

2024

ANNUAL REPORT



MIRRI
ERIC



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ABOUT MIRRI



FOREWARD

It is with great enthusiasm that we present MIRRI-ERIC's Annual Report for 2024, celebrating a year marked by growth, innovation, and significant achievements in our mission to support and empower the microbial research community across Europe and beyond.

Among the highlights of the year was the successful launch MICROBES4CLIMATE and the award of MALDIBANK, two European projects coordinated by MIRRI-ERIC. These ambitious initiatives represent a major leap forward in our efforts to address global challenges through microbial science.

MICROBES4CLIMATE deepens the comprehension of the complex relationships among microorganisms, plants and soil and harnesses the power of microbial resources to develop sustainable, climate-resilient solutions, contributing directly to Europe's Green Deal and the global climate agenda.

MALDIBANK aims to establish a cutting-edge, federated infrastructure for MALDI-TOF mass spectrometry data across European microbial Biological Resource Centres. This tool will empower scientists to tackle antimicrobial resistance, environmental monitoring and more.

These projects not only strengthen MIRRI-ERIC's scientific leadership, but also reflect our unique capacity to coordinate complex, cross-border collaborations that deliver impactful results for both research and society.

Another major milestone of 2024 was the official accession of Greece as a full member of MIRRI-ERIC. The holdings of the Greek national node are attractive resources for research and applications in agriculture (plant health and protection), food, bioremediation, biofuels, pharma and health. An asset for MIRRI-ERIC!

Throughout the year, MIRRI-ERIC has deepened strategic partnerships, strengthened its internal governance, and made important contributions to the future direction of the European Research Area.

These accomplishments are the result of the dedication, collaboration, and shared vision of our member countries, national nodes, advisory and ethical board, project partners, and central coordinating unit. On behalf of MIRRI-ERIC, I extend my sincere thanks to all who have played a role in this year's achievements.

MIRRI-ERIC will move forward, steadfast in its vision to be a world-leading infrastructure supporting the bioeconomy and sustainable development through access to and valorisation of microbial biodiversity. An exciting journey is ahead of us!



Marleen Bosschaerts
Chair of the Assembly of Members

DIRECTOR'S STATEMENT

As we close a landmark year for MIRRI-ERIC, I am filled with deep joy and gratitude for the community that continues to drive our shared mission forward. 2024 marked our first full operational year, and despite formidable challenges, we have laid solid foundations for a resilient, impactful and inclusive Research Infrastructure.

From consolidating our governance and operations to strengthening our service provision capacity,

MIRRI-ERIC has made remarkable progress. Notably, the accession of Greece as a Member and Romania as an Observer affirms the growing recognition of our relevance in the European research ecosystem. Our successful coordination of MICROBES4CLIMATE and the approval of the MALDIBANK, stand as tangible symbols of our strategic positioning within the Horizon Europe framework.

We have continued to advance the vision outlined in our Strategic Research and Innovation Agenda: to be a cornerstone in Europe's bioeconomy and sustainability strategies. Through the enhancement of the MIRRI Information System, development of our operational rules, and partnerships across ESFRI RIs, we are solidifying our role as a key enabler of FAIR and compliant access to microbial resources, expertise, and data. Even with limited human resources, our team has demonstrated unwavering commitment and a capacity to transform obstacles into opportunities.

As Executive Director, I remain deeply committed to cultivating an environment of excellence, equity, and collaboration. MIRRI-ERIC is more than a research infrastructure; it is a collective endeavour to valorise microbial biodiversity for the benefit of science, industry, and society at large.

Looking ahead to 2025, our priorities are clear: to expand our membership, formalise and empower our National Nodes, operationalise our service portfolio, and secure the expertise necessary to scale our impact. We will continue advocating for microbial science and forging meaningful alliances across disciplines and geographies.

To our Members, Partners, and Stakeholders—thank you. To the Central Coordinating Unit—thank you. It is your trust, dedication, resilience, and ambition that make MIRRI-ERIC's journey possible. Together, we are not just building infrastructure; we are building a future.

Ana Portugal Melo
Executive Director



AT A GLANCE

MIRRI-ERIC is the pan-European distributed Research Infrastructure for the preservation, systematic investigation, provision and valorisation of microbial resources and biodiversity. MIRRI-ERIC plays a pivotal role in supporting both the scientific community and the bioindustries by offering streamlined, legally compliant access to one of the world's most comprehensive collections of high-quality microorganisms, their derivatives, associated metadata and specialised services.

MIRRI-ERIC addresses the pressing needs of modern bioscience by connecting academic and industrial users to microbial resources that are foundational to a wide array of applications.

Driven by shared values of collaboration, scientific excellence, integration and societal impact, MIRRI-ERIC acts as a gateway to high-impact research and industrial development across the health and food, agrofood, and environment and energy domains.



6 + 1

Members + 1 Observer



7

Nodes



34

Partners



14000+

Number of
Catalogue Entries



2

CCU Staff



2024 HIGHLIGHTS

JAN
2024

MIRRI-ERIC welcomed **Greece** as a new Member

FEB
2024

Kick-off of the **MICROBES4CLIMATE** project, coordinated by MIRRI-ERIC

MAR
2024

Submission of multiple **Horizon Europe** applications

APR
2024

Kickoff of **Data Management and Computing** Support Group

MAY
2024

MALDIBANK Project Granted Funding by Horizon Europe

JUN
2024

Assembly of Members approves **Rules of Operation**

SET
2024

Key note presentation at the **ECCO meeting** Bari, Italy

OCT
2024

Expansion of Latvian Node with the **Silava Microbial Culture Collection** joining MSCL

NOV
2024

MIRRI-ERIC launched the Communication, Dissemination, Outreach, and Visibility Strategy

NOV
2024

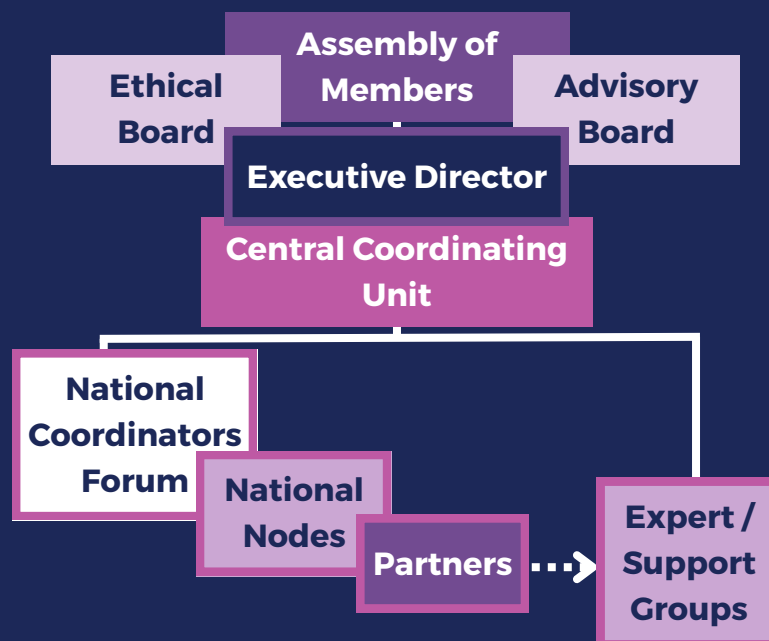
First **Advisory and Ethical Boards** meeting

PEOPLE AND STRUCTURE

As every organisation, MIRRI-ERIC is its people, from Nodes's staff to the Central Coordination Unit team and the members of the governing bodies. They are the driving forces behind MIRRI-ERIC's success.. Additionally, the research users and society stakeholders are the reason for MIRRI-ERIC to be.



