presented in the statement of financial position at their net value when there is a legal right to make this offset, as well as the intention to do so.

1.3.4. Financial assets impairment

The Company recognizes expected impairment losses for debt instruments measured at amortized cost or at fair value through other comprehensive income, as well as for accounts receivable from Clients, other debtors, and for assets associated with contracts with Clients. The amount of expected impairment losses for loans granted is updated at each reporting date to reflect changes in credit risk that have occurred since the initial recognition of the respective financial instruments. The expected impairment losses for loans granted are estimated using historical information on uncollectibility, adjusted for specific factors attributable to the debtors, as well as for the macroeconomic conditions that are expected for the future.

The Company recognizes the expected impairment losses for credit granted for the entire life of accounts receivable from Clients and other debtors, as well as for assets associated with contracts with Clients.

1.4. Cash and cash equivalents

The heading "Cash and cash equivalents" includes cash, bank deposits and other short-term, highly liquidity investments. Bank overdrafts are presented in the Statement of Financial Position, under current liabilities, under Loans.

1.5. Share Capital

Ordinary shares are recorded under equity.

Expenses directly attributable to the issue of new shares or options are included in equity as a deduction, net of taxes, of capital injections.

1.6. Financial debt

The financial debt includes loans obtained from the market, credit institutions or other entities, namely related parties. They recognized at their nominal value. The loans are subsequently presented at amortized cost. Any difference between the receipts (net of transaction costs) and the amortized value is recognized in the income statement over the period of the loan using the effective interest rate method.

Loans obtained are recorded in current liabilities, unless the Company has an unconditional right to defer payment of liabilities for, at least, 12 months after the balance sheet date.

Interest and other financial charges related to loans obtained are generally recognized as an expense in accordance with the accrual principle.

Interest and other financial charges on loans obtained, which are directly related to the acquisition, construction or production of fixed assets, are capitalized, being part of the cost of the asset. The capitalization of these charges starts after the preparation of the construction or development activities of the asset and is interrupted when the asset is ready to be used or when the project is suspended. Any financial income generated by loans obtained, directly related to a specific investment, is deducted from the financial charges eligible for capitalization.

1.7. Amounts payable to Suppliers and other creditors

Amounts payable to Suppliers and other creditors are initially recognized at fair value and subsequently measured at amortized cost using the effective interest method. Supplier accounts are classified as current liabilities if the payment is due within one year or less (or in the regular business operating cycle, if longer). If not, Supplier accounts are presented as non-current liabilities.

1.8. Corporate income tax and deferred taxes

Efacec Power Solutions and its national subsidiaries are subject to the Special Taxation Regime for Company Groups (RETGS), applicable to groups that include companies in which they have a shareholding of 75% or more, and which meet the conditions established in article 69 of the Corporate Income Tax Code. The consolidated tax charge is determined by the arithmetic sum of taxable gains and losses as determined by each company on an individual basis.

The company's corporate income tax comprises current and deferred tax.

Current tax is calculated based on tax legislation in force, or substantively in force, at the date of the statement of financial position. The management periodically reviews its analysis on this matter and recognizes provisions for probable tax contingencies for the cases under analysis, as well as possible adjustments made by the tax authorities. These provisions correspond to the amount that is expected to be paid to the tax authorities.

The deferred tax is calculated based on the amount of temporary differences between the book values of assets and liabilities and the respective tax base. However, the deferred tax is not recorded if it arises through the initial recognition of assets or liabilities, that do not result from a concentration of business activities that at the date of the transaction do not affect the book or taxable result. The deferred tax is calculated based on the legislation and rates in force, or substantively in force at the reporting date, and which are expected to apply when realizing the deferred tax asset or settlement of deferred tax liabilities.

Deferred tax assets are recognized only when the existence of future taxable income is expected, under which the temporary difference can be used.

Deferred tax assets and liabilities are shown in the statement of financial position at their net amount, when there is a legal right to offset current deferred tax assets and liabilities by that amount. Deferred taxes are classified as non-current, as shown in the statement of financial position.

1.9. Provisions

Provisions are recorded at the fair value of expenses that are expected to occur in order to settle the obligation, using discount rates before taxes that reflect the time value of the money, as well as the specific risks of the obligation, as assigned by the market. Provisions for future operating losses are not recognized.

1.10. Recognition of revenue

From 1 January 2018, the Company applied the new standard IFRS 15 - "Revenue from Contracts with Customers", which replaces IAS 18. The application of this standard did not materially impact the EPS's financial statements.

Revenue includes the fair value of sales of goods and services, net of taxes and commercial discounts.

The revenues are recognized at fair value of the amount received or receivable related to the sale of products and services in the normal course of the Company's activity. The revenues are recognized at the net value of the value added tax amount, returns and discounts.

The Company recognizes the revenues when the amount is reliably measurable, when it is probable that future economic benefits will enter the entity and when specific criteria are met, as described below. The Company bases its estimates on historical results, taking into account the type of Client, as well as the type of transaction and its characteristics.

Provision of services

The provision of services is recognized in the accounting period in which the services are provided, with reference to the completion stage of the transaction at the balance sheet date.

1.11. Leases

From 1 January 2019, the Company adopted IFRS 16, a standard promulgated by the IASB that calls for a new orientation on the accounting of lease contracts. Standard IFRS 16 specifies the rules for the recognition, measurement, presentation and disclosure of leases.

The main impact of this standard is the application of identical treatment in the accounting of financial leases and operating leases, provided that they meet a set of requirements, namely regarding the possibility of identifying the asset, the lessee's ability to decide as to its use and the taking of economic benefits by the lessee. In this way, lessees present liabilities resulting from leases on the face of the financial statements, in return recognizing the value of the right-of-use asset they hold.

1st application of IFRS 16:

In implementing the new standard, the Company adopted the "modified retrospective", methodology, with no need to restate comparative amounts.

Contracts with a duration of up to 12 months were excluded, as well as contracts with a unit value of less than 5,000 euros and the conditions for exercising the cancellation and extension options were assessed.

The operating leases obligations were recorded in the statement of financial position by updating rents outstanding on 1 January 2019, under the heading "Lease liabilities". The same amount was recorded as a consideration in a separate heading named "Right-of-use asset".

When updating rents, discount rates differentiated by type of asset and geography are used.

Presentation in financial statements:

Lease liabilities

The rents outstanding are presented in the statement of financial position under the heading "Lease liabilities", classified as current or non-current balances depending on the maturity date of the rents in the period up to one year or more than one year. In the Income Statement, the leasing interest is shown under the heading "Borrowing costs". In the cash flow statement, the grouping of Financing activities shows the payments of the nominal value of lease rents in a separate line; the interest payments on lease rents are part of the Interest and similar expenses line.

Right-of-use assets

The amount of the assets under a lease scheme is recorded in a separate heading in the Statement of Financial Position called "Right-of-use assets". Leased assets initially assumed the amount corresponding to the debt on the date the Standard was adopted. Asset depreciation is shown on the face of the Income statement, under the heading "Depreciation and amortization".

The details of entries recorded in the financial year (additions, write-offs, depreciation, etc.) by class of right-of-use assets are disclosed in a separate note in the attached Notes.

1.12. Distribution of dividends

The distribution of dividends to equity holders is recognized as a liability in the Company's financial statements in the period in which the dividends are approved by the shareholders at the General Meeting.

1.13. Contingent assets and liabilities

Contingent liabilities in which the possibility of an outflow of funds affecting future economic benefits is only possible, are not recognized in the consolidated financial statements, but are disclosed in the notes, unless the possibility of an outflow of funds affecting future economic benefits is remote, in which case they are not disclosed. Provisions for liabilities that meet the conditions set out in Note 1.9 are recognized.

Contingent assets are not recognized in the financial statements, but are disclosed in the notes to the financial statements when a future economic benefit is probable.

1.14. Cash flow statement

The cash flow statement is prepared in accordance with the direct method. The Company classifies assets with a maturity of up to one year, with high liquidity and for which the change in value risk is insignificant under the heading "Cash and cash equivalents".

The cash flow statement is divided by operating activities, investing activities and financing activities. Operating activities include cash receipts from Clients and payments to Suppliers, personnel and other payments related to the operating activity.

The cash flows included in investing activities include acquisitions and disposals of investments in subsidiaries, cash receipts and payments arising from the purchase and sale of tangible and intangible assets.

Financing activities include cash receipts and payments relating to equity and loans, including bank overdrafts. They also include payments related to interest, dividends and financial and operating leases.

1.15. Subsequent events

Events after the date of the statement of financial position that provide additional information on conditions that existed on that date are reflected in the financial statements. Events after the date of the statement of financial position that provide information on conditions that occur after the same date are disclosed in the notes to the financial statements, if material.

2. Estimates and accounting judgements

The preparation of the financial statements requires the Company's management to make judgements and estimates that affect the amounts of income, expenses, assets and liabilities and disclosures at the date of the financial statements.

These estimates are determined by the judgements of the Company's management, based: (i) on the best information and knowledge of current events and, in certain cases, on reports by independent experts, and (ii) on the actions that the Company considers to be able to develop in the future. However, on the completion date of the operations, its results may differ from these estimates.

The estimates and assumptions that present a significant risk of causing a material adjustment to the book value of assets and liabilities in the following financial year are presented below.

2.1. Financial assets and liabilities fair value

The market price is used to determine the fair value of a financial asset or liability when there is an active market. When there is no active market, as is the case with some of the Company's financial assets and liabilities, generally accepted fair value appraisal techniques are used, based on market assumptions.

The Company uses appraisal techniques for unlisted financial instruments, such as derivatives, financial instruments at fair value through profit or loss, and assets available for sale. The appraisal methods used are most often based on discounted cash flow models and option models, including, for example, interest rates, exchange rates, and volatility curves. Currently, the Company does not have any unlisted financial instruments.

2.2. Corporate income tax

The Company recognizes liabilities for additional tax assessments that may result from reviews by tax authorities. When the final result of these situations is different from the amounts initially recorded, the differences will have an impact on the income tax and on tax provisions, in the period in which such differences are identified.

In addition, the Company recognizes deferred tax assets on tax losses and tax benefits, to the extent that future taxable profits are expected. This appraisal requires the use of estimates, and the future taxable profits may differ from the appraisal carried out at each closing date. The difference will have an impact on the corporate income tax.

2.3. Recognition of provisions

The Company periodically reviews the obligations arising from past events that must be recognized or disclosed. The subjectivity involved in the calculation of the probability and amount of internal resources necessary to pay for the obligations may lead to significant adjustments, either due to changes in the assumptions used or due to the future recognition of provisions previously disclosed as contingent liabilities.

The Management makes considerable judgements to determine whether there is a present obligation as a result of a past event, or whether it is probable, on the date of the financial statements, that out of past events may result in outflows, and whether the amount of the obligation can be reliably estimated. The Company periodically reviews the status of these situations with the assistance of internal and external advice. These decisions are subject to change as new information becomes available. The amount to be provisioned may change in the future due to new developments in this particular matter,

2.4. Impairment losses on accounts receivable

The credit risk on the balances of accounts receivable is assessed at the closing date, taking into account the knowledge of the Client and their risk profile. Accounts receivable are adjusted based on the assessment of the estimated collection risks made by the management on the closing date of the accounts, which may differ from the risks that may actually occur.

C. Risk management

3. Financial risk management

3.1. Financial risk factors

The Company's activities are exposed to several financial risks, including market risk, namely interest rate risk, and liquidity risk. The Company's risk management program focuses on the unpredictability of the financial markets and seeks to minimize the potential adverse effects on the Company's financial performance, being able to use several financial instruments to minimize the risks arising from its activity.

Financial risk management is carried out by the EPS Group Corporate Finance Department, within the scope of the policies and guidelines approved by the Board of Directors. This Department is responsible for the identification, assessment and hedging of financial risks, in close collaboration with the group's operating units. The Board of Directors establishes principles for the overall management of risks, as well as policies aimed at covering specific areas, such as interest rate risk and liquidity risk, use of derivative and non-derivative financial instruments and the investment of surplus liquidity. The Board of Directors monitors the mentioned transactions very closely.

3.1.1. Market - interest rate risks

The interest rate risk in the Company essentially comes from loans obtained, since it does not have interest rate derivatives or interest-bearing long-term assets. Loans contracted with variable interest rates expose the Company to the changes in cash flows risk.

Exposure to interest rate risk is analysed dynamically. In addition to the appraisal of future charges, based on forward rates, sensitivity tests are carried out to changes in the level of interest rates. Currently, the Company is primarily exposed to the euro area yield curve. The sensitivity analysis is based on the following assumptions:

- Changes in market interest rates affect interest income or expenses with regard to financial instruments with variable interest rates;
- Changes in market interest rates affect interest income or expenses with regard to financial instruments with fixed interest rates, only if these are recognized at fair value;
- Changes in market interest rates affect the fair value of derivative financial instruments and other financial assets and liabilities; and
- Changes in the fair value of other financial assets and liabilities are estimated by discounting future cash flows, using year--end market rates.

The same changes to the interest rate curves are used for each analysis, regardless of the currency. The analyses are carried out for the net debt, that is, the deposits and investments in financial institutions are deducted. The simulations are carried out based on the net debt amounts and the fair value of the derivative financial instruments, if any, at the reference dates and the respective change in the interest rate curves.

At the reporting date, the Company held loans obtained in the amount of approximately 119.4 million euros (59.4 million in bank loans and 60 million in loans obtained from related parties), and loans granted in the amount of 33.6 million euros with related parties. If the interest rates on loans and deposits had been 0.25% higher/lower, considering all other constant variables, the result before taxes for the financial year would have been lower/higher by 215 thousand euros, respectively. Equity would not be affected. These effects are essentially due to higher or lower interest expense on variable rate loans.

3.1.2. Liquidity risk

Cash flow forecasting is carried out by the Company in order to guarantee the maintenance of an adequate level of cash and cash equivalents to meet operational needs, and also considering the contribution of any financing facilities. This forecast takes into account the Company's debt financing plans, the achievement of internal objectives at the level of financial ratios and, if applicable, the compliance with external regulatory or legal requirements - for example, restrictions on foreign currency and compliance with debt *covenants*, namely: Cross default, Pari Passu, Negative Pledges, ratios on debt and capital, change of shareholders and others related to the Company's operating activities and legal, fiscal and operating obligations.

