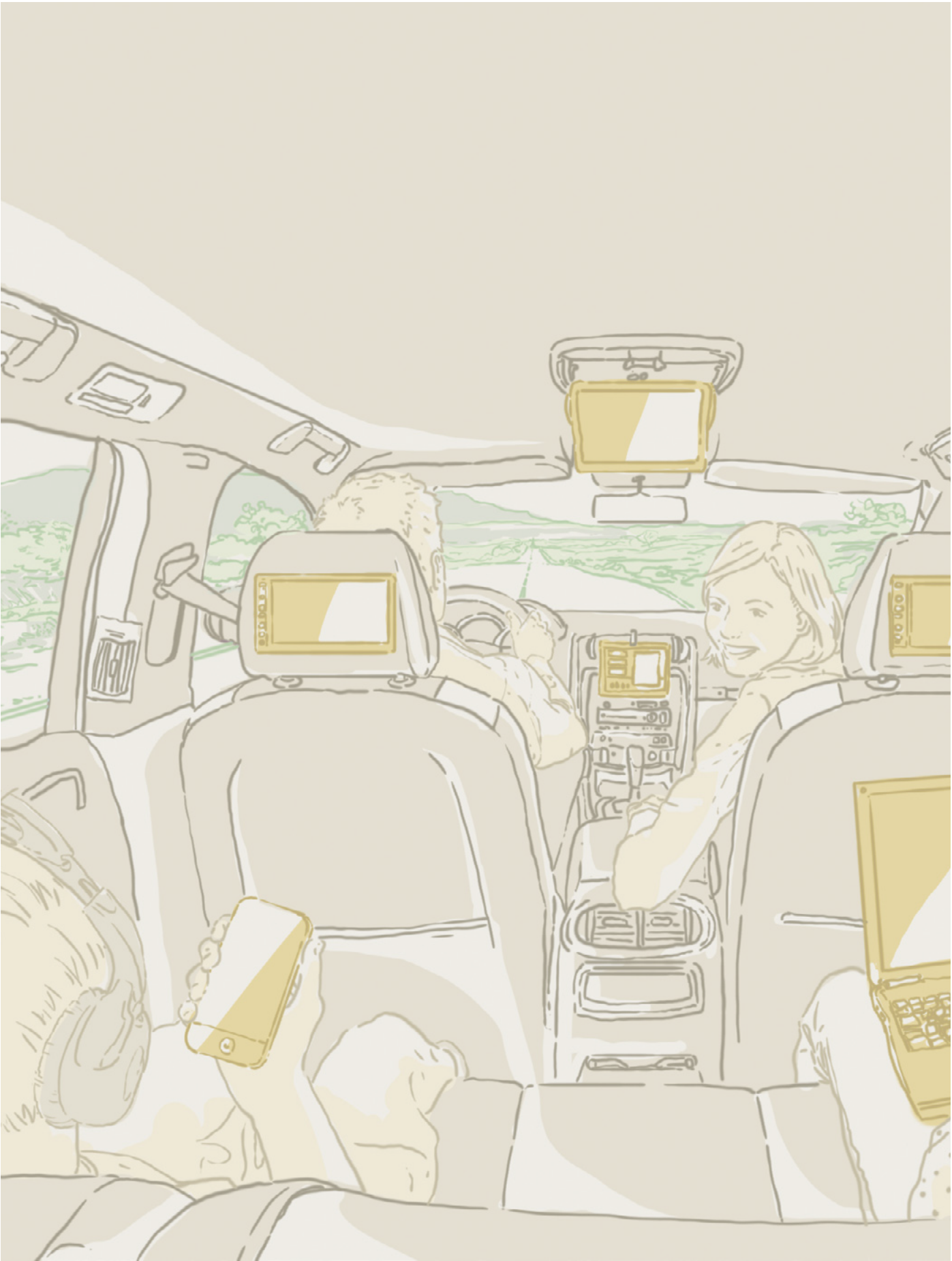




CORPORATE SOCIAL RESPONSIBILITY  
REPORT

2015





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# President's Statement

Dear Sirs,

It is a great honor to share with you our second 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 Global Compact and its principles into our business strategy, culture and daily operations.

The automotive industry is going through an amazing technological transformation in which electronics are going to boost sales in the future. As you know, at Ficosa, we underwent a profound technological transformation during the last years by focusing on three areas of growth: ADAS (Advanced Driver Assistance Systems), connectivity and e-mobility.

This year has been crucial for the company, with the formalization of our capital and business alliance with Panasonic. Panasonic has taken a 49% stake in Ficosa, and has assigned four directors in management roles as Ficosa Board Members. Panasonic is the best partner we could have to maximize synergies and accelerate our technological transformation.

Alongside Panasonic, we have already identified some key technological products that will be launched in years to come: CMS (Camera Monitor System) and IRMS (Intelligent Rearview Monitor System) are going to lead our transformation in ADAS technology; Smart Antenna will be vital for our success in connectivity; e-shifters will play a decisive role regarding shift-by-wire; and regarding e-mobility we are focusing on battery management systems and on-board chargers.

This partnership not only brings together complementary technology and know-how, but also regional synergies. This is extraordinarily valuable to the future business of both companies. Panasonic and Ficosa share similar values and culture: concern about people, social responsibility, ethics, effort, customer focus, and passion for technology. In this regard, the partnership will strengthen our companies.

Throughout this strategy, 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 supplier management, project management and technical centers, using the same criteria as for all Ficosa manufacturing plants.

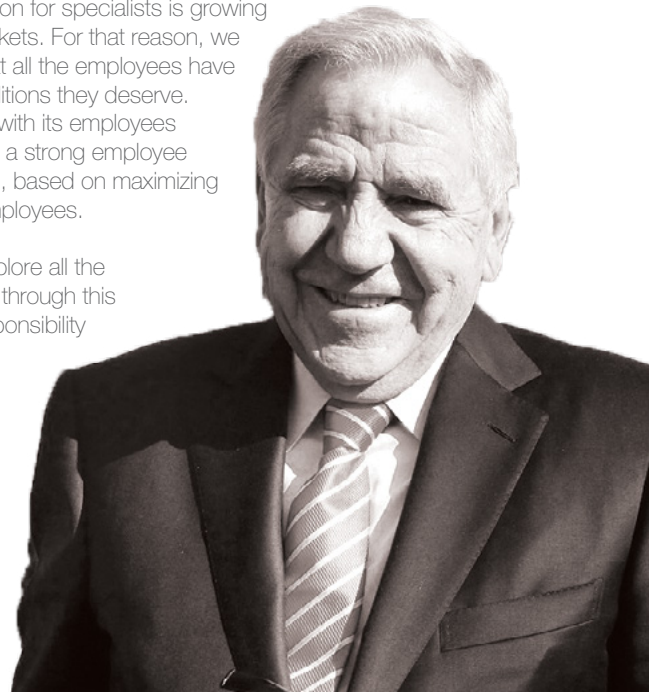
We do maintain a solid commitment towards integrity, one example of this is the fact that we reaffirm our support for the Ten Principles of the United Nations Global Compact in the areas of Human Rights, Labor, Environment and Anti-Corruption. Moreover, we are elaborating a Corporate Code of Ethics that will set the rules outlining the responsibilities of, or proper practices for the organization.

I would like to highlight the opening of our third production plant in China, in the north eastern city of Shenyang, as well as the future construction of a facility in Cookeville, Tennessee, which will be fully operational by the end of 2016. These new plants not only reinforce Ficosa's business in China and United States, but also reaffirm the company commitment to local and international clients.

These new plants 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.

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

This report is the second CSR report of Ficosa and 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 2015.

## Objective of the CSR Report

In this second report, Ficosa wants to explain how Corporate Social Responsibility (CSR) challenges are approached, and the performance of Ficosa's activities in 2015, 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.

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



## Scope and boundary

The 2015 CSR report covers from the period 1 January 2015 to 31 December 2015. 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. The report includes information from our operations in Asia, Europe, North America and South America.

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

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 for the automotive industry.

# Ficosa at a glance

The company, with headquarters in Barcelona (Spain), generated sales of €1,100 million in 2015 and has a team of more than 9,000 employees, with manufacturing plants, technological centers and offices located throughout 16 countries in Europe, North America, South America and Asia.

In the last few years, the company has undergone a profound technological transformation by focusing on a broader development of products with higher added value in the electronics and software fields.

Ficosa is now one of the top-tier global providers dedicated to research, development, production and sales of high-technology vision, safety, efficiency and connectivity solutions for the industry.



