Action 17: ENHANCE THE STRATEGIC CAPACITY OF EUROPE'S PUBLIC RESEARCH PERFORMING AND FUNDING ORGANISATIONS
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1. Description	The Commission announced in the European Skills Agenda (30 June 2020) to develop science management curricula, in close cooperation with stakeholders and Member States. The Council in its Conclusions on the new ERA (1 Dec. 2020) recognised the need for the professionalization of science management at research performing and funding organisations (further on referred to as research management[1]) and considered the added value of cooperation between training providers to develop research management programmes and guidelines. For that reason, the Council called on the Commission to launch a pilot action for a Europe-wide networking programme for research managers including related to research infrastructure.
	Action 17 intends to go a step further, through the development of a **Research Management Initiative**. The **overarching aim** of this initiative is to contribute to improve the European R&I system across the entire ERA by particularly *strengthening the capacity for research management in Europe's public research performing and funding organisations*.
	Research management takes various shapes across the ERA (and beyond), and therefore its **scope** is multi-dimensional, including but not limited to the following functions/roles[2]:
	- research policy advice, evidence-based policy making, foresight and strategy development - research coordination, research development, research project and funding management, financial support - evaluation and assessment support - research and complementary training programme management - data-based research support, such as data stewards and data analysts, exploitation of research data, data protection - specialised research infrastructure operation - scientific integrity and ethics expertise, legal support - science communication support - knowledge transfer and innovation support, knowledge brokering, incubator coordination and business development
	Challenges to Europe's research management capacity are:

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[1] Research management refers to the operation (research), while science management refers to the result of the operation (science). The initiative we are pursuing in action 17 intends to improve the overall R&I system across the ERA by increasing support capacity for the operation. We therefore refer to research management.

[2] The scope could be narrowed, for instance by splitting research management from innovation support; roles like financial support and legal support usually are already recognised job profiles and could be omitted; for some roles, like EU funding support with existing EU-level networks and training capacities, the dimension calls for support for consolidation and coordination, while for others capacity is absent and needs to be build.

- Research performing and funding entities, local ecosystems, and regions who are proven strong in knowledge creation and circulation usually rely on a strong community of research managers. An important challenge for the European R&I system in this respect is the <u>uneven distribution of research management communities and expertise across the ERA</u>. Laggard countries, regions, institutions often lack such communities, or do not have sufficient access to expertise.
- There is a strong need for creating sustained pan-European research management training – both in virtual and in non-virtual curricula. This would help to create <u>solid networks of early career managers</u> that will last throughout their careers, in the various dimensions of research management for which such opportunities do not yet exist. Through such networks, a higher-level compatibility across the ERA through collaborating in multilateral projects or funding mechanisms could eventually be realised.
- Similar to this challenge, whilst large institutions can hire support staff in discrete and specialised roles, smaller institutions often need support staff to combine roles. Both approaches, but particular the latter require readily <u>access to training and practice exchange platforms</u> and networks, where these are not yet structurally present across ERA for the various research management dimensions.
- The research environment is constantly maturing in order to address an increasingly rigorous approach to Responsible Research and integrity. This in turn lends itself to new areas of specialisation for which support is required, such as gendered innovation, sustainable development or interdisciplinarity. Additionally, the implementation of common science agendas undertaken by networks institutions or alliances of universities in order to address global challenges requires additional skillsets and mechanisms of cross-institutional support development. Hence, the <u>need for new skills is constantly evolving</u>.
- Overall, there seems to be a <u>lack of recognition of the profession</u> of research managers or research support staff, as compared to other policy sectors. While in some countries specialised staff like (for instance) data stewards and financial officers have an official job profile, thereby contributing to attractive career paths, in other countries supporting frameworks for such careers are absent, often associated to differences in research funding systems.
- Similarly, <u>accreditation</u> of training and career development programmes for research managers in the diverse specialisations is lacking, despite meritorious efforts from few national (often north-western) initiatives and European networks for research funding officers (e.g. in Germany, such efforts were reported to be carried out not only for research funding support officers, but for more diverse R&I and support careers).

Following these challenges, the **specific objectives** of the European Research Management Initiative are:

- UPSKILLING: improve training and skills development of research management staff through a cooperation of training providers and higher education institutions, aiming at establishing training and career development programmes to respond to demand from the communities and market
- RECOGNITION: contribute to professionalisation and thereby recognition of the continuously evolving, multi-faceted role of the research management profession across the ERA, including through supporting initiatives for accreditation of training programmes and through developing a framework for research management careers
- NETWORKING: support networking of research managers and best practice exchange via cross-border networks in the various dimensions of research management. It is important that those networks will be created through both virtual and non-virtual curricula.
- CAPACITY BUILDING: reinforce research management capacity across the entire ERA, notably supporting laggard regions and research organisations. It is important that those capacities will be created through both virtual and non-virtual curricula.

