Corporate Social Responsibility
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Dear Sirs,

I am pleased to share with you our fourth CSR report, which attempts to offer the reader an overview of Ficosa’s performance to face the CSR challenges of the automobile sector and describe our actions to integrate the United Nations Global Compact and its principles into our business strategy, culture and daily operations.

In our company, we continually strive to ensure the excellence in our products and, therefore, we continue to work on providing the most innovative solutions, developing and manufacturing products with high added value and high quality standards.

The automotive industry is going through an amazing technological transformation in which electronics and the electromobility are going to boost sales in the future. We are entering a new era in which the car is no longer just a means of transport but become a Smart Car, a connected device that will be the central axis of the Internet of things. Connected car will totally transform our lives to make them safer, more comfortable and more informed with endless entertainment opportunities. The car will become the most powerful multiplatform source of communication in which the interconnection between people, objects and infrastructures have no limits. At the same time, one of Ficosa’s future visions is the venture into the efficiency of new energy vehicles. Ficosa develops software and hardware solutions for the operation of hybrid, electric, and hydrogen vehicles. These products impress with their quality, reliability, innovative technology, and compliance with the strictest requirements.
In this regard, at Ficosa, we underwent a profound technological transformation during the last years by focusing on three areas of growth: connectivity, safety and energy efficiency. This year, we have achieved the following technological product sales:

- Ficosa has been awarded with new programs in connectivity, increasing at seven the number of OEMs we work with.
- Ficosa has been nominated for five new projects for Battery Management Systems for Premium and Luxury Brands for China including BEV and PHEV platforms.
- Ficosa has been successfully awarded an Intelligent Rearview Mirror for a light commercial vehicle and a park camera business.
- After last year first contract awarding for a Laser-scanner Cleaning System for a premium OEM brand, new additional volumes have been contracted.
- Ficosa closed its first contract for rotary shift-by-wire system for an Asian OEM. This new shifter systems bring new efficiency and safety features versus the conventional ones and expand our portfolio of products.
- Ficosa has been awarded for replacing ATX Automatic Gearshift by a Shift by Wire with Japanese OEMs.

Furthermore, we are committed to intensely innovating to stay on the cutting edge of the sector, 6.9% of revenue was invested in R&D in 2017. In the future, we expect to keep R&D growing with higher rates.

Ficosa has been actively working with Panasonic during 2017 to materialize synergies in three areas: Technology, Customers and Geography. New milestones have been achieved. Products like Smart Connectivity Module are a good example of the potential offered by the integration of our technology with Panasonic.

In this profound technological transformation, the customer is the focal point of all our management. That is why we strengthen our quality standards by implementing stricter rules in the 3Q3 audits for manufacturing plant and supplier management.

I would like also to highlight the strong Ficosa worldwide presence and its new sites. During 2017, the company began the process of implantation in two new markets, Morocco (Rabat) and Malaysia (Kuala Lumpur).

With an investment up to €50 million, Ficosa’s new facility in Rabat will become the Centre of Excellence in Automobile Cameras for the whole group, bolstering the company’s hub for new technologies in vision, connectivity, safety and efficiency in Viladecavalls (Barcelona, Spain). The plant will employ 700 people and post an estimated yearly turnover of €150 million by 2022. The new facilities in Rabat will be inaugurated on March 2018.

At the same time, a new technical center in India (Hyderabad) gave its first steps to become a software development center for our Ficosa’s New Tech Business Units.

The path of internationalization of Ficosa is remarkable for its pioneering spirit, the complexity of its operations abroad and for opening a market with global customers at the highest level. Nevertheless, it will bring new challenges for the company as competition for specialists is growing in the global labor markets. For that reason, we want to make sure that all the employees have the best working conditions they deserve. Ficosa’s commitment with its employees is materialized through a strong employee management program, based on maximizing the potential of our employees.

We do maintain a solid commitment towards integrity, one example of this is the fact that we reaffirm our support for the Ten Principles of the United Nations Global Compact in the areas of Human Rights, Labor, Environment and Anti-Corruption. Moreover, a new release of the Corporate Code of Ethics was approved by our Board of Directors in 2017.

Our Code of Ethics defines the standards and responsible behaviors expected of all those related to the company and with which they must comply. We are all responsible for complying with these reference standards, which are essential guidelines in order to guarantee our management model.

The Code is an extension of our values, which convey the essence of our company, how we think and believe we should act. I believe that the real value of a company is on its employees.

I encourage you to explore all the details of our activities through this Corporate Social Responsibility Report that strongly reflects the commitment and dedication of Ficosa.

Sincerely yours,
Josep Maria Pujol
President
About our report
In this report, Ficosa wants to explain how Corporate Social Responsibility (CSR) challenges are approached, and the performance of Ficosa’s activities in 2017, for the purpose of offering stakeholders complete and reliable information. The company focuses its reporting on explaining how the company is taking into consideration environmental, ethical and social aspects during the daily activities of the company. Likewise, it describes the annual progress made by the company in implementing the Ten Principles of the United Nations Global Compact in terms of human and labor rights, the environment and the fight against corruption. Furthermore, the CSR report describes how our company is advancing in each of the Sustainable Development Goals (SDGs). Our core business determines which of the global sustainability goals Ficosa supports first and foremost. In particular, our activities focus on health and safety (SDG3) and combating climate change (SDG 13). In addition to this, our commitment to sustainable practices includes decent work and economic growth (SDG 8), responsible consumption and production (SDG 12), and promoting peace and justice (SDG 16).

In determining the content to be included in this report, we consider the pertinent developments and initiatives, and the related performance indicators that are material for the company.

The Corporate Social Responsibility Report 2017 attempts to offer the reader a transparent and balanced overview of Ficosa’s performance in relation to the CSR challenges that the company has faced in 2017.

Objective of the CSR Report

The 2017 CSR report covers from the period 1 January 2017 to 31 December 2017. Unless indicated otherwise, the quantitative information reported in this document shows the performance of the company at global level and includes 100% of the facilities and sites where Ficosa holds a majority stake and, consequently, responsibility for operation and control. Thus, the report includes information from our operations in Asia, Africa, Europe, North America and South America.

To provide a better understanding of the company’s performance, previous years’ data - if available - have also been included.

The report focuses on the main business lines of the company: research, development, production and sales of high-technology vision, safety, efficiency and connectivity solutions (connected cars, driverless vehicles, assisted driving and e-mobility).
The company, with headquarters in Barcelona (Spain), generated sales of €1,190 million in 2017 and has a team of more than 10,000 employees, with manufacturing plants, technological centers and commercial offices located throughout 19 countries in Europe, North America, South America, Africa and Asia. Ficosa has been expanding its international presence with the strategy to be located near the decision and production centers of the majors OEMs in order to be able to offer a more competitive and global service.

The alliance with Panasonic, signed in 2015, has boosted regional synergies and international activity of the company. Ficosa has entered in new customers and obtained new programs in all regions, mainly in Asia. In addition to boosting its global presence, Panasonic and Ficosa are combining their respective technologies to jointly develop products such as electronic mirror systems, next-generation cockpit systems and Advanced Driver Assistance Systems (ADAS), which will facilitate business expansion in fields where future growth is anticipated. With this transaction, Ficosa will accelerate the commercialization of products jointly developed by both companies.

Ficosa is now one of the top-tier global providers devoted to the research, development, manufacturing and marketing of high-technology vision, safety, connectivity and efficiency systems for the automotive and mobility sectors.

- €1,190 million sales
- Production plants, technical centers or trade offices in 19 countries, in 4 continents.
- Established in 1949 in Barcelona (Spain)
- 10,239 employees
- Pioneers in high-technology vision, safety, connectivity and efficiency systems for the automotive and mobility sectors
- 21 manufacturing plants
- 14 R&D and technical centers
REPORT

2017

· Dabrowa Gornicza
· Pune (two plants)
· Pant Nagar (Joint-venture)
· Hyderabad
· Venaria Reale
· Morcone

· Dieuze
· Le Neobourg
· Rüsselsheim
· Köln
· Lindau
· Wolfenbüttel

· Rüsselsheim
· Köln
· Lindau
· Wolfenbüttel

· Gyeongsangbuk-do (Joint-venture)
· Tokyo (office)
· Kuala Lumpur

· Taicang
· Chongqing
· Shenyang

· Pune (two plants) (Joint-venture)
· Pant Nagar (Joint-venture)
· Hyderabad
Ficosa finished 2017 with sales far above 1 billion euros for the year. The solid growth experienced by the company since 2012 is due to a clear commitment to globalization, operational efficiency, innovation and activity diversification, aiming its activities at new sectors aside from the automotive industry.

Ficosa's internationalization strategy responds to Ficosa strong commitment to stay close to its clients to offer the better service. For this purpose, the company is strengthening its international presence. During 2017, the company began the process of implantation in two new markets, with the manufacturing plants of Morocco (Rabat) and Malaysia (Kuala Lumpur). At the same time, a new technical center in India (Hyderabad) gave its first steps to become a software development center for Ficosa’s New Tech Business Units on 2018.

In 2017, the region where Ficosa has registered a greater increase in sales volume have been Europe, mainly due to a higher market volume and the new products launched on New Technologies.

Nevertheless, North America has become, after Europe, the most important market for Ficosa, which began operations in this region in 1994 and where it produces mirrors, gearboxes and brake systems. In the United States, Ficosa currently has a commercial office and a development center in Detroit (Michigan); a manufacturing plants in Shelbyville (Kentucky) and Cookeville (Tennessee), which replaced the Crossville factory (Tennessee) at the end of 2016. This facility, in which the company has invested more than $50 million, is equipped with the latest technology, making it the group’s most advanced plant in the world and boosting overall efficiency, operating capacity and competitiveness. Besides, the two Ficosa plants in Mexico, located in Salinas Victoria (Nuevo León) and Escobedo (Nuevo León), where the company also has a R&D plant, reinforce Ficosa’s activity in the North American region.

Sales (€ million)

Sales per region 2017 (% sales, € million)
In 2017, Ficosa has closed its first contract for rotary shift-by-wire system for an Asian automobile manufacturer and also closed contracts with others renowned Asian car manufacturers to produce shift-by-wire levers. These contracts strengthen Ficosa’s solid position in China, a key market in which the company is present in Taicang, Chongqing and Shenyang.

In Brazil, Ficosa implemented a factory in Jandira (Sao Paulo) in 2016. The new plant is equipped with the latest-generation technology that meets the highest standards of energy efficiency, demonstrating Ficosa’s commitment to sustainability and respect for the environment. The facilities at Jandira has also a R&D center that develops solutions for the Mercosur region.

Distribution of employees per region 2017 (% employee, No.)

- **Europe**: 64% (6,545 employees)
- **Asia**: 17% (1,772 employees)
- **South America**: 3% (294 employees)
- **North America**: 16% (1,628 employees)
At present, Ficosa is a conglomerate of companies formed by engineering centers, manufacturing plants and commercial offices, distributed all over the world. The group is organized into different Business Units, most of them are showed below.

<table>
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<th>01</th>
<th>Rear-view systems:</th>
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<th>Commercial vehicle:</th>
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<tr>
<td></td>
<td>Develops, produces and commercializes rear-view mirrors and vision systems -forward, backward and lateral- for vehicles.</td>
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<td>Develops, produces and commercializes all Ficosa’s product portfolio for buses, trucks and industrial and commercial vehicles.</td>
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<td>Develops, produces and commercializes systems which interact between the driver and the vehicle, such as shifters, parking brakes and drive cables.</td>
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<td>Develops, produces and commercializes systems and parts for seats and vehicle doors, such as actuators, cables, and lumbar systems.</td>
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<th>Ficosa solutions:</th>
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<td></td>
<td>Develops, produces and commercializes fluid and ventilation systems installed at the vehicles’ underhood.</td>
<td></td>
<td>Sells technical services such as auditing, designing, manufacturing and financing in the following areas: energy efficiency, communication machine to machine, smart cities and internet of things.</td>
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<th>Advanced Driver Assistance systems:</th>
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<td></td>
<td>Develops, produces and commercializes antenna systems for vehicles, communication modules and antennas for navigation systems.</td>
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<td>Develops, produces and commercializes systems that help the drivers in its driving process.</td>
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<td>Develops, produces and commercializes electric powertrain technologies and connected infrastructures to enable the electric propulsion of vehicles and fleets.</td>
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Ficosa is composed by two groups of business: Traditional products and New Tech products. Inside traditional products we highlight the rear-view systems which represent around the 61% of total sales. Ficosa is one of three global leading companies in this area. In 2016, Ficosa hit an all-time record, with €181.6 M in new contracts for rear-view mirrors with the main automobile manufacturers (OEMs) in the world. As a result, Ficosa will increase production to an all-time high of 27.3 million units in 2021.

In terms of product, the major increase in sales has occurred on the new technological products focused on safety and comfort systems (ADAS) and e-Mobility.

In connectivity, Ficosa got significant customers orders as a consequence of the collaboration with Panasonic. The capital and business alliance with Panasonic has helped the company to accelerate the development of new products with high added value, by allowing the integration of both companies’ know how in the field of image and automotive technology.

In that sense, the companies are already working together on new products linked to active safety (advanced mirrors), electric cars and communication systems (connected car).
Ficosa has established itself in Africa for the first time, opening a new production center in Rabat (in the Technopolis free zone), Morocco.

