

# ENVIRONMENTAL STATEMENT FY'18

(Data period: April 2017 - March 2018)



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## 1.1 Introduction

DENSO CORPORATION was established in Japan in December 1949, and is devoted mainly to the production of components for the automotive sector.

Aware of the environmental repercussions of its activities and based on its philosophy, DENSO formulated the DENSO Environmental Charter and the DENSO Environmental Action Plan in 1993 to clarify its fundamental mind-set and to define the steps toward realizing the goals of the Environmental Action Plan.

## Fundamental principles

DENSO philosophy

DENSO Environmental Charter

### DENSO PHILOSOPHY PRINCIPLES

- Customer satisfaction through high quality products and services
- Global growth through anticipation of change
- Environmental preservation and harmony with society
- Corporate vitality and respect for individuality

## Planning and objectives

DENSO Environmental Action Plan. Ecovision 2025.

## Environmental Protection Activities and Management

Management and activities based on Environmental Management Systems (ISO 14001) and Energy Management Systems (ISO 50001).

Through the “DENSO Environmental Action Plan”, DENSO CORPORATION promotes the obtaining of ISO 14.001 certification for all the plants of DENSO around the world.

**DENSO BARCELONA, S.A.U (DNBA)** has been the group’s first plant in Europe and one of the first in the world to be certified with the Energy Management System ISO 50.001:2011.

**DENSO BARCELONA, S.A.U (DNBA)**, with the code CNAE 2931 “Manufacture of electronic and electrical equipment for motor vehicles”, has certified its Environmental Management System according to ISO 14001 (since December 1998), EMAS II Regulation (CE) nº 761/2001 (since March 2000), EMAS III Regulation (CE) nº 1221/2009 (since 2009) new EMAS regulation (UE) 2017/1505 (since 2018) and ISO 50.001 (since 2016). For which purpose this Statement has been drawn up.

## 1.2 Company location

Denso Barcelona, S.A.U. is located in the industrial estate “Pla de Santa Anna” in the municipal district of “Sant Fruitós de Bages” in Bages country (province of Barcelona). The construction takes up a total area of 46,200 m<sup>2</sup> between the two buildings DNBA and DNBA B2.



### 1.3 Activity of the company

Denso Barcelona, S.A.U forms part as a subsidiary and production plant of the DENSO CORPORATION multinational. The design work of the products made in DNBA is done along with the DENSO design centers in Europe and Japan.

The customer contacting sales work is carried out entirely through the pertinent sales offices: DENSO INTERNATIONAL EUROPE, with headquarters in the Holland, and DENSO INTERNATIONAL AMERICA INC., with headquarters in United Estates.

The activity of the company is based in the manufacturing of the following products to the automotive Industry:

- Control Systems Powertrain.
- Electronic Systems.
- Information and Security Systems.

YEAR	EVENTS	PRODUCTS	CERTIFICACIONES AND AWARDS
1991	Name change: VND -> NDMB (ND 100%).	DLI.	FORD Q1 Certification.
1993-95	1st Company expansion.	ECU (E/G, A/C), Distributor / Igniter.	Q.A. Award Generalitat. TOYOTA Achievement in Quality.
1996	Name change: NDMB -> DNBA.	BODY ECU.	ROVER Supplier Excellence Gold Award.
1997-99	2nd Company expansion.	D-DLI + S-IIC.	ISO 9001, QS 9000, ISO 14001. TOYOTA Outstanding award.
2000-03	3rd Company expansion. X Anniversary.	STICK COIL, AFM, EVRV, O2 SENSOR, METER CLUSTER.	EMAS Certificate. TOYOTA: Outstanding in Delivery & Cost, Recognition in Project mgt & Delivery.
2004-05	4th Company expansion.	AC, PANEL T5.	Certification ISO/TS-16949.
2006	5th Expansion area ELEC.		TOYOTA: Achievement in Supply, recognition in Quality, outstanding in Cost.
2007	6th Expansion area ELEC.		TOYOTA: Achievement in Supply, Outstanding Award Delivery.
2008	7th Expansion area WH.	POWER MANAGEMENT ECU.	TOYOTA superior in Quality.
2009			TOYOTA superior in Quality, recognition in Cost, recognition in project management.
2010		DNBA starts Meter crystals production in the new area of Molding.	EOA Certificate (Economic Operator Administrator). TOYOTA best Supplier. EMAS X years of Environmental Best Practices.
2011-12	XX Anniversary.	Finish the Coils 6T production (power units). Finish the Coil production.	OHSAS 18001 Certificate. VOLVO Quality Excellence. SUZUKI Best 1-1-1 activity.
2013		BPC (Blower Pulse Controller), TPMS (Tire Pressure Monitor System).	"Territori Award" Col.legi d'Enginyers Tècnics Industrials de Manresa.
2014	First phase 8th Expansion. New technical center, office expansion & new entrance.	Head Up Display. Shift by Wire.	GM Quality Excellence Award.
2015	Second phase 8th Expansion. New MNT Center & New Inspection Center Laboratory.	Visio Park.	ISO 50001 Certificate.
2016	XXV Anniversary New Cantine expansion.	Finish O2 SENSOR production. Aluminum injection Trial production.	Toyota Self-Reliant Proj. Management Award, Delivery Award and Quality Award. Volvo Quality Excellence.
2017	9th Company expansion. New Warehouse DNBA B2.		IATF 16949 Certificate.

## 1.4 General parameters

The annual global production in DNBA in the fiscal year 2017 has been **308,8 M€**. We define annual production as the production obtained and quantified in euros. To make this quantification in euros, we preset a sale price for each product with a gross added value (difference between the amount produced and the material costs) of **133,7 M€**.

The number of employees in fiscal year 2017 was **807**.



*Aerial photograph of Denso Barcelona, S.A.U.*



## 1.5 Products manufactured in Denso Barcelona, S.A.U

The products made by DNBA are divided in to three large automotive business groups and contribute to covering all of the business managements:

**Electronic Systems** (Engine ECU, Power Management, BPC) and **Information & Safety Systems** (Main Body, TPMS, A/C ECU, Meter, Head Up Display, A/C Panel).

### PROCESS A:

Assembly of surface components on the top face of the printed circuit and fusion welding.

Insertion of conventional components (axial and radial).

Insertion of components of non conventional forms.

Assembly of surface components on the lower face of the printed circuit.

Assembly of the connector, power transistors, relays, etc. and wave soldering.

Functional verification of the product.

Ant humidity coating.

Final assembly of the product (box, cover, etc.) and labeling.

Final check and inspection of the product.

Package and shipping.

### PROCESS B:

Aluminium injection for the manufacture of the product exterior housing.

Assembly of surface components on the top and bottom face of the printed circuit.

Insertion of conventional components (axial and radial).

Insertion of components of non conventional forms.

Assembly of the connector, power transistors, relays, etc. and wave soldering.

Functional verification of the product.

Ant humidity coating.

Final assembly of the product (box, cover, etc.) and labeling.

Final check and inspection of the product.

Package and shipping.

### METER CLUSTER/HUD:

Plastic injection for the manufacture of the lower housing.

Printed circuit assembling (in previous process) until the welding step.

Functional verification of the product.

Ant humidity coating and cutting of the printed circuit board.

Assembling of the different parts.

Lower case screwing

Assy calibration and powder cleaning

Front crystal assembling

Functional verification at room temperature and visual inspection.

Package and shipping.

## Control Systems Power Train (Stick Coil).

### STICK COIL

Primary and secondary spools molding.

Assembly of the terminals to the spools.

Primary and secondary winding with cooper wire.

Soldering of the cooper wire to the terminals.

Soldering check with screen.

Assembly of the primary in the secondary.

Assembly of the coil external part (casing, magnetic core...)

Assembly of the connector and soldering to the terminals.

Assembly: the external part and electrical part.

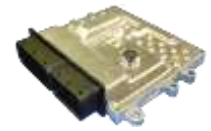
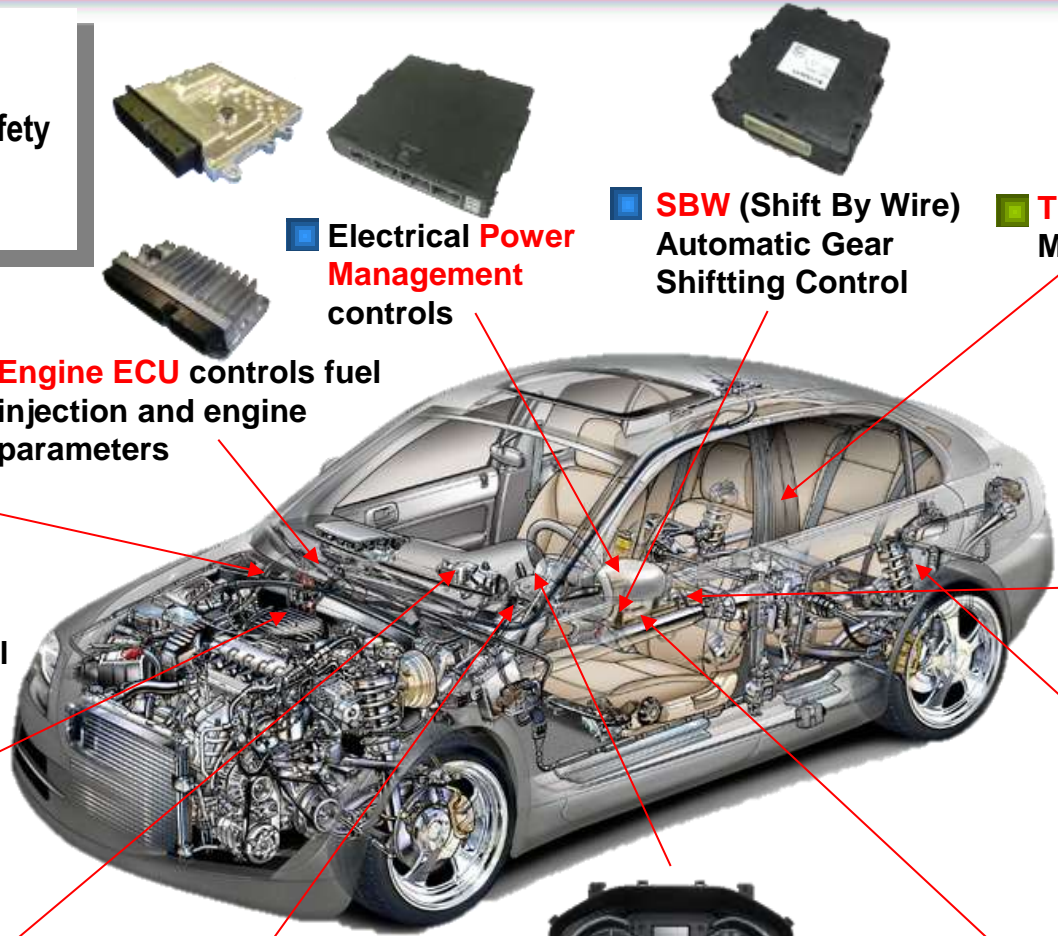
Encapsulating with epoxy resin and curing in oven.

Automatic inspection of electrical characteristics.

Assembly of the seal rubber.

Package and shipping.