Headquarters & 5  
productions plants



Detroit (Mi)  
Crossville (TN)  
Shelbyville (KY)

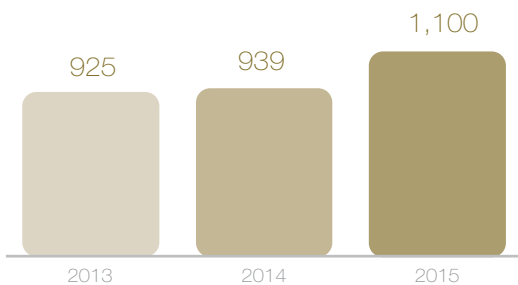


Salinas-Victoria  
Escobedo



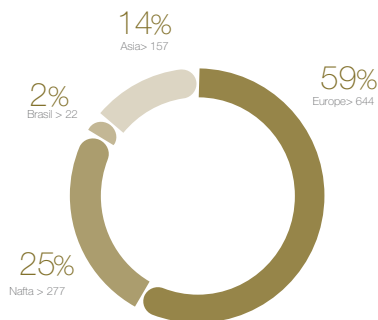
Sao Paulo

## Sales (€ million)



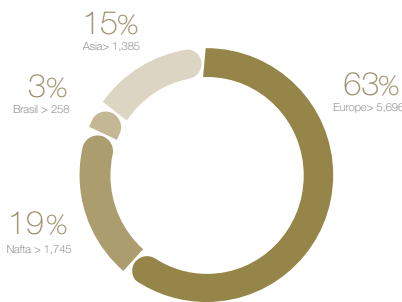
Ficosa finished 2015 with sales above 1 billion euros for the year. The solid growth experienced by the company since 2013 is due to a clear commitment to globalization, operational efficiency, innovation and activity diversification, aiming its activities at new sectors aside from the automotive industry.

## Sales per region 2015 (% sales, € million)



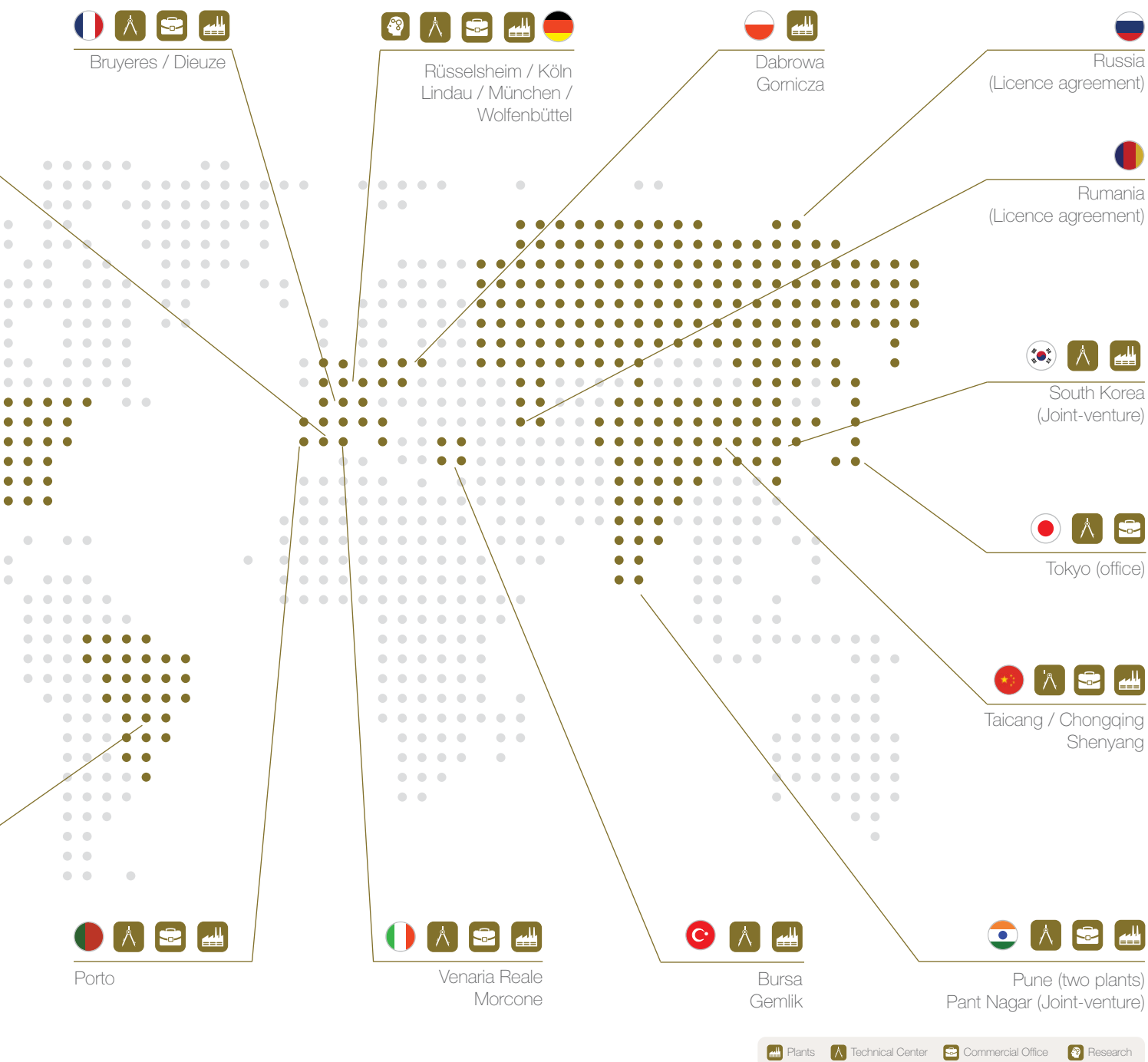
In 2015, the regions where Ficosa has registered a greater increase in sales volume have been Europe and Asia.

## Distribution of employees per region 2015 (% employee, No.)



- €1,100 million sales
- 16 countries
- 9,084 employees
- 20 production sites

- Established in 1949 in Barcelona (Spain), family-owned
- Pioneers in safety, connectivity and efficiency systems
- 13 R&D and technical centers





# Structure of Ficosa International

Ficosa International is made of companies from all over the world: Ficosa-owned companies, joint ventures and licence agreement. The group is organized into different Business Units:

**01 Rear-view system:**  
Develops, produces and commercializes rear-view mirrors and vision systems - forward, backward and lateral - for vehicles.

**02 Command & Control System:**  
Develops, produces and commercializes systems which interact between the driver and the vehicle, such as shifters, parking brakes, and drive cables.

**03 Under hood system:**  
Develops, produces and commercializes fluid and ventilation systems installed at the vehicles' underhood.

**04 Advanced Communication:**  
Develops, produces and commercializes antenna systems for vehicles, communication modules and antennas for navigation systems.

**05 Commercial Vehicle:**  
Develops, produces and commercializes all Ficosa's product portfolio for buses, trucks and industrial and commercial vehicles.

**06 Doors & Seat Systems:**  
Develops, produces and commercializes systems and parts for seats and vehicle doors, such as actuators, cables, and lumbar systems.

**07 Idneo:**  
Develops and produces technological products with high added value for the sectors of mobility, medical devices, consumer electronics and industrial.

**08 Ficosa Solutions:**  
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.

**09 Advanced Driver Assistance Systems (ADAS):**  
Develops, produces and commercializes systems that help the drivers in its driving process.

**10 E-mobility:**  
Develops, produces and commercializes electric powertrain technologies and connected infrastructures to enable the electric propulsion of vehicles and fleets.



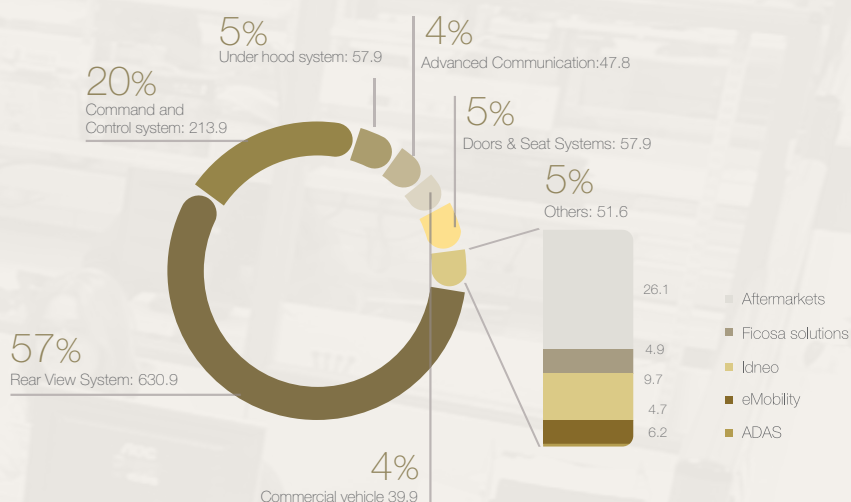
In terms of product, the major increase in sales has occurred on the new technological products focused on safety and comfort systems (ADAS) by tripling the figure of the previous year.

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).

This new agreement is bringing Ficosa with a new horizon full of possibilities for leading the future of the automotive industry in the areas of safety, connectivity and efficiency.

