





The Second VOICES Evaluation Report

Evaluation of the post-Focus Group activities

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Executive Summary

- This is the second (and final) of two evaluation reports on the VOICES project on urban waste - which has been intended to allow European citizens to inform the setting of research policy on this topic, through informing the contents of an upcoming research call (in the Horizon2020 round of calls).
- As noted previously, this evaluation broadly attempts to corroborate the quality of the project and the participatory processes used within it and to provide suggestions for improvements in the future (should a similar project or process be commissioned).
- As previously, the evaluation is based upon three pillars, or criteria: the official aims stated by the project (e.g. as exists in the Description of Work); a normative evaluation criterion called 'information translation'; and the inferred criteria of the relevant parties (participants, sponsors, etc.).
- Although the evaluation concerns the project as a whole, this first report is centred on evaluation of the genesis and implementation of the focus groups – the main mechanism used for public engagement in this project. This second evaluation report, delivered near the end of the project, follows the use (or non-use) of the focus group outcomes.
- The chapters in this report characterise, and provide evaluative commentary, on several aspects of the project some that have occurred in parallel, and others serially. The chapters thus discuss: how the focus group information was collated and 'transformed' for subsequent use; how the focus group summaries were processed by a 'consolidation group' of experts and turned into the outlines for the anticipated research funding call; what happened to the draft outlines following the conclusion of the consolidation group meeting and how the call was ultimately framed; how was information about the project and the focus group results disseminated via a number of dissemination events; how was information on the project recorded and disseminated to the external world through the online media (internet website), and; what were the views of key stakeholders on the project.
- The focus groups had been audio recorded. The recordings were then transcribed in each country, translated professionally (by organisations chosen by Ecsite), and sent to the team at Amsterdam to analyse according to usual qualitative social science practice. The results were summarised and compiled into individual country reports and a European-wide report that was to be used in the next stage (the consolidation group). Although a number of places of potential information loss are noted (e.g. related to the quality of the audio recordings, and the literal translations of data thereafter), we have no significant concerns with this phase: the key steps were performed by experienced professionals using typical processes.

- The consolidation group meeting was held in Brussels over two days. In this, a number of diverse experts (responding to a call) were assembled to consider the information on citizen views distilled from the focus groups¹. The group members were then led through an innovative process, in which they were first required to select the most important issues from an extremely large list, then work together to essentially cluster these into coherent themes, and then turn these into actual project call text that could be used by the EU in a Horizon2020 call. Although the process had merit, it was clearly experimental, and a number of 'information translation' issues were raised. Prior to this, however, there is an issue with regards the selection of the experts and their appropriateness. It is clear that this process was rather rushed, meaning that fewer experts were recruited than perhaps desired or indeed needed. Because of this, the appropriateness of the experts (in the sense of their fully covering the range of issues necessary) might be questioned. With regards the process itself, it was notable that the project team was scrupulous in attempting to keep its own views out of the analysis, and to encourage the experts to treat the data with respect – although a number of the experts were less than positive about the innovativeness and depth of the public's views. The main difficulty at the initial stage was the sheer quantity of information with which the experts were faced, and the lack of time required to give this the full consideration needed. A number of suggestions for ways in which the process might have been structured to help this complex process are suggested.
- The consolidation group meeting led to the development of 19 overarching research issues, which were subsequently used by members of the European Commission's *DG: Research and Innovation* to draft the calls for research proposals within the Horizon 2020 Framework Programme for Research and Innovation.
- The outputs of the VOICES project, along with information on the project itself, were disseminated in a number of ways. In response to a call by the project coordinators, seven science centres were initially selected to perform dissemination activities, although one dropped out subsequently (leaving six which was, in fact, the number anticipated in the Description of Work). These centres were spread across Europe, in Slovenia, Ireland, Italy, Spain, Portugal and France. Each involved a variety of events aimed at communicating to the local population. The evaluators attended two events (Slovenia and Ireland), while various person related to the project attended others as observers. The schedules of events for these are provided in the report. Given that this aspect of the project was rather secondary

¹ The consolidation group was a multi-actor group, half of whose members originated from civil society organisations. Two members were nominated to be on the Horizon2020 advisory board for Societal Challenge 5.

to the main aim, we do not wish to be overly critical of this element of the project (and we were in any case unable to devote the resources needed to conduct a more thorough analysis of these events in terms of their scope and impact). From the information we have, and from what we have observed, it is probably most apt to characterise the events and the elements within as *variable*. Although some aspects had wide reach, addressed the project and its findings directly, or had the potential to do so (for example, a computer game about which bin to put item of waste in, which could be turned into an 'app', developed in Slovenia), other elements had an unclear relation to the main message and highly limited outreach. In hindsight, had the sub-contracting science centres been confronted with a more challenging set of questions to answer about their activities (what are the messages you are communicating; what are your targets; how do you know you events will deliver what you think they will, and so on), this might have helped the centres to clarify the design of some of the processes that took place to be more effective.

- Another dissemination element of the project involves the development of a website the visual/visible lab in order to ensure complete transparency to the wider community regarding how the project has been conducted and what are its results. In terms of outreach, it is difficult to tell much about the site's impact, although we suggest it is unlikely that citizens *per se* will be great users/ observers of the site (as opposed to other interested parties such as researchers and maybe policy makers). However, informationally, the website is comprehensive and professional, providing links to various videos and to the key documents related to the project (regarding the design of the focus groups, the training, the national reports, and so on). We do note, however, the absence at present of the first evaluation report, and we would hope that this, plus the current report, will ultimately be added to the website. Our main issue with this element of the project concerns what will happen to the website on the conclusion of the project, and whether the resources and responsibility for site maintenance will be appropriately allocated for it to endure.
- Regarding the opinions of key stakeholders, we conducted a large number of interviews with a range of people [n=20], including members of the co-ordinating team at Ecsite; representatives from the European Commission; a member of the academic team at the Athena Institute of the VU University Amsterdam; focus group moderators; experts and alike. The purpose of this 'stakeholder consultation' was to elicit what all those involved in the various and diverse stages of the project identified as the strengths and weaknesses of VOICES; its significance, uniqueness, impact and legacy. This 'broad' and 'deep' consultation revealed a largely positive view of VOICES in having made a significant contribution yielding

multiple impacts, not least the embedding of citizen participation as a distinctive and now integral feature of policy and research activity.

- In conclusion, the VOICES project appears to have been a highly professional and honest attempt to capture the views of citizens from across Europe on the topic of urban waste in order to inform research funding. The conduct of the citizen engagement itself through the carefully designed focus group method had many extremely good elements that we would consider 'best practice', including the trialling of the method, the comprehensiveness of the training, and the general professionalism of the events' conduct, translation, and analysis (much of this described in the first evaluation report). The consolidation group approach was also an innovative process, and the results have indeed led to the structuring of a research call. In *many* respects, the project can be considered a great *success*.
- However, perfection is never realistically attainable, and this report (and the previous one) notes some issues where potential improvements might be made. An over-riding sense about this project is that it has been rushed, and the lack of time has clearly been a strain on some, and led to some over-hasty elements. For example, more consideration could have been given to a stakeholder analysis to ensure the appropriateness (and full competence) of the consolidation group, and more time might have allowed for the consolidation process to play out more effectively.
- Beyond this, the dissemination events have come across as a slightly secondary element, and more thought might have been given as to the true dissemination *needs* of the project (including the maintenance of the visible/visual lab), and whether this is adequately fulfilled by the conduct of half-a-dozen variable events in some parts of Europe (variable in terms of outreach, nature, quality, and so on).
- Another question concerns the *practicality* of using this method again with various stakeholders expressing concern about project costs (especially in terms of the translation costs involved). Our view on this is that there seems to be a misconception in some quarters that 'social science' (which is what this project has involved) is, or should be, cheap. It is not especially when attempting to involve large numbers of carefully selected citizens, and even more so when having to do so across Europe with its multitude of languages. There may be other processes that could deliver similar, equally 'valid' results at a cheaper price... but we are not sure that savings are liable to be vast, and we are also clear that simply putting everything 'on the web' is not the solution.
- A final point worth mentioning is whether the particular issue of this project (identifying appropriate topics for urban waste research) is apt for such a wide consultation. Our view is

that generally it is, although some adjustment of expectations might be needed. Certainly, some of the experts queried the quality of the outputs from the citizens, and this relates to an issue we identified in the first evaluation report. Citizens are undoubtedly good at identifying key issues and problems with the current state of affairs – here, regarding urban waste – and are likewise able to identify policy actions and alternatives. However, it is perhaps unrealistic to expect citizens, who are not generally scientifically trained, to identify actual and profound research priorities (e.g. regarding materials science). Arguably, future efforts such as this might wish to allow citizens to identify problems, and indeed express preferences, but then to allow scientists to consider potential research solutions to these issues.

1. Overview: This Second Evaluation Report

Introduction: The Previous Evaluation Report

This is the second and final evaluation report on the VOICES project (Views, Opinions, and Ideas of Citizens in Europe). The first report described the rationale of the project and its genesis, as well as the basis for its evaluation, and then characterised the main elements of the project and provided evaluative commentary. Without wishing to recapitulate those issues in any detail, it is worth summarising that VOICES was designed to consult a (relatively) representative sample of the populations of citizens from all of the EU countries on the topic of urban waste - through a focus group-like approach - in order to inform EU research policy by directly feeding into a future research funding call on this topic. The evaluation approach is based upon a three-fold process used by the evaluators in previous work, in which a 'normative' evaluation framework (based on 'information translation') is used alongside the success criteria stated or implied by the project funders and the stated or implied success criteria from the citizen participants' relatively unconstrained views (the funders and participants being two key stakeholders whose views and understandings might vary from a more 'objective', theory-led position). The first report described the set up phase of the focus groups, the development of the materials and process that was to be used, the training of the partners (as facilitators) to run the focus groups, and the focus groups themselves. The story of the first report ended at that point. The evaluation was, on the whole, highly positive: in short, there was little apparent 'information loss' from the process (thanks to a very thorough and thoughtful design that was generally well-implemented by the partners); the project to date had largely delivered according to funder expectations; and the participants were also highly positive about their experiences. A number of recommendations were nevertheless made, addressing the relatively few issues that did emerge where improvement *might* be possible.

The Present Evaluation Report

This second report now takes up the story, following on from the completion of the focus groups to the end of the project (or as near to the end as can be achieved, given the constraint of our needing to submit this report by a deadline prior to the final acts of VOICES as a whole). As previously discussed, the project as a whole can be seen as an information system, through which information travels from beginning to end. As was made clear previously, even though the focus groups may have attained relevant and comprehensive participant views on the topic of concern, the project could still fail should those collective views not make it through to their ultimate target/s, in this case, should they somehow be only *selectively* influential on the research call and the wider public/ research (etc.) community (i.e. should there be 'information loss' – whether through deliberate acts by key parties, or through inefficient communication processes). The following report therefore deconstructs the remaining project into a number of stages (some sequential, some occurring in parallel), characterises those stages, and provides further evaluative commentary. In this report, the main criteria are still the normative criterion of information translation and the criteria for success stated/ implied by the funders/ sponsors of this project, though not the citizen perspectives, which were largely captured previously. However, the views of other key stakeholders are collected instead. The evaluative commentary in this report is largely based on evidence from documentary analysis, event observation, and interviews with key stakeholders.

The Structure of the Report

The following chapters will look at a number of stages of the research process and refer to other sources of evidence for evaluating the project's success. The following chapters thus consider (in turn):

- How the focus group information was collated and 'transformed' for subsequent use (Chapter 2)
- How the focus group summaries were processed by a 'consolidation group' of experts and turned into the outlines for the anticipated research funding call (Chapter 3)
- What happened to the draft outlines following the conclusion of the consolidation group meeting and how the call was ultimately framed (Chapter 4)
- How was information about the project and the focus group results disseminated via a number of dissemination events (Chapter 5)
- How was information on the project recorded and disseminated to the external world through the on-line media (internet website) (Chapter 6)
- What were the views of key stakeholders on the project (Chapter 7)

The following chapters vary in length: some are more involved, but others are brief, as they relate to relatively constrained events that *need* to be recorded for the sake of comprehensiveness, but about which there is little of evaluative contention. The next chapter is a case in point. The final chapter (Chapter 8) attempts to summarise the report and condense a number of recommendations on the possible future conduct of projects (processes) like this one.

2. The Transformation of the Focus Group Data

Introduction

The previous report described the development and conduct of the focus group process. The first stage of the subsequent process that needs consideration is what happened to the focus group outputs. In this short chapter that process is described and some evaluative commentary is given concerning the data transformation process and the possibility of 'information loss' (referring to the main criterion used for this evaluation).

Focus Group Outputs: Transformations

Each science centre provided a note-taker at their event. After the events, the note-taker and the moderator composed a two-page report for each focus group - these being focused on the main issues and resolutions emergent from each group. Citizens who took part in the focus groups were then invited to read and comment on two page summary reports, for a maximum time of two weeks from when they were available. In the description of Workpackage 3 it was also suggested that, for those citizens without internet access, the science centres would 'provide assistance and facilitate the input of their comments' (although it was not stated how this would happen). We have yet to establish whether this validation took place, how it was enabled in cases where participants did not have internet access, how many responses were obtained, or how any responses were dealt with. This is a limitation to this evaluation, but we felt that the effort expenditure (needed to contact all of the partners to ask them to qualify/ quantify these issues) would not be worth it, given our experience of past exercises that have used such feedback with *stakeholders*, which rarely elicit *any* comment even though the participants are supposedly interested parties with a greater stake in the issue of discussion than regular citizens (informally, one of the evaluators can name events in two other EU projects where such a lack of feedback was the case). We can, however, provide limited comment, based on our stakeholder consultation, that science centres (at least those we spoke to) perceived and undertook this 'commentary' phase as a necessary process of check and validation and as an opportunity to continue a dialogue with focus group participants. The feedback received from participants was however felt to be more an expression of gratitude for having been invited to participate in the VOICES project - and for being further consulted - than an additional critical elaboration.

After the summary reports (in the original language) had been validated (or at least, not disputed) by the participants, they were sent to Ecsite by the focus group moderators, along with the audio recordings, the verbatim transcripts, photos of all outcomes (drawings from exercise 1, flip-charts from exercises 2, 3 and 4 as documented by the moderators, and flip charts from exercise 3 as documented by the participants) and the informed consent forms signed by the participants. (The recruitment agencies were responsible for sending the characteristics of the participants (in English) to Ecsite.) At Ecsite, the material was translated into English and made available on the Visible Lab (see Chapter 6). Specifically, the audio data was transcribed, anonymised and translated into English for analysis by the academic team (Amsterdam). The transcripts were then uploaded into MAXQDA to be coded and analysed. Structured analysis was carried out by using a predesigned coding sheet based upon preliminary research. According to a description in the DoW (Workpackage2), this type of analysis allows for all relevant material to be extracted from the raw data. Further, open coding ran parallel to the structured analysis to allow 'for insights unforeseen by preliminary research to emerge'. The analysis was carried out by a team of researchers in Amsterdam in close cooperation, with regular internal consultation ensuring uniform coding and peer reviewed results.

The analysis was first conducted at national level, aggregating the data of the individual focus groups in a country, leading to a separate report for each member state (27 national reports in all – subsequently placed on-line: see Chapter 6). Next, an analysis at European level was conducted, resulting in an advisory report for the European Commission that would be considered by the consolidation group (next chapter). Recurrent issues were integrated by the analysts in a 'causal map', representing the mutual relations of the issues at stake and their convergence on deeper second-order arguments: the 'societal map' (for each country). In addition, desired directions for future research and innovation were identified (a list of research questions). Finally, the 'societal map' and list of research questions were compared with the actual and intended policy actions (the first step of the process) and the added value of the societal analysis was 'formulated as policy advices'.

Commentary

This chapter has been brief, limited to describing the outline process used to summarise responses. However, this is not to underplay the importance of this stage of the process: there are many possibilities for the data to suffer mistranslation along the way – including literally, when the verbatim transcripts (from audio recording) were translated into English, but also through a) limitations with recordings (i.e. not picking up all conversations), b) missing elements in the summary reports (done quickly and without thorough analysis), c) absence of corrections from citizen participants (through lack of motivation, or uncertainty – of memory or correctness of interpretation), and d) a flawed analytical process. Attempting to address all of these issues would require an intense interrogation of the data (including in the many original languages), which is simply not feasible for any evaluation. In spite of this, our expectation is that the various processes are sound, and information loss – though probable to some degree – is likely to have been minimal. We make this statement because, first, the analysis is based on audio transcripts (likely to be of good fidelity) of the entire focus group processes that have been *professionally translated*, according to a *well-worn* scheme by *highly competent and experienced* academics. We might have had greater concerns had the analysis been based upon the two-page summary reports and citizens responses to these (of which we are certain there were few). In short, given that we have no reason to question the professional competence of the translators or the (clearly excellent) academic team, our suggestion is that it is *unlikely* this process could have been handled in any other way that would have produced *less* information loss.

The next chapter considers how the summary data was dealt with by the consolidation group.

3. The Consolidation Group Meeting

Introduction

The results from the focus groups were collected, collated, and summarised by the Amsterdam partner in collaboration with Ecsite, as described in the previous chapter. A meeting was subsequently held in order for relevant experts to assess the publics' ideas and transform these into an appropriate format for use in a research call. This chapter describes the elements and processes in this crucial stage, as ever looking for possible instances of 'information loss' or mistranslation. The following description, and evaluative commentary, is based upon an analysis of the materials related to the event, and on the observations of both evaluators who attended the meeting over both its days. Interviews with the experts were also conducted, and will be described subsequently.

The Recruitment of Experts

Nine experts were ultimately recruited to participate within the consolidation group. These are identified in Figure 1. The criteria for their selection was premised on their expertise or experience as it related directly or indirectly to: public engagement in research and innovation, public policy, urban waste and the transition to a zero waste society, environment, science in society, responsible research and innovation, and eco-innovation. Other selection criteria included:

- Specific expertise and/or experience with relevance to the objectives and topics being addressed by the individual and/or the organisation
- Experience in dealing with local, regional, national, multi-national, sectoral, cross-sectoral,
 EU wide issues
- Gender balance (at least 40% of each gender)
- 50% of participants would need to constitute the broader civil society community (nongovernmental)
- Balanced geographical distribution/representation of experts from across the EU

It was anticipated that participants would be drawn from:

- Industry, businesses, or innovative SMEs
- Civil Society Organisations, Non-Governmental Organisations, Consumer organisations, Sectoral (and Professional) Organisations, Social Partners, etc. and networks of societal stakeholders
- Research-performing and/or funding organisations

- Academia and high-education establishments
- European Technology Platforms
- International organisations
- Networks and organisations of regional and local authorities
- Member States, Candidate, Accession and EFTA Countries
- EU Institutions

Participant Name	Participant's Organisation
Filippo Addarii	Euclid Network
Yorg Aerts	OVAM Public Waste Agency for Flanders
Filipe Alves	Cooperativa para o Desenvolvimento Sustentável
Hali Healy	King's College London
Corina Hebestreit	Euromines
Floriana La Marca	Sapienza University of Rome
Leida Rijnhout	ANPED
Aurela Shtiza	IMA-Europe - Industrial Minerals Association
Joan Marc Simon	No Burn (GAIA and ZERO WASTE)



The Consolidation Meeting

The venue of the event was the Covent Garden (2) building in Brussels. The event began around 10am on 11th June and concluded late afternoon on 12th June.

The event began with a plenary session, which started a little late, as some of the experts were late/ did not arrive.

After an introduction by [Gilles Laroche Head of Unit 'Ethics and Gender'], a short video (5-10 minutes) was shown, introducing the experts to the VOICES projects [the video having been made by

Formicablu]. The video was a useful tool to give the experts – who had only recently been recruited – a quick background into the rationale for the project and how it took place (including some clips of focus groups).

Following the video, there was a *tour de table* as the experts introduced themselves. During this time one further expert arrived. At this stage the eight experts comprised four males and four females, with their combined expertise ranging from raw materials and mineral resources to waste policy, sustainability and climate change. Aside from the experts, there were also a number of members of the Commission present, from different departments, plus an additional female expert (a PhD student) who was initially acting as a rapporteur (and who would subsequent join the other experts, being especially active during the second day).

