ENVIRONMENTAL STATEMENT 2021

(Data period: April 2020 - March 2021)





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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 and now it has renewed the Energy Management System ISO 50.001: 2018.

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) n° 761/2001 (since March 2000), EMAS III Regulation (CE) n° 1221/2009 (since 2009) new EMAS regulation (UE) 2017/1505 (since 2018), modification of annex IV according to Regulation (CE) n° 2018/2026 (since 2020) 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 m² between the two buildings DNBA B1 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.

According to the EMAS register, the company activity is based on the manufacture of the following products for the automotive industry at the DNBA facilities on calle Sakura of the "Pla de Santa Anna" industrial estate in Sant Fruitós de Bages:

- Electronic.
- Cockpit Systems.
- > AD & ADAS.



YEAR	EVENTS	PRODUCTS	CERTIFICACIONS AND AWARDS
1991	Name change: VND -> NDMB (ND 100%).	DLI.	Certificación FORD Q1.
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.
	XX Anniversary.	Finish the Coils 6T production (power units).	OHSAS 18001 Certificate.
2011-12		Finish the Coil production.	VOLVO Quality Excellence. SUZUKI Best 1-1-1 activity.
	XX Anniversary.	in the new area of Molding. Finish the Coils 6T production (power units).	in project management. EOA Certificate (Economic Operator Administrator). TOYOTA best Supplier. EMAS X years of Environmental Best Practices. OHSAS 18001 Certificate. VOLVO Quality Excellence.



YEAR	EVENTS	PRODUCTS	CERTIFICACIONS AND AWARDS
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. Finish O2 SENSOR production.	ISO 50001 certificate.
2016	XXV Anniversary New Cantine expansion.	Aluminum injection Trial production.	Toyota Self-Reliant Proj. Management Award, Delivery Award and Quality Award. Volvo Quality Excellence. Best Company Facilities of Europe. TOYOTA: "Achievement award" Supply. Excellent Factory.
2017	9th Company expansion. New Warehouse DNBA B2.		IATF 16949 certificate. TOYOTA: Best Quality. CIAC award to the best automotive company in Catalonia. Best Company Facilities of Europe.
2018	10th Expansion area ELEC (phase 10.1).	Finish STICK COIL production.	President Award. Excellent Factory. Sant Fruitós City Hall Award "Best environmental project". TOYOTA: Best supply.
2019	10th Expansion area ELEC (phase 10.2).		Toyota Quality Silver Award
2020			Toyota Quality Achivement Award. EV EF Excellent Company.



1.4 General parameters

The annual global production in DNBA in the fiscal year 2020 has been **334,9 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 **165,6 M€**.

The number of employees in fiscal year 2020 was **790**.



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 (BPC, Engine ECU, Power Management, SBW, TPMS, Smart ECU, Main Body and A/C ECU) and **Cockpit Systems**, **AD & ADAS** (Meter, Head Up Display, A/C Panel and Visio Park).

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 nonconventional 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 nonconventional 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

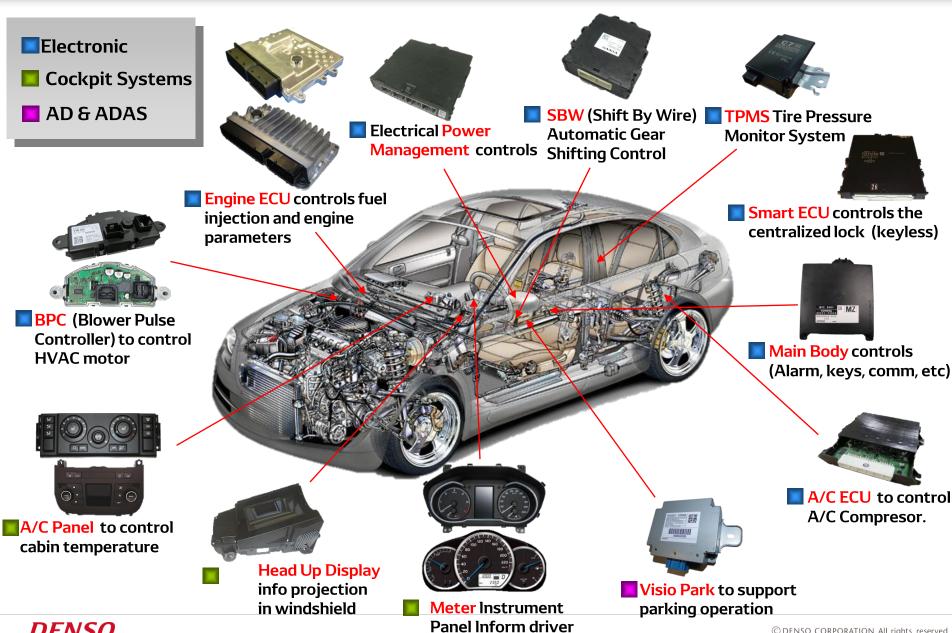
Assy calibration and powder cleaning

Front crystal assembling

Functional verification at room temperature and visual inspection.

Package and shipping.





