

ANNUAL REPORT 2025

— INDEX

1

LETTER FROM THE DIRECTOR

2

INTRODUCTION

3

CINTECX IN NUMBERS

4

THE CENTRE

5

FUNDING

6

RESEARCH AND TRANSFER

7

RESEARCH CAREER

8

GENDER EQUALITY IN RESEARCH

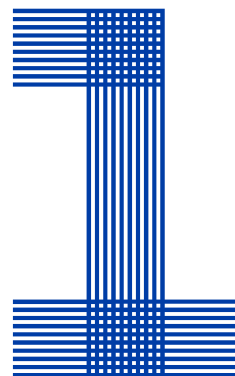
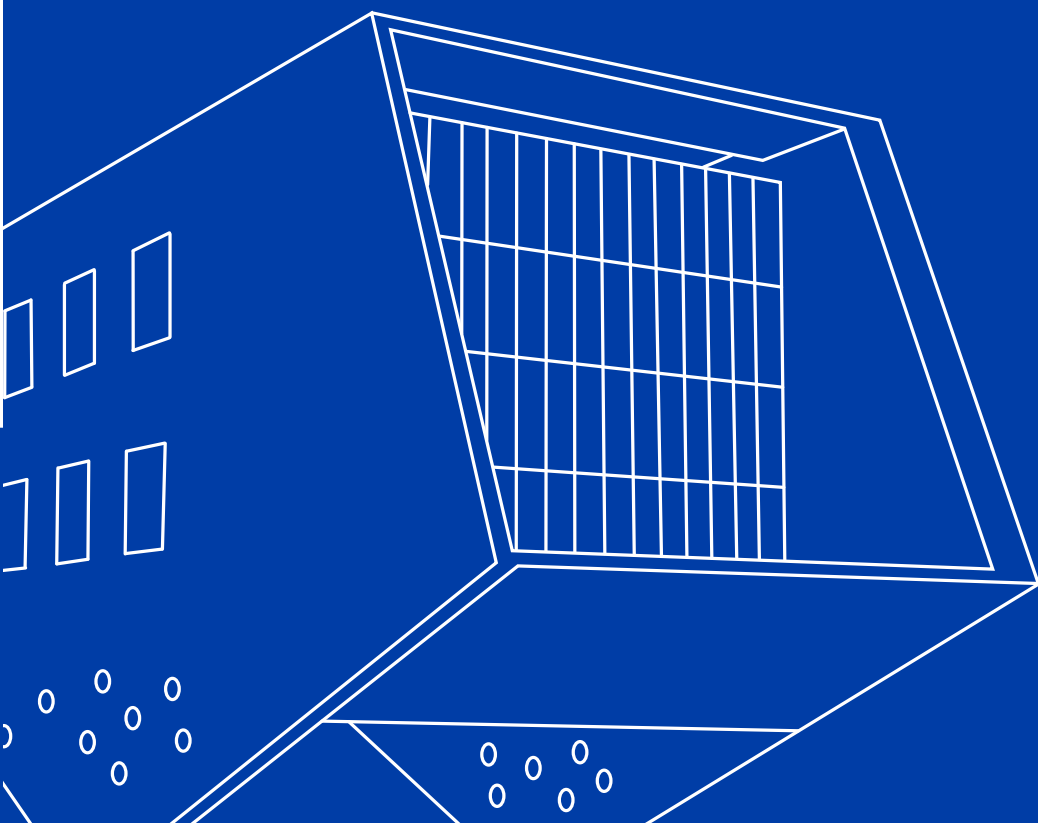
9

COMMUNICATION

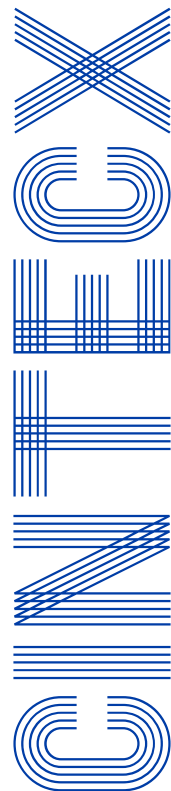
10

SCIENCE COMMUNICATION AND SCIENTIFIC CULTURE

LETTER FROM THE DIRECTOR



2025



LETTER FROM THE DIRECTOR



The year 2025 has been a period of consolidation and maturity for CINTECX, during which its position as a benchmark centre for research and technological transfer in the technological-industrial field has been strengthened.

As a CIGUS Collaborative Research Centre, this period has been marked by the consolidation of the scientific strategy, the strengthening of the centre's capabilities, and steady progress across all its areas of activity. Human capital has been one of the centre's fundamental pillars, with advances in the stabilisation, promotion, and inclusion of research staff. The recruitment and training of young talent reinforce a solid scientific community, the foundation of CINTECX's excellence and impact.

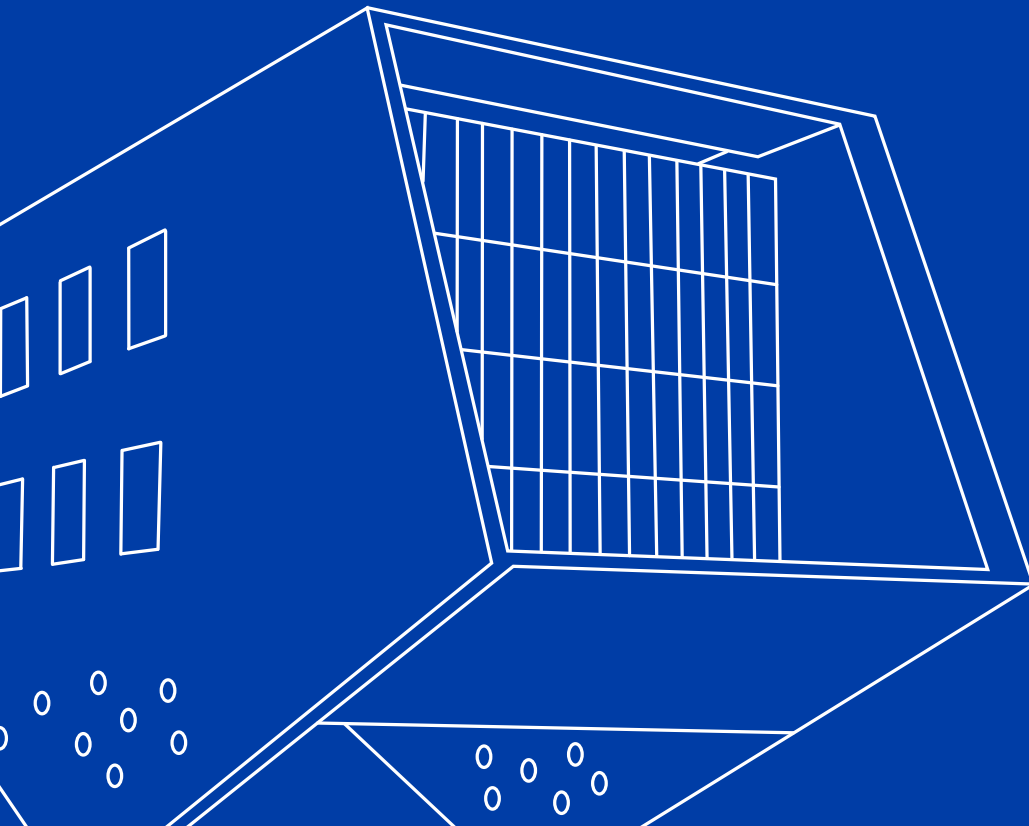
CINTECX has demonstrated strong competitive capacity in securing both public and private funding, exceeding 3.1 million euros in competitive funding and 1.1 million euros from knowledge transfer. In this context, the centre has carried out 13 active European projects during the year, including Horizon Europe and Marie Skłodowska-Curie actions.

Additionally, eleven members of the centre appear in the ranking of the top 2% most influential researchers published by Stanford University and Elsevier.

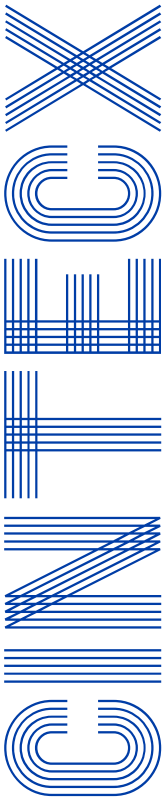
All these achievements reflect CINTECX's collective commitment to scientific excellence, knowledge transfer, and innovative, sustainable, and inclusive technological-industrial development.

“Commitment to people is the foundation on which CINTECX builds its scientific excellence, its international projection, and its social impact “

I INTRODUCTION



2025



INTRODUCTION

The Research Centre for Technologies, Energy and Industrial Processes (CINTECX) at the University of Vigo is consolidating its position as a leading hub for advanced research and the transfer of knowledge to society and the productive sector. With a multidisciplinary approach, the centre integrates basic and applied science to address current technological challenges and contribute to the sustainable and competitive development of Galicia and the wider international environment.

Recognised as a Collaborative Centre within the Research Centres Network of the Galician University System (CIGUS) for the 2024–2027 period, CINTECX strengthens its commitment to scientific excellence and to fostering university-driven innovation in collaboration with institutions and companies.

Its distinctive building, shown in Figure 1 and located on the Lagoas-Marcosende University Campus in Vigo, stands as a symbol of modernity and creativity. This space not only projects the identity of the centre to society but also fosters interaction among research groups and the creation of synergies in areas such as energy, industrial processes and emerging technologies.

CINTECX is committed to internationalisation, talent attraction and sustainability as key strategic pillars for the future, strengthening its role as a driver of innovation and as a bridge between the university, industry and society.



Figure 1. CINTECX Building.

Vision, Mission and Values

MISSION

The mission of the centre is to generate and disseminate excellent knowledge and to transfer innovation in the fields of energy, technologies and industrial processes, with a strong focus on people and sustainable development.

VISION

CINTECX's vision is to establish itself as a reference centre in the technological-industrial field through research excellence, generating a real impact on its environment and on its technological and industrial partners, while building critical mass in research.

Values



Sustainability

At every level, both in the development of its activity and through the technological solutions it creates.

Trust

Through the creation of long-term relationships, with the goal of contributing to the improved competitiveness of the surrounding innovative ecosystem.



Efficiency

In management and in every aspect of the center's activity.

Excellence

In achieving research results and in their impact.

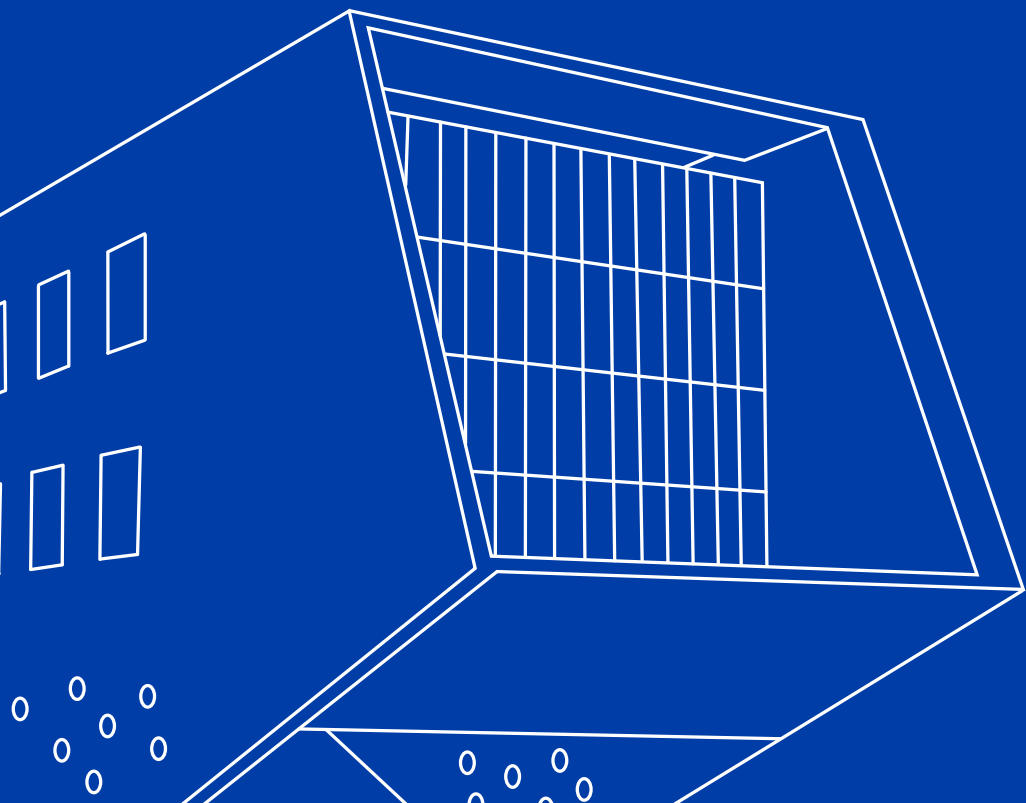


Equality

Effective equality in the development of research work between men and women.



CINTECX IN NUMBERS



2025

CINTECX

CINTECX IN NUMBERS

219

TEAM

74

FEMALE

146

MALE

67

PREDOCTORAL
RESEARCHERS

24

POSTDOCTORAL
RESEARCHERS

16

DOCTORAL
THESES

224

PUBLICATIONS

185

JCR
PUBLICATIONS

114

Q1
PUBLICATIONS

54

D1
PUBLICATIONS

5 M€

FUNDING
OBTAINED

62

ACTIVE
RESEARCH
PROJECTS

12

ACTIVE
INTERNATIONAL
PROJECTS

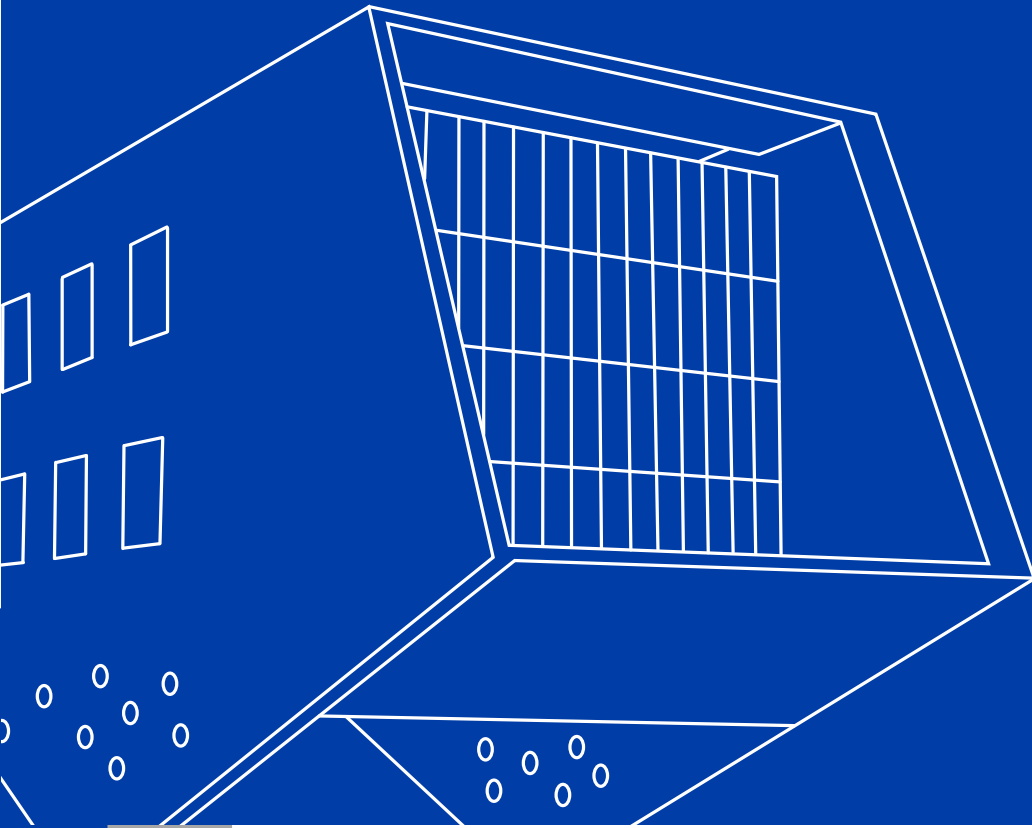
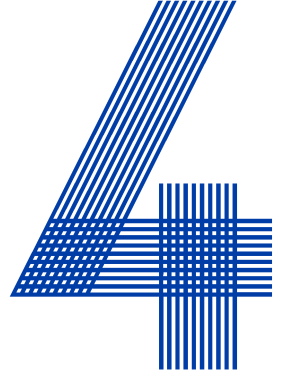
104

CONTRACTS
WITH
COMPANIES

146

ACTIVE PATENTS

THE CENTRE



2025

GINTEOX

THE CENTRE

CINTECX has a solid and well-defined organisational structure, led by its scientific leadership and guided by good governance principles oriented towards research excellence. The centre has an established track record in research, the training of highly qualified personnel, and in securing funding through competitive calls. It also maintains a close relationship with the industrial sector, reflected both in project consortia funded through competitive programmes and in direct collaborations governed by Article 60 of the Spanish Science Law.

Governance

CINTECX's governance is structured in accordance with the University of Vigo's regulations on research groups, clusters and centres, ensuring a clear and coherent functional framework. The Scientific Director assumes leadership in the management of the centre, while the Governing Committee of Research Centres at the University of Vigo oversees the proper development of its activities. This process is further supported by the Scientific Advisory Board (SAB), composed of distinguished academics and professionals who provide an independent strategic perspective and enrich the decision-making of both the Director and the Governing Committee. The organisational chart is structured as shown in Figure 2.

