

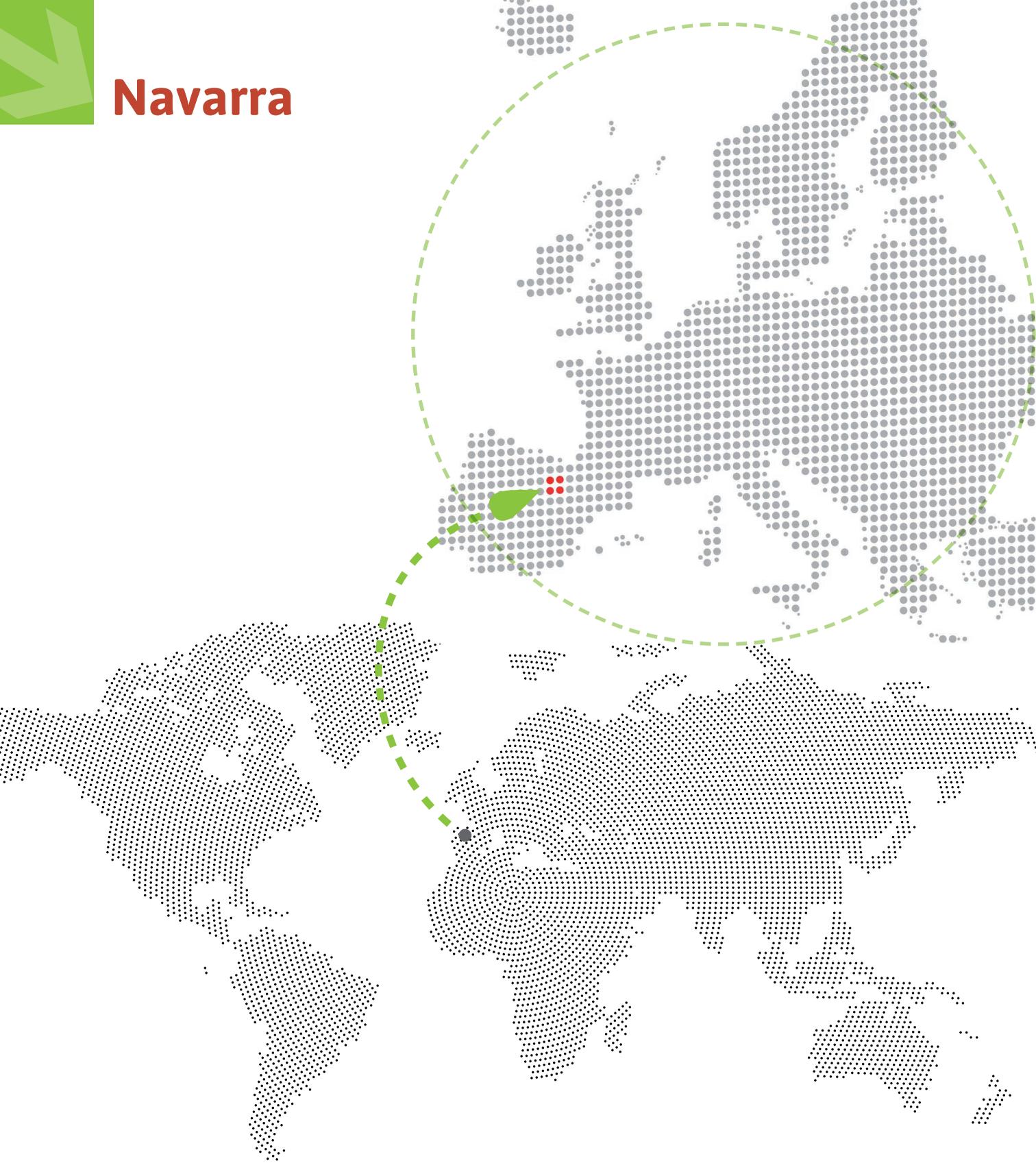
# NAVEAC

## Navarra electric autonomous and connected vehicle





# Navarra





Navarra is a Spanish region located in northern Spain with a long-standing tradition in automation and pioneer in renewable energies.

The Government of Navarra developed a Smart Specialization Strategy to ensure sustainable development of the region that builds on the economic and technological strengths of its local industry. The 1st key challenge area identified was electric mobility. Thus, **NAVEAC** platform was set up. **NAVEAC** convenes participants from the public and private sectors, including research centers, local and regional authorities and over 85 companies.

**NAVEAC** seeks to develop the industrial capacities of the region around the Electric, Autonomous and Connected Vehicle with the aim of orienting the capacities of the industrial automotive sector towards the development of the electric vehicle and its components as well as favouring the development and implementation in Navarra of new mobility solutions. The platform has identified 15 priority actions covering four thematic areas:

1. Sustainable mobility in public transport, taxis, company fleets and private transport, also including e-bikes.
2. Public and private charging infrastructure – including infrastructure management and an efficient integration with the existing energy system and renewable energy sources.
3. New business models and opportunities for the local industry, with the aim to build up local supply chains – from electric vehicle components manufacturing to mobility services.
4. Making Navarra a lead state by attracting investments and projects of innovative multinationals, as well as enabling the emergence of new businesses around technological innovation, such as autonomous vehicles.

Over 80% of Navarra's electricity comes from renewable sources, putting the region in an ideal position to reduce emissions through a large-scale transition to electric mobility.