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





































Certifications:







ISO 50001



ISO 14001



EMAS



OEA



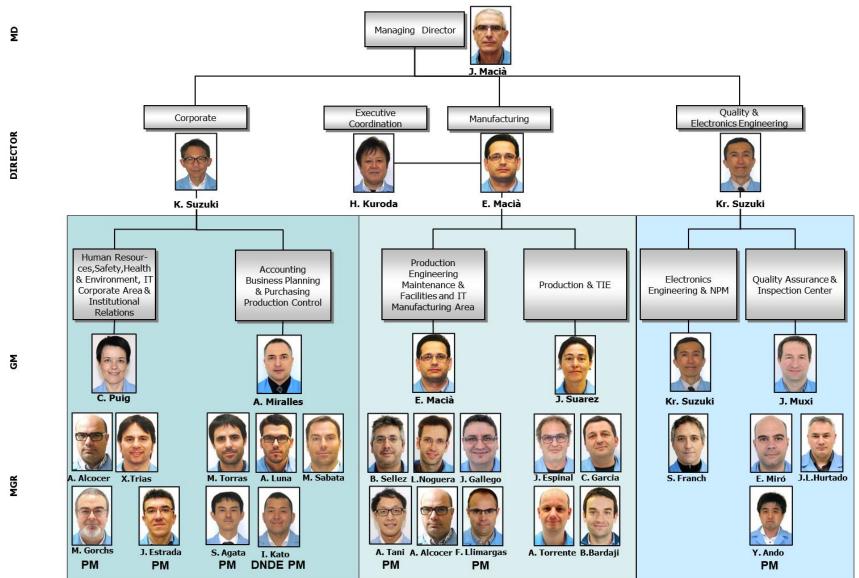




ESD



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 based on 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 **Program** 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 Macià, as the person responsible for the company has delegated to the General Director of Environment and Safety Cristina Puig and the Director of Environment and Safety, Xavier Trias, 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 global environment, contributing with the society for improve our 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, preevaluating 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.
- Purchasing of energy efficient products and services, gradually promotion of renewable energy production and purchasing of this energy, making DNBA a Neutral factory in CO2 emissions.
- •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.

SHE DIRECTOR

X. TRIAS

SHE GENERAL DIRECTOR

Purtue Pai

C.PUIG

DNBA MANAGING DIRECTOR

IMACIÀ

Fecha : 14/05/2021 (17th 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)



STATE **ADMINISTRATION**

(Legal compliance)



(Legal compliance, CSR activities)



MANAGEMENT

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



WORKERS

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



SUPPLIERS, **CUSTOMERS AND END USERS**

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

























DNBA ENVIRONMENTAL MANAGEMENT SYSTEM

The significant life-cycle environmental aspects are detailed below.

These are evaluated using qualitative and quantitative criteria regarding applicable quality and legal requirements.

To determine which aspects are significant, they are assessed according to established criteria under normal, abnormal and emergency conditions.

The established criteria are:

Normal conditions	Abnormal and emergency conditions
N1 criterion: Quantity/Volume produced.	
N2 criterion: Applicable legal requirements.	AE1 criterion: Frequency.
N3 criterion: Frequency.	o AE2 criterion: Interaction with the receiver
N4 criterion: Interaction with the receiver medium.	medium.
N5 criterion: Complaints.	AE3 criterion: Detection and prevention systems.
o RN criterion: Amount of natural resources consumed.	o RN criterion: Occurrence of the situation with respect to the consumption of natural resources.
 IN/OAD criterion: Indirect aspects and other direct aspects (particularly assessed). 	



Direct significant aspects:

SIGNIFICANT ASPECT	PROCESS/FACILITY	IMPACT	RECOMMENDED IMPROVEMENTS/ACTIONS
Generation of contaminated absorbent materials.	Production, maintenance and warehouse processes.	Accumulation in landfills and atmospheric emissions derived from incineration.	Reduction of contaminated absorbent materials. Gradual introduction of the use of washable cloths in other production processes (expansion of this activity).
Silicon and fat waste.	Production and maintenance processes.	Accumulation in landfills and atmospheric emissions derived from incineration.	Promote activities to reduce silicon and fat waste.
Generation of effluent contaminated by rainwater in a fire.	The whole factory.	Rainwater pollution.	All fire-fighting prevention measures are taken as per regulations.
Natural resources - Energy resources.	General facilities - Air conditioning.	Energy consumption. Natural resource depletion and CO ₂ emission.	Continue with the good management and control of energy consumption in the new extensions made.

Indirect significant aspects:

SIGNIFICANT ASPECT	PROCESS/FACILITY	IMPACT	RECOMMENDED IMPROVEMENTS/ACTIONS
Other - Supplier environmental behaviour.		General impacts (pollution, spillage, etc.) / The environmental aspects of suppliers are assessed.	Increase monitoring to receive supplier ISO 14001 certifications.



4.1 Principal environmental improvements FY2021

Energy vector

In order to become an efficient factory energy, in the last 12 years DNBA carried out various activities to reduce the electricity consumption and thus indirectly reduce the emission of CO₂ emitted into the atmosphere.

1.- Electricity consumption < Energy Saving Day>.

On the days of the inventory, in order to save energy on these days and to raise the awareness of the workers, an energy-saving awareness raising and monitoring campaign is carried out.





2.- Energy Consumption - " Just In Time".

Various activities are carried out during the year to reduce the energy change, or the energy consumption that is not useful. These activities are called "Just in Time activities", and should only be used when needed.

There are several examples of these activities:



2.- Energy Consumption - " Just In Time".

SECTION: FACILITIES

LINE: FACILITIES

PROCESS: PRODUCTION PROCESS EXHAUST

ACTIVITY DESCRIPTION: ENERGY REDUCTION IN EF 16 EXHAUST

BEFORE:



The new exhaust is running 100% with independence of N° of machines are connected.

