FUNVISA

CASTING YOUR IDEAS

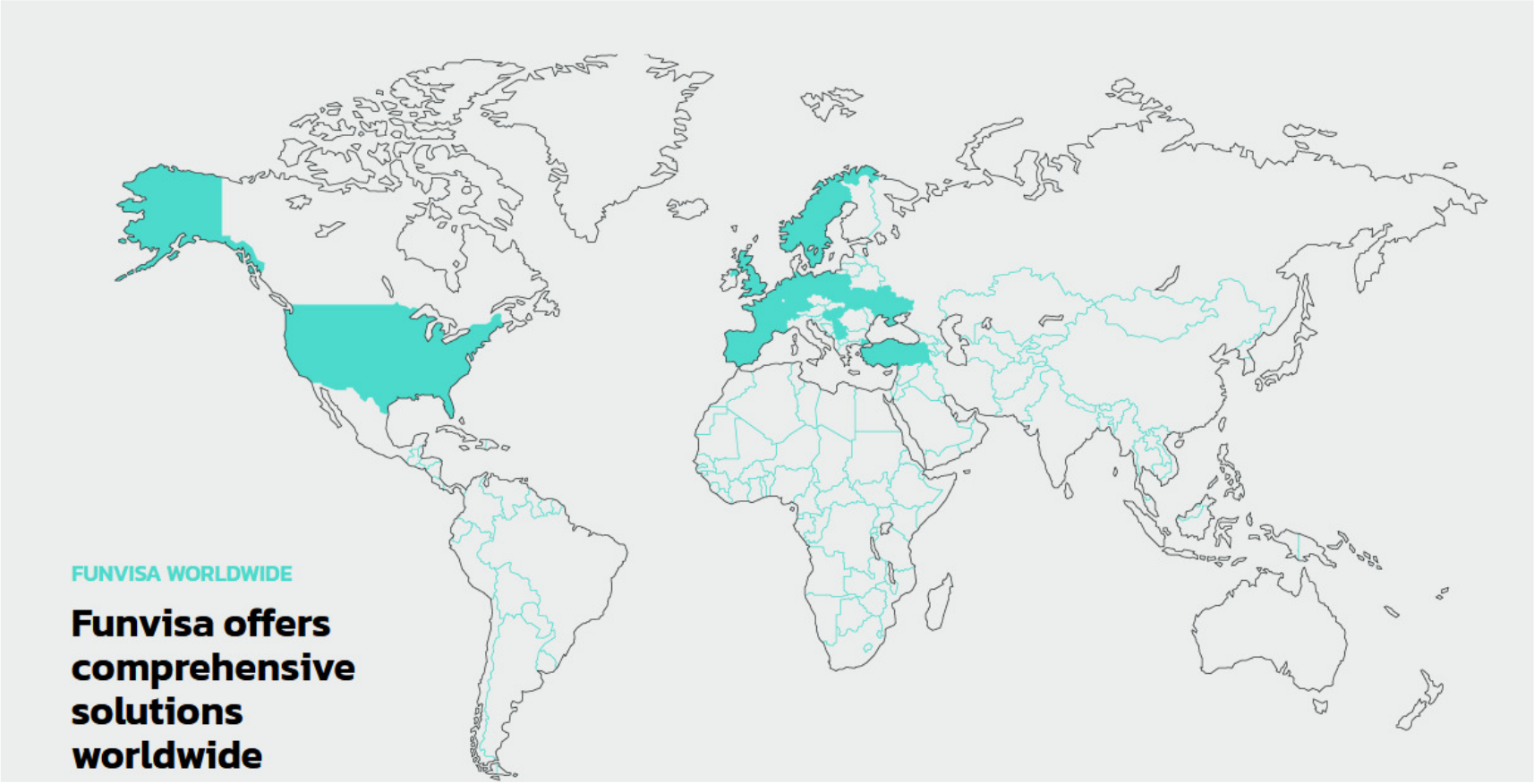
Aluminium High –pressure die casting solutions

About us

Established in 1976, we have been providing high quality products and services for over 45 years.
e manufacture parts , from 5 g to 10 Kg in different Alloys of Aluminum and Brass. Our main aim is to provide our clients with defect free high pression die casting and machined components at globally competitive prices and with on-time delivery.

Funvisa are experts in Aluminum and Brass high-pressure die-casting. We use our years of experience to help achieve and deliver the perfect aluminum casting. We apply all our know-how throughout the component life cycle; from design to casting and machining, then through the final finishing processes, all of which results in a component that exceeds all expectations and specifications.

