

Responsible-Industry



GA 609817



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Authors		Julia Hahn Miltos Ladikas Alexandra Yaghil	
Contributors		Veikko Ikonen Emad Yaghmaei Michael Obach	
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1 Executive Summary

The 2nd Stakeholder Dialogue workshop was held at the offices of the Helmholtz Association in Berlin Germany from May 22nd to 23rd 2016.

Among the invited participants of the workshop were 6 people from industry and Private Research, 10 policy makers and policy advisors and 8 representatives from CSOs. There were 4 international participants (from China, USA, Japan). The project consortium was represented by 15 persons. This allowed for diverse perspectives regarding outcomes of the project providing

The main aim of the 2nd Stakeholder Workshop was to bring together stakeholders from the 1st workshop again and include new participants in order to enable discussions and gather concrete feedback on the progress of the project. The aim of the workshop was to gather information on RRI activities from each stakeholder group, gather concrete feedback on the framework developed by the Responsible Industry project on RRI practice in industry for an ageing society as well as initiate debates around specific case studies. In addition to this, three international experts from China, USA and Japan presented their national perspectives on RRI.

Several participants attended the 1st Stakeholder Workshop held in Karlsruhe in May 2015 and therefore already understood RRI as a concept and how it relates to ICT for an ageing society. Other participants were new to the workshop/project and to the concept of RRI itself. Therefore, the first day of the workshop was partly dedicated to introducing the concept of RRI and introducing an international perspective. The second day was dedicated to discussions in the stakeholder groups regarding the Implementation Plan and general feedback on RRI. A more concrete level was achieved by introducing three project case studies and their experiences and issues regarding RRI. This proved to be especially productive as the cases were presented by industry representatives who then engaged in group discussions with the other stakeholders directly. The 2nd workshop was therefore useful for the project on various levels: regarding the general questions surrounding RRI in industry, how to improve the Implementation Plan further as well as what this means in practice (case studies).

2 Overview

Title: Responsible Research and Innovation (RRI) in industrial practice

Date: May 22nd to 23rd 2016

Venue: Helmholtz Association, Berlin Germany

Participants of the Workshop:

Angermann	Annette	VDI/VDE-IT, Germany
Antoniou	Josephina	UCLan, Cyprus
Arambarri	Jon	Virtualware Labs, Spain
Bolz	Karsten	Institute for Technology Assessment and Systems Analysis, Germany
Brem	Alexander	University of Southern Denmark, Denmark
Champeix	Claire	European Anti-Poverty Network, Belgium
Chatfield	Kate	University of Central Lancashire, U.K.
Dewald	Ulrich	Institute for Technology Assessment and Systems Analysis, Germany
Epstein	Monique	Associations E-Seniors / E-Juniors / M3Cube, France
Flick	Catherine	De Montfort University Leicester, U.K.
Forsberg	Ellen-Marie	University of Oslo, Norway
Gibney	Sinead	Irish Human Rights and Equality Commission, Ireland
González	Elena	Ibermática, Spain
Hahn	Julia	Institute for Technology Assessment and Systems Analysis, Germany
Hennen	Leonhard	Institute for Technology Assessment and Systems Analysis, Germany
Ikonen	Veikko	VTT - Technical Research Centre of Finland, Finland
Inoue	Takenobu	Department of Assistive Technology, Research Institute, National Rehabilitation Center for Persons with

		Disabilities, Japan
Keller	Thierry	TECNALIA Research & Innovation, Spain
Kimppa	Kai	Turku School of Economics, University of Turku, Finland
Kolesinski	Artur	Knowledge Society Association, Poland
Ladikas	Miltos	Institute for Technology Assessment and Systems Analysis, Germany
Liao	Miao	Chinese Academy of Science and Technology for Development, China
Maia	Maria	Institute for Technology Assessment and Systems Analysis, Germany
Mantovani	Elvio	Associazione Italiana per la Ricerca Industriale, Italy
Maynard	Andrew	School for the Future of Innovation in Society Arizona State University, U.S.A.
Mestheneos	Liz	50+ Hellas, Greece
Naylor	David	De Montfort University Leicester, U.K.
Obach	Michael	TECNALIA Research & Innovation, Spain
Peissl	Walter	Institute of Technology Assessment, Austria
Pounds	Dallas	Royal Trinity Hospice - London, U.K.
Remartínez	Antonio	Ibernex, Spain
Rölker-Denker	Lars	University of Oldenburg, Medicine and Health Sciences, Department for Health Services Research and AALIANCE 2 Project, Germany
Roure	Francoise	Ministère de l'économie, de l'industrie et de l'emploi, France, Chairs, Committee on "Technologies and Society" of the French High Council for Industry, Energy and Technologies, France