The decision making body of MIRRI-ERIC is the Assembly of Members (AoM) and the decision making body is the Executive Director (ED). The Ethical and the Advisory Boards advise the AoM and the ED. The ED is responsible to implement the AoM's decisions with the support of a Central Coordination Unit (CCU). The operational component of MIRRI-ERIC is a joint effort of the CCU and the National Nodes (NN). The National Coordinators Forum (NCF), chaired by the ED. At the NCF, the scientific and service provision strategies are designed. The NCF also supports the ED in the implementation of the Work Programs approved by the AoM.



MIRRI-ERIC organogram.

It is the NCF that holds the responsibility for establishing the Expert and Support Groups that drive the implementation of MIRRI-ERIC's Work Programs. This implementation follows a distributed, collaborative model, engaging experts from across the National Nodes. The Expert and Support Groups focus on distinct strategic domains and transversal skills outlined in MIRRI-ERIC's Strategic Research and Innovation Agenda 2021–2030.

This structure ensures scientific excellence, active stakeholder engagement, and the capacity to respond to emerging scientific and societal challenges in microbiology and biotechnology.



In 2024, the NCF identified three Expert Groups, namely Health and Food, Agrofood, and Environment and Energy, and three Support Groups that will address key areas such as Training, Data Management and Computing, and Quality Management. This year, the Data Management and Computing Group launched its activities, with one representative from each node, focusing in particular on the MIRRI Information System through which microbial resources are made accessible. Also in 2024, a team of facilitators from Latvia, Portugal, and Romania laid the foundation for the Health and Food Expert Group.

Expert Groups are composed of leading scientists from Partner institutions, working collaboratively to address domain-specific challenges. **Support Groups** operate across domains, providing skills and resources to strengthen and assist the Expert Groups. Together, they contribute to service development, innovation, and the harmonisation of practices across the Nodes.

SERVICES



Biological and Data Resources
to enhance Microbial Research

About the MIRRI-ERIC Biological Resources

CULTURE COLLECTIONS OF MIRRI-ERIC PARTNERS

BELGIUM

BCCM/DCG - Diatoms Collection, Ghent University

BCCM/GeneCorner - Plasmid Collection, Ghent University

BCCM/LMG - Bacteria Collection, Ghent University

BCCM/IHEM - Fungi Collection: Human and Animal Health, Sciensano, Brussels

BCCM/ITM - Mycobacteria Collection, Institute of Tropical Medicine, Antwerp

BCCM/MUCL - Agro-food and Environmental Fungi Collection, Université catholique de Louvain

BCCM/ULC - Cyanobacteria Collection, University of Liège

GREECE

NKUA - Culture collections of the National and Kapodistrian University of Athens

ACA-DC - Agricultural College of Athens - Dairy Collection

BPI - Benaki Phytopathological Institute Collection

PORTUGAL

MUM - Micoteca da Universidade do Minho

PYCC - Portuguese Yeast Culture Collection, UCIBIO/NOVA

ACOI - Coimbra Culture Collection of Algae

LEGE-CC - Blue Biotechnology and Ecotoxicology Culture Collection, CIIMAR/Uporto

FRANCE

INRAE

- CIRM-CFBP - Plant associated bacteria collection
- CIRM-BIA - Food associated bacteria collection
- CIRM-BP - Pathogenic bacteria collection
- CIRM-CF - Filamentous fungi collection
- CIRM-Levures - Yeasts collection

Institut Pasteur (IP)

- CRBIP-CNCM - National Collection of Microorganisms associated with patents
- CRBIP-CIP - Collection of bacteria of the Institut Pasteur
- CRBIP-CVIP - Collection of Viruses of the Institut Pasteur
- CRBIP-PCC - Collection of cyanobacteria of the Institut Pasteur

LATVIA

MSCL - Microbial Strain Collection of Latvia

Silava - Latvian State Forest Research Institute

UCCCB - University of Coimbra Bacteria Culture Collection

CIMOCC - Mountain Research Centre Culture Collection, CIMO/IPBragança

AVFMCC/INIAV - Agronomic, Veterinary and Food Microbial Culture Collections

BIOTROP - Biotropical Resources - GHTM-IHMT/NOVA

CDB - Collection of Department of Biology, CBMA/UMinho

IVDP - Institute of Douro and Porto Wines

LRV - Azores Regional Laboratory of Veterinary

SPAIN

CECT - Spanish Type Culture Collection

BEA - Spanish Bank of Algae

ISCI - Instituto de Salud Carlos III

Fundación MEDINA

ROMANIA

IBB - Institute of Biology Bucharest

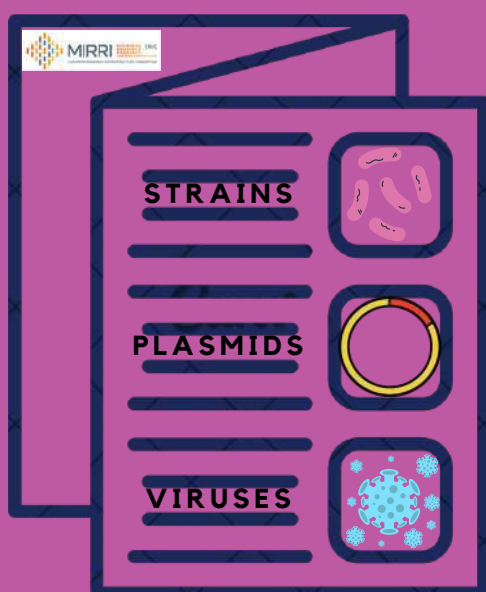
MCUB - Microbial Collection of the University of Bucharest

CMII-ICCF - Culture Collection of Industrial Importance Microorganisms- National Institute for Chemical Pharmaceutical Research and Development

MIUG-DJUG - Industrial Microorganisms Collection of "Dunărea de Jos" University of Galati

CNCBC-IC - Cantacuzino National Medico-Military Institute for Research and Development

MIRRI-ERIC CATALOG OF MICROBIAL RESOURCES AND ASSOCIATED DATA



A) Interface for searching the MIRRI-ERIC Catalog (Democratise Access)

B) Deposit of new strains (Preserve Biodiversity)

C) Provision of reference strains (Enhance Research)

D) Continuous updated of the catalog (Make Microbial Resources FAIR)

Additional services are available in the webpage of each culture collection.

About the MIRRI-ERIC Digital Platforms (CWE & MIRRI-IS)

CWE

Objective: Stakeholder collaboration and resource access.