After this, there was a brief presentation by [Gilles Laroche], essentially contextualising the VOICES project in the Horizon 2020 research programme. Key societal challenges were noted, and the essence of the presentation was that there was seen to be a need to engage citizens and allow them to have a say in the 2020 programme – but how? VOICES was described as a pilot process for involving the public, and the experts' role was described as important: the results from the public consultation were in, and the experts were needed to prioritise the ideas in order to make recommendations to the Commission.

Following this, one of the relevant Commission people [Karen Fabbri] introduced the agenda for the day (written in pen on a chart on the wall, but described verbally), which included a considerable amount of time after lunch for experts to "re-read" the relevant documents (they had been sent), including the extensive tables of results. She also emphasized that there was some freedom for events to be directed by the experts. A question was now asked about whether the experts could 'tweet' about this, the answer being "not now", though it was emphasized that results would subsequently be made open by the main contractor.

The lead person of the team responsible for collating the results (JB of Amsterdam) had recently arrived, and now introduced herself. Next, MM of Ecsite, the main contractor, gave a short powerpoint presentation on the project's aims and logistics – once more emphasizing the 'pilot' nature of the project. She noted that details on all aspects of the process (videos, powerpoint presentations, etc.) were available on an open website (<u>www.voicesforinnovation.eu</u>), with plans to publish all the outcomes too i.e. all 27 country reports, along with the overall summary report (which is what the experts would "read after lunch"). Again it was noted that the output was intended to define actual priorities for the next work programme (Horizon 2020).

Several questions followed: about the nature of recruited participants to VOICES, the online engagement strategy, the nature of follow-up activities and about potential tensions that might arise from the outputs revealing participants might be unhappy with their local authority's activities (regarding urban waste).

Next there was a presentation from a representative of DG Research and Innovation (which used to be Research and Development), guiding the experts through the last call of the relevant EU research programme, paving the way for the next call (Horizon 2020), which will focus on reducing demand for raw material/ reducing environmental impacts and "cross-sectorial waste".

The next presentation (starting about 11.50) was given by JB of Amsterdam. She gave an overview of public engagement, leading on to a discussion of why they decided to use a focus group method (as opposed to other methods, such as the consensus conference). Then she turned to the results, describing a lot of commonalities, but also some differences, which, they posit, seem to have a lot to do with where the different countries ranked on a list of percentage of recycled waste (with Austria on top and Bulgaria bottom). She presented a few headline results, summarised in three domains: prevention; in house; ex-house. She further noted the previous positive evaluation of the focus groups. Several questions followed, concerning the attitudes of participants, what feedback they would get, and so on.

Around 12.30, the final presentation of the morning came from a representative of DG Environment (JDDC). This focused on "why waste matters", providing lots of figures on the costs and opportunities of waste, and noting policy objectives for 2020, including reducing waste generation per capita, making recycling and reuse economically attractive, limiting energy recovery to non-recyclable material, and trying to eliminate landfill. The presentation discussed the next "European Action Plan", and aspirations to put targets (for waste reduction, etc.) into legislation (i.e. to make targets binding). Some discussion then ensued (with at least one member of the audience) about the role of innovation in solving these problems as opposed to other factors (related to economics, motivation, etc.). The presenter ended by stating that public participation is a must in doing these plans.

A lunch break followed, between 1pm and shortly after 2pm. On reconvening, the experts were given time by themselves to assess the focus group outputs. The experts had been provided with the large table listing all the priorities/ideas identified by participants from the 27 countries, along with the summary report. Some had apparently already chosen 20 recommendation/ priorities, but not all. Those who had already chosen were asked to review their choices in the light of the report.

Experts were then given about an hour (to 3.30) to read the material and then place 20 stickers (each) on their chosen options – on many sheets fixed to the wall – after which they would come together to compare their prioritisations with the citizens' prioritisations. It was not clear from the discussion (at least to the listening evaluators) what criteria the experts should use to prioritise items. One question concerned what to do about vague items – and the response was essentially that these could be prioritised and would be discussed later/ tomorrow.

KF then made a comment that the idea was to come up with 10 priorities regarding "technology" and 10 regarding "policy" by the end of the next day. MM exhorted the experts to please read the report, because if they only focused on the table some of the richness would be lost (i.e. the table was too concise by itself); she also described exercise four from the focus groups, in which participants used three stickers, each representing one million Euros, to allocate funds (prioritise) the different issues they had come up with in their groups. KF then suggested that experts view the task through European as opposed to national glasses. One expert then wondered whether reading the report might bias them; the answer was that it might – but they would be being biased by public views/ perspectives.

By 3.45 the experts had returned and put their stickers on the table on the wall. This table comprised over 30 A3 sheets, spread over one wall, containing a great deal of information. This table was constructed to run from the most to least prioritised items of all the combined focus group participants, with different sections on different topics. It was notable at this stage that many of the experts' stickers were clustered on the first sheets related to each new topic – which could represent good consistency of experts and public, or a primacy effect bias (experts favouring the first ideas they read about).

All the experts were now brought into one part of the room by JB, who was facilitating this consolidation process. She wanted to record the conversations – and none of the experts dissented to this. JB stood by a flipchart and proposed that, if there were high agreement between the experts and participants on certain items, then these would be retained to discuss tomorrow. The main purpose of this next phase was to reduce the huge list of items to a smaller set. She wanted to mainly focus discussion on issues that were prioritised by citizens, but not experts... and vice versa. She asked whether this was a fair procedure, and again none demurred.

The facilitator then addressed the items one at a time, asking experts for their opinions on those that could potentially be excluded (with responses recorded on a flip chart by MM, and with at least one other person taking notes). During this process, some of the experts were more vocal than others, and one or two were occasionally disparaging of the public. MM occasionally interjected to explain something or defend the participants; JB occasionally made judgmental remarks (e.g. "this issue was discussed but it was a surprise that it did not come up as a priority"), but by-and-large the decisions were made by (some of) the experts. Some experts lost track of their stickers (which were similar across experts, rather than individuated). The main reasons for excluding options seemed to be that they related to things already happening, or were in some sense unrealistic.

Around 4.30 there was a short break after they had addressed one category. They then resumed after 10-15 minutes starting on the next category. During the break the rapporteur queried the flip chart notes of MM regarding one point, and these were then amended. On resumption, it was notable that the facilitator had decided on a slightly different approach to "be more pragmatic". This seemed to be in response to how long the first category had taken to examine. Now, rather than considering every item in the list, she focused on items prioritised by participants but not the experts.

During this session, one male expert left (at 5pm) and confirmed that he would not be able to return the next day. The discussion continued to about 5.30. One theme that emerged was the seeming absence of a research element in some of the items (i.e. some items appeared more about policy options than research that could be done). Another interesting aspect of the conversation was that experts occasionally referred to personal experience and anecdotes – responding to issues almost as citizens rather than in their capacity as an expert on a specific topic.

The day finished with a 'check-out session', led by KF, during which all were asked what they had thought of the experience. There were some positive comments from experts about the methodology, but also some uncertainties (e.g. about how the experts had been selected). A couple of experts were quite critical of the ideas that they were being asked to consider, regarding them as obvious, common sense or even "nonsense". One suggested a lot of the ideas had been similar, and noted how little time they had to choose between them. The day finished at about 6pm.

The second day was due to begin at 9.30, but started slightly late. JB facilitated again. She had addressed the list, and now suggested they had reduced the list to 90 items. She asked the experts "what would be a good way to cluster these?" She gave the example of clustering according to technology versus policy items, or asked if the experts preferred a different scheme. Some discussion followed about the nature of research (emphasizing that social science, environmental policy, etc., were subjects that could be researched), but there was initially no clear answer to the clustering problem, or of how to reduce the list further. JB noted that she could not guide this

discussion (attempting to ensure separation from the decision making process, and putting the emphasis on the experts and the Commission).

After some discussion, the facilitator put 95 strips of paper, on which were written the remaining items (along with the 'number of votes' each had got), on a large table (with a recorder on it). The experts converged around this. The facilitator gave them an hour to cluster the items according to their own criteria. At least one expert was initially unhappy (stating "this is not an efficient process"), but after a while - and following an intervention from one proactive male expert - they settled to the task. There were again eight experts – the one who left yesterday being replaced by the expert who had acted as rapporteur yesterday. Some of the experts started moving around and clustering pieces of paper; two flip charts were brought over for use by the group; one expert considered the inverted 'waste' pyramid as a potential organising principle, then another male expert produced a different organising scheme on one of the flip charts (product design, product use, etc.). The experts discussed the latter scheme and came to an agreement (tacit to some degree) to use it, and then they started reclassifying the 95 items. Occasionally, there were suggestions about having subcategories (on packaging), or changing the terminology of the scheme or writing overarching principles on the diagram.

Around 10.45 the experts announced that they had finished their clustering. With the facilitator, they went through the seven clusters, explaining what they had done. The facilitator suggested that they consider removing some of the items (e.g. she noted one item that was not prioritised by the public and only got one expert vote – and there was no argument when this was discarded). After further discussion – with input from the Commission participants – it was agreed that the seven clusters could be used to help develop research calls, but they needed to be turned into about 20 themes, each of which needed to have a number of elements described, such as innovation/challenge, impact, scope, rebound affect, actors (etc.). In short, the experts were asked to bear in mind these aspects when trying to develop a number of themes in each cluster (to total 20).

Around 11am there was a coffee break, and then the experts reassembled. One expert was still very much driving this initiative (though intelligently and consensually, rather than autocratically), and they discussed how they ought to divide themselves up. By now the interaction between the experts was quite good, with one taking notes, and one essentially chairing the process. They decided that 'themes' were the same as 'research challenges' and set about defining the themes. After around half an hour they declared that they had 11 themes; the facilitator gave them another half an hour until lunch. However, by the allotted lunch time they still had two cluster to consider (and now had

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12/13 themes) – and so they decided to carry on. (KF had also given them A4 sheets – one for each theme – that needed to be completed with the relevant information.)

Around 1pm, to a round of applause, the experts stopped and announced that they had finished and had all the required themes.

The experts reassembled just after 2pm. They were called to sit around the table in the middle of the room as "the recording of this last part of the conversation is important" (MM). Initially they faced a screen, with one of the experts sitting at a computer, typing information to appear on the screen. The job now was to write the text for the 20 themes. The facilitator noted that the text must be full sentences, but not too much text, while one of the Commission participants noted that the words must be as close as possible to the words from the focus groups. The dominant expert was asked to chair this exercise, and no one protested. Thus, they started with the first cluster – product design – under which they had four themes. However, they soon realised that if they wrote the text in plenary this would take a long time – so the chairing expert suggested they split into groups, and asked for volunteers. After some discussion, four teams were formed – two writing on laptops away from the central table (hence unrecorded) and two sitting at the central table (with two experts in each team, with the teams largely addressing those clusters most relevant to their expertise).

Around 3.45 the facilitator suggested a break. It was clear by now that the teams were going at different paces and not all of them would finish by close. As there were people from the Commission present, the facilitator suggested it might be good to give summaries in pairs... and then it would be up to the experts how to continue i.e. to finish here if possible, or arrange between themselves to complete the task at home – with the internal deadline being 18th June, and one of the Commission representatives related to the project requesting something by first thing Monday (17th June). Then the four teams gave a brief report on their progress. One expert had to leave around this time.

From this point, the event petered out. The facilitator left about 4.15, along with several experts; the evaluators left at 4.40, by which time there were still five experts left in the room, working on their texts.

The results from the exercise will be discussed in the next chapter, along with how they were used.

Commentary: Information Issues

As with the rest of the process in VOICES, this consolidation group event should be seen as something of an experiment – a pilot of a procedure that might have wider utility. Conceptually, the idea has many merits: pertinent experts were recruited (albeit in a somewhat hurried manner, and

perhaps in fewer numbers than were hoped), in order to assess the summarised material from the participant focus groups to transform these directly into project calls. If the outputs are indeed published and used as the basis for funding (discussed in subsequent chapters), then this would reflect a strong and irrefutable impact of the process and of the publics' views – providing the translation of ideas from participants to the call text are comprehensive (to the extent possible, given that not every idea could be utilised) and accurate. In the previous chapter we noted how the summarising of participant ideas was done, and concluded that this followed good social science practice and that the translation might be considered good and relatively unbiased. This chapter has considered the process whereby the experts translated those summaries.

So, in theory the idea of this process is good – but what of the practice? From the perspective of bias, it is clear that the contractors and facilitator – and indeed, the Commission representatives – were extremely keen to ensure that the output from the exercise was free from their own viewpoints and influences. We noted several occasions in which these parties made clear efforts to step back from the material, ensuring that it was the experts that made the decisions, and also strongly encouraging them to respect the ideas and even wording that emerged from the publics involved. Furthermore, the sponsors and organisers were keen to reassure the experts that the publics' views *would* be taken seriously and acted upon, and more than one was observed to *defend* the publics' views in the face of criticisms by sometimes-cynical experts.

However, beyond this, there were a number of issues that may have had a degree of impact on translation efficiency. First, there was clearly an element of information overload. The sheer number of items that the experts were asked to consider was notable – taking up over 30 sheets of A3 paper, almost covering one wall. Given how little time the experts had to assess this information, they must have had considerable difficulty dealing with it all. Some had had time to do their rating of 20 top priorities before attending – but not all, and we suspect that this latter group may have been disadvantaged.

Is there any way in which the overload could have been reduced? There was certainly a degree of similarity and overlap for some of the ideas – but the contractors from Amsterdam were quite clear in their desire not to over-interpret the data, which is laudable. One approach may have been to use the experts to first do a clustering exercise *before* rating priorities, or indeed, to use two sets of experts, or to have a bit more time with the experts... but all of these options require greater time and resources. There are various card-sorting procedures that could have been used with experts to help this process.

A second issue concerns the criteria for prioritising the ideas. It was unclear to us what criteria the experts were using, or whether they were actually all using the same criteria. A more transparent and structured approach might have been considered instead. For example, if the experts were provided with the full list of ideas, they could have individually been asked to rate each idea (e.g. from 1-10) on a set number of criteria (e.g. desirability, practicality, importance...) – before they had attended the meeting – and then a scoring rule could have been applied by the contractors to the experts' scores to select a set number for further consideration. In this way, the selection process would be highly transparent, and time may have been saved at the event itself for considering other key issues. Ultimately, time was a key resource, and its absence led to a number of slightly unsatisfactory outcomes – such as the need for the experts to complete their task at home, and subsequently the relative lack of scope for the whole group of experts only, which raises the question as to whether these would have the full expertise really necessary to develop all of the themes that had been allocated to them).

A final interesting point also concerns the issue of expertise. As noted before, in the discussions the experts were often observed providing anecdotes or lay interpretations of ideas – since they were also members of the public as well as experts, and hence were familiar with the kinds of issues raised from both perspectives. While we would not discount the relevance of the experts' 'public knowledge', their task was to wear a different hat, and attempt to view the ideas through the lenses of their expertise. To the extent that their lay perspectives influenced their choices, the exercise was biased by the non-presence of other lay-experts (e.g. with personal familiarity with other problems, such as perhaps the low recycling found in Bulgaria). It is difficult to know how to handle this problem, save perhaps for more directed facilitation, asking experts the basis on which they were making a judgment or prioritisation (e.g. based on knowledge of evidence or on personal experience).

Expert Views

In an effort to determine what the consolidation group's members perceived as the success and shortcomings of the meeting itself, and an overall sense of the contribution of the VOICES project to establishing a research agenda, we conducted brief informal interviews with two of its members after the event itself.

These consultations revealed a sense of concern in respect of the organization of the workshop itself. It was felt, for instance, that too regularly:

' ...we were left, without much guidance, to find a way to make sense of a large amount of data coming from citizens, a lot of which didn't make much sense'.

Interviewees also expressed a sense of confusion in terms of who was leading the meeting:

'It wasn't always entirely clear who was in charge of the meeting'.

They did however report that where proceedings were somewhat jerky and fumbled, the membership of the group and the capacity for certain members to lead, provided greater critical and creative freedom and spontaneity in assessing and clustering citizens' contributions:

' ...certain members of the group, like Filipe, made a real difference. Overall I think we worked well together as a team. We did what was asked of us and I think we did it well – particularly in the circumstances'.

Meanwhile, the scale of the challenge was called into question:

'We were asked to achieve a huge amount and in a short space of time. Of course, in the end we had to complete what was required on our own time and after the meeting had finished'.

Those we spoke to also questioned, indeed were highly critical, of the contribution of citizens in the first place, especially where citizens' ideas were of a 'blue-skies' orientation, and therefore also called-into-question the role of the consolidation group in making sense and trying to distil these:

'A lot of the ideas were nonsense. We should have put them in the bin instead of wasting time trying to prioritize'.

Despite a sense that the kinds of information coming from citizens was not always particularly wellinformed, intelligent and therefore useful, interviewees were, however, agreed that VOICES was very much a part of common European concern and the goal of bringing research and policy actors and stakeholders together, and that this could not, and perhaps should not, be dismissed:

'Whether we like it or not, this is the future for research. I suppose we can hope that greater involvement by citizens will result in their providing more intelligent ideas'.

Overall then it would seem that issues of facilitation of the meeting were in part problematic but in other ways provided a platform for the experts to properly own the data and the process. Time, as for other parts of VOICES, was an issue, as was the scale of the task. Nonetheless, we detected among participants of the group an overall sense of satisfaction in having been involved; surprise at the kinds of contributions provided by citizens; yet ultimately respect for the process and recognition of its significance in terms of shaping research and policy agendas.

The next chapter takes up the story of what was done with the experts' call documents.

4. From the Consolidation Group to the Call

Introduction

This brief chapter relates what happened between the experts from the consolidation groups completing their task and the use of their material to develop a Call for Horizon 2020.

The Process

In the immediate aftermath of the consolidation group, and due in large part to the limitations of time, its members were invited to submit, via e-mail, to the European Commission VOICES team, further outcome fiches that responded to the specific identified themes. Ultimately, 19 overarching research issues were identified. These were then used by members of the European Commission's *DG: Research and Innovation* team to inform research proposals under the Horizon 2020 Framework Programme for Research and Innovation.

The Research Programme Officers (RPO) responsible for the development of the 'waste' call had been involved in VOICES since its inception and were therefore cognisant of the processes and interim conclusions of VOICES. RPOs worked more or less in parallel with the VOICES project in the context of the waste-related topics of the work programme 2014-2015 of Horizon 2020.

When the consolidation group's outcome fiches were received by the RPOs these were checked against the topic drafts already under consideration. This exercise revealed consistency and comparability between VOICES propositions for research and those already being considered. Significantly, it was noted that VOICES did not simply reinforce pre-existing research ideas, but made a significant contribution in identifying *new areas* for research prioritization. It was, however, felt that had the consolidation group outputs been delivered further in advance, suggestions might have been more easily interweaved and elaborated upon within the calls, now described.

The Horizon 2020 work programme document '12. Climate action, environment, resource efficiency and raw materials', stipulates 7 topic areas for waste management within the call: Waste: A Resource to Recycle, Reuse and Recover Raw Materials: Towards a Near-Zero Waste Society (H2020 – WASTE – 2014/2015).

This call provides the best and clearest indication of how citizens' prioritizations for waste management – work-shopped and refined by members of the consolidation group – translated into research priorities for Horizon 2020.

Within the 'Waste' call document, direct reference is made to the European Union's priorities for 'Urban waste and innovation' being identified by citizens in the context of the Seventh Framework Programme project, VOICES.

The document states that citizens' priorities for 'urban waste and innovation' clustered into six thematic areas - illustrated in Figure 2 below.

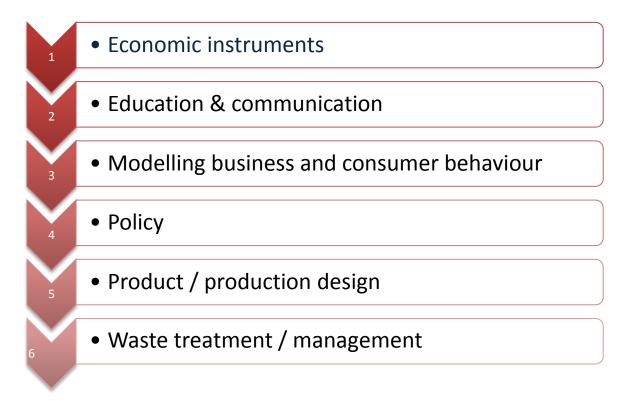


Figure 2: Citizen Priority Areas identified in a Call Document

The document also explicitly states:

'The activities of this call respond to each (of) these thematic areas'. (p. 6)

Five of the seven topic areas of the waste call specifically referenced their alignment with the VOICES thematic areas:

WASTE-1-2014: Moving towards a circular economy through industrial symbiosis

Responding to the VOICES thematic areas of 'model business and consumer behaviour', 'product /production design', and 'policy' including: sustainable lifestyles and consumption behaviour, sharing utilities and waste materials, producer responsibility for waste production, increased product life-spans, enabling material reuse, recycling, recovery, industrial symbiosis leading to closed-loop processes, and consumption behaviour and lifestyle change.