Schröder	Doris	University of Central Lancashire, U.K.
Shelley-Egan	Clare	University of Oslo, Norway
Soluri	Valentina	CUP 2000 E-Care, Italy
Soraker	Johnny	University of Twente, The Netherlands
Tennøe	Tore	Norwegian Board of Technology, Norway
Thorstensen	Erik	University of Oslo, Norway
López	Ignasi	"la Caixa" Banking Foundation, Spain
Yaghil	Alexandra	Euclid Network, U.K.
Yaghmaei	Emad	University of Southern Denmark, Denmark
Zhao	Yandong	Chinese Academy of Science and Technology for Development, China

Agenda of the Workshop

STAKEHOLDER DIALOGUE WORKSHOP (June 22nd 2016)

AGENDA

14.00 – 15.00 - Welcome and Introduction

The Responsible Industry Project – Update

Alexander Brem, University of Southern Denmark

Recap of previous workshop – Structure of the workshop

Miltos Ladikas, Institute for Technology Assessment and Systems Analysis, Germany

15.00 – 15.30 *Coffee break*

15.30 – 17.30 - Responsible Research and Innovation – An International Perspective with Discussion

Yandong Zhao, Chinese Academy of Science and Technology for Development, China

Andrew D. Maynard, School for the Future of Innovation in Society, Arizona State University, U.S.A.

Takenobu Inoue, Department of Assistive Technology, Research Institute, National Rehabilitation Center for Persons with Disabilities, Japan

STAKEHOLDER DIALOGUE WORKSHOP (June 23rd 2016)

AGENDA

8.45 – 9.00 – Introduction to Group Work (plenary)

9.00 – 10.00 Group discussions on Framework – Important Issues

- Industry group
- Civil society group
- Policy group

10.00 – 10.40 Introduction to Case Studies (plenary)

Introduction to the Cases

Emad Yaghmaei, University of Southern Denmark

Elena González, Spain

Antonio Remartínez, Spain

Veikko Ikonen (VTT Technical Research Centre of Finland), Finland

10.40 – 11.00 *Coffee break*

11:00– 12.30 **Group Discussions on Case Studies – What can we learn?**

- Group 1: Spanish Case 1
- Group 2: Spanish Case 2
- Group 3: Finnish Case 2

12.30 – 13.30 **Final Discussion – Presentation of group work and further insights (plenary)**

3 Purpose of the Workshop

The 2nd stakeholder dialogue workshop is a key part of the project work plan that aims to gain input into the main deliverable of the RRI Implementation Plan (D2.4). Additionally, using the workshop as a way to gain feedback on the case studies from a wide array of stakeholder perspectives is a way to deeper insights into the cases and what can be learned from them.

The 2nd stakeholder dialogue should feed into all steps of the project work from the exploration of conceptual issues in the RRI initiative, to the identification of tools fitting current industrial R&D processes, to the creation of consensus between major players and ultimately the initiation of specific policies that would incorporate RRI in industry's R&D. Building on the 1st Stakeholder Workshop, the 2nd round was widened in scope in order to provide further input along the timeline of the project. This 2nd Workshop is during an important time in the project, where essential steps have been made (Delphi Study, implementation plan) and can be reflected on, but also where further reflection by various stakeholders is essential to better achieve the next project steps.

Using the outputs of the 1st workshop, this 2nd round aimed to bring together important players in the field of ICT for ageing society again and at the same time add new ones such as the international participants from China, Japan and USA as well as representatives from the case study companies. This was especially useful because it enabled the companies to present and discuss their products as well as RRI and the project from their perspectives, addressing issues important to them and their daily work. For the project, this workshop therefore promises to give insights into the concrete 'real-world' of industry in this sector and how RRI can be implemented.

It also brings together a unique mixture of stakeholders, which can mutually learn and exchange their experiences in a productive way; building up longer-term networks. The aim of this 2nd workshop is to give room to the stakeholders to discuss important issues amongst themselves, but also to allow for wider discussions between the different representatives as well as the project team as a whole. In this way the workshops is a feedback loop during the project to better understand applicability and acceptability of the project results.

