Training opportunities and challenges for management of international RIs

Pamela Zolda (RAMIRI alumna)

EIBIR-European Institute for Biomedical Imaging Research, Vienna

RAMIRI

The **complexity & variety** of European RIs (distributed, single sited, e-infrastructures), their establishment as ERICs or other legal frameworks, their different lifecycles and **the different scientific domains** in which they operate, require different managerial expertise.

Evolution

RIs: many RIs (most of them from ESFRI roadmap) are currently moving from the preparation/design into the implementation phase, often facing a remarkable change in the decision- making structure: RI environment is rapidly evolving

RI Staff: change in competence profile -> scientists/technicians -> managers

Diverse environment, however there is a number of **common challenges** for RI management from design to construction and operation: strategic planning, project financing, legal and governance, human resources, technology transfer and external communication.

"**RI Staff**" does comprise RI mangers and operators, but also involves policy-makers, government officers, representatives of public funding agencies, lawyers, industry partners

-> very different educational and professional backgrounds

Common managerial skills e.g. for setting-up a RI governance based on different legal frameworks, for exploring different funding opportunities, as well as for implementing procurement strategies suitable for an international consortium are required

These skills are still not widely available and the demand for RI managers is forecast to increase, also in part due to the implementation of the ESFRI Roadmap and the activities called for under Horizon2020

Need for tailored Training Programme in RI Management to ensure the provision of professionally trained RI staff and smooth implementation process

FP7: Realising and Managing International Research Infrastructures (RAMIRI)

- **RAMIRI (2008-2010**)—Start-up phase: conference series; set-up of network of experts from all RI domains and types, provided outline and direction for future RI training activities; senior level initiative; no training courses, but guidelines towards a best management practices

- **RAMIRI2 (2010-2013**): 2 Training cycles/ RAMIRI Handbook

- **RAMIRI Workshop, April 2013 Brussels**: requirements/ visions / wish list for related activities under H2020 presented to RAMIRI alumni/expert network and EC representatives

RAMIRI

RAMIRI2 Training Cycles

- Preparation phase (learning/reading material based on RAMIRI)

- On-site training workshops (3 days)

  - RAMIRI expert network as trainers/speakers

  - 6 learning modules: *Making the case, Life cycle of a RI, Legal and Governance Issues, Finance, Human Resources, RI Management*

  - Case studies (hands-on exercise; simulation of different scenarios for e.g. finance models for distributed vs. single sited RIs)

  - site visits covering a number of projects across all RI domains

- Evaluation phase

  - detailed feedback from trainees on training cycle 1 -> improve training cycle 2

  - feedback on RAMIRI2 -> perspectives for H2020

RAMIRI2 Training Cycles

- 90 trainees

- 20 countries

- Representatives from all scientific domains and RI types

- Profiles/background
    - management/legal/technology transfer/ staff scientists (running RIs)
    - management/legal/ staff scientists (emerging RIs)
    - funding body representatives

RAMIRI 2 Evaluation

- Content covered main aspects

- Format, duration and group size was appropriate

- Case studies: instructive, challenging, no one –fits- all solution

- Talk to the experts/ seniors—RAMIRI Network

Benefits according to profile…

Trainees from running RIs (management) -> learn from best practice and recent developments-handle complex situations/ **advanced level | "Managing RIs"**

Trainees from emerging RIs (management) -> learn from best practice / **early career level |"Realizing RIs"**

Scientists: basic information on "getting involved and how it works"

Trainees from **funding bodies** -> basic information on what " RIs are doing and why"

- **Continuation of training courses for early career RI managers (RAMIRI2-format)**

- **Provision of advanced training courses on**
  - Horizon 2020 funding and other EU funds to cover the operational cost
  - Open access (policies and execution)
  - Model of financing of the existing facilities, the sources of financing
  - ERICs
  - Governance schemes and their decision processes
  - Procurement procedures
  - In-kind contribution management and rules for use and access
  - VAT and tax-related issues
  - Technology transfer and commercialisation
  - Networking of RIs and mobility of researchers and personnel in general amongst Ris
  - Data storage, data management

