CoARA at Université de Lorraine

1. Preamble: objectives of this document.

The Université de Lorraine joined the <u>Coalition for Advancing Research Assessment</u> (CoARA) at the end of 2022, after signing the San Francisco Declaration on Research Assessment (DORA) in 2021, and participating in the organization of the <u>first European Open Science Conference</u> in early 2022, which launched the Paris Call for Research Assessment under the aegis of the French Presidency of the European Union. CoARA aims to move the evaluation of research and the assessment of research staff careers towards a more qualitative process, combined with a responsible use of quantitative indicators. Its implementation is fully in line with our five core values of universality, creativity, reflexivity, solidarity and responsibility.

Therefore, this document proposes the organization of a collective reflection at Université de Lorraine level on how to evaluate individual and collective research activities, in line with CoARA commitments. This document does not propose any predefined actions, but essentially outlines methods and ideas for new developments. It builds on the progress already made following the signing in 2021 of DORA, the San Francisco Declaration on the Evaluation of Research. In fact, the establishment has already significantly transformed its career evaluation tools for rapporteurs, by involving the communities.

However, academic missions go beyond research alone, and include teaching and collective responsibilities. A similar approach aimed at introducing a more qualitative evaluation is probably also required for these other two aspects. Nevertheless, this document will focus on the research aspect alone, while insisting on the need to take all three aspects into account when assessing academic missions.

This applies to all research-related activities, whether carried out by teacher-researchers, researchers, doctoral students or research support staff. In the developments of this document, we will refer to all such staff as "research staff".

2. Working methodology

The process of implementing CoARA at our university began with a diagnosis of the actions already oriented towards CoARA¹ as part of the <u>HR excellence in Research</u> label (Human Resources Strategy for Researchers, HRS4R), obtained in 2017 and renewed in 2023, and as part of an active open science policy. Thereby, 24 actions linked to the HR label, either completed or in the process of being implemented, have been identified. These actions concern the evaluation of individual careers, research units and projects supported by the establishment, as well as quality of life at work, ethics, scientific integrity and open science. Reciprocally, the CoARA approach has enriched our OTM-R (Open, Transparent and Merit-based Recruitment) policy, and is interlinked with our Equality, Diversity and Inclusion policy and its action plan for professional equality between women and men, as well as our master plans dedicated to Disability, and Sustainable Development and Corporate Social Responsibility (SD&RSE).

We share our experience and practices with the <u>French CoARA chapter</u> and the international CoARA working groups, as well as with other higher education and research establishments that are equally committed to the approach². We respond to surveys issued by the <u>Academic Carrier</u> <u>Assessment (ACA), Multilingualism and Language Biases In Research Assessment and Towards an Inclusive Evaluation of Research (TIER)</u> groups, for example. In particular, this has enabled us to self-assess our practices³ in terms of multilingualism and gender in the evaluation of research and academic careers.

All these diagnostic and self-assessment procedures, carried out with the help of a dedicated CoARA steering committee made up of a wide range of Vice-Presidents and Head Offices, were shared with members of our community (scientists, support staff and human resources management) at a CoARA acculturation seminar held in June 2024⁴. Articulated around round tables and discussion workshops, the aim of this seminar was to lay the foundations for the co-construction of this transformation by ensuring that everyone could be heard and could make their contribution to this far-reaching evolution. The discussion workshops produced the following findings:

Research activity is changing, and increasingly encompasses different activities and skills.
Evaluation criteria should take this diversity into account, in direct relation to the seniority of research staff in their careers, but also according to their research disciplines. On the other

¹ In accordance with commitment n°6.

² In accordance with commitments n° 8 and n°9.

³ Conformément à l'engagement n°10.

⁴ In accordance with commitments n°7, n°8, and n°9.

hand, the evaluation philosophy must be built on a common foundation. The question of how to take interdisciplinarity into account in evaluation was also raised. The co-construction of the evaluation with the evaluators was also raised, as well as the promotion of self-evaluation by each and every one, based on a multi-criteria and diversified approach.

