



OPERRA

OPEN PROJECT FOR EUROPEAN RADIATION RESEARCH AREA

Overview of Collected Research Topics
from the Fields of Risk Communication and Risk Perception
of Ionising Radiation and
the Ethics of Radiological Protection for
Future EU Research Agenda
by OPERRA Questionnaire and Workshops



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for Future EU Research Agenda

RICOMET – Wednesday, 17th of June

13:30 - 15:30 Workshop: **The meaning of ethics for radiological protection research and research policy**

Chairs: *Gaston Meskens*, SCK•CEN & University of Ghent, Belgium;
Friedo Zölzer, University of South Bohemia in České Budějovice, Czech Republic

SPLENDENS HALL



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Overview of Collected Research Topics
from the Fields of
Risk Communication and Risk Perception
of Ionising Radiation

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Objective


To recommend to the EC:

Future research on risk communication, risk perception and ethics of radiation protection and integration of these issues in training and education. [—————→](#) (March, 2017)



Objective


To recommend to EC:

Future research on risk communication, risk perception and ethics of radiation protection and integration of these issues in training and education.  (March, 2017)



To propose to EC :

Joint research needs and **priorities** addressing communication/risk perception research relevant to the radiation protection field.

 (October, 2015)



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How?

Missing: platform, society, overview...

Perko, Meskens & Zolzer (2014): *Summary of institutions involved in risk communication, risk perception, and ethics of radiation protection*, D4.1.2



How?

Missing: platform, society, overview..

Method:

- Overview of scientific papers and reports from the field of risk communication, risk perception in radiation protection.
- Inventory of the research (work) done from the field in other EU projects
- Questionnaire with different platforms
- Workshops (dialogue groups) with representatives from different platforms and Universities



Who is in the field?

Information collected:

- **Web of Knowledge**; 33 institutes, universities or research groups publishing scientific research from the field were identified based on this method
- **Google, Google Scholar, Bing and Yahoo**; 64 institutions, universities or research groups the fields of risk communication, risk perception, and ethics of radiation protection from 25 EU countries and Norway.
- **OPERRA e-survey**; 9 institutions, universities or research groups the fields of risk communication and risk perception from EU countries, Norway and Ukraine
- **Symposium** on ethics of environmental health;
- Platform for communication about ionizing radiation - FP7 **EAGLE project**; 29 registered EAGLE stakeholders



Although we managed to identify many institutions in almost every EU country, the collected list of institutions shows that there are

only few research groups in the EU continuously in the field and professionally conducting research

in the field for risk communication, risk perception and ethics of radiation protection.



OPERA What kind of Scientific research

Article selection criteria:

- (1) Research article is published in a scientific journal or presented at a conference (**peer reviewed**);
 - (2) Article is about **ionizing radiation risk(s)**;
 - (3) Research should be done with a **general population or informed civil society** (i.e. general public or students, stakeholders);
 - (4) Article should describe **method/procedure, dependent variables and independent variables**;
 - (5) Institution of an author and/co-author should be from **Europe**;
- The article selection method was conducted in **August 2013**.



Scientific research

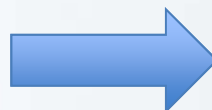
- In most cases, communication and risk perception research in the nuclear field approached in parallel and with little mutual interaction; **either by social scientists or by nuclear experts.**
- Lack of a **trans-disciplinary approach.** (Which results in a rather weak and inconsistent recognition in the field.)
- Risk communication and risk perception is studied in **general**, with the ionizing radiation field being taken only once or twice as a **case-study.**



Opinion of the Radiation Protection community

OPERRA Questionnaire:

- MELODI
 - ALLIANCE
 - NERIS
 - EURADOS
- + European organisations and projects
- + international organisations



- 120 from MELODI,
- 119 from EURADOS,
- 78 from ALLIANCE,
- 70 from NERIS
- 43 submissions from other relevant EC projects and
- 55 submissions from stakeholders neither indicating platforms nor EC projects.



274 responses submitted

Perko, Meskens & Zoizer (2014): Summary of institutions involved in risk communication, risk perception, and ethics of radiation protection, D4.1.2



Opinion of the Radiation Protection community

- 63 respondents out of 88 stated that we need to support more research in the field of risk communication and risk perception of low doses.
- 59 respondents also agreed that it would be useful to develop a strategic research agenda for risk communication in radiation protection, while nine respondents did not agree and 19 did not have an opinion.



Opinion of the Radiation Protection community

- 50 respondents agreed or strongly agreed that there is a need for more social science **research directed to new mass media**, in order to study the influence of this type of communication on the understanding of complex concepts and the perception of radiological risks by lay people.
- **Scientific uncertainties** related to low doses were recognised by 63 respondents out of 88 as one of the main challenges for efficient risk communication.



Opinion of the Radiation Protection community

- 57 respondents agreed that would further research into risk communication would be beneficial to radiation protection, 13 respondents disagree with the statement and 18 respondents don't have an opinion.

Interest for risk perception and communication in other fields: education and training

Please indicate which specialised courses you would find relevant to enrich or deepen your own professional expertise





Opinion of a Radiation Protection community

Synergy between research areas is needed:

- Worth to take on board scientists with a background in **sociology and politics**.
- **Psychological consequences** of decisions taken in **emergency situations**, and risk perception **in normal operation** are stated to be important issues.
- **Psychological stress** is also considered to be an important factor in multiple stressor analysis research.



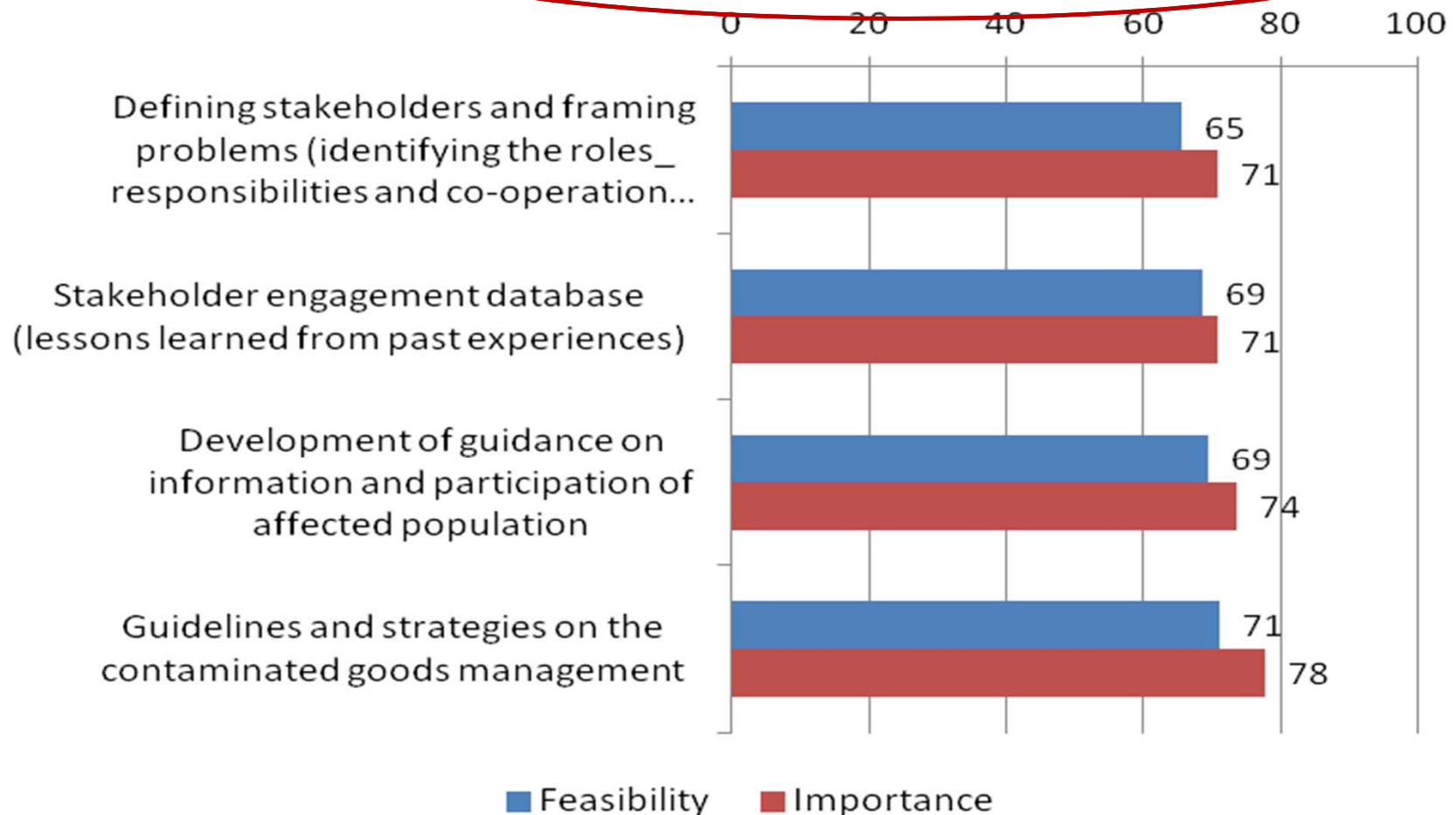
Opinion of a Radiation Protection community NERIS

		Mean	Std.
Assessment of and communication of uncertainties	Feasibility	62	23
	Importance	75	21

Understanding what makes the information trustworthy and more effective (e.g. development and usage of social media in emergency response; communication-cooperation with the public)	Feasibility	64	21
	Importance	79	20

NERIS

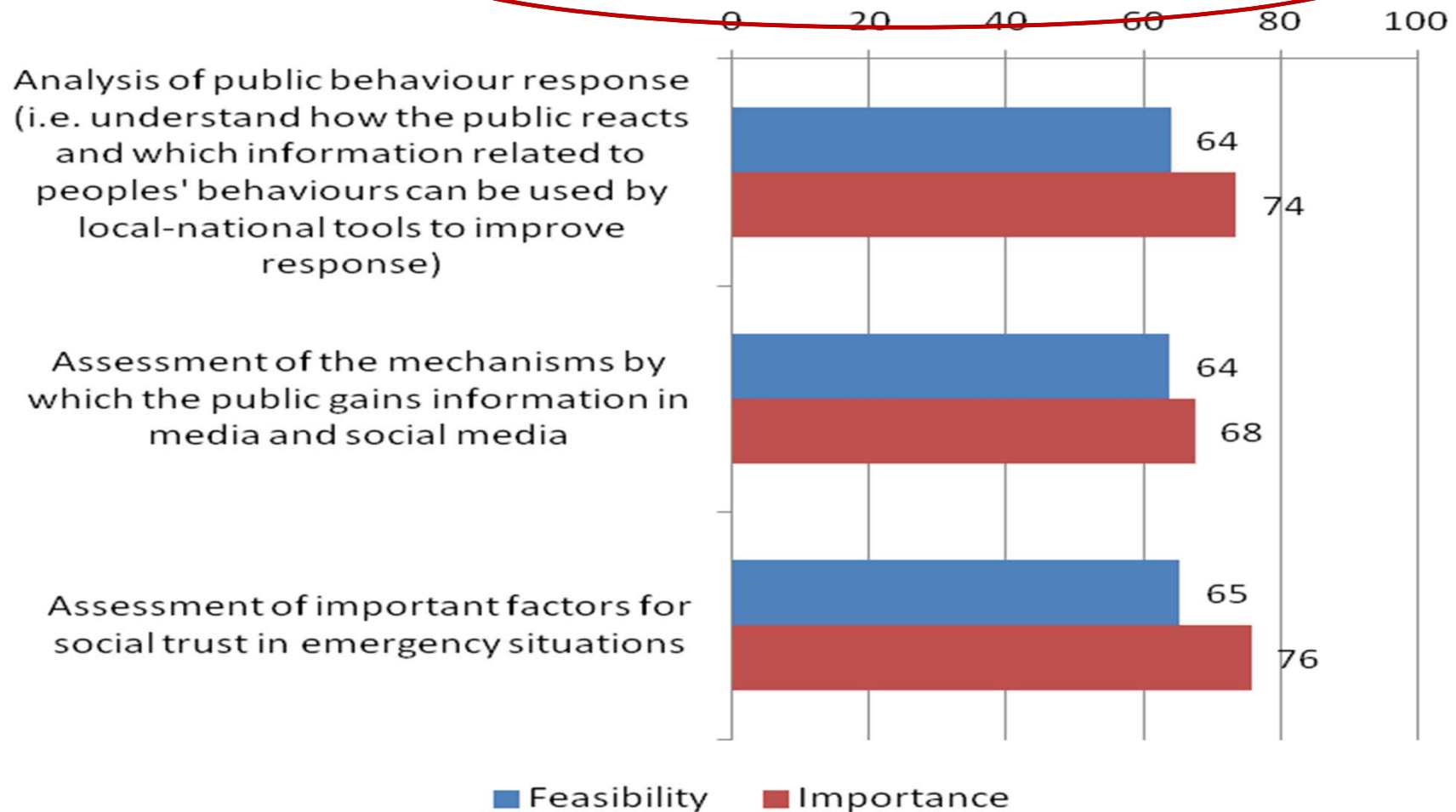
Feasibility and importance
Research area New challenges in stakeholder
involvement, local preparedness and
communication strategies
Key topic 6: Stakeholder engagement and dialogue



NERIS

**Feasibility and importance
Research area New challenges in stakeholder
involvement, local preparedness and
communication strategies**

Key topic 7: Use of social media and networking





Opinion of the Radiation Protection community

Perko, Turcanu & Sirkka (2014): *Priorities for radiation protection research: analysis of the OPERRA stakeholder survey - preliminary report prepared for the MELODI Workshop, D4.1.2*



Conclusions

Field of risk communication/perception:

- High interest for the field in radiation protection community.
- Communication and/or risk perception of ionising radiations risks is main (continuous) research topic for only a few research groups in the EU.
- Rather seldom used trans-disciplinary approach.
- Research topics relevant to the radiation protection domain are not yet identified in a structured way.



Questions

- Do we need a special strategic research agenda or we can include the topics in calls from other domains (e.g. NERIS)?
- What is the best way to identify future research on risk communication and risk perception relevant to the radiation protection domain?
- Which are future research needs related to risk communication and risk perception according to your opinion?