Focus Areas:

- Communication & Collaboration
- Knowledge exchange
- Stakeholder engagement

Components:

- Research Infrastructure Information Gate
- Microbial Resources, Data & Services Gate
- Collaboration & Experts Gate
- Training & Education Gate

MIRRI-IS

Objective: Data management and microbial resource integration.

Core Features:

- Centralised integration of data
- FAIR data compliance
- Advanced biological data analysis

Technical Aspects:

- BioloMICS software
- Partner databases integration
- Interoperable data
- Enhanced analysis capabilities



The Collaborative Working Environment (CWE), designed as a virtual platform, acts as a nexus for users to access resources, information and services efficiently. At the heart of this environment lies the MIRRI Information System (MIRRI-IS), an innovative engine driving the seamless integration of microbial resources, data, services, and expertise. It encompasses four distinct gates, each tailored to cater to specific user needs:

RESEARCH INFRASTRUCTURE INFORMATION GATE:

MIRRI-ERIC services drive the integration of services operated by its Partners.

MICROBIAL RESOURCES, DATA & SERVICES GATE:

Direct access to microbial assets and tools—comprehensive, connected, and compliant. As the central hub of the CWE, this gate enables seamless access to:

- Over 140 000 microbial strains and plasmids, including derivatives, taxonomic profiles and genomic data
- Standardised workflows for streamlined resource discovery, ordering and delivery

COLLABORATION & EXPERTS GATE:

Connecting ideas, solutions, and cross-disciplinary innovation. As the platform for stakeholder dialogue and co-creation, this gate enables:

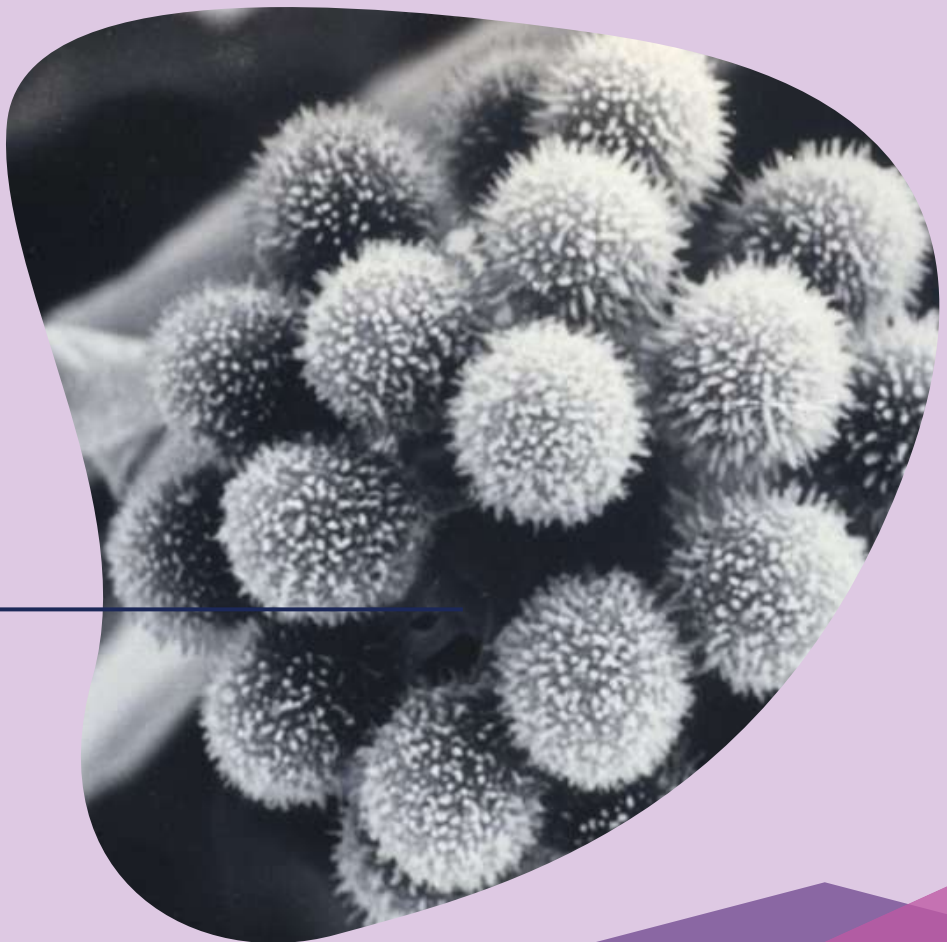
- Access to MIRRI-ERIC's expert network across scientific domains
- Partner matchmaking and collaborative research opportunities
- Support for problem-solving and strategic innovation

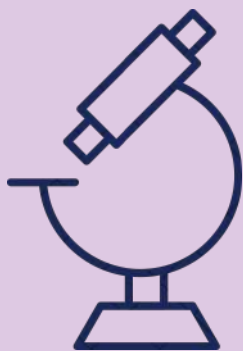
TRAINING & EDUCATION GATE:

Strengthening skills and building capacity across the microbiology and biotechnology community. This gate serves as a central point for:

- Workshops and hands-on session
- Internal training for microbial research center (mBRC) personnel
- Direct dissemination of training outputs and coordination across MIRRI-ERIC's growing network

PERFORMANCE AND IMPACT INDICATORS





SCIENTIFIC EXCELLENCE

2 958 Number of user requests for access to biological material

10 481 Number of samples of biological material distributed

55 Number of user requests/proposals for access to facilities

40 Number of granted proposals for access to facilities

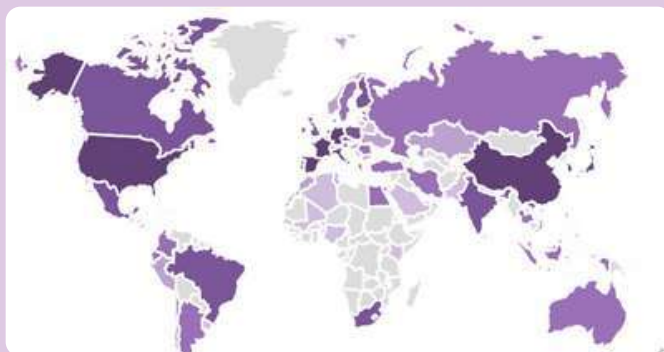
966 Number of publications based on research performed
using facilities / resources of the RI

MIRRI-ERIC Catalogue Traffic

1 400 Active Users

Top countries

Italy	148
United States	148
China	112





EDUCATION & TRAINING

31

Number of delivered education and training actions

260

Number of delivered education and training hours

236

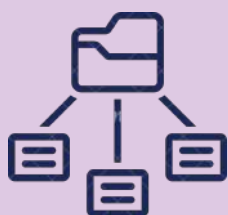
Number of people that have made use of the training opportunities provided by MIRRI-ERIC



FACILITATING ECONOMIC ACTIVITIES

135

Number of contracts/projects with industry



OPTIMIZING DATA USE

89 125

Number of catalogue records made available in MIRRI-ERIC catalogue of biological resources



FACILITATING INTERNATIONAL COOPERATION

6 + 1

Number of Member + Observer Countries in Research Infrastructure

34

Number of MIRRI-ERIC Partners



PROVISION OF SCIENTIFIC ADVANCE

29

Number of participations of MIRRI-ERIC in policy-related WG, committees and advisory boards