- The need to emphasize the qualitative dimension of the criteria used in recruitment: teaching and teaching methods, links with research, quality of work, consideration of factors impacting career development, and recognition of original choices made and assumed by certain candidates. As mentioned above, a qualitative self-assessment, and the co-construction of the assessment with the assessors, could enable each candidate to explain and highlight the diversity of his or her contributions.
- Questions have been raised about methodologies, that are sometimes biased, used to construct quantitative indicators, and the hypothetical, and therefore potentially misleading, correlation between article citation rate, its reading rate and its real scientific significance. The question was also raised of the possible drift of qualitative evaluation towards the systematic and uncontrolled analysis of texts by generative artificial intelligence algorithms, with all the biases and imperfections that this would entail. Last but not least, there was strong interest in Leiden's new classification system based solely on open data. Discussions on peer review and the race to publish highlighted the excesses and the downward spiral of the current commercial model of scientific publication. How can we break out of this vicious circle? An indepth transformation of the research culture is needed.

All these steps and reflections have led to the development of our CoARA commitment, subject of this document. The implementation of CoARA at our university will continue *via* the dedicated CoARA steering committee, and will be nourished by the reflections emanating from communities of practice initiated for the occasion, and by the recurrent organization of sharing and exchange seminars within our community at large.

3

3. Strategy for a change of approach: a dynamic already at work.

The CoARA strategy of Université de Lorraine has been built up and must be pursued with its communities and partners on the Lorraine site. However, the strategy cannot be built solely at local level, as many evaluation processes include a national stage, *via* the *Conseil National des Universités* for example, or the evaluation authorities of research organizations when it comes to researchers. Another major advantage of Lorraine's strategy is its link with the HR excellence in Research (HRS4R) label. Indeed, our CoARA commitment and our HRS4R action plan are likely to address many issues in common, since they both encompass aspects relating to the recruitment and careers of associate professors, professors and researchers.

The involvement of the scientific community will be based on three pillars:

- Université de Lorraine's elected decision-making and consultative authorities.⁵
- Seminars and communities of practice to facilitate exchanges and design actions with a double top-down and bottom-up logic, aimed at strengthening the acculturation of communities and their ability to influence the implementation of evaluation reform in the establishment.⁶
- The Lorraine research ecosystem includes several partners, including national research organizations, and relies on existing coordination bodies at site level.

In addition, the CoARA steering committee⁷ will provide input to the authorities and communities of practice, and work with them on the reform. As the level of involvement in research activities is closely linked to the level of involvement in teaching activities, the evaluation of research cannot be dissociated from the evaluation of teaching, which is nevertheless not the subject of this document.

However, coordination and synchronization with the national evaluation level remains a challenge. There are three possible areas of work:

- Interact and rely on CoARA's French national chapter to communicate with national assessment authorities (e.g. CNU) and organizations (e.g. Hcéres)⁸;
- Involve, within our communities of practice, the scientists who work within national assessment authorities⁹;
- Attach a summary of CoARA actions undertaken by the university to each application file when sent to the national level, in order to inform on ongoing changes at local level¹⁰.

⁵ In accordance with commitment n°5 (institutional commitment)

 $^{^{\}rm 6}$ In accordance with commitments $n^{\circ}7,\,n^{\circ}8$ and $n^{\circ}9$

⁷ In accordance with commitment n°5

⁸ In accordance with commitments n°8 and n°9

⁹ In accordance with commitments n°7 and n°8

 $^{^{10}}$ In accordance with commitments $n^{\circ}6$ and $n^{\circ}7$

4. CoARA implementation process at Université de Lorraine.

4.1. Action areas

Three main areas of research evaluation have been identified and need to be addressed.

- The first is individual assessment, which encompasses recruitment and career development. This part is closely linked to HRS4R, and the two processes feed off each other. However, researcher individual careers are also evaluated by the *Comité National des Universités* and its discipline-specific sections, as well as by the evaluation authorities of research organizations, which limits our scope for autonomous action and calls for harmonized practices wherever possible.
- The second is the evaluation of collective research projects. This is either carried out entirely by national or international funding agencies, or by the university as part of internal calls for projects. This gives everyone significant scope for action. The concomitant and coherent involvement of the major funding agencies and the university in CoARA is a strong starting point towards the implementation of a harmonious reform without contradictory injunctions.
- The third is the collective evaluation of research units and laboratories. Part of the evaluation process is handled by national evaluation authorities (Hcéres) in conjunction with national research organizations and universities, thus limiting our own room for maneuver. However, it is also possible to act at this level. This can be done by reforming the local collective evaluation, while indicating to the national authority the way in which we are asking to be evaluated. It can also be done by seizing every opportunity to encourage laboratories to make decisions compatible with CoARA and to initiate platforms at their level. For example, during strategic dialogue with governing authorities.