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[www.naveac.com](http://www.naveac.com)

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## Company activity

The Association Automotive Cluster of Navarra (ACAN) has developed, since its creation in 2011, an ecosystem of cooperation in which industries, technological centers, training, knowledge, services and technology, providers can participate. The objective of the cluster is to consolidate the associated member companies as leaders in competitiveness in the automotive industry in the global market.

## Products/Services

The cluster has 44 members with all kinds of companies: multinationals, SMEs and micro-SMEs. ACAN is very focused on innovation and industry 4.0 (cobots, artificial intelligence, 3D printing, augmented reality or virtual reality). ACAN offers value-added services to cluster companies, for example:

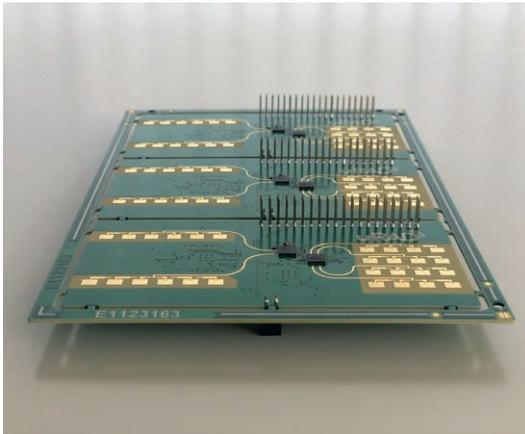
- \* Cooperative projects.
- \* Open Innovation.
- \* Technical visits.
- \* Networking and showrooms.



**ANTERAL**

**ANTERAL**

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## Company activity

Anteral is focused on the development of radar technology to boost innovative applications such as Smart Cities, autonomous vehicle, education, health, etc. Moreover, Anteral is also dedicated to the development of high-performance Antennas and passives for the Aerospace, telecommunication, security & defense sectors among others.

## Products/Services

Anteral counts with an innovative product based on radar technology which can be detect movement/presence and measure distance and velocity. This product can be programmed via open source platforms such as Arduino and Raspberry Pi. Besides that, Anteral is also focused on the development of custom solutions as well as more advanced products which allow the object detection thanks to the angle resolution as well as traffic monitoring for Smart Cities.



## Company activity

Atana is the ICT cluster of the Comunidad Foral de Navarra whose general objectives are:

- \* Orientation towards the digital transformation of the main sectors of the regional economy
- \* Private-public collaboration
- \* Representation of all subsectors: information technology, telecommunications, electronics and digital content
- \* Materialization of an ICT ecosystem as an engine of economy and innovation
- \* Representation of a combined knowledge

and experience accumulated by its 45 high skilled member companies.

Our mission is to promote the advancement and competitive improvement of the ICT sector in Navarra, as well as the promotion of the development of the information and knowledge society in Navarra.

Our vision is to be the maximum associative reference of the ICT sector in Navarra, generating opportunities and promoting the training and innovation of our associated companies in order to achieve maximum competitiveness in the global market.

## Products/Services

- \* Our companies have both individual and collaborative success stories of ICT solutions in the automotive sector.
- \* We are the path to reach the main companies in the sector for any required need and the key agent to ask for technology partners in Navarra.



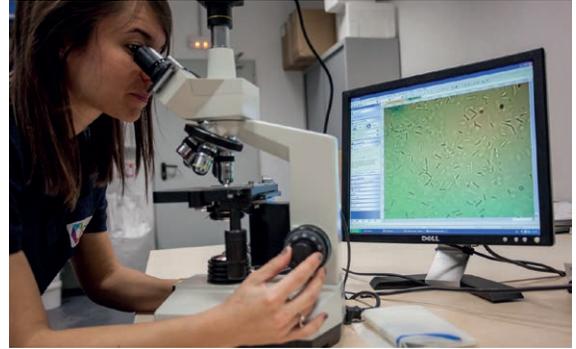
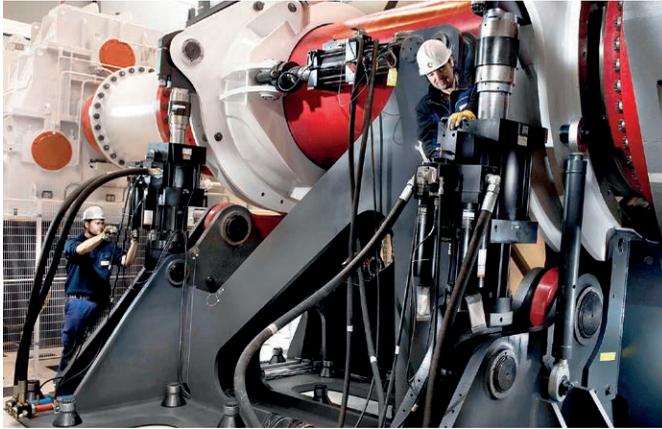
## Company activity

BeePlanet Factory was founded in 2018 to provide solutions to e-mobility challenges. Our value proposition is to give access to energy storage solutions at a competitive cost by using second life batteries. We research, develop and implement technological solutions to successfully return batteries from electric vehicles which have reached the end of their useful life to the marketplace. We recycle, reuse, remanufacture and resell (4R view of the circular economy) these batteries, putting them to different uses, depending on the analysis and result of the process. Furthermore, we are currently engaged in some regional, national and international R&D projects in order to broaden our scope and enhance the technology used in our products and services.