WASTE-2-2014: A systems approach for the reduction, recycling and reuse of food waste

Responding to the VOICES thematic areas 'policy', 'model business and consumer behaviour', and 'waste treatment /management', including: food waste, business and consumer behaviour, technologies for waste collection, packaging materials and food waste legislation.

WASTE-3-2014: Recycling of raw materials from products and buildings

Responding to the VOICES thematic areas 'waste treatment/management', including the extraction of raw materials from construction waste.

WASTE-4-2014/2015: Towards near-zero waste at European and global level

VOICES under the thematic areas 'education and communication', 'model business and consumer behaviour', 'product /production design', and 'policy', including European waste management best practices, benchmarks and standards, and proactive social engagement of citizens and education.

WASTE-6-2015: Promoting eco-innovative waste management and prevention as part of sustainable urban development14

VOICES under the thematic areas 'waste treatment /management', 'model business and consumer behaviour', 'policy' and 'economic instruments', including the use of waste as a resource, addressing patterns of resource use and consumption including incentives for more sustainable ones, active engagement of local authorities, and enhanced waste collection, recycling and recovery.

The call document consequently demonstrates the following frequency of VOICES thematics represented within the Horizon2020 topic guide for the 'waste' research call, the most populous thematic being 'Modelling business and consumer behaviour' – which was observed within four of the five topic areas (see Figure 3).

VOICES 'thematics': *frequency*

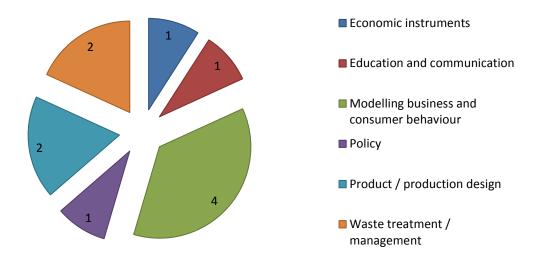


Figure 3: Thematic Frequency in the Call Document

Conclusion

The Horizon 2020 call *Waste: A Resource to Recycle, Reuse and Recover Raw Materials: Towards a Near-Zero Waste Society* (H2020 – WASTE – 2014/2015), demonstrates the end result of the VOICES project and the progress made between the consolidation group's identification of 19 themes and the subsequent clustering of these into 6 thematic areas that ultimately informed the entire call and, explicitly, five of its seven topic areas. Simultaneously, the 'call-document' reveals the clear traceability and translational fluency of citizens' contributions as they were ultimately incorporated into strategic priorities for research.

5. The Dissemination Events

Introduction

The main part of this project involved the consultation of the European public in order to inform the development of a research call for the Horizon2020 framework. However, there were other elements of the project that were of secondary concern and that need to be discussed. This chapter looks at a number of events that were conducted in a select number of European countries aimed at disseminating the outcomes of the consultation at a national level.

The Dissemination Events

In July 2013 a call for proposals was opened by the project coordinator (Ecsite) inviting: 'six science centres... involved in the EU funded project VOICES as Third Parties, to host and organize public events based on the results of the consultations held in all the 27 EU countries on the topic "Urban Waste". The call (with emphasis added) asked for:

- public events bringing together *local* and *national* communities to interpret and discuss the ideas proposed by citizens during the VOICES consultations (and attracting media coverage to highlight the process that led to these results);
- events that should be *interactive* and *engaging*, with hands-on experience ranging from interactive conversations to festivals and do-it-yourself demonstrations;
- events that should be spread over *different geographical areas* of Europe, on the topic ("Urban Waste as Innovation") and on the results of the citizens' consultations (citizens' ideas), and which should contribute to the European 2013 Year of the Citizens with a format encouraging and highlighting citizens' contributions to policy making in science, technology and innovation;
- events lasting a minimum of half a day (4 hours) that would *ideally take place during the* weekend in order to be as accessible as possible to young independent adults, with each event expected to generate media interest in order to further disseminate the results of VOICES.

In the project's Description of Work (DoW), within Work Package 5 (WP5), it was foreseen that six public events would be commissioned. A total of 14 different proposals were subsequently received, of which seven were initially selected, although one of these (in Lithuania) subsequently fell-through (due to practical/ logistical/ resource reasons), leaving six – as initially intended. The events that ultimately took place were as follows:

- Dublin, Ireland July 27 (Science Gallery, Trinity College)
- Naples, Italy November 15-16 (Città della Scienza)
- Granada, Spain November 16-17 (Parque de las Ciencias)
- Ljubljana, Slovenia November 22 (Ustanova Hisa eksperimentov)
- Lisbon, Portugal November 23 (Ciencia Viva Pavillion of Knowledge)
- Grenoble, France November (between 17 and 21) (CCSTI Grenoble La Casemate)

The full list of dates and locations (as well as a link to the event programmes and short videos of some of the events which took place) can be found online at: http://www.voicesforinnovation.eu/phase 6 new.html. The evaluators attended two of the events, as will be described (Ljubljana and Lisbon), while other events were attended/observed by members of the coordinating organisation Ecsite (namely, Granada, Naples, Lisbon, Ljubljana), and members from the Commission associated with this project (Grenoble and Lisbon). According to the project coordinator, they made an effort to encourage more people from the Commission to attend to demonstrate the importance of VOICES, and though there was some enthusiasm from senior Commission staff, budget restrictions may have militated against their being given authorisation to attend (personal communication). Nevertheless, a 'thank you' video message was made (in English), by the appropriate Commissioner (see: http://vimeo.com/79497250), which was sent to the coordinator for distribution to the hosts of the dissemination events prior to their events.

Commentary on Events

As noted, the evaluators attended two of the events – held in Ljubljana and Lisbon – and these will be discussed here.

The Slovenia Event

The event in Slovenia took place in Ljubljana on November 22nd, 2013. The event was run by Ustanova Hisa Eksperimentov, one of the project Third Parties, which had been responsible for running the Slovenian focus groups. The event actually had a number of elements held in three different locations around the city. One set of event was held in the Hisa Eksperimentov science centre itself; a second was held in a local school; and a third was held on the street, at a couple of temporary venues on one of the city's main thoroughfares.

The success of the different components was rather variable – with some elements 'better' than others, by which we mean were better attended and more *potent* in terms of *disseminating information* about the waste topic and the VOICES project to city residents.

At the local school there was meant to be a debate on 'urban waste and innovation' between students. However, there appears to have been some miscommunication between the parties involved: although organising staff were present, along with a person to film the debate, the debating students did not arrive and the event did not take place. There was also an exhibition here of 'hands on experiments made from waste', although there were just five of these (according to one of the project partners, this was because the call for entries only went out two weeks previously, so few schools had been able to organise and respond). Furthermore, it is unlikely that many members of the public will have seen these exhibits, even though this was noted in a small booklet of the event that was available from the museum, mainly because the exhibition took place in a functioning school, with little advertising (one A4 sheet of paper on the front door), and a rather off-putting set-up (the evaluator was intercepted by a (friendly) security guard/member of staff when he tried to enter the school, and it was clear that this member of staff was surprised by the evaluator and had not seen many/any other interested people). It is not clear how many of the school students viewed the exhibits or what they thought of them.

It is also unclear how effective were the street events. The main difficulty in this case was essentially logistics: unfortunately, the events took place on a cold, rainy day in late November, with light failing by mid-afternoon. The streets were largely deserted, even though the street chosen was central. The evaluator walked past the two exhibits (which held a hands-on exhibit on 'separating waste', an exhibit on how waste problems are manifest in Slovenia and what might be done about this, a 'recycling tricycle' that enabled passers-by to make their own hands-on experiment from waste, and recycling workshops with some local experts), at several times during the day, and only on one occasion did he notice a few people clustered at one of the sheltered venues. On the plus side, however, the organisers clearly had some relevant and interesting material to use, and it is to be hoped that they have an opportunity in future (perhaps in summer!) to run the events again.

The events held in the museum did seem to be the most successful part of the day. The main element was the various displays within the museum proper. At the entrance there were several coloured bins, with visitors requested to bring a piece of waste to put in the right bin (a symbolic entrance fee). Within, amongst the regular exhibits, there were several related to the waste theme. One was a 'virtual puppet' – a computer-generated puppet that responded to speech. One exhibit (at two stationary terminals/booths) involved a game (possibly related to an 'app') that required

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players to move different types of waste into different bins, providing instant feedback and scores. There were also several recycling 'workshops' – desks at which museum staff demonstrated recycling. At one, small wallets were made out of waste cartons; at another, old t-shirts were turned into scarves; and at another, bits of rubbish were turned into toys. Another person (not staff, but a member of another organisation) showed visitors the various products derived from recycled waste. There was also a video on show about the VOICES project *per se*, although this seemed less effective: the various speakers in the short video spoke in English, and so the organisers had the volume on low. In addition, there was a game area in front of this, which seemed a greater attraction to the visitors than the video. In the morning, the visitors mostly comprised school children from local schools performing regular visits (it *did not* appear that these had come especially to see the waste exhibits). After lunch there seemed to be more adults, and in all, there was a reasonable exposure of the public to the exhibition items (although attendance is not known).

Besides the exhibits, there were three other events held at the museum that were attributed to the 'Wasteologies' theme, and listed in the advertising pamphlet for this (note that this pamphlet, which also described the events at the other two places, had the VOICES logo on its front page). From 16.30 there was a 'science show' entitled 'Doubtology', which was followed at 17.30 by a documentary film entitled 'Plastik Fantastik'. Finally, from 19.00, there was a 'Science Tea'. These events will be briefly discussed in turn.

The 'Doubtology' presentation was given by a senior member of staff of the museum. This was an hour-long talk on some unusual facts, with demonstrations (e.g. involving ice in water, to show the effects on 'sea levels' when ice melts) and use of a slide-show. The room was full, with perhaps 30 in the audience, about half-a-dozen of who were children. Although entertaining, it seemed that this was, in fact, a regular presentation, and the issue of waste was not really covered (many of the issues were number problems).

The 'Plastik Fantastik' documentary was shown in the same room. The two men responsible for making the film were in attendance. The film lasted about one-and-a-half hours, and was in Slovenian with English subtitles. The audience varied, with people coming and going, but in the end was similar (20-30) to the previous event. The documentary was a detailed and professional production, covering the many aspects of plastic – its uses, and its problems as waste. The video had not been produced as part of VOICES *per se*, but had been developed independently. At the end, the two film-makers stood up and answered a few questions (by the end, the room was about half-full); they also remained for the next event (as audience members).

The final event of the day was a 'Science Tea'. This started at about 19.00, after the film. A table had been laid out at the back of the room, with free tea and snacks for visitors. Four new people turned up to discuss the issue of waste, and these sat at the front of the room in a line, with the audience seated in chairs facing them. These four were involved in one way or another with the waste issue – such as in NGO organisations, or in organisations related to recycling. One acted as chair, and the rest started by giving a brief presentation of who they were and what was their position on the issue of waste; a couple made use of some slides that were projected onto a screen. There then followed a long discussion on the issue, initially a debate between the four (who were all confident speakers and clearly highly knowledgeable stakeholders), which later branched out and involved the panel answering questions from the audience. This event lasted around one-and-a-half hours, finishing just before 21.00. The audience was similar in size to the two prior events – perhaps 20-30 persons. However, the make-up was now clearly somewhat different, with few actual members of 'the public' present (many of those present were museum staff, wearing their 'uniform' comprising a yellow tshirt; others were clearly staff out-of-uniform or people who knew staff). It is difficult to be precise, but this evaluator counted around six audience members who might conceivably be considered 'public' (and were not associated with the museum, and excluded the two film-makers). Subsequently, most of the questions asked by the audience also came from museum staff. It is clear that the debate covered a lot of ground and provided an in-depth analysis of the waste problem (and this was filmed, apparently, so may be of wider utility), but on the negative side the impact on 'the public' was highly limited.

The Lisbon Event

The dissemination event in Lisbon, Portugal occurred on the 23rd November at the *Ciencia Viva*, the city's science museum and previous setting for the Lisbon focus groups, and was scheduled to run from 11am-6.30pm. The event was attended by a delegate from Ecsite; two members of Formicablu, who recorded aspects of the event and were engaged with interviewing exhibitors; and the evaluator. The VOICES dissemination event was well-timed – coinciding with a science centre festival in Lisbon. Unfortunately, serendipitous timing had little influence on the numbers observed attending the event.

The dissemination event was arranged into three components and co-ordinated in three separate spaces: a main exhibition area with an array of stalls and installations working to themes of waste recycling and reuse; several adjoining smaller interactive rooms, which hosted workshops focused on specific themes of recycling and cooking with zero-waste, reusing electronic waste, and using urban waste to build musical instruments; and a main auditorium where commentary on the VOICES

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experience was provided, in a conference setting, by local members of the science museum, a government official, and via a presentation delivered by a member of the European Commission's *DG: Research and Innovation* 'VOICES' team. The degree of separation between these components was problematic and never effectively resolved, resulting in the experience of each component as a self-contained event. While each event was thematically similar and complementary, they were not effectively combined to create an integrated and holistic narrative, and certainly not as one which represented or explicitly reflected the activities and achievements of VOICES.

An issue of staging was further exacerbated by an issue of timing - with the scheduling of the three components being partially sequential and partially synchronous. For example, whilst the main exhibition ran throughout the entire day, the 'conference' session and interactive sessions ran concurrently in the afternoon, yet seemingly disparately - in the sense that, other than being directly and personally advised by museum staff of their connection, this was arguably non-obvious to museum patrons. Indeed there was a conspicuous lack of connection or explicit complementarity between the three components.

The main exhibition, whilst clearly focused on the theme of waste management, did not appear explicitly or directly connected with the VOICES project, and neither were the interactive sessions: both registered more as individual events. This was an issue of signposting and exposition. The only connection to VOICES was achieved through posters and a powerpoint display announcing the VOICES project, though these were all too easily missed, and as it transpired, appeared habitually bypassed by visitors. The workshops similarly appeared to have no *explicit* connection to VOICES. Both the workshops and the main exhibition featured more as sideshows, or in many senses the mainshow, next to the conference session, which as will be described was somewhat limited.

Considering each component in turn, we consider first the main exhibition space and its contribution to the VOICES dissemination.

The main hall consisted of eleven unique exhibits organised along two parallel flanks, two of which were un-manned and organised as interactive games; a large VOICES powerpoint projection illuminated the back wall and occasional posters, marked with the VOICES logo, advertised the timing and location of other activities (which were not, however, mapped). There was no apparent connection between the exhibits/exhibitors and the VOICES project, other than thematically, and in their being connected with Ciencia Viva as local organisations/enterprises.

A darkened corridor, which served as the entrance to the main exhibition space, had, at its end, four poster-stands disseminating the VOICES project and articulating what citizens had identified as

issues and resolutions in the management of urban waste. Museum visitors unfortunately appeared to pay little heed to this rather inconspicious display, which they bypassed *en route* to the main exhibition area. The VOICES context was accordingly largely missed and neglected. It would have arguably been more effective to have prominently situated the poster display *within* as opposed to *outwith* the main exhibition hall, having individuals on-hand to verbally present its content. This would have militated against visitors passing-through and neglecting the VOICES context (though the set-up of the exhibition space also unfortunately resembled a thoroughfare and was treated as such), consequently leaving at best a superficial or cursory connection with VOICES. As it occurred, the main exhibition and ancillary workshops were, whilst useful in articulating a narrative of urban waste and its potential solutions (and opportunities), mainly distractions from, rather than additions to, a compelling showcase of the VOICES project.

The exhibition featured stalls presenting aspects of artistic and creative innovation in waste recycling. Each exhibit was highly visual and interactional by nature – consistent with the curatorship of most science museums. The first exhibit encountered focused on a theme of preserving the health/welfare of the ocean and its animal inhabitants, its central feature being a life-sized 'rubber' shark constituted of commonly found beach debris. A second exhibit, a computer 'arcade-game' terminal, sitting adjacent to the shark, focused on participants' ordering of rubbish into specific categories via a joystick interface. Other exhibits consisted of live and interactive recycling showcasing where visitors were invited to observe and repeat a paper recycling process; an exhibit showcasing biodegradable and 'second-life' stationery (paper embedded with seeds, that might turn into living plants on disposal); a stall comprising a team of unemployed individuals who had built a social enterprise focused on constructing new furniture through bits of pre-used wood; and a design stall whose exhibitor had taken faulty porcelain products and recast them into designer lamps.

The focus of the exhibition was in revealing the possibilities of recycling and reusing waste. The contribution of artists and designers demonstrated the creative/imaginative verve pre-requisite to, yet often absent from, scientific solution-making. This explicit confluence of art/design and scientific complexity also recalled the interface of VOICES' citizen participants with the scientific challenge of waste-management and the translation of 'public-imaginaries' into applied strategy for urban waste.

The main exhibition was, in many ways, visually impressive and catered well for the interactional appetite of the contemporary museum and science museum patron, whilst presenting an opportunity for these to engage with exhibitors in discussing methods of waste recycling and reuse. Such conversations were, however, largely infrequent and depressed further by the relative low-footfall observed on the day. Nevertheless, the main exhibition ought to be commended for the

diversity of its exhibitors and on tackling the issue of waste through art and design (art and design works assembled with urban waste), and for emphasizing the potential of recycling as a social enterprise and commercial activity. In the latter context, exhibitors also included Portuguese companies such as Tetrapak.

The connection of all of this to VOICES, however, was never quite sufficiently or robustly made and rendered the main exhibition as an autonomous and isolated event.

The interactive workshops were better attended, though because of their running synchronously with each other and the main conference, we were only able to observe one. The workshop we observed was a cookery class held in a specially appointed kitchen. This was arguably the best and most enthusiastically attended part of the whole event, with the room largely full. The audience – gathered around a long elongated table – was taken through the possibilities of food preservation, food reuse and cooking with zero food waste. The majority of the workshop was didactic, with the demonstrating cook talking *at* the audience. A short time was, however, provided for the audience to taste some of the products of the cook's 'food recycling' endeavours.

The conference itself therefore became the main, and apparently *sole* aspect (beyond the few poster displays) disseminating what VOICES was and what it had achieved. Its location, however, in a large auditorium away from the main exhibition space, its scheduling, and its content delivery was problematic. To begin with, there was no official announcement advertising when the conference was to start, or indeed when it had started, nor any verbal invitation or encouragement for members of the public to attend. Even when the conference was due to start – which had a direct effect on the busyness of the exhibition hall as this turned into a temporary waiting room (in fact, this was the greatest level of foot-fall throughout the day) - there was a considerable amount of hanging around, with no stewarding or advice as to when the conference would actually begin and whether 'delegates' should seat themselves. The start of the conference was significantly delayed. Due to begin at 3pm, nearly 20minutes later individuals remained waiting - not knowing where to go. Beyond the displayed posters, there were no programmes, flyers or leaflets provided.

The conference session finally got under way – without explanation or apology for the delay – at 3.22pm. We counted an audience of approximately thirty people (all adults bar one child), which included the four presenters, the Ecsite member, the evaluator, and the Formicablu team of two. The audience appeared diminutive in contrast to the seemingly cavernous space of a large auditorium – indeed we were asked by organisers to sit in the auditorium's front rows close to the stage with the intention of forming at least the appearance of a more sizable gathering.