ENERGY MUDA

AFTER:



New exhaust with drive.

ENERGY SAVING IMPROVEMENT

YEARLY EFFECT ECONOMICAL COST SAVING: 2.500 €

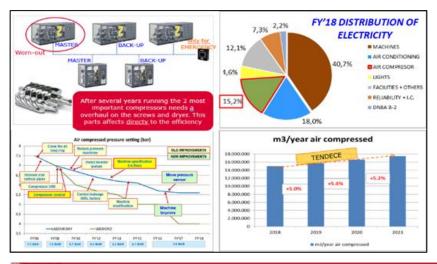
CO2 SAVING: 7.188 kg

APPLICATION DATE: July '20

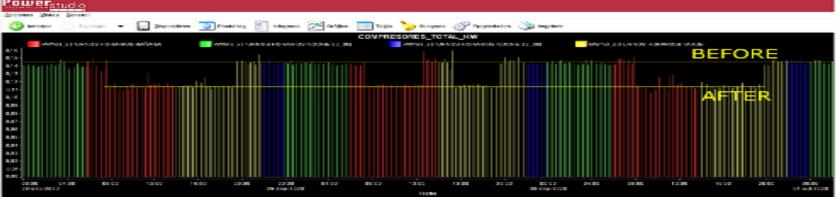


3.- Energy Consumption < More efficient air compressor >.

Compressed air consumption accounts for 15% of electricity consumption at DNBA. The demand for compressed air is increasing due to the increase in production. During this year, a new, more efficient centrifugal compressor was installed, allowing an energy reduction of 400 MWh in one year.









4.- Energy Consumption < Residual energy reduction >.

The residual heat generated by the production machines means an increase in energy consumption in air conditioning and a decrease in staff comfort. By expelling this heat outside the air conditioned area, we achieve energy savings and an indirect reduction in CO2.

SECTION: FACILITIES

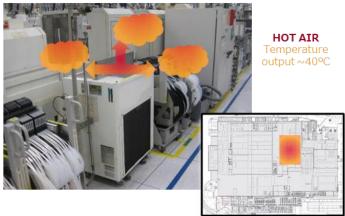
LINE: 1,3,6,10,14 & 17

PROCESS: TOP SMD

ACTIVITY WASTE ENERGY ELIMINATION IN THE OVEN CHILLERS

BEFORE:

CHILLER UNIT MACHINE



The hot air(40°C) is emitted to the airconditioned area (24°C). AFTER:





Avoid extra energy consumption due to residual heat from machines

ENERGY SAVING IMPROVEMENT

YEARLY FFFFCT ECONOMICAL COST SAVING: 6.126 €

CO2 SAVING: 17.100 kg

APPLICATION DATE:

August '20

Emissions Vector

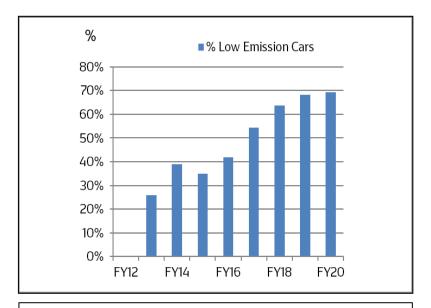
1.- Cars low-emission.

In accordance with the objective created in FY2012, the creation of the WSHE-C-ENV-006 procedure: "Environmental criteria in car purchases", which requires all new company cars to be low-emission. More than half of company cars are already low-emission.

(Diesel <108 g. CO_2/Km and Petrol <120 g. CO_2/Km).



Low emissions cars in the DENSO BARCELONA car park.



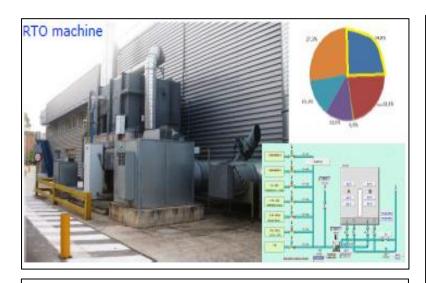
Evolution of the % of low emissions company cars.
In FY 2015 the new regulation is approved.

2.- New Zero Emissions Carbon Filter.

In the Production process, DNBA generates emissions contaminated with Volatile Organic Components (VOCs).

Before, to reduce air pollution, VOCs were burned at almost 800°C, meaning a natural gas usage of about 70,000 m3 and almost 15% of direct CO₂ emissions in DNBA.

With the new filter, VOCs are absorbed with activated carbon. When it is saturated, it is reactivated, thus achieving VOC filtration without consuming natural gas and without generating extra waste.



Old VOC purification system at DENSO BARCELONA.



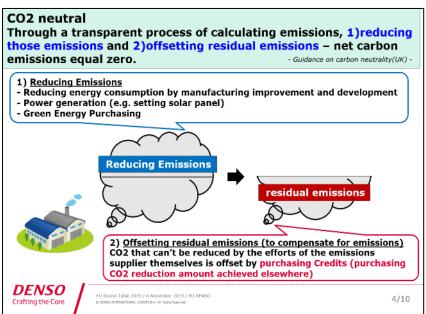
New purification system without CO₂ emissions.

3.- Green energy purchase.

Incorporating environmental and efficiency criteria into the purchasing, contracting and design protocol is one of the most effective ways to reduce the environmental impact of an activity.