4 Methodology

The first day of the Berlin Workshop focused on presenting the latest outcomes of the project such as the Framework as well as insights into the global perspectives of RRI and ICT for ageing. This was important to create a common ground for all participants since some of them had already been to the Karlsruhe Workshop and others were new.

Building on experiences from the 1st Workshop in Karlsruhe, the Berlin Workshop used a similar structure. In a first discussion round the stakeholders were grouped according to their background: industry, policy and CSOs. This had proved useful in the 1st Workshop as a way to enable the different stakeholders to discuss amongst themselves and form clear positions. The discussion rounds were built up on the principle of focus group methodology. This first round was committed to providing direct feedback on RRI in the context of industry as well as the newest version of the Framework for RRI in ICT for ageing. The discussions were taped and notes were taken by members of the consortium in order to insure these results can feed into the project work.

One lesson from the Karlsruhe Workshop was that it was challenging to go into specific details of how RRI can be applied in the industry context. Regarding this the idea for the second round of the Berlin Workshop was to provide input in form of direct project work from the case studies. This enabled the participants to hear first-hand from company representatives dealing with the implementation of RRI principles and to discuss these with them. These discussions were also constructed as focus groups whereas the participants were mixed between all the stakeholder groups.

In general, the structure was according to group discussions and plenary elements in order to enable useful exchanges between all participants. The first round of stakeholder-specific discussions were a possibility to revisit discussions from the 1st workshop in Karlsruhe and to bring up RRI-related issues and aspects concerning the implementation plan again. This then fed directly into the second round of case study specific discussions in which the more abstract discussion of the first round were 'tested' according to a specific case. The case study representatives from industry were very keen to present and discuss their experiences as it offered a possibility to share questions and issues in a more open atmosphere. One of the case studies (Finnish Case 2) was presented by a member of the project team who is closely involved with the case, since it wasn't possible to have a representative from the company at the workshop.

The discussion time seemed to be sufficient to touch on important issues as well as focus on several main aspects in each group. The main discussion points partly overlapped with those of the 1st workshop and revolved around basic RRI issues such as what responsible behaviour can actually look like, existing regulations, existing structures for RRI to build on (e.g. codes of conduct), the differences between SMEs and big industry in the field, etc. These are issues that have been discussed in several areas of the project and have been mentioned by various stakeholders.

5 Results

Industry representatives, policy makers, researchers and representatives of CSOs, and the consortium members of the project discussed together in this 2nd workshop.

