

Third Symposium on Sustainability Science: Towards Guidelines on Research and Education
UNESCO Headquarters - Room XIII (Bonvin Building)
31 May - 1 June 2017

OUTCOMES OF DISCUSSION ON KEY PRINCIPLES OF SUSTAINABILITY SCIENCE

LUIZ OOSTERBEEK

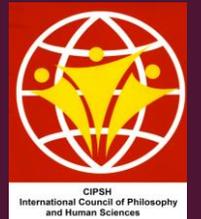
INTERNATIONAL COUNCIL FOR THE PHILOSOPHY AND HUMAN SCIENCES (CIPSH) – LOOST@IPT.PT



United Nations
Educational, Scientific and
Cultural Organization



From
the People
of Japan



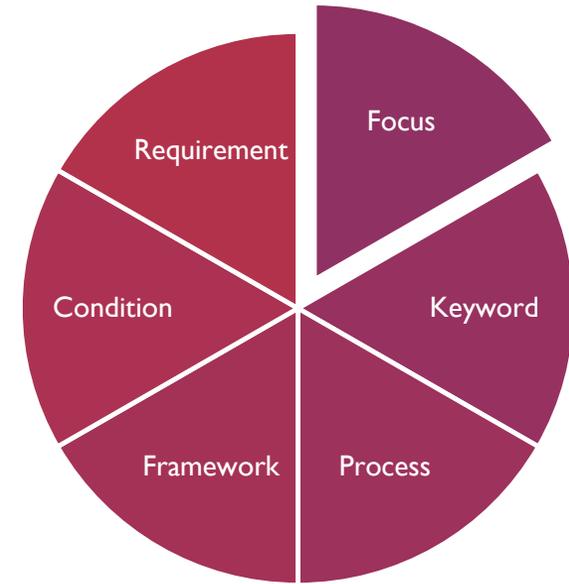
OUR POINT OF DEPARTURE

- **SDGs** are a fundamental framework for SuS and **diversity** and **knowledge** are key-words (need to focus on processes rather in targets alone)
- Need to **fully use existing tools** (co-design, co-production and co-management as a basic reference; territories as a privileged dimension for integrative approaches)
- Sustainability science should be understood as **sustainability knowledge and practice**
- Need to clarify **concepts** and to conceive more efficient operational **tools**

A SHARED CONVERGENT VISION (PREAMBLE)

- Sustainability result from interdependencies between **societal, economic, environmental and cultural** drivers, and imply contradictions and dilemmas, not only technical problems to solve.
- SuS is about knowledge, technology, innovation and **convergent understandings** of **global and local challenges**.
- SuS can be disciplinary, interdisciplinary or transdisciplinary, but it is **user-driven and user-inspired**, building from integrated **knowledge** and **territories-based integrated experiences**.
- SuS specifically address **dependencies and complexities, engaging scientists and practitioners**, involving knowledge, attitudes, values, life forms and narratives, based on the diversity of cultures.
- **UNESCO** programmes, including academic chairs and category 2 Centres, are a major tool to foster SuS, **engaging sciences, humanities and society**.