Denso Barcelona SAU wants to be a CO₂ neutral company. Therefore, as of FY 2020, it only buys energy produced from renewable sources (solar, wind, hydroelectric, etc.).





4.- Environmental requirements in transport contracts.

Efficiency requirements are added for the truck fleets contracted by Denso Barcelona SAU. This new requirement reduces emissions in the short term and decreases transport costs in the medium term.

TRANSPORT	B1-B2	Classification: Euro 6
		GNC or GLP or Hydrogen or Electric
	CELOPLAS	Classification: Euro 6
		GNC or GLP or Hydrogen or Electric
	MILK RUN	Classification: Euro 6
		GNC or GLP or Hydrogen or Electric
	GLOBAL URGENT TRANSPORT	ISO 14001 certificate





Waste Vector

1.- Reusable hygienic masks.

Within the Recycling Pyramid it is preferable to reuse than to recycle.

Following this trend, DNBA has implemented washable masks for its workers to avoid the spread of the COVID-19 virus. Thus reducing the waste that was generated with the use of single-use masks.

BEFORE: Covid Emergency



- > Large amount of waste to the disposal unit. More than 1.5 T/year.
- > **High economic cost** (material and handling).

AFTER: Re-COV-er Project



- > Just 60 Kg/year of waste to the disposal unit.
 - > Lower economic cost.

2.- Efficient hand-driers:

Within the Recycling Pyramid it is preferable not to generate waste than to recycle it.

DNBA has standardised energy-efficient hand dryers in its bathrooms to avoid the waste generated by the use of single-use paper towels.

BEFORE



Generation of 6,2 Tn of paper waste.

AFTER



Zero waste generation

4.2 Environmental targets FY2020

ENVIRONMENTAL ASPECT	TARGETS	FULFILMENT
	Reduce the CO₂ index of FY'19 by 5% (Kg CO₂/M€).	NA. The index has increased by 2.28% due to the situation of the COVID-19 pandemic, which affects air renewal directly and production indirectly.
CO ₂ emissions.	Reduce the CO ₂ index of FY'19 (LOG) by 1% (Kg CO ₂ /M€).	OK. The index was reduced by 7.6% due to good and efficient management of the transportation of the components supplied to DNBA.
CO2 emissions.	100% of new company vehicles are low-emission.	OK. It has been possible to ensure that 100% of new company vehicles are low-emission.
	Maintenance of the same "green parking" users as in FY'19.	NA. This activity was interrupted due to the situation with the COVID-19 pandemic.
Biodiversity.	Carry out a voluntary environmental action to improve biodiversity.	Second phase of the project for reducing the vending waste generated in DNBA postponed due to the situation with the COVID-19 pandemic.
Waste.	Not increase Total Waste by more than 3% vs FY'19 (T/M€).	NA. It has increased by 7.13% due to the increase in packaging waste (cardboard), waste caused by COVID-19 and waste from wooden pallets due to the location of components.
	Reduce Waste with Management Cost by 1.25% vs FY'19 (T/M€).	OK. The index has been reduced by 2.54% due to good segregation of the wooden pallets.
Energy.	Implement activated carbon filter system.	OK. In July 2020, the new activated carbon filter system (zero gas consumption system) was successfully implemented.



4.3 Environmental targets FY2021 (April 2021 - March 2022)

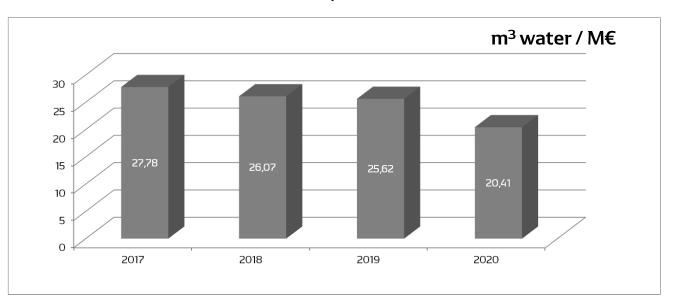
ENVIRONMENTAL ASPECT	TARGETS	PLANNED ACTIONS
		> Energy efficiency in the ESC.
	Reduce the CO₂ index of FY'20 by 5% (Kg CO₂/M€).	> Implement a Phase III solar panel project in DNBA.
CO ₂ emissions.	Reduce the CO ₂ index of FY'20 (LOG) by 1% (Kg CO ₂ /M€).	> Use of more efficient transportation for the components supplied to DNBA.
	Progress in the carbon footprint of products manufactured by DNBA	> Calculate the carbon footprint of our suppliers and their logistics.
	(Scope 3).	and their logistics.
Biodiversity.	Carry out a voluntary environmental action to improve biodiversity.	> Apply second phase of the project to reduce vending waste generated in DNBA.
Waste.	Reduce Total Waste by 3% vs FY'20 (T/M€).	> Implement the closed circle in the handling of wooden pallets.
	Reduce Waste with Management Cost by 1.25% vs FY'20 (T/M€).	> Reduction of non-recyclable waste generated in DNBA (reduction of vending waste, better segregation and recovery of waste generated in the production process, etc.).
Energy.	Reduce the energy consumed by 7.5%.	> Apply and continue with actions to reduce the energy consumed in DNBA (activated carbon filter, centrifugal compressor, application of justin-time activities, etc.).



5.1 Water

The production processes are dry, so most water is consumed in bathrooms. Highlight Humidification is the activity that requires the largest water supply in the electronics room. Water is also used for cooling towers, cooling circuits, heating and the watering of green areas. Monthly consumption checks are made. A total water consumption of **6.835** m³ was considered in FY2020.