## Products/Services

Although the batteries are no longer perfectly suited to the requirements of a motor vehicle, this does not relegate them to the scrap heap. Instead, they can be put to such alternative uses as:

- \* Large-scale energy storage to optimize the grid. They are used in both wind and photovoltaic farms.
- \* Mid-scale energy storage for industrial systems. The aim is to decrease the energy bill by accumulating energy that comes from renewable sources.
- \* Small-scale energy storage for self-consumption in public and private buildings.
- \* Alternative vehicles with lower performance specifications, such as forklifts, golf carts, bicycles, etc.



## Company activity

CENER, the National Renewable Energy Centre of Spain, is a technology centre with excellent qualifications and international prestige, specialised in applied research and the development and promotion of renewable energies. CENER has more than 200 researchers, carrying out activities on the five continents.

CENER provides technological support to companies and energy institutions in six areas: Wind, Solar (both Photovoltaic and Thermal), Biomass, Smart and Efficient buildings and districts, and Renewable Energy Grid Integration.

CENER aims to generate and transfer technical and scientific knowledge to the industry, in order to foster economic and social development, as well as to collaborate with companies and institutions in a better development of renewable energies.

## Products/Services

- \* Knowledge and Technology Transfer and R&D Projects: Collaboration with companies in defining and developing R&D projects for development and improvement of renewable energy technologies.
- \* Testing and support for certification.
- \* Strategic Assessment and Technical Assistance: Determination of the Renewable

- Resource, Development of Simulation and Design Tools, Development of Energy Generation Technology, Definition and Execution of Tests on Components and Complete systems, Technological Risk Assessment, Economic feasibility study of the projects, Development and application of Regulation.
- \* Training and Capacity Building.



## Company activity

Specialists in the distribution of electrical material. The Elektra Group has been growing since 1978, and has gradually been incorporating companies that share its vision. The group currently has an extensive network of electrical material points of sale, which enables it to offer a complete, global service across Spain. It is also able to adapt its product offer, technical advice and stock to the needs of each client company.

## Products/Services

The Elektra Group provides electric charging infrastructure for cars, motorbikes and bicycles in the most frequent parking places:

- Neighbourhood associations
- Shopping centres
- Hotels
- Public parking lots
- Electroliners
- Private garages
- Company parking
- Municipal parking
- Restaurants
- Public city streets

We advise you from the very beginning of the project, including technical support

We design a personalised solution to meet your electric charging needs

- \* We advise you on how to define the most suitable charging point
- \* We select the most suitable energy management systems
- \* We provide on-site support to ensure perfect installation



## Company activity

ENERCLUSTER 'Cluster of Wind Energy Industry of Navarra' is a nonprofit institution created with the aim of strengthening all stakeholders of wind energy sector in Navarra, contributing as a key agent in the Regional Specialization Strategy S3 defined by the Government of Navarra.

ENERCLUSTER promotes diversification among the industries linked with wind energy, promoting collaborative research projects, development and innovation, searching for international markets with new products and fostering competitiveness of all associated companies and institutions.

## Products/Services

- \* Representation and promotion of associated industries in international markets, looking for growth opportunities and partnerships.
- \* Identification of new business ideas, promoting innovation and expanding technology based through collaborative R&D activities.



**Company activity**



Desing, develop and manufacture brake component systems.

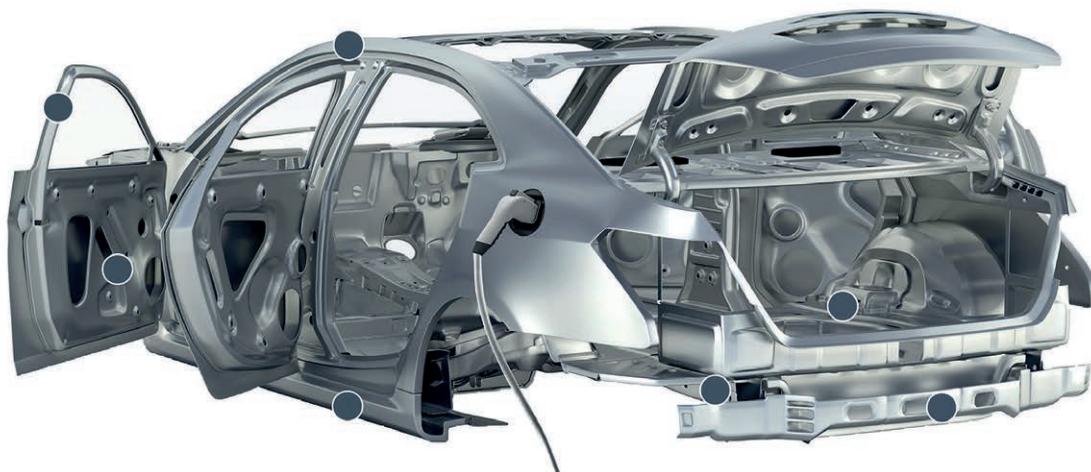
**Products/Services**



Brake calipers, brake master cylinders, Vacuum Boosters, Vacuum Pumps, Reservoirs, Brake hoses, Pedals, etc.



Hydro



## Company activity

Hydro is a fully integrated aluminium company with 35,000 employees in 40 countries on all continents, combining local expertise, worldwide reach and unmatched capabilities in R&D. In Extruded Solutions business unit, Hydro has the largest global aluminium extrusion-based solutions operation in the world, counting 100 production sites in more than 40 countries. In Spain and Portugal, Hydro has aluminium extrusion, added value operations and recycling facilities, serving more than 1,500 customers.