Sales by division – 2015 (% of sales, € million)



## New production plants in China and EEUU

The Ficosa's internationalization strategy responds to Ficosa strong commitment to stay close to its clients to offer a better service. For this purpose, the company has recently strengthened its international presence by opening its third plant in China (Shenyang, Liaoning) and with the construction of a state-of-the-art facility of about 25,000 square metres in the United States (Cookeville, Tennessee), which will be fully operational by the end of 2016. With an investment of over 50 million dollars, the new plant will be equipped with the sector's most advanced technology in order to offer to clients the most competitive products and services.

### Production center in Shenyang (China)

- Inauguration: 2015
- Employees: 400
- Surface area: 10,000m<sup>2</sup>
- Product manufacturing: rear-view mirrors, automatic transmission, systems and handbrakes.
- Clients: BMW, Brilliance, Great Wall and BAIC.

### Production center in Cookeville (USA)

- Inauguration: End of 2016
- Employees: 900
- Surface area: 25,000m<sup>2</sup>
- Product manufacturing: rear-view mirrors.
- Clients: Ford, Chrysler, General Motors, Volkswagen and Nissan.

# How do we work?

## | Mission

To innovate, develop and produce products with added value which contribute to mobility improvement in key factors of progress such as safety, comfort, communications and the environment, exceeding market expectations as well as those of our customers.

## | Vision

Our strength comes from our commitment. For us, success does not lie in size, but in agility, speed, creativity and the understanding that being the best means being able to respond to the needs of our employees, customers, community and shareholders in equal manner.

## | Values

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.





## Leadership

Humility, not taking sole credit, and understanding all persons are equally essential to Ficosa's leadership style: lead by example and with high regard for people. Delegate, decentralize, have faith in people's abilities. Integrate the company's values into the workplace.



## Commitment & Passion for one's Work

The enthusiasm for participating in the company project and integrating its values. Participating in achieving our vision through perseverance, work and enjoyment, and a job well done. Acknowledging that all jobs are equally important.



## Honesty & Integrity

Being honest and upright in our actions and behavior. General ethics and our values should guide our daily decisions.



## Teamwork / Learning together

Knowledge-sharing, open communication, learning from mistakes, cooperation, and understanding that personal success is everyone's success.



## Customer Focus

Helping our customers succeed is key to achieving our success. Being able to build trusting relationships with our customers, understanding and anticipating their needs.



## Interest in People

People are the center of our company project, whose essence consists in learning, training, respect, diversity, affection and friendly "informal" relationships.



## Innovation & Creativity

All our employees have the capacity to innovate and create, and should therefore, ensure that their ideas flourish through our leadership. Challenging the market by being bold and taking risks while using good judgment.

Our Values express the spirit of our company, the way we think and how we believe we should act



# CSR in the company

Ficosa's approach to CSR sits at the heart of the business and is supported at the highest level

Since the beginning, 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.

Any new CSR initiatives and programs are reported to the Executive Committee, through the Chief HR Officer, member for the Committee and highest responsible for CSR in the company. The integration of CSR into daily activities is promoted through the Human Resources department and a cross-functional organization that involves different business functions and countries.

Since 2014, the company has decided to define a corporate structure that allows OHSE Corporate collect data management.

Ficosa has diverse CSR programs and initiatives. With the aim of bringing them together in the form of a coherent strategy, the company decided to unify the diverse range of the company's CSR initiatives all under one umbrella by conducting a global CSR diagnosis and implementing a CSR action plan. To help the company determine which CSR areas should future efforts and financial resources focus on, Ficosa carried out an internal diagnosis at corporate level and country level.



## Human Rights & business ethics

Behaving ethically is fundamental to establishing and sustaining legitimate and productive relationships between organizations. The welcome manual for new employees gather the main ethical behaviors that each employee must perform in terms of conflict of interests, equal employment opportunity, confidentiality of information, etc. Some sites are working in specific policies to make sure that their employees are aligned with the Ficosa commitments. For example, sites like Viladecavalls (Spain), China, Italy and United States have implemented a policy or agreement to ensure the confidentiality of the information. Poland and Germany have defined a policy against corruption. Other countries such as Italy and Mexico have published a local Code of conduct that set the rules outlining the responsibilities of, or proper practices for the organization.

In 2015, the company decided to implement a Crime Prevention Model. The goal is to adopt and effectively implement the appropriate measures to prevent and detect criminal risks. 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.

The implementation of the Crime Prevention Model will particularly take into account the adaptation process to comply with the Sarbanes Oxley Act (SOX) in which Ficosa is immersed. The new adaptation process will rely on the implementation of new management process and tools that include the elaboration of a global Code of Ethics.

## 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.

Mexico has implemented a specific program to ensure that all employees understand and “live” the values of Ficosa. In USA, the company is planning to adapt and implement at local level the initiatives started by Mexico. Ficosa Crossville (USA) is publishing best practices of “How to live the values at Ficosa” in its monthly newsletter. Furthermore, the site discusses about the company's values in every Town Hall meetings. In Soria (Spain) and Poland, every employee is evaluated by his manager on the adequacy of his behavior with the values of Ficosa. Next year, each employee worldwide will be able to be evaluated in terms of values.

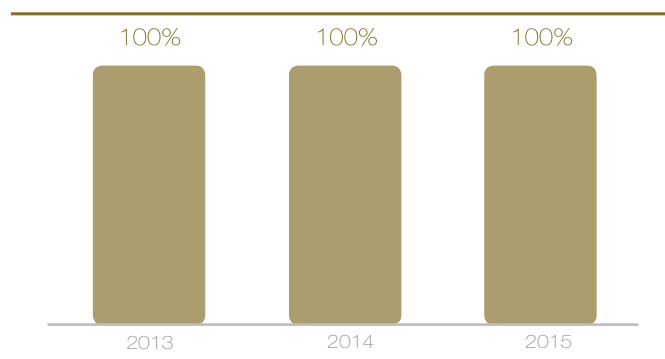
Ficosa wants to be responsible not only for its own decisions and activities, but also wants to make sure that its suppliers and business partners operate in line with the company's CSR principles and respect the Universal Declaration of Human rights and environmental protection. Following the General 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 these purchasing conditions.

# Commitment to quality

## | Quality Management

Operational facilities certified ISO/TS 16949 and ISO 9001 (%)



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.

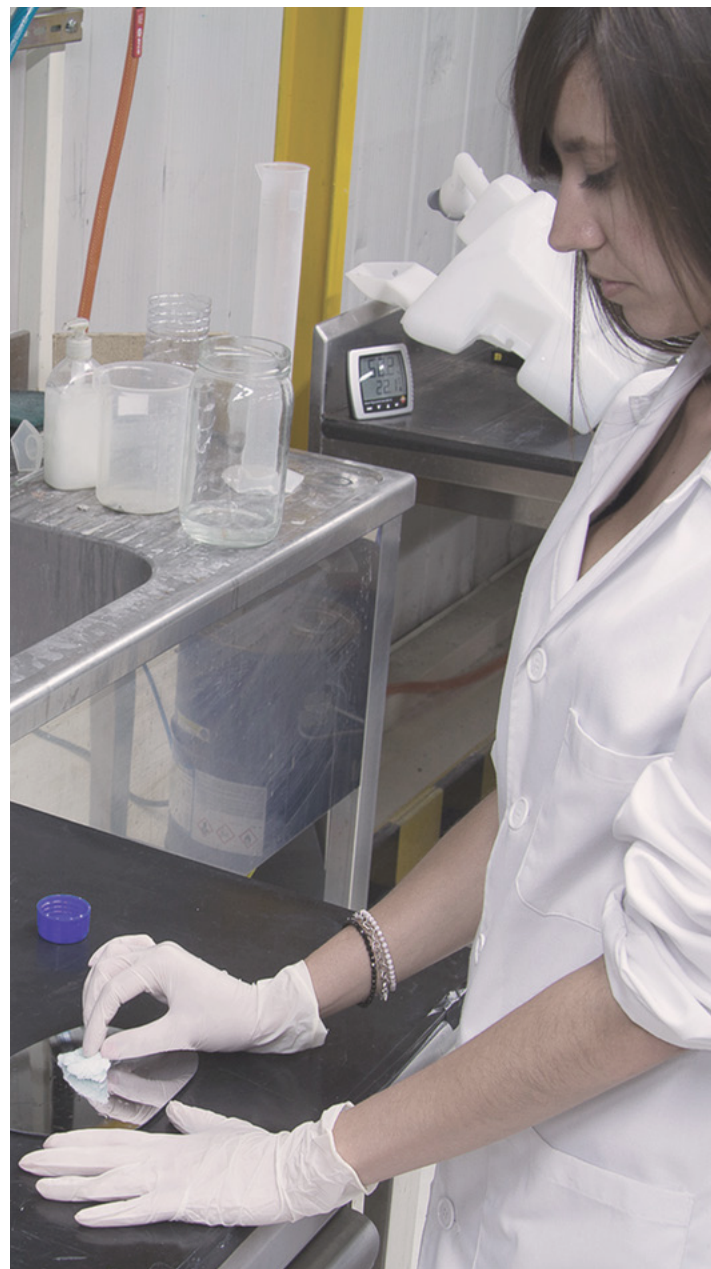
Since 2009, Ficosa has implemented the Corporate Quality 3Q3 program, which aimed to improve quality thrice within three years' time, thus elevating the business to the top of the automotive sector.