The index used to assess the evolution of water consumption efficiency is the ratio between cubic metres consumed and annual production in millions of €.

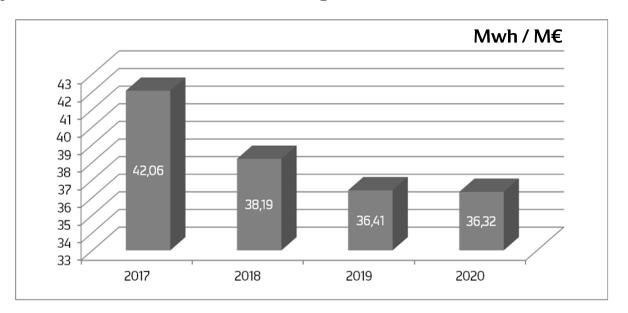


The water consumption index fell considerably in FY2020. The consumption of the productive and sanitary processes was lower due to the fall in production caused by the COVID-19 pandemic and an efficient control of consumption.

5.2 Electrical Energy

The main form of energy used in the production process is electricity. Electricity is controlled continuously by meters connected to a digital control system.

The total electricity consumption in FY2020 was 12,911 MWh, of which DNBA generated 0,75 MWh with solar energy and 12,161 MWh was brought in from outside. If we divide this amount by Total Production (million €) we get an index of 36,32 MWh/M€.



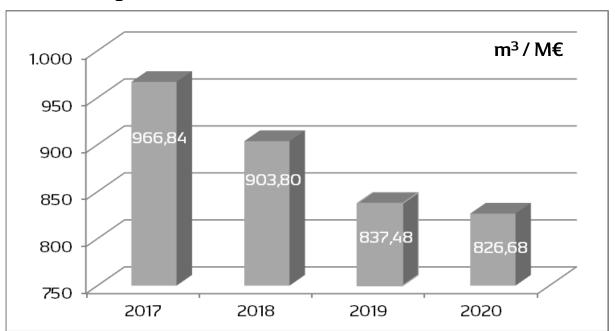
Since 2019, the reduction in the energy consumption index has been consolidated through the use of solar energy, the installation of LED technology lighting throughout the production plant and better management of energy consumption.



5.3 Natural Gas

Natural Gas is used as fuel in the heating boilers, in the radiating heating system, in the Thermal Oxidation Reducer (TOR) of the polluted gases and in some production furnaces. A monthly consumption check is made.

The total Natural Gas consumption in FY2020 was **276.815** m³. If we divide this by Total Production (million €) we get an index of **826,68** m³/M€.

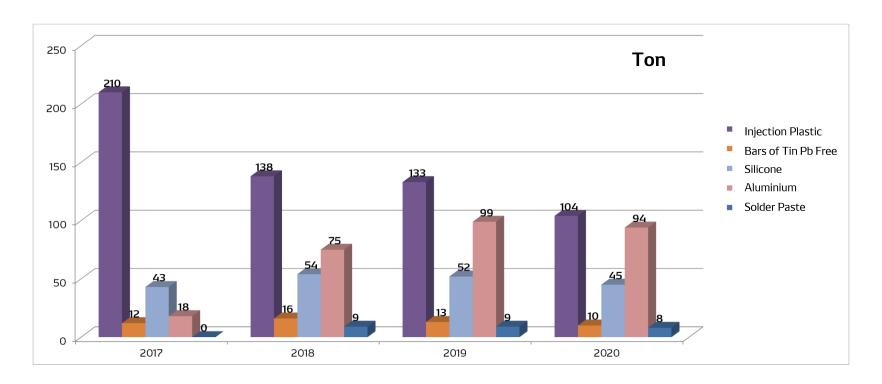


In 2020 we can see a lower gas consumption, which is mainly due to good energy management and the implementation of the new activated carbon filter system (zero gas consumption system) that replaces the Oxidative Thermal Reducer.



5.4 Raw Materials

The main raw materials used to manufacture the products in DNBA are the following:



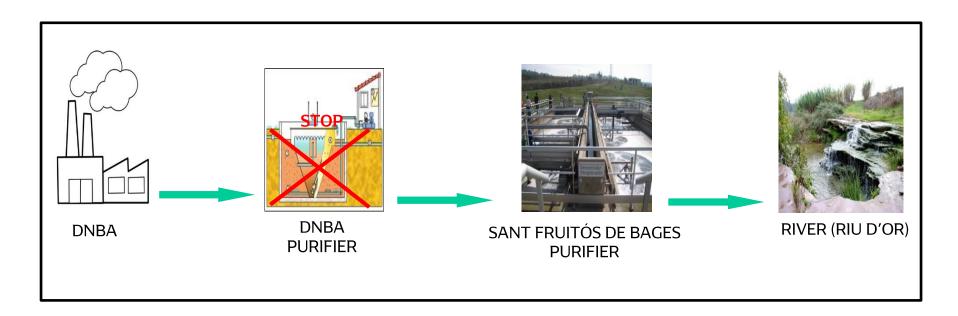
Smaller consumption in injected parts in DNBA used in making the odometers due to the fall in production caused by the COVID-19 pandemic and the efficient management of our resources (reduction of scrap) and by producing more parts of a lower weight (change of mix), we consume less plastic making more parts than previous years.



