

Design engineering.
Processes and
components



4 plants, laboratories
equipped with the latest
technology on the market



**Highly skilled
person in each
key position**

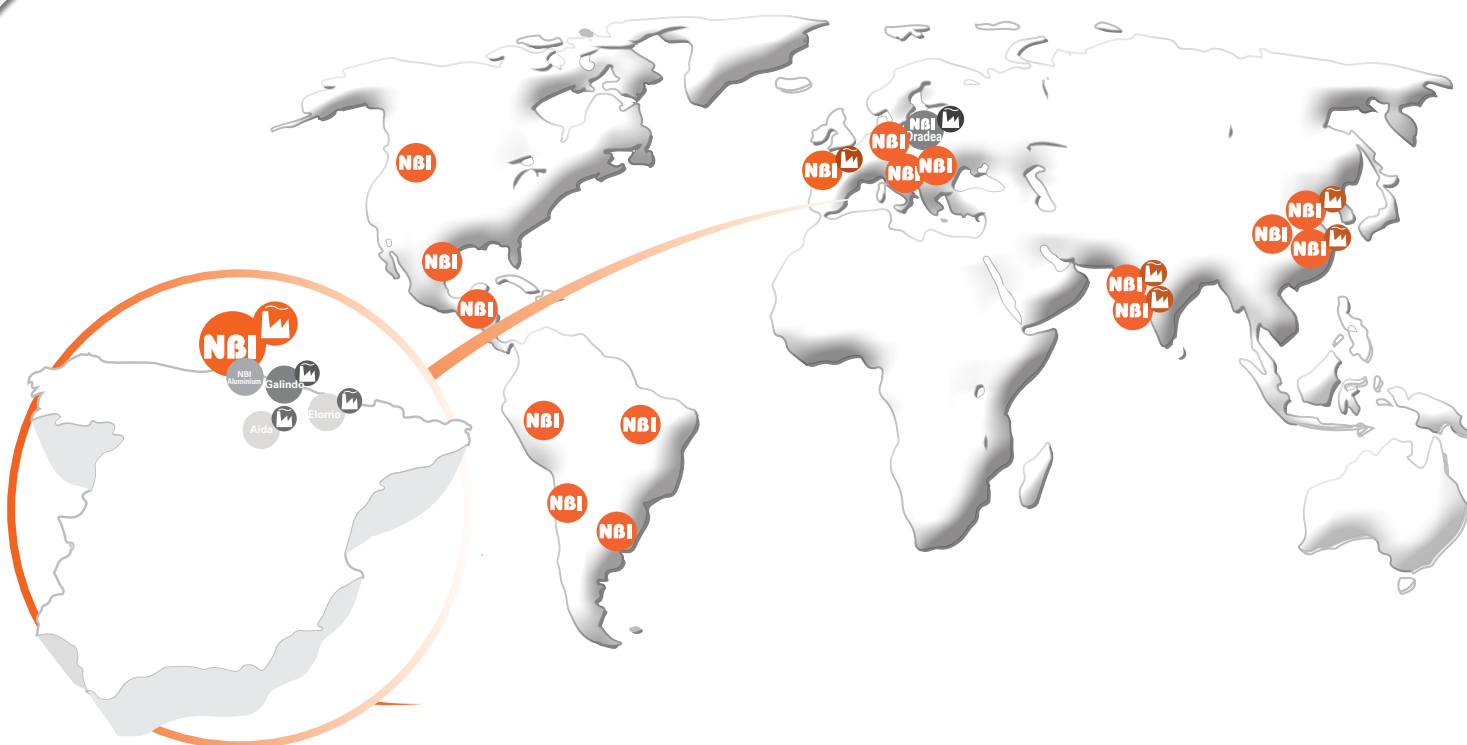
Personalised sales
and technical service



Selection, investment and
integration of technologies



Industrial division



Industrial Division

Our industrial division focused on designing, manufacturing and supplying components and assembled parts mainly to industrial, aerospace market and automotive sector. NBI selects and invests in the optimum technology for each process and component.

Our industrial team is currently comprised by 350 people with vast experience.