The cash flow surpluses, in addition to those required to maintain the balance in working capital management, are managed taking into account the instructions of the EPS Group regarding maturity, liquidity and counterparty. Any cash flow surpluses held by the Company are invested by choosing instruments with adequate maturities or sufficient liquidity and that provide sufficient margin as determined by the forecasts mentioned above.

At the date of the financial statements, the Company held around 2,189 thousand euros in demand deposits, which were expected to promptly generate capital inflows capable of facilitating the liquidity risk management. At the closing date, the Company had unused credit facilities in the amount of 600 thousand euros. There are no financial derivative instruments.

The table below shows the non-derivative financial liabilities that are settled at their net value (the Company does not hold financial instruments that are not settled at their net value) grouped by relevant residual maturities. The amounts shown in the table are the undiscounted contractual cash flows. Foreign currency amounts are converted at the exchange rate at the reporting date. Interest payments associated with liabilities with variable interest rates are included in the table, and are calculated using the spot interest rates available at the reporting date. Assets and liabilities that can be repaid at any time are always allocated to the shortest period.

31 December 2019	Notes	up to 1 year	2-3 years	4-5 years
Commercial paper		996 568	1 517 539	
Bond loans		2 610 000	5 220 000	61 915 000
Loans from related entities	22	3 073 482	6 012 000	66 012 000
Operating lease		103 212	127 648	91 421
Suppliers	11	7 191 801		
Other liabilities	12	24 237 392		
Financial guarantees	24	3 335 022		
		41 547 478	**12 877 186**	**128 018 421**

31 December 2018	Notes	up to 1 year	2-3 years	4-5 years
Commercial paper		352 796	688 428	
Loans from related entities	22	59 040 748	4 400 000	54 400 000
Suppliers	11	4 769 865		
Other liabilities	12	19 411 423		
Financial guarantees	24	3 844 968		
		87 419 801	**5 088 428**	**54 400 000**

3.2. Capital risk management

The Company tries to keep an adequate level of equity that allows it not only to ensure its continuity and development, but also to provide an adequate remuneration for its shareholders and the optimization of the capital cost.

The Company may adjust the amount of dividends payable and the return on shareholders' capital or issue new shares or debt in order to keep or adjust its capital structure.

In accordance with the industry's market practices, the balance of the capital structure is monitored based on the financial leverage ratio (gearing) calculated in accordance with the Net Debt/Total Capital ratio. Net debt comprises the amount of loans (including bank loans and related companies, current and non-current loans, as shown in the statement of financial position), less cash and cash equivalents amount. Total Capital comprises equity, as presented in the financial statements, plus net debt.

The gearing at 31 December 2019 and 2018 presents the following calculations:

	Notes	31.12.2019	31.12.2018
Financial debt	13	59 381 843	1 000 000
Debt to related entities	22	60 067 482	106 840 748
		119 449 325	**107 840 748**
(-) Cash and cash equivalents	10	2 189 114	453 362
(-) Loans to related entities	22	33 605 269	48 008 417
Net debt		83 654 942	59 378 969
Equity		333 843 409	339 784 489
Total equity		**417 498 351**	**399 163 458**
Gearing		**20%**	**15%**

3.3. Financial instruments by category

At 31 December 2019 and 2018, financial assets were classified into the following categories:

Assets	Notes	Financial assets at amortized cost	Assets available for sale	Non-financial assets	Total
31 December 2019					
Financial assets available for sale	6	0	608 632		608 632
Loans to related entities	22	33 605 269			33 605 269
Clients	7	679 962			679 962
Accrued income	8			7 874 153	7 874 153
Debtors and expenses to be recognized	9	14 482 152		2 413 016	16 895 168
Cash and cash equivalents	10	2 189 114			2 189 114
		50 956 497	**608 632**	**10 287 170**	**61 852 299**
31 December 2018					
Financial assets available for sale	6	0	688 632		688 632
Loans to related entities	22	48 008 417			48 008 417
Clients	7	201 007			201 007
Accrued income	8			307 223	307 223
Debtors and expenses to be recognized	9	13 322 271		1 939 399	15 261 670
Cash and cash equivalents	10	453 362			453 362
		61 985 058	**688 632**	**2 246 622**	**64 920 312**

As for financial liabilities, their breakdown by categories was as follows:

Liabilities	Notes	Other financial liabilities at amortized cost	Non-financial liabilities	Total
31 December 2019				
Loans obtained		59 381 843		59 381 843
Loans from related entities	22	60 067 482		60 067 482
Lease liabilities	14	293 196		293 196
Suppliers	11	7 191 801		7 191 801
Creditors and accrued expenses	12	24 237 392	1 295 539	37 642 810
		151 171 715	**1 295 539**	**164 577 133**
31 December 2018				
Loans obtained		1 000 000		1 000 000
Loans from related entities	22	106 840 748		106 840 748
Suppliers	11	4 769 865		4 769 865
Creditors and accrued expenses	12	19 411 423	547 146	19 958 569
		132 022 037	**547 146**	**132 569 183**

E. Notes to Financial Statements at 31 December 2019 and 31 December 2018

4. Tangible fixed assets

The tangible assets at 31 December 2019 and 2018 and the changes in value in both years were as follows:

	Land and buildings	Admin. equipment	Others	Total
Financial year 2018				
Initial net amount	30 778 368	76 287	828 045	31 682 700
Increase	334 630	52 626	339 918	727 174
Depreciation appropriations	-739 772	-17 595	0	-757 367
Transfers and adjustments	828 045	-1 308	-828 045	-1 308
Closing net amount	**31 201 271**	**110 010**	**339 918**	**31 651 199**
Financial year 2019				
Initial net amount	31 201 271	110 010	339 918	31 651 199
Increase	126 419	15 492	297 937	439 848
Impairment	-205 510	0	0	-205 510
Depreciation appropriations	-823 443	-22 107	-553	-846 103
Transfers and adjustments	251 264	-708	-250 556	0
Closing net amount	**30 550 000**	**102 687**	**386 747**	**31 039 434**
Closing amount breakdown				
Cost or fair value	32 292 862	154 307	387 300	32 834 468
Accumulated depreciation	-1 742 862	-51 620	-553	-1 795 034
Net amount	**30 550 000**	**102 687**	**386 747**	**31 039 434**

The EPS's investments in 2019 amounted to 440 thousand euros, and focused mainly on carrying out works for the improvement of the Company's properties.

Land included in the Company's assets is shown at fair value. The land value has been updated, in accordance with the rules, based on three-year appraisals carried out by independent experts. The last appraisal carried out resulted in a devaluation in the amount of 205.5 thousand euros, with an impairment loss being recorded in the income statement under "Provisions and assets impairments" (Note 17.2).

5. Right-of-use assets

With the adoption of the new standard IFRS 16 (see Note 1.11), this note details the amount of the heading "Right-of-use assets". The table reports the amounts of operating leases - rental or lease agreements entered into with third parties, with or without the inclusion of a service component, reclassified in accordance with the requirements of IFRS 16.

	Buildings	Transport equipment	Total
Contracts reclassified by application of IFRS 16			
Assets at 31.12.2018	57 638	102 348	159 986
Increases	265 794	0	265 794
Depreciation	-80 163	-55 479	-135 643
Closing net amount	**243 269**	**46 869**	**290 138**

The liability related to these contracts is reflected in the heading Lease liabilities (Note 14), and is broken down by current and non-current liabilities, depending on the maturity dates of the instalments, respectively, less than a year or more than a year.

Operating leases that do not meet the requirements established in IFRS 16, in the case of short-term and low-value leases, are not part of the asset, the respective expense being included in the income statement, under the heading "Supplies and external services".

6. Financial investments and financial assets available for sale

6.1. Financial investments

This heading includes the amount of shares, additional paid-in capital and loans granted to Group and associate companies.

Capital shares in group and associate companies are valued in the financial statements at acquisition cost (Note 1.3.2).

Entries in 2019

During 2019, the Company set up a total of 16.7 million euros of additional paid-in capital in three of its subsidiaries:

	31.12.2019	31.12.2018
Initial balance	375 327 833	375 327 833
Additional paid-in capital:	16 739 657	0
• Efacec Marketing Internacional, SA	6 685 000	
• Efacec Electric Mobility, SA	7 287 500	
• Efacec Serviços Corporativos, SA	2 767 157	
Closing balance	**392 067 490**	**375 327 833**

The setup of additional paid-in capital allowed the consolidation of permanent capital of these subsidiaries, releasing financial debt in identical amounts.

The company's investment in the main companies of the group and associate companies, none of them listed on the stock exchange, and the respective equity and net income amounts for 2019 are as follows:

	31.12.2019				
Equity instruments	**Financial holdings**	**Additional paid-in capital**	**% St**	**Equity**	**Net profit/loss**
Efacec Marketing Internacional, SA	2 400 000	8 285 000	100.00%	8 399 289	-16 929
Efacec Engenharia e Sistemas, SA	99 500 000	32 500 000	100.00%	61 786 733	-5 641 784
Efacec Electric Mobility, SA	13 350 000	8 787 500	100.00%	13 440 410	-1 023 748
Efacec Serviços Corporativos, SA	50 000	4 867 157	100.00%	3 234 969	761 313
Efacec Energia, SA	124 078 188	58 811 255	100.00%	73 390 431	-16 497 593
Efacec Angola, Lda.	1 407 215		98.33%	-13 310 561	-9 159 574
Efacec Moçambique, Lda.	15 255	6 582 000	84.75%	441 004	-453 235
Efacec Praha, s.r.o.	6 100 000		100.00%	2 737 486	684 913
Efacec USA Inc.	1 500 000		100.00%	836 217	450 257
Efacec Chile, SA	213 570		96.92%	-2 720 744	-3 160 921
Efacec Central Europe Limited SRL	7 100 000		100.00%	-918 118	-766 291
Efacec Contracting Central Europe GmbH	9 451 597		100.00%	-912 863	-598 802
Efacec Índia Pvt. Ltd.	3 259 878		97.49%	5 218 912	1 578 603
Efacec Equipos Eléctricos, S.L.	2 870 000		100.00%	4 668 260	354 499
Power Solution Brasil, Ltda.	938 875		99.00%	-573 136	-734 319
Total	**272 234 578**	**119 832 912**			
		392 067 490			

The additional paid-in capital follow the legal system of supplementary capital contributions and, as such, do not earn interest.

The comparative table for the financial year ended 31 December 2018 presented the following amounts:

	31.12.2018				
Equity instruments	**Financial holdings**	**Additional paid-in capital**	**% St**	**Equity**	**Net profit/loss**
Efacec Marketing Internacional, SA	2 400 000	1 600 000	100.00%	1 731 218	-243 350
Efacec Engenharia e Sistemas, SA	99 500 000	32 500 000	100.00%	68 290 326	2 591 716
Efacec Electric Mobility, SA	13 350 000	1 500 000	100.00%	7 494 725	3 557 337
Efacec Serviços Corporativos, SA	50 000	2 100 000	100.00%	492 212	390 119
Efacec Energia, SA	124 078 188	58 811 255	100.00%	89 356 097	3 447 739
Efacec Angola, Lda.	1 407 215		98.33%	-9 710 499	-7 854 089
Efacec Moçambique, Lda.	15 255	6 582 000	84.75%	886 613	391 024
Efacec Praha, s.r.o.	6 100 000		100.00%	2 022 192	195 337
Efacec USA Inc.	1 500 000		100.00%	377 061	-396 928
Efacec Chile, SA	213 570		96.92%	265 161	142 227
Efacec Central Europe Limited SRL	7 100 000		100.00%	-518 153	-1 292 276
Efacec Contracting Central Europe GmbH	9 451 597		100.00%	-314 062	-930 916
Efacec Índia Pvt. Ltd.	3 259 878		93.18%	3 643 048	1 363 911
Efacec Equipos Eléctricos, S.L.	2 870 000		100.00%	4 364 129	808 638
Power Solution Brasil, Ltda.	938 875		99.00%	199 313	-238 176
Total	**272 234 578**	**103 093 255**			
		375 327 833			

Impairment tests

At the end of the year, impairment tests are carried out for the main subsidiary companies. The tests are carried out to assess the recovery of investment, given the historical performance and/or expectations of business development. The valuations are based on cash flow projections based on financial budgets approved by the management, covering a period of five years, which are discounted at a rate calculated in accordance with the CAPM (Capital Asset Pricing Model). After this five-year period, cash flows are extrapolated using the growth rates estimated based on business development expectations.

The international structure comprises foreign branch offices located in several geographies. Some of them depend on a single Business Unit, others are multi-business branch offices. In both cases, each business is run from Portugal by the respective Business Units and, by extension, integrated in the respective CGUs.

The activities of the international branch offices Efacec Central Europe, Power Solutions Brasil and, currently, Efacec Algérie are strongly concentrated in the Automation business segment. Similarly, the branch offices Efacec India, Efacec Equipos Eléctricos, Efacec Power Solutions Argentina and Efacec Praha carry out their activity in the Electrical Equipment Business Unit. The management of these branch offices is part of the operational management of the Business Units to which they report and is conducted from Portugal, acting mainly as extensions of Efacec Energia's activity in the respective markets. Based on this assumption, the business plans of these branch offices were consolidated in Efacec Energia.

Based on the same fundamentals, the international branch offices Efacec Contracting Central Europe and Efacec Chile were consolidated into Efacec Engenharia e Sistemas. The operations of these two legal entities are strongly concentrated in the Systems business segments and are particularly dependent on Efacec Engenharia e Sistemas with regard to references, specific technical competencies and financial means, acting essentially as extensions of the Efacec Engenharia e Sistemas activity in their respective markets.

The Angola and Mozambique branch offices develop their activities in different Products and Systems segments with business plans defined by Business Unit. The projections prepared for each BU are allocated to the defined CGUs.

The assumptions used in the impairment tests performed at 31 December 2019 and 2018 were as follows:

	2019				2018			
	Revenue growth rate	EBITDA margin	Discount rate before tax	Perpetuity growth rate	Revenue growth rate	EBITDA margin	Discount rate before tax	Perpetuity growth rate
Efacec Energia	5.5%	9.4%	9.1%	1.7%	5.0%	9.7%	8.2%	2.0%
Efacec Engenharia e Sistemas,	6.5%	7.8%	9.1%	1.9%	5.0%	7.0%	8.1%	2.3%
Efacec Electric Mobility	12.3%	11.7%	13.0%	4.0%	21.5%	13.7%	13.1%	2.1%

No impairment was recognized as a result of the tests performed.

