

## HRS4R Info and Expert Days

### Technical document on a European framework for research careers

## Section 1

The development of a Commission proposal for a European framework for research careers constitutes the first of the three activities identified by the Commission in action 4 of the ERA Policy Agenda. It will aim at addressing all existing challenges in a comprehensive document, building on the political momentum of the last two years.

In the Council Conclusions on “Deepening the European Research Area: Providing researchers with attractive and sustainable careers and working conditions and making brain circulation a reality” of May 2021, the Commission was requested to make a proposal in 2022, including on aspects such as recruitment, incentives for early-career researchers, career diversification and progression, interoperability with all sectors of the society including industry, balanced talents circulation, researchers’ assessment, gender equality, work-life balance, and an improved governance and services for Euraxess.

In addition to the current exchanges with Member States and stakeholders in the ERA Forum, the proposal will build on the evidence gathered and input received in the last two years in the context of studies contracted by the Commission (assessment of the previous ERA actions, dedicated analysis on new features such as skills, mobility, monitoring) and extensive interactions with stakeholders in the last three years. It takes into consideration also the work of the ERAC Triangle Task Force on the revision of the Charter and Code, input received in the context of stakeholders consultations for the European Strategy for Universities, and information or studies from third parties, including the OECD. It can also be recalled that a dedicated ERAC workshop on researchers was co-organised in December 2020 with the ERAC Triangle Task Force and the Trio of Presidencies.

This technical document aims at sharing information on the main elements that the Commission believes should be addressed in its proposal, and some proposed solutions. The Commission is also working on a revised version of the Charter and Code for researchers (an initial draft is shared separately), in line with the May 2021 Council Conclusions on research careers and expected outcomes of action 4 of the ERA Policy Agenda. The new Charter and Code will be adapted to the current state of play with regard to elements such as Open Science or gender equality, and while using as bases the current C&C and the dedicated work of the ERAC Triangle Task Force, it will also include values and principles of the Pact for R&I and relevant elements of the new framework for research careers. Its focus on all sectors is proposed to be clarified and strengthened, to pursue uptake also beyond academia. Continuity will be ensured in respect to the institutions that have endorsed the principles of the current version of the Charter and Code and adhered (or are in the process of adhering) to the Human Resources Strategy for Researchers.

The Commission believes that the proposal for a European framework for research careers should also highlight and strengthen the link between research careers, entrepreneurship and innovation.

## Section 2

### Key elements of the European Framework for Research Careers

#### **Definition of researchers in the European Research Area, and of the research professions**

- Use of the Frascati definition: Researchers are professionals engaged in the conception or creation of new knowledge. They conduct research and improve or develop concepts, theories, models, techniques instrumentation, software or operational methods.

Researchers may be involved fully or partially in different types of activities (e.g. basic or applied research, experimental development, operating research equipment, project management, etc.) in any sector of the economy or society. Researchers identify options for new R&D activities, and plan for and manage them by using high-level skills and knowledge developed through formal education and training or from practical experience in performing research.

- The research professions can take place with an equal value in all sectors performing research and innovation, including academia, business, governmental laboratories and the public administration, and the non-profit sector.
- All researchers, regardless of their actual status and sector of employment, who perform research activity, should be framed in R1-R4 profiles to ensure comparability and interoperability of research careers across institutions, sectors and Member States (see section 3 or information on the profiles, and for examples of job titles for each stage).

#### **The recognition of the research profession, and interoperability and comparability of research careers**

- Full recognition of the research profession, equal esteem and reward of the different paths of careers of researchers regardless the sector of employment or activity, and measures to allow for a full interoperability and comparability of research careers across Member States, institutions and sectors.
- Non-linear and multi-career paths, to be intended as paths characterised by geographical, sectoral, and inter-organisational mobility, to be encouraged and supported by Member States, and to be considered as a single career path. The reward system to be adapted accordingly.
- Transposition at national level of all new versions and updates of the European Skills, Competences, Qualifications and Occupations classification, with specific regard to researchers' occupations and skills.
- Human resources offices in all sectors to map career structures for researchers against the R1-R4 profiles to facilitate interoperability and comparability of careers.