- Electronics
- Information and Safety
- Power train



■ **Electrical Power Management** controls

■ **SBW (Shift By Wire)** Automatic Gear Shifting Control

■ **TPMS Tire Pressure Monitor System**

■ **Engine ECU** controls fuel injection and engine parameters

■ **Smart ECU** controls the centralized lock (keyless)



■ **BPC (Blower Pulse Controller)** to control HVAC motor



■ **Main Body** controls (Alarm, keys, comm, etc)

■ **Stick Coil** voltage transform



■ **A/C ECU** to control A/C Compressor.



■ **A/C Panel** to control cabin temperature



■ **Head Up Display** info projection in windshield



■ **Meter Instrument Panel** Inform driver



■ **Visio Park** to support parking operation

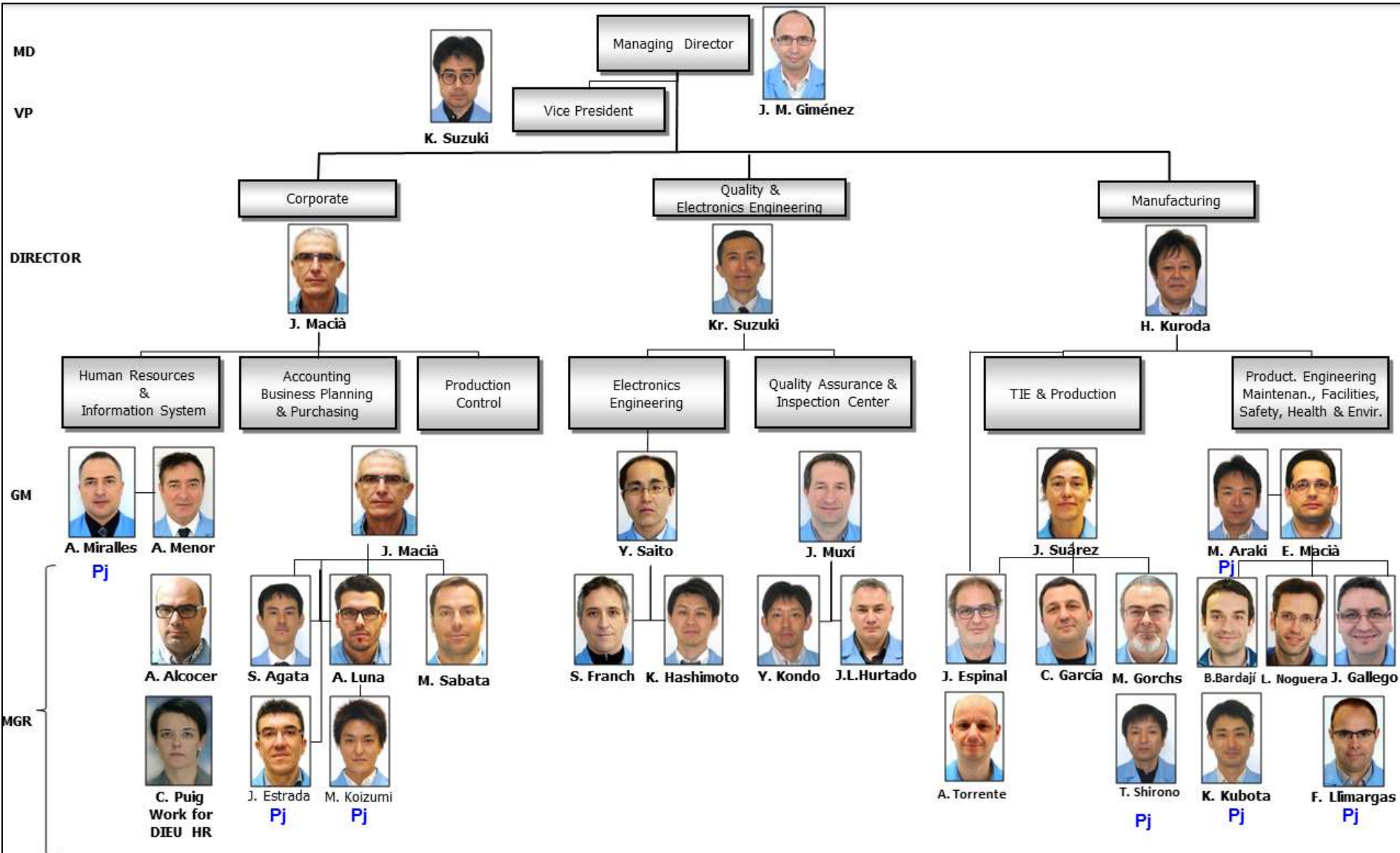
The main customers of Denso Barcelona, S.A.U are:



Certifications:



# 1.6 Flowchart



### 2.1 Description of the Environmental and Energy Management System

The Environmental and Energy Management System implemented by Denso Barcelona, S.A.U has been prepared by following the guidelines and complying with the requirements of the following standards:

- UNE-EN ISO 14.001. Environmental Management Systems. Specifications with guidance for use.
- Council Regulation (UE) 2017/1505, allowing voluntary participation by companies in the industrial sector in a community eco-management and audit scheme.
- UNE-EN ISO 50.001. Energy Management Systems. Specifications with guidance for use.

The foundation of the Environmental and Energy Management System of Denso Barcelona, S.A.U is the **Environmental & Energy Policy**, whose basic principles are compliance with legislation and other requirements, the prevention of pollution and continuous improvement.

The Environmental and Energy Policy has been defined by the Top Management on the basis of the DENSO philosophy principle: "Environmental preservation and harmony with the society."

Starting from the Environmental & Energy Policy and having in mind, among other things, significant environmental aspects and legal and other requirements, the annual **Environmental and Energy Targets** and the **Programme** for their implementation are planned.

To achieve fulfilment of the Environmental and Energy Policy, the Management System has been documented and structured in the following way:

- Environmental Manual: It describes the responsibilities of the organization and the elements that the Management System is composed of, making reference to the procedures related with each element.
- Procedures: They describe the operations to be carried out for the fulfilment of the system requirements.
- Work Instructions. They describe in a more detailed way specific operations related with the procedures.

The Managing Director of Denso Barcelona, S.A.U, Josep Manel Giménez, as the person responsible for the company has delegated to the General Manager of Environment and Safety Masahiro Araki and the Manager of Environment and Safety, José Gallego, the authority and responsibility for assuring that the requirements of the Management System are fulfilled, also creating for that purpose the Environmental and Energy Committee made up of members of the various sections of the company.

Periodic reviews of the Management System through internal audits and external ones (maintenance audits by the certification body), as well as the review by Top Management, provide for the continuous improvement of the system.

## 2.2 Environmental and Energy Policy Denso Barcelona, S.A.U

We will now set out the environmental policy of DENSO BARCELONA, S.A. The area of application of our policy is the manufacturing of electronic, connected & cockpit and safety components for the automotive industry. Under this policy, we engage in the conservation of local environment and also global environment, contributing with the society for a better environment.

- To develop an open relationship with the society and put information available to the public on the environmental repercussions of our activities.
- To adopt the possible measures to reduce the environmental risks of our activities, focusing on continuous improvement in the environmental conservation and energy performance.
- To identify and to evaluate the environmental repercussions of our activities, pre-evaluating the repercussions of new activities, products and processes as well as examining any significant impact of these activities on the environment.
- To carry out actions to prevent, eliminate or reduce the emission of pollutants making a responsible usage of resources and thus mitigating the Climatic Change.
- To heighten the workers' awareness and to train them in order to promote a positive attitude towards environmental preservation and rational use of energy.
- To inform the external companies working in DNBA about the need for adopting our environmental and energetic attitude and principles.



- To review the Environmental & Energy Management System periodically, keeping in mind any potential significant impacts of our activities on the environment.
- To contribute to the continuous improvement of our environmental and energetic performance with the commitment to ensure the availability of information and resources needed to achieve the objectives and targets, with a view to reduce the environmental impacts as much as possible.
- Purchase energy efficient products and services and gradually promote the renewable energy.
- To keep watch over the fulfilment of the energy and environmental legislation applicable and other requirements relating to the use and energy consumption, energy efficiency and environmental aspects of DNBA.

Note: For the manufacturing of the products, account is taken of the customers' environmental requirements through Denso Japan.

- Denso Barcelona, S.A.U undertakes to examine and to review its environmental policy periodically and to make it known to all its associates and to the public in general.

MANAGER SHE



J. GALLEGO

GENERAL MANAGER  
SHE



M. ARAKI

DNBA MANAGING  
DIRECTOR



J.M. GIMÉNEZ

Date:  
25/09/2018 (15<sup>th</sup> review)

## 2.3 Analysis of the parties interested in the DNBA Environmental Management System



### DENSO GROUP

(ISO 14001, ISO 50001, EMAS and Action Plan ECOVISION 2025)



### COMMUNITY AND SOCIETY

(Legal compliance, absence of noise, smoke, smell)

### MANAGEMENT

(Values, policy, environmental and energy targets, ...)



### STATE ADMINISTRATION

(Legal compliance)

### WORKERS

(Well-being, comfort, awareness, ...)



### LOCAL ADMINISTRATION

(Legal compliance, CSR activities)



### SUPPLIERS, CUSTOMERS AND END USERS

(Specific requirements, prohibition of substances, ...)



# DNBA ENVIRONMENTAL MANAGEMENT SYSTEM

Then the significant environmental aspects are detailed. To determine which aspects are significant, are valued according to the standard set out below, in normal, abnormal and emergency:

### Direct significant aspects:

SIGNIFICANT ASPECT	INSTALLATION / PROCESS	IMPACT	IMPROVEMENTS / RECOMMENDED ACTIONS
Generation of effluent contaminated by rainwater in a fire.	The whole of the factory.	Contamination of the rainwaters.	All preventive actions will be taken on the firefighting installations as marked by the regulations.
Generation of contaminated absorbents.	Production processes, maintenance and store.	Accumulation in tip and atmospheric emissions derived from the incineration.	Reduction of contaminated absorbents. Study the possibility of washable clothes. Assess the real impact of this new possibility.
Emission of noise during the day and night.	Rural house near DNBA.	Generation of noise close to legal limit.	The whole of the new installation in the N.W. of the DNBA roof must be acoustically isolated.

**Indirect significant aspects:** None.

### 4.1 Principal environmental improvements FY2017

#### • Energy vector

#### Electricity consumption:

In order to become an efficient factory energy, for years carried out various activities to reduce the electricity consumption of DNBA and thus indirectly reduce the emission of CO<sub>2</sub> emitted into the atmosphere.

#### Realized activities:

1.- Holding of "Energy Saving Day". On the days of the inventory, in order to save energy on this day and to raise the awareness of the workers, an energy-saving awareness raising and monitoring campaign will be carried out.

2.- Holding of "Winter Eco Day". The temperature in the offices is dropped by 2°C to make us reflect on the economic, social and environmental cost of the use of energy for our comfort.

