AnaEE ERIC
ANALYSIS AND EXPERIMENTATION ON ECOSYSTEMS

ANNUAL REPORT

2025

DEVELOPMENTS AND ACTIVITIES OF THE YEAR OF
THE EUROPEAN LANDMARK FOR EXPERIMENTAL ECOLOGY

AnaEE-ERIC is a landmark European research network connecting cutting-edge facilities dedicated to global change ecology—the study of how ecosystems work and respond to environmental change. We bring together experimental sites, analytical tools, and modelling capabilities to tackle pressing environmental challenges.

Our main mission is to make the facilities accessible to the research communty and beyond.

TABLE OF CONTENTS

FOREWORD

DEAR READER,

AnaEE-ERIC was founded in early 2022, with our partners' platforms and facilities distributed from the distant South to the subarctic regions of the EU. Since then, our user base has steadily increased, driven both by direct access and our contributions to EU projects such as AgroServ, IRISCC, and MICROBES-4-CLIMATE, to name a few. As shown in this report, new services are continuously being developed in our national nodes and offered to the broader community.

Looking back at 2025, we can proudly say that AnaEE is fulfilling its primary mission: providing cutting-edge services to the scientific community and beyond. With all our Service Centres now fully operational, 2025 has been a highly productive and busy year. The Data Management Centre is preparing centralized access to the wealth of data acquired across our network, as well as to the models used to interpret them. The Technology Centre is actively scouting for new technologies to adapt for our users, and the Interface and Synthesis Centre successfully organized its first stakeholder event this year.

The impacts of the climate and biodiversity crises are becoming increasingly alarming, particularly in Europe. The 10-year period from 2015 to 2025 has been the hottest ever recorded. Europe has been hit in an unprecedented manner, experiencing earlier and longer-lasting heatwaves, alongside extreme events such as floods and droughts. The toll of these impacts is measured in deaths, injuries, diseases, and billions of euros in damages.

By contributing to our understanding of how the Anthropocene impacts the functioning of ecosystems, AnaEE helps to develop and test actionable strategies—such as nature-based solutions—to adapt to and mitigate the effects of climate change while preventing further biodiversity loss. As the EU reference for global experimental ecology, AnaEE is ready to rise to the challenge.

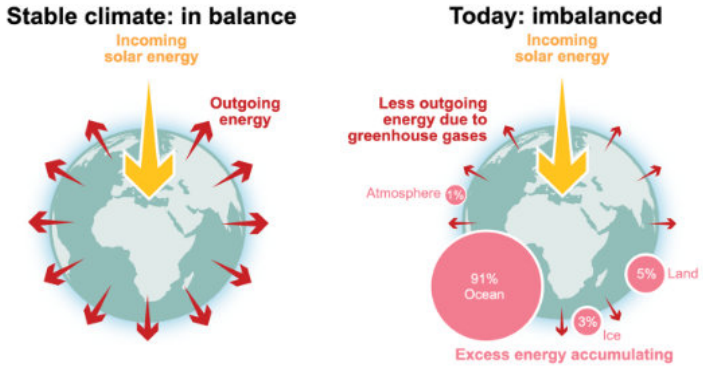
Michel Böer
ANAEE-ERIC DIRECTOR GENERAL

01 ANAEE-ERIC

Behind every milestone in 2025 stands a team and a network united by a shared mission: to generate the ecosystem science that Europe urgently needs. The WMO confirms that 2015–2025 are the hottest eleven years on record, and that extreme

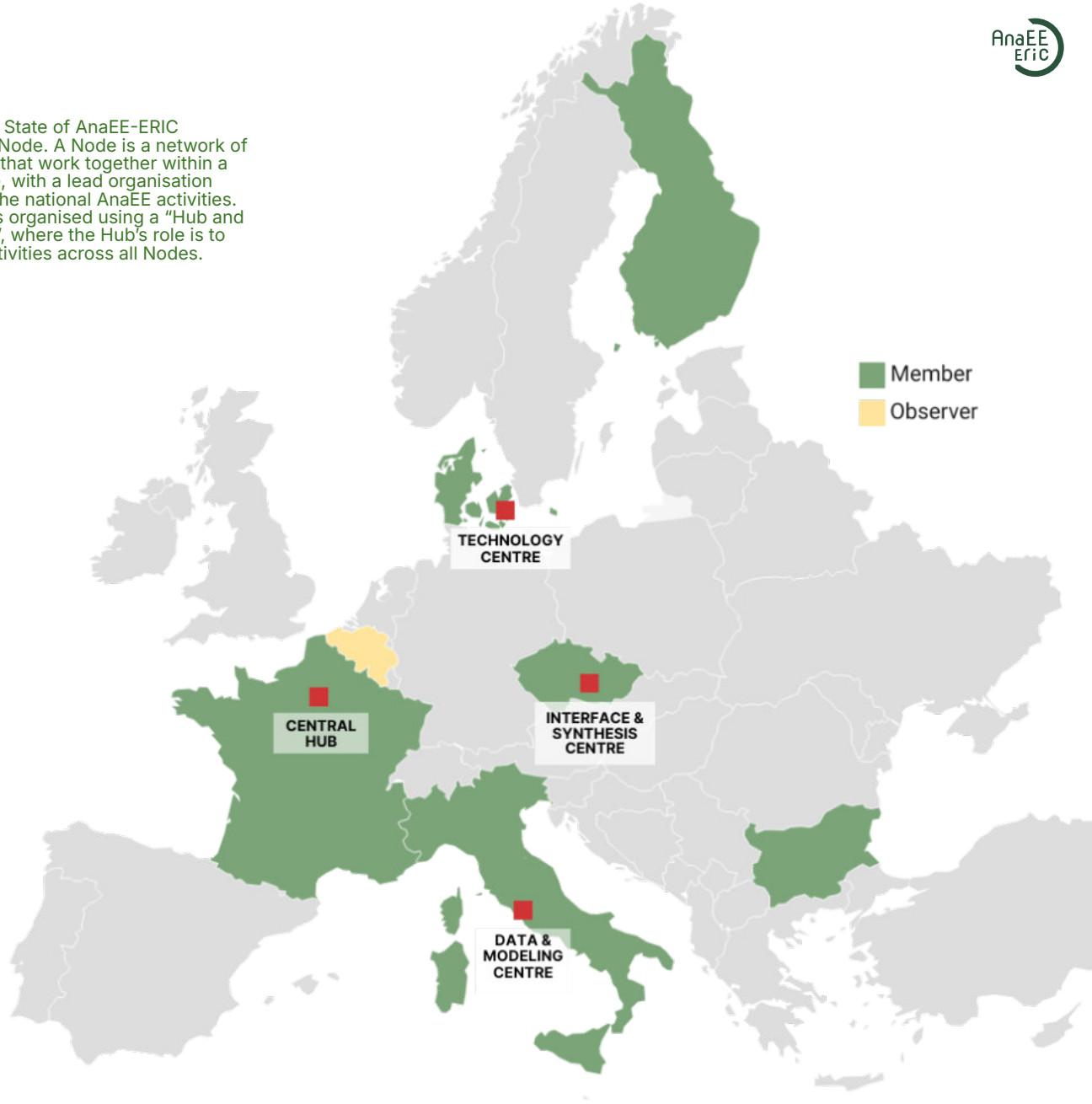
Climate change and biodiversity loss represent some of the most critical challenges of our time, with far-reaching consequences for ecosystems, food security, humn health, and societal well-being. Current evidence shows unprecedented rates of species decline and increasing risks to ecosystem services that underpin economies and livelihoods worldwide. Addressing these challenges requires coordinated action and scientific evidence to support effective poli-cies and sustainable solutions

- **World Meteorological Organisations' State of Climate Report confirms 2015-2025 hottest 11 years on record**
- **Earth's energy imbalance is highest in sixty five-year record**
- **The ocean has been absorbing about eighteen times the annual human energy use each year for the past two decades**
- **Extreme weather impacts millions and costs billions**



Schematic representation of Earth's energy balance and imbalance. Source: FAQ 7.1 IPCC, 2021 (Graphic: https://wmo.int/)

To the right:
Each Member State of AnaEE-ERIC establishes a Node. A Node is a network of organisations that work together within a Member State, with a lead organisation coordinating the national AnaEE activities. AnaEE-ERIC is organised using a "Hub and Nodes model", where the Hub's role is to coordinate activities across all Nodes.



AnaEE-ERIC is a pan-European research infrastructure dedicated to the analysis and experimentation on ecosystems, their functioning, and the services they provide. Its mission is to enable cutting-edge ecosystem research by offering access to advanced experimental facilities, harmonised services, and scientific expertise across Europe.

By complementing long-term observations with controlled experimental approaches, AnaEE-ERIC enables researchers to investigate ecosystem responses to environmental pressures, test hypotheses, and explore cause-and-effect relationships across a wide range of ecosystems and climatic conditions. This experimental focus provides critical insights into how ecosystems respond to change and how they can be managed more sustainably.

AnaEE-ERIC contributes to key European and global priorities, including sustainable development, the European Green Deal, climate action, biodiversity conservation, and ecosystem health. Acting as a single point of access, it brings together diverse infrastructures and stakeholders to support high-quality science with relevance for policy, land management, and society.

Through its unique experimental approach and pan-European scope, AnaEE-ERIC strengthens Europe's capacity to understand, anticipate, and respond to environmental change, supporting more resilient ecosystems and informed decision-making.

02 HIGHLIGHTS 2025

In 2025, AnaEE-ERIC reached full operational capacity across all four service centres for the first time, cementing its role as Europe's leading research infrastructure for ecosystem experimentation.

2025 was a landmark year for AnaEE-ERIC — a year of consolidation, growth, and new ambitions. With all four service centres fully operational by September, a growing team of 10 direct employees representing 10 nationalities, and seven active European projects, AnaEE-ERIC has firmly established itself as a reference research infrastructure for ecosystem science in Europe.

Our network grew stronger, as the Flemish government has endorsed AnaEE as an infrastructure, opening the door for a membership of Belgium. New Service Level Agreements were signed with Czech-Globe and CREA (Italy), bringing two new Italian facilities — IDroFACE and BioMA — into the network. Meanwhile, Portugal, Spain, and Lithuania continued their paths toward full membership, and Finland welcomed a new Stable Isotope Laboratory facility to AnaEE FI.

We deepened our scientific leadership. AnaEE-ERIC coordinated the identification of 28 candidate services within the PHENET project, creating a replicable methodology for translating project innovation into long-term infrastructure services. A stakeholder engagement workshop under the Microbes-4-Climate project brought together 50+ participants from across the public and private sectors to strengthen RI–industry collaboration. Across our national nodes, researchers published dozens of peer-reviewed papers — including contributions to Science, Nature Climate Change, and Lancet Planetary Health — using data from AnaEE facilities.

Our digital infrastructure took a major leap forward. The complete redesign and relaunch of the AnaEE website in December 2025 introduced an interactive facility map, a member extranet, and improved discoverability. The ISIA platform was enhanced with a new application portal and Network Manager role, and a dedicated Indico platform was deployed for event management.

Our social media presence grew significantly, with LinkedIn followers rising 33% to 1,250 and the newsletter achieving a 42% open rate among 376 recipients.

We invested in our people and our future. A new Gender Equality Plan (2025–2028) was formally approved, introducing inclusive reporting, mentorship measures, and anti-harassment mechanisms. The first-ever AnaEE team retreat, held at the Observatoire de Haute Provence, brought all staff together to strengthen cohesion and shape the 2027–2031 strategic work programme. Preparations for the AnaEE Science Conference 2026 — including the launch of the inaugural Environmental Rising Star Award — set the stage for what promises to be a defining moment for the community.

AnaEE ERIC

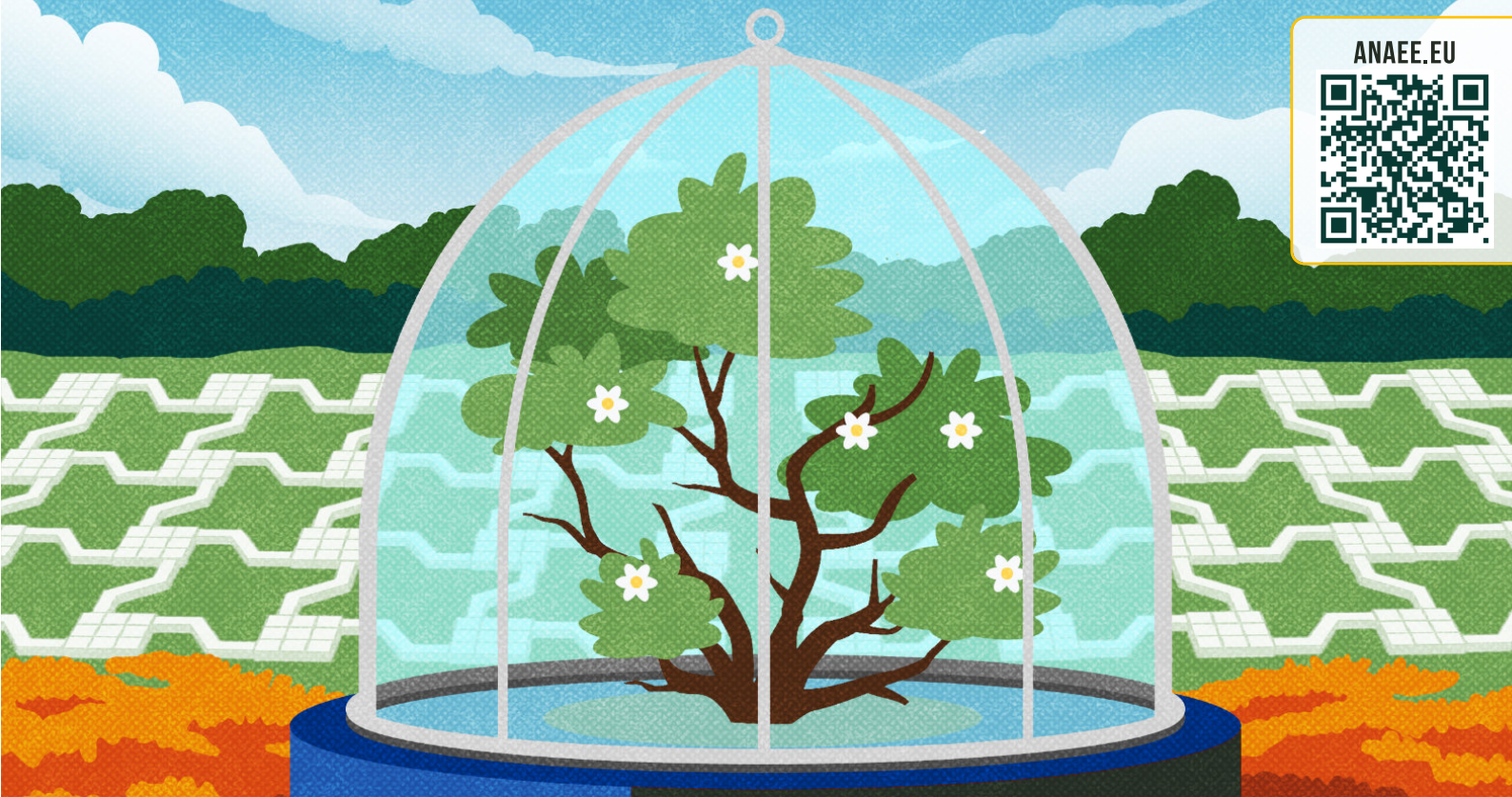
SCIENCE CONFERENCE 2026

ECOSYSTEM SCIENCE FOR A RESILIENT FUTURE

SEPTEMBER 29 – OCTOBER 1

PALAIS DE L'EUROPE, MENTON, FRANCE

ANAEE.EU



KEYNOTE SPEAKERS

- **Michael Bahn,** University of Innsbruck
- **Marie-Hélène Jeuffroy,** INRAE
- **Alessandro Oggioni,** Italian National Research Council
- **Sabine Sauvage,** France's National Center for Scientific Research (CNRS)
- **Aurelie Coulon,** France's National Museum of Natural History (MNHN)
- **Nathalie Hilmi,** The Scientific Centre of Monaco
- **Bart Muys,** KU Leuven

REGISTRATIONS OPEN ✸ SUBMISSIONS DEADLINE: JUNE 15TH

Sarah Anderson 2025

AnaEE ERIC — Analysis and Experimentation on Ecosystems

Analysis and Experimentation on Ecosystems
European Research Infrastructure Consortium

For more information:
anaeesc26@anaee.eu — anaee.eu

AnaEE FRANCE cnrs

Plan Bleu
Construisons ensemble l'avenir de la Méditerranée

03

OUR SERVICES FOR CLIMATE CHANGE RESEARCH

Our extensive network of experimental facilities allows us to simulate environmental changes by making controlled adjustments.