They provided their views on the concept of RRI and

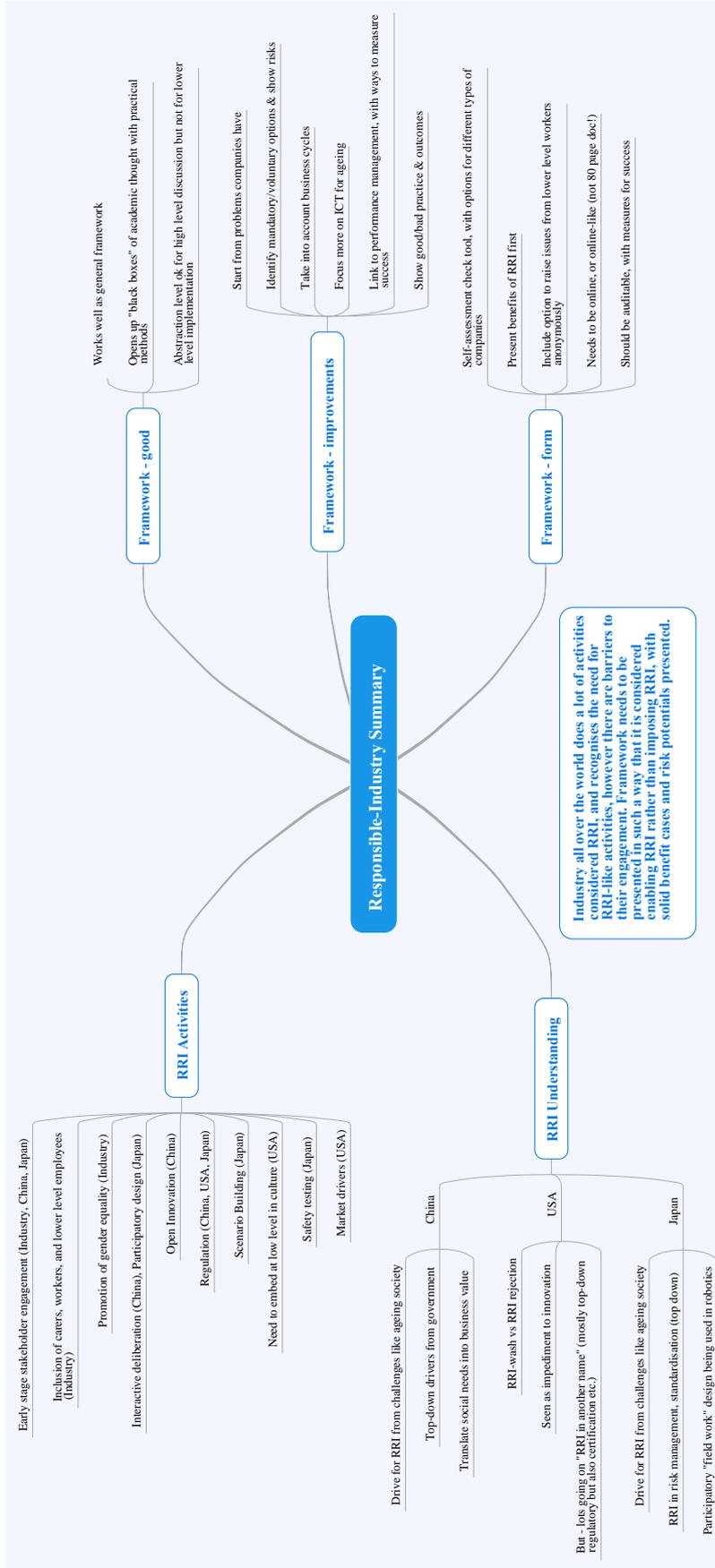
- discussed the critical aspects of RRI;
- shared experiences, approaches and perspectives and
- provided feedback on the Implementation Plan of the project and its possible practical application.
- Gave insights to the project case studies presented at the Workshop

A mind map of the feedback provided by the stakeholders that participated in the second Stakeholder Consultation Workshop is provided in Figure 1.

5.1 General Comments

Overall, there were overlaps with the 1st Workshop regarding general questions around RRI in industry as well as the usefulness of the Implementation Plan (e.g. how concrete should it be? Who should it target?). It seemed that the presentations from the international experts added a level of global applicability of RRI to the discussions. Differences between countries and regions were mentioned and discussed. The interconnectedness of RRI regarding other concepts (e.g. sustainability) as well as the importance of a wider approach beyond country borders was discussed. Generally, the importance of clear tools or targets but also more general benefits of RRI was stressed as essential to motivate industry to implement RRI. Here, there seems to be a tension between clear goals and applications and more openness and general level of implementation that works for different kinds of companies (e.g. large or SMEs) in different areas. Again the discussions showed that the field of ICT for ageing society is specific in the sense of a high awareness of ethical issues of technologies and therefore many RRI-related aspects (such as engagement) are already being applied in this area. In this way the finding from this specific field can also be very valuable for other areas in which RRI-related activities aren't as established yet. Therefore the stakeholder workshop is useful for application of RRI in ICT for ageing society but also beyond as it can show how RRI-related activities are done in industry and how these could be implemented in other sectors as well.

Figure 1: Mind Map of the Workshop Discussions



5.1.1 Key Messages from the Policy Group

Challenges for concept of RRI

From the Policy group (10 representatives) most had also taken part in the 1st Stakeholder Workshop. The key messages of the policy group are as follows:

- RRI is not a stand-alone concept. It is competing with different ideas, like sustainability, customer driven innovation, etc. and it is not clear whether the conceptualisation of RRI competes with these other concepts or it is actually complementary.
- RRI has to be seen as an investment because it does cost a lot. Setting up RRI complaint structures is not an easy or cheap undertaking and companies will not pursue it if they do not perceive any added value. One should not forget that the ultimate driver for industry has to be profit.
- It is more a matter of compliance than ethics. It is doubtful that there is need for a legal framework to enforce compliance.
- There is a disparity of aims when it comes to motivating RRI implementation. When it comes to societal aims, it makes sense to push from a policy perspective but for industrial applications, there needs to be a market approach.
- At present there is no compelling argument that RRI increases market share. On the other hand, need for implementation depends on the type of industry. Those that face social issues can possibly get help from RRI.
- Perhaps the market driven approach is more relevant in the USA. In the EU an incentive could be that there is a requirement/drive, for instance, a requirement for EU funding.
- External pressures are very important in industrial applications. Being seen to be ‘a good firm’ is an important driver when there are competing companies in the market. This is also dependent on the national context, for instance, in China the incentive is to minimise rather than avoid trouble while in a small country like Finland there are too few companies working in the same area to have external pressures.
- One needs a good argument that RRI does not impede innovation. A rigid/legalistic approach will create barriers to innovation.
- A key motivating factor for industry is development of societal trust to the company and the product. That means avoidance of risks, particular health risks but also good communication in relation to RRI implementation.
- In terms of the Implementation Plan, the positive aspects are that it is well presented, provides a good popularised text, simplifies the concept of RRI and it is reasonably specific. The negative aspects are that it promotes an idealised view of RRI that requires a lot from companies (particular SMEs) without providing a strong argumentation why *companies* should adopt RRI. Recommendations for further improvement are to start with “why” one should engage in RRI rather than “what is” RRI, including a description of what the actual problem that needs fixing is, and provide examples from aging society initiatives that are unsuccessful due to rejection by both carers and recipients.

5.1.2 Key Messages from the Industry Group

The Industry group was made up of 6 representatives, of which some already participated in the 1st Workshop. The main messages from the Industry group discussion were:

- The framework of the Implementation Plan of RRI in companies provides the possibility to open up thinking about different tools and methods and how these can be used.
- However, a critical statement was that the document was still abstract and needed to be more concrete, specific and operationalized.
- As a general framework it can be useful for SMEs, but they need practical instructions that can be adopted easily. It has to be taken into account that SMEs are more flexible and can change easier than most large companies.
- It was suggested that the framework should be applied in small steps, first in one department within the company and then spread out to other departments. This process can take longer in larger, less flexible, companies.
- The awareness of the need to consider ethical aspects of hardware and software already exists in most ICT companies.
- In order to foster the implementation of RRI, the narrative should be changed from a rather problem-driven focus to concrete solutions for companies.
- In Europe, a large body of regulations deals with many issues of ethics and sustainability, and ICT companies already do many things related to RRI. In order to be effective and efficient, current gaps should be identified and the focus should be to apply RRI to these gaps first.
- In terms of the practical implementation strategy for RRI in companies, it was suggested starting in one department, such as the innovation or marketing department. Success and good practises in these early adopting departments will pave the way for the implementation into other departments, too.
- A key requirement is that high-level management in the company need to understand RRI and foster its company-wide implementation and long-lasting application.
- An important aspect for the success of RRI in companies is goal setting in order to measure this against what is being done and to bring RRI into the culture of the company. This can include hiring people with specific competencies, rewarding 'responsible' behaviour, performance management, training, etc.
- This goal setting is on a qualitative level and depends on how the company defines success.
- Protocols of conduct can be helpful to give orientation, as well as showing good practices and providing advice and instructions on how to improve.
- For the management level of a company it is important to see good results.
- Potential benefits of implementing RRI should be transmitted to all involved employees and departments. RRI can be an asset for instance for communication and marketing staff ("we are a socially responsible company") and for the innovation department ("we always include ethical considerations").
- A useful and simple format for companies to assess themselves could consist in a form with checkboxes of RRI-related items to see where they stand and what they need to do to improve.

- The group discussed about how to evaluate RRI on different organisational levels within a company and on which level should the assessment be conducted. It was suggested that RRI should not be reduced to common sense, but expert knowledge might be necessary to assess where improvements have to be made in a company.
- In the area of ICT for ageing: include different perspectives (carers, employees, end users) and collecting their experiences with diverse products and services
- Business models based on Public-Private Partnerships can be useful to create synergies and help to support RRI initiatives.

