

Index

- 01 **Institutional message**
- 02 **IDEKO in figures**
- 03 **About us**
- 04 **Projects**
- 05 **Alliances and collaborations**

01 Institutional message



Xabier Alzaga

President of IDEKO

The year 2025 will be remembered as a milestone in IDEKO's history, as we achieved the best results in our trajectory on the eve of our 40th anniversary. This new record turnover confirms that our strategy and cooperative model continue to play a key role in strengthening the competitiveness of the Basque industrial ecosystem.

Over the past year, we reached a turnover of €14.5 million, representing a 12% increase compared to the previous year. This achievement is further reinforced by a record order intake of €14 million, the highest figure in IDEKO's history. These results allow us to complete the first year of our 2025-2028 Strategic Plan from a position of leadership within the applied manufacturing R&D ecosystem.

The balance and robustness of our business model are clearly reflected in the sources of our revenues. Fifty-four percent of our turnover (€7.8 million) came from technology transfer projects with the private sector, reflecting the trust that companies place in IDEKO as a technology partner. The aerospace, energy and machine-tool sectors remain key recipients of the knowledge and innovation generated through our R&D activities.

One of the most significant developments already making an impact on advanced manufacturing is our involvement in the design and development of a new generation of industrial robots. This disruptive solution combines the precision and stability of machine tools with the flexibility and agility of robotic systems, opening up new manufacturing possibilities across multiple industrial sectors. We have also continued advancing in the development of specialised dynamics and control systems for robotics applications.

The other 46% came from research and technology specialisation initiatives supported by public funding, an essential source of support for generating cutting-edge knowledge and innovation. The breakdown of this funding was as follows: 24% from Basque Government programmes, 16% from European initiatives, 5% from the Spanish Government and 1% from the Provincial Council of Gipuzkoa.

2025 was also a year marked by a strong commitment to the future. We invested more than €1.1 million in the continuous improvement of our scientific infrastructure and facilities. These investments are crucial to providing our team with state-of-the-art resources and broadening our presence in new markets. As we celebrate our 40th anniversary this year, we look ahead with the same ambition that has guided us throughout our history, combining the experience of a well-established research centre with the agility required to address emerging industrial challenges.



Rafa Lizarralde

General Manager of IDEKO

As we mark four decades of innovation in advanced manufacturing, is an opportunity to reflect on our achievements while reinforcing our commitment to the challenges ahead. In 2025, we consolidated our role as a key technology partner for industry, helping industry transition towards more efficient, intelligent and sustainable production models.

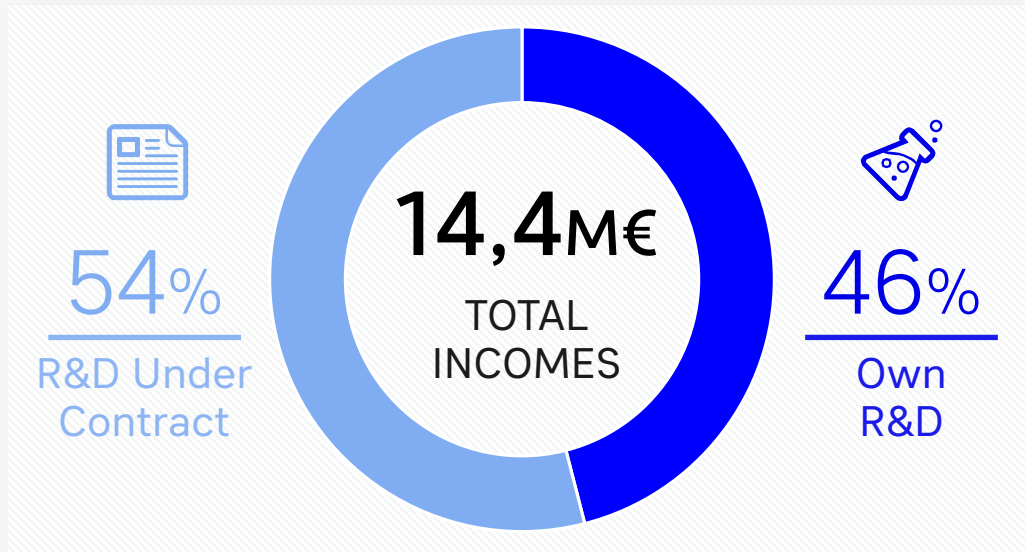
Our technological roadmap has become firmly structured around three strategic pillars: precision machines and processes, artificial intelligence applied to manufacturing, and high-precision robotics. In particular, the progress achieved in digitalisation and AI has significantly strengthened our position as a strategic partner for industry.