NBI created its new industrial group in order to vertically integrate the required technologies to manufacture bearing components. The industrial group is made up of:

- **NBI industrial Elorrio** stamping plant that provides NBI with the knowledge, expertise and capacity to design and produce cages in-house and to design manufacturing processes

NBI decided to enlarge the scope of its activities by founding the Industrial division, which is formed by two different business units: Metal transformation and Precision machining. Since then, NBI has added two new companies with complementary technologies:

- **NBI industrial Aida** together with NBI industrial Elorrio is part of the Metal transformation business unit. Aida's activity is specialized in the design and production of precision boiler components and assemblies for a wide range of industries
- **NBI aerospace Galindo** is the latest incorporation to the Precision machining business unit. Its purpose is to design and manufacture precision tooling and machining components and assemblies for the aerospace industry

At the end of 2020, the group acquired and created **NBI industrial Oradea** creating a new business unit in the supply of aluminium components chiefly for the automotive sector. This company has incorporated to the Group the know-how in process of foundry and aluminium casting and machining.

Nowadays, the NBI group consists of 8 production plants with a team of 700 people distributed between bearing and industrial divisions.

At the moment, the industrial division consists of 2 business units, the metal transformation unit and the aluminium injection and machining unit.

The bearing division is made up of:

NBI Bearings Europe

Central office, R&D, designing manufacturing plant, warehouse and sales office in Oquendo (Spain).

NBI India

Manufacturing plant and warehouse in Ahmedabad (India).

NBI Changzhou

Manufacturing plant, warehouse and sales office in Wujin (China).

Jerry Bearings Transmission Technology

Roller manufacturing plant in Zhejiang (China).

Europa and LATAM

local sales support in Spain, Romania, Italy, Turkey, Germany, Brazil, Mexico, Chile, Peru and Colombia.

India local sales support In East, North, West and South.

Application and service engineering in Bucharest (Romania), Ahmedabad and East India.

NBI SQA center

Laboratories and SQA office in Wafangdian and Shandong (China).

Bearings division

NBI is a  serving the market since 2002.

Key positions are covered by professionals with vast experience in the bearing industry and +700 employees worldwide. The main features of NBI Bearings Europe to be highlighted are:

Commercial capacity:

- Focused on supplying bearings for high technical requirement applications to OEM customers. A large list of leading OEM clients' referrals backs NBI's reputation.
- Sales and customer service teams, formed by more than 30 people providing a personalized service, are located in Spain, China, Romania, Brazil, India and Europe.
- Romania-based highly experienced application engineering team that provides the best pre-sales & after-sales technical assistance.
- Distribution centers for on-time deliveries in Spain, China and India.

Technical expertise:

- Own design and R&D teams in Spain that have supported the development of a new proprietary design software. Product portfolio that covers CRB, SRB, TRB, CRTB, SPB and CF. NBI is continuously adding new items to its Enhanced bearing line.
- Manufacturing plants in Spain, China and India.
- Fully equipped metrology, metallographic and other tests laboratories.

Financial position:

- Solid financial health thanks to a robust cash position.
- Publicly listed in the BME Growth (Spanish stock exchange market for small and medium sized companies) since 2015 with stable core shareholders.

Strategic alliances:

- NBI maintains a strategic partnership with Cronos (Chinese bearing manufacturer), in which the two current majority shareholders and co-founders of NBI also own an equity stake.

Design, manufacture and supply of components and/or sub-assemblies mainly aimed at the sectors industrial, aeronautical and automotive. We select and invest in the optimal technology for each process.

**Unit****Processes****Plant**

Metal
transformation

- Press brake sheet bending
- Punching
- Welding
- Stamping
- Painting

NBI industrial Elorrio

NBI industrial Aida

Precision machining

- Turning C.N.C.
- C.N.C. machining center
- Grinding
- Bar turning

NBI aerospace Galindo

**Unit****Processes****Plant**

Alumninion injection
and machining

- Melting furnaces
- Injection
- Machining
- Thermic and superficial treatments
- Painting

NBI industrial Oradea

NBI Aluminium



Egikor and Industrias Beta companies that are part of the industrial division of the NBI group and world references in the manufacture of metal components, stamping, and assemblies, come together, after more than 30 years of experience in the sector, in the same corporate identity: **NBI industrial Elorrio**.

