

e-IRG Workshop under Slovenian EU Presidency

Session: Careers in e-Infrastructures

Executive Masters in Management of Research Infrastructures

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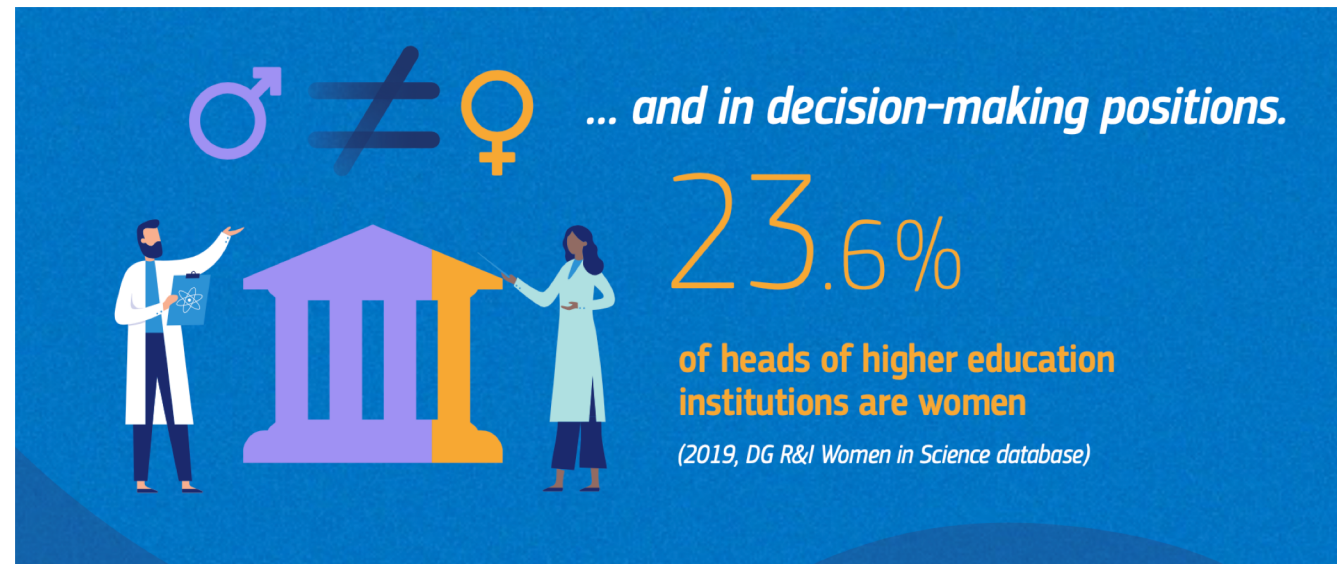
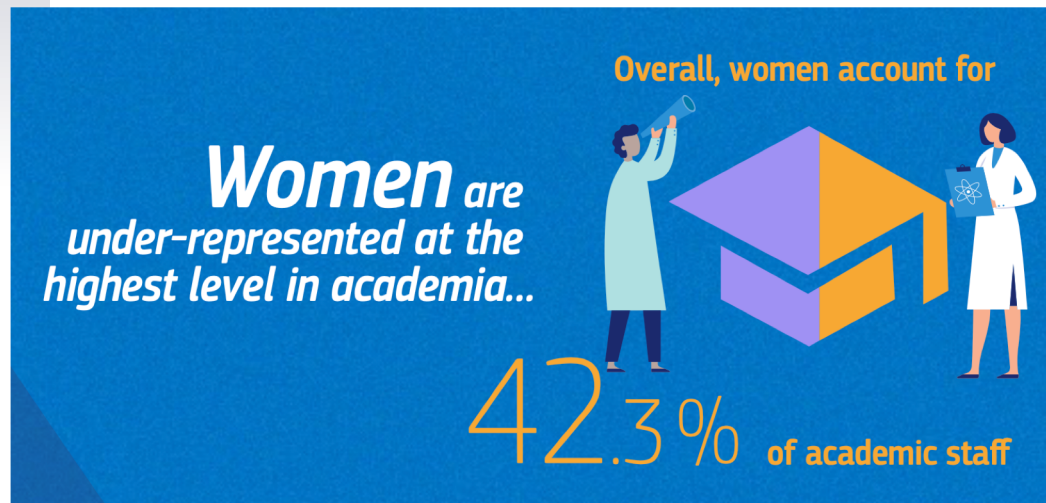
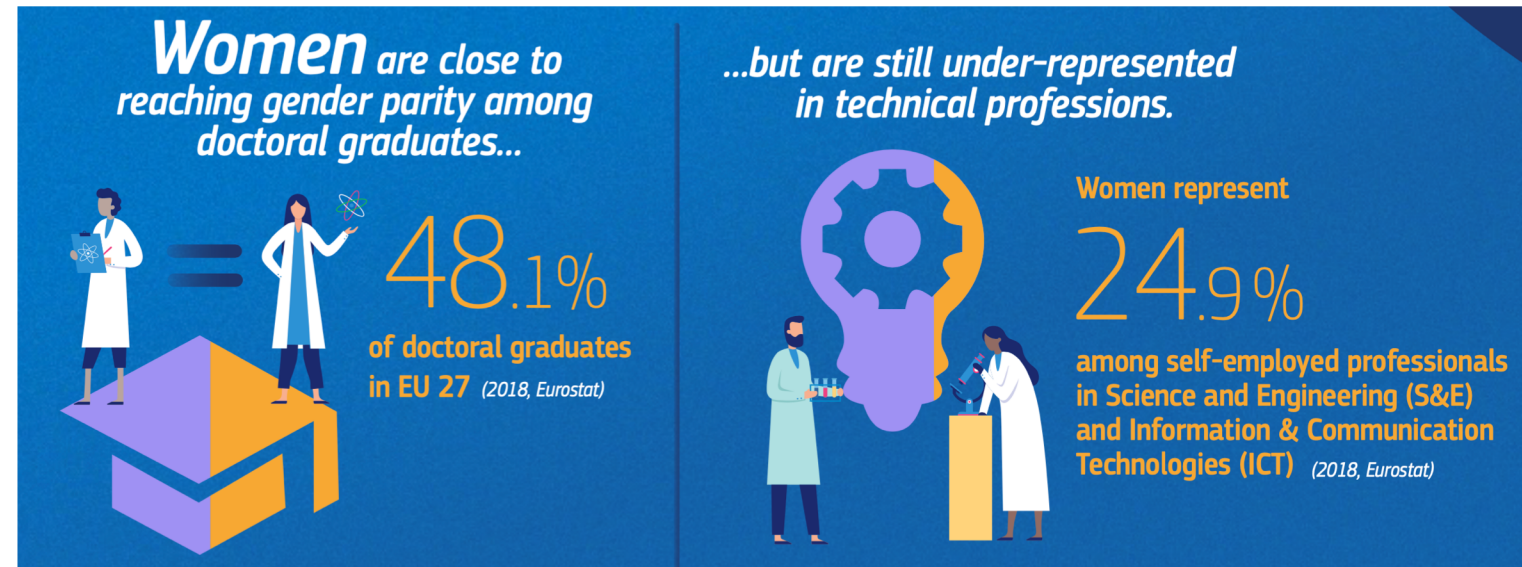


