

# RESCUE Background

*Point of view of the initiator on  
RESCUE & related activities*

*P. Monfray, ANR, CNRS & IGFA/Belmont  
ESF RESCUE Stakeholders Conference  
May 16th, 2011*

## Changing nature – Changing sciences

- 1950 to 1980 : from “Natural processes” to “Anthropogenic impacts”
- 1980 to 2000 : from “Impact Assessment” to “Societal Alert” (IO3C, IPCC, MEA...)
- 2001 to 2010 : “Earth System Science” emerges to contribute on “Adaptation and Mitigation”
- **BUT** a new frontier between “development” & “environment”
  - Much more **complex !**
  - Too weak interactions between multiple changes
  - GEC should be considered as “additional” constrain or opportunity to the others global change as economy, finance, technology, geopolitics, culture, poverty, education ...
  - Need of radical innovative ways within and between sciences, including at the beginning strong SSH


## Some key implementation issues

- Mobilize **new discipline** with their specific tools on GEC issues, in particular Humanities and/or Social Sciences
- Trigger **curiosity** for adjacent disciplines and **reformulate** scientific questions
- Build **inter- to trans-disciplinary** on **common** object to assess multiple stress and multiple policy
- Listen **real needs** from decision makers to citizens
- Beyond a nation to reach **critical mass and diversity**
- Need **new incentive tools or practices** that **last** within research organizations and funding agencies

*>>> Within this context, various initiatives have been launched worldwide to face such issues...*

**RESCUE foresight initiative**  
Responses to Environmental and Societal  
Challenges for our Unstable Earth



Initially  
request by 

*from Executive Summary (page 1, 2009 proposal):*

- Address the **societal challenges** related to global environmental change, including its **human dimensions**
- Enable the scientific community, together **with other actors and key stakeholders**, to **develop** medium to long-term strategies
- Impact society by favouring **common strategic understanding and coordination**, and through **transformative education**
- **Overall, increase effectiveness** of ongoing and future activities **across research organizations and initiatives in Europe !**

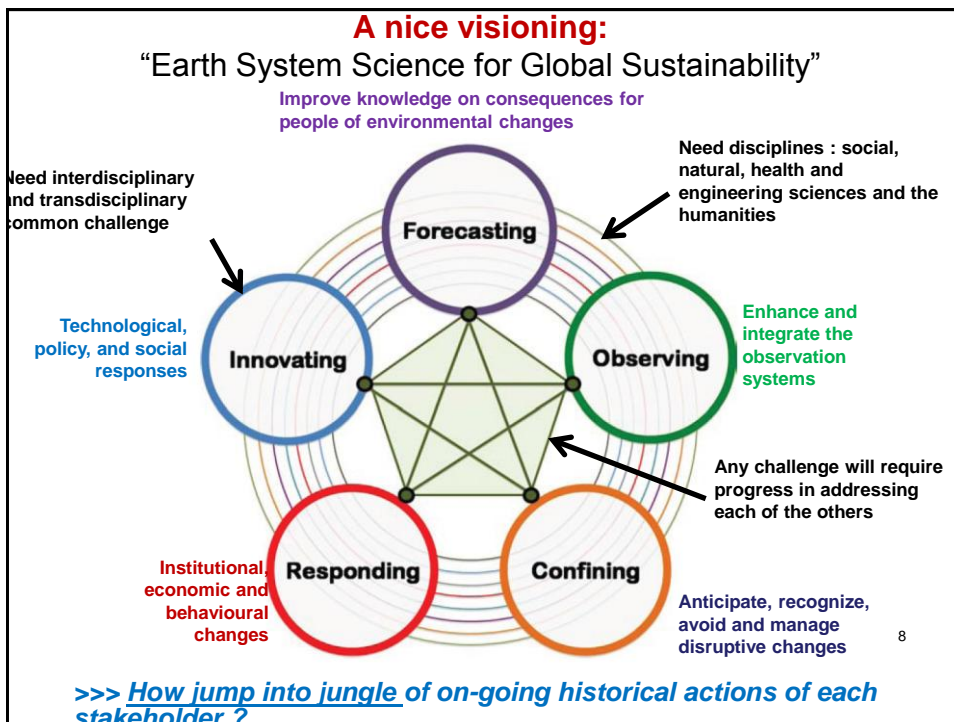
*>>> Where we are ? What's up elsewhere ?*

- Since 2009 an **international “club” of agencies** :
  - Australia (DCC), Austria (MESR), Brazil (FAPESP), Canada (NSERC, CFCAS), China (NSFC), France (ANR, CNRS), EU(EC), Germany (BMBF, DFG), Japan (MEXT), India (MES), Norway (RC), South-Africa (NRF), UK (NERC), USA (NSF), ICSU, ISSC (<http://igfagcr.org/index.php/bf-members>)
- Some outputs (*from Belmont Challenge White Paper, 2011*) :
  - Assessments of joint **multiple** risks
  - **Regional and decadal** analysis and prediction
  - **Interaction** of **natural** and **social** sciences
  - Environmental **information service to users**
  - Effective **international coordination** mechanisms