Plant located in Elorrio (Vizcaya) with more than 4.500 m².

Products and industry

Elevation industry:

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

Automotibile 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. Solar power, signs and design, manufacturing of dies.



ISO 9001:2015, ISO 14001:2015
and IATF 16949.

Processes and machinery

- High elastic limit steel (S550MC)
- Stainless steel, aluminium, copper, Zinc

Welding and assembly:

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

Surface treatments:

- Cataphoresis
- Zinc and zinc alloys, Zinc – Nickel
- Powder paint
- Silver plating and tinning

Presses for progressive die:

- Capability: Up to 630 Tn.
- Table dimensions: up to 3,200 mm x 1,500 mm
- Feeder: up to 1,000 mm spool width and 6 mm thickness

Manual presses:

- Capability: up to 250 Tn.
- Table dimensions: up to 1,000 mm x 650 mm

Control devices:

- Three-dimensional, Profile projects HB.3507/Starret
- Hardness tester HOYTOM Minor 69
- Exterior and interior micrometers, goniometers, calipers
- Artificial vision



Delteco-160-5 PE-160
automatic press



SEYI SLS2-400Tn
press



Manufacturing plant



Laboratories

Second operations

- Grinding, machining, countersinking, threading and milling
- Vibrating, polishing, chemical cleaning and by ultrasound
- Cataphoresis, electrostatic painting with dust and liquid paint
- Zinc plating, powder coating, bi-chromate, zinc phosphated, galvanized, surface treatments in the automotive industry (ZnNi, ZnCr, ZnMn, Geomet, Delta-Tone)
- Hardening and tempering, carbonitriding, induction hardening, Ionit-Ox, bainitic hardening



Samples



Founded in 2003, is dedicated to designing and manufacturing components and metalworking assemblies. Highly qualified engineering department Plant located in Artea (Vizcaya) with a surface larger than 2,500m².

Products

Industrial Area

Manufacturing:

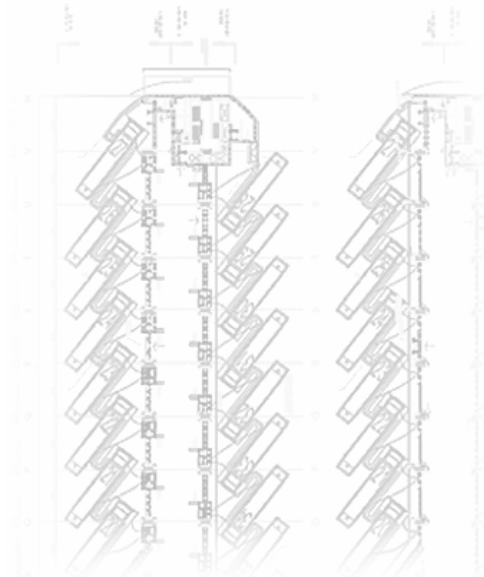
- Electrical rooms and engine rooms for port container cranes
- Filters for wire and electrical discharge cutting machines.
- Transformer and power stations
- Electrical cabinets
- Chains for different machines: wire braiding machines, lathes, etc
- Pressurised cylinders
- Guards, collection trays and conveyor belt loading guides
- Drive assembly beds
- Material handling machines: Trippers, Stackers...
- Moulds for manufacturing tools for the aeronautical sector

Calculation engineering, mechanical - structural design and development:

- Maintenance projects, conveyor belts, reclaimers, stackers...
- Structural projects of the different applications at industrial plants
- Different equipment from combined cycle industrial plants

Architectural Area and Furniture

- Classified design and manufacturing projects of full enclosures for underground bus stations and hospitals, health centres and schools
- Classified and certified metal modular wall cabinet system
- Metal enclosures classified as fire proof: Blind and Glass
- Forster metal work (façades, interior and curtain wall)



Interchange in Moncloa
(Madrid)



Fire proof glazed sliding door
EW60 rating



Interchange bus station
(Termibus - Bilbao)

Processes and machinery

- Cut.
- CNC punching and CNC bending.
- Certified robot welding.
- Certified manual welding.
- Application of Polymerization paint (dust) and liquid paint.
- Assembling centres, alignment of drives, pressure test and leak test.
- Handling equipment: 1 bridge crane (10 ton), 2 bridge cranes (5 ton) and forklifts (2.5 ton).