With an investment of €50 million, the new plant will be inaugurated in 2018 and will employ roughly 700 people and post an estimated yearly turnover of €150 million by 2022.
At this new plant, which has a total surface area of 12,000 square meters that can be expanded to 17,000, Ficosa is inaugurating its Centre of Excellence in Cameras for the whole group, where the company will develop and produce highly complex vision systems that are crucial for the car of the future. These facilities will also produce electric cable sets. In addition, they will manufacture traditional products for the local market, such as rear-view mirrors, shifter systems and washer systems, with the goal of providing a better service.
In particular, our mission is to innovate, develop and create high added value products that contribute towards improving mobility in key aspects of progress such as safety, comfort, communications and the environment, exceeding market and customer expectations.

Our strength comes from our commitment. For us, success is not measured by size, but by flexibility, speed and creativity and in understanding that being the best means meeting the needs of our employees, customers, community and shareholders alike.

At Ficosa, we believe that success depends on how we live our Vision and the Values on which it is based. Our Values reflect the spirit of our company, the way we think and how we believe we should act and have become the mainstay of our Code of Ethics. We are convinced that if we act in accordance with our values, we can achieve our Vision. The company values are posted in the different company sites and every new employee receives an explanatory leaflet informing them about our values when joining the company.
The values that guide our conduct and identify us as a company are as follows:

**Caring for People:**
People are a key part of our corporate project. Learning and training, respect, diversity, concern, friendly and informal relationships should reflect the very essence of us as a company.

**Teamwork /Learning together**
Sharing knowledge, openly communicating, learning from mistakes, cooperating, and understanding that personal success is the company’s overall success.

**Commitment & Passion for Work**
Enthusiasm for the corporate project, knowing how to live our values. Feeling part of the fulfillment of our vision, persevering with hard work, enjoying work and a job well-done. Everybody’s work is equally important.

**Innovation & Creativity**
All our employees have the capacity to exhibit and create; therefore, we have to enable their ideas to emerge through our leadership. Brave the market by being bold and assuming risks, but always with sound judgement.

**Customer Focus**
Helping our customers achieve success is key to us achieving ours. We should be able to build relationships based on trust with them, understanding and anticipating their needs.

**Honesty & Integrity**
Being honest and acting with integrity in all our actions and behaviors. Ethical principles and our values should guide us in our day-to-day decisions.

**Leadership**
Modesty, not taking center stage, understanding that everybody’s work is equally important, is essential in Ficosa’s leadership style. Lead by example and showing appreciation for people. Delegate, decentralize, and trust in the ability of people. Live the values that constitute the essence of the company.
CSR in the company
The company’s strengths come from its commitment and its understanding that being the best means being able to respond to the needs of our employees, customers, community and shareholders in equal manner. In this regard, Ficosa continues its efforts to generate shared value among its stakeholders and add sustainability practices in its business strategy and culture. CSR makes our company more sustainable and innovative, which contributes to a more sustainable economy.

The Chief Executive Officer is the last responsible for implementing our commitment to CSR. Any new CSR initiatives and programs are reported to the Executive Committee. The integration of CSR into daily activities is promoted through a cross-functional organization that involves different business functions and countries.

As member of the United Nations Global Compact since 2002, we have embraced the Sustainable Development Goals (SDGs). Sustainable Development Goals (SDGs), introduced in 2016, are an ambitious plan of action defining sustainable development priorities at a global level for 2030, with the aim of eradicating poverty and promoting decent lives with opportunities for all.

There are 17 goals and 169 universal targets that are inter-connected, applicable to all nations and peoples, and that represent a call to action for governments, civil society and the private sector.

The company reviews all the SDGs to identify areas where we can maximize our positive contributions. We focused our sustainability-related activities on those SDGs which greatly influence our business model and value chain and help us bring about real change. This mainly affects the following SDGs and the associated sustainability activities:

SDG 3 — Ensure healthy lives and promote well-being for all at all ages

According to the World Health Organization (WHO), car accidents kill approximately 1.2 million people worldwide each year that is one fourth of all deaths caused by injury. Also about 50 million people are injured in traffic accidents. If preventive measures are not taken, road traffic death is likely to become the third-leading cause of death in 2020 from ninth place in 1990. By collaborating with national and international programs to accelerate the development and standardization of connected cars and autonomous vehicles and by developing new emergency systems or new tools and products to improve the vision of the driver, help prevent collision or estimate the degree of attentiveness of the driver, Ficosa is contributing to the Health Goal to reduce road traffic fatalities by 50% by 2020.

Learn more: Innovation in our products.
SDG 13 —
Take urgent action to combat climate change and its impacts

The transportation sector is responsible for 14% of global greenhouse gas emissions. Reducing emissions from transport is therefore an important part of any strategy to combat climate change and its impacts, in line with Sustainable Development Goal 13. The widespread electrification of transport through the adoption of electric vehicles (EVs) is one strategy to reduce GHG emissions. If EVs are charged with electricity from emission-free sources, their adoption can also increase the share of renewables in the global energy mix (target 7.2 - Affordable and clean energy), and contribute to reducing air pollution and related health impacts (target 3.9 - Ensure healthy lives and promote well-being for all at all ages and target 11.6 - Reduce the adverse per capita environmental impact of cities). By investing in research and development to improve efficiency, reducing the complexity of electric vehicles and developing new generations of Battery Management Systems or On-Board Chargers (OBC), Ficosa is contributing to combating climate change and its impact. Furthermore, the company is using less-carbon intensive manufacturing processes to mitigate the effects of climate change.

Learn more: Innovation in our products; commitment to environment.

SDG 12 —
Responsible Consumption and Production

Ficosa is designing and manufacturing products through the responsible use of raw materials and natural resources. For example, the company is working to reduce its waste generation throughout the companies’ life cycle. For example, Ficosa is working in all its operational facilities to increase the recovery of cleaning solvents and other chemicals and to reduce the amounts of these substances emitted from its plants. Furthermore, one of the company’s main goals is to keep at bottom level the number of defective parts and improve both its processes and its employees’ skills, using problem-solving and analysis tools with the aim of reaching zero defects.

Learn more: commitment to environment; commitment to quality.
**SDG 16**

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Ficosa is working to ensure that conflict-free minerals are used in the manufacture of its automotive components. Ficosa implemented an annual supplier inquiry to collect from all its suppliers the Standard Survey (EICC/Gesi template) on conflict minerals. The collected information is internally processed and provides useful information to ensure procurement that is free from conflict minerals originating in the Democratic Republic of the Congo or adjoining countries.

*Learn more: Conflict minerals.*

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**SDG 8**

Promote inclusive and sustainable economic growth, employment and decent work for all

The company has a team of more than 10,000 employees, with manufacturing plants, technological centers and commercial offices located throughout 19 countries in Europe, North America, South America, Africa and Asia. In all the countries where Ficosa operates, the company is building a safe and secure workplace where employees feel valued, where their rights are respected, and where they can do meaningful work.

*Learn more: commitment to our people; commitment to health and safety.*
Compliance and business ethics

At Ficosa, we are committed to meeting high ethical standards and complying with all applicable local, national, and international laws wherever we do business. Behaving ethically is fundamental to establishing and sustaining legitimate and productive relationships between organizations.

In this direction, a new release of the Ficosa's Code of Ethics was approved by the Board of Directors on 2017. Our Code of Ethics defines the standards and responsible behaviors expected of all those related to the company and with which they must comply.

We are all responsible for complying with these reference standards, which are essential guidelines in order to guarantee our management model. The Code is available for all employees in the Ficosa intranet and it is included in the welcome package given to new employees.

Starting in 2018, Ficosa will organize online training and awareness campaign to ensure that all the employees are aware of the new commitments of Ficosa and confirm their compliance with the Code of Ethics.

In order to guarantee the effective application of the regulations and the guidelines of this Code, the company has established a whistleblowing channel to notify any breach of the Code of Ethics.

On the other hand, Ficosa policies and procedures, available worldwide, ensure compliance with J-SOX in all activities performed in the day-to-day operative of Ficosa. Controls have been implemented to monitor compliance with these procedures and are evaluated regularly to ensure its effectiveness. Periodical audits are carried out.

In Ficosa, we are convinced that emphasizing the compliance culture makes a significant contribution to securing the sustainable success of our company. In this regard, the company decided to define a Crime Prevention Model.

The goal was to adopt and effectively implement the appropriate measures to prevent and detect criminal risks and ensure ethical practices within the company.

This compliance aspires to be integrated as part of a corporate culture whose hallmark has always been the promotion of ethical values at all levels.

Several regulations, procedures and protocols have been implemented to support the crime prevention in areas such as money laundering, antitrust, corruption in business, treasury and social security and subsidy fraud, fraudulent and unfair behavior, gifts and hospitality, intellectual and industrial property, the transportation of persons, goods and other related activities.

All the different regulations, procedures and protocols focus on company and sector-specific risks and priorities and cover the facilities and sites where Ficosa holds a majority stake and, consequently, responsibility for operation and control.

Living the values at Ficosa

The values of Ficosa underpin everything we do and must be reflected in our day-to-day behaviors. To make sure every employee understands and truly lives the corporate values of Ficosa, the company turned value into specific operating principles and communicate often about them.

In all sites, the values are displayed in the factories and offices to state clearly what we care about. Mexico has implemented a specific program for ensuring that all employees understand and “live” by the values of Ficosa.

Every year the manufacturing plant in Mexico organizes workshops and different campaigns to make sure that its employees embrace the company values. In Shelbyville (USA), each quarter, the operational facility focuses on one value. Team members are nominated based on how well they exemplify this value. An office-wide voting determines who best embodies the values of Ficosa. The team member is announced, awarded and recognized for their outstanding commitment at the next quarterly meeting.
Human Rights

Ficosa wants to be responsible not only for its own decisions and activities, but also wants to make sure that its suppliers and business partners operate in line with the company’s CSR principles and respect the Universal Declaration of Human Rights and environmental protection. Following the General Purchasing Conditions, in addition to all applicable laws and regulations to be observed by the supplier, it is also the supplier’s obligation to respect social responsibility duties and especially the requirements based on the Universal Declaration of Human Rights (UDHR) and the International Labor Organizations (ILO) conventions proclaimed to respect employees’ rights, age and working-hours limits, etc. The purchase orders sent by any company of Ficosa or any of its subsidiaries must include the terms and clauses of the General Purchasing Conditions.

Information security

In 2017, Ficosa strengthened its Information Security Management System (ISMS onwards) based on ISO/IEC 27001:2013 standard. A Security Committee was formally appointed and holds the proper authority from the Board of Directors to govern the ISMS.

The Committee is responsible for defining and establishing the information security strategy and management system. ISMS current scope includes the Engineering, Prototypes and Testing Business functions.

Currently the scope of the ISMS considers the areas dealing with most highly sensitive information, shared sensitive information with customers and contract, intellectual and industrial property law protected information.

ISMS aims, among other internal goals, to improve the confidence of the interested parties about information management and the security of its information systems.

The ISMS includes the implementation of risk assessment and management scenarios based on the methodology MAGERIT (Version 3).

Ficosa has also implemented zoning (S1-S2-S3) where S3 zones are related to confidential and secret classified projects. Each zone has been provided with its own security criteria, controls, alarms, cameras, procedures, training, etc.

As part of the ISMS project, Ficosa has developed and enhanced a training and awareness program. More of 600 employees have attended the training cycles, including management.

Furthermore, the company has implemented an incident management procedure to enable any employees and stakeholders to report information security concerns and prevent recurrences.
Commitment to quality
The rating of a car and the value of an auto manufacturer’s brand are dependent on the customer’s appraisal of quality. In these contexts, Ficosa believes that auto part and equipment industry have an important responsibility and constantly provides top-level quality to customers at every stage, from the planning of new products, through development, manufacturing, distribution and sales to after-sales service.

Since 2009, Ficosa has implemented the Corporate Quality 3Q3 program, which aimed to improve quality thrice within three years’ time, thus elevating the business to the top of the automotive sector.

The 3Q3 program is updated every three years and is accompanied with a specific roadmap and quality targets to make sure that all the regions are following the best practices in this regard.

Through the 3Q3 program, the company performs more than 100 audits per year to ensure that all the sites comply with the quality requirements of the company.

In 2015, the company has implemented stricter rules in the 3Q3 audits for supplier management, project management and technical centers, using the same criteria as for Ficosa manufacturing plants. In 2016, the company has implemented a new internal 3Q3 Process Design Audit to certify the design of the production process at Ficosa sites (plastic & metal injection, injection tooling, paint shop). The new internal audit will be applicable to all the Company’s technical centers and manufacturing plants.

Furthermore, the company has added three new checklists in the 3Q3 Plant Audit to make sure that each site is following the Ficosa standard for proactive management of warranties. Finally, the company has implemented stricter rules in the 3Q3 audits for technical centers. The main goals of the new checklist is to certify that any software developed by Ficosa is aligned with the ISO/IEC 15504 guidelines. Furthermore, these stricter rules have been implemented to guarantee that the design and production of safety products comply with the highest standards of the automotive industry.

ISO/TS 16949:2009 defines the quality management system requirements for the design and development, production and, when relevant, installation and service of automotive-related products. It is specific to the automotive industry and based on the ISO 9001 standard.
Due to the increasing complexity of our products, Ficosa decided to create a new department called R&D Governance in 2017.

The purpose of this area is to bring together all the needs within the development phases in terms of IT infrastructure, Education and Quality, in order to come up with the best development processes that are useful and sufficient to make developments more efficient, with improved quality and according to automotive standards.

R&D Governance is divided into 3 main areas:

- **R&D Productivity**'s mission is to manage the specific R&D main tools and platforms to support effective deployment of key processes and world class design methodologies on the fields of interest. It must also ensure the R&D data integrity and security.

- **R&D Education & Methods** goal is to define the right training materials and engineering career paths, to promote innovation, productivity and talent retention within the Ficosa engineering community. The correct implementation of these activities enables Ficosa to have a stable, talented and highly trained engineering team that ensures top quality product development.