Presentations ensued from a podium on the stage and followed a conventional lecture arrangement, with speakers talking from *powerpoint* presentations projected on a large backing screen. The presentations began with a welcome provided by the President of *Ciencia Viva* who invited audience members to participate in the 'events' taking place outside of the auditorium and to feel free to move and go to and from the conference session. The rest of the welcome was addressed in Portuguese. The second and third presentations, also delivered in Portuguese, were provided by a representative from the Portuguese Ministry of Environment and the Portuguese VOICES coordinator. The final presentations gave no more than a repeat of what was already likely known by an initiated audience. Nevertheless, they provided further proof of the contribution and value of VOICES. Three further sessions dealt with questions on the treatment and management of urbanwaste familiar and related to the VOICES context and questions, which VOICES could be seen to have given greater momentum and profile.

Overall the event was confusing, made up of disassociated parts that could have been more successfully and seamlessly combined in disseminating the findings and achievements of VOICES and many of the further questions and ideas the project stimulated. As it stood, the dissemination of VOICES was mainly confined to the 'serious' business conference session (with the 'makers faire' as an outside amusement), which had, as stated, obvious limitations, caused by low turn-out and the generally non-participative nature of feedback. The conference session arguably should have considered the way in which VOICES had clearly made a substantial impression and impact in a localized way, on the science communication community of Ciencia Viva and those in government.

Conclusion

As noted in the first evaluation report, there are several perspectives or sets of criteria that can be used to evaluate engagement events; in this evaluation, the main focus has been upon a normative criterion of 'information translation', but criteria from the project sponsors and from participants have also been used. In the case of the dissemination events, we do not have feedback from participants, and so we need to focus our evaluative commentary upon the other two criteria.

The sponsors had three main aims for these dissemination events – as expressed in the DoW (see Workpackage 5, e.g. pages 23-24) and also iterated by the project coordinator (personal communication). First of all, they aimed at disseminating to the general public the project outcomes, showing citizens how important their involvement was and thanking them for their engagement. According to the coordinator (email of 17th December, 2013), "the message to the citizens was

something like 'your voices are being heard'", and one of the aims was to motivate citizens to participate more in similar processes in the future (European dimension of the project). The success of the motivation cannot be ascertained at this time – and indeed, this would be a difficult thing to prove in any timely manner. Regarding the dissemination of message outcomes, however, this was clearly variable between events, ranging from modest to negligible. The coordinator noted that in Granada, for example, "10 participants from the focus groups... came, (and) one of them even joined the round table as a speaker and explained to the public how interesting it was for him and how surprised he was that their "voices" had been taken into account, and the level of participation was quite high." On the other hand, at the Ljubljana event (as another example), no focus group member attended, and the VOICES project itself was largely lost from proceedings (it was only really discussed, briefly, in the video from the Commissioner, which was in English only, and there was no other forum to actively engage with participants concerning the project). The Lisbon event seemed to have similar limitations.

Second, the events were intended to offer "VOICES-tailored" activities (like hands-on activities and exhibits), based on the ideas that emerged from the focus groups in the specific country. The coordinator gave this example in the previously noted email (of 17th December) "if in the focus groups in Slovenia it emerged that citizens are well aware of how recycling works, and they do recycle and separate at home, but they all expressed that they lack information on what happens to waste, or on engaging ways to make waste separation and recycling more useful at household level, then the specific event (should be) aimed at offering activities which would focus on the underlined need, and therefore answer and listen to citizens' priorities and ideas." Our initial reaction is that it is unclear to what extent the design of the different events varied and took into account the country-specific priorities. Certainly there was some evidence of local issues informing aspects of events: in the Ljubljana case, for example, the game that involved placing items in appropriate bins was clearly designed according to local practices (as different countries use different coloured bins in different combinations). We do, however, understand that Ecsite worked closely with organisers in the lead-up to the various national events and recommended organisers use the individual country reports as a guide in the development of activities.

Third, the events were intended to use VOICES at local level. All museums were expected to invite local stakeholders and policy makers (local governments, waste companies, scientific research institutions, etc.) to participate in their event, join a debate/round table and interact with citizens. Once more, the evidence for this is presently scant, but there is clear evidence that most of the events sought to include key local stakeholders. In the Ljubljana event, for example, the 'Science Tea' involved a number of highly relevant (and confident) local stakeholders. In Lisbon, one of the speakers represented the Portuguese Ministry of Environment.

Regarding the information translation criterion, the key issue is how potent was the dissemination of messages about the VOICES project, its results, and the urban waste topic in general, to the relevant populations. The ideal would be for each of the six events to have disseminated clear and comprehensive messages, in multiple impactful formats, to many and diverse members of their local populations. It is clear that, in all of the events, there was a degree of effective communication about the key issues to a proportion of the population – but this varied across a number of dimensions. In Ljubljana, for example, there was relatively little communication about VOICES per se, though there were some effective mechanisms for communicating locally-relevant information on urban waste, and there was certainly an effort to reach a range of people (largely school children in the morning, and older people from the afternoon) through different media (film, hands-on activities, discussion/debate). Much the same was true for the event we attended in Lisbon, with the focus on VOICES appearing disassociated from and secondary to the events of the makers' faire. In the other locations, we also have some evidence from different sources of their variable impact. Had this been a more central component of the VOICES project² we would have sought to liaise earlier with the event organisers to arrange some means to collect participant feedback, though under current circumstances this has not been realistic (and would have involved, for example, the development of specific questionnaires; their translation into local languages; and their collection, collation, and back-translation by the event organisers). The general conclusion, however, is that there were certainly some positive dissemination activities but, as ever, more could have been done collectively and certain activities might have benefitted from revisions.

² We understand that delay in the approval of an amendment to the project-scope related to the identity of event-hosts further contracted 'lead-in' to the events.

6. The On-line Communication of 'VOICES'

Introduction

This short section discusses the online presence of the VOICES project – an element recognised by the project coordinator and sponsors as important, not only for communication purposes, but also in the sense of ensuring transparency about the process used and the results obtained. This issue was the target of one task of the project (Task 2.3 in Workpackage 2), which involved the development of what is termed the 'on-line Visual Lab platform' – essentially, a website containing most of the project materials. This section describes and contextualises the on-line project presence.

The Ideas behind the On-line presence of VOICES

In the project DoW it is stated that 'thanks to the Visible [visual] Lab, the [VOICES] process will be transparent and can be duplicated, adapted and configured for specific future goals (for example, use... at national or regional scale; or involving the citizens at different stages of research definition and implementation)' (page 11). It is also noted that 'The Visible Lab will also be a mean[s] for all citizens who participated in the consultation, as well as for other interested citizens, to follow the process and get virtually involved in it.' As such, the on-line recording of the project was intended to provide comprehensive information to various sources and stakeholders.

The DoW stated that the Visual lab would be on-line from month three of the project, with the development being based on specifications 'agreed with the VOICES Team and the relevant bodies of the European Commission responsible for the future (post-project) maintenance and hosting of the tool.' Naturally, this report cannot pre-empt the future, but it is worth noting that success of this communicative aspect clearly does depend upon resources (human and monetary) being available to maintain the developed website following the official close of the project.

With regards specific *content*, little is noted in the description of the relevant task (2.3), although more is said in other sections of the DoW. For example, in the description of Workpackage 4, it is specifically noted that the transcripts of the focus groups would be made available on the Visible Lab (upon request) after the analysis was complete, although 'in order to protect the confidentiality of the information and to comply with ethical regulations regarding personal data, the transcripts can be obtained by any interested party only after agreeing to a declaration of confidentiality.' It is stated that the documentation and VOICES Team will be responsible to check and comply with any applicable regulations. In this section of the DoW it is further stated that 'the Visible Lab will also be used to solicit and support stakeholder engagement at national level, in coordination with the

science centers... [and] also contribute to creating a community of practice for all the moderators that were engaged in the focus groups, through which they will contribute to reach out to local stakeholders, as for example local associations, civil society aggrupation, etc., and stimulate the involvement of society around the process and the theme of the consultation.'

The Current Nature of the Visual/Visible Lab

The relevant website can currently be found at <u>http://www.voicesforinnovation.eu/</u>. Figure 4 shows a simple representation of the website (as at 16th January 2014 – the time last accessed). The first thing to note is that the website is clearly professionally designed and provides a comprehensive review of the VOICES project. Aside from the various elements of the project – mainly addressed by separate pages – two further pages are linked to all of the website pages, intended for the press and researchers. The 'press' page, which is not specifically detailed in the Figure, provides a contact email (to the project coordinator), plus links to various other aspects that are repeated in the relevant web pages, including a project brochure, a video message to EU citizens from the relevant EU Commissioner, a science release (pdf), the interim project report (pdf), a link to a page containing various photos of the events in action (JPG files), and a pdf of the list of other public events. The 'researchers' page is focused on promoting the methodology used in VOICES, containing links to pdf files that provide detailed reports of the methodological components, along with a contact email address of the coordinator, from whom 'full, anonymised transcripts of focus groups in all 27 countries are available upon request.'

The Home page itself is relatively brief, with some text about the 'what', 'why' and 'how' of the project; a headline stating 'EU research: making your VOICES heard', a map of locations of the different partners across Europe, and a four-and-a-half minute video about the project as a whole. This page also provides links to a Facebook page (with 117 'like' ticks recorded as of 16th January 2014), and to Twitter (with just two 'tweets' recorded). A 'G+1' icon also allows for readers to publicly recommend the site. The popularity of the site in general, however, cannot be determined as there is no 'counter' on the site.

			>	Press*
		Home Page	Re	searchers*
The Project	About Us	Focus Groups	Outcomes	Public Events
Topics:	Topics:	Topics:	Topics:	Topics:
Rationale	Voices partners	Methodology	Various reports	Public events
Methodology	Advisory gp	Moderators	Key findings	Extras:
Key findings	Consolidation gp	Selecting participants	Using outcomes	Vid: EU Commission
Extras:	Evaluators	Participant reaction	Links:	Vid: Dublin event
2 min. video	Extras:	Analysis	Interim rep pdf	Vid: conference
Waste picture	2 photos	Validation	27 country reps	Links:
Links:	Vid: con gp.	Extras:	Coordinator email	Events programme
Brochure	Vid: evaluator	2 Pictures		Dublin event
EU Horizon 2020	Links:	Vid: one partner		European year
	Partners	Vid: FG preparation		of citizens 2012
		Vid: FG process		
		Vid: FG in action		
		Vid: partner views		
		Vid: participant		
		Vid: Ecsite manager		
		Links:		
		Methodology pdf		
		'Practicalities' pdf		
		Mod manual pdf		
		FG script pdf		

Figure 4: Schematic Representation of the On-Line VOICES website

Note 1: FG = Focus Groups; Mod = moderators; con gp = consolidation group; rep = report; vid. = video Note 2: The 'links' noted do not include links to other pages within the site Note 3: * = all of the pages were linked to the 'press' and 'researcher' pages Moving to the main web pages, these provide a comprehensive description of the VOICES project, from its rationale to the chosen process, to those involved, to the results. The site makes good use of around a dozen short videos, which include descriptions and views of the focus group in action, and commentary from a wide range of relevant stakeholders, from members of the EU to the project coordinator, the 'third party' partners, a participant, and also one of the evaluators. Currently, all relevant external written materials are also linked to the individual pages (country reports; an interim report; the design of the process, etc.) – with the exception of the first Evaluation Report. It is to be hoped – for the sake of completeness and transparency – that both evaluation reports (the previous one, and this current one) will be added at a future date. Another positive element is the full disclosure of the relevant parties involved in the project – not just the coordinator and the Third Parties, but also the names and affiliations of the advisory group, the consolidation group, and the evaluators.

Discussion

The Visual/Visible lab is a well-designed and comprehensive attempt to communicate the VOICES project to the internet community, using multi-media to aid in making the messages compelling and interesting as well as accurately informative. It is possible that the website may be influential on certain stakeholders, particularly researchers, though it is unclear to what extent this will be accessed by the general public (though this is perhaps a point that is common to all such websites and is not meant to be a particular criticism of this one). It is anticipated that any missing information – notably, the two evaluation reports, and the final report, once concluded – will also be added to this site; there may also be opportunities to add further information on the public events (once concluded and 'written-up'), conference presentations, and press reports, as well as to integrate this website more thoroughly into the social media, through active facebook/twitter (and other) entries. However, the main caveat that needs expressing here is that, for the site to be enduringly influential, it is crucial that some active management of the site continues into the future, and that sufficient resources are made available (and responsibilities allocated) to enable this. Indeed, should the Commission fully embrace the philosophy behind VOICES, then this visual lab may serve as a seed to a more comprehensive site that might record other projects where innovative engagements processes are used to help inform (research) policy. Ultimately, time will be the judge of the success of this element of the VOICES project.

7. Evaluation of VOICES: the Perspectives of Key Stakeholders

Introduction

This chapter is concerned with impressions of the successes, shortcomings, impacts and overall lessons learned from the VOICES project, as articulated by all those who have in some way been a part of its ambit. In this we include: members of the Ecsite project team; the academic team at the Athena Institute of the VU University Amsterdam; members of DG: Research and Innovation at the European Commission and other civil servants across the European Commission who have either been in some way involved, witness to, or impacted upon by the VOICES project; expert advisors to VOICES and those involved in some way to its steer; and science communicators, principally those who acted as workshop moderators.

Approach

We undertook a comprehensive review of stakeholders' impressions, opinions and views, as they looked back on their experience of VOICES and looked forward in the context of visualizing the impacts and legacy of VOICES. Our review took the shape of 20 in-depth interviews; each interview normally having a 45-minute duration, though some exceeded an hour. All interviews were taken in a face-to-face format. The majority were organized via digital interface and through Skype, a lesser number were undertaken as part of a visit to Brussels itself.

An interview schedule was developed specifically to understand and examine every facet of the project as visible to, and understood by, those responsible for its co-ordination and delivery (the interview schedule is reproduced in the Appendix). The graphic, Figure 5 below, illustrates the points of inquiry and aspects of the VOICES project we sought to discern through this stakeholder consultation. This also provide the headings to, and substantive content of, this chapter's subsections:

1. Significance	2. Uniqueness	3. Strengths	4. Weaknesses
5. Training	6. Rationale for participation	7. Working relationships	8. Project steer
9. Dialogue & dissemination	10. Impacts: new learning	11. Changes & improvements	12. Overall impacts
13. Legacy	14. Cost- benefit	15. Successes	16. Caveats & Challenges

Figure 5: VOICES stakeholder consultation themes

Organization of material

Each sub-section of this chapter is organized in most cases, except where commentary is brief and/or minor, into a summary of headline findings and discussion, respectively. Chapter sub-sections follow the same ordering as that presented in Figure 5. A final sub-section, directly succeeding *Caveats and Challenges*, concludes the chapter and provides an overview of key messages.

In reporting stakeholder testimony we tried as much as possible to omit any identifying information that might reveal the identity of the individual being cited. The reader will find therefore that quotes are left unattributed. A condition of our speaking to stakeholders was an assurance of anonymity in the reporting process.

While some might argue that a lack of attribution correlates to a lack of transparency and dearth of contextualization, this concern is secondary to a commitment to responsible and ethical research. Furthermore, in the special circumstances of the VOICES project, it is our own belief that attribution of this kind is unnecessary where the opinions of stakeholders occur as an infused voice belonging to the VOICES community of practice.

1. Significance

Headline Findings

When asked what stakeholders understood as the significance of VOICES, responses tended to fall into three discrete categories of scale, method, and influence/impact, represented in Figure 6.

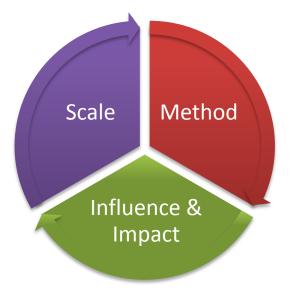


Figure 6: Significance

The significance of VOICES might also be understood in terms of significant *aspects* of the project and significant *effects*, represented in Figure 7.

Significant aspects

In terms of scale, the project was seen to be significant for the number of participating countries, citizens and number of locations involved. Matched to the scale of the project, VOICES was seen as a remarkable achievement in the context of its workshops running largely synchronously and without interruption.

A special and unprecedented aspect of VOICES was seen to be the commitment of the European Commission in using the results of VOICES and therefore its (if only tentative) expression of interest in a citizen engagement approach to policy and research.

Unsurprisingly, the sheer number of participating nations and different kinds of citizens representing each nation translated into social and cultural diversity, and therein the prospect of a broad dialogue. VOICES success was in working with such heterogeneity and in managing to create a shared dialogue and general consensus.

Significant *effects*

VOICES was commended by stakeholders for mobilizing, legitimizing and empowering citizens– and legislating their contribution and inclusion, respectively – in scientific debate.

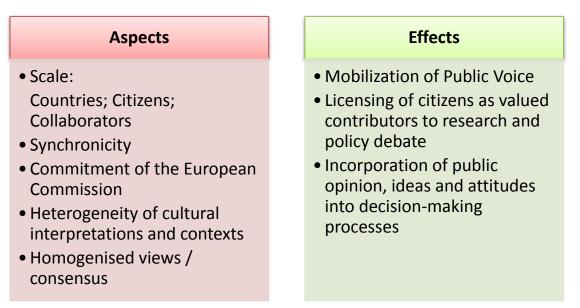


Figure 7: Aspects and effects

Discussion (Significance)

When asked what they felt the significance of the VOICES project had been stakeholders' responses collected around three principal themes: the scale of the project; the project methodology; and the influence and impact of the project on attitudes, identity and behaviour (individual and institutional).

Stakeholders referenced the ambition of the project as a pan-European, multi-agency endeavour, and more precisely, deliberative dialogue-based focus-groups co-ordinated across multiple national contexts and locations with a cadre of close to 1000 citizens of various social and cultural background:

'The European dimension – never before having worked across 27 countries at the same time . . . helping to capture different interpretations from different cultures'.

'The significance of VOICES is to be the first pilot to have solely targeted/empowered citizens to input into an European Commission R&I Work Program. Work Programs are widely consulted however this pilot has really voiced people from all backgrounds and approached them to the EC work with an interesting and useful methodology'.

The scale of the project and the ubiquity of stakeholders/users/beneficiaries was also seen to translate in a policy context, with the lessons of VOICES being disseminated and gaining traction in other divisions of the European Commission:

'The bigness of the project – we made a point to engage with other players, other services like DG Environment'.

VOICES was reported as a landmark event distinguished by its explicitly qualitative and interactional approach to public consultation on a mass scale, where large-scale citizen engagement is ordinarily achieved via survey-work:

'Scale, which we hadn't seen before. Of course we have scale through polls such as *Eurobarometer* but no precedence for scale on a face-to-face basis . . . also asking them [public citizens].'

Furthermore, it was distinguished for its creative conversational qualities – and for beginning a conversation with citizens at all – where the personal and potentially unique perspectives of citizens were drawn out and tapped:

'In the first place, VOICES started this discussion with citizens, wanting and needing their own interpretations of waste-management.'

VOICES was seen as a cross-over project combining the credibility associated with quantitative *expanse*, i.e. a large sample, with the richness and nuance afforded by qualitative *depth*. In other words, as a process of 'face-to-face' consultation on a multi-national basis, VOICES was seen to demonstrate numerical significance, though not statistical representativeness, and some level of generalizability, whilst producing a citizen response more considered, creative and critical in nature, than might be elicited by survey.

The focus-group approach was also seen as characterized by a freedom of creative expression aiding citizen's elicitation of new ideas:

'This was not a typical consultation. Participants were much freer to elicit new opinions. This helped in the emergence of all sorts of new suggestions.'

The cross-over of expanse or breadth and depth, was also seen to produce findings that were more personalized by nature, more intimately reflecting citizen's perspectives – and at that, an enriched perspective, enhanced by shared dialogue and collective problem-solving – and ostensibly more informative and detailed in citizen's characterization of their own and different locales/countries' approaches to waste-management. Stakeholders also stated that the method of consultation provided for a different kind of citizen participant – other than self-selecting types:

'This differed from online consultation which tends to attract 'the usual suspects', who do not always provide a good representation of citizens in Europe.'

Because of this, VOICES was seen to have more evenly tapped into the European public's mindset, connecting with those less engaged or even disengaged with a) the issues of waste-management 2) citizen dialogue concerning waste-management:

'It is one of the best instruments I can think of in achieving 'breadth' and 'depth'.

Direct engagement with 'non-traditional' professional and/or policy cohorts, was also viewed by stakeholders as a distinguishing aspect of the project, which also signified the plurality and heterogeneity of those lending their voices and being provided a platform with which to speak and be heard.