4.2. Challenges to fair assessment

The following is a non-exhaustive list of the main challenges identified, which will need to be addressed to achieve a comprehensive and coherent reform of research evaluation.

4.2.1. Conducting and preparing a fair evaluation

- Define a fair and reasoned use of quantitative indicators¹¹.
 - For example, free up individual and collective assessments of international rankings and laboratory reputations.
 - For example, avoid using h-index and impact factors

¹¹ In accordance with commitment n°6

- Specific assessment methods to be adapted to ...¹²
 - Disciplines
 - Career stage
- Limit subjectivity bias in qualitative assessment¹³.
 - Propose a criterion-based evaluation grid for each discipline to reduce subjectivity (like <u>OS-CAM</u>)
 - Refrain from using generative artificial intelligence in writing and evaluating narrative CVs.
 - Avoiding stereotypes such as gender
 - Take into account researcher deliberate choices, for example in terms of reducing carbon emissions or boycotting certain publishers...
- Value pedagogy and teaching in the evaluation of careers and research units (e.g., value the remobilization of research results in teaching).
- Strive to assess individual contributions to collective results and not focus exclusively on individual results.
- Train evaluators and those being evaluated in the underlying logic behind the new forms of evaluation on offer.

4.2.2. Institutional challenges

- Identify and train peers to conduct assessments that meet new criteria.
- Meet the cost challenge of qualitative research evaluation, by simplifying procedures, homogenizing forms, limiting the number of evaluations...
- Connect the local (establishment, site ...) and national levels of research evaluation (CNU, ANR, Hcéres, etc.).
- Be attentive to the consequences of research evaluation reform on early-career research staff: research evaluation reform does not need martyrs.
- Fully recognize evaluation work as scientific work¹⁴.
- Refer to general evaluation principles, while adapting to the practices in use in different disciplines.
- Conduct research evaluation reform while maintaining the attractiveness level of teaching-research jobs (i.e., depending on disciplines and individual priorities,

¹² In accordance with commitment n°6

¹³ In accordance with commitments n°1, n°2 and n°6

¹⁴ In accordance with commitment n°1

evaluation reform can be perceived as an asset as well as a hindrance to attractiveness).

 Make research evaluation reform a lever for promoting and improving the quality of working life.

4.3. Creating CoARA communities of practice¹⁵.

Ensuring the involvement of the entire university scientific community in this process, in all its diversity, is no easy task. Researchers and research support staff at all career stages and from all scientific disciplines need to be involved in the process. So, to enable the expression of a diversity of sensitivities within the establishment, we will be initiating communities of practice¹⁶ dedicated to the implementation of CoARA, beyond the existing and usual structuring of the establishment.

Their creation will necessarily call for very broad participation, open to the whole establishment. The scientific clusters will play a key role in their emergence. The CoARA steering committee will then draw on these communities to gather opinions and proposals that will feed into its reflections.

In addition, these communities of practice will enable research evaluation methodologies to be shared, both internally at the university and at national (e.g. CNU) and international (e.g. ERC) levels, through the Lorraine research staff involved in these authorities.

 $^{^{15}}$ In accordance with commitments n°5, n°6, n°7, and n°10.

¹⁶ Brown, J.S., Duguid, P. (1991), «Organizational learning and communities of practice: Toward a unified view of working, Learning and innovation», Organization Science, vol. 2, n° 1, p. 40-57 ; Wenger, E., McDermott, R., Snyder, W.M. (2002), Cultivating Communities of Practice: A Guide to Managing Knowledge, Harvard Business, School Press ; Lave, J., Wenger, E.C. (1991), Situated Learning: Legitimate Peripheral Participation, Cambridge University Press.

5. UL actions in line with the 4 main CoARA commitments.

The <u>4 main CoARA commitments</u> and their translation within Université de Lorraine are listed here, in addition to the general philosophy of the commitments outlined above for the development of research evaluation.

The boxed text also lists the actions already undertaken as part of the HR Excellence in research label, which complement CoARA's specific commitments.

