





Governance for Responsible Innovation GREAT – 321480





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1. Executive Summary

GREAT'S WP 6 focuses on the development of guidelines for conducting research and innovation processes in a responsible way (Responsible Research and Innovation, or RRI). This report is part of GREAT'S Work package 6 (Guidelines and Recommendations) and presents the findings from a task 6.3: Review of Guidelines.

Practical guidelines that have a measurable effect on the way that research includes and informs responsible innovation practices need to be usable and practicable from the point of view of potential users. In order to ensure that this is the case, the GREAT project held consultation workshops and other sessions with various stakeholders.

2. Introduction

Practical guidelines that have a measurable effect on the way that research includes and informs responsible innovation practices need to be usable and practicable from the point of view of potential users. We have identified several stakeholders who might have a need to take into account RRI guidelines and tried to modify the approach according to these various stakeholder groups. Ensure that this is the case, the GREAT project held consultation workshops and other sessions with various stakeholders.

These expert workshops took place during the development of the guidelines, thus maximising the effectiveness of the specialist input into the discussions, but also allowing time for the modification and development of the guidelines according to the feedback received.

In the deliverable we first describe shortly (3.1.) the workshop regarding to definition of requirements for guidelines. Workshop was held on 17th December 2014 in DMU, Leicester, UK and the main purpose of that session was to get feedback for requirements of the guidelines from amongst those people (EU researchers and academics) who are the potential users of the guidelines and thus were considered to have an interest in both their design and development of them.

Next we will describe the next workshop, RRI Guidelines – Review Workshop 28th July 2015, also held in DMU, Leicester, UK, and which is now afterwards identified as a main contribution to the designing of guidelines. The starting point for this workshop was the 'requirements for guidelines' document (D6.1) which was developed after a workshop held at DMU in September 2014 which was subsequently sent to the GREAT partners for input and further iteration. Following this, DMU received guidelines suggested by partners, based on the research they had undertaken. These suggestions were then used to inform and provide content for the draft guidelines to be evaluated in the workshop at DMU in July 2015.

Thirdly we will describe shortly the other sessions and data that were used for feedback for designing the guidelines during the process (RRI Trends interviews, other interviews and data





collection, RRI clinics held in Tampere and Helsinki, Finland in December 2015. After the workshops and other collected feedback descriptions we will provide the main findings of the process of designing RRI guidelines and conclusions.

3. Workshops

3.1. Definition of Requirements for Guidelines – Workshop 17th December 2014

Workshop for defining requirements for the actual guidelines was held on 17th of December 2014 at the De Montfort University (DMU). Detailed description of the workshop can be found from Great deliverable D6.1. (http://www.great-project.eu/research/deliverables). Here we present short summary of that workshop only.

The initial set of requirements was reviewed by GREAT partners (internal review process), and also by relevant stakeholders in a workshop (17th of December). The stakeholders invited to participate in the workshop were drawn from EU researchers and academics that are amongst those people who are the potential users of the guidelines and thus were considered to have an interest in both their design and development. It was expected that additional stakeholder groups (i.e. industry, policy makers) will be included in the subsequent workshops before the guidelines (D6.2) are finalised. Results of these both were then used to craft the set of 11 requirements below.

Constructive, process focused requirements

- 1. Use a common language that overlaps all disciplines.
- 2. Be concise and ensure that the guidelines are practical and usable (bullet points etc.) as shorter documents are more likely to be read and understood.
- 3. Use good style to enhance readability (colours, diagrams, pictures, other types of media). Make the guidelines attractive and easy to understand.
- 4. Provide an interactive document, e.g. links to RRI websites, case studies, providing examples of 'good'/'bad' practice or normative dilemmas, tools and resources, placing particular emphasis on the findings from GREAT project research. The goal is to provide examples for discussion leading to organisational/individual learning.
- 5. Provide a cover page with the key points to give a starting point for users of the guidelines

Substantive, content focused requirements

- 6. Provide a small number of concise RRI definitions and other key terms that are tightly coupled to the findings from GREAT. Also, provide a description of meaning, scope, and complexity within the document through links to the Glossary (D2.1).
- 7. Provide links to further definitions of RRI including those both perceived by the GREAT project and within the wider discourse to broaden awareness of RRI principles and to encourage the use of RRI theory to relate to user's own practice.
- 8. Provide methods to re-asses and challenge the guidelines including a regular review (this means that a key principle of RRI in GREAT's own guidelines should be considered: reflexivity).





- 9. Respond to existing frameworks, e.g. existing selection, funding and evaluation criteria for research projects) and relate the benefits and problems of RRI to such frameworks.
- 10. If the pluralistic approach to RRI currently developed in GREAT goes beyond the scope of requirement 6 ('provide only a small number of concise RRI definitions'), deliberate on possible ways of representing this pluralistic approach without compromising too much on requirement 2 as there will always be tradeoffs in requirements. This will be made according to their specific context and will consider the extent to which such a stakeholder-oriented and context-sensitive approach is feasible within the timescale of GREAT.
- 11. If explicit norms of responsible behaviour are expressed in the guidelines, these norms should be established with the participation of stakeholders. (This requirement rests on one of the key findings of GREAT: 'good' governance implies, among other things, that various actors participate in the making of the very norms they subsequently have to follow).

3.2 RRI Guidelines - Review Workshop 28th July 2015

After the "Definition of Requirements for Guidelines – Workshop 17th December 2014" dialogue with different stakeholders was continued and refinement of guidelines was done according to this feedback and internal review. Three different sets for different identified stakeholders was prepared and presented in the workshop. As an example the one of these can be found in appendix (appendix x).

Approach and Rationale

The starting point for this workshop was the 'requirements for guidelines' document (D6.1) which was developed after a workshop held at DMU in September 2014 which was subsequently sent to the GREAT partners for input and further iteration. Following this, DMU received guidelines suggested by partners, based on the research they had undertaken. These suggestions were then used to inform and provide content for the draft guidelines to be evaluated in the workshop at DMU in July 2015.