Funvisa worldwide



HISTORY

Funvisa began in 1976 in small shared premises with only two die cast presses, since then it has continually grown to become one of the leaders in the aluminium die-casting sector. Through careful investment and planning the company has outgrown three of it´s previous homes and in 2016 Funvisa finalized it´s move to a new hi-tech facility in the heart of the Basque industrial landscape. Today Funvisa counts upon 80 highly qualified staff, 15 automated die-casting cells, 10 CNC machining cells and 3 central furnaces. The Headquarters factory has 10.000 sqm dedicated to production and about 1.000 sqm for administrative and technical related services.

We believe in honesty, integrity and respect

VISION

To be a recognised industry leader in the aluminium die cast and machined component sector

MISSION

To build long term relationships with our customers providing stability, flexibility and profitability through clear communication and continuous improvement.

VALUES

A family enterprise which bases its business relationships on honesty, integrity and respect.

Attain growth through creativity and innovation; evolving our own, and our customers, processes and products.

Forge strong relationships with 3rd party suppliers who provide complementary services which enhance the final delivered product.

We manufacture the best solution keeping in mind the needs of our clients

CUSTOMER FOCUS

"Adaptability and flexibility whilst addressing the needs of our customers"

- Dedicated approach to quality, evident in everything we do
- Ensure all involved parties have the same motivation and goals
- Implement contingency measures to guarantee on time delivery
- Offer fully finished product through own and strategic partner's technical process capabilities

CONTINUAL IMPROVEMENT & OPTIMISATION

"Economic efficiencies through smart design and manufacture"

- Using Kaizen methodology, we strive to optimise all processes
- Maintain steady growth and mitigate risks
- All processes are frequently reviewed and appraised
- Quality control throughout full product cycle
- Weekly operations meetings means rapid resolution of any critical issues
- Scheduled preventive maintenance

DIRECT COMMUNICATION

"Transparent, two-way information exchange"

- Aim to ensure an informed, timely and clear flow of communication
- Aligned interests and knowledge sharing is key to product improvement & understanding our customers' needs
- Information flow ensures that all parties are always aware of any occurrences
- Dedicated commercial manager to give customer service throughout all processes

Quality

Smart Factory 4.0: innovation, digital transformation & quality for the future, now
The entire process, interconnected

Funvisa has been digitally transformed with MAPEX's MES system. All production steps are interconnected, eliminating all paper, reducing costs and increasing quality in production. From any workstation you can access to all project information: plans, defect catalogue, control guidelines, production data, etc.

EFFICIENCY

Improved quality of the final product, optimization and increase in productivity, with reliable and real-time data.

SECURITY

Greater control over traceability and production, improvement in incident monitoring and satisfaction in compliance with quality regulations.

SUSTAINABILITY

Reduction of operational costs, waste and reprocessing, reduction of energy consumption and 100% elimination of paper.

https://youtu.be/6Ral7udOeLw

QUALITY SYSTEMS

We are ISO9001: 2015 certification, proving our commitment to quality. Not only do we pressure ourselves to improve quality and to be certified but also all of our key partners and sub-suppliers are certified too, this ensures no weak links in our manufacturing chain.

We are also investing resources in the implementation of Kaizen philosophy to improve our working environment and to optimize all of our processes. Small incremented steps making everything we do a little bit better; every year both Funvisa and it´s clients will reap the benefits.

We are also **SO 14001 :2015** Certified **.**

IATF 16949 planned for **2025**

The production cycle is supervised by the individual machine operators and section team leaders as well as a software data capture system. This system is integrated in the Quality department to check and verify all control plan.

Strict Quality Policy

We feel that quality is the key to success in our sector. For this reason we pursue a strict quality policy which is based on the principle of “zero complaints”. For long term relationships with our clients defect free manufacturing is a must. Quality is the most important aspect of our work, our components must be cast, processed, machined and finished to the most rigorous specifications.

Capacity

Our Melting & Die casting Technology

Funvisa has a vast experience in different Alloys and material types and hugh melting capacity with 3 Central melting Furnaces with a total capacity of 4.500 Kg/hour.

We have 13 Fully automated casting and trimming cells. High Pressure die casting presses from 200 to 1350 T.

Automatization

Our machining Technology

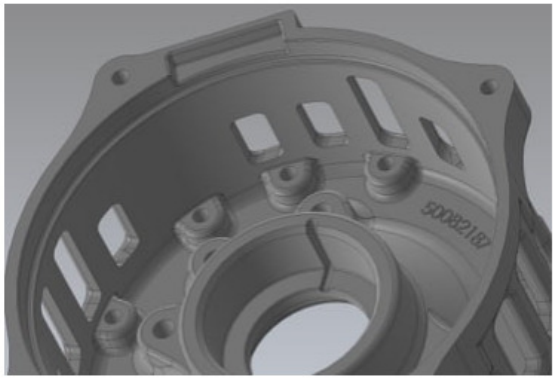
We have a dedicated area for machining in our fully automated CNC machining cells, various component specific turnkey transfer stations and other auxiliar machinery.

