#### Diálogos **UE Angola**

### Coara e a Reforma da Avaliação da Investigação

no contexto da avaliação de instituições de I&D

FCT, 20 Oct

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#### **Outline**

- 1. Evolution of Research & Research Assessment Reform
- 2. COARA Coalition for Advancing Research Assessment
- 3. Portuguese context: recent and ongoing initiatives



# **Evolution** of Research & Research Assessment **Reform**



#### Evolution of Scientific Research over the last decade

- Increasing inter- and transdisciplinary research
  - Many of the most pressing **societal challenges** require **interdisciplinary solutions**. Need for interdisciplinary collaboration to address complex and global problems.
- Collaboration across borders and sectors
  - International collaboration increasing over the past decade and increasing inter-sectors collaborations.
- Diversity of outputs and broader societal impact
  - Research no longer perceived solely by its contributions to advancing knowledge, but also by its impact on society. Increased diversity and **new outputs**: datasets, software, protocols, policy briefs, etc.
- The research process is in (digital) transition
  - Less linear, more collaborative (team science) and open, increased diversity of outputs.

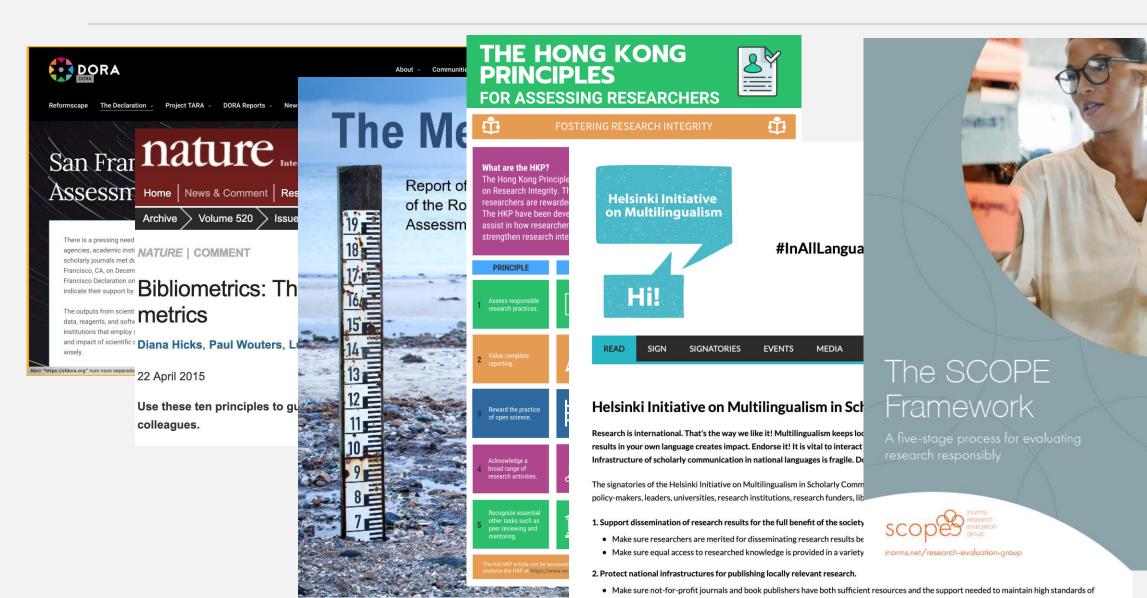


### The use of metrics and quantitative indicators

- Overemphasis on publications and narrow recognition and award of research
  - Over-reliance on metrics to assess research leaves other contributions unrecognised and undervalued.
- Negative impact on research culture and career conditions
  - Heavy focus on metrics affects research culture and researchers' career and work conditions ('publish or perish', mental health issues).
- Reward of quantity and publication venue over quality
- Does not reward appropriately sharing, collaboration and outputs other than publications

**Contrasting trends** – need to move towards a **better alignment** of the research assessment practices with the practices of modern research.