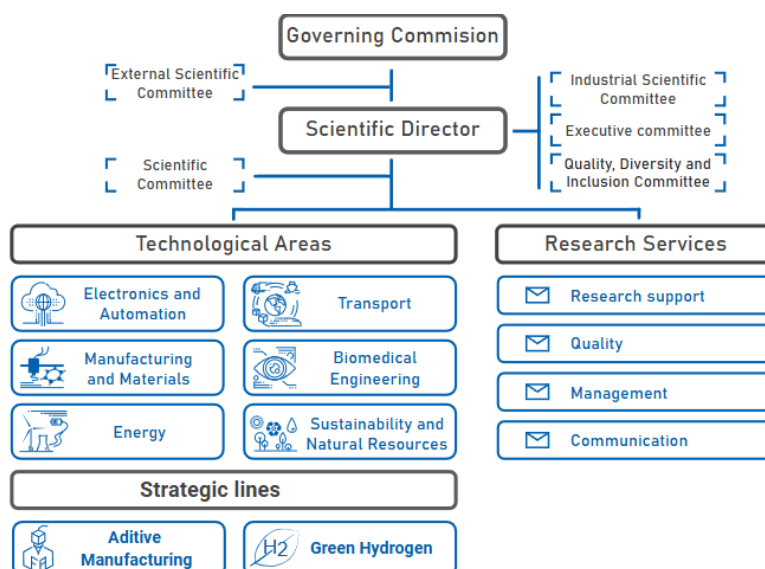


Figure 2. CINTECX organisational chart.

Industrial Advisory Board

The Industrial Advisory Board (Figure 3) is composed of experts from companies and public administrations with a strong track record in technological innovation. Its main mission is to guide the centre in key areas such as knowledge transfer, training and outreach to the business sector, as well as to identify shared interests that foster public–private collaboration. To ensure this interaction, the board holds annual meetings with the centre's management, thereby strengthening the link between research and the productive sector.

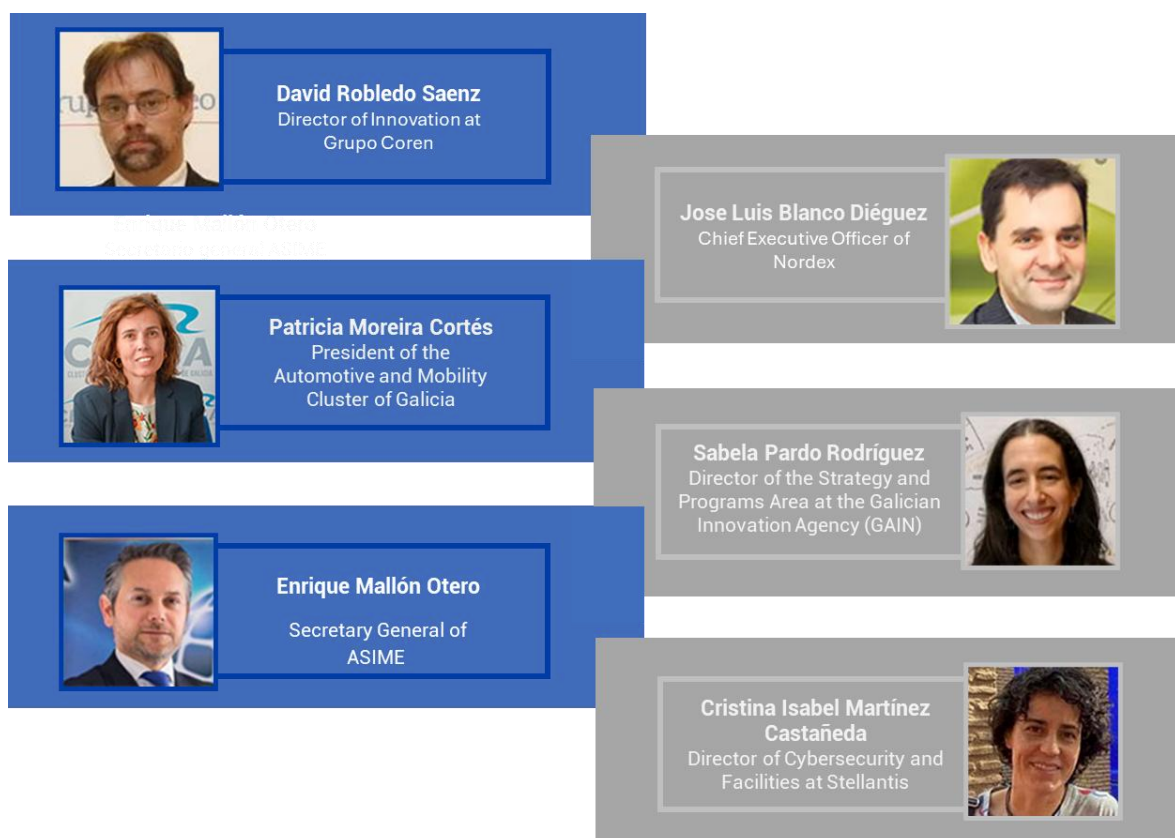


Figure 3. Members of the Industrial Advisory Board.

Equality, Diversity and Inclusion Committee

The Equality, Diversity and Inclusion Committee (Figure 4) is responsible for designing, overseeing and proposing the centre's policies in these areas. Its composition includes a representative from the Equality Office of the University of Vigo, ensuring alignment with institutional guidelines and reinforcing CINTECX's commitment to equity and inclusion in its research and organisational activities.



Figure 4. Members of the Equality, Diversity and Inclusion Committee.

Executive and Scientific Committees

The Executive Committee (Figure 5), composed of the Director and Deputy Director of the centre, plays a key role in management and in coordinating strategic actions related to the promotion and dissemination of the centre's activities.

The Scientific Committee brings together the coordinators of the different research groups and acts as an advisory body on matters related to research and knowledge transfer, providing a shared perspective that strengthens CINTECX's scientific strategy.

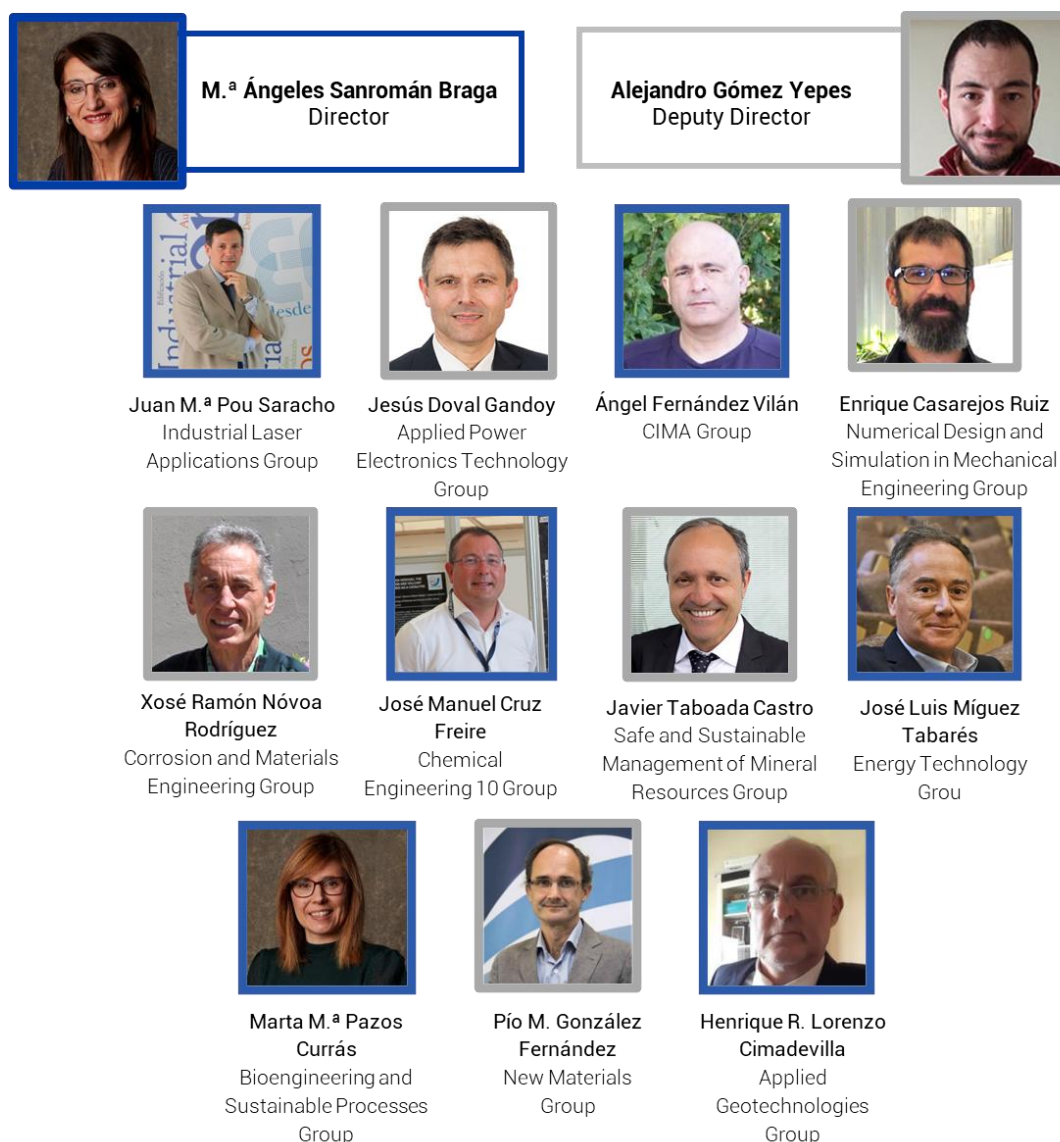


Figure 5. Members of the Executive and Scientific Committee.

Scientific Advisory Board (SAB)

The SAB (Figure 6) plays a key role in consolidating CINTECX's organisational and scientific model, providing strategic support and evaluating the quality of its research activities. Its work is essential to ensure alignment with the 2024–2027 Strategic Plan and with the guidelines of the Regional Ministry of Education, Science, Universities and Vocational Training, which recognises CINTECX as a Collaborative Research Centre – CIGUS within the pathway to excellence.

In 2025, a partial renewal of the committee's composition was carried out, with the departure of Pilar Dorado (University of Córdoba) and Rui L. Reis (University of Minho), to whom the centre expresses its gratitude for their dedication and valuable contributions during the early years of the SAB. They were replaced by two internationally renowned researchers, Dr Chiumenti and Dr Botte, further strengthening the committee's multidisciplinary nature and international projection.



Manuel Andrés Rodrigo Rodrigo

Graduated with honours in Industrial Chemistry from the University of Valencia in 1993. Earned a PhD in Chemical Engineering in 1997. In 1999, completed postdoctoral research in Switzerland, focusing on high-temperature fuel cells. Since 2009, he has led a research team in electrochemistry, energy, and the environment. Serves on the editorial boards of three WoS-indexed journals. In 2020, he received the Career Achievement Award from the Chemical Engineering Group of the Royal Spanish Chemical Society.



Carlos Luís Molpeceres Álvarez

In 1991, he served in the Spanish Army in the optics laboratory of the Navy's research and development centre. He completed research stays at foreign institutions in France and Germany. In 1993, he worked as a researcher at CIEMAT focusing on optical techniques. From 1998 to 2011, he was Director of the UPM Laser Centre, which he currently directs. His research activity focuses on the development of new micro- and nano-laser processing techniques in the fields of energy, biotechnology, and oncology.



Leopoldo García Franquelo

Graduated in Electrical Engineering in 1977 from the University of Seville, where he earned his PhD in 1980. Full Professor since 1986. Served as Head of the Department of Electronic Engineering from 1998 to 2005. He leads a research team awarded by the Andalusian Government. He received the Andalusian R&D Award in 2009. Distinguished Professor since 2006 in the Industrial Electronics Society. Senior AdCom Member since 2008.

**Salvador Ivorra Chorro**

PhD in Mechanical Industrial Engineering. Vice-Rector for Infrastructure, Sustainability, and Occupational Safety at the University of Alicante. Associate Professor of Continuum Mechanics and Structural Theory in the Department of Civil Engineering at the University of Alicante. Coordinator of the GRESMES research group. Research focus on the dynamic behaviour of structures and structural reinforcement. Former Director of Civil Engineering at the University of Alicante and Coordinator of the Civil Engineering area at the State Research Agency.

**Gerardine G. Botte**

PhD in Chemical Engineering from the University of South Carolina. Full Professor at Texas Tech University, where she holds the Whitacre Chair in Sustainable Energy. Founder and Director of the CASFER Engineering Research Center. Her research focuses on electrochemical technologies applied to energy sustainability, resource recovery, and environmental diagnostics, and as a result of this work she has registered more than 60 patents. She served as President of the Electrochemical Society (2023–2024), has been a member of the National Academy of Sciences of Venezuela since 2023, and was recently named Fellow of the International Society of Electrochemistry (ISE).

**Alba Diéguez Alonso**

Doctorate in Engineering from Faculty III of Process Sciences at the Technical University of Berlin. She was a junior professor at the Institute of Fluid Dynamics and Thermodynamics at Otto von Guericke University Magdeburg, where her research line focuses on the thermochemical conversion of biomass and plastics. In her current role at Technische Universität Dortmund she continues to stand out in the development and optimization of thermochemical and thermocatalytic conversion processes. Her work not only addresses current challenges in the conversion of natural resources, but also drives innovation toward a more sustainable future.

**Michele Chiumenti**

Doctor in Structural Analysis from the Universitat Politècnica de Catalunya (UPC). Full Professor at the UPC and research professor at CIMNE since 1994. His research focuses on nonlinear computational mechanics, metal additive manufacturing, and multiscale thermo-mechanical simulation. Author of more than 120 scientific publications. He has led numerous European and national projects, and collaborates actively with industry through R&D contracts and the spin-off Quantech ATZ.

Figure 6. Members of the Scientific Advisory Board.

During 2025, the SAB evaluation was conducted in person (Figure 7). The members of the committee had the opportunity to visit the facilities where CINTECX's research activities are carried out, as well as to meet the principal investigators of the research groups that make up the centre. The evaluation session took place on 21 October 2025.



Figure 7. SAB evaluation day. From left to right: Alba Diéguez, Michele Chiumenti, Carlos Molpeceres, Alejandro Gómez (Deputy Director of CINTECX), Belén Rubio (Vice-Rector for Research), Manuel Andrés Rodrigo, Félix Quintero (Vice-Rector for Planning), Ángeles Sanromán (Director of CINTECX), Salvador Ivorra and Leopoldo García.

Thematic Areas

CINTECX directs its activities towards six strategic technological areas, designed in alignment with the Sustainable Development Goals. Through these lines of work, the centre aims to promote sustainability and advance cutting-edge technologies, reinforcing its role as a driver of scientific innovation and knowledge transfer to the productive sector. The priority areas (**¡Error! No se encuentra el origen de la referencia.**) are:

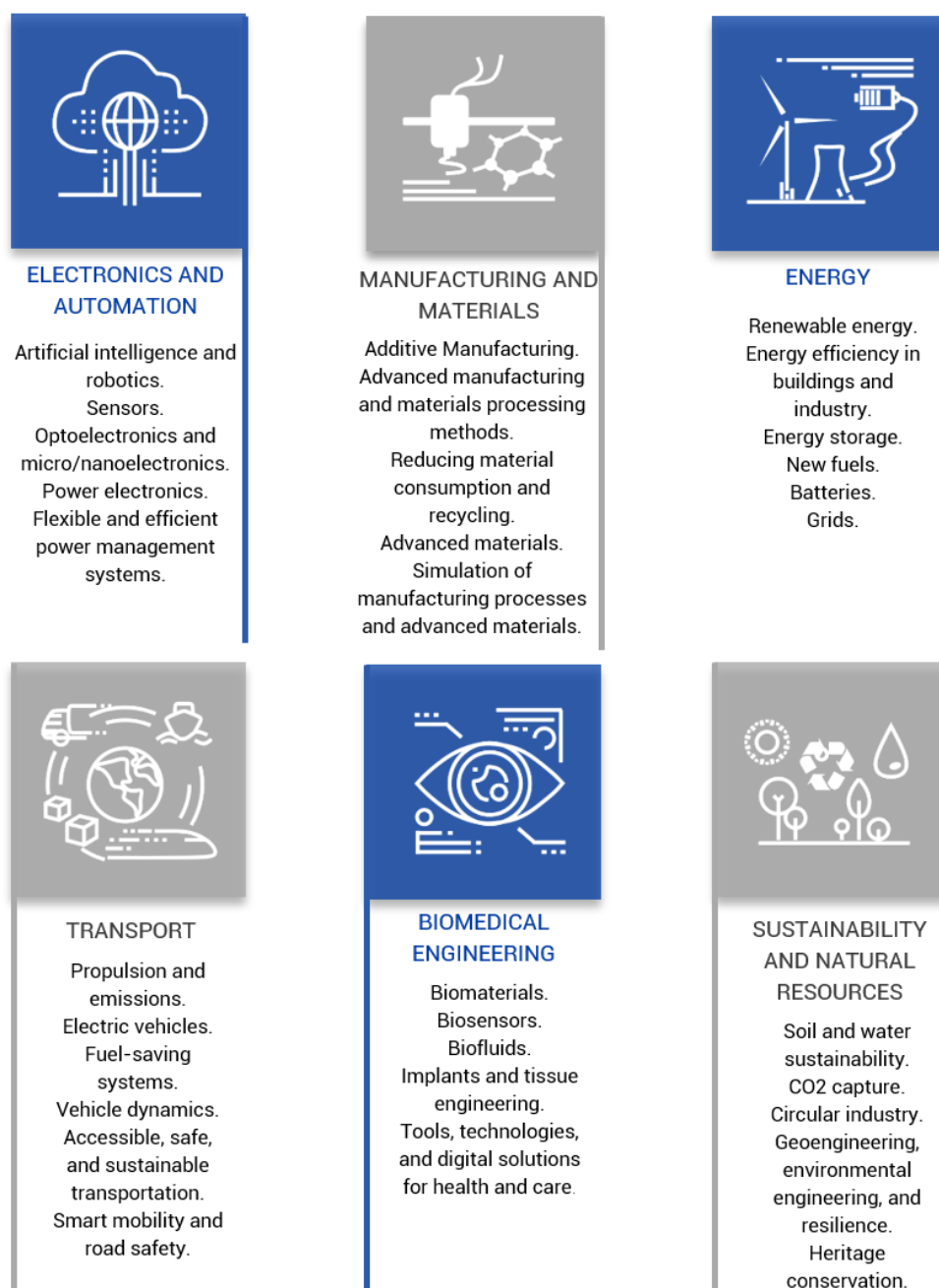


Figure 8. Research Areas of CINTECX.