## Products/Services

Hydro provides innovative aluminium solutions within all market segments: automotive, transport, building and construction, engineering and other industrial sectors. Our own casthouses make possible to develop custom alloys and deliver more sustainable products.



### Company activity



i3i is a technology solution provider for industry and buildings control. Own R&D department for sensor developing and high level solutions.

### Products/Services



GPS + CAN-BUS Sensor for tracking. This sensor certifies that any agricultural vehicle as tractors for example, compose a specific plot in field for government control. Can be also used as security system, working quality control and mechanical failure prevention



## Company activity

IED Electronics was set up in the early 1990s in the town of Aizoáin (Navarra) with the aim of providing the industry with electronic products tailored to the particular needs of each segment, relying on its engineering department with its more than 40 years' experience developing high quality electronic solutions. Over the years, IED Electronics has offered solutions to virtually all industrial sectors, including renewable energy, lifting, power tools, electric mobility, industrial automation, automotive auxiliary machinery, vending, among others.

IED Electronics works professionally in the field of design, production and assembly of electronic circuits and component management for all industries, as well as sales and after-sales service.

The members of its highly qualified team have developed their professional career covering positions of responsibility both in know-how based electronic production and in business management.

Today, stronger and younger than ever, IED Electronics maintains sustained, solid growth, diversified both geographically and industrially, with a firm commitment to technology and sustainability, for its own brand products and for products in the sectors in which it operates.

## Products/Services

Design, manufacturing and marketing of electronic equipment oriented to the industrial sector.

Business units:

1. IED Smartronics: Specific Electronics Developments for industrial companies.
2. IED Windcontrol: Anemometers, wind vanes and wind speed and direction displays.
3. IED Safetycrane: Anti-collision system and forbidden areas system for industrial cranes (overhead cranes at different levels).
4. IED Instruments: Process indicators.
5. IED Greenpower: Luminaries developed for satisfying different and specific needs of lighting identified on wind turbines.

INGEREV FUSION



FUSION STREET & WALL

INGEREV RAPID 50



RAPID 50

INGEREV RAPID HPC



Available in  
2020

RAPID HPC (HIGH POWER CHARGING)

## Company activity

Ingeteam is an international group specializing in power and control electronics (inverters, frequency converters, controllers and protections) and electrical engineering and automation projects. Its range of products includes Indar generators, electric motors, and submersible motors & pumps.

Ingeteam develops its products, systems and services for many different sectors: wind, PV, hydro and fossil fuel power generation; metal and mineral processing; mining; marine; rail traction; waters; e-vehicle charging; power grid, always striving towards more sustainable energy generation, transmission, distribution and consumption.

## Products/Services

Ingeteam has used its expertise to design the INGEREV® range of e-vehicle charging stations, available in AC and DC. This range supports all types of charging powers and installation types, from rapid charging points to opportunity charging on a public road, including charging at leisure centers and shopping centers, the workplace, hotels, car parks and fleets.

Progress has been made in the design of the future range of HPC High Power Chargers. This is a modular family of chargers, covering output powers from 100 kW to 400 kW and which will be noted for its scalability and compactness, compared to the competitors



## Company activity

At Inycom we offer technological and innovative solutions and services that drive your business towards success.

As a technological company, we develop advanced solutions and high added value services for our clients in the most diverse sectors and fields. We are a global team of more than 700 committed professionals and an extensive international network of strategic partners that allows us to develop projects worldwide...

Our objective is to satisfy the technological needs that dynamize and drive your business towards success.

## Products/Services

- \* Energy efficiency as a service: based on detection, control and management of energy consumption.
- \* Taylor made control systems for embarked applications.
- \* Development of data collection systems for real time analysis and monitoring.
- \* Design and assembly of test benches for electrical/electronic systems.
- \* Advanced inspection systems based on computer vision and deep learning.
- \* Comprehensive energy management service.
- \* Custom development of high-level control systems for applications.



## Company activity

ISRINGHAUSEN – a company of the AUNDE Group – is a global market leader in the development and production of innovative seating systems and technical springs.

With its brands AUNDE, ISRINGHAUSEN and FEHRER, the AUNDE Group is one of the leading premium manufacturers of automobile textile/leather vehicle seats, technical springs, molded foam seat parts, interior and composite components, for the automobile industry in the world. As an international group, the corporation owns more than 116 production facilities in 29 countries, with 23,000 employees.

## Products/Services

- \* The ISRI product range includes driver, passenger and rear passenger seats for trucks, vans, cargo vans, buses, mini-buses and off-road vehicles.
- \* Our products are custom developed for the widest variety of demands and are characterized by reliability, cost effectiveness and the highest quality.
- \* ISRINGHAUSEN offers its customers comprehensive service, from the product idea, exclusive design, styling and development to prototyping and series production. Partners are supplied with optimal production depth, individual JIT/JIS service and a worldwide presence.