AnaEE-ERIC is a key player when addressing the ecological sustainability challenge for Europe. Our extensive network of experimental facilitiesv allows us to simulate environmental changes. This helps us understand the impact of each change factor and how they interact. By combining experimental research with advanced modelling, we can predict how ecosystems will respond under contemporary environmental pressures., including identifying potential tipping points and enhancing understanding of how ecosystems can adapt and continue to provide services to society.

These facilities have been selected on several criteria, such as:

- State of the art instrumentation, following the AnaEE standards.
- Capacity to perform at least two environmental pressures.
- Quality of the data provided.
- Access to the international community using our research services.
- Open access to the data and agreement on the standards for data and metadata provided by AnaEE.
- Long term support

Developments in 2025

New facility in Finland SILL

A new Stable Isotope Laboratory analysis facility (SILL), operated by the Natural Resources Institute Finland (Luke), has been onboarded to AnaEE FI. SILL offers advanced isotope analysis capabilities, including a novel laser-ablation-based system for high-resolution, simultaneous analysis of oxygen and carbon isotopes in organic samples. The method achieves a spatial sampling resolution of 60 µm with an analytical precision better than 0.4‰, enabling minimally invasive dual-isotope measurements in plant tissues, tree rings, and

microbial samples. This significantly expands analytical capabilities in microbial ecology and environmental science across the AnaEE network.

New facilities in Italy

IDroFACE (Italian Drought and FACE): Located in Fiorenzuola d'Arda, this open-field platform controls CO2 concentration and rainfall exclusion to study plant adaptation to climate change.

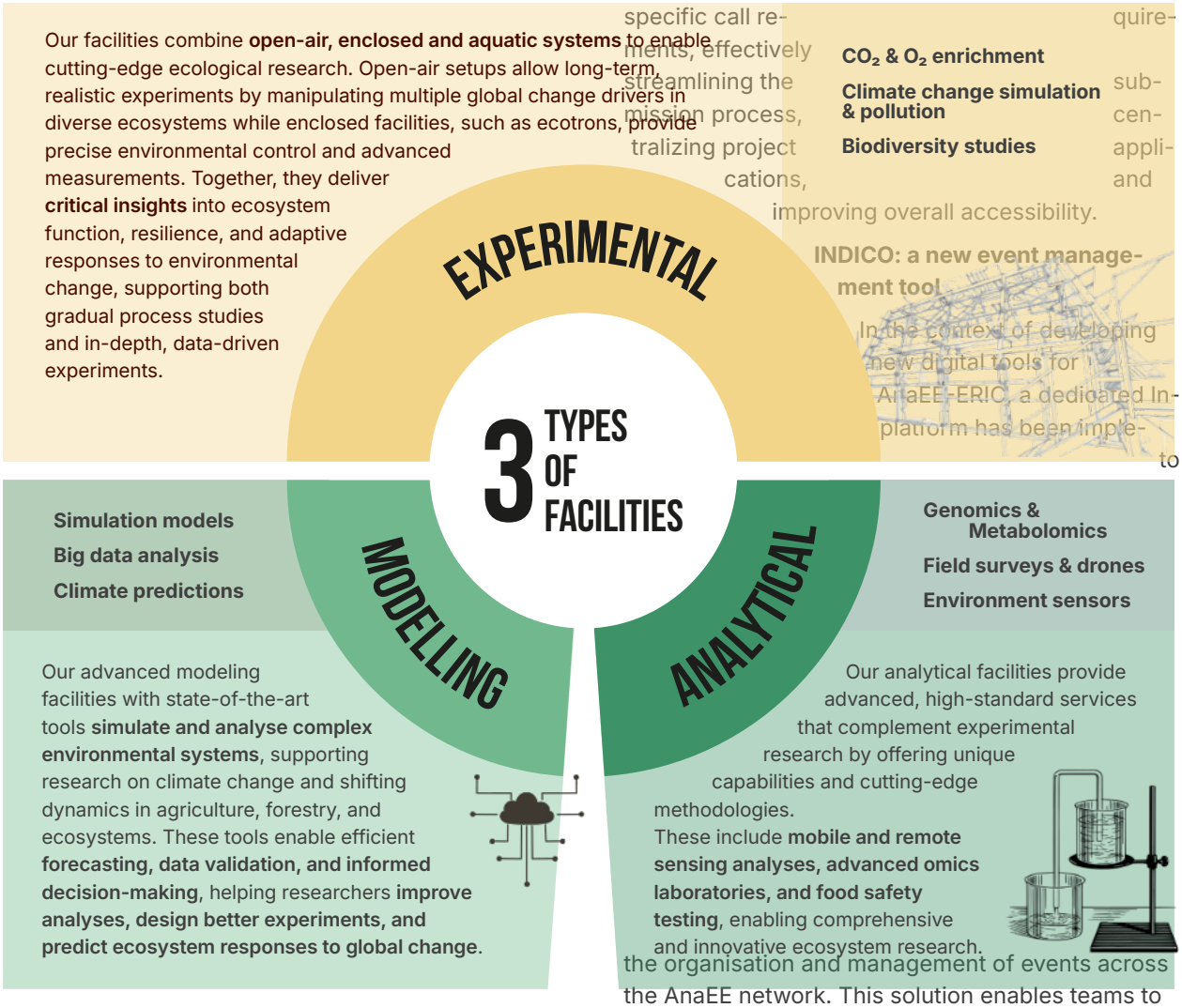
BioMA: An analytical platform specialized in biophysical and statistical modelling, including Artificial Intelligence. It provides software implementation, SaaS engineering, and training services.

ISIA developments

A new Network Manager role has been introduced in the ISIA platform, granting managers comprehensive control to access and update service details, manage access rights for service managers, and create custom fields within the service description model. Managers can also design dynamic catalogue filters to help users more easily identify relevant services. Additionally, a new application form feature allows external users to apply directly for services during open calls. Network Managers can completely configure and manage these forms to fit specific call requirements, effectively streamlining the mission process, tralizing project sub- cen- cations, appli- and improving overall accessibility.

INDICO: a new event management tool

In the context of developing new digital tools for AnaEE-ERIC, a dedicated Inplatform has been imple- to the organisation and management of events across the AnaEE network. This solution enables teams to create conferences, workshops, and internal meetings, including participant registration, agenda man-



Above: At the core of AnaEE-ERIC are the distributed facilities that can impose multiple global change drivers to quantify the role of each of these drivers of change and to identify their interactions.

04 IMPACT

One of the notable achievements of AnaEE-ERIC is its multidisciplinary approach, which integrates forestry, agronomy, freshwater ecosystems, and environmental sciences.

One of the notable achievements of AnaEE-ERIC is its multidisciplinary approach, which integrates forestry, agronomy, freshwater ecosystems, and environmental sciences. It tackles critical questions related to climate change, biodiversity loss, and global change factors, with a particular emphasis on climate extremes such as drought, heat, and heavy precipitation. Moreover, it aims to enhance agricultural productivity by improving crop yield, carbon storage, soil fertility, and greenhouse gas mitigation. It also develops cost-effective, and environmentally sustainable methods for seedling production and forest regeneration to accelerate carbon sequestration in a changing climate.

By combining experimentation, analysis, and modeling services, AnaEE-ERIC enhances our understanding of the impacts of global change on ecosystems. This comprehensive approach facilitates the development of effective adaptation and mitigation strategies to safeguard ecosystem services and their associated economic and societal benefits.

Furthermore, AnaEE-ERIC has made significant strides in fostering collaboration among European researchers. By uniting various experimental and analytical platforms, it has created a cohesive network that promotes data sharing, standardization, and the dissemination of best practices. This collaborative framework not only accelerates scientific discovery but also informs policy-making processes aimed at environmental conservation and sustainability.

To ensure visibility and access to cutting-edge experimental and analytical facilities, AnaEE-ERIC has provided enhanced impact to its member institutions through participation in various projects e.g. Agroserv, M4C, IRISCC and as well creating a platform for researchers, experts, and practitioners to exchange knowledge, present new findings, and foster collaborations through events such as the AnaEE scientific conference and technology foresight workshop.

Project highlights

AnaEE-ERIC leads the transformation of PHENET innovations into sustainable RI services

In 2025, AnaEE-ERIC demonstrated its leadership in translating research project outcomes into long-term RI services through its coordination of PHENET Task 1.2. A

naEE successfully structured and organized 28 candidate services emerging from PHENET Work Packages and Use Cases, creating a comprehensive framework based on service maturity, scientific domain, and RI relevance.

This work established a concrete and reusable methodology for assessing service transferability, providing Research Infrastructures across Europe with clear guidance on integrating project-level innovations into their long-term service portfolios. Beyond technical coordination, AnaEE-ERIC strengthened its role as a central hub for cross-RI dialogue and collaboration. By engaging Use Cases, Work Packages, and partner Research Infrastructures, AnaEE facilitated targeted discussions between service developers and RIs, enabling in-depth exchanges on feasibility, impact, and operational integration.

Several of the services chosen for development are directly linked to the AnaEE network, including contributions from UHasselt and AMU/CNRS. Notably, one development is led by Prof. Dr. Nadia Soudzilovskaia from UHasselt: "Horizontal Root Monitoring in Ecotron Facilities." This service provides long-term, non-destructive monitoring of root growth and development in controlled ecosystem environments, enabling users to quantify below-ground plant dynamics over time and link them to environmental variables.

This process is now supporting the identification of high-potential services for demonstration and future uptake, reinforcing AnaEE-ERIC's position as a reference infrastructure for guiding service development and integration in agroecological research, and as a key connector linking project-driven innovation with sustainable RI service portfolios across Europe.

Accelerating Microbes-4-Climate research: practical learnings on RI-industry partnerships from 50+ stakeholders

AnaEE-ERIC contributes to the **Microbes-4-Climate** (M4C) project both through project management and by providing access to its facilities. A particular highlight was the online stakeholder engagement workshop organised on 18 November 2025, gathering 50+ participants to explore how research infrastructures and private companies can collaborate more effectively.

The workshop surfaced several practical lessons. Building trust is foundational — starting with a small service contract and, where possible, a physical visit to the facility. Communication strategies must be tailored to the partner: SMEs move fast and need agile responses, while corporates operate at slower speeds driven by validation and cost reduction cycles.

Researchers themselves are an underused asset, as they often already have industry contacts that can open doors. On the company side, participants highlighted the value of being connected to EU projects for networking and funding opportunities, while noting that awareness of Transnational Access programmes remains too low among potential private partners.

Above: A screenshot from the well-attended webinar of M4C hosted by Joseph Timkovsky from AnaEE-ERIC.

These learnings point to a clear conclusion: RI–industry collaboration is not only scientifically valuable but strategically important, offering research infrastructures a pathway to diversify revenue, stay attuned to industrial needs, and expand their networks — and should be a central consideration in any long-term infrastructure development strategy.

05 GOVERNANCE

One of the notable achievements of AnaEE-ERIC is its multidisciplinary approach, which integrates forestry, agronomy, freshwater ecosystems, and environmental sciences.

AnaEE-ERIC is founded by six member countries (France, Denmark, Italy, Czech Republic, Finland, Bulgaria), one Observer (Belgium) and one Intergovernmental Organization (CIHEAM).

The Central Hub is located at the headquarters in Gif-sur-Yvette, south of Paris, France. It is responsible for the coordination, administration and management of the AnaEE-ERIC web portal and the three Service Centres. The Director General (DG) is the chief executive officer of AnaEE and its legal representative. The DG is appointed by the Assembly of Members (AoM) and has authority on all services of the AnaEE-ERIC.

THE ASSEMBLY OF MEMBERS

The Assembly of Members (AoM) is the main governing body of the AnaEE-ERIC. It comprises two representatives per member, one with a scientific, and one with an administrative expertise. The AoM appoints the Director General and takes all decisions related to the AnaEE strategy, governance and scientific development.

THE ASSEMBLY OF MEMBERS

- Chairperson of the Assembly: **Sanna Sorvari Sundet:**
- Vice chairperson of the Assembly: **Jean-Marie Flaud:**
- Belgium: **Laurent Ghys & Tom Vandenbogaerde**
- Bulgaria: **Denitsa Serbezova & Milena M. Glavcheva**
- CIHEAM: **Claudio Bogliotti**
- Czech Republic: **Jiri Švehla & Kristina Trávníčková**
- Denmark: **Mette Holm Linnet & Jørgen Eivind Olesen**
- Finland: **Mikko Peltonen & Jaana Bäck**
- France: **Eric Aubry & Jean-Marie Flaud**
- Italy: **Giampiero Golisano & Marco Bascietto**

THE INDEPENDENT SCIENTIFIC ADVISORY COMMITTEE (ISAC)

The ISAC is composed of 5 to 10 scientists chosen for their expertise in the fields covered by AnaEE and is appointed by the AoM. It provides advice on the criteria for the acceptation of facilities, on the strategy, on the collaboration with other infrastructures and bodies, it analyses the activity reports and provides recommendations on the work programme and long-term strategy and gives foresight on ecosystem sciences and the links with food security and the bioeconomy.

THE MANAGEMENT BOARD

The Management Board (MB) is a committee composed of the DG and the heads of the service centres, and key personnel. The MB advises the DG on all matters related to the day-to-day life of the ERIC, as well as in the preparation of the work programme and budget, strategy, communication and outreach.

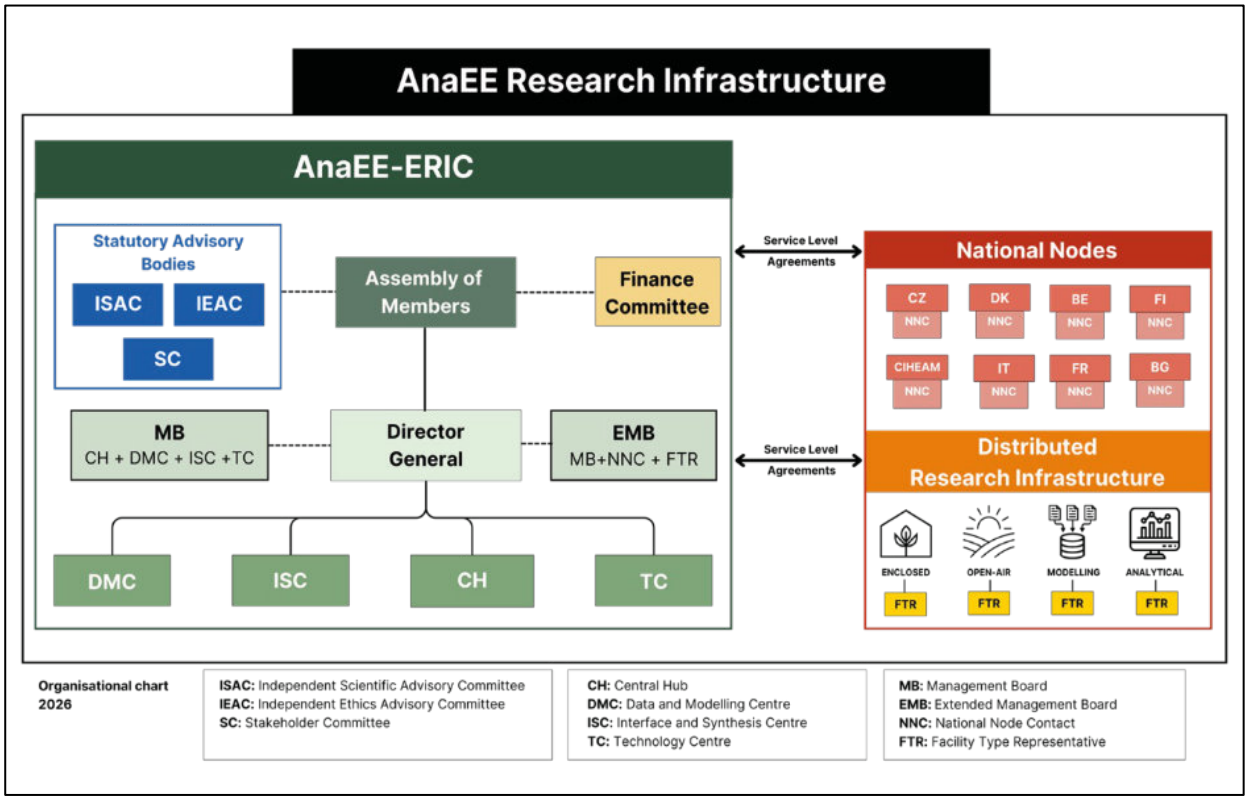
In its "extended" form (Extended Management Board), the management boards meet with the representatives of the national nodes and of the four facility types. The management boards meets approximately once a month, the extended management board once every 2 months.