1 031

Support to researchers



OPTIMISING MANAGEMENT

€ 1 642 207

Revenues from National Projects

€ 2 208 731.49

Revenues from International Projects

€ 200 400

Membership contributions

30

Number of services available in MIRRI-ERIC portfolio



OUTREACH TO THE PUBLIC

ENGAGEMENT ACHIEVED BY DIRECT CONTACT

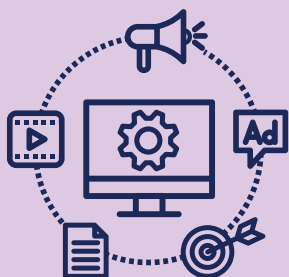
34	Number of presentations of MIRRI-ERIC in National meetings
11	Number of presentations of MIRRI-ERIC in regional meetings
25	Engagement achieved by direct contact with users

OUTREACH VIA WEBSITE

29 130	Number of users
139 243	Number of page views

OUTREACH VIA SOCIAL MEDIA

10 010	Number of followers
3 669	Number of interactions
16	Outreach via other media



OUTREACH TO THE PUBLIC

MIRRI-ERIC WEBSITE GROWTH

9 638	Active users		36.3%
9 800	New users	% growth from 2023	40.2%
61 956	Page views		51.01%

USERS GEOGRAPHIC DISTRIBUTION

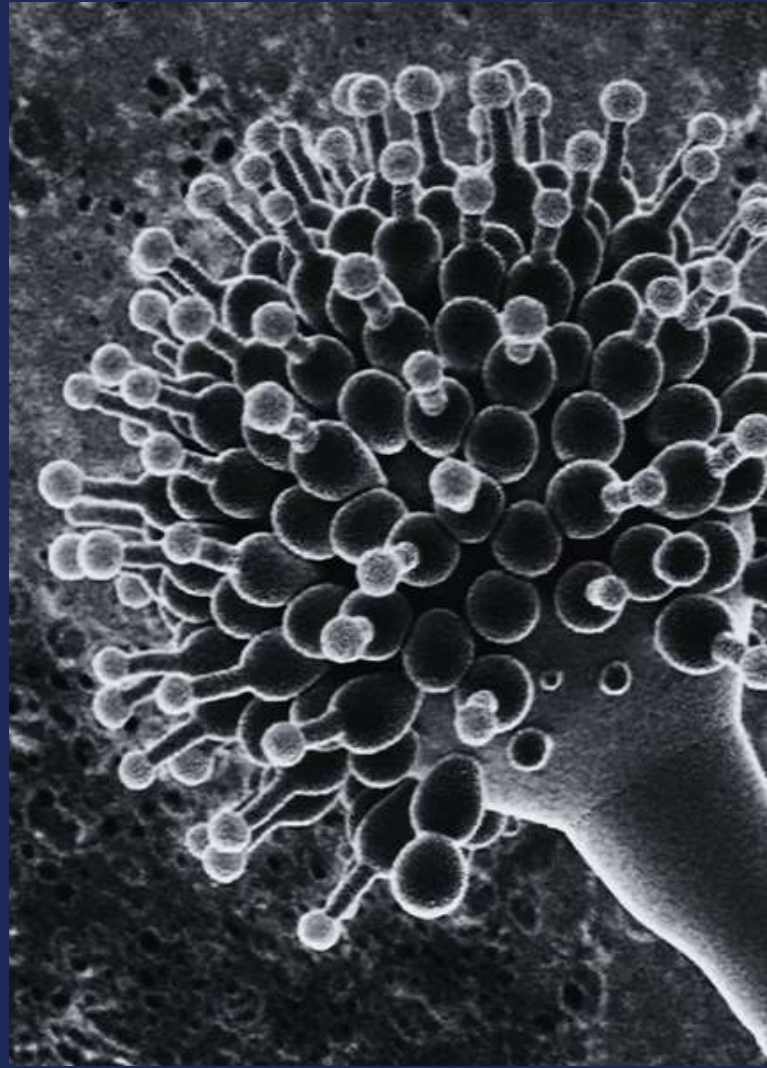


Top countries

% growth from 2023

United States	1700	111.1%
Portugal	1000	32.9%
Italy	944	22.9%
China	840	56.7%
Spain	521	4%

EU PROJECTS



EU PROJECTS

In 2024, MIRRI-ERIC continued to play an active role in a broad range of European projects. These initiatives reflect MIRRI-ERIC's strategic priorities. The projects strengthen collaboration across MIRRI-ERIC's network and showcase its impact across multiple scientific and societal domains.

KEY PARTNERSHIPS

MIRRI-ERIC continued its alignment with the European Open Science Cloud (EOSC) by advancing the FAIRification of microbial data and promoting interoperable digital services. Through collaboration with research infrastructures and contributions to EOSC-related discussions and initiatives, MIRRI-ERIC reinforces its commitment to integrating microbial resources into the broader European open science ecosystem.

MIRRI-ERIC has contributed to the ERIC Forum 2 project, supporting enhanced collaboration among ERICs and aligning operations with European policy priorities. This involvement highlights MIRRI-ERIC's commitment to strengthening its role within the European Research Area (ERA).

MIRRI-ERIC actively aligns with the European Strategy Forum on Research Infrastructures (ESFRI), supporting strategic initiatives and policies that promote scientific excellence, research integration, and innovation across European microbial resources. This engagement highlights MIRRI-ERIC's role in advancing Europe's research infrastructure landscape.



1. MICROBES-4-CLIMATE (M4C)

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



Harnessing microbial biodiversity for climate-smart agriculture and sustainable ecosystems.

Founded under:

HORIZON-INFRA-
2023-SERV-01

Start/End dates:

01 February 2024 – 31
January 2029

Total Budget:

€ 14.5 M

Coordinated by:

MIRRI-ERIC

**MIRRI-ERIC Partners
in the consortium:**

UMinho, UVEG,
INRAE and NKUA

MIRRI-ERIC plays a key role in the EU-funded project MICROBES-4-CLIMATE (M4C), launched in 2024 to deepen scientific understanding of the critical interplay between microorganisms, plants and soils in the context of climate change. M4C is designed to support the development of resilient, sustainable agricultural systems by harnessing microbial diversity and infrastructure-driven collaboration.

Led by a consortium of 31 partners across 14 countries and coordinated by MIRRI-ERIC, M4C aims to:

- Advance research on microbial functions and their impact on plant and soil health
- Promote transnational and interdisciplinary access to research infrastructures (TNA)
- Support FAIR data practices and responsible science through regulatory and ethical guidance

MIRRI-ERIC contribution

As Coordinator of M4C, MIRRI-ERIC oversees and manages all aspects necessary for the execution of project activities. This includes project coordination, administrative and financial support, quality assurance, ethics and data management and risk mitigation. MIRRI-ERIC ensures timely and efficient implementation.



KICK-off and first year Milestones

- The project was officially launched in February 2024 at MIRRI-ERIC's headquarters in Braga, Portugal.
- M4C's first deliverables were submitted: a catalogue of services and installations, a stakeholder engagement plan and a data management plan.
- The first Bioethics and Regulatory Workshop took place in Vienna, covering Nagoya Protocol, planetary health, biosecurity and more.