- **R&D Quality** works on continuous improvement of Ficosa’s development processes, keeping special focus on the increasingly demanding software development requirements. The main goal is to have a global approach to Quality, starting from the very first steps in the development process throughout the product’s lifecycle. Quality Assurance (QA) organization across the different Ficosa Business Units is defined in a consistent way and uses a common evaluation criteria which helps to have an operative escalation process involving development and quality teams at all levels of authority. The output of an improved QA process within the development phase is a set of KPI to support business decision making.

- **R&D Governance** also includes two specific areas, **Software Platform** and **Functional Safety**. The Software Platform’s mission is to ensure the correct definition, qualification and deployment of the software development platform within Ficosa. The Functional Safety area must create and deploy the specific functional safety processes within Ficosa, aligned with R&D Quality, to fulfill the automotive standards. The creation of R&D Governance is a clear commitment of Ficosa to improve the development of safe and qualified products for the automotive industry.

---

**Main Challenges**

In 2017, the company focused on improving both our processes and our employees’ skills, using problem-solving and analysis tools and techniques with the aim of reaching zero defects.

One of the main challenges for the company will be to reduce by 62% the number of repetitive complaints in 2021 (base year: 2016). To achieve it, the companies will assign a team per each problem to work with it and will elaborate processes and handbook to standardize the solutions and share the lesson lears.

Furthermore, the company will focus its effort on improving the management of warranties. We will monitor the customer portals to reduce response time, as we do not have to wait for the official notification of defective parts to be received to take action. We will continuously monitor any possible warranty incidents thanks to a better monitoring of our customer portals. Furthermore, we will use statistical tools to predict any future trends and contrast the effectiveness of our actions. In addition, the company will focus its effort on implementing the Lean Six Sigma methodology in all the manufacturing plants and technical centers and improving the communication between operation and product design.

At last, the company will improve its development system to ensure top-level quality in the design and development of new technology products.
Company quality is managed through the monitoring of KPIs. The company has defined a balanced scorecard system that offers the site’s monthly values versus target figures. This monthly reporting enables the company to pinpoint areas where improvement is needed.

In the last three years, Ficosa has reduced their defective parts indicators by 44% (Customer ppm) and by 41% (Supplier assembly ppm). In line with this improvement, the company has reduced its customer claims by 17% since 2015.

The quality management goes beyond Ficosa activities. The company wants to make sure that its suppliers also operate in line with the company’s commitment to excellence. All the suppliers must have a quality certification (ISO 9001, VDA, EAQF, and ISO/TS 16949) and must provide Ficosa with written evidence of the most recent certification renewal.

Ficosa conducts some periodic supplier assessments to ensure that the suppliers’ quality meets the standards established. Since 2015, the supplier’s audits have been using the same criteria that the ones used for Ficosa’s manufacturing plants.

Furthermore, Ficosa reviewed the criteria used to select its supplier for its Purchasing Optimum Panel (POP). In 2017, the company has implemented a strong program to reduce the impact of suppliers on customers by imposing stringent rules and consolidate the supplier audit in the countries where the company operates.

### Ficosa objectives

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>Target 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer satisfaction (%)</td>
<td>94</td>
<td>98</td>
<td>93</td>
</tr>
<tr>
<td>Reduction of the number of OEM QCR due to suppliers</td>
<td>65</td>
<td>56</td>
<td>66</td>
</tr>
<tr>
<td>Warranty cost vs sales (%)</td>
<td>0.36</td>
<td>0.27</td>
<td>0.29</td>
</tr>
<tr>
<td>Reduction of the number of recurrent complaints</td>
<td>229</td>
<td>195</td>
<td>185</td>
</tr>
<tr>
<td>Reduction of the number of customer claims</td>
<td>356</td>
<td>315</td>
<td>334</td>
</tr>
<tr>
<td>Reduction of the number of defective parts per million delivered (ppm) – Customer</td>
<td>4.4</td>
<td>4.4</td>
<td>8</td>
</tr>
<tr>
<td>Reduction of the number of defective parts per million delivered (ppm) - Supplier assembly</td>
<td>32</td>
<td>32</td>
<td>55</td>
</tr>
<tr>
<td>Over sales from Non-Quality Costs (NQC) (%)</td>
<td>0.75</td>
<td>0.46</td>
<td>0.5</td>
</tr>
</tbody>
</table>
In 2017, Ficosa has been recognized by Toyota Motor Europe with the Achievement Award in the Project Management category.

With this award, the Japanese multinational corporation has recognized Ficosa’s noteworthy capacity in managing the projects carried out by the company in 2016. Among these projects is the Toyota Hybrid crossover CH-R, for which Ficosa has developed washer systems, manual shifter, manual and automatic shifter cables and brake cables.

Ficosa has received awards from Toyota Motor Europe on many occasions, a fact that highlights the multinational corporation’s policy with all clients of quality, excellence, service, flexibility and continuous improvement.
Continuous improvement (FIT Program)

Within the aim of consolidating its market positions near automobile manufacturers and strengthening its presence on all markets, Ficosa bases its strategy on continuous improvement concerning both products and all processes around them.

Ficosa understands that continuous improvement is any change of direction to improve processes by eliminating any inefficiency and maintaining consistent quality. All Ficosa employees are responsible for continuous improvement, from the first operator to the last manager of the company. Continuous improvement affects the Departments related to Production as well as the Financial-Administrative, Purchasing, Commercial and R&D departments.

To ensure structured support of continuous improvement a Ficosa Improvement Transformation (FIT) Program was launched at the end of 2016. This Continuous Improvement (CI) program is supported by top management and will be implemented in all the operational facilities of Ficosa.

The project is supported by an action plan aimed at having self-sufficient CI teams in all the countries where Ficosa operates. The first year of the program has been divided into 4 main pillars:

- MAIN GOALS
  - Making sure any site has responsible for implementing the FIT program
  - Implementing and running projects and CI activities
  - Gathering suggestion and sharing best practices
  - Gathering data to detect any issues

- WHAT DID WE DO IN 2017?
  - Continuous improvement structure in every Plant:
    - CI Managers and experts (YB, GB, BB) in all the facilities,
    - Regional CI Directors and Corporate CI Director
    - Local CI Steering Committees held every month
    - More than 500 employees trained (over 13,000 hours invested in training) Using self-developed Ficosa training materials for YB and GB sessions.
  - More than 1,300 Six Sigma projects, lean workshops and kaizens.
  - Quick Kaizen standardized
  - Implementation of new Six Sigma methodology in all plants
  - Developing a suggestion system that can be used to collect, analyze and track any suggestion.
  - Building a Yokoten culture to share best practices within plants
  - The company achieved 0.5 suggestions per employee.
  - Standardization of a new 5S system to make sure that all the plants are following the same standards and criteria.
  - Big Pit: Implementation of diagnosis tools to find opportunities (e.g. VSM, yanzen).
  - MES: Deployment of Manufacturing Execution System.

The program involves the use of continuous improvement methodologies, such as Lean Six Sigma, as well as soft skills that support employees in their everyday quest for better products and processes. Ficosa allows development of human resources in its broadest sense, by adapting organization structures to globalization process needs. We have active experts (called Belts) of different levels: White, Yellow, Green and Black Belts, sharing a common goal of everyday improvements. The new FIT program of the company is not only about optimization of the manufacturing process, but also changing the culture of the company and developing people to make sure they can make the right decisions every day.
Commitment to our people
Ficosa’s commitment to people is the foundation of the company’s culture.

— Policies

For Ficosa, being a responsible employer involves a number of challenges: train employees, advance their careers, provide them with fair salaries, look after their well-being at work, combine operational excellence and personal development and encourage a full social dialogue.

Ficosa has numerous internal guidelines, policies and procedures to ensure that all the sites are following the best practices in recruitment, career management and talent development. Furthermore, the company has defined an employee handbook available for all the employees.

The handbook includes information about fair business practices at work, Health & Safety, training, performance development, prevention of discrimination and promotion of diversity, etc.

— Governance

The Chief Human Resources Officer, member of the Executive Committee, is the highest responsible person for labor practices in the workplace. The Corporate Human Resource department is responsible for defining the above guidelines, policies and procedures. Every site has a human resources manager, who is responsible for implementing the policies defined at corporate level in every country where the company operates.

— Main Challenges

Ficosa develops its activity in a very competitive and demanding industry. Since 2008, the company has tapped into new business areas and international markets and integrated them into the corporation. In this regard, Ficosa has firmly banked on creating high value jobs.

This is shown by the fact that the number of engineers working in the headquarters in Viladecavals (Spain) has risen by more than 70% from 2013 to 2017. Moreover, the company is hiring worldwide hundreds of employees with a wide variety of skill sets and educational backgrounds for its new automotive manufacturing facilities, such as the newest one in Rabat (Morocco).

The need to hire new staff is bringing new challenges for the company as competition for specialist and managerial staff is increasing in some areas of the global labor markets.

Therefore, we are implementing all the necessary mechanisms to get the best out of our teams and recruit the best professionals to maintain our competitive advantage in the long term.

The following have been identified as the most significant areas of our labor impact:

- Diversity and integration
- Development, training and knowledge management
- Dialogue and communication
- Health promotion and well-being
- Safe and healthy working conditions (see “Commitment to Health and Safety”)
### Key results

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>Variance from previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workforce</td>
<td>9,084</td>
<td>9,855</td>
<td>10,239</td>
<td></td>
</tr>
<tr>
<td>Turnover (%)</td>
<td>2.61%</td>
<td>2.57%</td>
<td>2.38%</td>
<td>-0.2%</td>
</tr>
<tr>
<td>Female staff in total (%)</td>
<td>47%</td>
<td>46%</td>
<td>42%</td>
<td>-4%</td>
</tr>
<tr>
<td>Female staff in top executive positions (%)</td>
<td>14%</td>
<td>14%</td>
<td>14%</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Workforce (No.)

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workforce</td>
<td>8,424</td>
<td>9,084</td>
<td>9,855</td>
<td>10,239</td>
</tr>
</tbody>
</table>

#### Turnover (%)

<table>
<thead>
<tr>
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<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover</td>
<td>1.59</td>
<td>2.61</td>
<td>2.57</td>
<td>2.38</td>
</tr>
</tbody>
</table>
In Ficosa, the criteria and procedures for the recruitment of human resources take into account the principle of equality and non-discrimination based on the grounds of sex, race, national or social origin, social class, birth, religion, disability, sexual orientation, union association, political opinion, age or any other condition. Furthermore, all worker agencies that work with us must guarantee the equality of the sexes, origin, ethnicity, political affiliation or religious option in the candidates who are pre-selected for our company. All the managers and middle management are responsible for ensuring treatment without discrimination to employees and collaborators.

In 2018, the training catalogue will include two specific training actions focused on equality at work and generational diversity. In Soria (Spain), all managers have already received training in equality and harassment in the workplace. In Turkey, the manufacturing plants have defined local gender equality training for their employees.

In Shelbyville (USA), new hires have a mandatory training concerning Diversity, Harassment and Proper Workplace Communication. Employees are instructed in how to report any violations. Furthermore, the employees of the site have multiple channels and ways to report any violations.

In 2015, Dabrowa Gornicza (Poland) received a special prize “Icebreaker” for its commitment to promoting inclusion of people with disabilities by the Foundation for Vocational Activation of People with Disabilities and the Polish Organization of Employers of Disabled Persons. One of the main goals of the site is to have six percent of employees with disabilities. Since 2010, the site has defined a specific program for promoting the employment of disabled people. Every disabled employee in the site received a special treatment with external doctors. Furthermore, the company regularly checks workstations or job positions to make sure that working conditions are adapted to disabled people needs.
Soria (Spain) collaborates with correctional institutions for fostering the rehabilitation of former prisoners. In 2015, the company received a special prize “Empresa Socialmente Responsable” (Socially Responsible Company) by FADESS (Fundación de Ayuda al Discapacitado y Enfermo Psíquico de Soria) that recognizes its commitment to hiring, training and reinserting released or former prisoners of Soria penitentiaries. The company collaborates with FADESS and ASOVICA (Asociación Virgen del Camino de Familiares de Personas con Enfermedad Mental) to promote the social inclusion of physically and intellectually disabled people. Furthermore, the site, in collaboration with the Red Cross, has implemented a program for promoting the integration of disadvantaged groups.

In Taicang (China), the company has defined an action plan to improve the employment of people with disabilities. The action plan included interviews and on-site visits to various local manufacturing plants to share best practices and review different examples of infrastructure adaptation to accommodate employees with disabilities with the collaboration of the Rotary Club of Shanghai. Furthermore, employees from the Human Resources, Quality and Operating departments participated in an awareness training conducted by Social Inclusion Academy (SIA) and Inclusion Advisory Group. The Social Inclusion Academy training program is a cooperation between the Inclusion Factory and the German Chamber of Commerce to promote a successful integration of people with disabilities in a variety of positions in cross-sectoral environment. In 2017, the plant hired three new employees with a disability. The plant has defined a new action plan in 2018 to hire 20 new employees with disabilities in the next years.

Brazil has made workplace adjustments and provided new infrastructures in the assembly line to accommodate deaf or hard of hearing (HOH) employees. Furthermore, the company updates its emergency process and visualization to properly alert its deaf or HOH employees in an emergency situation.

In different countries such as France, Brazil and Spain the company has conducted surveys to measure the potential impact of psychosocial risks and work-related stress experienced by its workers. The surveys included questions regarding discrimination and harassment.

### Employee development

Employee development is a priority for Ficosa. Since 2011, Ficosa has adopted a system-wide performance which focuses on setting performance goals for employees according to their responsibilities and area objectives.

