

## **CORPORATE PRESENTATION**

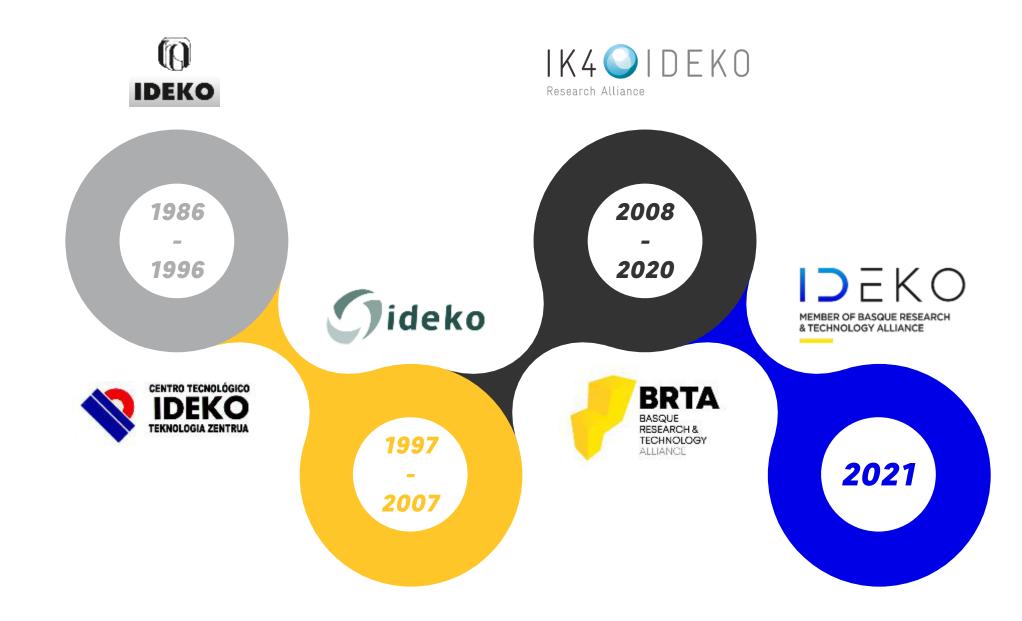


2022

ideko.es

IDEKO is a Research Center member of BRTA, specialized in Advanced Manufacturing, with special focus on precision machines and processes and Artificial Intelligence in manufacturing.