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.

This year, 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.

Company quality is managed through the monitoring of KPIs (soft metrics & hard metrics). The company has defined a balanced scorecard system that offers the sites's monthly values versus target figures. This monthly reporting enables the company to pinpoint areas where improvement is needed.



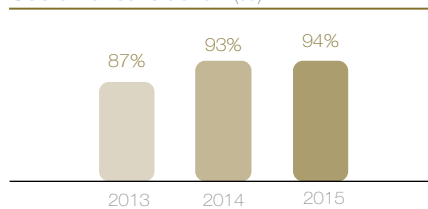


# Quality performance

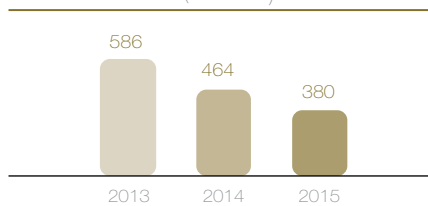
In the last 2 years, Ficosa has reduced its defective parts indicator by 47% (Customer ppm) and by 69% (Supplier assembly ppm). In line with this improvement, the company has increased its customer satisfaction by 7% and reduced its customer claims by 35%.

From next year on, the company is planning to implement the Lean Six Sigma methodology in all the production plants and technical centers and reinforce the training for quality and process engineering.

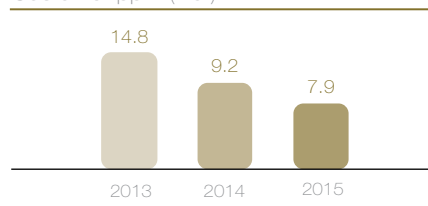
Customer satisfaction (%)



Customer claims (No.)

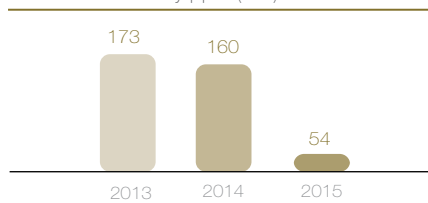


Customer ppm (No.)



Ppm: number of defective parts per million delivered.

Customer assembly ppm (No.)



## Awards and recognition

### In 2015, The company received numerous awards from its clients.

The manufacturing plants in Turkey have received the Q1 award from Ford Motor company. Furthermore, they have been awarded by the Toyota Moto Europe, in the category of Value Analysis.

The manufacturing plants in China have been assessed as level "A" on the Material Management Operation Guideline/ Logistics Evaluation (MMOG/ LE) by the Ford Motor company.

The manufacturing plants in Spain have received the General Motors (GM) Supplier Quality Excellence Award. The suppliers received the award for going above GM's requirements and providing the most innovative technologies and the industry's best quality products.

The manufacturing plants in Mexico were honored with a Toyota Certificate of Achievement award for maintaining superior performance standards in quality, delivery and value improvement.

The manufacturing plant in Portugal has been awarded by General Motors for its time delivery shipment performance. Furthermore, the manufacturing plant has been appreciated by the Johnson Controls company, which awarded the center in the following category: Silver Europe Supplier Performance.

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.

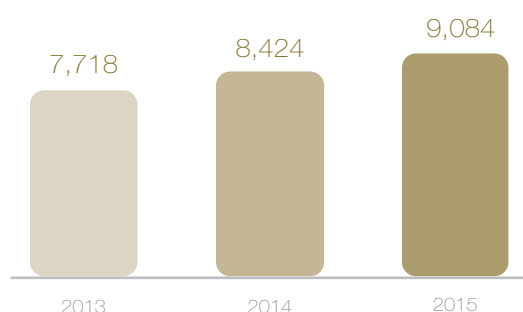
Ficosa conducts some periodic supplier assessments to ensure that the suppliers' quality meets the standards established. This year, the audits are using the same criteria that the ones for Ficosa manufacturing plants. Thus, Ficosa has defined a specific 3Q3 supplier's strategic line with the aim to establish stricter quality rules and reduce the risks associated with suppliers.

With this new strategy, a supplier that will have 3 months of performance lower than expected will enter in "Business Hold" process. In this process, Ficosa will collaborate with the supplier, with the aim to improve its performance and ensure it operates in line with the principles and standards of the company. Nevertheless, a supplier that is entering in a "Business Hold" process and still has three consecutive months with a low performance will enter in the "fix or leave" process.

Furthermore, Ficosa will review the criteria used to select its supplier Purchasing Optimum Panel (POP).

# Commitment to our people

Workforce (No.)



Ficosa's commitment to people is the foundation of the company's culture.

Since 2008, the company has tapped into new business areas and international markets and integrated these into the corporation. In this regard, Ficosa has banked firmly on creating highly valuable jobs, as shows the fact that the number of engineers working in the headquarters in Viladecavalls (Spain), has risen by 60% from 2013 to 2015.

Moreover, looking towards the 2019 horizon, the company is planning to create 240 new jobs for engineers and university-qualified technology professionals. These new professionals will cover positions in the automobile division and expanding sectors, such as medical equipment, mobility, consumer and industrial electronics.

This new strategy is bringing new challenges for the company as competition for specialist and managerial staff is growing in some areas of the global labor markets. For that reason, Ficosa wants to make sure that all the employees have the best working conditions they deserve.

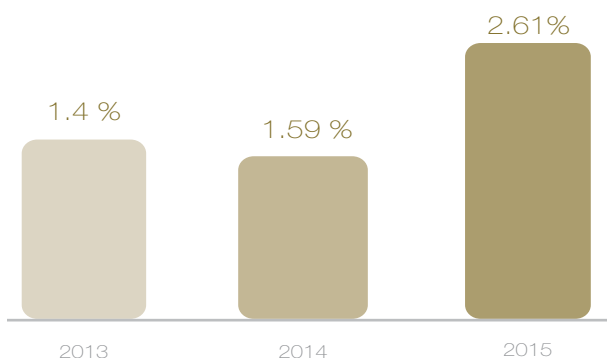
For Ficosa, being a responsible employer involves a number of challenges: train employees, advance their careers, provide them with fair salaries that motivate them, look after their well-being at work, combine operational excellence and personal development and encourage a full social dialogue.

Ficosa has numerous internal policies to ensure that all the sites are following the best practices in this regard.

Diversity men/women 2015 (% , No.)



Turnover (%)







## Diversity and Integration

In 2015, Poland received a special prize "Icebreaker" for its commitment to promoting inclusion of persons with disabilities by the Foundation for Vocational Activation of People with Disabilities and the Polish Organization of Employers of Disabled Persons.

Soria (Spain) collaborates with correctional institutions for fostering the rehabilitation of prisoners. The company has received a special prize "Empresas Socialmente Responsable" by FADESS (Fundación de Ayuda al Discapacitado y Enfermo Psíquico de Soria) that recognizes its commitment to contributing in hiring, training and reinserting prisoners of Soria penitentiary establishments. Furthermore, the site, in collaboration with a university, has implemented a training course to promote equal opportunities and non-discrimination.

Turkey has defined a specific target to employ disabled people that exceed the legal requirement.



# | Growing @Ficosa

In 2014, the company launched a Competency Development Program with the aim of identifying and maximizing the potential of our key employees.

This program has, as a starting point, an external Development Center that enables each participant to better understand their behaviors and to map their strengths and development areas. This diagnostic is the foundation of Growing@Ficosa, a program that provides the resources and support for an accelerated development adapted to each of the participants, ensuring that they are prepared for the current and future challenges of the company.

This is a long-term program, lasting from eighteen months up to two years, that aims 110 participants in 2015 and 2016. From 2017 on, the company is committed to increasing the number of participants with the goal of becoming an ongoing process to develop key people globally.

Growing@Ficosa is based on a 3 band commitment between each participants, managers and Human Resources and includes:

## 01 An Individual Development Plan (IDP):

An ad-hoc plan resulting of 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 360° or other behavioral KPIs.

70

Experiential  
learning

Work-related collaboration  
On-the-job  
performance support

20

Social  
learning

Peer learning  
and coaching  
Mentoring

10

Formal  
learning

Learning program  
support High  
potential development

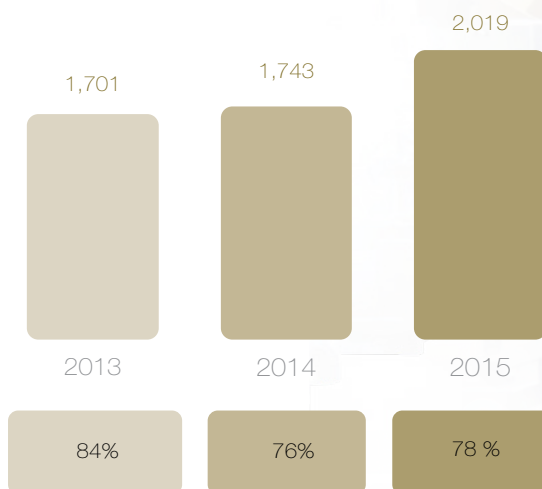


# Employee development

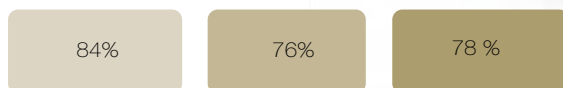
Employee development is a priority for Ficosa. Since 2011, Ficosa has adopted a new system-wide performance which focuses on setting performance goals for employees according to their duties and area objectives.