### Milestones in Responsible Research Assessment



### Milestones in Responsible Research Assessment

AGREEMENT ON REFORMING RESEARCH ASSESSMENT

20 July 2022



#### **Political Context**

- Council Conclusions on ERA (Dec. 2020) and on Research Careers (May 2021) invited the Commission to work with stakeholders to support changes in assessment practices
- Council Conclusions on the Future Governance of ERA (Nov. 2021) includes an action on reforming research assessment (Action 3) in the ERA Policy Agenda 2022-2024
- Council Conclusions on Research Assessment and Implementation of Open Science (10 June 2022)



# Council Conclusions on Research Assessment and Implementation of Open Science

- "Moving to a more balanced approach between the quantitative and the qualitative evaluation of research, by strengthening the qualitative research assessment indicators while developing the responsible use of quantitative indicators."
- "Recognising all forms of research and innovation outputs and processes, including inter alia, datasets, software, codes, methodologies, protocols and patents, and not only publications."



# Council Conclusions on Research Assessment and Implementation of Open Science

- "Taking into consideration diverse career pathways and all research and innovation activities, including mentoring, leadership roles, entrepreneurship, data management, teaching, knowledge valorisation, industry-academia cooperation, support for evidence-informed policy making, interaction with society, including citizen science and public engagement."
- "Taking into consideration the specificities of the various research disciplines, the range from basic to applied research, the stages of research careers and the missions of research institutions."



### Main **Objectives**

Reform the assessment system of research proposals, researchers, research units and research institutions to increase the **quality, performance and impact** or research.

#### Towards a research assessment system that:

- Promotes qualitative judgement strengthening peer review, supported by a more responsible use of quantitative indicators
- Considers the value and impact of a diversity of research outputs
- Rewards the diversity of tasks of researchers
- Fosters open collaboration and early knowledge and data sharing



# **CoARA**Coalition for Advancing Research Assessment



### Why CoARA?

- There is broad agreement from the research community on the need to reform existing ways of assessing research.
- Assessment processes relying predominantly on journal- and publication-based metrics
   can be a hurdle to the recognition of diverse contributions and may negatively affect
   the quality and impact of research. They also contribute to an unhealthy research
   culture and an unaffordable publication system.
- Building on progress made so far (DORA, Leiden Manifesto, Hong Kong Principles for assessing researchers), CoARA aims to **enable systemic reform of research assessment** on the basis of common principles and commitments within an agreed timeframe.



### **Agreement** on Reforming Research Assessment

- Establishes a common direction for assessment reform, while respecting organisations' autonomy.
- It is based on:
  - 10 overarching principles;
  - 10 commitments: 4 core and 6 supporting;
  - A timeframe for reforms: 1 and 5 years after signing.

• Signature of the Agreement is open to all organisations involved in research assessment.



### 4 Core Commitments (What)

- 1. Recognise the diversity of contributions to, and careers in, research in accordance with the needs and nature of the research.
- 2. Base research assessment primarily on qualitative evaluation for which peer review is central, supported by responsible use of quantitative indicators.
- 3. Abandon inappropriate uses in research assessment of journal- and publication-based metrics, in particular inappropriate uses of Journal Impact Factor (JIF) and h-índex.
- 4. Avoid the use of rankings of research organisations in research assessment.



### 6 Supporting Commitments (How)

- **5. Commit resources** to reforming research assessment as is needed to achieve the organisational changes committed to.
- **6. Review and develop** research assessment criteria, tools and processes.
- **7. Raise awareness** of research assessment reform and provide transparent communication, guidance, and training on assessment criteria and processes as well as their use.
- 8. Exchange practices and experiences to enable mutual learning within and beyond the Coalition.
- Communicate progress made on adherence to the Principles and implementation of the Commitments.
- 10. Evaluate practices, criteria and tools based on solid evidence and the state-of-the-art in research on research, and make data openly available for evidence gathering and research.



### Coara | Overview

Membership and Reach

844 Signatories

**Countries** 

779 Members

13

18

**Countries** 

**Working Groups** 

**National Chapters** 



# **CoARA**Collaborative structure

#### Working Groups

Working Groups operate as 'communities of practice', providing mutual learning and collaboration on specific thematic areas.