The market response has been extremely positive. A clear example is the aerospace sector, which represents 25% of our turnover, driven by strategic collaborations such as our long-standing partnership with ITP Aero. We also continue to develop high-value collaborations with global industrial leaders, as demonstrated by initiatives such as the Renishaw Solutions Centre. Our commitment to scientific excellence is reflected in key indicators, including 27 papers published in indexed scientific journals in 2025, 44 active patents, 41 PhD holders within our team, and 11 researchers currently pursuing their doctoral studies at IDEKO.

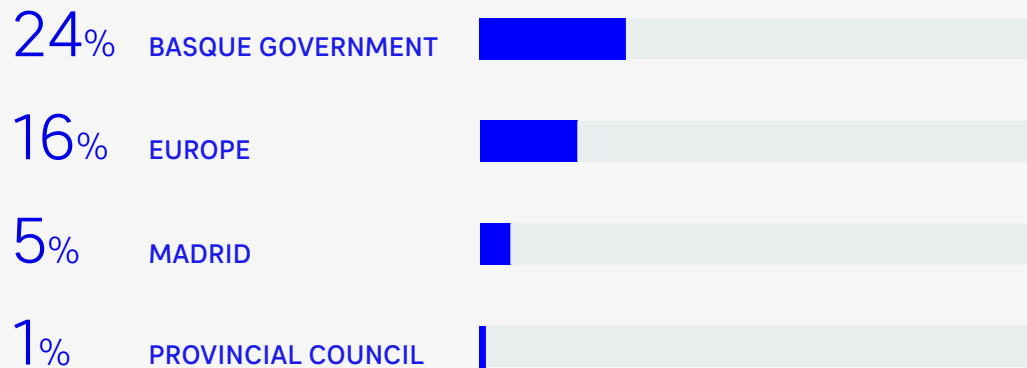
Beyond research and technology transfer, 2025 marked significant progress in one of the main objectives of our Strategic Plan: the valorisation of our technological assets. To achieve this, we have launched an ambitious strategy aimed at bringing our distinctive technologies closer to the market, while fostering the creation of new business models and technology-based start-ups. Our goal is not only to improve industrial processes through R&D, but also to generate new high-value economic and industrial activity.

None of this would be possible without our most important asset: our people. During the past year, we strengthened our commitment to research excellence and talent attraction. Advanced facilities such as the Digital Grinding Innovation Hub have become a powerful attraction point for new generations of engineers and researchers, offering the opportunity to tackle real industrial challenges. As a cooperative organisation, we remain committed to equal opportunities and professional development. By the end of 2025, our workforce had grown to 138 professionals. The Human Resources Strategy for Researchers (HRS4R) certification, together with the initiatives included in our Equality Plan, help ensure a diverse, inclusive and stimulating working environment. Building on these strong foundations, we will continue providing Basque and European industry with the technologies needed to strengthen strategic autonomy and reinforce international leadership in the era of Industry 5.0.

€ Source of incomes



Distribution by region



176 People in total

138 Staff
28% Women | 72% Men

36 People in training

29% PhDs
11 PhD theses in progress



44 Patents
2, in 2025

>200 Technology Transfer Projects

20 Active European Projects

03 About us

03.1 ABOUT US

We are a research center specialized in advanced manufacturing, with special focus on precision machines and processes and artificial intelligence in manufacturing. We generate, capture and develop new technologies capable of responding to the current and future challenges of the industry.

Our activity covers the identification and analysis of opportunities, the design and development of products, business lines and production processes and the resolution of problems through the provision of technological services such as technical consultancy and equipment based services.