- RI: the contest
 - woman in science
 - need for managerial training
- Executive Masters in Management of Research Infrastructures
- Impact on gender equality
- RltrainPlus project:
 - targeting current managers of Ris
 - preparing the future managers and operators of Ris
 - gender dimension in the project

Woman in science

SHE FIGURES 2021

SHE FIGURES presents data on the European Commission's gender equality priorities in the field of research and innovation policy.



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Research Infrastructures are a vital element for the realization of the **European Union as a knowledge-based society**.

RIs are at the core of the **Open Science and Open Innovation** strategy and a major factor in its success being standing pillars for excellence in science.

The **EU and Member States** invested a significant budget in the development of Research Infrastructure.

Questions about how to organize, maintain, manage and finance them have become a major topic.

RI are complex organizations

Managers and operators require a distinct **set of competencies** to deal with issues such as multinational operations, transnational access and data flow, different social security systems, different cultures, different legal systems etc.



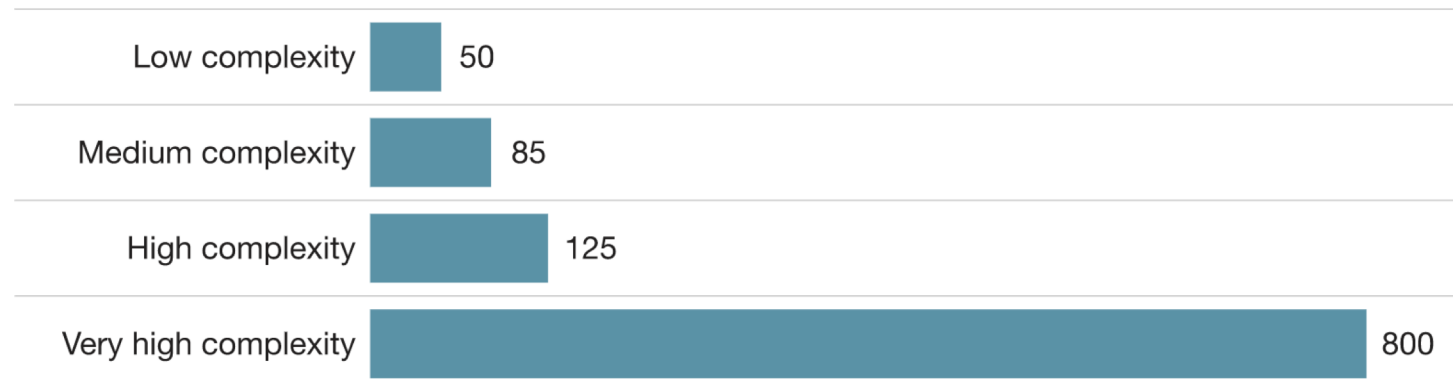
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Managers of research infrastructures must have a scientific understanding, be part of the scientific user community and at the same time **balance the scientific needs and the technical possibilities with the management skills** necessary for the operation of large, expensive facilities and the diplomatic skills required to engage with and define agreements between a large number of international actors.

Relationship between quality of managers and performance

Productivity gap between average performers and high performers, by job complexity, %



In highly complex organizations high performers are an astounding 800% more productive

Source McKinsey global survey: "war for talents"



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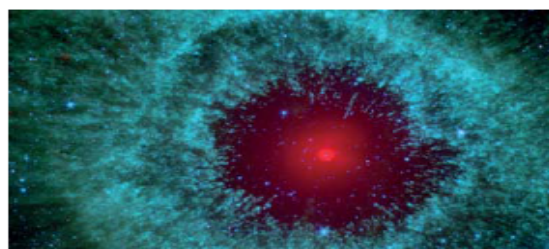
Rltrain project # 654156 (2015-2020)



Launch of a unique international management development programme

EXECUTIVE MASTERS IN MANAGEMENT OF RESEARCH INFRASTRUCTURES

SEPTEMBER 2017 – MARCH 2019



In collaboration with Rltrain Partners



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UNIMIB developed EMMRI, a custom program that is designed for RIs, just like a tailored suit.

- Based on an in-depth analysis of an Infrastructure's needs and operating context
- Designed to suit the profile of the organisation;
- Entirely tailored as far as contents, tools, duration and place are concerned;
- Flexible and adaptable to the needs of science professionals and RIs

Rltrain project # 654156 (2015-2020)



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- EMMRI is a unique international management development programme tailored to the specific needs of Research Infrastructures.
- The programme is designed to give experienced science professionals the skills and knowledge they need to take on greater managerial responsibilities.
- The programme covers competencies required to meet the needs of RIs in the planning, construction and operation phases.
- The aim is to develop the new generation of executives of national and international RIs who understand the necessity of undergoing professional training to acquire managerial and leadership skills.

