



# CORPORATE PRESENTATION

**IDEKO**

MEMBER OF BASQUE RESEARCH  
& TECHNOLOGY ALLIANCE

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

# About Us



1986  
-  
1996

IK4  IDEKO  
Research Alliance

2008  
-  
2020



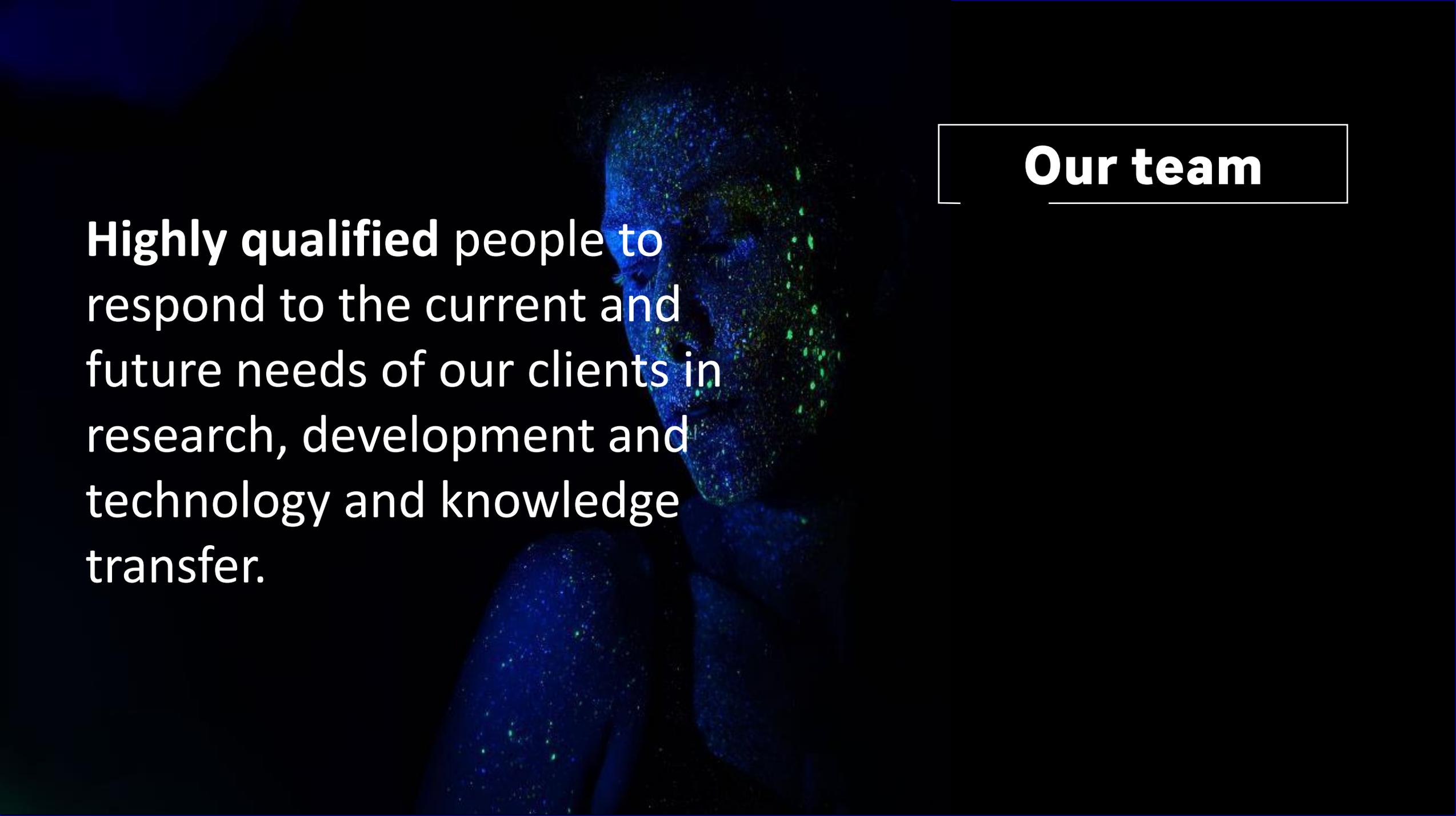
IDEKO  
MEMBER OF BASQUE RESEARCH  
& TECHNOLOGY ALLIANCE



1997  
-  
2007



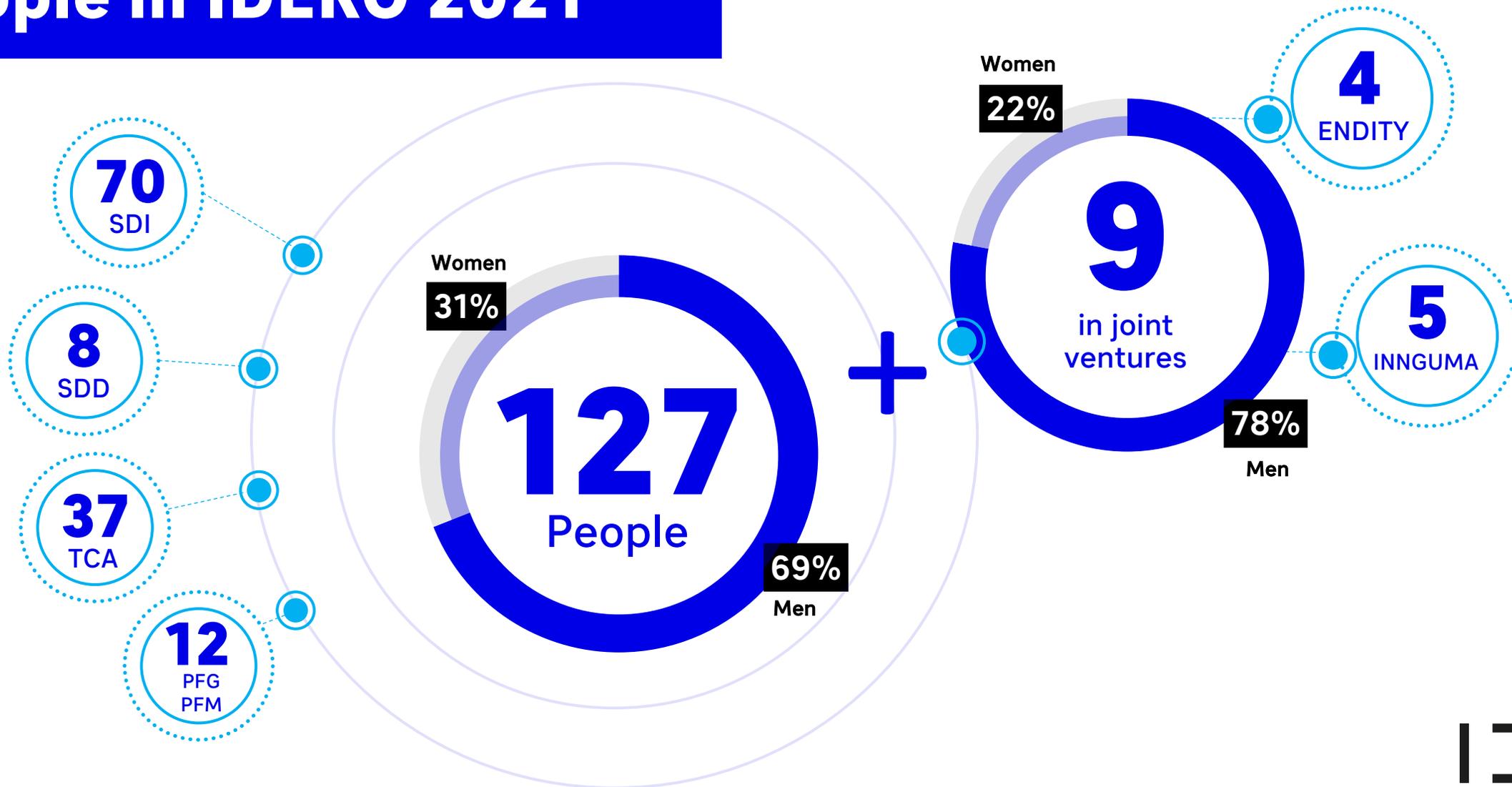
