



## Workshop Report

# Design Study Workshop: A European School for Management of RIs (ESMRI)

### **RltrainPlus**

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Project Coordinator University Milano Bicocca

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# Summary

On May 5<sup>th</sup> and 6<sup>th</sup>, 2022 the RItrainPlus project hosted the workshop “Design Study Workshop, A European School for Management of RIs (ESMRI)”, at the University of Milano, Bicocca, Italy. The workshop explored conceptual, legal and financial requirements to establish a European School for Management of RIs (ESMRIs) awarding international academic certificates. On a broader scale, this included the exploration of different angles to consider when working towards professionalising training related to research infrastructure management. Invited speakers present about ongoing initiatives, past experiences, and best practices allowing to gain an in-depth understanding of the field. Aspects such as accreditation, course focus (knowledge, skills, methods, governance, and management practice within RIs), course delivery, training sustainability and specific exchange programmes were covered.

This is specifically interesting, since often, scientists are being promoted into research infrastructure leadership positions, and find transitioning between the two challenging. The transition into a managerial role requires a new skill set and individuals might need training and mentoring in organisational administration, finance and leadership to be effective in the role; conversely non-scientific staff moving into RIs needs training and mentoring to effectively project other critical skills such as business administration, project management and policy within the highly specialised scientific service role of RI organisations.

Several speakers stressed the role of Research infrastructures in addressing grand challenges and the necessity to set up specific education and training for RIs and CFs avoiding redundancy and reducing costs. Indeed, currently, training efforts are scattered across different (EC-funded) projects with each funded for similar activities. Partly leading to many parallel efforts working towards the same aim (“training”). A joint approach should be considered with a coordinated training program to be integrated in universities’ curricula.

The workshop moved on to outline a European School for Research Management that can coordinate the continuous development, dissemination, delivery, and certification of the learning activities, allowing for continuous professional development, and for monitoring and certifying the learning activities embedded in different university tracks and contributing to the European Longitudinal Learning Track. A key observation in the workshop was that leadership is practised at every level, many roles in a research infrastructure are externally facing and interact with users and other stakeholders. Research infrastructure managers need to have a strong focus on service culture, setting organisational values and support development of staff to meet organisational requirements as well as offering attractive career development for retention.

The national and European research infrastructure portfolio is a large investment for Europe. The workshop concluded that a strategic investment is needed to ensure that the people and skills required to successfully manage this portfolio; and that there is a need to develop a career path as a research manager, drive the professionalisation of research management to meet the specific coordination needs in this landscape.

The workshop articulated the foundations for a European School for Research Management (ESReM) awarding international academic certificates and the conceptual, legal, and financial requirements for establishing such a school.

The agenda can be seen below, and has been completed with speaker summaries, highlighting key takeaways.

