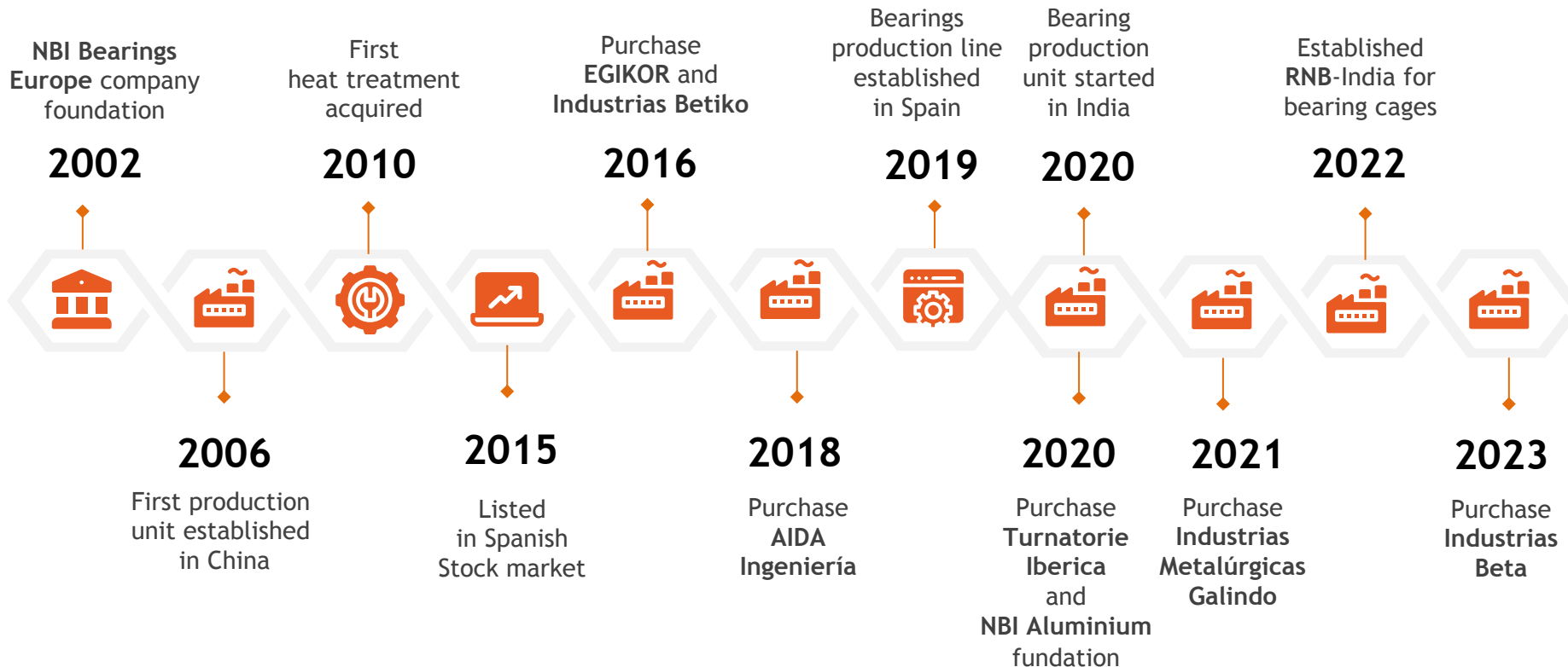


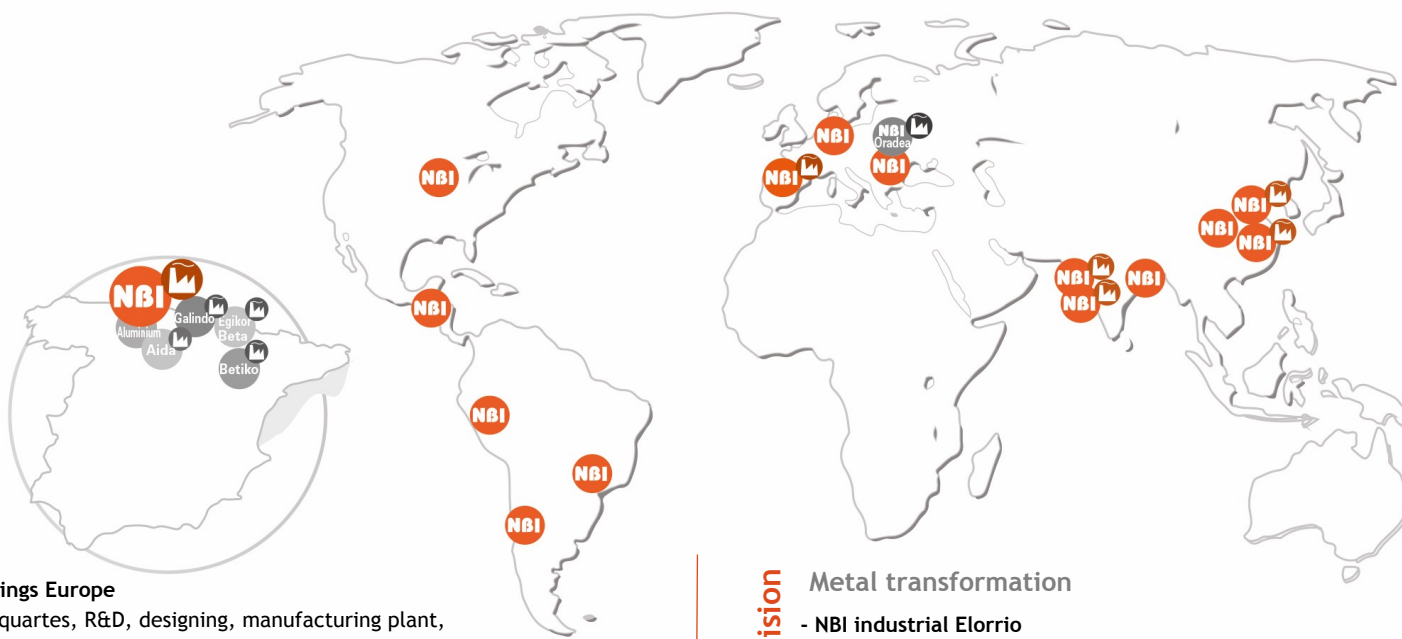
## NBI industrial Elorrio



Bearings - Metal transformation - Aluminium injection and machining







## ■ Bearings division

- **NBI Bearings Europe**  
NBI headquarter, R&D, designing, manufacturing plant, warehouse and sales office in Oquendo (Spain).
- **NBI Bearings Romania**  
Application engineering and sales office in Bucharest (Romania).
- **Local sales support**  
in Brazil, Mexico, Chile, Peru, USA and Germany.
- **NBI India**  
Manufacturing plant and warehouse in Ahmedabad and sales office in Kolkata (India).
- **RNB Components**  
Manufacturing plant of bearings steel cages and other auxiliary components in Rajkot (India).
- **Cronos**  
Manufacturing plant warehouse and sales office in Wujin (China). Strategic partnership.
- **Wafandieng SQA**  
Laboratories in Wafandieng (China).
- **Jerry bearings transmission technology**  
Roller manufacturing plant in Zhejiang (China). Strategic partnership.

## ■ Industrial division

### Metal transformation

- **NBI industrial Elorrio**  
Technical office and metal stamping plant in Elorrio (Spain).
- **NBI industrial Aida**  
Technical office and boiler-making plant in Artea (Spain).
- **NBI industrial Betiko**  
Technical office and multi-spindle machining plant in Bergara (Spain).
- **NBI Aerospace Galindo**  
Technical office and precision machining plant in Mungia (Spain).

### Aluminium injection and machining

- **NBI industrial Oradea**  
Technical office and aluminium components' plant (HPDC) in Oradea (Romania).
- **NBI Aluminium**  
Technical and sales office of aluminium injection and machining in Oquendo (Spain).

