

# ACTIVITY REPORT







COMPILED AND EDITED BY:  
CITAB BOARD, COMMUNICATION & MANAGEMENT TEAM

---

# INDEX

1.....	2.....
<b>Message from Board of Directors</b>	<b>About the Centre</b>
(05)	(06)
3.....	4.....
<b>Organisational Structure</b>	<b>Research Lines &amp; Activities</b>
(09)	(11)
5.....	6.....
<b>Associate Laboratory Inov4Agro</b>	<b>Overview &amp; Highlights</b>
(18)	(21)
7.....	8.....
<b>Competitive Funding &amp; Research Projects</b>	<b>Events, Clipping, Outreach and other Activities</b>
(24)	(26)

---

## MESSAGE FROM THE BOARD

The year 2025 confirmed CITAB's consolidation as a mature, internationally competitive research centre, firmly positioned at the interface between scientific excellence and societal relevance in the agri-food and forestry sectors.

Our mission—to enhance the competitiveness and sustainability of agrarian value chains while safeguarding ecosystems and natural resources—remains the structural driver of our activities. This year, that commitment translated into measurable gains in scientific quality, funding diversification, stakeholder integration, and international visibility.

CITAB produced 276 peer-reviewed JCR/SCOPUS publications, complemented by 224 communications, 13 completed PhD theses, and 19 books or book chapters. Most significantly, 82% of articles were published in Q1 journals, and 97% in Q1 or Q2, confirming a sustained increase in scientific quality and impact. Our strongest publication domains—Agricultural and Biological Sciences, Environmental Science, and Biochemistry, Genetics and Molecular Biology—reflect the coherence between our strategic priorities and research outputs.

In financial terms, CITAB reached €5.6 million in total funding in 2025. The funding structure—48% from competitive R&D projects and 52% from stakeholder partnerships—demonstrates both scientific competitiveness and strong sector engagement. Approximately 70% of project funding originated from national entities other than FCT, 26% from international sources (mostly from the Horizon Europe Programme), and 4% from FCT projects, reflecting diversification and growing international positioning. The centre maintained more than 25 ongoing projects and active collaboration across 23 countries.

The consolidation of the Inov4Agro Associate Laboratory, in partnership with GreenUPorto, remains a strategic milestone. Through structured doctoral engagement, scientific employment positions, and joint initiatives such as the Sustainable Agrifood Production programme and the Scholarship Researchers' Day, Inov4Agro reinforces capacity building and long-term institutional sustainability.

CITAB's societal engagement also expanded. In 2025, we organised national and international events, strengthened outreach activities in schools and public initiatives, and recorded more than 140 documented media references. This visibility reflects recognition of CITAB's role in addressing climate adaptation, ecosystem resilience, and bioeconomy innovation.

Overall, 2025 demonstrates institutional stability, scientific maturity, and strategic clarity. The results achieved are collective and confirm that CITAB is structurally prepared to address the accelerating challenges facing agri-food and forestry systems. Our responsibility now is to reinforce this trajectory, maintain demanding standards of excellence, and ensure that our research continues to generate measurable impact for science, industry, and society.

**With this foundation, we move forward with confidence, discipline, and a clear commitment to advancing knowledge that delivers tangible value to ecosystems, stakeholders, and future generations!**



# ABOUT THE CENTRE

## THE CENTRE

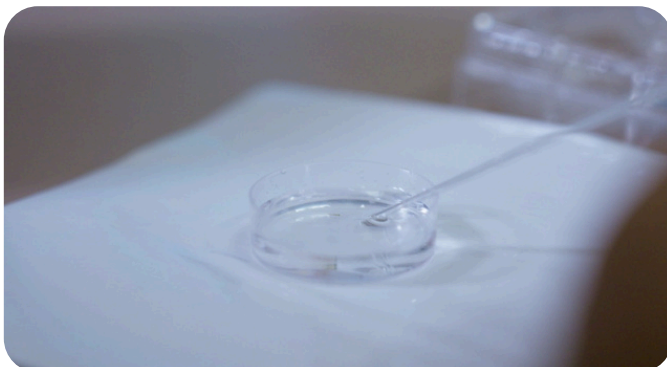
CITAB has kept its way towards excellence. Its activities have been focused on both the R&D and T&I pillars, aiming at more resilient, efficient, sustainable and competitive agricultural and forestry production chains.