<b>Day 1 - May 5<sup>th</sup>, 2022</b> <b>Setting up an ESMRI: Strategic Considerations</b>	
12:00	Arrival & Lunch
13:00	<p>Marialuisa Lavitrano: <b>The RItrainPlus vision</b>  <i>EOSC Association Director, BBMRI-IT Director, Full professor of Pathology, Director of Molecular Medicine Unit and of the Executive Master in Management of Research Infrastructures, University of Milano-Bicocca</i></p> <ul style="list-style-type: none"> <li>- There is a need to address special, interdisciplinary needs - aiming for LifeLong learning/management education - especially in the field of RI's</li> <li>- Training should not be scattered across project efforts, but ideally centralised and coordinated <ul style="list-style-type: none"> <li>- Large budget/s are invested, but money is split across many efforts, making it less effective</li> </ul> </li> </ul>
13:15	<p>Carlo Rizzuto: <b>Management development in Research Infrastructures</b>  <i>Chair of the General Assembly of CERIC - ERIC</i></p> <ul style="list-style-type: none"> <li>- Necessity of the European School (ESReM) to be connected to research on what management requires in this context, and case studies</li> <li>- Management of RI's is not subject to deep analysis and a theoretical basis for this field needs to be developed</li> <li>- Management of human resources in the research environment "tends to be ignored", human resources managers tend to be rare <ul style="list-style-type: none"> <li>- Management/operational options need to be considered</li> </ul> </li> <li>- Managing a RI is managing a complex enterprise with both scientific and non-scientific stakeholders and a rapidly evolving marketplace. <ul style="list-style-type: none"> <li>- There is a need to link to and align with FAIR data approaches, EOSC, other initiatives.</li> </ul> </li> <li>- There is a need to understand – how to motivate the people: money, visibility, effect on career, effect of upgrading technical know-how</li> <li>- Practical challenge: if we define EU-level managers, there should be EU-level staff in general at present employment contracts (and careers) are only national: this decreases mobility and career perspectives, there is the need to develop a "cross-EU" contract/common frame for all professional backgrounds (including researchers/managers/technicians/communicators...etc required in RIs - options on how to develop this EU Contract need to be explored!</li> </ul>
13:30	<p>Dominik Sobczak: <b>Life-long learning in Europe, Training and carriers of RI managers and operators in the context of the ERA Policy Agenda</b>  <i>Deputy Head of Unit at European Commission, DG Research &amp; Innovation</i></p> <ul style="list-style-type: none"> <li>- Context: European Council adopted recommendations and actions to deepen the European Research Area, a number of these are in accord with the objectives of the School, including:</li> </ul>

- Coordination of Union and national investments and reforms in order to strengthen national research and innovation systems and increase their impact (at Union level)
- RI's established a borderless market for research, innovation and technology across the EU and play a major role in addressing global challenges
  - This is a success story to now build on
- Elaborated three ERA Actions:
  - Action 3: Advance towards the reform of the Assessment System for research, researchers and institutions to improve their quality, performance and impact
  - Action 4: Promote attractive and sustainable research careers, balanced talent circulation and international, transdisciplinary and inter-sectoral mobility across the ERA
  - Action 8: Strengthen sustainability, accessibility and resilience of research infrastructures in the ERA
- The implementation of the European Research Area (ERA) has contributed to some major achievements, in areas such as:
  - Research Infrastructures, open science, international cooperation, gender balance in research and innovation, joint programming, research careers and the mobility of researchers.

#### Panel discussion

- There seems to be a large enough audience (given the number of RIs)
  - Question: do RIs have resources to upskill staff/including managers
  - EC underlines the need to upskill staff – expenses are eligible to be requested from the EC/project

14:00

Michael Gaebel: **The Role of universities in professional development**  
*Director of Higher Education Policy Unit, European University Association*

- Consider elements similar to and/or based on the LLL (life-long-learning) principles which are currently also being integrated in European Higher Education
    - LLL - gradual shift from HE as a privilege towards a “new secondary degree”
    - LLL as a response to the labour market to upskill workers
    - LLL often different/adapted mission (compared to traditional degrees)
  - Mobility/European connections – now on the agenda of University leadership & policy level
    - RI's can be on the forefront, since EU connections are at its core
  - Institutions are seeing a changing need in skills - requiring additional training
- Universities will only adapt if there is a need - e.g. ESFRI's requesting/asking for this kind of LLL modules
- Explore and understand the role of the European University association in facilitating the dialogue and collaboration on higher education as well as research policy and practices.

14:30

Ari Asmi: **The landscape of European Research Infrastructures (RIs)**  
*Director, Research Data Alliance*

- People challenge - often/especially in smaller RIs the members are also the users
  - RI nature/focus defines certain role profiles, ...