5.1. Recognize the diversity of contributions to, and careers in, research

in accordance with the needs and nature of the research.

- Enable recognition of a greater diversity of contributions to re-research:
 - Collect and document different types of output (e.g. research data, software and source code, books...), using different types of open archives and OpenAlex, in the spirit of the Barcelone Declaration on Open Research Information.
- Enable greater diversity in career paths and profiles.
 - Use the career diagram to highlight the candidate activity profile
- Recognize and take into account all types of mobility (geographical, inter/transdisciplinary, intersectoral and inter-organizational, including virtual mobility) mentioned in <u>the European Charter for Researchers</u>, and measure their relevance, scope and scientific added value.
- Recognize individual contributions to collective research or teaching teams in the same way that individual excellence is recognized.
- Understand the diversity of practices within disciplinary communities.
 - Encourage interdisciplinary dialogue on the codes (implicit or otherwise) involved in evaluation
 - Investigate the possible uses of the CRediT taxonomy: <u>https://groups.niso.org</u>

HRS4R actions in line with CoARA commitment no. 1

2.1.2. Adaptation of associate professors and professors promotion criteria during the local phase in line with commitments

2.1.7. Development of evaluation criteria for associate professors and professors files for recruitment and promotion in conjunction with CoARA

2.1.6. Integrate CoARA commitments into the Open, Transparent and Merit-based Recruitment Policy

5.2.4. Encouraging and recognizing individual involvement in knowledge transfer to the socioeconomic world, in conjunction with CoARA

6.1.1. Creating an environment conducive to the open access dissemination of researchers' publications and works

6.1.3. As part of the National Plan for Open Science, develop a policy and support for the commercialization of software produced by researchers

6.1.4. Develop a facility-wide data policy associated with these resources

5.2. Base research assessment primarily on qualitative assessment for

which peer review is central, supported by responsible use of quantitative

indicators.

- Write, with the French CoARA Chapter, a short summary on the limits of quantitative indicators
- Promote the reasoned use of metrics and train the community in this type of approach.
- Promote hybrid CVs based on both quantitative and qualitative elements:
 - Narrative CVs, analytical CVs in which each element is analyzed and self-evaluated, and in which indicators are put into perspective.
 - Train evaluators to analyze this type of CV, and candidates to build them.
 - Train candidates in self-assessment
 - Provide a criterion-based analysis grid adapted to each discipline, to reduce the subjectivity of assessment.
- Explore an open approach in which research staff have access to the peer review report (already the case on request), and have the opportunity to respond to it, to promote transparency, fairness and feedback while preserving the anonymity of the reviewers.
- Draw on research on research evaluation
 - Organize regular seminars on evaluation with scientific specialists.
 - Identify researchers working on research evaluation at Université de Lorraine and promote the dissemination of their work.

HRS4R actions in line with CoARA commitment no. 2

2.2.2. Promote scientific autonomy

3.2.2. Raise awareness, communicate and provide training on the various forms of discrimination

3.2.4. Implement the Gender Equality Plan, including a gendered approach to human resources management

3.3.1. Deploy disability master plan of université de Lorraine with a recruitment and career HR dimension

5.1.5. Adapt the criteria taken into account when managing internal calls for projects in line with the commitments made when signing CoARA.

5.3. Abandon inappropriate uses in research assessment of journal- and publication-based metrics, in particular inappropriate uses of Journal Impact Factor (JIF) and h-index.

- Procuring and promoting the dissemination of existing analyses of these indicators that explain how they present considerable biases and how their use may be inappropriate. (For example <u>McKiernan *et al.*, 2019</u>...)
- Offer training on this topic to candidates and assessors.
- Request commitments to this effect from the chairmen of evaluation commissions or committees.

5.4. Avoid the use of rankings of research organizations in research assessment.

- Communicate publicly on the cautious and critical stance that Université de Lorraine has adopted on international rankings, and more specifically on business rankings.
- Obtain and widely disseminate existing analyses demonstrating the significant biases associated with the methodology of these rankings, and urging the avoidance of their inappropriate use.
- Request commitments to this effect from the chairmen of evaluation commissions and committees.
- Offer training courses for evaluators and evaluates on the issue of ranking institutions and research organizations.