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## “A Roadmap for Industry-Academia collaboration towards sustainability”

### ICSS 2010: RESULTS AND CHALLENGES FOR THE FUTURE

*Conference Room 6 - North Lawn Building  
United Nations Headquarters - New York  
October 5th 2010*

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**CIRPS – Interuniversity research centre for sustainable development**  
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# ICSS 2010: SECOND INTERNATIONAL CONFERENCE ON SUSTAINABILITY SCIENCE

Hosted in Rome by CIRPS, La Sapienza University, 23-25 June

Co-organized by CIRPS, IR3S, ASU and UNU

More than 200 scholars representing 63 universities and scientific  
and project oriented networks world-wide

Aimed to promote transformations in education and research to  
address the sustainability crisis

5 thematic sessions, open forum with industry and civil society,

Phd session



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# ORIGIN OF INTERNATIONAL CONFERENCE ON SUSTAINABILITY SCIENCE

Launched in 2009 by the Univ. of Tokyo as a follow up activity of **Sapporo Sustainability Declaration of G8 University Summit**

ICSS is a forum for a global network of scholars concerned with addressing the complex problems that threaten the future viability of the planet and well being of its inhabitant and environment.

ICSS 2009 resulted in the identification of a framework for a **NoNs** for sustainability science to facilitate development of research aimed at sustainability issues and to promote action.



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# ICSS 2010 OBJECTIVES

Strengthen NoN framework

Examine existing approaches, methods and knowledge generated with the view of structuring it so that it can be applied in ways that will contribute to the transformational changes (avoid risk of dispersion and fragmentation)

Identify priorities for advancing sustainability science and delineate a **research agenda**.



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# Areas addressed

Epistemological pillars and methodologies

Trans-disciplinary researches practices

Innovation

Governance

Education



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# Keywords

**Urgency**

**Innovation** in economic, social and policy development as well as technological development

**Flexibility** in solution identification and in policy formation

**Inclusiveness** in participatory processes

**Diversity** in methodologies, approaches and participation

**Greater visibility**



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*Session I: From complex thinking to transformational change:  
epistemological and methodological challenges for sustainability science*

The development of **new methods** for the conduct of sustainability science is not necessarily needed. What is needed is research on what will work and what does not in existing methods. Case study development is recommended

There is significant **lack of rigor** in applying methods to sustainability issues and to examine and understand the insufficiency of the stakeholder participation process

There is a need for **evaluative criteria and evaluations** to demonstrate how sustainability science is contributing to progress toward sustainability

## *Session II: Solution-oriented/transdisciplinary research for sustainable development*

**Trans-disciplinary strategy** is necessary for research in Sustsci: Collaborative processes involving multiple actors that are intended to promote societal change as well as mutual and joint learning

Integrative approaches that complement rather than compete with disciplinary research

A deliberate combination of empirical/practical projects and theoretical/reflexive research

Incorporation of both qualitative and quantitative knowledge

Incorporation of knowledge from the **“action” perspective** – that is, of stakeholders, decision-makers, and implementers



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## *Session III: Innovation for Sustainability: Toward a Sustainable Urban Future*

By 2050 70% of the world's population is predicted to be urban - challenges

More north/south collaboration is needed – as well as bilateral collaborations – in planning for and realizing the low-carbon societies of the future

A central question, in planning for the future of cities in addition to reducing emissions, transforming infrastructure to meet the needs of ageing populations, etc. has to do with ensuring **security, peace,** and a high **quality of life** for the vast majority of the world's population.



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## *Session IV – Global Sustainability Governance*

Science, technology and policy studies are necessary to help develop alternatives to “mainstream” pathways

Sustainability issues cannot be addressed using governance approaches of the past. We have not come up with new ways yet – but are beginning to develop them

These new ways must be sensitive to avoiding a “lock in” effect of technology as well as the “lock-in” effect of policy that is not flexible, subject to evaluation and adaptation

Governance issues must be approached through seeking alternatives – there is not one pathway to a solution/s (policies should be seen as “experiments”)



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## *Session V: Sustainability Science Education*

The key to sustainability education is a close collaboration between practitioners and university scientists.

Primary educational challenge is to develop new ways of thinking, skills and attitudes:

- Identify commonality rather than emphasize originality in the work
- Look for local importance rather than universality
- Accept plurality of view rather than objectivity
- Be integrative rather than rigidly analytical
- Be transformative.

Core competences: systems thinking, strategic, anticipatory, normative, and interpersonal skills that foster teamwork, leadership, communication and negotiation skills.



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# *Panel 1: Industry and Academia for a Transition Towards Sustainability*

Address problems that inhibit such collaborations, such as

For academic scientists, work with industry does not contribute to career advancement

Different time horizons

Through industry/academic collaboration anticipate what will be good public policy to support alternative solution options

Develop a coherent strategy for such collaboration

Focus on a framework to support collaboration rather than aimed at single projects

Support from political institutions

Develop a common vocabulary

Way forwards: **PoW**, **Joint initiatives**, **Plan** for implementing cooperation that is both thematic and action oriented



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## *Panel II: People to Science to People: experiences from civil society*

Interactions with civil society, including with artists, can deepen and expand the ways in which scientists think about and approach their work.

### Respect **diversity**

Need to build understanding of the **multiple approaches** that are needed to address sustainability issues, and how the stories that we develop to explain the deep dimensions of life and our relationship to nature can help sustainability scientists to be **flexible** and open – willing to take account of **multiple perspectives**.



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# *Challenges and way forwards I*

## **Barriers** to advancing sustainability:

Lack of institutional support

The “tyranny of disciplines” for tenure and promotion that can discourage young faculty from participating in trans-disciplinary initiatives

Lack of funding for “slow science”

Other actors do not understand what sustainability science is, and the power it has to transform to a sustainable society

## Need of **visibility**



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## *Challenges and way forwards II*

Consolidate the Network ([www.infss.org](http://www.infss.org))

“Mapping project” to determine direction, goals, objectives, barriers and opportunities for the NNs. Towards International Society /Association

Stimulate institutional reforms

Create working groups on specific areas or topics of research

Develop databases of successes

Organize publications

**Commitment of stakeholders’ representatives** to support and engage with Sustainability Science future activities.

Communication with external communities and public policy actors, including the decision-makers, influencers (e.g. business leaders, advocates, and philanthropists; and implementers).



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# *Thank you!!*



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