	<ul style="list-style-type: none"> <li>- Management not only for “managers” - also consider e.g. national representatives (Ari Asmi) – panel discussion</li> <li>- Management success will extrapolate research quality (Ari Asmi)</li> </ul>
15:00	<i>Coffee Break</i>
15:30	<p>Jana Kolar: <b>ESFRI and the needs for skills</b>  <i>ESFRI Chair, CERIC-ERIC Executive Director</i></p> <ul style="list-style-type: none"> <li>- “The most important resource for a RI is, arguably, its human capital (Roadmap 2018)” and there is an urgent need to develop measures in support of career diversification and multiple career path (LTS for RIs)</li> <li>- The RI’s mission is often a moving target - includes policy developments - e.g. now includes EOSC, SDGs, industry interactions, ...</li> <li>- “Do we need the school: Jana: today – contradicting her statement four year ago: “yes the school is needed”” <ul style="list-style-type: none"> <li>- Consider expanding to wider “Research Management” – RI (managers) represent a limited community – open up to other life sciences/research management</li> </ul> </li> <li>- New ERA (2021): INVITES Member States and the Commission to develop measures in support of career diversification and multiple career paths</li> <li>- In an effort to deepen the European Research Area, the Council invites Member States and the Commission to develop measures in support of career diversification and multiple career paths.</li> </ul>
16:00	<p>Ute Gunsenheimer: <b>EOSC and Open Science in RIs</b>  <i>EOSC Association Secretary General</i></p> <ul style="list-style-type: none"> <li>- The overarching principle for developing EOSC is that research has to be at the centre of the EOSC initiative</li> <li>- Community, commission, members states – “Tripartite setting” <ul style="list-style-type: none"> <li>- Training is needed to connect the dots – to educate the people to use/interact and keep shaping the infrastructure</li> </ul> </li> </ul>
16:30	<p><b>The need for and importance of non-scientific skills in research infrastructures for impact and delivery</b>  <i>Moderator: Marialuisa Lavitrano</i>  Niklas Blomberg, <i>Director, ELIXIR</i>  Helen Glaves, <i>President of the European Geosciences Union</i>  Giorgio Rossi, <i>Full professor of Physics, former ESFRI Chair, EOSC Steering Board Member</i>  Francisco Colomer, <i>Director JIVE ERIC, and ERIC Forum Chair</i>  Ornela De Giacomo, <i>Deputy Executive Director CERIC-ERIC &amp; PaNOSC Executive Board Chair</i></p>
<p><b>Marialuisa Lavitrano</b></p> <ul style="list-style-type: none"> <li>- There is a need to develop the career – as a “research manager”</li> </ul>	

- → embedding in existing degrees/courses as an option - BUT consider the specific need of coordination towards managerial, leadership skills for people working in research/RIs more specifically

#### **Niklas Blomberg (Lifesciences)**

- RI staff has often decided to embark on an alternative scientific career (compared to the traditional research/university-based path - this requires specific/adapted support to fully leverage (necessary) skills
- Using existing project management certification/s could be a first step/can be embedded
- Idea: distributed RIs/training to e.g. develop a network of Project Managers - also leveraging from the EMMRI
- *Supporting micro-model approach: to factor for the wide range of participants – e.g. European RIs, single site, federated, RIs, CFs, technology platforms (Bettina Trueb)*

#### **Helen Glaves (Climate)**

- There is a big need to make RIs function – require capacity building and training
  - Requirement of “soft skills” – communication skills, how people are managed
    - FYI: These are not “soft” skills – but highly needed/very important
    - *CERN refers to these as “interpersonal skills” (Pascale xxx)*
- RIs bring together people: interdisciplinary context, different cultures - “the culture map” needs to be considered when developing training
- Skills are important, training is important → there is a need to establishing a training school for research infrastructure management
- There is a need to invest in the human capital to retain expertise and valuable team members
- “Navigating this landscape (European Research Area, RI’s & CF’s) requires strong leadership and management skills”

#### **Giorgio Rossi (Physics)**

- RIs as highly complex undertakings - Scale and size go along, hence RIs need a management team – with a diverse set of management skills, training, and backgrounds
  - Diverse blend of scientific and non-scientific requirements → requires adequate management (& training) to lead to success
  - Importance to consider non-scientists (with scientific understanding) during hiring processes (Eva xxx DisCo)
- FAIR data as core of RI’s - “as open as possible, as close as necessary” - adapted management to fully leverage

#### **Francisco Colomer**

- The RI leader needs to build trust. Communication is key - with stakeholders, e.g., policy makers, internal to the RI (staff), external users, ... bridging the gap between people requires good management.
- Having a school will also raise awareness within the institutions of the need to have trained staff for special tasks, and more opportunities to enrol them in such training.