The workshop was conducted by using the same approach as the previous workshop, being similar to a focus group, i.e. problem-centered group discussions moderated by the researcher (Krueger, R & M.A Casey, 2000). The discussion centered on three versions of an initial set of (draft) guidelines. The workshop's intention was to evaluate and provide feedback and suggestions on these initial guidelines and how they could be improved. Participants were encouraged to reflect on these and to highlight any alternative or additional matters that they considered important to be included in the guidelines handbook. The aim was for participants to provide feedback based on their experiences and expectations, in the context of the research and innovation practices within their own discipline. In this way the workshop facilitated reflexivity where 'reflexivity asks researchers and innovators to think about their own ethical, political or social assumptions underlying and shaping their roles and responsibilities in research and innovation as well as in public dialogue' (D 2.2 p.17). The reflexive approach enabled the initial set of guidelines to be considered in terms of their suitability, usefulness, appropriateness across disciplines and flexibility for adaptation or revision if necessary.

The structure of the workshop (Appendix xxx) indicates the systematic way that each of the three versions was reflected upon and feedback gained.





Participants

The rationale for selection of the participants in the workshop to evaluate the draft guidelines was based on an understanding that there are multiple possibilities when identifying and selecting stakeholders, some of whom may also have incompatible interests (Friedman and Miles 2006). The stakeholders invited to participate in the workshop were drawn from people who were amongst the potential users of the guidelines and thus were considered to have an interest in their design, development and content.

The selection criteria were built on those utilised and approved by the consortium for the 'Cross-disciplinary Cross-nation Context Workshop' (Task 3.1) and focus groups (Task 3.2); and the 'Requirements for Guidelines Workshop' (D6.1). It was therefore considered that this approach was also appropriate for the guidelines review workshop, as it provided further consistency across the project and work packages/tasks.

The selection process led to six attendees at the workshop including five researchers and one PhD student at different career stages and from a range of disciplines including management, technology, telehealth and computer ethics.

The participants included:

- One Professor currently involved in one European FP7 Project
- One PhD student involved an a UK based project
- Four Senior Lecturers/ Senior Research-Fellows involved in several European FP7 projects
 Of these participants, the PhD student is early stage career; Two Senior Lecturer/Senior Research-Fellows
 are in the early/mid stages of their careers; One Senior Research Fellow is in mid-career stage and the
 Professor is at the senior stage.

Workshop Structure

In the first instance, a participant information sheet was provided along with two consent forms, one for retention by the project to indicate informed consent to be involved in the project; to give permission to record the session; and confirming the right to withdraw their participation from the project and any resulting findings. The second copy was for retention by the participant themselves (appendix xxx).

The session was recorded and transcribed verbatim, and comprehensive written notes were also taken. This enabled a rich set of information to be gathered in order to facilitate improvements and revisions to the guidelines to be undertaken after the workshop.

There was an initial introduction to the project and an explanation of the expectations of the workshop. It was highlighted that the GREAT project is tasked with developing a set of guidelines and recommendations (D 6.2) that would be used to 'allow stakeholders to improve their approach to responsible research and innovation' (Description of Work, p.20).

This was followed by a group discussion about the broader principles surrounding the creation of a set of guidelines for the governance of RRI 'Why guidelines? Why now?' This was to establish a starting point for a detailed evaluation of the initial set of (draft) guidelines.





The requirements for guidelines table (D6.1, Appendix xxx) was provided alongside the draft guidelines (appendix x) in advance of the workshop, and participants were asked to consider the guidelines in light of these. It should be noted that this table had been evaluated at the previous workshop, and then finalised and approved by the consortium prior to the development of the draft guidelines. Therefore, this was to be utilised as the primary guidance document for evaluation of the draft guidelines themselves. The workshop participants were asked to evaluate the guidelines and to consider if they were in-keeping with the requirements. Following on from this, the participants were tasked with evaluating each version of the draft guidelines to consider their format and suitability. After a break, the participants were asked to identify strengths and weaknesses to enable recommendations for improvement to be made. Flip charts were used to capture the perspectives on the 3 versions of the guidelines, and to offer suggestions and solutions to the issues raised. A general discussion followed to enable these perspectives to be explored in more depth and to finalise conclusions before the end of the workshop session.

Workshop Discussion

Why guidelines and why now?

There was some general discussion regarding the need for guidelines and how they could assist researchers in conducting their work in a responsible way. The usefulness of a set of guidelines was agreed, but that the nature and scope of them could be diverse and difficult to define for different user groups. There was also some discussion regarding core principles such as the meaning of responsibility; about defining RRI; and considering what processes the GREAT project was utilising in order to develop the concept of RRI and the subsequent guidelines. It was explained that this level of theoretical detail was beyond the scope of this workshop, which was to the evaluation of the draft guidelines themselves, and that the answers to these questions could be found in the GREAT deliverables from other work-packages.

It was agreed that the section on why guidelines and why now should be at the start of the document so that readers could understand what the document is about and what it intends to achieve. It was further argued that even asking WHY guidelines are relevant can cast doubts as to their relevance, so that the better approach might be simply pitch it in way that it reads along the lines of ...'This is relevant because....'

Guidelines general evaluation overview

There was a general consensus that more needed to be done in order to ensure that the guidelines were fit for purpose. An example was provided of how someone involved in robots and smart cars could use the guidelines in order to apply RRI to a project. It was felt that for such a person, the current guidelines might appear too political and lacking the kind of specific direction that would demonstrate the applicability of RRI in their work.

There was also consensus that the document did not provide sufficient clarity on what RRI is or provide pointers as to how RRI could be embedded when planning or doing research. The section clarifying the principles of RRI also needed to be further developed. The lack of any green energy, environmental, ecological or cyber security issues within the present guidelines was seen as needing to be remedied (in that they were only mentioned as part of broad EU priorities). It was further suggested that a framework and examples extrapolated from case studies, interviews or any field work would be a way of





strengthening the guidelines. One participant suggested (informed by the project they were currently working on) that 4 key criteria of 'responsibility' could be considered.

- i) Methodology/Epistemic
- ii) Sociological ethical
- iii) Societal impact e.g. in environment, product of research
- iv) Inclusiveness of stakeholders

It was noted that the definition of RRI provided in the guidelines was too broad and delivered as an umbrella term. It was felt that the guidelines needed to be more courageous by adopting a more succinct definition of RRI which could more readily link with other projects working on the area. Additionally, it was suggested RRI could be a general term targeted for different groups and which could facilitate adaptation of the guidelines and subsequently RRI approaches to different disciplines.

Strengths and Weaknesses

It was felt that the identified stakeholder groups were helpful to relate their perspectives and needs to the different areas in the guidelines, but that justification of the chosen stakeholder categories was needed. Again, participants were advised that this had been addressed in GREAT deliverables, and in particular the survey D4.1. It was also felt that there was a need for researchers to be informed what RRI is in a few words and to have something/examples that are relatable, specific and to the point. The use of case studies as indicated above therefore, was seen as an opportunity to address these points.