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- Delivered by the University of Milano-Bicocca



- The **Faculty** is composed of experienced academics from UniMiB, guest faculty from other prominent business schools, research infrastructures, and selected organisations (29 visiting professors)

EMMRI <http://www.emmri.unimib.it/>



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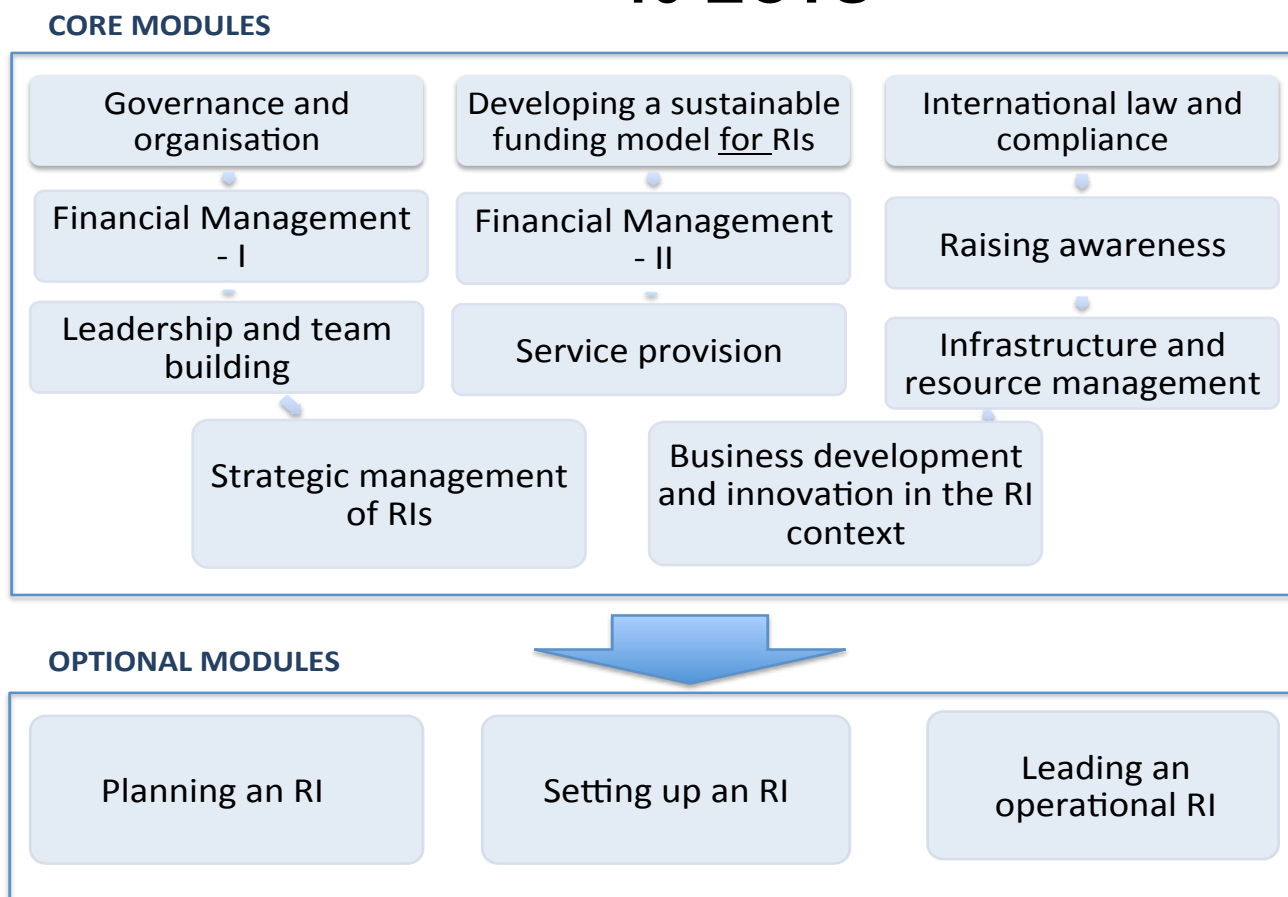
EMMRI - Programme structure