THE ADVISORY COMMITTEE

- **Ioannis Athanasiadis:** Professor of Artificial Intelligence and Data Science at Wageningen University and Research, Netherland
- **Violeta Bozhanova:** Professor, Vice-President of the Agricultural Academy of Bulgaria
- **Alessandra de Marco:** Director of research at ENEA, Italy, and coordinator of the IUFRO (International Union of Forest Research Organizations)
- **Michael Bahn:** Professor at University of Innsbruck, Austria
- **Stefan Bertilsson:** Professor in Functional Ecology of Freshwaters, former Director of the SITES Research Infrastructure, Sweden
- **Claudio Stöckle:** Professor, Washington State University, United States of America

THE MANAGEMENT BOARD

- **Michel Boër:** Chairperson of the Board
- **Adriano Palma:** Data and Modelling Centre
- **Rachel Burns:** Technology Centre
- **Biljana Đorđević:** Interface and Synthesis Centre
- **Mireille Matene:** Chief Administrative and financial Officer
- **Amanda Ölander:** Communications Officer
- **Dorra Gharbi:** Central Access & Operations Manager
- **Veronique Ozier-Lafontaine:** Office manager and Executive assistant:



06

ANAEE-ERIC ACTIVITIES

From signing host agreements and launching new knowledge-sharing formats to building the data catalogue and preparing the 2026 Science Conference, 2025 was a year of concrete progress across all AnaEE-ERIC centres. Together, they form the operational backbone of a research infrastructure that is growing in reach, impact, and ambition.

AnaEE Science Conference 2026 - preparations

Preparations for the AnaEE Science Conference 2026 were coordinated by the Central Hub and Interface and Synthesis Centre throughout 2025. The conference program features seven thematic sessions addressing critical challenges in experimental ecology, including ecosystem resilience, sustainable agroecology, forest ecosystems under pressure, experimental approaches to global change, nature-based climate solutions, digital ecosystems and data integration, and aquatic-terrestrial interactions. Distinguished keynote speakers from leading European institutions were secured across all sessions.

A major milestone was the launch of the inaugural AnaEE Environmental Rising Star Award, recognizing exceptional postdoctoral researchers within four years of PhD completion. Winners receive a conference presentation slot, funded research visit to an AnaEE facility (up to 2000 €) and prominent recognition.

Organizational achievements included venue selection, budgeting, sponsorship coordination, and development of a conference website with integrated payment and registration functions. The registration portal successfully opened in January 2026.

AnaEE-ERIC Team Retreat: Under the Stars

The AnaEE-ERIC team gathered for a strategic retreat at the Observatoire de Haute Provence November 3-6, bringing together all staff members for four days of team building, strategic planning, and scientific exchange.

The retreat successfully achieved multiple objectives: fostering cross-team understanding of diverse responsibilities, advancing strategic discussions for the 2027-2031 work program, and providing project-focused staff with valuable insight into AnaEE-ERIC's

administrative operations. Parallel sessions explored the respective missions of centres and supporting activities, while plenary discussions addressed AnaEE's positioning within the European research infrastructure ecosystem, including engagement with ERICs, ESFRI, EOSC, and EU funding opportunities.

A scientific highlight was the presentation by Dr. Justine Laoué (CNRS Centre d'Ecologie Fonctionnelle et Evolutive) on experimental ecology and AnaEE's pivotal role in the field. Field visits to the Oak Observatory at OHP (O3HP), which examines drought effects on Mediterranean forests, and the Geophysical Station Gérard Mégie provided the biology-oriented team with fascinating insights into astronomical research—including the historic site where the first exoplanet was discovered.

Social dinners at local restaurants strengthened team cohesion, while sessions on community building and stakeholder engagement reinforced AnaEE-ERIC's commitment to expanding its network and societal impact. The retreat concluded with focused discussions on resource needs and organizational requirements for the coming years, setting a clear path forward for the infrastructure's development.

The Central Hub, France

The Central Hub (CH), located in Gif-sur-Yvette is the heart of the strategy, coordination, communication and administration of AnaEE. It coordinates the overall infrastructure and manages the AnaEE web portal which gives access to all the resources and services of the infrastructure.

AnaEE's annual Network Assembly Initiated

In response to network requests, AnaEE-ERIC launched its first annual Network Assembly meeting in December 2025, bringing together AnaEE core personnel, Facility Managers and National Node coordinators. It was attended by 42 participants online.

The Assembly strengthens network exchanges both top-down and bottom-up, clarifies organizational structure, communicates annual priorities and their impact on facilities. By creating this regular touchpoint, AnaEE-ERIC ensures those managing the infrastructure on the ground have the support, clarity, and connections that support the management of the infrastructure. The next meeting will be a hybrid event during the Science Conference 2026.

First direct call for applications

AnaEE-ERIC launched its inaugural direct call for applications from June 2nd to October 3rd, 2025, opening access to its ~60 experimental ecology installations across Europe. The call received no applications, primarily due to the absence of direct funding support.

Despite the lack of submissions, the exercise proved valuable as a successful test of the ISIA application portal and provided critical insights into future needs. The experience highlighted that while AnaEE-ERIC offers significant added value—including technical training, scientific mentorship, and network integration—applicants require clearer pathways to funding sources. These learnings have informed ongoing discussions with Facility Managers and National Node coordinators about enhanced support mechanisms and revised access models for future calls.

Training

In May 2025 AnaEE-ERIC offered an online training on science communication, in collaboration with Tania Jenkins. The purpose was informing participants about why science communication is essential for research visibility and societal impact and gain practical insight into how to effectively share their work using AnaEE-ERIC's outreach tools and collaborative platforms. The webinar was well attended with 80+ participants and 60+ views on YouTube. The feedback shows that more training on this thematic would be appreciated.

Gender Equality Plan

AnaEE-ERIC's approach to gender equality has evolved significantly since its initial pre-operational assessment in 2022. While the first Gender Equality Plan (GEP 2022–2024) focused on diagnosing baseline gender balance and identifying structural

To the right: A video shooting of the Bulgarian node members. From left to right: assistant Denitsa Grigorova, assistant professor Maria Ivanova, associate professor Iliyana Gerasimova, assistant professor Miladin Nazarkov and in the front, sitting on the cultivator - mechanic Nikolay Ivanov.

To the left: The whole AnaEE-ERIC team gathered for the team retreat that took place in Haute Provance - team activities were combined with development workshops, scientific presentation and a facility visit.

gaps, the organisation reached a major milestone in November 2025 with the formal approval of GEP Version 2.0 (2025–2028) by the Assembly of Members

Service level agreement status

Based on the latest key updates aligning the legal and operational framework of the National Platforms with AnaEE-ERIC, SLAs agreement has been established, including:

Czech Republic

An SLA was signed between AnaEE-ERIC and the Global Change Research Institute CAS (Czech Globe, Borno), acting as the Service Provider. The agreement defines the terms under which Czech Globe contributes its National Platforms to the AnaEE Work Programme, which is dedicated to experimental ecology. The agreement covers seven specific National Platforms managed by Czech-Globe:

- Cultivation Domes – Bílý Kříž
- Experimental Station Domanínek – Open Top Chamber Facility: A fully automated platform for manipulating environmental factors such as concentration, temperature, and UV radiation.
- Grassland Drought Experimental Site – Bílý Kříž
- Experimental Station Domanínek – Crop Growth Model/Rotation/Drought/Fertilization: Designed to study crop responses to environmental stressors.
- Fytoscopes – Growth Chamber Facility, Brno: Walk-in chambers for precise plant research under controlled conditions.
- Flying Laboratory of Imaging Spectroscopy (FLIS): Remote sensing infrastructure using airborne carriers and imaging spectroradiometers.
- Laboratory of Metabolomics and Isotope Analysis, Brno

Italy

SLA was signed between the AnaEE-ERIC and CREA (Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria), acting as the Service Provider. It covers the provision of services through CREA's National Platforms, including physical and human resources, to support experimental ecology research. Italian National Platforms

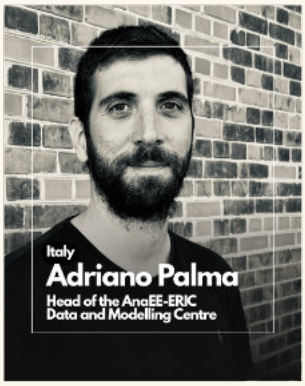
The SLA specifically incorporates two Italian platforms:

- IDroFACE (Italian Drought and FACE): Located in Fiorenzuola d'Arda, this open-field platform controls CO 2 concentration and rainfall exclusion to study plant adaptation to climate change.
- BioMA: An analytical platform specialized in biophysical and statistical modeling, including Artificial Intelligence. It provides software implementation, SaaS engineering, and training services.

Partnership and enlargement

AnaEE-ERIC seeks to extend its membership base with the objective to strengthen its consortium with an expanded reach and better address vulnerabilities, and fill gaps, in the European ecosystem landscape. To this end, discussions with different countries have been opened. In 2025 Lithuania has recognized a new national research infrastructure,

AnaEE-ERIC new team members



At AnaEE-ERIC, scientific excellence starts with people. We recruit on merit, champion diversity, and invest in every team member's growth.

– Mireille Matene
Chief Administrative & Financial officer

CLIMAGRO, that will be later compete for being added to the national roadmap of Lithuanian RIs as part of AnaEE.

Portugal: continued discussion with partners in Portugal are ongoing. Four institutions in Portugal have passed an agreement for the constitution of a national node. In 2025, the consortium has officially competed for inclusion of AnaEE on the roadmap of Portugal. The University of Tras os Montes and Alto Duro (UTAD) is a beneficiary of AgroServ, where it provides socio-economic services and contributes to one of the living-labs under the umbrella of AnaEE RI.

Spain: Technical discussions are ongoing. Five institutes of the CSIC have successfully applied for the constitution of a national node and preparation of an application to the authorities for possible membership of Spain to AnaEE-ERIC.

Both Spain, Portugal and Lithuania are associated with the works of the EMB, in order to consolidate the links between the communities, and to prepare their arrival as full members.

Belgium: The infrastructure AnaEE-Flanders has been officially endorsed by the regional government, opening the path for a full membership to AnaEE-ERIC.

AnaEE-ERIC continues discussions with several partners based on the specificity and added-value of their infrastructure, and interest in AnaEE-ERIC.

Coordination of the network

Regular meetings between the management of AnaEE-ERIC and the national node representatives within the framework of the Extended Management Board (EMB). CH has also been involved in the writing of proposals on behalf of the AnaEE Research Infrastructure, including the scientific, administrative, and financial parts. Most of these proposals were successful (cf. project section).

The Interface and Synthesis Centre, Czech Republic

The Interface and Synthesis Centre (ISC), hosted by the Global Change Research Institute of the Czech Academy of Sciences (CzechGlobe) in Brno, Czech Republic, is responsible for the integration and synthesis of scientific results generated within AnaEE-ERIC. The ISC prepares synthesis and opinion papers, monitors emerging societal and policy needs, responds to demands from society, economy, and policy makers, and contributes to training, outreach, and strategic development of AnaEE-ERIC.

Following its establishment and operational launch in 2024, 2025 represented the first full year of full-scale ISC activity. During this period, the ISC actively contributed to the integration of AnaEE-ERIC scientific outputs, project development, strategic planning, and representation at European and international levels. As in its first year of operation, ISC activities in 2025 were characterised by a high level of engagement across multiple domains.

Stakeholder engagement activities were strengthened throughout 2025 through the implementation of a structured approach to stakeholder interaction. In parallel, the AnaEE-ERIC Stakeholder Committee was created and made operational, providing a formal mechanism for dialogue and engagement with key external actors. The stakeholder database was updated and upgraded to improve its accuracy and usability, and the AnaEE-ERIC stakeholder network was significantly broadened by strengthening existing relationships and identifying and engaging new stakeholders across relevant sectors.

Throughout 2025, the Scientific Officer (SO) and European Project Manager and Liaison Officer (EPMLO) actively contributed to several projects in which AnaEE-ERIC participates and supported the preparation of new initiatives. A key focus was Horizon Europe Cluster 6 project development, including support to consortium building, alignment of scientific content with AnaEE services, and facilitation of exchanges between external partners and relevant facility managers.

Within the PHENET project, the SO participated in Executive Committee meetings and contributed to project coordination and reporting, including preparation of the European Commission survey and delivery of the periodic report for Work Package 1 on behalf of AnaEE-ERIC. The SO also supervised the PHENET postdoctoral researcher, supporting scientific activities and integration within AnaEE.

In parallel, the ISC contributed to the preparation of several INFRA and related project proposals, including WIDERA, ARIES, SIRENE, Access2Access, SustainIce, TALENTUM, and early-stage development of the ADDER proposal. The ISC also supported user engagement and widening activities. Strategic development remained a priority, with active contribution to the preparation and presentation of the AnaEE Strategy 2027–2032. As co-chair of the scientific committe for the AnaEE Science Conference 2026, the SO contributed to the development of the scientific programme, abstract and poster guidelines, and the framework for the first AnaEE postdoctoral competition. Additional activities included contributions to communication and strategic support tasks, collaboration with national partners, and collection of scientific information to perform future analyses and planning activities.

Representation of AnaEE-ERIC was a core element of ISC activities. The SO represented AnaEE-ERIC at several international and internal events, including the EGU in Vienna, Austria; the Data, Modelling and Technology Foresight Workshop in Conegliano, Italy, the PHENET Annual Meeting in Lisboa, Portugal, and the Soil Degradation Control, Remediation and Reclamation Workshop in Sofia, Bulgaria. Participation also included several online workshop and involvement in AnaEE governance through the ISAC meeting and the AnaEE-ERIC Assembly of Members held in Denmark and Bulgaria.

ISC activities continued in 2025 despite staffing constraints, including the relocation and subsequent departure of the EPMLO. Additional effort was required to ensure continuity, particularly in supporting communication and coordination within the AgroServ project and preparation of AnaEE contributions to the EU CAP Network Brokerage Event “Partnering for Innovation with Impact in Agriculture and Rural Areas”.

Doc. Mgr. Otmar Urban from Czech Globe during a media visit at the Bílý Kříž facility in AnaEE Czech Republic. It's located in the Moravian–Silesian Beskids mountains, 900 m above sea level.

The Technology Centre, Denmark

The role of the Technology Centre (TC) is to identify and map emerging technologies relevant for the members of the AnaEE network. The TC also works to harmonize instruments and procedures across the AnaEE facilities. The AnaEE-TC is also responsible for the spin-off of new technologies developed within AnaEE-ERIC, as well as for coordinating the training of users and facility operators.

Signing of the Host and Resource Provision Agreement

During the 7th Assembly of Members, in June 17-18, formal approval of the Host and Resource Provision Agreement between the University of Copenhagen and AnaEE-ERIC was granted. The signing took place in September 2025 by Professor Bo Jellesmark Thorsen, the Dean of the Faculty of Science at the University of Copenhagen, and Dr. Michel Boër, Director General of AnaEE-ERIC.

This milestone was followed by the recruitment of a new Head of Centre, bringing the Technology Centre closer to full operational status.

Conferences and training

The Head of Centre and TO represented AnaEE-ERIC at the EGU General Assembly in Vienna, Austria. During the conference, their work focused on establishing relations with technology innovators at the exhibitors' section of the conference and supporting AnaEE colleagues in the ENVRI community booth.

In collaboration with the Data Modelling Centre (DMC), the TC co-organised the Data, Modelling and Technology Foresight Workshop, held in Conegliano, Italy, from 13–15th May 2025. The event invited speakers from tech industries and researchers to present their work and expertise in the field of remote sensing. The workshop was delivered as a successful hybrid event, with participants and presenters attending both online and in person.

Other TC activities

In 2025, the TC contributed to the further development of the ISIA-based Catalogue of Services (CoS), ensuring it was populated by both AnaEE-ERIC Facility Managers and IRISCC Service Providers. Training materials, including written guidelines and instructional videos originally developed within IRISCC, were adapted and provided to AnaEE Facility Managers. In addition, the TC organised online training workshops – both group sessions and 1-to-1 meetings – for Facility Managers, demonstrating how to navigate and use the ISIA platform effectively. Following this, direct communication with Facility Managers, primarily via email was made to facility managers to assist with completing missing catalogue information. This work is ongoing and is expected to be largely completed in 2026.

The TC and AnaEE Denmark worked together to host the 7th Assembly of Members at the University of Copenhagen in June 2025. TC staff played a central role in organising the event, contributing to agenda development, preparation of background documents, participant communication, and overall event coordination.

The TC introduced a new knowledge-sharing format, the TechUp! webinar series. This is a monthly online presentation of new and emerging technologies, featuring research innovators and technology companies. The series strengthens technical exchange and engagement within the AnaEE network and beyond. Activities included speaker identification, content development, event promotion, and facilitation. The webinars attracted participants from the AnaEE network and scientists from outside the network. Speakers included research facilities and external companies interested in engaging with AnaEE. The series also gained visibility through the AnaEE YouTube channel.

In addition, the TC contributed to the preparation of the ARIES proposal, providing input on the impact section, overall readability, technological workflows, facility capabilities, and integration opportunities within the AnaEE infrastructure.