2021



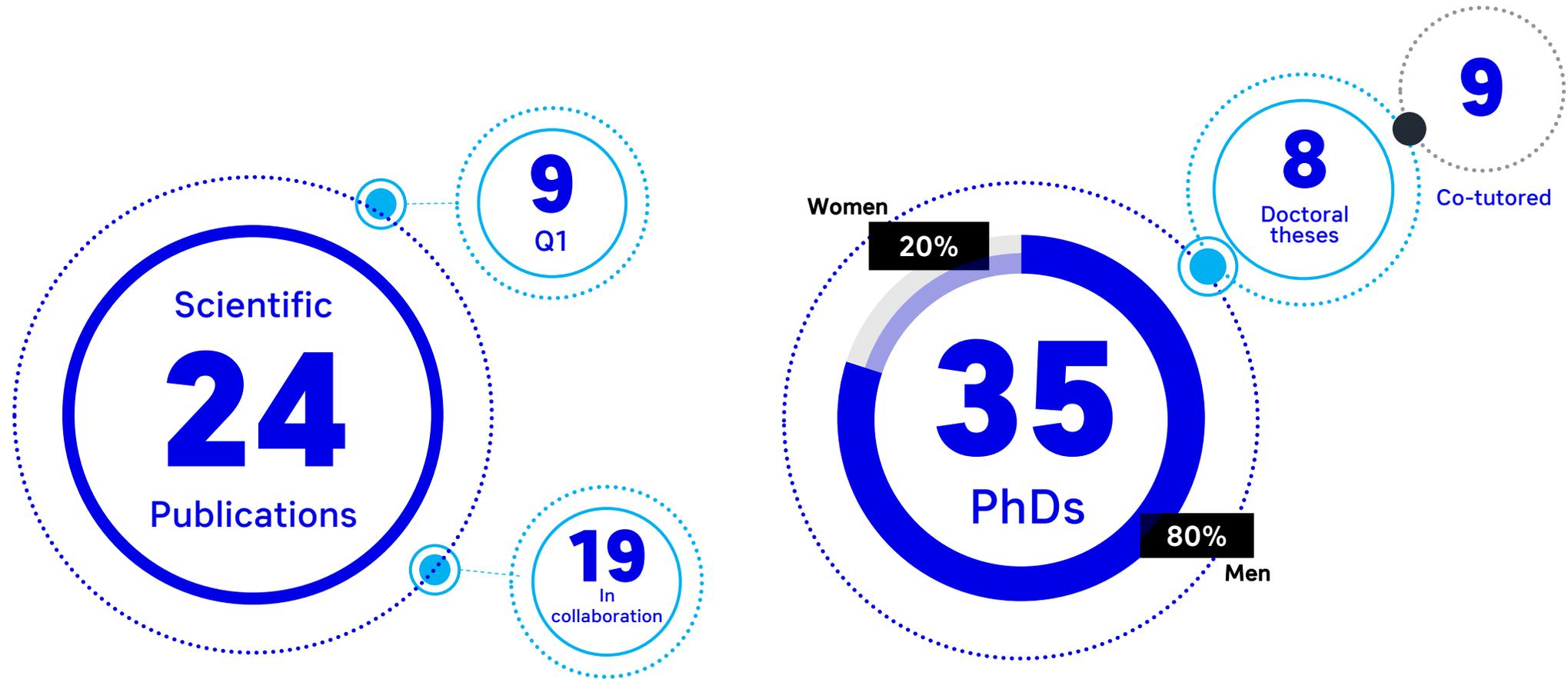
**Highly qualified** people to respond to the current and future needs of our clients in research, development and technology and knowledge transfer.

