Fostering transdisciplinarity in global research networks through digital means – potentials and challenges

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Knowledge production of large research networks

Science faces challenges to produce knowledge addressing the complex and increasingly global sustainability problems.

Future Earth and other large research networks and their partners aim to foster such knowledge production through network building and encouraging inter- and transdisciplinary research collaboration.

Challenges faced by networks

Such networks face challenges: face to face interactions are often not possible, due to time, cost, and sustainability concerns (frequent flights).

The Global Land Programme (GLP)

GLP is an interdisciplinary community of science and practice studying land systems and co-designing solutions for global sustainability.

GLP seeks to address land related concerns such as competing claims on land trade-offs on services and biodiversity, land governance, urban-rural interactions or land-climate interactions.

GLP's main functions and activities

(1) Information management
(2) Network and collaboration
(3) Learning and capacity building
(4) Science-policy-society interface.

How does GLP apply digitalisation?

GLP builds a cyberinfrastructure as an information and knowledge management system for its community.
The system offers tools for knowledge management, exchange, and collaboration of community members.

Information management

The GLP website, monthly digital newsletter "E-News", blog, and tweets foster network building, as well as information and knowledge sharing between a range of actors interested in land topics.

Network and collaboration

GLP member database "find a scientist" has been built for fostering exchange within the research community, which also leads to knowledge generation.
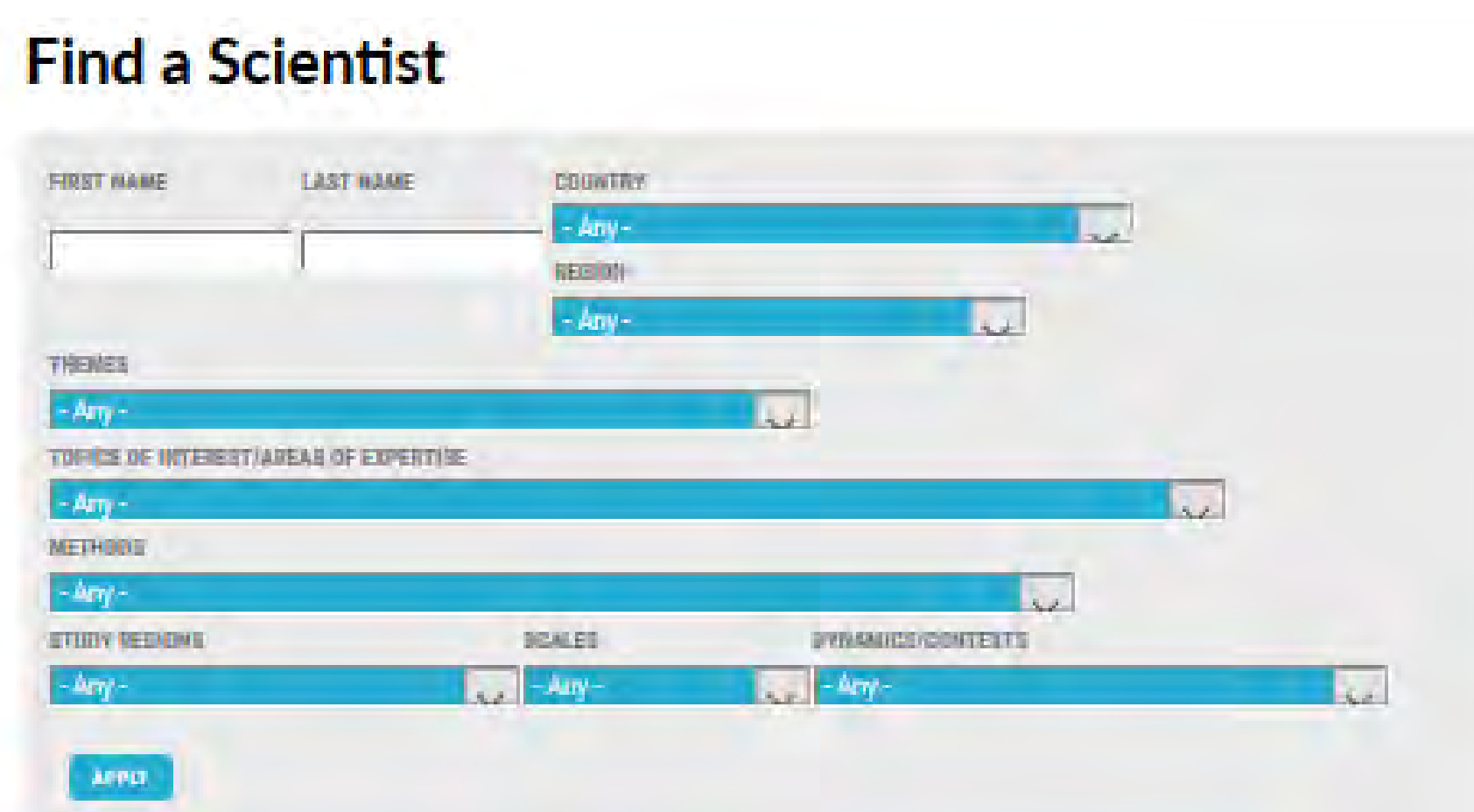
Learning and capacity building

GLP has 7 virtual working groups, connecting members on different research topics for mutual learning within the network.

The **co-production working group** links scientists and societal partners in webinars. Participants present and exchange trans-disciplinary research methods, approaches, and experiences. The webinars series will be concluded next year with the co-production of a synthesis of lessons learned and a strategic plan for future research activities.

Science-policy-society interface

Science-policy-society interfaces are needed to co-produce innovative approaches towards sustainable land systems. The GLP member database will be used in future to link and match land systems scientists to societal actors and policy-makers for the joint identification and implementation of action-oriented projects.

Potentials 🙂

Digital means can connect a multitude of actors across the globe for engaging in in-depth discussion on transdisciplinary research.

Action-oriented research projects can be initiated more easily by connecting various actors through digital means.

Challenges 🙁

Regardless of digital opportunities, face-to-face interactions are key for trust building. They often stand at the beginning of digital interaction processes.

Constant flow of digital information and the capacity of people to absorb it are increasingly a challenge for digital options.

Outlook

More reflection is needed for pushing exchange processes further into action-oriented approaches that really support transformation processes towards sustainable development.

The GLP science-policy interface will be further developed and strengthened.