Science for a sustainable and just world: Opportunities and challenges

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Challenging – and changing – science:

To contribute transformative solutions to an integrated set of global challenges, protecting planetary resources, social equity and human wellbeing
Open Science

Increasing the rigour and quality of knowledge production

Responding to the social imperative of supporting science for the global public good
Building on discourses about:

- Participatory action research, mode 2 knowledge production, transdisciplinarity
- Democratisation of science
- Public-Private Partnerships
- The Triple Helix
- Public understanding of science – engagement
- Amateur or citizen science
Open, integrative approaches to the production and use of solutions-oriented knowledge:

- Securing open access to publications and open data
- Crossing boundaries between disciplines / fields
- Fostering truly global collaboration
- Bringing academics and non-academics together as partners in the co-design and co-production of knowledge
  - Combining different types of knowledge (scientific, indigenous, practitioner-based, religious, etc.)
  - Building networks of collaborative learning and problem-solving in specific social-ecological settings
Science as a public enterprise, rather than one conducted behind closed laboratory and library doors;

Science taking its place in a mature, deliberative democracy
Towards a new science policy framework?
Shifting conceptions:

- Relevance
- Autonomy
- Science-society relations
- Science-policy nexus
- Knowledge divides
But are we walking the talk?
Reality Check
• Disciplines still dominate academic training, funding, evaluation and reward systems

• Integrating the social (and human) sciences remains a challenge

• Budgets for international collaboration are often not global in scope and frequently the first to be cut in times of constraint

• Excellence is still (largely) measured in numbers

• Transdisciplinarity or the co-design and co-production of knowledge is not really understood, let alone supported

• As the academic precariat grows, so do regimes of competition rather than collaboration
Persisting pressures to play by business-as-usual rules
Challenging – and changing – science policy

• Understand and respond to the imperative of open science

• By creating the conditions of possibility for transformative, solutions-oriented research

• But doing so in critical, reflexive and balanced ways
This is important because it will determine whether and what kind of role science plays in shaping the future of humanity on planet Earth.
Thank You

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