Examples of alternative formats and approaches were provided by the participants and included a framework, a summary on responsibility and a booklet on ICT for All. These were subsequently used to inform later versions of the guidelines.

With regards to format, whilst one version was chosen as preferred at the time of the workshop, the revisions resulting from the findings of the workshop has led to a changed format from those initially presented to the participants. The revised format was reviewed and approved by the consortium partners.

It was felt that the guidelines document should be EU focussed but with international relevance. They should, therefore, feed into and relate to EU/Juncker goals but carry international relevance. It was suggested that a diagram to point to RRI area of research connected to specific sources of RRI guidelines would make things clearer, to include mapping the Juncker goals and the six key RRI areas.

It was also suggested that the proposed guidelines could be developed into an interactive document online.

Stakeholders

The question of whether to address indirect stakeholders within the guidelines was discussed. The general consensus was to focus on direct stakeholders whilst being aware of the possibility that there could be indirect stakeholders affected. This was in addition to the possible need to discuss unintended consequences that might negatively impact potential users. Shareholders / tax payers may also need to be considered in the framing of stakeholders.

Language





It was agreed that the language used should not be too academic, (requirements table #1). It should be simple to understand and accessible to all (requirements table #2). This was seen as important in attracting the relevant stakeholders and keeping them interested in the guidelines.

Conclusion

It was felt that the guidelines as they were presented were not able to address the needs of their potential users as they were too abstract, did not provide sufficient practical guidance, and should be significantly revised. The identification of stakeholder groups was seen as valid but there were gaps, specifically the environmental aspects and the lack of practical examples through the use of case studies. There also needed to be better coherence between the EU priorities and those identified through the GREAT project research findings.

Subsequent iterations of the document changed the formatting to make each key point easier to identify and to better reflect the requirements for guidelines #1 and #2 in particular. Further, definitions and case studies in the form of vignettes have been included to highlight practical examples and so provide more contextual guidance to researchers in incorporating RRI approaches to their work.

3.3. RRI Clinics - VTT Tampere (Tue 15 Dec 2015) and VTT Espoo (Wed 16 Dec 2015)

In RRI clinic session at VTT we handled the issues of RRI dimensions and their implementation and usefulness in a more practical level: how to implement RRI in your technology development projects. Main issue in these seminars was to support and help researchers in their preparation of new projects and emphasise the importance of implementing the RRI approach for the H2020 proposals and also in general level to their daily practise. Below you can find the program of those seminars. Around 20 people participate to these clinics and we collected the feedback about the approach and clinic in discussion in the hands on part of the rehearsal (free discussion with partners).

RRI for H2020

Seminar and clinics at VTT Tampere (Tue 15 Dec 2015) and VTT Espoo (Wed 16 Dec 2015) Schedule

- 12-12.15 Welcome and introduction / Dr, Principal Investigator Mika Nieminen, VTT
- 12.15-13 Responsible Research and Innovation H2020 project preparation / Dr. John Pearson, University of Namur, Belgium
- 13-13.45 Addressing RRI in industry / Dr. Emad Yaghmaei, Southern University of Denmark
- 13.45-14 Coffee Break
- 14-15.30 RRI clinic for H2020 project preparation
- 15.30-16 General discussion and ending

Main outcome and feedback from those events was that for this particular purpose researchers would like to have a very concrete practical view to the theme. Naturally as a theme was quite new for the participants the introduction to the theme needs to be well designed. Practical examples of responsible and irresponsible behaviour or practise would help participants to understand the meaning of the concept and its' various dimensions. Reading through guidelines document alone is not enough for understanding the content of the approach. Based on our experience in these clinics dialogue is needed for the process of mutual learning and co-





construction of the concept. We believe that there is no one size fits for all purposes tool but you need to understand the context more holistically and adjust the dialogue according to those demands: just one practical example from these seminars was a person who has attended to the clinics because it is seen as requirement but after a clinic he was saying that the approach is important as itself, not just as a regulatory requirement. Guidelines may work as a general introduction to the theme but it will be hard to digest those dimensions, pillars or principles as a practical solution without going to the development process and taking into account the broader context.

3.4. Other sessions

We were able to integrate the question of guidelines to the work we did in RRI trends interviews (lead by Res-Agora project). Besides that we had separate feedback sessions (e.g. discussions about guidelines) with our collaborators. Companies that we interviewed in relation to the RRI trends study were large multinational entities with highly structured built-in governance frameworks. Code of conducts and corporate social responsibility were already implemented in these organisations and it was commented that these also cover already quite large part of the research and innovation activities performed in these companies. RRI dimensions are both explicitly and implicitly considered in R&D activities through the code of conduct and via other kind of governance structures which depend on activities and contexts. For example the governance model for R&D is exactly defined in the code of conduct. Equality is also defined in the code of conduct as one of the focal values: "Nokia is committed to the principles of The Universal Declaration of Human Rights and the United Nations' Global Compact, and we expect our suppliers and business partners to share these values". Equality is practically enhanced in R&D where Nokia has established and collaborated in several projects where accessibility, equality (also gender issues) and science education have been a focal points (both in developing and industrial countries). Access to information via information technologies is seen as an enabler to education, awareness and societal development. One example of this is the connectivity scorecard (http://www.connectivityscorecard.org/): "Information and Communication Technologies (ICT) can drive social and economic progress while helping to reduce the environmental impacts of many industries and human activities. Bringing broadband connections to remote or poor areas can create new opportunities, while advanced applications such as cloud technology, machine-to-machine connections and social media can enable and transform new services." In KONE application of the responsibility and values at everyday practices at all level of actions is sometimes challenging (e.g. lack of time and information, other business priorities) but it is tackled e.g. by paying special attention to educating people.

For Nokia there are no clear barriers to accomplish RRI. Nokia is already implementing many aspects of RRI and wants to improve its performance. For Nokia sustainability and responsibility are "a must and the price you need to pay for them is acceptable due to the benefits they bring to the company". For Nokia, in the global business and R&I there can be cultural, legal and regional differences that affect to the consideration of RRI dimensions. However, in the long-run and with the global perspective in mind, RRI and sustainability are positive assets for the company. They are long-term brand assets for the company

Open access and science education are related to the theme of open innovation and co-creation which are present in Nokia's project portfolio and networking/collaborating activities. Engagement has been strongly emphasised in the development of new technologies and applications due the usability/user experience reasons. Engagement is also company's internal policy as employees must have an opportunity to influence in the R&I. Furthermore, besides company's own code of conduct and experts on ethics and compliance, company collaborates in various RRI dimensions in numerous collaborative and co-funded activities and looks for external support in specific cases.