Every site decides the employee target at the beginning of the year, taking into account process implementation and local conditions and sharing this decision with corporate development.

No. of employees with access to performance and career development review (employee target):



% employees that fulfilled the performance and career development reviews



## Successfactors

**successfactors**  
An SAP Company

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 SuccessFactor. 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. In 2017, Ficosa expects the different modules to be fully integrated within the different countries where the company operates along 2016 and 2017.

# | Employee training

Contributing actively to the professional development of the employee is the best way to increase the company's leadership position by improving its competitiveness.

With this aim, Ficosa considers that training actions have to be integrated into a consistent training plan that results from a complete analysis of the employees' training needs.

Each year, each site defines a quantified and budgeted annual training plan and submits it to the 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.

No. of training hours provided to employees 2015 (h)

142,513h

Average training hours per employee 2015 (h/person)

19.3h<sup>1</sup>

Training investment 2015 (€)

1,292,808€

Average cost of training per employee 2015 (€/person)

142€

1. The company is using the average workforce at the end of the year to calculate the ratio.



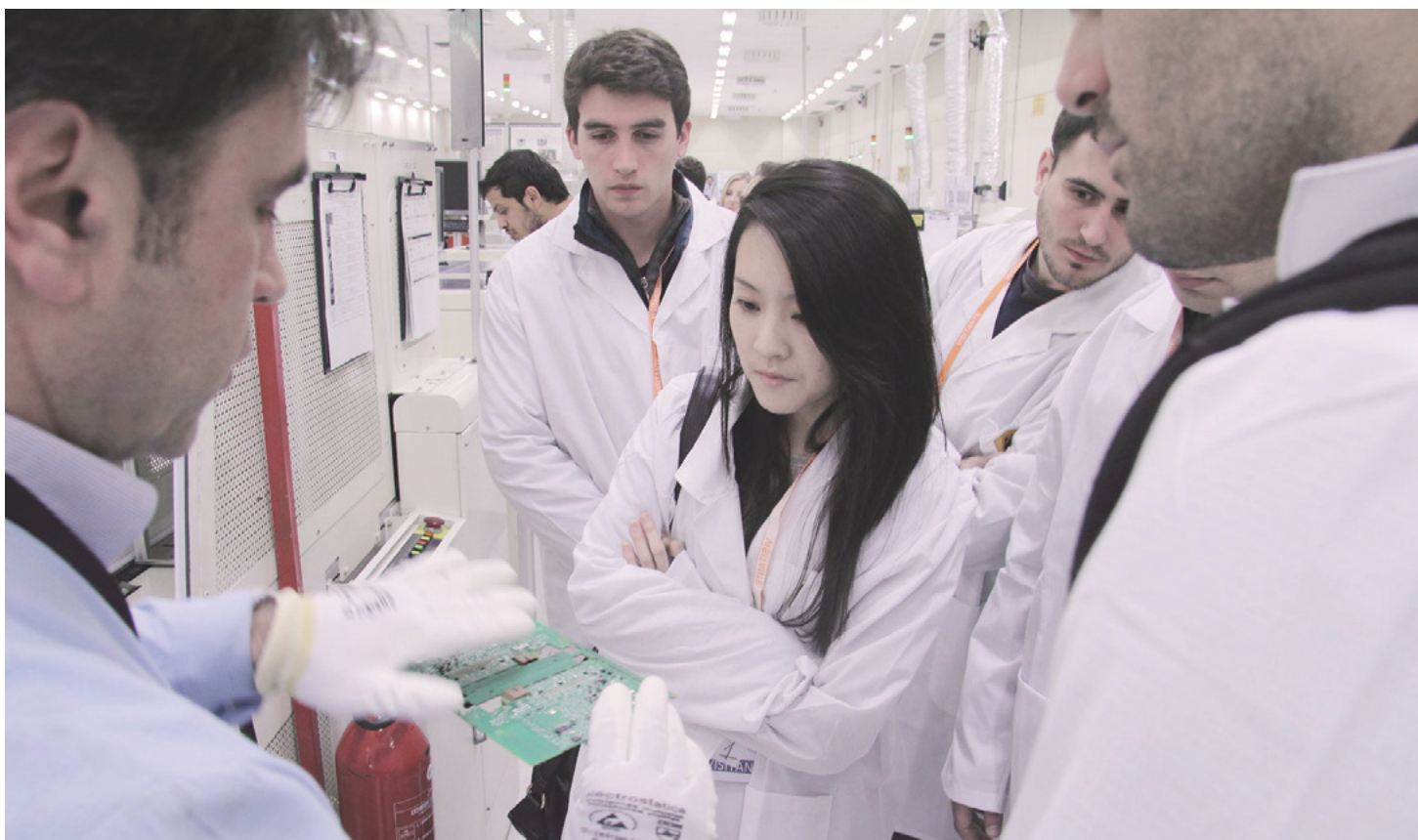
# International assignments

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, expanding technical expertise and promoting a consistent global culture.

Ficosa defines 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.

In 2015, the company managed 51 expatriate employees in 9 countries. Most of them were located in United States and China.



# Employee communication & satisfaction

Ficosa wants to foster a strong and effective communication with its employee to make sure that they understand where the organization is headed and are kept 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-to-one interviews, town hall meeting, etc.

At local level, some countries, such as China, Mexico, Poland and Turkey have developed an employee survey in the last 3 years. The results were presented to the top management and were followed by an action plan.

# 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.

The company is defining a specific program to make sure that all the sites implement measures related to workplace health promotion and work-life balance, including formal objectives for the prevention of stress. In some locations, the company has already implemented some initiatives:

In Soria (Spain), the company has conducted a specific survey to measure the potential impact of psychosocial risks and work-related stress experienced by its workers.



## Soria

- Flexible hours / labor flexibility
- Full acceptance for half time working requests for parents
- Flexible hour in entry/exit
- Sport promotion (free rent, discount)
- Physiotherapy service for employees

## Viladecavalls

- Time flexibility for employees and subcontractors
- Medical services



- Welfare campaigns (Healthy week, Workshop: Way to success)
- Total Wellness program



- Welfare campaigns (responsible consumption, how to prevent AIDS, healthy lifestyle)



- Psychology service for all employees
- Welfare campaigns (Health food, stress prevention, etc.)
- Labor gymnastics



- Medical insurance
- Welfare campaigns (Campaign day "without a cigarette", Campaign day "fight against the diabetes")
- Sport promotion (free rent)



- Welfare campaigns



- Welfare campaigns (vaccination)



# Commitment to health, safety and environment

## |Policies and strategy

Occupational health and safety and environment (OHSE) are high priorities for Ficosa. The OHSE policies, plans and programs focus on the identification and elimination of risks and the protection of the workers and the environment.

The corporate OHSE team is responsible for formulating OHSE standards and procedures. Furthermore, the department is responsible for establishing a global system for monitoring all the OHSE aspects from all the countries and ensuring that each subsidiary complies with the internal OHSE standards and procedures.

The company has defined specific strategic lines to ensure that all the sites are following the OHSE standards and procedures of the company:

- Implement a strong training plan to ensure a skilled OHSE team and prepare them to any changes within the company.
- Standardize the OHSE system certification and legal compliance assessment.
- Perform OHSE audits to detect areas of improvement and share best practices.
- Ensure an OHSE risk control through the implementation of a Risk Assessment File Plan.
- Improve the data gathering process of each site to identify any gap between the current state of information and that required to reach the desired state.
- Define a specific local OHSE action plan to eliminate possible gap between the current plant performance and the one required by the company.

Each plant has OHSE specialists in charge of implementing the company's OHSE instructions and systems.

## Tools and reporting system

Tools and reporting system play an essential role in the consistency and uniformity of the company's management. In this regard, Ficosa has implemented different tools and reporting systems for managing the different OHSE issues.

In 2015, Ficosa implemented a corporate OHSE software for the control and management of OHSE legal requirements in the countries where the company operates. The new tool allows users to access to a large scope of legal requirements regarding environment, health and safety.

Moreover, the company has implemented an OHSE data collection and reporting system to ensure that all the sites are tracking and reporting their OHSE performance. This new reporting system helps corporate OHSE team to collect and consolidate reliable data across various divisions and countries.

## OHSE training

A successful OHSE management system relies on the responsibility of all employees. Any strong formation will enable the company to prepare each employee to any changes when new procedures have to be implemented and to improve the OHSE data gathering and performance of the company.

