Parallel session discussions summaries & next steps

Flag-ERA Workshop

16 March 2021

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Recapping the purpose

- This is a point of departure, not an end-point.
- Responsible innovation is not just about accountability of researchers; also about funders creating conditions to enable new research & development cultures.
- Feedback to funding programme; suggest possible initiatives : an opportunity for you to intervene.

Process

Key themes from parallel sessions.
Potential next steps.

Barbara \rightarrow Enabling science and materials 1 (1/2)

RRI in practice (things already being considered by the projects):

- o Public engagement activities (e.g. science events; engagement with industrial stakeholders)
- Open access strategies (e.g. data repositories)
- Science education (e.g. undergraduate and postgraduate courses, engagement with secondary schools; including training with input from the social sciences)
- Gender equality (incl. working groups within the organisations to which the project is associated; tapping into existing organisational resources)
- Mention to potential positive aspects in terms of sustainability (in relation to existing technologies; although without formal/scientific assessments)

Challenges raised by project members:

- Staff for developing certain tasks (e.g. scientists for science communication and public and stakeholder engagement)
- Balancing priorities and objectives of open access and those of scientific careers (e.g. tensions between publishing in wellrecognised vs open access journals; arXiv as potential solution)
- \circ Recognising the value/rewarding aspects such as science education
- Engaging with the public when the nature of the research is too fundamental (i.e. when applications are not "obvious")

Barbara \rightarrow Enabling science and materials 1 (2/2)

Some points for reflection on RRI:

- Low TRLs; need for bringing the 'big picture' in... areas of application, interested and/or affected stakeholders, risks and potential impacts...(even when they're only small 'components')
- Anticipating but also moving beyond 'ethical aspects' (often interpreted as potential harm to humans, non-human animals and the environment)
- Reflecting on and fostering the public value of the technologies/approaches being developed (beyond advancing science)
- Unpacking areas of uncertainty and how to assess them
- Critically assessing alternatives and added-value of the technologies/approaches proposed
- Getting support for the above actions what expertise, activities, methods, tools do we need? E.g. assessments, engagement etc.
- Reflecting on what impact RRI-related activities should have on the project, i.e. on the decisions made regarding technological development
- More female presenters... ;-)

Mario \rightarrow Enabling science and materials 2

Common Pitfalls - confusion between RRI and other common practices:

- RRI ≠ Dissemination. RRI ≠ compliance. RRI ≠ Commercialisation.
- More females in team do not necessarily mean your research is responsible
- Training in RRI gaps?

Open to discuss about specific issues

• Driverless Cars, Anticipation exercises, Wat-San in the Global South

$\operatorname{Rob} \rightarrow \operatorname{Health}$, Medicine and Sensors

My General Approach

- Try to put RRI into the science. Focus on the specificities of the science.
- Question as a funder / scientist / social scientist is how to organise this practically.

For Many Projects there is existing work on 'responsible innovation' questions:

- Health & Nanoscience \rightarrow Theranostics (EPSRC Public Dialogue).
- Atmospheric / Gas Sensing → Citizen Engagement (Jennifer Gabrys)
- These are different and specific issues → May be worth thinking about whether it's possible to look *across* the projects.

Foundational Research

- More difficulty articulating concerns. One way is to think about <u>research culture</u>.
- But use cases are visible and driving research \rightarrow terahertz sensing (gun detection, tumours).

Absences:

- Sustainability.
- *Beyond* communication and dissemination.
- Gender.

Gestured towards thinking about the appropriate site for RRI.

• Funders vs. Projects vs. Interstitial

Ellen-Marie → Electronics and Photonics Integration & Energy, Composites and Production

* It was not clear for all the projects how to relate to the RRI issues (or that they were supposed to do this)

- **\diamond** Generally very fundamental research it may be hard to organise meaningful public engagement on research at this very technical level far from applications \rightarrow but can the research be presented in a less hermetic way?
 - RRI actions must be targeted to the different disciplines and research agendas, but there will always be RRI related reflections that are relevant
- Had an interesting discussion on the role of open source versus patenting; Is patenting necessary? Who requires this? Who benefits? Is there a conflict between pressures to patent and valorise and the open science agenda?
- ◆ Is it sufficient to simply follow the rules; or should one strive for more than what is mandatory? Culture building on ethics, gender, work environment, etc.?
 - \circ That projects don't engage with the RRI agenda does not mean that they are irresponsible, but RRI can be an inspiration to engage more with value issues
- Toxicity issues handled as a work environment issue and partly as part of the longer term research agenda
- ♦ Only male presenters...

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Robert Smith, Bernd Stahl, Inga Ulnicane, Ellen-Marie Forsberg

Parallel 1

- RRI framed mostly in terms of
 - Ethics (research ethics, lab animal ethics)
 - Open science
 - Gender
- Some nice interaction with patient/user groups.
- Inspiring example from one of the projects: "Finally, we do all that is requested by law and regulations but in fact we do even more to comply with the highest ethical standards ..."
- Unexpected (social) benefit of allowing neuroscientists to do research despite Covid limitations
- Absences: 'thinking beyond the project'.

Parallel 2

- Animal ethics can be a public concern
- Good awareness of Open science and sharing
- This research is often far from applications but we recommend to start these reflections and dialogues with stakeholders/user groups/patients/publics early
 - Some involve patients
 - Make use of the fact that many seem to be interested in the brain
- It is important to communicate (webpages, SoMe), and make sure also to communicate uncertainties, challenges, etc.
- There are some good engagement initiatives like science cafes, open labs, etc. --- covid19 a problem here...
- Education actions
- RRI and science should be productively integrated Don't have time for RRI? Or should RRI be a natural part of the research?
- Seems to be a need for tools related to RRI. Guidelines would be good. The RRI team at HBP are happy to collaborate with the projects!
- Interesting at the FLAG-ERA presentation in morning, multidisciplinarity mentioned as the most important dimension (based on survey), but it was not mentioned in project presentations

Suggested activities from the survey

Things you suggested



money



expertise



people / time

Translation into practice...

Is this just that funders provide resources?

If so, what form?

Funding call for additional activities?

(Nb. Funders also suggested multidisciplinarity as preferable approach to RRI.)

Lessons from other ERA-NETs: Work at the Programme Level

Commit to and value responsible research and innovation

RRI takes work. Therefore, research funders must incentivise, make visible, and value the time and effort for critical thinking about science-society relationships.

Support tailored approaches

Rather than RRI components being imposed uniformly by an external RRI Framework or checklist, project teams should take an active role in identifying questions that they consider most relevant to their project.

Find an appropriate form of integration

Collaborative, interdisciplinary modes of working are effective ways to embed RRI at the projectlevel. But interdisciplinarity should not be taken lightly and the precise form of the collaboration should be determined by all the collaborators involved.

Go beyond projects

Funders can be champions for best-practice by helping to connect work across projects and enabling RRI research beyond the lab, including the operational activities of the research programme.

Suggested activities: survey

Low number = low support, high = high support; score out of 90



Key question: Interrelation between HBP infrastructure and Flag-ERA