


EIRMA Task Force on Responsible Innovation  
Presentation to PACITA 25 February 2015

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**The European Industrial Research Management Association (EIRMA)?**

is an independent not-for-profit organisation


*provides a European perspective on the global management of applied R&D and innovation*

*engages 120+ major companies which are based in over 20 countries*

*operating in a wide range of sectors*

*gathering world-class R&D performers*


[www.eirma.org](http://www.eirma.org)



EIRMA Task Force on Responsible Innovation

- Background
- Work in progress

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Context 1  
Themes at EIRMA Annual Meetings

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**2008 EIRMA Conference**

'Global warming is probably heading for a 3-6\* degree increase in temperature'  
\* WWF gives 2.6-4C if all Governments fulfil current pledges

'1918-1920 Spanish flu wiped out 3% and affected about half the world's population ...

Not if, but when then next pandemic will occur...'

Who will care about Microsoft Windows updates in 2070?



*Stephen Emmott  
Director of Computational Science, Microsoft  
Professor of Computational Science, University of Oxford*

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**2010 EIRMA Conference**



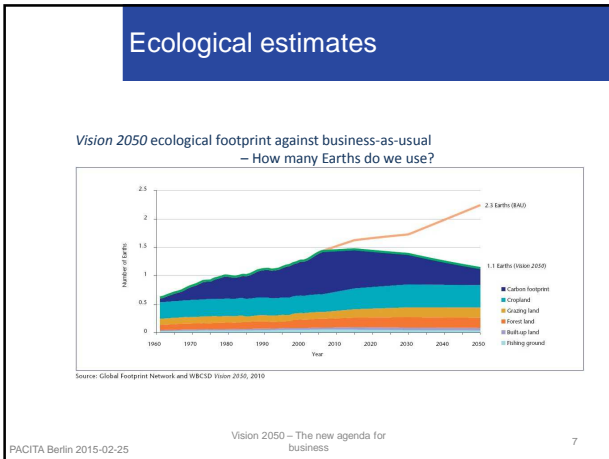
*'In 2050, around 9 billion people live well, and within the limits of the planet.'*

<http://www.wbcds.org>



*Per Sandberg  
WBCSD*

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### A collaborative effort involving 29 companies

PACITA Berlin 2015-02-25 Vision 2050 – The new agenda for business 8



### 2011 EIRMA Conference

Sustainable innovation  
Exploring a new innovation paradigm  
by Dorothea Seebode

Sustainable innovation  
Exploring a new innovation paradigm  
by Dorothea Seebode  
Former Director of Sustainability at Philips

PACITA Berlin 2015-02-25 [http://www.philips.com/shared/assets/global/sustainability/downloads/sustainable\\_innovation\\_paper.pdf](http://www.philips.com/shared/assets/global/sustainability/downloads/sustainable_innovation_paper.pdf)

### 2012 EIRMA Conference


Exploring Responsible Research and Innovation  
Hilary Sutcliffe  
MATTER.ORG


Dialogue between NGO and industry  
Bruce Haase  
WWF

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### Changing the way we 'think' business

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New ways of viewing the role of business 



**Paul Polman** Chief executive, Unilever  
Ahead of World Economic Forum Annual Meeting, Davos 2015


...“there is simply too much at stake. The world has always faced challenges, but never so many at once. Rising unemployment, poverty, food security, climate change and geopolitical uncertainty.  
Our economic system is not quite working. Certainly not for all....  
We have the unique opportunity to be the first generation to **bring an end to poverty** and the last to **prevent the worst impacts of climate change**. It's a **business, as well as a moral, argument**. You can't have a healthy business in an unhealthy world.  
I believe business is a big part of the solution. But to really make a difference globally, **we need to build partnerships....**  
At Unilever we **reach two billion consumers a day** and want to continue serving them in years to come. To do that we've adopted a new kind of business model, **helping them to live more sustainably, decoupling growth from our environmental footprint and increasing positive social impact....**

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Industrial companies with strong R&D competencies are reflecting on their 'responsibility' towards societal challenges.

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Context 2  
European R&D policy and funding

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Science and Society FP7

**FP7-SCIENCE-IN-SOCIETY-2013-1**  
**SIS.2013.1.1.1-2:**  
**'Responsible Research and Innovation in industrial context'**

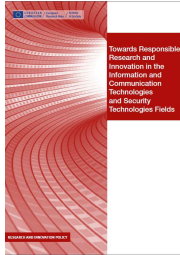
**Topic description:** The topic will bring together actors from industry, civil society and research to jointly define an implementation plan for the responsible development of a particular product to be developed within a specific research/innovation field. RRI should be shown in terms of the product development process (such as stakeholder involvement, etc.) and quality of the final product (complying with, among other standards, those relating to sustainability and ethics).  
The project should include at least an industrial organisation and a civil society organisation.

**Expected impact:** Demonstration of how industry can work productively together with societal actors according to RRI approach, thereby showing potential benefits for industry at large to follow up on such an example.

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EC Policy Development



**Introduction** Towards Responsible Research and Innovation in the Information and Communication Technologies and Security Technologies Fields  
*Rene von Schomberg*

**CHAPTER 1** IT for a Better Future. How to integrate ethics, politics and innovation  
*Bernd Carsten Stahl*

**A vision of Responsible Research and Innovation**  
*Von Schomberg, Rene (2013). "A vision of responsible innovation". In: R. Owen, M. Heintz and J Bessant (eds.) Responsible Innovation. London: John Wiley*

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RI in Horizon 2020

**Responsible Research and Innovation** is an inclusive approach to Research and Innovation (R&I), to ensure that societal actors work together during the whole research and innovation process. It aims to better align both the process and outcomes of R&I, with the values, needs, and expectations of European society. In doing so, it fosters the creativity and innovativeness of European societies to tackle the grand societal challenges that lie before them, while at the same time proactively addressing potential side-effects.

In practice, RRI has five different aims:

- engaging society more broadly with research and innovation activities (**public engagement**),
- facilitating the access to scientific results (**open access**),
- ensuring gender equality in both the research process and research content (**gender dimension**),
- taking account of the ethical dimension (**ethical issues**), and
- promoting formal and informal science education (**education**).

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## EIRMA - Past contribution

**CLARIFICATION OF ISSUES NOT A PRESCRIPTION OF WHAT TO DO**

**The ethics of human stem cell research and therapy in europe**

Acronym: EUROSTEM  
 Start: 2/1/2002  
 End: 4/30/2005  
 Homepage: [http://cordis.europa.eu/data/PROJ\\_FPS/ACTIO/NeqDndSESSIONeq112482005915ndDOCeq2682ndTBLeqEN\\_PROJ.htm](http://cordis.europa.eu/data/PROJ_FPS/ACTIO/NeqDndSESSIONeq112482005915ndDOCeq2682ndTBLeqEN_PROJ.htm)

Project Status History	
completed	2/1/2002

**Abstract**  
 EUROSTEM will provide an ethical framework for stem cell research; will monitor the ongoing "natural experiment" in the United Kingdom and other countries with such research, and the regulatory and legal issues involved. The need to analyse and understand the public response to this research is equally important and this need is fully recognised and responded to. Human Stem Cell Research is at the cutting edge of health and biosciences research, the innovative science involved creates ethical dilemmas that have as yet been insufficiently studied and poses challenges for our understanding of fundamental human values. The use of human stem cells raises many issues, for example: the moral status of the embryo, the consents required to use Embryonic Stem cells and other genetic material, genetic privacy and ownership of genetic information. Some of these issues concern the

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## RRI – what happens if you don't keep an eye out!

**COMMISSION RECOMMENDATION**  
**of 07/02/2008**  
**on a code of conduct for responsible nanosciences and nanotechnologies research**


**3.7 Accountability**  
 Researchers and research organisations should remain accountable for the social, environmental and human health impacts that their N&N research may impose on present and future generations.

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**Appeal to industrial R&D managers to engage actively, ...or else inappropriate regulation may be imposed**

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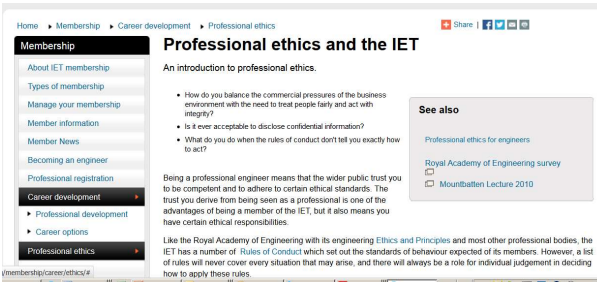


### Context 3

**Focus on professional ethics and accountability of engineers and R&D managers**


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## Professional accountability



<http://www.theiet.org/membership/career/ethics/>

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## EIRMA Task Force on Responsible Innovation

**“what it is, why it matters to you and your industry, to society, and what EIRMA is doing about it”**

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### Story so far



- Proposal of topic to PPC and Members 2013
- Formation of a small task force
- Discussion meetings and exchanges in 2014
- Preparation of a guide for members underway
- Next consultation meeting 4 March 2015

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People are questioning whether industry is doing the 'right thing'



- there is an issue of trust to be addressed
- the industrial community needs to address societal concerns to win trust

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### Responsible Innovation - what do we mean?



- Very good question!
  - The term has yet to find a common definition
  - Different meanings depending on agenda
  - May not be the best term anyway...

**BUT** it is becoming a 'hot topic'

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### Responsible Innovation - drivers of debate



- Concerns about the sustainability of the current economic system
- Societal concerns with technologies e.g. Big Data, bio and hybrid technologies (fusion of bio, chemical, nano, neuro)
- Calls for greater accountability by the R&D community for consequences of innovation
- Polarisation of societal attitudes towards certain innovations
- Open innovation – greater exposure to scrutiny, but also blurring of institutional boundaries
- Pace of innovation – little time to assess impacts
- Legislation, regulation can't keep up.

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### What do we mean by RI? (outputs from initial discussion)



- **Long term responsibility** for what we produce from our R&D, beyond compliance
- **Establishing trust** between all stakeholders, how to use this to mitigate product failures
- **Transparency**
- **Willingness to be open about risks**
- **Communication** to the non-specialist
- **Setting priorities** for innovation

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### Defending 'radical' innovation



- Innovation invariably involves risks, not all of which can be predicted
- Innovators need freedom to experiment
  - as long as basic ethical standards are observed;
- Innovators cannot be held individually responsible for ideas, products or services whose benefits, risks and impacts are as yet unclear
  - But there is a responsibility on us all to tackle the consequences
- Over-regulation will drive R&D activities elsewhere
  - This is a significant threat to Europe's economic and R&D foundation.

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## Issues for R&D managers



R&D managers may find themselves in charge of the RI agenda



Need for structures and processes that enable constructive discussion, within the company...

and engagement with external critics;

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## Topics for debate



- Who decides what is “responsible”?
  - Spaces for rational and informed debate
  - How to handle polarisation of views
- Handling the topic in a global economy
  - How to avoid simply adding more ‘handcuffs’ to doing innovation in Europe?

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