A complementary mid-year review has also been implemented to update the existing objectives with new information that may have happened during the first half of the year. Every site decides the performance goals at the beginning of the year, taking into account process implementation and local conditions and sharing this decision with corporate development.

The technical and soft competencies associated to each position are assessed, generating development opportunities for each person. Finally, it is important to highlight the informal mutual feedback that is generated between employees and managers throughout the year, which is at the base of the main dynamics of people development generated in Ficosa.

<table>
<thead>
<tr>
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<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>Variance from previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of employees with access to performance and career development review (target)</td>
<td>2,026</td>
<td>2,286</td>
<td>2,646</td>
<td>16%</td>
</tr>
<tr>
<td>Employees that fulfilled the performance and career development reviews (%)</td>
<td>73%</td>
<td>82%</td>
<td>87%</td>
<td>5%</td>
</tr>
<tr>
<td>Workforce across all locations who received regular performance and career development reviews (% of the total)</td>
<td>16%</td>
<td>22%</td>
<td>26%</td>
<td>4%</td>
</tr>
</tbody>
</table>
Growing @Ficosa

In 2014, Ficosa launched a Competency Development Program with the aim of identifying and maximizing the potential of key employees. This program implies, as a starting point, an external Development Center that enables each one of the participants to better understand their behaviors and to map their strengths and development areas. This analysis is the foundation of Growing@Ficosa, a program that provides the resources and support for accelerated development adapted to each one of the participants.

Ficosa is committed to increasing the number of participants with the goal of becoming an ongoing process to develop key people.

This is a global long-term program, not only because it lasts two years, aiming at 101 participants in 2016-2018, but also because each year there is a new group joining the program. From 2017 to 2019, 22 new participants coming from different functional, levels of responsibility and countries areas joined the program.

Growing@Ficosa is helping to create a homogeneous people development culture across the organization. It involves participants with different backgrounds working together with the Human Resources team and the managers and top lines of the Company worldwide.

The program is based on a 3-band commitment and is structured around:

01 An Individual Development Plan (IDP):
An ad-hoc plan resulting from one-to-one interviews with the participants and their managers to better understand and define their main expectations and development. This is a blended program based on the 70-20-10 model with a strong focus on learning on-the-job and social learning.

02 A Corporate Program:
With training on areas such as Leadership, Teamwork, People Development, Impact and Influence, and supported by coaching, mentoring and specific metrics, as 360º or other behavioral KPIs.

Successfactors

Until 2015, the company had different Human Resource (HR) systems and tools that supported personnel administration processes and that needed a global and integrated solution. To improve the efficiency, Ficosa has implemented a new Human Resources Information System named SuccessFactors. This new tool is an employee-centric system and enables each employee to complete HR tasks more quickly and perform strategic HR activities more frequently such as its annual goals, performance program, training program, etc.

Successfactors will include the learning program of the company, linking the competency gaps with the training needs that are part of the annual training plan of each site.
Training and knowledge management

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>Variance from previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of training hours provided to employees</td>
<td>157,518</td>
<td>165,871</td>
<td>194,787</td>
<td>17%</td>
</tr>
<tr>
<td>Training investment (€)</td>
<td>1,292,808</td>
<td>1,413,932</td>
<td>1,924,471</td>
<td>36%</td>
</tr>
<tr>
<td>Average cost training per employee</td>
<td>142</td>
<td>143</td>
<td>214</td>
<td>50%</td>
</tr>
<tr>
<td>Average training hours per employee</td>
<td>19</td>
<td>19</td>
<td>22</td>
<td>16%</td>
</tr>
</tbody>
</table>

1 To measure the average training hours and cost, the company uses the workforce at the end of the year.

At Ficosa, we understand that the best way to learn is to build on previous knowledge and experience, and to put into practice what our employees learn in their job positions. Thus, working along with some of our best professionals is the most valuable and direct way to improve our employees' knowledge. This hands-on experience is complemented in each case with specific training programs given by professionals in our company, as well as business and training institutes.

Each year, each site defines a quantified and budgeted annual training plan and submits it to a formal approval by the corresponding Plant Manager, Country General Manager or Region/Business Unit Director. The company collects the annual training data of each site to detect improvement areas in the training activity achieved worldwide. More than 50% of the training sessions are related with manufacturing, quality, health & safety or engineering contents.

In order to ensure that all employees have the technical knowledge required to perform their duties successfully and are familiar with Ficosa’s tools and methodologies in the operations area, Ficosa implemented a robust learning system for plant positions that includes diverse training modules related to assembly and injection process, OHSE, quality, supply chain, painting process, lean manufacturing, etc. First of all, the company prioritizes the technical knowledge needed by job position in new business and technologies. Secondly, Ficosa selects the Corporate Knowledge Owners and Local Knowledge Owners to generate, disseminate and improve knowledge in the plants, technical & development centers.
Ficosa has 22 Corporate Knowledge Owners who meet regularly to work on specific training materials & contents adapted to Ficosa standards and processes (e.g. case studies, practical exercises & evaluation). The training materials focus on error prevention, practical cases & activities that ensure learning through close-to-reality situations and evaluation tools. For example, the Corporate OHSE department has developed and taught six specific on-site courses:

- OHSE Introduction,
- Emergency Response,
- Waste management,
- Personal Protective Equipment (PPE),
- “5S” method,
- Lockout/TagOut (LOTO)

Handling of Chemicals. These training courses serve as a basis for each site’s OHSE Specialists, who will have to adapt them to their manufacturing plant. The Local Knowledge Owner is responsible for adapting the corporate training materials to train employees in his/her site. This learning system has been implemented in the manufacturing plant of Cookeville and in 2018, the company is planning to implement this new learning system in the manufacturing plant of Morocco, so in 2019, this new learning system will be implemented in all the plants where the company operates.

Furthermore, the company is developing e-learning solutions available to all employees. In 2017, several e-learning solutions have been defined, regarding Ficosa Development System, Intellectual Property, test design techniques, etc.

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Employee communication and satisfaction

Ficosa wants to foster a strong and effective communication with its employees to make sure they understand where the organization is heading and are up-to-date with key information about the company. In this regard, the company has developed different channels to communicate with its employees, such as intranet, suggestion box, employee newsletter, round table meeting with plant manager, one-on-one interviews, town hall meeting, etc.

At local level, some sites, such as Cookeville (USA), Shelbyville (USA), Dabrowa Gornicza (Poland), Dieuze (France), Taicang (China), Salinas and Escobedo (Mexico), Porto (Portugal), Bursa and Gemlik (Turkey) have developed an employee survey in the past three years. The results were presented to the top management and were followed by an action plan.
--- International assignments

One of our aims as a company consists of promoting the development of our people through the creation of a dynamic and attractive environment where opportunities for lateral, vertical, functional and geographical movements exist. In this sense, international assignments are a key part of people development at Ficosa. Employees benefit by gaining international experience, growing personally and professionally; Ficosa also benefits by expanding the distribution of knowledge and skills, increasing technical expertise and promoting a consistent global culture.

Ficosa has defined a specific International Assignments Management procedure to guarantee the application of homogeneous practices within all the sites of the company. The company guarantees in any case that employees coming back to their home country have a job position with the same level of classification than they had before the international assignment and a salary level in the home country equivalent to the level of the last position developed in the destination of expatriation.

--- Workplace health promotion & work-life balance

Ficosa is working to make sure that the entire workforce receives an annual medical examination in all the countries where it operates. Mostly all the sites have a specific health care program for employees. The workplace health promotion and work-life balance initiatives depend on each site and are led by the Human Resources department. The company is defining a specific program to make sure that all the sites implement measures related to workplace health promotion, including formal objectives for the stress prevention. In Dieuze (France), the members of the Health & Safety Committee and the HR department have received specific training on psychosocial risks. Every year, the site conducts a survey to identify and assess psychosocial risks. The results were presented to the top management and were followed by an action plan. In Morcone (Italy), the company has conducted a specific study to identify any improvement in its company’s workplace ergonomics process.

- Welfare campaigns (health week, breast cancer campaign)
- Well being total program (program offered to our employees through psychologist)
- Welfare campaigns (responsible consumption, healthy lifestyle)
- Psychology service for all employees
- Welfare campaigns (responsible consumption, healthy lifestyle)
- Sport promotion
· Time flexibility for employees
· Welfare campaigns
· Sport promotion

· Full acceptance for part-time working requests for parents

· Time flexibility for employees and subcontractors
· Sport promotion
Commitment to health and safety
--- Policies

At Ficosa, we believe that all injuries, occupational illnesses and incidents can be prevented, and we will strive for zero harm by:

- Complying with the laws, regulations and Ficosa operational policies and standards
- Establishing measurable OHS objectives and targets, recognizing and celebrating their achievement
- Identifying, assessing and controlling hazards and impacts, and adopting an approach that will strive to eliminate or reduce the risk to an acceptable level
- Informing employees, contractors, visitors and the public of these hazards and impacts
- Identifying, implementing, monitoring and reinforcing the safe behaviors we expect in our business to eliminate unsafe acts and practices
- Providing appropriate OHS training to employees and contractors
- Investigating incidents and sharing the experiences learnings to prevent them

We adopted a common approach across the company to manage health & safety. In addition to strict compliance with legal regulations, we carry out our own OHSE policy and implement stringent OHS procedures that includes hazards identification and risk assessment, workers health control, risk control planning, chemical products management, PPE management for employees as well as contractors, etc.

Operational facilities certified OHSAS 18001 (%)

88%

In 2017, 88% of operational facilities were certified in accordance with OHSAS 18001 – the international standard for Occupational Health and Safety (OHS). In 2017, the manufacturing plants of Rabat (Morocco), Chongqing (China), Shenyang (China) and Cookeville (USA) were not OHSAS 18001 certified. Nevertheless, all operational facilities have conducted an employee health & safety risk assessment and carry out internal OHS audits on a regular basis. In 2018, the company is planning to implement the OHSAS 18001 management system in all the manufacturing facilities where the company operates and obtain the OHSAS 18001 certification for Chongqing (China), Shenyang (China) and Cookeville (USA). Furthermore, the OHS department will work to make the transition from OHSAS 18001 to ISO 45001:2018 in 2019.

Since 2016, the corporate quality audit “3Q3” questionnaire has included OHS questions regarding safe behavior and safety of equipment. In 2018, the corporate OHS department will strengthen the OHSE internal audit governance and procedure by making sure that all operational facilities in Europe are following the same standard for ISO 14001 and OHSAS 18001. The corporate OHS department will lead and assume the OHSAS 18001 internal audits in Europe. For that purpose, an internal audit check list has been implemented to perform the internal OHS audits. The check list has more than 300 questions and gives a global scoring of the OHSAS 18001 implementation system status of each site. In 2018, each site will have a local auditor who will be trained by the corporate OHSE department regarding internal audit procedures and processes.
--- Governance

The corporate OHSE team is responsible for formulating any new OHS standards and procedures. Furthermore, the department is responsible for establishing a global system for collecting the main OHS data from all the countries and ensuring that each subsidiary complies with the internal standards and procedures. Each plant has specialists in charge of implementing the company’s health & safety standards and procedures.

Plant managers are held accountable for the OHS performance of each plant, and all employees are expected to take personal responsibility for their actions, and to get involved in improvement initiatives and developing and setting standards.

Creating the right safety culture at our sites is important. It takes strong leadership and an active commitment to safe operating from our workforce.

--- Main Challenges

The main incidents that could face our employees are related with ergonomics and bump-cut and occurred mainly during the injection and assembly process.

--- Key results

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<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>Target 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate – ORIR</td>
<td>1.22</td>
<td>1.17</td>
<td>1.25</td>
</tr>
<tr>
<td>ORIR - South Europe</td>
<td>1.98</td>
<td>1.87</td>
<td>1.78</td>
</tr>
<tr>
<td>ORIR - North Europe</td>
<td>0.76</td>
<td>1.02</td>
<td>0.91</td>
</tr>
<tr>
<td>ORIR - Asia</td>
<td>0.49</td>
<td>0.12</td>
<td>0.59</td>
</tr>
<tr>
<td>ORIR - NAFTA</td>
<td>0.72</td>
<td>0.72</td>
<td>0.82</td>
</tr>
<tr>
<td>ORIR - South America</td>
<td>2.50</td>
<td>2.15</td>
<td>1.85</td>
</tr>
</tbody>
</table>

In 2017, the company held an H&S forum with the aim of sharing best practices that contribute to a safer workplace. The company organized 4 on-line sessions where each plant was able to share experiences and best practices on health and safety matters. In 2018, the company will organize a global forum on OHSE in Viladecavalls that will bring together all the OHSE managers of each Ficosa manufacturing plant to share experiences and explore common issues focusing principally on the environmental, health and safety dimension. The forum will recognize the efforts in OHSE management made by overseas Group companies.

Most manufacturing plants have health and safety committees in operation with the aim of promoting safety activities and sharing with management the responsibilities for implementing and monitoring Ficosa’s safety program.
Because OHSAS Recordable Incident Rate (ORIR) is one of the primary safety measures, we have defined a specific annual performance goal in our ORIR at corporate level and for each manufacturing plant. Each plant manager is responsible for successfully achieving our annual goals. ORIR is a measure widely used in the U.S. industry to track on-the-job injuries. The ORIR in the tables represents the number of Ficosa employee and contractor injuries (apart from minor first aid cases) per 200,000 hours worked. The lower the number, the closer we are to achieving our no injuries vision. Our corporate ORIR has been reduced between 2016 and 2017. Although this is encouraging, we continue to focus our efforts on safety to reduce incidents, mostly due to ergonomic issues, possible bum-cuts and burns in the injection or assembly process.