## Mission

CITAB is fully committed to collaborating and consulting stakeholders to understand their actual needs, problems or constraints. We follow multidisciplinary and integrated approaches towards the identification of solutions, creating new opportunities in the agri-food and forestry production chains.

We are strongly committed to improving the competitiveness and sustainability of agrarian value chains, whilst developing holistic approaches to protect, improve and maintain ecosystems, and the services they provide, and promoting sustainable management of natural resources.





## About us


The widely multidisciplinary approach of CITAB warrants a holistic viewpoint of the natural and antropogenic systems.

This concept enables integrated responses and the implementation of decision-support systems for stakeholders and policy-makers, envisioning the fulfilment of the United Nation's sustainable development goals and responding to the emerging societal transitions.

All these research lines are complemented by cutting-edge innovative solutions. Knowledge transfer, capacity building, dessimination and outreach are also central to CITAB.

## Vision

CITAB envisions contributing to the socioeconomic development of the Portuguese and European agrarian value chains through strong collaboration with stakeholders, exchanging knowledge and addressing their needs by incorporating innovative scientific and technological solutions.



# ORGANISATIONAL STRUCTURE

# ORGANISATIONAL STRUCTURE



**Director:**  
João Santos



**Vice-Director:**  
Amélia Silva



**Vice-Director:**  
Henrique Trindade

## Executive Committee

Ana Coimbra  
(President)  
Fábio Pereira  
Hélder Fraga  
Isaura Castro  
João Carrola  
Lia-Tânia Dinis  
Márcia Carvalho

## External Advisory Committee

David Lindsay  
(EUROFEDA - UK)  
Isabel Pardo  
Gamundi  
(Uni. Vigo - ES)  
Marco Bindi  
(Uni. Florence - IT)  
Uta Berger  
(Uni. Dresden - DE)

## Stakeholders Committee

António Graça  
(ADVID)  
Braz Costa  
(CITEVE)  
Carlos Ribeiro  
(Lab. da Paisagem)  
Francisco Pavão  
(APPITAD)  
Gonçalo Andrade  
(Portugal Fresh)  
Luís Rocharte Álvares  
(Unobvious Solutions)  
Nuno Calado  
(Sonae Arauco)  
Tiago Silva Pinto  
(CNCACSA)

## Communication & Management Office

Beatriz de Matos  
Joana Gonçalves  
Sandra Matos



# RESEARCH LINES & ACTIVITIES

# R&D1 – NATURAL RESOURCES, BIODIVERSITY & CLIMATE CHALLENGES

MAIN COORDINATOR: EDNA CABECINHA  
VICE COORDINATOR: MÁRIO SANTOS

R&D1 is devoted to the interplay between climate, water, soil, landscape management, and agroecology & biodiversity.

The group aims to develop strategies for sustainable natural resources management, enhancing ecosystem services and biodiversity conservation.

These aims align with several SDGs, fostering resilient agrarian value chains and ecosystem health, thereby resulting in win-win links with R&D2 and T&I.



R&D1 members made significant contributions in responding to societal challenges and stakeholders' problems and needs. The group's commitment to addressing emerging challenges in agriculture, biodiversity, and climate change impacts through interdisciplinary research and international collaboration can be illustrated by the following main achievements:

- i) Modelling & simulation of the climate-water-soil-crop nexus for climate change impact assessment on crops;
- ii) The ALICE project partnership;
- iii) The partnerships from RePLANT (Implementation of collaborative strategies for integrated forest and fire management) and TRANSFORM (Digital transformation of the forestry sector for a resilient and low-carbon economy).