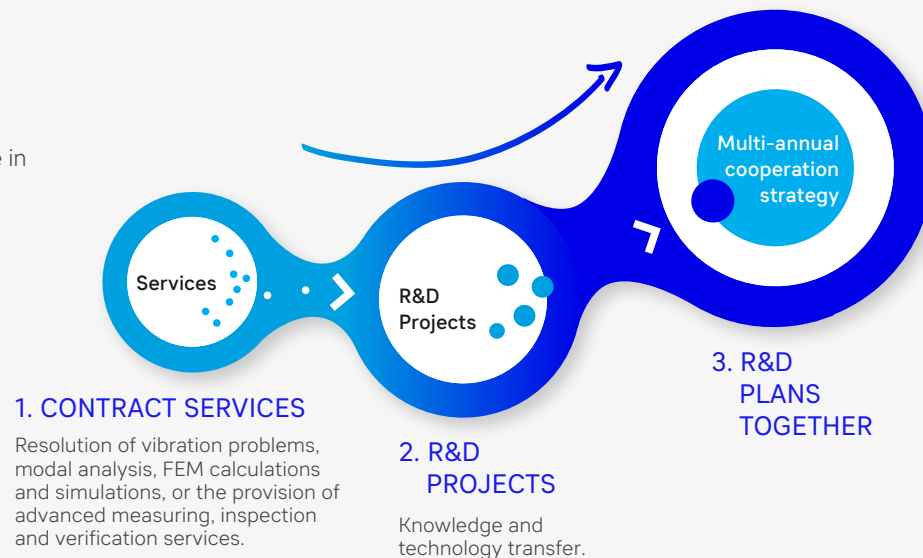
03.2 ORGANISATION



03.3 COLLABORATION OF IDEKO WITH COMPANIES

TECHNOLOGICAL PARTNER

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



03 About us

03.4 4 RESEARCH GROUPS

DYNAMICS AND CONTROL

- Dynamic behaviour of machines:
 - Self-excited vibrations.
 - Damping.
 - Advanced control algorithms.
 - Mechatronics simulation.
- Advanced robotics.



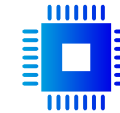
DESIGN AND PRECISION ENGINEERING

- Advanced concepts of machines and components:
 - Mechanical and thermal simulations.
 - Ecodesign.
- Non-contact dimensional measurement.
- Machine vision.



ICT AND AUTOMATION

- Value-added industrial automation:
 - Predictive and proactive maintenance.
- Cloud Computing.
- Advanced Programming.
- Artificial Intelligence.



03.5 6 SPECIALIZATION LINES

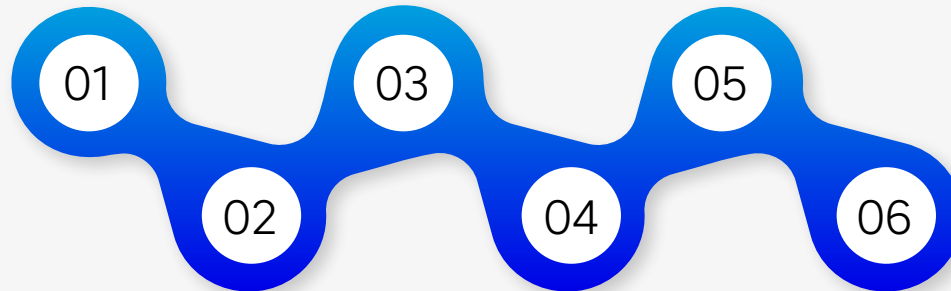
MACHINE and
PRECISION
PROCESSES

ACTIVE
and SMART
COMPONENTS

STRATEGIC PARTS
PROCESSES and
APPLICATIONS

MANUFACTURING PROCESSES

- Development of cutting and abrasion machining technologies.
- Sustainable manufacturing.
- Industrial management and production.
- Composite technologies.
- Laser technologies: Cutting processes and additive manufacturing.
- NDT Inspection of superficial and internal defectology.



ARTIFICIAL INTELLIGENCE
in MANUFACTURING

SIMULATION
DIGITAL TWINS

ROBOTICS

04 Projects



04.1 R&D PROJECTS

Research on the virtualization of key functionalities of production resources to enable their dynamic reconfiguration throughout their life cycle.

Technological research on the accuracy and use of artificial representations in machine vision systems.

Detection of anomalies in high-variability manufacturing processes.

Safe design and development of AI-based robotic systems.

The human at the center of AI-enabled non-destructive inspection technologies.

Federated process management architecture in discrete-event manufacturing systems.

Advanced grinding technologies for the treatment, evaluation, and on-board suppression of surface defects.