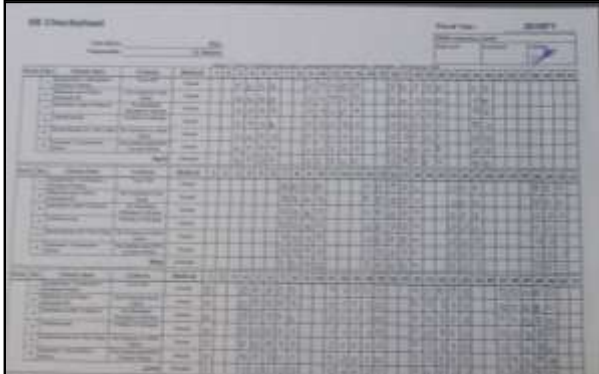


### 3.- “ Just In Time” Energy Consumption.

During the year, different activities are carried out to reduce the energy movement, or in other words the consumption of energy that is not useful. These activities are called “**Just in Time activities**”, for use only when needed.

There are several examples of these activities:

#### DAILY CONTROL SHEET “5S”



**Purpose:** To ensure that all machines are turned off at the end of the day, thus avoiding the energy movement in electronic devices.

#### CONTROL OF AIR CONDITIONING SECURITY HUTS



Contact sensor on the window.



SI OBRES LA FINESTRA, AUTOMÀTICAMENT ES PARARÀ EL CLIMA D'AQUESTA SALA.

IF YOU OPEN THE WINDOW, ATOMATICALLY THE A/C WILL STOP.

- Energy Saving Activities - Energy Saving activities -

**DENSO**

**Purpose:** To avoid the wastage of air conditioning and therefore energy consumption if a window is opened for more than 2 minutes (POKAYOKE).

#### AUTOMATIC CONTROL OF LIGHTING IN THE STORE

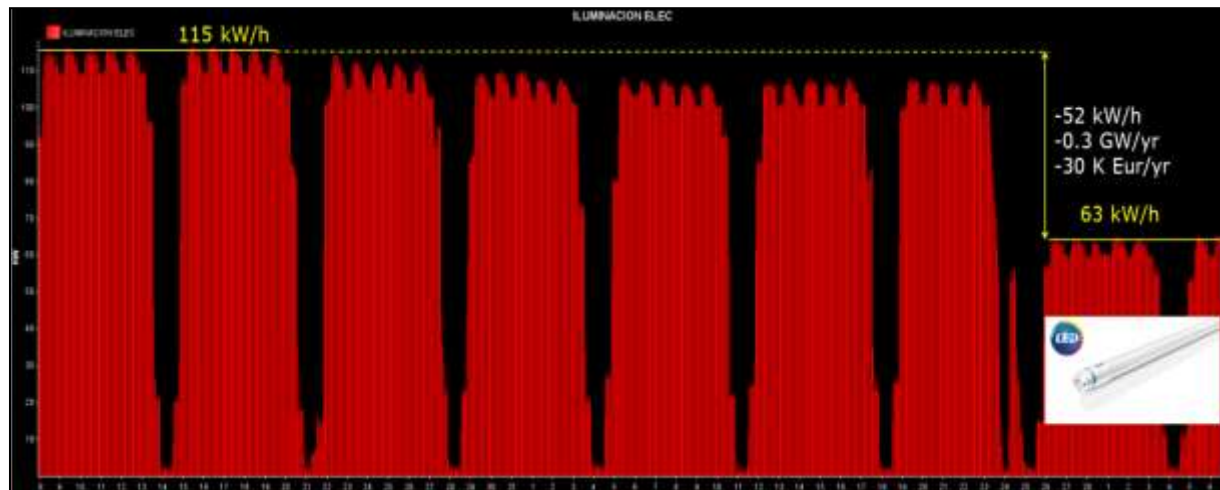


Presence detector

**Purpose:** To avoid the lights in the quiet areas of the store being turned on when there are no users there and therefore unnecessarily consuming energy.

## 4.- Efficient lighting.

In order to reduce energy consumption, costs, emissions and without jeopardizing the lighting conditions, LED technology lights have been installed throughout the electronic production area (approx. 10,000 m<sup>2</sup>).



## 5.- Passive energy-saving structures: Installation of blinds in the B2 store rest area.

The use of these blinds in the **hot months** will prevent the sun from hitting the window for so many hours, thus improving **user comfort** and ensuring **energy saving** in the air conditioning. Similarly, in the **winter months**, the position of the blind will allow the sun to continue to reach the windows, **thus improving the comfort and energy saving.**



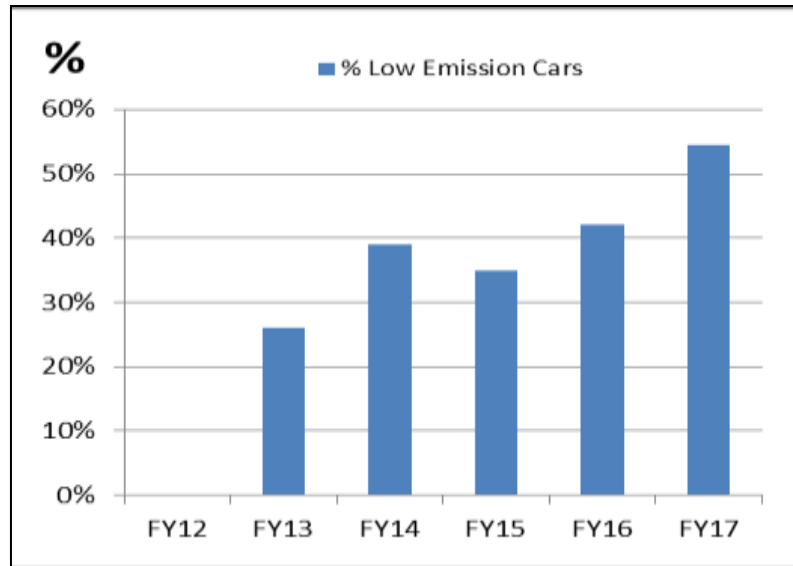
## • Emissiones vector

**1.-** Continuing with the goal set in FY 2012, the procedure **WSHE-C-ENV-006: “Environmental criteria in the purchase of cars”** is made, which obliges **all new cars in the company to be low emission. More than half of the company cars are now low emission.**

(Diesel < **108 g CO<sub>2</sub>/Km** and Petrol < **120 g CO<sub>2</sub>/Km**)



Low emissions cars in the DENSO BARCELONA car park.



Evolution of the % of low emissions company cars.  
In FY 2015 the new regulation is approved.



## 2.- "Car Sharing" promotion activities.

After several promotion campaigns (environmental improvement, reduction of the possibility of accidents, economic improvement for staff and easier parking) **the workers are persuaded to share more than 5.000 cars in one year in DNBA.**

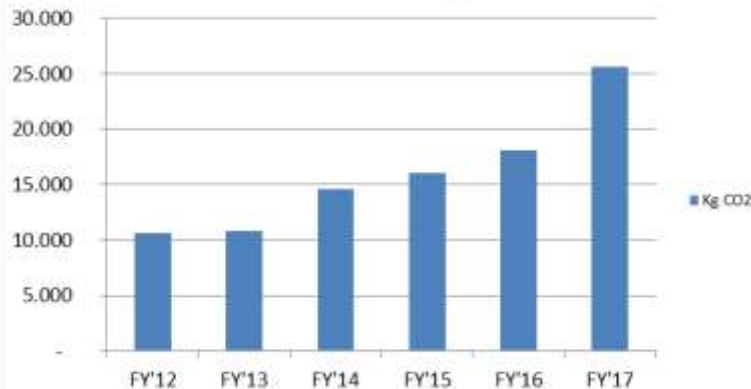
**25.632Kg**  
CO<sub>2</sub> SAVED



**5.109**  
CARS SHARED



**Kg CO2 saved in car sharing**



- **Water Vector**

- 1.- **Reduction of water consumption.**

In this area in 2017, artificial grass has been installed throughout the garden of DENSO B2 store, thus reducing the large amounts of water used in their maintenance.



Photo of the garden in DENSO B2 (with zero water consumption).

- **Sustainable Company**

**1.- Planting of trees:** DNBA does not only perform improvement activities in its facilities, but it also carries out environmental awareness-raising actions:



## “Green and Clean Day”

Several workers and their families took part in planting 25 trees symbolising DNBA’s 25 years in the Bages district.

## 2.- Plastic stopper recycling:

In order to combine environmental responsibility with that of the company, DNBA introduces a new system to collect plastic tops and to devote the proceeds from their recycling to social needs.

In the first year, the proceeds were devoted to the fight against Angelman syndrome. More specifically, help was given to Cristina, who was diagnosed with the disease at the age of 18 months.



- **Waste**

**1.- Use of returnable boxes:** Within the recycling pyramid it is preferable to reuse than to recycle, which is a policy that DNBA follows to reduce the amount of cardboard packaging and plastics produced.

In 2017 a total of 207.312 Kg of stick, tray and box packaging was returned.

**BEFORE THE ACTIVITY:**



Photo of cardboard packaging.

**AFTER THE ACTIVITY:**



Photo of new reusable boxes.

## 4.2 Environmental targets FY2017

ENVIRONMENTAL ASPECT	GOALS	COMPLIANCE
CO2 emissions.	To reduce the CO2 index of FY '16 by 5% (Tn CO2/M€).	NOK. It increased by 28% (start of activity of DNBA B2 and decrease in Added Value).
	To reduce the CO2 index of FY'16 (LOG) by 1% (Tn CO2/M€).	OK. It was reduced by 8%.
	100% of the new company vehicles should be low emission.	OK. 100% of the new company vehicles were low emission.
	To increase the number of users of "green parking" by 40% from FY 2016 and to promote Eco-drive.	OK. The number of users of "green parking" was increased by 53% (the best result in the history of DNBA).
Biodiversity.	To organise a "Green Event" to improve biodiversity.	OK. On "DENSO Day" environmental awareness-raising activities were carried out, several workers and their families took part in planting 25 trees symbolising DNBA's 25 years of life.
Water.	To reduce water consumption by 30% over FY 2016 (m3/M€).	NOK. It was reduced by 7% (without the decrease in Added Value, the result would be 21% thanks to the Xero Garden project).
Waste.	To reduce Total Waste by 3% over FY 2016 (Tn/M€).	NOK. It increased by 20% due to the design and production of more complex products (more components = increase in packaging).
	To reduce waste with a management cost by 1.25% over FY 2016 (Tn/M€).	NOK. It increased by 22% due to the waste produced by the purchase of new machines.