Equipment

3	MELTING	
	Central melting furnace MINIMELTER-0,5 -1000 --> 500 Kg/h	1
	Central melting furnace FADB-0,75-1600 --> 750 Kg/h	1
	Central melting furnace FADB-1-2000 --> 1500 Kg/h	1
	Total melting production /hour : 2750 Kg	
	Total melting production /day : 66.000 Kg	
	Total melting production /year : 14850000 Kg	
14	CASTING	
	Automatized cells : Press +trimming+robot.	
1	IDRA 200 TNS	
1	OMS 250 TNS	
1	COLOSIO 560 TNS	
1	STP DGK 400 TNS	
1	STP DGK 500 TNS	
1	STP DGK 602 TNS	
2	ITALPRESSE 750 TNS	
1	IDRA DGK 802 TNS	
3	STP DGK 900 TNS	
1	STP DGK 1200 TNS	
1	OMS 1400 TNS	
	SHOOTBLASTING	
	OMSG . Tumble & drum Shot Blaster	3
	Hook Shot Blaster	2

19	MACHINING	
8	High Speed Machining centers 4 axis. Fully automatized	8
2	High Speed Machining centers 5 axis. Fully automatized	2
8	CNC lathes. Fully autoatized	8
1	Horizontal pallet changing CNC	1
	Other equipment	
	SURFACE FINISHING	
	Automatized robotic grinding, de-burring & polishing cells	3
	Grinding stations	6
	OTHER EQUIPMENT	
	Drilling stations	3
	Cleaning Machines	2
	Pneumatic tapping machines	4
	Tool maintenace workshop	1
	Other equipment	

Technologies

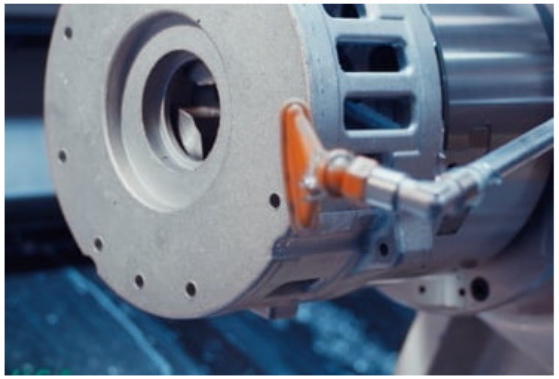


DESIGN

Components, prototypes, die moulds, simulations & production processes.

CASTING

180 to 1400 tonne high pressure die casting machines with automated pressing & trimming.



MACHINING

CNC stations: Drilling, milling, planing, punching & cutting.

Technologies

FINISHING

Grinding, shot blasting, trovalising (vibratory drum), filing, sanding & polishing, (subcontracted: Powder coat, paint, KTL & electroplate...).

ASSEMBLIES

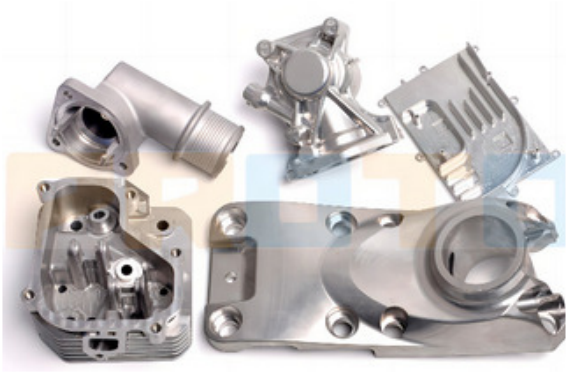
The production facility is dedicated exclusively to the manufacture and finishing of components, once the process has finished, final inspection and release to the storage facility occurs.

LOGISTICS

All stock is fully accountable and traceable through all process steps.

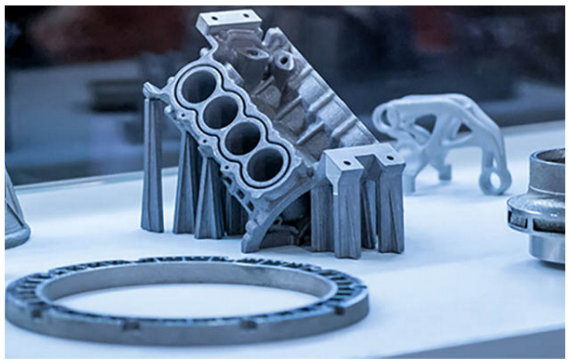
Technologies

PROTOTYPING BY MACHINING



Rapid prototyping rapidly creates a mechanical part from your CAD files using a variety of machining techniques. Rapid prototyping can be used at any stage of the product research and development cycle for any metal or plastic component. Rapid prototyping allows engineers to verify the appearance and performance of parts until they are satisfied.

