**Action 4:**

**Promote attractive and sustainable research careers, balanced talent circulation and international, transdisciplinary and inter-sectoral mobility across the ERA**

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| Member State/associated country/stakeholder1: |
| Lead entity at national level and contact person1:  *[Indicate the organisation, name, position, e-mail address.]* |
| The action includes the following types of activities:  *[These are examples of activities, in which the country or organisation could participate in. For more detailed information, including the objectives, please refer to the explanatory document(s) of this action.]*   1. Participating in the **exchange of best practices** and in the development of **mutual learning exercises** on 2. skills, 3. inter-sectoral mobility, and 4. system reform for more balanced talent circulation 5. Participating in the roll-out of support measures: 6. strengthening the **human and financial resources** of the national **EURAXESS** Bridgehead Organisation (BHO) to actively work on co-designing and co-developing the ERA Talent Platform 7. providing **information/data on researchers’ flows** (jobs, skills, working conditions, mobility) through EUROSTAT, complemented by OECD and Commission surveys, in the context of the observatory on research careers 8. raising awareness about how mobility might affect **pension rights**, and promoting the participation of research performing organisations in **RESAVER** in countries where it is operational (BE, ES, FR, IT, CY, HU, NL, AT) 9. Providing **funding** at national level for training projects, courses, programmes, staff exchanges, or other initiatives contributing to research upskilling, inter-sectoral mobility, interoperability of careers, researcher entrepreneurship |
| Comments, planned or ongoing activities regarding the implementation of the action[[1]](#footnote-1):  *[Activities at the level of countries or organisations can be shared in this box. The activities could include national measures (e.g. reforms, initiatives, studies), the participation in EU-level activities, which are described in the explanatory document, and the engagement in transnational activities with other Member States, associated or third countries. Moreover, any other comments can be added.]* |

*This document is a working document and should not be considered as representative of the European Commission’s official position.*