3-4 days modules over a period of 18 months for a total of 12 modules,
7 on-campus and 5 full online

40 ECTS

20 ECTS

- Lectures,
- talks by experts from RIs and guest speakers,
- webinars
- case study analysis

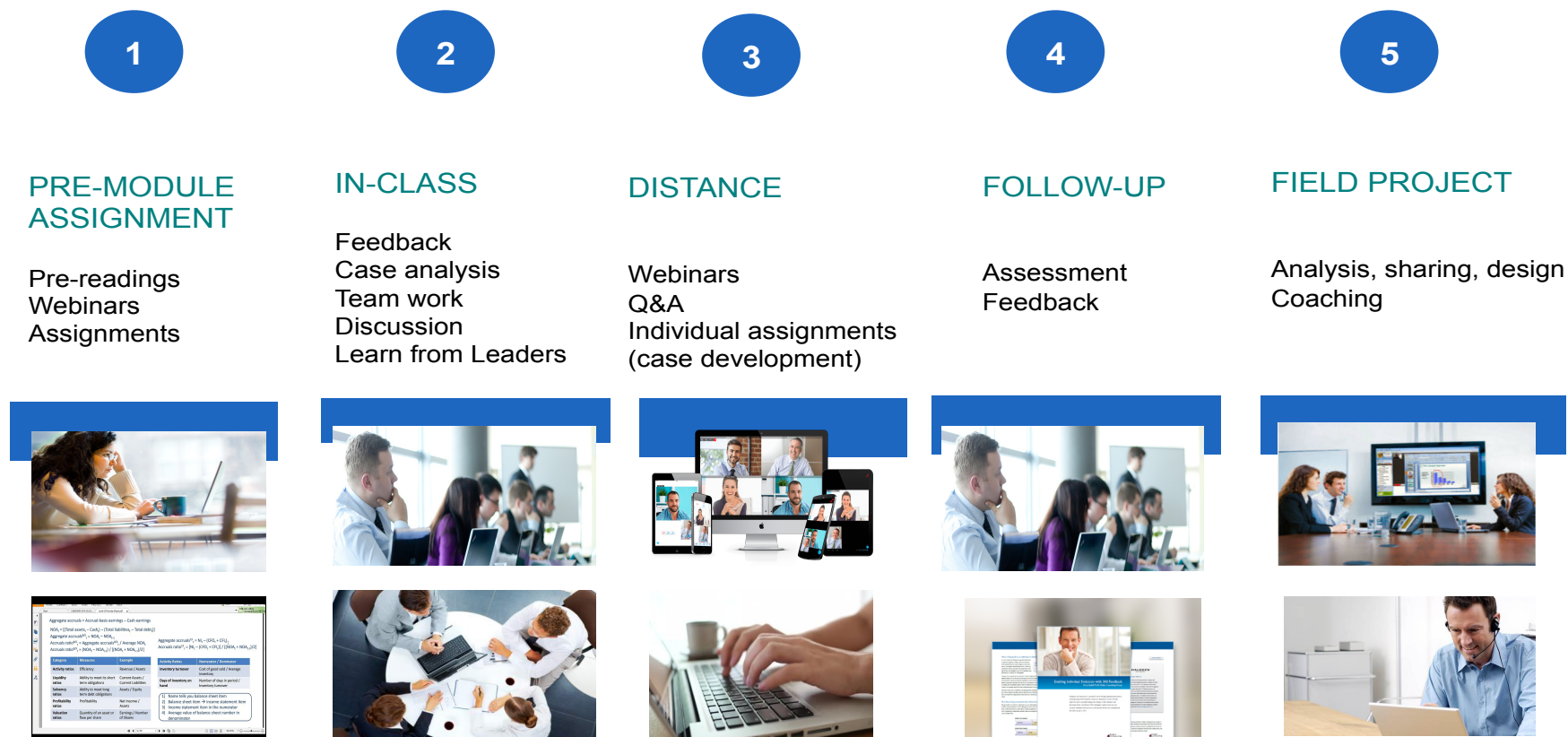


Field project

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The learning format



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Impact on gender equality

- The learning activities developed within the Master are focused on making individuals more aware of **gender stereotypes** and about **gender inequalities** they face as professionals in different fields.
- The design of the courses consider **gender-sensitive contents**, methodology, language and visual materials.