The TC also participated in the development of AnaEE's stakeholder engagement strategy through a dedicated brainstorming process, contributing perspectives on technological capabilities, user needs, and opportunities to expand AnaEE's visibility and impact. Furthermore, the TC was involved in the process of improving the website of AnaEE.

Finally, in 2025 the TC initiated the development of common protocols, representing an important step toward harmonising methodologies across AnaEE facilities and strengthening future interoperability and data comparability. This area will be a primary focus of TC activities in 2026.

The Data and Modelling Centre, Italy

The Data and Modelling Centre (DMC) is responsible for the processing of the data and metadata, the provision of data to the users (either the direct users or the community), the access to the models and model factory. It also organises workshops and training for users and AnaEE staff.

DMC activities

In parallel with training activities, the DMC continued throughout 2025 the development of the AnaEE-ERIC data catalogue, following a FAIR-by-design approach. During this phase, the catalogue architecture was defined with the objective of embedding the principles of Findability, Accessibility, Interoperability and Reusability into its technical and semantic foundations.

The architectural design was based on the adoption of CKAN for structured metadata management and on the DCAT standard to support semantic interoperability and future metadata exchange with European and international catalogues, including potential integration pathways towards EOSC. Similarly, a federated authentication and authorisation solution based on Keycloak was selected to support secure and standards-compliant access to the catalogue and associated distributed services. Although the data catalogue was not fully operational by the end of 2025, the design and implementation work carried out during the year established a robust, interoperable and scalable foundation, capable of supporting the increasing diversity and complexity of data generated by AnaEE-ERIC experimental platforms.

Training

Training activities were delivered within the Technology Foresight Workshop, held in Conegliano (Italy) on 13–15 May 2025. The workshop provided advanced, hands-on training in data science, Python-based workflows and agro-environmental modelling, including practical sessions on the BioMA modelling framework, and primarily targeted early-career researchers, PhD students and trainees.

Participants from the Technology Foresight Workshop in Italy May 2025.

07 COMMUNICATION

Science that cannot be seen cannot be defended. And a network that does not feel like a community will not behave like one. In 2025, AnaEE-ERIC made significant strides on both fronts — building the infrastructure to communicate our work more effectively to the outside world, while deepening the internal connections that make our network genuinely coherent and alive.

Effective science communication is not a peripheral activity for AnaEE-ERIC — it is central to our mission. Making European environmental research visible, accessible and understood by policymakers, funders, journalists and the broader public is how we demonstrate the value of what our network produces, and how we ensure that value is protected when it matters most.

A Foundation Built to Last

AnaEE-ERIC significantly strengthened its communication infrastructure and strategic presence in 2025. The centrepiece achievement was the complete in-house website redesign and migration from Drupal to WordPress, launched in December 2025. Highly appreciated by network members, the new platform introduces key features including an events calendar covering ecology conferences, open calls and webinars, a member-only extranet, an interactive facility map, researcher interviews, and dedicated pages for each member organisation. While the full impact will be measurable in 2026, these enhancements position AnaEE for improved user engagement and content discoverability.

Strategic communication initiatives expanded AnaEE's reach and visibility. Meaningful collaborations were established with several stakeholders including ICOS, Nordic OIKOS, Plan Bleu and CLEW. AnaEE has an increasing presence at high-level events such as EGU at the ENVRI booth and the Perugia International Journalism Festival, further positioning AnaEE as a recognised voice across different contexts and communities.

Internal communication systems were professionalised through the implementation of Indico for event management, and continuous workflows including quarterly newsletters, social media activities, the new TechUp! webinar series, and the inaugural AnaEE Network Assembly. The introduction of Affinity Publisher elevated the quality of

printed materials, notably the Annual Report 2024, while visual guidelines ensured brand consistency across all channels and nodes.

AnaEE also contributed communication and training strategies to three Horizon Europe project proposals — TALENTUM, ARIES and Access2Access — demonstrating the integration of communication into broader organisational objectives.

What the Numbers Tell Us

The statistics from 2025 tell a story of steady, meaningful growth — and more importantly, of an audience that is genuinely engaged rather than merely reached.

LinkedIn grew from 940 to 1,250 followers, a 33% increase, and continues to build momentum as the primary professional channel for AnaEE's external presence. Bluesky grew 129% from 100 to 229 followers, reflecting the broader migration of the scientific community toward that platform. Eight videos were produced for YouTube in 2025, accumulating 400 views by year end.

"When budget pressures come — and they are coming across European member states — facilities that are embedded in a living, active, visible network are better positioned than those that stand alone."

The AnaEE Newsletter reaches 376 recipients with an open rate of 42% — well above the industry average and a strong signal that readers consider the content genuinely valuable. The internal AnaEE Network Insider newsletter, reaching 159 recipients, achieves a 44% open rate, suggesting that internal audiences are equally engaged and hungry for network news. Website traffic reached 4,140 visits in 2025, an 8.4% increase, with visitors arriving primarily from France, Italy, Czechia, Spain and the United States — but also increasingly from South America, Africa and Asia. This traffic figure is particularly notable given that it reflects the old Drupal platform for most of the year; with the new WordPress site now live, significantly stronger engagement is anticipated throughout 2026.

Community Building: The Work Ahead

Numbers tell part of the story. But what they point toward is something more important than reach — they point toward belonging. The coming years will be defined not just by how many people AnaEE can communicate with, but by how deeply connected our network members feel to each other and to a shared mission.

This is pivotal for a simple reason: a network whose members feel genuinely part of a community is a network that advocates for itself. When budget pressures come — and they are coming across European member states — facilities that are embedded in a living, active, visible network are better positioned than those that stand alone. Community is not a soft goal, it is strategic.

Two visits by the Communications Officer to the Czech and Bulgarian nodes in 2025 offer an early model for what this can look like in practice. Each visit resulted in a new node video presenting the potential and specialisation of the facility, now available on YouTube and on the node-specific pages of anaee.eu. Crucially, the visits also opened genuine conversations about current priorities and needs — the kind of two-way exchange that need to grow.

The inaugural AnaEE Network Summit represents the most ambitious step yet in this direction. Bringing the network together — not just to report, but to connect, to think collectively, and to develop a shared sense of direction — is how a collection of facilities becomes a community. The Summit is designed to do exactly that: to give members not just information about AnaEE, but a genuine sense of ownership over it.

During the year, the AnaEE Communications Task Force met regularly, agreeing to ramp up collaboration through two-way exchanges and increased news sharing among members—strengthening connections for newsletters and fostering deeper relationships within the network.

In parallel, the launch of the dedicated Facility Manager Internal Newsletter in October 2025 reflects the same principle applied internally. Facility managers across the network now have a dedicated channel for sharing updates, practical guidance and the small but meaningful improvements that shape daily working life.

The trajectory is clear. Engagement is rising, two-way communication is becoming the norm rather than the exception, and members are increasingly visible as active participants in the network rather than passive recipients of information. The foundation is laid. The next phase is deepening it.

Gregor Mendel believed his work would soon change the world—yet its true value lay hidden for decades. Great science deserves more than just discovery; it needs to be heard, understood, and embraced.

At AnaEE-ERIC, we bridge the gap between breakthroughs and impact, ensuring today's innovations help shaping today's world.

82%

OF EUROPEANS ARE INTERESTED IN SCIENCE*

56%

BUT ONLY 56% FEEL WELL INFORMED*

Decision-makers, funders and the public need to understand what Research Infrastructures do and how science is useful in everyday life — or they can't defend it.

*Source: Eurobarometer

08 EVENT PARTICIPATION

In 2025 AnaEE-ERIC was represented in the following main events:

- April: **International Journalism Festival**, Italy. Amanda Ölander.
- April: **EU CAP network event**, Czech Republic. Daniele Baldo.
- May; **EGU 2025**, Austria. Michel Boër, Biljana Đorđević, Amanda Ölander, Rachel Burns, Klaus Steenberg Larsen.
- May: **Data, Modelling and Technology Foresight Workshop**, Italy. Rachel Burns, Klaus Steenberg Larsen, Biljana Đorđević, Yoma Olisah, Youssef Haidala, Adriano Palma.
- May: **PHENET Annual Meeting and General Assembly**, Portugal. Biljana Đorđević, Thy Li Mai.
- June: **Workshop on Soil degradation control, remediation and reclamation**, Bulgaria. Biljana Đorđević, Amanda Ölander.
- October: **AgroServ 2nd Scientific Conference and General Assembly /ERSAC2025**, Lithuania. Michel Boër, Sarah Dramé, Daniele Baldo, Janko Arsić.
- October: **Global Bioenergy Partnership Annual Meeting**, Italy, Adriano Palma.
- October: **Research and Technology Infrastructure Summit**, Denmark, Michel Boër.
- October, **IRISCC General Assembly**, France, Joseph Timkovsky.
- November: **ERIC Forum 2 Annual Meeting and General Assembly**. Michel Boër, Mireille Matene, Dorra Gharbi.

09 PROJECTS

At the end of 2025 AnaEE-ERIC was involved in seven European projects, demonstrating the organisation's central place within the landscape of European Research Infrastructures.

The acquisition and successful implementation of new projects are central to AnaEE-ERIC's mission and growth. In 2025, significant effort was dedicated to securing and advancing projects that align with our strategic objectives, building on the substantial progress made in previous years.

These initiatives not only expand our scientific impact but also strengthen our capacity to address pressing environmental challenges through innovative research and collaboration.

This section highlights the progress and achievements of AnaEE-ERIC's ongoing projects, showcasing how our infrastructure continues to evolve and deliver tangible results for the scientific community and society at large.

Project involvement as of 2025

- AgroServ (1/09/2022 - 31/08/2027)
- PHENET (1/01/2023 - 31/12/2027)
- ERIC Forum 2 (1/09/2023, 31/08/2026)
- FHERITALE (1/01/2024, 31/12/2026)
- Microbes-4-Climate (1/02/2024, 31/01/2029)
- AQUASERV (1/04/2024 - 31/03/2029)
- IRISCC (1/04/2024 - 30/09/2028)

AgroServ

AgroServ, the flagship project coordinated by AnaEE-ERIC is funded by the EU under Horizon Europe, supports agricultural research and innovation to tackle complex challenges like feeding a growing population sustainably, combating climate change, and preserving biodiversity.

With 73 partners offering 143 Research Services, they facilitate collaboration between stakeholders like farmers, industry, and policymakers, providing accessible research from molecular to societal levels. The inclusive approach aims to inform evidence-based decisions for addressing environmental threats, promoting cross-fertilization of knowledge across disciplines.

KEY DATA - AgroServ

Project start: 1/09/2022 - **Project duration:** 60 months

Maximum grant amount for the project: 14,252,873€ (not including UK partners)
Maximum grant amount for AnaEE-ERIC: 720,863€
Maximum grant amount for AnaEE partners, transverse work packages (1-9): 2,099,370€
Maximum grant amount for AnaEE RI service delivery: 1,719,089€

Developments 2025

In 2025, AgroServ entered full operational implementation and consolidation of activities during the second reporting period. Following the project's second General Assembly, a project-wide budget restructuring was implemented to align resources with actual service delivery. After the successful launch of four calls as defined in the Grant Agreement, the project opened submissions to single-RI proposals, increasing competitiveness between services. The ISIA service catalogue was further improved and positively acknowledged by the Project Officer.

Alongside coordinating the Project Management Work Package (WP9), AnaEE-ERIC, leading WP8 on communication, launched an ambassador programme to widen project representation through its users. As the project reached its third year, research outputs and success stories began to be published and disseminated, including presentations at the ERSAC two-day conference hosted in October by Vytautas Magnus University, Lithuania.

Discussions with the Project Officer are ongoing regarding a potential 12-month project extension to allow completion of user projects affected by external constraints and ensure full use of the allocated budget. Looking ahead, AgroServ plans to launch two additional calls, with the fifth call scheduled to open in early March and the sixth expected to be the final call of the project.

These implementation milestones mark the transition of AgroServ from a structuring phase towards a fully operational research service infrastructure delivering tangible scientific outputs and user-driven projects.

PHENET

The PHENET project, responding to call INFRA-2022-TECH-01-01, addresses Europe's need for agroecological transition for food security, climate resilience, biodiversity, and soil carbon restoration. Collaborating with EMPHASIS, AnaEE-ERIC, eLTER, and ELIXIR, PHENET develops tools for future-proofed farming practices across Europe's climate-change scenarios, offering wider access to phenotypic and environmental data, AI-based sensors, Earth Observation data, FAIR data support, and predictive modelling.

Eight Use Cases demonstrate solutions' portability, including on-farm data mobilization, while training and outreach activities enhance RI staff skills and broaden user base, benefiting innovative companies and climate-smart agriculture.

PHENET
PHENOTYPING & ENVIROTYPING SOLUTIONS FOR AGROECOLOGY

KEY DATA - PHENET

Project start: 1/01/2023 - **Project duration:** 60 months
Coordinator: INRAE, France
AnaEE-ERIC role: Beneficiary, WP lead - www.phenet.eu

Maximum grant amount for the project: 9,993,469€
Maximum grant amount for AnaEE-ERIC: 198,750€
Maximum grant amount for AnaEE RI partners:
Aix-Marseille Université (Beneficiary, 292,000€),
CNRS (affiliated AMU, 67,375€),

Developments 2025

In 2025, AnaEE-ERIC coordinated PHENET Task 1.2, focusing on transferring project results into sustainable services within Research Infrastructures (AnaEE-ERIC, EMPHASIS, eLTER, and ELIXIR). This work addressed the challenge of ensuring scientific developments become long-term accessible services beyond project lifetimes.

AnaEE-ERIC coordinated the identification and structuring of 28 candidate services spanning plant phenotyping, soil and ecosystem sciences, environmental monitoring, data management, and training. A structured framework assessed each service's maturity, scope, and relevance to European RIs. Several services, including developments by UHasselt and AMU/CNRS, are directly linked to the AnaEE network, strengthening connections between project-driven innovation and the European RI service landscape.

ERIC Forum 2

The Second Implementation Project for the ERIC Forum structures the cooperation between the ERICs and to support the implementation of the ERICs' policy, shaping their community identity and consolidating their integration within the European Research Area (ERA).

The Project's main objectives are to provide updated data and information on the ERICs to demonstrate their outcomes, impacts, and importance in the ERA. It will develop shared practices, regulations, and services to improve ERICs' sustainability and ensure compatibility with European political priorities. Strengthen coordination and networking between the ERICs, supporting ERICs-in-preparation. AnaEE-ERIC co-leads the Pillar II on "reinforcing the internal communication" and leads in Work Package WP10: Strategy on building shared services between ERICs.

KEY DATA - ERIC Forum 2

Project start: 1/09/2023 - **Project duration:** 48 months
Coordinator: BBMRI-ERIC
AnaEE-ERIC role: Beneficiary, WP lead - www.eric-forum.eu

Maximum grant amount for the project: 2,999,463€
Maximum grant amount for AnaEE-ERIC: 64,875€

Developments 2025

In 2025, activities related to the EF2 project (WP10) continued, including the creation of a cross-pillar Working Group (MS 10.1) composed of 2-3 WP leaders from each Pillar. The WG facilitated the exchange of information and provided feedback on the specific needs of each Pillar, to support ERICs' development of shared services. A poster was created and presented at the Annual Conference in Brussels, featuring a QR code-based survey that allowed colleagues to provide input and vote on the types of services to be prioritized for sharing across the ERIC community.

FHERITALE

Concerns have been growing about the widespread use of artificial materials such as plastics and biotechnological chemicals, as well as their impact on health and the environment. These materials may cause problems either via intended usage (such as food packaging) or throughout their life cycle. Therefore, a systematic approach to investigating consequences is needed.

The EU-funded FHERITALE project aims to transform how European research infrastructures address the difficulties posed by synthetic materials. To that end, we systematically address the development, provision, and integration of services across the European research infrastructures landscape, enabling the scientific community to research the effects of these materials.

Developments 2025

A workshop organized by Fheritale management took place in October 2025 in Bucharest, Romania and was attended by an AnaEE-ERIC member. D4.1 – "White paper on key selected priorities" has been successfully submitted. An extensive survey has been carried out to analyse the current landscape of available services, also beyond its partnership, identifying gaps, and engaging with stakeholders in the research community. One of the outcomes is presented on the figure below.

KEY DATA: FHERITALE

Project duration: 1/01/2024 - 31/12/2026
INFRA-DEV - Coordinator: CERM/CIRMMP - https://fheritale.eu

To the right:

A questionnaire was distributed to relevant European RIs and organizations to identify potential service domains and to gather the details on the core methodologies offered at each site.

The collected data covers services relevant across the broad spectrum of specific parameters (physical, chemical, in vitro, in vivo biological properties) allowing researchers to address challenges relevant to health, food, and environmental conditions and the overall impact of artificial materials on health.

