RESPONSIBLE RESEARCH AND INNOVATION

The Empirical Study

13th of October 2016 Lyon Ellen Böger





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Next steps



OBJECTIVES

Understand perspectives of interview partners

Identify common themes and views

Derive policy recommendations



STRUCTURES OF THE INTERVIEWS



STRUCTURE OF THE INTERVIEWS

June till October 2016

Leading Researchers:

- 8 sections
- 29 questions
- 50 interviews
- 34 male
- 16 female
- ø 53:49

Research Executives:

- 8 sections
- 32 questions
- 23 interviews
- 13 male
- 10 female
- ø 1:02:52



STRUCTURES OF THE INTERVIEWS

Leading Researchers



STRUCTURE OF THE INTERVIEW FOR LEADING RESEARCHERS (1/8)

Icebreaker

- Willingness to cooperate
- "I don't think so that the willingness of cooperation has declined."
- "Now globally I am not sure if there is a decline or increase but I know that a lot of groups they work with closed doors."
- "Yes and no. That is not an easy question."



STRUCTURE OF THE INTERVIEW FOR LEADING RESEARCHERS (2/8)

Experiences and Views

- Role of science in society
- Positive and negative examples

Role of science in society:

- "First at creating understanding of how nature works, how are things around us work, and then to try and apply this to make devices, in the end, or analysis methods, to improve life."
- "I think that the most powerful driver of the society nowadays became science."
- "Innovation, new technologies, new treatment modalities, better cars, better television set, better internet progress and so on, and so on."

Positive examples:

• "Airbag. It saves people's life."



STRUCTURE OF THE INTERVIEW FOR LEADING RESEARCHERS (3/8)

Engagement

- Possibilities of engagement
- Hopes, worries and preconditions

Possibilities for engagement:

"One of such possibilities are international projects, for example Horizon 2020 and other multinational or international projects, and multitasking projects as well because, you know, sometimes such projects do not exactly envisage international cooperation. But because of the progress in scientific research, because of the very, very spread-out directions of science, there's almost no country which can cover all the area and international cooperation becomes more and more essential."



STRUCTURE OF THE INTERVIEW FOR LEADING RESEARCHERS (4/8)

Influence Factors

- Calls for proposals
- Private sponsorship
- Renowned experts
- Collaborations among all researchers
- Citizen Science

Calls for proposals:

• "Quite big. Because such proposals from the government or policy makers and so on of course somehow direct the science, direct the interest of society which is not so clear maybe for everyone. But it doesn't mean that scientists should necessarily follow these directions."

Citizen Science:

• "I would say I have pretty much sympathy for this way of thinking of science. Also I'm not sure if it is easy. I'm not sure if it is always productive in the way of getting results. I do not have enough experience about that, I did not practice it myself. But it is the first way for trying to make a kind of bridge."



STRUCTURE OF THE INTERVIEW FOR LEADING RESEARCHERS (5/8)

Institutional Environment

- Funding structures
- Career paths
- Publication environment
- Intellectual property rights
- Initiatives/agendas
- Support services
- Distribution of power

Funding structures:

"The good thing about the current funding structures is that, to my knowledge, they help young researchers. Everybody can find money now. [...] On the bad things, I would say it is a pain to see people taking so much time for being trained as researchers, so usually if you find a position that means that you are pretty judged as able to do good science. And it is a pain for seeing mostly competent people having to find money before being able to do research, so I think sometimes it is really waste of time, not always. Of course it is important."



STRUCTURE OF THE INTERVIEW FOR LEADING RESEARCHERS (6/8)

New Definition of RRI

• Opportunities and risks for research

- "I think it sounds fantastic, it sounds very positive, I don't quite see how it works in practice, so, I would say a lot of the research that we do is far away from the citizen, so the citizens can certainly tell us what they want, but I don't see them having a very direct impact on how we transform that into research. Business would be a bit closer, or some parts of business, and maybe policymakers also can set directions for grants, which they already do."
- "Well, the risk I guess would be that people want to have an input all the time.
 [...] If it just becomes a huge effort that ends up with us doing a lot of administration, that would be a bad outcome."



STRUCTURE OF THE INTERVIEW FOR LEADING RESEARCHERS (7/8)

Assessment of R&I Outcomes

- Anticipating research outcomes
- Anticipating societal consequences

Anticipating research outcomes:

- "I think it is possible to have a methodology about that. Of course it cannot say you are going to get results about anticipating."
- "You are talking to somebody who says that most of the big ideas of mankind were serendipity."

Anticipating societal consequences:

• "I cannot answer it properly. To answer it properly, I need maybe half an hour. So there are a lot of examples when there was no anticipation at all. Some novelties where there was nothing in their time, and after 10 or 12 or 15 years they became almost revolutionary."