**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.

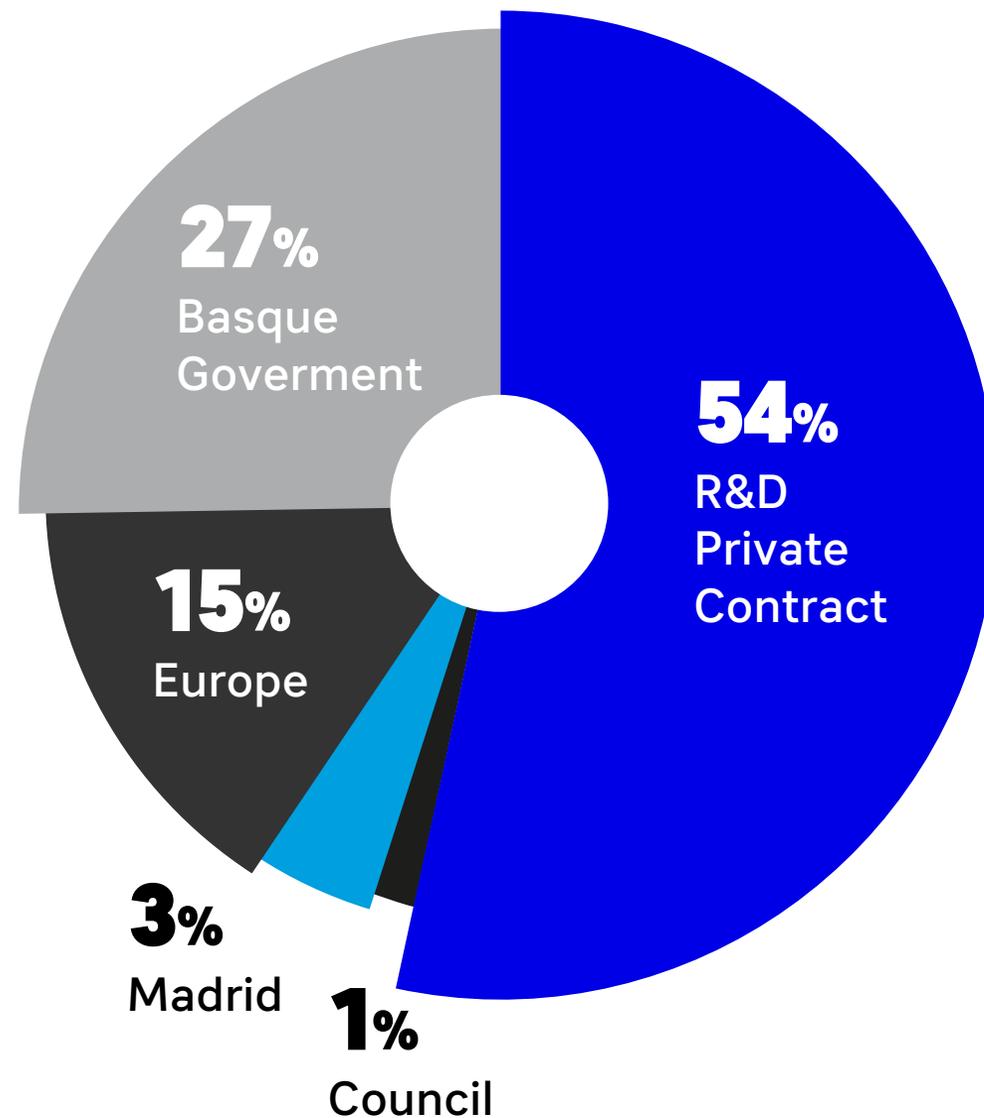


# Incomes 2021

**10M€**

**46% Own R&D**

**54% R&D Private contract**



**34**

Patents

**2**

Startups

**endity** 

 **innguma**  
intelligence for everyone

**>150**

Technology transfer projects

**>30**

Years coordinating  
European Projects

**9**

Active EU  
projects

# **Alliances & Collaborations**



# Alliances & Collaborations

Alliance  
Network  
+ than 100  
R&D agents



## Specialization Collaboration



AZTERLAN

AZTI

ceit

IDEKO

ikerlan

Leartiker

CICbioGUNE

CICbiomaGUNE

CIC  
energi  
GUNE

LORTEK

NEIKER

tecnal:a

CIC  
nanogune

cidetec

Gaiker

T  
Tekniker

vicomtech



# BRTA

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.**

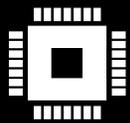
# Specialization

**DYNAMICS &  
CONTROL**



**MANUFACTURING  
PROCESSES**

**TICS &  
AUTOMATION**



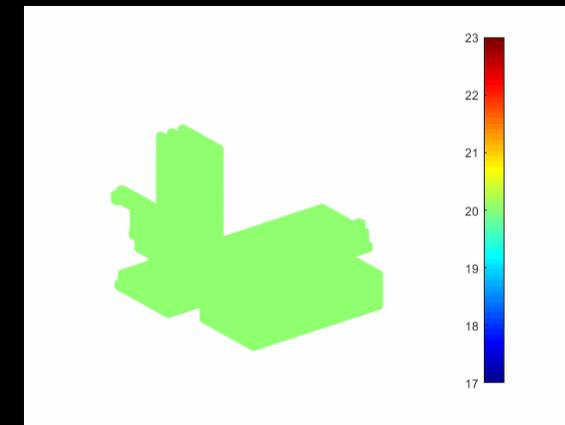
**DESIGN &  
PRECISION  
ENGINEERING**



# 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.

[MORE INFO](#) 



