‘Implementing RRI’ in NUCLEUS
- some considerations based on the NanoDiode experience

Daan Schuurbiers

NUCLEUS Annual Conference, 14 October 2016, Lyon
The NanoDiode project

**Inspire**
‘Gauging European citizens’ views on innovation in nanotechnologies, as well as the relevant societal and ethical issues. Sharing ideas and inspirations policymakers, researchers and industry.

**NanoDiode survey**
- Map non-expert Europeans’ preferences for fields of nano-innovation

**School kids’ and students’ competition on innovative ideas**
- Engage European youth in the discussion
- Highlight young Europeans’ preferences for fields of innovation

**Engage**
Involving stakeholders and civil society in a coherent outreach and communications programme on nanotechnology.

**Engagement**
Engaging stakeholders and citizens in constructive dialogue on the ways that nanotechnologies could benefit society. By involving a broader range of stakeholders in technological decision-making, enhance the responsiveness of nanotechnology and innovation.

**Communication activities**
- Nano Tubes
- Nano Bazaar
- Picture Contest and Exhibitions
- Student Journalists Competition
- Nano Slams
- Nano Trivia

**Create**
Co-creating during research and innovation by way of deliberation, user committees and regulatory research processes.

**Deliberative processes**
- Bringing together researchers, civil society organisations (CSOs), industrial partners and policy-makers
- Discuss nanotechnology innovations

**User committees**
- ‘Users’ (industrial customers as well as consumers) identify and discuss key challenges, desired properties and technical features

**Educate**
Professionalising nanotechnology education and training, establishing a multidisciplinary ‘community of practice’ of
Shape tomorrow

Developing Innovative Outreach and Dialogue on responsible nanotechnologies in EU civil society

www.nanodiode.eu
4 action plans for outreach and dialogue on nanotechnologies

1500+ responses to a public survey on nanotechnologies

3 NanoBazaars attracting 4,000 visitors

6 third generation deliberative processes involving 175 participants

7 citizens' and multi-stakeholder dialogues

56 NanoTube videoclips receiving 12,500 views

3 regulatory research workshops in France, Belgium, and Italy

3 journalist workshops in Poland, Belgium and Greece

27 interviews with academics and practitioners around Europe

11 experts in a Community of Practice on nanomaterials in the workplace

5 user committees bringing together 100 users and producers of nanotechnology knowledge and applications

10 posters on NanoDiode and specific activities

2 NanoSlams in Spain and Germany

2 school competitions involving 66 groups of school students around Europe

15 reports on individual tasks and 4 progress reports

2 policy workshops on nanotechnology governance in Brussels

7 school workshops and 3 teach-the-teacher workshops

6 NanoGallery exhibitions

56 in-depth interviews in 6 different countries
Develop new strategies for outreach and dialogue along the nanotechnology value chain
The NanoDiode project
Enabling dialogue on nanotechnologies

- 30+ outreach and dialogue events organised throughout Europe, engaging citizens and stakeholders in the debate on nanotechnologies
- 70+ videos, posters, newsletters, presentations and articles
- 20+ activity reports, project fact sheets and policy briefs, available at www.nanodiode.eu

The NanoDiode project establishes a programme for outreach and dialogue to support the responsible development of nanotechnologies in Europe. The consortium brings together a range of stakeholders including industry, civil society organisations, researchers from the natural and the social sciences and artists.

From July 2013 to June 2016, the NanoDiode project has organised a wide range of outreach and dialogue activities. Different work packages addressed different stages of the research and innovation process: from policy making to research to the diffusion of research outcomes in society.

WP3 CREATE sought to enable processes of co-creation at the ‘midstream’ level of concrete nanotechnology research and innovation processes, organising a series of 3rd generation deliberative processes, user committees and regulatory research workshops throughout Europe;

WP4 EDUCATE aimed to professionalise nanotechnology education and training, identifying and selecting the best tools for nanotechnology education and establishing a community of practice for safe working with nanomaterials;

WP5 ENGAGE organised activities at the ‘downstream’ level of public communication on nanotechnologies including the Nanotube, NanoBazaar, NanoGallery and NanoSienna.
NanoDiode establishes an innovative, coordinated programme for outreach and dialogue throughout Europe to support the effective governance of nanotechnologies.