Strategic Lines

CINTECX directs its research activity towards two main strategic lines (Figure 9) characterised by their high technological and industrial impact. These areas of work are designed to promote the exploration and development of cutting-edge technologies, fostering innovation in both scientific and industrial domains. Through this strategy, the centre leads high-impact projects and actively contributes to the advancement of knowledge and technology, consolidating its position as a benchmark in research and knowledge transfer. The strategic lines are the following:

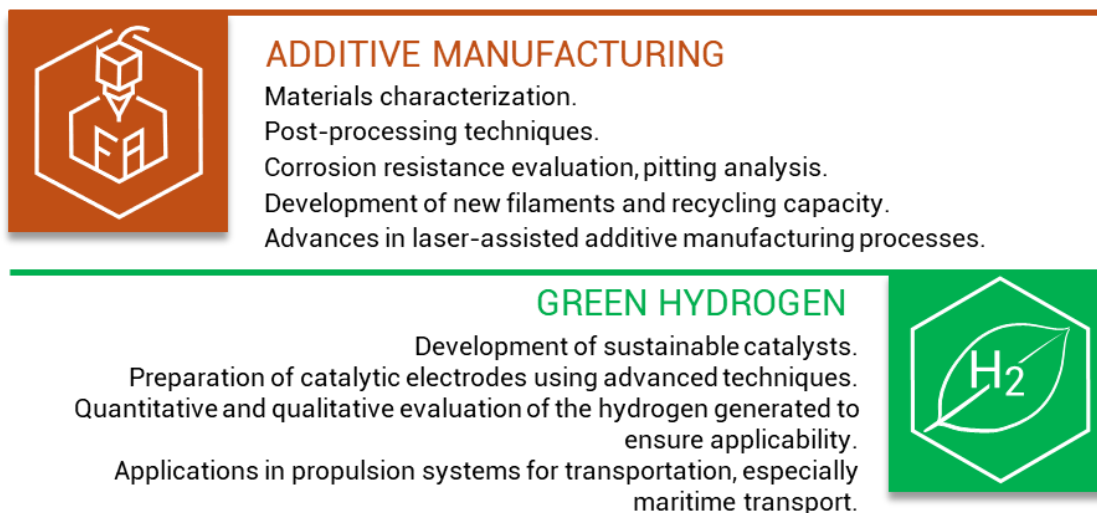


Figure 9. CINTECX Strategic Lines.

TEAM

CINTECX has maintained strong stability in its critical mass of research staff, ensuring the continuity of its strategic lines and sustaining its scientific output. This stability strengthens internal synergies and fosters a sense of belonging among its members, key elements in its prominent positioning at both national and international levels.

The centre currently comprises 179 researchers, distributed across different stages of their professional development (R1 to R4), reflecting a balanced structure oriented towards growth. This core team is complemented by 40 professionals in support, management and laboratory roles, who play an essential part in the centre's technical and operational functioning. This diverse composition (Figure 10), as shown in the accompanying chart, enables CINTECX to effectively address its scientific and technological challenges while promoting an inclusive and collaborative environment.

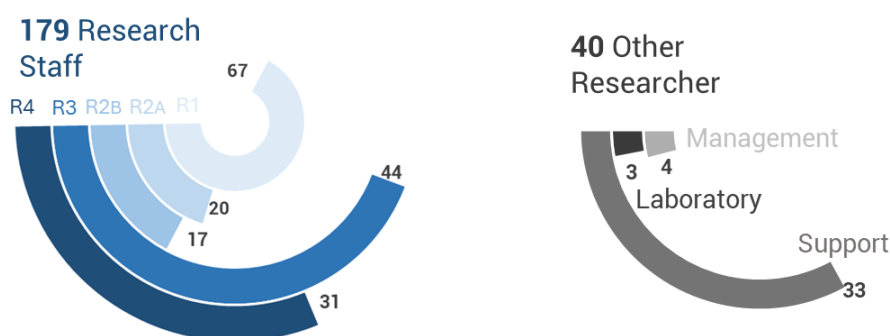


Figure 10. CINTECX Research Staff by typology.

As a centre integrated within the University of Vigo, which was awarded the HR Excellence in Research accreditation by the European Commission in 2017, CINTECX applies European Union recommendations on talent attraction and retention. Through open and transparent processes, it ensures the growth and continuity of its research community, fully aligned with international best practices.

In terms of diversity, the current team comprises 65% men and 35% women (Figure 11), reflecting progress towards greater balance in the technological and industrial fields. This commitment to equity is also evident in the promotion of talent and in the participation of principal investigators (PIs) in projects at both national and international levels.

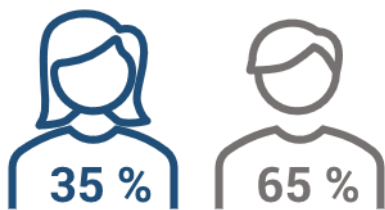


Figure 11. Percentage of women and men in CINTECX staff.

During 2025, the centre made significant progress in the stabilisation process of its research staff within the framework of the University of Vigo's internal promotion and stabilisation calls for academic staff (Figure 12). During this period, a total of ten postdoctoral researchers were appointed to the positions of Assistant Professor or Associate Professor, ensuring the scientific continuity of the research groups.

In addition, four postdoctoral researchers were promoted to the position of Associate Professor –Santiago Pozo, Alejandro Gómez, Jacobo González and Lucía Díaz—thereby consolidating their teaching and research activities within the centre.

Finally, in terms of promotion to higher academic ranks, Abraham Segade and Asunción Longo were appointed as Full Professors, strengthening CINTECX's scientific and academic leadership and reinforcing its position as a benchmark in research and technology transfer.

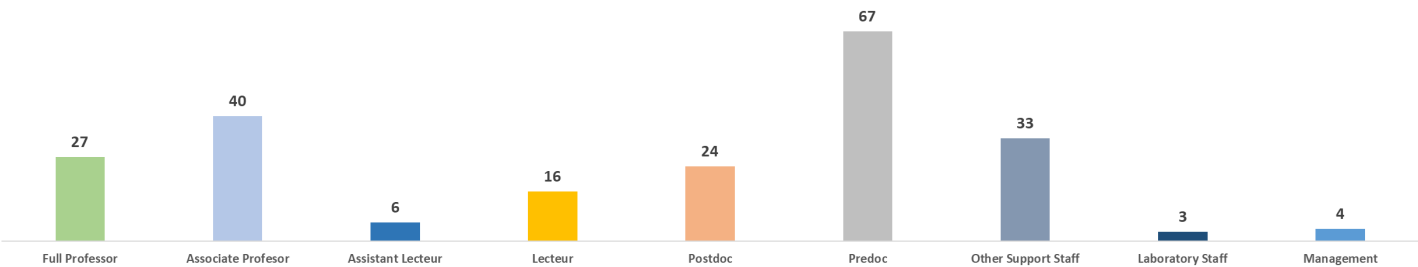


Figure 12. Distribution of CINTECX staff by job category.

Services

CINTECX provides the University of Vigo community, as well as other public and private research centres and the business sector, with a broad portfolio of analytical services. To ensure excellence in service delivery, the centre operates under a Quality Management System certified by AENOR in accordance with ISO 9001:2015, which was successfully recertified in 2025, ensuring its validity until 2028. This recognition reinforces user confidence and consolidates the centre's commitment to quality and continuous improvement, particularly in the business sector.



During that same year, a significant step forward was achieved with the creation of a new Additive Manufacturing area (Figure 13). Until then, the two available pieces of equipment had been integrated within the Mechanical Workshop area; however, the addition of four new systems made it possible to reach a sufficient critical mass to consolidate this as a standalone area. This development expanded the centre's technological capabilities and strengthened its portfolio of specialised services.

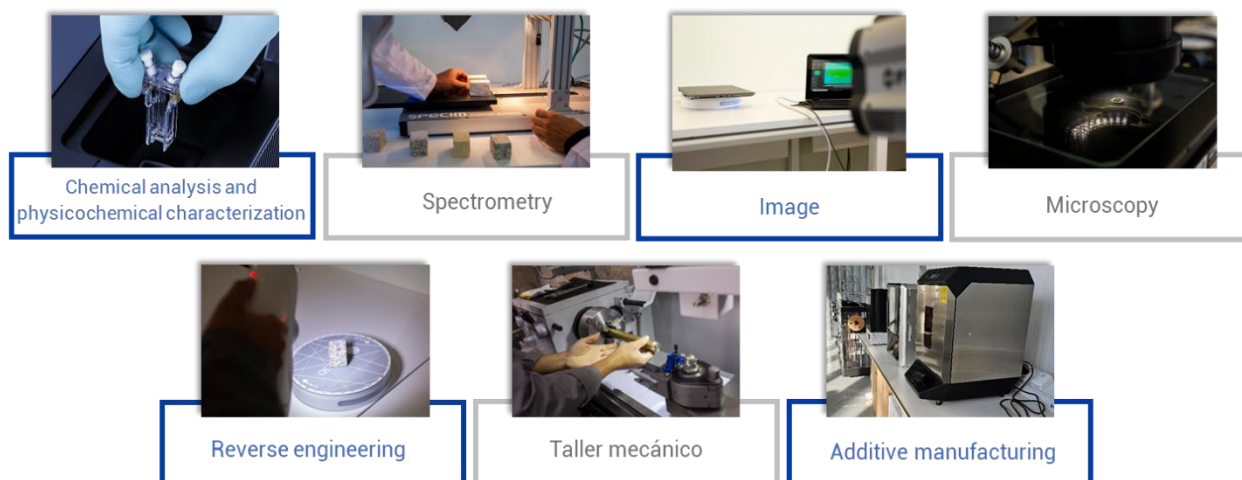


Figure 13. CINTECX Service and Self-Service Areas.

Analytical services are provided in two modalities: self-service and staff-operated service. In addition, in January 2025 a new technician joined the laboratory, which will enhance resource management and availability. Furthermore, a new technical position for the Additive Manufacturing area was added at the end of the year.

Throughout 2025, new equipment was acquired thanks to ERDF funds and the Scientific Equipment Programme of the Xunta de Galicia, enabling CINTECX staff, as well as external users accessing its services, to carry out their research under optimal conditions. The equipment acquired in 2024 and made available to users during 2025 includes:

- Shimadzu UV-3600i Plus high-performance UV-VIS/NIR spectrophotometer, equipped with three detectors and covering a wide scanning range from ultraviolet (185 nm) to infrared (3,300 nm).
- PGSTAT302N potentiostat/galvanostat: equipment for the electrochemical characterisation of materials.
- Litesizer 500: a light scattering instrument for the characterisation of particles in liquid dispersions, enabling the measurement of particle size, zeta potential, electrophoretic mobility, molecular weight and transmittance.
- Additive manufacturing equipment: a Tronxy Moore X4060 clay extrusion printer, a Nexa3D XiP masked stereolithography resin printer with a Raise3D DF Cure post-curing station. In addition to the existing FFF printer, a 3devo GP20 plastic shredder and a 3devo Filament Maker TWO extruder were acquired for recycling and producing custom filaments.

In addition, during 2025, the following equipment was acquired, which will be progressively made available to users over the coming months:

- Desktop scanning electron microscope Coxem EM-40 SEM: a versatile tool for qualitative and quantitative elemental analysis, advanced materials characterisation, and research in fields such as geology, metallurgy, biology and electronics (Figure 14).



Figure 14. Coxem EM-40 SEM scanning electron microscope.

- Digital ion sputter coater COXEM SPT-20 for sample preparation (Figure 15).



Figure 15. COXEM SPT-20 Ion Coater.

- Oxford Instruments X1 EDX energy-dispersive X-ray spectrometer, enabling the identification of basic elements (Figure 16).



Figure 16. X-ray spectroscope - X1 EDX.

- NOVA 600 BET surface area and pore size analyser: a high-precision instrument for surface and porosity analysis, featuring two analysis stations, integrated sample preparation and standards-compliant software (Figure 17).



Figure 17. NOVA 600 BET Surface Area and Pore Size Analyzer.

- PSA 1190 Particle Size Analyzer: a laser diffraction particle size analyser equipped with three optical sources, capable of measuring both liquid and dry samples over a wide range, offering high precision and reproducibility in a robust and stable design for R&D laboratories and demanding industrial environments (Figure 18).



Figure 18. PSA 1190 Particle Size Analyzer.

This new equipment enhances the centre's ability to offer a broader and more differentiated portfolio of services, increasing CINTECX's attractiveness as a strategic partner for research and technological development.

Singular Equipment

CINTECX's capacity to collaborate with both the industrial and academic sectors is supported by state-of-the-art scientific equipment, consolidating its position as a benchmark in innovation and technology transfer at both national and international levels.

Its singular infrastructures include combustion engines and particle generation systems, biomass boilers and cooling systems, climatic chambers for simulating extreme conditions, laser systems for materials processing, test benches for power electronics and photoelectrochemical processes, as well as additive manufacturing systems, pyrolysis equipment and thermographic cameras.

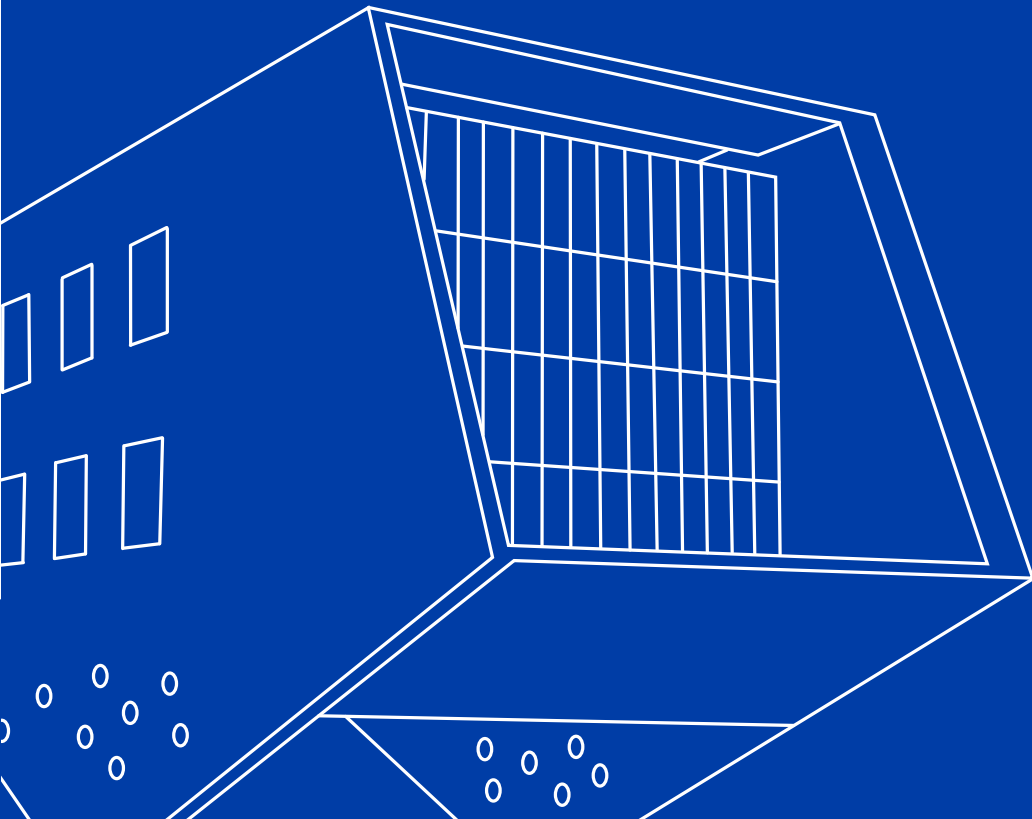
The centre also features advanced technologies that expand its research capabilities across multiple disciplines, including motion capture (MoCap) systems, force platforms and surface electromyography, electroadsorption pilot plants, multiphase electrical machines, power converters and control platforms, workstations equipped with pulsed and blue lasers, additive manufacturing systems based on LDED technology, mobile and terrestrial 3D laser scanners, high-precision photogrammetric cameras, ground-penetrating radar, and

augmented and virtual reality devices such as Microsoft HoloLens 2 and HP Reverb G2.

Beyond the specific equipment available in each laboratory, CINTECX centrally manages investments in shared scientific infrastructures. To this end, it has established a working group that identifies common needs, assesses current and future demands, and sets priorities through an Infrastructure Roadmap. The acquisition of new equipment is determined based on criteria such as the number of potential users, the impact on projects and research lines, maintenance costs, and the need for specialised technical personnel.

At present, the centre has more than 20 singular infrastructures and pieces of equipment, which strengthen its strategic technological areas and consolidate its research and knowledge transfer capacity.

FUNDING



2025

GINTEOX



FUNDING

Funding is a strategic element to ensure the sustainability and growth of research activities at CINTECX. Throughout 2025, the centre has relied on diverse sources of funding, reflecting both its ability to compete in public calls and its commitment to knowledge transfer and institutional collaboration. The combination of competitive funding, contracts with companies and patents, industrial PhD programmes, and institutional support has enabled the consolidation of a solid financial base, underpinning the centre's scientific excellence and technological impact.

The acquisition of funding through competitive public calls is a fundamental pillar for the development and sustainability of research activity at CINTECX. With this objective, the research staff have focused their efforts on participating in projects funded by international programmes such as Horizon Europe, the National Research Plan, and funding schemes promoted by the regional government.