Milestones Impact & Events

M4C was prominently featured in 2024 international events:

- miCROPe Conference (Vienna): presented microbial strategies for crop stress tolerance.
- AnaEE-ERIC Conference (Paris): emphasized Horizon Europe collaboration.
- WDCM 2024 (China): showcased M4C's microbial identification tools (MALDI-TOF).
- CECT at Chile's 10th Bioresources Workshop: highlighted MIRRI's role in TNA.

Communication & Outreach

- M4C launched major campaigns for Earth Day, International Day of Plant Health and World Soil Day.
- Project visibility increased via participation in the IPPN newsletter and strong social media outreach.

Looking Forward

- The first Transnational Access (TNA) call will launch 2025, offering researchers funded access to high-quality services.



2. MALDIBANK

Multi-domain Open MALDI Spectra Archive for Identification of Microorganisms



Harmonising microbial identification for faster diagnostics and cross-sector innovation across Europe

Founded under:

HORIZON-INFRA-
2023-SERV-01

Start/End dates:

01 May 2025 – 30 April
2029

Total Budget:

€ 9.8 M

Coordinated by:

MIRRI-ERIC

**MIRRI-ERIC Partners
in the consortium:**

MUM/UMinho, UVEG,
INRAE, IP, MSCL,
BCCM-IHEM

The MALDIBANK project awarded funding by the Horizon Europe in May of 2024 and is foreseen to start in May 2025, it aims to advance the development of a cloud-based, global MALDI-TOF MS spectral repository. By compiling over 100,000 reference spectra and applying deep learning algorithms, the project will enable broad, cross-sectoral access to reliable microbial identification tools. It builds on the transformative power of MALDI-TOF mass spectrometry, extending its use beyond clinical diagnostics into sectors such as environmental monitoring, epidemiology, biotechnology and food safety. It lays the foundation for a harmonised, open-access infrastructure supporting faster detection, better traceability and enhanced surveillance of microbial communities.

3. HOLOZCAN



Deep Learning Powered Holographic Microscopy for Biothreat Detection on Field

HoloZcan is a cutting-edge Horizon Europe-funded project focused on real-time, AI-driven holographic biodetection of biological threats. Combining microfluidics, photonics, and advanced imaging technologies, the project is developing a fully automated system capable of detecting airborne pathogens, microbial contaminants, and bioaerosols in complex environments. MIRRI-ERIC contributes to the project through its expertise in microbial reference data, interoperability, and biosurveillance use cases.

Founded under:
HORIZON-INFRA-
2022-TECH-01-01

Total Budget:
€4.4M

Start/End dates:
1 May 2020 – 30
April 2024.

Coordinated by:
IDEAS SCIENCE KFT.

**MIRRI-ERIC
partner in the
consortium:**
Institut Pasteur.

4. ISIDORE



Integrated Services for Infectious Disease Outbreak Research

The ISIDORE consortium, unites the capacities of major European ESFRI Research Infrastructures, including MIRRI-ERIC, to combat current and emerging infectious diseases. The project integrates services and expertise across sectors—spanning structural biology, molecular microbiology, diagnostics, and clinical research—to streamline scientific responses to epidemics and pandemics.

Founded under:
HORIZON-INFRA-
2021-EMERGENCY-02

Total Budget:
€21M

Start/End dates:
2 March 2022 – 1
March 2025

Coordinated by:
ERINHA

**MIRRI-ERIC partners
in the consortium:**
Institut Pasteur
MUM/UMinho

5. AgroServ

Integrated SERVICES supporting a sustainable AGROecological transition



The AgroServ project provides access to customised, integrated, and cross-disciplinary research services aimed at supporting Europe's transition to more sustainable and resilient agroecosystems. Through its distributed infrastructure, AgroServ helps researchers address the risks and threats posed by global changes, from climate stress to biodiversity loss—while fostering agroecological innovation that benefits rural sustainability and food systems. As part of AgroServ's Transnational Access (TNA) framework, MIRRI-ERIC partners, particularly the Belgian node (BCCM/MUCL), actively contributed microbial resources and expertise to support experimental research in plant-microbe interactions.

Founded under:

HORIZON-INFRA-
2021-SERV-01-03

Total Budget:

€15M

Start/End dates:

1 September 2022 – 31
August 2027

Coordinated by:

AnaEE / CNRS

**MIRRI-ERIC partners
in the consortium:**

BCCM-MUCL, CIRM-
INRAE

6. canSERV

Providing cutting edge cancer research services across Europe



canSERV's mission is to make cutting-edge and customised research services available to the cancer research community across Europe, enabling innovative R&D and fostering precision medicine for patient benefit. By connecting, coordinating, and aligning oncology-related and complementary RIs, canSERV delivers integrated services transnationally, capitalising on a critical mass of experts and high-impact platforms.

Founded under: HORIZON-
INFRA-2021-SERV-01-02

Total Budget:
€14.9M

Start/End dates:

1 September 2022 – 31
August 2025

Coordinated by:

BBMRI-ERIC

**MIRRI-ERIC partners
in the consortium:**

MUM/UMinho

7. BIOINDUSTRY 4.0

RI services to promote deep digitalization of Industrial Biotechnology - towards smart biomanufacturing



BIOINDUSTRY 4.0 aims to accelerate the adoption of advanced digital technologies in industrial biotechnology. This includes cutting-edge tools such as real-time monitoring sensors, data management systems that ensure quality and promote open science, and AI-driven solutions to optimise bioprocess design and scale-up.

MIRRI-ERIC CONTRIBUTION

BIOINDUSTRY 4.0 is now in its second year, with CECT-UEVE representing MIRRI-ERIC alongside KNAW (a prospective partner). MIRRI-ERIC contributes by showcasing the role of culture collections in providing high-quality microbial resources for industrial biotechnology. The focus is on integrating microbial strain data to support sustainable bio-based industries. By enabling reliable access to well-characterised strains, MIRRI-ERIC supports innovation in biomanufacturing, biorefining, and the broader bioeconomy.

Presentations by MIRRI-ERIC
in Key Conferences



Würzburg – DGHM & VAAM



Bari – ECCO



Florence – IUMS

IMPACT NARRATIVE

WP6 is led by DSMZ – the German Collection of Microorganisms and Cell Cultures – further strengthening its collaboration with MIRRI-ERIC. MIRRI-ERIC is recognised as a key partner for future initiatives in industrial biotechnology and is expected to foster closer cooperation with IBISBA, another ESFRI initiative on the path to becoming an ERIC.

Founded under:

HORIZON-INFRA-
2022-TECH-01-01

Total Budget:

€ 9.5 M

Start/End dates:

1 January 2023 – 31
December 2027

Coordinated by:

INRAE

MIRRI-ERIC partners in the consortium:

UEVE

8. EU-LAC ResInfra Plus



Towards a sustainable eu-lac partnership in research infrastructures

RESINFRA is a bi-regional project launched in January 2024 under the EU–CELAC Working Group on Research Infrastructures, aiming to strengthen collaboration between the EU and Latin America-Caribbean regions. UVEG, representing MIRRI-Spain, contributes to WP4 by fostering structured exchange among RI stakeholders and leading capacity-building actions for RI staff, supporting long-term cooperation in areas like health, environment, and digital innovation.