Service Type	Number of available services in this category	Research Infrastructures offering this service
Physical/chemical characterisation of Microplastics or other Microparticles	37	
Physical/chemical characterisation of Nanoplastics or other Nanoparticles	31	
Physical/chemical characterisation of Micro/Nanoparticles based on origin: Artificial, Natural, or Engineered	20	
Structural characterisation of Microplastics + other microparticles	27	
Structural characterisation of Nanoplastics + other Nanoparticles	22	
Bioplastics (biodegradable vs bio-based)	17	
Risk assessment of Micro/Nano particles	14	
Exposure assessment of Micro/Nano particles	18	
Toxicity of Micro/Nano particles	24	
Biological activity of Micro/Nano particles	24	
Monitoring of Micro/Nano particles	20	

AnaEE-ERIC
EIRENE-RI
EMBRC-ERIC
EuroBioImaging-ERIC
Instruct-ERIC
METROFOOD-RI
MIRRI-ERIC
ELIXIR

MICROBES-4-CLIMATE

Microbial services addressing climate change risks for biodiversity and for agricultural and forestry ecosystems: enabling curiosity-driven research and advancing frontier knowledge.

M4C aims to deepen the comprehension of the complex relationships among microorganisms, plants, and soil within the framework of Climate Change. By offering access to advanced Research Infrastructures, training, and assistance, the project seeks to encourage research tackling the multifaceted challenges presented by Climate Change to terrestrial biodiversity and ecosystems.

Developments 2025

D7.4 – Guidelines for training in participating RIs. This deliverable has been created in collaboration with LifeWatch-ERIC.

Stakeholder engagement workshop has been organized in November 2025. The focus of the workshop was on the facilitation of collaboration between research infrastructures and private companies with 50+ attendees from both private and public sectors.
A preliminary draft report for "D7.3 – Liaising activities" has been successfully submitted.

AnaEE-ERIC participated in the evaluation rounds for proposal submission. In total, 26 project applications received, and 24 projects were selected.

Four proposals include AnaEE-ERIC facilities (both from beneficiaries and affiliated entities).

KEY DATA - Microbes-4-Climate

Project duration: : 1/02/2024 - 31/01/2029

INFRA-SERV - Coordinator: MIRRI - https://microbes4climate.eu/

Below: AnaEE-ERIC, made a strong presence during the European Geosciences Union (EGU) General Assembly 2025 in Vienna from April 27 to May 2, 2025. Several node members presented their latest research. IRISCC held a workshop, AnaEE DG Michel Boër and Senior Scientific Officer Biljana Đorđević presented TNA and AnaEE-ERIC services during two lunch talks. The joint ENVRI booth right at the venue entrance together with partners from the ENVRI community.

IRISCC

Adaptation to climate change requires in-depth understanding of climate change driven risks, including their determinants (hazards, exposure and vulnerabilities) and impacts to human, production and natural systems. Integrated Research Infrastructure Services for Climate Change Risks (IRISCC) is a consortium of diverse and complementary leading research infrastructures (RIs) covering disciplines from natural sciences to social sciences, across different domains and sectors.

IRISCC provides scientific and knowledge services to foster cutting-edge research and evidence-based policymaking to improve Europe's resilience to climate change. IRISCC ensures a "one-stop-shop" for various user communities on climate change risk related RI services by setting up a dedicated Catalogue of services and related access management system both for granting transnational (onsite and remote) and offering virtual access.

Developments 2025

- Applications received: 86 (27 TA Call 1 + 57 TA Call 2 + 2 Fast Track call)
- Selected projects: 69 (26 TA Call 1 + 42 TA Call 2 + 1 Fast track)

Users in selected projects: 190 (71 TA Call 1 + 119 TA Call 2)

14 selected proposals include AnaEE-ERIC facilities (both from beneficiaries and affiliated entities).

The IRISCC General Assembly took place in October 2025 in Marseille, France, and was attended by several AnaEE partners, both from the ERIC and from the national nodes. The main local organizer, Dr. Elena Ormeno Lafuente, leads the AnaEE facility Oak Observatory at O3HP.

KEY DATA: IRISCC

Project duration: : 1/04/2024 - 30/09/2028
INFRA-SERV - Coordinator: LUKE - https://iriscc.eu/

AQUASERV

AQUASERV is a pioneering multinational initiative that unites six leading research infrastructures and over 40 scientific institutions across Europe.

Research services for **sustainable aquaculture, fisheries** and **blue economy**

The mission is to establish a robust, multidisciplinary network dedicated to advancing sustainable aquaculture, fisheries, ecological restoration and the blue economy through cutting-edge research services. The project fosters collaboration among prestigious public and private institutions, ensuring transparent access to top-tier resources and data. By enabling the international exchange of expertise and providing accessible research services across Europe, AQUASERV is driving scientific progress and innovation in these critical fields.

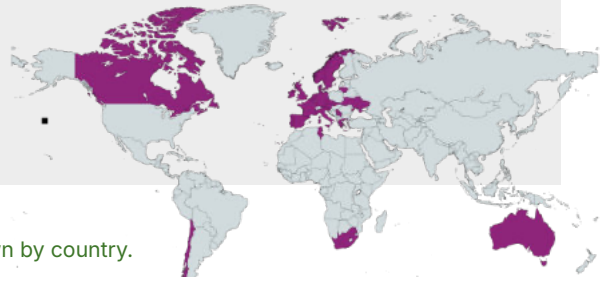
Developments 2025

First TA assessment report has been successfully submitted. First VA assessment report is being worked on. AnaEE-ERIC participated in the evaluation rounds for proposal submission. In total, 102 project applications received, 90 were technically feasible and 67 projects were selected.

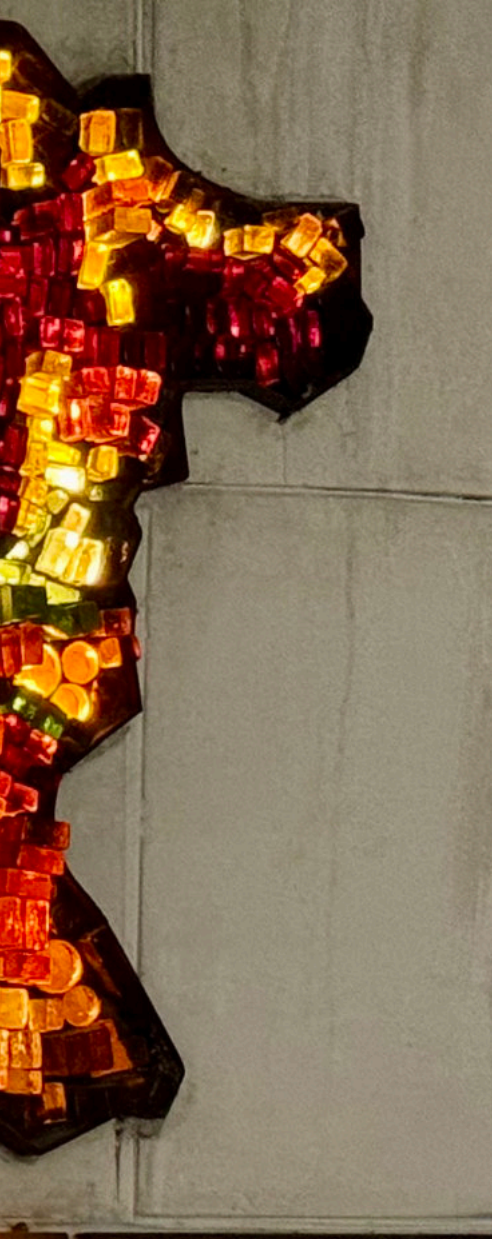
A first project review meeting took place. No major deviations were noted by the reviewers.

KEY DATA: AQUASERV

Project duration: 01/04/2024 - 31/03/2029
INFRA-SERV - Coordinator: EMBRC - https://aquaserv-ri.eu



To the right: AQUASERV user data, broken down by country.



09

REPORTS FROM NATIONAL NODES

Behind every strategy, every project, and every publication sits a network of scientists, facilities, and national communities doing the hard, essential work of ecosystem research. The national nodes are where AnaEE-ERIC becomes real — where experiments run, data is collected, and discoveries are made. Without them, there is no AnaEE-ERIC.

Across AnaEE-ERIC's national nodes, 2025 was a year of scientific productivity, infrastructure investment, and growing international visibility. From the boreal peatlands of Finland to the Mediterranean forests of France and Italy, and from the agricultural platforms of Bulgaria to the controlled ecotron facilities of Belgium, the network generated a rich body of research while continuing to develop and upgrade its experimental capacity.

Belgium reached a historic milestone with official federal endorsement of AnaEE-Flanders, securing multiple incoming user projects and funding for new Rapid Assessment Units. The Czech node invested in major equipment upgrades and prepared its international evaluation for 2027. Denmark concluded its original funding period and secured a place on the updated national roadmap under the new SITES Denmark umbrella. Finland onboarded a new Stable Isotope Laboratory and completed its first AgroServ Transnational Access project. France oversaw a €1.1 million annual investment programme and inaugurated new experimental devices at several sites. Italy published eight scientific papers from AnaEE facilities and welcomed international delegations from four continents.

Scientifically, the nodes delivered results of the highest calibre — including publications in Science, Nature Climate Change, and Lancet Planetary Health — demonstrating the unique value of long-term, carefully maintained experimental platforms.

AnaEE-Belgium

Summary

In 2025, AnaEE-Flanders reached a historic milestone as Belgium formally became an AnaEE-ERIC member with official Federal Government acknowledgment.

The infrastructure demonstrated high demand in 2025, securing multiple incoming user projects via European Trans-National Access (TNA) programs:

AgroServ: Three high-impact agricultural projects were approved for the UHasselt and UAntwerp nodes. These include the Fruit WASYS study (execution 2025-2026) at the Macroscale Ecotron focusing on water-thrifty agroforestry, alongside FATI-based research on durum wheat breeding for heatwave resilience (2026) and targeted sugar beet biostimulants to mitigate abiotic stress (2027).

IRISCC: Climate-risk projects were secured for the FATI (2) and Mesoscale Ecotron platforms (1). These are planned in 2026-2027, and investigate phenological mismatches between plants and pollinators, high-order interactions of grasses under persistent precipitation, and meta-analytical interpretation of grassland interactions through controlled environments.

Global visibility was further solidified via a high-profile Reuters feature on "Pears of the Future" and participation of Nadia Soudzilovskaia in the Belgian Climate Center's scientific board.

Developments

A major strategic update was securing dedicated funding for Rapid Assessment Units (RAUs). These units enable "Fast Science" through flexible, short-term experiments that bridge the gap between long-term climate modeling and immediate AgriTech testing needs.

Below: AnaEE-Belgium - UHasselt obtained funding to install 8 Rapid Assessment Units. Photo: Chloe Vervauteren, UHasselt

AnaEE-Bulgaria

Summary

The experimental season for the project "Impact of good agricultural practices on the components of the agroecosystem under different soil and climatic conditions" (2024-2027) is underway at open-air platforms in Bozhurishte and Tsalapitsa.

Two students from the National Institute Lucus Augusti, Spain (Herman Mosquera Sixto and Nagual Cristobo Arenas) completed a two-month training under the Erasmus+ Student Mobility Agreement, focusing on soil science, agrochemistry, and plant protection. Field demonstrations included techniques for measuring carbon emissions, soil moisture, and leaf area.

Key Events and Conferences

Prof. Atanasova presented ISSAPPNP projects at the Academy "Innovations in Agribusiness" forum at the National Palace of Culture, Sofia.

ISSAPPNP participated in the International Agricultural Exhibition AGRA in Plovdiv.

The institute organized the 2nd IUSS Commission 3.5 Symposium on "Control of Soil Degradation, Remediation and Reclamation".

An AnaEE European Consortium workshop was held at ISSAPPNP, including a visit to Bozhurishte platform.

International Cooperation

Study visits included delegations from Kosovo Development Center to view irrigation methods at Chelopechene, and from Republic of Macedonia focusing on land remediation and reclamation.

Prof. Atanasova participated in a National Assembly round table on "Challenges and prospects for Bulgarian agriculture".

The 8th AnaEE-ERIC General Assembly session was held in Sofia, organized by SAA and ISSAPPNP. Scientists from across Europe visited the institute, with presentations on Bozhurishte and Tsalapitsa platforms by Assistant Professors Maria Ivanova, Miladin Nazarkov, and Assoc. Prof. Maya Benkova, covering projects on agricultural practices, biochar applications, and greenhouse gas emissions.

ISSAPPNP celebrated World Soil Day with an international scientific conference on "Ecology and Agrotechnologies - Fundamental Science and Practical Implementation," covering soil science and ecology, agricultural mechanization, and plant protection.

Above: AnaEE-Bulgaria - field demonstrations for Erasmus+ students, Herman Mosquera Sixto and Nagual Cristobo Arenas - students from the National Institute Lucus Augusti, Lugo, Spain, on Bozhurishte Open-air platform, where they were shown techniques for measuring carbon emissions, soil moisture and leaf area on experiment with beans.

CIHEAM

Summary

CIHEAM-Bari's Research Infrastructures (RIs) do not qualify as a National Node, since CIHEAM-Bari operates as an international organization overseeing its own campus-based research facilities and activities. Recent progress builds on EU-funded projects like WATDEV (DeSIRA programme) and RELACS (Horizon Europe), enhancing eco-agro-hydrological tools and pest management innovations.

Below: South view of the integrated agro-photovoltaic plant and tracking engine. Photo: CIHEAM Bari

Key Developments

Eco-Agro-Hydrological Modelling: Under WATDEV, a customized SWAT-MODFLOW-DSSAT toolbox was finalized in 2025, including socio-economic post-processing for scenario selection. It will launch online in May 2026, enabling scientists to model agronomic practices' impacts on hydrological cycles (surface/groundwater quality-quantity), soil, crop productivity, and climate scenarios with multi-criteria analysis.

Pest Management: In 2025, CIHEAM-Bari advanced "Integrated Agro-Photovoltaic Plants" (IAPC) for dual food and renewable energy production, powering semiophysical pest control methods. Finalization is set for June 2026, with scientific access by August-September 2026.

Modelling (TRL 6): Demonstrated in Egypt, Ethiopia, Kenya, and Sudan, this first-of-its-kind integration links DSSAT crop-soil models with SWAT-MODFLOW hydrology, plus 17 participatory socio-economic indicators (covering income, sustainability, water efficiency, food security, gender equality, ecosystem health). Its unique shell simulates climate-hydrology-crop-socio-economic interlinkages for scalable, evidence-based decisions by farmers and policymakers—requiring public-private investment for broad adoption.

Pest Management (TRL 7-8): Biotremology uses vibrational signals (via laser vibrometry and shakers) to disrupt insect mating/feeding, integrated with Agri-PV cables for field efficacy and pesticide reduction. Ongoing: predictive models, DSS inclusion, and digital agroecology tools in experimental open fields and greenhouses.

Czech Republic

Summary

The National Node AnaEE in the Czech Republic, CzeCOS, is linked in the National Roadmap for Large Research Infrastructures in a single national project, CzeCOS, together with the ICOS, eLTER, Danubius, and EUFAR infrastructures, with their partial co-location. This enables relatively significant and coordinated user interconnection within complex research projects. At the end of 2025, a report was prepared for the international evaluation of CzeCOS for the last few years and, at the same time, an application for funding from 2027.

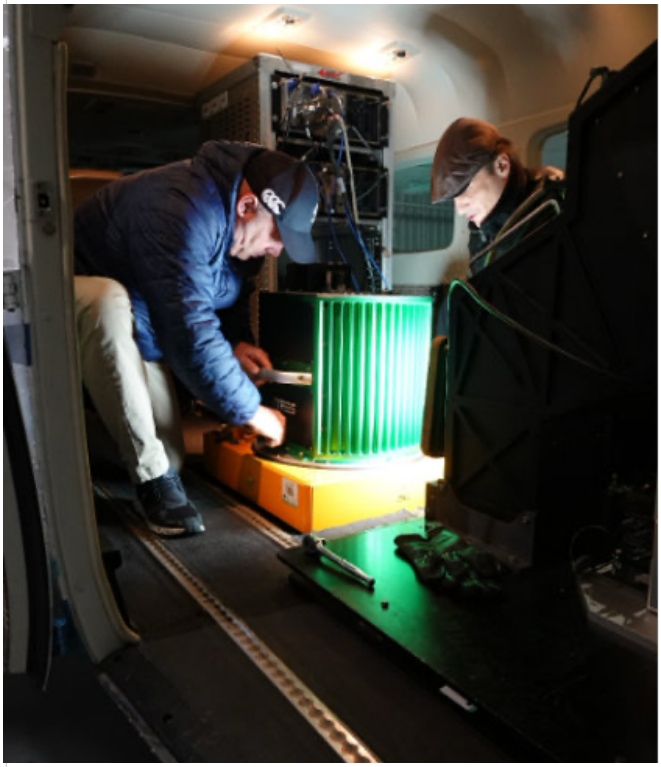
Most important projects

EH22_008/0004635 - AdAgriF - Advanced methods of greenhouse gases emission reduction and sequestration in agriculture and forest landscape for climate change mitigation

QL24010298 - Drought and frost resistance of non-traditional fruit species, their cultivation and use in the conditions of the Czech Republic

QK23020080 - System for long-term carbon sequestration and reduction of nitrous oxide and methane emissions in agriculture, evaluation of their efficiency, and certification of benefits.

