

This paper was prepared in the context of the ESF 'Future of Science and Society' strategic activity launched by the former Standing Committee for the Social Sciences. It served as a background paper for the first of three thematic workshops: On the Diversity of European Publics and Political Cultures, held on 20-21 February 2012, Vienna, Austria.

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### **Workshop Programme**

#### Monday 20 February

13.00	Arrival and lunch
14.00	Welcome and introduction of the aim of the exercise and the format of a policy brief (Ulrike Felt/ Diego de la Hoz del Hoyo)
14.20	<b>Ulrike Felt/Tereza Stöckelová:</b> Presentation of the background paper
14.40	Noortje Marres
15.40	Break
16.00	Heritiana Ranaivoson
17.00	Claudia Neubauer
18.00	End of Day 1
19.45	Dinner

#### Tuesday 21 February

09.00	Claire Marris
10.30	Break
11.00	Massimiano Bucchi
12.30	<b>Conclusion and Overall Debate</b>
13.00	End of meeting and lunch

#### **Workshop Participants**

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Claire Marris | King's College London, UK | Discussant

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Giovanni Pacini | National Research Council (CNR), Italy | ESF Standing Committee for the Medical Sciences (EMRC)

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#### Points of departure

This first workshop, which takes place in the framework of an ESF policy brief on "the Future of Science in Society", will focus on ways in which publics form in relation to science and technology and become players in the governance of related issues. One could immediately argue that this has been already high on the agenda of policy making and of social research over the last two decades. So, why devoting yet more attention to this area?

Indeed there has been considerable policy discourse and experimentation with regard to new forms of governance of science and technology, in particular in areas of new technologies and/or of pressing societal problems (biomedicine, energy, climate change, ....), where the concern that citizens might reject innovations or not embrace specific solution packages was high. Thus we witnessed a lot of "participatory governance introduced from above" – either as part of political programmes or in the framework of social science research. Actually there has been quite some experimentation going on in this domain, though with important regional differences, and we can look back at numerous case studies critically examining such processes and events. The participatory turn was quite frequently heralded as achieved -though considering recent debates and developments such as the closure of central institutions in the field such as the Danish board of technology, this was clearly premature.

For about two decades or more we have witnessed a turn towards more dialogue and participation oriented exercises around science and technology related issues. These have been studied quite extensively in some countries and for a number of cases (e.g. the UK), yielding a dense body of literature on such undertakings. While there has been quite some enthusiasm about these new possibilities and the notion of "democratising science" (or expertise, innovation or technological development more broadly speaking ...) has been often referred to, also quite substantive critique has been formulated. These gravitated around the fact that these undertakings were more part of a "politics of talk" (Irwin 2006) rather than a serious engagement with other visions and versions of understanding, framing and governing technoscientific issues (Goven 2006); that publics and citizens are not simply out there, but get formed and performed in specific ways through such engagement exercises (Irwin 2001,

Lezaun/Soneryd 2007, Michael 2009, Felt/Fochler 2010); that while the settings claimed to be an occasion of opening-up towards citizens, they were intrinsically closing down issues in numerous ways (Wynne 2008); that it was still performing a deficit model of science communication by asking people to get informed first before they were allowed at the negotiation table (Braun/Schultz 2010); and any delay or questioning of technoscientific developments was often framed as threatening progress and a winning place in the competitive race (Goven 2006). Finally, many actions actually did not allow for a real opening up of technoscientific choice in the policy realm, did not create a space for alternative scenarios concerning future Science & Technology-related developments in Europe or did not have any sustained connection to the policy world (Hagendijk/Irwin 2006, Stirling 2008) (many exercises were meant to assure the smooth implementation of technoscientific choices).

Even though there is a strong discursive embracement of engagement, the situation is far from stable. As quickly as innovation moves on and socio-political situations change, as variable and complex ever-new constellations of potential (non)engagement become. The above-mentioned closure of the Danish Board of Technology which had been, over several decade, a central player in putting for example consensus conference on the participatory map, but also the fact that more and more of the funding devoted to science/public interaction goes into PR and classical science communication activities, leaving aside more complex engagement settings, could be taken as but two indicators for the fact that there is no clear-cut stable situation to be spoken about.

