Lighthouse Programmes for Sustainability Research: why they are needed
Cooling Singapore
A CATALOGUE OF STRATEGIES TO MITIGATE URBAN HEAT ISLAND AND IMPROVE OUTDOOR THERMAL COMFORT FOR TROPICAL SINGAPORE

COOLING SINGAPORE
...you have to work things out together!
The role of universities

Supporting a growth-based economy (model 1)

Academia

Graduates

Knowledge and innovation

Business, politics and administration
Supporting societal transformation (model 2)

- Academia
- Politics, administration and business
- Graduates
- Staff mobility
- Co-production of knowledge
Large, integrated funding programmes designed to support impact-oriented research and innovation for sustainable development
Goals of lighthouse programmes

Scientific goals

• Work on sustainability problems in their broader contexts
• Develop new theoretical and methodological approaches
• Provide actionable knowledge on case-based, specific problems
• Develop metrics and monitor progress towards sustainability
• Track changing research needs (and respond at short notice to emerging issues)
• Provide a scientific underpinning for more focused research
Goals of lighthouse programmes

Societal goals

• Build a platform for co-production between academia and society
• Create an information hub in support of science-based decision making
• Provide a forum for public debate on issues of sustainability
• Establish a dialogue with decision-makers
• Support societal transformation
Goals of lighthouse programmes

Institutional goals

• Strengthen the institutional capacity to address questions related to sustainability
• Establish true interdisciplinarity across faculties, departments and institutions
• Develop strong capacities in transdisciplinarity and science–society–policy dialogue
• Establish enduring networks with non-academic stakeholders
• Build strong international collaborations
• Provide a model for future transdisciplinary research structures within institutions
Ch. 2: Essential features of lighthouse programmes

- Embracing the complexity of sustainability questions
- Ensuring societal pertinence
- Planning for impact
- Programme-level support for sustainability projects
Ch. 3: Programme development, governance, and impact evaluation

- Redefining programme development
- Expanding programme leadership
- Redesigning proposal assessment
- Integrating formative impact evaluation
Ch. 4: Implications for research institutions

- Making sustainable development an institutional priority
- Fostering cross-cutting structures
- Building capacity
- Developing careers
Funding lighthouse projects: why a new approach is needed

- Lighthouse programmes need substantial funding
- Some important elements can be difficult to fund adequately, e.g., project development, supporting stakeholders, dialogue with policy and society, implementation
- Existing instruments such as NRP’s are too short and usually too sharply focused on specific problems
- Sustainability research has to compete with other thematic areas for access to these funds
- Most funding agencies are already stretched
Collaboration amongst funders: a possible way forwards

**Partners**: a group of organizations that commit to supporting lighthouse programmes, e.g., SNSF, government agencies, Innosuisse, universities (e.g. EPFL), cities and cantons, private sector, trusts & foundations, etc.

**Mission**: promoting research and innovation for a societal transition to sustainability

**Main activities**:
- Continuing dialogue with policymakers to identify research priorities
- Issue calls for proposals
- Assemble funding consortia for individual programmes
- Programme approval and oversight
With thanks to the many experts who contributed in different ways to the preparation of this report

Authors

Gabriela Wuelser, SCNAT
Peter Edwards, ETH Zurich (emeritus)
Anja Bretzler, SCNAT
Thomas Breu, University of Bern
Lisa Deutsch, eawag
Sabine Hoffmann, eawag
Katsia Paulavets, International Science Council
Christian Pohl, ETH Zurich
Bianca Vienni-Baptista, ETH Zurich
Julie Zaehringer, University of Bern
Astrid Wallner, University of Bern
Henri Rueff, University of Bern

Consulted experts

Sarah Achermann, SNSF • Andrea Bruhn, Robert Bosch Foundation • Nicole Arbour, Belmont Forum • Jean-Luc Barras, SNSF • Laura Binz, SNSF • Nicoletta Casanova, FEMTOprint SA • Antonietta DiGiulio, University of Basel • Jacques Ducrest, SERI • Emile Dupont, Innosuisse • Emmanuel Frossard, ETH Zurich • Thomas Griessen, SNSF • Martin Grosjean, University of Bern • Walter Grossenbacher-Mansuy, SERI • Andreas Haselbacher, SFOE • Janet Hering, eawag • Chinwe Ifejika Speranza, University of Bern • Daniela Jacob, Climate Service Center Germany • Fabian Kaeser, SCNAT • Christoph Kueffer, OST • Stuart Lane, University of Lausanne • Brian Leung, Belmont Forum • Mirjam Macchi Howell, SDC • Peter Messerli, Wyss Academy for Nature • Katja Michaelowa, University of Zurich • Philippe Moreillon, University of Lausanne • Matthias Noellenburg, Volkswagen Foundation • Annika Nussbaum, Innosuisse • Juerg Pfister, SCNAT • Adina Rom, ETH Zurich • Rolf Schmitz, SFOE • Eva Spehn, SCNAT • David Svarin, SNSF • Juerg Utzinger, Swiss TPH • Albert van Jaarsveld, IIAAS • Pascal Walther, SNSF • Achim Wennmann, IHEID • Jakob Zinsstag, Swiss TPH

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Thank you for your attention!

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