Below: AnaEE Czech Republic - Installation of a new VNIR-SWIR spectroradiometer with a single optical path and increased spectral resolution in the SWIR range for an airborne sensor platform (photogrammetric aircraft Cessna 208B Grand Caravan).



Developments

Upgrading of phytotrons (step-in growth chambers) with aeroponic systems for collecting root exudates while manipulating CO2 concentration, plant nutrition, and temperature.

Upgrading of airborne remote sensing platform (FLIS) by installing new VNIR-SWIR spectroradiometer with a single optical path and increased spectral resolution in the SWIR range, replacing two separate VNIR and SWIR sensors, eliminating discrepancies at the VNIR–SWIR boundary.

Upgrading the analytical laboratory with a new isotope mass spectrometer connected to gas chromatography and a robotic system for derivatization.

Denmark

Summary

2025 was the last year of the original AnaEE Denmark funding period (2018-2025). Already in October 2024, the SITES Denmark proposal (proposed 1 January 2026-31 December 2030) was submitted to the 2025 update of the Danish roadmap for research Infrastructures, which is governed by the Danish Agency for higher education and Science. Upon funding, SITES Denmark (SITES of environmental research infrastructures in the Kingdom of Denmark) will act as an umbrella organization for AnaEE, ICOS, ACTRIS and eLTER sites in Denmark and Greenland, securing funding for international membership fees and the host premium of the AnaEE Technology Centre. SITES Denmark was officially accepted on the updated Danish roadmap for research infrastructures in November 2025 but awaits final decision on funding – as well as funding year, which is expected in the beginning of 2026.

The Danish AnaEE facilities are part of AgroServ and IRISCC but did not receive any transnational access proposals in 2025 to either of these projects. There will therefore be higher focus on attracting user projects in 2026. UCPH holds work package leadership of two work packages in IRISCC and an important milestone was the launch of the IRISCC catalogue of Services. After starting six new national research projects across the Danish AnaEE facilities in 2024 totalling 18.6 million Euro, no new projects started in 2025.

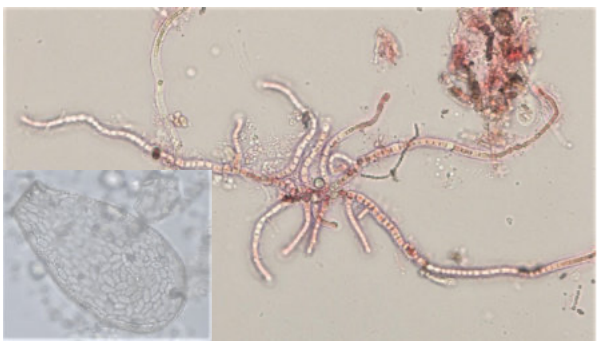
Developments

New equipment was bought in 2025, particularly related to greenhouse gas (GHG) measurements in various field experiments. In addition, mobile automatic chambers for GHG measurements from different partner departments at UCPH were used together in a common field experiment highlighting the added value of the AnaEE Denmark collaboration and common exchange of mobile field equipment.

Finland

Summary

In 2025, our National Node focused on expanding stakeholder engagement and outreach efforts across its facilities, while developing new installations and strengthening international partnerships. A notable highlight of the year was the successful onboarding of a Stable Isotope Laboratory analysis facility to AnaEE FI.



Below: AnaEE Finland - Regarding Olivia Kuuri-Riuttan's article, Photo: Olivia Kuuri-Riutta

Above: AnaEE Denmark - long-term drought manipulations in a Danish heathland/grassland ecosystem at the Brandbjerg/Climaite facility. Photo: Klaus Steenberg Larsen

Developments

The NN also progressed methodological harmonization and instrumentation upgrades within the several facilities; Kevo was installing a new ionosphere research instrument (Scanning Doppler Imager 3D) from the University of Alaska. AgriLeach was improving to total suspended solids (TSS) analyses and integration of Precision Tipping Bucket equipment to enhance hydrological measurement accuracy. Development work at NorPeat continued with targeted investments to improve the quality and accuracy of greenhouse gas (GHG), leaching, and related environmental measurements. And eddy covariance measurements were initiated at the Siikaneva bog in October.

Main scientific achievements

The first Transnational access project through AgroServ, enabling collaboration with researchers and implementation of experiments at NorPeat and Rootlab, combining on-site and remote implementation.

- Elina K. Sahlstedt, Neil J. Loader, and Katja T. Rinne-Garmston. Analysis of 18O/16O Isotope Ratios in Organic Matter by Laser Ablation IRMS. (DOI: 10.1021/acs.analchem.4c06896)

The Natural Resources Institute Finland (Luke) introduces a novel laser-ablation-based system for high-resolution, simultaneous analysis of oxygen and carbon isotopes in organic samples, developed at the Stable Isotope Laboratory (SILL).

Building on recent advances in isotope ratio mass spectrometry, the method achieves a spatial sampling resolution of 60 µm with an analytical precision better than 0.4‰. It enables minimally invasive and accurate dual-isotope measurements in plant tissues, tree rings, and microbial samples, including the direct analysis of 13C-labelled compounds.

This development significantly expands analytical capabilities in microbial ecology and environmental science, supporting new research on ecosystem processes and climate-related dynamics. A full description of the method is available in the article.

France

Summary

In 2025, the AnaEE France national node coordinated reporting and auditing of all national facilities, oversaw the financing of a Ministry investment program (France 2030) worth €1.1 million per year, ensured representation in major national collectives, notably the PEPR FairCarbon and OneWater projects, and organized training initiatives such as the Machine Learning Summer School at Lautaret in September 2025.

Below: AnaEE France - Warming systems newly installed on the O3HP mediterranean forest facility, with and without rain-exclusion. Photo: Elena Ormeno

Developments

In 2025, AnaEE France NN funding enabled the acquisition of new equipment for environmental genomics analysis facilities, the upgrading and refurbishment of all experimental facilities, and the purchase of small instruments. A new experimental device on alpine pastures was inaugurated at Lautaret in 2025 with co-financing from the PEPR Solubiod program. Devices for warming and reducing rainfall at ground level were installed on the O3HP and Puéchabon forestry devices.

Scientific achievements

AnaEE France NN installations are significantly involved in collaborative national research projects dealing with soil carbon dynamics, water quality and management, nature-based climate adaptations solutions and biodiversity surveys and analyses.

Italy

Summary

Also in 2025, the major efforts of AnaEE-Italy were dedicated to the participation into the Italian project titled 'Italian Integrated Environmental Research Infrastructures' (ITINERIS https://itineris.cnr.it/), that will end on April 30th, 2026 and allowed a renovation of instrumentation and training of young scientists.

Eight scientific papers were published in 2025 with data from AnaEE Italy facilities, and we received the following visitors: 1 from India, 4 from Japan, 1 from China, 1 from Spain.

Out of the six Italian facilities, two are still missing their SLA but have now solved their bureaucratic problems and will be signing their SLA in 2026.

Concerning policy-related activities, Italy participated in the MISFITS project, providing Italian local administrations with decision support for phytosanitary risk assessment and management, as well as were invited to talk at the TAIEX EIR Workshop on National Emission Reduction Commitments Directive - Monitoring Impacts on Ecosystems Organised in co-operation with Italian Ministry of Environment and Energy Security – CNR IIA – ENEA – CUFAA (01 - 02 October 2025).

In addition, AnaEE Italy participated to the AnaEE projects IRISCC and MICROBES4CLIMATE, and participated to the meetings of the Office 7 at the Directorate-General for Research of the Italian Ministry of University and Research that created a coordination table of all ERICs of which Italy is a member. The table is intended to contribute to the promotion of ERICs by making key information more easily accessible to both research operators and the public.

Above: AnaEE Italy - Japanese delegation from University of Tokyo and National Institute for Environmental Studies visiting the ozone FACE FO3X in Sesto Fiorentino, Italy

Scientific achievements

Data from the ozone FACE in Italy (AnaEE FO3X facility) were used to feed the ozone models used in this paper. This is the first study to estimate the changes in tree cover, the mortality burden attributable to air pollution (PM2.5, ozone and nitrogen dioxide), and the mortality that could potentially be prevented by increasing tree coverage in European cities. We covered 744 European cities across 36 European countries over the past 20 years.

We estimated that each five percentage point increase in tree canopy would annually prevent 4727 premature deaths related to air pollution, and reaching a canopy cover of 30% within each city could prevent 11,974 premature deaths each year in these European cities. These results highlighted the potential public health benefits of increasing tree coverage in urban environments, contributing to sustainable, liveable, and healthier cities.

Publications highlights of 2025

- **AnaEE Belgium**

  - Reynaert, S., et al. (2025). Turning Up the Heat: More Persistent Precipitation Regimes Weaken the Micro-Climate Buffering Capacity of Forage Grasses During a Hot Summer. Global Change Biology. (Doi: 10.1111/gcb.70078).

- **AnaEE Bulgaria**

  - Atanassova, I., Nenova, L., Simeonova, T. et al. (2025) Effect of biochar on heavy metal solubility and speciation in https://doi.org/10.1007/s11756-023-01590-5

  - Simeonova, Ts., Atanassova, I., Benkova, M., & Mihaylova, M. (2025). Calculation of the critical loads for acidity and nitrogen levels on arable Fluvisol. (Doi: https://doi.org/10.61308/MGDI3153)

  - Nenova, L., Atanassova, I., Benkova, M. et al. (2025) Dynamics, mobility and sources of heavy metals after biochar addition in contaminated agricultural soils around a copper smelter. (Doi: https://doi.org/10.1007/s11368-025-04120-9)

- **AnaEE Czech Republic**

  - Milec et al. (2025) Integrative morpho-physiological and transcriptomic insights into wheat responses to combined drought, heat, and elevated CO_2 under future climate conditions. (Doi: 10.1016/j.stress.2025.101115)

  - Bebchuk et al. (2025) Tree-Ring Stable Isotopes Reveal a Hydroclimate Shift in Eastern England Around 4.2 ka Ago. (Doi: 10.1029/2024GL114313)

  - Slaninákova et al. (2025) Introducing a new adaptive look-up table subset selection method for leaf chlorophyll and carotenoids retrieval in broadleaved forests (Doi: 10.1080/2150704X.2025.2495992)

- **AnaEE Denmark**

  - Ohlert et al. (2025). Drought intensity and duration interact to magnify losses in primary productivity. (Doi: 10.1126/science.ads8144).

  - Jeppesen et al. (2025). Experimental evidence of the role of nitrogen for eutrophication in shallow lakes: A long-term climate effect mesocosm study. (Doi: 10.1016/j.xinn.2024.100756).

- **AnaEE Finland**

  - Kuuri-Riutta O., Jassey V., Le Geay M., Barel J., Laine AM., Ylänne H., Tuittila E-S. (2025) Microbial and bryospheric photosynthesis of boreal peatlands have peatland-type-specific responses to long-term drying. (Doi: https://doi.org/10.1111/nph.70519)

  - Hamard S., Planchenault S., et al. (2025). Microbial photosynthesis mitigates carbon loss from northern peatlands under warming. (Doi: https://doi.org/10.1038/s41558-025-02271-8)

- **AnaEE France**

  - Solène Mauger, Yann Sevellec, Léna Carret, Noé Robert et al. (2025) Wet-lab preparation and automated dataset decontamination procedure for bacterial single-cell genomics (Doi: https://doi.org/10.1111/2041-210X.70170)

  - Valentin Marin, Fanny Colas, Stéphanie Boulêtreau, Julien Cucherousset (2025) Relative Effects of Eutrophication and Warming on Freshwater Ecosystems Across Ecological Levels (Doi: https://doi.org/10.1111/gcb.70410)

  - Philip A. Fay et al. (2025) Interactions among nutrients govern the global grassland biomass–precipitation relationship (Doi: https://doi.org/10.1073/pnas.2410748122)

- **AnaEE Italy**

  - Sicard P., Pascu I., Petrea S., Leca S., De Marco A., Paoletti E., Agathokleous E.; Calatayud V. (2025) Tree canopy cover and air pollution-related mortality in European cities. (Doi: 10.1016/S2542-5196(25)00112-3)

BUILDING COMMUNITY

Introducing the AnaEE Environmental Rising Star Award

Science thrives on collaboration — on the unexpected conversation at a conference, the partnership forged during a research visit, the mentor who opens a door at exactly the right moment.

Yet for early-career researchers, access to these networks is rarely guaranteed. The AnaEE Environmental Rising Star Award is designed to change that.

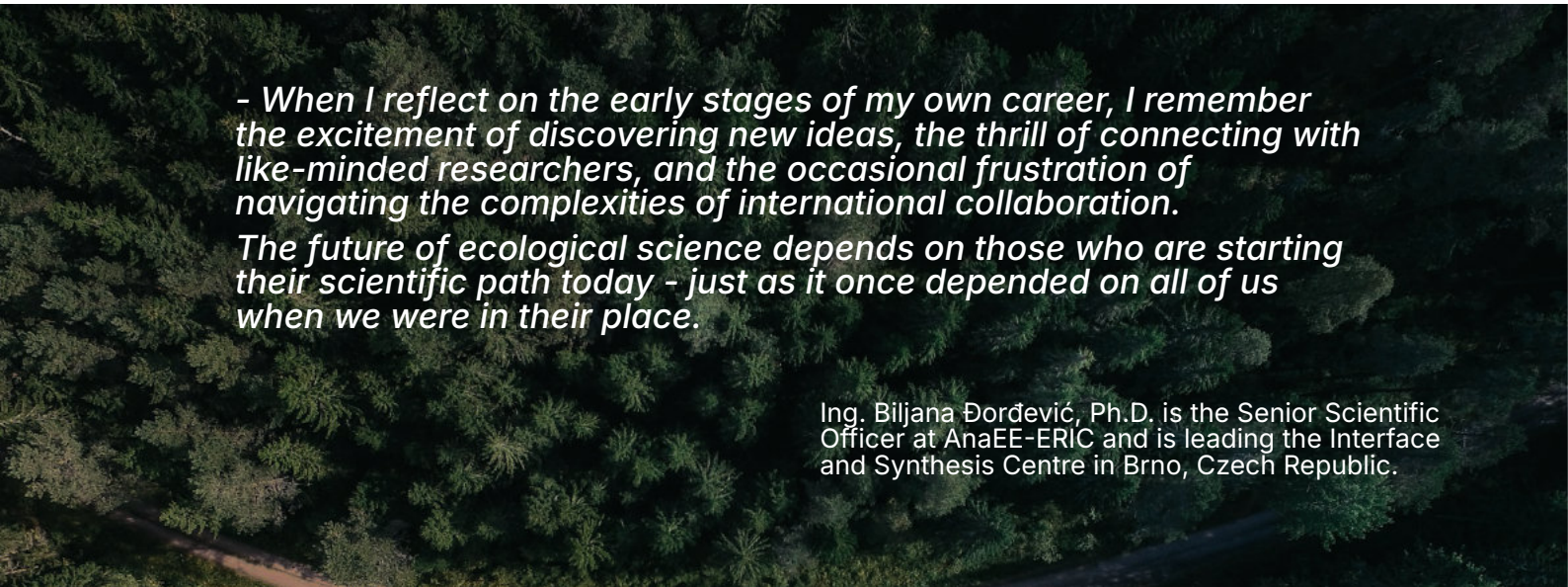
At its core, **the award is a community-building instrument**. By bringing promising young researchers into the AnaEE network — through funded research visits, conference presentations, and direct engagement with leading scientists across Europe — it creates the conditions for lasting scientific relationships.

These are not fleeting encounters, but the kinds of connections that shape careers, inspire new research directions, and ultimately strengthen the entire network.

Every rising star who enters the AnaEE ecosystem **brings with them fresh perspectives, new methodologies, and bold questions** that challenge and enrich the work of established researchers. The exchange runs both ways.

Supporting early-career scientists is not simply an act of generosity — it is a strategic investment in the future of experimental ecology. **The challenges we face, from biodiversity loss to climate disruption, demand a continuous influx of innovative thinking**. If we want the next generation of ecologists to tackle these challenges with ambition and rigor, we must give them the platforms, visibility, and networks they need to grow.