New generation of processes for sustainable (re)manufacturing.

Non-contact monitoring of composite materials from manufacturing to end of life.

Holistic and in-process metrology for production control.

Collaborative and autonomous digital twins empowered by people for flexible and intelligent manufacturing.

Virtual twin for the identification and suppression of submicrometric marks in diamond turning.

Towards automatic generation of multi-geometry trajectories in next-generation robotics.

Advanced magnetoactive materials for new intelligent systems.

New generation of self-reinforced composite panels, sustainable and ultralight.

Autonomous, sustainable and safe factory enabled by deep technologies.

A sustainable life cycle for large machine tools enabled by digital twins.

Sustainable and productive additive manufacturing technologies to improve industrial competitiveness.

Cognitive mechatronics for the design of industrial machines.

Vibration control in industrial equipment using smart dampers.

Digital twins for productive and defect-free multi-axis milling.

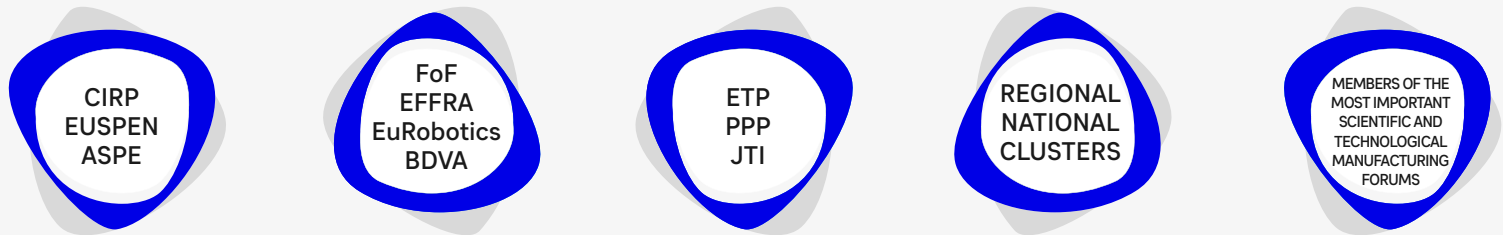
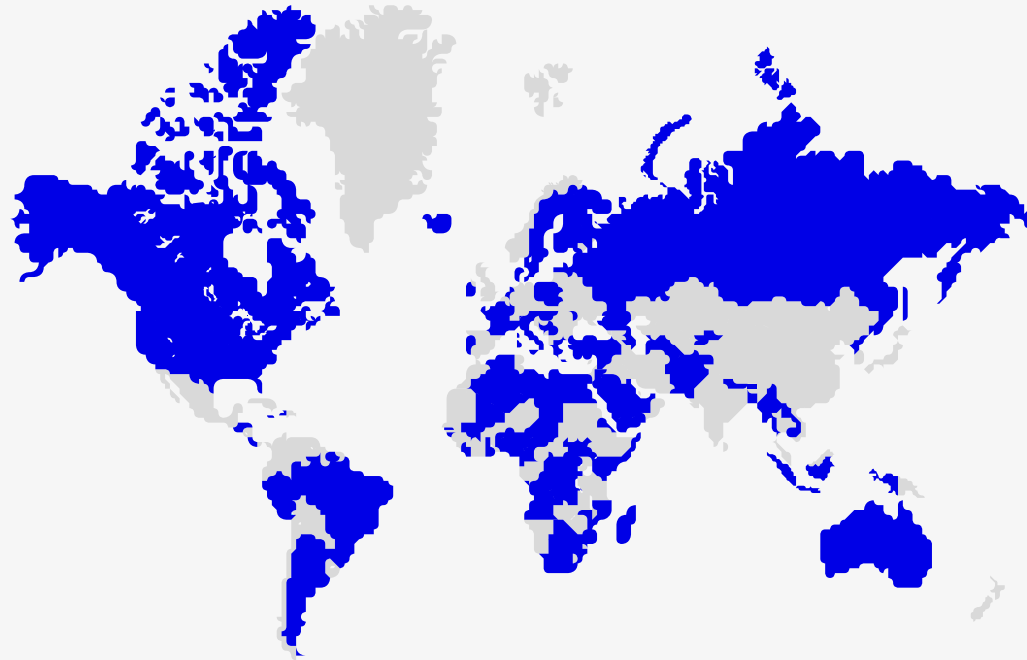
Research on the virtualization of factories across the manufacturing value chain, intercommunicated and interconnected to enable fully circular and zero-emission manufacturing.