In this regard, each manufacturing plant has performed an environmental, health and safety training program to make sure that each participant understands its roles in the implementation of the different OHSE procedures and standards of the company. In 2015, the courses were diverse and focused on the following issues:

- Safety on machinery and production line.
- Corporate tools for environmental, health and safety indicators.

Furthermore, OHSE specialists from Mexico, China, Turkey and USA came to Ficosa's facilities in Viladecavalls (Spain) for an intensive training week about the different OHSE corporate procedures of the company.

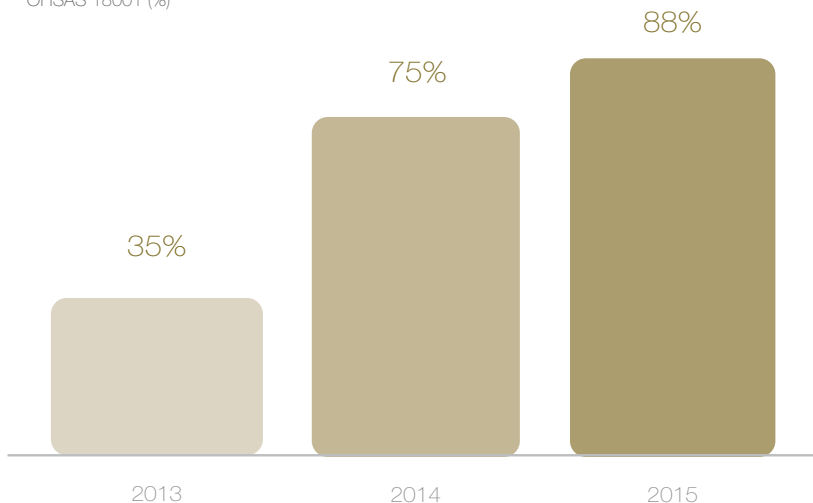
The corporate OHSE team is defining the contents of additional OHSE courses that will be integrated in the local training plan of each site where the company operates.



# Health and safety performance

## Occupational Health and Safety Management

Operational facilities certified  
OHSAS 18001 (%)



In 2015, 16 plants were certified in accordance with OHSAS 18001 – the international standard for Occupational Health and Safety (OHS) - which represent 88% of operational facilities. All the industrial plants are carrying out internal OHS audits on a regular basis.

One of the new initiatives implemented this year has been the introduction of new OHS questions into the Corporate Quality Audit "3Q3" led by the quality department. A check list with new questions about equipment, machines and safe behavior has been included.

The company is investing in training to make every employee aware of the OHS risk associated to their duties.

# OHS training in 2015

No. of OHS training hours provided to employees (h)

17,573h

Average OHS training hours per employee (h/employee)

2.15<sup>2</sup>h

% hours of training dedicated to OHS

11.2%

In 2015, the company launched various awareness campaigns on OHS aimed at promoting safety on the workplace. Through internal and external audits, certification, and special safety programs and training, the safety standards at Ficosas production sites are continually improving.

2. The company is using the average workforce at the end of the year to calculate the ratio.



# Achievements in 2015

Lost time injury frequency rate 2015

0.79  
(0.83 in 2014)

(No. of work-related injuries\*100,000/total number of hours worked)

Lost time severity rate 2015

0.55  
(0.64 in 2014)

(No. of days lost due to injuries\*1,000/total number of hours worked)

Number of fatalities during 2015

0  
(0 in 2014)

## Ergonomic Improvement

Ficosa manufacturing plant in Italy has improved its manufacturing process to mitigate safety risks due to forced postures and overexertion when handling boxes containing mirrors. In this regard, the plant has implemented racks where the rear-view mirrors are hung. Furthermore, the boxes for mirrors are transported directly on a platform with wheels. Thanks to the new design implementation, the weights manipulated are reduced and the back is kept straight.



## Access Improvement

Ficosa manufacturing plant in Viladecavalls (Spain) has improved the access to the hopper of injection machines via a staircase that is integrated on the top of the cylinder of injection and allows to work safely during cleaning and maintenance tasks.



# 2016 Challenges

Ficosa still wants to improve its performance in terms of OHS and make sure to achieve zero incidents and injuries in all the plants where it operates. In this regard, the corporate OHSE team will work on different sets of actions, including:

- Increasing the employee awareness through local campaign and introducing OHS management review by plant.
- Reviewing the information on the plant's activities and data which is compiled periodically, making sure that it is prepared in accordance with the standards and criteria used by Ficosa and ensuring the accuracy of this information.
- Improving the OSH training program by increasing the training offers and sharing the internal training material prepared by the Corporate OHSE team.



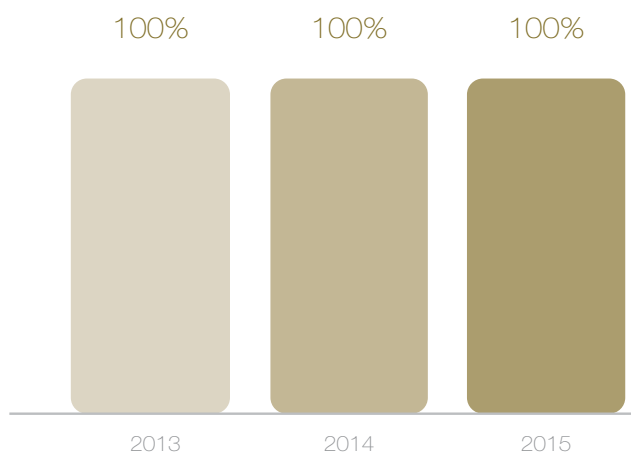
# Environmental performance

Ficosa recognizes that the global expansion of its corporate activities is also reflected in an increasing use of natural resources, rising energy consumption, and the release of substances into the environment. In this regard, Ficosa performs its activities paying special attention on protecting the environment and on efficient use of natural resources.

The corporate HSE team is working with all the plants to define specific targets to reduce the waste generation and energy and water consumption. In 2015, some of the manufacturing plants have already implemented specific reduction targets. At the end of 2016, all the manufacturing plants will have defined their reduction targets and implemented a specific action plan for achieving them.

## Environmental Management

Operational facilities certified ISO 14001 (%)



Ficosa's environmental management model is based on the international ISO 14001 standard. In 2015, the company retained all the environmental certifications.

The ISO 14001 system provides a structure that enables every site to manage, assess, and continuously improve the effectiveness and efficiency of the management of their environmental impacts.

The company is planning to go further and define a global environmental action plan that will establish corporate and local environmental goals for minimizing consumption of resources and continuously reducing the Ficosa's environmental impact.

One of the new initiatives implemented this year has been the introduction of new environmental questions into the Corporate Quality Audit "3Q3" led by the quality department. A check list with new questions about environmental emergency plan and waste management has been included.

The company ensures that all the manufacturing processes are in line with the best environmental practices. Every year, each subsidiary shares its improvement regarding this matter. For example, the manufacturing plant of Poland has integrated green criteria in the purchasing process of injection, blowing and welding machines by selecting only new machines with lower energy consumption. Furthermore, the plant has implemented a new leakage monitoring water system that enables the company to measure the water consumption in each section and identify any leak that may occur in the site. Overall, each plant has developed an internal procedure which clearly explains the procedure to follow in case of leaks and how to prevent them.





## Improvement in the painting process

The painting process accounts for the largest share of environmental impact during the manufacture of Ficosa products in terms of air emission and waste water. The company is committed to mitigating its environmental impact by improving its process and implementing eco-friendly technology.

In Poland, the company invests in new spray booths, which allow increasing 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%. Furthermore, the company has reduced its energy consumption by installing more efficient heat exchanges in paint shop.

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.

In Bursa (Turkey), the plant has decreased its water consumption in the paint shop by using a new coagulant. Furthermore, the plant in Gemlik is implementing new refrigerants R410 and R407 instead of R22 for its air conditioning system.

In Tennessee (United States), the company 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. Besides, the automation of the painting process with robots will improve OHS conditions for operators. Wet filtration on spray booths will improve paint waste separation.

The manufacturing plants in Poland, Taicang (China) and Soria (Spain) are also planning to implement a RTO system in their painting process between 2016 and 2017. The implementation of the new system will enable the companies to reduce their VOC emissions.



# Energy consumption and CO<sub>2</sub> emission

Reducing greenhouse gas (GHG) emissions in Ficosa is mainly about reducing energy consumption and improving energy efficiency. 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 manufacturing process improvement.

The approval of the Royal Decree that transposes the Energy Efficiency Directive (EED) into the Spanish legislation and other equivalents in the European countries where the company operates is a driver across our global operation to undertake energy audits and implement mitigation projects ahead of global regulation. The manufacturing plants in Portugal, Italy, France and Soria (Spain) have already audited their energy consumption and are now defining an action plan to reduce it. The manufacturing plant in Viladecavalls (Spain) will audit its energy consumption at the end of 2016.

The manufacturing plant in Shelbyville (United States) has established a target for reducing its electrical consumption by 10% through awareness campaigns, manufacturing process improvements and installation of a new lighting system. All the manufacturing plants will have to establish their own reduction target by the end of 2016.