The scale of VOICES was also considered in conjunction with the size of its data set and its collection within a compressed timeframe, conducted synchronously across multiple locations:

'... the size of the project: the participation in all these countries in such a small space of time and at the same time, while dealing with an amazing amount of content.'

As a vehicle for change, stakeholders reflected that VOICES had instigated capacity and confidence building for those involved in its co-ordination and delivery. It was felt that those in the science communication community especially had been provided an opportunity to experiment with a new 'bottom-up' and participatory methodology – something ground-breaking and precedent setting – and that they had proven to themselves that they could engage in such a way and wanted to:

'The participatory approach is still something quite novel among science centres'.

'Having worked in science communication for 10 years you hear a lot about a bottom-up approach . . . always a lot of talk but had never experienced, until now.'

'What was special was the use of science centres for the activity and that they were able to do it. VOICES showed that they wanted to take up this new role, you know, we're hear to listen to citizens. For some this was a real turn around.'

Through direct experimentation science communicators felt that they had been provided an opportunity to identify and reflect on undiscovered and/or unconsidered aspects of their professional practice and identity:

'Science centres discovered the participatory within themselves. Very few had experienced a role of this kind with local communities; governments; research institutions . . .'

VOICES was in this context considered significant as a process of experiential learning and professional enrichment, revealing and/or mirroring to science communicators not only the potential and prospective impact(s) of their contribution to participatory engagement but the legitimacy and merit of this action:

'Talking with other museums involved, they were aware that this [VOICES] was something very special but weren't sure that they could operate in this way. For others, they were not clear how they would work this approach into general practice and governance'.

Finally, the significance of VOICES was seen to be encapsulated in the surprise of citizens in realizing the investment being made in them through VOICES and the nature of their role and responsibility as licensed contributors affecting policy change:

'Citizens were really surprised that their voices were being listened to'.

'When they saw the report and attended the [dissemination] event they were especially surprised'.

'Not too many times when waste is worked up with politicians'.

2. Uniqueness

Headline Findings

Stakeholders reported their views regarding the uniqueness of VOICES as being focused around its pan-European dimension and the fact that 27 countries had been involved in dialogue around a common concern. Concurrently, stakeholders commented on the fact that such dialogue had

involved multiple languages and was as such an exercise in 'universal' citizen engagement. Other aspects seen to distinguish the project centred on the consistency of the project methodology across these locales; the focus on citizen participation as an expression of citizen empowerment and the mobilization of democratic science governance; scientific transparency and openness; and perhaps the defining aspect of the project, and that which provoked the surprise and delight of many, the commitment by the European Commission to use the projects results in its strategy and forwardthinking. Figure 8 represents the uniqueness concept.

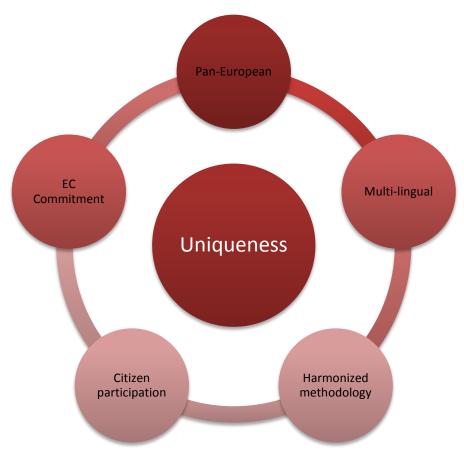


Figure 8: Uniqueness

Discussion

Where stakeholders felt that VOICES was significant for its scale (ambition and vision), they cited its 'translational' efficiency as a unique success. We understood 'translational efficiency' to be the extent by which the methodology enjoyed consistent and equal success, despite variations of language and culture and specificities of local contexts, across participating countries:

'What has been special? That is has been pan-European; multi-lingual; using the same methodology across all the different countries – harmonization'.

VOICES was deemed to be unique in facilitating deliberations across multiple national/regional/local contexts; working with a diverse assortment of public citizens with varying perspectives, practices and views on waste-management; and yet still managing to achieve some measure of consensus in terms of forward/future strategy.

Whilst stakeholders understood that VOICES was *significant* for its participatory methodology, it was felt to be *unique* in that citizens' participation was not merely symbolic, and a gesture that lent the appearance of participatory democracy, but substantive, in that they were actively contributing to policy deliberations and formulations:

'The involvement of citizens in the programming process of the Commission. This was not just a simple consultation but a collective brain-storming'.

'The pilot VOICES is unique from the viewpoint that citizens (not necessarily and exclusively from the business and/or research community) could learn about one of the main challenges that Europe is facing from a Research and Innovation point of view (Waste) and also could contribute by sharing their concerns, questions and ideas to the European R&I program Work Program 2014'.

A transition from citizens' symbolic to substantive contribution to policy development was seen by some as a move, instigated by the Commission itself, towards embedding or as the quote below reads 'institutionalizing' citizen engagement within policy-making processes:

'First time we have seen firm commitment at the highest level to implement findings . . . a first step to institutionalize citizen engagement'.

'This is the first time a consultative process has connected from the beginning, with policy makers listening to the outputs'.

Stakeholders opined that the Commission's outward commitment to the integration of the outputs of the citizen workshops into its decision-making was analogous to an assertion of the efficacy and relevance of participatory democracy. Concurrently, the Commission's investment in VOICES was seen to demonstrate a willingness to reform and ameliorate policy-development processes through an increased accent on openness, transparency and the role of citizens as licensed, and importantly, *valued*, contributors of policy deliberation and strategization:

'... what is really special is that the European Commission started this and had a commitment to do something with it for policy'.

In another sense, VOICES was seen as a mechanism, that empowered citizens' to speak and be heard – a catalyst mobilizing and sustaining the public voice – whilst drawing together and solidifying the science 'and', or perhaps 'with', society nexus:

'People could really voice their opinion'.

'... something special for science and society ... it's a major achievement'.

That citizen participants were surprised by the rationalization and nature of their involvement within the workshops and a subsequent invitation to dissemination events, attests to the quality of VOICES as a landmark event:

'Citizens were surprised to be asked by the European Commission and even more surprised to attend the dissemination event'.

Reference was also made by stakeholders to the innovativeness of the project as a record of events, which covered its entire lifespan, from inception to conclusion:

'We were innovative in documenting the entire project'.

3. Strengths in the project approach

Headline Findings

Stakeholders were largely complimentary of the project methodology and the involvement of the various contributors. The project's strengths were seen to focus on the successful contribution of the science centres/museums and the academic team at the Athena Institute of the VU University Amsterdam. The project's 'bottom-up' approach and focus on the empowerment of citizens as licensed contributors of scientific debate were highly regarded features as was the project's capacity for new learning engendered via direct experience. Other aspects of the project's content and design included the training of moderators (reported on separately in section 6) and the decision for continuous evaluation, supporting formative learning. The strengths are represented in Figure 9.



Figure 9: Strengths

Discussion

Stakeholders were unanimous in recommending the project methodology as one of the core aspects underpinning the success of VOICES. The role of science centres/museums as spaces for, and facilitators of, the deliberative workshops was also in our opinion (as seasoned observers of public dialogue initiatives) a distinguishing aspect deserving of consideration by those sponsoring public engagement initiatives. It is worth noting that, in our own conversations with Sciencewise (the UK organization for public dialogue in emerging and controversial science and technology for policy purposes) we have advocated for the increased visibility and permanence of professional science communicators (working within science centres/museums), in moderating public participation in science policy deliberations. Not exactly a strength *per se*, more of a condition of the project, yet one which allowed its success, the choice of Ecsite as the co-ordinating organization was deemed to be especially significant as 'one of the few organisations able to do this'. A more explicit strength in this context was that VOICES did not have to create a network for its implementation, it instead had a 'running start' where it was able to plug in to 'an existing mesh, something already established and connected'.

VOICES was viewed by stakeholders as an opportunity for critical reflection, where science centres were allowed to visualize a different kind of role and interface with citizens and to entertain the plausibility of this interface. As conduits or catalysts of the science with society nexus, science centres were also seen to have discovered and developed a growing enthusiasm for this role:

'The use of science centres for the activity and that they were able to do it. It [VOICES] showed they want to take up this new role: "We're here to listen to citizens". . . for some this was a real turn-around'.

Workshop moderators were not only praised for their technical proficiency in running sessions but the enthusiasm and energy they brought and instilled into citizen participants, and concurrently an enthusiasm and energy as reflexive practitioners engaged in a process of formative learning:

'Moderators were really enthusiastic . . . it gave them a new way to approach their public audience'.

The fact that VOICES began with citizen involvement was seen as a major strength and reinforced the claims of the project as being authentically 'bottom-up':

'... started with discussion with citizens and their interpretation of waste management'.

The benefits of a 'bottom-up' or 'upstream' approach to citizen engagement was seen to be, understandably, predicated less on what citizens might offer in terms of 'scientific' input and instead the value of their socially oriented contribution in understanding and commenting on the application of the science:

'It was hard for citizens to come up with new technological ideas but their contribution was significant in terms of their ideas around the *use* of this technology – the application of technology. There were a range of ideas that were very useful – people testifying to how much they need these things'.

Despite variations in language (and therein considerations of translation) and divergences/anomalies across national contexts, VOICES was praised for its consistency and uniformity of implementation and for producing generalizable results:

'We did it exactly the same way in all 27 countries achieving homogeneity (and generalizability)'

The success of the project's implementation was affirmed, it was felt, by the degree to which those taking part within the workshops expressed satisfaction and enjoyment:

'The focus group process worked really well . . . it was implemented really well and citizen participants enjoyed them'.

Much of the fluency of the workshops (and citizens' statements of satisfaction), it was felt, was owed to the rigour and comprehensiveness of the training for facilitators, which preceded the workshops; a precise, user-friendly, and ultimately multi-purpose methodology:

'Citizen involvement was well designed; the training in Brussels was very useful and is something now being used in other activities. We are using the methodology in science centres'.

'The methodology being worked up in museums was fantastic . . . the way the focus groups were structured was fantastic, especially taking into account everything that could go wrong . . . the way we collected information was fantastic and well-tailored to work in museums'.

More generally, the project was praised for the cohesiveness and/or complementarity of all its constituent parts:

'The network . . . infrastructure and capacity: an advisory board; Athena in adapting and perfecting the methodology'.

As previous testimonials reveal, a major strength of the project was the complementarity of its methodology to the working practice of science centres/museums, which culminated with what we might think of as an 'inheritance-impact' and the methodology being appropriated and re-purposed by museums for other forms of citizen participation activity.

The contribution of the academic team at the Athena Institute of the VU University Amsterdam, in scaffolding facilitators, was also praised by stakeholders, as was the quality of facilitator's instructional materials:

'The material provided to facilitators and the help from the team from the university in Amsterdam were excellent'.

'The Athena group's involvement . . . the fact that they were based in Amsterdam helped'.

Despite enormous constraints of time and the huge challenge of co-ordinating so many participating organizations and individuals, the project was completed on schedule. It was however considered that a push for completion and fulfilling the project aims and objectives in such a limited window, resulted in VOICES, through sheer necessity, being managed on a more 'top-down' less 'bottom-up' basis:

'Logistically, the project was delivered on time and scale which was not easy given the number of organisations involved . . . the trade-off however was that it was more 'top-down'.

Whilst stakeholders identified the participatory and deliberative aspects of VOICES as distinctive (being significant and unique), they also hinted at what they recognized to be the higher status of collective 'offline' (as opposed to 'online') citizen deliberation and dialogue. In so doing they also intimated a distinction between citizen consultation, analogous with survey work, and citizens engaged within the governance of science and generation of new ideas and new learning, engendered through public deliberation and dialogue exercises.

'Face-to-face is something that can't be replaced. It provides a quality that other processes are without'.

'[VOICES] was so far different from a digital consultation which tends to without the collective learning and sharing'.

'Here you could see the difference. People were getting together to discuss something different to that just done on the Internet . . . This was a process building something'.

'The actual 'real' involvement of citizens what was strong'.

'We were really hands-on - it was very experientially driven'.

As a multi-national and multi-location project, VOICES was seen to invoke and mobilize collective citizenship – empowering citizens through shared ownership of a collective, multi-dimensional voice:

'VOICES had an empowering effect, providing permission and space for people from different worlds to share something in excitement'.

'Same method in different countries . . . getting people to think in the same way . . . finding that people think in similar ways . . . a common need from North to South'.

As the extracts above demonstrate VOICES was seen to provide a platform for citizens to locate and articulate their own localized experiences and personalized perspectives on waste-management, yet through a delocalized and multi-national lens. In other words, VOICES encouraged participants' sharing of their own 'unique' experiences and varying perspectives, augmenting the potential for creative and imaginative problem-solving, brainstorming and strategy-making within the workshops and thereafter boosting the potential yield of citizens' deliberative output (new ideas, suggestions and propositions).

At the same time, stakeholders appear to suggest that a focus on collective deliberation, served to break down the boundaries of local and national contextualizations of waste-management and encultured a sense of participants responding not just to a problem specific – for instance – to Lisbon, or for that matter Portugal, but to all the member states of the European Union. VOICES was as such deemed to be successful in forging a *European* response to the problem of waste-management. Its strength then was in identifying the porosity of national boundaries and the merit of shared-solution making:

'Achieved the goal of providing citizens with a voice . . . citizens were asked to think collectively'.

VOICES was also then in part, an exercise that brought citizens in Europe closer together, whilst making the European Commission appear more proximate and relevant. VOICES was also an exercise in making real and apparent the issue of waste-management and was seen in such context as a process catalyzing responsible and engaged citizenship among participants:

'Helping citizens approach these things closer to their own, personal realities'.

'For citizens to think, "I have a say and I have direct access to Europe'.

Reference was made by stakeholders to the permanency, and we might therefore infer, resonance, of participants' contributions, in that these articulations were committed to record and therefore combined to constitute a body of evidence:

'People's ideas in VOICES were written done providing a collective body of knowledge'.

Finally, it was very pleasing to note the affirmation among stakeholders of continuous evaluation and its contribution to the formative learning of the project: 'A huge plus was the continuous evaluation of the project, which in my experience is not always the case'.

4. Weaknesses in the project approach

Headline Findings

Three core aspects were identified by stakeholders as destabilizing the project's success. These were identified as a *lack of time and/or the mismanagement of time* (for instance an imbalance in the allocation of time to specific parts of the project or a failure to accurately estimate the time-requirements of these); issues of cost, specific to translation of materials and the cost of out-sourcing recruitment of participants through agencies; and a lack of interface and continuing dialogue between citizens, experts and policy makers (see Figure 10). The issue of dialogue is taken up in a later section of this chapter, where it is considered in the context of the project's dissemination events.

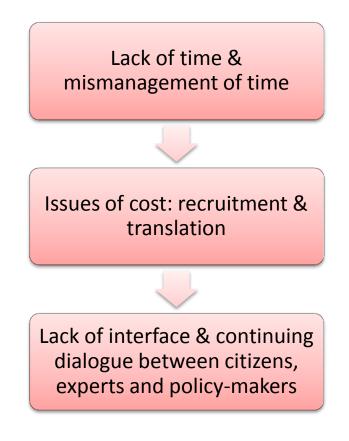


Figure 10: Weaknesses

The issue of time, in all of these, is arguably the most pertinent, ubiquitous, if not overarching deficiency of the project and one, which might be further segmented as in Figure 11.

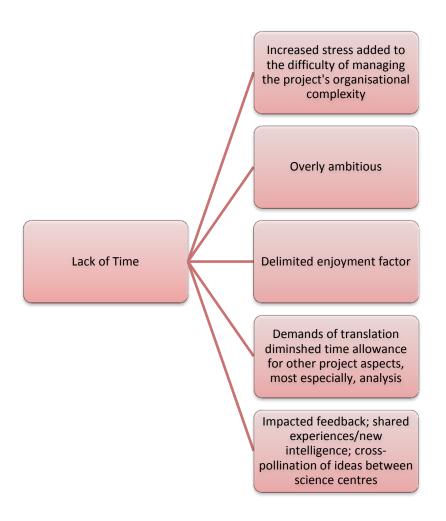


Figure 11: Weaknesses

Discussion

Where stakeholders considered the significance, uniqueness and strength of the VOICES project's method and approach in being its depth and breadth, the condition of its being pan-European was also regarded as, if not a weakness, an obstacle to its success, where multiple project components involving multiple partners across multiple locations (and therein time-zones) presented, what appeared at times, to be an insurmountable challenge.

Language – or rather the multiplicity of languages used across the various workshop locations – was seen to represent a particular challenge, not least in terms of ensuring consistency in terms of

workshop materials, but also regarding reliability in terms of what was then reported on from the various workshops:

'... all the different languages was a real struggle ... translation of script whilst making sure content was still the same'.

The cost implication of translating materials was also viewed as a major hindrance to the project's budget and a significant drain on time.

A lack of time and an urgency in delivering final results was seen to have curtailed participants' overall enjoyment of the project process and added to the stress of managing its organizational complexity. It was also felt that a greater allocation of time might have made for more seamless transitions between project strands:

'... it was an organizational nightmare exacerbated by the timeframe – having to deliver overall results in early June'.

'The timing. The project had to be done so fast. It took away a little bit the pleasure . . . there wasn't enough time to enjoy the project'.

'From training to the focus groups to feeding back we suffered from a lack of time'.

The lack of time combined with the pressures of translation also meant that other aspects of the project suffered from less attention:

From the data analysis perspective: ' . . . 15 researchers analyzing results of different countries within a 5 week period and with translation eating into time for analysis . . . it was a major achievement to meet the deadline'.

Stakeholders also commented that a greater allocation of time (and increased budget) for dissemination would have improved the reach and significance of the project findings and concurrently, project impacts:

'... more money to prolong the project so that dissemination is much more prolonged and the audience extended'.

A lack of time was also blamed for and correlated to uninvited and unintended gaps in shared dialogue and an opportunity for collective problem-solving:

'... so many centres were involved yet there was little opportunity for input and feedback. However the project did succeed in achieving proof-of-concept.'

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In this sense, stakeholders also reported that restrictions of time meant that the expertise available and on offer was not sufficiently exploited, expertise which might have enriched the project's process, outputs and impacts and further augmented the scope of the project as an exercise in collective learning:

'... it was a missed opportunity in not making better use of a lot of people with information and knowledge on citizen-science'.

It was felt that a more generous allocation of time would have greatly benefitted the analysis phase of the project:

'We were too pressed for time and needed more time for analysis. This would have provided more emphasis to the results, more time to build the results and a chance to trickle down'.

Issues in the allocation of time were also reported in the context of the focus groups' duration, where an original allocation of two hours was deemed to be insufficient and therefore extended by an hour. It was felt, however, that this 50% increase in the length of the focus groups represented an unaccounted for 50% increase in the focus group workload:

'The Commission insisted that focus groups at 2 hours were not long enough. A compromise was reached at 3hours but this resulted in thousands of additional transcription pages'.

Despite this extension, a feeling persisted among some stakeholders that 'the focus groups were too short'.

It was also argued by some that the focus groups '. . . suffered from an informational deficit on waste'.

As will be discussed in section 10 of this chapter, a lack of preparation and lead-in time was also held to be responsible for glitches in the project's organization and co-ordination:

'The consolidation group meeting would have benefitted from better organization and more interaction with the Commission'.

'The co-ordination of dissemination and other practical issues such as bringing stakeholders together. . . . Urban waste was a tricky subject for politicians.

Not so much a weakness of the project approach but certainly a constraint, respondents regularly pointed to the ambition of the project, especially in the context of its timeframe:

'... we wanted results for 2014 and at a time when we're designing the new framework contract'.

In cost terms,

'Too much was spent on recruitment agencies. We had to pay market-level prices to get the agencies on-board'.

Furthering the cost-benefit analysis some complained that the focus groups had produced a poor yield of new ideas – specific to science:

'Not enough novel ideas for science'.

A focus on building a face-to-face citizen/expertinterface might have improved not only a perception of citizens' lack of ideas but also the esteem with which experts courted these ideas. In such context:

'It was disappointing to see experts/scientists disparage citizens' contributions. VOICES would have benefitted from direct contact'.