EUROPEAN PROJECTS

ADAM	FLEX4RES	EXTREMEXP	INFINITE	COGNIMAN	REED	VIDIT	COMPSTLAR
Application of digital and metrological twins for the optimization of measurement technologies in advanced manufacturing.	Data spaces for flexible production lines & supply chains.	Experimentation driven and user experience oriented analytics for extremely precise outcomes and decisions.	Aerospace composites digitally sensorised with microwires, from design and manufacturing to end-of-life (recycling).	Cognitive technologies in robotic finishing systems for large parts.	Reconfigurable mechatronic solutions based on MaaS (Manufacturing-as-a-Service) for machining large parts with complex geometries.	Trustworthy virtual experiments and digital twins.	Digital and NDT inspection technologies for the identification of small-size defects in composite aerostructures.
AIMS 5.0	EMPYREAN	INDUX-R	LASERWAY	BIOSTRUCT	REMANET	HERFUSE	CREDIT
Artificial intelligence in manufacturing leading to sustainability and Industry 5.0.	Trustworthy, cognitive and AI-driven collaborative associations of IoT devices and edge resources for data processing.	Transforming european industrial ecosystems through eXtended reality enhanced with human-centric AI and secure, 5G-enabled IoT.	Extremely high-speed laser processes for sustainable and flexible manufacturing.	Manufacturing process for bio-based fibre-reinforced composite parts for structural applications.	Remanufacturing network.	Hybrid-electric regional fuselage & empennages.	New generation of sustainable digital twins enhanced with circularity and remanufacturing aspects.

05.1

ALLIANCES AND COLLABORATIONS



BUCAREST UNIV., BWI, CEA, CEDRAT, CERTH, CESI, CETIM, CHALMERS, CNRS, CRF-FIAT, D'APPOLONIA, DELCAM, DELFT UNIV., DTI/DTU, EPFL LAUSANNE, ETH ZURICH, EUROCHILE, FIDIA, FLANDERSMAKE, GTS, HELLAS, IBS, IFW / LZH HANNOVER, INESCPORTO, INRIA, IPA FHG STUTTGART, IPT / WZL / ILT / FHG / AACHEN, ITIA, IWUJ / TU CHEMNITZ, KALE AERO, KTH, STOCKHOLM, KU LEUVEN, LINZ, MONTERREY, NPL, NTNU / SINTEF, POLIMI, PONTIFICIA PERU, PRAGA UNIV., PRIMA, PROFACTOR, PTW DARMSTADT, SIRRI, SOCIESC, SWEREA, SZTAKI BUDAPEST, TEKNIFORETAGEN, TIMKEN, TNO, TU, ORTMUND, TU DRESDEN, TU EINDHOVEN, TUT TAMPERE, TWI, TYROLIT RTD, UNIV. ANKARA, UNIV. BRITISH COLUMBIA, UNIV. CALIFORNIA, UNIV. COSTA RICA, UNIV. ESTAMBUL, UNIV. GRAZ, UNIV. KEIO, UNIV. KOBE, UNIV. KOC, UNIV. LISBOA, UNIV. MASSACHUSSETS, UNIV. MICHIGAN, UNIV. NAGOYA, UNIV. PATRAS, UNIV. SABANCI, UNIV. SAO PAULO, UNIV. SETUBAL, UNIV. SOFIA, UNIV. TESALONICA, UNIV. WATERLOO, UNIV. CRANFIELD, UNIV. NOTTINGHAM, UNIV. OULU, UNIV. PADOVA, UNIV. SHEFFIELD + AMRC, UOB / BIBA / LFM BREMEN, VTT, WARSAW UNIV.



IDEKO

MEMBER OF BASQUE RESEARCH
& TECHNOLOGY ALLIANCE

Arriaga kalea, 2
20870 Elgoibar (Gipuzkoa)

T. (+34) 943 748 000

ideko.es .   

CFAA - Technological Park of
Zamudio (Bizkaia)

Zuatzu Business Park
Donostia - San Sebastián (Gipuzkoa)

Annual Report 2025

+ Manufacturing the future