#### **Recruitment and working conditions**

- Open, transparent and merit-based selection and recruitment of candidates, without any penalisation for career breaks or inter-sectoral mobility. Also take into consideration foreign interference aspects that could affect research security and integrity.
- Employers and/or funders of researchers to ensure attractive and competitive research and working conditions, where researchers at all career stages and irrespective of permanent or fixed-term nature of their contract are valued, encouraged and supported. This should include (but not be limited to):
  - Ensuring equal opportunities and inclusiveness for researchers from all backgrounds including under-represented and marginalised groups, gender equality, as well as commensurate remuneration, work-life balance and work flexibility conditions for

combining personal life, family, children and careers, and overall wellbeing, without prejudice to careers.

- Promoting, among research performing and funding organisations, the use of institutional change instruments, including gender equality plans open to intersections between gender and other social categories, in line with the new European Research Area framework and the European Strategy for Universities.
- Safeguarding the freedom of scientific research from any possible limitation or interference, including from foreign actors;
- Countering the phenomenon of precarity and supporting job security and stability, including by way of a limited maximum total duration of fixed-term appointments, and a maximum threshold of one third of fixed-term contracts in the overall researchers' human resources of a given employer. (This ratio should be maintained, and a lower threshold should be targeted, by employers who stand already below the one third threshold).
- Guaranteeing decent levels of social protection irrespective of the permanent, fixed-term or grant-based nature of the contract, without prejudice to the competence of Member States to organise their social protection systems. Such measures should pertain to the following branches (based on Council Recommendation of 8 November 2019 on access to social protection for workers and the self-employed):
  - unemployment benefits;
  - sickness and healthcare benefits;
  - parental leaves and related benefits;
  - invalidity benefits;
  - old-age benefits and survivors' benefits;
  - benefits in respect of accidents at work and occupational diseases.
- Entitlements – no matter whether they are acquired through mandatory or voluntary schemes – should be preserved, accumulated and transferable across all types of employment and self-employment statuses and across geographical borders, economic sectors, throughout the person's working life and between different schemes within a given social protection branch.
- Promotion of the use of the solutions provided by RESAVER pan-European pension fund
- Specific measures in support of early-career researchers (R1 and R2) including (but not be limited to):
  - Entitling doctoral candidates to enjoy all the safeguards applicable to researchers in other career stages;
  - Promoting the use of incentives for early-career researchers, including financial and social protection incentives;
  - Promoting the use of, and supporting, incentives for the recruitment of early-career researchers by employers in all sectors, in particular with permanent contracts;
  - Promoting and valuing inter-sectoral, interdisciplinary and geographical mobility;
  - Promoting cooperation between higher education institutions, research funders and other relevant ecosystem actors, notably industry and other businesses, with regard to skills needs and skills provision, so as to foster recruitment of highly- and tailor-skilled researchers in the sectors concerned.

### **Researchers skilled for inter-sectoral and inter-disciplinary careers and for entrepreneurship and innovation**

- Doctoral training to be adapted for interoperable careers in all relevant sectors and for the practice of Open Science, including by making use of the European Competence Framework for Researchers and of any other future initiatives taken by the Commission for the purpose of strengthening transversal skills of researchers. Support higher education institutions in the use of the European Competence Framework for Researchers, promote the exchange of good

practices, and consider future revisions of the Competence Framework where needed on the basis of the evolution of the research and innovation system and of the labour market.

- Strengthening researchers' skills needed for the green and digital transition, for knowledge valorisation, and for fostering industry and market uptake of new technologies.
- Encourage interaction and cooperation, including partnerships, between academia, industry, other businesses, public administration, the non-profit sector, and all other relevant ecosystem actors, in order to ensure that doctoral training and targeted training are developed or co-developed on the basis of the actual skills needs of the parties concerned.  
Interaction and cooperation particularly important in areas where specific skills are necessary for operating with state-of-the-art research and technology infrastructures.
- Foster entrepreneurial competences in researchers, with the objective of allowing those who undertake an entrepreneurial career path to couple their knowledge production capabilities with knowledge valorisation proficiency, turning innovative ideas into business and fostering innovation and progress. A special focus should be placed on intellectual assets management as a way to accelerate knowledge valorisation.
- Promotion of women entrepreneurship and innovation, and the creation of women-led university spin-offs in the STEM fields
- Measures to mitigate the risks assumed by researchers undertaking an entrepreneurial career, including through the possibility to return to their previous career path.
- Development and provision of targeted training, including in the form of micro-credentials, to ensure up-skilling and re-skilling opportunities for researchers with a lifelong perspective and to foster inter-sectoral and inter-disciplinary mobility. Proper recognition and validation of formal and informal training opportunities, including on-the-job training.
- Development of the ERA4You policy initiative to foster cross-sectoral circulation of talents, notably by:
  - Supporting mutual learning for Member States on the basis of models of inter-sectoral mobility schemes, in three priority areas: (i) strengthening academia/non-academia cooperation, (ii) improving training and lifelong learning for researchers, innovators, and other research and innovation talents, (iii) boosting researcher entrepreneurship;
  - Reinforcing inter-sectoral mobility components in existing instruments for researchers' mobility, and complementing them with new instruments;
  - Creating awareness on inter-sectoral mobility schemes, via a branch of the ERA Talent Platform.