EXPLANATORY DOCUMENT

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| *Action 4. Promote attractive and sustainable research careers, balanced talent circulation*  *and international, transdisciplinary and inter-sectoral mobility across the ERA* | |
| *Contact point: Dario CAPEZZUTO, Stijn DELAURE, Slaven MISLJENCEVIC, Michele ROSA-CLOT (RTD.A3)* | |
| 1. **Description** | *What does the action consist of? Explanation of the problems being addressed, the means used, the objectives to be achieved. Are certain actions already ongoing? Interplay with other actions or policies (EU or national).*  **Background information**  Providing researchers with attractive working conditions, and with adequate instruments and services in support of their careers is of utmost importance to make sure that they are able to undertake excellent research and take up the research and innovation challenges of the European society, contributing to an effective and fully functioning European Research Area (ERA). In particular, making research careers more attractive for young talents is a fundamental condition for long-term excellence and competitiveness of the ERA.  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 28 May 2021 underlined the need for a comprehensive approach to research careers. The Council called for an evolution of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers (C&C) towards ***“a single framework with a more holistic approach addressing all challenges beyond values and principles and broadening its focus to sectors beyond the academia”*,** and invited the Commission to *“present proposals by 2022, inter alia for tenure track systems, research assessment, career diversification, work-life balance, incentives to hire early-career researchers and to address gender equality, interoperability with industry and improving EURAXESS governance and services”.* In addition, in the same conclusions, the Council provided guidance on brain circulation, inter-sectoral mobility, upskilling and reskilling of researchers, employment and working conditions for researchers as well as the need for a solid monitoring system.  Also the **Pact for R&I** includes research careers and the mobility of researchers, together with research assessment and a reward system, as an important action in the context of the priority areas for joint action in support of the ERA.  **Objectives**  Developing a toolbox of measures to promote attractive and sustainable research careers, diverse career paths, balanced talent circulation, and international, transdisciplinary and inter-sectoral mobility across the ERA will improve the functioning of the European single market for researchers and will strengthen research careers across the EU. This will bring significant benefits for the R&I output and the implementation of a strong knowledge cycle in the ERA. In particular, the aim is to stimulate researchers’ careers beyond academia in light of the limited opportunities existing in academia; to fight the precarity that too often characterizes research careers consequent, among other things, to the lack of sustainable investments in higher education institutions and research organisations; to attract more talent, with a particular focus on women, towards research careers; to equip researchers with all the skills needed for a successful career within and beyond academia, including through the implementation of the European Competence Framework for Researchers; to foster researchers’ entrepreneurship and innovation; and to make Europe an appealing destination for the best world talents.  This action and its components are at the intersection between the policies on research and innovation**, employment** and **social** policy, **internal market** as well as **education** policies. There is the need to address aspects related to skills, employment conditions, social protection, diversification of careers, reform of research assessment, incentives to recruit researchers targeting both the public and private sector, e.g industry and SMEs, as well as measures to attract talent and promote inter-sectoral mobility and entrepreneurship. This will be based on, and in full respect of, the various types of competences stemming from the Treaties for the sectors concerned.  **Activities**  This action will consist of 3 main sets of activities:   1. The development of acomprehensive **European framework for research careers**, addressing the existing challenges linked to research careers in academia and beyond. It will be an umbrella framework, which will cover initiatives in the context of this action and have links also with other actions under the ERA Policy Agenda, notably actions 3 and 5 on the reform of the assessment system for researchers, research and institutions, and on gender equality. The proposal for the framework will include the following aspects:  * Definition of ‘researcher’ and of the research profession * Recognition of the research profession, and enhanced researchers’ profiles to ensure interoperability and comparability of research careers across sectors and Member States * Recruitment and working conditions, including an Open, Transparent and Merit-based Recruitment (**OTM-R**), the reinforcement and portability of social protection rights, incentives to hire early-career researchers, inclusiveness, gender equality aspects, work-life balance * Researchers skilled for inter-sectoral and inter-disciplinary careers and for entrepreneurship and innovation * Career development and progression, including the possibility of a transparent career development path such as a tenure-track system, and a comprehensive researchers assessment system that rewards quality of research, mobility, and takes into account all activities and outputs * Researchers mobility and balanced circulation of talents * Support actions for research careers * Observatory on research careers   The framework will also respond to the need for an updated C&C, including aspects such as Open Science and gender equality, and promoting the uptake by all sectors relevant for researchers. Dedicated provisions will ensure continuity for organisations that already received the Human Resources Excellence in Research award, and for those who have already started the process.   1. **Exchange of best practices** and mutual learning to support the development of researchers’ skills, inter-sectoral mobility and balanced talent circulation. This will include the following initiatives:  * Skills: The exchange of best practices and mutual learning will focus on the use of the European Competence Framework for Researchers (provisional title ResearchComp), developed by the Commission in line with the ERA Communication and the Skills Agenda, and currently being finalised with learning outcomes for each of the competences. The work on the Competence Framework for Researchers complements the work already done on skills with the update of the European Classification of Skills, Competences and Occupations (ESCO) with a taxonomy of skills and occupations for researchers. * Inter-sectoral mobility: Fostering cross-sectoral talent circulation, improved interoperability of research and innovation jobs between sectors, and strengthened academia-business collaboration for both knowledge and talent transfer. A policy approach that involves mutual learning on the basis of successful models for inter-sectoral mobility schemes can contribute to (i) strengthening academia/non-academia cooperation, and reinforcing innovation ecosystems, (ii) improving training and lifelong learning for researchers, innovators, and other research and innovation talents, including upskilling to build support capacity, and (iii) boosting researchers’ development of entrepreneurial skills. * Balanced talent circulation: Attracting and retaining talented researchers remains key for knowledge diffusion across the EU. In general, countries with a higher R&I performance have a greater inflow of researchers. It becomes imperative to ensure that all researchers in the EU, regardless of their geographical location, can produce and have access to excellent results. Despite efforts at EU level and at national/regional level, the issue of brain drain of researchers from less developed regions in Europe persists. The issue of brain drain is complex, and excellent research environments are a prerequisite, and attractive working conditions a necessity to counter it. Often, these require some degree of reform of national R&I systems. The European Commission together with the Member States aims to support and incentivise such transformations, on the basis of the European framework for research careers. A policy approach will be pursued, involving mutual learning exercises on the basis of existing successful pathways that enabled establishing a more balanced circulation of talents in Member States. A recent Commission talent circulation analysis identified several measures that were (or are about to be) established at Member States level to address brain drain directly, or to improve the attractiveness of the research profession or the general R&I environment. Brain drain and the development of human (research) capital are in several countries explicit parts of the national recovery and resilience plans of the Member States.  1. **Support measures** to improve attractiveness of research careers in academia and beyond, including:  * An observatory on research careers, combining the best of the current EU data tools and capacities (incl. EUROSTAT, complemented with analyses from OECD and the Commission) in one single place (coordinated by the Commission, hosted by the ERA Talent Platform), to monitor the implementation of measures to strengthen research careers and system reforms. It will support data needs of Member States and research performing organisations relevant for the adaptation and development of policies for research careers. * An ERA Talent Platform, with the reinforcement of EURAXESS, a pan-European initiative delivering information and support services to professional researchers and supporting researcher mobility and career development, and the creation of a one-stop–shop for information and services, with improved structure and governance, exploiting links to other EU and third party initiatives. The platform will act as a marketplace and will allow researchers to manage and develop their skills and careers, and the R&I institutions will be able to better manage their pools of talents. This major revamp will impact all parts of EURAXESS: the portal, services and worldwide operations. |
| 1. **Actors** | *Who should implement the action? Member States, Commission, Associated Countries, other 3rd countries, stakeholders, etc. Please note whether half of Member States are already expected to be involved (para. 10 of Council conclusions)*  **Activity 1 (European framework for research careers)**  The Commission proposal will be developed on the basis of evidence gathered and input received in the context of studies contracted by the Commission which involved extensive interactions with all relevant stakeholders, e.g. Member States, researchers, universities, funding organisations, business community. Also the work of the ERAC Triangle Task Force on the revision of the C&C will be taken into consideration. Additional input from Member States and stakeholders in the ERA Forum will be needed to elaborate the proposal, and Member States, the Commission and all relevant stakeholders will be then expected to implement the proposal once adopted. Depending on the actual form of the proposal, it may be subject to further institutional interactions with the Council and the European Parliament.  **Activity 2 (Exchange of best practices)**  This set of activities entails the involvement of the Commission, Member States and all relevant stakeholders in the areas of skills, inter-sectoral mobility, and balanced talent circulation.  With specific reference to the area of skills, the European Competence Framework for Researchers will be complemented in the course of 2022 with learning outcomes, with the support of learning and development experts. It will be subject to a validation workshop with all relevant stakeholders, and once rolled-out universities and other providers will have a source of inspiration to adapt their training offer.  For inter-sectoral mobility and balanced brain circulation, Member States will have a key role for the purpose of engaging in the exchange of best practices and in mutual learning exercises.  **Activity 3 (Support measures)**  The observatory on research careers will be developed through a Horizon Europe WIDERA action, on the basis of technical specification and indicators developed in a 2021 Commission study (Knowledge Ecosystems in the new ERA). Existing data from various sources, (e.g. statistical services, incl. EUROSTAT, OECD, EURAXESS, EURES) on researcher jobs, training, working conditions, and mobility will be complemented with survey-based indicators. It will take into account the needs of the various stakeholders.  The ERA Talent Platform will be co-designed and co-developed with Member States, EURAXESS Bridgehead Organisations, National Contact Points, end users and external experts. The multi-disciplinary working groups, supervised by a central team, will focus on following key areas: governance, user experience, better matchmaking, facilitating ecosystem approach, data and privacy and building stronger relationships with end users. |