5.5 Wastewater

On 1 January 2014, the DENSO purifier was annulled, and the waste waters were sent directly into the wastewater 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. N° ABO REN 2018/075. If there are no changes in the disposal, this permit will be valid until 24 January 2024.



Despite the non-legal obligation to perform self-control analyses, in April 2019 DNBA carried out analyses that reflect the good quality of the discharged waste water, with results well below the legal limits:

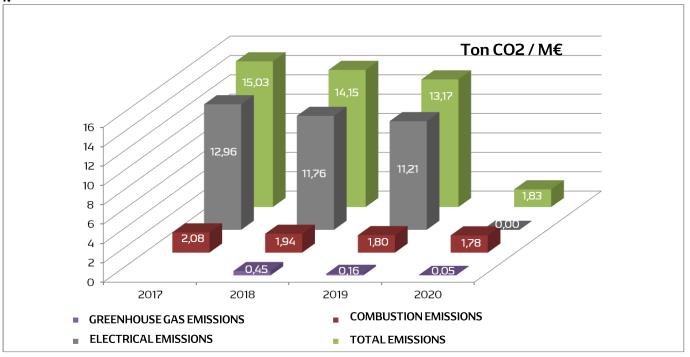
DETERMINATION	RESULT	REGULATION LIMITS		
рН	$8,7 \text{ upH} \pm 0,4 \text{ upH}$	6 upH - 10 upH		
Soluble salts	$765 \mu\text{S/cm} \pm 12 \mu\text{S/cm}$	6.000 μS/cm		
Chlorides	63,8 mg/l Cl	2.500 mg/l Cl		
Suspended materials	$103 \text{mg/l} \pm 15\%$	750 mg/l		
DQO not decanted	$248 \text{mg/l} \text{O2} \pm 15\%$	1.500 mg/l O2		
DQO not decanted 2h	173 mg/l O2 ± 15%	1.500 mg/l O2		
Inhibiting materials 15'	<4 ut ± 50%	25 ut		
Total phosphorus	9,4 mg/l P \pm 14%	50 mg/l P		
Kjeldahl nitrogen	$48,8 \text{mg/l N} \pm 11\%$	90 mg/l N		



5.6 Atmospheric emissions

5.6.1 Green house emissions effect (CO2 equivalent)

Below are the CO2 data in equivalent emissions (due to consumption of electricity, consumption of gas and leaks in equipment and facilities of refrigerant gases) according production.



- The emission factors used to transform the KWh of Electric Energy and the m³ of Natural Gas into Kg of CO₂ are 0.308 and 2.15 respectively.
 - The emission factors were obtained from the Government of Catalonia Climate Change Office in 2016.

In 2020, electrical energy consumption greenhouse effect emissions are 0. This result is thanks to the DNBA policy to be a CO_2 Neutral company, by buying only electrical energy produced from renewable sources.

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 $_x$).

DNBA has measured the atmospheric emissions to ensure regulatory compliance.

The mass flow of COV's emitted in the last analysis in 2020 was **0,33 Kg/h**, total **1710,7 Kg/year**.

The mass flow of Particles emitted in the last analysis in 2020 was **0,021 Kg/h**, total **107,3 Kg/year**.

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

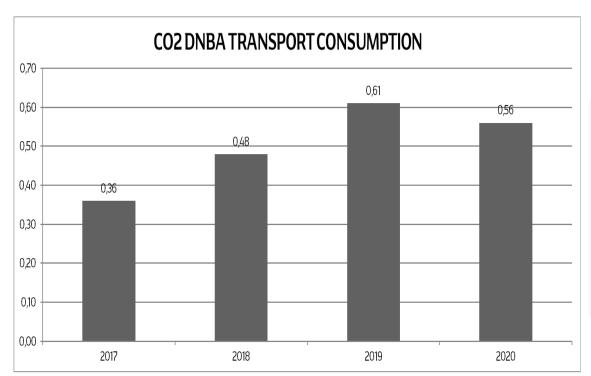




DNBA Boiler Room

5.6.3 Transport air emissions.

Every quarter, DNBA checks the CO₂ emissions produced by DNBA transport (basically suppliers in Catalonia).





In FY 2020 we can see a fall in pollutant emissions (CO_2 and NO_x). This is due to the incorporation of more efficient transport lorries.

The emissions factor is set by the DNBA group and is equivalent to 2.58Kg CO_2 /l (calculations following internal methodology).



5.7 Noise

DNBA regularly monitors noise levels and, from an environmental point of view, we will consider only exterior noise in this Statement.

In this case, DNBA's activity is carried out on the "Pla de Santa Anna" industrial estate. The applicable immission limit values are those corresponding to the acoustic map of the municipal area of Sant Fruitós de Bages.

The most critical area to evaluate is:

High acoustic sensitivity area (A):

A3 - Cabin located in a rural environment:

Point N° 1: Mas Casagemes:

- **57 dB** from 7h to 23h
- 47 dB from 23h to 7h.