#### WHO WE ARE

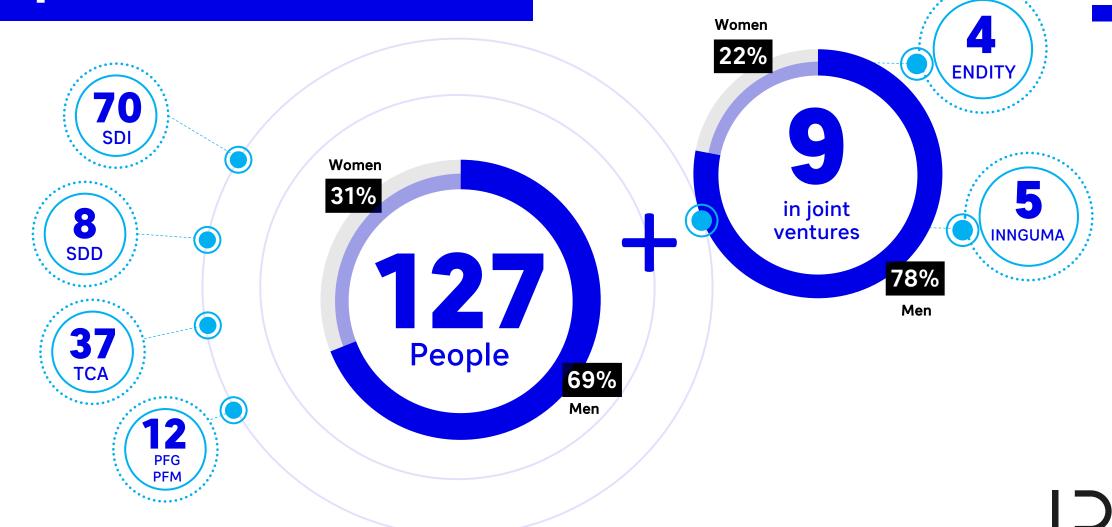




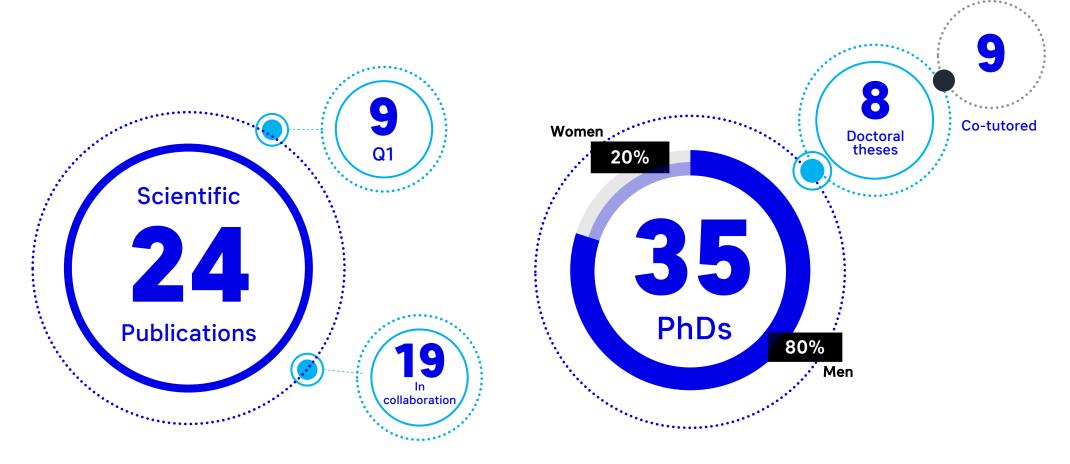
Highly qualified people to respond to the current and future needs of our clients in research, development and technology and knowledge transfer.

#### Our team

#### People in IDEKO 2021



#### Technological excellence





#### **R&D** activity

Our R&D activity is aimed at offering innovative solutions that contribute to the competitiveness of the industry.