# 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.

[MORE INFO](#) 

## Dynamics & Control

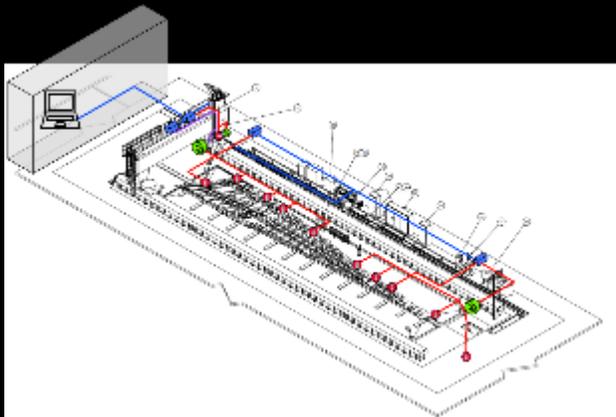
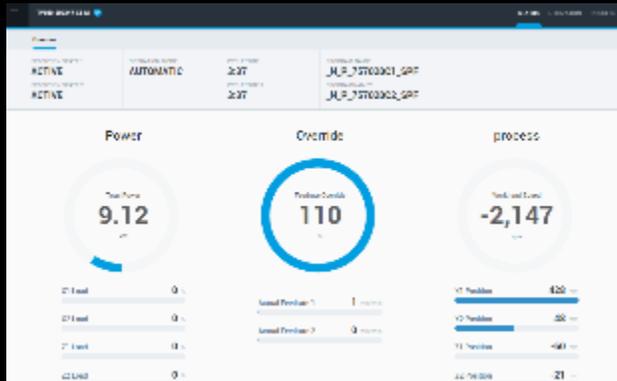
It develops technologies for the **characterization, modeling and design** of solutions to improve the **dynamic behavior of machines, mechatronic systems and machining processes.**

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

[MORE INFO](#) 



## 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-of-the-art **ICT solutions** with applicability in advanced manufacturing technologies and industrial production.

[MORE INFO](#) 