ADDITIVE MANUFACTURING



Smart manufacturing has revolutionised the industrial landscape by seamlessly integrating digital technologies, automation and data-driven processes to optimise production systems. Rapid prototyping and additive manufacturing have emerged as key components of smart manufacturing, facilitating the efficient and cost-effective production of intricate, customised parts with enhanced functionality.

Other Technologies

Die Casting by gravity

Shell

The casting of molten metal into a mold and its solidification by its own weight, hence the name "gravity casting", is one of the most common casting techniques. Gravity die casting, also known as investment casting, makes it possible to produce short or long series of parts, in different alloys, with optimum quality and short set-up times. This method offers several advantages: speed in the manufacture of the mould, the possibility of using different alloys and the possibility of producing short series of parts at a lower cost.

Sand

This type of casting method creates a sand mould, into which the molten metal is then poured. When the metal finishes the cooling process, the outer mould will break. The sand can be reused to create another mould, whereas a mould can only be used once.Sand casting is widely used to cast large metal parts, and the lower cost is the advantage of mass casting.

Smart die casting design

In house design together with our partners, maximizing productivity, minimizing rejections and secondary operations

Advanced software and maintenance workshop, extending the life of tools

Our partner facilities can manufacture dies suitable for up to 1400 – ton die casting machines

https://youtu.be/izuvUMjbtMI

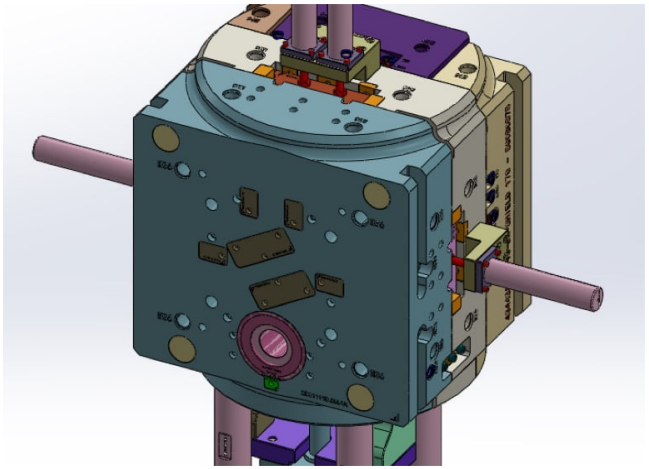
Smart die casting design

Design

Our technical team will collaborate with your own team for feedback on component design and possible improvements for casting & machining which normally leads to cost efficiencies. For tool design we complement our external partners tool design expertise so that the die cast mould is capable of producing the perfect cast part.
Pre-Design (in house)

By involving us in your component design process at the earliest stage, we can give you our feedback on ways to make them easier to manufacture, and most probably reducing the time/cost spent on each part.

Once the component is optimised, we then begin the process of tool design with our key partners, making sure that the flow of material into the mould cavity is calculated to minimise any mis-runs and/or cold flow which can lead to increased porosity levels.



Die Casting

We manufacture precision components in Aluminum, Brass & other alloys.
Maximum size: ~1000 mm / 10 Kg

Getting strict quality requirements and accurate dimensions

Convenient for thin-walls components and complex shapes

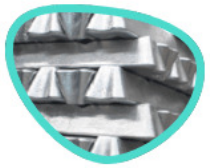
Mass production for small and medium series specialized

https://youtu.be/dXEryoz9OH0

Die Casting

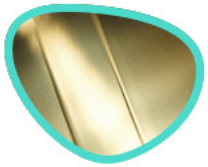
Funvisa can manufacture components according to Al alloys under UNE-EN 1706:2020

Synopsis of the alloy properties, as well as the different die cast alloy compositions we use:



ALUMINIUM
44300 · 46000 · 46100 · 46500 · 47100

- High operating temperatures
- Outstanding corrosion resistance
- Lightweight
- Low cost raw material
- Very good strength and hardness
- Good stiffness and strength-to-weight ratio
- Excellent EMI and RFI shielding properties
- Excellent thermal conductivity
- High electrical conductivity
- Full recyclability
- Great heat dissipating properties
- Aluminum die cast "thin wall" components still possess good stability and strength



BRASS
CUZN39PB1AL-B
CUZN27MN3AL2

- High strength and hardness
- Easily machined
- Attractive aesthetic properties; can be produced in a range of natural colours
- Highly malleability and ductility
- Excellent electrical conductivity
- High thermal conductivity
- High durability and corrosion resistance
- Excellent thin wall capability
- Great acoustic properties (musical instruments)