| 1. **Timing and milestones** | *As far as a calendar can be established already at this stage.*  **Activity 1 (European framework for research careers)**  The Commission proposal will follow the calendar below. However, it should be noted that the time needed for its adoption will not prevent some of the actions covered by the framework to be implemented at an earlier stage:  Q2 2022: Stakeholders and ERA Forum consultation  Q3 2022: Commission’s proposal  By 2024: Actual implementation.  **Activity 2 (Exchange of best practices)**  Q2 2022: Finalization of European Competence Framework for Researchers with learning outcomes, and validation workshop with stakeholders  As of Q3 2022: Roll-out of European Competence Framework for Researchers, and development of initiatives to foster its uptake.  Q3 2022 – Q3 2023 : MLE on inter-sectoral mobility  Q3 2023 – Q3 2024: MLE on system reform through implementing the Framework for Research careers for more balanced talent circulation  **Activity 3 (Support measures)**  The observatory on research careers will be setup through a WIDERA public procurement action in 2022, on the basis of indicators and a monitoring methodology developed together with stakeholders. An analysis will be published in Q2 2022.  The ERA Talent Platform will follow the calendar below:  Q2 2022: Open call TOP V project on ERA Talent Platform to define the features of revamped EURAXESS Services  Q3 2022: Creation of interoperability with Europass and EURES and integration of EU login  Q3 2022: Start of TOP V project. Migration of the EURAXESS platform to Drupal 9 and development of additional portal features, with a focus on the partnering tool and reorganization of training modules  Q4 2022: Development of a new tool for supporting recruitment processes, a repository of best practices and policy recommendations and community building functionalities  As of 2023: revamp of EURAXESS Services, with a focus on the development of the research careers observatory, guidelines and tools for HR services, competence framework with guidelines for upskilling and career development, new services for the social-cultural, PhD talent flowthrough and labour market integration, and further digitalization of services. |
| 1. **Funding** | *Identification of different sources of funding (EU, national, private, etc.) and if possible projected amounts.*  In the context of the sets of activities foreseen for this action, the following components will require funding at EU level, complemented by funding at national level to ensure the achievement of the objectives:  Skills: support from Horizon Europe, €3 million in 2022 from ERA Talent pipeline for improving transferable skills training and foster talents flow between academia and other actors in the ecosystems; €10.5 million in 2022 for acceleration services to support universities in institution reform, including towards strengthening careers and upskilling.  Inter-sectoral mobility: MLE supported under the Horizon Europe Policy Support Facility; new ERA Talents action under Horizon Europe WIDERA (€24 million in 2022, tbd in 2023-2024); incentives for inter-sectoral mobility under MSCA programme.  Balanced talent circulation: potential MLE supported under the Horizon Europe Policy Support Facility.  Observatory on research careers: support from Horizon Europe, €2.75 million to establish the observatory, and recurrent €3 million every 3 years to maintain it; combined with efforts from Member States to deliver data.  ERA Talent Platform: support from Horizon Europe, €4 million to support TOP V project, and recurrent €0.5 on a yearly basis for maintenance and development activities. |
| 1. **Expected impact** | *It is important to attempt to identify the expected impacts of the action, even if at an early stage there may be many unknowns.*  **Activity 1 (European framework for research careers)**  The **European framework for research careers** is expected to have a very positive impact on research careers in Europe, by strengthening the recognition and the attractiveness of the profession, closing the gap between researchers and the labour market and reducing precarity, enhancing researchers’ skills as well as the assessment system, improving recruitment and working conditions, fostering inter-sectoral mobility and balanced geographical mobility, reinforcing existing instruments such as EURAXESS, the C&C and HRS4R, and RESAVER. The new initiatives, by strengthening the research profession and the attractiveness of Europe for researchers, will more generally benefit the entire R&I system in Europe.  **Activity 2 (Exchange of best practices)**  The exchange of best practices and mutual learning will strengthen and broaden capacities of Member States for researchers’ upskilling, strengthening cooperation between academia and other sectors, and fostering inter-sectoral mobility and researchers’ entrepreneurship. In addition, exchanges with regard to national systems reforms, by covering practices on the implementation of the European framework for research careers, will contribute to making countries more attractive for foreign and domestic talents, towards a more balanced circulation of talents.  **Activity 3 (Support measures)**  The Observatory on Research Careers will fill the existing gaps with regard to data relevant for policy making at European and national level, providing relevant data on researchers (mobility, careers, skills, working conditions) for policy makers, organisations, and researchers in one single platform.  TheERA Talent Platform will further intensify the services provided by the EURAXESS network. With improved structure and governance, this online one-stop-shop will make it easier for researchers to manage their learning and careers and employers will be able to manage their pool of talents. |
| 1. **Monitoring** | *Qualitative and quantitative elements that allow progress in the implementation to be monitored. Once the policy platform is operational, Member States and Commission will be able to use it for this purpose.*  It will be possible to monitor all the components of the action through relevant indicators in the context of the ERA scoreboard and the monitoring mechanisms for the new ERA priorities and actions.  Progress in implementation of the action will also be monitored through achievement of specific milestones.  **Activity 1 (European framework for research careers)**  European Framework for Research Careers: adoption of the Commission proposal.  **Activity 2 (Exchange of best practices)**  Skills: Inclusion of a new taxonomy of skills and occupations for researchers in the new ESCO version; roll-out of the European Competence Framework for Researchers; number of providers engaging in the development of formal and targeted training for researchers based on the learning outcomes provided by the European Competence Framework for Researchers.  Inter-sectoral mobility: participation of Member States in the MLE; successful implementation of new inter-sectoral mobility schemes and incentives at EU and national level; improved inter-sectoral flow through and increased entrepreneurship of young talents.  Balanced talent circulation: participation of Member States in a MLE or other exchange of practices on system reform towards more attractive researcher careers and working conditions at national level; more balanced talent circulation; reduced brain drain.  **Activity 3 (Support measures)**  Observatory on research careers: as a more detailed dashboard under the ERA monitoring system, establishment of the observatory, including recurrent monitoring of competences, job environment and conditions, mobility; availability of data for relevant indicators.  ERA Talent Platform: integration of EU login; interoperability with EURES and Europass; revamp of partnering tool; creation of a space to form communities and share best practices, development of a reporting tool; development of new services, digitalization of services; and talent management tools. |
| 1. **Communication** | *What communication actions could be useful to promote the action, and who should do so (Commission, national public authorities, stakeholders, etc.)?*  The events below represent good opportunities to promote the action:   * **Launch event of the new ESCO version** on 10 February 2022, with the participation of Commissioner Schmit, to promote the importance of the ESCO update for research careers. * Two **high-level dialogues** between the Commission and socio-economic actors will be organised in 2022, focusing on young researchers, industry and investors. * The 2022 **R&I Days**, which will take place on 28-29 September, will offer the opportunity to present the ongoing work on the framework for research careers, as well as on all the initiatives linked to it. * The **HRS4R info day** addresses research institutions, stakeholders, and experts focusing on the promotion and the increase of the awareness and implementation of the C&C and HRS4R across Europe, on the dissemination and the discussion of the updates on political and operational aspects related to C&C and HRS4R, on attracting new institutions into the dimension of the HR Excellence Award and enlarging the community of practice, and on facilitating the take-up of the HRS4R. * The **HRS4R experts day** is addressed to the HRS4R experts community and aims at enlarging the base of the HRS4R assessors by providing training of new experts, and at providing an opportunity for networking, discussion, feedback, and collection of recommendations on future development of the C&C and HRS4R. * The **EURAXESS conference 2022** (23-25 March) delivered stimulating content and fostered lively debate around the latest EURAXESS and policy advancement. * **EURAXESS BHO** **meetings** bring together Bridge Head Organisations to discuss all EURAXESS related developments, including ERA Talent Platform. * **Leiden European City of Science in 2022**, consisting of a year of events, the European Young Scientists Contest (EUCYS), European contest for young and early career researchers and the EuroScience Open Science Forum (ESOF), will offer several platforms and occasions to engage with stakeholders, researchers and general public to work on the promotion of attractive and sustainable research careers, balanced talent circulation and international, transdisciplinary and inter-sectoral mobility across the ERA. |
| 1. **Additional information** | This action is interlinked and complementary to other ERA Policy actions. In particular, the European framework for Research Careers will cover aspects related to Open Science (action 1), research assessment (action 3), gender equality (action 5), and it will support research careers in Higher Education Institutions (actions 13), in addition to piloting some elements with European Universities alliances.  The European Framework for Research Careers and the ERA4You initiative are cross-referenced in the newly adopted Commission Communication on a European Strategy for Universities. The strategy also includes an action on developing a Higher Education Sector Observatory, which will cover also aspects related to research careers in academia.  A technical document with the main elements of the European Framework for Research Careers, and a draft of the new C&C, are shared with the Forum ahead of the meeting on 5 May, for discussion and written input. |