Every month, we analyze the ORIR of each site to track not only what types of injuries tend to be recurring, but also in which production process. This monitoring allows us to target our OSH training and action plan. In 2018, the main goal will be to maintain a corporate ORIR below 1.20.

The company is investing in training to make every employee aware of the OHS risk associated with their duties. In recent years, corporate development has designed different learning modules that will be implemented in each site next year. The main goal is to ensure a skilled OHS team and prepare them for any changes within the company. Furthermore, every manufacturing plant launches an annual awareness campaign on OHS aimed at promoting safety in the workplace.

During the National Safety Week in July 2017, the manufacturing plant of Bursa (Turkey) organized an OHS event in collaboration with the Automotive High School. Some students had the opportunity to participate in a technical visit to Bursa plant facilities to learn about manufacturing processes. Furthermore, 17 voluntary employees have worked together to produce a play based on the Occupational Health & Safety at work. The purpose of this activity was to ensure good awareness of all risks within the workplace. In addition, the AFAD gave a training in CBRN (chemical-biological-radiological-nuclear disaster) for employees who are potentially exposed to chemical hazards. AFAD is an institution that was established in 2009 to take necessary measures for effective emergency management and civil protection nationwide in Turkey. Furthermore, the manufacturing plant, in collaboration with AFAD, carried out an awareness campaign to prepare the employees and their families for an earthquake.

A similar campaign has been implemented in the manufacturing facility of Gernilk (Turkey). The campaign included training to employees and their families, the preparation of a handbook, and the implementation of earthquake umbrellas in the manufacturing facilities to protect the employees during the earthquake. In the manufacturing plant of Soria (Spain), the company made workplace adjustments and provided new infrastructures to ensure a safer workplace. First of all, a pneumatic manipulator has been implemented in paint warehouse for handling paint drums. This was done manually before, moving paint drums from the pallets to the shelves. With this new system, overexertion is avoided and the workplace is more ergonomic. Furthermore, the company has implemented a new robot for hot cutting of plastic burr of die casting parts at blinkers section. This was done manually before, and presented a high risk of bump cut.
Commitment to environment
Policies

The increasing global population and the rapid growth of world economy have complex and diverse connections with the global environment. They also affect the environment in numerous ways. At Ficosa, we are committed to bringing and offering safer, more connected and efficient systems for the automotive and mobility sectors, and to reducing our environmental impact as we do so. Our commitment to the environment extends to our whole activity cycle from R&D product design to acquiring raw materials and manufacturing and the use and disposal of our products. In addition to strict compliance with legal regulations, we carry out our own OHSE policy, which ensures prevention of the environment, energy efficiency, the mitigation and adaptation to climate change and a responsible resource and waste management.

Operational facilities certified OHSAS 14001 (%)

94%

The Group's commitment to environmental protection is clearly integrated into our activities through the implementation of an integrated management system in the different sites where the company operates. Ficosa's environmental management model is based on the international ISO 14001:2015 standard. In 2017, the manufacturing plants in Shenyang (China) and Rabat (Morocco) were not ISO 14001 certified. The site of Rabat has started its activity in 2017 and the company will start to implement the ISO 14001 management system in 2019. Furthermore, the manufacturing plant of Shenyang will be ISO 14001 certified in 2018.

Since 2016, the corporate quality audit "3Q3" questionnaire has included environmental questions regarding waste disposal, waste storage, environmental emergency means, prevention of spills, industrial hygienic protection of equipment and machines, etc. In 2017, the corporate OHSE department implemented a new methodology for all plants in order to identify the main environmental risks and opportunities related to Ficosa environmental aspects, compliance obligations and other issues. In 2018, the corporate environmental department will strengthen the OHSE internal audit governance and procedure by making sure that all operational facilities are following the same standard for ISO 14001 and OHSAS 18001. The corporate department will lead and assume the ISO 14001 internal audits in Europe. For that purpose, an internal audit check list has been implemented to perform the internal environmental audits. The check list has 228 scored questions and gives a global scoring of the ISO 14001 implementation system status for each site. Some sites will have a local auditor who will be trained by the corporate department regarding internal audit standards and processes.

1 For more information, see Appendix 1
--- Governance

The corporate OHSE team is responsible for formulating any new environmental standards and procedures. Furthermore, the department is responsible for establishing a global system for collecting the main environmental data from all the countries and ensuring that each subsidiary complies with the internal standards and procedures. Each plant has managers or technicians in charge of implementing the company’s environmental instructions and systems.

In 2017, the company held an environmental forum with the aim of sharing best practices that contribute to the protection of the environment. The company organized 4 on-line sessions where each plant was able to share experiences and best practices on environmental matters. In 2018, the company will organize a global forum on OHSE in Viladecavalls that will bring together all the OHSE managers of each Ficosa manufacturing plant to share experiences and explore common issues focusing principally on the environmental, health and safety dimension.

--- Main Challenges

At Ficosa, we perform our activities paying special attention to protecting the environment and an efficient use of natural resources. Each manufacturing plant evaluates and maps its environmental impacts every year. The painting and injection processes account for the largest share of environmental impact during the manufacture of Ficosa products in terms of air pollution, energy consumption and waste generation. The paint shop is a manufacturing area that causes concern because of VOC emissions. Furthermore, the injection process is a large energy consumer and contributes to carbon dioxide emissions. In this context, the technology used in the paint application and injection machines must meet high expectations of quality and cost efficiency while remaining environmentally responsible.

In 2017, our main activities focus on reducing our CO₂ emissions in our chain value, mainly by improving our energy efficiency activities and waste management. Furthermore, we are working on reducing our Volatile Organic Compound (VOC) emissions.

Since 2016, all manufacturing plants have implemented individual reduction targets to reduce their GHG emissions, electric consumption and water and waste generation, and specific action plans for achieving them. Furthermore, each plant establishes its own objectives based on the significant environmental aspects detected in the environmental impact assessment.

--- Key results

**Reducing local pollution**

A current challenge is to reduce volatile organic compounds (VOCs), which readily evaporate and become gaseous in the atmosphere. VOCs are carbon-based materials that can be toxic and create adverse health and environmental impacts. The company has implemented different system and control standards in its manufacturing plant with painting process to monitor and reduce the amount of air pollutants emitted during their operation.

For example, the manufacturing plant in Cookeville (USA) has reached an agreement with the State of Tennessee, as part of a plant operating permit, to reduce VOC emissions from 231 tons per rolling 12-month period to 11.84 tons per rolling 12-month period. The site is building a new paint shop in order to close an inefficient installation. Through this replacement, the site will reduce its energy consumption associated to the painting process by 41%. The new painting process emits less Volatile Organic Compound (VOC) and enables less consumption of fresh air due to RTO (Regenerative Thermal Oxidizer) and recirculation of the air on spray booths. In 2017, thanks to the implementation of new racks design and application tools in the painting process of Cookeville, the painting process for clearcoat can be done by one robot. This improvement in the painting process enables the company to reduce its paint consumption and VOC emissions. Besides, the automation of the painting process with robots will improve OHS conditions for operators.

In Taicang (China) and Dabrowa Gornicza (Poland), the company installed a catalytic burner (RTO) to reduce volatile organic compounds (VOC) contained in the paint shops. The RTO destroys VOC emissions by creating a chemical reaction within the air pollutant and oxygen at elevated temperatures. This reaction destroys VOC emissions in the air stream by converting them to gas, water and heat. The recovered heat is used in processes carried out at the plant. It enables the plant to reduce its consumption of natural gas needed for heating.
Since 2016, we have defined a guideline to reduce our greenhouse gas (GHG) emissions annually at site levels. Each site has to reduce its GHG emission intensity by 3%. Each plant manager is responsible for successfully achieving the goal. In 2017, the company worked to improve the gathering and consolidation of carbon footprint, by implementing more robust internal tools that ensure that each operational facility reports the data in accordance with the standards and criteria used by Ficosa. The tool will enable the company to increase the reporting on GHG emissions along its value chain and products (Scope 3 emissions).

Addressing Climate Change

Soria (Spain) is also planning to implement a RTO system in their painting process. The implementation of the new system will enable the companies to reduce their VOC emissions. Furthermore, the manufacturing plant has implemented a new process aspiration for its injection machines with the aim of reducing any pollutants emissions to the atmosphere.

In Gerniik (Turkey), the company is implementing refrigerants R410 and R407 instead of R22 for its air conditioning system. In all the manufacturing plants with sanding room, the room is located outside of the paint shop area and includes a dust collection system. Furthermore, the company is working on three main initiatives to optimize the transportation and distribution of purchased products or product sold by the company:

1. Consolidation of maritime containers: Shipments to the USA from Barcelona are consolidated in the port and no shipment is made until the container is full. Ficosa has a similar initiative in Mexico and China. In China containers have to be full as well before sending them to the manufacturing plants of Viladecavalls and Soria (Spain).
2. In the manufacturing plant of Dabrowa Gornicza (Poland), all imports from Shanghai are made by container trains.
3. Most Ficosa manufacturing plants have implemented a milk run delivery method. Instead of each supplier sending a vehicle every week to meet Ficosa’s needs, one vehicle visits each supplier on a weekly basis and picks up the purchased products for Ficosa. This way, each vehicle load delivers the full weekly requirements of Ficosa from each supplier.
Greenhouse gas (GHG) emissions by type of source

Since 2014, we have been conducting an inventory of our GHG emissions, using the Greenhouse Gas Protocol:

<table>
<thead>
<tr>
<th>In t of CO$_2$e</th>
<th>2016</th>
<th>2017</th>
<th>Variance from previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope 1, direct GHG emissions</td>
<td>9,250</td>
<td>7,911</td>
<td>-14%</td>
</tr>
<tr>
<td>From fossil fuels</td>
<td>8,397</td>
<td>7,178</td>
<td>-15%</td>
</tr>
<tr>
<td>From owned/leased vehicles</td>
<td>853</td>
<td>733</td>
<td>-14%</td>
</tr>
<tr>
<td>Scope 2, indirect GHG emissions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location-based emissions from electricity consumption$^2$</td>
<td>N/A</td>
<td>65,055</td>
<td>N/A</td>
</tr>
<tr>
<td>Market-based emissions from electricity consumption$^2$</td>
<td>57,311</td>
<td>60,547</td>
<td>6%</td>
</tr>
<tr>
<td>Scope 3, other indirect GHG emissions</td>
<td>1,729</td>
<td>1,961</td>
<td>13%</td>
</tr>
<tr>
<td>Waste generated in operation$^3$</td>
<td>1,729</td>
<td>1,961</td>
<td>13%</td>
</tr>
<tr>
<td>Total GHG emissions$^1$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total market-based GHG emissions</td>
<td>68,290</td>
<td>70,419</td>
<td>3%</td>
</tr>
<tr>
<td>Total location-based GHG emissions</td>
<td>N/A</td>
<td>74,927</td>
<td>N/A</td>
</tr>
<tr>
<td>Total market-based GHG emissions per sales (tCO$_2$e/MEUR)</td>
<td>59.25</td>
<td>59.17</td>
<td>-0.1%</td>
</tr>
</tbody>
</table>

$^1$ Total emissions are based on actual or estimated data. The most appropriate emission factors have been used for each activity data type, from internationally recognized (EIA 2017) and regional (Oficina Catalana del Cambio Climático 2017) sources or if more relevant, from country or contract specific sources. The factors include all GHGs where possible and the gases’ Global Warming Potential as per the IPCC assessments.

$^2$ For the location-based emissions from electricity consumption, emission factors from EIA (2017) were used for the countries where Ficosa operates. For the market-based emissions from electricity consumption, emission factors from each supplier were used for the countries where Ficosa operates (for countries where the information were not available, Ficosa uses the emission factors from EIA).

$^3$ This category includes emission from the transportation and disposal treatment of the following solid waste: glass, lightweight packaging, food scrap, paper, paperboard and remaining fraction. This category includes also the emissions from disposal of wastewater.
Greenhouse gas (GHG) emissions by region

<table>
<thead>
<tr>
<th>In t of CO₂e</th>
<th>Asia</th>
<th>Nafta</th>
<th>North Europe</th>
<th>South America</th>
<th>South Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Market-based GHG emissions</td>
<td>15,435</td>
<td>19,563</td>
<td>17,751</td>
<td>1,519</td>
<td>16,151</td>
</tr>
<tr>
<td>Scope 1, direct GHG emissions</td>
<td>62</td>
<td>922</td>
<td>2,817</td>
<td>18</td>
<td>4,092</td>
</tr>
<tr>
<td>From fossil fuels</td>
<td>62</td>
<td>824</td>
<td>2,554</td>
<td>1</td>
<td>3,737</td>
</tr>
<tr>
<td>From owned/leased vehicles</td>
<td>-</td>
<td>98</td>
<td>263</td>
<td>17</td>
<td>355</td>
</tr>
<tr>
<td>Scope 2, indirect GHG emissions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market-based emissions from electricity consumption</td>
<td>15,338</td>
<td>18,190</td>
<td>14,075</td>
<td>1,497</td>
<td>11,447</td>
</tr>
<tr>
<td>Scope 3, other indirect GHG emissions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>From waste management</td>
<td>35</td>
<td>451</td>
<td>859</td>
<td>4</td>
<td>612</td>
</tr>
</tbody>
</table>

Each site has to reduce its market-based GHG emission per sales by 3%. Almost 50% of our manufacturing plants achieved their annual goals:

Market-based GHG emissions by sites (tCO₂eq/ MEUR)

The manufacturing plant of Dieuze (France) has been able to reduce its natural gas consumption by installing a new compressor with heat recovery technology. The manufacturing plant of Bursa (Turkey) also implemented a new compressor with waste heat recovery. This new compressor enabled the plant to reduce its electricity consumption by 10% in one year, which represents an estimate reduction of 200,502 kg of CO₂e. Furthermore, the manufacturing plants in Taicang (China) has implemented a new servomotor system in its injection section with the aim of reducing its carbon emission.
Energy efficiency and renewable energy

Reducing greenhouse gas (GHG) emissions in Ficosa is mainly about reducing energy consumption. In this regard, the company is committed to mitigating its impact on climate change by defining a strong energy strategy based on energy efficiency, increased use of renewable energy and process optimization. In 2017, the OHSE policy has been updated to include the responsibility of each employee for the energy saving strategy of the company. For that purpose, the different sites organize regular employee meetings and energy awareness campaigns. In its manufacturing process, Ficosa engages in a variety of energy saving activities to reach the lowest energy consumption by introducing highly efficient equipment, improving manufacturing techniques and adopting energy saving lighting or sensor with presence detector.