#### **Ornela De Giacomo**

- Within RI’s promotion is often linked to scientific success - but the required skill set is along managerial tasks

	<ul style="list-style-type: none"> <li>- A manager needs to be able to convey the goals of the organisation clearly and understand what the individual worker needs/requires/motivates him/her/... <ul style="list-style-type: none"> <li>- Managers are not only “the manager” but exist at different levels within an RI</li> </ul> </li> <li>- There is a visible challenge that e.g., hired physicists need to be administrators/managers to grow in their career – they need to take on other responsibilities to grow (Pascale, CERN)</li> <li>- Managers need to be flexible to adapt to the changing context and policy, including managing crisis (e.g. COVID, energy crisis)</li> <li>- Giving flexibility - e.g., consider modules based on LLL/microcredits instead of a full two-year programme - thinking about an “open system” that can also provide flexibility to adapt contents to policy (e.g. environmental sustainability, energy efficiency, etc). <ul style="list-style-type: none"> <li>- <i>This approach makes training more scalable, specific/targeted, and economically accessible/approachable (Niklas Blomnerg)</i></li> </ul> </li> </ul>
18:00 -18:15	<p><i>Wrap-up of the day</i></p> <p><i>Speaker: Marialuisa Lavitrano // Paolo Cherubini</i></p>

<b>Day 2 - May 6<sup>th</sup>, 2022</b> <b>European success stories of transnational learning and professional development</b>	
8:30	<i>Introductions to the day, expected outcomes</i>
8:40	<p>Fabrizio Tassinari: <b>The European University Institute as a transnational hub of research and higher learning</b></p> <p><i>European University Institute, Executive Director of Transnational Governance</i></p>
	<ul style="list-style-type: none"> <li>- When working in a transnational setting – a slightly different skills &amp; mindset is required - e.g., with regards to negotiation - requires a different skillset (e.g. people from different countries and/or different backgrounds/areas/industry vs. academic setting) (Fabrizio Tassinari)</li> <li>- Coupling trans-national and sub-national aspects - including multi-level governance – needs to address in scenarios with at times incompatibility of analysis and actions (Niklas Blomberg)</li> <li>- Idea: using the EUI - European University Institute model as a possible ESMRI model (Marialuisa Lavitrano) - idea for ESMRI emerged after visiting the EUI <ul style="list-style-type: none"> <li>- need to start a dialogue between RI's, schools, universities, EUI</li> </ul> </li> </ul>
9:00	<p>Alessandra Gallerano: <b>The critical role of universities - The ErasmusPlus Initiative (<a href="#">Erasmus+</a>, <a href="#">Erasmus Mundus</a>)</b></p> <p><i>Head of Projects and Mobility Office, International Relations, University of Padua</i></p>
	<ul style="list-style-type: none"> <li>- From the Bologna Process, Erasmus Mundus and European University initiatives - the EC wants to bring cooperation to the next level - focus on “European degrees/joint programmes/transnational efforts” <ul style="list-style-type: none"> <li>- Erasmus Mundus was a driving force for the development of joint programmes.</li> <li>- These examples can serve as business models to set up a school, e.g., a federated setup with the School as a shared common service between Member States</li> </ul> </li> <li>- For a successful programme (including its setup) - it is crucial to get the right people on board</li> </ul>