# RESEARCH ACTIVITIES

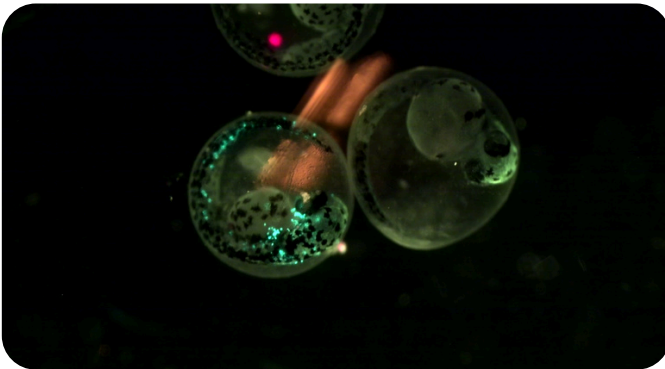
**Agroecology &  
Biodiversity**

**Sustainable  
Landscape  
Management**



**Climate Research**

**Water Resources  
Research**

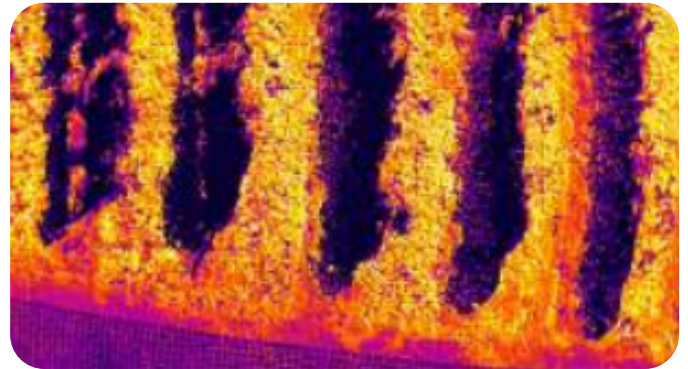


# R&D2 – RESILIENCY & VALORISATION OF AGRARIAN VALUE CHAINS

MAIN COORDINATOR: BERTA GONÇALVES  
VICE COORDINATOR: ALFREDO AIRES

The R&D2 group's research is aligned with the FAO's vision, which focuses on the resilience of people, communities, and ecosystems for sustainable food and agricultural systems.

This group aims to provide short and long-term measures and strategies, responding to current and future multi-stakeholder needs while enhancing competitiveness and growing income across the targeted agrarian value chains, with particular emphasis on Mediterranean crops.

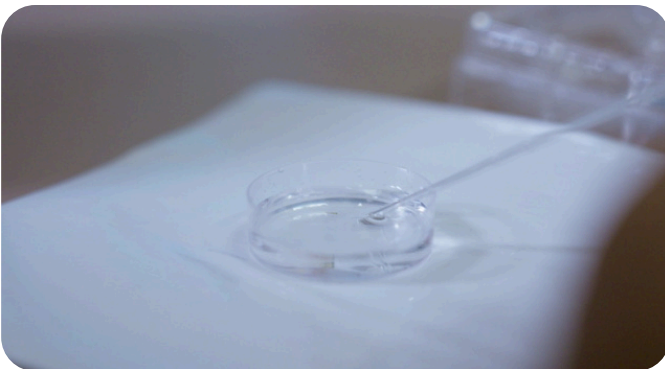


The R&D2 - Resiliency Valorisation of Agrarian Value Chains encompasses a considerable number of researchers dedicated to the specific objective “Develop innovative and environmentally sustainable pre- and post-harvest strategies to mitigate the negative impacts of (a)biotic stresses”.

The current and future research involves strategies to enhance the resilience mechanisms to situations of drought, excessively high temperatures and lack of cold, pests and diseases, such as the varietal, intravarietal and rootstock selection, agronomic practices (e.g. use of colored screens, training systems) and use of UVC, biostimulants, elicitors, biofertilizers and biocides, including nano-formulated.



# RESEARCH ACTIVITIES





To achieve the objective of mitigating the negative impacts of (a)biotic stresses, technology has a pivotal role:

The platform MySense may provide data from weather stations, images, and other data to extract parameters that are of interest to attain this objective.

Hyperspectral and digital imaging provide high throughput data, and the use of drones will leverage the R&D2 research for monitoring several vegetative and (a)biotic indices, e.g. pests and diseases.