## General information

**Activity** Production of metal components by cold stamping and assembly, using materials such as high tensile steel, stainless steel and copper.

**Production and warehouse:** 5.000 m<sup>2</sup>

**Working Force** 70 employees

**Turnover** 18,5 M€



## Elevation industry

Large-scale reinforcements, assembled sets, visible parts with powder paint, stainless steel parts.

## Automotive industry

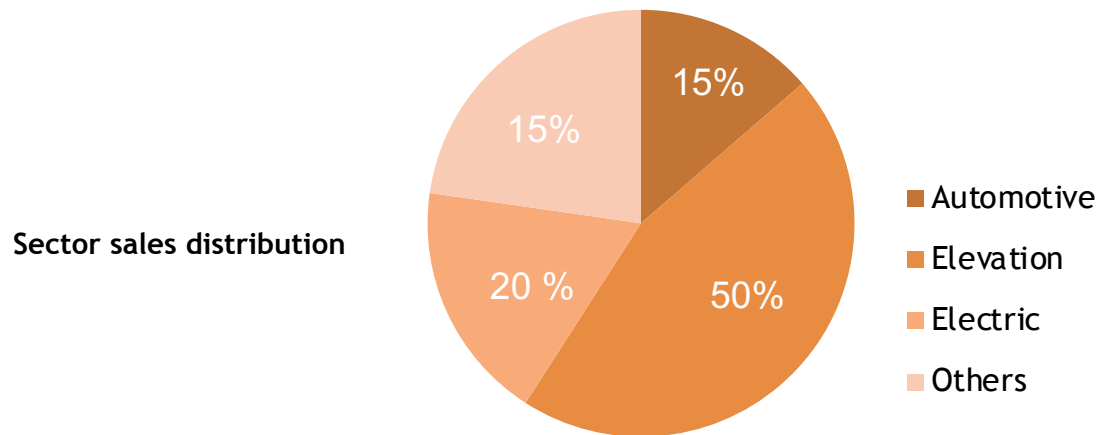
All kinds of hinges, inserts, shock-absorber covers, bushings.

## Electric industry

Copper bending and stamping. Vast knowledge of copper processing means we can perform new bending and stamping operations, reducing the amount of raw material necessary, and thereby lowering manufacturing costs.

## Other industries

Components and sets used in industries such as storage, capital goods, furniture.



## Cold stamping machinery

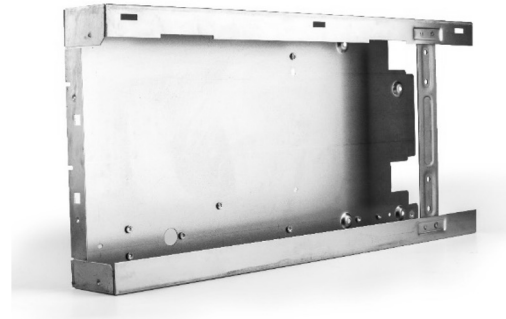
Power	Nº	Bed		Feeder	
		length (mm)	width (mm)	thickness (mm)	coil width (mm)
630 TN	1	3.200	1.500	0,8 --> 6	1.000
400 TN	3	3.000	1.200	0,8 --> 6	650
315 TN	1	1.300	1.030	Manual	
250 TN	1	2.400	900	0,6 --> 8	600
250 TN	1	1.500	1.000	0,8 --> 6	400
250 TN	3	1.450	750	0,8 --> 6	400
160 TN	5	1.300	800	0,3 --> 4	300
(60 TN --> 250 TN)	15	Manual			



We manufacture small and large sets, assembling everything from simple nuts and bolts to complex sets made of several different components.

Used Techniques :

- Resistance welding.
- Fill-material welding: MIG / MAG / CO2
- Inserting nuts, screws, rivets, embedded elements, hemming...



