

International workshop on the organization of research programmes on climate change

Comparative monitoring of knowledge for climate closing conference

This research was funded by:

Rathenau Instituut



Orna kennis
verander
in
de
techno

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PNO Consultants
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Comparative Monitoring of Knowledge for Climate

- What factors influence the organization, dynamics and outcomes of large scale multi-actor, multi-measure research programmes (MAPs)?
- Our aim is to inform policy makers and research managers on how to improve and optimize the execution of MAPs with the ultimate goal to improve societal impact in addition to scholarly quality

Goals of the workshop

1. Exchanging shared problems and attempts to solve them
2. Testing the general applicability of the project's results
3. Formulating new research questions

Overarching results

1. Every major effort to address a grand societal challenge should contain an element of knowledge co-production
2. Knowledge co-production is not (yet) self-evident. It needs to be actively organised.
3. The organisation of knowledge co-production should be sound for it to live up to its promises, which involves:
 1. aligning incentives and protecting participants
 2. organising for impact
 3. training and skills



Workshop MAPs – Rotterdam – 22 September 2014

Science System Assessment

The organisation of transdisciplinary research programmes and projects

Wouter Boon
Utrecht University



Involvement of stakeholders



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- Stakeholders can be sponsors, informants, recipients, shapers, reviewers, reflectors, or centrals
- Programmes organise stakeholder involvement differently
- Challenges: matching local needs; traditional and transdisciplinary science; providing access to poorly organised stakeholders



Early user involvement



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- Close association between the involvement of stakeholders in the proposal phase and in the funded programme itself:
 - User involvement in the proposal phase raises the likelihood of actual involvement during the programme
 - User involvement in the proposal phase raises the likelihood of financial contributions to the programme



Programmes as research coordination



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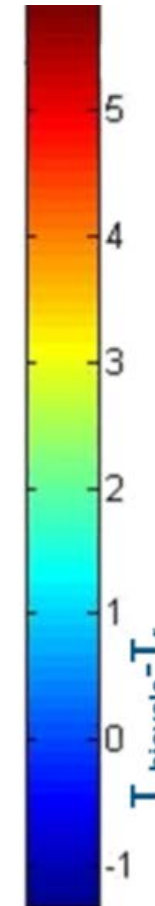
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- Multi-actor research programmes can be seen as an instrument for research coordination
- Consortia's network composition at the outset influenced their coordination approach
 - Network administrative organisation
 - Lead organisation governed network
 - Repercussions for openness, clique forming, etc.

Local transdisciplinary projects

Science System Assessment

6 augustus 22:00 – 24:00 LT



Urban heat island?

Health impact?

Innovative measures?



Out of their comfort zone...



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- Scientific knowledge production with strong societal interest, contextualised local knowledge base
- Team of (knowledge) producers and users: diverse backgrounds

Challenge 1



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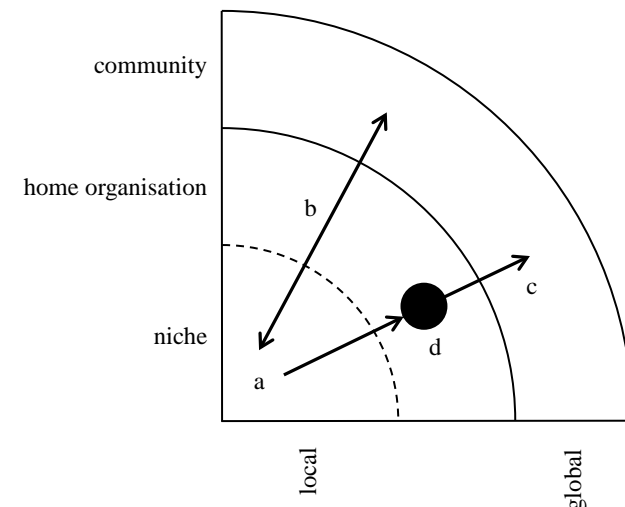
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- Balance the convergence and divergence of epistemic contributions
- Management during project is less important than careful balancing of divergence and convergence during the design stage of projects
 - project structure, level of partner diversity, project size

Challenge 2

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- Important but vulnerable: ‘home organizations’ of team members value knowledge products differently
- Protection: large-scale research programme creates safe haven
 - Alignment of incentive systems is important (shielding)
 - Organisation of work (nurturing)
 - Creating narrative and championing (empowerment)





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Thank you for your attention!