6 PRINCIPLES TO RENDER SUSTAINABILITY SCIENCE EFFECTIVE



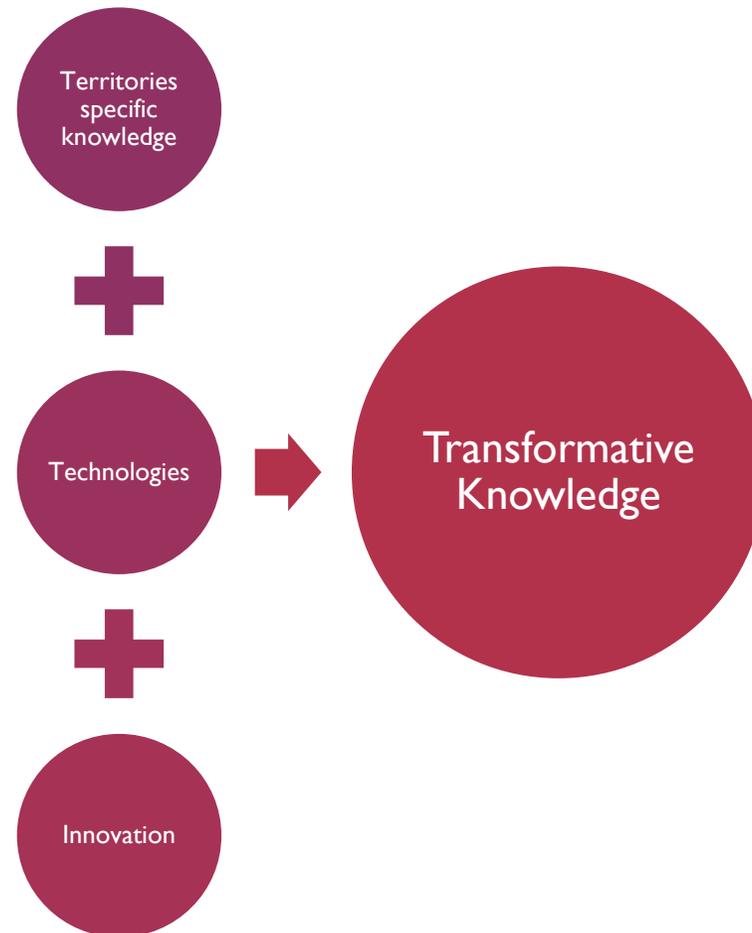
I. FOCUS: GLOBAL AND LOCAL CHALLENGES INTERPLAY

- Sustainability Science is specifically responding to the **interdependent, complex and mutually reinforcing character** of natural, social and cultural ongoing, global and local challenges. Sustainable development, as expressed in the United Nations Agenda 2030, is exactly about the interplay of such challenges.



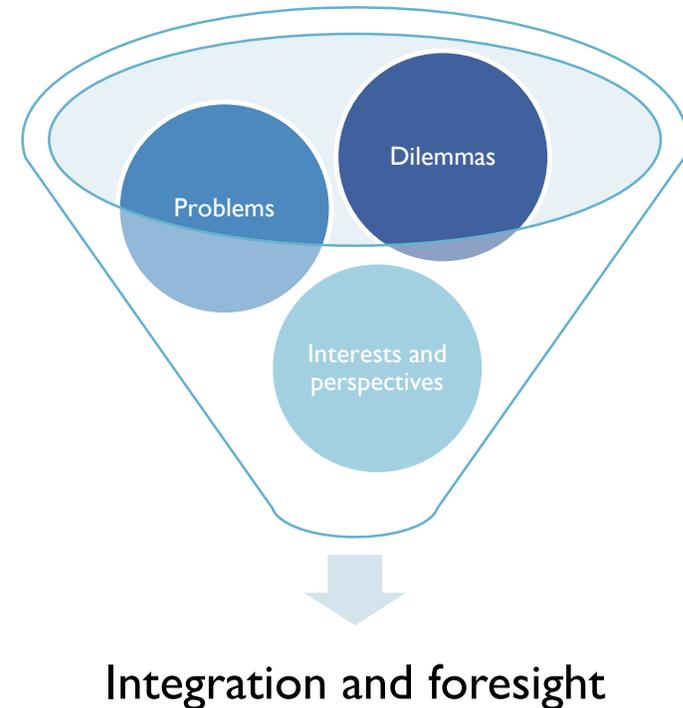
II. KEYWORD: KNOWLEDGE

- Sustainability Science aims at mobilizing, generating, disseminating and implementing **knowledge necessary to define and achieve sustainability** as a response to such challenges in the concrete contexts of different geographical and temporal scales. Such knowledge includes new technologies and innovative processes.