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 (see explanatory document for the action for further details).

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 with the ERA Forum 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 (see section 3 for an initial draft), 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.

ERA Forum members are invited to comment on the elements of this technical document at the meeting of 5 May, as well as through written comments by 12 May.

**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 inter-operability of research careers across institutions, sectors and Member States (see section 4 for 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**

**Draft new European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers**

**PILLAR 1 - RESEARCH AND ETHICAL PRINCIPLES**

*The actions within this area are expected to contribute to the foundations of the vision of a revitalized European Research Area, and to inspire European researchers, research employers, funders and policy makers.*

***Research Freedom***

Researchers should focus their research for the good of mankind and for expanding the frontiers of human knowledge, while enjoying the freedom of thought and expression, and the freedom to identify methods by which problems are solved, according to recognised ethical principles and practices. Researchers should, however, recognise the limitations to this freedom that could arise as a result of particular research circumstances (including supervision/guidance/management) or operational constraints, e.g. for budgetary or infrastructural reasons or, especially in the commercial sector, for reasons of intellectual property protection. Such limitations should not, however, contravene recognised integrity / ethical principles and practices, to which researchers have to adhere.

***Research Integrity[[2]](#footnote-2)***

Researchers should approach their work with honesty; reliability; objectivity; impartiality and independence; open communication; duty of care; fairness and responsibility for future science generations.

The primary responsibility for research integrity is with researchers themselves, with an overarching responsibility also being existent at institutional level. Researchers should be underpinned by an institutional culture of research integrity in order to create, mainly through clear institutional rules, procedures and guidelines as well as training and mentoring based on the exchange of best practices.

