CRITERIA FOR SOCIALLY RESPONSIBLE RESEARCH PROCESSES

A CROSS-DISCIPLINARY APPROACH TO REFLECTION

Results of a National Research Project
LeNa – Guide to Sustainability Management in non-university Research Organisations 2013-2016

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Karlsruher Institut für Technologie (KIT) / ITAS
Stand: 12. April 2017

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BMBF-COLLABORATIVE PROJECT
SUSTAINABILITY MANAGEMENT IN NON-UNIVERSITY RESEARCH

Objective:

Transfer the concept of »product stewardship« to non-university research organsiation

Fields of Activities:

Stand: 12. April 2017

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PROJECT RESULTS

HTTP://WWW.LENA-PROJEKT.DE

Handreichung

Die Handreichung als PDF-Dokument beinhaltet zusätzlich Grundprinzipien und Prozesse des Nachhaltigkeitsmanagements.

Download PDF

Erklärfilm

Ein dreiminütiger Film erklärt anschaulich Vision und Ziele von LeNa als gemeinsame Basis für verantwortliches Handeln.

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Research for Sustainable Development

Action Arenas

Good scientific practice

DFG 2013 / ESF 2011 …

FhG / HGF / WGL / MPI - Empfehlungen

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Action Arena 1: Good scientific practice

- German Research Foundation (DFG) 2013. Sicherung guter wissenschaftlicher Praxis. Denkschrift. Wiley: Weinheim.
- European Science Foundation (ESF) / All European Academies (ALLEA) 2011. The European Code of Conduct for Research Integrity. Ireg: Strasbourg.
- European Science Foundation (ESF) 2011. Fostering Research Integrity in Europe. ESF: Strasbourg.

- Non university organisations in Germany:
- FhG: Grundsätze der Zusammenarbeit (update 2015),
- HGF: Beschluss zur Sicherung der guten wissenschaftlichen Praxis (1998),
- WGL: Empfehlungen und Regeln zur Sicherung guter wissenschaftlicher Praxis (1998, 1999)
- MPI: Regeln zur Sicherung guter wissenschaftlicher Praxis (2000, 2009)

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Addressing grand societal challenges

SDGs / Grand Societal Challenges (EU)

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Action Arena 3: Societal Challenges

17 Sustainable Development Goals (UN 2015)

ICSU Themes (2011)

- Earth system sustainability / Global environmental change
- Global earth observing
- Polar research / disaster risk
- Ecosystem change & society
- Sustainable energy
- Human health & well-being … and other

6 Grand Societal Challenges (EU 2012)

- Health and demographic change
- Food Security / Bio-economy
- Clean, safe, efficient energy
- Intelligent and environmental friendly transportation
- Climate action, raw material, resource efficiency
- Integrative, innovative, secure societies

Council for Sustainable Development (2012

- Nachhaltiges Wirtschaften
- Klima und Energie
- Nachhaltige Wasserpolitik
- Ressourceneffizienz … und andere

BMBF / FONA – key targets

- Green Economy
- Urban future
- Energy transition

Research for Sustainable Development

Action Arenas

Good scientific practice

Socially responsible research processes

Addressing grand societal challenges

DFG 2013 / ESF 2011 …

FhG / HGF / WGL / MPI - Empfehlungen

Reflexion Framework and Criteria

SDGs / Grand Societal Challenges (EU)

Ferretti, J., Daedlow, K., Kopfmüller, J., Winkelmann, M., Podhora, A., Walz, R., Bertling, J., Helming, K., 2016. Reflexionsrahmen für Forschen in gesellschaftlicher Verantwortung. Berlin.

Research for Sustainable Development:

Socially Responsible Research!