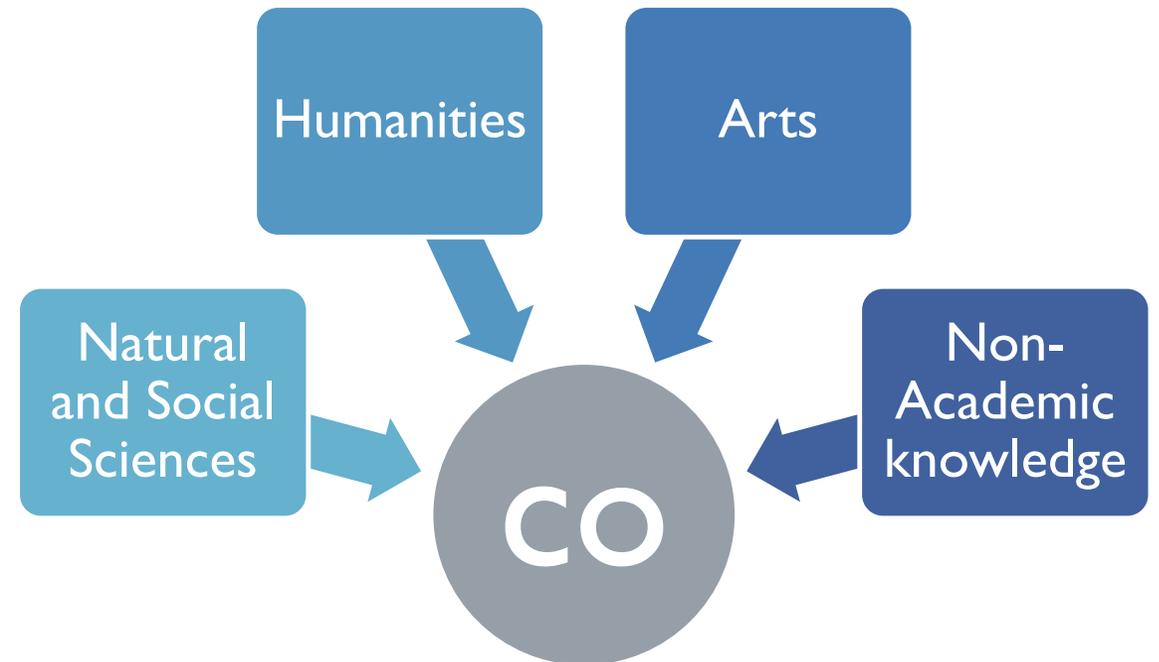
III. PROCESS: INTEGRATION AND FORESIGHT

- In addition to generating knowledge, Sustainability Science focuses on **solving problems, understanding dilemmas and conflicts of goals and interests**, with a view to move towards more integrated and coherent policy agendas, policy options and foresight scenarios, also encompassing short and long terms needs.



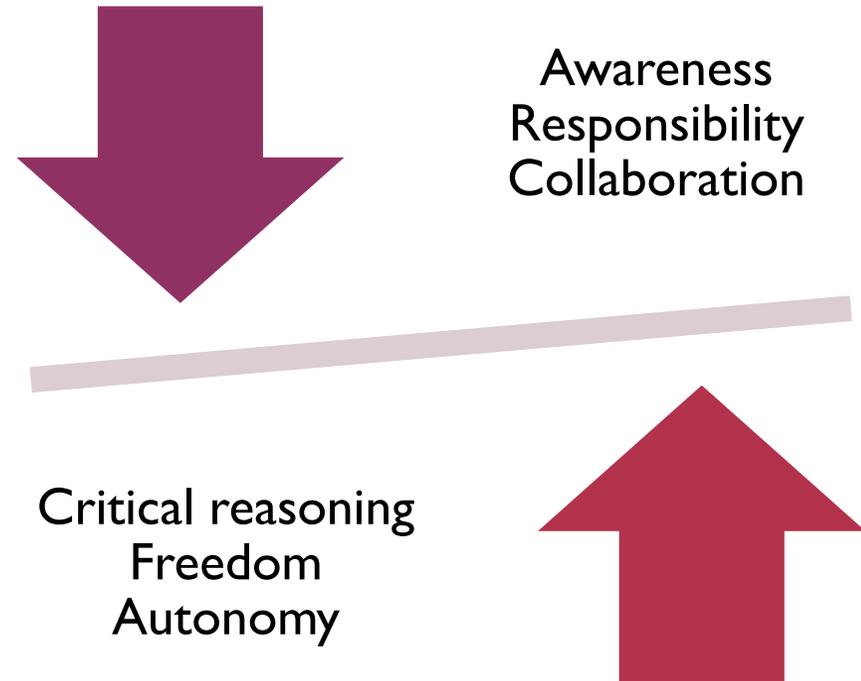
IV. FRAMEWORK: COLLABORATION

- Sustainability Science tends to become a crosscutting disciplinary science, but its demands typically call for an **inter- and transdisciplinary cooperation** of natural and social sciences, humanities and also involving the arts and non-academic stakeholders, taking into account cultural diversity, through a collaborative process of co-design, co-production and co-management.