National schemes promoting inter-sectoral mobility in one or more of the three priority areas mentioned above to be considered.

- Remove the existing structural and administrative barriers which can hamper or make difficult mobility between sectors, including by supporting the interoperability of careers between sectors, and facilitating temporary or permanent mobility.

### **Career development and progression**

- Recognition of the value of geographical, inter-sectoral, inter-institutional, inter- and trans-disciplinary and virtual mobility as important means to enhance scientific knowledge and professional development at any stage of a researcher's career.
- Measures to make researchers, in particular early-career ones, aware of opportunities available in all relevant sectors and to promote a culture of diversification of careers for better personal and professional development.
- Support for the provision of career advisory and support services to stimulate inter-sectoral, inter-disciplinary and geographical mobility, as well as the creation and development of entrepreneurial activities.
- System for the assessment and reward of researchers that:

- Is based on mainly qualitative judgement provided by peers, with a limited use of quantitative indicators;
- Rewards quality and the various potential impacts of their research on society, science and innovation;
- Values a diversity of activities and outputs, as well as all mobility experiences
- Ensures that researchers' professional activity meets the highest standards of ethics and integrity, rewards appropriate conduct of research, and values good practices, in particular open practices for sharing research results and methodologies, whenever possible;
- Uses assessment criteria and processes that respect the variety of research disciplines;
- Values collaborative work, as well as cross-disciplinarity;
- Supports a diversity of researcher profiles and career paths, and values individual contributions, but also the role of teams.
- Ensure a fair, equal, inclusive, transparent, structured and gender-balanced career accession and progression system in academia, up to the top positions, including by considering a tenure-track system, to be intended as a fixed-term contract with the perspective of a progression to a permanent position, subject to positive evaluation.

### **Balanced circulation of talents and making Europe an attractive destination**

- Measures by Member States to foster attractive and competitive conditions for conducting research and innovation activities, and for the return of researchers engaged in experiences abroad to their home country, including:
  - Incentives to make research activities more attractive, keeping into consideration the need for a fair competition for talents;
  - Measures promoting diversity, gender equality and inclusiveness, including the adoption of inclusive gender equality plans;
  - Investments in the research and innovation system, including the support to networking within and beyond EU, higher visibility of national competences and high-level infrastructures;
  - The exchange of best practices with regard to creating an attractive and competitive research and innovation environment, including as regards the improvement of remuneration and working conditions and the reduction of administrative and language barriers for foreign and international researchers;
  - Return grants and permanent positions for returning researchers;
  - The possibility of having dual positions in institutions established in different Member States, thereby fostering knowledge transfer, collaboration, and preventing talent drain.
- Measures to be taken by the Commission to foster a more balanced circulation of talents, including:
  - Supporting mutual learning for Member States in view of the reform of their research and innovation systems, including through calls for expression of interest to create a community of practice with training and guidance for Member States on the basis of successful pathways and solutions enabling more balanced talent circulation;
  - Monitoring mobility flows, through an interactive talent circulation map in the observatory on research careers;
  - Facilitating transnational ties with scientific diaspora communities and facilitating attracting or returning talents, via a branch of the ERA Talent Platform;
  - Promoting a balanced talent circulation for early-career researchers through new instruments at Union level that strengthen the human capital base in widening countries, with more entrepreneurial and better-trained researchers and innovators.