Wouter Boon (w.p.c.boon@uu.nl)

Research questions



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- Questions:

1. Protection: what is the role of users in creating and maintaining niche boundaries?
2. Aggregation: how do niche products relate to other user locales, practices and situations?

Evaluation of transdisciplinary research



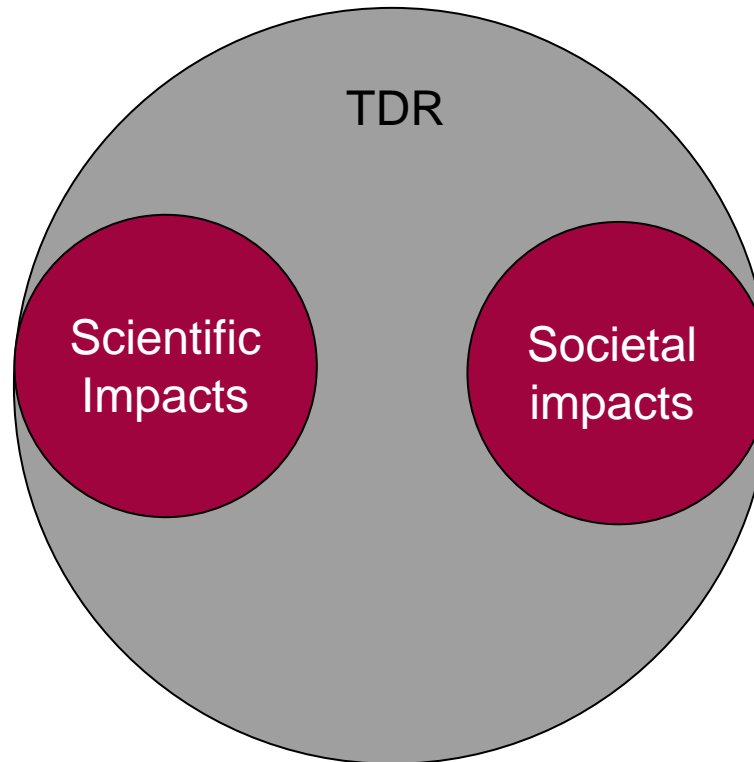
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October 2012

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Local contributions poorly represented in WoS

Authorships poorly reflect input societal actors



Societal debate
→ Focus on wide range of societal actors

Investments
→ Involvement of societal actors in research

Too early to introduce altmetrics

Rotterdam, 23-09-2014

Tjerk Wardenaar MA MSc

ORGANIZATION OF CLIMATE PROGRAMMES

CONNECTING AMBITIONS

The logo for PNO (Planologische Nieuw Ondernemen) is located to the right of the word 'ORGANIZATION'. It consists of a stylized, fan-like shape made of many thin, curved lines radiating from a point, with the letters 'PNO' written in a small, sans-serif font to its right.

