What is Responsible Research and Innovation?

Presentation to

Synthetic Biology: Reshaping the Future?

Policy@Manchester, 4th November 2015

Sally Randles

Manchester Institute of Innovation Research

University of Manchester

Responsible Research and Innovation

What is Responsible Research and Innovation?

      * Not a stabilised concept

We can think of **3 ways of understanding notions of responsibility in research and innovation**:

      1) From the Science with/for Society (SWAFS) Unit of the **European Commission**, which is being 'mainstreamed' into the Science and Innovation Horizon 2020 programme (3 pillars,

            ….. Excellent Science

            …… Industrial Leadership

            ……. Societal Challenges

      2) From a **bibliometric analysis of the academic and policy literature**

      3) From '*De-facto* **responsible innovation**' How actors already (and through a long history) embed normative understandings of responsibiity in research and innovation in a wide variety of ways.

1) From the Science with/for Society (SWAFS) Unit of the **European Commission**

The 'Rome' Declaration (2014)

https://ec.europa.eu/research/swafs/pdf/rome_declaration_RRI_final_21_November.pdf

"Decisions in research and innovation must consider the principles on which the European Union is founded, i.e. the respect of human dignity, freedom, democracy, equality, the rule of law and the respect of human rights, including the rights of persons belonging to minorities."

"It ensures that research and innovation deliver on the promise of smart, inclusive and sustainable solutions to our societal challenges; it engages new perspectives, new innovators and new talent from across our diverse European society, allowing to identify solutions which would otherwise go unnoticed; it builds trust between citizens, and public and private institutions in supporting research and innovation; and it reassures society about embracing innovative products and services; it assesses the risks and the way these risks should be managed.

- 5 keys (Rome Declaration)

  - ➤ **research excellence,**

  - ➤ **gender,**

  - ➤ **open innovation,**

  - ➤ **ethics,**

  - ➤ **(participatory) governance,**

2) **From the literature (Tancoigne, Randles & Joly forthcoming)**

Bibliometric analysis of key words 'Responsible Research and Innovation, RRI (strict interpretation) and wider terms 'responsible innovation/responsible conduct of research/responsible development of technologies etc.

a) Analysis of academic literature

b) Analysis of google scholar (picks up policy and 'grey' literature)

Finds:

1) **Small group of Science and Technology Studies (STS) scholars dominate, and link with European Commission projects.**

2) **Very recent (upswing in literature since 2011)**

From the literature contd..... Finds...

3) Surprising level of convergence around 3 themes:

➢ Governance : Participatory, inclusive of all actors, in particular civil society

➢ Goals : Oriented to societal challenges

➢ Meaning/difference : Future/Anticipative approach & analysis

De-facto Responsible Innovation
(Randles & Laredo Eds forthcoming).

- How actors (have historically) according to different **'Normative orientations'**

  - Normative combines two meanings : a) Values and evaluations of 'good' and b) 'Normalised'

  - embedded understandings of responsibility in research and innovation, into practices, processes, and institutions.

  - ***6 Normative 'Narratives' of De-facto Responsible Innovation***

6 Normative 'Narratives' of De-facto Responsible Innovation

A. Republic of Science,

B. Technological progress carries risk as well as benefits'

C. Participation Society

D. Citizen- Firm

E. Moral Globalisation

F Science with/for society

Lesson 1	Responsibilisation & Deep Institutionalisation	egFracking
Lesson 2	***Transformative interaction***: inclusive open and transparent	Eg Danish
Lesson 3	***Intermediation and moderation:*** trusted & perceived neutral intermediation	Eg NL
Lesson 4	***Anticipation:*** building future-oriented learning.	Eg Professions
Lesson 5	***Knowledge***: robust, transparent, inclusive, and contextualised	Eg Fracking
Lesson 6	***Timing:*** sufficient time and managing tensions of different temporal horizons	Eg Synbio TA
Lesson 7	***Multi-level governance:*** taking account of multiple levels of governance; seeking top-down & bottom-up synergies	Eg UK Synbio
Lesson 8	***Alignment:*** aligning and synchronising the normative goals, objectives and procedures of different instruments and measures	Eg PGS
Lesson 9	***Boundary objects:*** instruments as boundary objects and of actors as boundary-crossing agents.	Eg Nano-tox
Lesson 10	***Institutional Change***: institutionalisation/de-institutionalisation processes, organisational re-design, new institutional logic and cultural change	Eg ASU
Lesson 11	***Capabilities***: building of capabilities of individuals, groups, and organisations enabling them to fully participate in responsible research and innovation transformation processes.	Eg NL(RATA)
Lesson 12	***Capacities***: systemic building of resources at a societal level to enable responsible research and innovation to become part of a broader cultural shift	Eg PGS
Lesson 13	***Institutional leadership and entrepreneurship:*** leaders and change agents, to a broader culture of institutional entrepreneurialism towards a range of societal values	Eg ASU

Take home messages

1. *RRI is an unstable concept, not yet an 'it' eg*

   ➤ *European Commission, Through the Literature, 'De-facto'*

2. *''New' interpretations sit in relation to already historically 'institutionalised understandings of responsibility (and how they are incentivised, beyond the individual).*

3. *'New' interpretations are not (yet?) deeply institutionalised and we see strategies of*

   ➤ *Responsibility-wash, Responsibility overload, Responsibility re-labelling*

BUT we can see a myriad of variety in the embedding of normative (values) into organisational practices and governance processes of r and I, and can learn lessons of 'well doing' (responsibilisation) from them. Our approach takes the start point of bottom-up empirical study of de-facto rri.