MIRRI-ERIC CONTRIBUTION

In 2024, CECT-UVEG organised a study visit for LAC RI staff and presented MIRRI-ERIC's access model and MIRRI-ERIC's mission to facilitate transnational access to microbial resources and promote global scientific cooperation at a major workshop in Chile. These actions support global collaboration and network expansion.

Presented at Key events



Würzburg – “Access Models to RIs” webinar



Pucón – 10th International Workshop on Advances in Science and Technology of Bioresources

Renewed engagement with culture collection staff from Latin America — particularly Brazil and Chile — has revitalised strategic contacts aimed at facilitating future membership in MIRRI-ERIC. The upcoming Study Visit, scheduled for April 2025, is expected to further strengthen these bilateral ties and advance the formalisation of long-term partnerships.

Founded under:
HORIZON INFRA-
2023-DEV01

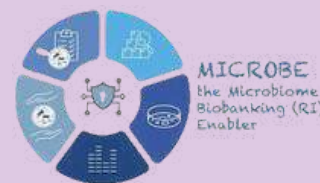
Total Budget:
€ 750 k

Start/End dates:
31 December 2023 – 30
December 2025

Coordinated by:
Ministerio de Ciencia,
Innovación y
Universidades

**MIRRI-ERIC partners
in the consortium:**
CECT-UVEG

9. MICROBE - MICRObiome Biobanking (RI) Enabler



Optimised methodologies for preservation of microbiomes: maintaining composition and functionality

MICROBE aims to deliver innovative, validated technological solutions to preserve and provide access to microbiome samples and associated data. By ensuring broad adoption across research communities, the project supports the development of novel microbiome-based applications in health, agriculture, and the environment.

Founded under:

HORIZON-INFRA-
2022-TECH-01-01

Total Budget:

€5.8M

Start/End dates:

1 February 2023 – 31
January 2027

Coordinated by:

AIT

**MIRRI-ERIC partners
in the consortium:**

CIRM-INRAE

10. ERIC-Forum 2



Second implementation project for the ERIC Forum

The ERICs (European Research Infrastructure Consortia), brought together under the ERIC Forum, have established themselves as major contributors to science policy in Europe and play an essential role in shaping the research infrastructure ecosystem. The ERIC Forum 2 project seeks to enhance collaboration among ERICs, reinforce the implementation of the ERIC Regulation and associated services, and further integrate ERICs into the European Research Area by strengthening the Forum's impact on research policy development.

Founded under:

HORIZON-INFRA-
2023-ERIC-ART195-IBA

Total Budget:

€ 3 M

Start/End dates:

1 September 2023 – 31
August 2027

Coordinated by:

BBMRI-ERIC

**MIRRI-ERIC
contributed in-kind
in 2024**

NODES' FOCUS



BELGIUM - 2024

Belgium, represented by BELGIUM Belgium Science Policy (BELSPO) is a founding member of MIRRI-ERIC, with partner institutions integrated under the umbrella of the Belgian Coordinated Collections of Microorganisms (BCCM).



7

Facilities



839

Users



143

Training hours



3628

Samples
request



426

Publications



65875

Catalogue records
made available



45%

Shares of users
associated with Industry

HIGHLIGHTS



Promoted BCCM's advanced service offer—including MALDI-TOF MS analysis and legal/quality advisory—within MIRRI-ERIC and related EU projects like AgroServ and Microbes4Climate.

Updated strain metadata and tracked scientific outputs to enhance catalogue visibility and promote the valorisation of microbial resources within MIRRI-ERIC.

Engaged with Belgian nodes of other ESFRI RIs (e.g., BBMRI, ELIXIR, EMBRC, ERINHA), contributed to ABS policy dialogue, and served as MIRRI-ERIC's liaison to ISO/TC 276 on biotechnology standards.

INTERNATIONAL PROJECTS

Name of the project: AgroServ

- **Participant organisation:**

- UCL

- **Budget attributed to the Node:**

287 590,53€

(budget foreseen in contract)

FRANCE - 2024

France, represented by Minister of Higher Education and Research is a founding member of MIRRI-ERIC, represented by INRAE and Institut Pasteur. INRAE's MICA department coordinates the CIRM network of five mBRCs, while Institut Pasteur hosts CRBIP, a major biobank for microbial and human collections.



9

Facilities



743

Users



41

Training hours



2594

Samples
request



465

Publications



14669

Catalogue records
made available



1%

Share of trainees
from non-eu
member countries



0.14%

Share of users from
non-eu member
countries



33%

Shares of users
associated with
Industry

HIGHLIGHTS



France initiated steps to include the MIRRI-ERIC French Node in the National Roadmap for Research Infrastructures in Biology and Health, enhancing strategic alignment with national priorities.

The Node actively contributed to the design and coordination of the upcoming MALDIBANK initiative, aimed at harmonising MALDI-TOF MS microbial data and service interoperability across Europe.

INTERNATIONAL PROJECTS

Name of the project: ISIDORe

- **Participant organisation:**
 - IP

Name of the project: HoloZcan

- **Participant organisation:**
 - IP

- **Budget attributed to the Node:**

4 048 969,95€

(budget foreseen in contract)

Name of the project: MICROBE

- **Participant organisation:**
 - INRAE

Name of the project: AgroServ

- **Participant organisation:**
 - INRAE

Name of the project: M4C

- **Participant organisation:**
 - INRAE

GREECE - 2024

Greece joined MIRRI-ERIC as a full member in 2024 and is represented by the National Kapodistrian University of Athens. The Greek Node integrates key national Partners with expertise in environmental and clinical microbiology, supporting access to microbial resources and contributing to data management, training, and international collaboration within the MIRRI-ERIC framework.



3

Facilities



8

Users



55

Samples
request



4

Publications



5

Number of
contracts/projects
with industry



LATVIA - 2024

Latvia in representation by the Minister of Education and Science is a MIRRI-ERIC Member since 2022 and proudly hosts the MIRRI-Latvia Node, represented by the Microbial Strain Collection of Latvia (MSCL) and Latvian State Forest Research Institute (Silava). The majority of microbial strains preserved in MSCL have been isolated from samples collected in Latvia, ensuring a strong representation of local biodiversity.



