TEMPLATE FOR NATIONAL CONSULTATION PROCESS

This template follows up on the debate in the ERA Forum on 25 May, in which Forum representatives agreed on a coordinated approach towards the definition of new actions for the ERA Policy Agenda 2025-2027. It builds on a gap analysis exercise in which the ERA Forum assessed, which parts of the Pact for Research and Innovation are already covered by the Policy Agenda 2022-2024 and where there should be additions.

Forum representatives are invited to distribute this template among actors at national level to collect input for potential new actions for the ERA Policy Agenda 2025-2027. The priority areas of the Pact for Research and Innovation and content of the Policy Agenda 2022-2024 should be taken into account when filling in this template.

The results of the national process should be then fed into the gap analysis document by Forum representatives by **18 August 2023**. This will help to prepare the overall assessment for the ERA Forum meeting of September.

Action title:

(Please use as a maximum two lines.)

Greening Research: towards climate-sustainable research practices.

Description of the action

(Please explain the proposed action in a <u>simple, clear and communicable</u> narrative).

Scientific research and innovation are of great importance to generate knowledge and technologies to tackle the European and global societal challenges such as Climate change and Biodiversity loss. But the scientific process itself also has a significant ecological footprint due to sometimes heavy energy and water usage, waste and chemical production, nonsustainable procurement, and frequent long-distance travelling.

The research community, encompassing research institutions, funders, and policymakers, bears the duty of reducing research activities' ecological impact without compromising scientific quality. This new ERA Action has two core objectives: 1) establishing a ERA-wide standard for evaluating research's ecological footprint and 2) creating an ERA platform for sustainable research practices, focusing on sustainability pathways, mutual learning, and future planning.

1) Establishing a ERA-wide standard for evaluating research activities' ecological footprint

Research activities should reduce their ecological impacts and directly engage with climate actions. For this scope, they need a common framework for the appraisal of their ecological footprint. The first step is to collect the existing approaches and methodologies for the appraisal of research organisations' ecological footprint. This footprint includes, among others, carbon/greenhouse gas emissions, water pollution, biodiversity impacts and other types of impacts related to climate change. The most common sources of impact are usually identified with, but should not be limited to, research facilities, staff travels, office buildings, and science-related events (scholarly conferences, scientific workshops, and training).

The ultimate goal is to develop and implement sustainability strategies adapted to research organisations' different contexts and situations. This objective, in line with the goals set by the Paris Agreement and the United Nations' Sustainable Development Goal for Climate Action, relies on the need to provide consistent, rigorous and harmonised measurement of these impacts while leaving to research organisations the way to adjust to their needs not to harm the fundamental objective of delivering excellent science.

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A harmonised approach to measuring the ecological footprint of research organisations will facilitate the systemic change needed to tackle the climate crisis. For this reason, it is fundamental to have common principles, methods and approaches across higher education institutes, research funding organisations, academies, universities, research institutes and research performing organisations.

2) Creating an ERA platform for sustainable research practices

A platform for sustainable research practices could be set up within the ERA to learn from the countries and institutes that are leading in this regard. This could be the first concrete action launched by the ERA Forum within 2025.

Currently there are already several grassroots initiatives that undertake actions towards making research more sustainable and they have started to connect through networks, for example the Green Lab Networks. Furthermore, within some European fora the subject of sustainability and reducing the ecological footprint has entered the conversation, examples are ESFRI and EuroHPC. With the introduction of this action on the ERA Policy Agenda we will try to learn from and strengthen these existing initiatives.

Actors

(Please explain who would take part in the action and who would benefit from it).

The following actors will benefit and take part – as relevant in the framework of the ERA governance.

- The EU Commission will publish common guidelines on the appraisal of the ecological footprint of research organisations. These guidelines will set standards, protocols and methodologies with the effect of creating an ERA platform for sustainable research practices.
- Member states will participate in the process through the ERA
 Forum and the definition of the guidelines. National research
 activities will benefit from having harmonised measurement,
 while keeping the flexibility to decide how to reduce the
 footprint following their national R&I systems. The member
 states will also be a participating partner in the ERA platform
 and will be able to connect their national activities with the
 platform and learn from it.
- Stakeholder organisations will be engaged in the process through participation in the ERA Forum and the ERA Platform for sustainable research practices.
- Research organisations will have a common framework as reference with the possibility to exchange good practices and build expertise across Europe. Furthermore, the scientific community (universities, universities of applied science, research institutes and learned societies) are the ones to introduce and uphold sustainable standards.

Expected impact.