### **Support actions for research careers**

- Strengthen the EURAXESS portals, services, and the international dimension, and develop the ERA Talent Platform as an online one-stop-shop for researchers and institutions in all sectors, with a new governance framework featuring binding commitments and a coordination role of relevant national bodies and institutions involved in service delivery.
- ERA Talent Platform to allow researchers to manage their learning and training opportunities and their careers; research and innovation institutions to be able to conduct networking activities, better manage their pools of talents, and exchange best practices. Services to be broadened to include talent development and career evaluation services, with a focus on researchers in all relevant sectors of the society, including academia.
- Ensure links and interoperability between the ERA Talent Platform and other relevant EU and national initiatives, including Europass, EURES and the EU login, and ensure the user-friendliness of the platform.
- Update the Charter and Code and encourage its endorsement and implementation by research employers and funders from all sectors, including through dedicated incentives, in view of making it become a structural tool in support of researchers and research careers.
- Ensure alignment of the Human Resources Strategy for Researchers with the revised Charter and Code, and ensure continuity in respect to the institutions that have endorsed the principles of the previous version of the Charter and Code and adhered (or are in the process of adhering) to the Human Resources Strategy for Researchers.
- Regularly review and adapt all tools in support of research careers, based on the actual needs of researchers
- Alliances of higher education institutions, such as the European Universities alliances, the whole European higher education sector and all relevant stakeholders to pilot elements of the framework.

#### **Monitoring of research careers**

- In addition to the overarching European Research Area monitoring systems, the Commission and Member States to monitor research careers in the Union through a dedicated observatory on research careers, to the benefit of policy makers, organisations, public administrations and researchers at European and national level. The observatory should support data needs of Member States and research performing organisations relevant for the adaptation and development of policies for research careers. It should also support researchers to have a better understanding of challenges and opportunities, and promote the attractiveness of Europe's research performing organisations for the best talents. Member States to cooperate for the purpose of collecting data relevant for the implementation of the observatory.
- The Commission to consider relevant links with the European Higher Education Sector Observatory proposed in the European Strategy for Universities and thereby enhance synergies between the European Research Area and the European Education Area.

## Section 3

### R1-R4 profiles for comparable and interoperable researchers' careers

In relation to the R1-R4 profiles introduced in 2011<sup>1</sup>, it is proposed to have an updated reference set of descriptors, addressing existing issues and making researchers' careers more comparable and interoperable across employment sectors and countries.

- **R1 - First Stage Researcher** = researchers doing research under supervision up to the point of a PhD or equivalent level of competence and experience
- **R2 - Recognised Researcher** = researchers with a PhD or equivalent level of competence and experience who are not yet fully independent in their ability to develop their own research, attract funding, or lead a research group
- **R3 - Established Researcher** = researchers with a PhD or equivalent level of competence and experience who have achieved a level of independence in their ability to develop their own research, attract funding, or lead a research group
- **R4 - Leading Researcher** = researchers with a PhD or equivalent level of competence and experience who are recognised as leading their research field by their peers

The identified existing issues with the 2011 profiles framework are:

- The term 'researcher' has not been clearly defined which allows a broader interpretation of the term to include diverse occupations in the research profession
- The profiles were intended to be sector neutral but in reality have predominantly been adopted by academia and are not so easily translatable for the business sector
- The profiles do not give adequate examples of occupations for each profile across sectors which makes it difficult for organisations to link occupations to profiles

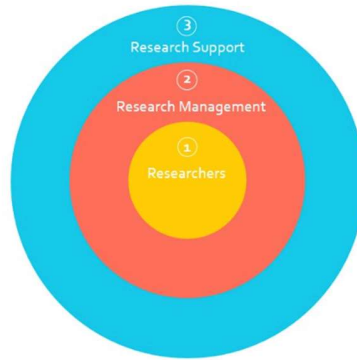
These issues can be addressed by identifying three main categories of occupations in the research profession, providing a clear definition of 'researcher', and giving illustrative examples of research occupation titles from all sectors for relevant categories and profiles.

