

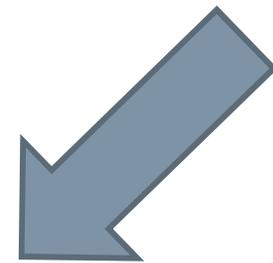
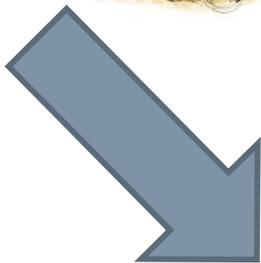
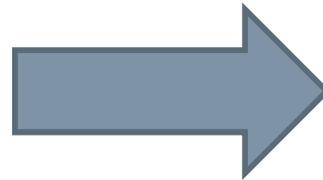
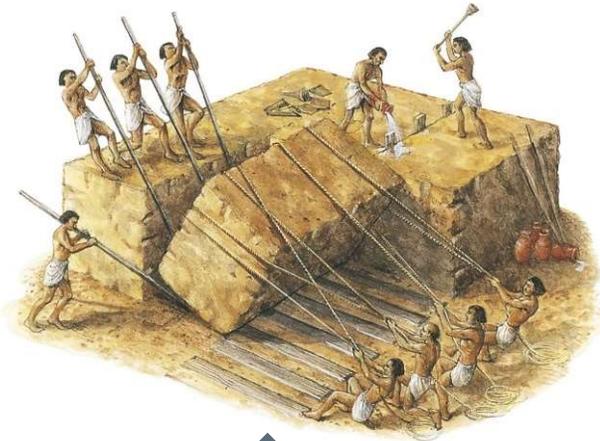
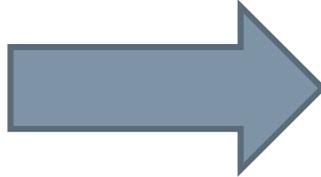
TAKING
COOPERATION
FORWARD

 ROSIE Train the Trainer Capacity Building
Prague, 28-29 November 2017

 **Introduction to Responsible Research and
Innovation and to Responsible Innovation**

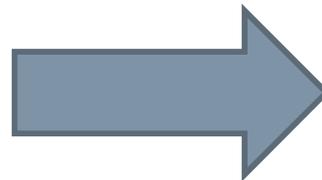
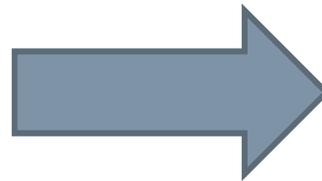
 Nikoletta Nádas, EMFIE - First Hungarian Responsible Innovation Association

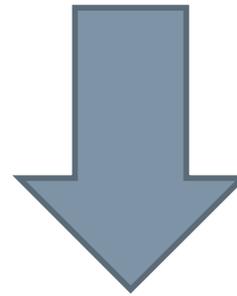
BACKGROUND OF RI



ORWARD

BACKGROUND OF RI





Responsible Innovation



	Definition of RI	Main features
Von Schomberg (2013)	<p>“A transparent, interactive process by which societal actors and innovators become mutually responsive to each other with a view to the (ethical) acceptability, sustainability and societal desirability of the innovation process and its marketable products (in order to allow a proper embedding of scientific and technological advances in our society)”</p>	<ul style="list-style-type: none"> • Transparent • Interactive • Ethics • Social responsibility • Sustainability • Societal desirability
Sutcliffe (2013)	<p>The deliberate focus on research and products of innovation to achieve a social or environmental benefits. The consistent, ongoing involvement of society, from beginning to end of the innovation process, including the public and non-governmental groups, who are themselves mindful of the public good. Assessing the effectively prioritising social, ethical and environmental impacts, risks and opportunities both now and in the future, alongside the technical and the commercial. Where oversight mechanisms are better able to anticipate and manage problems and opportunities and which are also able to adapt and respond quickly to changing knowledge and circumstances. Where openness and transparency are an integral component of the research and innovation process.</p>	<ul style="list-style-type: none"> • Social responsibility • Interactive • Ethics • Environmental responsibility • Future-oriented • Transparent
Rip (2005)	<p>Responsible innovation refers to innovation activities in which social aspects, desirability and acceptance are taken into account.</p>	<ul style="list-style-type: none"> • Social responsibility • Acceptance
Chorus-van Wee-Zwart (2012)	<p>RI is an innovation that minimises unwanted side-effects of the production and use of innovations and integrates social, environmental and ethical aspects in the innovation process.</p>	<ul style="list-style-type: none"> • Social responsibility • Environmental responsibility • Ethics
Tihon-Ingham (2011)	<p>Responsible (product) Innovation strategy is the voluntary integration of social and environmental concerns in the development, production and marketing of new products, their underlying processes and relationship with stakeholders, that lead to superior (economic and non-economic) performances and enable to meet present needs without compromising the capability for future generation to meet their own needs</p>	<ul style="list-style-type: none"> • Social responsibility • Environmental responsibility • Interactive • Future-oriented
Owen (2012)	<p>RI is a commitment of care for the future through collective stewardship of science and innovation in the present.</p>	<ul style="list-style-type: none"> • Social responsibility • Future-oriented

COMMON FEATURES OF RRI

- ❖ Transparent
- ❖ Interactive
- ❖ **Ethics**
- ❖ **Social responsibility**
- ❖ **Environmental responsibility**
- ❖ **Furure-oriented**
- ❖ Sustainability
- ❖ Societal desirability
- ❖ Desirability
- ❖ Acceptance
- ❖ Includes relevant stakeholders



von Schomberg (2012, p. 9):

*“A transparent, interactive process by which **societal actors and innovators** become mutually responsive to each other with a view to the (ethical) **acceptability, sustainability** and **societal desirability** of the innovation process and its marketable products (in order to allow a proper embedding of scientific and technological advances in our society)”*



What does it mean in practice?

- ❖ we try to avoid unintended negative side effects
- ❖ a researcher/innovator tries to predict what will be the result of his research/innovation
- ❖ Taking into consideration ethical, social, environmental aspects

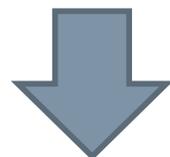


- ❖ a cross-cutting action that is implemented throughout Horizon 2020,
- ❖ 0.5% of the budgets for the 'Societal Challenges' and 'Industrial Leadership' pillars of Horizon 2020 was earmarked for RRI → **Science with and for Society** actions



6 RI KEYS (EUROPEAN COMMISSION)

ethical, economic, environmental and social impacts



- ❖ Public engagement
- ❖ Gender equality
- ❖ Science education
- ❖ Ethics
- ❖ Open access
- ❖ Governance



6 RI KEYS (EUROPEAN COMMISSION)

- ❖ **Public engagement:** researchers, industry, policymakers and civil society and their joint participation in the R&D process;
- ❖ **Gender equality:** all actors -women and men -are on board;
- ❖ **Science education:** increase number of researchers and adapt the education system to provide future researchers with knowledge of RRI;
- ❖ **Ethics:** in order to adequately respond to societal challenges, research and innovation must respect fundamental rights and the highest ethical standards;
- ❖ **Open access:** giving free online access to the results of publicly-funded research (publications and data);
- ❖ **Governance:** as an umbrella for all the others: policy makers also



- ❖ **Anticipation:** Being anticipatory means describing and analysing those intended and potentially unintended impacts that might arise, be these economic, social, environmental or otherwise.
- ❖ **Reflexivity:** reflecting on values and beliefs during R&I
- ❖ **Deliberation:** inclusively opening up visions, purposes, questions and dilemmas to broad, collective deliberation through processes of dialogue, engagement and debate, inviting and listening to wider perspectives from publics and diverse stakeholders.
- ❖ **Responsiveness:** the ability to change routines, structures and systems to adapt to changing circumstances and new insights



INNOVATION VS RESPONSIBLE INNOVATION

Innovation	Responsible Innovation
Responsibility for risks	Responsibility for positive outcomes of research and innovation
„infinite growth”	„sustained growth”
Inherently good (benefits = market success)	Responsive to basic needs, reflect basic values (consumer preferences)
The faster, the better	Innovation is „managed”
Technology-oriented research and development (R&D)	Issue-oriented research and innovation (R&I)
Participants usually within the company	RI highlights a wider range of participants than the innovation

RRI OR RI? WHAT IS THE DIFFERENCE

RRI

Academic and
business sector

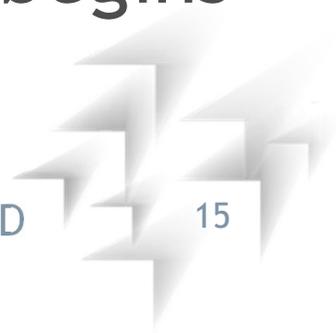
RI

Mainly business
sector



Responsible innovation (RI)

- ❖ a new concept that builds on governance approaches and innovation assessments that aim to take these ethical and societal concerns into account at the start of the innovation process.
- ❖ Its aim is to help companies anticipate and give responsible consideration to the intended and potential unintended impacts of the commercial development and use of the technology, including the potential for misuse, before the work begins (TSB RIF)



Assignment

1. What kind of positive effects does it have?
2. What kind of negative effects does it have?
3. What can be a responsible innovation? What should be changed?

