

Finnish Reproducibility Network (FIRN)

Terms of Reference

Version 1, September 02, 2021

Vision

To promote and ensure rigorous research practices and robust research results in Finland.

Purpose

The Finnish Reproducibility Network (FIRN) is a peer-led network that aims to promote and ensure rigorous research practices in Finland by establishing appropriate training activities, designing, and evaluating research improvement efforts, disseminating best practices, and working with stakeholders to ensure coordination of efforts across the sector. FIRN's activities span multiple levels, including researchers, institutions, and other stakeholders (e.g., funders and public authorities).

FIRN originated from activities seeking to understand the factors that contribute to poor research reproducibility and replicability, and to promote possible approaches to counter these and improve the quality and robustness of the research we produce. These issues affect all research disciplines, so FIRN aims for broad interdisciplinary representation and an open interdisciplinary dialogue. FIRN's position is that ongoing discussions and awareness of these issues represent an opportunity to improve our research by reforming culture and practice.

Scope

The focus of FIRN is on rigor of research practices and robustness of research results. Reproducibility is a basic requirement for robust research results and as such FIRN shares some of its goals with Open Science standards. However, the goals of FIRN are broader than openness and transparency since they include raising the awareness of issues in reproducibility, and stimulate discussions on integrity and rigor, validity and replicability, efficiency and quality, robustness, and generalizability.

Organization

Here the structure of FIRN is described: FIRN creates i) a Steering Group, ii) Local Nodes (led by Local Node Leaders at Member Institutions), and iv) a Stakeholders Engagement Group. See Annex 1: "Model Description – Local Node and Local Node Leader" and Annex 2: "Criteria for Joining FIRN".

The **Steering Group**, which consists of at least three persons, is responsible for the overall coordination of FIRN activity and strategy. A part-time administrator, the FIRN coordinator, supports it.

The Steering Group is advised by an external **Advisory Board** comprising (senior) academics from the international research community with expertise related to the goals of the network. Members of the Advisory Board are asked to serve a three-year term in the first instance, with the option to renew this for a further three years at the end of this term.

Local Nodes provide a mechanism through which the aims of the FIRN can be promoted within that institution (e.g., by establishing open research working groups, running training workshops, advocating for the wider adoption of best practice within the institution, etc.). A

Local Node Leader provides the point of contact for FIRN and represents a grass-roots network of researchers at that institution. It is intended that these Local Nodes will grow, both in number and size, over time, as researchers elect to participate in FIRN activities. Local Nodes are self-organizing, but we encourage them to ensure their membership is open to academic and research staff (at all levels) and professional services staff.

Institutions can join the FIRN if the senior management formally commits to supporting the aims of the network and identifies a responsible contact person from senior research staff leading their implementation at the institution.

Stakeholders who support the FIRN form the Stakeholder Engagement Group. This ensures that FIRN activity is aligned with the strategy and activity of the stakeholders and allows the exchange of ideas. In addition, the relationship between the Stakeholder Engagement Group and the FIRN provides stakeholders with a mechanism for obtaining feedback on new initiatives from the research community.

Meetings

The Steering Group meets approximately once every quarter in person or virtually to discuss new / emerging evidence, training etc. of relevance to FIRN, feedback from Local Nodes, and input from stakeholders and institutions.

In an annual meeting including Local Node Leaders and members, representatives of institutions and stakeholders as well as advisory board members progress of FIRN activities is reviewed, and strategy and direction agreed upon. Specific projects for future work will be identified through this process, both within the FIRN, and between the FIRN and the individual stakeholders.

Accountability

The Steering Group reports to the Local Node Leaders, Institutions and to the Stakeholder Engagement Group, by means of an annual report in preparation of the annual meeting.

FIRN Local Node Leaders work with and through the Steering Group. Individual members report to their Local Node Leaders, and Local Nodes are responsible for their internal governance (which may vary depending on the size of the Local Node, geographical distribution of the institution, etc.). The Steering Group and the Local Node Leaders operate with the consent of the individual members.