STRUCTURE OF THE INTERVIEW FOR LEADING RESEARCHERS (8/8)

Personal Vision

- Articulate vision
- Identify required support
- Identify likely obstacles
- "I think for responsible research needs to be negotiated and communicated with the society very early on."
- "I don't know if it can be addressed with just a simple answer. But there are a lot of issues that can be considered for having a Responsible Research and Innovation. And this could be, I don't know, better communication between different sectors of the society, more interaction with different disciplines in the research, better access, I mean better sharing of facilities between researchers I would say, possibilities to support students to do extra research activities, or to train them more at the research level, having the opportunities also to have calls that can address fundamental issues, can address applied issues, they can be specific, they can be open. And also having the possibilities that researchers can participate in calls that they have a reasonable success rate."



STRUCTURES OF THE INTERVIEWS

Research Executives



STRUCTURE OF THE INTERVIEW FOR RESEARCH EXECUTIVES (1/8)

Experiences and Views

- Role of institution in society
- Positive examples

Role of institution in society:

- "It is a very important role. There are different aspects in this role."
- "Well, since we are a state-financed institution we have certain responsibilities, among them doing research to promote knowledge in society, to drive innovation and to provide teaching experiences for those students who are beyond the just applied level."



STRUCTURE OF THE INTERVIEW FOR RESEARCH EXECUTIVES (2/8)

Engagement

- Possibilities of engagement
- Hopes, worries and preconditions

Possibilities of engagement:

• "Well the stakeholders, among others, yeah, well, that major stakeholders is the state who finances the institution. And this stakeholder makes clear what they want, and we discuss things with them. Other stakeholders I find very hard to identify. Certainly it is not the general public because the general public operates through elections in a democratic society, and then state officials are elected and put into office and they direct the research and the research institutions. So this is the way that in a publicly financed science system, the stakeholders are represented."



STRUCTURE OF THE INTERVIEW FOR RESEARCH EXECUTIVES (3/8)

Influence Factors

- Calls for proposals
- Private sponsorship
- Renowned experts
- Collaborations among all researchers
- Citizen Science

Calls for proposals:

- "So the direct by... an issue from the government is getting less and less. So we do have to earn more money with project proposals. That is very important."
- "Yes, there is an influence because when there is a call for proposals then what I am trying to do is I am trying to adjust my research questions based on these calls. And if I don't do that, I am not going to be successful in getting my proposal go through evaluate good and be successful in that. So yes there is an influence and of course there is political influence because some of these calls for proposals are standing by public authorities. And there we have political decisions, however, what we are trying to do here as researchers is continually to try to know in advance what calls for proposals will come and try to adjust over cases into those requirements, something like that."



STRUCTURE OF THE INTERVIEW FOR RESEARCH EXECUTIVES (4/8)

Embeddedness within Institutional Setting

- Relationship with industry
- Relationship with others

<u>Industry:</u>

- "That is a very open question. Several."
- "Yes, we have partnerships with different chambers of commerce, with school authorities, with municipality authorities. And we have this kinds of relationship with them because we help them in order to implement the funded programs that they take from the European Union and the national authorities. So they need us to do research, to do seminars, to do knowledge transfer, all this stuff."

Others:

• "There has always been a very good relationship with the city, with the province."



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STRUCTURE OF THE INTERVIEW FOR RESEARCH EXECUTIVES (5/8)

Institutional Environment

- Funding structures
- Career paths
- Publication environment
- Intellectual property rights
- Initiatives/agendas
- Support services
- Reporting lines
- Distribution of power

Funding structures:

"The structure we now have is very much diversified. The main structure within this funding is from way back. So it's not adapted to the new challenges the university faces.
 [...] So, they want to be more flexible in financing. But that's difficult."

Career paths:

• "Many people start and only a few make it and you have lots of lost souls on the way. And you could say that this is bad and that there should be more jobs that are not full professors. Or you could say that the publication pressure and like the waiting of publications is way too big and more focus should be given to teaching and engagement."



STRUCTURE OF THE INTERVIEW FOR RESEARCH EXECUTIVES (6/8)

New Definition of RRI

• Opportunities and risks for research

• "Well, the definition itself is something we already embrace. So, it's not something new."



STRUCTURE OF THE INTERVIEW FOR RESEARCH EXECUTIVES (7/8)

Vision for RRI

- Ideal outcome
- Ideal process
- "I think that's a very important development that we are now not only developing our programmes and projects and strategies on the basis of what we would like to do but also on what is the demand of the university of society, of industry and we also take that into account. I think that is very important."
- "I would say that the ideal outcome for Responsible Research and Innovation would be to conduct your research, solve actual problems with the minimum of financial resources and at the same time implementing systems in doing this research in order to provide a better satisfaction for all stakeholders."



STRUCTURE OF THE INTERVIEW FOR RESEARCH EXECUTIVES (8/8)

Needs to be done

- Position of own institution
- Next steps

Next steps:

- "I would invest additional resources in improving the professor-to-student ratio, I think that is a very important thing. The next thing I will do is I would try to recombine certain fields which have had sort of a history of separation from each other, and which I think belong together."
- "I would do all the steps like applying the values, training the people, creating the knowledge management database that I need financial resources to create it, all in one year. I can do that."
- " I would try to make, to open up the campus."



NEXT STEPS



NEXT STEPS

Produce transcripts of all interviews Content analysis: Rephrase the transcripts and give them a heading (categorization) Derive specific policy propositions





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