Simultaneously, organised participation is but one segment of a broader picture. Attention also needs to be paid to those forms of public participation that are not governed, planned, structured by the authorities and which may even be regarded as unwelcome or as threatening what is in the policy realm labelled as "innovation-friendly climate" (Wynne 2008). Examples could be consumer boycotts or sustainable community practice, to mention but two cases of quite flexible bottom-up forms of participation. What is happening in such encounters between science and society and how both sides are formed and performed through them, has been much less considered so far.

Overall, we could say that little attention was given to the more tacit ways in which the relation between science and society takes shape, to reflecting the diversity of cultural environments in Europe (e.g. specific national traditions of dealing with sciences and technologies in the public space (Horst/Irwin 2010, Dryzek/Tucker 2008, Felt et al. 2008); or diversity aspects in research (e.g. Epstein 2007)) or to considering how deeply the very locations of knowledge and technology production (i.e. the technoscientific geographies) would matter. It cannot be assumed that there is one European research and innovation space - rather, we have to understand the multiplicity it contains (Felt et al. 2010). It is essential to take into account historically- and culturally-rooted differences, in particular when it comes to the formation of publics, political cultures, imaginations of democracy and the way science and technology are thought to contribute to the formation of the nation state (Jasanoff 2005, Hecht 2001). Furthermore, we are witnessing an increasing diversification and fluidity of publics within national settings and across Europe, as a result of migration and other transformation processes, for example, but also owing to new technological possibilities such as the internet (Marres/Rogers 2005). This also means considering how values and modes of ordering travel and get integrated into different places and spaces creating ever-new contexts for technosciences. The challenge but also the richness of Europe in the context of science and society relationships lies in this diversity which would need careful spelling out in its different dimensions. Europe may be understood as a social laboratory in which diverse articulations of science, technology and society are tried out and tested (Felt, Wynne et al. 2007). Yet this requires new ways of thinking about science in society issues. It needs more attention to the different dynamics at work, but also to the diverse histories and how they connect to imaginations of futures.

# What are the questions open to be addressed? – A first proposal

In what follows we would like to suggest a number of perspectives on the central question of this workshop, which seem highly relevant and promising to engage with. These questions have been separated for analytic reasons, yet they overlap in important ways and have to be

understood as a package in order to address the question of concerning publics and the governance of technosciences in contemporary societies. We use the notion technosciences in order to address attention to the entanglement of science and technology and underline that we always are dealing simultaneously with both scientific knowledge creation and technologies.

# 1. Longitudinal effects of communication, dialogue and engagement

The first area of research to be identified is the comparative study of longitudinal developments related to changing ways of communicating and governing technosciences. Thus the focus will not only be on particular exercises of engagement – as this has been so frequently the case in recent studies – with the aim of understanding why, when, how and involving whom they were taking place, but much more on the development of specific cultures of engagement between technosciences, politics and diverse publics. This means that engagement should be understood as an "extended issue", with extensions both in terms of space and time to be considered.

In this context it seems essential to investigate, among other issues:

- (1) The impact different forms of participatory exercises "invited" and "univited" ones (Wynne 2008) have (had) on framing political agenda setting on a more medium term scale; this means asking the question of effects of engagement exercises on the more long term development of a specific issue, but also how such experiences "diffuse" across issues and create effects. (Felt 2012) This has been for example an issue in the field of nanotechnology which was often compared with the GMO case.
- (2) How the perception of participation by the different actors from policy makers, over researchers, civil society organisations to citizens frames both the formation of relevant publics and the expression of issues (Marris et al. 2008).
- (3) The consequences of creating and addressing specific publics through classical communication or infotainment exercises. Children and women are here quite interesting groups to engage with, as they have been the target of many efforts over the last decade or so most of the time with the aim of making science attractive to them as career

opportunities. How this impacts their perception of science and their capacity to engage with seems essential to ask.

- (4) How the specific choices of moments of engagement in the innovation processes have actually changed the "objects" of engagement. The up-stream engagement debates have been here quite instructive, pointing at the possibilities and limits of interactions between technoscience and society at different moments in a development. Furthermore it seems essential to reflect on the way innovations develop in fields which have been issue of intense engagement exercises for some time in their development. What is opened-up and what is kept closed through such exercises?
- (5) The impact of engagement exercises on research. After more than a decade of accompanying research it seems essential to question the kind of impact this had on researchers (and their agenda) who have been involved either in participatory exercises or have themselves been accompanied in their research (e.g. in the framework of ELSA activities).