CNC Machining

Full automated machining cells with robots

Stable production baches minimizing the cycles

Small and medium series. Polyvalent machining centres

Robotic automated cell machining is an advanced manufacturing technique that combines robotic automation with part machining to increase production efficiency and accuracy. This is achieved by using industrial robots programmed to perform specific tasks on a production line or work cell.

https://youtu.be/Rkwh5FHL9RQ

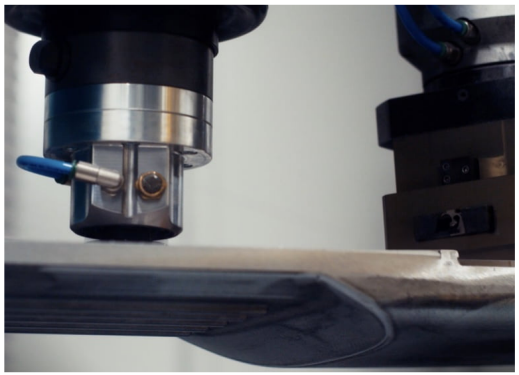
Surface finishing

Full automated grinding cells with robots

Same finished guarantee in every batch

Other operations as cuttings in the same cycle time

Polishing – Scotch, grained, matt & gloss finishes
Powder Coat Painting – Good anti-corrosive characteristics & fine aesthetics
Galvanisation – Chrome & Nickel plating; leads to high end finishes
KTL – Very good anti-corrosive properties whilst maintaining tight tolerance



https://youtu.be/dgQoFKpPV-I

Assemblies

Increased strength and durability

Increased accuracy and repeatability

Design versatility

At Funvisa we work so that the recipient reduces the time taken to assemble the products. We understand that it is important for companies to allocate as little time as possible to assembling parts, which is why we provide you with a strategic organization of parts so that everything is developed quickly and focused on cost savings.

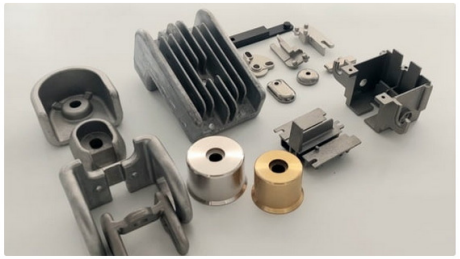
Insert assembly in aluminium injection moulding is a process in which metal parts or inserts are incorporated into an aluminium casting during the injection moulding process. This process is commonly used in the manufacture of aluminium parts that require the integration of elements such as screws, nuts, bolts or other metal components.

OEM MARKETS. Mobility Solutions.

Business Units

ENERGY APPLICATIONS

Energy management and generation are crucial aspects of our modern society



E-DRIVE & MOBILITY APPLICATIONS

Funvisa has created this business unit exclusively dedicated to the manufacture of components for electric motors & mobility

LIGHTING APPLICATIONS

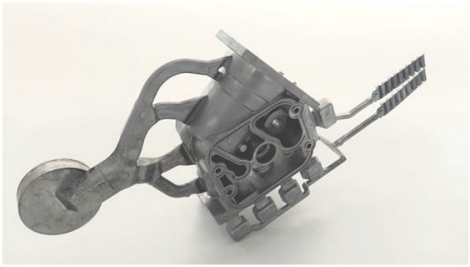
Funvisa manufacture key components to collaborate with the sustainability with our main lighting customers