### 4.3 Environmental targets FY2018 (April 2018-March 2019)

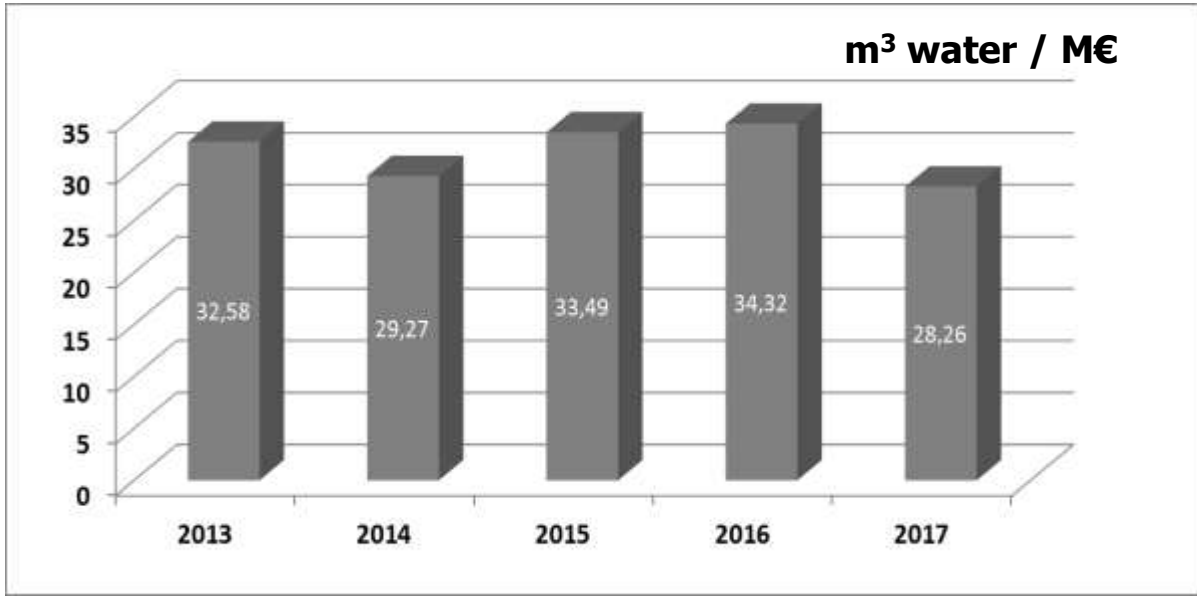
ENVIRONMENTAL ASPECT	GOALS	ACTIONS PLANNED
CO2 emissions.	To reduce the CO2 index of FY '17 by 2.5% (Tn CO2/M€).	<ul style="list-style-type: none"> <li>&gt; Energy efficiency in ESC.</li> <li>&gt; To raise awareness over energy consumption by increasing training for workers.</li> <li>&gt; Implementation of Phase II of the solar panel project.</li> </ul>
	To reduce the CO2 index of FY'16 (LOG) by 1% (Tn CO2/M€).	> Use of more efficient transport for the components supplied to DNBA.
	100% of the new company vehicles should be low emission.	> To control and enhance the purchase of these kinds of vehicles.
	To increase the number of users of "green parking" by 2% from FY 2017 and to promote Eco-drive.	> To raise awareness and promote the use of "green parking".
Biodiversity.	To carry out a voluntary environmental action to improve biodiversity.	> Project to reduce Vending waste produced in DNBA.
Water.	To maintain the water consumption index vs FY 2017 (65.27m3/M€)R	> Control and monitoring of consumptions.
Waste.	Not to increase Total Waste by more than 6% vs FY 2017 (Tn/M€).	> To apply improvements to optimise the cardboard packaging waste of the reels and other components.
	To reduce waste with a management cost by 1.25% over FY 2017 (Tn/M€).	> To apply improvements to the project of reducing Vending waste produced in DNBA (reduction of the use of plastic cups, zero waste in the canteen, etc.).

### 5.1 Water

The productive processes are carried out dry, and so water consumption is mostly for sanitary purposes. The irrigation of the green areas is the activity that generates the biggest consumption of supply water. The water is also used for the humidification system, for the refrigeration tower and for the refrigeration and heating circuits. Monthly controls on the consumption are carried out.

The total consumption of water during fiscal year 2017 has been **8.274 m<sup>3</sup>**.

The environmental index to evaluate the efficiency of water use is the ratio between the cubic meters used and the annual production in million of €.



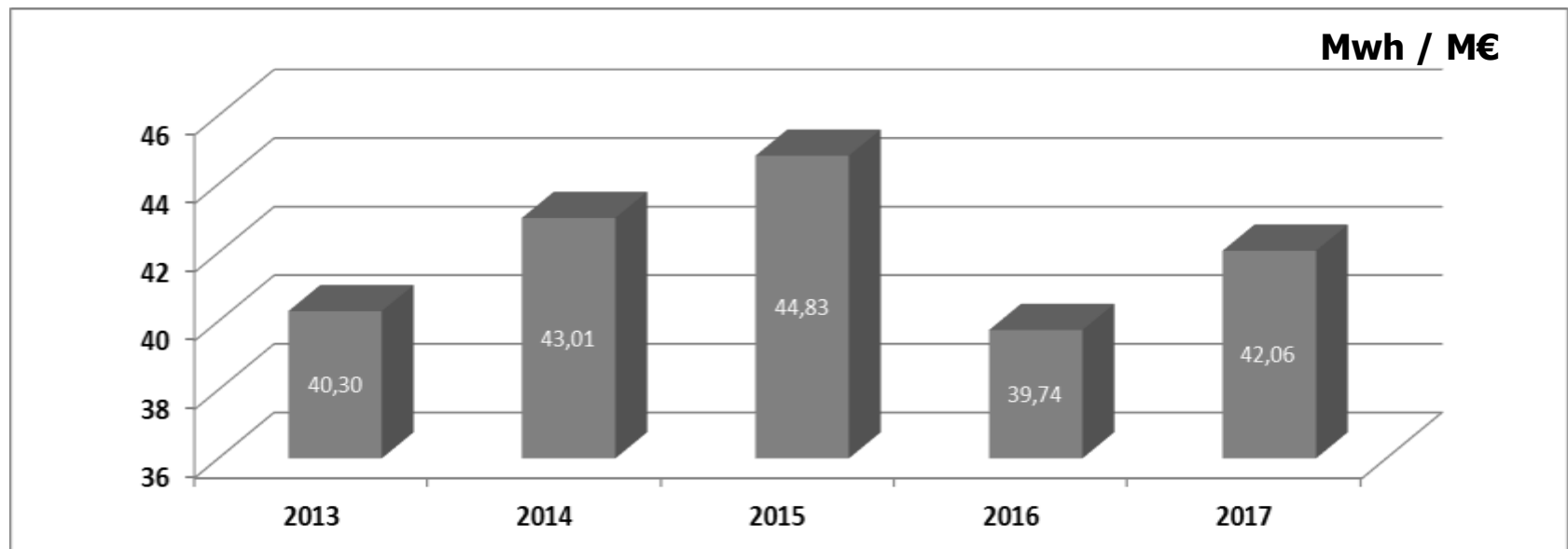
The water consumption index fell in FY2017 due to the introduction of the artificial garden (Xero Garden) both in DNBA and in DNBA B2.



## 5.2 Electrical Power

The main form of energy used in the productive process is electrical power. With a digital control continue controls are carried out on consumption levels.

The total consumption of electrical power during fiscal year 2017 has been **12,989 Mwh**. If the electrical consumption is divided by production in millions of € we obtain a index of **42,06 Mwh / M€**.



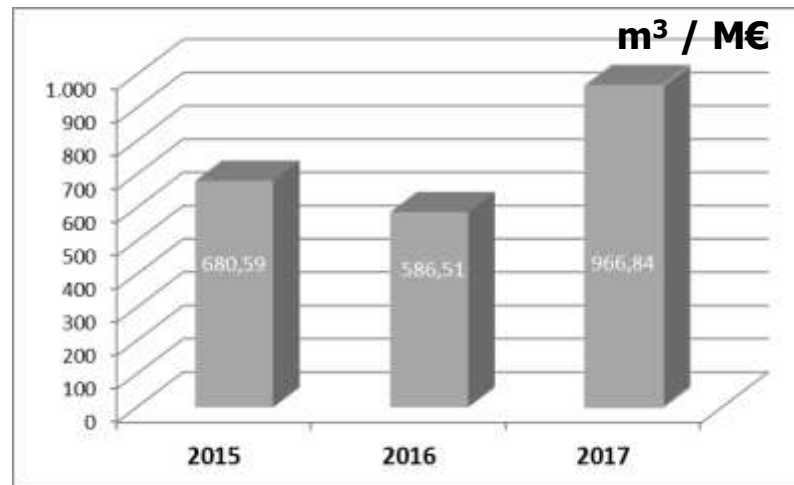
In 2017 we can see an increase in the index of electricity consumption over 2016. This is due to the activity in DNBA B2 (warehouse of 12,994m<sup>2</sup>). This increase in the electricity consumption in the facilities does not bring forth an increase in production and so the index increases.

### 5.3 Natural Gas

In June 2015, DNBA replaced Liquid Petroleum Gas (LPG) with Natural Gas with a more efficient calorific power, in order to be more competitive and at the same time to contribute to the fight against climate change.

Natural Gas is also used as a fuel in the heating boilers, in the radiating heating system, in the Oxidative Thermal Reducer (OTR) of the polluted gases and in some production furnace. Consumptions are checked each month.

Total Natural Gas consumption in FY2017 was **290.604 m<sup>3</sup>**. If we divide it by the Total Production (million €) we obtain an index of **966,84 m<sup>3</sup>/M€**.

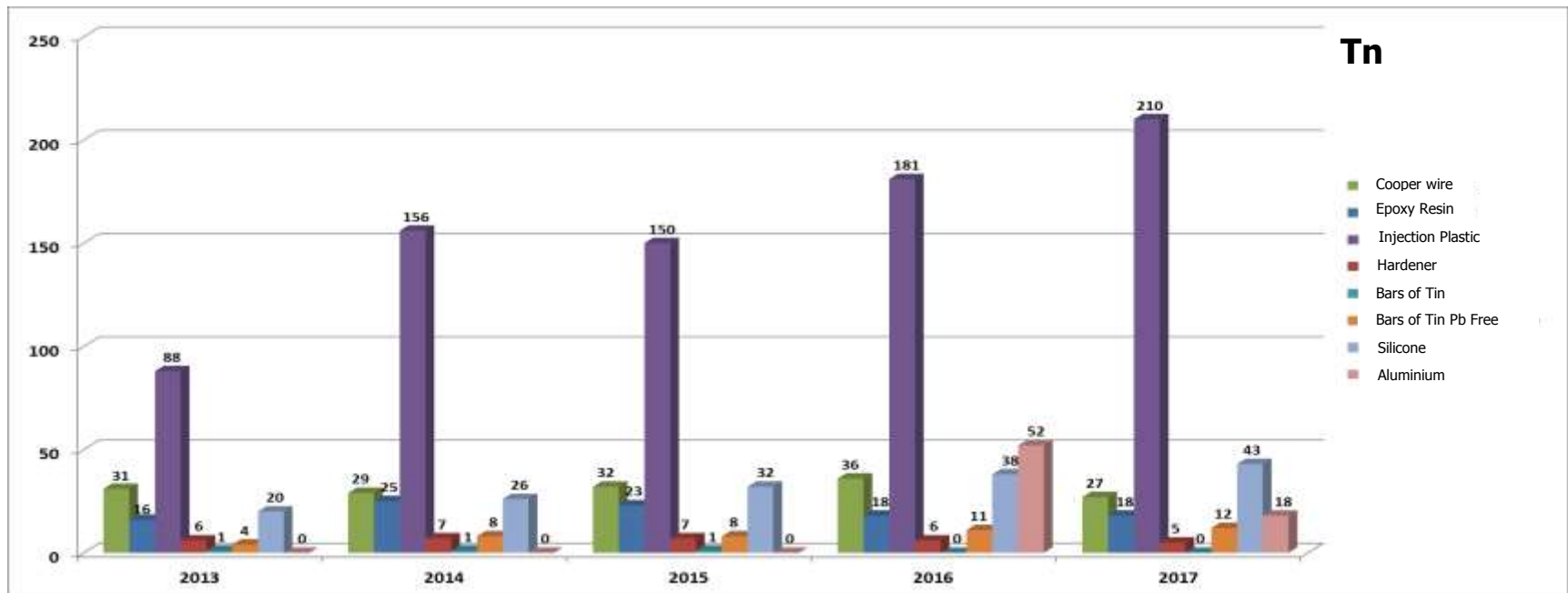


- The Natural Gas consumption results for FY 2015 are from June 15 to March 16. The Natural Gas consumption results for FY 2016 are from April 16 to March 17.

