



Microbial Resource Research Infrastructure

General Information

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MIRRI

- builds a **pan-European distributed research infrastructure** that provides facilitated **access** to high quality **microorganisms**, their derivatives, associated **data** and **services** for research, development and application
- connects public resource centres with researchers and policy makers as well as other stakeholders to **deliver material and services** more effectively and efficiently to **meet the needs of innovation** in biotechnology



Our vision

The **vision of MIRRI** is to be an unique pan-European high-performance platform **adding value to known and yet unknown microbial biodiversity** and **exploiting novel sources and knowledge** to discover and disclose for the bio-economy and bioscience.

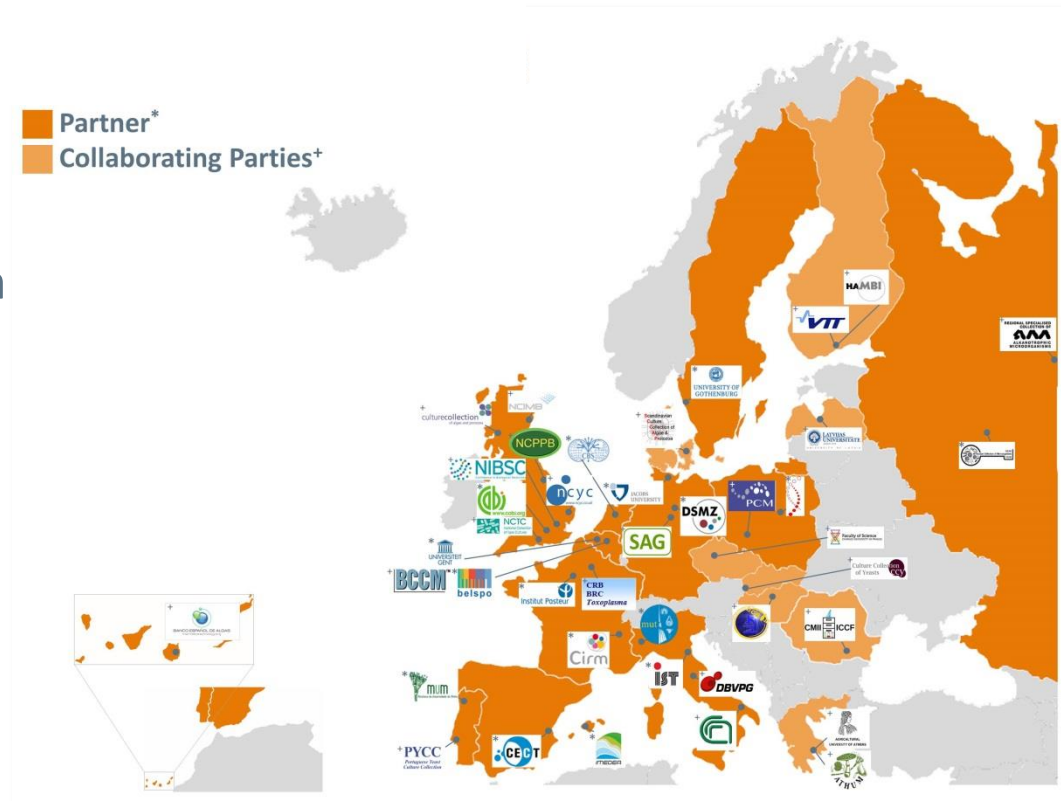
MIRRI will generate solutions to societal challenges by stimulating interaction between academia and bio-industry.

Background

During the **Preparatory Phase** (2012-2015) the MIRRI consortium comprises **16 Partners** (dark orange) and **27 Collaborating Parties** (light orange), representing 19 countries throughout Europe.

In the upcoming **Transition Phase**, starting in 11/2015, the MIRRI consortium aims to establish MIRRI as an European Research Infrastructure Consortium (ERIC) under EU law.

Full operability is envisaged for beginning of 2017.



MIRRI within the European Strategy Forum on Research Infrastructures (ESFRI)



MIRRI will complement other ESFRI initiatives by covering yet underrepresented but important research areas in biotechnology.

[Click to get more information about [ESFRI](#) and [ESFRI projects](#).]

What is the need for MIRRI?