In 2025, the competitive funding secured amounted to €3.5 million, sourced from various programmes: international projects constituted the main source of funding, with approximately €1.3 million, followed by national projects, which contributed around €1.1 million; consolidation and excellence programmes accounted for €0.6 million, while regional calls reached nearly €0.4 million. Additionally, the Scientific-Technical Equipment call from the State Research Agency (AEI) contributed €200,000, and other projects added €29,500.

Finally, the centre secured a science outreach project funded by FECYT, Alerta Verde: Save Your Centre with the CINTECX Mission, which provided additional funding of €21,000. The distribution is shown in Figure 19.

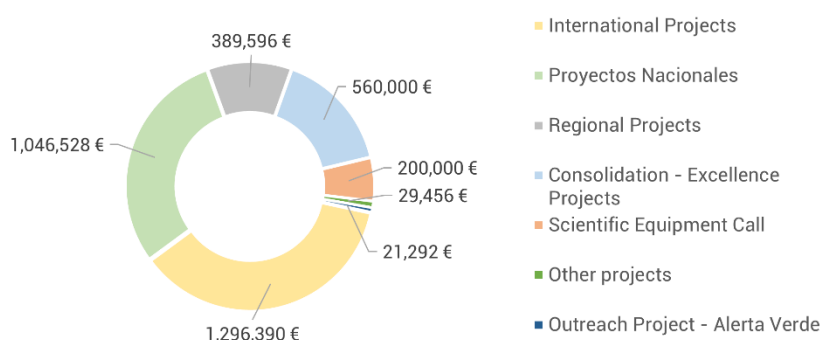


Figure 19. Competitive funding secured in 2025.

In addition to this competitive funding, transfer-related funding amounted to approximately €1.13 million in 2025, derived from contracts with companies and patents, along with €30,000 from an industrial PhD programme. These resources highlight the centre's capacity to transfer knowledge to the productive sector and to strengthen collaboration with the socio-economic environment.

Institutional resources also contributed to this total, including support from the Regional Government of Galicia, which provided €61,000, as well as funding linked to CINTECX's status as a collaborative centre within the CIGUS network, amounting to nearly €170,000. These complementary sources reinforce the economic stability of the centre and consolidate its role as a benchmark within the Galician R&D&I system.

Overall, the funding obtained in 2025 (Figure 20) reflects CINTECX's ability to maintain a solid and diversified strategy, ensuring the continuity of its research activity and its contribution to scientific and technological progress.

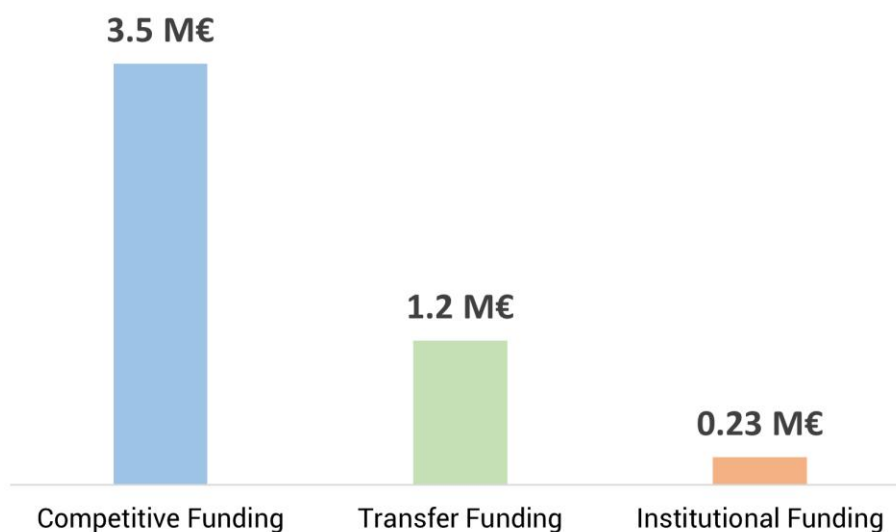


Figure 20. Total funding secured by CINTECX in 2025.

International Projects

Participation in international projects represents one of CINTECX's key funding streams and a crucial indicator of its competitive capacity within the European Research Area. Securing funding in this domain not only strengthens the centre's economic sustainability but also consolidates its positioning and leadership in high-impact scientific and technological initiatives.

In 2025, the centre secured three new projects—two under the Horizon Europe programme and one within the MSCA framework—thereby reinforcing CINTECX's presence and leadership in the European research landscape. Notably, three research groups from the centre are involved in the MOVEO project.

MOVEO. Intelligent Framework for Inclusive and Seamless Transport Infrastructure and Mobility Services

PI: Joaquín Martínez Sánchez (GEOTECH)

Total budget: €4,998,495

CINTECX budget: €594,375



NORHyWAY

NORHyWAY. Unveiling Mid-Norway Hydrogen Valley

PI: David Patiño Vilas (GTE)

Total budget: €17,874,586

CINTECX budget: €631,875

OPTIMALMINE. Slope optimal design for a paradigm shift in mining efficiency, environmental friendliness and resilience

PI: Leandro Rafael Alejano Monge (GESSMIN)

Total budget: €1,072,140

CINTECX budget: €70,140

OPTIMALMINE

CINTECX is also involved in an international project funded under the CHIST-ERA call, within the framework of International Collaboration Projects (PCI2025-163208), entitled "Multidimensional Data Analysis for the Management of River Ecosystems through Multiscale Automatic Tools (MultiGIS4Rivers)". This project is led by the Hydro-Forest group, in collaboration with researchers from the GEOTECH, GTE and ENCOMAT groups at CINTECX, and has a total budget of

€270,000.

It should also be noted that CINTECX participates in an international project funded under the CHIST-ERA call (CHIST-ERA-23-MultiGIS-06), within the framework of International Collaboration Projects (PCI2025-163208), entitled "Multidimensional Data Analysis for the Management of River Ecosystems through Multiscale Automatic Tools (MultiGIS4Rivers)", with a total budget of €270,000. This project is carried out by the Hydro-Forest group in collaboration with researchers from the GEOTECH group. For this reason, the funding associated with this project is not included in the centre's total calculations, as no CINTECX member acts as principal investigator; the GEOTECH researchers participate only as members of the research team.

In total, in 2025, CINTECX is involved in 13 ongoing international projects, which represent a total budget of approximately €5.4 million for the centre, with an economic impact in the 2025 financial year exceeding €1.22 million. Among these, the SUMARE project stands out, in which the working team includes two research groups from the centre (GEOTECH and ENCOMAT), reinforcing the multidisciplinary nature of the initiative and its consideration as a collaborative project within CINTECX itself. These results consolidate the centre's international positioning and reflect the confidence of European institutions in its research capacity.

	870,000.00 €		153,351.34 €
	922,500.00 €	 H2-ZeroWaste	140,000.00 €
	783,750.00 €	 marpower	545,995.00 €
	112,469.98 €		594,375.00 €
	203,935.98 €		631,875.00 €
	162,198.47 €		70,140.00 €

National Projects

During the 2025 financial year, CINTECX strengthened its presence in competitive national funding calls, reinforcing its commitment to research excellence and knowledge transfer.

Within the framework of the 2024 Knowledge Generation call, six new projects were awarded, with total funding of €939,000, aligned with the centre's core areas: Electronics and Automation, Manufacturing and Materials, Energy, Transport, Biomedical Engineering, and Sustainability and Natural Resources. Notably, two of these projects include funding for predoctoral researchers, contributing to the training of a new generation of scientists and engineers and reinforcing the centre's commitment to research talent development.

REBOLTeV: Investigación experimental en ebullición forzada subenfriada y técnicas de IA para la mejora de la seguridad y eficiencia en sistemas de gestión térmica de nuevos EVs y packs.

IP: María Concepción Paz Penín

197,500 €

PID2024-155471OB-I00

2025-2028

BUILDHOOD: Del edificio al barrio: gemelos digitales como soporte al desarrollo urbano centrado en las personas.

IP: Lucía Díaz Vilariño

186,250 €

PID2024-157803OB-I00

2025-2028

Estudio de bioactividad y estabilidad de nuevos análogos de gramicidina S extraídos de *Aneurinibacillus aneurinilyticus* utilizando química verde.

IP: Ana Belén Moldes Menduiña - José Manuel Cruz Freire

115,000 €

PID2024-157162OB-I00

2025-2028

R3B early Phase experiments @FAIR. BB

IP. Enrique Casarejos Ruiz (DSN).

125,250 €

PID2024-157431NB-C22

2025–2028

Biología computacional: Modelos virtuales realistas para válvulas bioprotésicas del corazón.

IP. Abraham Segade Robleda y José Ángel López Campos

150,000 €

PID2024-157737NB-I00

2025–2028

Optimización energética consciente para edificios.

IP. Pablo Eguía Oller y Raquel Pérez Orozco

165,000 €

PID2024-156054OB-C21

2025–2028

As shown in the figure, CINTECX has achieved a prominent position in the 2024 Knowledge Generation call (Figure 21), highlighting the excellent work and recognition of the centre's research staff. This result reinforces CINTECX's capacity to lead competitive projects, consolidating its role in attracting funding and generating high-impact knowledge. It also underscores its contribution to scientific and technological advancement, as well as its commitment to excellence.

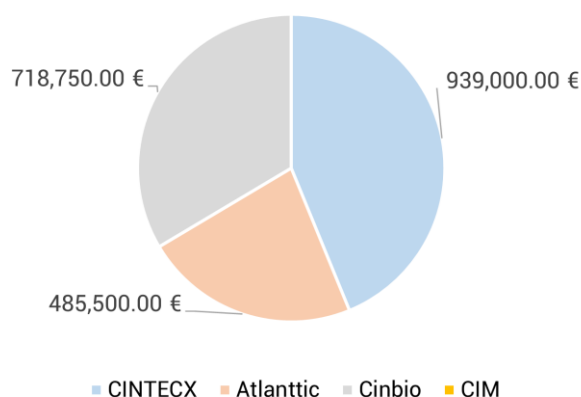


Figure 21. Funding obtained in the 2024 Knowledge Generation call by University of Vigo research centres.

Finally, at the end of the reporting year, the provisional resolution of the Proof-of-Concept call was published, in which CINTECX was awarded three projects, out of the six granted to the University of Vigo, with total funding of approximately €564,000. These projects, aimed at promoting the transfer of results to the market and society, will begin in 2026 following the final resolution, reinforcing the centre's commitment to applied innovation and the valorisation of generated knowledge.

In addition, one project was awarded under the Public–Private Collaboration call, with total funding of €677,052, of which €107,528 corresponds to CINTECX. This project focuses on the development and optimisation of sustainable materials for the production and utilisation of green hydrogen through the valorisation of agricultural waste.

Regional and Provincial Projects

Regarding regional projects, it is worth highlighting the successful acquisition of a project under the "IGNICIA Proof of Concept 2025" call. This project, entitled "Indoor air quality monitoring and 3D representation using Artificial Intelligence", led by Enrique Granada (GTE), was awarded funding of €359,596.

In addition, CINTECX maintains ongoing strategic projects in collaboration with companies and technology centres, funded by the Galician Innovation Agency (GAIN) under the "Smart Factory" calls. Among these, the following stand out:

- Facendo+ (Industrial Competitiveness and Electromobility through Innovation and Digital Transformation Plus), involving the GTE group, with total funding of €201,757.85.
- Fistera (Intelligent and sustainable factory through advanced power electronics and augmented reality), involving the APET group, with a budget of €264,717.25.

Together, these projects amount to €466,475.10 in secured funding, with an economic impact of €115,750.55 in the 2025 financial year, reflecting CINTECX's commitment to innovation applied to Galician industry and to public–private collaboration.

Regarding other regional and local calls, six additional projects were secured in 2025:

- Four grants from the University of Vigo aimed at preparing international R&D&I proposals, totalling €16,000. All were awarded to the GEOTECH

group, specifically to researchers Henrique Cimadevila, Joaquín Martínez, Pedro Arias and Belén Riveiro.

- Two grants from the Provincial Council of Pontevedra to support initiatives led by researchers from the Vigo and Pontevedra campuses:
 - EnerxIA (Intelligent system for improving the environmental efficiency of electricity and water consumption in households through artificial intelligence and detailed submetering), awarded to Moisés Cordeiro (GTE), with funding of €5,655.90.
 - Advanced treatments for water decontamination: a sustainability-based analysis, awarded to Verónica Poza (BIOSUV), with funding of €7,800.

Overall, the regional projects secured and ongoing in 2025 reflect CINTECX's strength in attracting funding from the Xunta de Galicia and other public administrations, consolidating its role as a driver of scientific and technological excellence at the University of Vigo and as a key player in Galicia's sustainable and innovative development.

In addition to the projects mentioned, further funding was obtained in 2025 through calls aimed at consolidating, structuring and specialising the most competitive research units within the Galician R&D&I System, which include three modalities:

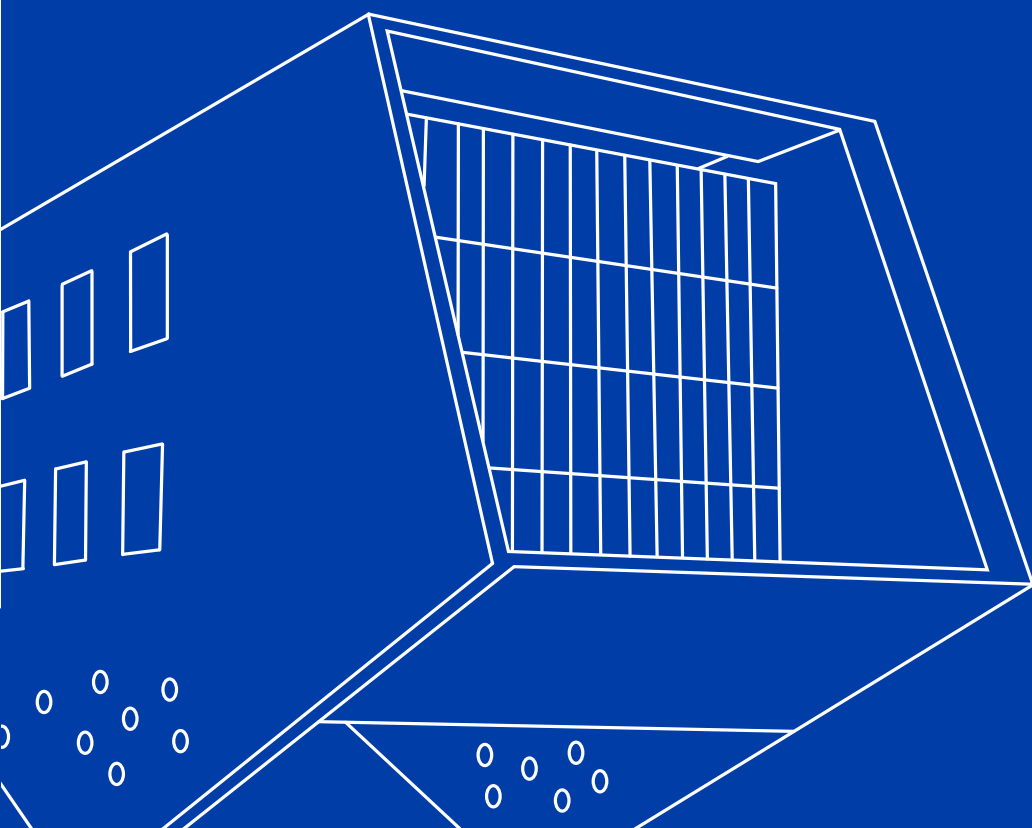
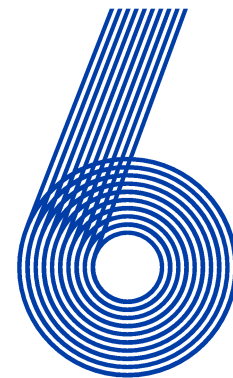
- Modality A: Competitive Reference Groups (GRC), aimed at consolidating groups that, due to their scientific output and R&D activity, are already recognised as benchmarks within the Galician system.
- Modality B: Groups with Growth Potential (GPC), focused on groups with promising trajectories and the capacity to become leading research groups.
- Modality C: Researchers with an Excellent Track Record, focused on individual researchers with established or emerging excellence.

In this context, CINTECX secured two grants under Modality A, corresponding to the BIOSUV group, coordinated by Ángeles Sanromán, and the New Materials group, coordinated by Pío Manuel González, amounting to a total of €560,000 secured in 2025 and reinforcing the centre's position as a benchmark in advanced research and its commitment to scientific excellence.

Notably, CINTECX currently has 10 active groups across these modalities (6 GRC and 4 GPC), resulting in €2.3 million secured in recent years and generating income of €640,000 in 2025. As these calls are periodic, applications are submitted only once previous funding cycles are completed, demonstrating the continuity and robustness of the centre's research activity.

Furthermore, within Modality C, the centre maintains six ongoing projects, with total funding of €665,000 and income of €150,000 in 2025, reinforcing CINTECX's commitment to maintaining high-quality research and ensuring the continuity of its priority research lines.

RESEARCH AND TRANSFER



2025

GINTEOX

RESEARCH AND TRANSFER

Scientific Output

The year 2025 was particularly successful for CINTECX's scientific output, with a total of more than 185 articles published in journals indexed in the JCR, of which 114 belong to the first quartile (Q1) and 54 to the top decile (D1), as shown in Figure 22. The volume and quality of these publications position the centre as a benchmark in knowledge generation in strategic areas such as industrial technologies and energy. These results demonstrate not only the quantity but also the quality and impact of the research carried out, consolidating CINTECX's role as a leading centre in the scientific field. The high proportion of publications in high-impact journals underscores the centre's commitment to research excellence and its contribution to the advancement of knowledge in key areas.