Increased use of renewable energy is critical to the transition to a low-carbon economy. The company is striving to reduce emissions by using renewable energy. From March 2016, 100% of the electricity in Viladecavalls (Spain), Soria (Spain) and Sant Guim (Spain) come from renewable sources or high-efficiency cogeneration. Furthermore, the manufacturing plant of Wolfenbüttel (Germany) is buying energy that comes from hydroelectric power. In 2017, the manufacturing plant of Taicang (China) set up solar panels on its roof. The plant estimates to reduce its CO\textsubscript{2} emission by 20.5% in 2018 thanks to this new installation.

Each site has to reduce its energy intensity by 3%. Most of our sites achieved their annual goals:

### Reduction of electric consumption by sites (% of reduction)

<table>
<thead>
<tr>
<th>Site</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIRRORS-BURSA (Turkey)</td>
<td></td>
</tr>
<tr>
<td>CABLES-GEMEL (Turkey)</td>
<td></td>
</tr>
<tr>
<td>VALUE GERMANY</td>
<td></td>
</tr>
<tr>
<td>MIRRORS-MORCONE (Italy)</td>
<td></td>
</tr>
<tr>
<td>SHENYANG (China)</td>
<td></td>
</tr>
<tr>
<td>COOKEVILLE (TN, USA)</td>
<td></td>
</tr>
<tr>
<td>ESCOBEDO &amp; SALINAS (México)</td>
<td></td>
</tr>
<tr>
<td>SANT GUIM (Spain)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Electricity consumption (MWh)</th>
<th>2016</th>
<th>2017</th>
<th>Variance from previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>121,887</td>
<td>129,503</td>
<td>6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Electricity from renewables in Spain (MWh)</th>
<th>2016</th>
<th>2017</th>
<th>Variance from previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24,004</td>
<td>34,000</td>
<td>42%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Electricity consumption in kWh per sales (kWh/MEUR)</th>
<th>2016</th>
<th>2017</th>
<th>Variance from previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>106</td>
<td>109</td>
<td>3%</td>
</tr>
</tbody>
</table>
The manufacturing plant of Chongqing (China) has defined a specific employee-focused energy reduction plan. The OHSE department was responsible for developing an energy management plan and monitoring its implementation in each department. All department managers are the new “energy champions”, responsible for improving awareness of energy efficiency around the business. They are in charge of all aspects of energy improvement around the workplace.

The Energy Efficiency Directive (EED) and the European country regulations that transpose it is a driver across our global operation to undertake energy audits and implement mitigation projects ahead of global regulation. The manufacturing plants in Poland, Portugal, Italy, France and Spain have already audited their energy consumption and are now defining an action plan to reduce it.

Italy has implemented new frequency inverters to improve energy efficiency in injections machines. Thanks to this new technique, the company is saving up to 30% electricity consumption, by avoiding consuming electricity during the cooling time of the parts and only spending electricity when the machine uses the hydraulic pumps to make movements or inject. The company is planning to implement the new system in other manufacturing plants.

The manufacturing plant in Brazil renovated 4 injection machines to reduce its energy consumption. Furthermore, the manufacturing plants in Taicang (China) and Cookeville (USA) bought new machines for blinkers and technical parts with 40% of energy savings compared to the old machines. In Dabrowa Gornicza (Poland), the company has reduced its energy consumption by installing more efficient heat exchanges in paint shop.

### Water management

<table>
<thead>
<tr>
<th>Water consumption in m³</th>
<th>2016</th>
<th>2017</th>
<th>Variance from previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water consumption in m³</td>
<td>234,069</td>
<td>237,838</td>
<td>2%</td>
</tr>
<tr>
<td>Water consumption in m³ per sales (m³/MEUR)</td>
<td>203</td>
<td>200</td>
<td>-2%</td>
</tr>
</tbody>
</table>

Most Ficosa manufacturing plants do not use water for industrial process. Nevertheless, all the plants have to reduce its water consumption intensity (m³/ net sales) by 3%. Around 30% of the manufacturing plants are using water in cooling towers or for the painting process. In most cases, the manufacturing plants are using closed cooling systems. The company is committed to employing new technology to reduce its water consumption and increase the amount of recycled water in the painting process. In Poland, the manufacturing plant has implemented a new leakage monitoring water system that enables the plant to measure the water consumption in each section and identify any leak that may occur in the site. In Bursa (Turkey), the manufacturing plant has decreased its water consumption in the paint shop by using a new coagulant. Furthermore, the manufacturing plant of Bursa implemented a new dry filter painting system.

74% of electricity consumption at the manufacturing plant in Bursa (Turkey) comes from the injection area. For this reason, the manufacturing plant of Bursa (Turkey) implemented a new system for monitoring its electrical consumption in the injection unit. The new system enables the plant to identify the injection machines that consume more electricity. The plant implemented heat jacket in these machines and saved more than 74,000 Kwh in electricity consumption. The other manufacturing plant in Gemlik (Turkey) has implemented an automatic system that turns off the lighting and electricity system after 5 minutes without production in 13 assembly lines. In 2017, the plant implemented the same system in the other assembly lines and standardized the implementation of the system for new projects. This improvement in the manufacturing process enables the plant to save 9.19 kWh of electric consumption per shift.

The manufacturing plants of Wolfenbüttel (Germany), Bursa (Turkey), Maia (Portugal) and Morcone (Italy) implemented led lighting systems.

The manufacturing plant of Soria (Spain) has implemented an automatic downtimes database in the paint shop area. It will allow it to reduce all inefficiencies generated by waste of energy and production time. In 2018, the company will implement this new technology in the manufacturing plants of Taicang (China), Dabrowa Gornicza (Poland) and Cookeville (USA).

The new technology enables the plant to reduce its water usage for industrial process, from 242 m³ in 2016 to 161 m³ in 2017. In Soria (Spain), the company is distilling used paint in order to obtain pure solvent, which can be used as cleaning agent or can be sold. The manufacturing plant of Taicang (China) implemented a new biochemical wastewater treatment, which allows it to increase water quality and conservation by eliminating the need for biocides, reduce the amount of sludge by 17% and yearly costs of coagulants by 25%. In Vlaidecavalls (Spain), 40% of the water is reused. In Dieuze (France), the manufacturing plant implemented a new oil collector to reduce the treatment of wastewater coming from the compressor.
--- Waste management

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>Variance from previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total waste generated in tonnes</td>
<td>5,277</td>
<td>5,690</td>
<td>8%</td>
</tr>
<tr>
<td>Total waste generated in tonnes per sales (Kg/EURM)</td>
<td>4,6</td>
<td>4,8</td>
<td>4%</td>
</tr>
</tbody>
</table>

1 At corporate level, the company gathers the following categories of waste: glass, lightweight packaging, food scrap, paper, paperboard and remaining fraction. These categories of waste are used to measure the GHG emissions from the waste disposal.

Ficosa plants have different waste containers in all areas (production and otherwise) in order to perform the collection of waste by type and character, facilitating specific future treatment. Ficosa is working in all its operational facilities to increase the recovery of cleaning solvents and other chemicals and to reduce the amounts of these substances emitted from its plants. Furthermore, all the manufacturing plants organized awareness campaign for workers aimed at reducing packaging waste and sorting at source. Ficosa considers that the involvement of its employees is essential to reduce waste generation.

At corporate level and site level, Ficosa has indicators for monitoring waste generation:

- Reduction of oily sludge
- Reduction of cardboard packaging
- Reduction of waste included in the Carbon footprint

Regarding the last indicator, each site has to reduce its waste generation intensity (Kg/ net sales) by 3%. Some sites exceeded the current goal of the company:

### Reduction of waste generation by sites (% de reduction)

![Graph showing waste reduction by sites](image-url)
In 2016, 93% of waste generated in the manufacturing plant of Viladecavalls was recycled. In 2017, the percentage increased to 95.3%. In Dabrowa Gornicza (Poland), the company invested in new spray booths, which allowed to increase the capacity by 24% while reducing the usage of chemical components and paint waste. With this investment, the company succeeds in reducing its injection waste by 30%.

The manufacturing plant in Bursa (Turkey) managed to reduce 50 tonnes of cardboard by promoting the use of recycled packaging among its local suppliers. The manufacturing plant of Gemlik (Turkey) is using reusable plastic boxes instead of cardboard.

The manufacturing plant in Shelbyville (USA) implemented the A4 Continuous Improvement Program. All areas of the plant are challenged to come up with ideas to make improvements. The ideas can come from anyone. A team works on the project and presents it to management. Improvements can be anything - improving quality, cutting costs, making a job easier. These concepts also apply to safety and environment not just production. In the last two years, the plant has implemented two practices to improve reduction of waste generation. First of all, the manufacturing plant was using a lot of foam. It was very popular because it was light and clean, prevented scratching, and allowed more parts to be placed in a container than traditional dunnage. Nevertheless, foam, which is not biodegradable, was going into the trash to be landfilled. In 2016, the plant decided to define a specific target to reduce the use of foam by 25% by 2017. In 2016, the plant has already succeeded in reducing the use of foam by 50%. Furthermore, the company was using dividers for a client washer bottle packaging. Through the A4 Continuous Improvement program, some employees had the idea to utilize used cardboard to separate the layers of washer bottles in the container instead of purchasing dividers.

All plants are working to reduce the generation of scraps in the injection molding process, by reducing or eliminating the cold runners, through the implementation of hot runner valve gate systems. Furthermore, the manufacturing plants of Dieuze (France), Cookeville (USA) and Taicang (China) are working to increase the recycling of scraps to more materials. The manufacturing plant of Salinas (Mexico) is using a new sequential injection molding technique to improve quality and reinforce the control process. This new technology enables the plant to reduce the rejection of parts. This technique will be exported to all the manufacturing plants with injection molding processes.
Responsible sourcing
Ficosa works with two types of suppliers:

- **Productive Suppliers:** suppliers that are essential to the performance of the company operations. Ficosa's purchases are oriented towards a specialization in product families, which are divided into three large areas: Electrics and Electronics (Batteries, connectors, semiconductors, PCA, glass mirrors, pumps, etc.), Chemicals (painted parts, chromed parts, blow molding, etc.) and Metals Commodity (zamak, aluminum parts, tubes, wire rope, etc.).

- **Indirect Suppliers:** Suppliers that supply products and services of a general nature, not directly related to the business, such as office materials, paper, computer consumables, maintenance, supplies, travel, training, temporary employment agencies, consulting, legal services, insurance, investment, etc.

Our production processes demand the achievement of optimum quality and service levels, as well as competitive prices when buying the materials used to supply our production line. In these contexts, the company has developed its own standards and quality process that regulate the purchase activity of the company.

The Ficosa Purchasing Policy and Procedures and the segregation of duties ensure compliance with J-SOX and with all applicable laws. As well, the General Purchasing Conditions establish the relationship between Ficosa and its suppliers. The purchase orders sent to suppliers by any Ficosa company or any of its subsidiaries or affiliates have to be accepted in accordance with these terms and conditions. The Supplier and any products or services supplied by it shall comply with all laws and regulations applicable to the destination countries where the product is going to be produced and/or used, or related to the production, labeling, transportation, importation, exportation, approval and certification of products or services, including but not limited to those related to environmental issues Directive of ELV, REACH (Registration, Evaluation, Authorization and Restriction of Chemicals), CLP/GHS (Classification, labeling and packaging of substances and mixtures) and the Dodd-Frank Act in respect to Conflict Minerals (gold, tin, tantalum and tungsten sourced from conflict regions as the Democratic Republic of Congo and adjacent countries), labor laws in general, working hours and employment conditions, workers’ rights, employment benefits, subcontractor selection, safety of vehicles and installations, etc.

In addition to all applicable laws and regulations to be observed by the suppliers, it is also their obligation to respect social responsibilities and duties, especially but not limited to the requirements based on the Universal Declaration of Human Rights and the International Labor Organization (ILO) conventions proclaimed to respect employees’ rights, age and working hours limits, etc. Furthermore, the company has developed a Supplier Quality Manual that details the main procedures and systems used for supplier selection, business assignment, component approval, performance follow up and supplier development. The supplier quality manual specifies that all suppliers that want to be included in the Ficosa Supplier Panel should work in the 10 principles of the United Nations (Global Compact). Lastly, the company has developed other standards and procedures in order to improve the communication and simplify processes for a better logistic.
--- Governance

The Corporate Team consists of the Purchasing Director, Commodities and Project Managers, as well as support and consultancy teams such as Quality, Human Resources, Logistics, and Control functions who coordinate all purchasing activities worldwide. Every country has a Local Purchasing team led by an LPD (Local Purchasing Director), who is managed by both the Purchasing and Regional Directors. The LPD coordinates the country’s purchasing functions (Commodity Buyers, Purchasing Project Leaders, and STAs).