Punching machine Trumatic 200



Robot welding



Company founded in 2005 dedicated to the serial production of die-cast and machined aluminum parts.

Plant located in Oradea (Romania) with an area of 16,000 squared metres.

Products and sectors

Components and assemblies for:

- Automotive
- Office and hospital furniture
- Electric tools

Machinery

- Melting furnaces
- 3 furnaces of 1,500 kg
- 2 furnaces of 800 kg
- Aluminum injection
- 21 complete cells equipped with high pressure aluminum injection machines (360-900Tns)

Machining

- 4 Makino high precision CNC centers
- 4 Spinner high precision CNCs
- 5 special custom transfer machining machines
- 5 drills
- 4 threading machines
- 2 polishers

Finishes

- Heat treatments (Furnace for T5 treatments)
- Shot blasting machines
- Vibrators with ceramic stones (2 linear and 2 circular)

QA

- 3 3D DEA measuring machines
- 2 spark emission spectrometers
- 2 x-ray machines for porosity control
- Hardness testers
- Densitometer for cast alloy
- Zwick 1484. Creep testing machine
- Scanning equipment ATOS GOM

Treatments and second operations

Assemblies
Painting
Superficial treatments



Certified with quality certificate:
ISO 9001-2018, ISO IATF 16949 2018,
ISO 14001, ISO 45001



CNC machining center



CNC machining center



CNC machining center



Samples



Company with over 50 years of experience in designing and manufacturing tools and serialised aircraft parts for the aerospace sector. Plant located in Munguía (Vizcaya) with a 2,500 m² surface.

Products

Large tools for manufacturing aircraft parts:

- Assembling, handling and transport stands...
- Tools for manufacturing processes (shaping, curing, edge finishing, drilling, assembling checks...)

Medium tools for manufacturing aircraft parts:

- Tools for manufacturing processes (shaping, curing, edge finishing, drilling, assembling checks...)

Serialised part:

- Machined part
- Sheet metal shaped part



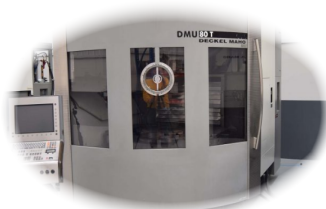
Certified with quality certificate:
EN 9100:2018, ISO 9001:2015, AIRBUS
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Machinery

- 2 bridge milling machines
- 3 machining centres with 5 shafts
- 3 machining centres with 3 shafts
- 6 horizontal CNC lathes
- Presses from 60 Tons and up to 400 tons; automatic and manual
- 1 Mobile column milling machine (new incorporation)
- 2 Three-dimensional measuring-verification machines
- 1 laser Tracker
- Metrology laboratory: profile metre, roughness tester, roundness tester, three-dimensional
- Metallographic laboratory: spectrometer, hardness tester, microscope, macroscope
- 300T hydraulic press with rubber bed



MORI SEIKI SL25/100
CNC horizontal lathe



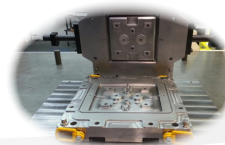
CNC DMU 80T
machining center



Hydraulic press
300T

Processes

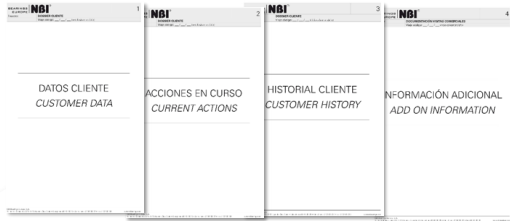
- Design (Catia V5, Unigraphics NX, VERICUT)
- Processes for joints:
 - Welding of structures
 - Heat treatments: hardening and tempering, induction hardening
 - NDT inspection: magnetic particles
- Sheet metal shaping processes: stamping, bending, curving, elasto-shaping
- Mechanical transformation processes: lathing, 3-5 shaft milling, grinding...
- Mechanical assembling: installation and dimensional adjustment of assemblies and structures with laser Tracker
- Surface treatments: paint, powder coating, chrome plating, passivate coating, zinc plating, galvanising
- Inspection and testing processes:
 - CMM inspection, laser Tracker and conventional
 - Micro-percussion marking, laser marking
 - Vacuum and functional tests
 - Installation of projects at the client's plant