CONNECTIVITY & ROBOTICS APPLICATIONS

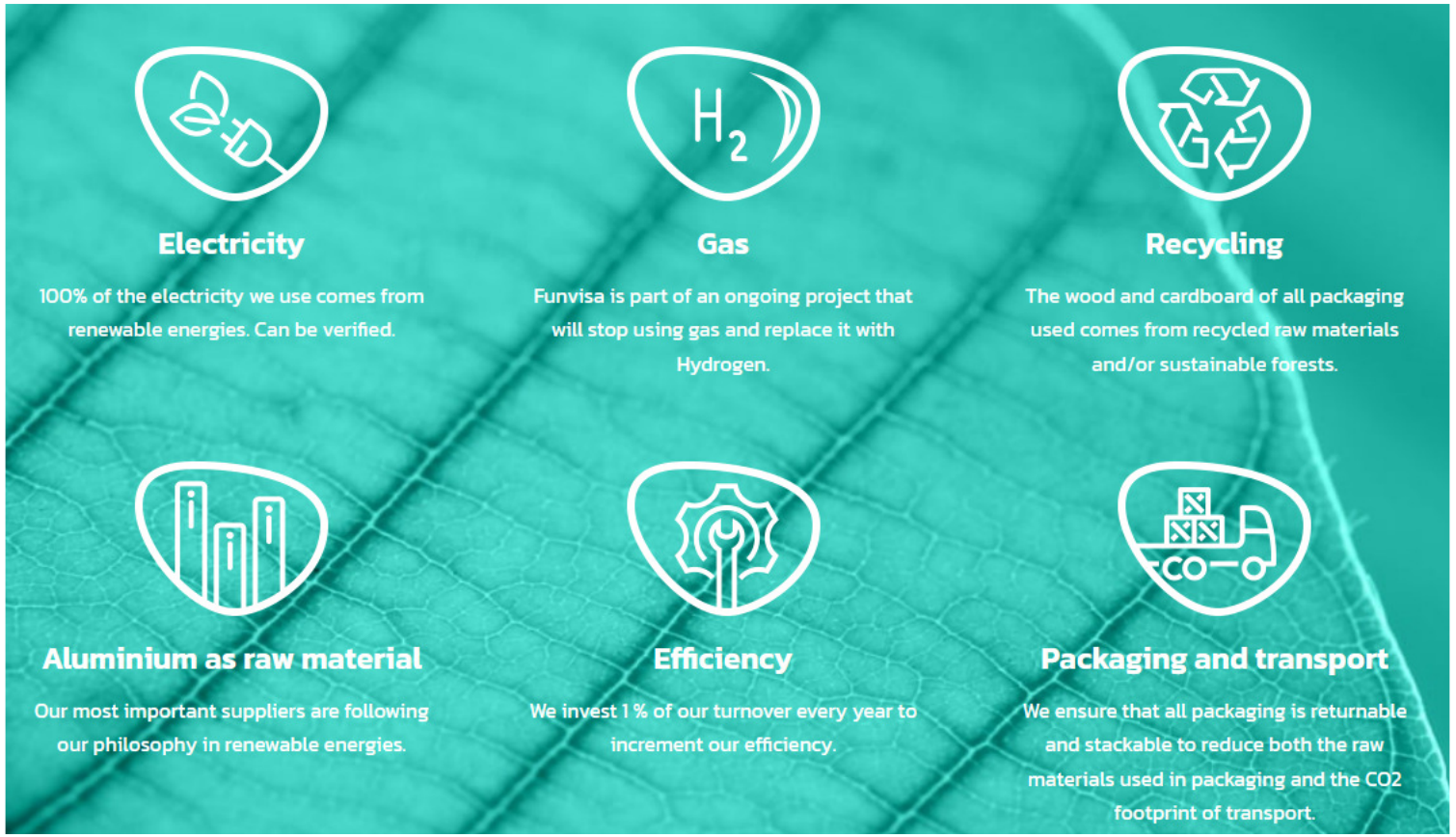
Our connectivity division includes the manufacture of components for security systems such as cameras and data transmission Systems and Robots.

INDUSTRIAL APPLICATIONS

In this business unit we include the other sectors that Funvisa supplies and collaborates with