We foresee the following **new activities** to be deployed under the Research Management Initiative, in a joint effort from MS and EC, in cooperation with research managers and existing communities:

- UPSKILLING: In coordination with Action 4 (strengthening research careers, competence framework for researchers), support initiatives towards non-linear careers for research managers and career diversification of PhD talents towards research management profiles, and definition of skills and competences, considering that the skills and competences we expect of researchers are in many cases complementary to the skills and competences required within research management support.
- RECOGNITION: Together with national experts, the community of practitioners, and existing networks of research managers, create joint virtual and non-virtual training programmes and curricula for research managers and prepare the road to certification and accreditation. Programmes will address both core 'disciplinary' aspects (e.g. open science, ethics, infrastructure) and transversal skills and competencies (e.g. communication, management, autonomy), paving the way for career diversification of PhDs so that moving from research to research management becomes a recognised pathway for researchers.
- NETWORKING: Support for virtual and non-virtual networks of research managers from public research performing and funding organisations at national level, as well as cross-border European operational networks (existing or new) that target the different dimensions of research management (see definition above) for practice exchange, supporting all career stages but focussing in particular on early career stage research managers.
- CAPACITY BUILDING: Support at European level for a staff

<u>exchange programme</u> for all career stages and in particular early career research managers, complementing national initiatives and national funding (e.g. salaries by host country, travel & subsistence by EU level), to support networking and training through virtual and physical exchange of practices. Focus could be put on exchanges that help build capacity in laggard regions and institutions through collaboration with stakeholders from advanced Member States (for instance aligned with ERA Talents action under widening).

One should **take into account existing support** for some of the research management dimensions in line with aformentioned objectives (or support that is underway), and build on these. For instance, expertise and networks have been (or will be) initiated for open science, data management, ethics and also EU research funding support. In these cases, consolidation efforts are needed. In other cases, such as structural training programmes and recognition for the diverse profession, initiatives are missing, or limited to national level. Overall, the various existing support activities merit <u>coordination and grouping to improve accessibility under a EU-level Research Management Initiative</u>.

Past support activities include the following activities, which can constitute a testbed, in order to refine best practices and identify gaps related to the scope:

- UPSKILLING: skills and training in the digital context of EOSC (which includes training more data stewards, and increasing advanced digital skills) is derived from the Strategic Research and Innovation Agenda for the EOSC Partnership.
- UPSKILLING and NETWORKING: "HORIZON-INFRA-2021-EOSC-01-01: Supporting an EOSC-ready digitally skilled workforce", aims at upskilling and training through the development of new curricula, including to foster the "development of a distributed pan-European user support network, supporting the collaboration of existing networks of competence and data curation centres, in order to provide expertise on storing, sharing and re-using digital outputs".
- UPSKILLING: ongoing Horizon 2020 project EOSC Future is tasked with delivering a federated training catalogue where training materials are FAIR, building on previous efforts such as FOSTER and FOSTER Plus projects.
- UPSKILLING: Through Erasmus+, the foRMAtion project supports students in higher education sector towards the research management profession, specifically focussed on transversal skills to manage European level education, research, innovation projects.
- UPSKILLING: EIT's HEI Initiative provides support higher education institutions with expertise and coaching, access to the EIT innovation ecosystem, and funding, enabling them to develop innovation action plans complementing the needs of individual higher education institutions.