Researchers must avoid plagiarism of any kind and abide by the principle of intellectual property and joint ownership in the case of research carried out in collaboration with a supervisor(s) and/or other researchers. The need to validate new observations by showing that findings are reproducible should not be interpreted as plagiarism, provided that the data to be confirmed are explicitly quoted.

***Responsible Research and Innovation***

Researchers should comply with strict ethics and integrity rules and practices, which are the foundation of responsible and trustworthy research free from undue influence, a prerequisite for achieving excellence, and underpin the responsibility of researchers to guard against biases and methodological shortcuts.

Researchers should ensure that their research meets the highest standards of ethics and integrity, including in relation to potential foreign interference[[3]](#footnote-3) aspects.

Ethical Principles

Researchers should adhere to the recognised ethical practices and fundamental ethical principles appropriate to their discipline(s) as well as to ethical standards as documented in the different national, sectoral or institutional Codes of Ethics.

***The Research Profession***

All researchers engaged in a research career should be recognised as professionals and be treated accordingly. This should commence at the beginning of their careers, namely at postgraduate level, and should include all levels, regardless of their classification at national level (e.g. employee, postgraduate student, doctoral candidate, postdoctoral fellow, civil servants).

Researchers should make every effort to ensure that their research is relevant to society and does not needlessly duplicate research previously carried out elsewhere.

Professional Attitude

Researchers should be familiar with the strategic goals governing their research environment and funding mechanisms, and should seek all necessary approvals before starting their research or accessing the resources provided.

There should be clear communication between researchers and employers, funders or supervisors when a research project is delayed, redefined or completed, or give notice if it is to be terminated earlier or suspended for whatever reason.

Accountability

Researchers need to be aware that they are accountable towards their employers, funders or other related public or private bodies as well as, on more ethical grounds, towards society as a whole. In particular, researchers funded by public funds are also accountable for the efficient use of taxpayers’ money. Consequently, they should adhere to the principles of sound, transparent and efficient financial management and cooperate with any authorised audits of their research, whether undertaken by their employers/funders or by ethics committees.

Methods of collection and analysis, the outputs and, where applicable, details of the data should be open to internal and external scrutiny, whenever necessary and as requested by the appropriate authorities.

Good practice in research

Researchers should at all times adopt safe working practices, in line with national legislation, including taking the necessary precautions for health and safety and for recovery from cybersecurity attacks, information technology disasters, e.g. by preparing proper back-up strategies. They should also be familiar with the current national legal requirements regarding data protection and confidentiality protection requirements, and undertake the necessary steps to fulfil them at all times.

***Open Science and Innovation***

Researchers should target engagement in all aspects of Open Science[[4]](#footnote-4) and Innovation and be facilitated by their employers and funders in this regard. They should share their results through Open and FAIR data, open software, open access publications and aim to practice open science methodologies and do open peer review. They should be facilitated in this regard by their employers and funders through the relevant skills training and access to the appropriate funding, infrastructure and support. The engagement of researchers in Open Science should be recognised, incentivised and rewarded by employers and funders in recruitment, career progression and funding programme assessment.

***Public Engagement***

Researchers should ensure that their research activities are made known to society at large in such a way that they can be understood by non-specialists, thereby improving the public’s understanding of research. Direct engagement with the public will help researchers to better understand public interest in priorities for research and also the public’s concerns.

Researchers should incorporate citizen science into their projects as much as possible and where relevant.

***Non-discrimination***

Employers and/or funders of researchers will not discriminate against researchers in any way on the basis of gender, age, ethnic, national or social origin, religion or belief, sexual orientation, language, disability, political opinion, social or economic condition.

***Gender Equality and Inclusivity***

Employers, funders and policy makers should ensure fair, open, inclusive and gender-equal career paths in research to facilitate systemic institutional and structural change; counteract gender-based violence and sexual harassment; remove inequities regardless of gender, racial or ethnic origin, religion or belief, disability, age or sexual orientation; monitor and evaluate national gender equality policies and plans in research and innovation.

Employers and/or funders should aim for a representative gender balance at all levels of staff, including at supervisory and managerial level. This should be achieved on the basis of an equal opportunity policy at recruitment and at the subsequent career stages without, however, taking precedence over quality and competence criteria. To ensure equal treatment, selection and evaluation committees should have a representative gender balance.

***Embracing Diversity***

A core principal of ERA is to take account of diversity in the broad sense, including, inter alia, gender, racial or ethnic origin, religion or belief, social diversity, disability, age, sexual orientation and combating discrimination on all grounds. Employers and/or funders should embrace diversity in their researchers as different life experiences add valuable perspectives to research projects. Also diversity in participants can inform research results applying to and enriching the diverse societies we live in.

**PILLAR 2 - RECRUITMENT AND SELECTION**

The code of conduct for the recruitment and selection of researchers consists of a set of general principles and requirements that should be followed by employers and/or funders when appointing or recruiting researchers. These principles and requirements should ensure observance of values such as transparency of the recruitment process and equal treatment of all applicants, in particular with regard to the development of an attractive, open and sustainable European labour market for researchers, and are complementary to those outlined in the European Charter for Researchers. Institutions and employers adhering to the Code of Conduct will openly demonstrate their commitment to act in a responsible and respectable way and to provide fair framework conditions to researchers, with a clear intention to contribute to the advancement of the European Research Area.

Fair recruitment and selection of researchers´ policies are fundamental for achieving an open labour market for researchers. Within this area, the abovementioned actions to foster key principles of ERA should be taken into account.

***Recruitment***

Employers and/or funders should establish recruitment procedures which are open[[5]](#footnote-5), transparent and merit-based selection and recruitment of candidates, without any penalisation for career breaks or inter-sectoral mobility, and to take into consideration foreign interference[[6]](#footnote-6) aspects that could affect research security and integrity.