5.1.3 Key Messages from the CSO Group

The CSO group (8 in total) agreed that the framework was very informative and relevant in the way it addresses various sectors. Some interesting points were made:

- It would be relevant to have a much shorter version of the Implementation Plan as well (an abstract form)
- As RRI is applicable to many sectors, it was suggested to amend the title and add as subtitle “a case for ICT for ageing”.
- The framework seems to be a very relevant set of guidelines for a State or a government but seems harder to apply at company level.
- It would be useful to include links inside the framework to other existing guidelines such as the Age Platform Europe’s free guide on how to involve older people in research. And to include templates for certain activities/tasks that are recommended.
- There are too many technical words that should be avoided and replaced by ‘buzz words’. Responsibility and responsible innovation can be misleading and interpreted in various ways. A CEO can be sure he is being responsible and not be interested in reading the document. One suggestion: using “inclusive innovation”.
- There is a high technology fix in the document. It would be interesting to mention the social side of things, the social solutions that exist.
- Shareholders are a key audience/target, especially for bigger companies.
- The animated video (<https://www.youtube.com/watch?v=ZOGnZr6Ki1g>) was very well received and the CSO group advised that we disseminate it to trade organization, sector federations, unions of ICT developers, etc.
- On the side of companies, there needs to be a clear understanding of the service/product they are developing and who is their client to know who to involve in the testing phase but also to adapt the type of consultation/involvement.

5.2 Discussions on Case Studies

The second group discussions were dedicated to providing insights for the specific companies that participated in the case studies of the Responsible Industry project. This proved to be a unique and interesting part of the Workshop because it focused on RRI and its implementation in specific industry cases. In the plenary session prior to the group discussions, the representatives from three companies presented their work and their relation to RRI. This proved to be extremely helpful for reflecting on RRI in a very concrete

way, i.e. companies providing actual products and services to users and the issues they encounter. In this way, the workshop participants were able to gain insights into the daily work of companies trying to implement RRI aspects and how this can be improved. This in turn is particularly helpful for the Responsible Industry Project as the goal here is to develop a framework which can actually be used in practice. The aim of translating RRI into a concrete industry context (ICT for ageing society) needs to incorporate these practical experiences and exchanges.

In the discussions following the company presentations the groups were mixed between policy, CSOs and industry, which enabled discussions between the different stakeholders. This led to rich discussions in which the various participants could relate and refer to each other and balance arguments and perspectives. The following presents the main issues and outcomes from these group discussions.

5.2.1 Case: Spanish 1

Discussions:

- Incentives for R&I performing companies for implementing RRI must be clear
- Many ICT companies are aware of market barriers, and accessibility and application of products is often difficult. Therefore, Spanish Case 1 already collaborates with CSOs, NGOs, end users, and other stakeholder groups in the design and development of their products and services
- Spanish Case 1 plans to use (key performance) indicators related to RRI in forthcoming R&I projects; Spanish Case 1 marketing department will also be closely involved
- In order to guarantee the success of an attempt to implement RRI into a company, the executive management level of the company has to be engaged. The corporate management has to “buy into it” and promote RRI within the company and outside as a crucial part of the company’s mission.
- It is important to estimate the costs and investments of implementing RRI, because this could require many changes in a company
- An important aspect in order to implement RRI successfully in all levels and departments is to involve the employees and to train them
- The question about the added value of applying RRI in an organisation is very important, especially in terms of business, sustainability and well-being of the employees
- One question raised was how in practise a company could apply aspects of RRI to make better products and how RRI would stand out from other concepts (e.g. CSR)?
- Part of this can be to create a better image to clients and providers and add value to a company’s products and services
- RRI is a useful concept for being a complete and holistic approach, in this sense it is unique in its aim to provide a comprehensive view of research and innovation processes
- Success cases as examples of good practise for faster and better market entry through RRI would be very useful to convince decision makers to implement this concept in their companies
- RRI may countervail negative effects of globalization and may mean that products and services could take national or cultural aspects of end-users more into account