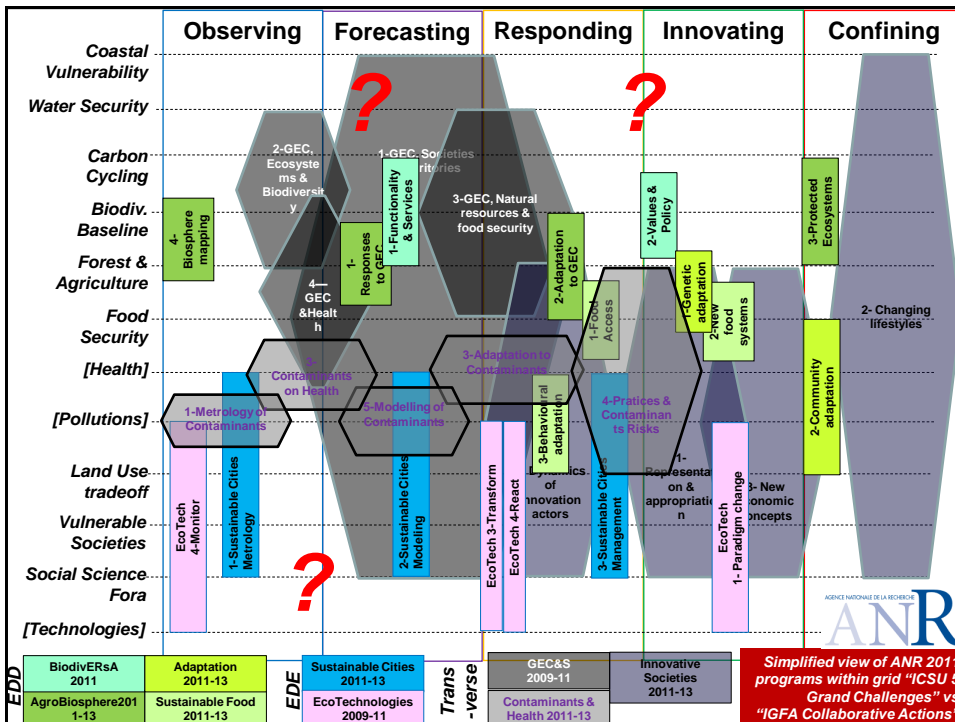
- **Proposed Alliance** - A Joint Way Forwards between:
  - Research **funders** (IGFA, IFFA?, ...)
  - Research **programmes** (ICSU, ISSC, CIPSH?, ...),
  - Operational **services** (WMO, UNEP, DA?, ...)
  - Key **users** (tbd)
    - Plan to be launched in 2012 for 10 years with single, overarching strategy and governance
- **Transnational Collaborative Research Actions**, as
  - **Water security** - regional and decadal scale prediction
  - **Coastal zone vulnerability** - improving tools for regional scale management
  - Securing **Biodiversity** Baselines - networking observatories
  - Human modified **Tropics** - impacts on carbon, water and services
  - **Ocean acidification** - integrating observations for a global system
  - Others tbd...

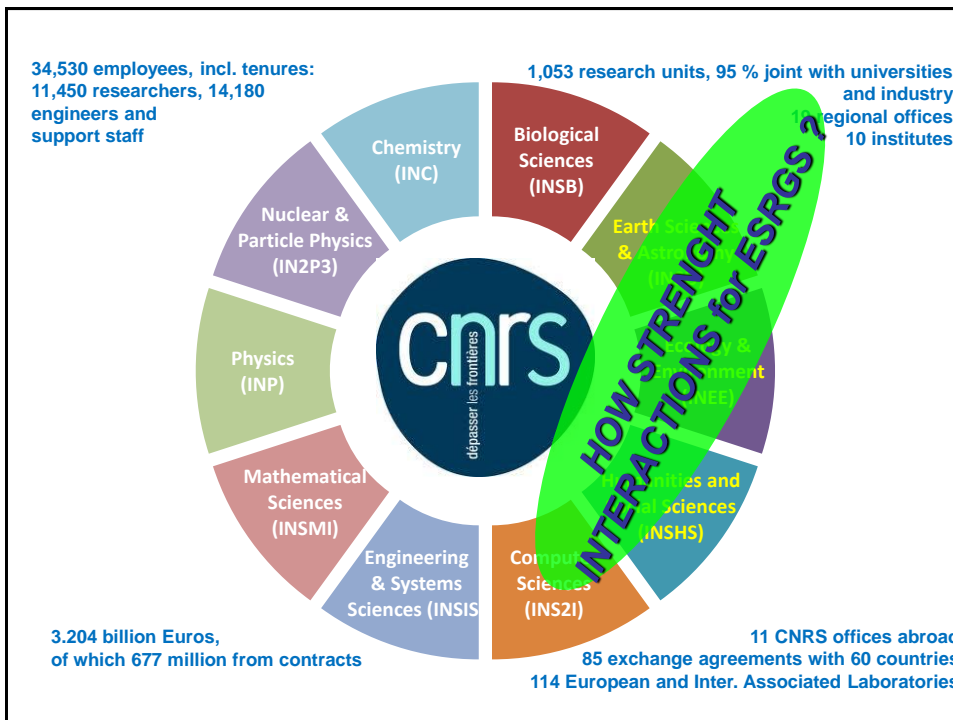
**>>> But all need to be put real with a start in 2012 ! What practical help from RESCUE brainstorming ?**

*How slice the multi-face problem into on-going actions ?*



## Two examples at French level: ANR and CNRS





***General consensus is not enough!  
Practical tools are urged  
to be disseminated  
cross European stakeholders***

***Hoping a fruitful RESCUE Conference  
to have efficient strategic tools  
for implementation !***