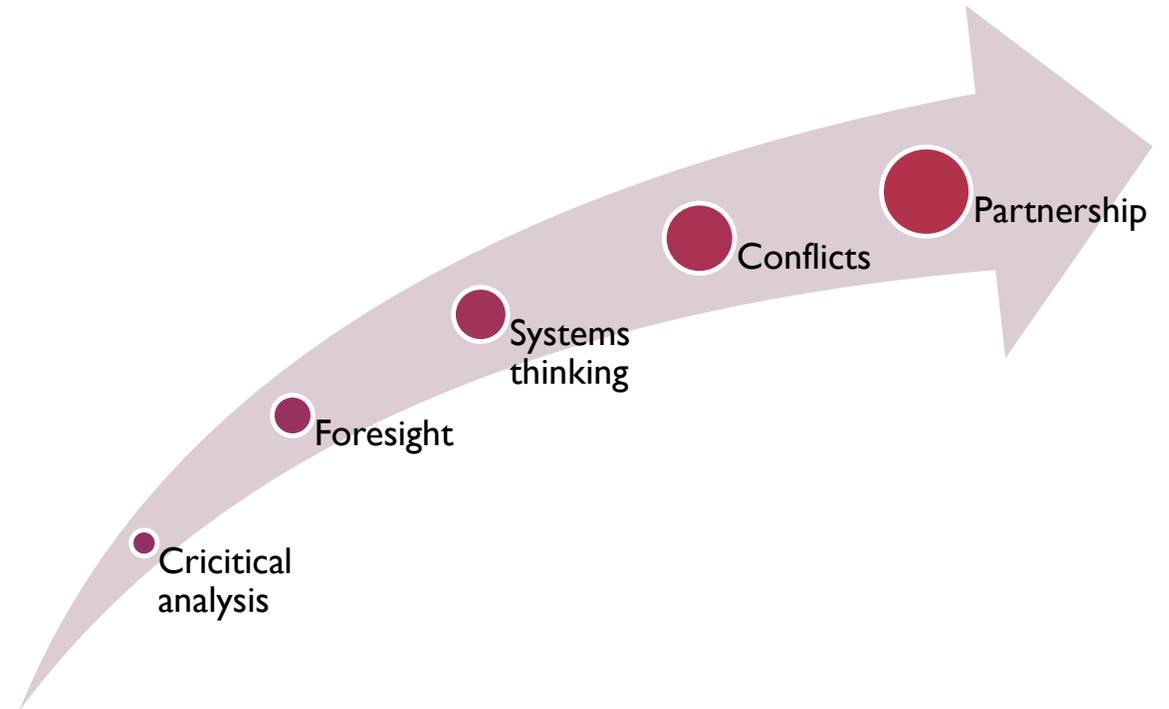
V. CONDITION: FREEDOM AND RESPONSIBILITY

- Sustainability Science is based on both **academic freedom** and **academic responsibility**.



VI. REQUIREMENT: EDUCATION FOR COMPLEX ACTION

- Sustainability Science **requires important new capacities of individual scientists** for critical analysis, for foresight, to cope with systems thinking, changing environments, risks and insecurity, to recognize and address diverse values as well as conflicts of goals and interests, to empathize and work responsibly and collectively in diverse partnerships. Such capacities need to be strengthened through all education.





A. RESNAIS (2006)
PRIVATE FEARS IN PUBLIC PLACES

SuS requires moving beyond fear, into a conscious critical awareness of the need for convergence within diversity.

This implies transforming beliefs, memories and wishes too.



I MUST GO TOO!
THANKS

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