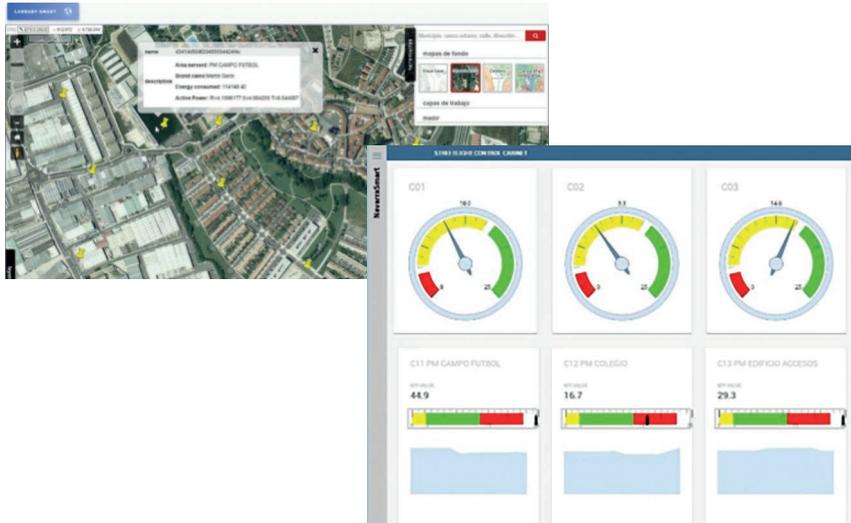


## Company activity

Company founded in 1996, with 40 employees, and dedicated, to the manufacture of custom made machinery. In 2000 as a result of a strategic decisión we start manufacturing custom laser welding machines mostly linked to the automobile industry. In 2018 we start a welding production process to do two laser welding process: ring to busbar, and busbar to battery (Al - Al).

## Products/Services

Lantec expertise is focused, beyond general purpose machine, in laser welding being able to give answer to your laser needs in both ways: first as a subcontractor for you production needs, thanks to our fully equipped workshop; second, as a laser welding machine manufacturer able to match your special requirements linked to the battery, or other vehicle, components.



## Company activity



We are an ICT company that provides technology consulting services and develops software solutions with a high specialization in process improvement, computer security, IoT systems and artificial intelligence. We have successful cases of highly specialized software development in the legal field, public administration, IoT and agri-food sectors.

## Products/Services



We have developed an IoT management platform that captures information generated by fixed or mobile elements as simple as mobile phones near a specific sensor or as complex as a set of 20 buildings.

It is possible to obtain context information provided by any physical sensorized element, such as electric vehicles, in order to analyze, predict behaviors through its machine learning engine and act in real time based on its powerful complex rules engine.

Historical and consolidated information can also be analyzed by interacting with its web interface or receiving scheduled periodic reports.



## Company activity

We design and manufacture light and energy-efficient electric machines and vehicles.

- \* Tailor-made projects for each client and application.
- \* Complete projects for third party manufacturers, design, manufacturing files, certification, manuals...
- \* Conceptual design of bodywork and interiors for other manufacturers.

## Products/Services

- \* Buggies, Quads, Tricycles...
- \* Electric sweepers and special machinery.
- \* Conceptual design studio.
- \* Taylor designed products for different activities:
  - Services sector
  - Tourism
  - Logistics
  - Personal mobility...

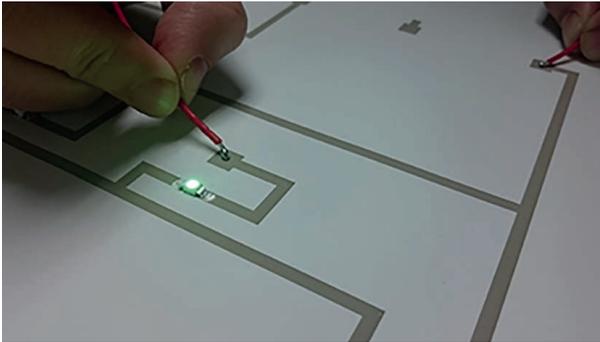


### Company activity

Lizarte is a manufacturer (remanufacturer) of car spare parts since 1973 and offers a wide range of steering racks, power steering racks, air conditioning compressors and diesel injection components.

### Products/Services

- \* Remanufactured steering racks : manual, hydraulic, electric (EPS), steering column and steering boxes.
- \* Remanufactured Power steering pumps: mechanical, electric and electronic (EHPS).
- \* Remanufactured and new AC Compressors.
- \* Diesel injection: injectors, common rail pumps, VP pumps, VE pumps, injector pumps.



## Company activity

Mateprincs manufactures inks for conductive electronics. Founded in 2018 as a spinoff of materials and automotive research center NAITEC, it specializes in producing inks for screenprinting, inkjet, and offset. It is a member of the Spanish Functional Print cluster and is owned by public and private investors. Mateprincs collaborates closely with other companies, universities and research centers in EU R&D projects.

## Products/Services

Conductive electronics will play a vital role in lowering the weight and cost of automotive sensors and electronic components. Mateprincs has a wide range of inks for different applications, including the automotive, textile, and health sectors. Its inks provide excellent capabilities at a lower cost than its competitors. Because of its lean size, Mateprincs can also provide custom inks for large clients.



## Company activity

MIASA designs, develops and manufactures light weight solutions for powertrain applications on automotive market including passenger cars, commercial vehicles and heavy trucks. We have a 50 years expertise on casting, machining and assembling components for all OEM.

Our processes includes high pressure die casting, gravity casting, machining, heat treatment and component cleaning.

We are focused on developing solutions that helps our customer to reduce transmission weight and therefore emissions without affecting the shifting performance.