MIRRI is situated within a gigantic bio-industry sector with
> 2,000 biotech companies in Europe, with

~ 55,000 employees, generating

~ 20 billions Euros revenues (in 2013)¹ and

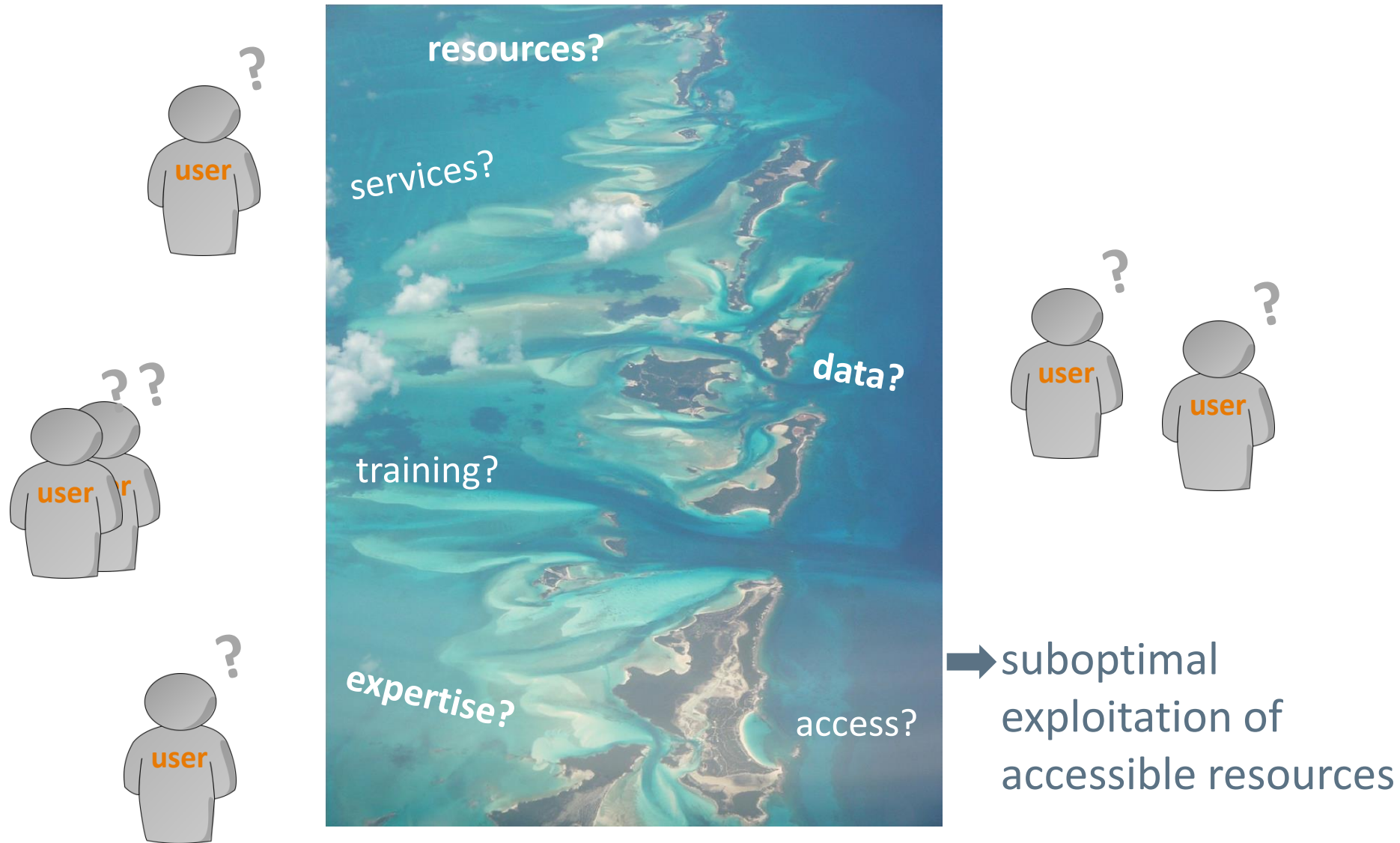
~ 7% growth rate expected per year²

BUT...

¹Ernst&Young, Biotechnology Industry Report 2014

²BIO-TIC, The Bioeconomy enabled – A roadmap to a thriving industrial biotechnology sector in Europe

... the information is fragmented!



Main challenges for MIRRI

- a) Fundamental uncertainty about the full **value** inherent in **microbial resources** and how to **access** it
- b) Major shortcomings in the way **data** on microbial resources is **presented**
- c) The **quality** and **reproducibility** of microbial science need significant improvement
- d) Microbial diversity **services** need to be trusted and sustained
- e) The need to be able to **capture value and benefit** from microbial resources

How does MIRRI tackle these challenges?