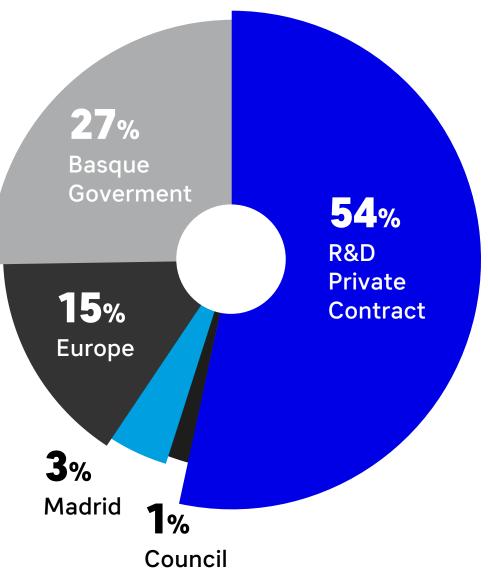


#### Incomes 2021

## 10<sub>M€</sub>

**46%** Own R&D

**54**% R&D Private contract





34
Patents

2 Startups endity :: innguma

>150

Technology transfer projects

>30

Years coordinating European Projects 9 Active EU projects





#### **Alliances & Collaborations**

# Alliance Network + than 100 R&D agents





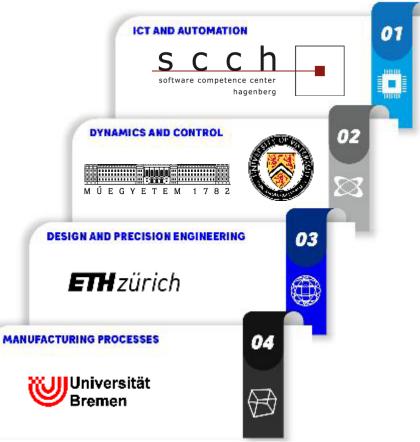




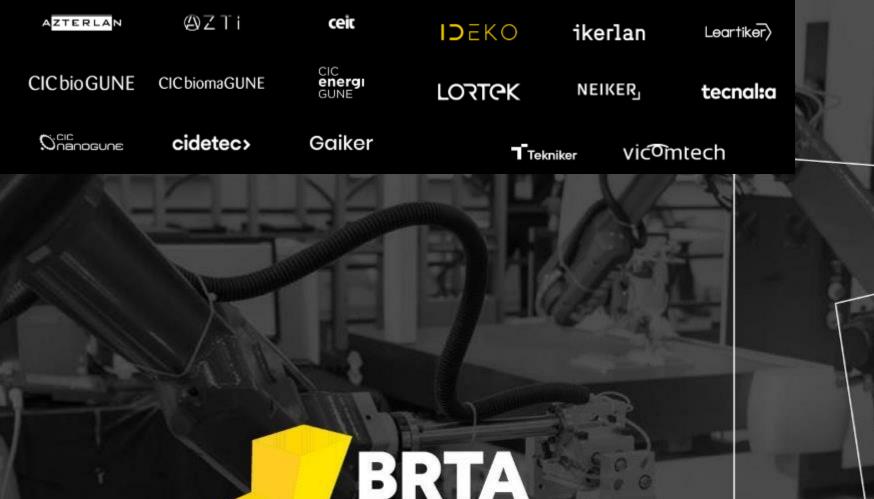




## **Specialization Collaboration**







**BASQUE RESEARCH** 

& TECHNOLOGY

ALLIANCE

**3.700** Researchers

**280** PhD/year

**1.300**Scientific
Publications / year

**100**Patents/year

300 M €

Total incomes: 60% Public Administration + 40% Private Contract We have multi-disciplinary team to generate knowledge, develop solutions and transform them into value on the market. We accompany you from the first research phases to the implementation of results in innovations for the market.