#### National Chapters

National communities of institutions and their research communities, involving at least half of the CoARA member institutions of a given country



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## Towards Open Infrastructures for Responsible Research Assessment

Open research information is crucial for responsible research assessment, which needs data, tools, infrastructures that secure transparency, reproducibility, geographicdiscipline-output coverage in data and indicators. Their sustainability, interoperability, openness, and community-based accountability are key to the reform. This working group's mission is to enable institutions to move from proprietary infrastructure and research information, to open (interoperable) alternatives-in support of the transition to responsible research assessment practices. This effort will take into consideration the wide range of research outputs and open science [...] Find more info here.



## Multilingualism and language plases in research assessment

By addressing language diversity and biases in assessment, this WG supports the EU (and other) institutions in fulfilling their duty to enhance, promote and uphold linguistic equity, diversity and non-discrimination in Europe and globally. This requires fostering an academic culture that values diverse competencies, interactions and communications in all languages without exclusions or priorities.

The main objectives are 1) to raise awareness across all fields about the importance of "multilingualism in practice of science, in scientific publications and in academic communications" (UNESCO); 2) to provide institutions with guidelines, toolbox [...]



# Experiments n Assessment – laca generation, co-creation, and piloting

The mission of this group is to form an incubator for experimental ideas in research assessment. We aim to establish a process to enable change: collecting, refining, and piloting new initiatives. The group will be a 'safe space' for collaboration and brainstorming of unconventional ideas that will shift assessment in line with the goals of CoARA. We will consider a wide variety of approaches, including those that might consider the recognition and rewarding of under-represented and under-rewarded scholarly practices and alternative methodologies and values in the evaluation decision-making processes. This group involves funders, institutions [...] Find more info here.



### Reforming Academic Career Assessment

The Working Group on Reforming Academic Career Assessment (ACA) is based on the premise that ACA systems should adequately reflect the different tasks, functions and roles academics fulfil over the course of their career. The aim is to broaden the reflection on research assessment to ACA, taking into account the full range of work conducted by academics in research, teaching and learning, innovation, management/leadership and service to society. The WG brings together a critical mass of academic stakeholders to 1) define the objectives and principles of reforming ACA, from the perspectives of institutions and academic staff being assessed, and to [...]

Find more info here.



### Responsible metrics and indicators

Stage 1: Assessing the status quo: Which indicators are currently employed? We investigate this across varied disciplines and cultural contexts, specifically in the evaluation of researchers, awards, institutional assessments, and the progression of scientific advancement (like tenure, PhD, habilitation, professor titles, etc.). Starting with CoARA members, institutions are asked to provide information on their current usage of indicators via a structured survey. Stage 2: Critical evaluation of the indicators and recommendations. Based on the survey results, we develop guiding questions and recommendations (2a) when to use indicators (and when not) [...]

Find more info here.



## Improving practices in the assessment of research proposals

The overall objective of the Working Group is to improve practices in the assessment of research proposals, ultimately supporting higher quality and more impactful projects, in line with the principles and commitments of the Agreement on Reforming Research Assessment, while respecting the autonomy of each member. This will include work on: Criteria for the selection of research projects and innovative approaches to review processes. The Working Group will exchange information and learn mutually on how quality is understood and operationalised by research funding and other organisations through their assessment criteria. It will share experiences [...]

Find more info here.



# Supporting the alignment of research assessment systems with CoARA in biomedical disciplines through administrative reforms and governance

In biomedical institutions, research assessments are highly regulated and procedurally institutionalized. Administrative reform is a crucial part of sustainable and successful research assessment reforms (RAR). The goals of the WG are to 1) identify barriers and facilitators, 2) evaluate existing examples, 3) consolidate experiences and 4) identify best practice scenarios. Translating CoARA into organizational practice requires not only the agreement of the broader science community, but its implementation success also depends on other factors that facilitate or hinder the RAR within an organization's administration and governance



# Towards Transformations: Transdisciplinarity, Applied/Practice-Based Research, and Impacts

New real-world challenges and frontiers in science require collaborations across a range of actors in order to arrive at solutions.

Climate change is a case in point. For research to play a transformative role in how our societies are shaped locally, in Europe, and world-wide, science systems need to adopt new assessment approaches. Our working group involves 40+ organisations. It aligns three distinct yet interconnected streams of activities towards transformations and will deliver shared workshops and products.