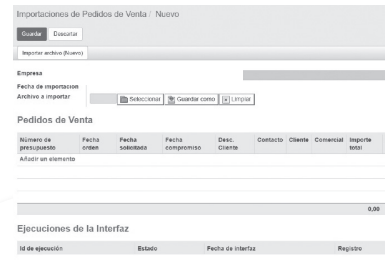
Metal parts and parts
for structures

Highly qualified technical-commercial team oriented to offer the solution that best suits our clients' needs:

- Customer Service and Sales focused on meeting our customers' requirements, providing quick and valuable responses.
- Product engineering with extensive knowledge in technologies and manufacturing processes cooperating in the concept definition of the product.
- Development of projects to materialize and meet all planned milestones, from the conception of the design to serial production.
- NBI's newsletters to keep clients updated.
- Each client's information is centralized and easily accessible in ODOO. Very systematic business method.



Customer file



ODOO

NBI proposes a commercial relationship based on frame agreements. It is a win-win flexible contract based on annual demands and commitments.

NBI's compromises

- Maintain a percentage of the agreed contract quantity as safety stock to satisfy unexpected demands.
- Provide price stability during the period of the agreement.
- Update every month information about orders evolution, delivery commitments and real consumes.
- Better adaptation to future deliveries (based on an initial estimation and adjusted by real figures).

Client's compromises

- Consume the quantities of the references to which the customer committed to in the period of the agreement.
- Provide a visibility of the next 3 months' confirmed deliveries.
- Update every month's estimations for the incoming 6 months to be able to react accordingly.

Frame agreement follow-up report



Frame agreement template

At NBI we use software to design each one of our parts, components and tools.

At NBI we are continuously working on improving the internal standards, the internal design and the analysis of alternative design configurations. We collaborate with our clients from the conceptual stage of developing a product by providing our know-how and with the aim of finding the best solution in terms of quality, cost and service.

Strategic partnership with some of the most advanced Spanish technological centers: CEIT and Tekniker BRTA.

Our softwares



CATIA V5

Design software, computer aided manufacturing and engineering. Provide support from the conception of design to production and product analysis



POLYWORKS 2019

3D dimensional analysis and quality control software solution to control tools or part dimensions. Diagnostics and prevention of manufacturing and assembling problems. Assembling construction guide via real time measurements and monitoring of the quality of these products using portable metrology devices



PC-DMIS 2019 R1 and 2011 MR1

Metrology software for compiling, evaluating, managing and presenting the manufacturing data. Allows creating measuring routines, executing them at the workshop and collaborate to make decisions based on the results



ANSYS

Simulation software that uses finite elements for predicting how a specific product will function and react in a real environment



Unigraphics NX 9.3 and NX 10
Advanced CAD / CAM / CAE software packages for design, engineering analysis and production drawing using machining modules



SOLIDWORKS

CAD 3D design software for modelling 3D parts and assemblies and 2D drawings. Offers a wide range of solutions covering the aspects involved in the product development process. Create, design, simulate, manufacture, publish and manage the data of the design process



VERICUT 7.3.4

Software based on 3D solids that interactively simulate the machining process using a CNC programme. Allows simulating and verifying the accuracy and quality of the generated programmes



ROMAX

Software for designing, analysing, testing and manufacturing gear boxes, transmissions and bearings

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 BRTA. These fully equipped laboratories are shared by the application engineering, design, R&D and manufacturing teams.



Taylor Hobson contour meters, roughness testers and profilometers.

