

# Responses to Environmental and Societal Challenges for our Unstable Earth (RESCUE)

ESF-COST “Frontier of Science” foresight initiative and ESF Forward Look developed at the French CNRS’s request



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## RESCUE Objectives

→ Strategic advice for research and education transformations enabling transitions towards sustainability

- Propose processes for natural, social and human sciences to improve their ability and capacity to work together (interdisciplinary synergy), to respond to the pressing policy and societal needs related to global environmental change
- Articulate new science questions related to global environmental change, and especially those of relevance to policy and society
- Explore effective, new institutional approaches towards integrated, interdisciplinary research, and to facilitate the ‘revolution’ in education and capacity building it requires

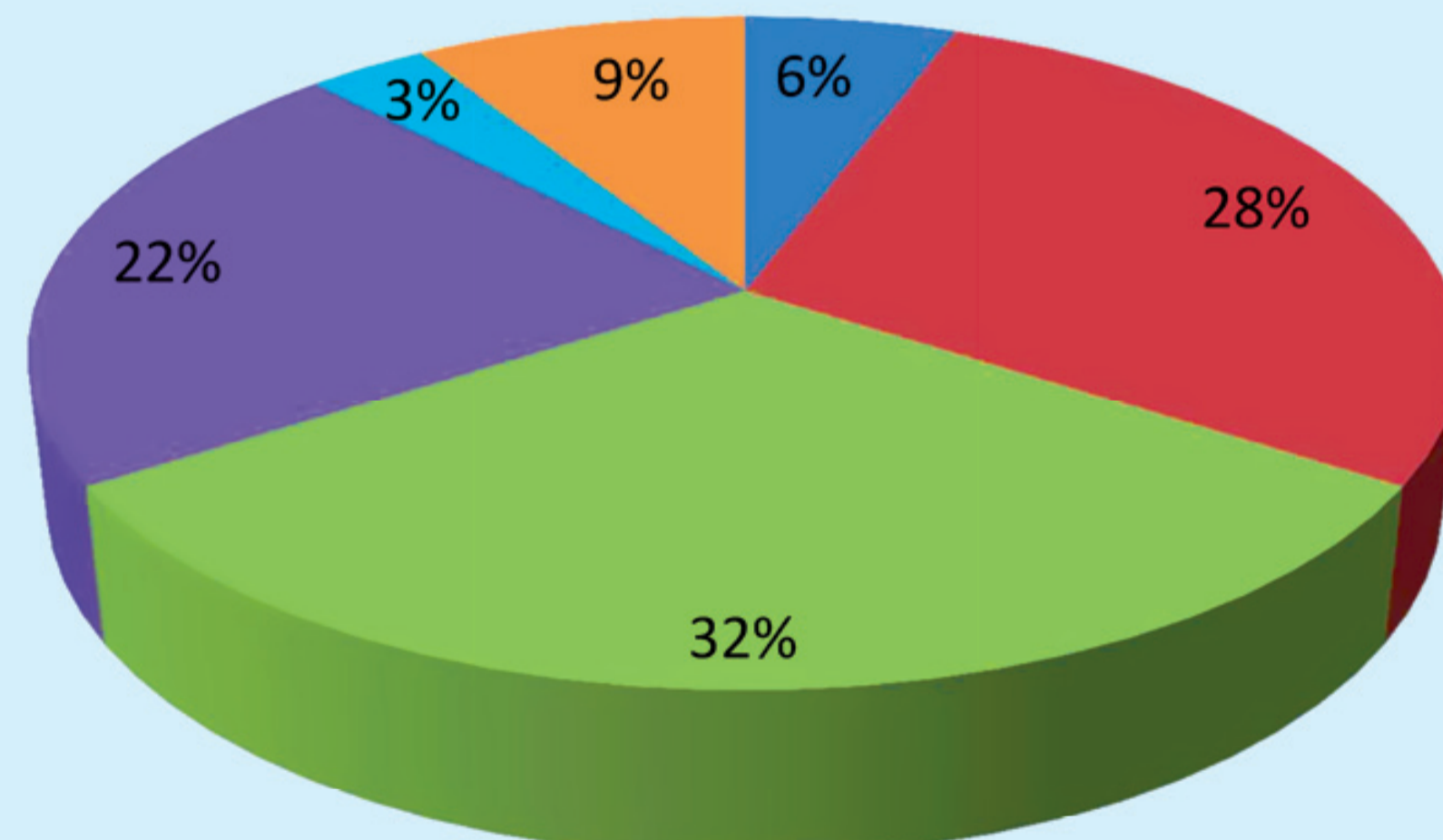
## RESCUE Thematic Activities

- New contributions with a central focus on humans and society with regard to the challenges of the Anthropocene
- Collaboration between the natural, social and human sciences in global change research
- Requirements for research methodologies and data for addressing the global change challenges
- Moving towards a ‘revolution’ in education and capacity building in response to global change and
- Opening global change research at the interfaces between science, policy, and society, in an open knowledge system

## Six RESCUE Recommendations

- Build an institutional framework for an open knowledge society
- Re-organise research so that disciplines share knowledge and practices and, from the onset, work together with each other and with stakeholders
- Initiate long-term integrated demonstration projects
- Develop sustainability education and learning in an innovative, open knowledge society
- Respond to the challenges and opportunities created by Internet for an open knowledge system that enables transitions towards sustainability
- Create a dynamic, adaptive and integrated information and decision-support system on global change issues

## RESCUE Membership ‘core disciplinary expertise’ distribution



■ Geosciences  
 ■ Social sciences  
 ■ Humanities

■ Technological sciences  
 ■ Environmental sciences  
 ■ Foresight

54%

## RESCUE Leadership

**Chair:** Professor Leen Hordijk

**Vice-Chair:** Professor Gísli Pálsson

**Theme Leaders:**

Professor Michael Goodsite, Professor Sierd Cloetingh, Professor Poul Holm, Professor Claudia Pahl-Wostl, Professor Theo Toonen, Professor Karen O’Brien, Professor Jonathan Reams, Dr Jill Jäger, Professor Frans Berkhout  
+ Professor Joseph Alcamo



## Some possible way forward: A preliminary RESCUE roadmap proposal

→ RESCUE primary audience: Science policy makers and funders in Europe

→ 10 steps to support robust responses to the challenges of global environmental change and transitions towards sustainability

- Develop a common European vision of an open knowledge system
- Survey on what societal actors expect from global change research
- Pan-European mapping study of interdisciplinary research and education
- Provide support and incentives for interdisciplinarity in research design
- Develop and operationalise a ‘Radically Interdisciplinary and Transdisciplinary Environment’ (RITE) framework
- Increase national and European support for the study of human-environment interactions, human behaviour and social arrangements
- Establish a set of 10-20 long-term demonstration projects covering different scales, sustainability needs/problem domains and policy contexts across the world
- Run a facilitated dialogue on the changes required in sustainability-related learning, with educators, education policy makers and broad range of societal actors
- Establish an international working group to consider the challenges and opportunities of the Internet in the fields of global change research and education
- Establish an international working group to work out the design of dynamic, adaptive information systems



## RESCUE Coordination / Contact

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