In 2017 we can see an increase in the gas consumption index over 2015 and 2016. This increase is mainly due to the start of activity in the DNBA B2 warehouse (12,994m<sup>2</sup>). The increased gas consumption is due to the use of the radiating heating system used in the warehouse.

## 5.4 Raw materials

The main raw materials used for the production of the products of DNBA are the following:



There is a progressive increase in the consumption of plastic due to the increase of injected pieces intended for the manufacture of meter.

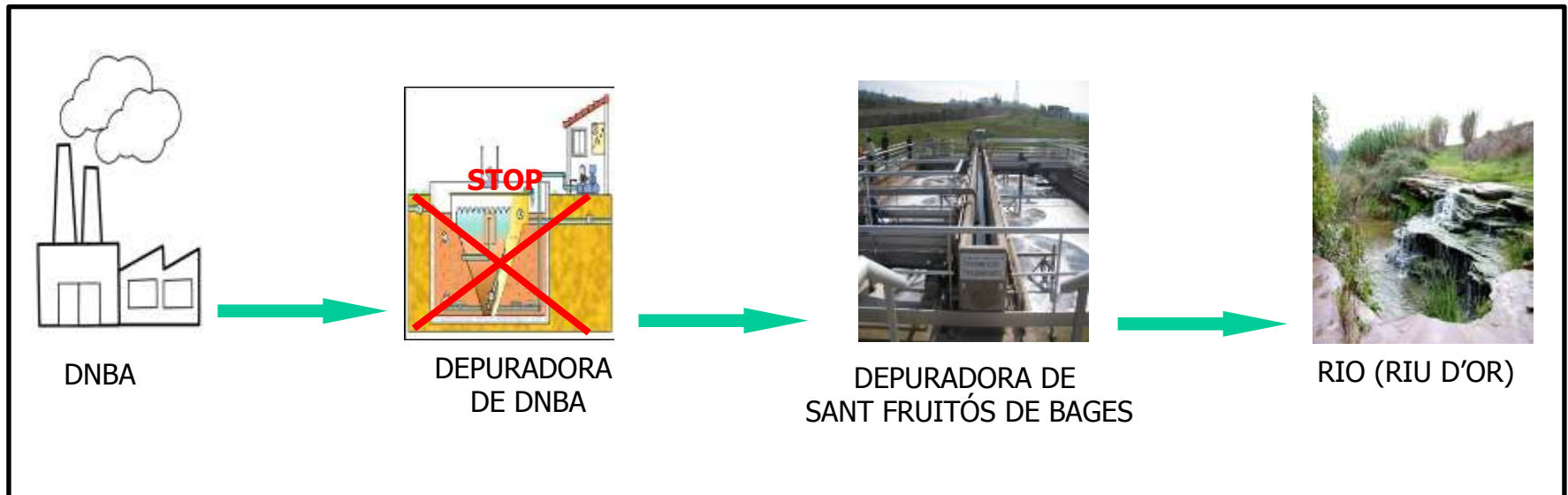
During FY2017, a fall is seen in the consumption of aluminium. This fall comes because in FY2017, tests and trials were only performed in the Die Casting productive process (the process of injecting cast aluminium). FY2018 will be the year in which the products will come into mass production.

These parts were previously bought from suppliers. This is always environmentally positive as we reduce our products' carbon footprint.

## 5.5 Waste Water

On 1 January 2014 the DENSO purifier was annulled and the waste waters were sent directly into the waste water drain of the estate to be transferred to the purifiers of the Mancomunitat de Municipis pel Sanejament in Sant Fruitós de Bages.

DNBA currently holds Disposal Permit no. ABO MAN 2013 053. If there are no changes in the disposal, this permit will be valid until 31 January 2019.



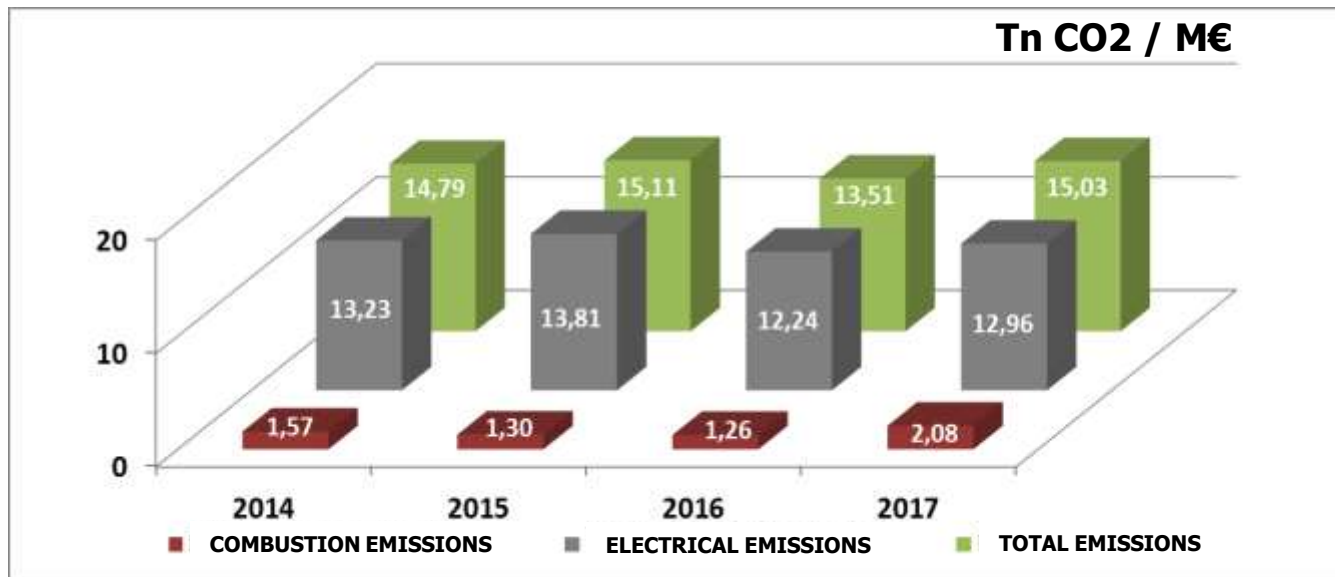
## 5.6 Atmospheric emissions

### 5.6.1 Green house emissions effect (CO<sub>2</sub> equivalent)

Below are the CO<sub>2</sub> data in equivalent emissions (due to consumption of electricity and gas), according production.

The conversion factors used by DNBA to transform into Kg CO<sub>2</sub> equivalent from Kwh is **0,308.\***

The conversion factors to transform Kg CO<sub>2</sub> equivalent from m<sup>3</sup> of Natural Gas is **2,15\*.**



\* The conversion factor taken from the Office of Climate Change of the Government of Catalonia in 2016 is 0,308 Kg/Kwh and that used for Natural Gas is 2,15.

We can see a logical increase in the CO<sub>2</sub> emissions index over the previous years due to greater consumption of electricity and gas throughout FY2017.

## 5.6.2 Air emissions

The atmospheric emissions are mainly due to the varnishing operations in the electronic product production (COV's) and the radiating pipes heating boilers and burners (CO, NO<sub>x</sub>).

The mass flow of NO<sub>x</sub> emitted in the last analysis in 2010 was 0,18 Kg/h, total 874 Kg/year.

The mass flow of COV's emitted in the last analysis in 2010 was 0,08 COT/h, 388,5 Kg/year.

The mass flow of Particles emitted in the last analysis in 2010 was 0,11 PST/h, 534 Kg/year.

DNBA checks COV emissions every 6 years, and has always met the provisions of current regulations (\*).

The boilers and radiating pipes are checked periodically to ensure that the burner is working properly, giving efficient combustion and therefore reducing atmospheric pollution.

Burner of one of the radiating pipes



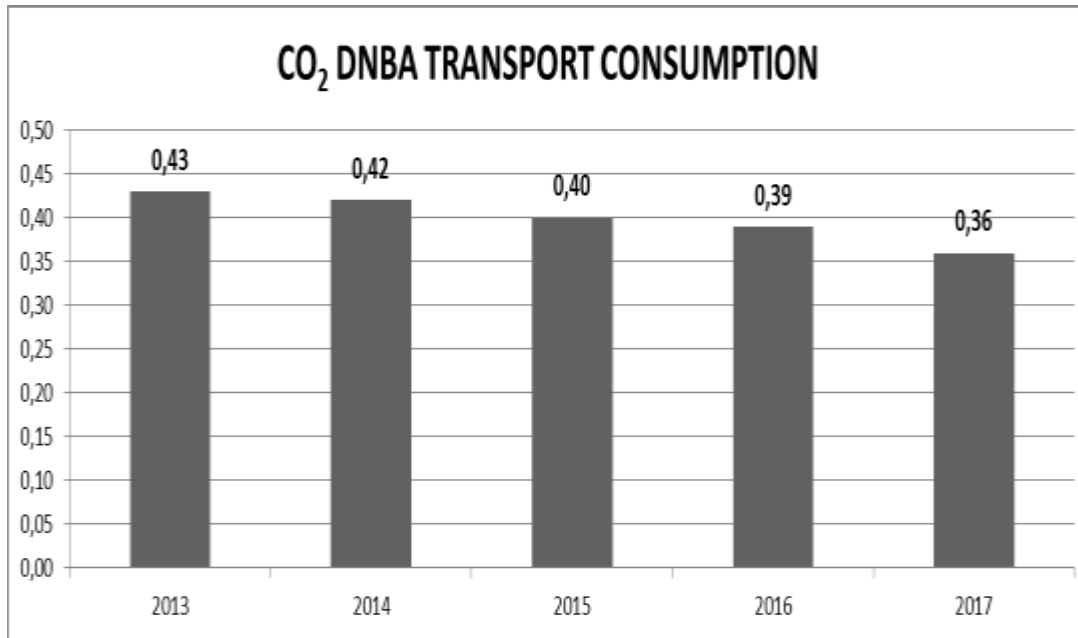
DNBA Boiler Room



(\* ) DNBA currently awaits the last emissions check due to the procedures with the Administration because of the substantial change in the new environmental license.

### 5.6.3 Transport air emissions.

Every quarter, DNBA checks the CO<sub>2</sub> emissions produced by DNBA transport. Basically suppliers in Catalonia.



We can see that the trend has been positive since 2013, for as we are more efficient in the transport organized by DNBA, we generate fewer polluting emissions (CO<sub>2</sub> and NO<sub>x</sub>). This result has also been influenced by the fact that some of our suppliers have located their warehouses near the DNBA facilities to reduce the travel distance in the transport.