The action's primary outcomes include common guidelines for assessing the ecological impact of research, promoting comparison and discussion

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(Please describe the expected impact of the action (including outside the scientific community), paying attention to the fact that it needs to focus on concrete results and reachable deliverables).

within the ERA. This process will lead to identify best practices and create a cross-border network of research institutes, fostering knowledge sharing on sustainable research activities.

This action will have widespread benefits because of the positive effects of reducing the ecological footprint and increasing sustainable practices. The expected impact of this ERA-Action would first and foremost be the raising of awareness in regards to the importance of reducing the ecological footprint of the research and innovation process, including benefits for the European and National Climate and Biodiversity goals.

It will also lead to a more interconnected European network of institutes and scientific domains with the goal of sharing knowledge on sustainable research practices. Another expected impact is gaining qualitative and partly quantitative insight in the range of ecological footprints of different types of institutes and research practices.

The development of common guidance to assess the ecological footprint of research organisations will show that the research community is engaged with climate actions and is ready to lead by example. The involvement of the research communities will also provide the opportunity to experiment with new approaches and techniques, testing the feasibility of these methods and principles for other types of organisations.

A joint guidance for research organisations can also inspire other types of organisations (e.g., medical, cultural and justice sectors) to reduce their climate-harmful impacts in a joint effort towards climate sustainability.

Why do we need this action?

(Please indicate the need for this action in view of implementing the <u>Pact for R&I and achieving the ERA objectives</u> and explain why its <u>objective cannot be reached through existing programmes/ activities</u>. What is the action's <u>added value</u> at national and European level as well as for stakeholders? How does it <u>make a change</u> and how is <u>co-creation</u> ensured?)

Climate action stands as a top priority, and research activities should lead the way. This action seeks to raise awareness, define standards, and generate evidence for reducing research activities' ecological footprint. Its implementation will expedite the adoption of greener approaches throughout the ERA. Co-creation is ensured by launching this ERA action while initiating similar national-level efforts and involving stakeholders.

This action is currently not explicitly part of existing programmes and activities and will not happen automatically. We need awareness, evidence and incentives to reach the goals, just like other sectors of the society that are already reducing their climate-harmful emissions. The added value at national and European level is that it will help stimulate and quicken the greening of our society and set an example to other sectors of the economy towards the achievement of the Paris Agreement for Climate.

In the Pact for R&I, societal responsibility, including achieving greater environmental impact, is listed under the values and principles. In addition, challenge-based actions, such as supporting the goals of the green transition, are identified in the Pact as a priority area for joint action, on the basis of which ERA Actions would be designed.

A common European guidance on the measurement of the ecological footprint of research organisations will provide comparable results across Europe, leading the different research organisations in addressing this crucial societal challenge in a systemic way. In turn, this will contribute to developing the knowledge base necessary for designing and assessing measures aimed at reducing the environmental impact of the R&I ecosystem. The European added value will come through the common principles, approaches, and methods adopted to measure research organisations' ecological footprint. This common method to measure

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	impacts will be combined with the flexibility granted to research organisations to reduce their negative impacts, ensuring the development of research activities.
Additional information (For example, timing and milestones, which already could be envisaged, can be indicated.)	The first step is collecting existing examples and methods to appraise the carbon footprint and greenhouse gas emissions, which are the most consolidated cases of ecological footprint. This first step also aims to raise awareness among research organisations and is the moment the ERA platform for sustainable research practices will be formed.
	The second step is integrating this review with other types of emissions and climate-harmful emissions, such as water pollution, biodiversity impacts, and other types of climate-harmful emissions.
	The third step is the issue of common European guidelines with principles, methods and approaches for the appraisal of the ecological footprint of research organisations, with good practices and examples of implementation.
	Relevant references
	 ALLEA's report "Climate Sustainability in the Academic System". This report revises the ecological impacts of the different types of research organisations. it shows how heterogeneous the methods and approaches are across Europe, while suggesting possible actions on what is already known and identified as climate-harmful emissions.
	 The MSCA Green Charter is probably the most advanced example of a guidance for research grant holders to reduce their ecological footprint. this guidance is often mentioned as the most advanced case, helping scholars in concrete terms. The main limitation is that it is limited to MSCA grant holders and is implemented on voluntary basis.
	 Sweden's <u>Climate Policy Framework</u> is a main reference in Europe because it sets a national standard on the appraisal of the ecological footprint of Swedish public administration. This common reporting is part of the national strategy to achieve the net zero transition. Other European countries are following
	similar directions, inspired by the Swedish example. - The "Sustainable European Laboratories" (SELs) network gathers the first national initiatives aiming to 'to lead scientific research towards sustainable practices'. They gather relevant knowledge

on the ecological footprint of research laboratories and propose

concrete actions to improve it.