Find more here.



### Recognizing and Rewarding Peer Review

Research assessment needs to take into account a broad range of scholarly activities. Formal peer review plays a crucial role in research and must therefore be given appropriate recognition in assessment processes. This working group will develop systematic approaches for recognizing and rewarding peer review activities. Efforts will be made at a number of different levels: (1) Collecting systematic evidence on ways in which high-quality peer review activities can be recognized and rewarded; (2) Using this evidence to develop principles and guidelines for recognizing and rewarding peer review activities; (3) Piloting the implementation [...] Find more here.



# Early-and-mid-Career Researchers (EMCRs) – Assessment and Research Culture

EMCRs working in different types of environments, including universities, research institutes or the private sector, are subject to precarity and hypercompetition, and are most strongly affected by research culture and by assessment practices. These assessments happen at a variety of occasions and for different purposes, including hiring and promotion, yearly cadre reviews and success evaluations, project applications, habilitation, defending a disposition or a doctorate, etc. Moreover, EMCRs particularly in earlier career stages face an uncertainty about the academic system, as there is little coaching and training on the existing requirements [...] Find more info here.



### TIER - Towards an Inclusive Evaluation of Research

In research assessment, systematic biases can be present when the evaluation criteria do not take properly into account the career path of individuals (for instance, maternity or health leaves not considered in the quantitative evaluation of the scientific production). In addition, accidental confirmation biases may arise when evaluators lack sufficient information about the candidates or valorise stereotyped attitudes. These are more likely to drive the peer evaluation, especially under conditions of high time pressure and cognitive load. These biases can lead to a systematic asymmetry in the evaluation of researchers belonging to different groups, compromising diversity in scientific research – especially in STEMM – as proved by statistics.

Find more info here.



# Ethics and Research Integrity Policy in Responsible Research Assessment for Data and Artificial Intelligence (ERIP)

ERIP builds global expertise to address the transformative cross-disciplinary impact of data and AI on research culture (values, processes, structures, perceptions) supported by data and AI integrity for the ethical development of AI in research and institutional assessment framed in human-centric quantitative and qualitative metrics/indicators for data/AI research activities. ERIP's mission is to develop policy, guidance, and tools for advancing research assessment that promote the role of, and define the ethical and integrity characteristics of, a responsible culture for the assessment of data and AI in research, fostering responsibility, transparency, and societal



# Evaluating Social Sciences and Humanities (SSH) research globally

Assessment of research in the SSH fields and disciplines is challenging because of:

- the diversity of knowledge production, communication, and outreach practices.
- the plurality of methods, processes,
   applications, and impacts, between and within disciplines,
- The strong national focus in SSH in many
   SSH fields creates distinct practices,
- a higher proportion of outputs published in languages other than English (WG will liaise closely with Multilingualism WG via our common partners TSV and EASSH).

Find more info here.

# **CoARA**Collaborative structure

#### Working Groups

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# **CNP-CoARA**The Portuguese National Chapter



### CNP-CoARA | Membership

#### **Universities** and their associations



















UNIVERSIDADE





UNIVERSIDADE D COIMBRA









Research centres, research infrastructures, and their associations











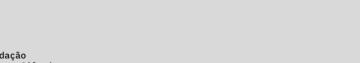








Public or private research funding organisations and their associations





### Recent & Ongoing Activities

#### Organisation model



Capítulo Nacional Português (CNP-CoARA)

Coalition for Advancing Research Assessment

Organização e Funcionamento Versão Consensualizada

#### Apresentação

O Capítulo Nacional Português (CNP-CoARA) é uma plataforma colaborativa que tem como principal objetivo promover e contextualizar os compromissos de ação da Coalition for Advançuig Research Agressment (CoARA) e o debate sobre a reforma da avalitação da investigação no panorama científico português e na sua diversidade institucional, dando igualmente visibilidade às áreas e desafios do Acordo no âmbito de iniciativas nacionais e contribuindo para uma participação alargada e plural da comunidade científica em torno do tema da avalitação da investigação, na sua dimensão sistémica e considerando os seus vários processos, contextos e intervenientes.