Doing so would lead to better understand the different temporal orders and dynamics at work when dealing with technoscientific issues. It would allow understanding the more pervasive elements which remain essential beyond specific events. It would allow us to better grasp how futures are done and un-done in such exercises and how science/society interactions evolve on a more long-term scale. And we could reflect more broadly speaking on the possibilities and limits of a "participatory culture".

In doing such "archaeology of engagement" (Felt 2012), it allows to reflect in a more comprehensive manner and to better understand the gradual formation of broader sociotechnical imaginaries (Jasanoff/Kim 2009) or even the formation of specific technopolitical cultures (Hecht 2001, Felt et al. 2010). This means contributing to a more fine-grained perception of different kinds of issue formation (Marres 2005) on a much larger scale, beyond single cases.

### 2. Knowledge for decision making concerning technoscientific issues

So far much of the efforts in the analysis of science/society interactions have focused on the formats and on questions of selectivity (how is

society represented in such groups; issue of "minipublics" (Goodin/Dryzek 2006) and their meaning etc.), social mechanisms at work within such settings, and have tried to assess the "success" of such undertakings. Much less work has been devoted to the forms and formats of knowledge thus posing epistemological and ontological questions - that are created and circulate in different interactive arenas where positioning work happens. We have quite generously blackboxed notions like lay knowledge/expertise, or have described, labelled and classified different forms of expertise (Collins/Evans 2007). It would be challenging to bring together these kinds of scattered debates and look more systematically at knowledge practices at work in such moments, and how they tie into both the framing of questions and solutions (see for example the work on patient movements by Callon/Rabeharisoa 2008; Epstein 1996). This seems essential to understand the different citizen and civic epistemologies (Jasanoff 2005) at work and to reflect them in terms of diversity and different culturally framed knowledge relations.

Here questions should address issues of what kind of knowledge and expertise is admitted to the table when it comes to negotiating technoscientific issues. This opens up the tension between risk governance and innovation governance (Felt, Wynne et al. 2007), thus what is to be negotiated when having to address complex socio-technical issues. But beyond this there remains the normative questions over what kind of knowledge and experience, but also values, deeply intertwined with both of them, should get voice.

## 3. Publics for/of technoscience: imagined and practiced

This third perspective explicitly aims at addressing issues of diversity and opening-up when it comes to the formation of publics and issues.

As stressed in the introduction to this paper, there is a growing awareness of the fact that publics are not simply 'out there', but are created, framed and given voice in the course of political processes (e.g. through deliberation processes, opinion polls). There are various ways to articulate these voices and their visions and values in the political process. Publics thus appear in the form of consumers, (affected) citizens, users, etc., but also as different forms of statistical aggregations or more organised

forms such as patient organisations or NGOs. But it is also essential to understand where and how 'uninvited publics' could and do gain voice and what that means both for the issue at stake and for the way political choices are made. It is important to understand differences across Europe and to see how issues, publics and politics are mutually constitutive, evolving together over time and producing effects on the way science, technology and society are intertwined. In this context it seems essential to think carefully about the many social and cultural constituencies and demarcations when addressing science and technology issues in the European context and beyond. This includes thinking about the role of national and regional differences, but also about the role of religion or of immigrant groups moving across different cultural and national boundaries, to mention but two important elements to be considered. In this context, it is also important to consider the quite powerful 'maps of Europe', e.g. those drawing the boundaries between 'old' and 'new' Europe, but also world maps<sup>1</sup>. This means that an in-depth analysis is needed concerning the kind of political space that is at disposition or to be created with regard to engagement with technosciences and who are the actors that can inhabit them.

The debate should furthermore acknowledge the existence of multiple identities - national, religious, gender or otherwise - and how that might impact on uptake of or attitudes towards science and technology; it should explore the differences in local/national framings of these issues, for example, with regard to public engagement where national framings characteristically dominant; and it should investigate how history and cultural identities matter in this context.