By extension, VOICES might have mobilized as a reconciliatory process facilitating a harmonized interface between scientific and citizen constituencies. In this context, a significant weakness of the project was in insulating citizens from other parts of the project process and governance. It was felt that the project's claim to being authentically 'upstream' was compromised by too many other elements of the project being handled in a top-down way and a failure to connect citizens to other project participants such as expert and consolidation groups:

'The consolidation group filtering 100 suggestions down to 5 or 10 would have worked better with the involvement of citizens. Then all sorts of decisions taken out of the hands of citizens meant the project could never really claim to be an exercise in co-production'.

Finally, not quite a weakness as opposed to a characteristic of any pilot or experimental process, stakeholders pointed to a 'nervousness' emanating from the Commission and a tendency to be, in the context of the project method, 'distracted by 'online' novelties.

This kind of nervousness was seen to stem from the:

'Science and Society' unit '... being under considerable and constant pressure to prove their added-value. Perhaps they also lacked confidence from not having undertaken a project of this kind before'.

Such 'nervousness' should, however, be couched in the terms of VOICES as a pilot, and in everyway a new and unexperienced encounter for ALL those involved. It would seem strange were those participating organizations/individuals not to manifest some degree of 'nervousness' when involved in such a unique – certainly in scale and potential policy significance – project.

5. Training

Stakeholders stated that the training provided prior to and for the purpose of the workshops was of a high quality. There was, however, some variation of opinion in terms of the intensity of the training process: while some felt it maximized learning, others felt it was concentrated and crammed (see Figure 12).

It was felt that the right balance between the theoretical and practical aspects of the training was achieved, with stakeholders stating that instruction was theoretically informed yet not theoretically subsumed, with an explicit focus and emphasis on the practical aspects of the methodology and workshop approach.

The workshop training sessions were also viewed as a networking and relationship building opportunity, providing an opportunity for facilitators from different science centres/museums to dialogue later on the project process.

+

- Relationship and network building
- Practically oriented
- Intensity
- Involved highly participatory

Lack of time Felt rushed

Figure 12: Training

For the majority of focus group facilitators the training preceding the workshops was felt to be useful in terms of building new practical competencies, new network connections and potential collaborators: 'The training sessions allowed me to build relationships with those from other centres and helped further our network'

There was a perception of the training having achieved the right balance between theory and practice, with the former providing context and foundation yet without over-indulgence and overelaboration:

'The training was very practical. Theory was thankfully kept to a minimum and just a useful introduction'.

The training was recommended by some for the intensity and breadth of its coverage and for engendering a positive and rewarding culture of interaction:

'It was very intense and very involved. There was an incredible level of participation and of participants asking questions'.

Others however felt that much like other aspects of the overall VOICES experience, the training component was time impoverished:

'... more time was required for the training. It felt quite rushed'.

6. A rationale for participation

Headline Findings

A variety of reasons were put forward for participating in the organization and delivery of the VOICES project. As illustrated in Figure 13, these fell into four main categories and an additional category, which we interpret as a retrospective rationalization and as a consequence of the project's success. Respondents stated that their involvement had occurred on the basis of VOICES as an opportunity for learning and organizational enrichment; an opportunity to embed public engagement more firmly and expansively across science museums and centres; an opportunity to cement the place of public engagement within the European Commission's Horizon 2020 research framework, and accordingly confirm the significance and integralism of public engagement to the research process; as an opportunity to increase the status of public engagement within the mindset of European policy makers; and arguably (and retrospectively), as an opportunity to bring Europe together in common discussion.

Organisational Enrichment Embedding PE in nuseums/centres Embedding PE in research - H2020

Embedding PE in olicy/ influencing policy

Localizing Europe

Figure 13: Rationale for participation

Discussion

Much of the success of the VOICES project appears to stem from a sense of collective mission and a commitment and willingness among all parties for greater citizen participation and a stronger more resilient science and society nexus:

'In the context of science and society it was now time to really involve citizens'.

Yet, our further probing of respondents in the context of this commitment revealed among them a sense of obligation and duty as advocates for public engagement – ' this is what we do or would like to do more of' – and a sense of strategic importance – in 'changing the mindset of the Commission' – particularly at a time of events such as the formalization of Horizon 2020:

"... a shared goal of responsible research and innovation and a strong vision of public engagement ... public engagement as a core mission".

'... give public engagement a new life in policy and innovation. There was also a link to the European Year of the Citizen and of course the new Framework programme'.

'VOICES was a vehicle to justify proposal for public engagement to be embedded across the board of Horizon 2020'.

Others however saw their involvement in more strategic terms and in the context of what might be gained from their involvement, in terms of learning new things and leveraging increased influence:

' We saw the added-value in the process'.

'Intended to show how to run a good public engagement exercise and provide guidance for training and indicative targets'.

' It represented an opportunity to influence science policy and the governance within science museums and centres'.

Finally, stakeholders justified their role in participating, as a contribution to localizing Europe, drawing the policy hub of Brussels closer to local, regional and national contexts, and harmonizing the view and attitudes, not only of non-expert and expert coteries, but citizens from across the continent:

'Listening to citizens in facing societal challenges. Brining Europe closer to its citizens, localizing . . . Brussels being in your own village'.

7. Relationships

Headline Findings

Stakeholders stated that the working relationships between and across the various organizations and individuals contributing to the delivery of VOICES were successfully managed. As illustrated in Figure 14, the fluency of collaboration across the VOICES consortium was attributed to, first and foremost, *trust* between all members; a shared vision and commitment to meeting the aims and objectives of the project; responsiveness and flexibility to changing project conditions and demands; a highly professional approach from Ecsite as the project co-ordinator and clarity in their messaging and instruction to other project partners; and in some instances the proximity of project partners not least the project co-ordinator and academic team.

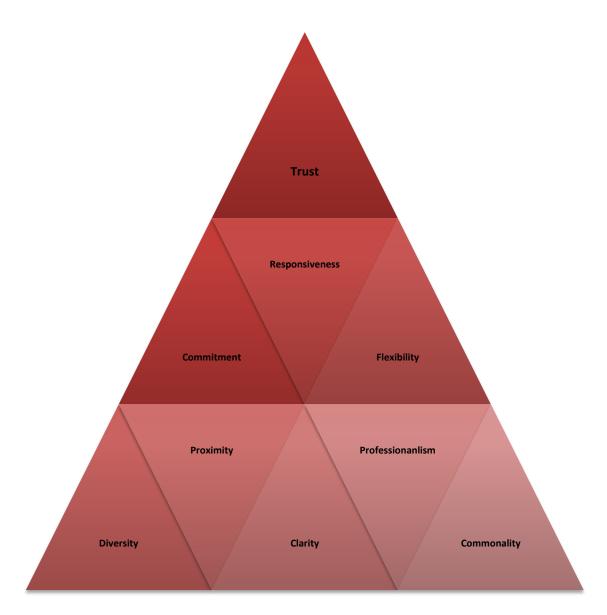


Figure 14: Relationships

Discussion

Building and maintaining effective and working relationships was seen to be largely unproblematic and untroublesome – 'it was not a challenge'.

The strength of inter/trans-party relationships is exemplified by the various agencies/individuals working for a significant time period without a contract and on good faith³:

'Ecsite didn't get contracts out until June. Everyone had to participate without a contract and work on good faith. Science museums having to work without a contract was clearly

³ We understand that the Grant Agreement – the main and only official contract – was signed by the European Commission in May and received by Ecsite 23rd May 2013.

extremely difficult but is an indication of how much trust and commitment there was to the project from all parties'.

The challenge of managing such a complex, multi-dimensional project across so many different locations was seen to be well-met by Ecsite as the project co-ordinator, who were championed for their degree of professionalism, clarity and being easy to work with:

'Ecsite were very proficient, professional and easy to work with'

'The chain of command was quite clear. Our personal relationship with Ecsite was very good ... they're very effective'.

Changes to the project specification may well have caused severe disruption and potential derailment, however, this seems to have been avoided not only because of the professionalism and investment of Ecsite in seeing through the project through to its successful conclusion, but the flexibility, responsiveness and a sense of common mission among all project members:

'We could do things at the last minute and they were done. Because of time restrictions we had to be able to do things 'on the fly'.

'The teams worked closely and worked well. They tried to make themselves as available as possible.... There was no problem in finding a common language'.

Finally, it was felt that the diversity of the project's membership was integral to its success and provided for all levels of expertise:

'A successful partnership. The diversity of the group was essential'.

8a. Project steering: the Advisory Group

Headline Findings

Stakeholders commented that the project's advisors had provided essential content and methodological and strategic input ameliorating the project process and the quality of its outputs. Concurrently, it was felt the input of experts, and certainly those of the advisory group, had given greater credibility and authority to many of the early-stage and key project decisions and had therefore increased the confidence of the project sponsor.

Discussion

The project advisory group was viewed as having made a significant contribution providing, for instance, 'very useful feedback' to the research team:

"... methodological specialists were very helpful in improving the set-up ... Environmental specialists were very helpful in terms of content and putting outputs into context".

'Experts added value and made it easier for the Commission to take on advices'.

However, the extent to which the advisory group was used in the course of the project was felt to have been inadequate⁴. It was similarly felt that the limited involvement of the advisory group consequently hampered an exchange and flow of knowledge on waste management itself:

'Ecsite only slated one advisory meeting. There was no one dealing with

waste-management research'. There was a lack of knowledge of research in the wastemanagement field'.

8b. Project steering: the Consolidation Group

Headline Findings

The consolidation group was viewed as a useful and necessary step in the interpretation and distillation of citizen input – and, as such, a value-added stage of data analysis. The quality of its process and outputs, however, was perceived to have been hindered by issues of design and co-ordination. It was felt, for instance, that the consolidation group meeting, which lasted 2 days, made unreasonable demands of its participants, in so much as their workload was overly ambitious and unachievable in the time provided, resulting in some members of the group continuing to develop their response after the meeting and at distance. The intensity of the workload, it was felt, was also problematized by a lack of firm and clear facilitation. Stakeholders also raised questions with regards to gaps in the group's membership, where – consequent to having been assembled in haste – some first-choice candidates appeared to be missing - presumably unable to attend. Figure 15 represents some of the contributions and considerations relevant to the consolidation group.

⁴ We are, however, cognisant of two occasions where the Advisory group were called upon: initially, on 8th February 2013, and a meeting in Brussels, where members validated the project methodology, the approach to waste management, and more generally the social innovation aspects; and a second time at the end of May 2013 when members were provided country reports and overall findings and asked for feedback.

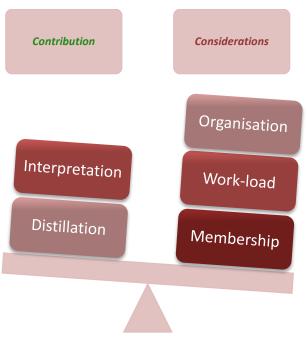


Figure 15: Consolidation group

Discussion

The consolidation group meeting, which we attended as silent observers and discuss in Chapter 3 of this report, was habitually identified by respondents as problematic, mainly on the basis of a lack of organization and organizational/preparation time and a lack of clarity, apropos, who was responsible for its co-ordination and facilitation. Contributing factors to this were a delay in confirming participants, and in not having succeeded in attracting all the 'right' or preferred participants – due in part to a haste in scheduling and a restrictive timetable under which the consolidation meeting was brought into being.

Respondents questioned whether:

'... we got the best experts? Did we get the first choice of experts? It's doubtful because of the restrictions of time and some invitations only being sent a week before the event; delayed because of in-house restrictions'.

They also observed that:

'... the consolidation group suffered from a lack of preparation – the group was supposed to be bigger and some members couldn't attend each day'.

There was further a question raised by stakeholders with regards to the suitability of those populating the consolidation group and their capacity as readers of the public:

'Are these the best people to translate public opinion'?

At the point where participants for the meeting had been confirmed, there was also a reported lack of clarity in terms of 'what to do at the meeting and what to ask participants'. As a consequence, respondents surmised that the meeting resulted in being more *ad hoc* and improvisational in the terms of its structure and development: 'It was improvised and strange'.

It was also viewed as 'a huge exercise for 10 over 2 days'.

Nevertheless, respondents claimed that the consolidation meeting was 'helpful' as an opportunity with which 'to look at the data and refine results'.

'The consolidation group was a necessary step, a step towards institutionalizing. It provided a legitimizing effect'.

9. Dialogue and dissemination

Headline Findings

It was felt that whilst the project had successfully managed to invoke the public voice and mobilize citizens in scientific discussion, the extent to which VOICES could be claimed as pervasively and/or persistently dialogical or as a continuing *process* of dialogue including citizens, researchers/experts and policy-makers, less dialogue *event*, was questionable. It was however recognized that the pan-European dimension of VOICES, curtailed the prospect, and restricted an ability to manage – certainly in a face-to-face context – ubiquitous dialogue. Stakeholders were nonetheless of the opinion that the dissemination events, in particular, represented a missed opportunity for continuing and building upon the dialogue begun in the workshops.

Discussion

One respondent argued that VOICES was less dialogical than other similar kinds of public engagement initiatives. However, '... on the basis of this being EU-wide, a greater focus on dialogue would have been unmanageable'.

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It was advised that in this context a more explicit focus on dialogue activity would be best sequenced after the bulk of consultation activity – though clearly this kind of dialogue would be characterized more as dissemination and less as an opportunity for extended deliberation.

The dissemination events that followed the main consultation activity presented in part an opportunity for dialogue. However from our own observations of the dissemination events (please see separate chapter detailing these), these were more situated and arguably attended as transmission of findings.

One respondent stated that the dissemination events could have been better exploited for deliberative purposes and as an opportunity for continuing an extended dialogue – not least of course with focus group participants.

It was commented that without follow-on finance incentivization – even travel and subsistence subsidy – '... it was a challenge to get more of the focus-group participants involved'.

One recommendation therefore was for the incorporation, in any follow-up to the VOICES project, of a targeted follow-up group.

One respondent felt that incentivized recruitment impaired the prospect of building continuous deliberative dialogue and a community of invested dialoguers:

"... this kind of recruitment doesn't lend itself to attracting those that might come back. Whilst I recognized the need for an unbiased sample, this kind of strategy is not ideal for building that community. This would need both those self-selecting and those incentivised".

That said the dissemination events were considered successful where they had broadcast the achievements and outputs of VOICES to a new audience. In Dublin for instance, the Science Gallery dissemination event benefitted from an attendance of 8000 patrons.

However, for some, the dissemination events were imprecisely scheduled:

'The reports only arrived two days before the dissemination event. It [VOICES] therefore wasn't the focus'.

10. Impacts: New learning

Headline Findings

Stakeholders identified five primary categories of impact related to a theme of new learning, illustrated below in Figure 16.

To begin with, it was felt that VOICES had operated as a vehicle of empowerment not only by allowing members of the citizen workshops an opportunity to speak and be heard – and thereafter recognize their contribution in the context of directly informing Commission policy – but also in establishing a precedent for the importance of citizen inclusion in policy and research related decision-making processes. VOICES confirmed that public engagement for policy purposes is not, as is unfortunately commonly perceived, an exercise in public relations, which intimates participatory democracy, but an activity which substantiates participatory democracy. In other words, VOICES transcended a view of public engagement as the appearance of involved and active citizenship by placing citizens at the fulcrum of policy discussions and development. VOICES confirmed to the public the value and gravity of public engagement as integral to the democratic governance of science and as an explicit manifestation of their rights of active citizenship.

Stakeholders also identified the contribution of VOICES in adding to the professional repertoires (knowledge, understanding and practice) of the science communication and policy communities. VOICES was seen to have stimulated new professional learning and enriched practice fused through increased dialogue and knowledge share between constituents (for example different science centres), and the emergence of a more co-operative and better-linked 'community-of-practice'.

VOICES had also revealed to science centres a new methodological approach, suitable for other kinds of participatory activity.

Finally, VOICES was seen to have connected with a different entry point to thinking about and devising strategy for waste-management, this being at the level of the 'household'. In this context, it was felt that VOICES had demonstrated the worth of research connecting with its stakeholders and research being informed and taking its lead, 'bottom-up'.

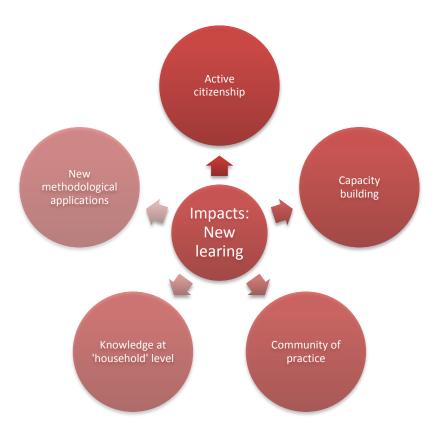


Figure 16: New learning

Discussion

VOICES was viewed by stakeholders to have operated as an exercise in capacity building, the lessons from which had now been integrated into working practice:

'For the science centres the focus group approach was seen as very powerful . . . we have seen how it has been incorporated by some, into their normal way of working'.

VOICES was seen to have added great value to project members' methodological repertoire by introducing a model of participatory engagement, transferable and applicable to other aspects of science communication activity such as evaluation. Crucially, it was felt that VOICES had provided a unique opportunity and requisite conditions for science communicators to experiment with a participatory methodology; find the confidence and self-belief through practice in its application and a self-assurance in branching out from more qualitatively limited methods such as audience exitpolls; and identify how the methodology was relevant to and might be used to scaffold and enrich other aspects of working practice:

'Social methodologies can be done on such a wide level. . . this reveals the potential to move away from surveys'.

'Using in the evaluation of projects . . . moving from questionnaire to focus group'.

'Now we know the methodology we're using it for our own focus groups'.

As a process of experiential and direct learning, VOICES was seen to have altered/improved attitudes, particularly among those in the science communication sector whose notions of participatory action were prior to VOICES more conservative and limited in nature:

'I think this was a great opportunity for science communicators, specifically those in science museums and centres who are not really strong in participatory attitudes and focus their communication in more educational ways; leading a process of their own'.

Furthermore, VOICES was seen to have increased the status of the science communication community in policy terms:

'For Ecsite and our family of science centres, this has raised our profile. VOICES has shown what science centres can do and are capable of doing'.

VOICES was also seen as means of opening up multiple new conversations and conversational pathways, forging new prospects for co-operation and collaboration between science museums:

'Some museums involved are now talking to each other and benefitting from shared learning'.

VOICES not only enriched the capacity of science communicators to talk amongst themselves and to the public, but positively impacted the confidence and capacity of citizens to engage in collective discussion, with those from varying and disparate backgrounds (and levels of knowledge), whom they might not ever normally interact with, certainly for the purpose of scientific discussion. In building a sense of efficacy and entitlement of citizens as contributors to scientific debate, VOICES was also seen to have augmented citizens' confidence in the legitimacy of the public engagement process itself:

'For citizens involved, the project was very useful, who ordinarily see their involvement in terms of polling and voting and this being the only opportunity for participation . . . [VOICES harnessed] their ability to discuss things in deeper ways and in a peer-to-peer discussion, which was recorded, analysed and then taken to the level of the European Commission . . . This convinced them that this wasn't just another game'.

VOICES was also heralded for the originality of its learning and its influence therein, for one, on its sponsor:

'For the European Commission, this was totally new, I suspect, a big learning process'.

'VOICES reinforced values within the unit. And for those not working in 'Science and Society', the experience may have influenced values'.

Stakeholders stated that VOICES demonstrated, in research terms, the value of a 'bottom-up' and stakeholder-led approach to research:

'Citizens brought in a new perspective at the household level. This contrasts with most innovation, which tends to be more 'end of pipe'. The household level is rarely discussed . . . environmental scientists appeared initially resistant then began to buy into household learning, providing a new perspective'.

Furthermore, VOICES was seen to have intensified a focus on the plausibility and importance of citizen participation as a vehicle for, and assurance of, responsible research and innovation:

'[VOICES] has shown that these kinds of processes are possible . . . applying certain technologies at a household level is possible within a framework of responsible research and innovation'.

Fundamentally, VOICES was recognized less for the value of its direct outcomes, and rather the impact of having been involved in its process. As such new learning was deemed to be the ultimate and over-riding impact and contribution of VOICES to all those involved:

'Personal learning was 100% as we were without a process like this. The whole point of the process was on learning'.