A criação do CNP-COARA surge numa altura em que um número crescente de instituições portuguesas tem vindo a subscrever o Acordo e os seus compromissos de ação e a formalizar a sua adesão à COARA. A aprovação do CNP-COARA resultou de um processo de CO-COARA de constituições nacionais membros da COARA – incluindo unidades de investigação, universidades e a agência de financiamento pública – de um Plano de Ação para os próximos dois anos, com áreas de atividade que vão da promoção da discussão alargada dos princípios e objetivos da reforma da avaliação da investigação, do estudo e mapeamento das práticas nacionais, ao apoio e participação em projetospiloto ou à promoção de investigação, afea de Research og Research (BCR).

Os objetivos do CNP-CoARA distribuem-se pelas seguintes áreas:

- Sensibilizar a comunidade nacional para os princípios e objetivos do Acordo e para os compromissos de ação da COARA.
- Facilitar a aprendizagem mútua e a comunicação e partitha de avanços e desafios na implementação dos vários planos de ação das instituições membros, bem

#### **Approval of an Organisation model**

#### General Council

 Plenary forum of the CNP-CoARA and is made up of all the points of contact of the participating institutions with CoARA.

#### Coordination Team

 The Coordination Team is made up of three members, one Chair and two Co-Chairs, whose institutions must represent the diversity of CNP-CoARA member institutions typologies.

#### Extended Coordination Team

 The Extended Coordination Team is made up of the CNP-CoARA coordination team and the coordination teams of 3 members for each Working Group.

#### Working Groups

• Composed of members of the CNP institutions' communities, they have the task of implementing the action plan's work packages.



# WP 1: Mapping and Disseminating Best Practices on Research Assessment (M1-M22)

- T1: Analysis of existing assessment systems and practices across the national context (M1-M6)
- T2: Conduct a comprehensive analysis of the **national** legislation related to research assessment and its
   coherence with the Agreement (M2-M8)
- T3: Compile national and international best
  practices, in collaboration with other NCs and relevant
  WGs. Set up and update an online page of national best
  practices, of piloting initiatives (cf. WP2) and development
  of new assessment tools and processes (M3-M18)
- T4: Draft a comprehensive **report** detailing the identified best practices and develop recommendations and a national framework to align national policies with CoARA Commitments (M18)
- T5: Set up a toolbox for recognition and reward in research and academic careers, broadening the diversity of activities, outputs and outcomes, that play a role in a more qualitative assessment of research (M22)



# WP 2: Engaging in the Implementation of Small Pilot Projects and Research on Research Activities (M6-M24)

- T1: Plan and outline, or participate in and contribute to, pilot projects based on identified best practices and RoR activities (M6-M24)
- T2: Monitor and evaluate the effectiveness of the pilot projects compiling a detailed report on the key implementation challenges and lessons learned (M9-M22)
- T3: Promote and engage in National RoR

research assessment, organising two
workshops aimed at researchers from the
national community working in related areas,
namely on peer review and assessment
methodologies, tools and processes, open to the
participation and collaboration of other NCs and
relevant WGs (M6-M22)



# WP 3: Management, Mutual Learning, Collaboration, Engagement (M1-M24)

- T1: Kick-off the Portuguese NC with an event bringing together all existing and forthcoming CoARA NCs T2: **Regular online NC meetings**, including pre-meetings before key CoARA events
- T3: Two in-person meetings/seminars/workshops
- T4: Usage of digital platform for sharing information and foster debate among NC members
- T5: Dissemination network of **CNP-CoARA ambassadors**, articulated with ongoing WP1 and WP2 activities and projects, and supported by a set of training tools and initiatives



# WP 3: Management, Mutual Learning, Collaboration, Engagement (M1-M24)

- T6: Final event dedicated to presenting the results of pilots, thematic sessions, major national recommendations, and outlining NC next steps
- T7: **Engage** the Portuguese Research Community and CoARA member organisations in shaping the Portuguese NC