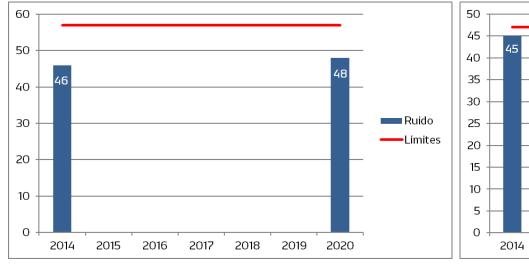


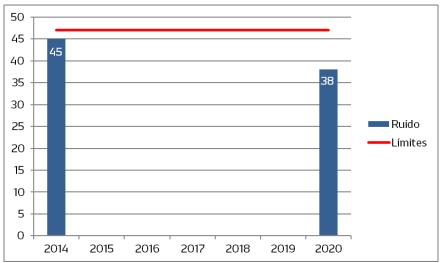
Comparing the results, with respect to the measurements of previous years, DNBA complies with these legal limits of the Sant Fruitós de Bages acoustic map:

A3 - Cabin located in a rural environment:

Noise values in dB (A) during the day (7h to 23h)







The noise received by the isolated cabin, Mas Casagemas, at night is seen to have decreased compared with previous years.

For some time, all new installations built in the DNBA roof sector (closer to the cabin) have been soundproofed.



5.8 Wastes

During FY 2020, in the process of production and auxiliary activities will produce about **1.118,30 Tons** of waste.

DENSO BARCELONA, S.A.U has the Wastes Productor code P 10335-1. The most representative forms are:

RESIDUO	CODIGO CER	TRAC.	2017		2018		2019		2020	
RESIDOO	CODIGO CER		tn	tn/M€	tn	tn/M€	tn	tn/M€	tn	tn/M€
Residuos Banales (CSR)	200199	T12	22,56	0,07	26,66	0,08	21,98	0,06	32,16	0,10
Papel y cartón	200101	V11	310,48	1,01	396,65	1,12	388,93	1,05	347,03	1,04
Madera	150103/200138	V15	136,10	0,44	182,12	0,52	264,53	0,71	186,43	0,56
Escorias Sn/Pb	100401/160303	V41	0,35	0,00	0,30	0,00	0,37	0,00	0,17	0,00
Escorias Sn/Ag	100809/160304	V41	4,55	0,02	5,34	0,02	5,85	0,02	5,13	0,02
Residuos Metálicos	200140/120103/160214/160216/120113	V41	105,77	0,34	206,20	0,58	150,69	0,41	97,13	0,29
Disolventes y otras sustancias orgánicas	140603	V21	2,94	0,01	3,99	0,01	3,11	0,01	2,24	0,01
Bidones y latas vacias	150110/160304	V51	10,30	0,00	9,56	0,03	8,60	0,02	8,43	0,03
Aceite Residual	130205	V22	0,36	0,00	0,45	0,00	0,00	0,00	0,54	0,00
Plástico	150103/200139	V12	287,56	0,97	367,60	1,04	466,12	1,26	407,34	1,22
Envases Ligeros	150105	V12	7,16	0,02	5,87	0,02	5,30	0,01	2,26	0,01
Absorventes contaminados	150202	T21	17,65	0,06	22,91	0,06	17,54	0,05	11,59	0,03
Líquidos acuosos que contienen sustancias peligrosas	161001	T31	4,29	0,01	5,17	0,01	5,24	0,01	3,88	0,01
Taladrinas	120109	T31	7,18	12,92	9,22	8,86	9,32	7,59	5,86	4,89
Silicona	080111	V21					5,82	0,02	8,11	0,02

The **effects of the COVID-19 pandemic** are reflected in the results of the waste produced.

A lower production implies a lower generation of waste, although at the same time, there is an increase in **Banal Waste related to COVID-19** (elimination of single-use masks, non-reuse of the ice bags generated, etc.).

Referring to **Plastic**, in designing and producing more complex products, more components are required and consequently more packaging waste is generated.

Of all the waste generated, **95.2% is reused** and only **4.8% is treated**. This 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 2020 the gross **Added Value** (difference between the amount produced and the material costs) has been **165,6 M€**.

BASIC INDICATOR	UNITS	FY 2017	FY 2018	FY 2019	FY 2020
Water.	m³/M€.	62	63	55	41
Energy Efficiency.	MWh produced with renewables/Mwh consumed.	0,03	0,03	0,06	0,06
	MWh/M€ Natural Gas.	32,05	31,29	25,72	23,98
Total Greenhouse Effect Gas Emissions.	Tn/M€.	34,72	33,07	27,85	3,59
Efficiency in the consumption of materials.	Tn/M€.	2,6	2,1	1,9	1,7
Total Waste.	Tn/M€.	6,9	8,5	7,8	6,8
Hazardous Waste.	Tn/M€.	0,4	0,4	0,3	0,2
Non-Hazardous Waste.	Tn/M€.	6,5	8,1	7,5	6,5
Waste intended for Re-use.	Tn/M€.	6,5	8,1	7,5	6,4
Waste intended for Treatment.	Tn/M€.	0,4	0,4	0,3	0,3
Total Emissions (COV).	Kg/M€.	3,1	2,9	5,8	10,3
Total Emissions (PST).	Kg/M€.	1,2	1,1	0,6	0,6
Biodiversity.	m²/M€.	346	316	267	279