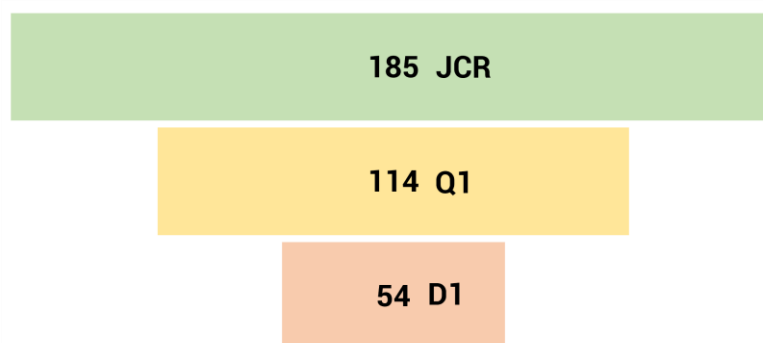


Figure 22. JCR publications and Q1 and D1 percentiles.

It is worth noting that the centre actively promotes Open Access publishing through its own policy, which establishes clear guidelines to ensure proper open-access dissemination. This initiative aims to increase the visibility and impact of research results, ensure their long-term preservation, and facilitate appropriate recognition and citation for authors.

75 % of publications to be open access by 2025

Among the most notable achievements is the publication in the prestigious journal Nature of the article "Latent resistance mechanisms of steel truss bridges after critical failures", resulting from a collaboration between CINTECX and the Universitat Politècnica de València (Reyes-Suárez J.C., Buitrago M.,

Barros B., Mammeri S., Makoond N., Lázaro C., Riveiro B., Adam J.M., 2025, *Nature*, 645(8079), DOI: 10.1038/s41586-025-09300-8). This study reveals why steel truss bridges do not collapse under catastrophic events such as impacts or earthquakes, demonstrating a surprising analogy with spider webs in their ability to redistribute loads.

This strong performance is further reinforced by the international recognition of its research staff. The ranking developed by Stanford University and Elsevier, based on Scopus data, has placed eleven CINTECX researchers among the top 2% of scientists worldwide. This global indicator evaluates both recent and career-long impact, integrating metrics such as citations, h-index and authorship position, reflecting the centre's scientific excellence and international projection.

Five researchers appear in both classifications, demonstrating a consolidated track record and a high level of current activity: Ángeles Sanromán, a leading expert in environmental biotechnology and sustainable processes; Leandro R. Alejano, a specialist in rock mechanics and geotechnical engineering; Alejandro G. Yepes, an expert in power electronics and digital control; Jesús Doval-Gandoy, a pioneer in power converters and smart grids; and Óscar López, a specialist in advanced electrical systems and energy efficiency. Four additional researchers stand out for their recent impact in emerging research areas: Antonio Riveiro, Juan Pou (awarded the Research Medal of the Royal Galician Academy of Sciences in 2025), Mohamed Boutinguiza and Fernando Lusquiños, with contributions in laser technologies, additive manufacturing and biomaterials (from left to right in Figure 23).

Finally, Xosé Ramón Nóvoa and José Santiago Pozo-Antonio are recognised for their accumulated impact, highlighting their sustained contributions in electrochemistry and heritage conservation.



Figure 23. CINTECX research staff who are part of the Top 2% Scientists according to Stanford.

Doctoral Theses

In 2025, CINTECX reaffirmed its commitment to training high-level research personnel with the defence of 16 doctoral theses (Figure 25 and Figure 24), of which 9 were awarded the international distinction. This result reflects the centre's academic strength and its growing projection within the global scientific community.

In addition, the promotion of doctoral research is aligned with the centre's strategy to foster innovation, knowledge transfer and collaboration with leading institutions at both national and international levels.

16 Theses – 9 International Mentions



Figure 25. Thesis defence of Javier Blanco (in the middle).

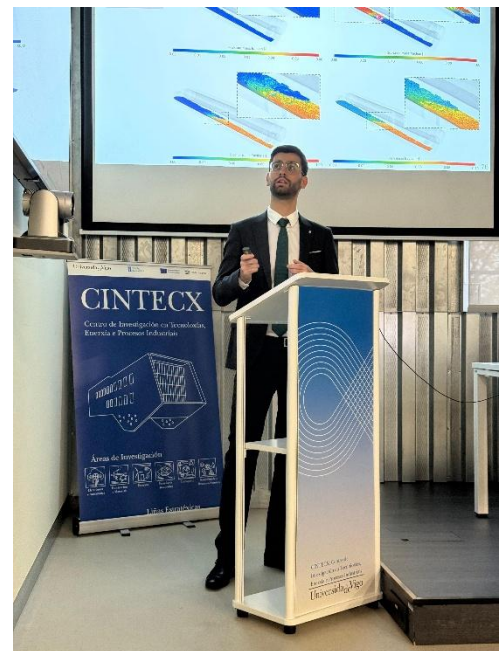


Figure 24. Thesis defence of César Álvarez.

Collaboration with Companies

CINTECX has a strong track record in collaboration with the manufacturing sector and knowledge transfer, bolstering its activities through strategic partnerships with local technology centres. This commitment to engaging with the industrial sector results in the provision of specialised services, the strengthening of companies' technological capabilities, and the promotion of direct technology transfer, both nationally and internationally.

The evolution over recent years reflects a positive and sustained trend in collaborative activity. The number of contracts increased from 73 in 2023 to 91 in 2024 and 104 in 2025, representing cumulative growth of 30% over the period and a 12% increase compared to the previous year. In addition, collaborations were established with more than 30 different companies (a summary of which is shown in Figure 26).



Figure 26. Companies with which CINTECX staff collaborate.

In terms of funding secured, following a slight decline in 2024 (€932,935, a decrease of 1.1% compared to 2023), a significant increase was recorded in 2025, reaching €1,126,639.87. This represents growth of 20.8% compared to the previous year and 19.6% compared to 2023. Figure 27 illustrates the funding obtained from each company.

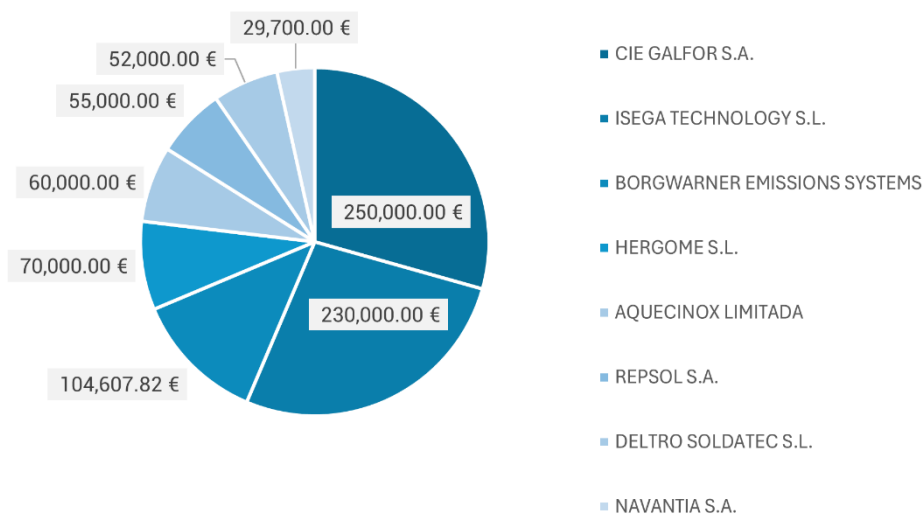


Figure 27. Funds secured per company.

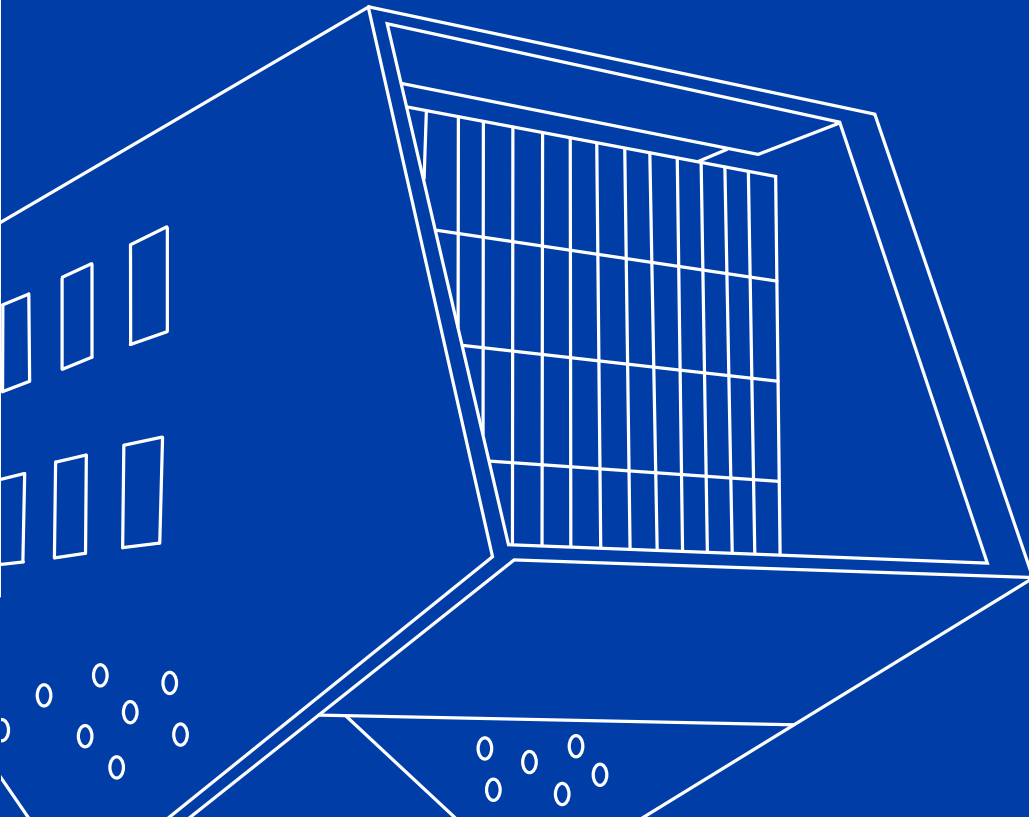
These results highlight the strength of CINTECX's collaboration model and its role as a key agent in innovation and industrial development, with a track record that confirms the growing trust of companies in its activities.

Patents

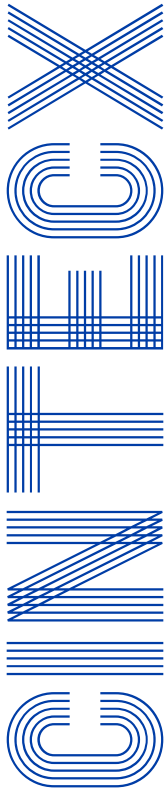
At CINTECX, continuous efforts are made to promote knowledge transfer and innovation, positioning Galicia at the forefront of applied research. During 2025, the centre further consolidated its position by managing a total of 146 intellectual property assets, including patents, software, know-how and patent exploitation rights, with 4 of them being newly created. In addition, revenues of €7,200 were generated through licensed IP.

Furthermore, the centre remains committed to training in intellectual property, providing its research staff with key tools for the proper management and protection of the results derived from their research activities. These initiatives not only strengthen the centre's capacity for technology transfer but also enhance the impact of the research carried out at CINTECX, ensuring its sustainability and relevance within the R&D&I system.

RESEARCH CAREER



2025



RESEARCH CAREER

Talent Attraction and Retention

The talent attraction and retention measures implemented in 2025 enabled the centre to include 30 early-stage researchers (predoctoral) from various competitive programmes and 14 postdoctoral researchers within its research staff, as illustrated in Figure 28.

Predoctoral Researchers

6 Predoctoral FPU.
13 Predoctoral FPI.
7 Predoctoral Xunta de Galicia.
5 Predoctoral UVigo



32 %

Postdoctoral Researchers

5 Postdoctoral Ramón y Cajal.
7 Postdoctoral Xunta de Galicia.
1 Postdoctoral Beatriz Galindo.
1 Postdoctoral Distinguido UVigo



46 %

Figure 28. Distribution of predoctoral and postdoctoral researchers from competitive programmes.

During 2025, the centre incorporated new early-stage research staff, strengthening its base of young talent and ensuring the continuity of its R&D lines. These recruitments were carried out through various research training support programmes, both from the University of Vigo and other public institutions.

Regarding new recruitments, the centre added early-stage research staff through various calls. Within the framework of the University of Vigo's predoctoral grants, Wessam Essam Mohamed Abdelazim Abdelhamid (APET), Belén Lara Álvarez Diéguez (GEOTECH) and Daniel Terrón Hernández (BIOSUV) joined the centre. Similarly, under the Xunta de Galicia's predoctoral call, Xan

Barreiro Xardón (BIOSUV) and Ismael Lamas Paredes (ENCOMAT) were recruited.

In addition, through FPI contracts linked to knowledge generation projects, Marta Pérez López (BIOSUV, project PID2023-146133NB-I00), Iván Reza Ramos (ENCOMAT, project PID2023-148545OB-I00) and Marta Caride Pérez (GTE, project PID2023-148763OB-I00) joined the centre. Furthermore, within the FPU programme funded by the Ministry of Science, Innovation and Universities, Pablo Mariño Fernández Abrales (APET) and Hamza Sajjad (LaserON) were incorporated. Finally, under the Industrial Doctorates programme, Nerea Airado Vilar (APET) and Camila Rey Díaz (BIOSUV) joined the centre.

In addition, during 2025, two predoctoral contracts were secured under knowledge generation programmes, with their incorporation scheduled for the following year. Likewise, a new Industrial Doctorate position was awarded, and the researcher will also join the research team in 2026. Regarding postdoctoral calls, the centre secured two Juan de la Cierva researchers under the 2024 call, who will join the centre: Dr Rauf Foroutan from the University of Tabriz (Iran) and Dr Paula de Andrés Anaya from the University of Salamanca (Spain), as well as one Beatriz Galindo researcher, Dr David Fernandes del Pozo from Ghent University (Belgium), who joined in 2025. In addition, the Xunta de Galicia call enabled the consolidation of Dr Antía Fernández Sanromán (BIOSUV) as a Xunta postdoctoral researcher.

National Projection

Representation in Institutions

CINTECX strengthens its visibility and commitment to research excellence through the active representation of its research staff in institutions, associations and networks at both national and international levels.

At the national level, researcher Belén Riveiro coordinated the network "Monitoring and inspection for the assessment of in-service structures – MonitoRED", funded by the Spanish Ministry of Science and Innovation. This network brings together the leading research groups in Spain in structural monitoring, consolidating CINTECX as a key player in this field. In addition, researchers such as Marcos López, Joaquín Baltasar Collazo, Enrique Casarejos and Abraham Segade represented the centre as active members of the Spanish Association of Mechanical Engineering, with participation spanning more than five years.

Marta Pazos also played a notable role as a programme manager at the Spanish State Research Agency, within the scientific area of Environmental Sciences and Technologies (CTM) and the sub-area of Environmental Technologies (TMA). Likewise, Henrique Lorenzo served as programme manager in the Energy and Transport area (EYT) and the Energy sub-area (ENE), while Pedro Arias held a similar position in the area of Industrial Production, Civil Engineering and Engineering for Society (PIN).

Ángeles Sanromán was a member of the Agency for Scientific and University Quality of Andalusia and served as coordinator of the Biochemical Engineering Section of the Spanish Society of Biotechnology (SEBIOT).

Santiago Pozo also actively participated in various scientific and professional associations, such as TechnoHeritage and the Specialised Group on Chemistry for the Study and Conservation of Cultural Heritage of the Spanish Royal Society of Chemistry (GEQP-RSEQ).

These individual representations within scientific networks and associations consolidate CINTECX's position as a benchmark in multidisciplinary research and strengthen its contribution to the advancement of knowledge in collaboration with national and international scientific communities.

Awards and Recognition

The commitment to research excellence has been reflected in several outstanding awards during 2025. The Royal Galician Academy of Sciences (RAGC) awarded the Isidro Parga Pondal Prize, in the Technical Sciences category, to Full Professor Juan María Pou Saracho, in recognition of his scientific career in the field of technical sciences (Figure 30). This distinction highlights his outstanding research work as an international reference in laser applications. Among his recent research lines are projects focused on the use of laser technology to recycle glass that is not typically recycled, such as that used in pharmaceutical products and electronic devices.

In addition, in April of this year, CINTECX researcher Jesús Doval Gandoy, head of the APET group, was formally appointed as a Full Member of the RAGC (Figure 30). The President of the institution, Juan Lema, opened the ceremony by highlighting his career and the inclusion of a new branch of knowledge that is essential today: power electronics, a key field for both fundamental and applied research with a promising future.



Figure 30. From left to right: Juan Pou receiving the Isidro Parga Pondal Award and Jesús Doval at his induction as a full member of the academy.

Belén Riveiro, a researcher from the GEOTECH group, also received a double distinction in 2025. On the one hand, she was awarded the RAGC–UIE Prize for Young Researchers in Technical Sciences, granted by the Royal Galician Academy of Sciences (RAGC) and the Intercontinental University of the Enterprise (UIE), highlighting emerging talent and the centre's commitment to training high-level researchers. In addition, she was recognised by the Royal Academy of Engineering as “Best Young Researcher”, acknowledging her contributions to structural monitoring and technology transfer to the industrial sector. This achievement adds to previous recognitions, such as the National Matilde Ucelay Award in 2022 (Figure 29).



Figure 29. Belén Riveiro, recognised in 2025 with two distinctions: on the right, the RAGC–UIE Award for Young Researchers in Technical Sciences; on the left, the award as “Best Young Researcher” granted by the Royal Academy of Engineering.

Belén Riveiro also received the Galicia Critics' Award 2025 in the “Research in Science and Technology” category for the article “Automated production of synthetic point clouds of truss bridges for semantic and instance segmentation using deep learning models”, published together with members of the GEOTECH group: Daniel Lamas, Andrés Justo and Mario Soilán (Figure 31). The jury highlighted its pioneering contribution to the digitalisation and maintenance of civil infrastructure, with a direct impact on safety, efficiency and sustainability.