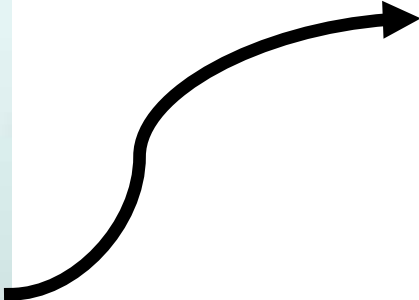
Qualitative case study

ORGANIZATION OF CLIMATE PROGRAMMES



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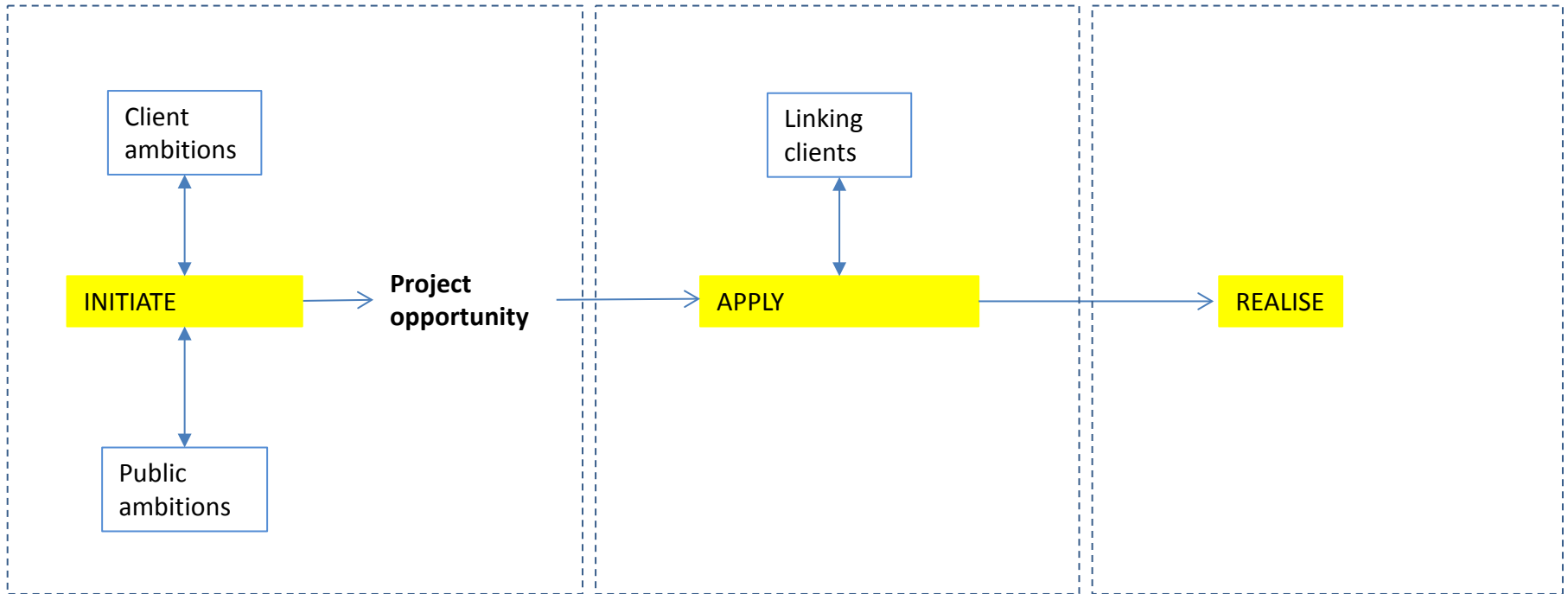
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- Grants and innovation consultancy
- Offices in Belgium, France, Germany, Italy, the Netherlands, UK
- Consultant Energy & Environment

Qualitative case study

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Survey on research context and skills

ORGANIZATION OF CLIMATE PROGRAMMES

- Comparative study (MAPs vs traditional)
- PhDs from NL and UK
- 167 filled-out questionnaires (41% resp.)
- Items on:
 - Research context / project characteristics
 - Skill development
 - Personality type / individual characteristics

PhDs that participate in MAPs:

ORGANIZATION OF CLIMATE PROGRAMMES

- Work more often in multidisciplinary research projects (NL, UK)
- Have a larger involvement of stakeholders in their project (NL, UK)
- Are more involved in society-oriented activities, like giving policy workshops (NL, UK)
- Produce more society-oriented output, like newspaper articles (NL)

- Report higher translation & dissemination skills, like developing work relations with people for business/government (NL, UK)
- Report higher transferable skills, like project management (NL, UK)

- No differences between MAP and other PhDs on academic research and communication skills

MAPs can play a larger role:

ORGANIZATION OF CLIMATE PROGRAMMES

- Observed differences between MAPs and traditional trajectories small
- Variances within MAPs large:
 - Large proportions of MAP PhDs have “traditional trajectory”

How?

- More focus on characteristics of PhD projects in MAPs
- More focus on supervision of PhDs
- More focus on individual characteristics in hiring procedures

Thanks!