*The emissions factor is set by the DNBA group and is equivalent to **2,58Kg CO<sub>2</sub>/l\*** (calculation using internal methodology).*

## 5.7 Noise

Controls noise levels are carried out periodically by DNBA. From the environmental point of view, only the external noise will be taken into account in this statement.

Measurements are taken every 4 years. They are also made if there is any change that might affect noise emissions.

The applicable limit in all the points, Are those that correspond to the map of acoustic Sant Fruitós de Bages. In this case the DNBA activity is affected by two areas:

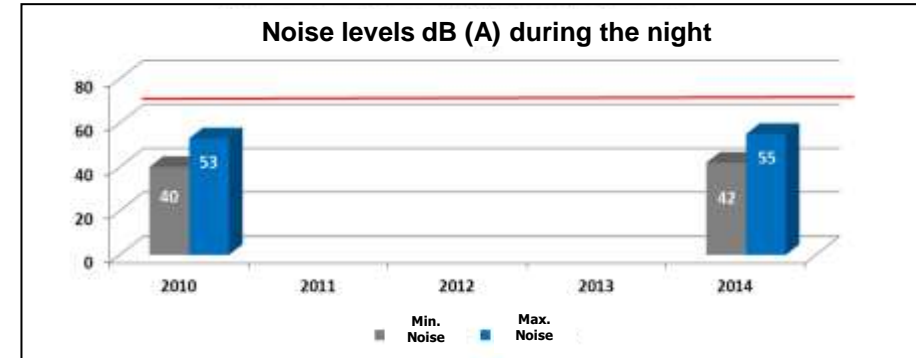
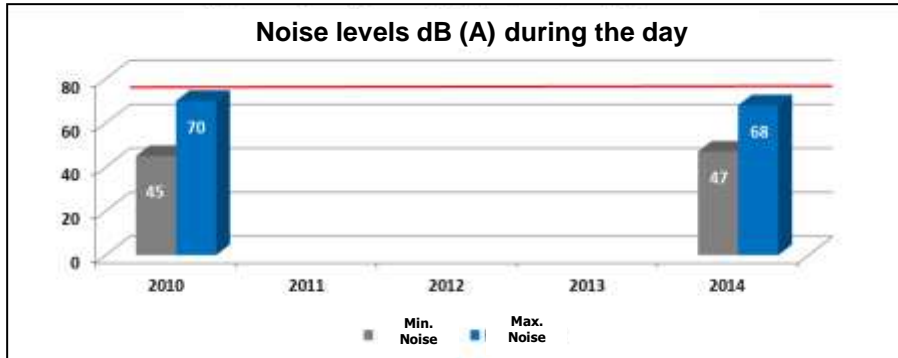
- 1. Industrial Area (C2):** low acoustic Sensitivity (**75 dB** from 7h to 23h and **65 dB** from 23h to 7h).
- 2. Isolated cabin (A3) (Casagemes):** high acoustic sensitivity (**55 dB** from 7 h to 23 h and **45 dB** from 23 h to 7 h).



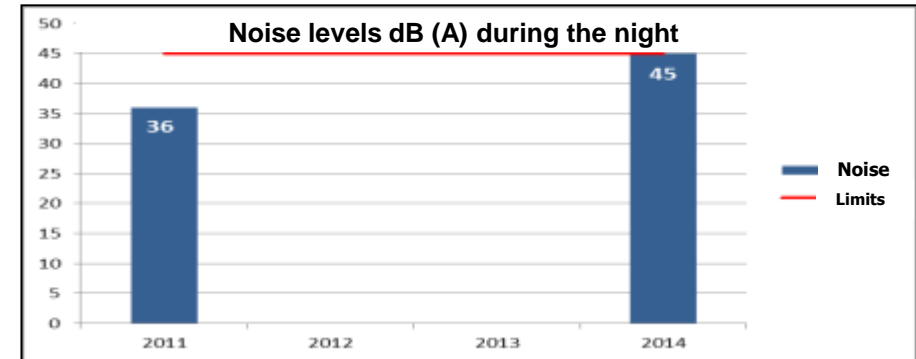
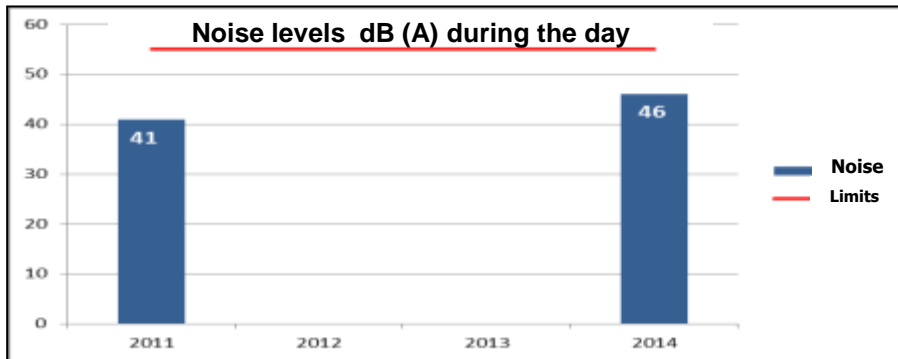


In both cases DNBA complies with these legal limits.

## Industrial area (C2):



## Isolated cabin (A3):



We can see the compliance with the legal limits of the acoustic map of Sant Fruitós de Bages. We see that the noise received in the isolated cabins is very close to the limits, which might be due to modifications in the rooftop installations of other neighboring warehouses. Even so, all the new facilities that have been built in the sector of the DENSO roof nearest the cabin are soundproofed.

Throughout FY2017, DNBA made a study to check the fulfilment of the Municipal Ordinance regarding the limits of interior and exterior acoustic inmission established in Acoustic Pollution Protection Law 16/2002 and its appendices, modified by Decree 176/2009.

According to these regulations, the maximum emission noise level authorised for alarms extending must be 85dB(A). The study precisely determined the noise levels of the exterior intrusion alarm (which may be triggered at times when the company is closed), as well as the exterior emergency alarm in both DNBA and DNBA B2.

- The emergency alarm systems in DNBA and DNBA B2 at no time exceed the legal limit of 85dB(A):

	Measurement result	Legal limit
DNBA	Not going outside	85 dB(A)
DNBA B2	Between 75.6 and 81.2 dB(A)	

- The intrusion alarms in DNBA any DNBA B2 do not exceed the legal limit of 85dB(A) either:

	Measurement result	Legal limit
DNBA	Between 79.8 and 83.5 dB(A)	85 dB(A)
DNBA B2	Between 81.6 and 84.6 dB(A)	

## 5.8 Wastes

During FY 2017, in the process of production and auxiliary activities will produce about **925 Tons** of waste. DENSO BARCELONA, S.A.U has the Wastes Productor code P 10335-1. The most representative forms are:

WASTE	CODE	TREAT.	2014		2015		2016		2017	
			tn	tn/ME	tn	tn/ME	tn	tn/ME	tn	tn/ME
			Banal waste (CSR)	200301	T12	14,79	0,06	27,41	0,11	18,26
Paper and cardboard	200101	V11	261,77	1,03	279,80	1,13	286,26	0,97	310,48	1,01
Epoxy Resin	080111	V21	12,41	1,33	13,04	1,42	8,41	1,97	8,11	2,31
Wood	200138	V15	62,14	0,25	92,43	0,37	118,39	0,40	136,10	0,44
Slag Sn/Pb	100401	V41	1,39	0,01	0,76	0,00	0,40	0,00	0,35	0,00
Slag Sn/Ag	101011	V41	3,08	0,01	3,08	0,01	3,57	0,01	4,55	0,02
Waste metal	200140/120103/170411/160214	V41	76,20	0,30	209,76	0,85	85,05	0,29	105,77	0,34
Solvents and other organic substances	140603	V21	14,01	0,06	6,63	0,03	6,69	0,02	2,94	0,01
Empty drums	150110	V51	9,55	0,04	9,64	0,04	10,15	0,03	10,30	0,00
Residual oil	130899	V22	0,68	0,003	1,36	0,005	0,40	0,001	0,36	0,00
Plastic	070213/200139/150102	V12	195,74	0,77	192,82	0,78	232,92	0,79	287,56	0,97
Light containers	150105	V12	6,54	0,03	8,33	0,03	7,84	0,03	7,16	0,02
Contaminated absorbents	150202	T21	14,74	0,06	13,87	0,06	17,06	0,06	17,65	0,06
Aqueous liquids containing dangerous substances	161001	T31	2,27	0,01	3,15	0,01	3,73	0,01	4,29	0,01
Drill waste	120109	T31					4,06	13,02	7,18	12,92

In the table above we see an increase in **Paper and Cardboard Waste** due to the designing and production of more complex products that need a larger number of components for their manufacture.

With respect to FY2016, there is a small increase in metal waste due to **Aluminium Waste** and **Trimming Waste from Electronic Boards** in new products.

Of all of the waste produced, 94,4% is reused and only 5,6% receives treatment, which considerably reduces the environmental impact of DNBA's activity.

## **5.9 Light pollution**

Light pollution in the exterior facilities in DNBA (parking lot and building facade) are under the light pollution prevention laws. During the fiscal year 2010, and as a prevention, DNBA carried out a report regarding the fulfillment of the RD 1890/2008 Law. It lead to the conclusion that obey the regulations regarding the features of the facilities, the kind of lights which are used and the energy efficiency.

## **5.10 Other factors related to the environmental performance**

### **5.10.1 Emergency Plan**

DNBA has an Emergency Plan and associated instructions that enable us to identify, respond to and prevent environmental accidents and larger-scale emergencies such as fires. Periodically, drills are carried out to check their effectiveness.

### **5.10.2 Communications and complaints**

In order to maintain open relations with society, DNBA has a system to receive and respond to any complaint or request for information related to the environmental aspects of the company.

## 5.11 BASIC ENVIRONMENTAL BEHAVIOUR INDICATORS according to the total annual production (expressed as gross added value\*)

During the fiscal year 2017 the gross **Added Value** (difference between the amount produced and the material costs) has been **133.715.422€**.

BASIC INDICATOR	UNITS	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Water.	m <sup>3</sup> /M€.	75	60	68	70	65
Energy Efficiency.	MWh produced with renewables/Mwh consumed.	0,0003	0,0003	0,01	0,03	0,0292
	MWh/M€ Natural Gas.	---	---	16,85	17,26	32,05
Total Greenhouse Effect Gas Emissions.	Tn/M€.	32,06	30,48	30,79	27,70	34,72
Efficiency in the consumption of materials.	Tn/M€.	1,6	2,2	2,2	2,5	2,6
Total Waste.	Tn/M€.	5,1	5,5	7,1	5,6	6,9
Hazardous Waste.	Tn/M€.	0,6	0,5	0,4	0,4	0,4
Non-Hazardous Waste.	Tn/M€.	4,4	5,0	6,7	5,2	6,5
Waste intended for Re-use.	Tn/M€.	4,7	5,2	6,7	5,3	6,5
Waste intended for Treatment.	Tn/M€.	0,3	0,3	0,4	0,3	0,4
Total Emissions (NO <sub>x</sub> )	Kg/M€.	8,8	4,7	4,8	4,0	4,3
Total Emissions (COV)	Kg/M€.	3,9	4,7	4,8	4,0	4,3
Total Emissions (PST)	Kg/M€.	5,4	4,7	4,8	4,0	4,3
Biodiversity	m <sup>2</sup> /M€.	235	235	255	216	346

\* **Gross added value:** Amount Produced – Costs of material

## 6.1 Participation

There are several tools to promotion the staff participation in development of environmental initiatives realized in DNBA. Below are some examples of communication channels used:

### 1. Internal improvement request application (SAMI)

SAMI system is based on the consideration that the operators know best what are the problems associated with their work. Therefore intended to promote the participation of all people in the company to exploit the improvement opportunities that these proposed. One of the affected parameters is the environment (improvements in reducing energy, raw materials used, recycling, etc.).