Sensitivity analyses

The valuations were also subject to sensitivity analyses of the main variables used, in order to test the resistance of the assets recoverable value to unfavourable changes in each one. The variables were thus subject to the following impacts:

	Revenue growth rate	EBITDA margin	Discount rate	Perpetuity growth rate
Change in the assumptions	-10.0%	-10.0%	+1.0 p.p.	-1.0 p.p.

At Efacec Energia and Efacec Engenharia, the discount rate and the EBITDA margin were identified as the most sensitive variables in the tests carried out, without, however, having shown any impairment. In the case of Efacec Electric Mobility, the revenue growth rate is particularly important and, in the background, the contribution of the operating margin. In these two cases, subjecting to the 10% change shows minimal signs of impairment.

In the case of the sales growth rate, the critical point is a reduction of 5%; in the margin, and the critical point is for a -8% change.

The projections taken into account by Efacec do not include an impact on the global health crisis caused by COVID-19, the intensity of which is not yet known, namely the immediate effects in the financial year 2020 or the duration of the crisis/spread of the crisis effects beyond a horizon of two or three years. The context and impacts of COVID-19 do not generate adjustments to the financial statements at 31.12.2019, as they do not reflect conditions that existed at the end of the reporting period. At the date of these financial statements, given the uncertainty of the macroeconomic effects (duration/extension), in addition to the current corporate context of the EPS Group, the Board is not in a position to estimate the magnitude of the impacts on the estimated cash-flows of each CGU and consequently the impacts resulting from the impairment tests on future financial statements.

6.2. Financial assets available for sale

The amounts classified under the heading "financial assets available for sale" have the following breakdown:

	31.12.2019	31.12.2018
Financial assets available for sale		
Financial holdings		
NET - Novas Empresas e Tecnologias, S.A.	11 132	11 132
Other securities		
INEGI - Instituto de Ciência e Inovação em Engenharia Mecânica e Industrial	15 000	15 000
HCapital New Ideas - Venture capital fund	582 500	662 500
Total net investment	**608 632**	**688 632**

Financial assets available for sale include shares in unlisted companies whose fair value of which cannot be reliably measured because there are no market prices or comparable transactions and, as such, are recognized at cost.

In 2017, EPS decided to subscribe a 25% stake in the Centure Capital Fund HCapital New Ideas, which is dedicated to investing in technological and innovative national companies, especially SMEs, with the potential to generate synergies with EPS Group activities. Any investment to be subscribed by the Fund is previously subject to approval by the Board of Directors.

At the end of 2019, Efacec transferred half of the stake held in the Fund, which, at the date of the sale contract, was 1,165,000 euros. In this operation, the Company recorded a loss of 102,500 euros.

7. Clients

At 31 December 2019 and 2018, this heading was detailed as follows:

Clients	Notes	31.12.2019	31.12.2018
Clients - related parties	22.2	679 962	201 007
Total		**679 962**	**201 007**
• Non-current		0	0
• Current		679 962	201 007

The fair value of accounts receivable does not differ significantly from their book value. All Company Clients are related entities.

Seniority of Clients

At 31 December 2019 and 2018, the amounts receivable from Clients presented the following seniority structure, taking into account the maturity dates of outstanding balances:

	31.12.2019	31.12.2018
Not-overdue balances	0	14 489
Overdue balances		
Up to 90 days	176 143	21 734
90 to 360 days	360 162	14 489
More than 360 days	143 657	150 294
Overdue balances	679 962	186 517
Total	**679 962**	**201 007**

8. Accrued income

Accrued income	31.12.2019	31.12.2018
Multi-annual contracts	0	0
Non-financial assets	7 874 153	307 223
	7 874 153	**307 223**

In 2019, this heading includes amounts to be charged MGI Capital, which amount to 6,424 thousand euros. The remaining 1,440 thousand euros are related to building management charges to be charged to Efacec Energia (1,320 thousand euros) and Efacec Engenharia (120 thousand euros).

The main amount recorded is related to the ACE Ensul Meci-Efacec tax proceeding. This entity was subject to a tax inspection, which resulted in an additional Corporate Income Tax settlement and disregard of tax credits available at the subsidiaries Efacec Energia, Efacec Engenharia and Efacec Electric Mobility. According to the provisions of the Transition Agreement, entered into on 23 October 2015, ACE Ensul Meci-Efacec is set up as a *non-core* project, which is why the economic results obtained in the Efacec Group, resulting from the ACE activity, must be attributed to MGI Capital Accordingly, the above mentioned companies transmitted to EPS the losses recorded as a result of this tax proceeding, and this company must charge to MGI Capital in the financial year following the calculation of the result. In 2019, EPS recorded an increase in income, neutralizing the effect of tax losses (see Notes 12 and 22).

9. Debtors and expenses to be recognized

At 31 December 2019 and 2018, this heading was detailed as follows:

	Notes	31.12.2019	31.12.2018
Advances to Suppliers		467 906	0
Accounts receivable from other debtors		1 062 371	1 000
Accounts receivable from related parties	22.2	12 951 875	13 321 271
Other debtors - financial assets		**14 482 152**	**13 322 271**
Other debtors - non-financial assets		1 584 843	1 569 732
State and other public entities		432 737	310 996
Costs to be recognized		395 437	58 671
Total		**16 895 168**	**15 261 670**
• Non-current		0	0
• Current		16 895 168	14 862 179
• Corporate income tax		0	399 491

The amount of Accounts receivable from related parties includes approximately 8 million euros in credits over MGI Capital (Note 22.3).

The amount of Other Debtors - non--financial assets refers to advances made to Efacec Angola in 2015, within the scope of the project to acquire this stake from MGI Capital.

The heading State and Other Public Entities is detailed as follows:

	31.12.2019	31.12.2018
Corporate income tax	428 497	310 996
Value Added Tax - to be recovered	4 239	0
	432 737	**310 996**

10. Cash means

Cash and cash equivalents	31.12.2019	31.12.2018
Cash	0	0
Demand deposits	2 189 114	453 362
	2 189 114	**453 362**

11. Suppliers

This heading is detailed as follows:

Suppliers	Notes	31.12.2019	31.12.2018
Suppliers, current account		2 854 143	4 804 065
Suppliers - related parties	22.2	4 224 795	365 334
Suppliers- Invoices - receipt and checking		28 834	-451 674
		7 107 771	**4 717 724**
Investment Suppliers		84 030	52 141
Total		**7 191 801**	**4 769 865**
• Non-current		0	0
• Current		7 191 801	4 769 865

Current debts to Suppliers and other creditors are due in full within a delay of 120 days, a situation that reflects the normal conditions negotiated with the Company's Suppliers.

The amount of the debt is denominated in euros.

12. Creditors and accrued expenses

At 31 December 2019 and 2018, this heading was detailed as follows:

Other creditors	Notes	31.12.2019	31.12.2018
Other creditors - miscellaneous		182 639	0
Other creditors - related parties	22.2	22 180 634	18 836 037
Other creditors - financial liabilities		**22 363 272**	**18 836 037**
Other creditors - non-financial liabilities		74 437	74 490
State and other public entities		969 142	213 519
Accrued expenses:		2 126 079	834 523
Accrued expenses - remunerations to be paid		251 960	259 137
Accrued expenses - interest to be paid		1 240 326	0
Accrued expenses - others		633 794	575 386
Total		**25 532 931**	**19 958 569**
• Other creditors non-current		6 183 590	0
• Other creditors current		19 320 361	19 958 569
• Corporate income tax		28 979	0

The amount recorded as non-current balance relates to the ACE Ensul Meci-Efacec tax proceeding. This entity was subject to a tax inspection, which resulted in an additional Corporate Income Tax settlement and the disregard of tax credits available at the subsidiaries Efacec Energia, Efacec Engenharia and Efacec Electric Mobility (Note 8). In accordance with the provisions of the Transition Agreement, the losses recorded in each company were neutralized and transmitted to Efacec Power Solutions, which will consecutively charge them to MGI Capital. The heading "Other Creditors - non-current" reflects the debtor position vis-à-vis its subsidiaries in the total amount of 6,183,590 euros.

The balance of the heading State and other public entities is broken down into the following headings:

	31.12.2019	31.12.2018
Corporate income tax	893 772	0
Value Added Tax (VAT) - payable	0	109 487
Social Security Contributions	36 715	48 617
Personal income tax	38 654	55 415
	969 142	**213 519**

13. Loans obtained

This Note discloses the composition, characteristics and conditions of the loans recorded in the Company's financial statements at 31 December 2019 and 2018. On these dates, the debt breakdown by credit instrument was as follows:

	31.12.2019	31.12.2018
Non-current		
Commercial paper	1 500 000	670 000
Bond Loan	58 000 000	0
Amortized cost	-788 110	0
	58 711 890	**670 000**
Current		
Commercial paper	950 000	330 000
Amortized cost	-280 046	0
	669 954	**330 000**
Total loans	**59 381 843**	**1 000 000**

Commercial paper

The Company has two commercial paper programs grouped together with its subsidiaries, in the amounts of 3,350,000 and 2,400,000 euros. At the end of the year, the Company had two issues in force, in the global amount of 2,450,000 euros, of which 950,000 euros are due in less than on year.

Bond Loan

In July 2019, Efacec Power Solutions issued a bond loan, with the purpose of achieving three objectives: (i) the refinancing of the amounts of financial debt to be repaid in the next 18 months, (ii) the extension of the debt maturity and (iii) the diversification of financing sources through a disintermediation instrument.

The issue was fully placed with institutional investors and admitted to listing at the MARF - Mercado Alternativo de Renta Fija (Spain). The amount placed was 58 million euros, with a five-year term, remunerated at a fixed annual rate of 4.5% and with a single repayment at maturity. The bond loan has a covenant according to which the Net

Financial Debt/EBITDA ratio, observable annually in the Efacec's consolidated accounts, must be less than 2.75. The 2019 financial statements show the compliance with the contractual ratio at the end of the financial year 2019, with a value of 2.68.

The evolution recorded in the company's activity in the first six months of the year, strongly conditioned by the external factors described in the Subsequent Events, allows foreseeing a decrease in revenues in 2020, with the consequent reduction in EBITDA. This factor, combined with the need to increase the debt in order to inject liquidity into the business, makes it highly unlikely that Efacec will be able to comply, at 31 December 2020, with the DFL/EBITDA ratios contained in its financing contracts and in the bond loan. In this way, waivers will be requested in time to meet this ratio.

Debt maturity

The maturity of the bank debt on that date is shown in the following table:

	< 1 year	1-3 years	4-5 years
Commercial paper	950 000	1 500 000	0
Bond loans	0	0	58 000 000
Amortized cost	-280 046	-608 618	-179 492
Total loans	**950 000**	**1 500 000**	**58 000 000**

Comparatively, at the end of 2018 the maturity was as follows:

	< 1 year	1-3 years
Commercial paper	330 000	670 000
Bond loans	0	0
Amortized cost	0	0
Total loans	**330 000**	**670 000**

Effective interest rate

The effective interest rates related per debt instrument and currency, were, at the end of 2019 and 20189, as follows:

	31.12.2019	31.12.2018
Commercial paper	2.37%	2.73%
Bond Loan	4.50%	-

Reconciliation of the debt change with the financing cash flows

The following table reconciles the financial debt with the cash flows from financing activities, for the financial year 2019 in accordance with IAS 7:

			Non-Cash			
Flows from financing 2019	**31.12.2018**	**Cash Flows**	**Acquisitions**	**Exchange differences**	**Changes at amortization cost**	**31.12.2019**
Non-current loans	1 000 000	59 434 400			-1 052 557	59 381 843
Current loans						0
Total flows from financing - loans obtained	**1 000 000**	**59 434 400**	**0**	**0**	**-1 052 557**	**59 381 843**
Loans obtained (+) /granted.(-) to related entities	58 832 332	-32 349 482		-20 636		26 462 213
Operating leases		-132 584	425 781			293 196
Debt interest and similar expenses		-85 489				
Capital decreases and supplementary capital contributions		-5 023 632				
Total other flows from financing		**-37 591 188**				
Total cash flows from financing		**21 843 212**				

			Non-Cash			
Flows from financing 2018	**31.12.2017**	**Cash flows**	**Acquisitions**	**Exchange differences**	**Changes at amortization cost**	**31.12.2018**
Non-current loans		1 000 000				1 000 000
Current loans						
Total flows from financing - loans obtained	**0**	**1 000 000**	**0**	**0**	**0**	**1 000 000**
Loans obtained (+) /granted.(-) to related entities	56 534 168	2 314 777		-16 614		58 832 332
Debt interest and similar expenses		-2 017 270				
Capital decreases and supplementary capital contributions		-11 628 840				
Total other flows from financing		**-11 331 333**				
Total cash flows from financing		**-10 331 333**				

14. Lease liabilities

This headings records the responsibility for the payment of future rents related to lease contracts, whatever their nature. In contracts treated as operating leases until 31 December 2018, the debt to lessors was recognized in the statement of financial position, with a corresponding entry to the recording of right-of-use assets.

	Lease liabilities
Contracts reclassified by application of IFRS 16	
Liabilities at 31.12.2018	159 986
Increases	265 794
Paid rents	-132 584
Closing net amount	**293 196**
Non-current	201 571
Current	91 626

15. Deferred Taxes

Deferred tax assets and liabilities are offset if EPS has a legally enforceable right to offset current tax assets against current tax liabilities and when deferred taxes relate to the same tax authority.

At the end of 2019, deferred tax assets relating to tax losses amount to 1,015 thousand euros.

	Impairment losses tang. and intang. assets	Tax losses	Total
At 1 January 2018	0	345 100	345 100
Charged to equity	0	109 228	109 228
31 December 2018	**0**	**454 327**	**454 327**
Charged to equity	46 240	560 734	606 974
31 December 2019	**46 240**	**1 015 061**	**1 061 301**

16. Equity

16.1. Share Capital

At 31 December 2019, the fully paid-up capital was represented by 61,789,850 common shares, with a par value per unit of 5 euros. Its shareholder breakdown, at that date and at the end of the preceding year, was as follows:

Entity	31.12.2019		31.12.2018	
	No. of shares	%	No. of shares	%
Winterfell 2 Limited	44 319 256	71.7%	41 525 275	67.2%
MGI Capital, SGPS, S.A.	17 470 594	28.3%	20 264 575	32.8%
Total	**61 789 850**	**100.0%**	**61 789 850**	**100.0%**

At 2 July 2020, the Portuguese State appropriated the shares held by Winterfell 2 Limited through the nationalization process. As of the date of this document, the 71.73% shareholding is held by the Directorate-General for Treasury and Finance.