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Rotterdam, 23-09-2014

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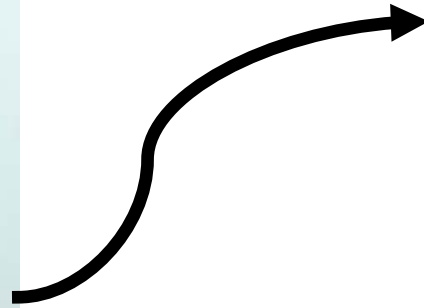
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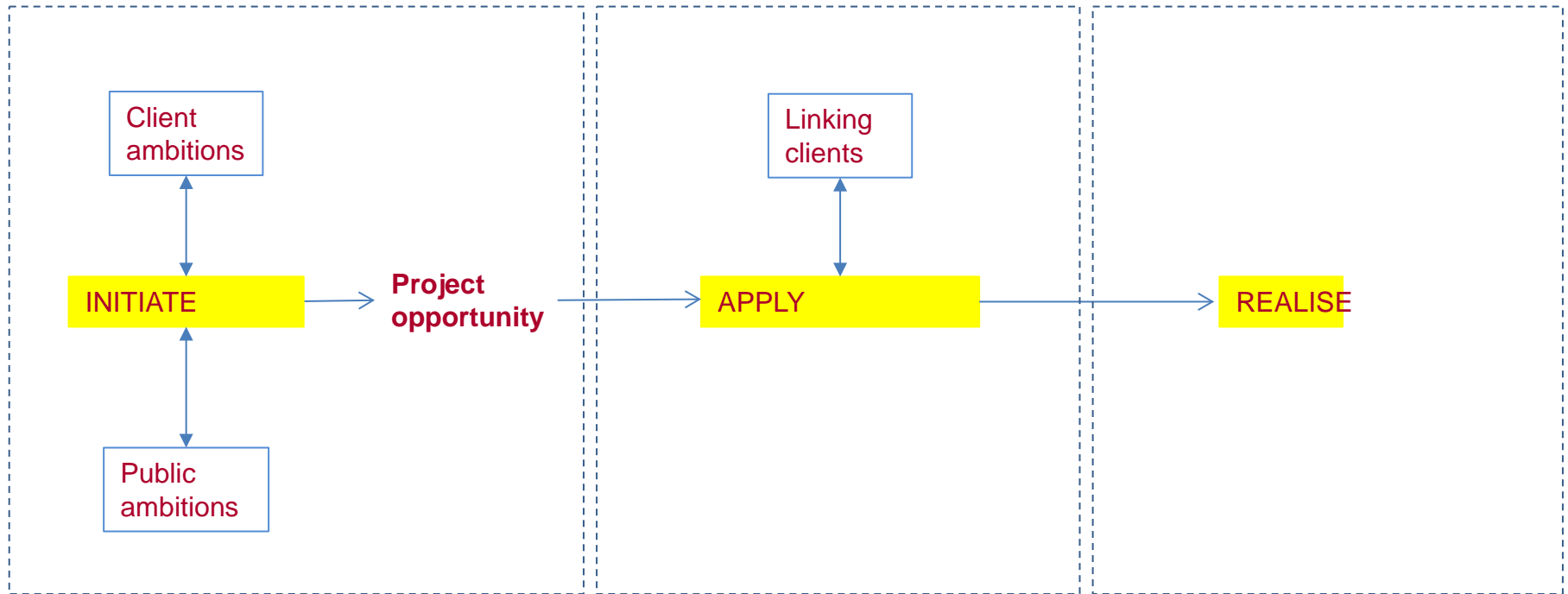
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Methodology