In FY2017, a total of **58 environmental SAMIS and 30 energy efficiency SAMIS** were performed. We give an example of a SAMI carried out below:

- SAMI to reduce the amount of polluted liquid waste (HC-UV45 solvent).

**DENSO****S.A.M.I.**

Crafting the Core Solicitud de Aplicación de Mejora Interna N° reg: 20130500291

Nombre: Sónia Sotos Martín N°. Empleado: 714 Sección de Origen: Die Casting Lab

ORIGEN DE LA ACTIVIDAD DEL SAMI: C. BIMESTRAL  tema: \_\_\_\_\_  
 Regular  QKYT  QED  3-3  Curso KAIZEN  QCC  Otros   
 Clima Laboral   *Pasar directamente al TIE sin Evaluar, sólo anotar "ACTUAL" y "MEJORA"*

ACTUAL: Para realizar la prueba  
 del aceite en pieza, utilizamos botes  
 lavadores de 250 ml, éste bote se tiene  
 de limpiar primero con un disolvente  
 muy tóxico, y utilizamos mucho disolvent  
 para limpiar todas las paredes, y en  
 realidad para la prueba que hacemos  
 la cantidad es mucho mas pequeña

ACCIÓN DE LA MEJORA: Utilizar botes lavadores de  
 100 ml, y dejarlo identificado para utilizarlo  
 solo para este producto, de esta manera  
 ahorraremos en disolvente y a la vez  
 será beneficioso para nuestra salud

C. Método <input checked="" type="checkbox"/>	Clasificar <input type="checkbox"/>
Añadir <input type="checkbox"/>	Identificar <input type="checkbox"/>
Proteger <input type="checkbox"/>	Informar <input type="checkbox"/>
Ubicar <input type="checkbox"/>	Comunicar <input type="checkbox"/>
Optimizar <input checked="" type="checkbox"/>	Contribuir <input type="checkbox"/>
Mecanizar <input type="checkbox"/>	
Modificar <input type="checkbox"/>	

NO ADMITIDO (seleccionar motivo)  
 A -No hay mejora. Mejora ineficiente.  
 B -Mejora ya realizada, repetitiva.  
 C -Es una reparación.  
 D -Otros: \_\_\_\_\_ fecha: \_\_\_\_\_

NO SE APLICA (seleccionar motivo)  
 E -Cambio en que se generó la mejora.  
 F -Mejora económicamente no viable.  
 G -Mejora innecesaria.  
 H -Otros: \_\_\_\_\_ fecha: \_\_\_\_\_

PARÁMETRO AFECTADO: Seguridad y Salud  Calidad  Productividad  Medioambiente   
 5S  Coste Energía  Coste Recambios  Clima Laboral  Otros

SECCIÓN QUE APLICARÁ: Kaizen Team SIN Requisición  Kaizen Team CON Requisición Hecha   
 Sección de Origen  P.E. PCR n°: \_\_\_\_\_ P.E. JIG n°: \_\_\_\_\_ Otras

VALUACIÓN:

		J.E.	ENC.	MAN.	G.M.
NIVEL DE IDEA	BASICO	1			
	NORMAL	2	3	3	3
	SUPERIOR	3			
EFICIENCIA DE LA IDEA	POCO	1			
	BASTANTE	2	3	3	3
	MUCHO	3			
ESTANDARIZACIÓN	LÍNEA	1			
	SECCIÓN	2	1	1	1
	GENERAL	3			

TOTAL:  $A=7, B=7, C=7, D=7$   
 $A+B \geq 7 \rightarrow 7$

APLICACIÓN:  
 Fecha prevista: 10/5/17  
 Fecha final: 10/5/17

APLICADO:  SI  NO

Firma y Nombre: JESUUS

ACTIVIDAD DE ORIGEN: \_\_\_\_\_ GUÍA DE PUNTUACIÓN Y EVALUACIÓN puntos

C. BIMESTRAL	Actividad para Orientar y reforzar la Mentalidad, se decide cada dos meses por los Managers de Manufacturing y durante la entrega de premios de 5S se publicarán los temas de la Categoría Bimestral	5
Q.E.D.	(Quality Emergency Declaration): Actividad de Calidad relacionada con los Customers Rejections	4
3-3	Actividad de Seguridad para identificar posibles condiciones inseguras relacionadas con la Seguridad y Salud en el trabajo (WSHE-C-GEN-020)	3
Q.E.Y.T.	Actividad de Calidad para mejorar la Motivación y Participación usando el sentido común para ser capaz de prevenir riesgos que pueda haber sobre la calidad del producto (NIP-C-GEN-019)	3
Q.C.C.	(Circuitos de Calidad) Actividad para promover la participación y aprovechar las oportunidades de mejora que se extraigan de la misma (WQA-C-QUA-016)	2
CURSO KAIZEN	Actividad de Formación Oficial en DENSO relacionada con la Mejora Continua del Proceso	1
REGULAR	Idea de mejora que no sea originaria de alguna de las actividades anteriores	1
CLIMA LABORAL	Idea de Mejora relacionada con la percepción que tiene la persona sobre el ambiente de trabajo. (Implica poner en práctica el DENSO SPIRIT). Se entrega directamente al TIE, no es necesaria la Evaluación por parte del Jefe de Equipo o Encargado	1

ACCIÓN DE LA MEJORA: puntos

CLASIFICAR	Puede hacer Sección de Origen: Ordenar, Archivar, 5S, Limpieza, Rotulador, Velcro,...	1
IDENTIFICAR	Puede hacer Sección de Origen: Cambio Formato, Cambio Posición, Hacer QR, Ayuda Visual, Poner Master, Cambiar Edición, Reemplazar,...	1
CAMBIAR MÉTODO	Puede hacer Sección de Origen: Verificar, Crear Método, Cambio de Material, de Recambio, Hacer Check, Editar Método,...	3
AÑADIR	Puede hacer Sección de Origen o Kaizen Team: Instalar sin Modificar Máquina, Buzón, Tapa, Luz, cubo de reciclaje, Separador, Se Compra de Una Pieza, Material Limpieza,...	2
PROTEGER	Puede hacer Sección de Origen o Kaizen Team: Sin Modificar Máquina, Goma, Espuma, Cortinas, Recortar,...	2
UBICAR	Puede hacer Sección de Origen o Kaizen Team: Mismas Herramientas Varios Sitios, Cambio Posición o Lugar, Fijar, Reubicar,...	2
OPTIMIZAR	Puede hacer Sección de Origen o Kaizen Team: Estanterías, Espacio, Carros, Muebles, consumo luz, consumo maquinas, uso material,...	2
MECANIZAR	Puede hacer el Kaizen Team: Que no sea una Máquina, Poner Ruedas, Frenos, Stoppers, Conveyors, Algo Nuevo,...	2
MODIFICAR	Requiere de P.E. o MNT: Máquina Existente, Software, Programación, Crear Jig, Modificar Jig,...	2
COMUNICAR/INFORMAR	Puede hacer Sección de Origen o HR: Facilitar información más concreta, precisa y complementaria. Comunicación más frecuente, utilidad de diferentes y/o nuevos canales comunicativos, etc.	1
CONTRIBUIR	Puede hacer Sección de Origen o HR: Mejorar la relación profesional/personal tanto a nivel de Superiores (vertical) como de compañeros (horizontal)	1

PARÁMETRO: Mejora que afecte a la: SEGURIDAD, CALIDAD o PRODUCTIVIDAD: 3  
 Mejora que afecte al: MEDIOAMBIENTE o COSTE: 2  
 Mejora que afecte a las: 5S: 1  
 Mejora que afecta al: CLIMA LABORAL: 1

SECCIÓN ORIGEN: KAIZEN TEAM: 3  
 SECCIÓN QUE APLICARÁ: P.E. y Otros: 2  
 RECURSOS HUMANOS T&D: 1

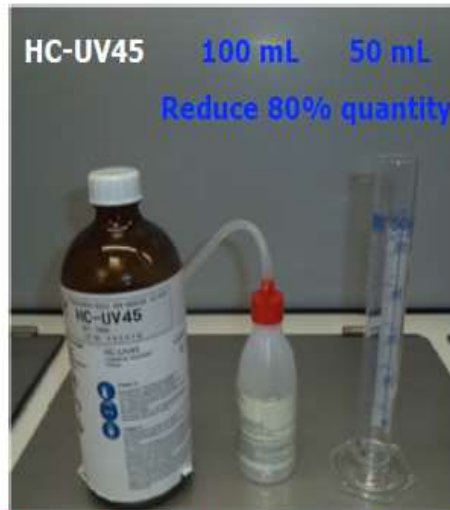
COMENTARIOS:

Ref.: 20170500290

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**Sonia Sotos**  
**714**

*DIE CASTING  
PARTS*



**ESPERADO: 130 €/mes**

**OPINIÓN DEL AUTOR:**

*«Con pequeños cambios obtendremos grandes mejoras»*

En el test de "aceite restante" de la Cover y la Case usamos un producto muy tóxico y peligroso (HC-UV45). Utilizamos un bote de **500 ml** y una probeta de **200ml**, teniendo que limpiar sus paredes con HC-UV45 antes de realizar la prueba y recogiendo 50 ml de dicho líquido.

Utilizar un bote y una probeta mas pequeños, en relación a la cantidad de líquido a recoger, usando un bote de **100 ml** y un vaso de precipitados de **50 ml**. Gastando menos HC-UV45 para limpiar las paredes del material.