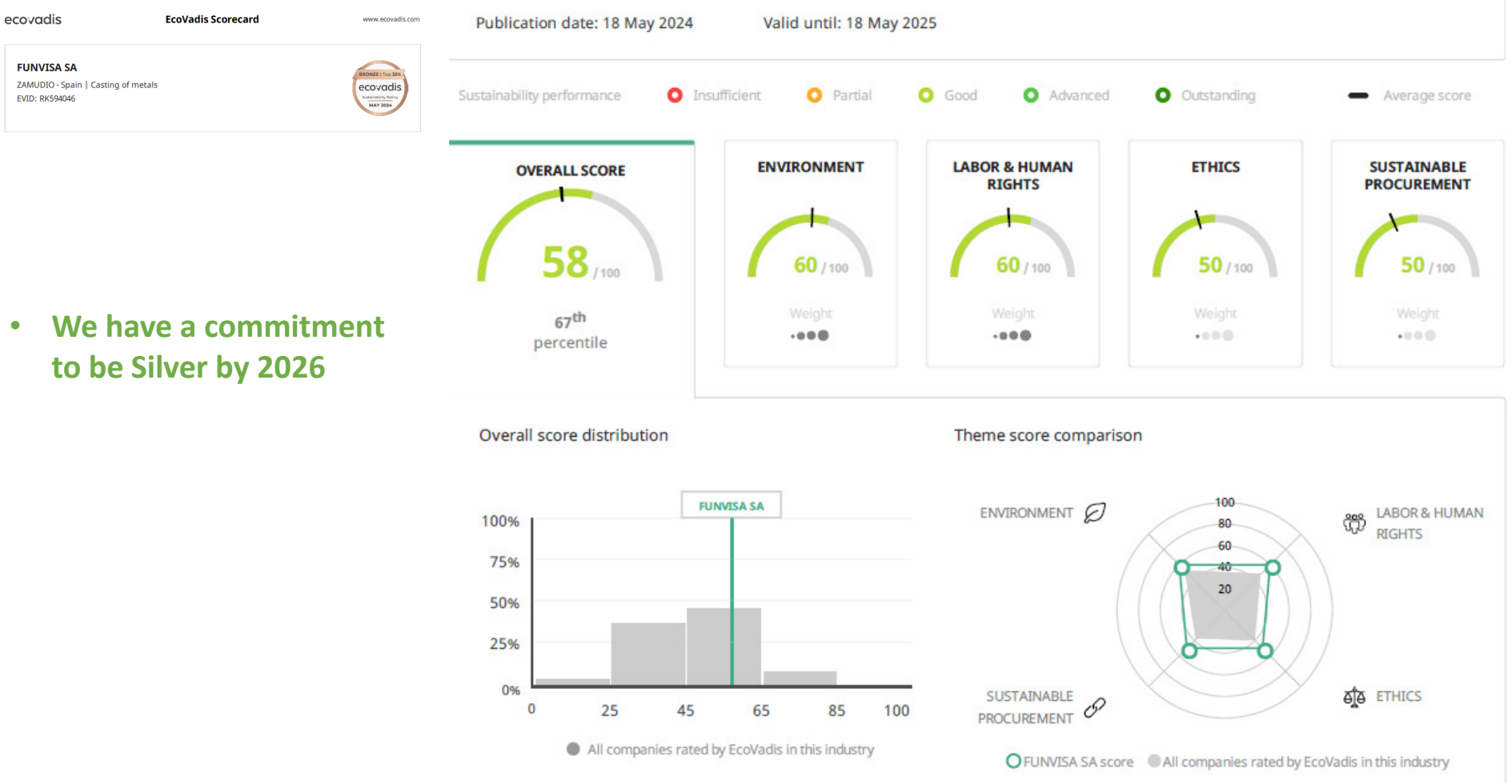


Sustainability



Our commitment to industrial sustainability involves the use of renewable energies, control of energy consumption as well as optimization of our production, managing the use of our resources in the most efficient way and trying to minimize waste.

SUSTAINABILITY



- **We have a commitment to be Silver by 2026**

SUSTAINABILITY

- **$C0_2$**
  - Transport
  - Compensation
  - Electricity
  - Emisions
  - Fuel
  - Gas
  - Recicling
  - Waste