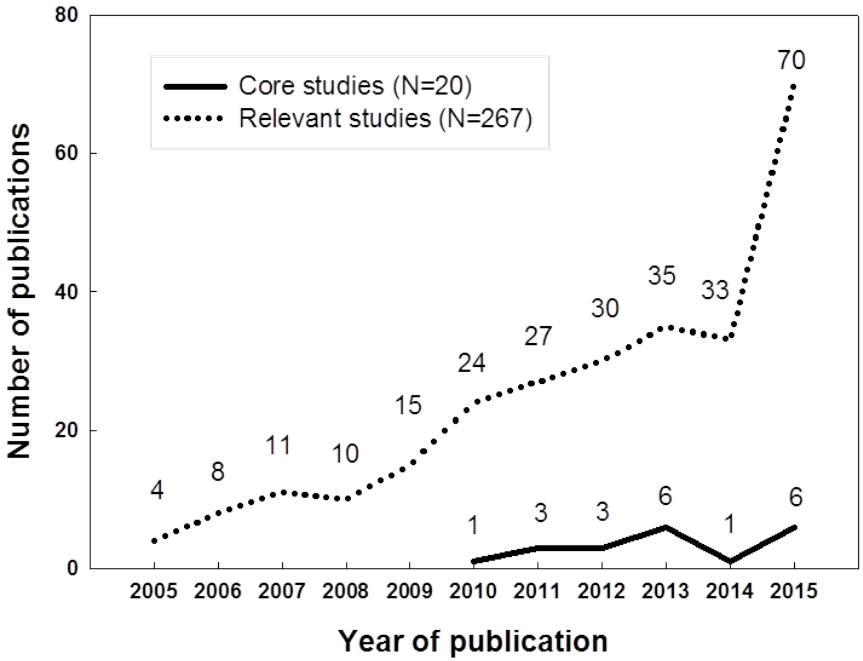
- What makes research socially responsible? — **Criteria**
- How can social responsibility be improved across disciplines, research fields and organisational levels? — **Framework for reflexion**
- What are the trade-offs? — **Workshops, Interviews**
- How can its impact be measured? — **Future**

Criteria for socially responsible research processes

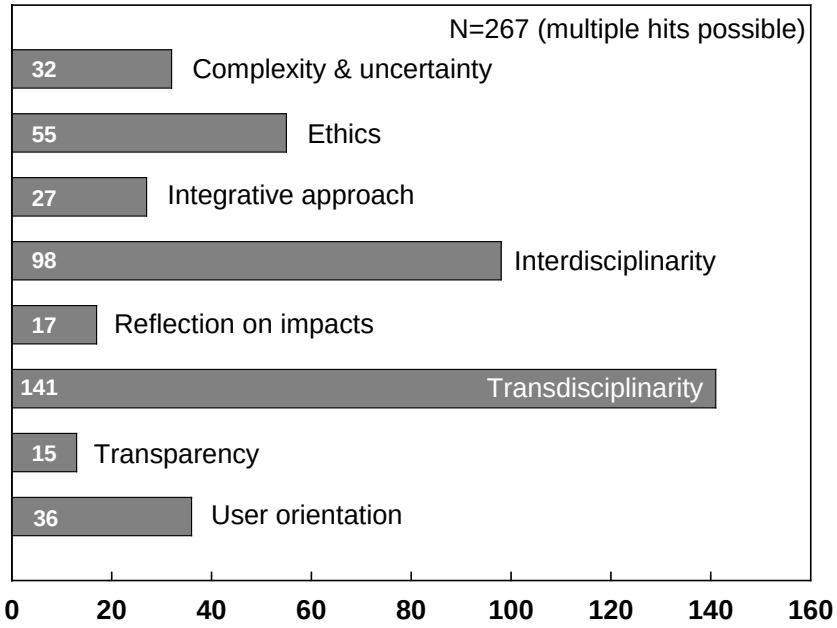
- Address the conduct of research, not thematic orientation
  - how is the research process?
  - for whom / with whom shell research be conducted?
- Extend the Leitbild of scientific excellence with societal relevance in support of sustainable development
- Applicable across research fields and disciplines
- Define standards for „Socially responsible research processes“

A review of literature: Criteria of socially responsible research processes

Number of publications per year



8 Criteria and number of hits



Daedlow, K., Podhora, A., Winkelmann, M., Kopfmüller, J., Walz, R., Helming, K. 2016. Current Opinion in Environmental Sustainability 23:1-11.

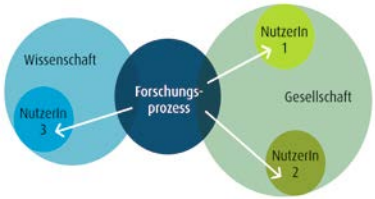
8 Criteria:
„Socially responsible research processes “

For whom? With whom?