Recognizing excellence at an early stage sends a powerful signal: that their work matters, that the community sees them, and that there is a place for them at the forefront of European ecological research.



- When I reflect on the early stages of my own career, I remember the excitement of discovering new ideas, the thrill of connecting with like-minded researchers, and the occasional frustration of navigating the complexities of international collaboration.

The future of ecological science depends on those who are starting their scientific path today - just as it once depended on all of us when we were in their place.

Ing. Biljana Đorđević, Ph.D. is the Senior Scientific Officer at AnaEE-ERIC and is leading the Interface and Synthesis Centre in Brno, Czech Republic.

10 PARTNERSHIP

In 2025 AnaEE-ERIC, as well as the Research Infrastructure at large, have continued and reinforced their partnership activities with other infrastructures, networks and institutions.

This is reflected in the project and in the enlargement sections of this document. AnaEE-ERIC is a member of the clusters on environment (BEERI, Board of the European Environmental Research Infrastructures) and life sciences (LS-RI).

Both bodies are essential in coordinating the RIs, expressing common views towards the Commission as well as member states, suggesting new topics for Horizon Europe and the next framework program, as well as promoting common proposals to HE calls. AnaEE-ERIC is also a strong contributor of the ERIC Forum 2 project, as it leads one of the pillars of this project and coordinates a work package (read more in section Projects).

The strong relationships that AnaEE is building can be shown in the common involvement in many projects with infrastructures, networks, and research institutions in both the health & food and environment domains.

The picture below shows the diversity of the interactions between AnaEE and partner RIs. With the exception of FHERITALE and the ERIC Forum, all projects include a substantial part of the AnaEE distributed infrastructure, either as beneficiaries or affiliated entities. The institutions and facilities involved in AnaEE RI can build strong links with other partners through the common involvement in projects. The highlight section on PHENET is a striking example of how working together in the framework of a project (here an INFRA-TECH) can lead to unexpected developments and ideas, new techniques and expertise, and new partnerships.

To the left: The diversity of the interactions between AnaEE and partner RIs. The institutions and facilities involved in AnaEE RI can build strong links with other partners through the common involvement in projects.

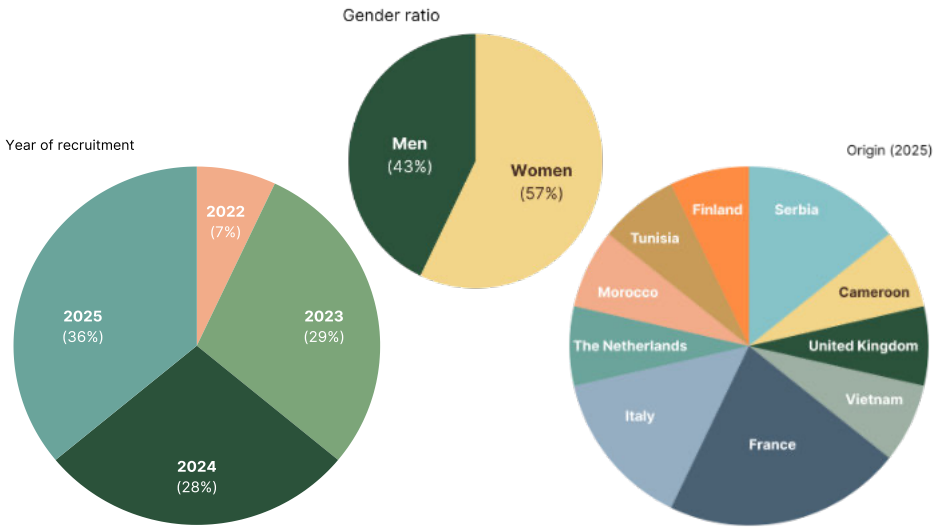
11 SOCIAL REPORT

By the end of 2025, AnaEE-ERIC counted 10 direct employees, in addition to 1 employee seconded by the CNRS, as part of the host premium; 2 employees hired then seconded by CzechGlobe against payment, one employee seconded by CREA and another one by UCPH, following the host and resources provision agreements concluded . Ten nationalities are represented, and the gender balance is 9 female, 6 male employees. Approximately half of the personnel has a PhD, one third a master, and two have a bachelor.

All employees that had more than one year of presence on 31st December 2025 had an annual interview with the DG, that took place between December 2025 and January 2026.

We fully implemented an integrated human resource management system (HRMS), OHRIS, that will progressively include all aspects of HR management. The software is used for time, absence, activity accounting, remote work, expenses report, and interviews with the staff. This represents a simplification both for the administration and employees of AnaEE-ERIC, while providing an accurate global view of the activity.

The recruitment of a post-doctoral researcher for the project PHENET and the access manager – operations Officer (AM/OO) followed the rules of operations, with an international publication on Euraxess, social networks X and LinkedIn, web sites of AnaEE-ERIC. The evaluation committee included three representatives of AnaEE-ERIC. For the



AM/OO position, the support one invited Guest from another ERIC located in France was requested, with regards to his experience and expertise in the position foreseen. A project officer was recruited in June for about 20% FTE and under a limited contract duration of 6 months. Her role was to make a synthesis of discussions on the mid- and long-term strategy of AnaEE-ERIC. Her contract ended in December 2025 and her recruitment was made in collaboration with Pr Samuel Abiven who previously started the work on the strategy.

A gender Officer was appointed at the headquarters (Dorra Gharbi).

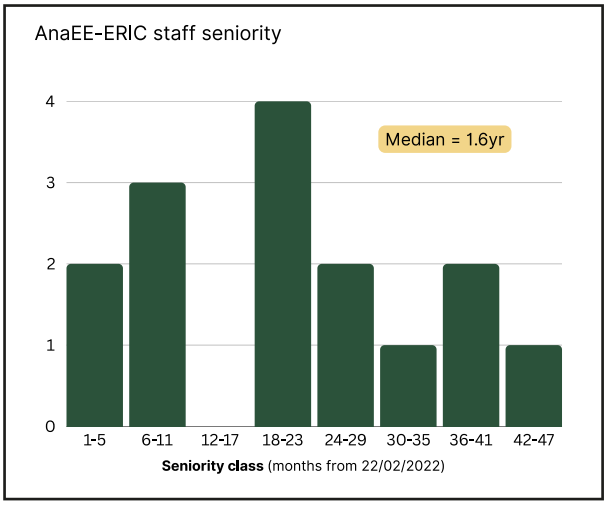
The first Annual retreat took place from 3 to 6 November 2025 in Observatoire de Haute Provence in France. It was the occasion for all the staff to meet face-to-face, reintroduce themselves and their role in AnaEE, to review the past and to better plan the strategy for the future, including the Work Program 2026; and the mid- and long-term strategy of the ERIC.

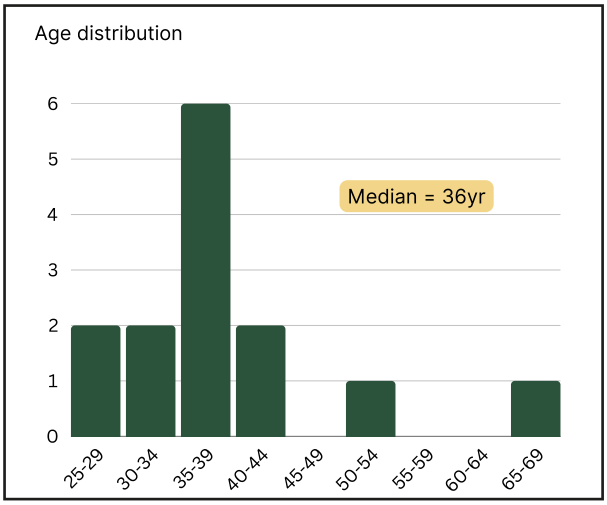
About training policy, we pursued the implementation of the 2024-2025 skills development plan prepared in 2024, and we started to collect information for the 2025-2026 plan. The following trainings were funded, with the support of the official skill operator of AnaEE-ERIC in France: French classes for three Staff employed in France; Social law and onboarding new staff for the HR manager, Microsoft Azure development for the IT Engineer; Budgeting in Horizon Europe proposals for the EU project Manager and the Financial Officer. One staff at DMC attended the course on mathematical modeling and observation tools for the climate system. Also, Office attendance and working time was adjusted for one staff doing evening classes to obtain a Master's degree.

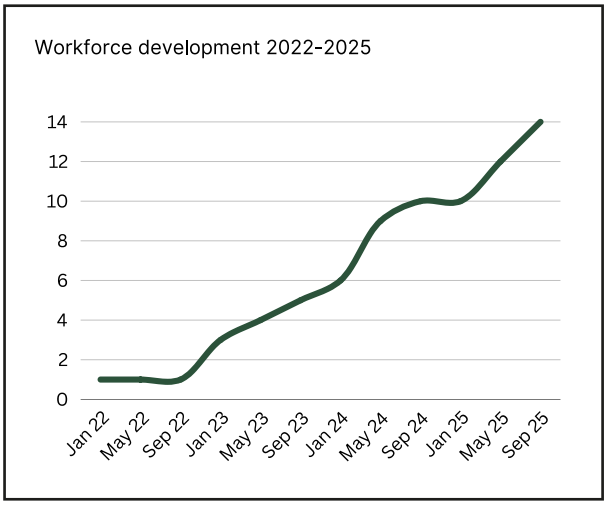
As having a code of conduct is essential to guarantee health and security at work, and to achieve results, being it individual or as team, progress was also made on Internal regulations. They apply to every staff member of AnaEE-ERIC, whether employee, seconded personnel, intern or service provider, and in whatever place they may be (head office, service centres or at home when working remotely). A first version has been proposed to comply with the French law and is registered in the court and the law inspection in France. The document includes the following five appendices: CNRS internal regulations for the Gif-sur-Yvette Campus, IT Charter, remote work charter, Wellbeing at work Charter, and the memo on working time in France.

Likewise, to ensure good health and security at work, a training session was organized for all the staff on 16 December 2025, with the support of the Occupational medicine. It focused on good practices to reduce the risks linked to screen work, remote work and physical inactivity.

With all core staff in place and the four Centres fully operational in September 2025, AnaEE-ERIC has established almost the whole framework required from a responsible employer in the EU.







12 FINANCIAL REPORT

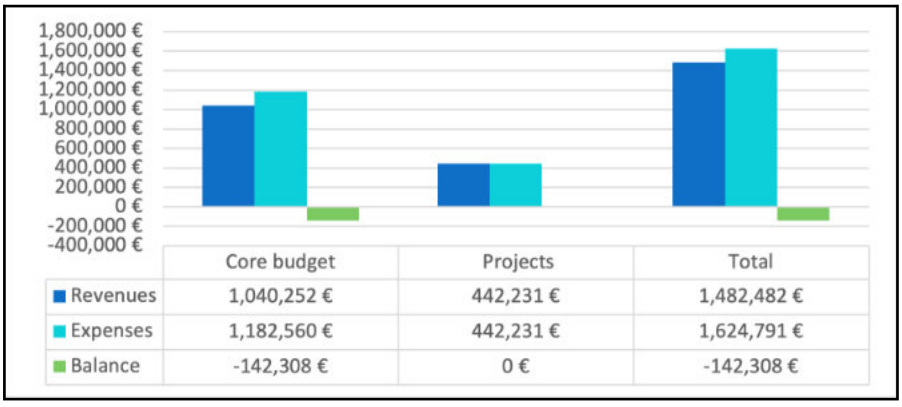
Summary

2025 was the fourth year of the AnaEE-ERIC first five-year financial plan. The corresponding budget forecast was reviewed by the Finance committee in October 2024 and approved by the Assembly of Members in November 2024. The 2025 accounts were audited on 17-18 March 2026, and the audited financial statements presented according to the applicable legislation in France. The host and resources provision agreement signed with Denmark/UCPH on 1 September 2025, and the core personnel recruited in both DMC and TC symbolise a significant breakthrough, as for the first time, the yearly financial report includes expenses made for the four Centres, fully operational, unlike in the previous financial reports.

Cash and in-kind revenues registered in 2025 for the core budget amounts to 1,040,252 €, versus 987,517 € forecast and adopted; hence, a percentage of completion estimated to 105.34%. Likewise, expenses for the core budget equals 1,182,560 €, resulting in an increase of +8.47% of expenses made as compared to the provisional budget adopted (1,090,227 €). This increase is mainly related to the Human resources category. It accounts for circumstances that were difficult to predict in November 2024, when the budget was adopted. The year ended with a negative result of -142,308€.

Concerning projects, the sum of 442,230 € balanced in revenues and expenses was registered within the same timeframe, with the budget rate completed up to 85.75%, considering the 2025 approved budget (515,751 €).

The overall revenues (1,482,482 €) and expenses (1,624,791 €) in 2025 is summarized in the figure below.



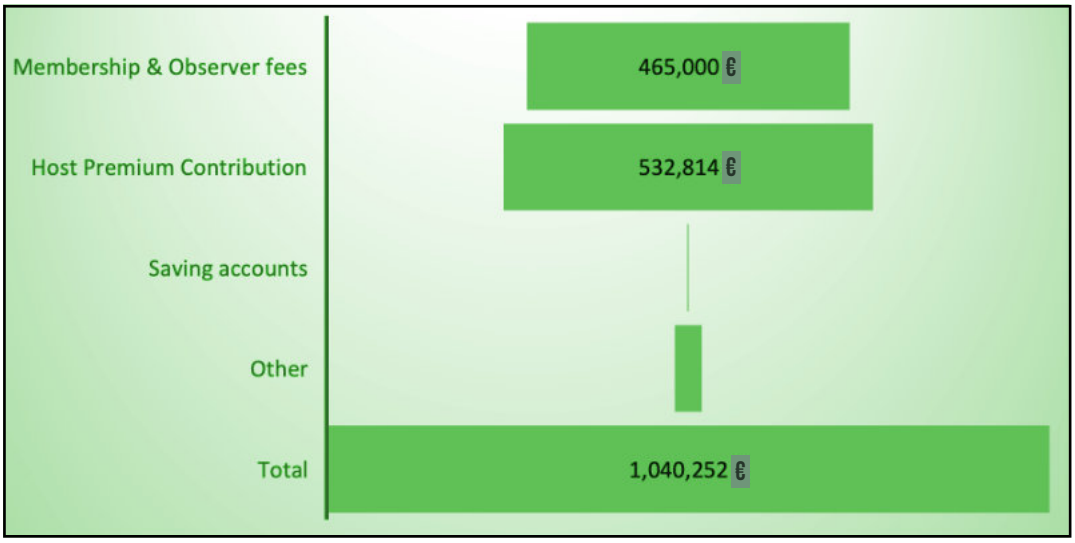
	Core budget	Projects	Total
Revenues	1,040,252 €	442,231 €	1,482,482 €
Expenses	1,182,560 €	442,231 €	1,624,791 €
Balance	-142,308 €	0 €	-142,308 €

Above: Negative balance 2025

The cumulative yearly results reported for 2022, 2023 and 2024 equals 814,792.75 €. However, with the negative result balance of -142,308 € reported from 1 January to 31 December 2025, the cumulative results balance from 2022 to 2025 now amounts to 672,485 €. Considering the 300,000 € deposited on the reserve fund, we now have only the sum of 372,485 € as cash flow resulting from the yearly results 2022-2025. This sum shall probably decrease as from 2026, if new sources of fundings are not identified, especially that Belgium won't be able to renew its observer status and that a negative balance was forecast in the budget approved in 2025(≈-114k€ or -220k€ based on the hypotheses that two new members join or not). The expenses registered in 2025 also presume the real core budget of AnaEE-ERIC in a year, with all core personnel in place. The core budget trajectory turns to stabilise as from the end of 2025, providing that the four Centres remain fully operational, with all core personnel in place, and the inflation rate doesn't change considerably.