Furthermore, increased use of renewable energy is critical to the transition to a low-carbon economy. The manufacturing plant in Germany is committed to procuring 100% of its electricity from renewable sources. Other manufacturing plants, such as the ones in Spain and Portugal are planning to increase their renewable power consumption.

## Fossil fuel consumption (2015)

Natural Gas (MWh)	28,918
Propane Gas (kg)	24,748
Butane Gas (kg)	110,938
Gasoil (L)	245,436

## Own fleet of vehicles (2015)

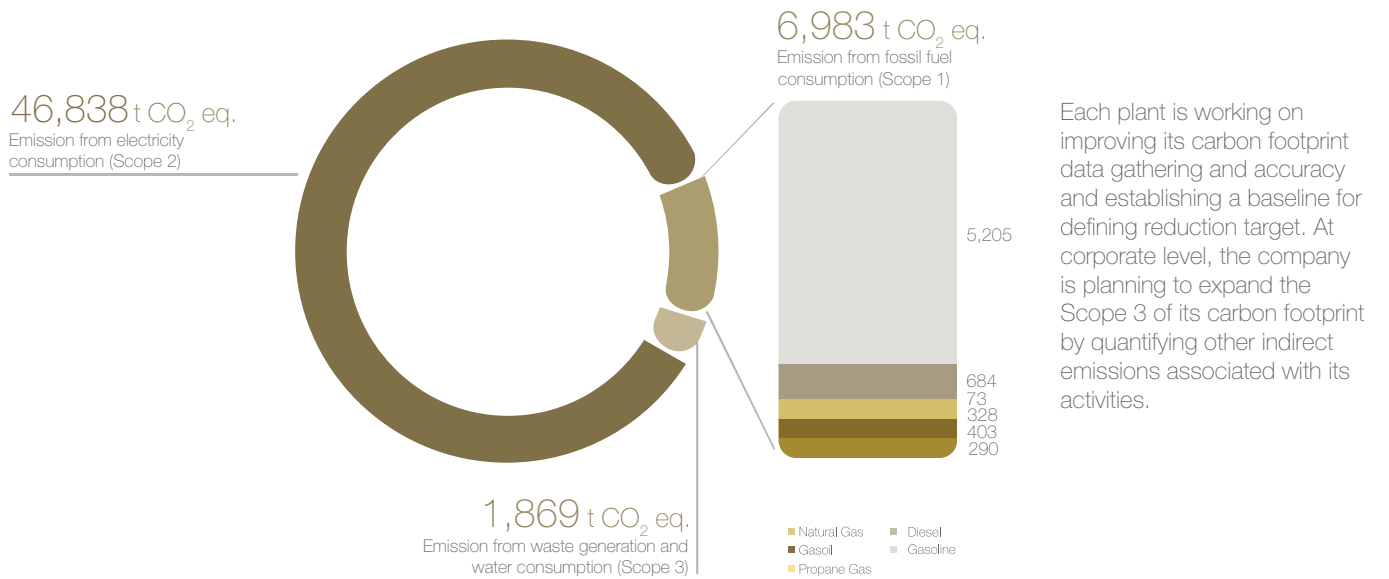
Gasoline (L)	121,886
Diesel(L)	154,608

## Electricity consumption (2015)

Electricity (MWh)	106,396
Electricity from renewable energy (MWh)	2,472

Carbon footprint

CO<sub>2</sub> emisiones from Ficosa activities (t CO<sub>2</sub> eq.)



Source: The emission factors considered for calculating the CO<sub>2</sub> emission related to electricity consumption is the electric mix (KgCO<sub>2</sub>/KWh) of each country. The other emission factors come from the 2006 IPCC Guidelines for National Greenhouse Gas Inventories\*.

Water Consumption

Waste management

The company continues to manage the direct environmental impact of its operations in terms of water consumption. In 2015, the company has improved the reporting process of the water consumption of each site and included it into the scope 3 of the carbon footprint. Some of the manufacturing plants have already implemented a specific goal to reduce its water consumption. For example, the manufacturing plant in Shelbyville (United States) established a target to reduce its water consumption 10% by 2015 (base year: 2014), which was achieved on time. Next year, all the plants will define targets to reduce their water consumption and implement a water reduction program to achieve it.

Total water consumption (m3)

217,456

% Water reused in Viladecavalls (Spain)

47%

In 2015, the company launched various awareness campaigns aimed at promoting waste recycling and reuse within the company. One of the manufacturing plants of France (Dieuze) has implemented a strong material recycling program than allowed the company to save more than 100,000 € in material cost, by increasing the recycling of injected parts and reducing the generation of scraps.

The manufacturing plant of Portugal has organized an employee competition to raise the awareness about the waste generation and recycling within the company. Furthermore, the company has organized a campaign “Electrao Empresa” to promote the recycling of electrical appliance.

The manufacturing plant of Italy (Morcone) has implemented an awareness campaign that explains clearly the different waste generated in the production area and how to recycle them.





# 2016 Challenges

Ficosa wants to continue reducing its environmental impact and make sure that all its plants are energy efficient. In this regard, the corporate OHSE team will work on different sets of actions, including:

- Improving the environmental performance of the company by making obligatory the elaboration of goals for reducing the waste generation and the water and energy consumption.
- Reviewing the information on the site's activities and data which are compiled periodically, making sure that is prepared in accordance with the standards and criteria used by Ficosa and ensuring the accuracy of this information.
- Increasing Ficosa's reporting on scope 3 carbon footprint.

# Commitment to society

## Responsible management of the supply chain

Ficosa's commitment to sustainability extends to its supply chain. Ficosa continues to focus its efforts on improving management and implementing sustainability standards through its supply chain, mainly through two instruments:

1. Adaptation of the General Purchasing Conditions
2. Implementation of quality and sustainability criteria in its supply chain

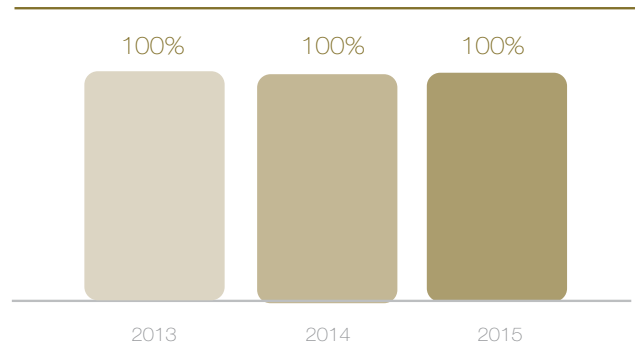
Any Ficosa supplier has to show evidence that it has an established effective quality management system in place certified by a third party. Ficosa recommends all its suppliers to certify their Quality Management system according to ISO/TS 16949 standard.

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. 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.

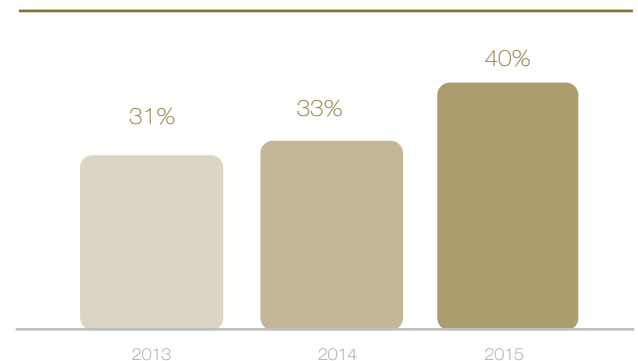
Any supplier who wants to be included in the Ficosa Supplier Panel must comply with the environmental regulations and requests of the country where the product is going to be produced and/or used, including but not limited to the Directive of end-of-life vehicles ELV (2000/53/EC and its updated Annex II), REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) CLP/GHS (Classification, labelling and packaging of substances and mixtures) and the Dodd-Frank-Act in respect to Conflict Minerals.

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 supply over the long term by using specific indicators, including financial and quality criteria as well as general corporate aspects.

Suppliers certified ISO 9001 (%)



Suppliers certified ISO/TS 16949 (%)





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.

## Conflict Minerals

In recent 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).

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.



# Social responsibility

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:**

Collaboration with:

- Red Cross.
- Social institutions (FADESS, AECC, etc)
- Soria correctional facility

## **Viladecavalls:**

- "Take Action" plan
- Blood donations campaigns.
- Campaign against cancer.
- In-kind donations (clothes)



- Donations (blood donations campaigns, in-kind donation)
- Collaboration with social institutions



- Participation in the "Forgotten Harvest" program
- Participation in the "Adopt a Family" program designed to help low-income families, seniors and Veterans
- Emergency food program for "Soup Kitchen" organization



- Blood donation campaigns
- Visiting to nursing home
- Collaboration with the Red Cross
  - Donations of books and toys for children of low income families
- Program "Adopt a tree" for promoting reforestation





## Visits to the factory

The company organizes factory visits in different countries where the company operates. These visits enable the company to attract new joiners and demonstrate the strength of their manufacturing capabilities.