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EMMRI class profile - at a glance

| | EMMRI#1 | EMMRI#2 | EMMRI#3 | EMMRI#4 |
|-----------------------|------------|------------|------------|------------|
| Women | 41% | 48% | 73% | 40% |
| Average age | 45 | 44 | 45 | 41 |
| Under 40 | 5 | 5 | 3 | 6 |
| Over 50 | 5 | 5 | 3 | 3 |
| Countries represented | 10 | 12 | 10 | 8 |

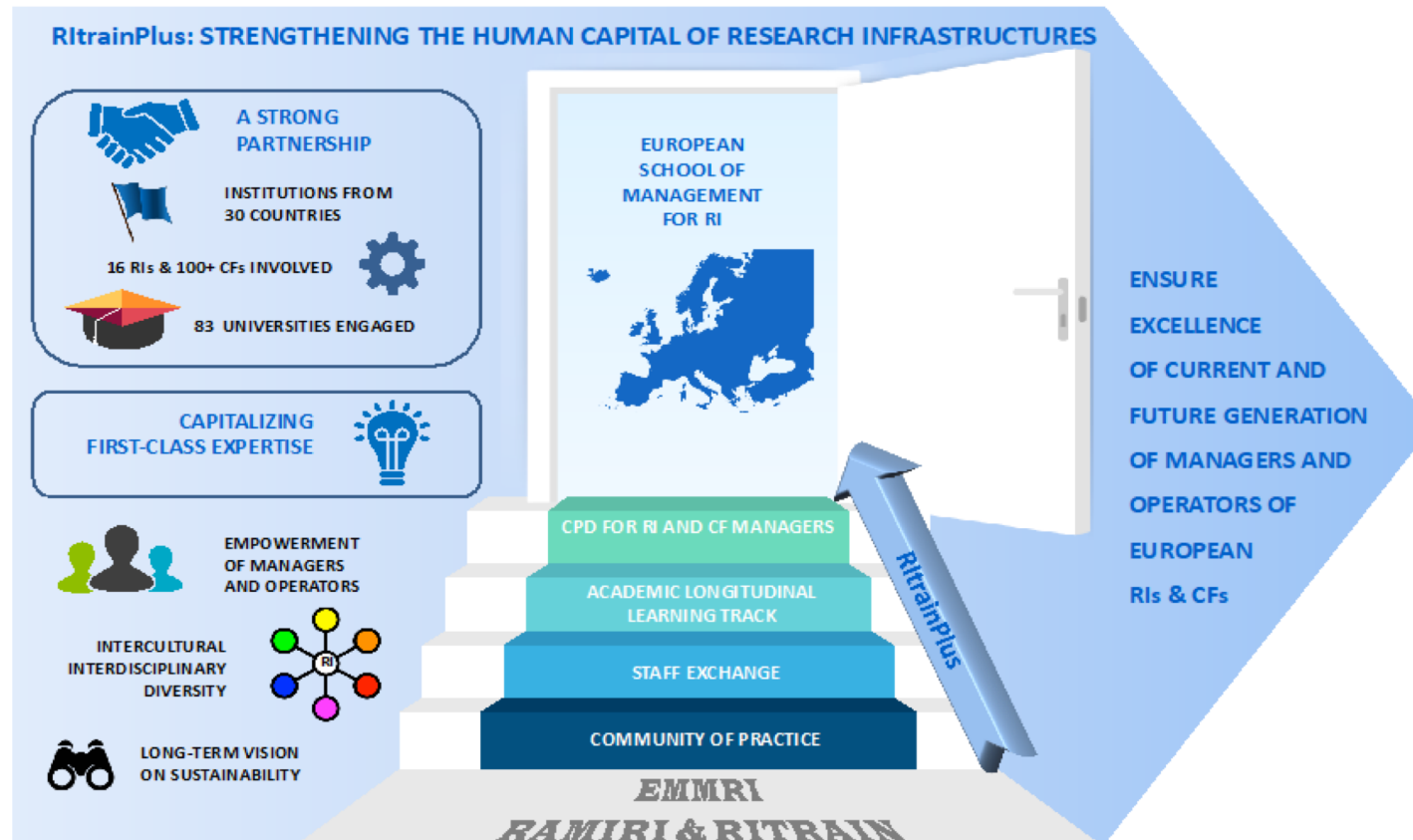
Selection criteria:

1. Experience, current position and training needs
2. Motivation and potential (sponsorship from the RI top management)



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RltrainPlus project is built on the experience gained **Rltrain** projects and **goes further** with the aim of designing a training programme to strengthen knowledge and competencies not only for professionals currently working in RIs but also to prepare the future generations of managers and operators and to **pave the way for a career path**.

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Targeting current managers and operators of RIs

- Design and delivery of specific cross-field **executive programmes** (Continuous Professional Development courses), as *formal learning* activities (including data policy and management);
- Development of a “**train the trainers’ kit**”, to allow other providers to replicate the courses and to ensure the scalability of Continuous Professional Development courses;
- Development of a **coaching programme** for managers working in RIs, to reinforce the knowledge transfer methodology with a more personalized and tailored training



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Targeting current managers and operators of RIs

- Development of **staff and knowledge exchange** with a short-term mobility programme at different RI locations, to promote the *learning on the job* approach
- Development of a **Community of Practice** to structure opportunities of knowledge and best practices sharing, through a *peer learning* approach

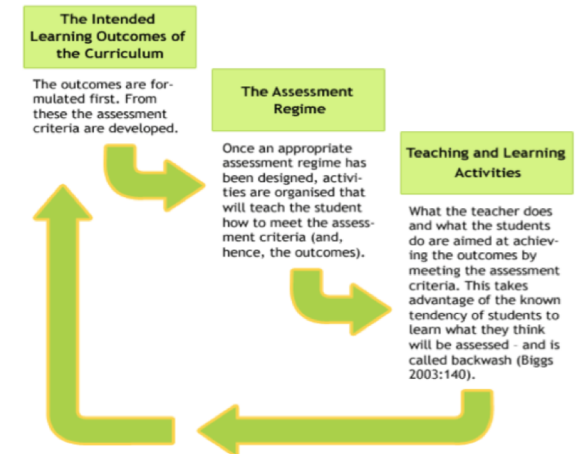


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Preparing the future managers and operators of RIs

- **Competency profile definition** and identification of training needs for RIs
- Development of **Learning Activities** to be embedded in existing university programmes at different EQF levels to form an innovative, flexible and certifiable **European Longitudinal Learning Track**



This will pave the way of a **career path** for the new generation of RI managers and operators.

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Setting the ground for long-term sustainability of training

- Designing a permanent ‘European School of Management for Research Infrastructures’ (ESMRI)
- the School will primarily be responsible for
 - curricula design and development,
 - training of trainers,
 - accreditation of courses delivered by other providers,
 - delivery of specific programmes (Executive Seminars).
 - monitor the Learning Activities embedded in different university programmes of different European universities,
 - coordinate **LA integration in a Longitudinal Learning Track** spanning at three different levels of university education
 - **certify the track** to the students that will successfully complete it.



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Gender dimension in the project:

Gender equality will be addressed throughout the project:

- by the evaluation of policies affecting gender equality at RIs (WP2);
- by equipping trainees with strategies to integrate gender, diversity and equality dimensions in their daily work, overcoming social stereotypes and resistances (WP2 and WP3);
- by fostering the community of practice as training ground for the implementation of gender equality (WP4);
- by the delivery and accreditation of high-level courses promoting RRI and gender equality (WP3 and WP5).
- by the development - through ESMRI - of a RI ecosystem empowering gender equality (WP5).