At 31 December 2019, the company did not hold any own shares.

16.2. Issue premiums

Efacec Power Solutions has issue premiums on its own equity, originating from the capital increase carried out in October 2015 by the majority shareholder, which resulted in the amount of 8 million euros. In 2017, by resolution of the General Meeting, EPS transferred the amount of 6,052,270 euros to the heading Reserves and Accumulated Results, to cover losses from previous financial years. The heading Issue Premiums has maintained, since that date, a balance of 1,947,730 euros.

16.3. Additional paid-in capital

In this heading, until 2018, the amount of additional paid-in capital made in 2015 in the amount of 35,900,000 euros was recorded. In 2018, the Annual General Meeting decided to repay 16,652,471.66 euros to the shareholder Winterfell and 7,757,475.88 euros to the shareholder MGI Capital. The Annual General Meeting held on 23 May 2019 decided to repay the remaining additional paid-in capital, with the attribution of 9,421,698.34 euros to the shareholder Winterfell and 2,068,354.12 euros to the shareholder MGI Capital. It was also decided that these amounts would be repaid within one year.

At the end of 2019, 19,247,528 euros related to additional paid-in capital were still pending, of which 9,421,698 euros to the shareholder Winterfell and 9,825,830 euros to the shareholder MGI Capital, recorded under the heading Creditors and accrued expenses, in current liabilities.

16.4. Reserves and accumulated results

This heading is mainly composed of the accumulated and undistributed annual results and, occasionally, of amounts entered directly to reserves, of a contractual or other nature.

In 2019, the Annual General Meeting resolved to distribute reserves in the amount of 619,826.93 euros, to be settled within one year, with 206,608.98 euros attributable to the shareholder Winterfell and 413,217.95 euros to the shareholder MGI Capital.
The amounts are recorded in the heading Creditors and accrued expenses, in current liabilities.

17. Operating expenses and income

17.1. Supplies and external services

In the financial years ended 31 December 2019 and 2018, the main supplies and services by external entities were the following:

	2019	2018
Advertising and publicity	1 567 005	583 936
Specialized works	995 761	2 332 625
Travel and accommodation	216 660	338 507
Leases and rentals	101 888	167 012
Other supplies and services	408 185	411 611
	3 289 499	**3 833 691**

In Supplies and External Services, the heading Advertising and Propaganda stood out, which shows an increase of 1 million euros, mainly due to the Formula E sponsorship contract signed in 2018, with a more significant impact in the financial year 2019. The duration of the contract corresponds to three sports seasons, with an exit clause at the end of the 2nd year, in July 2020. On the other hand, the heading Specialized Work, showed a significant decrease due to the strategic consultancy work carried out in the preceding year.

17.2. Provisions and assets impairment

The impairment set up in the financial year relates to the reappraisal of land recorded in accordance with the policy established in Note 1.2. In the last appraisal carried out by an independent entity, the land at the Matosinhos centre kept the value at the same level as the preceding appraisal, and the land at the Maia centre experienced a 5% devaluation, which led to the recording of an impairment in the amount of 205,510 euros.

17.3. Amortization and depreciation

The Corporate Income Tax for the financial years 2019 and 2018 is detailed as follows:

	Tangible fixed assets	
	2019	2018
Depreciation of assets under financial lease	846 103	757 367
Depreciation of assets under operating lease (application of IFRS 16)	135 643	0
Amortization and depreciation	**981 745**	**757 367**

18. Financial results

• Net financial expenses

	2019	2018
Interest paid	-4 941 699	-4 047 431
Lease liabilities charges	-7 999	0
Other financial expenses and losses	-696 103	-3 778
Total financial losses and expenses	**-5 645 801**	**-4 051 209**
Interest obtained	1 341 784	1 280 947
Favourable exchange differences	21 765	16 614
Total financial gains and income	**1 363 548**	**1 297 561**
Total net	**-4 282 253**	**-2 753 648**

The interest obtained relates entirely to the remuneration of loans granted to EPS Group companies and related entities.

In the heading, interest paid, the loans obtained from related entities represent 3,711 thousand euros. These loans are remunerated at conditions similar to market conditions, with Euribor as an index. This heading also includes 1,155 thousand euros related to the bond loan and 75 thousand euros related to commercial paper programs.

• Losses and Gains in Associate Companies

At the end of 2019, Efacec transferred half of the stake held in the Fund, which, at the date of the sale contract, was 1,165,000 euros. In this operation, the Company recorded a loss in the amount of 102,500 euros (Note 6.2).

In the financial year 2018, the company received from its subsidiaries, as dividends, the amount of 16,359,149 euros, which constituted the total amount of this heading.

	2018
Efacec Engenharia e Sistemas, SA	10 940 917
Efacec Energia, SA	4 517 337
Efacec Electric Mobility, SA	900 895
	16 359 149

19. Corporate income tax

In Portugal, annual income statements are subject to review and possible corrections by the tax authorities, for a period of 4 years. However, if tax losses are presented, they may be subject to review and liquidation by the authorities for a maximum period of 10 years.

The tax estimated in the consolidated Income Statement is as follows:

	Notes	2019	2018
Current tax		28 979	-399 491
Deferred tax	15	-675 699	-68 725
Tax estimate		**-577 995**	**-468 216**
Insufficient tax estimate from preceding financial years		625 591	1 772
Deferred tax from previous years	15	68 725	-40 503
Corporate income tax		**47 596**	**-506 946**

The tax rate reconciliation is as follows:

	Notes	2019	2018
Result before taxes		-5 893 483	13 850 298
Theoretical rate	a	21.0%	21.0%
Theoretical tax		**-1 237 632**	**2 908 563**
Dividends received		0	-3 435 421
Costs not accepted for tax purposes		579 318	952
Autonomous Taxation		57 191	57 690
IDA land		-46 240	0
Others		642	0
Tax for the period		**-646 720**	**-468 216**
Effective rate		*n.a.*	*n.a.*

a The theoretical rate presented takes into account the estimate of tax results of the RETGS dominated by EPS (on which the application of surcharges depends).

20. Earnings per share

Basic

Basic earnings per share are calculated by dividing the profit attributable to shareholders by the weighted average number of common shares issued during the year, excluding any own shares held by EPS (Note 16.1).

	2019	2018
Profit attributable to equity holders	-5 941 080	14 357 244
Weighted average number of common shares issued	61 789 850	62 835 446
Basic earnings per share (euros per share)	**-0.10**	**0.23**

Diluted

Diluted earnings per share are calculated by adjusting the weighted average number of outstanding common shares, to incorporate the effects of the conversion of all potential diluting common shares, if any. In the financial years 2019 and 2018 there were no dilutive effects.

21. Dividends per share

In the financial year 2019, Efacec Power Solutions did not pay dividends to its shareholders.

G. Other Notes

22. Balances and transactions between related parties

The scope of this note is the disclosure of transactions and balances between the Company and related parties (Group companies, Associate Companies, Shareholders and Directors), and debit and credit balances with the same entities existing at the end of the year.

22.1. Transactions carried out

Current transactions	2019	2018
Group companies		
Operating income and gains	-938 091	6 989 928
Operating expenses and losses	32 914	33 525
Financial income and gains	1 341 784	1 280 947
Financial expenses and losses	3 626 173	4 044 815
Shareholders		
Operating income and gains	6 249 266	354 146
Operating expenses and losses	0	175 125
Financial expenses and losses	85 080	0
	2 908 792	**4 371 556**

In 2019, the Company recorded gains of an operating nature for amounts to be charged in 2020 to MGI Capital, under the Share Purchase Agreement between this company and Winterfell 2. The amount recorded includes an amount of 6.2 million euros corresponding to the loss of tax benefits in the context of ACE Ensul Meci-Efacec tax proceeding, which dates back to the years 2013 and 2014 (Notes 8 and 12).

The heading operating income and gains records the revenue in the amount of 6.2 million euros with the shareholder MGI Capital and an opposite signal amount with the subsidiaries that recorded the loss and subsequently transmitted it to EPS. It also includes 3.8 million euros (5.8 million euros in 2018) related to management services and 1.4 million euros (1.2 million euros in 2018) related to the space rental.

22.2. Closing balances resulting from commercial and financial transactions

The Company's assets and liabilities balances included in the different headings of the Statement of Financial Position, and that refer to related parties, are as follows:

	Notes	31.12.2019	31.12.2018
Debts of related parties			
Group Companies			
Non-current loans		26 100 961	31 246 655
Current loans		6 779 703	16 037 157
Clients	7	536 305	57 350
Debtors and expenses to be recognized	9	4 951 241	5 383 832
Shareholders			
Current loans		724 605	724 605
Clients	7	143 657	143 657
Debtors and expenses to be recognized	9	8 000 634	7 937 440
		47 237 105	**61 530 695**
Debts to related parties			
Group companies			
Non-current loans	a	60 000 000	50 000 000
Current loans		67 482	51 840 748
Suppliers	11	3 994 585	0
Creditors and accrued expenses	12	14 423 158	6 054 930
Shareholders			
Current loans		0	5 000 000
Suppliers	11	230 209	365 334
Creditors and accrued expenses	12	7 757 476	12 781 108
		86 472 910	**126 042 120**
Total net		**-39 235 805**	**-64 511 425**

a This heading relates to non-current financing obtained from the subsidiary Efacec Engenharia.

22.3. Detail by entity of balances with related parties

The breakdown of assets and liabilities balances presented above by entity is as follows:

	Notes	31.12.2019	31.12.2018
Debts of related parties			
Clients			
Efacec Serviços Corporativos, S.A..		327 475	50 713
Efacec Electric Mobility, S.A..		78 941	0
Efacec USA Inc.		77 306	0
Power Solutions Brasil, Sist. Aut. e Potência, Ltda		48 875	0
EfaServicing, ACE		3 709	6 637
MGI Capital Group		143 657	143 657
Total Clients	7	**679 962**	**201 007**
Debtors and Expenses to be recognized			
Efacec Marketing Internacional, S.A..		314 913	174 012
Efacec Engenharia e Sistemas, S.A..		384 585	437 407
Efacec Electric Mobility, S.A..		1 238 099	1 481 369
Efacec Serviços Corporativos, S.A..		688 718	606 585
Efacec Energia, S.A..		432 583	669 516
Efacec Angola, Lda.		920	7 628
Efacec Moçambique, Lda.		139 958	171 305
Efacec Algérie, EURL		0	62 112
Efacec Chile, SA		0	16 044
Efacec Central Europe Limited SRL		38 663	438 962
Efacec Contracting Central Europe GmbH		1 644 909	1 211 063
Efacec Índia Pvt. Ltd.		0	34 080
Efacec Equipos Electricos, SL		23 908	26 107
Power Solutions Brasil, Sist. Aut. e Potência, Ltda		23 000	12 008
MGI Capital Group		8 000 634	7 937 440
Others		20 985	35 634
Total debtors and expenses to be recognized	9	**12 951 875**	**13 321 271**

	Notes	31.12.2019	31.12.2018
Debts to related parties			
Suppliers			
Efacec Engenharia e Sistemas, S.A.		3 184 957	0
Efacec Serviços Corporativos, S.A.		44 439	0
Efacec Energia, S.A.		695 364	0
Efacec USA Inc.		58 233	0
MGI Capital Group		230 209	230 209
Winterfell Group		0	135 125
Others		11 592	0
Total Suppliers	**11**	**4 224 795**	**365 334**
Creditors and accrued expenses			
Efacec Marketing Internacional, S.A.		174 749	0
Efacec Engenharia e Sistemas, S.A.		7 201 189	2 400 548
Efacec Electric Mobility, S.A.		69 735	0
Efacec Serviços Corporativos, S.A..		8 812	5 888
Efacec Energia, S.A.		6 961 016	3 640 924
MGI Capital SGPS	a	7 757 476	7 757 476
Winterfell 2	a	0	5 023 632
Others		7 657	7 570
Other Creditors and accrued expenses	12	**22 180 634**	**18 836 037**

[A] The amounts recorded under the heading "Other creditors" with MGI Capital and with Winterfell relate to additional paid-in capital to be repaid.

The breakdown by entity of loans with related parties is as follows:

Loan	31.12.2019		31.12.2018	
	Assets	**Liabilities**	**Assets**	**Liabilities**
Non-current				
Efacec Marketing Internacional, S.A.			6 685 000	
Efacec Engenharia e Sistemas, S.A.		60 000 000		50 000 000
Efacec Serviços Corporativos, S.A.			2 750 000	
Efacec Angola, Lda.	24 347 731		19 162 111	
Efacec Moçambique, Lda.	1 028 230		1 028 230	
Efacec USA Inc.			871 315	
Efacec Equipos Electricos, SL	350 000			
Power Solutions Brasil, Sist. Aut. e Potência, Ltda	375 000		750 000	
	26 100 961	**60 000 000**	**31 246 655**	**50 000 000**
current				
Efacec Marketing Internacional, S.A.	91			
Efacec Engenharia e Sistemas, S.A.		2 001		29 801 059
Efacec Electric Mobility, S.A.	161		13 787 500	
Efacec Serviços Corporativos, S.A.	1 800 000	53 360	17 157	18 318
Efacec Energia, S.A.	1 050 000	12 121		22 021 371
Efacec USA Inc.	891 951			
Efacec Central Europe Limited SRL	842 500		842 500	
Efacec Contract. Central Europe GmbH	1 820 000		1 040 000	
Efacec Equipos Electricos, SL			350 000	
Power Solutions Brasil, Sist. Aut. e Potência, Ltda	375 000			
MGI Capital Group and ascendants	724 605		724 605	
Winterfell Group				5 000 000
	7 504 308	**67 482**	**16 761 762**	**56 840 748**
Total loans	**33 605 269**	**60 067 482**	**48 008 417**	**106 840 748**
Total loans net	**-26 462 213**		**-58 832 332**	

The loans are remunerated at conditions similar to market conditions, with Euribor as an index.