--- Key results

To become a Ficosa Supplier it is compulsory to have ISO/TS IATF 16949 certification and all the suppliers must provide Ficosa with written evidence of the most recent certification renewal. Ficosa specially appreciates and promotes IATF 16949, OSHAS 18001 and ISO 14001 certifications from their suppliers.

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>Variance from previous year</th>
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</thead>
<tbody>
<tr>
<td>Suppliers certified ISO 9001 (%)</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>-</td>
</tr>
<tr>
<td>Suppliers certified ISO/TS 16949 (%)</td>
<td>40%</td>
<td>45%</td>
<td>49%</td>
<td>4%</td>
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</table>

In addition, any new supplier has to fulfill a specific company self-assessment and be approved by the Ficosa audit process. The aim here is to examine the supplier’s suitability to provide over the term by using specific indicators, including financial and quality criteria as well as general corporate aspects.

Ficosa regularly monitors the performance of its suppliers and evaluates them to confirm its performance versus the defined targets. These assessments enable the company to track the improvement of its suppliers and determine the potential support that they may need from Ficosa. In the last years, the 3Q3 supplier audit also include question about the compliance with REACH Authorization and Conflict Minerals regulation.

Ficosa has developed an internet platform for suppliers called FPSS (Ficosa Purchasing System Software) that is used for the different purchasing Processes: Supplier Registration, Offers, Assignments, Quality and Service incidents management and Suppliers Development. The platform includes all the relevant documents from each supplier (REACH declaration, conflict minerals declaration, certifications, etc.). This platform is a quick, unique, and clear communication channel linked to the Purchasing Department, allowing Ficosa to manage the purchases of all materials. All the productive suppliers must be registered in the FPSS and the company expects to increase the scope and includes also the indirect suppliers.
Conflict Minerals

In the last years, there has been an increasing international focus on "conflict minerals" emanating from mining operations in the Democratic Republic of the Congo (DRC) and adjoining countries. Armed groups engaged in mining operations in this region are believed to subject workers and indigenous people to serious human rights abuses and are using proceeds from the sale of conflict minerals to finance regional conflicts.

On August 22, 2012, in response to these concerns, the US Securities and Exchange Commission (SEC) adopted a final rule to implement reporting and disclosure requirements related to "conflict minerals". The "conflict minerals" are cassiterite (tin), columbite-tantalite (coltan), gold and wolframite (tungsten), as well as their derivatives and other minerals that the US Secretary of State may designate in the future (Dodd–Frank Section 1502).

Tin, tungsten, tantalum and gold (3TG) are used in some auto-parts and components of Ficosa, such as circuit boards or heater terminals. We conduct due diligence to investigate the origin of the conflict minerals in our products. Our goal is to work with DRC conflict-free suppliers. For that purpose, Ficosa implemented an annual supplier’s inquiry and collect from all its suppliers the Standard Survey (EICC/Gesi template) on conflict minerals. The collected information is internally processed and provides useful information to monitor suppliers and report to clients about the company use of minerals for each plant.

<table>
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<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of suppliers and materials for which conflict mineral information is available</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
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</table>
Commitment to society
— Visits to the factory

Every year, the manufacturing plants in Dieuze (France), Salinas y Escobedo (Mexico), Poland, Taicang (China), Sao Paulo (Brazil), Gemlik (Turkey), Maia (Portugal) and Soria (Spain) organize visits to the factory for students, employee family members or local businesses to explain the main characteristics of the production process. These visits enable the company to attract new joiners and demonstrate the strength of their manufacturing capabilities.

In Viladecavalls (Spain), Ficosa organizes visits to the factory with Educaweb, an organization that provide guidance and training for the most vulnerable groups. During this visits, the company offers them tools that facilitate the search for a first job or help them to conduct a job interview. Furthermore, Ficosa organizes visits to the manufacturing plant of Viladecavalls for students from international universities and business schools, such as Cleveland State University, IESE, UIC, etc.

— Ficosa and the Polytechnic University of Catalonia (UPC)

Ficosa, in collaboration with research groups from different departments of the UPC and working groups of leading companies in the electronics sector for the automotive industry, has designed the “Automotive Embedded Systems” course for engineers interested in a professional career related to electronic communication systems.
The decentralized locations are responsible for charitable projects, donations and other social initiatives. The social initiatives depend on the site-specific challenge and are led by the Human Resources department. Examples of Ficosa social initiatives in locations where the company operates:

**Soria:**
- Partnership and collaborations with entities who promote the employment of disabled people (Asamis, Ilunion), National Association against cancer (AECC), National Ligue Against Cancer in Children (LINCECI)
- Sponsorship of sports activities
- Blood donations campaigns.
- Collaboration with correctional institutions for fostering the rehabilitation of prisoners.

**Viladecavalls:**
- Blood donations campaigns.
- Partnership and collaborations with entities who promote the employment of disabled people (Specialisterne).
- Collaboration with the Fundació Esclerosis Multiple.
- Sponsorship of student activities (FIRST® LEGO® LEAGUE, UNIRAID Project).
- Financial donations to the Red Cross, Prodis and other social entities through a profit sharing vending machines agreement.

- Blood donation campaigns
- In-kind donations for people affected by the earthquake in Mexico City
- Fico Jugueton* Donation of toys for children of low income families
- Collaboration with the Red Cross
- Visiting to nursing home
- Program “Adopt a tree” for promoting reforestation
- Small citizen program (training program to elementary students)

- Collaboration with the municipality of Itapevi to donate clothes for people in a situation of social vulnerability
In-kind and financial donations to several institutions, such as the Holy House of Mercy of Maia, "Rarissimas" (an institution that supports children with rare diseases), "National League Child Hope-Renaissance", "House of the People of Vermoim", "Institute of Social Support - A Life A Smile".

Collaboration in several initiatives with the City Hall of Maia (culture, sport).

Supporting found for employee who has a son with a serious illness.

Awareness campaign to support children and young people with intellectual disabilities and/or multideficiency.

Sponsorship of sports activities

Donation to children’s villages

In-kind and financial donations for several institutions (Noble Pack, Great Orchestra of Christmas Help)

In-kind and financial donations (book and toys)

Collaboration with the training institution ISKUR

Sponsorship of Sports activities
Innovation in our products
Ficosa vision of innovation is based on a commitment to the most advanced technology. In this regard, the company invests in the research and development of products and solutions based on the fields of connectivity, safety and efficiency to maintain its position of leadership and anticipate the needs of the mobility industry.

The company is now a technological partner of a vast majority of automotive companies from all over the world and seeks new ways to bring about further optimization and contribute to sustainable mobility.
— R&D Capabilities

With great dedication to innovation and a clearly global focus, we have created a solid network of R&D centers in Europe, North America, South America and Asia. They are divided into centers of expertise focused on specific product families and local engineering centers closely located to customers’ design centers.

R&D Capacities (No.)

This strong commitment to innovation has also resulted in high added value job creation. Ficosa is convinced that the company needs an excellent and experienced team of engineering talent on board to face the new challenges of the company.

Research centers

- Viladecavalls
- Wolfenbüttel / Lindau
- Dieuze
- Porto
- Bursa
- Sao Paulo
- Detroit
- Salinas Victoria
- Waseong-Gun
- Tokyo
- Taicang
- Hyderabad / Pune
The Technology Centre in Viladecavalls (Spain) acts as the driving force for the group's global research efforts and fuels the 14 development centers we have around the world. The Viladecavalls Technology Centre employs 670 of the 1,000 engineers that work for the company worldwide. This facility is a benchmark in electronics, SW development and electromechanics technology for developing new solutions in safety, connectivity and energy efficiency as well as world class testing and prototyping laboratories.
Partnerships
We also collaborate, both nationally and internationally, with other companies, engineering firms, universities and technical centers on studies, training, advisory services, technology transfer, validations, tests, etc., that allow us to meet more demanding time to market and complex systems requirements. New technologies require a much higher level of open innovation than traditional electromechanical products.

R&D Expenditure (thousand €)

In 2017, Ficosa spent more than 82 million euros in R&D to provide its clients with the most innovative solutions that anticipate the challenges of a constantly changing industry.

In 2017, the company has invested nearly 6.9% of its annual revenue in R&D in order to give its customers the most innovative solutions possible. Ficosa currently holds 685 active patents and it is one of the most active Spanish holding companies in Spain in terms of patenting.
Innovation in high-value products

Ficosa is convinced that its success and future are founded on innovative products that benefit people and help them to have safer more efficient ways of driving.

SAFETY

The Challenge

According to the World Health Organization (WHO), car accidents kill approximately 1.2 million people worldwide every year, which is one fourth of all deaths caused by injury. Also about 50 million people are injured in traffic accidents. If preventive measures are not taken road traffic death is likely to become the third-leading cause of death in 2020 from ninth place in 1990. A study from the American Automobile Association (AAA) concluded that car crashes cost the United States $300 billion per year.

There has been a significant rise in the use of electronics in vehicles. Vehicles today have shifted from being conventional vehicles to intelligent vehicles and are equipped with communication systems that alert or assist the driver in a potential accident. Nevertheless, there is still work to do to achieve the ambitious road safety target of halving the global number of deaths and injuries from road traffic crashes by 2020 (Source: 2030 Agenda for Sustainable Development).

Collaboration with national and international program

RobustSENSE (ECSEL)

• The main objective of RobustSENSE is to improve the reliability of automated driving covering all driving conditions. RobustSENSE gives Ficosa the opportunity to prove the capability of such systems to inter-operate in any kind of condition with other systems and then make its products available to a broader range of applications, with particular regard to automatic driving, thus widening its market opportunities.

• Ficosa is participating in the deployment of a Camera Monitoring System with features of Lane Change Assist, Soil Detection and a Driver Monitoring system that analyze the respiratory signal and records it on video with the objective of estimating the degree of attentiveness of the driver.
SOMNOADAS (IBEROEKA)

• The project consists in the development of a system of cameras integrated on a vehicle for the detection of the respiratory rhythm of the driver in order to know the state of drowsiness.

The main objective of this project is to design and manufacture a contactless drowsiness detection system using camera technology that allows the analysis of the involuntary movement of the subject caused by breathing.

The system consists of a high-resolution camera integrated in the vehicle’s interior and focused on the upper part of the thorax. Video recordings are analyzed in real time in order to estimate the degree of drowsiness of the driver from the extraction of the respiratory signal from the video signal.

V-RECON (EUREKA!)

• The project consists in producing a CMS system (Camera Monitoring System) for the replacement of exterior mirrors (Class III-traditional) for vehicles. The system developed during this project will initially be for passenger vehicles but may be extended to other types of vehicles (cargo, industrial, etc.).

In order to achieve the final objective, the necessary research and development activities must be carried out to design a demonstrator with the 3 main elements that make up the integrated system. To be considered:
1- Wing outside or mechanical camera support to capture the rear view
2- the camera itself
3- an electronic unit or ECU that will also contain the display on which the images will be projected

(I_HeEro) Harmonized eCall European Deployment

• Ficosa is participating in the deployment of eCall service in Europe. In these projects, 14 EU participating Member States and 1 associated country analyzed the feasibility and robustness of the eCall service with pilot installations on both the PSAP and vehicle side. After March 2018, the eCall system will be installed in all new car models and light vans sold in the European Union.

• Ficosa has developed an in-vehicle telematics control unit that is able to perform Next Generation 112 emergency calls (NG112 eCall), which is the next paradigm to be supported for this life saving technology. This Next Generation eCall supports LTE and newer networks, based on IP Communications, and provides a future-proof solution for the regulatory eCall, which was originally designed for voice circuit-switching networks like 2G and 3G. Also, moving to an IP-based solution has extra benefits, i.e. leveraging existing standards such as SIP, and enhancing communication by sending extra data or video feeds.
ESCAPE (European Safety Critical Applications Positioning Engine)

- ESCAPE (European Safety Critical Applications Positioning Engine) is a three-year project funded under the Fundamental Elements program of the GSA (European GNSS Agency). Its aim is to exploit the services offered by Galileo, the European satellite navigation system, by designing a dedicated reliable and accurate engine natively targeted for the automotive safety-critical applications.

- The project, kicked-off in October 2016, is led by Ficosa in collaboration with Renault, GMV, ST Microelectronics, IFSTTAR and ISMB.

- The in-vehicle unit that will be produced by Ficosa during the ESCAPE project will be shown during Mobile World Congress 2018. This board is an electronic PCB capable to know precisely the position of the car with an innovative GNSS receiver developed by our partner STMicroelectronics. The exhibited prototype will show all the communication interfaces that allow the system to interact with vehicle, GNSS satellites and LTE network.

C2C-CC (Car to Car Communication Consortium)

- The CAR 2 CAR Communication Consortium (C2C-CC) is a nonprofit, industry driven organization initiated by European vehicle manufacturers and supported by equipment suppliers, research organizations and other partners. The C2C-CC is dedicated to the objective of further increasing road traffic safety and efficiency by means of cooperative Intelligent Transport Systems (C-ITS) with Vehicle-to-Vehicle Communication (V2V) supported by Vehicle-to-Infrastructure Communication (V2I).

- It supports the creation of European standards for communicating vehicles spanning all brands. As a key contributor, the C2C-CC works in close cooperation with the European and international standardization organizations. In cooperation with infrastructure stakeholders the C2C-CC promotes the joint deployment of cooperative ITS.
5G Automotive Association

- Ficosa has become the first Spanish company to join the 5G Automotive Association (5GAA). The mission of this association is to accelerate development, standardisation and marketing of solutions for connected cars and autonomous vehicles and their integration into Smart Cities, as well as laying the groundwork for implementing 5G technology in the automotive sector.