Advertisements should give a broad description of knowledge and competencies required, and should not be so specialised as to discourage suitable applicants. Employers should include a description of the working conditions and entitlements, including career development prospects. Moreover, the time allowed between the advertisement of the vacancy or the call for applications and the deadline for reply should be realistic.

***Selection***

Selection committees should bring together diverse expertise and competences and should have an adequate gender balance and, where appropriate and feasible, include members from different sectors (public and private) and disciplines, including from other countries and with relevant experience to assess the candidate. Whenever possible, a wide range of selection practices should be used, such as external expert assessment and face-to-face interviews. Members of selection panels should be adequately trained.

***Transparency***

Candidates should be informed, prior to the selection, about the recruitment process and the selection criteria, the number of available positions and the career development prospects. They should also be informed after the selection process about the strengths and weaknesses of their applications.

***Judging Merit***

The selection process should take into consideration the whole range of experience[[7]](#footnote-7) of the candidates. While focusing on their overall potential as researchers, their creativity and level of independence should also be considered. Merit should be judged qualitatively as well as quantitatively, focusing on outstanding results within a diversified career path and not only on the number of publications. Consequently, the importance of bibliometric indicators should be properly balanced within a wider range of evaluation criteria, such as teaching, supervision, teamwork, services to society (e.g. patient care), open science practices, knowledge transfer, management of research and innovation and public awareness activities. For candidates from an industrial background, particular attention should be paid to any contributions to innovation through patents, development or inventions.

Employers, funders and policy makers should promote and support a system for the assessment of researchers that;

* Is based on mainly qualitative judgement provided by peers, with a limited use of quantitative indicators for assessing excellence;
* Rewards quality and the various potential impacts of their research on society, science, knowledge and innovation;
* Values a diversity of activities and outputs, as well as all mobility experiences (see below);
* Ensures that research meets the highest standards of ethics and integrity, including in relation to potential foreign interference aspects, rewards appropriate conduct of research, and values good practices, in particular Open Science 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.

Value of mobility

Employers, funders and policy makers must recognise the value of geographical, inter-institutional, inter-sectoral, inter- and trans-disciplinary, and virtual mobility[[8]](#footnote-8) as an important means of enhancing knowledge and professional development at any stage of a researcher’s career. Consequently, they should build such options into the specific career development strategy and fully value and acknowledge any mobility experience within their career progression/appraisal system.

This also requires that the necessary administrative instruments be put in place to allow the portability of both grants and social security provisions, in accordance with national legislation.

***Variations in the chronological order of CVs***

Career breaks or variations in the chronological order of CVs should not be penalised, but regarded as an evolution of a career, and consequently, as a potentially valuable contribution to the professional development of researchers towards a multidimensional career track. Candidates should therefore be allowed to submit evidence-based CVs, reflecting a representative array of achievements and qualifications appropriate to the post for which application is being made.

***Recognition of qualifications***

As part of broadening researchers’ skills sets employers and/or funders should provide for the recognition, appropriate assessment and evaluation of formal and informal training particularly within the context of international and professional mobility. They should inform themselves and gain a full understanding of rules, procedures and standards governing the recognition of such qualifications and, consequently, explore existing national law, conventions and specific rules on the recognition of these qualifications through all available channels[[9]](#footnote-9).

***Seniority***

The levels of qualifications required should be in line with the needs of the position and not be set as a barrier to entry. Recognition and evaluation of qualifications should focus on judging the achievements of the person rather than his/her circumstances or the reputation of the institution where the qualifications were gained. As professional qualifications may be gained at an early stage of a long career, the pattern of lifelong professional development should also be encouraged and recognised.

***Postdoctoral appointments***

To counter the phenomenon of precarity and to support job security and stability, clear rules and explicit guidelines for the recruitment and appointment of postdoctoral researchers, including the maximum duration and the objectives of such appointments, should be established by the institutions appointing postdoctoral researchers. Such guidelines should take into account time spent in prior postdoctoral appointments at other institutions and take into consideration that the postdoctoral status should be transitional, with the primary purpose of providing additional professional development opportunities for a research career in the context of long-term career prospects with fixed contract or tenure.

**PILLAR 3 - WORKING CONDITIONS AND PROFESSIONAL ASPECTS**

*Improving researchers working conditions should be at the core of the EU policy framework for research careers. Within this area several actions are proposed to contribute to the stability of employment, to the definition of researchers´ labour rights and obligations and the need for employers and funders to develop a research culture for research excellence and facilitate a thriving researcher community.*

***Stability and permanence of employment***

Employers and/or funders should ensure that the performance of researchers is not undermined by instability of employment contracts, and should therefore commit themselves as far as possible to improving the stability of employment conditions for researchers, thus implementing and abiding by the principles and terms laid down in the EU Directive on Fixed-Term Work[[10]](#footnote-10).

***Funding and salaries***

Employers and/or funders of researchers should ensure that researchers enjoy fair and attractive conditions of funding and/or salaries with adequate and equitable social security provisions (including sickness and parental benefits, pension rights and unemployment benefits) in accordance with existing national legislation and with national or sectoral collective bargaining agreements. This must include researchers at all career stages including First Stage Researchers (R1), commensurate with their legal status, performance and level of qualifications and/or responsibilities.

***Contractual and legal obligations***

Researchers at all levels must be familiar with the national, sectoral or institutional regulations governing training and/or working conditions. This includes Intellectual Property Rights regulations, and the requirements and conditions of any sponsor or funders, independently of the nature of their contract. Researchers should adhere to such regulations by delivering the required results (e.g. thesis, publications, patents, reports, new products development, etc) as set out in the terms and conditions of the contract or equivalent document.