	31.12.2019	**31.12.2018**
Total of all headings - net	-39 235 805	-64 511 425

Balances with MGI Capital at 31 December 2019 show amounts receivable, net of impairments, of approximately 9.9 million euros, including loans and current balances, and amounts payable of approximately 10.1 million euros, including additional paid-in capital to be repaid of approximately 9.8 million euros (Note 16.3) and 0.4 million euros relating to the distribution of reserves by resolution of the Annual General Meeting held in May 2019.

The EPS's liabilities with Winterfell at 31 December 2019 are related to additional paid-in capital to be repaid in the amount of 9.4 million euros and 0.2 million euros relating to the distribution of reserves decided at the Annual General Meeting held in May 2019. There are no other assets or liabilities with Winterfell.

22.4. Remunerations of the Board of Directors

In the financial years 2019 and 2018, the Board of Directors of Efacec Power Solutions earned the following remunerations:

	31.12.2019	**31.12.2018**
Fixed remunerations	1 623 362	1 660 723
Variable remunerations	77 609	332 615
Others	95 667	92 276
	1 796 638	**2 085 614**

23. Contingencies

Contingent assets and liabilities resulting from contractual disputes

The amounts of contingent assets and liabilities resulting from contractual, judicial and tax disputes in which the EPS Group is involved are shown below.

1. CPTM/STM contingency

The contingency with CPTM/STM, which has been reported by Efacec since 2014, relates to the contract for the renovation of the signalling of several lines of the railway system in the State of Sao Paulo, in Brazil, signed between the Brazilian company CPTM and the consortium Union Switch & Signal Internacional Co. and Efacec Engenharia e Sistemas. This contract was terminated, with just cause, by the Consortium, on 24 November 2014.

Following this termination, the Consortium submitted a request for compensation in the amount for the payment of works performed and equipment already manufactured, as well as an amount related to the financial rebalancing of the contract. In November 2016, the Client CPTM/STM filed a counter claim for compensation claiming the reimbursement for costs incurred with equipment and the payment of penalties.

At 30 June 2017, the Consortium initiated an Arbitration Procedure under the jurisdiction of the International Chamber of Commerce to settle this dispute.
The Arbitration Court was formally constituted in March 2018 in Sao Paulo. The Consortium of which Efacec Engenharia

is a part claims from CPTM/STM an amount of approximately 180 million reais, plus 30 million American dollars and 1 million euros. CPTM/STM counter claimed from the Consortium a compensation of approximately 340 million reais. During 2019, procedural documents were stabilized, witnesses were heard, and the definition of expert appraisals that will take place during 2020.

Given the probabilities of receiving each of the complaints submitted, there is no need to set up any provision. On the other hand, and under the terms of the Transition Agreement signed between EPS and MGI Capital on 23.10.2015, the EPS Group has the right of recourse with regard to MGI Capital, on any liabilities that it may have to take on in the context of this legal dispute.

2. Tovisi contingency

In Mozambique there is a lawsuit filed by the company Tovisi Moçambique, a subcontractor to Efacec Mozambique in an engineering project in Maputo. Divergences regarding the conduct of the work led to the termination of the contract by Efacec Mozambique due to contractual breach by Tovisi Mozambique. Following the resolution, Tovisi Mozambique filed a lawsuit seeking compensation of 78,758,069 MZM (approximately1.6 million euros). Efacec Mozambique fully challenged the claim for damages and filed a counter-claim for approximately 75 thousand euros. The proceeding is pending a judicial decision, with Efacec Mozambique believing in a favourable outcome.

3. Mundotérmica contingency

This is a 2017 lawsuit in which the Plaintiff, Mundotérmica - Sociedade Térmica, SA, demands Efacec Energia to pay the amount of 526,266.00 euros, for alleged losses caused by defective repairs carried out by the Servicing Business Unit in a Mundotérmica mechanical equipment in January 2016. Efacec challenged and rejected the Plaintiff's requests, and also claimed the payment of invoices related to the services provided and not paid by the Plaintiff, in the amount of 63,837.00 euros and additional costs in the amount of 42,004.72 euros. Following what was claimed by Efacec in the challenge, the Plaintiff requested the intervention caused by a third entity, the company Caterpillar Energy Solutions, S.A. The proceeding is currently in the hearing and examination of witnesses phase.

4. Parklake contingency

This is a lawsuit brought in August 2018 at the Bucharest Court, Romania, against Efacec Central Europe (a company under Romanian law) and Efacec Power Solutions, by Parklake Shopping, S.A., a company also under Romanian law, related to a contract for the construction of an electrical substation dedicated to the Shopping, signed in July 2015 between the two companies under Romanian law. The court ruled that Efacec Power Solutions SGPS was an illegitimate party to the lawsuit, and therefore the lawsuit remains against Efacec Central Europe only.

Parklake claims the payment of a compensation of approximately 4.64 million euros (at the current exchange rate) for the damages incurred as a result of non-compliance with the contractual deadlines for completion of the work, attributing the responsibility to Efacec Central Europe. Efacec contested all requests from Parklake Shopping S.A., considering that the delays in the execution of the work are not attributable to it, but to third parties, including Parklake itself, and that the contractually foreseen liability limitations must be maintained. As a result, Efacec filed a counter-claim, claiming from Parklake Shopping the payment of approximately 500,000 euros, corresponding to the amount of bank guarantees executed by Parklake Shopping, prior to the date of the filing of the lawsuit, in the approximate amount of 350,000 euros and invoices not paid by Parklake in the amount of approximately 150,000 euros, as well as the court costs incurred by Efacec to defend the case.

The proceeding is in the examination of witnesses phase, which will be followed by technical expertise.

5. Bouaghi contingency

The contingency relates to a contract for the construction of a water treatment plant in the city of Bouaghi in Algeria. The Client ONA terminated the contract on 8 January 2017 due to delays in carrying out the work. The works under Efacec's responsibility had been carried out in a timely manner until that date, and therefore the company considers that it has no responsibility for the facts alleged by ONA for the termination of the contract. ONA submitted to the Consortium a proposal for closing accounts in which it claimed a total compensation in the amount of 1.8 million euros at the current exchange rate, having subsequently executed the bank guarantees that Efacec had provided, as a member of the Consortium, in the global amount of approximately 1 million euros, which was recorded as a cost in the financial year 2018.

Efacec, as a member of the Consortium, rejected the account closure report and presented its reservations with regard to those accounts, having also assigned to its consortium Partner, the company Hidro-Traitment Enterprise Publique Economique, SA, the full responsibility for non-compliance and termination of the contract. Efacec took the necessary steps for the judicial claim of the losses incurred.

6. GeoEnergia contingency

This is a legal proceeding in the State of São Paulo, Brazil, brought by the company GeoEnergia Soluções de Sistemas de Energia, Lda., which claims from Power Solutions Brasil, (PSB) an entity belonging to the EPS Group, the subsidiary payment of a debt of the entity EDB - Engenharia do Brasil, Ltda., in the amount of approximately 530,000 euros. In the first decision, the Court found that Power Solutions Brasil is an illegitimate party to the lawsuit and cannot be held liable in the alternative for the debt of EDB - Engenharia do Brasil, Ltda. (EDB), having excluded PSB from the lawsuit. This decision was subject to appeal filed by GeoEnergia, which is awaiting a decision by the Supreme Court of Justice. Efacec considers that the materialization risk of this contingency is low, either because it has already been acquitted in a first decision, or because it has, in the event of a contrary outcome, a right of recourse over EDB with regard to this contingency.

24. Obligations

Guarantees provided

EPS has contingent liabilities related to guarantees provided by financial institutions in favour of third parties. Namely, at 31 December 2019, EPS had a liability arising from a guarantee issued for the purpose of granting financing to a foreign subsidiary, in the amount of 1,791,052 euros, which is included in the following table.

	31.12.2019	31.12.2018
Financial guarantees	3 335 022	3 844 968
Other guarantees	268 232	241 187
Total	**3 603 254**	**4 086 155**

Financing

In the syndicated loan contracted jointly by the subsidiaries Efacec Energia and Efacec Engenharia e Sistemas, Efacec Power Solutions set a guarantee for guaranteeing the promissory notes subscribed by Efacec Energia and Efacec Engenharia e Sistemas.

In addition to the guarantee, the syndicated loan includes clauses that define the compliance with a Debt Ratio, defined as Net Debt/EBITDA, whose maximum value must be 2.75. This contractual ratio is observable in Efacec Power Solutions' annual consolidated accounts.

25. Fees paid to auditors

In 2020, Efacec hired the auditing and accounting review services of Mazars e Associados - Sociedade de Revisores Oficial de Contas, S.A. The contract entered into includes the certification of the annual accounts for the financial year 2019, but the applicable fees will only have an impact in 2020.

In the financial years 2019 and 2018, the EPS Group used the services of PricewaterhouseCoopers & Associados, SROC and the respective international network, for which it paid the following fees:

	31.12.2019	**31.12.2018**
Audit and audit of accounts	20 732	61 374
Tax consulting services	51 875	25 373
Other services	39 400	96 133
	112 007	**182 880**

26. Subsequent events

In the first quarter of 2020, facts that were extremely relevant to Efacec's activity took place with impact in the same year and subsequent years, and therefore it is necessary to update the future business prospects in the light of these most recent events. The impact of these events has become especially relevant due to their successive occurrence, in a short period of time, and following a difficult 2019 for Efacec from the treasury point of view.

Luanda Leaks and the financial system deadlock

The publication of the so-called Luanda Leaks, in mid-January 2020, triggered a succession of reactions that severely impacted Efacec's relationship with its Clients, Suppliers and, in particular, with the financial system.

Since the disclosure of that news, Efacec's Board of Directors sought to protect the company and its assets as much as possible, having formally asked, on 23 January 2020, the majority shareholder to put their stake up for sale and leave the shareholder structure of the Efacec Group to the benefit of the company - this request was immediately granted. Additionally, following this decision to exit the shareholder structure, her representatives submitted their resignation from the governing bodies.

This measure sought to minimize damage at the level of Clients, Suppliers and Partners, and the company was able to keep the contracts in force and continue to receive new orders. However, the complex setting of the combined effects of compliance issues, breach of trust and reputational impact made, in the first quarter of 2020, the Efacec's main banks block all *trade finance* relations (factoring, confirming, letters of credit, bank guarantees and existing current account lines) and any treasury financing, thus conditioning their unlocking to the change in the shareholder structure. Also the credit insurers reduced the exposure limits to Efacec, in some cases even suspending its valuation. For a strongly exporting company such as Efacec, this financial system position posed significant difficulties to the execution of projects already contracted or in the signing of new orders.

These actions contributed to the worsening of the cash flow conditions, which have already been manifested since the last four months of 2019, with the subsequent problems in the supply chain, which, in turn, hindered the completion of production and invoicing, thus generating a negative cash flow cycle.

The Axessor rating agency, used as a reference in the bond issue process, reduced the company's rating to "non-investment grade" due to shareholder uncertainty and fears of the impact on Efacec's performance.

At the end of March 2020, Efacec was informed of the existence of an agreement between representatives of the majority shareholder and the financing banks, of the majority shareholder and of Efacec, which established a time horizon for the exit of the majority shareholder from the company's corporate structure, stipulating the transfer, in the short term, of the respective stake to a transitional vehicle, whose exclusive purpose would be the sale of Efacec to a final investor within a period of six to twelve months. For reasons external to Efacec, the conditions required by the agreement for the setup of the transitional vehicle and the consequent transfer of Efacec's shares was late, delaying the lifting of the financial and insurance system deadlock, and reinforcing the Efacec's operational bottleneck by conditioning the implementation of the action plan outlined at the end of 2019 and, consequently, the regularization of supply chains and operations.

In May 2020, although the setup of the said transitional vehicle foreseen in the mentioned agreement has not yet occurred, Efacec's Board officially launched the process for the sale of a majority stake in Efacec, having received a significant number of expressions of interest by industrial and financial reference institutions, at national and international scale. The change in Efacec's shareholder structure is expected to be completed by the end of 2020, as detailed in the outlook for 2020 (item 4.4.3).

Nationalization

The lack of an agreement between the interested parties threatened the company's sustainability in an almost irreversible way, leading the Portuguese State, on July 2, 2020, and with a view to safeguarding the national public interest, to proceed, through Decree-Law no. 33-A, the nationalization of Efacec's shareholder control, through the public appropriation of social participation held by Winterfell 2 Limited. According to the Decree-Law, the nationalization is of a transitory nature, the objective being the immediate opening of the reprivatisation process of the stake which is the object of public intervention.

The State's intervention aimed to ensure the stability of Efacec's financial, operational and commercial value, and to allow the safeguarding of jobs, industrial value and technical knowledge. It should now be possible to establish the required cash flow support, which was blocked due to the impasse in the change in the shareholder structure, through access to financing and liquidity lines to reverse the negative cash flow cycle.

COVID-19 pandemic

The COVID-19 pandemic is a public health crisis, with a very important financial impact on all sectors and countries and which could substantially transform the way we all live. This crisis demanded, and continues to demand, the ability to manage uncertainty, agility in decision-making, confidence in those around us, institutions and leaders, ability to adapt to the new measures and awareness of the impact of our individual and collective actions on the outcome and/or evolution of the crisis.

Efacec as an exporting company was strongly impacted by the COVID-19 pandemic due to two effects:

1. Approximately 85% of the company's revenues and activity come from the sale of products and equipment abroad and from the execution of large electrical infrastructure projects abroad;

2. Efacec also imports a large part of the products in its supply chain and has a large number of relevant Suppliers in Italy, Spain and, obviously, in China, having therefore experienced significant difficulties in obtaining raw materials and components for its products and projects, throughout the first half of 2020.

A large number of Efacec projects and contracts were impacted in their execution for several reasons, from disruptions in the transport of people and goods by air, sea and even road, to situations of mandatory quarantine and state of emergency declarations in the different countries where the company operates.

The containment and protection measures applied in the Portuguese territory also had a considerable impact on the company's productive capacity, since it was necessary to change shifts, reduce teams, and create reserve groups to face possible outbreaks in the operations teams and, in specific cases, place teams in mandatory quarantine and stop production lines and areas for total disinfection. This action respected the best international practices in order to effectively protect Employees and their families and to mitigate the spread of potential contagion.

As a result of the pandemic, Efacec's revenues decreased in March 2020, compared to the same period in 2019, by approximately 48% and receipts by approximately 30%. This sharp decrease in revenues and receipts, felt since February 2020 and that reached its maximum in April and May, combined with the deadlock promoted by the financial system as a result of the Luanda Leaks episode, challenged Efacec's ability to face, in a timely manner, its primary obligations, in particular the amounts due to its Suppliers.