2

Facilities



14

Users



60

Training
hours



90

Samples
request



1

Publications

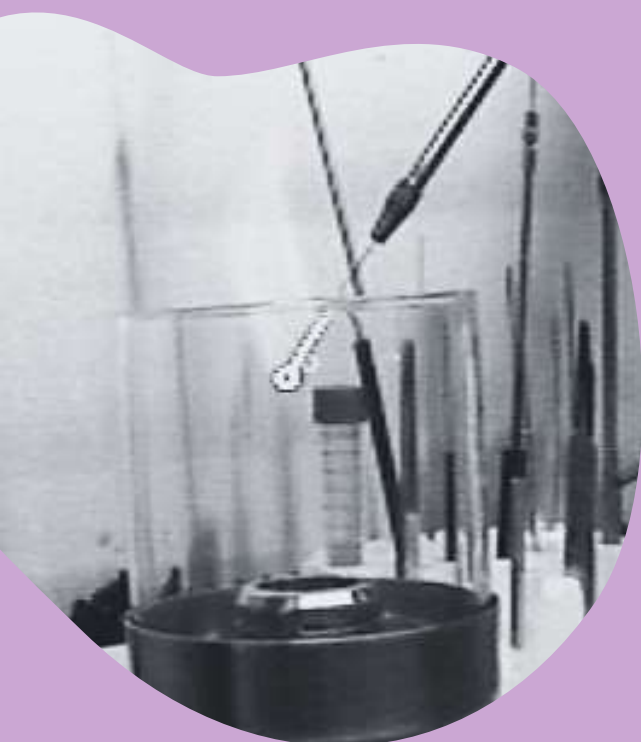
HIGHLIGHTS



As a smaller microbial culture collection, the Microbial Strain Collection of Latvia at the University of Latvia (MSCL-UL) benefited from MIRRI-ERIC's international visibility, leading to invitation into international projects and a broader role in European scientific discourse. In 2024, MSCL actively contributed expert knowledge to a national project focused on anti-inflammatory and antimicrobial systems based on plant-derived bioactives.

MSCL-UL served as an institutional link between Latvian research and European infrastructures, with its staff participating in webinars and working groups such as the Data Management & Computing Support Group (DM&C SG). This group, coordinated by MIRRI-FR and supported by LifeWatch Spain, addressed challenges related to data flow and interoperability within the MIRRI-IS.

MIRRI-ERIC's Latvian Node is represented by the MSCL-UL. In 2024, this node entered a pivotal growth phase through the planned integration of the Institute of Food Safety, Animal Health and Environment (BIOR), expanding the node's scientific and technical capabilities. Additionally, the Silava microbial culture collection officially joined MSCL-UL, reinforcing the node's biological resource diversity and collaborative strength.





PORTUGAL - 2024

Portugal is a founding member of MIRRI-ERIC and hosts its Statutory Seat. The country is represented by the Foundation for Science and Technology (FCT) and coordinates the Portuguese Node through a consortium of national partners, including institutions with expertise in microbial resources, genomics, and bioinformatics.



8

Facilities



15

Users



16

Training
hours



25

Samples
request



3

Publications

SPAIN - 2024

Spain, represented by the Ministry of Science, Innovation and Universities is a founding member of MIRRI-ERIC and hosts the Collaborative Working Environment (CWE) Hub. The Spanish Node is coordinated by the Spanish Type Culture Collection (CECT) and includes key partners such as BEA, Fundación MEDINA, and ISCIII, providing access to microbial and marine resources, as well as biomedical and genomic expertise.



4

Facilities



1348

Users



2053

Training hours



4058

Samples
request



67

Publications



8575

Catalogue records
made available



7.5%

Share of trainees
from non-eu
member countries



3%

Share of users from
non-eu member
countries



25%

Shares of users
associated with
Industry

HIGHLIGHTS



National Collaboration

The Spanish Node maintained strong alignment with national authorities through its Follow-up Commission, composed of representatives from the Ministry and MIRRI-ES partners. This group met regularly to ensure strategic coordination and node consolidation.

In 2024, Fundación MEDINA and ISCIII were formally incorporated as new MIRRI-ES partners, expanding the node's biomedical and pharmaceutical capabilities. These additions reflect Spain's national strategy to support applied microbial research in health and drug discovery.

A new institutional membership application from IFAPA (Andalusian Institute for Agricultural and Fisheries Research and Training) received a positive recommendation, preparing the ground for greater representation from the agricultural research sector in MIRRI-ES.

MIRRI-Spain, through CECT-UVEG, took part in the Annual Meeting of Spanish Health-RIs Coordinators, held by ISCIII in June. MIRRI was invited to the roundtable "Opportunities for Transnational and/or Virtual Access" alongside ERINHA and INFRAFRONTIER, reinforcing its national role among health-focused infrastructures.

A national funding application was submitted to support the organisation of the node, knowledge sharing activities and training of new potential partners on MIRRI-Spain's quality and operational standards. It also aims to support the integration of strain data into central systems and boost outreach.



The CECT infrastructure at the Parc Científic stores and preserves thousands of microbial strains,

Enhancing the collaboration among RIs

- Spain continues to host the Collaborative Working Environment (CWE) Hub at the University of Valencia. This digital hub is responsible for harmonising access and coordinating digital workflows across MIRRI-ERIC. In 2024, it supported efforts to integrate new partners and streamline user interfaces.
- In collaboration with LifeWatch-Spain, the CWE Hub contributed to an infrastructure gap analysis to identify and prioritise data interoperability needs. This cooperation strengthens MIRRI-ERIC's position in digital research environments and supports ongoing improvements in the MIRRI Information System (MIRRI-IS).
- MIRRI-Spain remained an active contributor to key EU-funded projects including, Microbes4Climate and BioIndustry4.0. These projects support innovation in microbial services, data integration, and biotechnology applications across Europe.
- Spanish partners also participated in the design and submission of the Horizon Europe EURICA proposal, which aims to strengthen coordination between research infrastructures and support long-term sustainability through new service models.
- Spain continued to align MIRRI-ERIC with other national RI nodes, including EMBRC, BBMRI, ELIXIR, and ERINHA, ensuring shared resources, harmonised practices, and collaborative approaches to common challenges in data, access, and regulatory frameworks.

International Events

- Participation in the EU-LAC ResInfra Plus project, enhancing ties with Latin American institutions.



Rosa Aznar and Auroa Azuzuarregui representing MIRRI-ERIC in international events

- Representatives from CECT-UVEG (Rosa Aznar and Aurora Zuzuarregui) participated in the 10th International Workshop on Advances in Science and Technology of Bioresources (December 2024, Pucón, Chile), presenting MIRRI-ERIC's access model and services.
- On 20 November 2024, MIRRI-ERIC was featured in a webinar on Access Models to Research Infrastructures. Representing MIRRI-Spain, Rosa Aznar delivered a talk titled "Types of access to RIs discussed under the TNAs," highlighting MIRRI's user-centric access pathways and the growing role of transnational services.

ROMANIA - 2024

Romania, represented by the Ministry of Research, Innovation and Digitalisation is an Observer Member. Through its involvement, Romania contributes to MIRRI's strategic dialogue and operational development, with the goal of strengthening national capacity in microbial resource management and aligning with European research priorities.