  - Negotiation skills

- **Remote participation**

- **Interaction with RAMIRI Network**

- **Online training material (Expansion of RAMIRI Handbook)**

- Key deliverable of RAMIRI2

- www.ramiri-blog.eu/

- Online introductory instrument for a quick access to principles of RIs and their management

- Follows modular structure of RAMIRI2

- Easily expandable for e.g. domain specific training modules

- Regular update desirable

RAMIRI HANDBOOK

GRANT AGREEMENT N. 262567

Introduction

Chapter 1
Making the Case

Chapter 2
Life Cycle of a RI

Chapter 3
Legal & Governance Issues

Chapter 4
Finance

Chapter 5
Human Resources

Chapter 6
RI Management

Useful Reference Texts and Definitions

Editorial

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Introduction to the Handbook

Carlo Rizzuto

This Handbook (**HB** in the following) is intended as an introductory instrument for people who need a quick access to the main definitions and references on the major issues related to Research Infrastructures. Many of these issues are similar to those affecting Research (as distinct but strongly interacting with Development and Innovation) and have to deal with the perceived or expected socio-economic results, with the ensuing management aspects.

Research Infrastructures (**RI**s in the following) have, compared to Research, the additional burden of being often very expensive and visible, as well as of needing to outreach and serve researchers well beyond the "owners" and "paymasters" ("the shareholders"): this may open completely different aspects, compared to Research activities, in the expectations of and interactions with both the "shareholders" and the "stakeholders" (i.e. those individuals, communities and institutions which should feel the advantage of the existence and activity of an RI and, therefore, be the "political" base for their existence.

The Handbook will follow closely the structure of the RAMIRI2 course and start by giving, in Making the Case and Setting the Scene the essential definitions of the issues and of the "rules of the game" involving and affecting the success of RIs and of the research performed in them. It will, then, go through the Life Cycle of a RI, Legal and Governance Issues, Finance, Human Resources and RI Management.

The content of this HB has been developed having in mind the following questions:

- How can we explain the advantages of RIs for science and beyond (by using numbers if possible or by using convincing **narratives** and examples, if numbers are not available)?

- How can we achieve the best results in developing and operating RIs (and achieve success both in fund raising, and in using the funds in the most effective way)?

- How can we reach a long term sustainability in their operation/upgrade and eventual phase-off?

- How can we manage the personal and institutional interactions within a complex environment of different and differently motivated scientists, funders, and stakeholders?

- Dedicated Training Programme for RI staff preferably embedded in an online environment (blended approach of online and on-site training)

- Modular programme that can be adapted to specific needs of individual domains and types of RIs

- Make use of experience gained by previously funded initiatives in the field

  e.g. use proven concept/structure; make use of the (trainers) network and ; address needs expressed by trainees; make use of available training material

- Provide continuity-> move into sustainability (e.g. by embedding/linking the programme into an academic curriculum)

Scope: The activity will support the **training of staff managing and operating research infrastructures**. A proposal under this topic **should build on** the past activities and the experience gained in the projects **such as RAMIRI** (Realising and Managing International Research Infrastructures). It should **engage with universities** and prepare curricula and courses specifically for pan-European research infrastructures to address their intercultural and interdisciplinary nature as well as their diversity (global, highly distributed, single site etc.). A significant use of **interactive online training material** should be considered.

Expected impact: This activity will improve and **professionalize the training of the staff** managing and operating research infrastructures of European interest, strengthen the human capital of the involved research infrastructures, **stimulating their efficient management and therefore promoting their development and competitiveness** at national, European and international level.

- **Call closed on September 2ⁿᵈ, 2014**

- **3 proposals currently under evaluation**

- **indicative launch of Training in late 2015/early 2016**

RAMIRI

- Need for Training Programme in RI management to warrant the smooth implementation of the ESFRI Roadmap and activities called for under Horizon2020 (Cluster Calls, Integrating Activities)

- Strong demand for training

- Should meet professional quality standards and address the specific knowledge and skills needs of early-career and advanced RI staff

- RAMIRI provided a viable approach and concept for a dedicated training programme as well as accessible online material and built a valuable and extendable network for collaboration and support

- Use new tools and media

- Sustainability

RAMIRI