***Working conditions***

Employers and/or funders should ensure that the working conditions for researchers, including for disabled researchers, provide where appropriate the flexibility deemed essential for successful research performance in accordance with existing national legislation and with national or sectoral collective-bargaining agreements. They should aim to provide working conditions which allow both women and men researchers to combine family and work, children and career[[11]](#footnote-11). Particular attention should be paid, inter alia, to flexible working hours, part-time working, tele-working and sabbatical leave, as well as to the necessary financial and administrative provisions governing such arrangements.

***Dissemination, exploitation of results***

All researchers should ensure, in compliance with their contractual arrangements, that the results of their research are disseminated and exploited, e.g. communicated, transferred into other research settings or, if appropriate, commercialised. Senior researchers, in particular, are expected to take a lead in ensuring that research is fruitful and that results are either exploited commercially or made accessible to the public (or both) whenever the opportunity arises.

***Intellectual Property Rights***

Employers and/or funders should ensure that researchers at all career stages reap the benefits of the exploitation (if any) of their R&D results through legal protection and, in particular, through appropriate protection of Intellectual Property Rights, including copyrights.

Policies and practices should specify what rights belong to researchers and/or, where applicable, to their employers or other parties, including external commercial or industrial organisations, as possibly provided for under specific collaboration agreements or other types of agreement.

***Research Culture***

Employers, funders and policy makers should promote and support a research culture to enable excellent research and researchers flourish. Such a culture of research is central in this regard and can be achieved through promoting the integrity of research, diversity and inclusion in research, sustainable researcher career paths, recognition and reward, open science, intra and inter sectoral collaboration.

Employers and/or funders should put measures in place 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. This will require career advisory and support services to stimulate inter-sectoral, inter-disciplinary and geographical mobility, as well as the creation and development of entrepreneurial activities.

Employers and/or funders should support and reward a true open science culture across the Union, including mainstreaming open access to scholarly publications and research data (*i.e.* following the “as open as possible, as closed as necessary” principle) and the diffusion and uptake of open science principles and practices, whilst considering differences between disciplines and cultural differences, including multilingualism, supporting the development of open science skills, and further developing and integrating the underpinning digital infrastructure and service

Research environment

Employers and/or funders of researchers should ensure that the most stimulating research or research training environment is created which offers appropriate equipment, facilities and opportunities, including for remote collaboration over research networks, and that the national or sectoral regulations concerning health and safety in research are observed. Funders should ensure that adequate resources are provided in support of the agreed work programme.

Co-authorship

Co-authorship should be viewed positively by institutions when evaluating staff, as evidence of a constructive approach to the conduct of research. Employers and/or funders should therefore develop strategies, practices and procedures to provide researchers, including those at the beginning of their research careers, with the necessary framework conditions so that they can enjoy the right to be recognised and listed and/or quoted, in the context of their actual contributions, as co-authors of papers, patents, etc, or to publish their own research results independently from their supervisor(s).

***Complaints/appeals***

Employers and/or funders of researchers should establish, in compliance with national rules and regulations, appropriate procedures, possibly in the form of an impartial (ombudsman- type) person to deal with complaints/appeals of researchers, including those concerning conflicts between supervisor(s) and First Stage (R1) / Recognised (R2) researchers. Such procedures should provide all research staff with confidential and informal assistance in resolving work-related conflicts, disputes and grievances, with the aim of promoting fair and equitable treatment within the institution and improving the overall quality of the working environment.

***Participation in decision-making bodies***

Employers and/or funders of researchers should recognise it as wholly legitimate, and indeed desirable, that researchers be represented in the relevant information, consultation and decision-making bodies of the institutions for which they work, so as to protect and promote their individual and collective interests as professionals and to actively contribute to the workings of the institution[[12]](#footnote-12).

**PILLAR 4 - TALENT DEVELOPMENT AND RESEARCHERS´ EVALUATION**

*The researcher community is diverse in talents, skills, competences and capacities. The more these talents are fostered and developed, the better research quality, excellence, and societal relevance of the produced knowledge. Encouraging continuous professional development along with skills training is needed to maintain competence and provide researchers with a broad range of career opportunities in the public and private sectors. Researchers’ evaluation is a key tool to foster a researchers’ community that makes the most out of everyone´s talent.*

***Diversification of Researchers Careers***

Employers and/or funders should recognise that researchers will have highly diverse careers both as researchers and in other employment sectors. Diversification typically include mobility in all of its forms; inter/intra-national, inter-sectoral, inter-institutional, inter- and trans-disciplinary and virtual mobility. This requires more talent-based and diversity-sensitive quality measurement, going beyond publication and citation metrics and considering excellence of research, teaching and skills, impact, services to society (e.g., patient care), open science practices, team science, mobility, management and leadership skills, entrepreneurship and collaboration with industry, among others.

***Career development***

Employers and/or funders of researchers should draw up, preferably within the framework of their human resources management, a specific career development strategy for researchers at all stages of their career, regardless of their contractual situation, including for researchers on fixed-term contracts. It should include the availability of mentors involved in providing support and guidance for the personal and professional development of researchers, thus motivating them and contributing to reducing any insecurity in their professional future. All researchers should be made familiar with such provisions and arrangements.

***Career Advice***

Employers and/or funders should ensure either in the institutions concerned, or through collaboration with other structures, accessible and up-to-date career advice and job placement assistance, providing information, guidance and support for career development both within and beyond the institution concerned.

This shall be offered to researchers at all stages of their careers, regardless of their contractual situation.