Institutional senior management is expected to work in partnership with Local Nodes, to ensure coordination of activity and that any local initiatives are developed with the input of Local Node Leaders and members.

Implementation

FIRN coordinates activity across Local Nodes in its three focus areas:

1. Education: design and establish appropriate training activities (e.g., delivery of short courses to early career researchers, conception of basic training modules for Bachelor and Master students, preparation of online materials; coordination of virtual seminars and journals clubs),
2. Communication: dissemination of new evidence, propagation of best practices, and promotion of a culture change,
3. Transformation: design and evaluation of research improvement measures and policy in collaboration with stakeholders.

Information about the Network is presented on the FIRN website at www.Finnish-RN.org, including links to resources (e.g., training materials), and information about joining the

Network.

FIRN will provide a regular newsletter on relevant events, evidence, and activities. It will also be active on social media with the goal of networking and engagement within the scientific community and the general public.

The focus of FIRN is on improving research practice in Finland, a goal that cannot be achieved in isolation but with international outreach and collaboration with those organizations in other countries who share our objectives such as the growing number of Reproducibility Networks in other countries worldwide.

Annex 1: Model Description – Local Node and Local Node Lead

A FIRN Local Node at an individual Finnish research institution consists of an informal group of researchers potentially from a diverse set of disciplines and from all career stages interested in issues of research reproducibility and its improvement. This can include facilitating communication on reproducibility-related issues between teams within the institution, and linking the institution to the wider FIRN community, partly through engagement in FIRN activities and partly through communication with the FIRN Steering Group.

The role of the FIRN Local Node Leader is to initially build or to continue to promote such Local Nodes. This should be motivated towards improving reproducibility and Open Research within their institution. In order to achieve this, they should have a good level of understanding (or a willingness to learn) about the institution's processes and how various teams within the institution work and interact. Where an institution is a formal member of FIRN, the Local Node Leader will work closely with the responsible persons in the management structure.

As the structure and function of different Local Nodes is likely to differ considerably between institutions, activities performed by the Local Node Leader will be context dependent. However, specific responsibilities may include:

- Disseminating information from FIRN on events, new initiatives, etc.
- Gathering information and views from Local Node members to feed back to FIRN
- Sending regular updates to the FIRN coordinator with any news from the Local Node
- Initiating or coordinating initiatives within the institution to promote reproducibility
- Initiating or coordinating a Reproducibility Journal Club
- Initiating or coordinating an Open Research Working Group
- Initiating or coordinating peer groups for mutual grant or ethics proposal review
- Communicating regularly (either via meetings, email, or teleconference) with other FIRN representatives and local leads to share knowledge on what works/doesn't work at other FIRN-affiliated institutions
- Maintaining dialogue with other key groups within their institution that may promote Open Research (e.g., Library Services, Research Governance Teams, Data Repository Teams etc.)

Annex 2. Criteria for Joining FIRN

Criteria for joining as a Local Node

Membership in FIRN is open to any Local Nodes at individual Finnish research institutions with a purpose in alignment with the FIRN aims. A Local Node Leader represents them within FIRN.

FIRN will complement the activities of the Local Nodes and stakeholders and allow greater coordination of activity across these. For each Local Node, this will provide peer support from

colleagues across a community who are engaged with efforts to improve the quality of Finnish research, allow benefiting from synergies across Finland, and ensuring that we retain our international competitiveness.

Criteria for joining as an institution

The primary criterion is that the institution's executive board or senior management formally commits to supporting the aims of the network, agrees with the Terms of Reference herein, identifies a responsible person in the management structure leading their implementation at the institution, e.g., through training programs at all levels.

We expect that institutions wishing to join FIRN will want to develop capacity to deliver a research improvement strategy, and to work with FIRN to develop a strategy for ensuring the sustainability of the Network in the medium- and long-term, and to build a community of institutions focused on research improvement.

Criteria for joining the stakeholder engagement group

Potential stakeholders include funders (both governmental and charity) and non-profit organizations that are part of the academic environment. To join the Stakeholder Engagement Group an organization has to provide direct financial support or support in kind to FIRN and is required to agree to our mission and values.