DYNAMICS & CONTROL





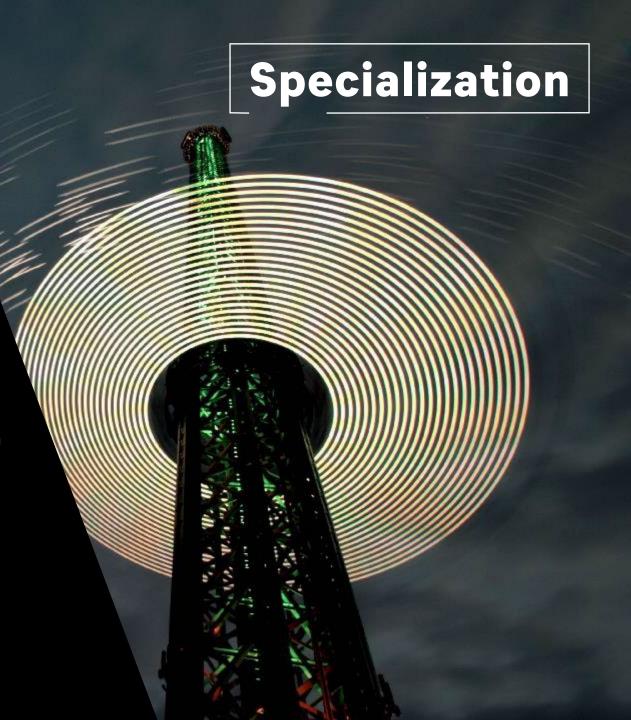
MANUFACTURING PROCESSES

TICS & AUTOMATION





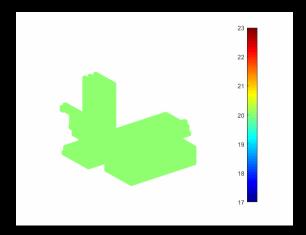
DESIGN & PRECISION ENGINEERING



## Design & Precision Engineering

This research group focuses on high-performance product design and development such as prototypes, mechanisms, structures, modelling and simulation of components. They develop measurement systems for precision and reliability with photogrammetry, laser, optics or contact sensors technologies. They also carry out behavioural studies of precision of equipment, mainly in relation to thermal effects and geometrical errors. This task is performed through experimental observation of compensation on the machine, the development of high-dynamics precision systems and calibration equipment.









#### Manufacturing Processes





In order to solve existing problems in industrial processes and increase efficiency and productivity of manufacturing processes, it brings together the development of machining technologies by removal and abrasion, such as turning, grinding, milling, bending, drilling or laser together with the management and organization technologies of Industrial Production, such as simulation programs.

They incorporate NDT technologies for the inspection of parts and industrial processes with the aim of adding value and improving industrial production processes and ensuring the quality of the parts.





## Dynamics & Control

It develops technologies for the characterization, modeling and design of solutions to improve the dynamic behavior of machines, mechatronic systems and machining processes.

It has a recognized prestige in the international field of science and technology.of the chatter in machining processes and machine dynamics.



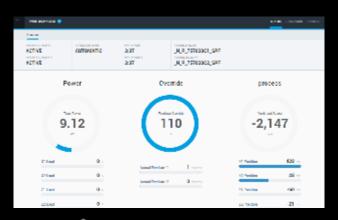


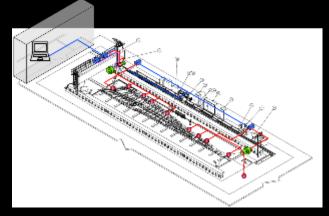






## ICT & Automation





They develop software applications and automation solutions to provide advanced capabilities to manufacturers of machines and manufacturing lines.

They research and develop state-ofthe-art ICT solutions with applicability in advanced manufacturing technologies and industrial production.





### 7 Specialization Lines 2021 - 2024

### MACHINE AND PRECISION PROCESSES

Development of precision solutions addressing the entire value chain: from the measurement and verification of the quality of the machined part, working on the process and machine technologies.

### ARTIFICIAL INTELLIGENT IN MANUFACTURING

Application of AI techniques to obtain data performance on quality.

2

### ACTIVE AND SMART COMPONENTS

Development of smart components that provide special functionalities, integrated into the machine or as accessory devices.

3

#### SIMULATION | DIGITAL TWINS

Development of models that allow designing and optimizing a production process in all its different scales.

#### STRATEGIC PARTS PROCESSES AND APPLICATIONS

Development of innovative solutions to provide a competitive advantage in special parts offers.

#### **ROBOTICS**

Collaborative application of robots with machines and operators, to provide them with special capabilities and functionalities and eliminate manual operations.

#### ADDITIVE MANUFACTURING

Applicability of additive manufacturing technologies.
Prospective, new business opportunities.

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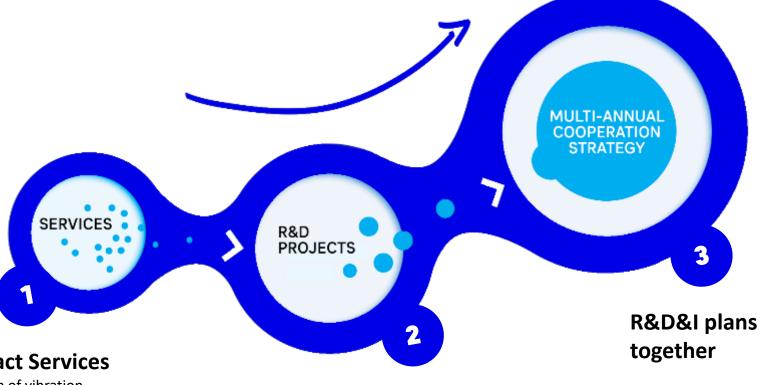






#### Technological Partner

We offer an integral solution for the needs of today and the future in advanced manufacturing.