***Continuous Professional Development***

Researchers at all career stages should seek to continually improve themselves by regularly updating and expanding their skills and competencies. This may be achieved by a variety of means including, but not restricted to, formal training, workshops, conferences and e-learning.

Access to research training and continuous development

Employers and/or funders should ensure that all researchers at any stage of their career, regardless of their contractual situation, are given the opportunity for professional development and for improving their employability through access to measures for the continuing development of skills and competencies.

Such measures should be regularly assessed for their accessibility, take-up and effectiveness in improving competencies, skills and employability.

Teaching

Teaching is an essential means for the structuring and dissemination of knowledge and should therefore be considered a valuable option within the researchers’ career paths. However, teaching responsibilities should not be excessive and should not prevent researchers, particularly at the beginning of their careers, from carrying out their research activities.

Employers and/or funders should ensure that teaching duties are adequately remunerated and taken into account in the evaluation/appraisal systems, and that time devoted by senior members of staff to the training of First Stage (R1) researchers should be counted as part of their teaching commitment. Suitable training should be provided for teaching and coaching activities as part of the professional development of researchers.

***Evaluation/appraisal systems***

Employers and/or funders should introduce for all researchers, including senior researchers, evaluation/appraisal systems for assessing their professional performance on a regular basis and in a transparent manner by an independent (and, in the case of senior researchers, preferably international) committee.

Such evaluation and appraisal procedures should take due account of their overall research creativity and research results, e.g. publications, patents, management of research, teaching/lecturing, supervision, mentoring, national or international collaboration, administrative duties, public awareness activities and mobility, and should be taken into consideration in the context of career progression.

Recognition of mobility experience

Any mobility experience, e.g. a stay in another country/region or in another research setting (public or private) or a change from one discipline or sector to another, whether as part of the initial research training or at a later stage of the research career, or virtual mobility experience, should be considered as a valuable contribution to the professional development of a researcher.

***People and Team Management***

Employers and/or funders should ensure that a person is clearly identified to whom First Stage (R1) and Recognised (R2) researchers can refer for the performance of their professional duties, and should inform the researchers accordingly.

Such arrangements should clearly define that the proposed supervisors are sufficiently expert in supervising research, have the time, knowledge, experience, expertise and commitment to be able to offer the research trainee appropriate support and provide for the necessary progress and review procedures, as well as the necessary feedback mechanisms.

Relation with supervisors

Researchers in their training phase should establish a structured and regular relationship with their supervisor(s) and faculty/departmental representative(s) so as to take full advantage of their relationship with them.

This includes keeping records of all work progress and research findings, obtaining feedback by means of reports and seminars, applying such feedback and working in accordance with agreed schedules, milestones, deliverables and/or research outputs.

Supervision and managerial duties

Senior researchers (R3 and R4) should devote particular attention to their multi-faceted role as supervisors, mentors, career advisors, leaders, project coordinators, managers or science communicators. They should perform these tasks to the highest professional standards. With regard to their role as supervisors or mentors of researchers, senior researchers should build up a constructive and positive relationship with the First Stage (R1) and Recognised (R2) researchers, in order to set the conditions for efficient transfer of knowledge and for the further successful development of the researchers’ careers.

**Section 4**

**R1-R4 profiles for comparable and interoperable researchers’ careers**

In relation to the R1-R4 profiles introduced in 2011[[13]](#footnote-13), 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



**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

|  |  |
| --- | --- |
| **R1 - First Stage Researcher** | **R2 - Recognised Researcher** |
| 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 |
| **R3 - Established Researcher** | **R4 - Leading Researcher** |
| 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

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

1. Please fill in these boxes. [↑](#footnote-ref-1)
2. Council Conclusions Research Integrity 14853/15 (2015) [↑](#footnote-ref-2)
3. Tackling R&I Foreign Interference, European Commission (SWD), 2022, doi:10.2777/513746 [↑](#footnote-ref-3)
4. Council Conclusions, The transition towards an Open Science system, 9526/16 27 May 2016 [↑](#footnote-ref-4)
5. All available instruments should be used, international or globally accessible web-based resources such as the EURAXESS Portal: https://euraxess.ec.europa.eu. [↑](#footnote-ref-5)
6. Tackling R&I Foreign Interference, European Commission (SWD), 2022, doi:10.2777/513746 [↑](#footnote-ref-6)
7. See also Evaluation/Appraisal Systems in the section on **TALENT DEVELOPMENT AND RESEARCHERS´ EVALUATION** below. [↑](#footnote-ref-7)
8. i.e., remote collaboration over electronic networks. [↑](#footnote-ref-8)
9. Look at http://www.enic-naric.net/ to find more detailed information about the NARIC Network (National Academic Recognition Information Centres) and the ENIC Network (European Network of Information Centres). [↑](#footnote-ref-9)
10. Which aims to prevent fixed-term employees from being treated less favourably than similar permanent employees, to prevent abuse arising from the use of successive fixed-term contracts, to improve access to training for fixed-term employees and to ensure that fixed-term employees are informed about available permanent jobs. Council Directive 1999/70/EC concerning the “Framework Agreement on fixed-term work” concluded by ETUC, UNICE and CEEP, adopted on 28 June 1999. [↑](#footnote-ref-10)
11. See SEC (2005) 260, Women and Science: Excellence and Innovation – Gender Equality in Science. [↑](#footnote-ref-11)
12. In this context see also EU Directive 2002/14/EC. [↑](#footnote-ref-12)
13. https://cdn5.euraxess.org/sites/default/files/policy\_library/towards\_a\_european\_framework\_for\_research\_careers\_final.pdf [↑](#footnote-ref-13)