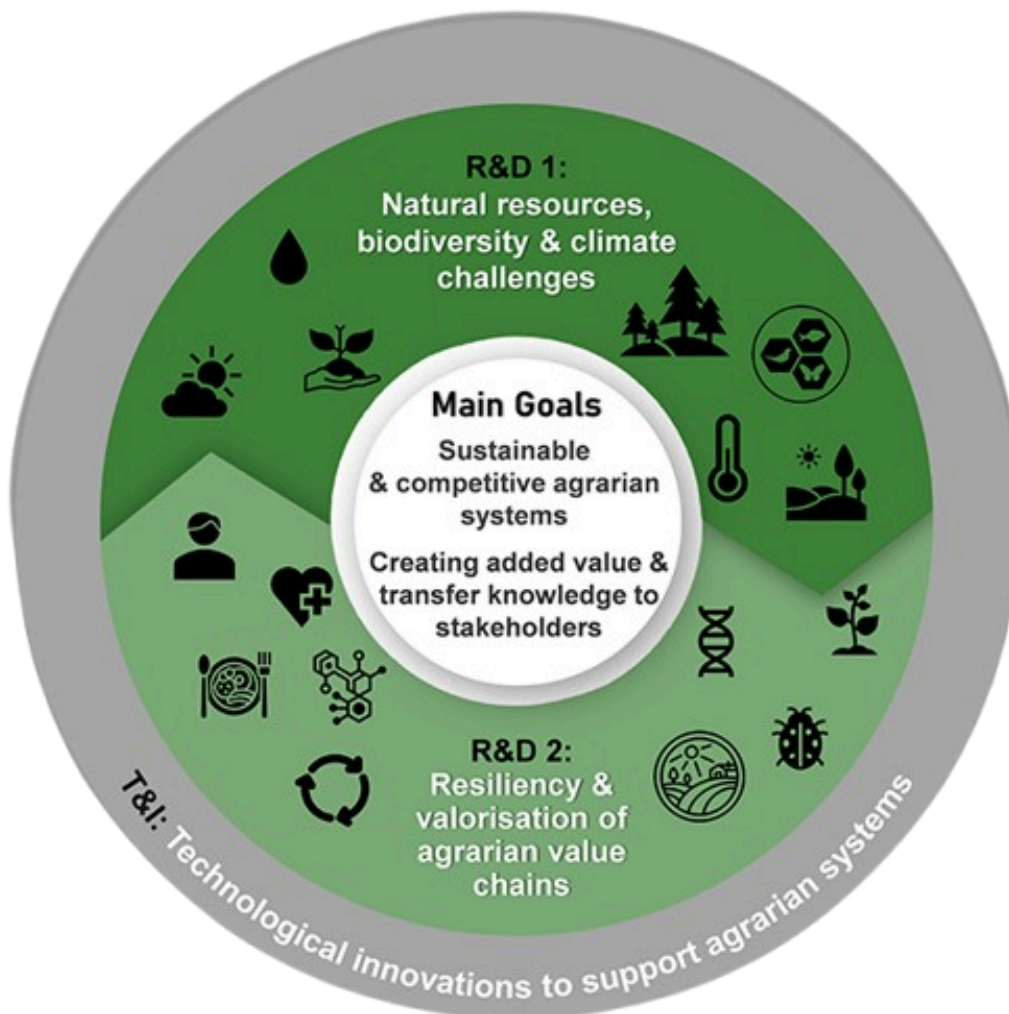
# T&I – TECHNOLOGICAL INNOVATIONS TO SUPPORT AGRARIAN SYSTEMS

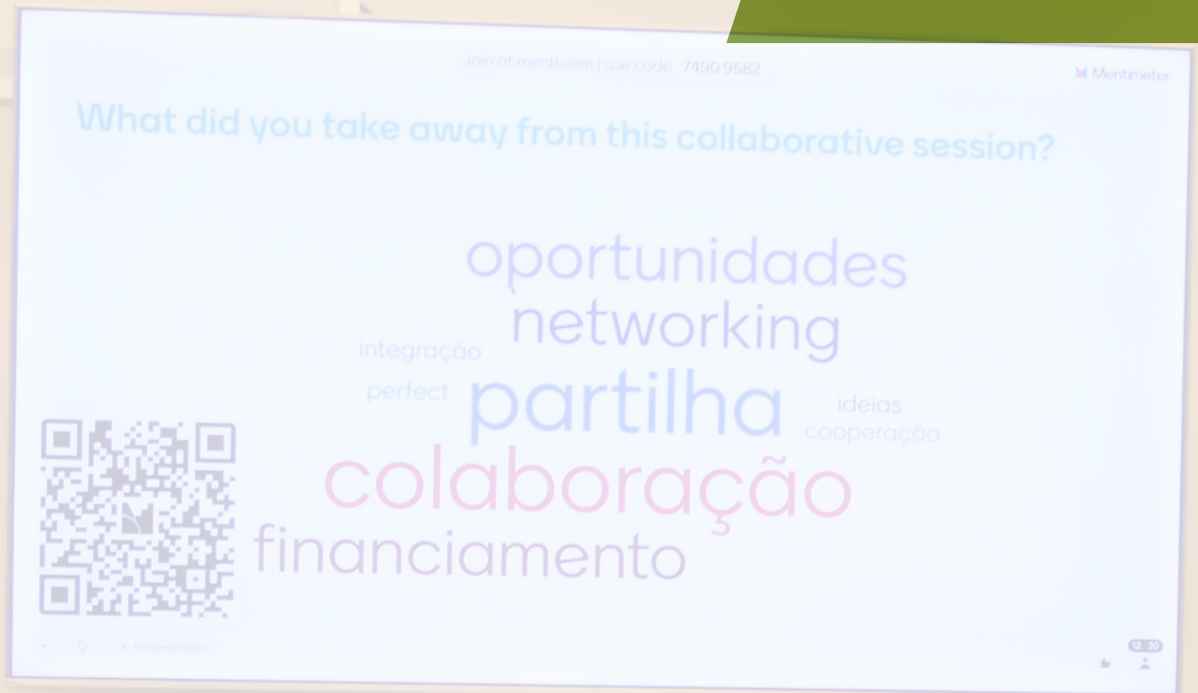
MAIN COORDINATOR: RAUL SANTOS  
VICE COORDINATOR: PEDRO COUTO

T&I is dedicated to developing and refining innovative processes and technologies to enhance crop and food products, biological materials, and agri-food residues.

By adding value to agrarian value chains, the group aims to contribute to economic growth, but also to the internationalization and scientific performance of CITAB.

This group transversely collaborates with R&D1 and R&D2 to support their research with technologies and computational analysis, thus contributing to enhancing the technological readiness levels of CITAB's research outputs.





# ASSOCIATE LABORATORY INOV4AGRO

# INOV4AGRO



## Institute for innovation, capacity building, and sustainability of agri-food production

The Inov4Agro “Institute for innovation, capacity building and sustainability of agri-food production” Associated Laboratory (AL) is a strategic consortium of two R&D units, CITAB and GreenUPorto, which have a track record of a successful long-lasting cooperation and represent the highest scientific productivity in agriculture within the Northern of Portugal. A 10-year strategic plan has been developed, focused on four intervention areas:



Resources use efficiency and product quality, aiming to increase plant food production, improve its quality and, at the same time, reduce the environmental impact of the agri-food sector;