## Products/Services

MIASA develops a partnership with its customers that allow either work “built to print” or developing together lightweight solutions based on the expected specification for the product. We design our own manufacturing processes to have a high level of automation which allow us to offer the most competitive solutions to our customers.

We have high productivity High Pressure Die Casting cells with automated steel inserts overmoulding as well as fully robotized machining and assembly lines.

With our high experience on precision machining we are also able to supply either steel forging or iron castings machined to meet the highest dimensional precision specification.

MIASA also offer fully integrated installations for additional processes like heat treatment and component cleaning to meet the highest requirements



## Company activity

NAITEC is the technology centre specialized in mobility and mechatronics. Its purpose is to be a center of excellence in sustainable and mechatronic mobility of international reference, to contribute to the promotion of both sectors and to the competitiveness of companies.

It provides innovative and environmentally friendly solutions through the generation and transfer of differential knowledge, oriented towards a global market.

It transfer the knowledge generated to the industry through:

- Solutions to the industry.
- Technological services.

## Products/Services

### Mobility solutions

- \* Comfort and security solutions
- \* Thermal efficiency and energy management
- \* Smart communications

### Solutions for mechatronics

- \* New materials: Nano and functional
- \* Functional printing
- \* Smart applications

### Technological services

- \* Testing and product validation
- \* Advanced manufacturing

**New business:** Technology transfer

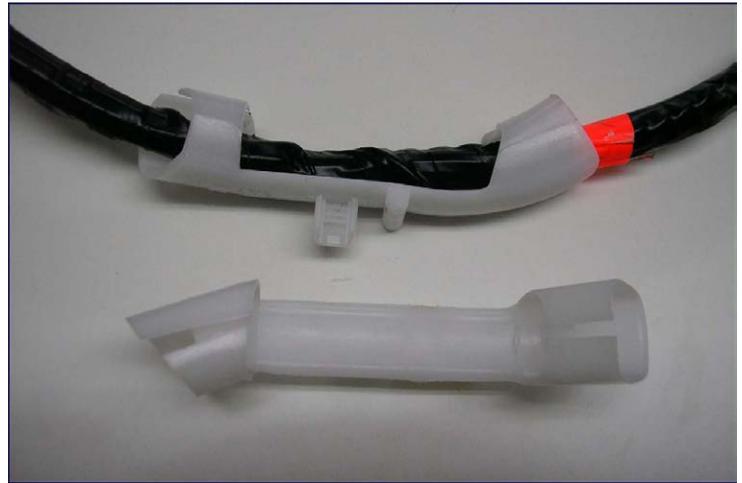


## Company activity

NTDD is an ECU electronics manufacturer for every kind of vehicles that allows you to customize the engine behavior in order to increase security and to improve vehicle's operation. NTDD count on a complete infrastructure for research, development and innovation by his own as well an advanced engineering team whose work is based on a continuous improvement model, ensuring quality and flexibility on demand to customer needs. Every process, product and service offered by NTDD is certified with ISO 9001-2015, Quality's "Q" de Calidad and Applus+ IDIADA certification.

## Products/Services

NTDD is introducing the SEIMUS project, a new line of INTEGRAL ECOLOGICAL SOLUTIONS for SUSTAINABLE URBAN MOBILITY, NTDD Electric develop and manufacture an innovative electric vehicle ECOCAR (on L6 and L7 categories) for urban environment. ECOCAR is a two seat specifically designed vehicle to be driven by reduced mobility people no matter if they need a wheelchair or not.

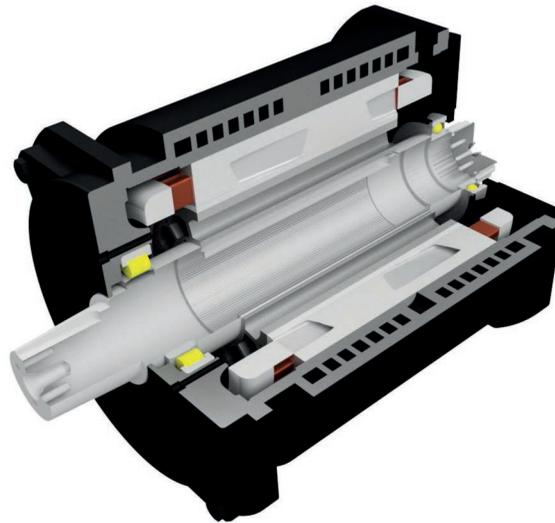


## Company activity

Technical plastics and liquid silicone rubber (LSR) injection. Optionally in white room. Economic sectors: automotive, aeronautical, health, electric, lighting, safety, industry, sports.

## Products/Services

Injected plastic parts with technical raw materials: LSR, PA, PP, PE, PPS, PPA, PARA, EPDM, POM, PC, ABS, ABS-PC, PEEK, PTFE. Filled plastics. Technical office. White room. Own laboratory. Complementary processes.



## Company activity



Design, development and manufacturing of PM motors. PERMAGSA is dedicated to develop and manufacture high performance motors for different applications, like elevators, servomotors and traction motors for e-vehicles. We are constantly developing our product and improving our knowledge in collaboration with different universities like UPNA, Mondragon Unibertsitatea and ITA (instituto tecnologico de Aragón).

## Products/Services



High performance motors for traction, intelligent suspension and braking for e-vehicles.