As a result of the strong reduction in its activity due to the worldwide impacts of the COVID-19 pandemic, Efacec was forced to adopt one of the measures to support the maintenance of the jobs of companies affected by the pandemic, outlined by the Portuguese Government in Decree-Law no. 10-G/2020 of 26 March: the (total or partial) lay-off. The aforementioned measure allowed minimizing the risk of non-compliance with the obligations to pay its Employees' salaries while the risks of non-compliance with other stakeholders remaining.

Contingencies

The events described here, which occurred in the first half of the year 2020, made imperative that Efacec carried out a risk analysis in the projects in course. For this purpose, was carried out a survey of projects, of different dimensions and in different geographies that meet the schedule of delayed execution, and where management considers the possibility of incurring in supplementary expenses for contractual non-compliance. Efacec, therefore, determined a set of potential contingencies, resulting from interactions with customers and estimated the degree of probability of potential losses through the application of contractual penalties. At the conclusion of this potential contingency analysis, arising from the facts and events that took place in 2020, Efacec selected and considered the situations classified as likely to occur, making the decision to reflect on accounts as of June 30, 2020, a reinforcement of provisions of approximately 7.5 million euros.
At the conclusion of this potential contingency analysis, arising from the facts and events that took place in 2020, systematized as of the date of this report, Efacec selected and considered the situations classified as likely to occur, making the decision to reflect and accommodate on accounts as of June 30, 2020, prepared under the terms of IAS 34 - Interim Financial Report, a reinforcement of provisions of approximately 7.5 million euros.

Leça do Balio, 23 September 2020

The Chartered Accountant

Sofia Marlene Ferreira Pereira

The Board of Directors

Ângelo Manuel da Cruz Ramalho

Francisco José Meira Silva Nunes

Fernando José Rabaça Vaz

António José Gonzalez Almela

José Manuel de Oliveira Henriques

Vanessa Ferreira Loureiro

Rui Alexandre Pires Diniz

Miguel Maria Pereira Vilardebó Loureiro

Manuel António Carvalho Gonçalves

7.3. Non-financial Indicators

› Environmental Indicators

Item	Indicator	Scope	Units	2017	2018	2019
Materials	Magnetic Plate Consumption	Arroteia	Ton	5847	4596	4568
	Magnetic Plate Recycling[6]		%	20	100	0
	Copper Consumption	Arroteia	Ton	1366	2202	1623
	Copper Recycling[6]		%	0	0	0
	Aluminium Consumption	Arroteia	Ton	803	688	916
	Aluminium Recycling[6]		%	0	0	0
	Oil Consumption	Arroteia	Ton	4639	3403	3558
	Oil Recycling		%	0	0	0
Packaging	(Plastic) Packaging Consumption	Arroteia	Kg	600	340	1919
		Maia		707	1551	916
	(Paper/cardboard) Packaging Consumption	Arroteia	Kg	1200	600	1740
		Maia		465	1137	272
	(Wood) Packaging Consumption	Arroteia	Kg	66800	38255	40139
		Maia		525	0	0
	Packaging (Others) Consumption	Arroteia	Kg	0	0	622
		Maia		0	4	4
Energy	Natural Gas Consumption[1]	Arroteia	GJ	18383	25020	25921[5]
		Maia		1655	6643	5356[6]
		Total		20038	31663	31277
	Thermal Energy Consumption (Gasoline)[1]	National	GJ	199	233	850
	Thermal Energy Consumption (Diesel)[1]	National	GJ	27464	36341	33799
	Electric Power Consumption[2]	Arroteia	GJ	57318	44059	54294[6]
		Maia		22695	20442	22388[6]
		National		80013	64501	76682
	Indirect hydroelectric power consumption[3]	National	GJ	8169	14319	15428
	Indirect wind consumption[3]	National	GJ	19543	11739	20198
	Indirect natural gas consumption[3]			13616	8256	17491
	Indirect coal consumption[3]			23548	17028	7661
	Indirect consumption of other non-renewables[3]			9772	8708	6395
	Indirect consumption of other renewables[3]			5366	4451	9509
	Renewable Production	Maia		1110	1134	945
Water	Water Consumption - Public Supply Network	Arroteia	m^3	26546	26490	15612
		Maia		22220	13925	19826
		National		48766	40415	35438
	Water Consumption - Water Bores	Arroteia	m^3	11857	6551	9700
		Maia		8616[9]	12283	15663
		National		20473	18364	25363
	Total Water Consumption	National		69239	58779	60801
	Water sources affected	National	-	0	0	0
	Reused/recycled water	National	m^3	0	0	0
Effluents	Water discharge	Arroteia	m^3	1534	1860	1517
	Spills		-	4	4	11
Biodiversity	Protected area affected	National	m^2	0	0	0

Item	Indicator	Scope	Units	2017	2018	2019
CO_2 Emissions	Natural gas[1]	Arroteia	Ton CO2e	1040	1416	1467
		Maia		94	376	303
		Total		1134	1792	1770
	Gasoline[1]	National	Ton CO2e	15	17	63
	Diesel[1]			2035	2693	2505
	Emissions Scope 1	Total	Ton CO2e	3184	4502	4338
	Emissions Scope 2 / Electricity Consumption[3]	Arroteia	Ton CO2e	6510	4065	3748
		Maia		2577	1887	1546
		Total		9087	5952	5294
	Emissions Scope 1/2	Total	Ton CO2e	12271	10454	9632
Other Emissions	CO[4]	Arroteia	Kg	1156	1132	1132
		Maia		40	32	32
	COVs[4]	Arroteia	Kg	10383	10493	10599
		Maia		390	32	32
	NO_x[4]	Arroteia	Kg	2677	1876	1876
		Maia		198	172	172
	SO_2[4]	Arroteia	Kg	244	244	244
		Maia		1228	1228	1228
	Particles[4]	Arroteia	Kg	13190	11670	11882
		Maia		235	193	193
	Ozone-depleting substances	Arroteia	Kg	0	0	0
Waste	Dangerous Disposed	Arroteia	Ton	9	22	59
		Maia		0	0	3
		Lagoas		0	0	0
		Total		10	22	62
	Not Dangerous Disposed	Arroteia	Ton	13	15	57
		Maia		22	14	17
		Lagoas		0	0	1
		Total		34	29	75
	Disposed	Arroteia	Ton	22	37	117
		Maia		22	14	19
		Lagoas		0	0	1
		Total		44	51	137
	Valued Dangerous	Arroteia	Ton	287	357	334
		Maia		8	3	3
		Lagoas		0	0	1
		Total		294	360	338
	Valued Non-dangerous	Arroteia	Ton	1975	1733	1995
		Maia		198	217	350
		Lagoas		0	1	10
		Total		2173	1951	2355
	Valued	Arroteia	Ton	2418	2090	2329
		Maia		275	220	353
		Lagoas		0	0	11
		Total		2692	2310	2693

[1] Amounts calculated based on the Lower Calorific Power (PCI) values indicated in the National Inventory of Greenhouse Gases 2013-2020.
[2] Conversion factor: 1kWh = 0.0036GJ.
[3] Amounts calculated from data published by EDP Comercial (Corporate Clients) that reflect the source of the electricity consumed and the CO2 emission in 2019.
[4] The availability of data depends on the frequency of monitoring resulting from the values obtained and the opinion of the CCDR. Until the next measurements, the values of preceding years are maintained.
[5] The consumptions of November and December were estimated.
[6] The consumption of December was estimated.

› Social Indicators

Item	Indicator	Units	Scope	2017	2018	2019
Employment contract	Permanent Employees	# Employees[1]	Group	1,742	1,802	1,793
	Employees with fixed-term contracts			214	309	399
	Executive directors			6	5	7
	Employees in subsidiaries			343	381	332
	Global with employment contract (Group + Subsidiaries)			2,305	2,497	2,531
	Full-time Employees			2,304	2,496	2,530
	Part-time Employees			1	1	1
No employment contract	Professional Internships	# Employees[1]	Group	91	144	41
	Self-employed professionals			43	14	0
	Temporary Work			85	65	11
	Global no employment contract			219	223	52
Employment	Global	# Employees[1]	Group	2,524	2,720	2,583
Turnover with employment contract	Employees Departures <30 years	# Employees[1]	Group	28	55	104
	Employees Departures 30-39 years			88	103	122
	Employees Departures 40-49 years			41	54	58
	Employees Departures = or > 50 years			163	83	60
	Global (Group + Subsidiaries)			240	272	340
	Male Employees Departures			202	223	275
	Female Employees Departures			38	49	65
	Turnover Rate			10%	11%	13%
Labour Relations	Unionised Employees	# Employees[1]	National	15%	15%	15%
	Deadline for notification of changes			15	15	15
Training with employment contract	**Volume of training by categories**					
	Director[10]	# Hours	Group	2,356	2,990	3,129
	Head			4,322	3,230	5,827
	Coordinator			5,196	4,629	8,253
	Specialist			18,017	14,354	27,779
	Technician			3,741	1,879	3,591
	Supervisor			2,050	1,162	1,944
	Operational			7,554	5,717	3,528
	Administrative			481	185	500
	Professional Internship[7]			nd	2,885	2,619
	Total			43,716	37,029	57,168
	Average Training by categories					
	Director[8]	# Hours / Employee	Group	37	43	41
	Head			45	29	49
	Coordinator			31	20	37
	Specialist			21	14	26
	Technician			12	7	12
	Supervisor			18	9	16
	Operational			12	10	6
	Administrative			5	2	7
	Global			19	14	22

Item	Indicator	Units	Scope	2017	2018	2019
Security	Attendance Index	[2]	Efacec	8	6	6
	Severity Index	[3]		277	236	212
	Incidence Index	[4]		16	11	12
	Duration Index	[5]		13	17	15
	Attendance Index	[2]	Efacec Engenharia e Sistemas	2	1	3
	Severity Index	[3]		320	72	358
	Incidence Index	[4]		4	2	6
	Duration Index	[5]		36	13	43
	Attendance Index	[2]	Efacec Energia	12	8	7
	Severity Index	[3]		315	350	190
	Incidence Index	[4]		24	15	15
	Duration Index	[5]		11	19	11
	Attendance Index	[2]	Efacec Electric Mobility	7	14	15
	Severity Index	[3]		266	97	368
	Incidence Index	[4]		14	28	30
	Duration Index	[5]		10	3	12
	Occupational diseases		National	4	2	4
	Deaths		National	0	0	0
Human Rights	Discrimination cases	# Occurrences	Group	0	0	0
	Operations with freedom of association risk	# Occurrences		0	0	0
	Operations with child labour risk			0	0	0
	Operations with forced labour risk			0	0	0

[1] Indicators involving counting Employees (# Employees) are for 31 December 2017.
[2] Frequency Index = number of accidents with sick leave / (number of Man hours worked) x 10 ^ 6
[3] Severity Index = number of (working) days lost / number of Man hours worked x 10 ^ 6.
[4] Incidence Index = number of accidents with sick leave / (average number of workers) x 10 ^ 3.
[5] Duration Index = number of (working) days lost / number of Accidents.
[6] This indicator shows the number of cases actually confirmed by the National Centre for Protection against Professional Risks (CNPRP) in the respective year.
[7] Number of classroom training hours.
[8] Includes training of executive directors.

7.4. Legal certification of accounts

MAZARS

LEGAL CERTIFICATION OF ACCOUNTS

AUDIT REPORT ON CONSOLIDATED FINANCIAL STATEMENTS

Opinion

We audited the attached consolidated financial statements of **EFACEC POWER SOLUTIONS, SGPS S.A.** (the Group), which comprise the consolidated statement of financial position at 31 December 2019 (showing a total of 732 145 772 euros and a total equity of 277 343 622 euros, including a negative net result of 28 895 527 euros, the consolidated income statement by nature, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year ended on that date, and the notes attached to the consolidated financial statements that include a summary of significant accounting policies.

As mentioned in the "Other Matters" paragraph below, at a date subsequent to our examination, the Administration prepared new financial statements consolidated for the exercise ended on December 31st, 2019, with the date of September 23rd, 2020, different from those that had been issued by the Entity with the date of July 24th, 2020. For this reason, we issue the present Legal Certification of the Accounts, which substitutes the previous one issued with the date of August 14th, 2020 about the first financial statements consolidated prepared by the Entity.

In our opinion, the attached consolidated financial statements present in a true and appropriate manner, in all material aspects, the consolidated financial position of **EFACEC POWER SOLUTIONS, SGPS S.A.** at 31 December 2019 and its financial performance and consolidated cash flows for the year ended on that date in accordance with International Financial Reporting Standards (IFRS) as adopted in the European Union.

Basis for opinion

Our audit was carried out in accordance with the International Standards on Auditing (ISAs) and other technical and ethical standards and guidelines of the Institute of Statutory Auditors. Our responsibilities under these standards are described in the section "Auditor's responsibilities for auditing the financial statements" below. We are independent of the Entity under the law and we comply with the other ethical requirements under the code of ethics of the Institute of Statutory Auditors.

We believe that the audit evidence that we obtained is sufficient and appropriate to provide a basis for our opinion.

Material uncertainty related to continuity

As mentioned in item 4.4 of the management report and in item 34 of the notes attached to the consolidated financial statements, the first half of 2020 was marked by relevant facts with an impact on the Group's business both in 2019 and in subsequent years. The publication of the so-called "Luanda Leaks", in mid-January 2020, triggered a succession of reactions with relevant impacts on the Group's activity, namely the financial system deadlock. Cumulatively, the Group was also impacted by the Covid-19 pandemic in the execution of projects and contracts that, together with the financial system deadlock and the "Luanda Leaks" episode, challenged the Group's ability to meet, in a timely manner, its primary obligations, namely with suppliers.

It was in the context described above and also characterized in the preamble of Decree-Law No.33-A/2020 that the Portuguese State carried out the shareholding control of Efacec, with a transitory character, through the public appropriation of the shareholding held by Winterfell 2 Limited (71.73%). The Group's Board expects that the State intervention and access to liquidity lines will make it possible to reverse the negative cycle and put the Group back on track. As disclosed in note 1 of the Notes containing the explanatory notes, the financial statements were prepared based on the continuity of operations, which is dependent on the continued support from shareholders and other financing entities as well as on the future profitability of the operations.