Every year, the manufacturing plant of Soria (Spain) organizes some visits to the factory for students. After a presentation video of Ficosa, the students visit each of the 4 production areas (injection of plastic, smelting, painting and assembly of rear-view mirrors), where the managers explain to them the characteristics of the production process.

The manufacturing plant of Viladecavalls (Spain) has organized visits for MBA IESE and Colegio La Vall students.

In Italy (Morcone), the plant has arranged an Open-house dedicated to the environment for the families of employees. The day included awareness games for children and the plantation of flowers and plants in the external part of the plant. In Mexico, the company organizes every year an Open House for all the employees and their families.



# Innovation in our products

Ifcosa 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 automotive, medical equipment, consumer electronics and industrial sectors.

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.

## IDNEO

In the last four years, Idneo has doubled its turnover by exceeding 9 million of euros and has increased its workforce by 40%. Idneo has now a team of more than 250 professional engineers, highly qualified and with a wide expertise in Ficosa targeted markets: automotive, medical equipment, consumer electronics and industrial sectors.

The company commitment to internationalization has also played a key role in the company's growth. With presence in the United States, Germany and France through local partners, Idneo invoiced 26% of its sales abroad, representing 51% more than the previous year.

In 2019, Idneo expects to increase by 77% (base year: 2014) by opening offices in the United States and Germany and focusing on new sectors beyond the automotive industry such as the field of medical equipment.

## 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 the same product family and local engineering centers closely located to customers' design centers.



# R&D Capabilities

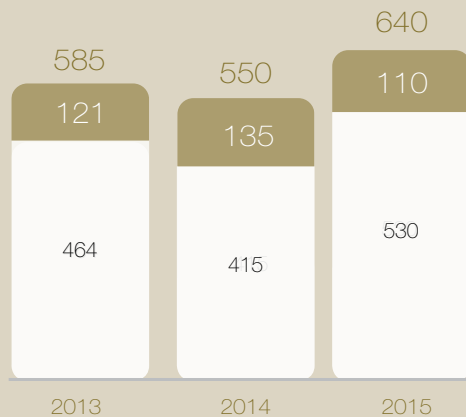
This strong commitment to innovation has also resulted in high added value job creation. Ficoso is convinced that the company needs an excellent and experienced team of engineers on board to face the new challenges of the company.



Detroit (Mi)  
Monterrey

In 2015, 148 engineers have joined the Viladecavalls Technology Centre (Spain). These new hires demonstrate the significant transformation the company is undergoing, based on the development of products with high added value in electronics and software.

R&D Capacities (No.)



■ Laboratory & Prototypes

■ Product Engineering

## Research centers



Viladecavalls  
 Wolfenbüttel / Lindau (Denso JV)  
 Dieuze  
 Porto  
 Venaria  
 Gemlik

The Technology Centre in Viladecavalls (Spain) acts as the driving force for the group's global research efforts and fuels the 13 development centers we have around the world.

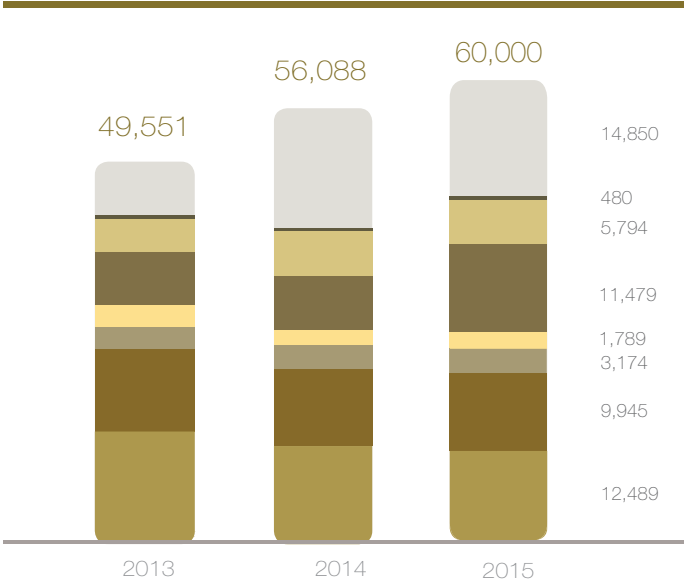


Korea (Joint-venture)  
 Tokyo (Office)  
 Shanghai  
 Pune



Sao Paulo

R&D Investment (thousands €)



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 develop products with greater value added, exchange synergies, optimise and share resources and, above all, generate and manage knowledge.

In 2015, the company invests more than 5% of its annual revenue in R&D in order to give its customers the most innovative solutions possible. Ficosa currently holds 470 active patents and it is one of the most active companies in Spain in terms of patenting.

In 2015, Ficosa spent 60 million euros in R&D to provide its clients with the most innovative solutions that anticipate the challenges of a constantly changing industry.





# 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 and more efficient ways of driving.

## SAFETY

### The Challenge

**01** Actions to reduce death and injuries on roads are urgently needed. About 1.25 million people die each year as a result of road traffic crashes. Without action, road traffic crashes are predicted to rise to the 7th leading cause of death by 2030. Over the last decades, the EU has made great progress in reducing road fatalities, by cutting the number of road deaths by 43% since 2010. 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 international program

#### Harmonized eCall European Deployment (I\_HeEro)

- Ficosa is participating in the deployment of eCall service in Europe. The deployment project is aimed at the preparation of the PSAP in EU Member States for the deployment of eCall based on 112 as reference implementations. 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 system eCall will be installed in all new type of cars and light vans sold in the European Union.



### What we are offering our customers

#### Intelligent Rearview Monitor System (IRMS)

- Ficosa is working with Panasonic for the development of an intelligent rearview mirror (IRMS). This system, which has an integrated display in the structure of the interior rearview mirror, works as a mirror or as a monitor that relays images from the camera located at the rear of the vehicle, according to the driver's needs. IRMS is the first product that will result of the alliance with Panasonic. The intelligent interior mirror provides a significant added value to the conventional mirror, enhancing the driving experience and increasing safety and driving comfort. This solution extends the rearward field of vision up to a value of 50°, which considerably reduces blind spots.
- Ficosa is working with a vehicle manufacturer on a mirrorless demo car. The rear-view and side-view mirrors are replaced by three cameras and a special screen to show drivers what is behind and around their cars. The car's software stitches all of the video feeds together for a very wide view of the road.



## What we are offering our customers

### 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.
- For the first time, Ficosa develops, manufactures and markets cameras applied to commercial vehicles.



### 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.

### Sensors and Cameras Cleaning

- Ficosa has patented a product that expels water and air to remove dirt from sensors and cameras. Any dirt that adheres to the lens can disable its function and affect the driver's visibility. In that sense, this innovative product removes dirt from cameras and sensors through a hybrid system that expels water and/or pressurized air depending on the need and lenses position, guaranteeing at all times a proper performance. The first 3 production orders have been booked for this system.

We are pioneering in the development of 4<sup>th</sup> generation electronic rear-view mirror, sensor and camera cleaning.



## EFFICIENCY

### The Challenge

**02** The reduction in greenhouse gas global emissions, the increasing cost of carbon-based fuels, and the expected growth in mobility in the upcoming years highlight the need for efficient and environmentally sustainable vehicle technologies.

### Collaboration with international program

- 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.
- 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.
- Through the Notecar project, Idneo 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 working group called Eco-mobility created through the RIS3CAT R&D Strategy and led by Ficosa.



### What we are offering our customers

- In all of its products, from rear-view system until gearshifts, Ficosa takes into consideration the environmental aspects over the entire life cycle of its products, starting with the raw materials used, the product development and the manufacture, with the aim of decoupling growth and resource depletion. For example, the company is working on a new shift-by-wire system that covers multiple advantages such as reduction in weight and fuel consumption and maximization of cabin space. Furthermore, the company has developed a first gearbox actuator based on an electronic control system that improves the features and allows freedom of design and positioning in the cabin.

#### Battery Management System

- Ficosa has won a Volkswagen design competition for the development of its new generation of Battery Management System. The focus areas of the e-mobility lay mainly in efficient and reliable high-voltage energy storages.

#### On-Board Charger

- 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.

# CONNECTIVITY

## The Challenge

03

The connectivity is driving the future of the car. 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.

## What we are offering our customers

- Ficoso is working to create a more interconnected world, where communication has no limits. In February 2015, Ficoso presented the latest technological developments in automobile connectivity carried out by its Advanced Communications Business Unit at the Mobile World Congress 2015 in Barcelona. The company has developed a pioneering system that allows all the passengers to have connectivity simultaneously and independently. This innovative solution was created to merge Smart Antenna Module (SAM) designed by Ficoso with one of its telematic 4G LTE connectivity modules. The new product called Smart Connectivity Module (SCM) is able to integrate into a single device the following features: 4G internet connection, WiFi hotspot, Bluetooth, GPS positioning for each specific market, analog 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).



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 first CSR report, Ficosa describes its actions to integrate the Global Compact and its principles into its business strategy, culture and daily operations.





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