Water resources, soil health & food, targeted to provide the society with contributions to better manage water resources, improve soil health while increasing the production of high-quality food;



Leverage local food systems, focused on fostering local food production systems and the respective short-supply chains, supported by the novel concept of “food hubs”. This intervention area aims to address the creation of a food environment that makes the “healthy and sustainable choice” the easiest choice for consumers;



Technological development & innovation, envisaging to develop and foster the digitalization of agriculture (e.g., big data, internet of things, augmented reality, robotics, sensors, system integration, ubiquitous connectivity, artificial intelligence).

Inov4Agro employs three professionals with doctorates in permanent positions: a scientific manager with a doctorate and a junior researcher with a doctorate, all hired under the FCT call for Institutional Scientific Employment in Associated Laboratories.

On December 10th 2025, the “Sustainable Agrifood Production – Edition 2025” came to an end. This edition featured eight sessions, during which 16 PhD students (eight from CITAB and eight from GreenUPorto) presented their thesis work. In the final session at GreenUPorto, the four winners were announced by the directors of CITAB and GreenUPorto.

The third edition of the "Inov4Agro Scholarship Researchers' Day", an event that allows the scholars from CITAB and GreenUPorto to share their research activities, was held at UTAD (Vila Real, 24th November 2025) and received almost 50 abstract submissions, covering the four thematic lines of Inov4Agro.