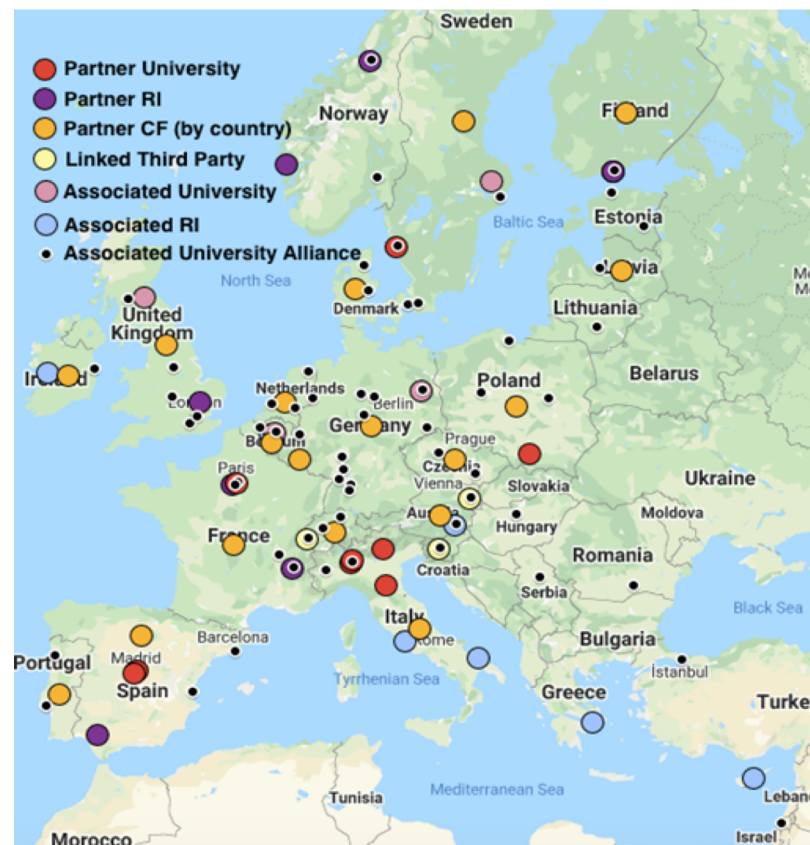
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A strong partnership

Geographical distribution of consortium beneficiary partners, linked third parties, associated partners, universities reached out through the university alliances, CFs grouped by countries.

- 83 Universities engaged
- 16 RIs
- 100 CFs
- 30 Countries



The **Consortium** brings together different **RIs** and **CFs** from all **scientific domains**, **Universities** and **Research Performing Organisations** hosting infrastructures and/or national nodes of RIs as well as **umbrella organisations** of university and CF networks.

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A strong partnership

- Selected **RIs of different scientific fields** to provide advice on management training needs and contribute to the development of the new School's governance model
- Selected European **Universities** available to pilot the re-design and development of scientific curricula at undergraduate, graduate and post-graduated level and to develop career path specific for RIs.
- **European Associations of Universities and Leagues** (The GUILD, UNAEuropa, 4EU+, CESAER) to develop specific business and management topics and define guidelines on how to embed them in the curricula of scientific degrees at undergraduate, graduate and post-graduated level
- **All partners** (beneficiary and associated partners) to develop a sustainable governance and funding model for the operations of the new School as well as to pilot new management development programmes.



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Take home message

MEMBER STATES

Management role in the curricula :
Need for specific training for
managers and operators of RIs
New topics and skills to be included
in the education curricula

RI

Provide career path for people who are involved in RIs.
Need for specific training for managers and operators of RIs
Avoid fragmentation of training initiatives

The EUROPEAN COMMISSION

Gender equality priorities in the field
of research and innovation policy.



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