Interdisciplinarity

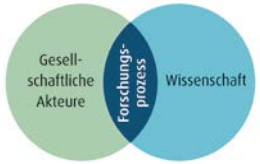
Polk 2015,
König 2015,
Brandt et al. 2013,
Baumgärtner et al. 2008,
Botey et al. 2012,
Jerneck et al. 2011,
Kastenhofer et al. 2011

User-orientation



Bird 2010,
Bond and Morrison-Saunders 2011,
Matso and Becker 2014,
Owen et al. 2012, Stahl 2013,
Talwar et al. 2011

Transdisciplinarity



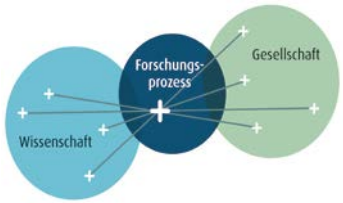
König 2015,
Brandt et al. 2013,
Jerneck et al. 2011, Mauser et al. 2013, Schaltegger et al. 2013, Spangenberg 2011,
Talwar 2011

Daedlow, K., Podhora, A., Winkelmann, M., Kopfmüller, J., Walz, R., Helming, K. 2016. Current Opinion in Environmental Sustainability 23:1-11.

8 Criteria:
„Socially responsible research processes “

How?

Transparency



Gergen et al. 2015,
Krabbenborg and Mulder 2015,
Pinter et al. 2012,
Wiek et al. 2012,
Scheirer and Dearing 2011,

Ethics

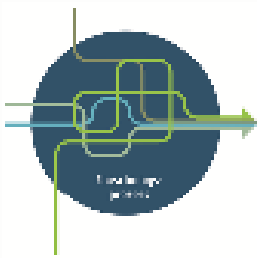
Gergen et al. 2015,
Bird 2010,
Brey 2012,
Brown 2013,
Cornell et al. 2013,
Scheirer and Dearing 2011,
Stahl 2013

Daedlow, K., Podhora, A., Winkelmann, M., Kopfmüller, J., Walz, R., Helming, K. 2016. Current Opinion in Environmental Sustainability 23:1-11.

8 Criteria:
„Socially responsible research processes “

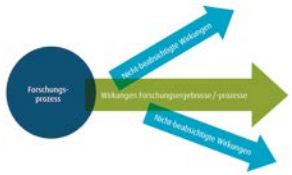
How?

Integrative Approach



Luederitz et al. 2015,
van Kerkhoff 2014,
Jerneck et al. 2011,
Mauser et al. 2013,
Spangenberg 2011

Reflection on Impacts



Arentshorst et al. 2015,
Gall et al. 2015,
Eden et al. 2013,
Miller and Neff 2013,
Pinter et al. 2012,
Wiek et al. 2013

Complexity & Uncertainty

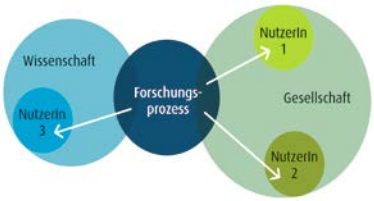
Gall et al. 2015, Arentshorst et al. 2015, Brown 2013, Lindenfeld et al. 2014, Mauser et al. 2013, Owen et al. 2012

Daedlow, K., Podhora, A., Winkelmann, M., Kopfmüller, J., Walz, R., Helming, K. 2016. Current Opinion in Environmental Sustainability 23:1-11.

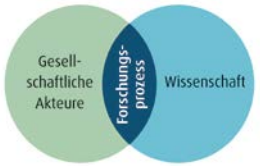
8 Criteria:
„Socially responsible research processes “