**Colaboración: PRODUCCIÓN**



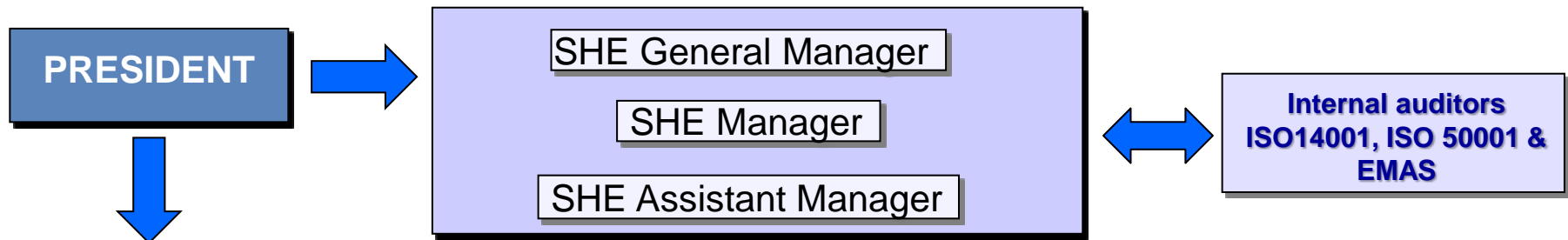
**CATEGORÍA DEL BENEFICIO**

SEGURIDAD	MEDIOAMBIENTE	CALIDAD	PRODUCTIVIDAD	ENTREGA	COSTE	5S	CLIMA
😊	😊				😊		



## 2. Environmental and Energy Committee

The Environmental and Energy Committee is composed by:



### ENVIRONMENTAL & ENERGY COMMITTEE

Members from each department:

Manager Coordinator

Environmental Committee President

Environmental Committee Vice-President

Environmental Supervisor

ACC&BPL vocal/s

Prod & Eng. vocal/s

Purchasing vocal/s

FCL vocal/s

PC. vocal/s

QA & IC vocal/s

Production vocal/s

Personal vocal/s

Meets every three months and aims to:

1. To inform and argue about the environmental and energy activities.
2. To decide the environmental and energy targets of DNBA.
3. To revise the environmental and energy index.

## 6.2 Communication

Different communications were made in FY 2017 to raise the awareness of our workers with regards to the environment (activities to reduce water and energy consumption, to inform on the segregation of waste, to inform on the environmental audits and their results, etc.).

These communications were made through the Últimas Noticias (written articles) or videos played in the rest area. We give a few examples below:

**UNA SÓLA FUGA DE AIRE DEL TAMAÑO DE UN SPAGETTI (2 mm.) SUPONE :**

- 4.4 litros aire/seg.
- 138.800 m<sup>3</sup> aire/año
- 9.200 kW
- 920 Euros

= el consumo energético (luz+calefacción) de tu casa de todo 1 año

**REDUEIX, REUTILITZA I RECICLA: MINIMITZA RESIDUS**

¿QUÈ FEM A DENSO?

A DENSO RECICLEM I REUTILITZEM EL 98% DELS RESIDUS = BENEFICI AMBIENTAL + BENEFICI ECONÒMIC.

**¿Cuál el objetivo de DENSO?**

ECOVISION 2025  
REDUCIR 50% LAS EMISIONES DE CO<sub>2</sub>

Calefacción Global

## 7. LEGAL COMPLIANCE

Denso Barcelona, S.A.U obey all Environmental Legal Requirements. Every day is realized a control in order to detect the New Environmental Rules and modifications. Every year the Legal Compliment is evaluated.

LEGAL REQUIREMENT	RULES
Atmospheric emissions	Orden de 18 de octubre de 1976 de Prevención y corrección de la Contaminación Atmosférica.
	Ley 34/2007 de la Calidad del aire y protección de la Atmósfera.
	RD 117/2003 sobre la limitación de emisiones de COV's.
	Reglamento (UE) nº 517/2014 Sobre los gases fluorados de efecto invernadero.
	RD 100/2011 por el que se actualiza el catálogo de actividades potencialmente contaminadoras de la atmósfera y se establecen las disposiciones básicas para su aplicación.
Water	Decreto 139/2018 sobre los regímenes de intervención ambiental atmosférica de los establecimientos donde se desarrollen actividades potencialmente contaminadoras de la atmósfera.
	RD 1/2001 por el cual se aprueba el texto refundido de la ley de aguas.
	Ordenanza de Vertido de Aguas residuales de la Mancomunitat de Municipis del Bages pel sanejament.
Wastes	RD 3/2003 por el que se aprueba el texto refundido de la legislación de aguas en Cataluña.
	Decreto 93/99 de Procedimiento de Gestión de Residuos.
	Ley 22/2011 de Residuos y suelos contaminados.
Dangerous products	Decreto Ley 1/2009 por el cual se aprueba el texto refundido de la ley reguladora de residuos.
	RD 180/2015 Regulación del traslado de residuos en el interior del Territorio del Estado.
	RD 379/2001 sobre Reglamentación de almacenamiento de productos químicos peligrosos.
	RD 105/2010 que modifica el RD 379/2001.
	RD 551/2006 por el que se regula el transporte ADR.
	Reglamento CE 1272/2008 sobre Clasificación, etiquetado y envasado de sustancias y mezclas.
Noise and vibration	Directiva 2000/53 sobre los vehículos al final de su vida útil (End Live Vehicle).
	Reglamento CE 1907/2006 relativo al registro, evaluación, autorización y restricción de las sustancias y preparados químicos.
	Mapa Acústico de Sant Fruitós de Bages.
	Ley 16/2002 de protección contra la contaminación acústica.
Light pollution	Decreto 176/2009 por el que se aprueba el Reglamento de la Ley 16/2002, de protección contra la contaminación acústica, y se adaptan sus anexos.
	Ordenanza Reguladora de Ruido y Vibraciones de Sant Fruitós de Bages.
	Real Decreto 1890/2008 sobre Eficiencia Energética en instalaciones de alumbrado exterior y sus instrucciones técnicas complementarias.
Environmental License	Decreto 190/2015, de desarrollo de la Ley 6/2001, de ordenación ambiental del alumbrado para la protección del medio nocturno.
	Ley 6/2001 de ordenación ambiental del alumbrado para la protección del medio nocturno.
Energy Efficiency	Ley de Intervención Integral de la Administración Ambiental (IIAA).
	Ley 20/2009 de Prevención i control ambiental de las actividades.
	Ley 20/2009 de Prevención i control ambiental de las actividades.
	RD 56/2016 por el que se transpone la Directiva 2012/27/UE del Parlamento Europeo y del Consejo, relativa a la eficiencia energética, en lo referente a auditorías energéticas, acreditación de proveedores de servicios y auditores energéticos y promoción de la eficiencia del suministro de energía.

The present Statement has been prepared according to the EMAS Regulation (UE) 2017/1505. The years correspond to the period from April to March (fiscal year). This document is for public access and the Environmental Committee is responsible for updating and modifying it.

The next Environmental Statement will be issued during second half of the year 2019, the data related to the period April 2018 - March 2019 will be included. The verified version of this document is the English one. Its had a one year validity from the verification date. This statement hasn't got any value if this isn't validated by a accredited entity.

Name and accreditation number: Josep Plà, Lloyd's Register Quality Assurance, ES-V-0015.

PREPARED BY:  
ENVIRONMENTAL  
SUPERVISOR



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SHE MANAGER




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MANAGER



M. ARAKI

APPROVED BY:  
DNBA MANAGING



J.M.GIMÉNEZ

This statement, as well as other available information related to the activities of the DENSO group at:

DENSO EUROPE: <http://denso-europe.com/denso-global/spain/denso-barcelona-s-a/>

EMAS: <http://www.emas.cat/>



### CERTIFICADO DE APROBACIÓN

Certificamos que el Sistema de Gestión Medioambiental de:

**DENSO BARCELONA, S.A.**  
**C/ Sakura, nº 1**  
**08272 Sant Fruitós de Bages, Barcelona**  
**España**

ha sido aprobado por Lloyd's Register Quality Assurance, de acuerdo con la siguiente Norma del Sistema de Gestión Medioambiental:

**ISO 14001:2015**

El Sistema de Gestión Medioambiental es aplicable a:

**Fabricación de productos electrónicos, de encendido y componentes de control del motor para la industria de automoción.**

Aprobación Certificado No: 5G1 3772284	Aprobación Original: 02 de Diciembre 1998
	Certificado en Vigor: 03 de Enero 2018
	Caducidad del Certificado: 31 de Diciembre 2019

Emiso por: LRQA España, S.L.U.  
 Por y en nombre de: Lloyd's Register Quality Assurance Limited



C/ Pineda, 28 - 1º - 28008 Madrid, España

Por y en nombre de: Lloyd's Register, Registered Limited, Birmingham, B15 1TL, United Kingdom  
 Miembro de la red mundial de organizaciones de certificación de sistemas de gestión de calidad y medioambiental  
 Lloyd's Register Quality Assurance Limited, Registered Limited, London, UK. Miembro de la red mundial de organizaciones de certificación de sistemas de gestión de calidad y medioambiental

El presente certificado es válido únicamente para el sistema de gestión medioambiental descrito en el alcance del certificado. No se garantiza la exactitud de la información contenida en este certificado. El cliente es responsable de proporcionar toda la información necesaria para la realización del certificado. Lloyd's Register Quality Assurance Limited no se hace responsable de las consecuencias de cualquier error cometido por el cliente o por terceros. Lloyd's Register Quality Assurance Limited no se hace responsable de las consecuencias de cualquier error cometido por el cliente o por terceros.



### CERTIFICAT DE REGISTRE

El Departament de Territori i Sostenibilitat certifica que el centre de  
 l'organització

**DENSO BARCELONA SA**

Ubicat a C/Sakura, 1 de Sant Fruitós de Bages

ha estat registrat amb el número:

**ES-CAT-000034**

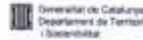
D'acord amb la Resolució de 6 de gener de 2014 de la direcció general de Qualitat Ambiental i el que preveuen els articles 13 i 14 del Reglament 1221/2009, del Parlament Europeu i del Consell, de 25 de novembre de 2009, relatiu a la participació voluntària d'organitzacions en un sistema comú de gestió i auditoria ambiental (EMAS). Els requisits del sistema de gestió ambiental EMAS són els establerts en la secció 4 de la norma EN ISO 14001:2004

El conseller de Territori i Sostenibilitat

Santiago Vila Vicente

Barcelona, 13 de gener de 2014

Data d'inscripció: 27/03/2000  
 Data de la renovació: 08/01/2014  
 Validesa del certificat: 18/10/2016



Departament de Catalunya  
 Departament de Territori i Sostenibilitat



### CERTIFICADO DE APROBACIÓN

Certificamos que el Sistema de Gestión Energética de:

**DENSO BARCELONA, S.A.**  
**Sakura, 1, Pol. Ind. Pla de Santa Anna**  
**08272 Sant Fruitós de Bages, Barcelona**  
**España**

ha sido aprobado por Lloyd's Register Quality Assurance de acuerdo con la siguiente Norma de Sistema de Gestión Energética:

**ISO 50001:2011**

El Sistema de Gestión Energética es aplicable a:

**Fabricación de productos electrónicos y de encendido y componentes del sistema de control para la industria de automoción.**

Aprobación Certificado No: 5G1 6026024	Aprobación Original: 29 de Febrero 2016
	Certificado en Vigor: 29 de Febrero 2016
	Caducidad del Certificado: 28 de Febrero 2019

Emiso por: LRQA España, S.L.U.  
 Por y en nombre de: Lloyd's Register Quality Assurance Limited



C/ Pineda, 28 - 1º - 28008 Madrid, España

Por y en nombre de: Lloyd's Register, Registered Limited, Birmingham, B15 1TL, United Kingdom  
 Miembro de la red mundial de organizaciones de certificación de sistemas de gestión de calidad y medioambiental  
 Lloyd's Register Quality Assurance Limited, Registered Limited, London, UK. Miembro de la red mundial de organizaciones de certificación de sistemas de gestión de calidad y medioambiental

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# ***DENSO***

**Global supplier of automotive technology, systems and components.**