0,67

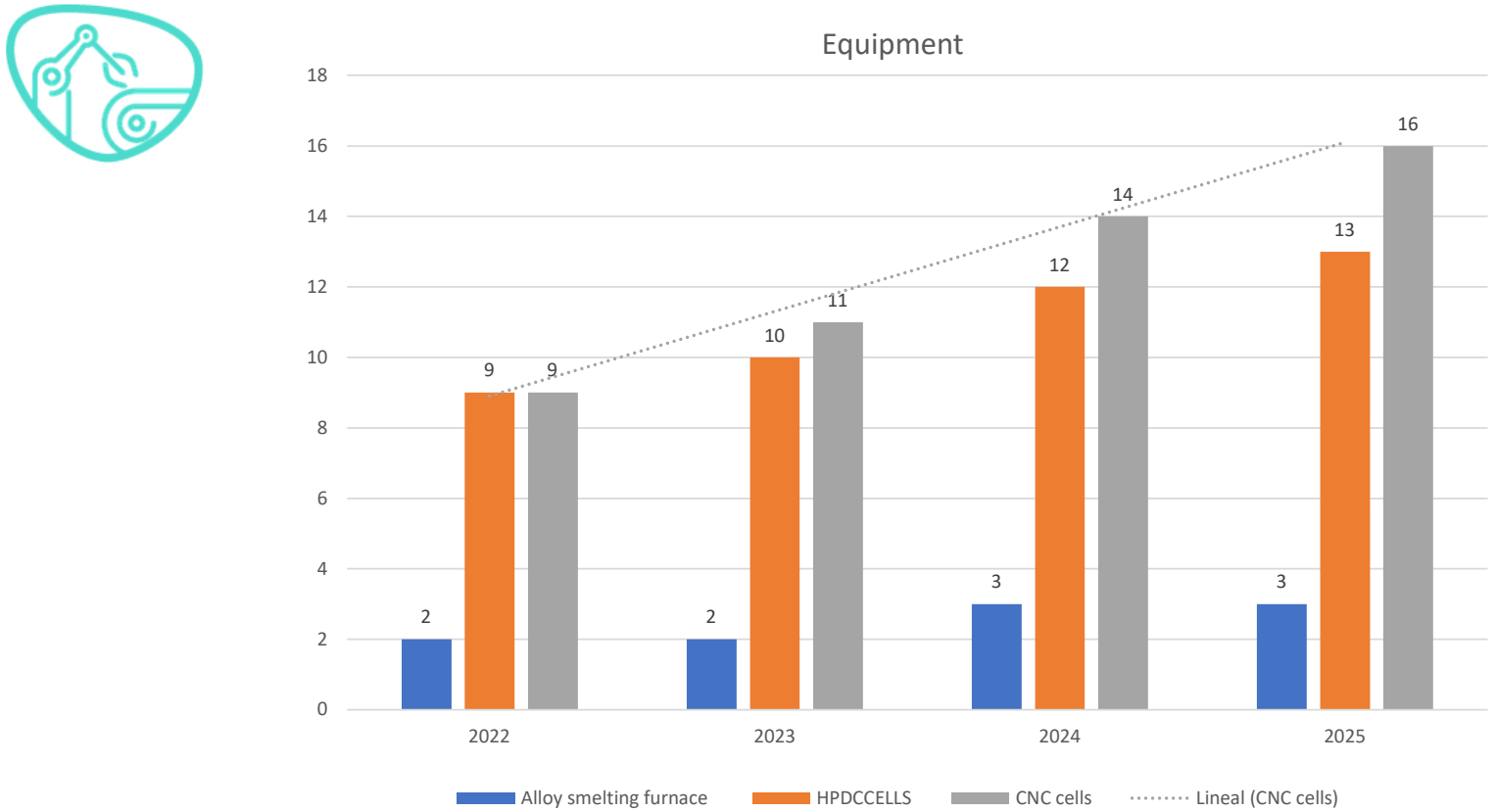
Tn /$CO_{2\ eq}$ per Tn Al year 2023

Funvisa has reduced its $C0_2$ footprint by 35% since we started using electricity from 100% renewable energies.

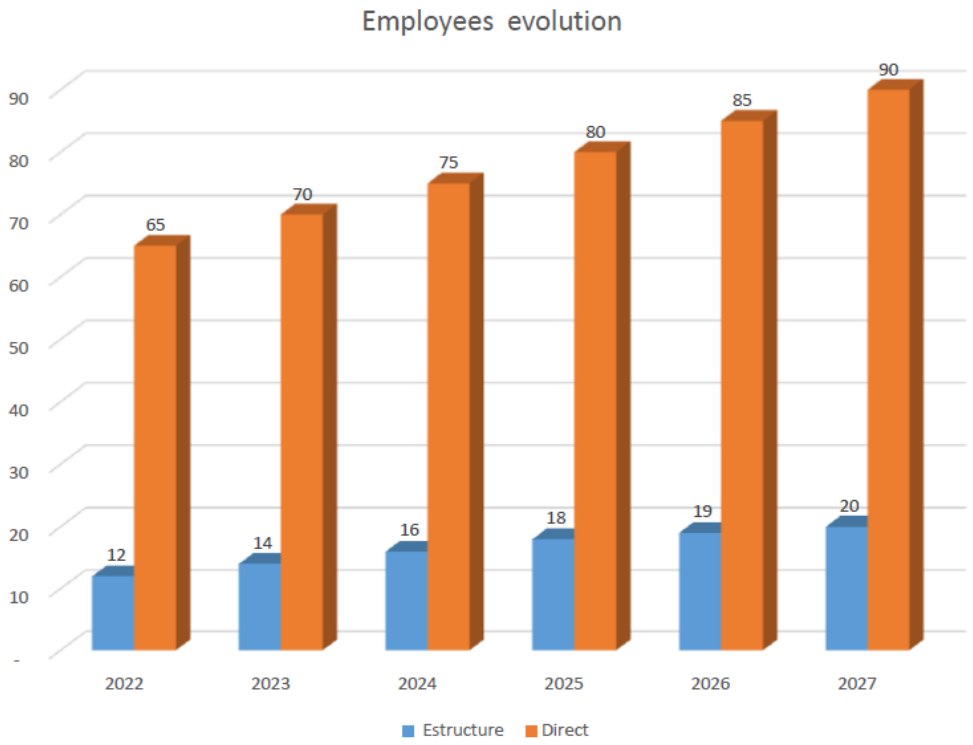
SUSTAINABILITY

These are the Goals selected by FUNVISA, setting targets , setting actions .
All in order to align these goals with the UN's 2030 agenda.

GROWTH & STRATEGY



GROWTH & STRATEGY



GROWTH & STRATEGY

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