the IAI operates only in an international context:
"to do the science that cannot be done by any one country alone"

In that context, how is the problem being framed?

there are two layers of continuity and sustainability:

- **to develop the capacity**
  of the continent to produce science for informed decision making
  - this capacity needs continuity

- **to conduct research**
  on the sustainability of resources and natural-human systems

what are the major sources of knowledge and information?

sources of **scientific information** are projects resulting from **open calls**

sources of **context information** are critical (sredlohekats)

the source of **sustainability knowledge** is an **intelligent process** of combining **disciplines** with **users** of and **needs** for knowledge

the IAI is beginning to conduct that process because:
decision making on GC and sustainability is rarely supported by **science with disciplinary limits**

how does research begin to grapple with complexity?

first a negative:

attempts to establish **interdisciplinarity as a "discipline"**
result in
- generation of knowledge too shallow to support important decisions
- unpublishable theses
- unreliable results on stakeholder engagement

solutions to complexity are

networking and building the capacity
of researchers to ask the right questions -
from each other, from others and across the network

that requires some relinquishing of authority
and acceptance of network transaction costs

(expect resitance)

has knowledge generated by the IAI been used to inform programs/policies?
can it be measured?

some examples and evolutions:

physical oceanography
+ biology
+ ecosystem productivity and sustainability
+ governance and communication
= to guide policy on carbon (UNFCCC) and fisheries management

(the "carbon-sink" and the "fisheries productivity" folk never talked to eachother)
(unexpected unique military partnerships)

dendrochronlology
+ glaciers
+ climate science
+ archeology and history
= document societal impacts and start a dialogue on water security

(partnerships and take-up by ministries of public works)

agronomy of coffee
+ climate
+ economics
+ disease and pest management
= demonstrate barriers to adaptation

(pest are "known unknowns")
(climate is new and threatening)
(social organization is most critical)

dry forest ecology
+ remote sensing
+ social dimensions of forest use
+ anthropology of land occupation
= legal guidance on conservation and human rights

("you are in a dangerous place")

what are the lessons learned from this program?

- not a linear process
therefore create opportunity, be flexible, monitor action and reaction

- motivate for knowledge transfer
and be aware of limits between science dialogue and advocacy

- promote policy relevance
therefore admit to polical polarization and factor it in

- be prepared for resitance
hold your course but accommodate