	- UPSKILLING: Through H2020, the RItrain project (2015-2020) identified a comprehensive set of skills and competences needed by research infrastructure managers and developed a two-year European Masters in Management of Research Infrastructures (EMMRI) programme implemented at University of Milano Bicocca. Three editions of the programme trained to date over 150 RI managers. Currently, the RItrainPlus project (2020-2024) aims at designing and delivering short-cycle Continuous Professional Development courses (CPDs) for current and potential leaders in RIs and to establish a permanent European School for Management of Research Infrastructures. - NETWORKING and CAPACITY BUILDING: Through COST, an action for research managers and administrators has been supported for 6 years (BESTPRAC), focussing in the first place on the research funding and project management dimension, targeting esp. widening countries. - CAPACITY BUILDING, NETWORKING and UPSKILLING: Through Horizon Europe SwafS (Science with and for Society) and Research Infrastructures, expertise was built regarding i.a. open science, data protection, gender equality, interdisciplinarity, ethics and integrity, science communication, infrastructures. - NETWORKING: Following the Councils call to launch a pilot (see December 2020 Conclusions), the Commission will soon launch projects under "HORIZON-WIDERA-2021-ERA-01-20: Towards a Europe-wide training and networking scheme for research managers". The Research Management Initiative should take the good practices and expertise from these initiatives other existing research management training stakeholders into account. For instance, guidelines and experts from the SwafS projects could be included in future structural training programmes for various dimensions of research management. There is a strong focus on upskilling in the EOSC ecosystem that should also be capitalised on.
2. Actors	- The **target group** of the Research Management Initiative are public research performing and funding organisations, either individualy or in alliances/networks (such as universities, research institutes, research and technology as well as research funding organisations). - **Member States** are proposed to implement the action at national level, for instance by supporting national networks for training and practice exchange of research managers in the various dimensions. - The **European Commission** should complement this by organising networks at European level and coordinating together with the Member States the definition of job profiles and careers in the various dimensions. Following market demand and skills needs, specific training programmes at European level should be setup. - **Member States and Commission together** are proposed to co-fund short-term staff exchange programmes, for instance within the context of aforementioned networks of practitioners. Both

		Member States and Commission are proposed to introduce incentives to involve early career stage research management staff into training and certification programmes. Cognisance is also to be given to the inclusion of all career stages to reflect the constant need for upskilling.

3.	**Timing and milestones**	- Launch of pilot projects: first semester 2022
		 - Consultation process of Member States and stakeholders to define the needs for research management careers: Q2-Q4 2022
		 - Support for an expert group for the design of career profiles and training programmes: Q2-Q3 2022
		 - Incorporation of support actions in the WIDERA 2023-2024 work programme: Q3 2022
		     o Setup of open European networks of practitioners in the various dimensions of research management, providing staff exchange and training
		     o Public procurement to develop certification and accreditation methodology for research managers, incl. through interaction with the aforementioned networks.
		     o Specific initiative for research management in widening countries, including those linked to the European Universities, e.g. coupled to ERA Talents under WIDERA.

4.	**Funding**	- National (or regional) support - ESF+ - Recovery and Resilience Facility - Horizon Europe - Erasmus+
5.	**Expected impact**	- By end of 2024, involvement of at least 100 public research performing and research funding organisations and their research management staff in the training and networking programmes. - Improved training, skills and career development of research management staff in the participating organisations. - Contribution to professionalization, including through certification of training programmes. - Increased recognition of the research management profession in Member States and the important role of research managers for the across the ERA. - Strengthened research management capacity and support for a Responsible Research and Innovation (RRI) approach across the entire ERA, including in laggard regions.
6.	**Monitoring**	- Availability of networks of research managers for the dimensions requested by the market. - Availability of curricula at bachelors and masters (and PhD) level aimed at preparing research managers for distinct or various research management roles. - Number of early career research managers participating in training programmes, staff exchanges, networks. - Number of more experienced research managers participating in

		training, in order to lead out on the research management teams.
	-	Existence of dedicated job profiles in national frameworks.
7. Communication	-	Awareness creation via research management initiative conference and workshops and European R&I Days
	-	Support for projects through NCPs, Horizon Europe national shadow programme committees
	-	EOSC Association is expected to become an important multiplier of actions and policies on research management. It's member base includes research funders, research performing organisations, libraries, etc.
8. Additional information	*Non-exhaustive list of ongoing or new initiatives, and background:*	
	-	COST BESTPRAC (TN1302): https://bestprac.eu/home/
	-	EARMA, European Assocation of Research Managers and Administrators: www.earma.org
	-	Erasmus+ foRMAtion project: https://www.formation-rma.eu/
	-	German initiative to support research management staff exchanges: https://www.era-fellowships.de/en/index.php
	-	Horizon 2020 SwafS, achievements and recommendations for Horizon Europe (2020 publication)
	-	Perspective on policies and practice in higher education, professionals at the interface of science (2021 publication)
	-	European Masters in Management of Research Infrastructures (EMMRI) - specific courses for research infrastructures managers with certified degrees: https://emmri.unimib.it
	-	Initiative to establish a European School for Management of Research Infrastructures - Horizon 2020 RItrainPlus project: https://ritrainplus.eu
	-	Irish Research Council research ally awards, celebrating the role of mentors, supervisors, research officers and support staff in supporting and sustaining the Irish research community
	-	Digital skills for FAIR and open data (2021 publication)
	-	Dutch health research funder's initiative to build data stewardship capacity, network and joint training for researchers and data managers
	-	Strategic Research and Innovation Agenda for the EOSC Partnership (SIA 2021)