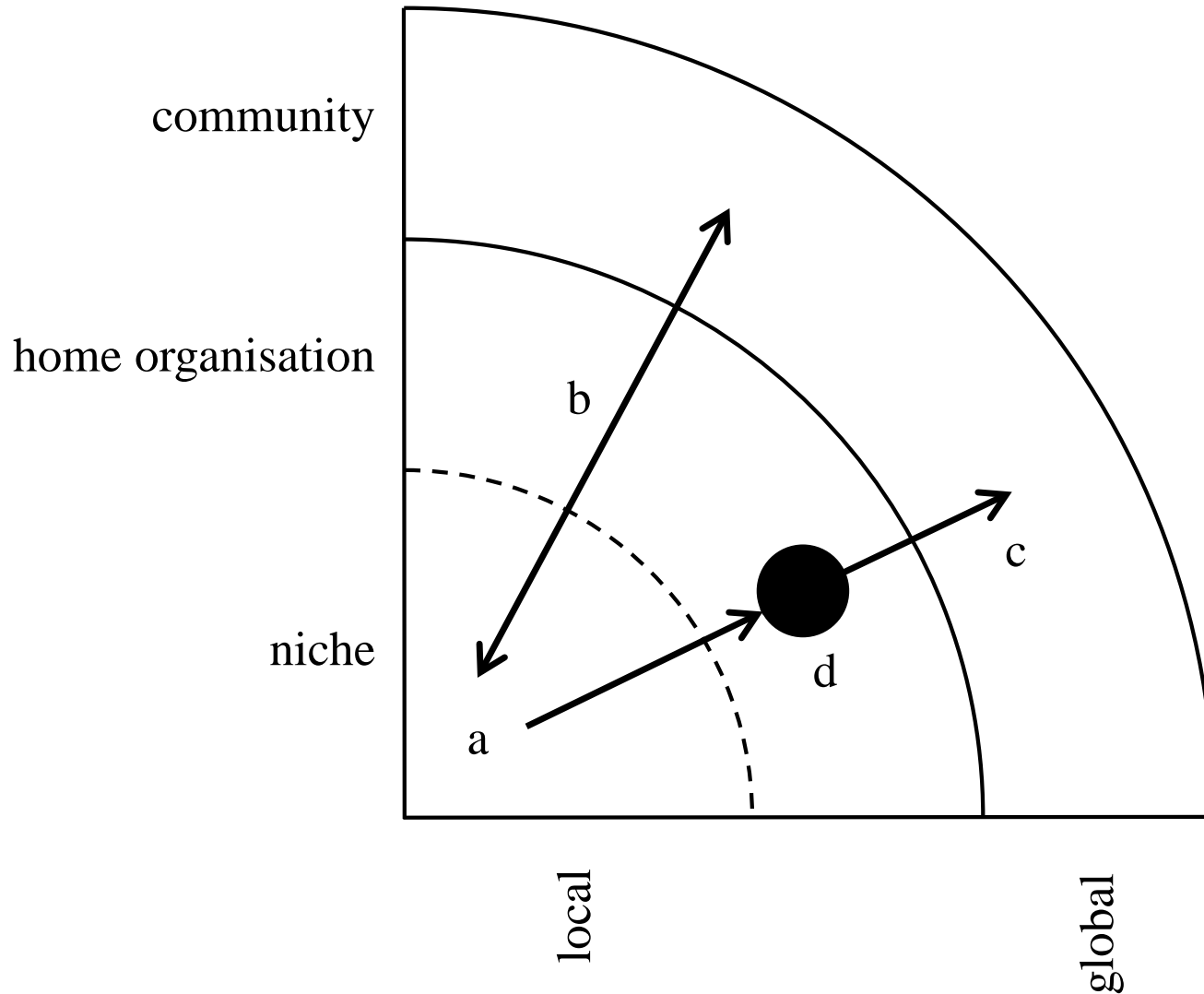


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- Operationalization of (sub)concepts
- 17 projects
- In-depth interviews
- Document analysis
- Analysis in progress: in-depth results of 1 case presented here