- High precision and state of the art measurement capable of inspecting profiles, surface finish and shape of different types of parts and with a very wide measuring range
- Allows inspecting small as well as large parts



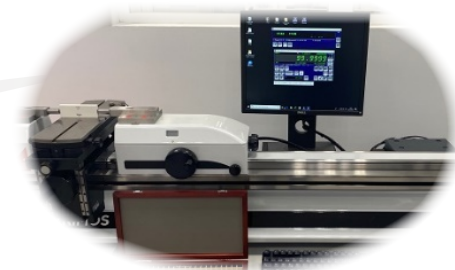
CMM Zeiss Contura G2 / CMM DEA Scirocco

- Measurement using high precision coordinates that allows dimensionally assessing any type of geometric tolerance, capable of scanning surfaces and with a wide measuring range that allows relaxing the controls of manufactured parts



Leica electronic microscope for micro-structure analysis

- High quality laboratory type equipment that allows preparing samples for analysing materials using high resolution equipment



Longitudinal measuring bench

- High precision longitudinal measurement and with a very wide measuring range
- Allows creating standards, internal calibrations and dimensional measurements with great accuracy



Fatigue life test bench

- Equipment for conducting life tests for manufactured products.
- Allows determining our scope and improve our quality standards



Vibration measurement test bench

- Functional inspection equipment
- Allows determining the performance of the product in the format that is sent to the client, inspecting the behaviour of the different components that interact with each other



Magnetic particles inspection

- Crack inspection equipment for metal parts using magnetic particles technology



CMM Stiefelmayer

- High precision coordinates measurement machine
- Allows dimensionally assessing any type of geometric tolerance, capable of scanning surfaces and with a wide measuring range that allows relaxing the controls of manufactured parts



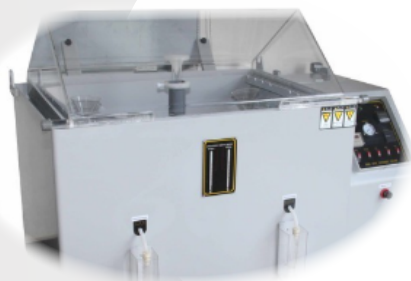
Spectrotest TXC25

- Chemical composition inspection equipment that allows fully analysing the quality and the degree of compliance of our materials



Laser tracker

- Use certificate in accordance with CEI60529
- The ATR allows for continuous monitoring and accurate positioning with different types of reflectors up to a typical volume in a 320 m radius
- The ADM has a resolution of 0.1 microns and a maximum uncertainty of 10 microns over a full radial volume of 160 m
- Automatic updating of environmental parameters to prevent improper input values and inaccurate calculations
- Traceable accuracy of 0.5" in accordance with ISO 17123-3 with a resolution of 0.07 r.



Saline fog chamber

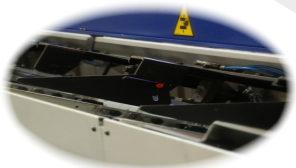
- Equipment for conducting accelerated corrosion tests



Artificial vision monitoring

- Spinning glass plate with 5 stations and maximum field of vision of 55mm for the dimensional control of outer measurements and detection of the presence of internal threads

NBI's extensive experience and in-depth knowledge of a wide range of applications has positioned the company as a provider of optimum solution for many OEM manufacturers



- Automotive
- Gas cylinders
- Lifting and lifts
- Packaging and food
- Valve components
- Engines
- Railway
- Industrial machinery
- Aeronautics
- Automation and heating
- Metal works and construction
- Bodyworks
- Urban and home furniture
- Architecture



MRO

- Automotive
- Aeronautics
- Architecture
- Engenery
- Lifting and lifts



Distributors



Vision

Develop a solid group of companies focused on the **design, manufacturing and marketing of precision bearings and high value-added technical products that are especially aimed at the industrial, automotive and aeronautical sectors.**

With a value proposition recognized by our clients and supported by the following pillars:

- **Extraordinary customer service.** Fulfill our quality commitments and delivery deadlines with close attention
- **Continuous innovation** focused on own product design
- **Pre-sales & after-sales** technical service as a differentiating element
- **Operational excellence** focused on doing **more with less**

Focused on achieving:

- **Satisfaction of our clients,** gain their trust and loyalty through multi-year agreements, and consequently achieve a win-win relationship
- **Persons committed** and proud of working at NBI with **own Culture and Values**
- **Supply chain** based on close and long-term relationships and **mutual trust with each supplier**
- **Satisfied shareholders,** generating sustainable profitability in the medium-term always with absolute transparency

grupo | **NBI**®

gruponbi.com

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