# 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.

1

## *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.

4

## *STRATEGIC PARTS PROCESSES AND APPLICATIONS*

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

5

## *ROBOTICS*

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

6

## *ADDITIVE MANUFACTURING*

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

7

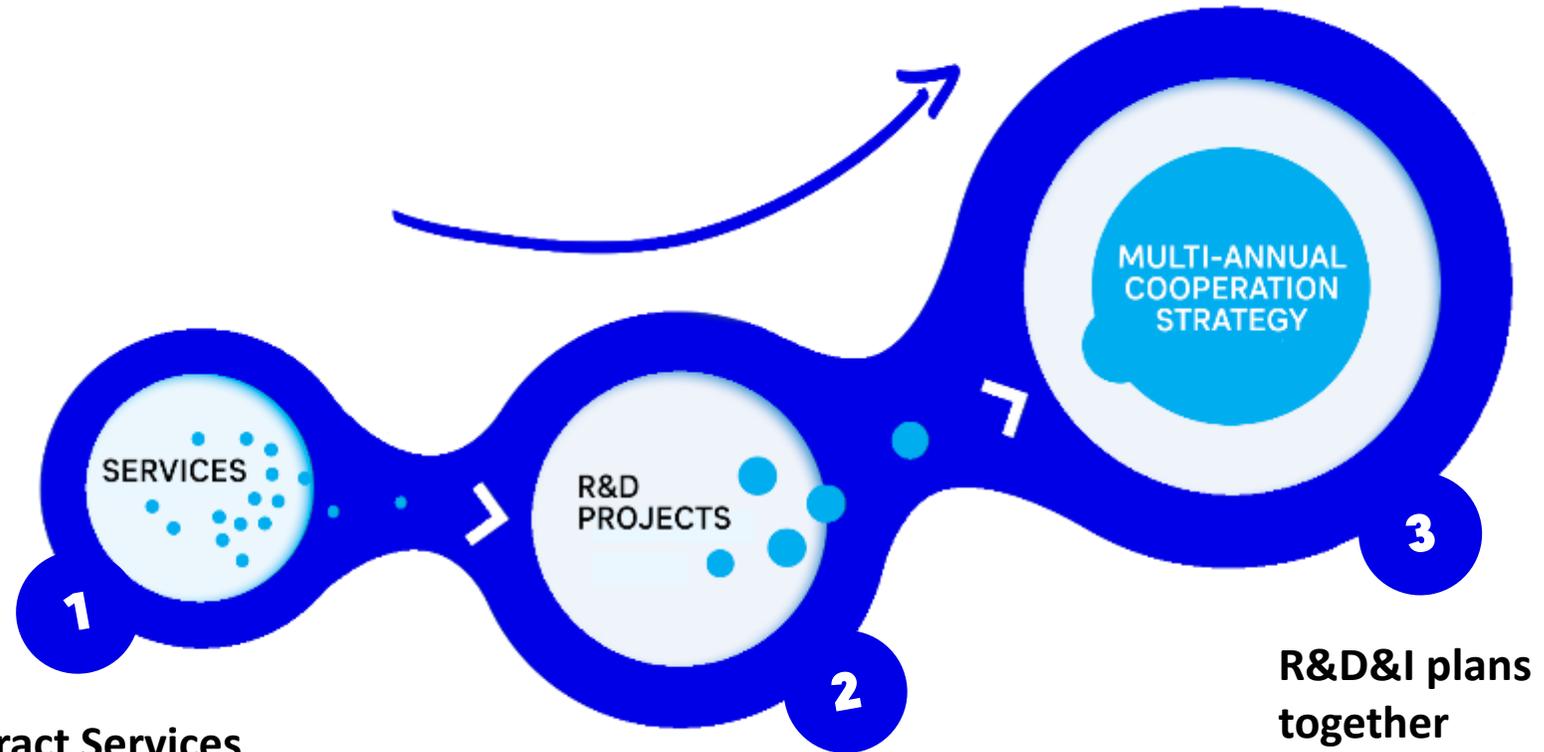


INNOVATION  
MANAGEMENT  
MODEL



# 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

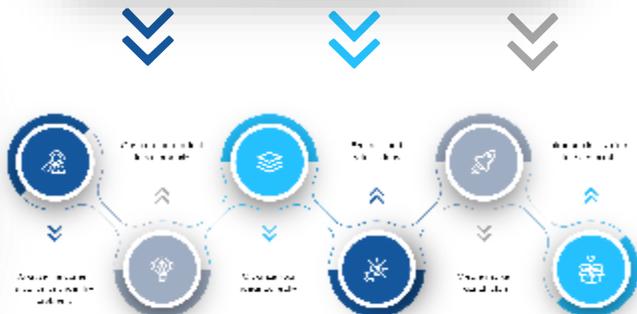
Knowledge and technology transfer.