Even though RRI is seen as an important approach and valuable contribution specifically in the R&I context, still additional procedures and guidelines might have difficulties for implementation. In Nokia, it could be claimed that to be able to follow and measure the successful implementation of RRI in the company one would need a similar kind of "standardisation" as for CSR. Possibilities to implement strong RRI inside the company would exist if RRI was linked to the current code of conduct or CSR activities.

4. Findings and further development of guidelines

Main findings of the various interactions with potential stakeholders and from our internal workshops are presented in the table below which integrates the initial requirements and the requirements found out in the process of developing the guidelines:

	Refined RRI guideline requirements
1a)	Use a common language that overlaps all disciplines if you are aiming to present more general view to the theme.
1b)	However specific guidelines for different areas of research, for different stakeholder groups and different context may have a value from the perspective of the end-user of the guidelines.
2a)	Be concise and ensure that the guidelines are practical and usable (bullet points etc.) as shorter documents are more likely to be read and understood. But you need to avoid to make a too abstract presentation of the theme.
2b)	Some projects, areas of enquiry or stakeholder groups may need detailed descriptions to ensure value and relevance. Tools and methods for the implementation of the RRI should be presented in the guidelines itself or as an appendix. "Best and worst"
3a)	Use good style to enhance readability (colours, diagrams, pictures, other types of media). Make the guidelines attractive and easy to understand.
3b)	Guidelines could be presented also as an application where user can choose and customise the view to the theme. Graphics and wording could be customised to aim at specific target audience.
4a)	Provide an interactive document, e.g. links to RRI websites, case studies, providing examples of 'good'/'bad' practice or normative dilemmas, tools and resources, placing particular emphasis on findings from GREAT project research. The goal is to provide examples for discussion leading to organisational/individual learning.
4b)	To inform and guide user to/from the specific project, area of enquiry or stakeholder group as well as more broadly. Provide access to multiple sources and perspectives and provide a contextualised approach.
5	Provide a cover page with the key points to provide a starting point for users of the guidelines. Executive summary for the content and "how to use" should be provided.





Provide a small number of concise RRI definitions and other key terms but provide links to further definitions of RRI. But emphasis must be in the process – how to start working with various RRI aspects. Provide methods to re-assess and challenge the guidelines including a regular review (this means that a key principle of RRI in GREAT's own guidelines should be considered: reflexivity). But emphasis must be in the process – how to start working with various RRI aspects. Respond to existing frameworks, e.g. existing selection, funding and evaluation criteria for research projects) and relate the benefits and problems of RRI to such frameworks. RRI is currently cross-sectoral theme in H2020 and the importance of it is emphasised even more in the future, Bring explicitly in sight the benefits of following/using the guidelines – but be honest 9 also about the possible cost of doing that. In case of not academic use of guidelines relate the RRI approach to the other familiar 10 approaches like CSR or code of conduct. Understanding of similarities and differences of these approaches may help the reader to lead these guidelines to the right audience and for the presupposed, specific purpose.

5. Conclusions

The current version of the Great guidelines offer a more general perspective to the RRI: they do not provide detailed guidance, tools or methods for different stakeholders. Instead: "These guidelines explain what RRI is, and the way that it will help ensure that research supports innovation to deliver a future that is inclusive, healthy and sustainable"..." They offer practical pointers to areas for action to be considered by a range of interest groups". But they do not present practical procedures or give a detailed plan for implementation to these areas or give various paths to action to these different interest groups. It is a choice that has been made during the development of these guidelines: these guidelines will give fundamentals for taking into account RRI in different organisations with different stakeholders. The guidelines' perspective is mainly on the level of governance: "The guidelines can be used to support individuals and organisations to review or change the way they commission, undertake or use research to support innovation. By this means, they can help to promote the ability of researchers and others to consider their personal, collective or corporate ethical standpoints; understand the way that these relate to the communities and cultures within which they operate; and ensure that reflexivity is built into the research process. For corporate bodies, the guidelines can help to ensure that research is undertaken within a framework of good governance." GREAT has given some practical examples of implementation of RRI dimensions and studied current status of RRI (including Corporate Social Responsibility) in different organisations but our aim have not been to give a detailed implementation plan or a library of a procedure, tools and methods for RRI. It is the work that other RRI projects are doing. That is why these guidelines emphasise the justification for RRI, asking and answering the big "why RRI is important" question and not to provide more detailed answer to the question of how. The final version of the guidelines can be found in D6.2 Guidelines Handbook.





6. References

Friedman, A., and Miles. S., (2006) Stakeholders: Theory and Practice. Oxford: OUP.

Krueger., Casey. R, and Casey. M.A., (2000) Focus Groups. Thousand Oaks, Calif: Sage.





Appendix 1

Requirements for guidelines

		Deminents for guidening	
	Constructive, process	Requirements specific to	Issues and Concerns
	focused requirements	project, area of enquiry, or	
		stakeholder group	
1	Use a common language that	May require use of some	Over simplification or too much
	overlaps all disciplines.	discipline specific language	complexity in the discipline specific
		(Glossary D2.1) for clarity and	language may result confusion or the
		precision.	evasion of the 'spirit' of RRI in practice.
2	Be concise and ensure that the	Some projects, areas of enquiry	If the guidelines are too brief it may
2	guidelines are practical and usable	or stakeholder groups may need	lead to lack of clarity and detail.
	(bullet points etc.) as shorter	detailed descriptions to ensure	
	documents are more likely to be	value and relevance.	
	read and understood.		
3	Use good style to enhance		Could trivialise or over complicate the
	readability (colours, diagrams,		message.
	pictures, other types of media).		
	Make the guidelines attractive		
_	and easy to understand. Provide an interactive document,	To inform from the specific	Information overload and accessibility
4	e.g. links to RRI websites, case	project, area of enquiry or	issues.
	studies, providing examples of	stakeholder group as well as	133063.
	'good'/'bad' practice or normative	more broadly. Provide access to	
	dilemmas, tools and resources,	multiple sources and	
	placing particular emphasis on	perspectives and provide a	
	findings from GREAT project	contextualised approach.	
	research. The goal is to provide		
	examples for discussion leading to		
	organisational/individual learning.		
5	Provide a cover page with the key	Graphics and wording to aim at	Tone may be inappropriate, over
	points to provide a starting point for users of the guidelines.	specific target audience.	simplification.
	-		
	Substantive, Content		
	focused requirements		
6	Provide a small number of concise		Perspectives included in definitions
	RRI definitions and other key terms that are tightly coupled to		may be limited or may create confusion or possible narrowing of
	the findings from GREAT. Also,		perspectives.
	provide a description of meaning,		politics.
	scope, and complexity within the		
	document through links to the		
	Glossary (D2.1).		
7	Provide links to further definitions		Perspectives included in definitions
	of RRI including those both		may be limited or may create
	perceived by the GREAT project		confusion or possible narrowing of
	and within the wider discourse to		perspectives.
	broaden awareness of RRI		
	principles and to encourage the		





	use of RRI theory to relate to		
8	user's own practice. Provide methods to re-assess and challenge the guidelines including a regular review (this means that a key principle of RRI in GREAT's own guidelines should be		If too flexible, may have little impact as the guidelines may be too weak to be effective.
9	considered: reflexivity). Respond to existing frameworks, e.g. existing selection, funding and	Identify and respond to aspects of EC framework that are specific	May be too prescriptive. May not be accepted in other geographical
	evaluation criteria for research projects) and relate the benefits and problems of RRI to such frameworks.	to project, area of enquiry, stakeholder group.	regions. May narrow scope and constrain innovation or may create confusion due to contradictions.
10	If the pluralistic approach to RRI currently developed in GREAT goes beyond the scope of requirement 6 ('provide only a small number of concise RRI definitions'), deliberate on possible ways of representing this pluralistic approach without compromising too much on requirement 2 as there will always be trade-offs in requirements. This will be made according to their specific context and will consider the extent to which such a stakeholder-oriented and context-sensitive approach is feasible within the timescale of GREAT.		
11	If explicit norms of responsible behaviour are expressed in the guidelines, these norms should be established with the participation of stakeholders. (This requirement rests on one of the key findings of GREAT: 'good' governance implies, among other things, that various actors participate in the making of the very norms they subsequently have to follow).		





Appendix 2



Governance of REsponsible innovATion

Responsible Research and Innovation

Guidelines Handbook







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1 Introduction (Policy Brief)

To conduct research and innovation responsibly is a goal that everyone can aspire to. Responsibility is therefore an important element in participative research and innovation governance as it can increase legitimacy and raise public awareness as well as providing sustainable economic benefits.

There are a growing variety of RRI projects and initiatives apart from GREAT that are working to conceptualise and better refine understanding of the RRI landscape. These guidelines draw on these additional sources as well as the research findings from the GREAT project. The resulting guidelines provide a blueprint for researchers and others to efficiently and effectively engage in research.

This handbook therefore, provides definitions, examples and other resources that can inform an effective approach to the governance of RRI. The guidelines are intended to be flexible and adaptable given that there are a variety of ways of conducting research and innovation in many different contexts, and so the examples below are indicative of the 'ways' that RRI can be implemented. The purpose of the guidelines then, is to support different stakeholders' own initiatives in identifying and implementing their own RRI measures and practices. Of course, it is understood that changing the culture of an organisation is as difficult as it is to change the behaviour of an individual. RRI seeks to approach change so that it is seen as the best way of working by those working within it by involving those affected by these guidelines from the outset.

For more information about the process used in creating these guidelines: http://responsibility-rri.eu/observatory/definingrequirementsforguidelines

1.1 Who are these guidelines for?

These guidelines are intended for, but not limited to anyone who is involved in research and innovation projects, research funding organisations, policy-makers and stakeholders.

2 What is Responsible Research and Innovation (RRI)?

There are many approaches and definitions of RRI, but perhaps the most pertinent for these guidelines as they are focused within the European context, are those described by the European Commission.

The European Commission has described five keys of RRI:

Engagement

To facilitate wide representation of social, economic and ethical concerns and common principles to foster mutual learning towards developing joint solutions.

Gender equality

Addressing the under-representation of women through modernizing processes and by the integration of the gender dimension to research and innovation projects.





Science education

To equip future generations of researchers with the knowledge and tools to participate responsibly in research and innovation, and to boost interest in science, maths and technology.

Open Access

To ensure transparency and accessibility and to encourage responsibility, it is important to provide open access to publicly-funded research results.

• Fthics

A society based on shared values and fundamental rights to ensure the acceptability of research and innovation whereby ethics ensure high quality and is not considered a restraint.

Governance

The umbrella concept that ensures that policy-makers are responsible to prevent harmful or unethical developments through research and innovation.

EC (2012)

In addition, the EC is also aiming to promote greater understanding and co-operation through the ten goals described by Junker (2014).

A new boost for jobs, growth and investment

The aim to more effectively use public funds to boost research and innovation will also include a reduction in restrictive legislation, particularly for small and medium sized enterprises (SME's). A RRI approach considers the future impact and approaches to research and innovation, and sees the opening up of access to funding and a reduction in bureaucratic barriers as an opportunity for growth and development.

A connected digital single market

Greater connectivity provides greater opportunities for investment and marketization of innovations through digital connectivity across the union and beyond. RRI approaches utilise the opportunities offered by such connectivity, whilst also considering the impact, particularly regarding data protection and security.

A resilient energy union with a forward-looking climate change policy

With the growing concern about climate change and the environment, RRI considers how new innovations can look towards future generations, beyond short-term energy requirements and profit motives to consider the societal benefits of innovation in energy use and production. In addition, in the development of new products, RRI aims to minimise waste and high energy use through the development of efficient and sustainable products from the outset.

A deeper and fairer internal market with a strengthened industrial base

RRI considers that there is a lot of waste and duplication within the current structures of research and innovation that reduces efficiency and wastes resources. RRI encourages greater collaboration and participation of stakeholders at all levels and the sharing of resources and information to grow the industrial base in Europe and increase competitiveness and co-operation between partners.

A deeper and fairer economic and monetary union

Through greater economic union, the internal market and industrial base discussed above will be enhanced through fairer access to resources and greater stability.

A reasonable and balanced free trade agreement with the U.S.

By encouraging fair and equitable trade, this will open-up opportunities for greater investment in research and innovation, leading to greater economic growth. RRI considers the importance of maintaining standards of data protection and the need to ensure that systems in place such as Safe Harbour are effective, not only for intellectual property, but also for the protection of citizen's data and to provide redress.

An area of justice and fundamental rights based on mutual trust

Mutual trust is not just between Nation states, it is also important between institutions and individuals. Participation and involvement in the decision-making processes brings RRI into the heart of the future direction of the EC by engaging in democratic participation and a reduction in top-down approaches.





Towards a new policy on migration

RRI can provide innovative approaches to migration policy by considering the social as well as economic impact of migration to inform future policy.

A stronger global actor

As globalisation continues apace, RRI approaches can be promoted throughout the world, including raising the standard for development towards a more sustainable future for all.

A union of democratic change

Greater union between member states means that the democratic approaches to decision-making becomes even more important to ensure buy-in from all involved. The participatory and reflexive approach of RRI provides a democratic and inclusive way to ensure successful integration of ideas, research, innovations and the development of new products and services. (Junker, 2014)

These ten goals closely align with the five pillars of RRI and the guidelines in this handbook aim to help those involved in research and innovation to these goals through the application and integration of RRI.

Additional resources that include further definitions and case studies are available at http://responsibility-rri.eu/observatory/definitions
http://responsibility-rri.eu/observatory/casestudies

And...

an in-depth discussion of the theoretical landscape of RRI http://responsibility-rri.eu/observatory/theoreticallandscape

3 Key terms in RRI

3.1 Responsibility

Responsibility is a cornerstone of RRI. It is a wide ranging concept that includes identifying who or what is at 'fault', what the 'risks' are, what 'precautions' should be taken and by whom. It expands beyond the personal towards the environment, society and the future. Responsibility then, in the context of research and innovation and as a key element of RRI combines both the personal and the institutional. Responsible to:

- complete a task or some other obligation
- an individual or an organization (often through specific channels of communication).
- take action to rectify problems

Responsible for:

- our personal decisions
- the impact of those decisions
- those who are dependent on our decisions





3.2 Innovation

Innovation can be found everywhere. Its possibilities and potential are limitless although it is not about invention but is more to do with progression. Innovation is essential for development, and is not something that should be restricted unnecessarily. Innovation therefore can be about making marketable improvements or changing the use of an existing product or service to increase efficiency. It could also include rapid and fundamental change in society e.g. the adoption of ICTs, and/or the introduction of something novel or new.

3.3 Reflexivity

There are two approaches to the process of reflection in RRI.

- When we consider the framing in which the work is done and decisions made, and take responsibility for the personal assumptions that guide our actions and behaviour.
- When we re-consider our actions, behaviour or a set of processes, impacts or outcomes and try to identify a solution to a problem or a way to make improvements

3.4 Stakeholders

One of the first tasks when thinking about developing a project proposal in RRI is to identify the stakeholders. In RRI, stakeholders should be involved in all aspects of a project, from its initial design to its implementation and/or introduction to market and beyond. In RRI, participation is one of the key ingredients to a successful project. Stakeholders can be identified by asking if:

- 1. Behaviour/work process will be affected by the development or delivery of this project.
- 2. Circumstance/job will be affected by the development or delivery of this project.
- 3. Experiences will be affected by the development or delivery of this project.

(Gotterbarn 1996)

...and if the answer is yes, they are a stakeholder.

Direct stakeholders however are not the only ones who should be considered, and who may be affected by a research or innovation project. For example, where an innovation creates a product or service that is then accepted and widely used, the negative effects may chiefly be felt by those interacting with the users of the product or service indirectly (e.g users and non-users of Facebook).

3.4.1 Glossary

Stakeholder	





A comprehensive glossary of RRI related terms and their definitions can be found at http://responsibility-rri.eu/observatory/glossary

4 Why Guidelines? Why Now?

As the impact of past innovations and research become clearer, (e.g the over-use of antibiotics and the development of resistant bacteria) and new uses are found for existing technologies (e.g the ever developing mobile phone), it is the responsibility of anyone involved in research or innovation to anticipate the future impact of the work and do all that can be done to prevent harm.

4.1 Why is it relevant for me?

If you are reading this, you are stakeholder in research and innovation. Research and innovation affects everyone, but some people have the power to minimise the harm and maximise the benefits.

These guidelines are part of a drive by research funding organisations such as the European Commission and others, to embed responsibility into the governance of all new research and innovation projects. RRI is an umbrella terms that brings together law, ethics, and economics. The guidelines and resources in this handbook provide an inclusive and flexible approach towards embedding RRI into everyday working practices.

4.2 What if...

This is a question that should be asked in all research and innovation projects. In RRI, when thinking about the potential benefits a new idea can bring, it is also important to consider the potential harms and one's personal responsibility to prevent them. Further, when harms are identified, solutions and mitigations can be identified and implemented before there is a real problem, thus saving time, money and resources. In this way, the outcomes from projects are more likely to be developed responsibly and successfully adopted.

5 The Guidelines

Below are the guidelines for RRI that are the result of the research in the GREAT project. They are presented in a way that provides examples of how the guideline can be applied in practice for all the selected stakeholder groups:

Research institutions, researchers, innovators and scientists

 These are anyone who is working directly in a research group, project or research institution. The guidelines therefore should inform current and future working practices.

Research funding organisations

 Organisations and individuals who are looking to provide resources for future research and innovation projects. These guidelines may provide insight into how to revise the application and evaluation process to include RRI principles.

Small and medium sized enterprises





They are often involved in innovation, but unlike researchers, need to profit from the work to grow the business. These guidelines will help to identify potential threats to the business, and to identify how RRI practices can improve outcomes both socially and economically.

Civil society organisations

 Civil society organisations are becoming more involved in research and innovation, but also have particular interests in key areas. These guidelines will provide insight into how RRI can improve the outcomes of research and innovation, and how CSO's can support RRI in practice.

Policy makers

 Those who make decisions about ways of working, funding, allocation of resources and strategic direction. They are also involved in making legislation and so should use these guidelines to inform their decision-making.

Where a guideline or its application is aimed at a particular stakeholder, then this is indicated in the description. However, all of the guidelines can be applied broadly and stakeholders should adapt and interpret them to their own context.

5.1 Guideline 1 - Participation

In an example of poor practice, if someone is invited to participate but has no influence in the decision-making process, or if a specific frame is adopted for reflexivity without making it clear. If this is the case and participation is only nominal, then not only does this reject RRI, it also increases the likelihood that the outputs from the project will be rejected.

5.1.1 Guideline

- Innovation has a societal objective that should not be ignored or undermined
- Responsibility has many interpretations and the concept paves the way for multiple approaches
- Norms are interpretable and therefore multipolar
- Responsibility should be understood not as a fixed term but as a dynamic process across different social domains.
- Governance of RRI should consider participation as a substantive tool in order to facilitate reflexivity at two levels, and to influence the decision-making process.

5.1.2 How this can be applied...

- Ensure the reasons and potential outcomes are carefully considered
- Ensure that everyone knows that they have responsibilities beyond 'just getting the work done', and that impact affects everyone
- Acknowledge that there are many different ways to look at something
- Taking responsibility is also to be flexible
- Participation and reflection are seen as integral to core processes

5.1.3 Impact/reflection

Potential harmful outcomes are identified and mitigated for





- Work is done in a thoughtful and responsible way, building ethical norms and embedding RRI
- Change is seen as an opportunity to improve, not a threat to embedded practices
- Stakeholders are fully involved in all processes
- Costs are minimised as potentially damaging outcomes are prevented and contingencies are accounted for

5.1.4 RRI adding value

- RRI within organisations as well as within projects more easily comply with requirements of funders, legislation and ethical values
- Improving working practices increases efficiency and improves project outcomes
- Stakeholder engagement increases the likelihood of acceptance
- Facilitates a real ethical understanding of research and innovation that is enhancing participation and two orders reflexivity.
- Show that approaches to RRI should be judged according to the degree to which they facilitate a real ethical understanding of research and innovation

5.2 Guideline 2 - Ethics and morality

Ethics and morality are different things based on different objectives and domains. Ethics is the overarching frame of contextual practices that maintains equilibrium amongst different perspectives. An indication of bad practice then would be if only one of the 5 keys i.e. *engagement* is taken into account without consideration for the others such as *gender equality* or *ethics*.

5.2.1 Guideline

- The five keys proposed by the European Commission (detailed above), could be seen as lexical or can be structured according to a pyramidal scheme within a project.
- These are the basic conditions for ethical governance of RRI.

5.2.2 How it could be applied

• Proposing an understanding of ethics that conceives it as an overarching set of practices embedding a reflective equilibrium across morality, law and the economy.

5.2.3 Impact/reflection

• An ethical approach embedded within the practical application of RRI means that innovations are more likely to be accepted and adopted widely.

5.2.4 RRI adding value

- Promoting the application and understanding of ethics across all aspects of research and innovation.
- This perspective can provide a guide for coping with the plurality contained in the concept of responsibility
- Highlights how the five keys of the EU can be applied to RRI in practice.





5.3 Guideline 3 – Project evaluation

This guideline is aimed particularly at research funders. However, when an organisation is conducting an internal evaluation of a project's progress or outcomes, this guideline can be used to consider how RRI can be applied in future projects. This will then facilitate greater alignment with funder's expectations and help to identify improvements to project functioning in the future.

5.3.1 Guideline

- When evaluating a project, consider the context in which its participants operate (e.g. at individual, team, organizational or national level):
 - What are relevant/acceptable forms of responsible behaviour and the extent, and ways are they already, or should still be realised in practice?
 - What are the relevant forms of responsible behaviour including, but not limited to already existing legal rules or 'soft law'.
- Acknowledge that there are numerous 'small' responsibilities a consortium has to deal with that are already inscribed in the original work programme.
- Do you perceive any important changes in the existing or required 'mix' of responsibilities at the consortium level?
- Be aware of the nuanced and potentially changing picture of a project

5.3.2 How it could be applied

- Have a clear understanding of the project and the context in which it will operate from the start
- Communicate with the project participants over the course of the project as much as possible
- Be open and flexible to change and be realistic about expectations resulting from that change

5.3.3 Impact/reflection

- What is the impact of the need to adjust (e.g. change, reduce) expectations in terms of the outcomes and impact the project can realistically achieve?
- There is an overarching co-responsibility for the funding agency in terms of the project's success which should be kept in mind.
- Raise awareness about the fact that 'responsibility' has many meanings in practice.
- Funding agencies need to be sensitised to the various (already existing as well as missing) ways in which scientists/researchers and other project participants act in a responsible way.

5.3.4 RRI adding value

- Successful completion of the most important elements of a project is a better outcome than incomplete or insufficient completion of all parts
 General objectives
- Enhance the institutional reflexivity and responsiveness of funding agencies





 Enhance second-order reflexivity, i.e. funding agencies' and project reviewers understanding and assessing of responsible behaviour in context Specific objective

5.4 Guideline 4 – Transparency and openness

This guideline is aimed at researchers, SME's and CSO's who may be entering into a consortium for an EU project. Finding the right level of 'transparency' is a matter of everyday project work, and coordination of tasks at the consortium level. Understanding the perspectives and motivations of partners from the outset will foster greater openness, cooperation and understanding within a project.

5.4.1 Guideline

- Consider the EC's overarching goal to foster the competitiveness of European industry and private companies:
- Consider the concrete problems (tensions) in terms of transparency/open access this structural requirement creates at the level of a given consortium?

5.4.2 How to apply it

- Reflect on to what extent, and in which ways transparency/open access can actually be realised depending on:
 - o the size and heterogeneity of the consortium
 - o different understandings of transparency/open access
 - o Intellectual property certain partners may need or want to protect?
- Make this 'multi-actor transparency analysis' an agenda item at the Kick-off meeting in order to facilitate deliberation on possible solutions at the consortium level.
- Ensure all different elements of the delivery in/and the value chain are represented at the kick-off, and that they express what they expect to gain from being involved in the project.

5.4.3 Impact/reflection

- Understand what the motivations for each of those members being involved are
- Appreciate that there may be conflicting reasons across a consortium
- Finding out about differing motivations for being in a project later can start to get in the way of the delivery
- Different perspectives should be understood from the outset
- If necessary adjust expectations about what the project as a whole can realistically achieve.
- Develop a realistic, context-dependent operationalisation of the ideal of transparency/open access

5.4.4 RRI adding value

- Fostering mutual understanding
- Rectifying potential problems and conflicts from the outset
- Improving collaboration, transparency and project outcomes





- General objectives:
- Enhance the institutional reflexivity and responsiveness of funding agencies
- Enhance second-order reflexivity, i.e. funding agencies' and and project reviewers' understanding and assessing of responsibility in context

5.5 Guideline 5 - Governance

An example of bad practice is where processes for data protection are inadequate in order to save time and resources or due to a lack of scrutiny and maintenance, and the subsequent data, financial and reputation loss resulting from a security breach.

5.5.1 Guideline

- Appreciate that each governance approach embeds a specific objective to be achieved through different means
- Identify the main differences, through the reasons given for those decisions
- Understand how different approaches to governance affect outcomes
- Recognise that different means are adopted to pursue one main objective although they could be not immediately perceivable.
- Create instruments through just practices and flexible processes.
- Try to identify and understand attempts at exploitation hidden by labels or seemingly good intentions

5.5.2 How it could be applied

- By understanding attempts at exploitation it is then possible to prevent it
- When collaborating with other partners, understanding different ways of working can smooth the decision-making and outcomes of a project
- Greater participation in decision-making may provide insight into ways of working that can improve processes

5.5.3 Impact/reflection

- Good practices could then be shaped according to contextual issues and not pre-fixed or imposed.
- Encourages reflection not only on processes, but on the reasons for those processes
- Discourages silo working

5.5.4 RRI adding value

- Highlighting the connections and roots of governance approaches
- Encouraging reflection on decision-making and the reasoning behind it.
- Appreciating that different ways of working require mutual flexibility and participation to gain the greatest return
- Understanding that apparently different approaches could aim at a similar or same objectives

6 Self -Assessment tools and Resources

(links to other resources, full text of the glossary in the document)





7 References

EC (2013) 'Responsible Research and Innovation: Europe's ability to respond to societal challenges' https://ec.europa.eu/research/swafs/pdf/pub public engagement/responsible-research-and-innovation-leaflet_en.pdf

Junker, J.C (2014) 'A New Start for Europe: My Agenda for Jobs, Growth, Fairness and Democratic Change' Strasbourg, 15 July 2014. http://ec.europa.eu/priorities/docs/political-guidelines-short_en.pdf

Appendix 3

GREAT (Governance of responsible innovation) Workshop

Participant Information

Workshop

The GREAT project, as part of the Science in Society aspect of FP7, is tasked with undertaking research that can affect policy and further European goals. It is therefore of central importance that the research findings are translated into manageable and applicable recommendations and guidelines that allow stakeholders to improve their approach to responsible research and innovation in collaboration with the most important stakeholders and assess the usefulness and ease of use of the resulting guidelines.

The workshop will discuss and shape the guidelines which will inform their further development and to provide their feedback and viewpoint

These focus group and workshop are being conducted by Dr Sara H Wilford (from De Montfort University, Leicester, UK), and member of the Centre for Computing and Social Responsibility (http://dmu.ac.uk/ccsr), one of the foremost centres of its type in Europe. During the Workshop some of the questions that may be discussed are:

- 1. What is your understanding of the guidelines?
- 2. How well do the existing guidelines fit with your approaches to your own projects and research?
- 3. Are the guidelines understandable
- 4. What similarities and differences in approach did you find within your group?

The workshop will take place at DMU and will be audio recorded. The recorded content of the interview will be kept securely at De Montfort University. Only staff at De Montfort University's CCSR, involved in the GREAT project will have access to the full recordings. Neither De Montfort University nor their collaborating partners will use the recordings or transcripts for any other purpose than the study describes. Understanding this, I give permission for these individuals to have access to my focus group data.





You have the right to change your mind about the use of the information provided up to the moment of publication. You can inform the researchers via email of your change of intentions up to this point.

In order to contact the researchers to discuss questions about the interview or your consent to participate, you can contact us at:

sara@dmu.ac.uk or you can call +44 116 250 6294

We look forward to your participation.

Appendix 4

GREAT (Governance of responsible innovation) Workshop

Consent form

Issue	Respondent's initial
I have read the information presented in the participant information document about the workshop	
•	
I am aware that the language of sessions will be English. I understand that the workshop will be conducted in English and that the transcript will be made available to me in that language, should I request it.	
I have had the opportunity to ask any questions related to this research, and received satisfactory answers to my questions, and any additional details I wanted.	
I am aware that excerpts from the workshop may be included in publications to come from this research. Anonymous quotations will also be used in publications where these refer to material not otherwise published.	
I give permission for the interview to be recorded using audio recording equipment	
I am aware that I have the right to change my mind about the use of the information provided up to the moment of publication. I am aware that I can inform the researchers via email of my change of intentions up to this point.	





I understand that every reasonable effort will be made to keep confidential data securely. Any recordings or transcripts will only be viewed by the research team at De Montfort University and their collaborating partners from the GREAT project. Neither De Montfort University nor their collaborating partners will use the recordings or transcripts for any other purpose than the study describes.

Understanding this, I give permission for these individuals to have access to my interview data.

With full knowledge of all foregoing, I agree to participate in this workshop.

Participant Name:	
Participant	
Signature:	
Date	

Appendix 5

GREAT (Governance of responsible innovation)

Guidelines (1st draft) Evaluation Workshop

Tuesday 28th July 2015 9.00am - 1.00pm

De Montfort University, GH5.80, Gateway House, Leicester

Aim

The GREAT project, as part of the Science in Society aspect of FP7, is tasked with undertaking research that can affect policy and further European goals. It is therefore of central importance that the research findings are translated into manageable and applicable recommendations and guidelines that allow stakeholders to improve their approach to responsible research and innovation in collaboration with the most important stakeholders and assess the usefulness and ease of use of the resulting guidelines.

The workshop will discuss and revise the first draft of RRI guidelines handbook. Participants are asked to reflect upon, and provide their feedback and viewpoint regarding the handbook regarding its practical usability, content and appearance.

Agenda	Time	Explanation
Welcome, Coffee & pastries	9.00-	
	9.30	





Welcome and introduction	20 min	Signed consent forms collected.
		Welcome and introduction to the GREAT project, RRI and
		the concept of the guidelines.
Round robin introductions	5min	Participants introduction
Introduction to the		Why guidelines? Why now?
guidelines handbook	20min	
Roundtable discussion:	30mins	General guidelines evaluation alongside
What are your first		the 'requirements table'
impressions of the		
guidelines?		
Version review	1 hour	Each version of the handbook to be discussed.
Coffee Break	20 min	
Break-out session	40mins	Identify strengths and weaknesses in the 3 versions of the
To identify key concerns		guidelines, and to make recommendations.
and make		Write on flip-chart to present findings
recommendations		
Group presentations and	40mins	Present perspectives on each of the 3 versions and
discussion		offer solutions to concerns raised. This will be
		accompanied by a general discussion of the issues
Summary	10mins	Facilitator will summarise the findings from the
		discussion, sum up and thanks
Lunch	1.00 pm	•