- A standardization and regulation of RRI, at least in Europe, would be useful. This may lead to a certification or “label” for processes and products based on RRI. In this regard, a tight collaboration with existing certification bodies would be helpful
- Partnerships are needed, using of already established forums and develop reward schemes to integrate RRI in existing structures. For example the planned convention for the rights of older people could be a useful platform to connect with
- Partnerships of companies with CSOs and end users are helpful to add various perspectives. CSOs and end user organisations can represent the interests and rights of end users, because they are aware of wider needs. However, engaging with them can be difficult for smaller companies
- One aspect pointed out by representatives of CSOs was that maintenance of products and services is also an important, but often disregarded, factor Therefore, there is a lack of clarity regarding maintenance costs
- It was stated that public funding programmes have changed over time and nowadays pay more attention to ethical aspects than before. Companies need to take this into account when applying for public funding. Therefore, funders of public calls have an opportunity to influence in the adoption of RRI in R&I projects
- Key performance indicators (KPIs) of companies could be an important tool to measure the degree of implementation in a company and the success of RRI, e.g. related to environmental issues, stakeholder engagement or integration of ethical standards
- A useful strategy for RRI experts for communicating RRI to companies and to engage them is to approach first personal contacts in companies to promote RRI and then to train employees, preferably starting with representatives from departments that are open to innovative changes, such as the R&I department or the marketing team in order to create success stories to then further promote, using public funds (e.g. Horizon 2020) to support new and innovative initiatives that otherwise may not be aspirational enough for companies

5.2.2 Case: Spanish 2

Discussions:

- For Spanish Case 2 there is a strong need to work with end users in order to have a ‘good’ product in a ‘good’ market
- Spanish Case 2 refers to their field of work as ‘social care’ sectors
- Main ethical points include privacy and data issues
- Important for the discussion was the point of SMEs as making up a large part of this sector and their specific structure and ways of working
- A main challenge for SMEs like Spanish Case 2 is that RRI requires structures steps which increase the time of development and therefore the costs
- An advantage of SMEs is their flexibility and adaptation enabling them to react faster than large companies
- In SMEs there is often no specific department that is explicitly responsible for RRI or ethical considerations, therefore it is difficult to have a clear process

- One aspect discussed was that ‘overdoing it’ in terms of RRI could lead to a loss of flexibility for SMEs, which is their main strength
- It was stressed that SMEs like Spanish Case 2 rely a lot on experienced developers that know how to work with final users about various issues and have feedback
- This makes it somewhat difficult to disseminate information on how to engage with end users because it is specific knowledge within individuals or a company
- This makes it especially important to engage in exchange activities such as the Responsible Industry project and workshops because through this experiences can be exchanged and support can be given
- The global level was also discussed in terms of challenges such as demographic change that effect other countries as well and which technological solutions can be offered according to local, national or cultural specifics
- Regarding the relationship between large companies and SMEs: smaller companies have the possibility to be much closer to the end user, which is why they are especially important in the ‘social care’ sector: they can be more careful regarding how to put a product on the market also regarding ethical aspects such as privacy
- Also mentioned was the aspect of risk taking for SMEs: they cannot take such big risks regarding a new product as a bigger company
- Here it seems that it also makes a difference who owns the company: if it is a family-owned SME the identification with the company is much higher and therefore the potential to take responsibility into consideration in development processes also higher
- A problem of SMEs is that they sometimes don’t survive over a longer period: here the example of SMEs in China was discussed where these companies might be more willing to take higher risks, disregarding responsibility issues in order to make quick money instead of being accountable for their actions
- Here is it important to go to associations and networks that coordinate and even regulate (Codes of Conduct) a sector because they are more able to initiate changes towards RRI than a single company
- Regarding RRI for SMEs it could be helpful to implement it during the more ‘risky’ part of development in order to enable early feedback and come to better products
- Within Spanish Case 2 there are many projects with various partners (e.g. universities, end users, other companies, researchers, etc.) in different constellations, which means Spanish Case 2 has different roles in these projects
- This means that during the work process different partners might bring up ethical issues and reflections
- Therefore these kind of (research) projects are important for Spanish Case 2 because they allow for exchange of experiences and issues and therefore problems can be identified early on
- Spanish Case 2 uses this to learn throughout the research and development processes also regarding forms of engagement with various stakeholders
- One problematic issue mentioned here was the communication with policy makers and the increasing speed of development: for companies developments are often much faster than the reactions of policy makers, especially in the area of ICT
- Here RRI poses a change to change this by including policy makers early on and therefore opening up the discussion during the development process

- A further critical issues is Open Access, which is difficult for companies to realize regarding technological knowledge. Yet, openness regarding experiences of developers, etc. of the company is easier and can be exchanged
- Here RRI can also be a chance to make these exchanges more systematic and more common among the difference actors in the field

5.2.3 Case: Finnish 2

Discussions:

The device presented (through a video) triggered an animated debate and a high number of questions. The most important points raised by participants were:

- The device seems helpful but only for a very specific kind of patients and for limited amount of time in their lives
- Some dangers should be considered: who programmes the machine? What if you have dementia? There is no way of knowing who is taking the pill. What if you have children around? Or another older person?
- Limitation: it is static and means the person has to be home when he/she needs to take the pill, which is a major issue (socially)
- Some participants agreed that there are pressures on social/health worker and that such devices do help. Other asked if there actually is proof that it frees time for the care-giver (which seems to be the aim of the machine and what the company claims)? The relationship between the machine and the care-giver was not clear to the participants and there was a political dimension to the debate that was demonstrated clearly here
- Data privacy issue: what does the company do with the data collected and who is analysing it?

Issues raised with regards to the RRI pillars:

- Inequality issue: who can afford it? But also, the inequality could come for insurance companies (i.e. making it a condition to have the machine and to benefit from a scheme)
- No gender issue was mentioned
- Privacy issue as mentioned above: where does the data go? Who analyses it?
- Clearly an autonomy issue here: there is a need to be at home to take the medication (raises also the question of loneliness)
- Transparency and openness: there were several questions raised in that regard: who is signing the contract? Is the patient involved? How do they discriminate between patients (who is suitable for the machine)? Could be good to map out all the responsibilities and then elaborate a contract reflecting those

Which KPIs should Finnish Case 2 use?

- End-user satisfaction (questionnaire/interview)

- Performance measurement: mistake level.
- Collect medical facts

Other remarks:

- The presentation of the device reminded all the participants of what RRI is for!
- There should be someone in charge of RRI within the company and the person should be at board level
- Companies should examine their own values in order to position themselves with regards to RRI
- There is also a cultural dimension to the usage of data in different countries

Most of the questions mentioned above were already answered and resolved in situ (e.g. privacy and data protection which is handled very carefully in this context and even beyond regulation – same concerns for service security and usability) but some of them are very context dependent and need to be resolved within real stakeholder in real-life context. Also as mentioned above, as company representatives were not able to participate to the discussion in situ, the discussion will be utilised later on with the company case studies (interviews and workshop).

6 Conclusions of the Workshop

The information, thoughts and recommendations provided by the participants of the Stakeholder Dialogue Workshop were very valuable and a much appreciated input to the project, especially for its main outcome the Implementation Plan. As mentioned, the mix of stakeholders as well as the different levels of discussion (from more general reflections on RRI to concrete case studies) are valuable feedback for the Responsible Industry project, which aims to enable and support 'real-world' implementation of RRI in industry dealing with ICT for ageing society. As a project dealing with RRI, it is essential to provide spaces for the exchange of stakeholders throughout the project. The structure of the workshop proved to be useful to come to results which the project can use for all of its further activities. Regarding RRI the stakeholders gave feedback concerning the international level, the importance for industry and questions surrounding the concept. For the Implementation Plan the workshop delivered further suggestions regarding format, presentation or areas of use within companies. For the case studies of the project the workshop gave direct comments from a range of stakeholders in an open and productive setting. Overall, for the Responsible Industry project the Workshop was a further step in achieving the project aim of developing an Implementation Plan for RRI in industry.

We would like to thank the Helmholtz Association for supporting the Workshop and all the participants for their engaged discussions and valuable input.

Participants of the workshop



7 RRI International Comparisons

During the Berlin Workshop talks on the international perspectives of RRI were given by three external experts. Yandong Zhao and Miao Liao from the Chinese Academy of Science and Technology for Development, Andrew D. Maynard of the School for the Future of Innovation in Society, Arizona State University, U.S.A. and Takenobu Inoue from the Department of Assistive Technology, Research Institute, National Rehabilitation Center for Persons with Disabilities, Japan presented their reflections regarding RRI in their country's context and relations to ICT for ageing.

This is a valuable contribution to the Responsible Industry project, as it provides different perspectives of S&T developments (such as ICT) which are global in their development and impact. Therefore, even though the project is mainly focused on a framework for European companies, it remains important to include the global dimension and the role RRI can play in this. The three countries represented at the workshop have their own specific discussions regarding responsible S&T developments as well as the societal challenge of an ageing society and are key S&T players. Detailed information on this can be found in D 4.4. of this project.