## Company activity

Piher is a specialist designer and manufacturer of true non-contact absolute on Tier One and OEM platforms including contactless magnetic technology complete sub-assemblies. With truly non-contacting sensing (no gears inside subject to wear), high repeatability, low power consumption and wireless option, Piher's contactless sensors provide an all-in-one integrated and maintenance-free solution for harsh environments. Thanks to its unique and patented design, Piher can provide fully magnetic Hall Effect contactless position feedback in through-shaft configurations.

## Products/Services

- \* Through hole and SMD Potentiometers.
- \* Hall-effect contactless sensors.
- \* Encoders & rotary switches.
- \* Printed Electronics.
- \* Capacitive touch controls.
- \* Carbon printing electronics.
- \* Printed position sensors.
- \* HVAC sensors.
- \* Seat belt sensors.



**Powertrack**

**POWERTRACK**

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## Company activity



Powertrack Internacional de Automoción, S.L., Spanish manufacturer based in Tudela (Navarra), has launched a high-performance power transmission system in order to provide with greater efficiency to thermal, hybrid and electric vehicles. This technology, called CVP Infi**Tran**, allows the vehicle going forward as well backwards, stand or just to maintain engine RPMs without the need of clutches, internal brakes or electronic control systems, which is related to the concept of "green transmission" that the company encourages, by reducing costs and environmental impact.

CVP Infi**Tran** technology is based on the mechanical power bypass principle, through which only a fraction of the total input power is managed by the pulley system. Thus, CVP Infi**Tran** module is able to manage high loads, and therefore high powers, in a continuous and infinitely variable way, allowing us to replace electronic frequency inverter systems that are normally used, and which are much more expensive. In addition, CVP Infi**Tran** has a built-in ECU that has been developed with a "predictive system" of its own manufacturing which is adaptable to any CVT or CVP.

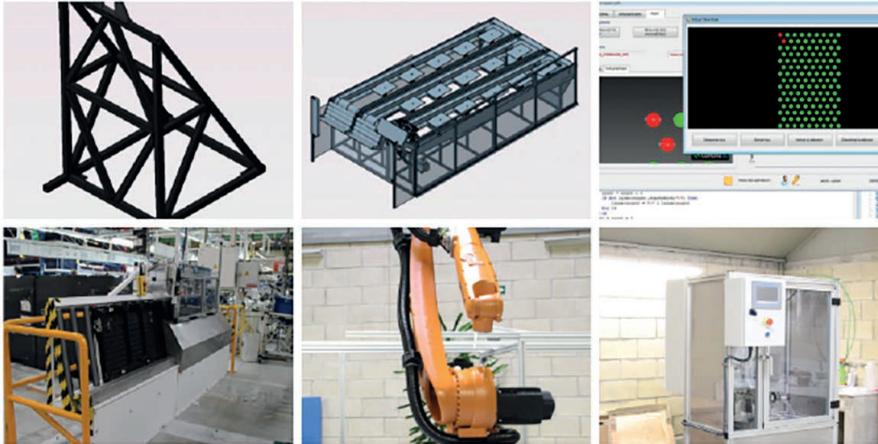
## Main advantages



The main advantages of Infi**Tran** technology regardless of the sector of application are:

- \* Continuous and infinitely variable mechanical transmission from forward to reverse as well neutral and overdrive.
- \* Infi**Tran** doesn't need clutches or disconnection elements between engine and the gearbox.
- \* Low maintenance and high reliability in all environments and conditions.
- \* High precision cinematics.
- \* 100% adaptable.
- \* Reduced maintenance.
- \* Maximum optimization of resources.
- \* More compact and lightweight.

Its main application sector are automotive, wind power, heavy duty machinery, elevators, transport, etc.



## Company activity

The company designs, plans and executes turnkey projects to improve the efficiency and productivity of their customers, as well as the possibility of applying improvements to existing equipment or processes. In this way the customer benefits from the advantages of automated processes. The products and services are varied: machines, test benches (quality and assembly), services, programming...

## Products/Services

- \* Mechanical designs: 3Ds, simulations.
- \* Electrical projects: Electrical panels and wiring.
- \* Automation projects: PLCs, sensors, programming.
- \* Development of traceability tools: Programming on PC, databases, Rfid, Bluetooth.
- \* Artificial vision.
- \* Assemblies: Mechanics in sheet metal, aluminium profiles, custom rectified parts, electrical panels and test equipment.
- \* Preventive, corrective, mechanical, electrical and computer maintenance.



AOI in 3D, with capacity for PCB with measurements above the standard and components up to an encapsulation of size 01005

## Company activity

Company specialized in assembly of printed circuit boards and electronic components. Conventional component assembly or THT. Assembly of SMD components (BGA's, QFN's, 01005, etc.). Prototypes, assembly of all types of electronic assemblies. We provide a technical assistance and after-sales service to offer an improvement and maintenance of the products we develop. We work for specific sectors with technological and electronic components. Ability of integration to work together with engineering departments of the clients to facilitate and streamline developments and manufacturing processes. Sectors of the projects: rail, industrial, renewable energy, vending and hospitality machines, telecommunications, elevation, machine tools, home automation and home appliances.

## Products/Services

- \* Design of electronic and mechanical equipment.
- \* Programming of any type of micro and embedded systems.
- \* Design and development of electronic PCB boards (hardware and software).
- \* Prototype assembly for tests and validations.
- \* PCB board assembly for small and big series.
- \* Assembly and manufacture of electronic equipment.
- \* Urgent assemblies of PCB boards.
- \* Materials management.
- \* Visual, manual and automatic PCB inspection systems.