R&D&I plans together

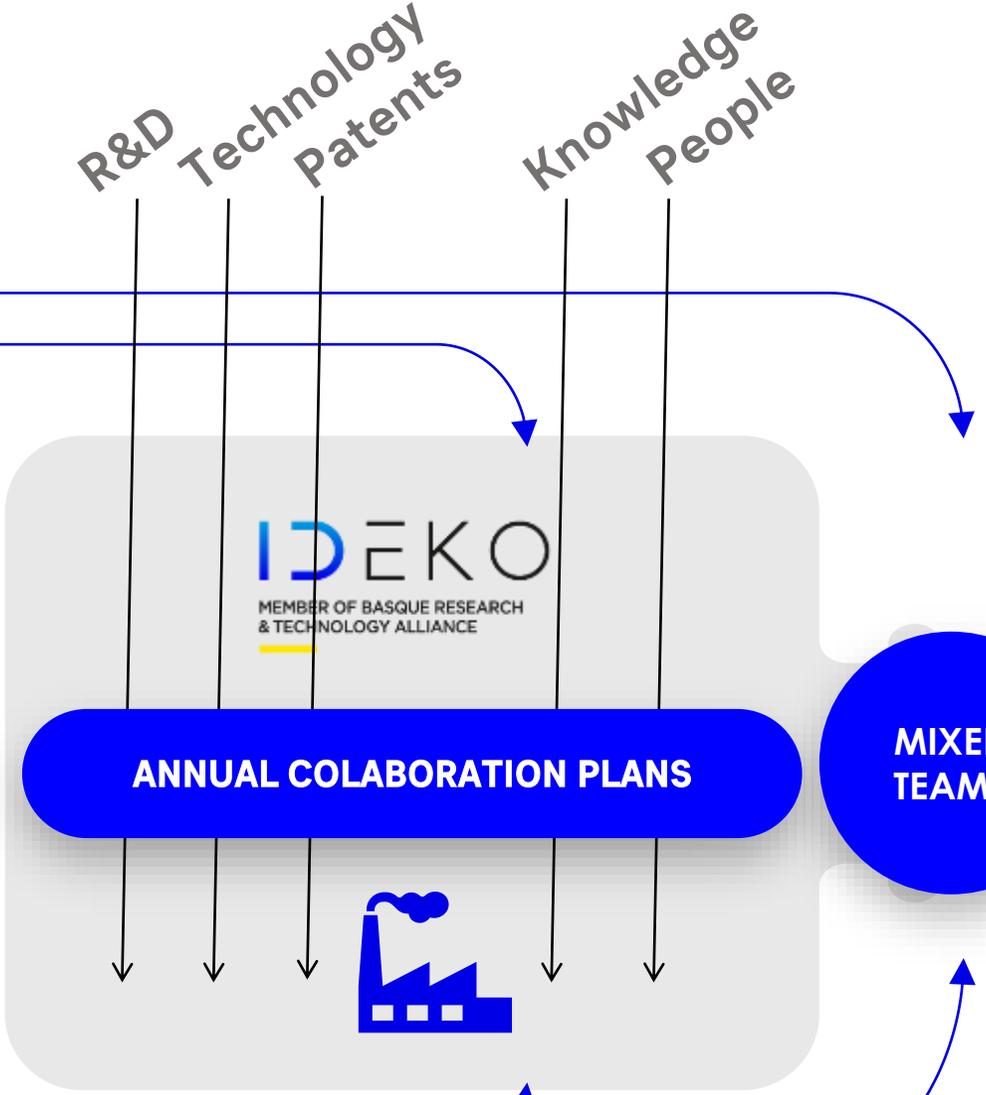
# Technological Partner



→ **RESEARCH PLAN | IDEKO  
4 YEARS**



→ **TECHNOLOGICAL ROADMAP  
4 YEARS**



**AERNNOVA**

euskotren

**GOIMEK**

**DANOBAT**

**DANOBAT  
OVERBECK**

**SORALUCE**



**eUSKO  
MACHINING**



**ONA**

**SIKULAN**



**epc**  
Engine Power Components

**Irizar**



**RONALGROUP**

**Tenaris**



**endity**

**IBERMACH**  
Special Machinery / Presses



**Orona**



**ekin**  
Thinking together



**Loramendi**  
Total Performance in foundry



**ZUBIOLA** DIAMOND TOOLS SOLUTIONS

**CAF**



**ITP Aero**

**Korta**

**sarralle**



**COMETEL**

**FAGOR**  
FAGOR AUTOMATION

**IPF**



**SAVVY**

**urota**  
SOLUTIONS

**Alcorta**  
FORGING GROUP

**ETXEPE**

**Ingeteam**

**MASTED  
ASSEMBLY**  
Customized machinery solutions

**sidenor**

**UNESA**



**ERLO**  
Group

**Gestamp**



**SIEMENS**

**ULMA**



**Egile** | DRIVEN BY  
PRECISION



**SIEMENS Gamesa**  
RENEWABLE ENERGY



# FACILITIES



**DIGITAL GRINDING  
INNOVATION HUB**



**PRECISION  
ENGINEERING LAB.**



**PRECISION  
METROLOGY LAB.**



**HIGH  
PERFORMANCE  
DYNAMICS LAB.**



**COMPOSITES LAB.**



**LASER LAB.**



**CNC AND DIGITAL  
FACTORY LAB.**



**PROTOTYPE  
WORKSHOP**

# Facilities



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Arriaga kalea, 2 · E-20870 Elgoibar, GIPUZKOA | +34 943 748 000 | [www.ideko.es](http://www.ideko.es) |

