

## **Microbial Resource Research Infrastructure MIRRI**

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<b>Scientific area:</b>	Life Sciences (Microbiology)
<b>Host country:</b>	Portugal
<b>Infrastructure type:</b>	Distributed
<b>Dutch node or similar:</b>	Not applicable
<b>Legal Entity</b>	ERIC
<b>Established:</b>	2022
<b>Dutch member since :</b>	Prospective member
<b>Phase:</b>	Preparation

### **Duration of agreement**

n/a

### **Terms of withdrawal**

n/a

### **Access to facilities**

MIRRI is engaged to provide as much as open and free access as financially possible, especially for Member and Observer countries. However, for sustainability reasons, free-open access will not always be implemented, in which case user fees may apply, especially for users from countries that are not contributing Members or for those following a market-driven mode of access. MIRRI-ERIC will seek funding mechanisms to reduce the cost of access for users, for example through research collaborations or transnational access supported by EU-funded projects.

### **Access to data**

Open Access

### **User definition**

“Users” are defined as individuals, teams or organizations falling in any of the following categories: Academia (including Research and/or Education organizations); Industry/Companies (including startups, SMEs and large companies); microbial domain Biological Resource Centres (mBRCs) and Culture Collections (CCs); Public authorities and services (including policy makers), Intergovernmental Organizations (IGOs), and Non-Governmental Organizations (NGOs); Science communication professionals and journalists; Citizens. Users are engaged in the conception, creation, transference and valorization of new knowledge, products, processes, methods or systems, as well as in the management of projects, in policymaking, and in communication or educational activities. Teams can include researchers, doctoral candidates, technical staff and students participating in research in the framework of their studies.

### **Description:**

The Microbial Resource Research Infrastructure (MIRRI) is the pan-European distributed Research Infrastructure for the preservation, systematic investigation, provision and valorization of microbial resources and biodiversity. It currently brings together more than 50+ microbial domain Biological Resource Centres (mBRCs), culture collections and research institutes from ten European countries and one associated country. In the European Strategy Forum on Research Infrastructures (ESFRI) Roadmap since 2010, now on its Health & Food domain.

### **Financial details**

n/a

### **Employee statistics**

n/a

*Comments by the RI*

Headquarters of MIRRI was established in 2020. At present, 5 persons are working for the headquarters (3 Male, 2 Female). In general, the partners of MIRRI agreed to spend about 10% of their capacities on MIRRI services. It is not yet known what this means in terms of FTE.

**Use of the infrastructure**

**User information**

n/a

*Comments by the RI*

MIRRI was not yet operational in the years covered by this survey. The sum of the number of unique users of each of the partners of MIRRI gives an idea about the number of potential users of MIRRI (i.e. 4.861 in 2018 and 6.201 in 2019). Not applicable yet. MIRRI is not fully in operational phase yet. At present, two Transnational Access (TNA) calls are run as pilot projects to test and continuously improve the procedures on managing the requests and providing the access to samples, services or facilities.

**Application information**

n/a

*Comments by the RI*

Even if MIRRI is not fully in operational phase yet, users are already spontaneously contacting MIRRI with request for services (including services that were addressed to the Netherlands).

**Sample request information**

n/a

*Comments by the RI*

Even if MIRRI is not fully in operational phase yet, the MIRRI catalogue was made available on the website in March 2021, and since then users are already spontaneously contacting MIRRI with a request for samples (including requests that were addressed to the Netherlands).

**Data request information**

n/a

*Comments by the RI*

Most data are freely available through the MIRRI catalogue.

**Contributions provided by organisations or companies in the participating countries**

n/a

*Comments by the RI*

From 2019, MIRRI can use software offered freely by a company. Portugal offers the salary of one person of the headquarters as in-kind contribution. In general, the partners of MIRRI agreed to spend about 10% of their capacities on MIRRI services. It is not yet known what this means in terms of other deliveries such as equipment, services and consumables.