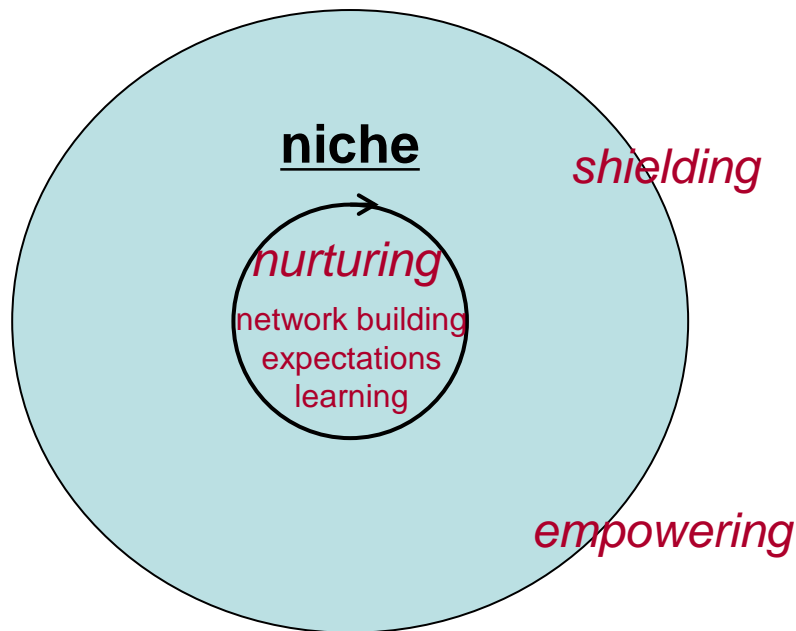
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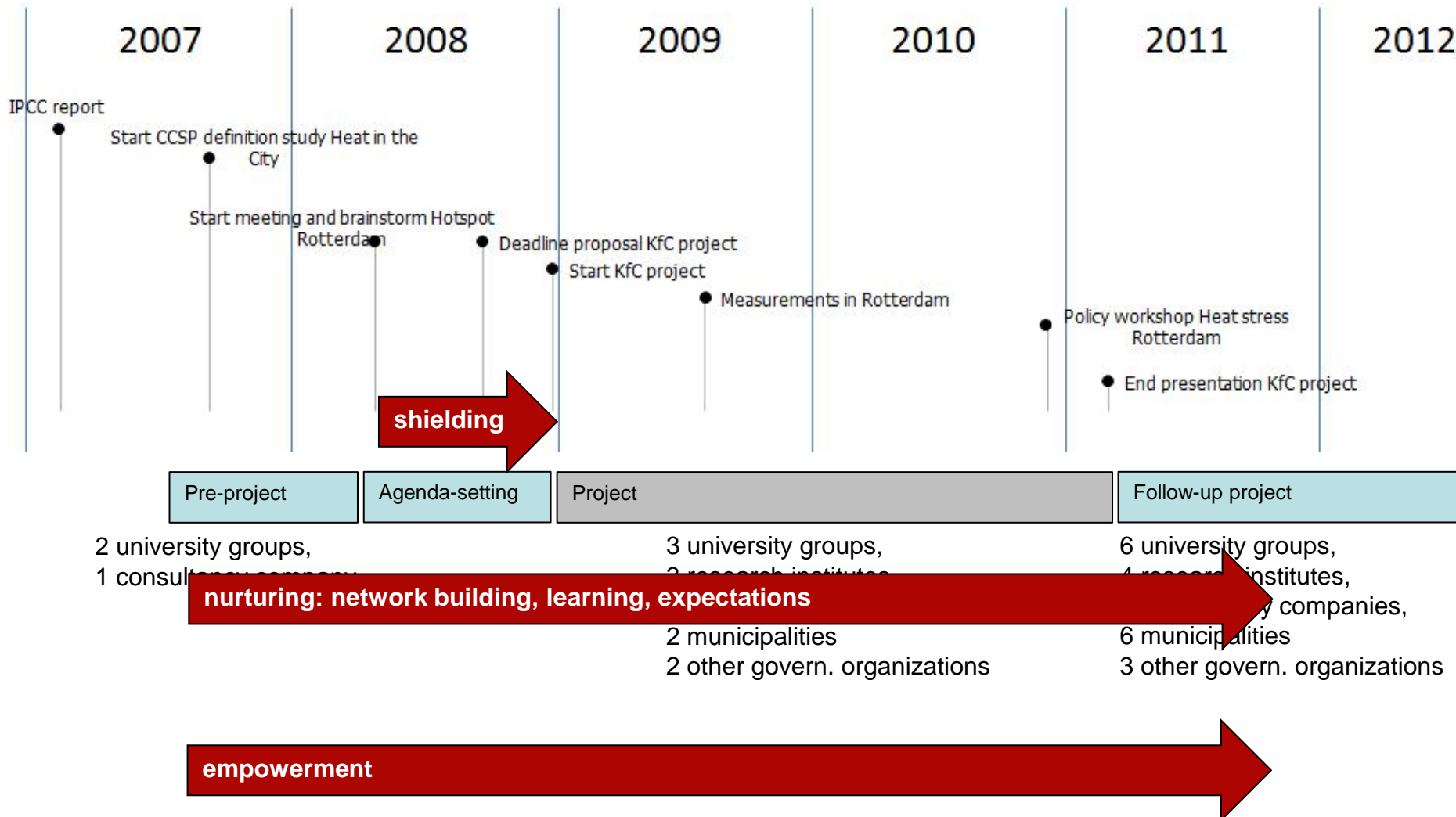
1. Set-up of niche boundaries?