With regard to the broader European context, it seems essential to acknowledge the political and cultural maps at work which order knowledge and those who know and as a consequence to see how an unreflexive convergence dynamic will exclude diverse models and voices and thus lead to a lowest common denominator type of governance. What will be lost through such an approach? What

<sup>1</sup> The presentation of Eurobarometer results is an interesting example of the creation of such a 'map', making differences visible and thus creating a particular representation of Europe. John Law (2009) would argue that these are not only (adequate or inadequate) representations but specific enactments of social formations.

might it mean in terms of a knowledge ecology and sustainability of the complex, diverse and culturally rooted knowledge systems? And what would be the implicit geography of science and technology in Europe resulting from such a process of convergence?

### 4. And what is/becomes/remains an issue? From situated issues to more pervasive issues

Closely connected is the question of how something becomes an issue: when, where and by whom are issues defined? Over the past decades we have witnessed seemingly 'minor issues' turning out to have quite impressive consequences, without understanding clearly the dynamics of such developments (e.g. a classic example was the Brent Spar affair between Greenpeace and the oil company Shell in the 1990s). Considering this, it is even more important to take seriously the question of 'context sensitivity' and cultural diversity in Europe.

Furthermore, a number of authors have suggested that publics and issues co-emerge (e.g. Marres 2006). Economic interests and the media play significant roles: what is their power in opening up but also in closing down certain issues? What are the socio-economic influences on the shifting dynamics of issues? How do the organisers of engagement activities conceive of and cast participants in relation to specific issues? What kinds of knowledge are relevant and important in what contexts? It is essential to understand better these complex relations and how they evolve in different national/cultural contexts.

But also spaces and places where issues (can) form matter. Here the question of new media becomes central, questioning in how far we witness the creation of a new, different public sphere and new ways of addressing technoscience-related issues. How do the abovementioned classical maps differ from those emerging in and through new media? Thus when reflecting on the relation between societal engagement and science policy-making, it is important to deal with new material possibilities such Information and Communication Technologies (ICTs). Over the past years there has been quite some reflection on reordering processes, due to the fact that new media give rise to new forms of publics, new kinds of access to information and also new ways of expressing agency. In fact, ICTs might produce a shift in an individual's capacity to engage with science-related issues, while at the same time the uptake of knowledge and information is becoming more fragmented and less clear (e.g. Whose knowledge gets taken up? How is knowledge assessed on the web?). Through these processes a new kind of distributed/networked citizenship might emerge, not least because of the fact that by now a whole generation has grown up with these new technological possibilities. This might lead to a fundamental change in how people deal with information, how they assemble knowledge and have an impact on political decision-making in the field of research and innovation.

At the same time, the very ICT are a subject of public controversies and mobilizations, such as the current protests (rather successful in some countries) against ACTA – as the technology is not simply the material support, but also performs specific modes of ordering in contemporary societies.

# 5. Social sciences and humanities: their role in addressing these issues, but also as "architects" of science-society relations

What role do social sciences and humanities play in the interaction between technoscience, publics and policy-makers? While they often appear as more or less humble "analysts", it seems essential to conceptualise and analyse them as actors and thus enter in the much more difficult mode of selfreflexivity. In that sense when dealing with the Future of Science in Society there is a strong need for an in-depth reflection of the role of the social sciences and humanities, which has so far been widely left aside or has at least remained understudied. Science here must be understood in its broadest meaning of Wissenschaft, so that we also actively question the role social scientists and humanities scholars with regard to their relations to diverse segments of society.

Their role to be investigated appears at a first view on at least three levels.

(1) They are important players in making issues. Social science analyses (such as in economics, through survey research and many more) have become an important provider of observations of contemporary societies and thus defining when and where action is needed.

- (2) Yet they are also central players in enacting, mediating and analysing interactions between technoscience and society. They thus participate in the making of publics (cf. Rose's notion of "experts of community", Rose, 1999); they create interfaces and repertoires of mediation; they offer analysis from what is produced in these arenas and they create and distribute sense-making narratives on much of what happens.
- (3) Through entering the research system in the framework of for example ELSA programmes they are also engaging science and society in specific ways, the impact of which is widely unclear.

Thus we also have to consider here SSH as forms of socio-technology that could become a subject of public questioning / deliberation / criticism. Economic expertise is a case par excellence nowadays. It is rather uncommon to think about, e.g. a consensus conference on the austerity expertise, while we would see it as necessary and unproblematic to debate stem-cell research or nanotechnologies. At the same time we more than ever before are aware of the fact that any debate and mobilization in public space now develop around the scientific and political legitimacy of economic expertise.

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