CENTRO EMPRESARIAL TORRES DE LISBOA, RUA TOMÁS DA FONSECA, TORRES G, 5º Andar 1600-209 LISBOA, PORTUGUAL
TEL. + 351 21 721 01 80 – FAX + 351 21 726 79 61 – E-MAIL: MAZARSLISBOA@MAZARS.PT
RUA DO CAMPO ALEGRE, 830, 3º - S14, 4150-171 PORTO, PORTUGAL
TEL.: + 351 22 605 10 20 - FAX: + 351 22 607 98 70 – E-MAIL: MAZARSPORTO@MAZARS.PT
ESTRADA DE LEIRIA, EDIFÍCIO PINUS PARK, FRACÇÃO X, 2430-901 MARINHA GRANDE, PORTUGAL
TEL. + 351 24 457 49 60 – FAX: + 351 24 457 49 79 – E-MAIL: MAZARSLEIRIA@MAZARS.PT
MAZARS & ASSOCIADOS, SOCIEDADE DE REVISORES OFICIAIS DE CONTAS, S.A.
Registration No. 51 at the Institute of Statutory Auditors – REGISTERED AT THE CMVM under number 20161394 – Legal Person Number 502 107 251
SHARE CAPITAL 155,500 euros

MAZARS

Our opinion is not changed regarding this.

Emphasis

As mentioned in item 7 of the notes attached to the consolidated financial statements, the latest economic and financial outlook taken into account by the Group do not incorporate an impact due to the global health crisis caused by the Covid-19 pandemic, the intensity of which is unknown up to the moment, namely the immediate effects in the financial year 2020 or the duration/spread of effects in future financial years. The impact of Covid 19 is an event that is not adjustable to the financial statements on 31 December 2019. At the date of presentation of these financial statements, given the uncertainty of the macroeconomic effects, in addition to the current corporate context of the Group and the relationship with the financial system, the Board believes that it is not yet in a position to reliably estimate the overall impacts on estimated cash flows of each Cash-Generating Unit and, consequently, the potential impacts, namely in terms of the tests of goodwill impairment, intangible assets and deferred tax assets in future financial statements.

Our opinion is not changed regarding this.

Other matters

The Group's consolidated financial statements for the financial year ended 31 December 2018 were audited by another auditor who expressed an unmodified opinion on those consolidated financial statements on 2 April 2019.

As mentioned in point 21 of the notes attached to the consolidated financial statements, the amounts of 11 490 052 Euros and 619 827 Euros, respectively, were reclassified under Equity, under Other equity instruments and Reserves and retained earnings headlines. As disclosed in the aforementioned notes, the expiry of the resolution of the General Meeting of May 23rd, 2019, which provided for the payment of such ancillary Installments and Reserves within 12 months, was considered on this date, and must be submitted again to the appreciation of the General Meeting of Shareholders. Management decided to adjust this fact in the Entity's financial statements of December 31st, 2019 approved on July 24th, 2020, to accommodate this effect, proceeding to the reclassification of such amounts and nature from Liabilities to Equity in the statement of financial position.

Responsibilities of the Management Body and the Supervisory Body for the consolidated financial statements

The management body is responsible for:

- the preparation of consolidated financial statements that present in a true and appropriate manner the Group's financial position, the Group's financial performance and cash flows in accordance with the International Financial Reporting Standards (IFRS) as adopted by the European Union.
- the preparation of the management report under the legal and regulatory terms.
- the creation and maintenance of an appropriate internal control system to allow the preparation of financial statements free from material misstatement due to fraud or error.
- the adoption of appropriate accounting policies and criteria under the circumstances; and
- the assessment of the Group's ability to remain in continuity, disclosing, when applicable, the matters that may raise significant doubts about the continuity of activities.

The supervisory body is responsible for supervising the preparation and disclosure of the Group's consolidated financial information.

Auditor's responsibilities for auditing the consolidated financial statements

Our responsibility is to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement due to fraud or error, and to issue a report stating our opinion. Reasonable assurance is a high level of assurance, but it is not a guarantee that an audit carried out in accordance with the ISAs will always detect material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or jointly, it can reasonably be expected to influence the users' economic decisions based on those consolidated financial statements.

MAZARS & ASSOCIADOS, SROC, SA Page 2/3

MAZARS

As part of an ISA-based audit, we make professional judgements and maintain professional scepticism during the audit and:

- we identify and assess the risks of material misstatement of the consolidated financial statements due to fraud or error, we design and perform audit procedures that respond to those risks, and we obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement due to fraud is greater than the risk of not detecting a material misstatement due to error, since the fraud may involve collusion, forgery, intentional omissions, false declarations or overlapping with internal control.
- we obtain an understanding of the internal control relevant to the audit with the objective of designing audit procedures that are appropriate under the circumstances, but not to express an opinion on the effectiveness of the Group's internal control.
- we assess the adequacy of the accounting policies used and the reasonableness of the accounting estimates and respective disclosures made by the management body.
- we concluded on the appropriation of the use of continuity of the operations by the management body and, based on the audit evidence obtained, whether there is any material uncertainty related to events or conditions that may raise significant doubts about the Group's ability to continue its activities. If we conclude that there is material uncertainty, we must draw attention in our report to the related disclosures included in the financial statements or, if those disclosures are not adequate, we must change our opinion. Our conclusions are based on the audit evidence obtained to the date of our report. However, future events or conditions may cause the Group to discontinue its activities.
- we assess the presentation, structure, and overall content of the consolidated financial statements, including the disclosures, and whether those financial statements represent the underlying transactions and events to achieve an appropriate presentation.
- we obtain sufficient and appropriate audit evidence regarding the financial information of entities or activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the guidance, supervision and performance of the Group's audit and are ultimately responsible for our audit opinion.
- we communicate with the governing officers, among other matters, the scope and planned calendar of the audit, and the significant findings of the auditor including any significant deficiencies in the internal control identified during the audit.

Our responsibility also includes checking whether the information in the management report is consistent with the consolidated financial statements.

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

About the management report

In accordance with Article 451, number 3, subparagraph e) of the Commercial Companies Code, we believe that the consolidated management report was prepared in accordance with the applicable legal and regulatory requirements in force, the information contained therein is consistent with the audited consolidated financial statements and, given the knowledge and appreciation of the Group, we did not identify any material inaccuracies.

Porto, 2 October 2020

MAZARS & ASSOCIADOS, SOCIEDADE DE REVISORES OFICIAIS DE CONTAS, SA
represented by

(Signature)

José Fernando Abreu Rebouta (Statutory Auditor no. 1023)

(Signature)

Patrícia Alexandra Faria Cardoso (Statutory Auditor no. 1483)

REPORT AND OPINION OF THE SUPERVISORY BODY

Dear Shareholders,

Under the legal and statutory terms, the Supervisory Board of **Efacec Power Solutions, SGPS, S.A.**, with head office in Lugar da Arroteia, 4465-587 Matosinhos, presents the report on its supervisory action and gives an opinion on the report and consolidated accounts presented by the Board for the financial year ended 31 December 2019, documents dated September 23rd, 2020.

1. Under the legal and statutory terms, we:

- supervised the Board's acts through meetings with those responsible for the accounting, financial and legal areas, the consultation of minutes and accounting elements, and the information and clarifications obtained.
- checked the compliance with the law and the compliance with the company's articles of association.
- checked, with the depth and extent considered appropriate in the circumstances, the group's activity and business, documents, regularity of records and bookkeeping books, as well as the existence of the main assets.
- assessed whether the accounting policies and valuation/measurement criteria used are in accordance with the accounting principles adopted, and lead to a correct assessment of assets and results.
- identified the internal control system implemented by the Board.
- supervised the consolidated financial information preparation and disclosure process, namely regarding the account's consolidation procedures and operations.
- checked the accuracy of the Consolidated statement of financial position, the Consolidated Statement of income by nature, the Consolidated Statement of comprehensive income, the Consolidated Statement of changes in equity, the Consolidated Statement of cash flows for the financial year, and the respective Notes;
- assessed the Management Report issued by the Board.
- assessed the work carried out by the former and current Statutory Auditors Firm, leading to the legal audit and additional services.
- assessed the Legal Certification of Accounts issued on October 2nd, 2020, by the Statutory Auditors Firm, which expresses an unqualified opinion, expresses a material uncertainty related to the continuity, emphasis the uncertainties related to the projections underlying the impairment tests of goodwill, intangible assets and recoverability of deferred tax assets, and also notes that the financial

HEAD OFFICE: Lugar da Arroteia - 4465-587 Leça do Balio, Matosinhos - Portugal
Tel: +351 229 562 300 - Fax: +351 229 518 933 – sgps@facec.pt
Share Capital: € 308,949,250 /VAT: 513 180 966

statements for the preceding year presented in the comparatives were audited by another Statutory Auditors Firm, and notes the accounting impact of the period of the resolution of restitution of the remaining supplementary payments.

2. Based on the follow-up we carried out, we should mention the following:

- notwithstanding the bond loan at the beginning of the 2nd half, the progressive deterioration in the group's cash flow situation, which strongly impacted the execution and delivery ability of the various Business Units, a situation that was worsened by delays, not always controllable, occurred in important projects;
- the decision to discontinue the Environment Unit, made at the end of the year.
- the company's first losses, which resulted from the significant contraction of income and EBITDA and large losses in provisions and impairments.
- the expiry of the resolution to refund the remaining supplementary payments;
- the increase in net indebtedness, which was a consequence of the previous situations and of the impact of the application of the new standard related to leases (IFRS 16), which nevertheless remains within the limits of the negotiated covenants.
- the various impacts of the "Luanda Leaks" episode, namely about:
  . the immediate blocking of bank support necessary for the financial stabilization and current operations (in terms of guarantees for entering contracts and trade finance operations).
  . despite the quick availability of the majority shareholder to dispose of its participation, as the procedural and negotiation difficulties increased, which led to an almost insurmountable impasse in the achievement of the sale.
  . the need to replace the Statutory Auditors Firm in office, given the unacceptable conditions demanded to complete the work and issue the competent report, and the additional effort to monitor the work of the new team of auditors, namely with regard to:
    .. the awareness of the need for knowledge of a new client, relatively complex and with differentiated businesses.
    .. the additional difficulties imposed by the COVID-19 pandemic control rules; and
    .. the demanding schedule for completing the work.
- the effects of the pandemic generated by COVID-19 obviously worsened, in many aspects, the difficult situation of the Group, creating a real perfect storm.
- the resilience shown by employees and managers, showing unequivocal pride and confidence in the group and the Efacec brand.

- the intervention of the Government which, through Decree-Law 33ª/2020, of 2 July, nationalized the shares of the majority shareholder with a view to its immediate sale, instantly undoing the Gordian knot that, if it were to continue in place, would quickly lead to a scenario of clear doubt as to the continuity of the company and the group;
- the subsequent contracting, on August 14th, 2020, of two lines of financing with State guarantees, which will allow the stabilization of the treasury and reactivate operations.

3. The supervisory action developed allows us to conclude that:

- the acts of the Board to our knowledge safeguard the compliance with the law and the company's articles of association; however, we note the partial compliance with the resolution for the refund of the supplementary capital contributions.
- we were not aware of situations that could jeopardize the adequacy and effectiveness of the internal control system implemented by the Board in controlling the risks to which the company is exposed.
- the accounting and the accounts comply with the applicable legal, statutory, and regulatory provisions, reflect the activity developed and lead to a correct assessment of the company's assets and results.
- the Management Report is consistent with the consolidated accounts presented and faithfully describes the evolution of the activity and business in the financial year of the company and the other companies included in the consolidation perimeter.
- the work done by the Statutory Auditors Firms was appropriate to the circumstances, and the additional services did not compromise its independence.
- the nationalization and subsequent additional financing contracting pushed away the immediate risk as to the continuity of the company and the group, creating conditions for the resumption of the activities recovery process, expected for the third quarter of 2020; nevertheless, it will be almost impossible for the results, to fulfill the existing convenants on their own.

4. We can thus declare:

- our agreement with the content of the Legal Certification of Accounts issued by the Statutory Auditors Firm.
- our agreement with the Management Report and the consolidated accounts for the financial year 2019 presented by the Board of Directors.
- that to the best of our knowledge, the financial information disclosed was prepared in accordance with the accounting standards adopted, giving a true and appropriate image of the consolidated assets and liabilities, the financial situation and the results of the company and the other companies in the

consolidation perimeter, and that the consolidated Management Report faithfully describes the evolution of their business, performance and financial position, accurately describing the impact of events after the balance sheet date and providing a realistic image of the risks faced by the group.

5. Accordingly, considering the actions carried out, we are of the opinion that:

- the consolidated Management Report and the consolidated accounts for the 2019 financial year presented by the Board of Directors are approved.

6. Final remark

We are pleased to underline the spirit of mission and sacrifice that we have witnessed, in a generalized manner, in Efacec employees and management during this dark period in its history. Due to the closer contact, we would like to make a special reference to the accounting, financial and legal teams that, despite all the difficulties and setbacks, managed to carry out their mission.

We also want to say a word of appreciation to the team of auditors, who courageously accepted a difficult challenge, conquered with effort and competence.

To conclude, we would like to thank the Government for its decisive intervention, which, as we mentioned above, allowed us to undo the Gordian knot which, if it were to continue in place, would suffocate Efacec.

Thank you all so much.

Lugar da Arroteia, 02 October 2020.

The Supervisory Board

Mr. José Manuel Gonçalves de Morais Cabral — Chairman

Mr. António Manuel de Castro Vieira Rodrigues — Member

Mr. Sérgio Paulo Esteves Poças Falcão — Member

Signature

MAZARS

LEGAL CERTIFICATION OF ACCOUNTS

AUDIT REPORT ON FINANCIAL STATEMENTS

Opinion

We audited the attached financial statements of **EFACEC POWER SOLUTIONS, SGPS S.A.** (the Group), which comprise the Statement of financial position at 31 December 2019 (showing a total of 486 310 662 euros and a total equity of 333 843 409 euros, including a negative net result of 5 941 080 euros, the income statement by nature, the statement of comprehensive income, the statement of changes in equity and the statement of cash flows for the year ended on that date, and the notes attached to the financial statements that include a summary of significant accounting policies.