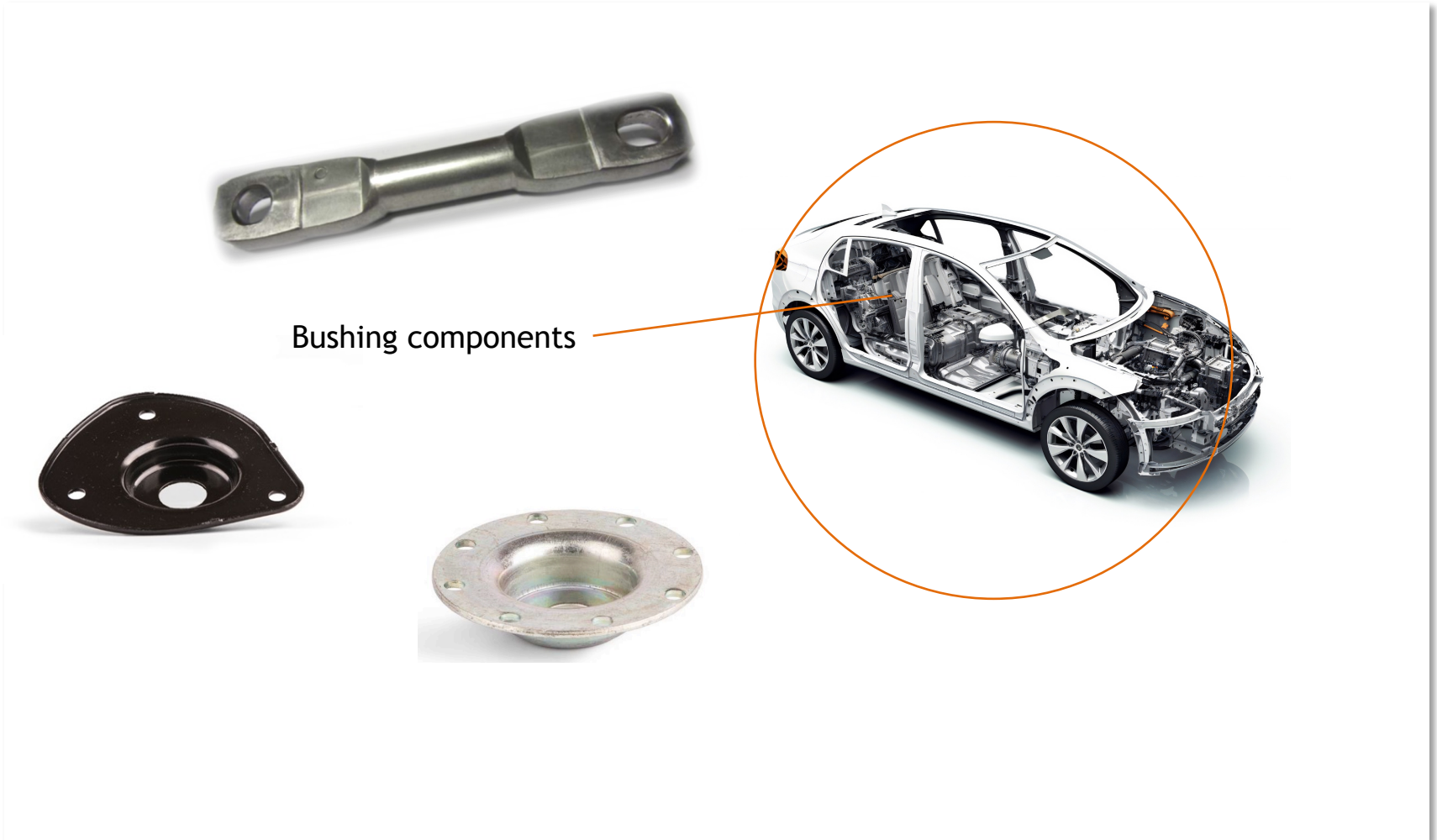
Commonly used treatments:

- Cathaphoresis
- Zinc and zinc alloys
- Zinc - Nickel
- Powder paint
- Silver plating





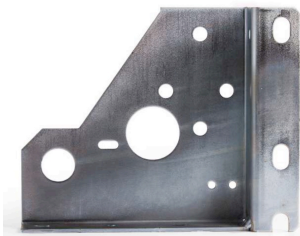
Automotive sector



Elevation sector



Door operator system components



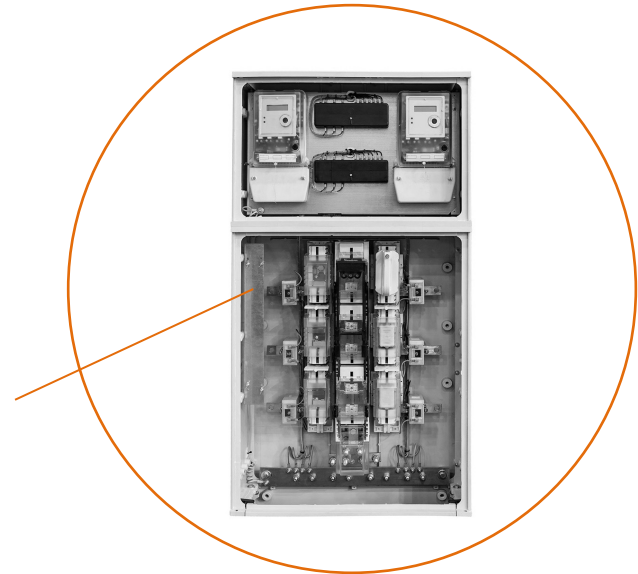
Structure components



Electrical sector



Low Voltage distribution panels



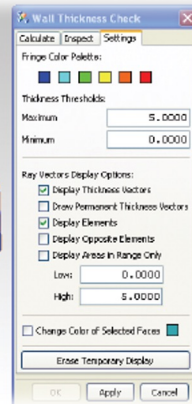
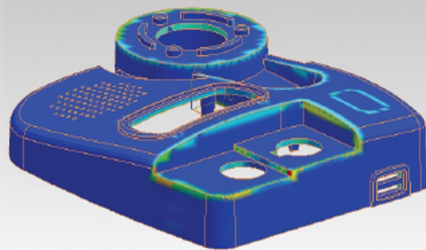




## RFQ main activities

- Technical feasibility analysis (simulation if necessary)
- Production capacity verification
- Quotation submission (CBD)

NBI Industrial Oradea												
OFFER SOTUR2200172												
Date:		Company:		Date:		Year ref:		RND BRASS PEDAL LEVER (PART) 080175.00				
Drawn:		Email:										
Drawing N.	Description	Actual quantity	Material	Material (Kt/Kg)	Net weight (kg)	Len (m)	Gross weight (kg)	Material cost (EUR)	Size (mm)	Priority (EUR)	Actual value (EUR)	Part price (EUR)
Testing: <ul style="list-style-type: none"> <li>- Model 2 cavities: 0.0000</li> <li>- Tooling test 2 cavities: 0.0000</li> <li>- Tooling payment terms: 30% with purchase order, 30% with sample delivery, 30% with homologation</li> </ul>												
Description:		BAP Part 02		Lead time:		28 weeks for first off tool & off process parts						
Entry date:		00 may 22		Remarks:		See project conditions in page 2.						
Payment terms:		00 days										



CBD/Quotation example



## Product & Process Design main activities

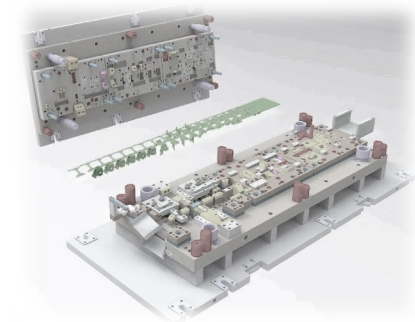
- Project team kick-off (project manager, quality, customer service, technical coordinator)
- Project plan definition. APQP launching
- Detailed technical analysis: simulations, process, tooling design
- Tooling Design freeze / PFMEA / Control plan