- MIRRI serves Bioscience and Bio-industry users by **facilitating access** to a broad range of high quality **bio-resources and data** in a legal compliant way.
By offering access to **human expertise** and providing a **collaborative platform** for long-term sustainability of microbial biodiversity MIRRI will increase knowledge and promote professional development.
- At the European level, MIRRI **creates synergies** with other research infrastructures (RIs), whilst globally it collaborates with other microbial resource RIs.
- MIRRI **underpins national interests** supporting the protection of the investment, **empowering bio-economy growth** and increasing the competitiveness of the country.

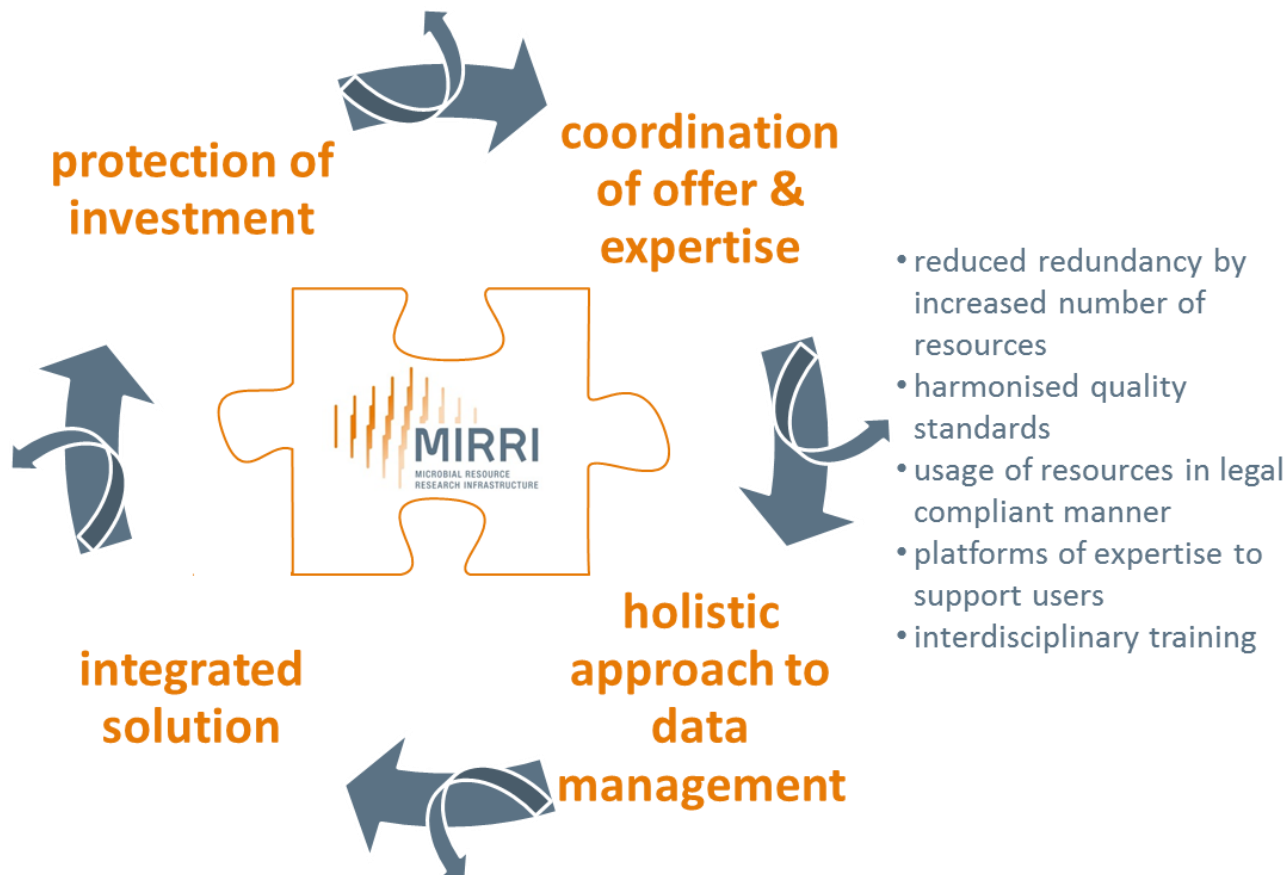
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MIRRI Integrated Solution