As mentioned in the "Other Matters" paragraph below, at a date subsequent to our examination, Administration prepared new financial statements for the year ended December 31st, 2019, dated September 23rd, 2020, different from those that had been issued by the Entity dated July 24th, 2020. For this reason, we issued this Legal Certification of Accounts, which replaces the previously issued one dated August 14th, 2020 on the first financial statements prepared by the Entity.

In our opinion, the attached financial statements present in a true and appropriate manner, in all material aspects, the financial position of **EFACEC POWER SOLUTIONS, SGPS S.A.** at 31 December 2019 and its financial performance and cash flows for the year ended on that date in accordance with the International Financial Reporting Standards (IFRS) as adopted in the European Union.

Basis for opinion

Our audit was carried out in accordance with the International Standards on Auditing (ISAs) and other technical and ethical standards and guidelines of the Institute of Statutory Auditors. Our responsibilities under these standards are described in the section "Auditor's responsibilities for auditing the financial statements" below. We are independent of the Entity under the law and we comply with the other ethical requirements under the code of ethics of the Institute of Statutory Auditors.

We believe that the audit evidence that we obtained is sufficient and appropriate to provide a basis for our opinion.

Material uncertainty related to continuity

As mentioned in item 4.4 of the management report and in item 26 of the notes attached to the consolidated financial statements, the first half of 2020 was marked by relevant facts with an impact on the subsidiary companies both in 2019 and in subsequent years. The publication of the so-called "Luanda Leaks", in mid-January 2020, triggered a succession of reactions with relevant impacts on the activities, namely the financial system deadlock. Cumulatively, the companies controlled by the Entity were also impacted by the Covid-19 pandemic in the execution of projects and contracts that, together with the financial system deadlock and the "Luanda Leaks" episode, challenged the Entity and the controlled companies' ability to meet, in a timely manner, their primary obligations, namely with suppliers.

It was in the context described above and also characterized in the preamble of Decree-Law No.33-A/2020 that the Portuguese State carried out the shareholding control of Efacec, with a transitory character, through the public appropriation of the shareholding held by Winterfell 2 Limited (71.73%). The Entity's Board expects that the State intervention and access to liquidity lines will make it possible to reverse the negative cycle and put the Entity back on track. According to the information disclosed in note 1 of the Notes containing the explanatory notes, the financial statements were prepared based on the continuity of operations, which is dependent on the continued support from shareholders and other financing entities as well as on the future profitability of the controlled companies' operations.

MAZARS

Our opinion is not changed regarding this.

Emphasis

As mentioned in item 6 of the notes attached to the financial statements, the latest economic and financial outlook taken into account by the Entity do not incorporate an impact due to the global health crisis caused by the Covid-19 pandemic, the intensity of which is unknown up to the moment, namely the immediate effects in the financial year 2020 or the duration/spread of its effects in future financial years. The impact of Covid 19 is an event that is not adjustable to the financial statements on 31 December 2019. At the presentation date of these financial statements, given the uncertainty of the macroeconomic effects, in addition to the current corporate context of the Entity and the relationship with the financial system, the Board believes that it is not yet in a position to reliably estimate the overall impacts on estimated future cash flows of each Cash-Generating Unit and, consequently, the potential impacts, namely at the level of the tests of Goodwill impairment, intangible assets and deferred tax assets in future financial statements.

Our opinion is not changed regarding this.

Other matters

The Entity's financial statements for the financial year ended 31 December 2018 were audited by another auditor that expressed an unchanged opinion on those financial statements on 2 April 2019.

As mentioned in point 16 of the notes attached to the financial statements, the amounts of 11 490 052 Euros and 619 827 Euros, respectively, were reclassified in Equity, under the headline of Accessory Installments and Reserves and accumulated results. As disclosed in the aforementioned notes, the expiry of the resolution of the General Meeting of May 23rd, 2019, which provided for the payment of such accessory Installments and Reserves within 12 months, was considered on this date, and must be submitted again to the appreciation of the General Meeting of Shareholders. Administration decided to adjust this fact in the Entity's financial statements of December 31st, 2019 approved on July 24th, 2020, to accommodate this effect, proceeding to the reclassification of such amounts and nature from Liabilities to Equity in the statement of financial position.

Responsibilities of the Management Body and the Supervisory Body for the financial statements

The management body is responsible for:

- the preparation of financial statements that present in a true and appropriate manner the Entity's financial position, financial performance, and cash flows in accordance with the International Financial Reporting Standards (IFRS) as adopted by the European Union.
- the preparation of the management report under the legal and regulatory terms.
- the creation and maintenance of an appropriate internal control system to allow the preparation of financial statements free from material misstatement due to fraud or error.
- the adoption of appropriate accounting policies and criteria under the circumstances; and
- the assessment of the Entity's ability to remain in continuity, disclosing, when applicable, the matters that may raise significant doubts about the continuity of activities.

The supervisory body is responsible for supervising the preparation and disclosure of the Group's financial information.

Auditor's responsibilities for auditing the consolidated financial statements

Our responsibility is to obtain reasonable assurance about whether the financial statements are free from material misstatement due to fraud or error, and to issue a report stating our opinion. Reasonable assurance is a high level of assurance, but it is not a guarantee that an audit carried out in accordance with the ISAs will always detect material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or jointly, it can reasonably be expected to influence the users' economic decisions based on those consolidated financial statements.

MAZARS

As part of an ISA-based audit, we make professional judgements and maintain professional scepticism during the audit and:

- we identify and assess the risks of material misstatement of the consolidated financial statements due to fraud or error, we design and perform audit procedures that respond to those risks, and we obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement due to fraud is greater than the risk of not detecting a material misstatement due to error, since the fraud may involve collusion, forgery, intentional omissions, false declarations or overlapping with internal control.
- we obtain an understanding of the internal control relevant to the audit with the objective of designing audit procedures that are appropriate under the circumstances, but not to express an opinion on the effectiveness of the Entity's internal control.
- we assess the adequacy of the accounting policies used and the reasonableness of the accounting estimates and respective disclosures made by the management body.
- we conclude on the appropriation of the use of continuity of the operations by the management body and, based on the audit evidence obtained, whether there is any material uncertainty related to events or conditions that may raise significant doubts about the Entity's ability to continue its activities. If we conclude that there is material uncertainty, we must draw attention in our report to the related disclosures included in the financial statements or, if those disclosures are not adequate, we must change our opinion. Our conclusions are based on the audit evidence obtained to the date of our report. However, future events or conditions may cause the Group to discontinue its activities.
- we assess the presentation, structure, and overall content of the financial statements, including the disclosures, and whether those financial statements represent the underlying transactions and events to achieve an appropriate presentation.
- we communicate with the governing officers, among other matters, the scope and planned calendar of the audit, and the significant findings of the auditor including any significant deficiencies in the internal control identified during the audit.

Our responsibility also includes checking whether the information in the management report is consistent with the financial statements.

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

About the management report

In accordance with Article 451, number 3, subparagraph e) of the Commercial Companies Code, we believe that the management report was prepared in accordance with the applicable legal and regulatory requirements in force, the information contained therein is consistent with the audited financial statements and, given the knowledge and appraisal of the Entity, we did not identify any material inaccuracies.

Porto, 2 October 2020

MAZARS & ASSOCIADOS, SOCIEDADE DE REVISORES OFICIAIS DE CONTAS, SA
represented by

(Signature)

José Fernando Abreu Rebouta (Statutory Auditor no. 1023)

(Signature)

Patricia Alexandra Faria Cardoso (Statutory Auditor no. 1483)

REPORT AND OPINION OF THE SUPERVISORY BODY

Dear Shareholders,

Under the legal and statutory terms, the Supervisory Board of **Efacec Power Solutions, SGPS, S.A.**, with head office in Lugar da Arroteia, 4465-587 Matosinhos, presents the report on its supervisory action and gives an opinion on the report, accounts and proposals presented by the Board for the financial year ended 31 December 2019, documents dated September 23rd, 2020.

1. Under the legal and statutory terms, we:

- supervised the Board's acts through meetings with those responsible for the accounting, financial and legal areas, the consultation of minutes and accounting elements, and the information and clarifications obtained.
- checked the compliance with the law and the compliance with the company's articles of association.
- checked, with the depth and extent considered appropriate in the circumstances, the company's activity and business, documents, regularity of records and bookkeeping books, as well as the existence of the main assets.
- assessed whether the accounting policies and valuation/measurement criteria used are in accordance with the accounting principles adopted, and lead to a correct assessment of assets and results.
- identified the internal control system implemented by the Board.
- supervised the financial information preparation and disclosure process.
- checked the accuracy of the Statement of financial position, the Statement of income by nature, the Statement of comprehensive income, the Statement of changes in equity, the Statement of cash flows for the financial year, and the respective Notes.
- assessed the Management Report issued by the Board, and the proposal for the application of results included therein.
- assessed the work carried out by the former and current Statutory Auditors Firm, leading to the legal audit and additional services.
- assessed the Legal Certification of Accounts issued on October 2nd, 2020 by the Statutory Auditors Firm, which expresses an unqualified opinion, expresses a material uncertainty related to the continuity, emphasis the uncertainties related to the projections underlying the impairment tests of financial investments, informs that the financial statements for the preceding year presented in the

comparatives were audited by another Statutory Auditors Firm and notes the accounting impact of the lapse of the resolution of restitution of the remaining supplementary payments.

2. Based on the follow-up we carried out, we should mention the following:

- notwithstanding the bond loan at the beginning of the 2nd half, the progressive deterioration in the group's cash flow situation, which strongly impacted the execution and delivery ability of the various Business Units, a situation that was worsened by delays, not always controllable, occurred in important projects;
- the decision to discontinue the Environment Unit, made at the end of the year.
- the company's first losses, which resulted from the significant contraction of dividends received from subsidiaries;
- the expiry of the resolution to refund the remaining supplementary payments;
- the increase in net indebtedness, which was a consequence of the previous situations and of the impact of the application of the new standard related to leases (IFRS 16), which nevertheless remains within the limits of the negotiated covenants.
- the various impacts of the "Luanda Leaks" episode, namely about:
  . the immediate blocking of bank support necessary for the financial stabilization and current operations (in terms of guarantees for entering contracts and trade finance operations).
  . despite the quick availability of the majority shareholder to dispose of its participation, as the procedural and negotiation difficulties increased, which led to an almost insurmountable impasse in the achievement of the sale.
  . the need to replace the Statutory Auditors Firm in office, given the unacceptable conditions demanded to complete the work and issue the competent report, and the additional effort to monitor the work of the new team of auditors, namely with regard to:
    . the awareness of the need for knowledge of a new client, relatively complex and with differentiated businesses.
    .. the additional difficulties imposed by the COVID-19 pandemic control rules; and
    .. the demanding schedule for completing the work.
- the effects of the pandemic generated by COVID-19 obviously worsened, in many aspects, the difficult situation of the Group, creating a real perfect storm.
- the resilience shown by employees and managers, showing unequivocal pride and confidence in the group and the Efacec brand.
- the intervention of the Government which, through Decree-Law 33ª/2020, of 2 July, nationalized the shares of the majority shareholder with a view to its immediate sale, instantly undoing the Gordian knot

that, if it were to continue in place, would quickly lead to a scenario of clear doubt as to the continuity of the company and the group.

- the subsequent contracting, on August 14th, 2020, of two lines of financing with State guarantees, which will allow the stabilization of the treasury and reactivate operations.

3. The supervisory action developed allows us to conclude that:

- the acts of the Board to our knowledge safeguard the compliance with the law and the company's articles of association; however, we note the partial compliance with the resolution for the refund of the supplementary capital contributions.
- we were not aware of situations that could jeopardize the adequacy and effectiveness of the internal control system implemented by the Board in controlling the risks to which the company is exposed.
- the accounting and the accounts comply with the applicable legal, statutory, and regulatory provisions, reflect the activity developed and lead to a correct assessment of the company's assets and results.
- the Management Report is consistent with the accounts presented and faithfully describes the evolution of the activity and business in the financial year.
- the work done by the Statutory Auditors Firms was appropriate to the circumstances, and the additional services did not compromise its independence.
- the proposal for the application of results is adequate and is duly substantiated.
- the nationalization and subsequent additional financing contracting pushed away the immediate risk as to the continuity of the company and the group, creating conditions for the resumption of the activities recovery process, expected for the third quarter of 2020; nevertheless, it will be almost impossible for the results, to fulfill the existing convenants on their own.

4. We can thus declare:

- our agreement with the content of the Legal Certification of Accounts issued by the Statutory Auditors Firm.
- our agreement with the Management Report and the accounts for the financial year 2019 presented by the Board of Directors.
- that to the best of our knowledge, the financial information disclosed was prepared in accordance with the accounting standards adopted, giving a true and appropriate image of the assets and liabilities, the financial situation and the results of the company, and that the Management Report describes the evolution of the company's business, performance and financial position, accurately

describing the impact of events after the balance sheet date and providing a realistic image of the risks faced by the company and the group.

5. Accordingly, considering the actions carried out, we are of the opinion that:

- the Management Report and the accounts for the 2019 financial year presented by the Board of Directors are approved
- the proposal for the application of results included in the Management Report is approved.

6. Final remark

We are pleased to underline the spirit of mission and sacrifice that we have witnessed, in a generalized manner, in Efacec employees and management during this dark period in its history. Due to the closer contact, we would like to make a special reference to the accounting, financial and legal teams that, despite all the difficulties and setbacks, managed to carry out their mission.

We also want to say a word of appreciation to the team of auditors, who courageously accepted a difficult challenge, concluded with effort and competence.

To conclude, we would like to thank the Government for its decisive intervention, which, as we mentioned above, allowed us to undo the Gordian knot which, if it were to continue in place, would suffocate Efacec.

Thank you all so much.

Lugar da Arroteia, 02 October 2020.

The Supervisory Board

Mr. José Manuel Gonçalves de Morais Cabral — Chairman

Mr. António Manuel de Castro Vieira Rodrigues — Member

Mr. Sérgio Paulo Esteves Poças Falcão — Member

Signature

Annual Report and Accounts 2019
@ Efacec Power Solution

www.efacec.com
sgps@efacec.pt

Headquarters
Lugar da Arroteia,
4465-587 Matosinhos
Freguesia de Custóias,
Leça do Balio e Guifões
Concelho de Matosinhos
Distrito do Porto

Share Capitall
308 949 250,00€

Unique number of corporate entity and registration at CRC
513 180 966

efacec