	<ul style="list-style-type: none"> <li>- ESMIR (esp. regarding legal/degree regulations) should/can learn from past efforts</li> </ul>
9:20	<p>Enrico Guarini: <b>The <a href="#">EMMRI</a> experience/Management challenges in Research Infrastructures</b>  <i>Associate professor of Business Administration and Management, University of Milano-Bicocca</i></p>
	<ul style="list-style-type: none"> <li>- Very complex RI landscape makes it hard to develop a one-fits all training for RI managers             <ul style="list-style-type: none"> <li>- Cross-fertilisation (across RIs and CFs) is enriching for all</li> </ul> </li> </ul>
9:40	<i>Coffee Break</i>
9:50	<p>Antonino Rotolo: <b>Microcredentials/life-long learning &amp; RItrainPlus (WP2) first examples: “Harmonisation of Training”/Microcredentials</b>  <i>Professor of Philosophy of Law at the University of Bologna</i></p>
	<ul style="list-style-type: none"> <li>- RI’s have a large variety of members/staff that need to be trained (managers “at all levels”) (Antonio Rotolo)             <ul style="list-style-type: none"> <li>- Microcredential courses (and LifeLong learning experiences) are/can be designed very flexibly - they can/should follow a scientific approach</li> <li>- This approach allows to harmonise training programmes</li> </ul> </li> </ul>
10:00	<p>Emilio Urbinati: <b>Opening and sharing research infrastructures and resources within the Una Europa alliance: the Unibo contribution to the project Una.Resin</b>  <i>Project Manager and Research Advisor, University of Bologna</i></p>
	<ul style="list-style-type: none"> <li>- UNA.RESIN project presentation             <ul style="list-style-type: none"> <li>- Aims to strengthen the research and innovation (R&amp;I) aspect of Una Europa, in synergy with the education aspects</li> <li>- First steps towards creating a common R&amp;I eco-system for researchers and partners from all Una Europa universities.</li> </ul> </li> </ul>
10:10	<p>Maria Jose Rementeria: <b>Diversity/Gender Aspects, learnings from the BioInfo4Women Initiative</b>  <i>Social Link Analytics Team Leader, Barcelona Supercomputing Centre</i></p>
	<ul style="list-style-type: none"> <li>- Diversity: refers to different age, gender, race, background - can no longer be ignored             <ul style="list-style-type: none"> <li>- Organisations should create a positive climate &amp; invest in diversity - actively support (without being too over-optimistic)</li> </ul> </li> <li>- Importance to train people in diversity - raise awareness around challenges, e.g., using statistics and visuals</li> </ul>
10:30	Wrap up: Enrico Guarini and Marialuisa Lavitrano
<p>The workshop concluded that existing programmes (e.g EMMRI) or existing internal courses provide a good starting point for training RI and CF managers and need to be pursued. For specific roles such as IT and project management this can be complemented by existing certification schemes. It was noted that a lasting benefit of the programmes targeting RI and CFs is the development of informal European professional networks. Strengthening these and allowing participation from a wide range of</p>	



participants from European RIs (single site, federated, RIs, CFs and technology platforms) is a critical step for cross fertilisation and professionalisation of the careers and effectively supports the mobility of staff across Europe.

While the EC's funding of specific training initiatives is a useful policy approach, it may be not sustainable in the long run.

Moreover, it does not allow the scalability of solutions as the providers are only the grant winners.

11:00

*EMMRI graduation ceremony - for invited EMMRI graduates*

#### **Speaker list (alphabetical order)**

We thank all the workshop contributors for their contributions to the workshop as well as this summary document.

Alessandra Gallerano (Head of Projects and Mobility Office, International Relations, University of Padua)

Antonino Rotolo (Professor of Philosophy of Law at the University of Bologna)

Ari Asmi (Director, Research Data Alliance)

Carlo Rizzuto (Chair of the General Assembly of CERIC - ERIC)

Dominik Sobczak (Deputy Head of Unit at European Commission, DG Research & Innovation)

Emilio Urbinati (Project Manager and Research Advisor, University of Bologna)

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Helen Graves (President of the European Geosciences Union)

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Ute Gunsenheimer (EOSC Association Secretary General)