Figure 31. Belén Riveiro receiving the "Premios da Crítica Galicia 2025" award in the "Research in Science and Technology" category.

Dr Antía Fernández Sanromán, an early-career researcher, received a runner-up award in the Doctoral Thesis category at the University of Vigo Innovation and Entrepreneurship Awards (2024/2025 academic year) for her thesis "Reducing the environmental and health impact of hospital effluents through advanced oxidation processes". In addition, one of the articles derived from this thesis received a runner-up award at the Fundación Barrié–RAGC Research Awards (February 2025) (Figure 32). Dr Fernández Sanromán was also distinguished with the Extraordinary Doctorate Award and the award for Best Thesis in the CNEAI 6.I field (Mechanical and Production Technologies).



Figure 32. Antía Fdez-Sanromán, winner of the Fundación Barrié-RAGC Research Award for the best article of 2024.

In addition, the following early-career researchers were recognised for their doctoral theses: Dr Martín Damián Medina Sánchez, from the APET group, received the award for Best Thesis in the CNEAI 6.II field, while Dr Alex Alonso Díaz, from the GEOTECH group, received the award for Best Thesis in the CNEAI 6.III field. Furthermore, researchers Javier Blanco Rodríguez (GTE) and Alex Alonso Díaz (GEOTECH) were awarded first and second prize, respectively, in the "Entrepreneurship-related Thesis" category for the 2024/2025 academic year.

Recognition was also given to Nuria Bernárdez Rodas in the 2025 call of the Water Campus of the University of Vigo, for her scientific contribution to sustainable technologies for wastewater treatment. Finally, researchers Laura Alonso Martínez and Manuel Alejandro González Fernández, from the GESSMIN group, received the Extraordinary Doctorate Award for the 2023/2024 academic year.

Lastly, it is worth highlighting that researcher Juan Carlos Navares, from the GEOTECH group, won the Scientific YouTubers competition with a project that stood out for its ability to clearly explain the differences between virtual, augmented and mixed reality through a fresh, dynamic style with a touch of humour.

International Projection

CINTECX continues to consolidate its international projection and presence through the active involvement of its research staff in renowned organisations, the preparation and submission of proposals to highly competitive European programmes, and the establishment of cooperation links with universities and institutions across different countries.

Since 2022, researcher Carmen Pérez has chaired Division 4 of the International Society of Electrochemistry (ISE), a non-profit organisation based in Lausanne (Switzerland) dedicated to Materials Science and its connection with Electrochemistry. Meanwhile, CINTECX researcher Jacobo Porteiro has continued to represent Spain in the Combustion Technology Collaboration Programme of the International Energy Agency (IEA) since 2014. In addition, Santiago Pozo consolidated his participation in the International Society for Rock Mechanics (ISRM), strengthening the centre's involvement in international scientific associations.

Other CINTECX researchers have also stood out for their affiliation with leading international organisations. Óscar López, Alejandro Gómez Yepes and Jesús Doval are members of the IEEE Power Electronics Society and the IEEE Industrial Electronics Society. Furthermore, Jesús Doval has been actively involved in the IEEE Industrial Applications Society and the Power Engineering Society. Félix Quintero Martínez, for his part, served on the TC28 committee of the International Commission on Glass, focused on glass fibres for reinforcement and insulation.

Moreover, in 2025, several international collaborations took place through visits and seminars delivered by researchers from foreign universities.

In February 2025, Professor Rui C. Martins from the University of Coimbra visited the centre. After touring its facilities, he delivered a seminar entitled *H2OforAll. Advanced Processes for Improving Water Quality* to the centre's research staff (Figure 33).



Figure 33. Rui C. Martins from the University of Coimbra during his presentation of *H2OforAll. Advanced Processes for Improving Water Quality* at CINTECX.

In March, the centre hosted three speakers from Imperial College London: Professor Luca Magri, Dr Andrea Giusti and Dr Andrea Nóvoa, together with Dr Ank Khoa Doan from TU Delft (Faculty of Aerospace Engineering). All of them took part in the seminar entitled *New Trends in Energy Processes* (Figure 34).

The event, held over the course of a morning, provided an opportunity to learn about the latest developments in energy processes and engineering through presentations and discussions led by the four invited researchers, who shared their expertise and current research lines in fields such as aerodynamics, mechanics and energy efficiency.

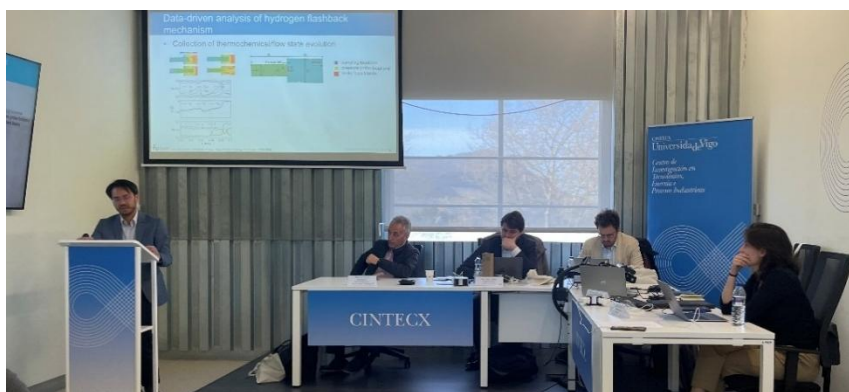


Figure 34. From left to right: Ank Khoa Doan, Xosé Ramón Novoa, Luca Magri, Andrea Giusti and Andrea Nóvoa during their presentation of *New Trends in Energy Processes* at CINTECX.

In May, CINTECX organised an international seminar on advanced technologies for the non-destructive evaluation of infrastructure and cultural heritage (Figure 35). The event was held in collaboration with Screening Eagle – Proceq and

brought together international experts, CINTECX research staff and students from the Higher School for the Conservation and Restoration of Cultural Assets of Galicia. The programme featured high-level presentations by Dr Jorge Otero, Dr María Mercedes Solla, Ahmed Elseicy and Dr Alex Novo, addressing topics ranging from damage assessment of the moai statues on Easter Island to the application of deep learning models and multichannel GPR technologies in transport infrastructure. In addition to the theoretical sessions, the seminar included practical demonstrations using GPR Array equipment and Pulse-Echo ultrasound systems, led by Rosaly Wiegman from Screening Eagle – Proceq and Dr Alex Novo, enabling participants to gain hands-on experience with these technologies applied to structural diagnostics.



Figure 35. International Seminar Master Multimodal Non-Destructive Testing: Leverage AI, GPR, and Ultrasound.

In October, additional seminars were held. The first took place on the 2nd, featuring Dr Zhouyan Qiu from Xi'an Jiaotong-Liverpool University (China), entitled Advancements in AI and Sensor Technologies for Infrastructure Monitoring and Optimization in Urban and Indoor Environments. The second was held on the 6th, with Dr Ana Larrañaga from the University of Washington, entitled Intelligent Sampling for Scientific Model Discovery: Learning to Optimize and Optimizing to Learn (Figure 36).

Both researchers were previously part of CINTECX during their training stages, highlighting the strong long-term relationships maintained with early-career researchers, which in turn foster future international collaborations with other institutions.

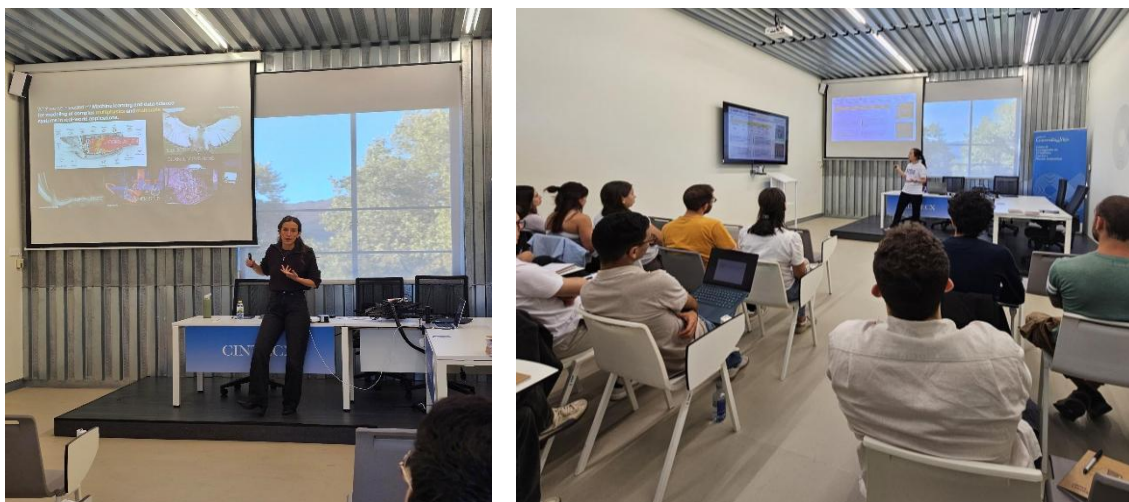


Figure 36. From left to right: Seminars by Dr Ana Larrañaga and Dr Zhouyan Qiu at CINTECX in October 2025.

Visits by international researchers were varied; for example, in April Felismina Moreira and Gabriela Martins, researchers from the CIETI//LabRISE group – Laboratory of Research and Innovation in Sensors and Engineering of the Polytechnic Institute of Porto, visited the centre to develop a joint project with Stefano Chiussi, a CINTECX researcher (Figure 37).



Figure 37. From left to right: Gabriela Martins, Felismina Moreira and Stefano Chiussi.

On the other hand, several CINTECX researchers received international recognition. In particular, predoctoral researcher Ana María Vilas Iglesias, an industrial engineer and member of the LaserON group at the University of Vigo, was awarded third prize by the Laser Institute of America for the best presentation at the 44th International Conference on the Applications of Lasers and Electro-Optics (ICALEO), recently held in Orlando, Florida (USA) (Figure 38). Her work, focused on the production of bimetallic nanoparticles using laser ablation techniques, shows the potential of these noble metal structures as a tool for combating drug-resistant infections. This international recognition

highlights not only the scientific quality of her research, but also the commitment and talent of the new generation of CINTECX researchers.



Figure 38. Ana Vilas receiving her award at the conference.

In addition, researcher Jesús Vence Fernández was awarded the Best Paper Award at the sixth edition of the International Conference on Fluid Flow and Thermal Science (ICFFTS 2025). His participation in this international conference, one of the most relevant in the field of thermal and fluid engineering, was made possible by mobility grants awarded by CINTECX and funded by the ERDF, which promotes the internationalisation of research and knowledge transfer. The award-winning work, *Analysis of the ideal micro-channel count and contact height of wavy cold plates for efficient single-sided cooling of cylindrical cells*, focuses on improving the thermal management of batteries composed of cylindrical cells, a key aspect for ensuring the safety, efficiency and durability of energy storage systems.

Although CINTECX has a noteworthy track record, the centre continues to work towards strengthening its international profile and consolidating itself as an international benchmark. In this regard, in 2025, work continued on the development of a support programme aimed at designing an internationalisation plan for the centre, in collaboration with the consultancy RTDI. This consultancy was selected for its prestige and experience in comprehensive R&D&I management services, offering both consultancy for organisations seeking to turn their ideas into reality and specialised training for professionals and institutions.

The general objective of this programme is to support CINTECX in the design and implementation of an internationalisation plan, with a special focus on its participation in the European R&D&I Framework Programme, Horizon Europe, and specifically in the calls under Pillar I "Excellent Science". To achieve this, work is being carried out on the following specific objectives:

- Development of internal capacities for the design and promotion of comprehensive strategies for participation in public support programmes for R&D&I, especially among the members of the CINTECX management team, although also to some extent among the centre's researchers.
- Strategic evaluation and systematic collection of information on the centre's starting point and potential for participation in Horizon Europe for the 2025–2027 period.
- Design and launch of a detailed networking strategy to facilitate the preparation of Horizon Europe proposals led by CINTECX and to increase their chances of securing funding, and/or to promote the centre's participation in proposals led by other European entities (with the best possible prospects of being funded).
- Establishment of collaboration mechanisms with other support agents, particularly the Project Office of the University of Vigo and FEUGA.

The collaboration with the consultancy RTDI is expected to produce significant results, including several meetings with researchers from institutions such as Fraunhofer to lay the foundations for future collaborations in international projects.

During 2025, this line of work continued, and relevant funding calls for CINTECX research staff were identified. This work is expected to lead to results in calls closing in the first months of 2026.

In addition, it is worth highlighting in this internationalisation section that CINTECX launched a Call for Grants for Attendance at Conferences, Scientific Meetings, Visits or Short Research Stays in 2025. The purpose of these grants was to promote the internationalisation and global impact of the research carried out at the centre.

Furthermore, CINTECX also strengthened its international projection through scientific collaborations that included joint publications, participation in projects and research stays, promoting knowledge transfer and the exchange of ideas at a global level. These actions consolidated the centre's position as a benchmark in research and technology worldwide.

Fostering a Centre Culture

One of the key elements of CINTECX's success is the active promotion of interdisciplinary collaboration among its research groups. This strategy optimises available resources and fosters synergies that enhance the quality

and relevance of scientific outcomes.

This collaboration is reflected, among other actions, in the joint publication of scientific articles involving members from different groups. A notable example is the article *"CO₂ laser cleaning of gum residues on architectural stone and quantitative assessment by hyperspectral imaging"*, the result of joint work between the LaserON and GESSMIN groups. In terms of publications, it is also worth highlighting that, through the CINTECX Annual Challenge, joint publications are also produced. On the other hand, collaboration between groups also extends to international projects, such as *SUM4Re: Creating materials banks from digital urban mining*, involving the GEOTECH and ENCOMAT groups, consolidating the centre's global projection and its commitment to sustainable innovation.

CINTECX Annual Challenge

It is worth highlighting in this context the CINTECX Annual Challenge, an annual competitive call open to all research staff of the centre. This programme funds one research project each year in the field of Industrial Technologies, which must be based on a collaborative proposal involving different CINTECX groups. Each project runs for one calendar year, and during the final months the results are presented at a specific event, with the aim of reaching a general audience (Figure 40 and Figure 40). Additionally, dissemination activities are carried out following the policies of CINTECX and the University of Vigo.



Figure 40. Dr Aida Díez Sarabia during her presentation of the results of the winning 2024 proposal.



Figure 40. Dr Iago Pozo during his presentation of the results of the winning 2024 SmArt proposal.

The CINTECX Challenge programme, established as a key tool, fosters cooperation between research groups to address cross-cutting challenges. It also serves as an initiative that promotes collaboration among early-career

researchers and offers them an opportunity to demonstrate their ability to lead projects.

The three winning projects of the 2025 call (Figure 41) are:

- Multifunctional Ecological Catalysts Based on Nanotechnology for Energy and Environmental Applications (ECO-NANOxCAT), a proposal led by postdoctoral researchers Antía Fernández Sanromán and Pablo Pou Álvarez, from the BIOSUV and LaserON groups, respectively. The project focuses on the development of sustainable and multifunctional catalysts based on nanotechnology, aimed at improving energy efficiency and reducing environmental impact in industrial processes.
- Analysis of the Mechanical Behaviour of Rocks under Confined Tension (TRACONROC), led by researchers Ignacio Pérez Rey and Aránzazu Pintos Alonso, from the GESSMIN and ENCOMAT groups, respectively. This initiative seeks to deepen the study of rock behaviour under confined tension conditions, providing key knowledge for geotechnical engineering and the sustainable use of natural resources.
- Automated Generation of Bayesian Networks through Language Models for Water Resource Management (GAL-BAYES), a proposal led by Mario Soilán and María Pazo Rodríguez, from the GEOTECH and GESSMIN groups, respectively. The project aims to design tools based on artificial intelligence to optimise sustainable water management, applying advanced probabilistic models that improve decision-making in complex environmental contexts.

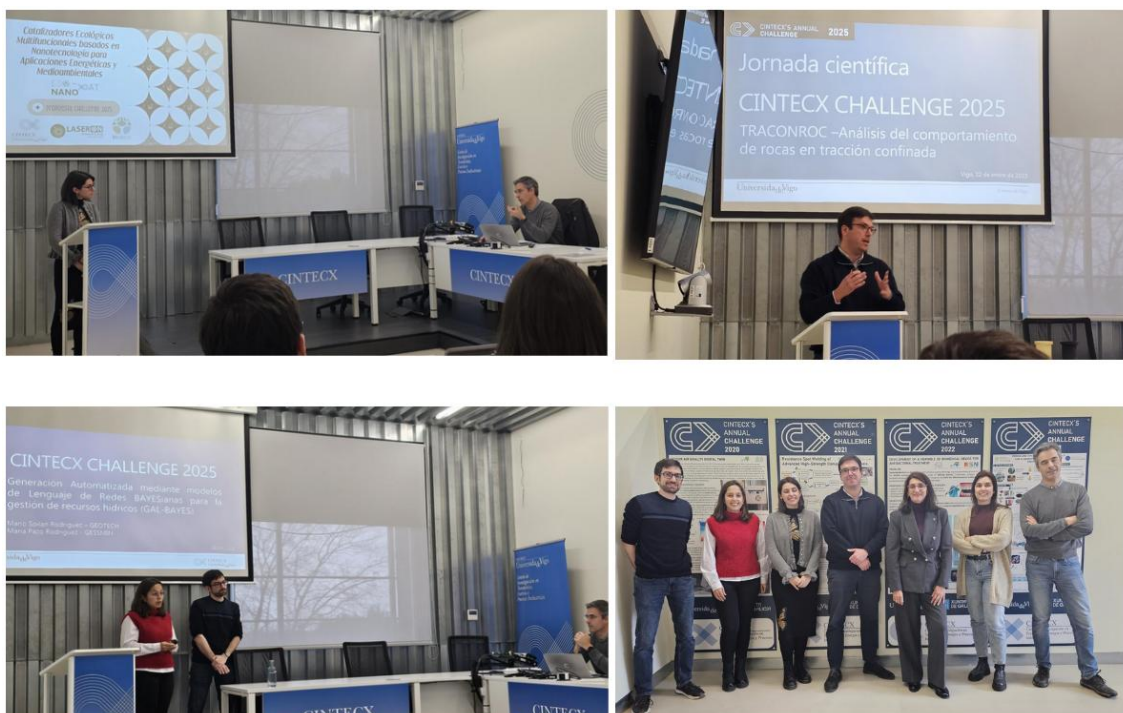


Figure 41. Young CINTECX researchers presenting their projects at the 2025 CINTECX Challenge. From left to right: Antía Fernández Sanromán (ECO-NANOxCAT), Ignacio Pérez Rey (TRACONROC), Mario Soilán and María Pazo Rodríguez (GAL-BAYES). An image of the PIs of the selected projects together with the CINTECX management is also included.