# OVERVIEW & HIGHLIGHTS

## OVERVIEW

**532**

### **PUBLICATIONS**

**276** JCR/SCOPUS PAPERS  
**13** PHD THESES  
**19** BOOK/ BOOK CHAPTERS  
**224** COMMUNICATIONS

**43**

### **ONGOING PROJECTS**

**23** NATIONALS  
**20** INTERNATIONAL

**275**

### **MEMBERS**

**119** FULL MEMBERS  
**59** PHD COLLABORATORS  
**29** NON-PHD COLLABORATORS  
**68** SCHOLARSHIP RESEARCHERS

**5.6M€**

### **FUNDING**

**2.912M€** W/ STAKEHOLDERS  
**2.688M€** W/ R&D

**25+**

### **CONFERENCES**

**2**

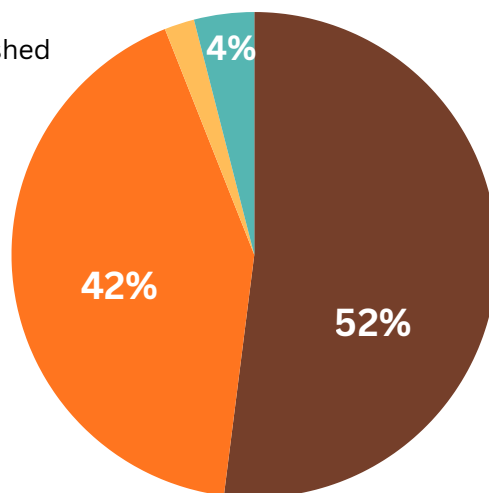
### **SPECIALIZED LABORATORY**

# HIGHLIGHTS

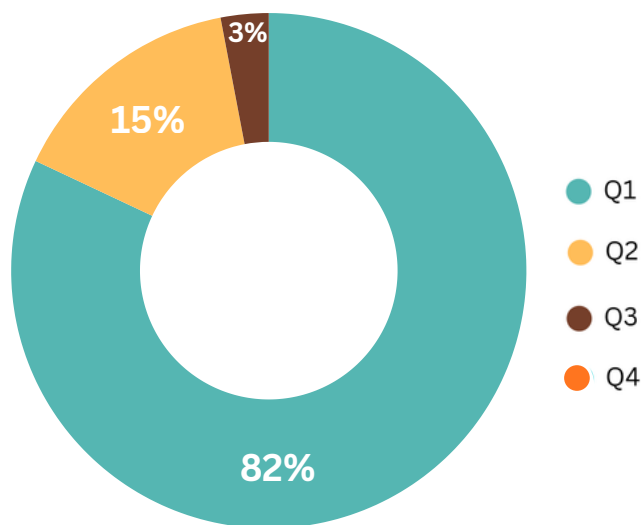
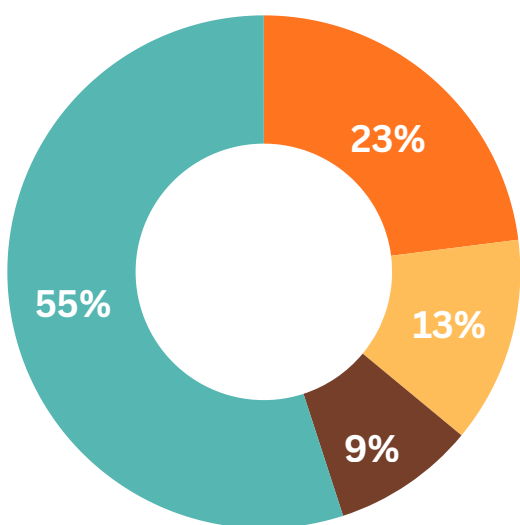
In **2025**, CITAB continued to experience a **significant growth** in its **scientific output**.

## SCIENTIFIC PUBLICATIONS

- Peer reviewed articles published
- Communications in Events
- Completed PhD theses
- Books & Book Chapters



- Agricultural and Biological Scienc...
- Environmental Science
- Biochemistry, Genetics and Molec...
- Others



## PUBLICATIONS IN PEER REVIEWS JOURNALS

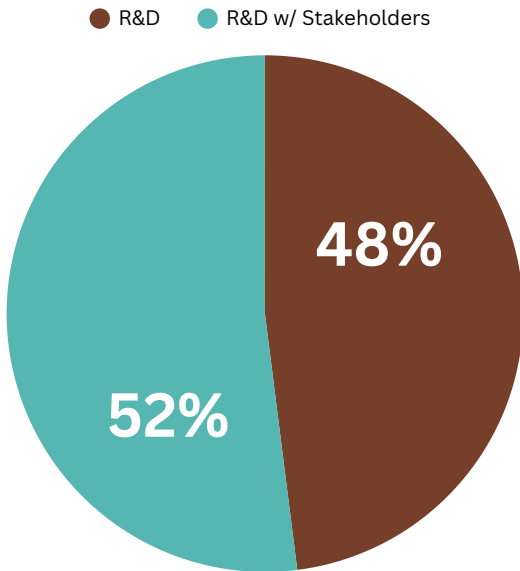
According to **SCOPUS classification**, the top **scientific domains** of these indexed articles remained: 1) **Agricultural and Biological Sciences**, 2) **Environmental Science** and 3) **Biochemistry, Genetics, and Molecular Biology**. This highlights the alignment of CITAB's research with its strategic priorities. Together, these three areas account for almost half of all publications.