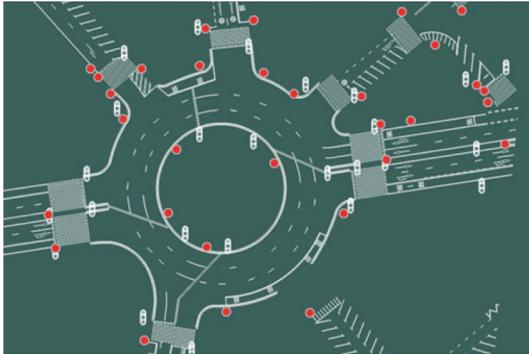
## Company activity

Development, manufacturing and marketing and selling of racing vehicles. SILVER CAR vehicles are characterized by allowing amateur drivers and professional drivers to compete in different regional, national and international championships, as well as in automobile leisure activities. SILVER CAR PROTOTIPOS, S.L. It is responsible for the development of each and every one of the elements of the vehicles, being produced both internally and by high quality suppliers. SILVER CAR customers have achieved more than 20 national titles in their categories in countries such as Spain, France, Belgium, Germany or UAE.

## Products/Services

The main products manufactured by SILVER CAR PROTOTIPOS, S.L. are:

- \* SILVER CAR ST2: vehicle with national approval oriented to ground surface or high slip characterized by its motorization with powers between 120 and 140 hp.
- \* SILVER CAR S3: vehicle with national homologation oriented to Hillclimb competition and slalom motorized by motors with power of until 220 CV.
- \* SILVER CAR EF10: vehicle with international FIA homologation oriented to Hillclimb competition with power of 420 hp for the scarce 475 kg of weight.



## Company activity

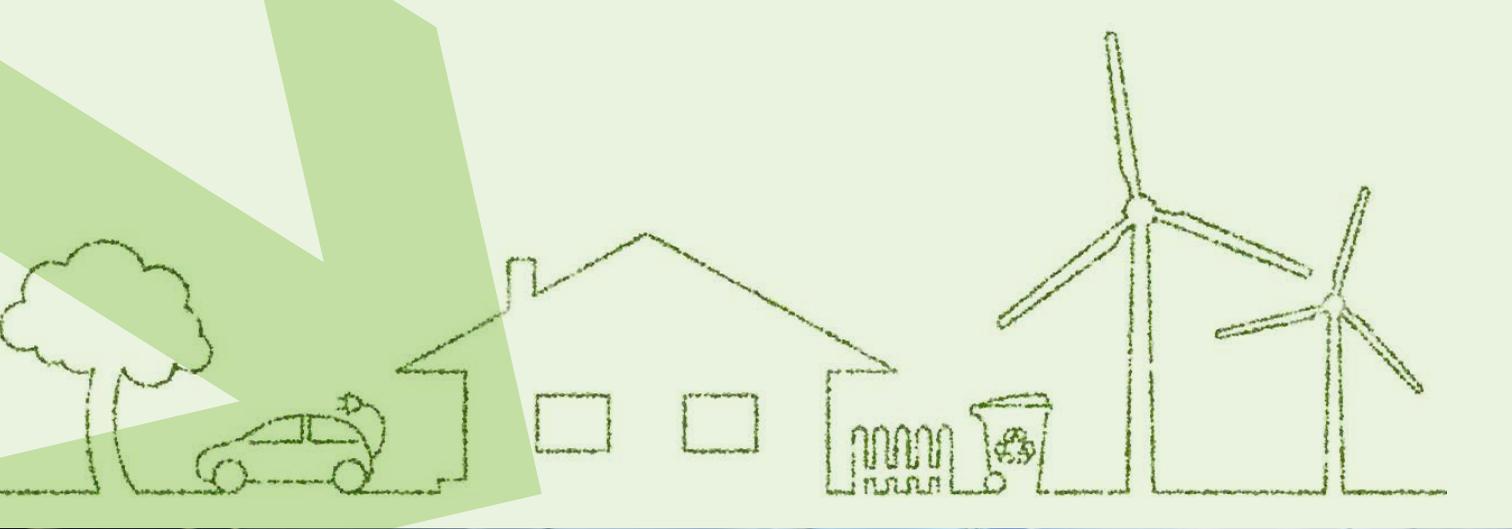
TRACASA is a company owned by the Government of Navarra. With over 35 years of experience within the field of territory information systems, TRACASA is a recognized market reference for high quality precision cartographic information projects. TRACASA is developing a technology innovation plan aimed at creating new business streams focused on leveraging Data Science and Artificial Intelligence Technologies, and their application within the field of cartographic processing in support of activities for the development of automated driving solutions. TRACASA's experience and its commitment to quality and innovation has positioned the company as a recognized technology services and solutions provider within the field of Territory Management Services having successfully undertaken public and private projects locally, internationally and in cooperation with EU Agencies.

## Products/Services

- \* **HD Mapping:** High definition map services for autonomous driving. Map service leverage air borne sensor and mobile mapping information sources.
- \* **Localization:** A catalogue of heterogeneous routes and locations with centimetre level precision to test autonomous or assisted driving systems.
- \* **3D Models:** Production of Hyper Realistic 3D models, Semantic 3D models and Mesh 3D to be used for simulation activities in laboratory environments.
- \* **Simulation and Lab Services:** leveraging the digitized high precision 3D Models provided







[www.naveac.com](http://www.naveac.com)