SECREDAS

- Ficosa will provide to the project a full-fledged V2X HW platform designed for security which will include secure storage and signing environment. These HW mechanisms will prevent cybersecurity attacks for stealing private key, and damages for impersonating a legitimate vehicle. Ficosa’s platform will be capable of integrating SW technologies from third-parties such as V2X Firewall and V2X misbehaviour detection.

Ficosa will also provide DSRC High-performance antennas to achieve best platform performance.
What we are offering our customers

ERA GLONASS SYSTEM

• For the first time, the company has manufactured telematic modules certified for ERA GLONASS. The ERA GLONASS system is the Russian equivalent to the European eCall system. The emergency system inside the vehicle consists of a telematic unit (In Vehicle Telematic Unit, iVTU) that incorporates a special SIM card as well as a user interface module. The safety systems and emergency services are fundamental to save lives on the road. Getting an immediate alert in the event of an accident and knowing the exact location of the crash site cuts emergency services’ response time by 50% in rural areas and 40% in urban areas.

V2X (VEHICLE-TO-X) UNITS

• Vehicle-to-everything (V2X) communication is the passing of information from a vehicle to any entity that may affect the vehicle, and vice versa. The main motivation for vehicular communication systems is safety and eliminating the excessive cost of traffic collisions. It can be used for automated traffic intersection control. In addition, V2X technology offers a range of everyday convenience benefits. For example, V2X systems will integrate in the future automatic payments for tolls, parking, and similar fees. In a traditional vehicle, V2X systems can convey important information to the driver regarding inclement weather, nearby accidents and road conditions, and the dangerous activities of nearby vehicles. Similarly, in autonomous vehicles, V2X provides extra information beyond the reach of the vehicle’s existing sensor system. As V2X use expands, its advantages will become more apparent.

• Ficosa has been granted a patent on a V2X high performance antenna. This fact remarks the interest of Ficosa in supplying the OEM with fully working system solutions instead of separate parts.

Intelligent Rearview Monitor System (IRMS)

• During 2017, Ficosa has co-developed with Panasonic a new Intelligent Rearview Monitor Display version dedicated to LCV’s and Vans, in which currently the drivers get no central rear vision due the lack of rear windows. In this case, IRMS is bringing full rear vision to the driver, improving driving safety, providing a large horizontal and vertical field of vision for such vehicles that gets very tough and intense driving conditions in all traffic configurations. This product got immediate success in the market, Ficosa is already working with several LCV’s vehicle manufacturers, mass production being planned by 2020.

Sensors and Cameras Cleaning

• During 2017 Ficosa has been upgrading its product portfolio of Sensor Cleaning devices, expanding the capability to clean LiDARs and more generally all kind of sensors. This is ensuring detection systems function quality and integrity during driving. This Sensor Cleaning went into mass production during 2017 for some premium car manufacturers and will be expanded to market during coming years.
Driver Monitoring Systems

- In 2017, the company developed a driver monitoring system in order to estimate the capability of the driver in adverse situations, as fatigue. Today Ficosa has two different lines of products that detect any unsafe behavior of driver:

  - **Somnoalert ® Driver Behavior**
    The algorithm located in an ECU analyses existing data in CAN bus and data provided by a Lane Recognition System in order to identify inadequate driving states related with its driving quality. The system studies the driver's degradation during a predetermined time period.

  - **Somnoalert ® Contactless**
    The system comprises a mono camera recording the upper body of the driver, a laptop, a respiration extraction from video algorithm and a drowsiness detection algorithm. The system analyses respiratory data in real time to estimate the driver’s degree of awareness.

Camera Monitor System (CMS)

- In 2015, the company developed an electronic mirror composed of cameras and displays which implies an alternative option to the exterior rear-view mirrors of the car. This pioneering system, also known as CMS, means an authentic revolution for the automotive industry as well as an important progress towards the autonomous car. The electronic mirror offers a new safer and more comfortable driving experience through the inclusion in the vision systems of Advanced Systems Driver Assistance (ADAS), such as the traffic detection function, which provides information to the driver about the vehicles around it. Currently, Ficosa is working with an Original Equipment Manufacturer (OEM) on the integration of CMS, customizing it according to its requirements.

Vehicle cameras and expertise in vision systems and machine vision

- Ficosa offers to their customers a wide exterior and interior small size cameras covering vehicle 360 degrees, parking, mirror substitution and driver monitor. Stand-alone or in-system cameras, with low power dissipation, EMC robustness and cost optimized, covering both entry level and high performance systems and offering state of the art technology for next generation machine vision systems. These vision systems are also provided by the company through exterior and interior mirror substitution using high performance cameras optimizing video path and image quality, offering the most advanced display and ECU performance for machine vision integration with the most advanced 2D and 3D machine vision software developments.

Rotary shift-by-wire system

- In 2017, the company closed its first contract for rotary shift-by-wire system. The order, comes from an Asian automobile manufacturer and allows the company to add a new product to its portfolio. The company is not only providing the rotary shifter selector but the whole system, which includes the electronic control unit (ECU) and the gearbox actuator (GBA). This rotary shift-by-wire system stands out for being lightweight, just 1.35 kg, eliminating transmission vibrations and being highly intuitive for users. Plus, it provides extra safety: if the driver leaves the vehicle with the gear shift in D (Drive), the system’s ECU activates the gearbox actuator (GBA) to automatically put the transmission into P (Park).
The automotive industry is undergoing a series of transition, the industry moving towards digitalization and connected mobility. While automotive digital technology has traditionally focused on optimizing the vehicle’s internal functions, attention is now being drawn to developing the car’s ability to connect with the outside world and make the care experience safer, more comfortable and more informed. In this context, Ficosa is working to create a more interconnected world.

ERTICO - ITS Europe

• The ERTICO Partnership is a public/private Partnership consisting of over a hundred companies and institutions involved in the production of Intelligent Transport Systems (ITS). Together, ERTICO Partners conduct a range of activities to develop and deploy ITS to save lives, protect the environment and sustain mobility in the most cost-effective way.

What we are offering our customers

Smart Connectivity Module (SCM)

• Ficosa presented the latest technological developments in automobile connectivity carried out by its Advanced Communications Business Unit at the Mobile World Congress 2017 in Barcelona. The company has developed a pioneering system that allows all passengers to have connectivity simultaneously and independently. This innovative solution was created to merge Smart Connectivity Module (SCM) designed by Ficosa with one of its telematic 4G LTE connectivity modules. The new product called SCM is able to integrate into a single device the following features: 4G internet connection, Wi-Fi hotspot, Bluetooth, GPS positioning for each specific market, analogue radio services (AM/FM), digital radio (DAB) and satellite radio (SDARS). It also incorporates the mandatory emergency call in Europe (eCall) and Russia (ERA GLONASS), as well as optionally the V2X service (for communication vehicle-to-vehicle or vehicle-to-infrastructure).

Rearview mirror that incorporate electronic toll function

• In September 2016, Ficosa and Panasonic signed the first contract for co-developing a product. Both companies will produce an interior rearview mirror for a major European manufacturer (OEM), which will incorporate an electronic toll function that allows the automatic payment of motorway tolls without having to stop the vehicle. The project, which will last for seven years, is valued at 50 million euros and will be produced in Ficosa’s plant in Vila-secavalls (Barcelona).
One of the toughest environmental challenges of our time is managing the mobility of people and goods. By 2030, passenger traffic will exceed 80,000 billion passenger-kilometers—a fifty percent increase—and freight volume will grow by 70 percent globally. Globally, the number of vehicles on the road is expected to double by 2050. The reduction in greenhouse gas emissions, the progress on decarbonization economy and the expected growth in mobility in the upcoming years highlight the need for efficient and environmentally sustainable vehicle technologies. The widespread electrification of transport through the adoption of electric vehicles (EVs) is one strategy to reduce GHG emissions.

Collaboration with national and international programs

Electromobility hub

- The company wants to turn Viladecavalls Technological Centre into a Technological Electromobility Hub where the different components needed by the Hybrid and Electric vehicles can be developed and validated. The objective of this Hub is to develop and validate products for the European market as well as for the emerging Chinese market.
- The deployment of all these products are part of a long-term strategy of Ficosa. For this reason, the development will be carried out in different phases. During the first phase, Ficosa will be focused on three products:
  - Battery Management Controllers: Devices to control the HV Battery and the energy flow from it.
  - HV Junction Box: Safety device that disconnects the HV battery from the rest of the vehicle system.
  - On board charger: Charger integrated into the vehicle that transforms the alternating current of the electrical grid into direct current to charge the HV Battery.

Alise Consortium

- Ficosa is participating in the ALISE consortium. ALISE is a pan European collaboration focused on the development and commercial scale-up of new materials and on the understanding of the electrochemical processes involved in the lithium sulphur technology. In this collaboration, Ficosa is working on the development of the full Battery Pack, using the Li-ion modules developed. The Battery will include a Battery Management System (BMS) adapted to the new LiS chemistry developed during the project.

3Ccar

- Ficosa participates in the European collaborative project 3Ccar founded by the ECSEL Joint Undertaking. The 3Ccar solution brings together a consortium of 50 partners from 11 countries covering the complete value chain from the semiconductor supplier up to the vehicle manufacturer. The main goals are improving the efficiency and reducing the complexity of the electric vehicles control architecture and its subsystems. In this project, Ficosa is working on a new concept of On-Board-Charger (OBC) for optimizing the manufacturing and materials costs, while improving volume, weight and reliability.
RIS3CAT (Research and Innovation Strategies for Smart Specialization)

RIS3CAT

• Through the Notecar project, Ficosa is working on a new concept of OBC for high-voltage electric and hybrid vehicles batteries. The main objective is to minimize the device and simplify its industrialization. The new concept will be offered to manufacturers who are interested in improving the current technology, and will serve as a basis for the development of new devices for different sectors, such as the renewable energies. This project is in line with the Greentronics project and the working group called Eco-mobility created through the RIS3CAT R&D Strategy and leaded by Ficosa.

CAR-NET (Cooperative Automotive Research Network)

CAR-NET

• The Cooperative Automotive Research Network, initiated by SEAT, Volkswagen Group Research and Universitat Politècnica de Catalunya (UPC), is an open hub for industrial and academic partners from the areas of automotive and mobility research & innovation. Ficosa is a member of this knowledge hub for automotive science and technology, focused on urban mobility, and based in Barcelona. Its ambition is to become a benchmark in this area, in close alliance with European counterparts. CARNET is a cooperation platform for the mobility industry, local universities and institutional partners that has the following strategic goals:
  a) Organizing urban mobility activities in Barcelona
  b) Contributing to strengthening the automotive sector in Spain, and Catalonia in particular
  c) Recruiting proactively for the automotive industry
  d) Networking to seek international research funding (in cooperation with international partners)

What we are offering our customers

Battery Management System

• Ficosa has been developing jointly with German OEM’s the new generation of Battery Management System. The focus areas of the e-mobility lay mainly in efficient and reliable high-voltage energy control.

On-Board Charger System

• The company is working on the promotion of a new integrated concept of On-Board Charger (OBC) with Panasonic. The OBC is a system that is able to provide energy to charge Electric/Hybrid vehicles batteries, such as cars, buses or motorbikes. The technology under development fits on AC network as well as DC infrastructure.
Appendix 1 – OHSQE policy

The policy of integrated management of the company is based on the compromise of Upper Management and the participation of all the staff in order to ensure the continuous improvement of their labor.

It must be communicated and understood by all the Company and reviewed periodically. It must be of interested parties domain. It must be appropriate to the nature of our Company (activities, products and services).

1. The values and philosophy of operations of the organization, established clearly in the MISSION, are the guidelines for each member of Ficosa.

2. Ficosa permanently believes that each product and project developed for our customers shall fulfill and exceed their expectations of time, quality, safety and cost.

3. The company firmly believes that the excellence in each project and product are achieved with the participation of all the people that constitutes Ficosa. The maintenance of the daily enthusiasm and the imposition of challenges of permanent improvement are clues for this purpose and a responsibility for each leader.

4. Occupational health and safety is a fundamental part of our work; that is the reason why we compromise to support and fulfill the policies and regulations related to the preservation of our personnel health.

5. The development of our Company must be guided toward the continual improvement of our work (in occupational health and safety, quality, environment and energy efficiency). It is our obligation to improve every day the effectiveness of our Integrated System.

6. The respect for nature and the observance of the universally declared principles of pollution prevention and control shall be kept as a frame of reference for the development of our activities. The development of our organization can and must walk alongside the preservation of the environment and the mitigation and adaptation to climate change, as well as towards energy management.

7. The environmental questions are a common problematic, therefore, each of the internal members (workers and collaborators) and external members (suppliers and subcontractors) have the right and the moral obligation to participate in their implantation and to collaborate in their maintenance.

8. Ficosa has a framework where the establishment of objectives and goals for occupational health and safety, quality and environment, as well as the availability of information, resources, acquisition of efficient products and services. The review of these objectives is a high priority function in the development of our Company. These objectives must be based on the requirements of the interested parts, established in the MISSION.

9. The fulfillment of the current legislation and regulation regarding occupational health and safety, quality, environment and energy for Ficosa. We include in this section any other requirement.
Ficosa reaffirms its support for the Ten Principles of the United Nations Global Compact in the areas of Human Rights, Labor, Environment and Anti-Corruption. In this third CSR report, Ficosa describes its actions to integrate the Global Compact and its principles into its business strategy, culture and daily operations.