**Income from user fees**

n/a

**Comments by the RI**

User fees can only be obtained after MIRRI-ERIC is created. Until then, users fees are invoiced by the partners.

### **Additional questions to the RI (2020)**

#### **What is the Dutch contribution to the RI?**

In the Netherlands, the microbial collections are in the Westerdijk Institute (WI). WI is a major contributor to MIRRI's catalogues (especially strains, but also services, and training and education) and expertise (especially biotech/applications). The Netherlands is among the top-countries providing microbial resources to prospective MIRRI users, according to a recent survey. Through MIRRI membership, Dutch users can benefit from the enlarged and centrally accessible offer. In addition, the microbial material of the Westerdijk Institute will benefit from increased visibility through MIRRI. The Westerdijk Institute has been designated by MIRRI to take part in a proposal (under preparation) to a Horizon Europe call. The project is coordinated by IBISBA (which also has a national node in the Netherlands). The participation of the Netherlands in MIRRI can contribute to the Dutch missions for grand challenges, namely on the themes of "energy transition and sustainability", "agriculture, water and food", and "health and healthcare".

#### **Currently, are there any RI's that provide similar kinds of research infrastructure and services as yours in the world?**

Worldwide there are about 650 public culture collections of which 220 are located in Europe. China has several big culture collections, and Asian networks are in place. US has recently provided funding to a network of US collections (USCCN) to develop similar activities as of MIRRI. Microbial resources and associated data are key to ensuring the competitiveness and the strategic autonomy of Europe in relation to the US, China, etc., both in terms of preservation and protection of biodiversity, and their application for biotechnological and bioindustrial purposes. Europe must have a strategic autonomy in preserving and providing micro-organisms and related services for research and industrial purposes. European bioindustry must have access to microbial material and expertise within Europe. MIRRI gives the European culture collections the opportunity to operate in an integrated way. As such, MIRRI contributes to the construction of the European Research Area and facilitates the work of users of microbial resources.

#### **What are the overlaps and what are the main differences? To which extent do you cooperate or compete?**

MIRRI is a unique RI in Europe addressing the microbial biorepositories. Considering the ESFRI landscape/roadmap, there are similarities with BBMRI (focus on human cell lines), DiSSCo (focus on non-microbial natural history collections) and EMBRC (focus on marine organisms). There is almost no overlap in holding, but synergies can be created by working together on common processes (e.g. on quality management, databases, legal affairs). Synergies with other (NL participating) ESFRI RIs have already been identified, on data/digital (LifeWatch, ELIXIR), biobanking (BBMRI, ERINHA), and biotech (IBISBA), with several joint projects/initiatives involving MIRRI and those RIs already in place. Possible synergies between MIRRI and DiSSCo are to be exploited in the future, with a potential role for ARISE to play at national level.

#### **What are the RI's major educational and outreach activities?**

The MIRRI catalogue of training and education covers 25 courses, ranging from technical courses on characterisation and preservation of micro-organisms, to quality management, and management of culture collections. MIRRI will launch the "European Specialisation Course on Microbial Resource Centres (EuroMiRC) in September 2022 (one-semester course, 30 ECTS). MIRRI and the British Embassy Lisbon have co-launched the Biotech' Business Mentorship Support (BBMS) Programme, providing support for researchers selected by MIRRI among the applicants to the 1st TNA call, in the form of a mentorship scheme to cover crucial research-to-market topics. By the end of the programme, participants will have defined their value proposition, further validated their idea, and developed a better understanding of their innovation's route to market. MIRRI has held several outreach/informative events, covering topics such as support to users interested in applying to the TNA calls; future research, innovation and market trends/opportunities on the use of microbial resources; emerging, cutting-edge technologies for culture collections; funding opportunities under Horizon Europe. Workshops on Access and Benefit-Sharing (ABS), on Biorisk, and on the ISO 20387:2018.