5. Italy

5.1 General dialogue details Italy

Dialogue data

Location of the dialogue	MUSE - Museo delle Scienze, Corso del Lavoro e della Scienza 3, Trento, Italy
Topic	Nanotextiles
Date of the dialogue	21 October 2017
Participants	12 participants (8 men, 4 women): • Representative of the council on university and research • Representative of the provincial health service • Representative of CSO focused on women's business in professional arts • Representative of a CSO focused on textiles and health • Nanotechnology researcher (1) • Nanotechnology researcher (2) • Journalist of local newspaper • Wikipedia journalist and science educator • Citizen dialogue representative (1) • Citizen dialogue representative (2) • Representative of a textile company (1) • Representative of a textile company (2)

5.2 Recommended directions for change

The participants to the Italian multi-stakeholder dialogue discussed quite extensively the interactions needed between different actors in the nanotechnology research and innovation system to enhance the integration of societal perspectives, considering different actors' weight and roles at several stages in the research and innovation process. Below, their suggestions have been summarized and clustered in several "directions for change". The original responsible innovation table that was created by participants can be found in Appendix 9.

Increasing public knowledge and competences on nanotechnologies

Knowledge and competences (among all stakeholders and citizens in particular) was a topic that was brought to the table repeatedly. Many agreed that reliable information is needed at all levels, some referring to it as a right. Participants considered this as a fundamental and transversal prerequisite for all interactions between actors in the research and innovation processes, including in the integration of societal needs.

Participants felt that media and industry had a responsibility to provide correct and complete information (e.g. on nanotechnology product ingredients and their traceability) in a transparent way. In connection to this, participants indicated that media should follow a professional and ethical code of conduct, while industry needed to show more discipline in what concerns their advertising activities. Some participants even suggested that an authority responsible for the transparency of information, as early as at the product development phase, could ensure this is the case. Another suggestion was that public entities funding innovation could play a role in bringing citizens and industries together to exchange information.

The question of whether responsibility should fall more on media (i.e. inform about the goals and the results of research) or on citizens and individuals (i.e. request and gather information, keep themselves up to date) was raised. At the same time, participants recognized that citizens' own competences and critical thinking still require improvement, especially in light of the complexity of nanotechnology developments. The need to empower citizens themselves, via education, with the right tools to avoid misinformation about nanotechnology and recognize trustworthy references was stressed. It was not made obvious who would deliver education, but media, “competent agents” (see below) and policy makers were each mentioned in connection to this aspect.

Fostering mediators for societal needs, values and concerns

Participants seemed hesitant to suggest direct interactions between citizens and certain actors in the R&I field such as researchers, being concerned that citizens lack the knowledge and necessary competences. Nevertheless, they proposed potential mediators or spokespersons of societal needs, values and concerns. Two similar major recommendations emerged independently in the two exercise groups. It must also be mentioned that a few participants were of the opinion that consumer choices and market forces are enough to allow societal needs to become apparent.

For some, it was considered the task of policy makers to regulate and enforce the rules so that the needs of citizens are heard and to convey these needs to the various actors in the R&I stages, from basic research to product development. Other participants proposed to identify and involve one particular set of actors: citizens who are better informed about technologies and aware of the magnitude of the phenomenon of nanotechnology, or who have, due to their profession or medical conditions, specific societal needs or expertise. They could also already be active in existing civil society associations, citizen committees, municipalities etc. Grouped by participants under the label of "competent agents", this group would serve a double role: educate citizens so they are able to express their needs, and communicate these needs to the right actors in the R&I system. One participant did point out that such groupings of competent agents could be focused on majority-specific concerns and suggested that policy makers would need to include minority concerns for a more balanced view. The question of how to identify and foster competent agents’ involvement was largely left unanswered, although the role of specialised media in helping these agents understand developments earlier in the research and innovation process was noted.

Improving regulation for more societal engagement

It was suggested that policy makers, in their capacity as mediators of societal values, needs and concerns, policy makers should ensure their integration via funding, monitoring and priority/agenda setting. A comment made repeatedly was that policy makers could further regulate to ensure greater integration of societal needs, values and concerns and enforce these regulations. The form of this regulation could take was not addressed. An additional suggestion was that civil society organizations could share the responsibility, exerting a verification function

towards industry, after receiving this mandate via policy makers. The overall impression is that regulation should be guaranteed by a set of different stakeholders so that citizens and their mediators have several access points in the process to bring in their perspective.

Greater interaction between stakeholders, earlier and across all stages of the R&I system

Most participants recognized that it is too late, at the market stage, to incorporate societal needs into research and innovation products. In general, most participants agreed on significantly more stakeholder interaction and need consideration, especially in the applied research and product development phases. Specific suggestions included: 1) greater awareness among researchers of needs and demands, enabling them to use these when carrying out applied research; 2) specialized media (with support from industry) that signals to those concerned an applied research development that is approaching the pre-industrial stage; and 3) better use of focus groups and testers, which were, it was felt, underutilized.

To facilitate this interactions, broader suggestions included: 1) greater communication between ministries (e.g. of industry, research); 2) greater collaboration between fundamental and applied science researchers, enabled by transparency and open access to research results; and 3) greater interaction between policy makers (also in their capacity to interpret the values of citizens and their needs), researchers and industry when setting the budget and strategic defining research priority areas. It was not always made clear how this will serve to better integrate societal perspectives, leading to the suggestion that participants also shared general thoughts on changes for a more desirable research and innovation system.