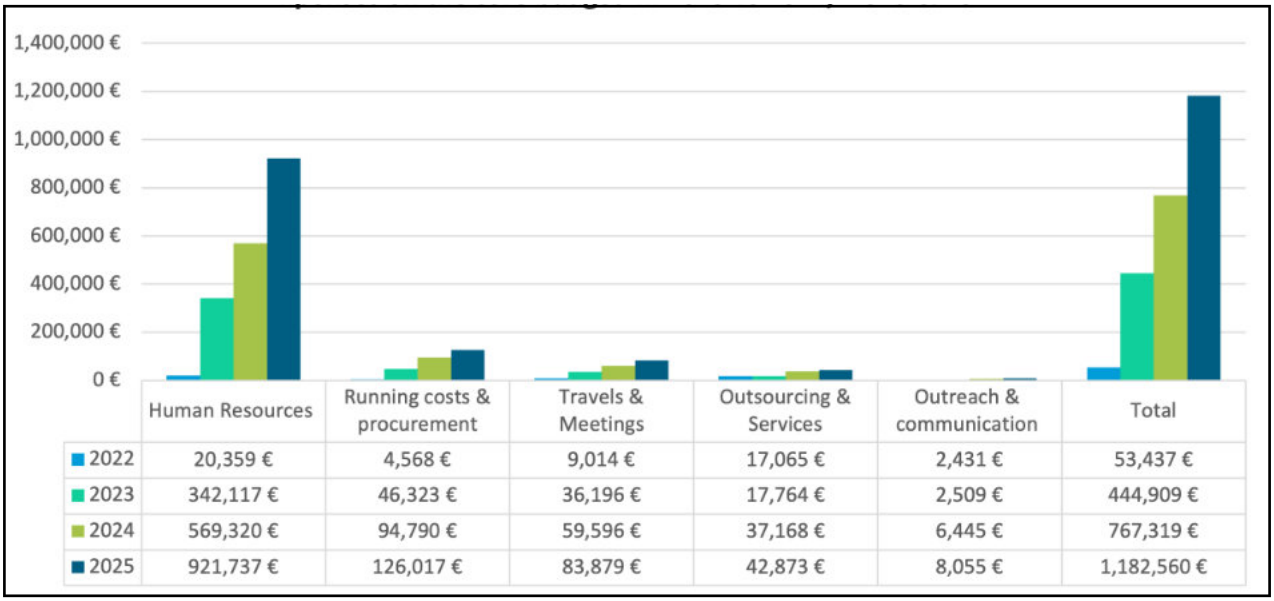
From the 2025 results and the 2026 balance forecast, it is obvious that the 900k€ of annual budget foreseen in the Statutes was underestimated. The expenses have been progressively increasing in line with the full imple-

Below: Revenues 2025 in brief: core budget only



mentation of the Centres, whereas the revenues initially planned are not increasing. In addition to the initial budget planned during the preparatory phase which appeared underestimated at the time of the ERIC proposal (2020), the inflation (19% since 2020) has a negative impact on the actual expenses. Besides of enlarging the Organisation to increase the core budget, the increase of annual fees is progressively appearing as a necessity to ensure the financial sustainability of the ERIC. In fact, the financial sustainability of AnaEE-ERIC shouldn't be based on projects, as they are additional source of funding, and it is only at the end of a project that the overheads can be acquired, providing that all costs declared during reporting periods remain eligible to reimbursements, even after an audit from the Commission.

Below: Expenses on the core budget in 2025 vs 2024, 2023 & 2022



	Human Resources	Running costs & procurement	Travels & Meetings	Outsourcing & Services	Outreach & communication	Total
2022	20,359 €	4,568 €	9,014 €	17,065 €	2,431 €	53,437 €
2023	342,117 €	46,323 €	36,196 €	17,764 €	2,509 €	444,909 €
2024	569,320 €	94,790 €	59,596 €	37,168 €	6,445 €	767,319 €
2025	921,737 €	126,017 €	83,879 €	42,873 €	8,055 €	1,182,560 €

Core budget

REVENUES ON THE CORE BUDGET

The revenues in 2025 for the core budget, equals 1,040,252€ vs 987,517 € forecast (105.34% completion).

The sum of revenues forecast in 2024 was achieved with a slight increase of 5.34% (+52,735 €) or 11.43% (+140,252 €), as compared to the 900k€ foreseen in the Statutes. The supplement registered has to do with the additional host premium contributions declared by France (≈+94k€; ≈17PM accounting for additional staff effort

to develop the ISIA catalogue of services), saving accounts interests generated, the 2025 service fees from UTAD, and the exchange profit rate in payments. With the additional contributions of +90k€ of in-kind contributions declared by France, the host premium category appears as the main source of income in 2025 for the core budget (51%), followed by the membership (45%) , then saving accounts and other (4%).

EXPENSES ON THE CORE BUDGET

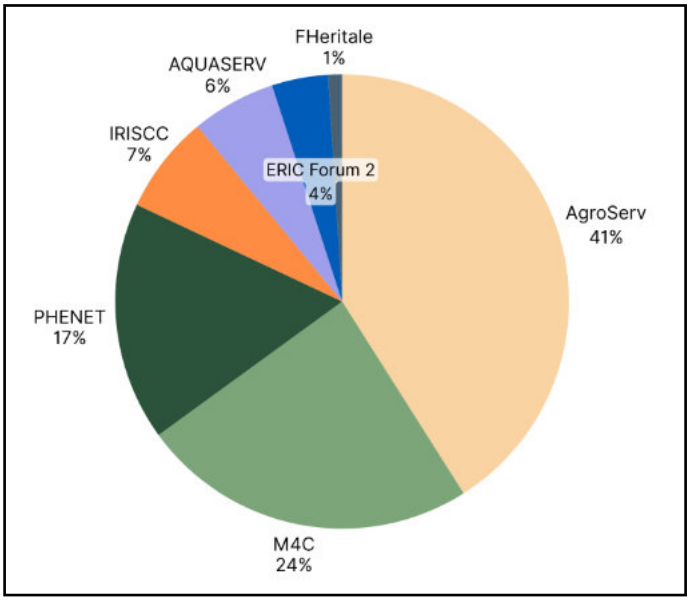
The sum of 1,182,560 € corresponds to the total cash and in-kind expenses registered in 2025.

An increase in expenses can be observed from one year to the other. This increase is linked to the effective implementation of the ERIC. With the host agreement concluded with Denmark (UCPH) and the core personnel in place at TC and DMC, the four Centres were fully implemented by the end of 2025.

Horizon Europe projects

In 2025, AnaEE-ERIC was involved in seven Horizon Europe projects, namely: AgroServ, AquaServ, ERIC Forum2, FHERITALE, IRISCC, M4C and PHENET. The participation of AnaEE-ERIC in these projects was achieved through the Headquarters and the ISC, as there were no personnel directly recruited or seconded in DMC and TC; and it took time to conclude contracts for personnel seconded to AnaEE-ERIC by the hosting institutions (completed in December 2025 for TC and 2026 for DMC).

The balanced revenues and expenses made on each project are summarized in the following figures:



Above: Revenues from HE projects in 2025

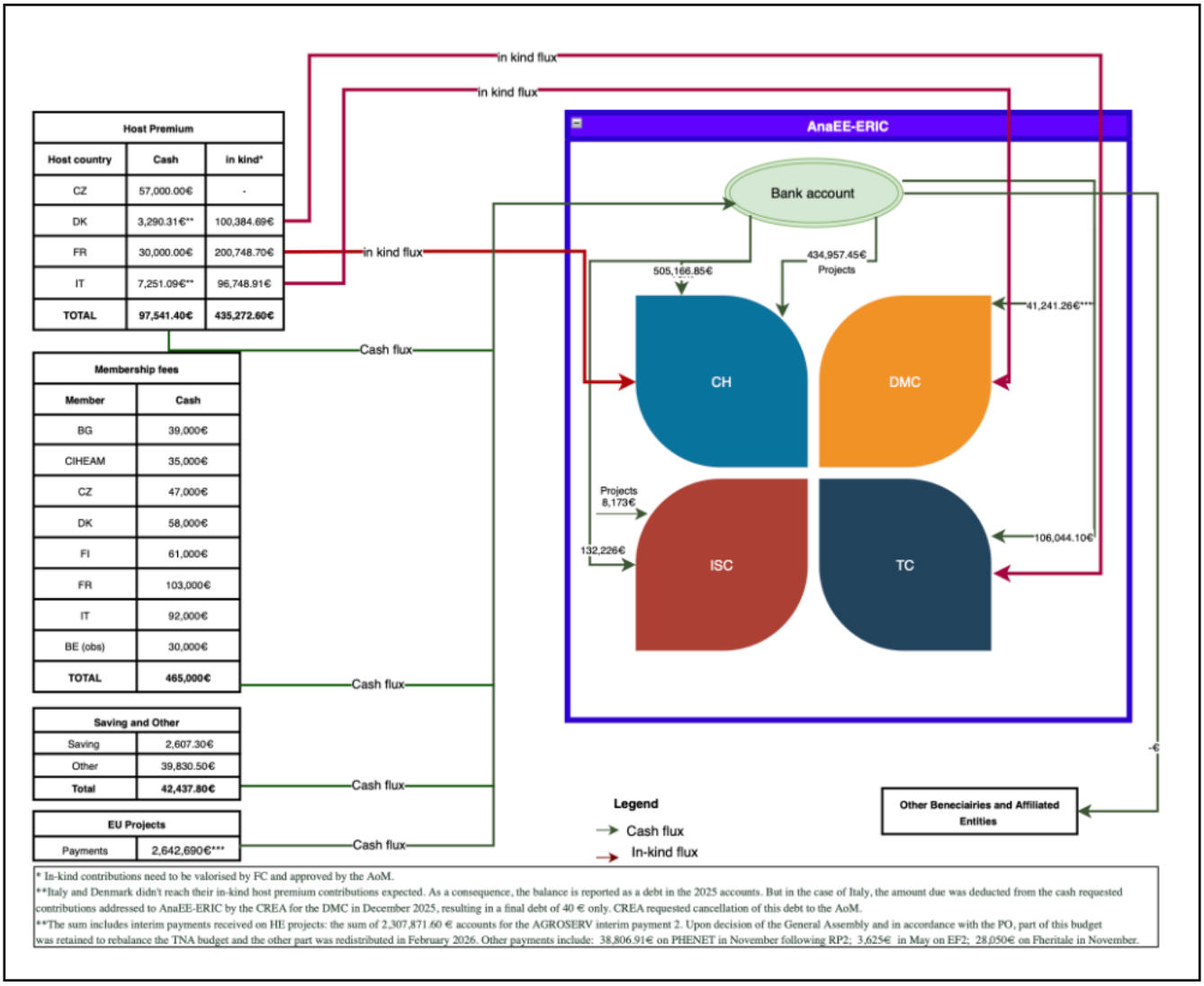
Total revenue equals 442,230 € and it is composed of AgroServ, coordinated by AnaEE-ERIC (41 %); M4C (24%), PHENET (17%), IRISCC (7%), AQUASERV (6%), ERIC Forum 2 (4%) and FHeritale (1%).

Below: Table. Detailed Expense Categories for EU projects in 2025 (excluding overheads)

Cost Categories	AgroServ	AquaServ	ERIC Forum 2	FHERITALE	IRISCC	M4C	PHENET	Total
Personnel Cost	161,39	26,349	12,32	2,709	29,167	103,351	74,471	409,757
Travel and subsistence	18,79	0	6,878	991	2,93	390	1,548	31,526
Other goods, works and services	948	N/A	N/A	N/A	N/A	0	N/A	948
Total	**181,127**	**26,349**	**19,198**	**3,699**	**32,097**	**103,741**	**76,019**	**442,23**
Forecast	155,758	27,131	14,619	102,938	60,306	70,30 €	84,696	**515,751**
% Completion	116.29%	97.12%	131.32%	3.59%	53.22%	147.56%	89.75%	**85.75%**

Redistribution between the headquarters and services centres

The following graphic illustrates the overall cash and in-kind revenues and their re-distribution to the four Supranational entities (Headquarters/CH, DMC, ISC and TC).



Host Premium		
Host country	Cash	in kind*
CZ	57,000.00€	-
DK	3,290.31€**	100,384.69€
FR	30,000.00€	200,748.70€
IT	7,251.09€**	96,748.91€
TOTAL	**97,541.40€**	**435,272.60€**

Membership fees	
Member	Cash
BG	39,000€
CIHEAM	35,000€
CZ	47,000€
DK	58,000€
FI	61,000€
FR	103,000€
IT	92,000€
BE (obs)	30,000€
TOTAL	**465,000€**

Saving and Other	
Saving	2,607.30€
Other	39,830.50€
Total	**42,437.80€**

EU Projects	
Payments	2,642,690€***

* In-kind contributions need to be valorised by FC and approved by the AoM.
**Italy and Denmark didn't reach their in-kind host premium contributions expected. As a consequence, the balance is reported as a debt in the 2025 accounts. But in the case of Italy, the amount due was deducted from the cash requested contributions addressed to AnaEE-ERIC by the CREA for the DMC in December 2025, resulting in a final debt of 40 € only. CREA requested cancellation of this debt to the AoM.
***The sum includes interim payments received on HE projects: the sum of 2,307,871.60 € accounts for the AGROSERV interim payment 2. Upon decision of the General Assembly and in accordance with the PO, part of this budget was retained to rebalance the TNA budget and the other part was redistributed in February 2026. Other payments include: 38,806.91€ on PHENET in November following RP2; 3,625€ in May on EF2; 28,050€ on Fheritale in November.

Above: Cash and in-kind flux in 2025

ACRONYMS

ACTRIS Aerosol, Clouds and Trace Gases Research Infrastructure

AKIS Agriculture Knowledge Information System

AKPI AnaEE KPI (cf. KPI)

AnaEE Analysis and Experimentation on Ecosystems

AoM Assembly of Members

APF Associated Platform

ARISE Atmospheric Dynamic Research in Europe

BEERI Board of the European Environmental Research Infrastructures

CERN Chinese Ecological Research Network

CH Central Hub

CIHEAM International Centre for Advanced Mediterranean Agronomic Studies (Intergovernmental)

CNR Consiglio Nazionale delle Ricerche (Italy)

CNRS Centre National de la Recherche Scientifique (France)

CORDEX Coordinated Regional Climate Downscaling Experiment

CREA Consiglio per la Ricerca in Agricoltura e l'Analisi dell'Economia Agraria (Italy)

CzechGlobe Global Change Research Institute of the Czech Academy of Sciences

DG Director General

DMC Data and Modelling Centre

DMP Data Management Plan

EC European Commission

EMB Extended Management Board

EMPHASIS European Infrastructure for Plant Phenotyping

ENRIITC European Network of Research Infrastructures and Industry for Collaboration

ENVRI Environmental Research Infrastructures cluster

ERA European Research Area

ERIC European Research Infrastructure Consortium

ESA European Space Agency

ESFRI European Science Forum for Research Infrastructures

EU European Union

EUPHORISC European Plant Health Open Research and Innovation Starting Community

FAIR Findable Accessible Interoperative Re-usable

FAO Food and Agriculture Organization of the United Nations

FP Framework Program (EU)

GHG GreenHouse Gas

GSL Growing Season Length

HE Horizon Europe framework program

ICOS International Carbon Observatory System

IEAC Independent Ethical Advisory Committee

IPBES Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services

IPCC Intergovernmental Panel on Climate Change

ISAC Independent Scientific Advisory Committee

ISC Interface and Synthesis Centre

ISIA Information System for Infrastructure Administration, developed by CNRS and AnaEE-France

LTER Long-term Ecological Research

LS-RI Life Sciences Research Infrastructures cluster

MB Management Board

NEON National Ecological Observatory Network

NSF National Science Foundation (USA)

O3HP Oak Observatory at OHP: cf. OHP

OHP Observatoire de Haute Provence

measured (or simulated) experimental parameters. A modelling platform can host the models on its own computers or elsewhere.

Modelling platform (historical): A user interface allowing to run numerical models in ecology to compute the behaviour of a simulated ecosystem under several initial conditions and measured (or simulated) experimental parameters. Historical term - modelling installation to be used instead.

Observation: It is the action or process of carefully watching someone or something (CollinsEnglishDictionary). In the context of AnaEE and more generally environmental sciences, the process of monitoring or surveying objects or phenomenaon Earth or in the Universe without direct intervention on them (e.g. measuring the greenhouse gases over time).

Open-air facility: An experimental facility in open-air conditions (in natura) allowing the manipulation of several environmental pressures (e.g. rainfall, heating, management practices). The facilities can be installed in several ecosystem types (forest, grassland, peatland, fields, unmanagedland, etc.), as well as several climate types (mediterranean, subarctic, alpine, etc.).

Open-air platform (historical): An experimental platform in open-air conditions (in natura) allowing the manipulation of several environmental pressures (e.g.rainfall, heating, management practices, etc.). Historical term - open-air facility to be used instead.

Platform (historical): In the AnaEE context the unit where the activity (experimental, analytic or modelling) is performed; platforms are not belonging to AnaEE, but linked to it thanks to a Service Legal Agreement. Cf. facility, enclosed platform and open-air platform.

Service Centre: one of the AnaEE centres where additional services are provided to the users, stakeholders or to the facilities.

Service Legal Agreement: A legal agreement binding AnaEE and a (group of) facility. Services, such as experiment accommodation, data and metadata production and open access, are provided by the facility to AnaEE and the users. In turn, AnaEE provides services to the facility such as visibility, open and FAIR access to the data, technological expertise, modelling, transnational access, link with other facilities and RIs, etc.

User: The external commissioner of services from AnaEE.

PHOTO CREDITS

Page 30: ENVRI

Page 35: CzechGlobe

Page 41: PAERI

When not credited, photos are credited to AnaEE-ERIC.

ADVANCING ECOSYSTEM

science

IN A CHANGING world

AnaEE ERIC