Interdisciplinarity

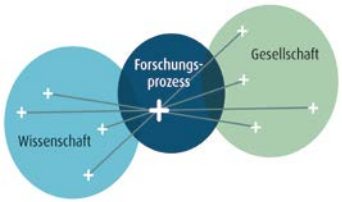
User-orientation



Transdisciplinarity

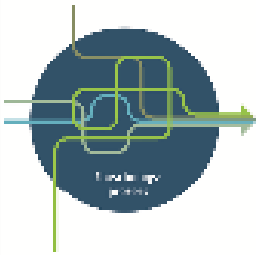


Transparency

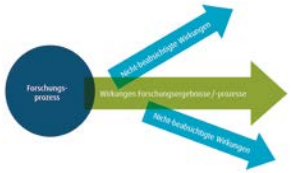


Ethics

Integrative Approach



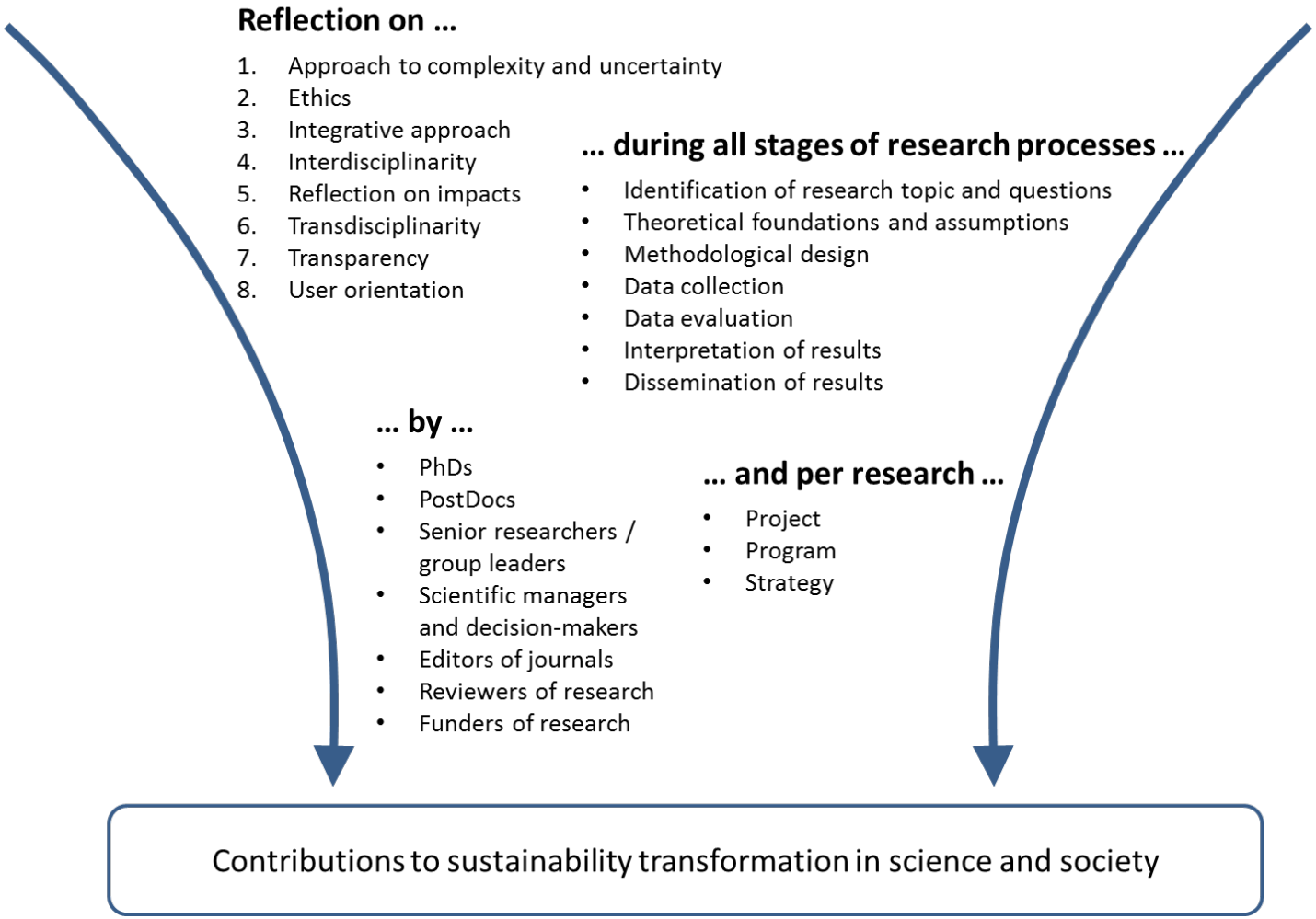
Reflection on Impacts



Complexity & Uncertainty

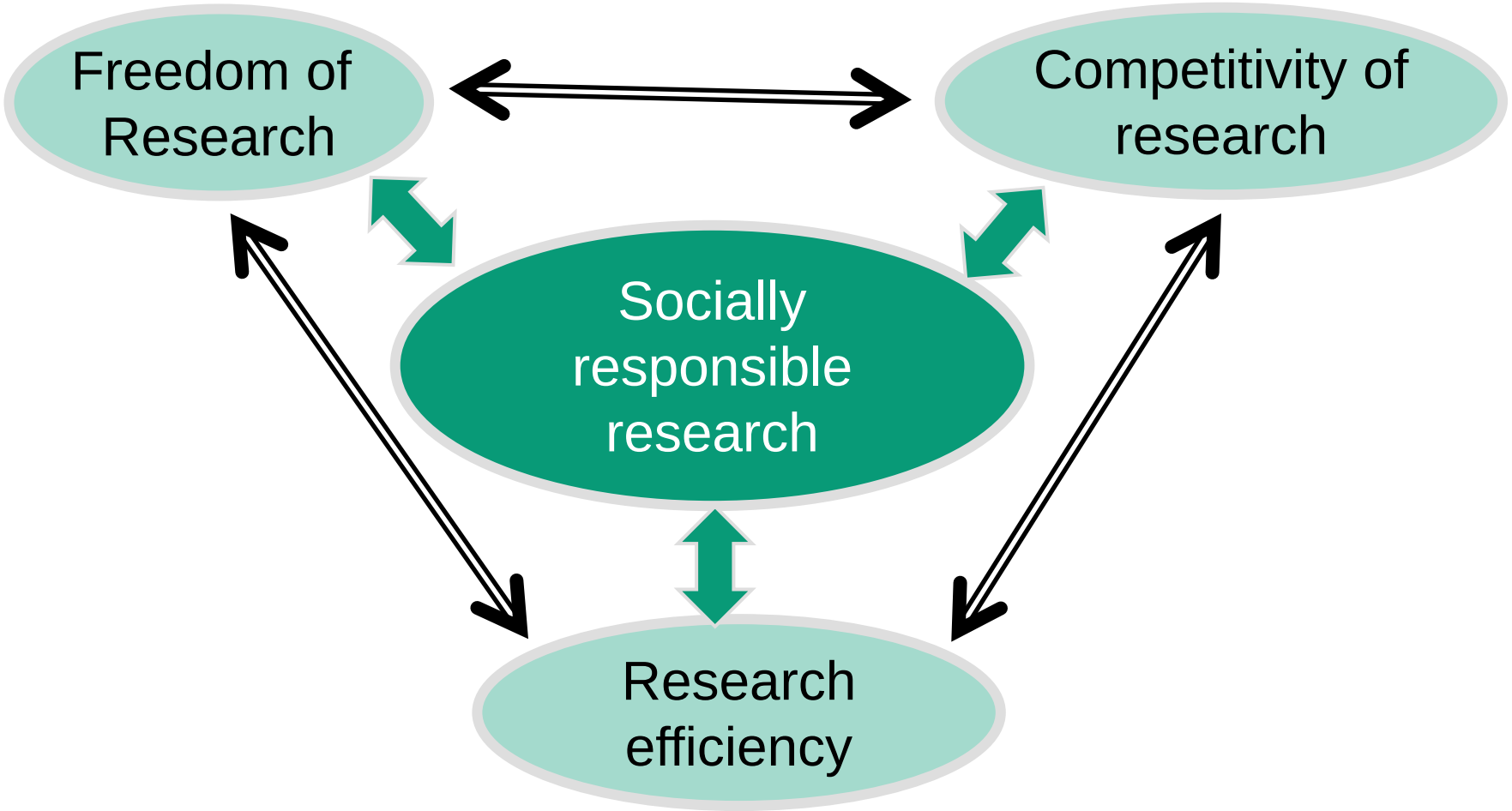
Daedlow, K., Podhora, A., Winkelmann, M., Kopfmüller, J., Walz, R., Helming, K. 2016. Current Opinion in Environmental Sustainability 23:1-11.

Improving social responsibility in research processes



Daedlow, K., Podhora, A., Winkelmann, M., Kopfmüller, J., Walz, R., Helming, K. 2016. Current Opinion in Environmental Sustainability 23:1-11.