The research profession consists of three main categories of occupations that jointly contribute to and are crucial for research as in Figure 1:

- **Researchers:** those individuals in and outside academia doing actual research
- **Research management:** those individuals managing research projects or researchers
- **Research support:** those individuals supporting researchers to do their research

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<sup>1</sup>[https://cdn5.euraxess.org/sites/default/files/policy\\_library/towards\\_a\\_european\\_framework\\_for\\_research\\_careers\\_final.pdf](https://cdn5.euraxess.org/sites/default/files/policy_library/towards_a_european_framework_for_research_careers_final.pdf)



**Figure 1:** Three Main Categories Involved in the Research Profession

Based on the Frascati Manual (2015), the adopted definition of ‘researcher’ is as follows:

Researchers are professionals engaged in the conception or creation of new knowledge. They conduct research and improve or develop concepts, theories, models, techniques, instrumentation, software, or operational methods.

Researchers may be involved fully or partially in different types of activities (e.g. basic or applied research, experimental development, operating research equipment, project management, etc.) in any sector of the economy or society.

Researchers identify options for new R&D activities and plan for and manage them by using high-level skills and knowledge developed through formal education and training or from practical experience in performing research.

The importance of all three categories of occupations for research is recognized, but focus is put on the category of **researchers**:

- The line “researchers may be involved fully or partially” above is intended to mean time spent on doing research and not on research management or research support
- The profiles R1-R4 are strictly of relevance for researchers and are not relevant for research management and research support
- The framework is flexible and recognises that an individual may be involved in hybrid combinations of roles as researcher, research manager, and/or research supporter
- The framework also recognises that some occupations may involve combinations of aspects of research, research management, and/or research support activities
- The framework further recognises that teaching activities in academia are not strictly research but constitute a critical part of the research process in research-led teaching
- The R1-R2 profiles are considered ‘early-career’ profiles, where researchers are either learning to do research or are for the first time working independently on research
- The R3-R4 profiles are considered ‘senior’ profiles where researchers have either attained recognition as an expert or as leading their research field by their peers

Examples of researcher occupations per the R1-R4 profiles are listed below in Table 1 and examples of research management and research support occupations are listed in Table 2:

- The examples are not intended to be exhaustive but serve as an indication of the types of titles for researchers across the R1-R4 profiles and across all sectors
- The examples only partially reflect the occupations for researchers listed in ESCO due to the general and non level-specific character of the occupations listed in ESCO
- The examples consist only of titles in English and we recognise that titles will differ across sectors and countries and that titles will differ across different languages



- Some researcher occupations may appear in multiple R1-R4 where the decision of profile will be dependent on the level of independence, experience, and recognition
- Some of the examples (such as consultant and policy adviser/officer) are included under the assumption that the occupation involves actual research activities
- The final decision on whether an individual and occupation is to R1-R4 will be determined case-by-case and will be dependent upon the individual and occupation

**Table 1:** Examples of Occupations in the European Framework for Research Careers

<b>R1 - First Stage Researcher</b>	<b>R2 - Recognised Researcher</b>
doctoral candidate junior academic junior consultant junior policy adviser/officer junior research analyst junior research engineer junior researcher/scientist junior scientific officer research apprentice/intern research assistant/technician	junior academic junior consultant junior policy adviser/officer junior lecturer junior research analyst junior research engineer junior researcher/scientist junior scientific officer postdoctoral researcher research assistant/technician
<b>R3 - Established Researcher</b>	<b>R4 - Leading Researcher</b>
accredited researcher assistant professor associate professor associate researcher principal consultant principal investigator principal researcher/scientist reader research fellow research specialist scientific councillor senior academic senior consultant senior lecturer senior policy adviser/officer senior research and development associate senior research engineer senior researcher/scientist senior scientific officer	chief scientific officer distinguished professor full professor principal consultant principal investigator principal researcher/scientist reader research fellow research professor research specialist scientific councillor senior academic senior consultant senior lecturer senior policy adviser/officer senior research and development associate senior research engineer senior researcher/scientist senior scientific officer

**Table 2:** Examples of Occupations in Research Management and Research Support

<b>Research Management</b>	<b>Research Support</b>
data innovation manager	data specialist
dean	data miner
director	data steward
head of department	funding/grant adviser
head of office	knowledge management adviser/officer
laboratory coordinator	laboratory assistant/technician
project manager	liaison officer
rector	librarian
research coordinator	project adviser
research group/team leader	project designer
research manager	proposal writer
research programme leader	research developer
research project leader	science communicator
scientific coordinator	scientific evaluator