More about NanoDiode
NanoDiode fact sheets
The NanoDiode fact sheets provide brief summaries of the various activities within the NanoDiode project and their most ...
Building a bridge to NUCLEUS...

• Focus on ‘midstream’ engagement activities:
  • ‘3rd generation deliberations’
  • ‘user committees’
  • ‘regulatory research workshops’

• Explore how to engage societal stakeholders more productively in R&I decisions
  • Findings suggest relevant considerations for ‘implementing RRI’ in NUCLEUS pilots
Societal engagement at the midstream
– What did we learn?

Conditions for more productive stakeholder engagement along three dimensions:
1. Mandate
2. Organisation
3. Uptake
1. Mandate - Impact of stakeholder engagement depends on:

- relation to formal processes and initiatives (European sectoral dialogues, Solvay Way)
- driven by someone ‘on the inside’ (champions)
- continued interactions
- binding outcomes
2. Organisation

- venue, duration, dissemination

- getting the ‘right’ participants around the table: balanced representation, those who have a *stake*.

- enabling dialogue on what is actually *at stake*

- specificity: discussing real-life decisions
3. Uptake - from constructive dialogue to practical action

- Most ‘enactors’ do not see societal engagement as core business. Participation driven by a sense of civic duty, not seen as directly relevant.

- Business case is required to encourage uptake: added value in relation to enactors’ own goals and objectives (e.g. new research opportunities, increased funding, address public resistance).

- Clear story, compelling examples required – not many around!

- Need to ‘institutionalise’ engagement: embed in daily practices; link to reward structures; part of the organizational culture.
Considerations for NUCLEUS pilots
Suggestions for NUCLEUS pilots

- **Mandate**

✔ Is there a formal commitment to implement RRI from the participating research organisations?

✔ Connection with existing structures / initiatives? E.g. codes of conduct, public engagement exercises, research assessment initiatives – *without the initiative simply being reduced to these efforts?*

✔ Is there a champion within the organisation?

✔ Less is more!
Suggestions for NUCLEUS pilots

- Organisation

✓ I won’t ask ‘What is RRI’...

✓ But what is your vision? Is this vision shared by the consortium? What are your focus areas?

✓ What specific cultural practices/ institutional mechanisms do you seek to change?

✓ Are the criteria for success clear? When would you say the nucleus in question has successfully implemented RRI? (in SMART terms: specific, measurable, attainable, realistic and timely)
Suggestions for NUCLEUS pilots

- **Uptake**

  ✓ How to ensure long-term embedding? Is there a mechanism for institutionalisation?

  ✓ How will you motivate enactors? RRI is ultimately ‘implemented’ by them: they are the ones who need to be convinced!

  ✓ Some form of reward (recognition, career opportunities)

  ✓ ‘Translation and communication’ of academic insights on RRI

    ✓ *Consultancy mode*: convincing story in understandable terms; well-defined benefits for prospective users; clear examples
See ethics as a stimulus and not as an obstacle
In closing:

bon courage!

✓ The NUCLEUS pilot projects could provide hands-on examples, offer the examples and best practices that are so urgently needed to encourage adoption of RRI

✓ Much depends on ‘getting it right’ in terms of mandate, organization, uptake
Conclusion from NanoDiode

On a global level, technological and societal trends are pointing towards the need for new models for innovation governance that effectively integrate societal considerations in research and innovation. While the old model is increasingly criticised, new models are just beginning to emerge. The engagement of societal stakeholders thus falls within a broader area of experimentation into opening up the research and innovation system to societal needs and values.

Future efforts need to focus on communication and translation of these insights, providing hands-on tools and clearly explaining the benefits for those who engage in stakeholder engagement. Buy-in from all stakeholders will be essential for the transition towards a research and innovation system where societal considerations become part of the innovation drive rather than a problem to be addressed.