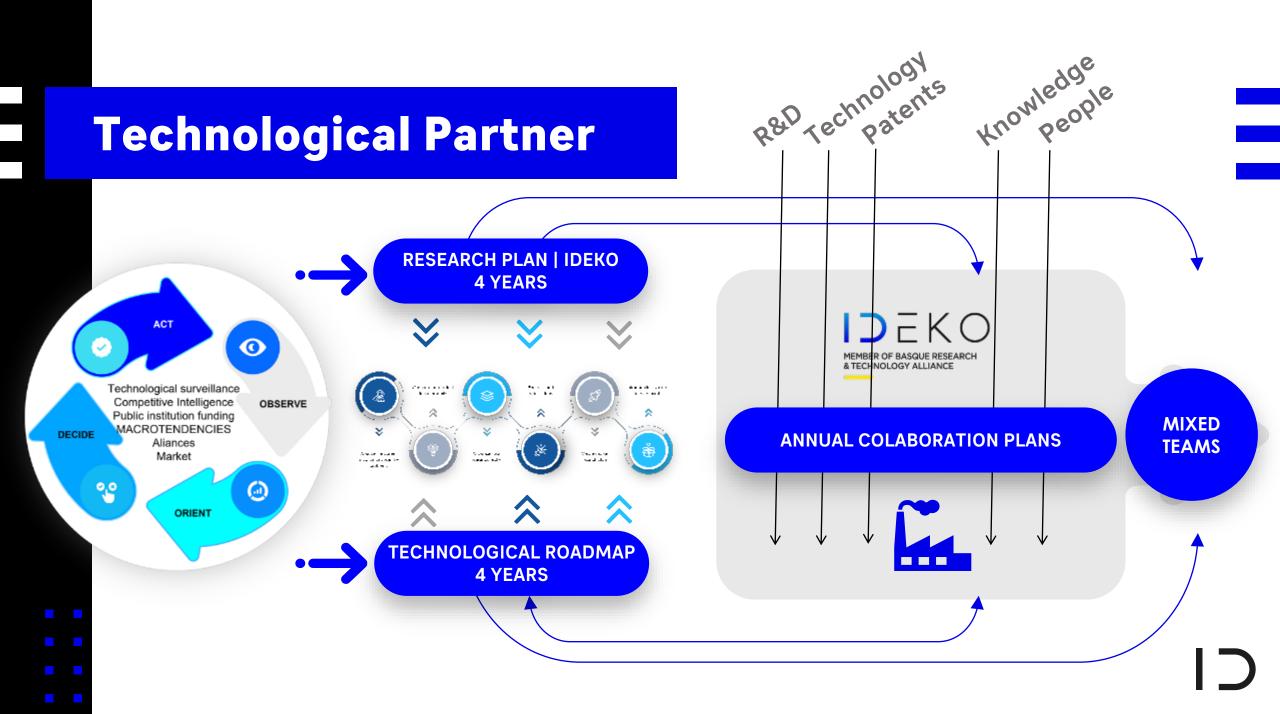
#### **Contract Services**

resolution of vibration problems, modal analysis, FEM calculations and simulations, or the provision of advanced measuring, inspection and verification services.

#### **R&D** projects

Knowledge and technology transfer.







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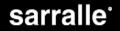






























































### **FACILITIES**



DIGITAL GRINDING INNOVATION HUB



PRECISION ENGINEERING LAB.



PRECISION METROLOGY LAB.



HIGH PERFORMANCE DYNAMICS LAB.



COMPOSITES LAB.



LASER LAB.



CNC AND DIGITAL FACTORY LAB.



PROTOTIPE WORKSHOP

#### **Facilities**









MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE