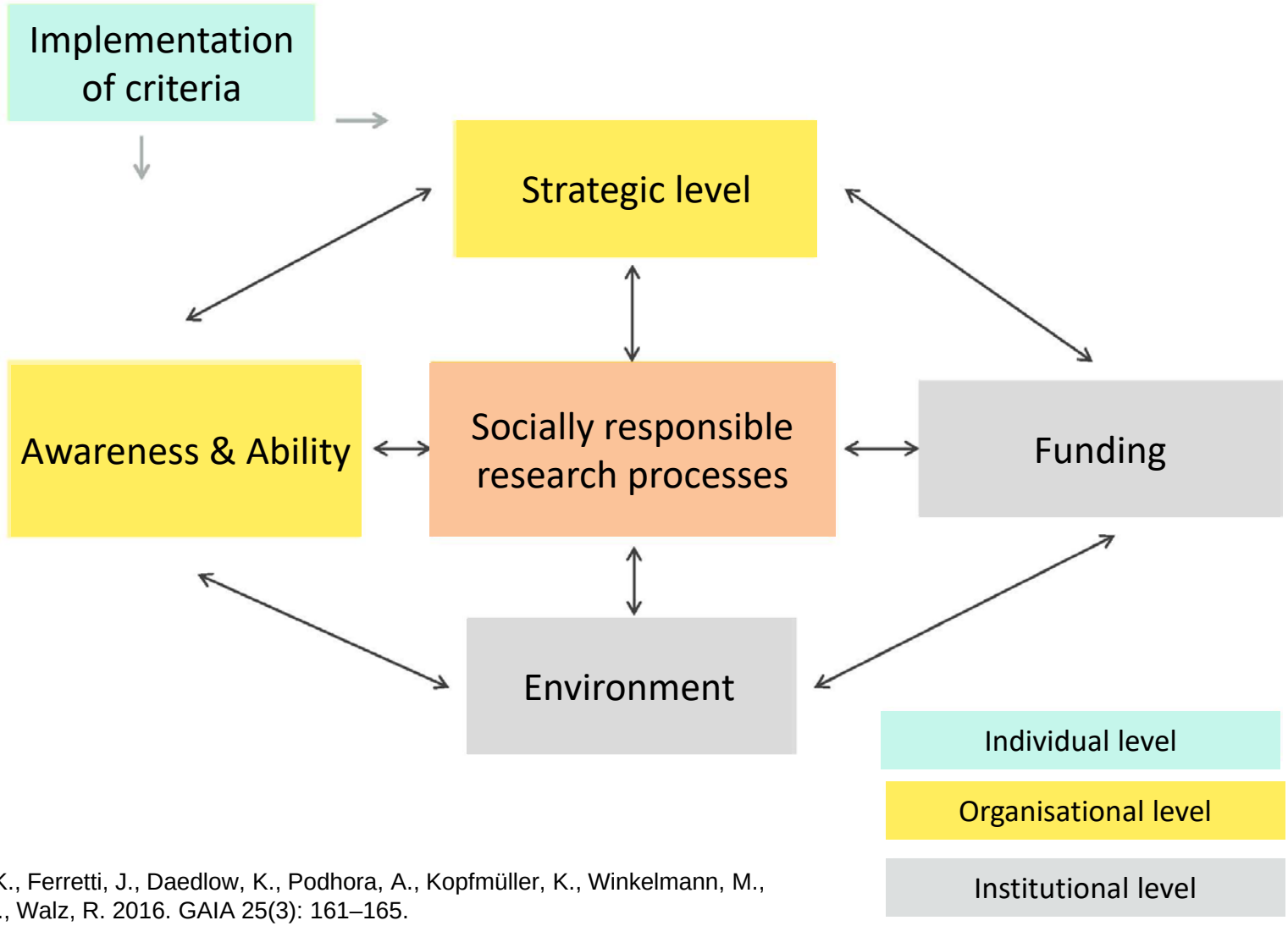
Possible trade-offs



Roadmoap for implementation

- Awareness and Ability: Cmmunication, Education, Responsibilities
- Human resources strategy: career options, payments
- Ressources: Subsidies for organisational structures
- organisation: implementation of responsibilities
- Funding: guidelines, evaluation criteria
- Wider context: implementation in scientific practice: teaching, journals, tenure track…
- Monitoring and impact assessment

Implementation of criteria for socially responsible research



Helming, K., Ferretti, J., Daedlow, K., Podhora, A., Kopfmüller, K., Winkelmann, M., Bertling, J., Walz, R. 2016. GAIA 25(3): 161–165.

summary

- Research needs to ensure societal relevance in order to support sustainable development
- Research needs to integrate scientific excellence and societal relevance
- 8 criteria for „socially responsible research“ may integrate excellence and relevance
- 8 criteria for „socially responsible research“ may be operational accross scientific fields and disciplines
- The implementation of the 8 criteria requires changes at all levels of the science system
- Trade-offs may occur

VIELEN DANK FÜR IHRE AUFMERKSAMKEIT

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