Notably, CITAB increased to **82%** of **articles published** in **first-quartile journals**, underscoring a strong upward trend and marking a major milestone. When both **first- and second-quartile journals** are considered, the figure rises up to **97%**, reflecting the high scientific quality and international reach of CITAB.

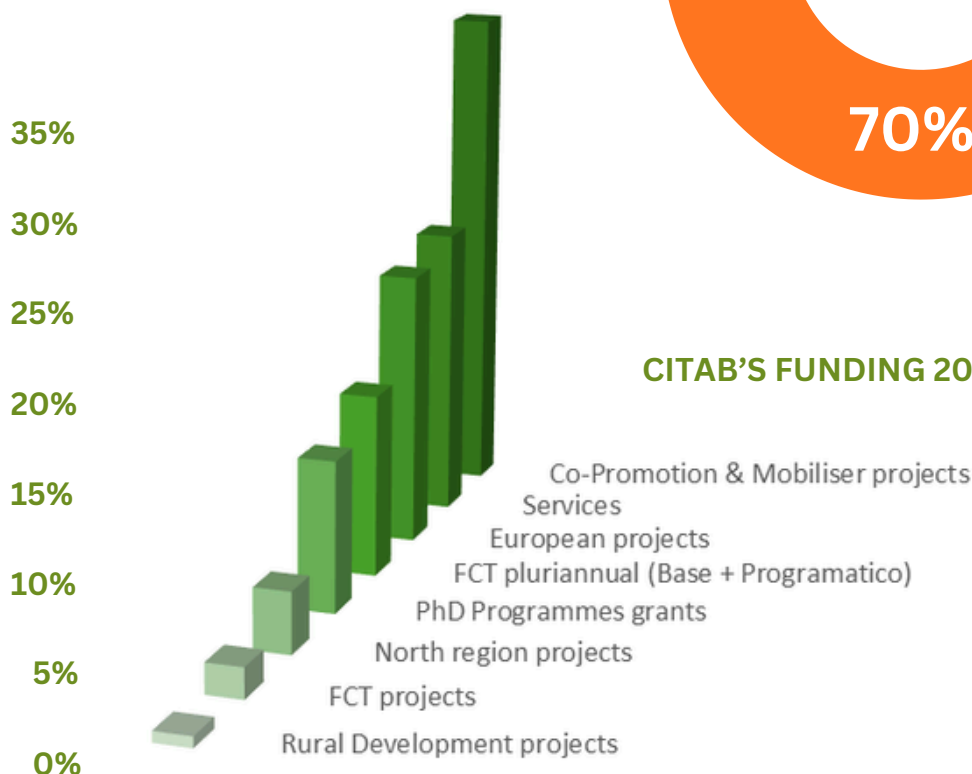
The background of the slide is a grayscale microscopic image of several cells. One cell in the upper center is particularly prominent, showing a nucleus and other internal structures. A solid green trapezoidal shape is located in the top right corner. The main title is centered on the slide in a bold, white, sans-serif font with a thin green outline.

# COMPETITIVE FUNDING & RESEARCH PROJECTS

# FUNDING



In 2025, CITAB's total funding achieved **5.6 M€**. **R&D funding** globally represented **48%** of this value, while **52%** comes from **partnerships** with the **stakeholders**.

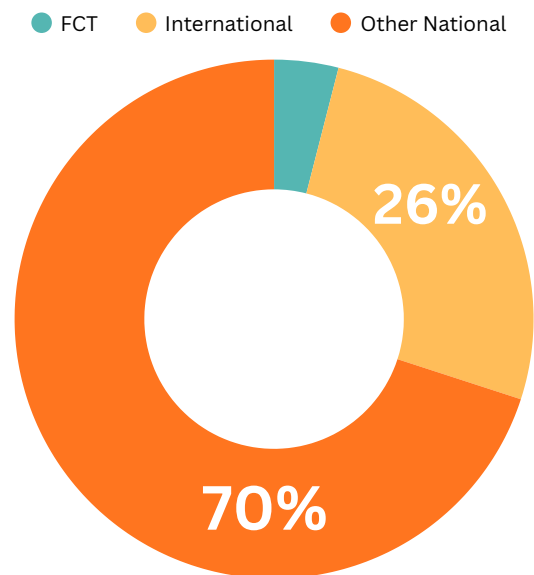


**CITAB'S FUNDING 2025**

## PROJECT FUNDING

Regarding project funding, only **4%** of the total amount corresponds to projects **funded by the FCT**.