11. Changes and improvements: What to do differently

Headline Findings

Stakeholders identified a number of key areas for refinement and change, learnt from the VOICES experience, which might be considered and applied in future exercises (see Figure 17). Ideas for improvement focused on structural issues, such as the allocation of time (principally a more generous timeframe allowing for additional 'value-added' project components/phases enabling);

other opportunities for continuous dialogue: (dissemination of findings and results that is not purely transmissional and didactic but dialogical and negotiated); diversification of roles (science museums involved not only as workshop facilitators but as contributors to the data analysis process); expansion of involvement (experts recruited into the whole project process as opposed to at intervals); and finally, early confirmation and agreement of project specifications, pre-empting shifts in project orientation or unexpected demands that might disrupt or even derail a project's progress.

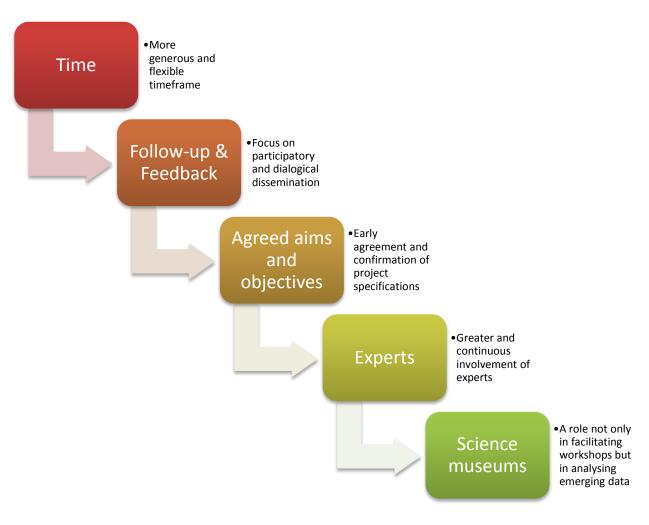


Figure 17: Improvements

Discussion

Stakeholders were unanimous in their demand for a more extensive, considerate and realistic timeframe that would allow project members to concentrate and respond fully and properly to project demands without harassment or undue-haste and with less potential for error and/or oversight:

'Fundamentally, a different more generous timeframe'.

Concurrently, it was felt that a more generous allocation of lead-in time was necessary for the recruitment of workshop participants and project delivery teams:

'... a need to better anticipate the length of time necessary for recruitment

It was felt that a more generous time allowance would also allow for the incorporation of additional, 'value-added' components that might enhance the project's process and outcomes:

'An intermediate phase with a cultural translator able to work with the research team. I'm sure that certain things got lost. The researchers might for instance, interview those with expertise of the specific cultural angle of each country'.

More time was also seen as needed to allow for a more participatory and continuous dialogical focus, providing space and opportunity for top-down project elements to evolve into opportunities for further citizen involvement and deliberation. In this context, citizen participation would move ever closer to an ideal of co-produced research:

'I would recommend a follow-up to citizen's focus groups, perhaps 6 months later, to determine whether they were satisfied . . . An opportunity for people to comment on and dissect the results'.

Indeed, it was felt that the urgency of VOICES in some way spoilt and compromised the potential of its later stage activities such as the dissemination events, which despite serving the objective of disseminating findings could have provided opportunities for extended and expanded dialogue not least for instance, between workshop participants and members of the European Commission:

'The dissemination event, the maker's fair, should have been more participatory . . . this is what a maker's fair is. . . When you start inviting senior officials it immediately becomes more formal. This was an opportunity to bring the EC closer . . . an opportunity to form a closer alliance'.

Other structural impediments were cited for slowing the progress of the project, principal among which was a failure for early contractual agreement and therein alterations in terms of the project's expectations:

'We [Ecsite] could not sign contracts with museums until May leaving them almost four/five months without contracts . . . the museums really had to trust us. Some museums stated

that they couldn't spend any more hours until something was signed . . . Some were doing transcription outside of working hours'.

'The negotiation phase went on for 3 months. The project proposal doubled from 30 to 60 pages with lots of additional questions. Small changes changed the workload a lot such as in recruiting a two evaluators [not one] and an advisory board'.

Finally, it was felt that VOICES would have benefitted from a diversification of role, where many members of the VOICES community (including the science museums) had 'balkanized' and worked more or less to a strict division of labour and in silo. A more holistic, integrated approach to project roles might have therefore also catalyzed the cross-fertilization of ideas and prospects of shared learning/collective intelligence across the various organizations. Quite understandably, however the stricture of time resulted in a more strict delineation of roles and expectations. Nonetheless cohorts such as the project's experts might have been more extensively and systematically used throughout the project's lifespan, where their involvement had been more intermittent, cursory and largely on the terms of advisors:

'The group of experts we put together were good but the project would have benefitted had they been more involved: involved in the focus groups and more involved in the analysis'.

The science museums too might have undertaken a more substantive role, contributing for instance to the analysis of workshop data:

'I would add one more step that they [science museums] don't just transcribe outcomes but are involved in the analysis. This would also help avoid spending a lot of money on translation'.

Necessarily, a recommendation for the diversification of roles would have significant implications on time and budget.

12. Overall impacts

Headline Findings

Stakeholders reported that the VOICES project had served as a catalyst for new reflexive learning – providing an opportunity for participants to (re)consider their professional praxis, identity, outlook and mission *apropos* their interface with public citizens; and thereafter their responsibility in

working with and mobilizing citizens as collaborators in research and policy-making contexts. Figure 18 represents the key relationships.

Discussion

Stakeholders opined that VOICES had served and succeeded in challenging and expanding attitudes and perceptions – of both project participants and wider receivers – of the role and potential role of:

- the science communication community principally science centres and museums as advocates and facilitators of upstream engagement: publics' participation in deliberative and dialogical decision-making processes; of citizen-science and democratic science governance
- public citizens as licensed contributors and potential co-producers of research/agendas and policy setting/development
- *citizen engagement* (as a driver of RRI) as a highly visible and pervasive feature (and requirement) of European framework funding i.e. Horizon2020

VOICES was also seen to have impressed upon the European Commission the efficacy and value of citizen engagement for research and policy purposes – 'it [VOICES] has shown that public citizens can really be very useful' – and provided a sound rationalization for continued/continuous investment – especially as an effective relational mechanism engendering, if only the impression of, a closer, more fluent, even seamless interface between citizens of individual European member states and the European Commission as the overarching, executive body of the European Union:

'In the short-term, the learning and capacity building that's taken place. In the mid-term, changing EC thinking about setting process for innovation. In the long-term – impact in the calls ... The innovation agenda of the EC ought now to be much more inspired by citizens but with much more focus on dialogue'.

'VOICES has increased visibility [of citizen engagement] across the European Commission . . . other DGs are watching; the Commissioner; the Cabinet . . . everyone's talking about VOICES'.

The seriousness by which citizen engagement was now seen to be taken by the Commission, as a consequence of VOICES, was understood in terms of its manifestation as a component of Horizon 2020:

'I suppose the major short-term impact is in relation to (Horizon2020) calls and a need for projects to be designed in more participatory ways when doing research and science for society . . . a need for applicants to reflect hard on what needs to be included to satisfy the conditions for funding'.

'Now including citizen consultation in H2020 contexts'.

'I've seen voices mentioned in some of the [Horizon 2020] calls'.

The impact of VOICES was also seen on an international scale:

'The impact of the project can be seen internationally. The ASTC (Assoication of Science and Technology Centres – based in the USA) are envious of what we've been doing in that we're now more connected to society'.

VOICES was praised for its role as a bridging and reconciliatory exercise, helping to resolve citizens' (of member states) feelings of dislocation from and apathy towards the Commission; connecting the regional/national concerns and discourses of citizens with the pan-national concerns and objectives of the Commission – concurrently establishing a holistic narrative and pan-European response to waste management. In such context, VOICES was applauded for both increasing citizens' sense of connectivity with 'Brussels' and for relativizing and localizing the problem of urban waste as a European concern, contextualized and tackled at a domestic level:

'Personalization of waste management . . . relating it to the household'.

VOICES was in such a way seen to contribute to the legitimacy, in the public mind, of centralized decision-making – particularly where the Commission had at inception (publicly) established the precedent of a commitment to incorporating citizens' views into final outcomes – and concurrently a sense of having narrowed the gap between local/regional/national and European level perspectives, concerns and forward-strategy:

'Some of the ideas were recurrent and comparable . . . not such great difference in opinion between for example Naples and those in Sweden'.

VOICES was seen to represent therefore the mobilization – and coming together – of Europe's citizens as a multi-national collective, responding to a universal concern through shared problem-solving. VOICES might then be viewed for its success not only as an exercise in crowd-sourced research but community building which not only assembled critical-mass but also invoked and

acculturated a sense of collective identity and shared responsibility that exceeds national borders, and which may be thought of as the making of European citizenship.

By extension, VOICES was seen to have embedded a sense of the value and legitimacy of active citizenship and citizen participation with policy-makers, among Europe's citizenry, and this was achieved by way of participants' satisfaction with the VOICES process and their sense of achievement and self-efficacy in having participated within it:

'It has motivated people to think more seriously about making policy through people . . . policy 2.0'.

'People were really satisfied . . . they really felt like they'd learnt something and built something'.

'Participants were enthusiastic that their voice was really being taken seriously'.

Finally, for the science communication community VOICES was seen to constitute culture change and recognition of the utility and useability of citizen participation approaches:

'VOICES has made science centres see that citizen consultation is a useful tool'.

'VOICES has contributed to culture change. For the science communication community it has provided a new opening and new possibilities'.

'More and more museums are now getting engaged in this process . . . The impact is on the entire science communication community . . . confirms we are going in the right direction'.

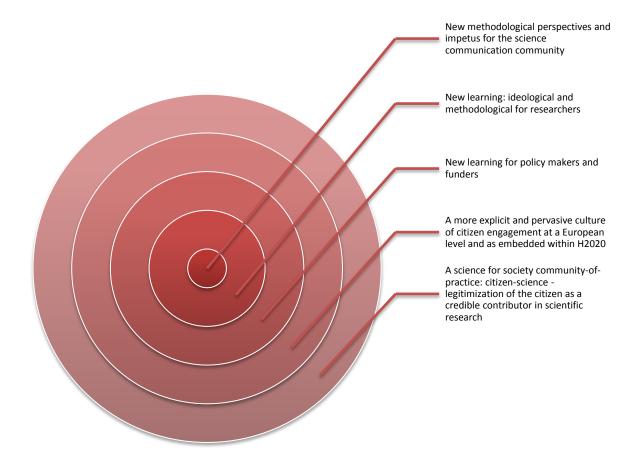


Figure 18: Impacts

13. Legacy

Headline Findings

Stakeholders were in broad agreement that VOICES had demonstrated the possibility of a whole-Europe dialogue, focusing on and responding to a specific theme in the widest most comprehensive and equitable way, recognizing the legitimacy and value of each European citizen's (potentially unique) response. Concurrently, VOICES demonstrated a sense of collective and shared identity in the context of citizen's thinking as *Europeans*; their responding to a *European* problem; and in their determining a solution for *Europe*. Stakeholders were also of the opinion that VOICES demonstrated, despite differences and/or peculiarities specific to national/regional/local contexts *vis-à-vis* wastemanagement, that citizens' ways of thinking could be synthesized and generalized and that their responses to the issue of waste-management were more complementary than polarized. Furthermore, some stakeholders felt that VOICES provided further evidence of the significance of non-expert citizens' contribution to matters of scientific complexity.

On a more practical or operational level, stakeholders felt that VOICES was responsible for a shift in, or accelerated focus on citizen engagement as an integral part of what science centres/museums do. It was also felt that VOICES had raised the platform and intensified the spotlight on the significance of the science and society agenda and in policy terms had contributed towards the continued existence of this as a political commitment and priority.

Figure 19 shows some of these relationships.

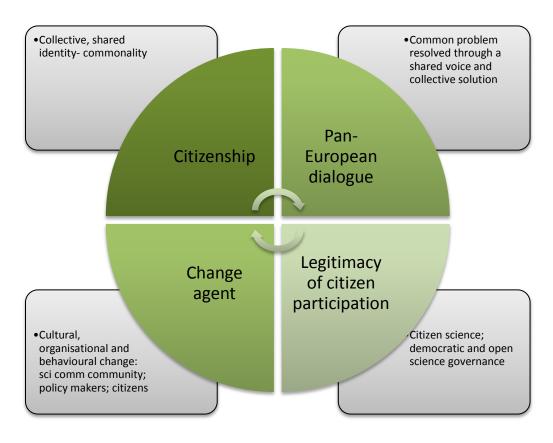


Figure 19: Legacy

Discussion

Stakeholders considered that VOICES had demonstrated the feasibility of undertaking joined-up and meaningful dialogue across multiple national contexts focused on a topic of scientific complexity and the value to be gained from the incorporation of non-expert cadres into such discussions:

'The legacy of VOICES is that it has shown that citizens can discuss across 27 countries on a topic as complicated as waste. You shouldn't exclude citizens from these kinds of discussions on the basis of being lay people''

It was felt that the non-expert (scientifically speaking) contributions of citizens extended and stimulated creative and imaginative problem-solving:

'Citizens views, no matter how far-fetched, provide an important contribution to blue-skies thinking'

VOICES was seen to have revealed the significance and indispensability of science museums as catalysts of citizen participation:

'Dialogue and community are dependent upon the science museums'

VOICES was seen has having contributed to the research field itself, lending transparency and opening waste-management to public scrutiny:

'It has helped to open the research field'.

It was also viewed as having provided legitimacy and approval to those kinds of research already being pursued. Attitudes to the contribution of citizens to waste-management strategy as a science itself were seen to be limited. However it was felt that citizen's contributions had made a contribution to waste-management policy: management and regulation (which we would take to be the value of including citizens as 'expert' users):

'The legacy to waste-management has been to serve to legitimize research topics already in the pipeline, though I suppose it didn't really yield any new ideas, although some in relation to waste policy'.

Ultimately, VOICES was seen to have demonstrated the feasibility of citizen engagement and participation on a wide scale and on a topic of considerable complexity:

'Stakeholders and institutions have realized that this is possible'.

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In a similar context, VOICES was seen to have cemented the value and importance of citizen engagement and participation at a policy level, providing a renewed emphasis on, and rationalization for investment in strategy and frameworks for improving and sustaining the science and society nexus:

'Before VOICES there was a fear that 'science and society' might disappear. It is now granted a role for the next 7 years'.

Much of the legacy of VOICES was also viewed in terms of the extent to which it might be repeated – the duplicability of its methodology:

'The project was designed to leave a legacy. Anyone can take this project and repeat it'.

VOICES was praised for its inspirational qualities, changing opinions and attitudes to citizen engagement in the context of policy and research:

'There is a desire from the Commission to run with this. It has proved to be 'internally inspiring'.

'The way colleagues are working . . . Could change drastically whatever comes after Horizon 2020'.

Finally, it was felt that VOICES should be understood as the first stage of a long process of change and innovation in the practice of policy-making and research that incorporates citizens as integral members of knowledge building/refining processes. It was also felt that as a pilot, VOICES represented the start of a longer process of learning – the threshold of a journey of formative learning:

'This is not a complete process. This was a very good first experiment. It has achieved more than we expected but showed weaknesses which we now need to work through'.

This final statement offers recognition of the status of VOICES as one part of a continuous process. Where so many public engagement exercises regrettably occur as open and closed events unfolding in isolation and disconnection, VOICES was seen to represent the transformation of citizen participation from discrete event to holistic process, where communities are joined together, made and maintained through on-going dialogue and interaction and where learning of these experiences is emphatically, shared not sequestered.

14. Cost-benefit

As might be anticipated with such a far-reaching and all-encompassing project that has included participants from multiple national contexts speaking multiple national/regional dialects – stakeholders repeatedly remarked on the project's translation cost and this being disproportionate to other aspects of expenditure. Taken in the context, first off, as a pilot and then secondly, as a project with considerable scale and rapid turn-around, stakeholders viewed the cost of VOICES as competitive and good-value for money.

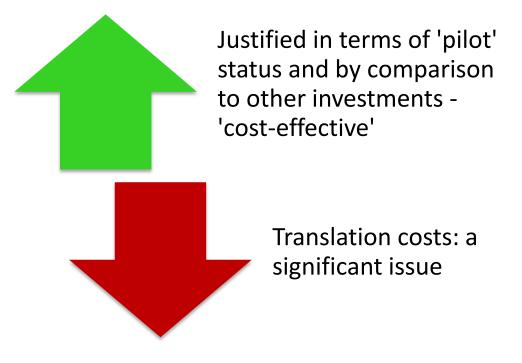


Figure 20: Cost/Benefit

Many respondents argued that the cost for VOICES was justifiable on terms of it being a pilot, yet concurrently argued that 'on a permanent basis we need to do it more cheaply' (see Figure 20).

The cost of translation was seen to be especially problematic and an obstacle to overcome.

By way of comparison to other forms of investment, VOICES was seen to be cost-effective:

'Wasn't hugely expensive in terms of cost and when you factor in time. VOICES cost approximately, 1.5million Euros. Compare this to the cost of running mobilization and action plans which can cost 4million Euros over 4 years. . . . We need to value the process more than the outcome'.

15. An overall success?

Headline findings

We found stakeholders broadly agreed that VOICES had been an overall success. Moreover, it was felt that this success was especially remarkable, given the parsimony of the project timetable yet multitudinous and unrelenting roster of activity and an external pressure (such as Horizon2020) to hastily deliver quality and usable outputs. VOICES was further praised for its resilience in not only *not* succumbing to the encumbrance of scarce time but limited budget. Yet the success of VOICES was reflected upon not only in terms of its project members' skill and dexterity in navigating past and succeeding the challenges and obstacles potentially thwarting its progress, but also in having established new learning and new ways of learning, fomenting attitudinal and practice-based change, and providing a more compelling, if not inarguable, case for citizen participation in the governance of science (see Figure 21).

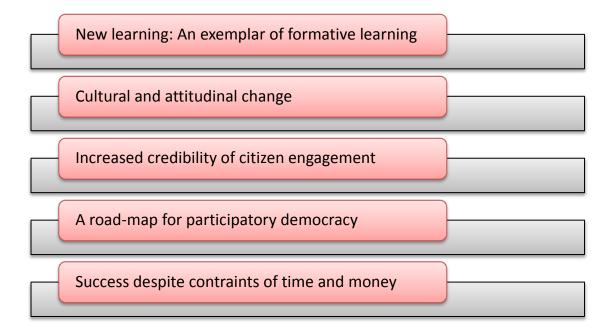


Figure 21: Overall success

Discussion

Stakeholders spoke of VOICES as an exemplar of experiential learning and of achieving new knowledge, understanding and awareness through a process of collective participation; learning by doing; and learning from mistakes:

'VOICES has been a great example of learning by doing. By being so intense we learnt by our mistakes and its weaknesses'.

The direct experience and challenge of VOICES was seen by many stakeholders as the key aspect of participants being 'converted' and realizing the potency of the methodology, especially amongst those from the science centres/museums, who have subsequently incorporated (or are in the process of integrating) the VOICES approach into their own systems:

'[Science museums] have learnt they can play a role. A few are using the outcomes, many are still learning'.

Stakeholders were in broad agreement that the success of the project should be discerned not only on the effectiveness of its process and strength of its impacts, but its resilience to sometimes awkward and disruptive conditions:

'Overall? Yes it has been a success, especially under the conditions – not enough money, not enough time'.

Ultimately, VOICES was justified on the terms of an exercise in participatory democracy and responsible research and innovation – costly perhaps, but invaluable and indispensable:

'It's democracy. It has a cost. Is it right to commission research citizen's don't need'?

16. Caveats, challenges and final thoughts

Headline Findings

As a final question to the stakeholder interviews, respondents were asked to consider any final caveats to the answers they had provided; any lingering or future challenges in respect of embedding, consolidating and moving on the learning from VOICES; and any other final thoughts. This question tended to generate only limited responses, with respondents having already provided detailed answers in respect of impact and legacy. The question did, however, on a few occasions, prompt a number of additional insights related to, for instance, the continued/future role of museums in the context of citizen participation and engagement and challenges to embedding the value of citizen participation in the public consciousness (represented in Figure 22).



Figure 22: Caveats and challenges

Discussion

Stakeholders questioned whether or not the kind of role undertaken by science museums, and their application of the focus group methodology in the VOICES project was suitable or necessary for all museums:

'It is too much to say that ALL museums should play this role. Some museums are using focus groups but for other functions'.