MIRRI Integrated Solution

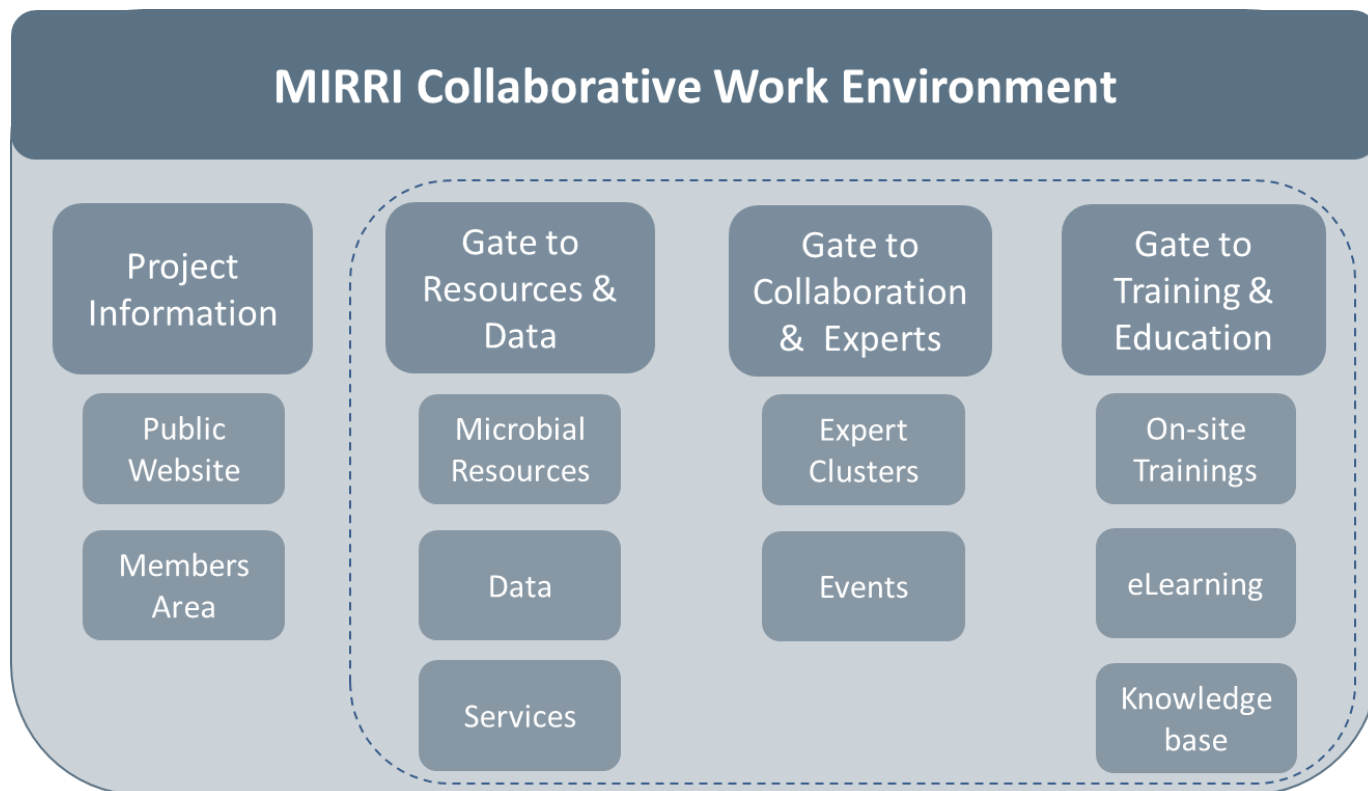
- improvement of credibility of science
- consistency with research council policy by return of investment
- establishment networks of interdisciplinary collaborations

- foster innovation through excellence in science
- stimulation of economic growth by supporting the bio-economy
- solutions to the Grand Challenges via the MIRRI integrated solution
- job development



Implementation

MIRRI translates its distributed network structure into a virtual and dynamic **collaborative work environment (CWE)** in which partners, users and other stakeholders of MIRRI share knowledge, exchange experience and collaborate to achieve common goals in research and development.



MIRRI CWE

One virtual entry point, directing to the interlinked

- **Gate to Resources & Data**

- access to all issues related to microbial resources, e.g. online catalogues of mBRCs, purchase, deposit

- **Gate to Collaboration & Experts**

- access to different expert clusters, e.g. biosecurity, taxonomy
- access to potential collaborators from other infrastructures

- **Gate to Training & Education**

- access to training courses (e-learning, on-site)
- access to education programs

What makes MIRRI different?

What is the special thing about being an infrastructure?

- **Together**, MIRRI can afford the full range of often expensive technologies needed **to explore biodiversity**: an integrated spectrum of equipment, data, service, knowledge etc.
- **Together**, MIRRI provides **access to the entire spectrum of microorganisms** accessible via a single entry point
- **Together**, MIRRI sets **European standards** of collection, curation and analysis
- **Together**, MIRRI sets ambitious, collaborative **research goals** over extended periods
- **Together**, MIRRI can **share** best practices, standards, data, personnel, knowledge etc.

What makes MIRRI different?

- Together, MIRRI can nurture the **tree of innovation**