On the other hand, approximately **70%** of the **funding** comes from **other national funding entities**, and **26%** from **international funding sources**.





# EVENTS, CLIPPING, OUTREACH AND OTHER ACTIVITIES

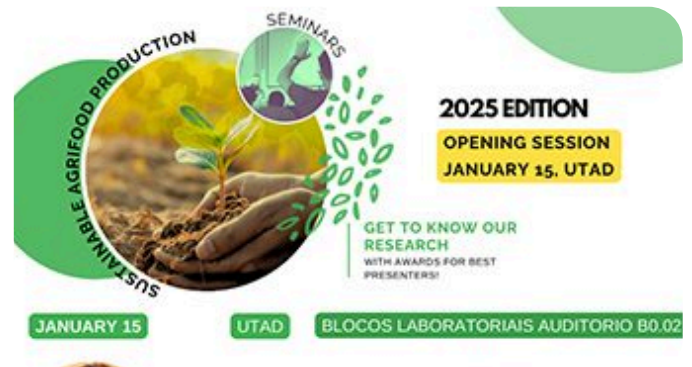


# EVENTS

In 2025, CITAB organised various events, such as Stakeholders Day, Conferences, Webinars, Open Days, Workshops, etc.

The events organised by CITAB were national and international in scope. Several researchers and other colleagues of different nationalities were invited.

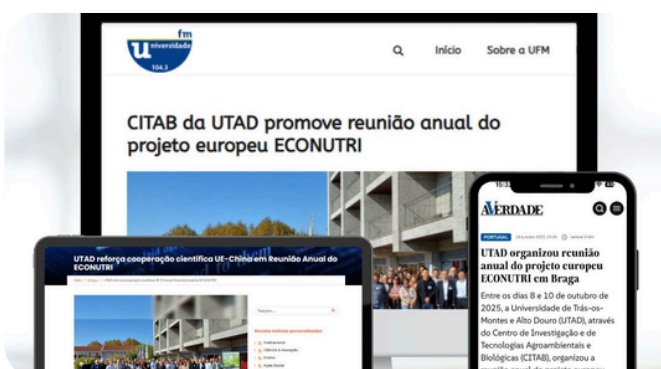
These events reflect the **work** and **recognition** of CITAB's research contributions to the scientific community, strengthening collaborations and promoting dissemination.



# CLIPPING

In 2025, **CITAB** had more than **140 documented new articles**, highlighting its **achievements and advances**.

These diverse media outlets reflect the **broad interest and recognition** of **CITAB's contributions to the scientific community**, emphasizing its key role in advancing **research and innovation**.



The origin of these articles was varied across the media, from **online, radio, press and television**, showcasing the diversity of our research and different perspectives.

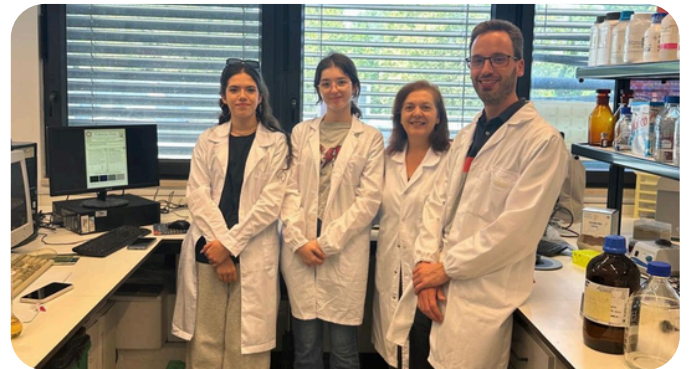
# OUTREACH

Researchers from CITAB actively engage with communities and promote scientific awareness through a wide range of initiatives.

For instance, several activities were conducted at Schools presenting to young students CITAB research on environment preservation, sensizing them for their participation through action to construct a better future.

CITAB researchers held also several visits to UTAD laboratories including hosting “**Ciência Viva**” activities during the Summer.

As usually, CITAB was represented at the “**European Researchers' Night**”, by several research groups.







Centre for the Research and Technology of Agro-Environmental and Biological Sciences