Kick-off check list

Task	Start	End	Priority	Assignee	Remarks
1. Make PC board	Nov	Nov			
2. Make PC boards validation by NBI	Nov	Nov			
3. PC to supplier	Nov	Nov			
4. 3D release	Nov	Nov			
5. Injection Die-cast approval	Nov	Nov			
6. Tooling design review - simulation	Nov	Nov			
7. Tooling design approval	Nov	Nov			
8. BOM approval and purchase components and material required	Nov	Nov			
9. 100% design approval	Nov	Nov			
10. Tool manufacturing & shipment	Nov	Nov			

Project plan timing



Process & Tool design validation



## Manufacturing main activities

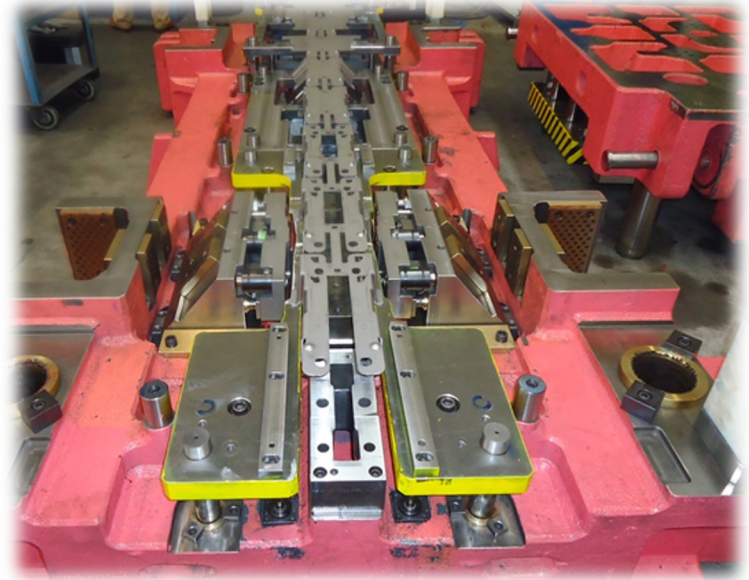
- Tooling sub-suppliers nomination
- Tooling manufacturing outsourcing
- Tooling buy-off at supplier (static & dynamic)
- Plant readiness preparation





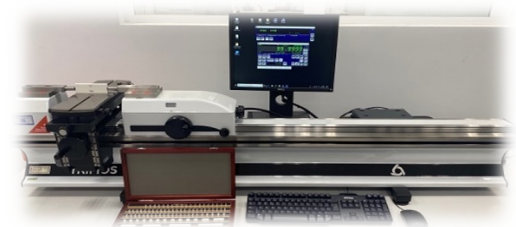
## Industrialization main activities

- Tooling shipment to NBI Plant
- Process set up parameters
- PPAP approval
- OTOP samples production





In-house metallographic, metrology and other tests laboratories equipped with the latest technology. Strategic partnership with some of the most advanced Spanish technological centers: CEIT and Tekniker. These fully equipped laboratories are shared by the application engineering, design, R&D and manufacturing teams.



Our quality policy, based on continuous improvement of processes, is oriented to the search for the complete satisfaction of our clients, creating a safe and respectful work environment. Certifiqed with: ISO 9001:2015, ISO 14001: 2015 and IATF 16949:2016.



# Key benefits with NBI group



Own production plant performing whole manufacturing process



Safety stock for fast delivery



Alternative reliable solution



Globally recognized brand by leading OEMs



Flexibility and quick decisions



Standard and tailor-made solutions



Customer centric mindset



Application and project engineering



Multi-language salesforce



Own laboratories



Improve customer's profitability



Financial strength



grupo | **NBI**<sup>®</sup>  
gruponbi.com

## **NBI industrial Elorrio**

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