5

Facilities



2

Users



42

Training hours



40

Samples
request



FINANCIAL STATEMENTS

INCOME STATEMENT

(Amount in Euros)

	31st December 2024	31st December 2023
Sales and Services Rendered	200.400,00	113.400
Grants, donations, and legacies for operations	107.320,23	0,00
Supplies and External Services	- 40.926,39	- 6.719
Personnel Expenses	- 135.374,19	- 42.521
Other Revenues	390,76	0,00
Other Expenses	- 147,86	0,00
Result before depreciations, financing expenses, and taxes	131.662,55	64.160
Depreciation and amortisation expenses/reversals	- 579,54	- 63
Operating result (before financing expenses and taxes)	131.083,01	64.097
Interest and similar income earned	0	0
Interest and similar expenses incurred	0	0
Results before taxes	131.083,01	64.097
Income tax for the period	- 205,86	- 11
Net result for the period	130.877,15	64.086

HOST PREMIUM CONTRIBUTION

(Amount in Euros)

	31st December 2024
PORTUGAL	
In-Kind	73.592,11
In-Cash*	50.000,00

*Included in the "Income Statement", line "Sales and Services Rendered".

Note: Host premium contributions started being reported in 2024.

INDIVIDUAL BALANCE SHEET

(Amount in Euros)

	31st December 2024	31st December 2023
Assets		
Tangible Fixed Assets	1.299,97	1.067
Total Non-Current Assets	1.299,97	1.067
Total Current Assets		
Receivables	6.666,67	0,00
State and Other Public Entities	1.106,55	1.101,00
Accruals and Deferrals	1.732,72	1.000,00
Other current Assets	6.666,66	0,00
Cash and Bank Deposits	1.602.185,20	78.808,00
	1.681.357,80	80.909
Total Current Assets	1.619.657,77	81.976
Equity and Liabilities		
Equity	0	0
Carried forward results	64.094,65	0
Net result for the period	130.877,15	64.086,00
Total Equity	194.971,80	64.086,00
Liabilities		
Total Non-Current Liabilities	0	0
Total Current Liabilities		
Suppliers	647,35	2.156
State and other public entities	4.541,97	3.916
Other current liabilities	1.242.918,48	11.818,
Accruals and Deferrals	176.578,17	0,00
Total Current Liabilities	1.424.685,97	17.889
Total Liabilities	1.424.685,97	17.889
Total Equity and Liabilities	1.619.657,77	81.976

INDIVIDUAL CASH FLOW STATEMENT

(Amount in Euros)

Cash Flows from Operating Activities	31st December 2024	31st December 2023
Receipts from customers and users	187.066,67	113.400
Payments to suppliers	- 50.022,79	- 7.323
Payments to personnel	- 99.879,32	- 22.918
Cash generated from operations	37.164,56	83.159
Payment/receipt of income tax	- 10,53	0
Other receipts/payments	1.487.223,15	-3.222
Cash Flows from Operating Activities (1)	1.524.377,18	79.937
Cash flows from investing activities		
Payments relating to:		
Tangible fixed assets	- 999,98	- 1.129
Cash Flows from Investing Activities (2)	- 999,98	- 1.129
Cash flows from financing activities		
Cash Flows from Financing Activities (3)	0	0
Cash and equivalents variation (1+2+3)	1.523.377,20	78.808
Effect of exchange rate differences	0	0
Cash and equivalents at the beginning of the period	78.808	0
Cash and equivalents at the end of the period	1.602.185,20	78.808



AUDITOR REPORT



G. CASTRO, R. SILVA, A. DIAS & E. AMORIM, SROIC, LDA

STATUTORY AUDITOR'S REPORT

(Free translation from a report originally issued in Portuguese language. In case of doubt the Portuguese version will always prevail)

REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS

Opinion

We have audited the accompanying financial statements of **INFRAESTRUTURA DE INVESTIGAÇÃO DE RECURSOS MICROBIANOS – CONSÓRCIO PARA UMA INFRAESTRUTURA EUROPEIA DE INVESTIGAÇÃO - MIRRI-ERIC** (the Entity), which comprise the balance sheet as at December 31, 2024 (showing a total of 1 619 658 euros and a total net equity of 194 972 euros, including a net profit of 130 877 euros), the income statement by nature, the statement of changes in equity and the statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements give a true and fair view, in all material respects, of the financial position of **INFRAESTRUTURA DE INVESTIGAÇÃO DE RECURSOS MICROBIANOS – CONSÓRCIO PARA UMA INFRAESTRUTURA EUROPEIA DE INVESTIGAÇÃO - MIRRI-ERIC** as at December 31, 2024, and of its financial performance and its cash flows for the year then ended in accordance with the Accounting and Financial Reporting Standard for Non-Profit Sector Entities adopted in Portugal through the Accounting Standardization System.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs) and further technical and ethical standards and guidelines as issued by Ordem dos Revisores Oficiais de Contas (the Portuguese Institute of Statutory Auditors). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section below. We are independent of the Entity in accordance with the law and we have fulfilled other ethical requirements in accordance with the Ordem dos Revisores Oficiais de Contas code of ethics.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for:



G. CASTRO, R. SILVA, A. DIAS & F. AMORIM, SROU, LDA

- the preparation of financial statements that give a true and fair view of the Entity's financial position, financial performance and cash flows in accordance with the Accounting and Financial Reporting Standard for Non-Profit Sector Entities adopted in Portugal through the Accounting Standardization System;
- the preparation of the management report in accordance with applicable laws and regulations;
- designing and maintaining an appropriate internal control system to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error;
- the adoption of accounting policies and principles appropriate in the circumstances; and
- assessing the Entity's ability to continue as a going concern, and disclosing, as applicable, the matters that may cast significant doubt about the Entity's ability to continue as a going concern.

Auditor's Responsibilities for the Audit of the Financial Statements

Our responsibility is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Entity's internal control;
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management;
- conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are

FUTURE OUTLOOK AND GOALS

The year 2024 marked a pivotal phase for MIRRI-ERIC, defined by consolidation, strategic growth and the reinforcement of our role as a key player in the European research infrastructure landscape. Guided by the 2024–2028 Work Program, we achieved significant milestones, including the formalisation of governance structures, enhanced operational frameworks and increased visibility across European and international research communities. Our community expanded notably with Greece joining as a Member and Romania as an Observer, broadening our reach and capacity.

Looking ahead to 2025, MIRRI-ERIC will focus on two key priorities: the formalisation of operational links between the Central Coordinating Unit and National Nodes and the full-scale implementation of our service platforms, namely MIRRI-IS and the Collaborative Working Environment. These initiatives are central to advancing our Strategic Objectives 2 (Strengthening) and 3 (Empowering), particularly in terms of data integration and user access to microbial resources.

We also anticipate the launch of the first Transnational Access call under the Microbes4Climate project—supporting researchers addressing climate-related microbial challenges—and the commencement of the Horizon Europe-funded MALDIBANK project, coordinated by MIRRI-ERIC, to revolutionise microbial resource management through advanced mass spectrometry.

In parallel, our strategic expansion continues. With Italy poised to join as a new member in 2025, we are committed to reaching broader user communities across Europe. This growth will be supported by targeted funding efforts under Horizon Europe, facilitating the recruitment of key personnel as outlined in our Staff Establishment Plan.

MIRRI-ERIC is well-positioned to scale new heights in scientific innovation, fostering impactful collaborations and advancing microbial research for the benefit of Europe and beyond.

Ashley Novais
Chief of Operations Officer

AUTHORS

Ana Portugal Melo & Ashley Novais

CONTRIBUTORS

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