These initiatives strengthen internal synergies and allow resources to be mobilised efficiently, increasing the relevance and impact of scientific results.

Alerta Verde CINTECX

In 2025, CINTECX reaffirmed its commitment to internal collaboration by promoting a joint project that involves members from almost all the groups of the centre. This initiative, submitted under the funding call **"Ayudas para el Fomento de la Cultura Científica, Tecnológica y de la Innovación"**, also reinforces the centre's commitment to science communication and engagement with society. The project, entitled **"Alerta Verde: Salva tu Centro Educativo con la Misión CINTECX"** (Figure 42), funded under the 2024 call, is based on the creation of an educational escape room aimed at secondary school students, with the goal of promoting knowledge about renewable energy, sustainability and the circular economy. In addition, the project includes an in-person format in which students will be able to experience the activity first-hand, meeting the research staff and learning about the technological developments carried out at the centre. For this purpose, advanced technological tools available at the centre will be used, such as drones, ground-penetrating radar and 3D printers. Furthermore, complementary activities are included, such as presentation sessions, a travelling exhibition and the **"Green Alert Toolbox"**, a set of resources

accessible to a broad and diverse audience. This project reflects CINTECX's ability to work in an integrated manner, bringing together talent and expertise in support of scientific culture.



Figure 42. Images of the Alerta Verde project.

Training Programme

CINTECX maintains a strong commitment to the training of its research staff through the annual implementation of a comprehensive training programme designed to promote scientific excellence. This programme includes both technical courses focused on the use of scientific equipment and general training activities aimed at developing key skills.

During the year, the following general training activities were delivered:

- Training on the European Framework Programme for R&D&I: Strategic Participation: Delivered by the consultancy RTDI in two sessions, this training aimed to promote the internationalisation of research groups through the preparation of European proposals. The focus was on Horizon Europe, with the objective of positioning CINTECX as a strategic partner in this programme for companies and consortia.
- Course on oral communication in scientific forums in English: Delivered over eight sessions, this course provided participants with tools to improve their communication skills in international scientific environments. Practical aspects were addressed, including techniques

for delivering effective presentations in English at conferences, congresses and thesis defences, as well as skills for participating in scientific discussions.

- Workshop on healthy habits in the workplace: Held with the aim of raising awareness among staff about the importance of incorporating healthy routines in the work environment.

On the other hand, in 2025 the following training activities focused on the use of scientific equipment were carried out:

- Training on the UV-3600i Plus spectrophotometer.
- Training on the Tronxy Moore X4060 clay printer.
- Training on the Litesizer DLS 500 particle analyser.
- Training on the Nova 600 surface area and pore size analyser.
- Training on the 3devo GP20 plastic shredder.
- Training on the 3devo Filament Maker TWO filament extruder.
- Training on X-ray diffraction.
- Training on the Nova r5-4k high-speed camera.
- Training on the Coxem EM-40 SEM microscope.

Finally, it is worth highlighting that the centre supports early-stage staff through the Mentoring Programme, in which more experienced staff participate in a series of annual sessions to provide academic and professional guidance to predoctoral researchers (Figure 43).

In these sessions, held this year on 18 and 25 June, different topics of interest for predoctoral staff were addressed.

- On 18 June, under the title *"The importance of publishing"*, fundamental issues were addressed such as the steps prior to writing a scientific article, the editorial process and quality indices, as well as the relationship between publications and research projects. The contributions were delivered by Raquel Pérez Orozco, Alejandro Gómez Yepes, Mario Soilán and Santiago Pozo Antonio, with coordination and welcome remarks by Ángeles Sanromán Braga. The session concluded with a round table focused on the importance of publishing, the criteria for selecting journals and the associated ethical considerations.
- The second session, on 25 June, entitled *"Drawing the research career"*, focused on the different stages of a research career. Ignacio Pérez Rey, Adrián Cabarcos Rey and Aida Díez Sarabia participated, addressing topics such as the beginning of the research career, access to funding,

postdoctoral consolidation and the first steps as principal investigators on projects. The session also included a round table dedicated to stays, distinctions, University of Vigo regulations and personal experiences.



Figure 43. Photos of the presentation of the sessions, held on 18 and 25 June 2025. Upper part: Raquel Pérez Orozco, Alejandro Gómez Yepes and Mario Soilán. Lower part: Ignacio Pérez Rey, Aida Díez Sarabia, Adrián Cabarcos Rey and Alejandro Gómez Yepes.

The sessions were carried out very successfully, with the participation of 7 senior researchers in their presentations and with the attendance of more than 20 predoctoral researchers.

Mobility Grants

Furthermore, within the framework of the centre's internationalisation strategy, CINTECX launched a new edition of the Mobility Programme in 2025, with the aim of promoting the international visibility of its research staff and strengthening the centre's participation in global scientific networks and initiatives. This programme supported active participation in international forums and the establishment of collaborations with prestigious institutions. It was structured into two modalities:

- Modality A: Attendance at conferences or scientific events.
- Modality B: Research stays at research institutions.

The grants awarded funded activities carried out between 1 May and 31 October 2025, a period which, despite being limited, enabled a broad representation of CINTECX at relevant scientific events and helped to consolidate international links across various fields of knowledge.

Modality A – Attendance at conferences or scientific events

Within the framework of this modality, a total of nine researchers from CINTECX received support to participate in high-impact international conferences, representing the centre's different research groups and disseminating the most recent results of their research lines.

- **Dr Nuria Pereira Pinto (ENCOMAT Group):** attendance at the HACBAC 2025 conference, held in Faro (Portugal), with funding for travel and accommodation.
- **Dr Antonio Diéguez Vázquez (ENCOMAT Group):** participation in HACBAC 2025 in Faro (Portugal), with funding for travel and accommodation (Figure 44).
- **Dr Aida María Díez Sarabia (BIOSUV Group):** attendance at EAAOP7 2025, held in Paestum (Italy), with support for travel and accommodation (Figure 44).
- **Dr Noelia González Fernández (EQ10 Group):** participation in the Green Deal Biotechnology Conference 2025 in Aveiro (Portugal), with funding for accommodation (Figure 44).
- **Dr Adrián Cabarcos Rey (GTE Group):** attendance at the 12th International Conference on Multiphase Flow, held in Toulouse (France), with support for travel and accommodation (Figure 44).
- **Dr Jesús Vence Fernández (GTE Group):** participation in the 6th International Conference on Fluid Flow and Thermal Science, in Barcelona (Spain), with funding for travel and accommodation.
- **Dr David Agudo del Río (DSN Group):** attendance at the IRF2025 conference, held in Porto (Portugal), with support for travel (Figure 44).
- **Dr Ahmed Mossad Ibrahim Elseicy (GEOTECH Group):** participation in IWAGPR 2025, in Thessaloniki (Greece), with funding for travel and accommodation (Figure 44).
- **Dr Belén Lara Álvarez Diéguez (GEOTECH Group):** attendance at CISTI 2025, in Lisbon (Portugal), with financial support for travel and accommodation (Figure 44).

These activities enabled the dissemination of the scientific advances developed at the centre, as well as the establishment of strategic contacts with international groups, strengthening CINTECX's visibility and prestige across different fields of engineering and applied sciences.

Modality B – Research stays at research institutions

In the second modality of the programme, five researchers carried out research stays at prestigious universities and research centres, with the aim of

consolidating lines of collaboration and acquiring new scientific and technological skills.

The research stays were as follows:

- **Dr Alex Alonso Díaz (GEOTECH Group):** research stay at the Department of Earth & Environment of Florida International University (FIU), in Florida (United States), with support for travel (Figure 44).
- **Dr Bárbara Lomba Fernández (BIOSUV Group):** research stay at GRAQ/LAQV, Department of Chemical Engineering of the Instituto Superior de Engenharia do Porto (ISEP), in Porto (Portugal), with funding for accommodation.
- **Dr Nicolás Mauricio Russo Martínez (EQ10 Group):** research stay at the Centre of Biological Engineering of the Universidade do Minho, in Braga (Portugal), with support for accommodation.
- **Dr Yago Cruz Cadaya (GEOTECH Group):** research stay at the Universidade do Minho, in Guimarães (Portugal), with support for travel and accommodation.
- **Dr Fernando Nunes Carvalheiro (GEOTECH Group):** research stay at the Department of Civil Engineering of the Universidade do Porto, in Porto (Portugal), with funding for travel and accommodation.

These experiences made a significant contribution to the international projection of CINTECX's research groups, promoting knowledge exchange, technical training, and the establishment of future collaborations in joint projects.

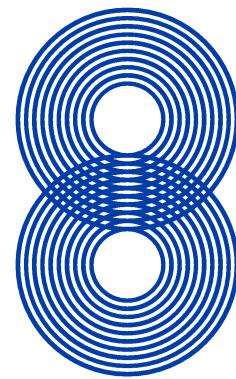


Figure 44. Compilation of photographs of the internationalisation activities carried out within the framework of the CINTECX Mobility Programme 2025, including participation in international conferences and stays at foreign research centres. From left to right: Aida Díez, Adrián Cabarcos, Ahmed Mossad Ibrahim, Antonio Diéguez, Alex Alonso, Belén Lara Álvarez, Noelia González and David Agudo.

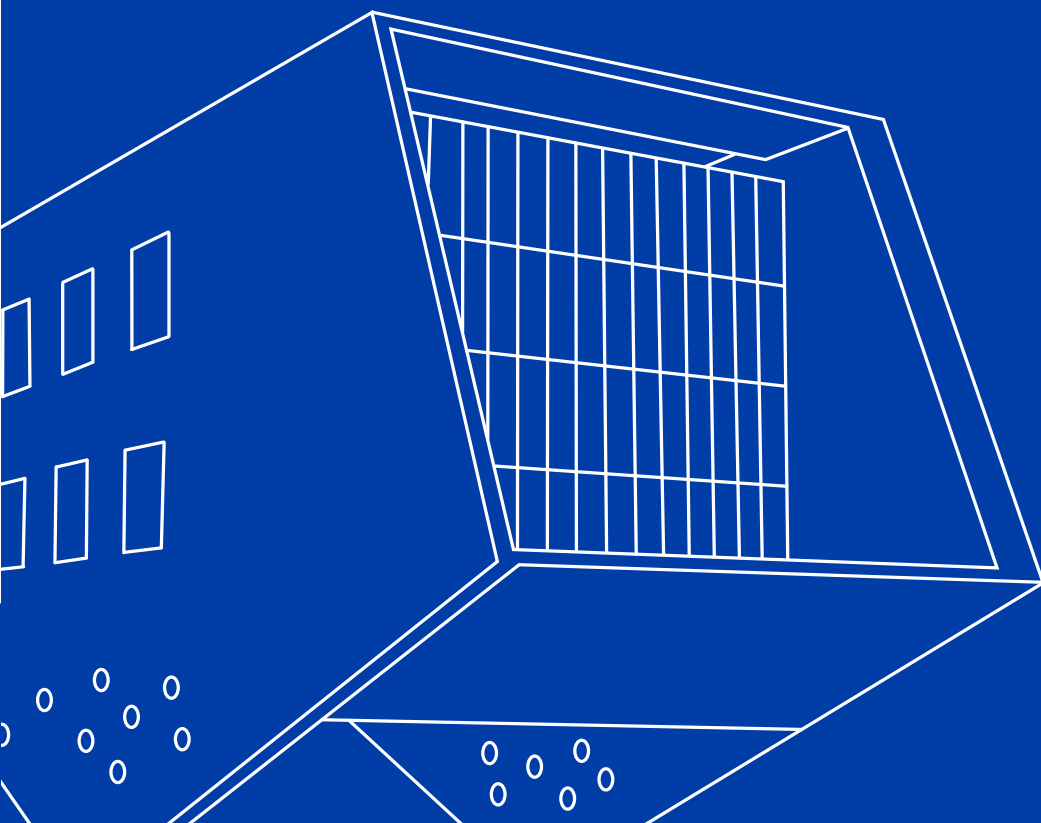
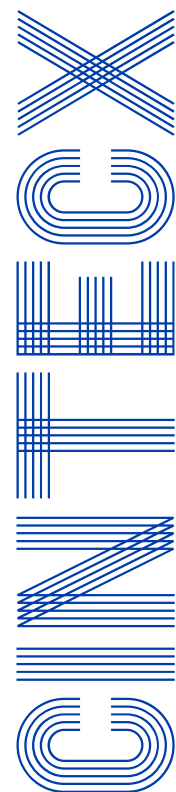
Overall, the Mobility Programme 2025 consolidated the progress achieved in CINTECX's internationalisation strategy, strengthening its presence in prestigious scientific forums and promoting collaboration with leading institutions worldwide. The efficient use of funding and the positive impact of the activities carried out confirm the centre's commitment to research excellence and to the transfer of knowledge to society.

It is confirmed that the allocated funds were used in accordance with the objectives and requirements established in the call, thereby reinforcing the internationalisation and visibility of CINTECX.

GENDER EQUALITY IN RESEARCH



2025



GENDER EQUALITY IN RESEARCH

CINTECX has intensified its efforts to promote gender equality through the organisation of events, awareness-raising campaigns, and the publication of content aimed at highlighting the role of women in science and technology. These actions reinforce the centre's commitment to equity and inclusion, contributing to the creation of a more diverse and fair research environment.

The following actions were carried out during the year:

- **"11F–Women Researchers at CINTECX" campaign.** On 29 January, CINTECX launched the 11F activities with the event "Women Researchers at CINTECX", which included the presentation of the 2025 *Women Researchers at CINTECX* Calendar and Exhibition, where researchers shared their experiences to inspire young women to pursue careers in science. The event featured a round table on equality in research with representatives from the University of Vigo, CINTECX, IIM-CSIC and AIMEN. The exhibition, located on the first floor of the building, remained open throughout February, showcasing the role of women in research.



Figure 45. Antía Fernández, Aida Díez, Julia Serra and Eva Legido, CINTECX researchers; Yolanda Rodríguez, Head of the UVigo Equality Unit; Beatriz Novoa, Director of IIM-CSIC; Belén Rubio, Vice-Rector for Research; Luz Herrero, Head of Environmental Technologies of the R&D&I Division of Aimen; and Ángeles Sanromán, Director of CINTECX.

- **"CINTECX–AIMEN Women Who Lead" workshop.** On 13 March, CINTECX and the AIMEN Technology Centre organised the workshop "Women Who

Lead", during Women's Week, with the aim of highlighting the role of women scientists and promoting female leadership in research and technology. During the event, researchers from both institutions shared their experience in managing and developing innovative projects. This initiative, integrated into CINTECX's mentoring programme, reinforces the commitment of both organisations to promoting female talent and advancing equality in the scientific and technological fields.



Figure 46. From left to right: Concepción Paz, CINTECX researcher; Ángeles Sanromán, Director of CINTECX; Luz Herrero, Head of Environmental Technologies of the R&D&I Division of Aimen; Afra María Pertusa Llopis and Lourdes Blanco Salgado, Aimen staff; Aida Díez, CINTECX researcher.

- **Workshop "Why are there so few women in engineering?"** On 23 June, on the occasion of International Women in Engineering Day, CINTECX organised a workshop aimed at examining the participation and career paths of women in engineering, identifying challenges and opportunities, discussing ways to encourage interest in engineering careers, and promoting male involvement in gender equality. The programme included a welcome address by the Director of CINTECX, Ángeles Sanromán, the lecture *"Women in Engineering: Mission Impossible?"* by Marta Macho Stadler (UPV/EHU), a presentation by Marta Fernández Docampo (Gestamp Vigo), and a round table moderated by Mariola Norte Navarro, with representatives from the University of Vigo, CINTECX, and the industrial sector.



Figure 1. From left to right: Marta Macho Stadler, professor at the University of the Basque Country; Ángeles Sanromán, Director of CINTECX; Marta Fernández Docampo, project manager at GESTAMP; Mariola Norte, communications manager at CINTECX; Yolanda Rodríguez, Head of the UVigo Equality Unit; and Eduardo Suárez, CINTECX researcher.

- **Workshop “Cámara Aberta CINTECX for STEM women and men”.** On 24 October, the presentation event for the initiative “Cámara Aberta CINTECX for STEM women and men” was held. This initiative compiles recorded testimonials from thirteen members of the centre, showing how they balance their professional careers with their personal lives. Coinciding with the proximity of the Day of Men for Equality (21 October), the event provided an opportunity to reflect on differences, barriers, and opportunities to advance equality in the scientific and technological fields. The session included the screening of a summary video, two talks, and a round table with participants in the initiative and experts in engineering and gender equality.



