

National Reproducibility Networks: A strategy for a loose federation

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Introduction

This document outlines an agreed approach that the community of National RNs will adopt to facilitate supranational coordination. It has been discussed among the existing National RNs, and represents agreement on the best approach at this point in the development of the international community of National RNs, providing a framework that is lightweight, practical and flexible. In due course, this framework may change, for example become stronger. It will be kept under active review by the National RNs.

Background and issues

There are now nearly 20 national RNs, mainly in Europe but also in South and North America and Australia. The growth has been organic and relatively fast, given that the first National RN (the UK Reproducibility Network, UKRN) only launched in 2019. Such organic and rapid growth of similar bodies operating in rather different national research systems gives rise to both opportunities and challenges, for example:

1. The RN model has clearly proved attractive and successful at motivating people, and has been adapted to suit national contexts. However, we have not agreed what *constitutes* an RN, and what constitutes other kinds of body. Some similarity between RNs is important if we are to **work well together**, and if the model is to **retain its identity and coherence**.
2. The RNs meet informally every two months to share news and opportunities to collaborate, and they have an outline agreement on the use of the basic RN logo. However, there are certainly opportunities for **greater levels of coordination** between the RNs, and collective action by them, e.g., in the context of supranational and international bodies such as the EU or UNESCO.
3. External stakeholders, such as publishers, are often international bodies, who would not necessarily wish to have individual relations with each national RN separately. There are other examples of where **communication and engagement might be better done on an international, collective basis**.
4. While the RNs were in very early stages, the UKRN (as the first National RN) has taken a lead in convening them. However, several RNs are now at a stage where this kind of **convening role would be better shared across the RNs**.

What is an RN?

The following text describes a National RN as a way to differentiate RNs from other kinds of body. It can also be adapted to use to explain the RN in particular countries.

National Reproducibility Networks (RN) exist to bring together different communities across the higher education research ecosystem of their nation, with the aim of improving rigour, transparency and reproducibility. A list of current national RNs is available [here](#).

The basic model is that RNs are made up of different groups, allowing for collaboration and cooperation within and between these groups. The groups include both grassroots research communities and established, institutional and national bodies. Examples may include:

- Local Networks (sometimes called “Nodes”), which are informal, self-organising groups of researchers and professional staff that form a Community of Practice within their institution.
- Institutional Members, which are institutions that have formally joined their national RN, typically by identifying a senior role to work at the senior management level within their institution.
- Stakeholders, which comprise funders, publishers, learned societies and other sectoral organisations within the research ecosystem.

The original model was developed by the first RN – the UK Reproducibility Network ([UKRN](#)) – but has been adapted to fit the local context of the many countries that have established a RN, given that these can differ considerably. The basic model is intended to be flexible.

National RNs differ in the level of financial support they receive, their legal status, and their priorities, and they have developed a number of different models, again as appropriate to the national context (e.g., support from funding agencies vs institutional contributions).

This structure supports **coordination** – both within and between those different elements. For example, Local Networks can be brought together to create a national Community of Practice, or connected with funders to give a grassroots perspective.

The existence of multiple national RNs also allows for supranational coordination. Representatives of the individual RNs meet regularly to coordinate activity, share practice, and develop collaborative approaches to research improvement.

NLRN operates in the Dutch research landscape where many other initiatives, communities and networks on Open Science and related topics operate. We strive towards collaboration, not competition with those organizations. Our [joint statement](#) with the Open Science Communities (OSC-NL) depicts an example of how we wish to collaborate with other open science related initiatives.

We have also seen [EU funding calls](#) launched that make specific reference to “national reproducibility networks”, again reflecting the growing awareness at high levels of the research ecosystem of the value that these structures bring.

Critically, RNs remain relatively informal, peer-led, researcher-led organisations. However, their missions are critical to their respective national research systems, and continue to require appropriate levels of support, for example to share good practice, establish evidence, convene stakeholders and develop and deliver training.

A vision for a loose federation

A loose federation will enable RNs to:

1. maintain our identity;
2. promote collaboration and coordination;
3. promote external engagement and influence.

The RNs will collaborate in the following ways. Some of these ways of collaborating are already in place, some may be short term steps, and others may be longer term aspirations

#	Activity	Note
	Maintaining our identity	
1	We will agree to the description of an RN given above, we will put this on our websites, and we will reference it whenever asked about the definition of an RN. When it needs to be updated, we will do this together, by agreement.	
2	We will adapt a common basic logo and brand guidelines, to preserve the integrity of the RN identity online and in documentation.	For info, the UKRN logo and brand guidelines are here: https://osf.io/9zrj2/
3	We will constitute ourselves as the “International Federation of Reproducibility Networks” (IFRN), and agree on a document based on this table that describes what that does.	This is an informal identity, not a legal entity. It just enables us to decide whether a candidate RN meets the definition of an RN, to be clear who the collaboration is between, and to speak about the collaboration.
4	We will each host a copy of a web page on our sites, that lists all the RNs in the IFRN and links to their websites.	One RN will need to maintain this information, in a format that all RNs can use.
5	We will have and use a very simple process for agreeing whether a candidate RN meets the definition of an RN and so can join the IFRN	Probably by consensus among existing members, following an application from the candidate RN that includes a minimal set of information.
	Promoting collaboration and coordination	

#	Activity	Note
6	We will have a regular call, every two months, to update each other on important developments and opportunities to work together.	The organiser and chair of the call will rotate around RNs. One representative from each RN will attend the call.
7	We will have an email list limited to one representative from each RN, for administrative purposes.	For the moment this is managed by UKRN as a spreadsheet list of email addresses.
8	We will have an email list for all interested members of all RNs, for discussion.	For the moment this is managed by UKRN as a Jiscmail list.
9	We will organise events for our members, for example international events for the institutions who are members of RNs; running these in several languages when we can.	
10	We will share materials, and reuse materials from each other, including training materials, policies, statements, etc.	
11	We will maintain and share a list of people who can be asked to speak on particular topics.	One RN will need to maintain this information, in a format that all RNs can use. There is a question of multilingualism here, and elsewhere.
12	We will identify and take opportunities for collaborative projects with the aim to develop and test interventions to promote rigorous, transparent and reproducible research	These may be funded or not, and may be research projects or not.
	Promoting external engagement and influence	
13	We will identify a way for international stakeholders to have a relationship with the RNs collectively, rather than one-by-one.	This might include international publishers, entities like Science Europe and the WCRI, etc.
14	We will jointly try to influence international stakeholders and other bodies to adopt policies and practices that support our aims.	Examples might include UNESCO, the EC, CoARA, and international publishers
	<i>Plus... all the activities proposed in the WIDERA bid to the EU (perhaps add these in the table?)</i>	
	<i>Other...?</i>	