The question that ostensibly follows then, is which or what kinds of museum should assume a leading role in the kinds of citizen participation synonymous with VOICES and furthermore, for what other purposes might the methodology be used?

Whilst VOICES was seen to have increased the profile, credibility and efficacy of citizen participation among science communication and policy constituencies, it was felt that the next challenge was in magnifying to citizens themselves the significance of their participation:

'The challenge now is to make citizens see the value of their contributions'.

In many ways it was felt that one of the greatest risks for VOICES was that the influence and value of its learning would enervate where it was not continuously disseminated, shared and worked from. In

this sense, maintaining a 'community-of-practice' arguably seeded by VOICES, was seen to be essential to the survival and further development and evolution of engaged scientific citizenry:

'In terms of risk, the network needs to carry on'.

Conclusion

This stakeholder consultation reveals an overall impression of VOICES, as a pan-European experiment in citizen participation in science and technology deliberation and debate for research and policy processes, as an overwhelming success. Stakeholders were able to distinguish specific aspects of the VOICES project, seen to contribute to its success, such as the professionalism and high-competency of its co-ordinating team, alongside a series of recommendations, or what we think of as 'learning impacts', which might help to refine and improve the project approach where replicated in future. Stakeholders were also able to propose a series of impacts directly attributable to the project, such as the appropriation of the project methodology by science centres/museums.

As a **PROCESS**, VOICES was praised for:

- the scale of its endeavor and the efforts of all its contributing parties in mobilizing the critical and creative imaginations of citizens across Europe in response to a common problem and in pursuit of a shared solution. VOICES was in this respect viewed as a project bringing Europe closer together, and certainly EU member states, closer to the European Commission and the legislative and administrative hub of Brussels.
- the vision, bravery and dedication of all members of the project consortium in tirelessly committing themselves to realizing the aspiration of pan-European citizen engagement.
- Ecsite's role in managing with aplomb the project's considerable organizational complexity
- the science communication community's role in successfully adopting and implementing the project methodology
- the academic team's role at the Athena Institute of the VU University Amsterdam in developing and scaffolding the project methodology
- the robustness of the workshop methodology and the training of it to workshop moderators
- representing a 'bottom-up' approach to setting policy and research agendas and for recalibrating or reorganizing the research process, such that citizens have an *active*, *early* and *sustained* involvement
- the quality of cooperation and collaboration between members of the VOICES consortium
- its value-added dimensions such as an advisory and consolidation group respectively
- its focus on the experiential learning of all project members

- the contribution of continuous evaluation to formative learning
- the commitment of the European Commission in pledging to use VOICES outputs thereby legitimating the contribution of non-expert citizens to scientific discussion (research and policy) and building their sense of self-efficacy and entitlement as valued participants within, and conspirators and custodians of an authentically democratic system of science governance.

As a **SERIES of OUTCOMES**, VOICES was praised for:

- its role in invoking the critical and creative voice of citizens all over Europe and as an exercise not only of citizen engagement but citizen empowerment
- generating a pan-European, heterogeneously informed yet consensually oriented body of evidence and repository of citizen perspectives and ideas in respect of waste-management
- producing new critical learning, individual and organizational attitudinal and operational change in favour of citizen participation in the contexts of science museums/centres, research and policy
- embedding an ethos and enthusiasm for citizen engagement/participation in the organizational practice of science communication, research and policy constituencies
- its contribution in furthering the significance of citizen engagement as an aspect of responsible research and innovation writ large across Horizon 2020

Whilst recognizing the success of VOICES in terms of its process and outcomes, we should also note the success of the project in the context of its defying issues, though no doubt problematic at the time, that might well have caused its derailment, cessation even failure: time and cost.

Finally, whilst we might commend VOICES as milestone event, a part of its learning is there are things to do better, specifically a greater focus on dialogue and a dialogical interface between citizens, researchers and policy-makers – largely absent from the project, and an awareness that this is just the start. VOICES has been after all a pilot. There is much scope now to take this approach further.

VOICES has nonetheless, provided firm footing, precedent and momentum for the fuller, broader, deeper, and more sustained involvement of Europe's citizens in science.

8. Conclusions

Content of this Report

This second (and final) evaluation report has followed the progress of the VOICES project beyond the conduct of the focus groups. It has attempted to chart and characterise the various steps that succeeded those engagement activities, and to provide evaluative commentary – largely on the basis of our 'information translation' criterion, but also, in the previous chapter, on the basis of the views of key stakeholders involved. The latter evinced concern about issues that fall within the 'information translation' remit – such as the impact of lack of time resources – but have also helped to characterise expected impacts, such as on 'science and society' more broadly, and on the meaning and importance of this concept within EU circles. The analysis in the report was based on various streams of evidence – taken from semi-structured interviews, evaluator observation of events, and documentary analysis.

The chapters in this report have therefore considered how the information from the focus groups was transcribed, translated and summarised; how the summary data was addressed by a 'consolidation group' and turned into documents usable by the EC in a research call, and; how the citizens' views made it into a research call. Other chapters considered the conduct of a series of dissemination events, and the dissemination of the project via the internet (through the visual/visible lab), and finally, the views of 20 key stakeholders on VOICES and its impacts.

It should finally be noted that the scope of this evaluation is slightly inhibited by the need to provide this report while the project is essentially still ongoing. Some of the ultimate impacts of the project may not be known for months or even years – such as the durability and evolution of the visual/visible lab, and the impact of VOICES on wider attitudes in the EU and research community. Ideally, these issues need to be revisited in the future, though it is unfortunately a fundamental problem with current research funding practices that demand strict time limits to projects, that this issue is typical and likely to afflict future evaluations.

The next section summarises the main results from this second evaluation, and the final section provides a bullet-pointed reiteration of key recommendations.

Discussion of the Evaluation

Chapter 2 discussed how the information from the focus groups – which had been audio recorded – was transcribed, translated, analysed and summarised. It was noted that at each stage there was potential for information to be 'lost' or 'mistranslated'. However, the project generally followed

good procedures for ensuring that translation was a good as possible – from using the services of professional translators, to following well-documented and accepted methods of qualitative analysis. We had no real concerns about this stage.

Chapter 3 described the conduct of the 'consolidation groups' in turning the summary into material usable in a research call. The process was innovative and rather intensive, going over two days in Brussels. For this element we did have some concerns about the rather hurried nature of recruitment and thus the appropriateness of the experts who took part and whether there were enough of these. This issue was subsequently raised by some of the interviewees (Chapter 7). Because of the sheer quantity of information available, the time for the event also proved insufficient, with the final activities being finished off by experts 'at home'. In Chapter 3 we provided a number of ideas for how the process might have been conducted in alternative ways that might (or indeed, might not – this being an empirical question) be more effective.

Chapter 4 gave a brief description of the emergence of the research call based on the output of the consolidation group. This revealed that there was, ultimately, a strong connection between citizens' views and the final call. From this perspective, from an information translation perspective, the project was highly successful – with *actual impact* on a *significant decision* being *directly traceable* to the views of the *engaged*.

Chapter 5 discussed a secondary – though still significant – part of the project, namely, the organisation and conduct of six cross-European dissemination events (held in Portugal, Spain, Ireland, Slovenia, France and Italy). Evaluators attended two of these events as observers (in Ljubljana and Lisbon); other members of the project team (who were subsequently interviewed) attended the other events. Resources (plus a sense that these activities were not primary) meant that the evaluation of these events was not as full as we would have liked, and hence event impact cannot be clearly ascertained. However, our impressions (backed by observation, documentation, and interviewee comments – see Chapter 7) were that these events – and the different elements within - were somewhat variable in quality. While some elements seemed to have potential for wide influence (for example, a game developed in Slovenia where points are scored for correctly matching waste type to bin colour), others had minimal influence (small audiences and on topics that did not appear closely related to the VOICES project or its results). Commentary in Chapter 7 revealed that part of the problem faced by some of the contractors was that information arrived late, giving little time to plan. Beyond this, it is clear that these events did not allow dissemination to citizens in the other 21 countries. A more comprehensive and coordinated dissemination scheme would have been desirable – though we again must emphasize the secondary nature of these activities to the main project aim.

Chapter 6 discussed the visible/visual lab – the online presence of the project. This professional website has links to most of the relevant documents from the project, ensuring a high degree of transparency. We did note, however, that the first evaluation report was not present (and perhaps should have been), while we had questions concerning who would ultimately view the website and how it would be maintained following the end of the project.

Chapter 7 provided an analysis of 20 interviews held with various key stakeholders in the project – including members of the EU, the coordinator, Science Centre partners, and so on. These interviews seemed to confirm that most stakeholders considered the project a great success – it had achieved what it had set out to achieve, thanks to the proficiency, skill and high motivation of the coordinator, the members of the Science Centres, the academic team, and also, thanks to the commitment of the EU to see this event have real impact. There was some concern expressed, however, about the pressure due to lack of time, which had follow-through impacts on, for example, the capacity to involve the Science Centres more in the analytical phase. There were also some concerns about the cost of the project, particularly the amount spent on translation services. Nevertheless, as subsidiary benefits, the Science Centres reported having been strongly influenced by the methodology and the engagement concept, and the whole engagement ideology was seen to have been advanced within the EU by the project's perceived success.

In conclusion, the VOICES project appears (from the corpus of data we have gathered, of different types) to have been a highly professional and honest attempt to capture the views of citizens from across Europe on the topic of urban waste in order to inform research funding. The conduct of the citizen engagement itself – through the carefully designed focus group method - had many extremely good elements that we would consider 'best practice', including the trialling of the method, the comprehensiveness of the training, and the general professionalism of the events' conduct, translation, and analysis (much of this described in the first evaluation report). The consolidation group approach was also an innovative process, and the results have indeed led to the structuring of a research call. In many respects, the project can be considered a *great success* – both from the normative perspective of 'information translation', but also in the eyes of all the key participants, from the citizens themselves (see the first report), to the various parties involved in implementing project and using its outputs.

However, perfection is never realistically attainable, and this report (and the previous one) notes some issues where potential improvements might be made. An over-riding sense about this project is that it has been rushed, and the lack of time has clearly been a strain on some, and led to some over-hasty elements. For example, more consideration could have been given to a stakeholder analysis to ensure the appropriateness (and full competence) of the consolidation group, and more time might have allowed for the consolidation process to play out more effectively.

Beyond this, the dissemination events have come across as a slightly secondary element, and more thought might have been given as to the true dissemination needs of the project (including the maintenance of the visible/visual lab), and whether this is adequately fulfilled by the conduct of halfa-dozen variable events in some parts of Europe (variable in terms of outreach, nature, quality, and so on).

Another question concerns the practicality of using this method again – with various stakeholders expressing concern about project costs (especially in terms of the translation costs involved). Our view on this is that there seems to be a misconception in some quarters that 'social science' (which is what this project has involved) is, or should be, cheap. It is not – especially when attempting to involve large numbers of carefully selected citizens, and especially when having to do so across Europe with its multitude of languages. There may be other processes that could deliver similar, equally 'valid' results at a cheaper price... but we are not sure that savings are liable to be vast, and we are also clear that simply putting everything 'on the web' is not the solution. We will discuss this issue in a bit more detail.

There are many different named 'public engagement' mechanisms – indeed, Rowe and Frewer (2005) list over 100. However, most methods are relatively loosely defined, and on the whole there is little actual difference between them (in their typology, Rowe and Frewer identified just four main participation method types). That is, the majority of engagement methods involve relatively small numbers of participants who meet face-to-face in an environment in which they first receive necessary information about the issue they are debating, and then are asked to consider and discuss matters, coming to some sort of conclusion. The methods mainly vary in terms of how participants are recruited (e.g. self-selected versus recruited according to certain criteria, invariably to be 'representative' to a degree); how long the process lasts (generally between a few hours to a couple of days, perhaps with a 'reconvened' element); how many are involved (generally from about a dozen to as many as will fit in a large conference venue); how information is presented (speakers, written information, videos, posters); how the process is controlled (i.e. use of facilitators or selffacilitation); how information is recorded (flip charts, post-its, questionnaires, perhaps with rapporteurs or using audio/video recording); what specific exercises are involved (often a mix of individual, break-out group, and large plenary group exercises), and so on. In terms of the essential elements of an engagement method, the focus group method used in VOICES differs little from other methods, and indeed, it is the precise *enactment* of the method in this particular case that has led to its success. Thus, the focus on trialling materials and rehearsing the process are critical elements for

success - yet these are not 'necessary' elements for a 'focus group', and nor are they necessary elements for the plethora of other methods that have been named and used (testing is rarely even discussed by their proponents). Likewise, the use of audio recording – instead of relying upon selffacilitated groups writing on flip charts – is not a necessary defining feature of the class of methods called the focus group, and nor is this feature a defining or distinguishing aspect of most other processes ... but it was a feature of the specific way the general focus group process was used in this case. Thus, it is less a case of asking 'are focus groups the best of the available methods?', and more a case of asking 'is the way in which the focus group process was enacted in this case the best approach?' Throughout this report, various suggestions have been given as to how the focus group process used for VOICES might have been conducted in ways that might be 'better' (according to our evaluation criteria). But is there another *class* of methods that might be 'better'? We do not believe so - especially given the fact that the short time scale of the focus group process enabled the conduct of many different groups (100), enhancing reliability of outputs and perhaps increasing legitimacy through having a high number of participants - though other named approaches, might yield equally valuable results. The main dimension for differentiating approaches for relevance, in this case, is probably 'intensity'. For example, the citizen jury-type approach is more intensive, usually lasting a couple of days, but therefore involving fewer participants (perhaps a dozen). This approach might have also given interesting (and qualitatively similar) results, but – for the money and time available, maybe only one such event could have been conducted in each country (or even fewer, since one citizen jury would likely cost more than conducting three focus groups). At the other end of the intensity scale, more participants might be involved though at a more superficial level – perhaps by use of a citizen panel receiving information in the post (or by email) and being asked to conduct exercises individually or in highly controlled interactions (e.g. using a kind of Delphi technique – a reiterated polling with feedback between rounds, e.g. Rowe and Wright, 2011). The latter might be cheaper, and might be able to supply a greater number of participants, but at the probable cost of a reduction in the *quality* of information gained.

With regards other dimensions of difference between engagement methods, we are clear that we believe that methods that involve participant self-selection, or the self-facilitation of participant groups (e.g. the Open Space method – Owen, 2008), are likely to suffer from significantly *more* information loss than the method used in VOICES, and would be less credible for the purposes of informing EU policy on research funding. Indeed, web-based processes often rely upon self-selection of participants, leading to unbalanced representations (e.g. see Rowe, Poortinga and Pidgeon, 2006), and it also needs to be noted that web-based (remote) interactions are *not* identical to face-to-face ones, and bring with them both technical and psychological issues in their enactment, such as

greater levels of 'flaming' (in which participants – hiding behind their anonymity - exhibit more extreme or insulting views), and the reduction/absence of important and informative non-verbal cues and communications that are evident to people when interacting directly with others (e.g. see Rowe and Gammack, 2004).

All this is not to say that the focus group method as used in VOICES could not be improved – particularly with regards costs. It might be, for example, that with more time better financial deals might be made with translators or, depending upon the topic, a similar process might be run again in a more limited number of countries (e.g. one might suspect, for example, that there might not be great differences between Belgian, Dutch and German parties, and hence one might hold one set of focus groups for this whole region, and likewise for other culturally similar regions, rather than one or more groups per individual country). Indeed, because qualitative research relies on sampling until 'saturation' is reached, a phased approach might be planned, in which, for example, 20 focus groups were held at first, and then subsequent tranches (of 20 groups) were only conducted if it were felt that preliminary analysis had not found a saturation of ideas/concepts.

A final point worth mentioning is whether the particular issue of this project (identifying appropriate topics for urban waste research) is apt for such a wide consultation. Our view is that generally it is, although some adjustment of expectations might be needed. Certainly, some of the experts queried the quality of the outputs from the citizens, and this relates to an issue we identified in the first evaluation report. Citizens are undoubtedly good at identifying key issues and problems with the current state of affairs – here, regarding urban waste – and are likewise able to identify policy actions and alternatives. However, it is perhaps unrealistic to expect citizens, who are not generally scientifically trained, to identify actual and profound research priorities (e.g. regarding materials science). Arguably, future efforts such as this might wish to allow citizens to identify problems, and indeed express preferences, but then to allow appropriately selected scientists to consider potential research solutions to these issues.

Recommendations

Given the above discussion, we now end with a list of recommendations for the different parties involved in the process. Some of the recommendations reiterate what was in fact done in the project, and reflect an endorsement of how aspects of the project were conducted. Some of these have been clearly stated in this and the previous report; others logically follow from discussions in the two reports (but may appear *new*, as phrased below).

- Ensure sufficient time for the call for proposals/ planning the project/ recruiting a consolidation group (while recognising that the process leading to VOICES was unusual and opportunistic and will probably not occur again)
- Ensure buy-in from all relevant parties in the funding organisation (EU) who will contribute towards the project design and use its outputs
- Recognise that engagement is not cheap (at least if done properly) i.e. recalibrate expectations of cost
- Recognise the significant costs of translation and plan for this e.g. by negotiating deals on large commissions or by focusing projects so that not all countries are sampled (and see several subsequent points)
- Ensure that there is an audit trail of decisions through the process (e.g. keeping a record of minutes of meetings) – to aid in the evaluation and ensure greater transparency to external observers
- Be clearer on targets of dissemination activities: set targets on who, how many, and what to communicate
- Communicating via a dedicated website is a good idea, but ensure information on this is comprehensive (i.e. all relevant reports, including evaluation reports – not select reports), and plan for maintenance after project close (specify responsibility and resources)
- Ensure the relevance of the topic for engagement: consider what knowledge/experience the public has and can contribute, and realise where public 'deficits' might lie (i.e. be realistic on what the public can contribute, even after being given information on the issue of discussion)
- Have a clear idea on the quantity-quality trade-off: generally, if seeking qualitative data more intensive processes are required with fewer participants (which may present legitimacy problems): one way to deal with both elements is to start with qualitative research then use a survey with a larger sample (e.g. cross-Europe) to confirm preferences/ priorities
- The consolidation group idea has much merit, allowing some interpretation and consolidation of diverse public outputs
- Because the concept of data saturation is important, as are issues of expense, it might be beneficial for projects to have some in-built flexibility, such that several tranches of

engagements can take place (i.e. rather than stating 100 focus groups will be done, smaller samples can be planned, with later samples only being conducted if saturation has not been reached)

- Consider whether it is necessary to have input from every EU country: for some issues it may
 be possible to sample from only a few diverse countries rather than all (although over a
 corpus of projects attention should be paid to avoiding systematic bias i.e. always asking
 citizens from certain countries and never asking citizens from others)
- Trial all material for understandability and lack of bias (etc.) with a sample of the intended population
- Trial the process to be used (e.g. focus groups)
- Provide necessary training for those involved (e.g. Science Centre personnel who will be acting as facilitators)
- Ensure comprehensive data capture by using audio recording and even video recording
- Use best practice social science in coding and analysing outputs (and appropriate software), such as checking coder reliability
- Commission independent evaluation of all projects

9. References

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Appendix 1

Stakeholder interview schedule

1) What do you identify as being special or unique about this project?

2) What differentiates the project from other public engagement/consultation activities?

3) What was the impetus for the VOICES project from the EC perspective?

4) What do you identify as the strengths in the project design / approach / methodology?

5) What do you identify as the weaknesses in the project design / approach / methodology?

6) How would you describe relationships with the project teams – success in development and delivery?

7) What was the most significant / valuable project finding?

- from public citizens, from experts, from others?

8) How much new learning has the VOICES project yielded?

9) How would you describe / rate the involvement of the various expert groups in steering the project?

10) How would you involve expert groups in future consultation exercises?

11) Taking the same methodology, what would you do differently next time?

- how could the methodology be built on - improved upon?

12) What do you see as the immediate / short-term impacts of the project?

13) What do you see as the longer-term impacts of the project?

14) What do you see as the legacy of the VOICES project – to the European Commission, to public engagement, to waste management policy and regulation?

15) Has the VOICES project affected any culture change re: public engagement at the EC – embedded public engagement/consultation as a core policy activity?

16) In a cost-benefit analysis: do you think the project was worth the outputs/outcomes?

17) Overall do you think the project has been a success: has it met or exceeded its aims and objectives?

18) Final comments?