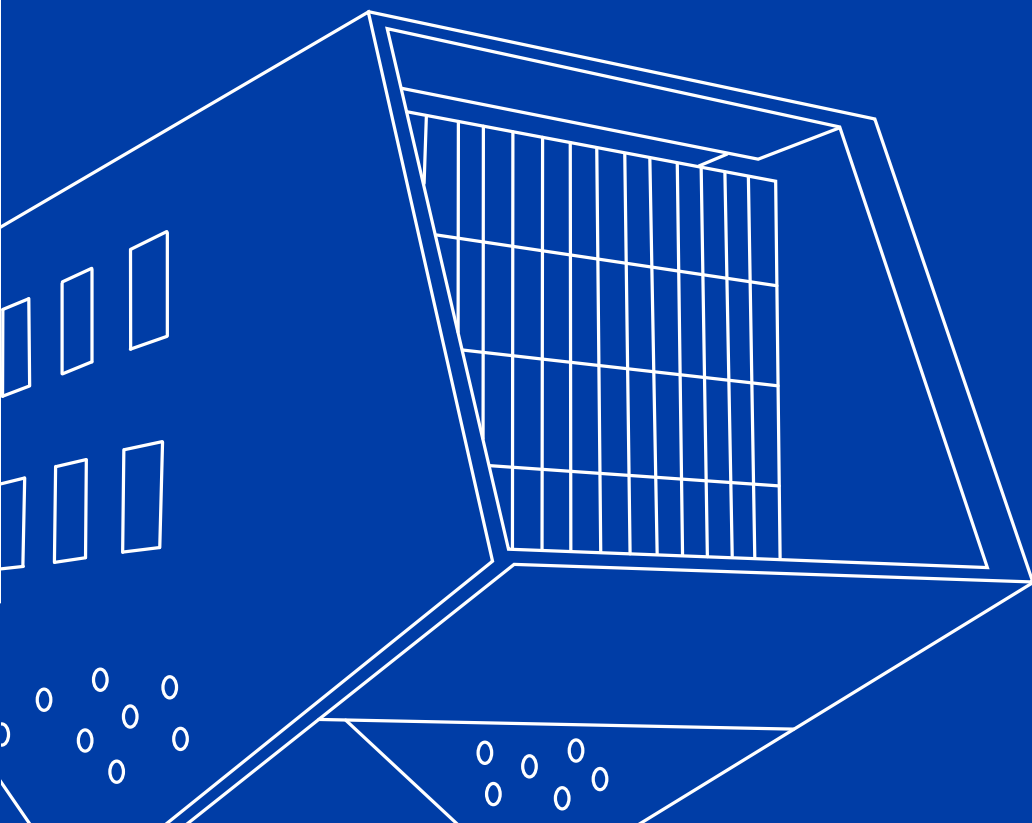
Figure 47. From left to right: Fidel Vargas, Eliot Vargas and Mariola Norte, in the Cámara Abierta CINTECX interview.

The year concludes with a new edition of the illustrated calendar featuring CINTECX researchers, an initiative that reinforces the centre's commitment to showcasing scientific talent and promoting equality. On this occasion, the calendar includes both women and men.



Figure 48. Cover of the CINTECX 2026 calendar.

COMMUNICATION



2025

GINTELOX

COMMUNICATION

The year 2025 represents a significant step forward for CINTECX in the areas of institutional communication and scientific outreach. Its consolidation as a CIGUS Collaborative Research Centre has reinforced the need to expand the centre's reach, enhancing its visibility and strengthening its role as a key player within the Galician scientific, technological, and industrial ecosystem.

In this context, communication has taken on a strategic role across all audiences (Figure 49), both externally—with institutions, companies, and society—and internally, promoting a cohesive, participatory organisational culture. Adapting to new communication formats and strengthening the centre's presence on social media platforms, which are increasingly becoming priority channels for dissemination and visibility, have been the main focus of communication efforts during this period.

Internal audience	External audience	Mixed audience
○ Researchers and Scientists affiliated with CINTECX. ○ Administrative Staff. ○ Students and Grant Holders.	○ Companies and Private Sector. ○ Scientific Community. ○ Academic Institutions. ○ Government Entities.Civil Society. ○ Media.	○ Non-Governmental ○ Organizations (NGOs). ○ Associations.Professionals.

Figure 49. Target audiences of the CINTECX communication plan.

External communication

In 2025, external communication made significant progress. Among the actions undertaken to strengthen external communication, the following stand out:

- **Renewal of the official website:** The centre's official website was completely redesigned, incorporating improvements in accessibility, usability, and the integration of multimedia content, reaching nearly 30,000 visits over the past year. The new structure facilitates more intuitive navigation and includes an updated news section and a dynamic

activities calendar, enabling quick access to relevant information and enhancing the dissemination of scientific results and institutional initiatives.

- **Strengthening of social media:** Expansion of original audiovisual content and presence on LinkedIn, X/Twitter, and Instagram. Notable examples include the thematic campaigns #CámaraAbertaCINTECX and #SomosCINTECX, which achieved increased reach and digital engagement. A strategy was also implemented to adapt the visual identity to each platform, improving accessibility and visibility, particularly on Instagram.
- **Production of short videos and interviews:** Creation of audiovisual materials for the YouTube channel and social media, aimed at showcasing research staff, highlighting ongoing projects, and disseminating the centre's main research lines. These materials contributed to humanising scientific activity and bringing CINTECX's work closer to society.
- **Campaigns:** Launch of several initiatives such as the CINTECX Calendar and *Women Researchers at CINTECX*, featuring monthly publications to bring the centre's activities closer to the community and raise awareness about gender equality in the STEM field.

This progress also translated into greater recognition among diverse audiences, from the research community to the business sector and the general public, and a stronger institutional brand.

Internal communication

In 2025, internal communication was consolidated as a strategic pillar to strengthen cohesion, transparency, and the sense of belonging within the CINTECX community. The main objective of the actions implemented was to foster the smooth exchange of information, improve coordination among teams, and promote a participatory, collaborative, and sustainable organisational culture. Internal communication actions include:

- **Internal newsletter "CINTECX News":** In 2025, the structure and content of the newsletter, issued every two months, were redesigned to include up-to-date information on projects, achievements, training activities, events, and other relevant news. It is distributed via email and accessible through the intranet.

- **Welcome kit and shared identity:** Updated with sustainable materials and key information on the organisational structure, strategic plan, equality plan, and environmental best practices, this resource facilitates the integration of new staff and promotes a sense of belonging from the outset.
- **Information channels and digital tools:** The use of internal digital platforms was strengthened, incorporating alert systems and information screens in common areas, where news, calls, and events are published. In addition, the use of segmented distribution lists by area was consolidated, improving communication efficiency and transparency.
- **Strengthening of the internal community:** Informal meetings and team exchange sessions were organised, reinforcing internal ties and contributing to a more collaborative environment. Among these initiatives, the CINTECX Healthy Lab stands out, with two sessions held in July that concluded with a healthy breakfast.

Media presence and news

The relationship with the media is a key component of CINTECX's external communication. In 2025, a smooth and professional collaboration with major print and digital media outlets, as well as radio stations and specialised platforms, continued to be strengthened. This effort helped consolidate the centre's public presence and contributed to the rigorous dissemination of the scientific and technological advances developed by its research groups.

During this period, CINTECX significantly increased its media presence, achieving 50% more appearances than in 2024 (Figure 50) and tripling its audience reach to over 10 million users, thanks to coverage in major national and regional media outlets such as *El Mundo*, *El Español*, *Faro de Vigo*, and *La Voz de Galicia*. Notable examples include articles published in *Faro de Vigo* and a report broadcast by RTVE on a project led by researcher Belén Riveiro.

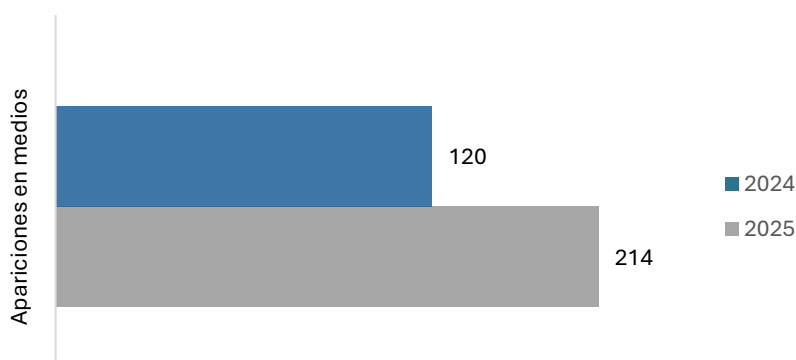


Figure 50. Evolution of media impact

In terms of radio coverage, particular mention should be made of the participation in the programme “*Hoy por Hoy*” on Cadena SER, where the Director of the centre, Ángeles Sanromán, was interviewed on the centre's strategic lines, challenges, and scientific impact. This participation helped to showcase the centre's research activity and convey to the public the importance of the work carried out by CINTECX. Likewise, the centre was featured in the SONUVigo podcast, an initiative of the University of Vigo to present the teaching and research work of its staff. In this series, researchers Pedro Arias (episode 1) and Belén Riveiro (episode 10) participated, addressing the progress of their research lines and the application of their projects in key sectors.

In the specialised press, CINTECX received prominent coverage in the magazine *Global Industry*, which published a special on the MindTech fair held in Vigo last May. This report focuses on the centre's research activity and its role as a benchmark in technology and industrial innovation. This coverage contributed to strengthening CINTECX's positioning within the industrial and technological ecosystem, both at regional and national levels. In addition, this coverage strengthened CINTECX's presence in specialised science communication media, including the SINC platform and GCiencia, which covered the CINTECX Challenge, as well as The Conversation.

Indicators

The data confirm a positive and sustained evolution in CINTECX's institutional communication. The centre has managed to increase its reach, improve interaction with its audiences, and consolidate a strong and coherent brand image.

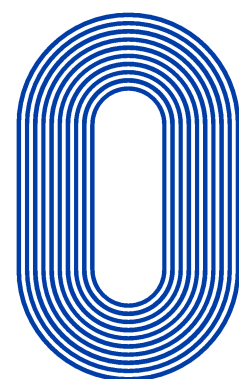
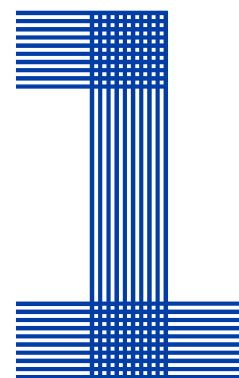
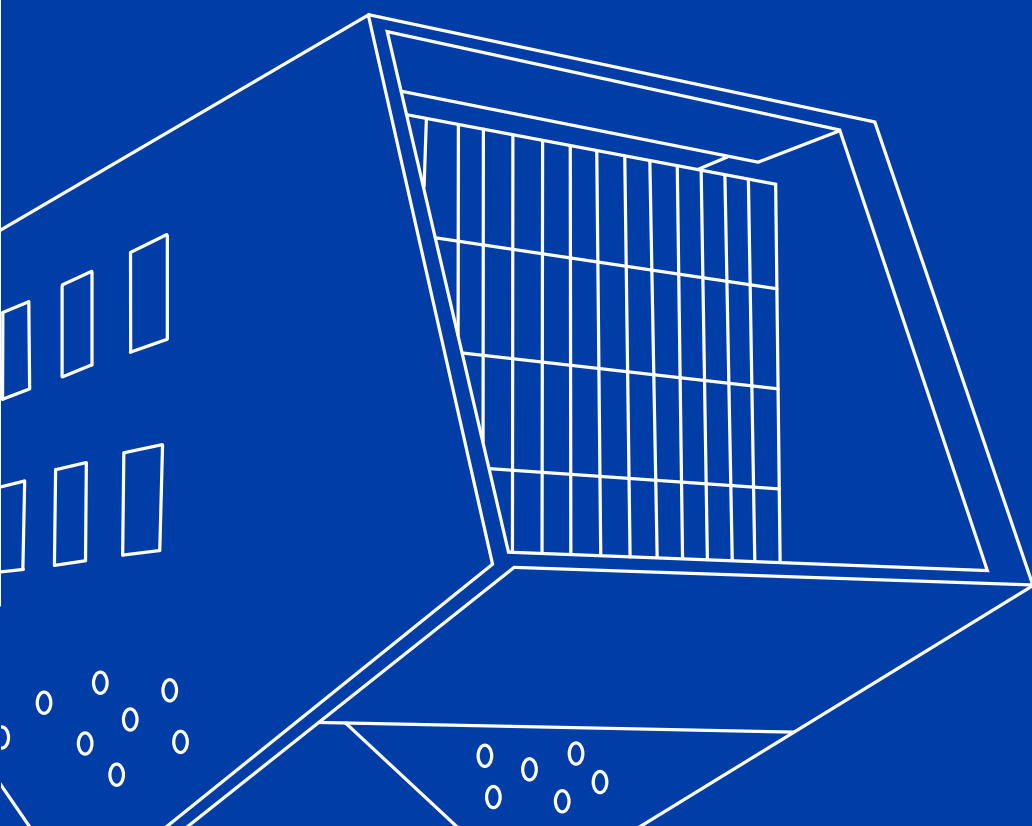
The increase in followers and views reflects the effectiveness of digital strategies and the success of social media campaigns, which have become key channels for scientific dissemination and the international projection of the centre. The greater presence in the media has strengthened CINTECX's position as a point of reference for technological innovation and knowledge transfer.

During this period, as shown in Table 1, CINTECX focused on strengthening its presence on social media, with particular attention to growth on Instagram, where the number of followers doubled and a further increase is expected following the full implementation of the new platform-specific strategy. In the case of LinkedIn, the centre consolidated its positioning by gaining more than 1,200 new followers over the past year, reaching a total of 2,733, and by doubling the number of impressions compared to the previous year, with a total of 310,000.

Table 1. Social media impact in 2025.

2025			
Community	432	2733	310
Publications	121	244	82
Increase in impact compared to 2024	3,19%	75,9%	254%

SCIENCE COMMUNICATION AND SCIENTIFIC CULTURE



2025

GINTEOX

SCIENCE COMMUNICATION AND SCIENTIFIC CULTURE

Throughout 2025, CINTECX promoted numerous initiatives to foster scientific dissemination and bring technological research closer to society, combining its own actions with strategic collaborations, such as the one established with the Scientific Culture Unit of the University of Vigo. These activities strengthened the centre's position in the international scientific arena through institutional visits and events, as well as a notable increase in the organisation and participation in workshops, seminars, and meetings, which doubled attendance and reached nearly one thousand participants.

Below are some of the most relevant activities carried out during the year, illustrating the centre's commitment to society and its dedication to promoting transformative actions across different areas of knowledge.

- **Summer Science Workshops:** The centre took advantage of the summer period to continue promoting scientific outreach and fostering interest in scientific careers through workshops aimed at young participants in the Campus Camp summer programme (Figure 51).



Figure 51. Children from the Campus Camp visiting CINTECX.

- **Open days for secondary schools:** A specific programme was developed for students in secondary and upper secondary education (ESO and Bachillerato) from the schools IES Castro de Vigo, IES Rosalía de Castro (Santiago de Compostela), IES Carlos Casares, IES Beade, IES Valadares and IES Mendiño, with the participation of more than 170 students this year (Figure 52). These sessions facilitated inclusive access to the scientific knowledge generated at the centre. The activities included

interactive routes in which students, equipped with a map, visited laboratories and facilities, completing tasks and challenges at each stop. At the end, they took part in a competition based on the knowledge acquired, allowing them to win prizes and thus encouraging their participation and active learning.



Figure 52. High school students carrying out open day activities at CINTECX.

- **Open day “Technology that Connects”:** As a new initiative in 2025, an open day for the general public was organised, allowing families and friends to visit the centre and learn first-hand about its activities (Figure 53). The 50 available places were fully booked within just two days of the event being announced, marking a highly successful first edition in this format.



Figure 53. Families participating in the CINTECX open day.

- Participation in scientific and technological outreach events: In addition to the events organised at CINTECX, staff members participated in initiatives such as *Expo-feria: La ciencia que viene*, *Pint of Science*, *G-Night*, and *STEMBach Projects*, where the centre's technological capabilities were presented to society and to key industrial sectors such as shipbuilding and metalworking (Figure 54). These events fostered direct dialogue between researchers and the public, increasing the centre's visibility.

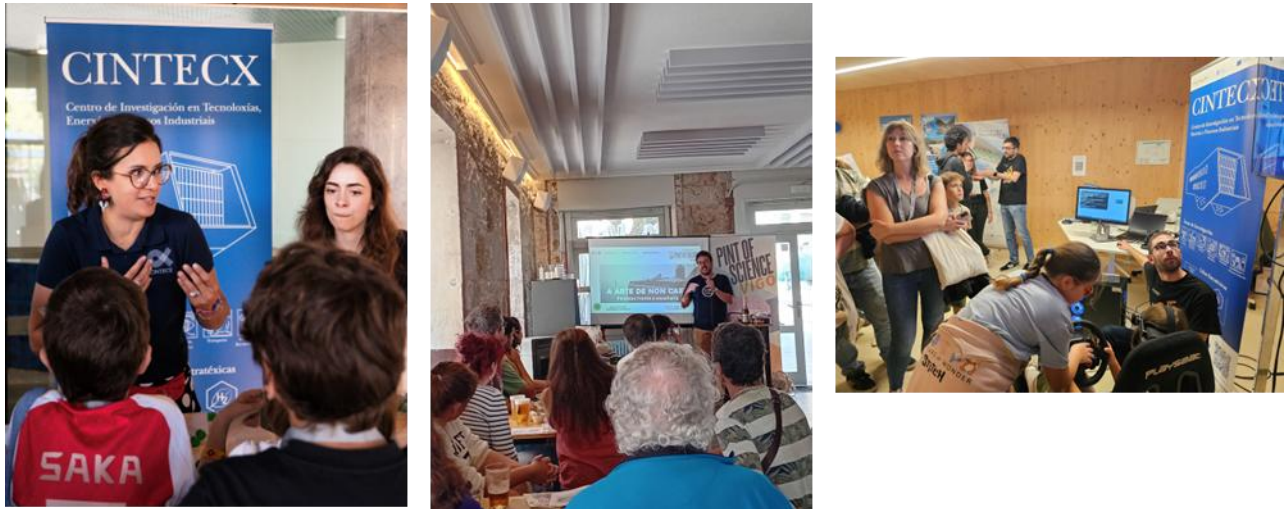


Figure 54. CINTECX researchers participating in outreach events organised by the UCC.