# **European Commission**Recent initiatives



# A New **ERA** for Research Assessment From Action to **Structural Policy**

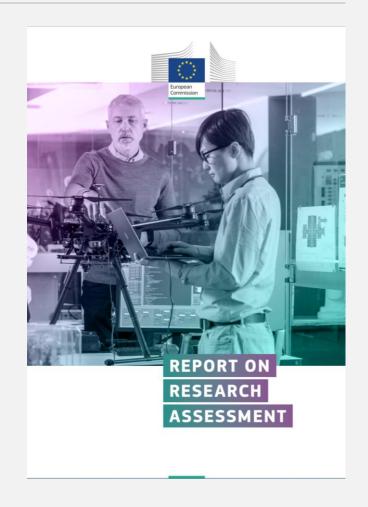
- Core European Priority: In the new European Research Area (ERA) Policy Agenda for 2025-2027, research assessment reform has been promoted from a specific 'Action' (former ERA Action 3) to a permanent Structural Policy.
- **Goal**: To drive a systemic reform that moves away from a reliance on purely quantitative metrics and towards a qualitative assessment that recognises a wider diversity of research outputs, activities, and career paths to better reward quality and impact.
- **Evidence-Based** Reform: To support this transition, the European Commission is funding a dedicated Research and Innovation Action (RIA) to lead research on the reform itself, ensuring changes are evidence-based. **HORIZON-WIDERA-2025-06-ERA-03**: Research and innovation to provide evidence that support reforms of research assessment



# CoARA-Boost Catalysing and Funding Institutional Change

What it is: CoARA-boost is **funded by the EC**, designed to strengthen and operationalise the work of the CoARA. Its central tool is a Cascade Funding that provides direct grants to institutions.

**Overview**: Cascade funding of over **50 projects**. These projects will help institutions to: (i) Develop and pilot new assessment criteria, tools, and processes, (ii) Facilitate knowledge exchange between institutions, (iii) Pave the way for lasting, systemic institutional changes.





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### CoARA-Boost

### Catalysing and Funding Institutional Change



A Portuguese example: the

TREASURE Project, from

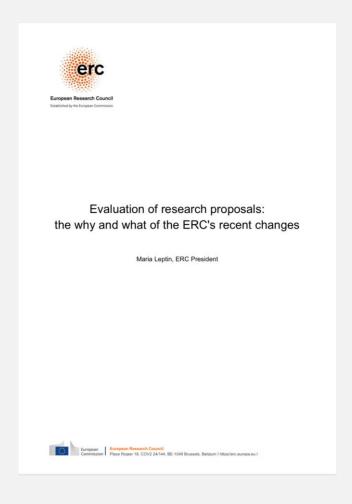
**University of Coimbra** 

Institutional Pilot Project
 focused on rewarding Master
 and PhD candidates for
 implementing reproducible,
 reusable, and open research
 practices in their theses.

https://www.uc.pt/iii/treasure/



# **ERC** | European Research Council Changes to the assessment process



- Description of required 'profiles' of ERC Pls has been removed from the Work Programme
- In the application form, the CV and track record, previously two separate documents, are now combined as a single template
- Type of research output is deliberately left open in the "Research achievements and peer recognition" application form section



## National Context FCT Moving towards reform



### FCT | RESTART

### Changes to research assessment criteria and process

### Broadening the recognition of researchers' activities and contributions

- Adoption of Narrative CV, piloting a model based on the the Royal Society Resumé for Research and Innovation (R4RI)
- Contributions to Science and Society, covering a wide set of contributions, from publications, data sets, new methods, software, exhibitions, to the contribution to the development of individuals and teams, and contributions to the wider society
- Additional section dedicated to a detailed explanation of up to 5 outputs and/or activities (context, roles, impact, etc.)

#### **New evaluation criteria**

• Adoption of a new evaluation criterion, awarding the commitment of institutions to the conditions provided to applicants and its **impact on the sustainability of their careers**.



# FCT | Changes to assessment processes Other changes in more recent calls

#### Call for Exploratory and IC&DT Projects (Teams)

- Narrative CV for Principal Investigators
- Move towards a more narrative format in the presentation of teams

#### **CEEC 7nd Edition (Individual contracts)**

• Fully introducing Narrative CV (in the 6<sup>th</sup> edition Restart's Narrative CV Pilot was still underway)



# The Portuguese Research Landscape Other ongoing changes and initiatives

- Broadening the recognition of research outputs and activities. Narrative CV Format.
   Currently working on an upgrade to Ciência VITAE for it to include a new customizable
   Narrative CV section.
- Broad view and recognition of research and its pathways. New funding programmes (and additions to old ones) targeting research pathways and partnerships between academic and non-academic entities in all scientific areas.
- Increasing the permeability between researching and teaching careers. New FCT
   Tenure programme.