6.1 Participation

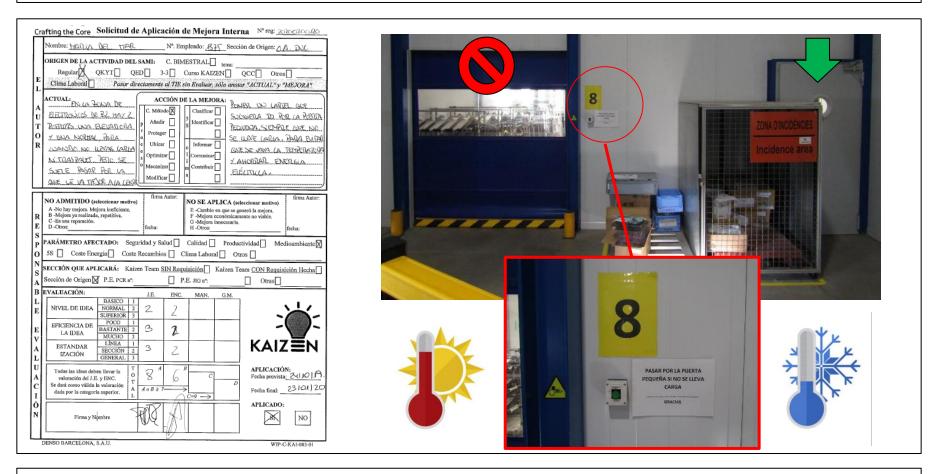
There are several tools to promotion the staff participation in development of environmental initiatives realized in DNBA. Below are some examples of communication channels used:

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 FY2020, a total of **13 environmental SAMIS and 8 energy efficiency SAMIS** were performed. We give an example of a SAMI carried out below:

Identification of the door to the electronics room.

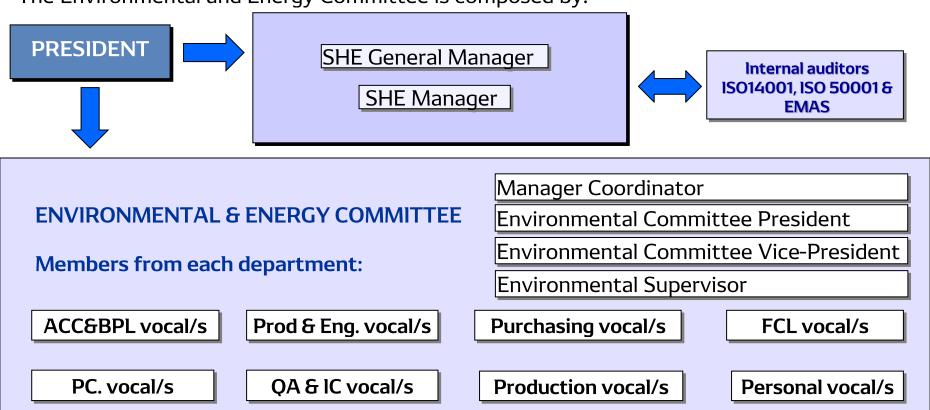


The aim of this SAMI is to save the energy required to keep the electronics room at the right temperature. By using the correct door, we avoid unnecessary drafts and rapid temperature loss in the room.



2. Environmental and Energy Committee

The Environmental and Energy Committee is composed by:



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 and Education

Although the situation by the COVID-19 pandemic, different communications and education actions were made in FY 2020 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), Weekly President Message, Monthly Bulletin, Denso Connection or videos played in the rest area. We give a few examples below:

DENSO

Crafting the Core





OLD RTO SYSTEM

NEW CARBON FILTER

DENSO CONNECTION

DNBA CONTRIBUTES TO CO2 & ENERGY REDUCTION

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
	Orden de 18 de octubre de 1976 de Prevención y corrección de la Contaminación Atmosférica.
Atmospharis amissions	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. 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 aquas.
Water	Ordenanza de Vertido de Aquas residuales de la Mancomunitat de Municipis del Bages pel sanejament.
	RD 3/2003 por el que se aprueba el texto refundido de la legislación de aquas en Cataluña.
	Decreto 93/99 de Procedimiento de Gestión de Residuos.
	Ley 22/2011 de Residuos y suelos contaminados.
Wastes	Decreto Ley 1/2009 por el cual se aprueba el texto refundido de la ley reguladora de residuos.
	RD 553/2020 Regulación del traslado de residuos en el interior del Territorio del Estado.
	Directiva 2008/98/EC sobre los residuos y por la que se derogan determinadas Directivas.
	RD 379/2001 sobre Reglamentación de almacenamiento de productos químicos peligrosos.
	RD 105/2010 que modifica el RD 379/2001.
Dangarous products	RD 551/2006 por el que se regula el transporte ADR.
	Reglamento CE 1272/2008 sobre Clasificación, etiquetado y envasado de sustancias y mezclas.
	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 reestricción de las sustancias y preparados químicos.
	Mapa Acústico de Sant Fruitós de Bages.
	Ley 20/2009 de Prevención i control ambiental de las actividades.
	Decreto 176/2009 por el que se aprueba el Reglamento de la Ley 16/2002, de protección contra la contaminación acústica, y se
Noise and vibration	adaptan sus anexos.
	Decreto 60/2015 sobre las entidades colaboradoras de medioambiente.
	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
Light pollution	complementarias.
	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.
Environmental License	Ley de Intervención Integral de la Administración Ambiental (IIAA).
	Ley 20/2009 de Prevención i control ambiental de las actividades.
	Ley de Intervención Integral de la Administración Ambiental (IIAA).
	Ley 20/2009 de Prevención i control ambiental de las actividades.
Energy Efficiency	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.
	uei suminisu v ue energia.



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 2022, the data related to the period April 2021 - March 2022 will be included. The verified version of this document is the English one. It had a one-year validity from the verification date. This statement hasn't got any value if this isn't validated by an accredited entity.

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











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

DENSO EUROPE: https://www.denso.com/es/es/about-us/company-information/dnba/

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







DENSO

Global supplier of automotive technology, systems and components.