# FCT | PT R&D Units Evaluation 2023/2024 Changes to the assessment process

Narrative CVs: R&D Units Core CVs, indicated by each as those best representing the quality and scope of the research carried out, are now Narrative CVs  $\simeq$  3000

Multidisciplinary evaluation: new multidisciplinary evaluation system, allowing R&D units to select the disciplinary makeup of their teams of evaluators from up to three different panels. Key benefits:

- **Bottom-up approach**: more adaptable framework that aligns the R&D Units specific current research and its strategic goals
- Enables **tailored evaluation**: R&D units can create multidisciplinary teams of evaluators
- More comprehensive assessment of past achievements and future plans

**Strengthening peer review:** (i) introduction of **collegial evaluations**, fostering a more inclusive, multi-perspective assessment process and reducing biases, and (ii) increased duration and frequency of interactions between research units and evaluation panels.



# Revision of the **Statute of the Scientific Research Career**



# **Broadening the Recognition**

Of researchers' activities and contributions

#### **Hong Kong Principles**

**Principle 4** – Acknowledge a **broad** range of research activities

**Principle 5** – *Recognise* essential *other tasks* like peer review and mentoring

#### **CoARA Core Commitments**

**Commitment 1** – Recognise the **diversity of contributions** to, **and careers** in, research in accordance with the needs and nature of the research.



## ECIC | Revision

### Definition and scope of research activities

English Français Versão áudio Contactos **Parlamento** Atividade parlamentar UE e Internacional Deputados Comissões Orçamento do Estado e contas públicas Atividades parlamentares Diário da Assembleia da República · Interpelações ao Governo Petições Agenda · Inquéritos Parlamentares Votações Cerimónias e atos oficiais · Perguntas ao Governo e Requerimentos Iniciativas Relatórios e estatísticas da atividade parlamentar Programas do Governo Relatórios de fiscalização da atividade do Governo Diplomas aprovados • Intervenções em Plenário Moções · Relatórios sujeitos a apreciação parlamentar Projetos de Voto Tipos de debate Ordens de trabalho e súmulas da Conferência de Líderes · Apreciação de Decretos-Lei Eleições e composição de órgãos Proposta de Lei 24/XVI/1

Aprova o Estatuto da Carreira de Investigação Científica e o Regime comum das carreiras próprias de investigação científica em regime de direito privado [formato DOCX] [formato PDF]

#### Anexos

A.I.G. [formato PDF]

Parecer ECIC - FENPROF - 18-06-2024 [formato PDF]

## **ECIC** | Revision

### Definition and scope of research activities

#### **Article 4** | General Functions of Researchers

"Researchers are generally responsible for:

- a) Regularly carrying out research and development activities through the pursuit and creation of original knowledge and the dissemination of the results of these activities, as well as performing all other scientific and technical activities and services aligned with the mission of their host entities;
- b) Engaging in activities related to the application, transfer, and valorization of knowledge, as well as the promotion and communication of science;
- c) Taking on management roles within scientific research activities that require a high degree of qualification, responsibility, initiative, and autonomy, as well as expertise in their area of specialization, specifically:
  - i) Conducting tasks inherent to applications for national and international competitive funding;
  - ii) Performing management duties for research units;



## **ECIC** | Revision

### Definition and scope of research activities

- iii) Participating in the design and adaptation of specialized technical and scientific methods and processes within the scope of research and development programs and projects;
- d) Carrying out highly complex tasks associated with the maintenance of scientific and technological infrastructures;
- e) Supervising internships and undergraduate projects, master's dissertations, and doctoral theses within their areas of expertise;
- f) Conducting training activities in the field of research methodology and development;
- g) Fulfilling roles to which they have been elected or appointed, particularly in committees and working groups, and participating in the meetings of the collegiate bodies of their host entity."



# Obrigado