- Key processes in niche protection (Smith & Raven, 2012)



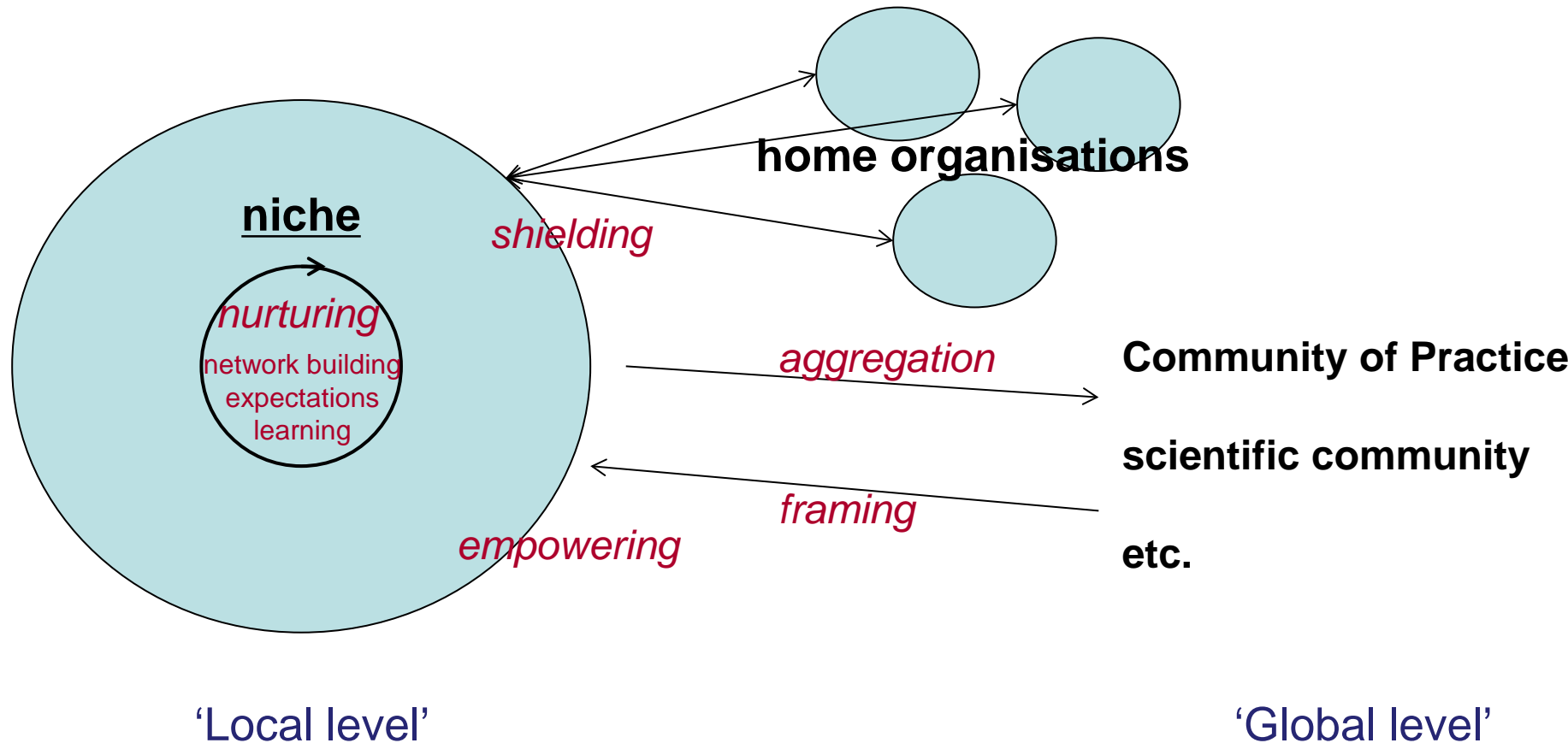
1. Set-up of niche boundaries?

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2. Aggregation of niche results





2. Aggregation of niche results



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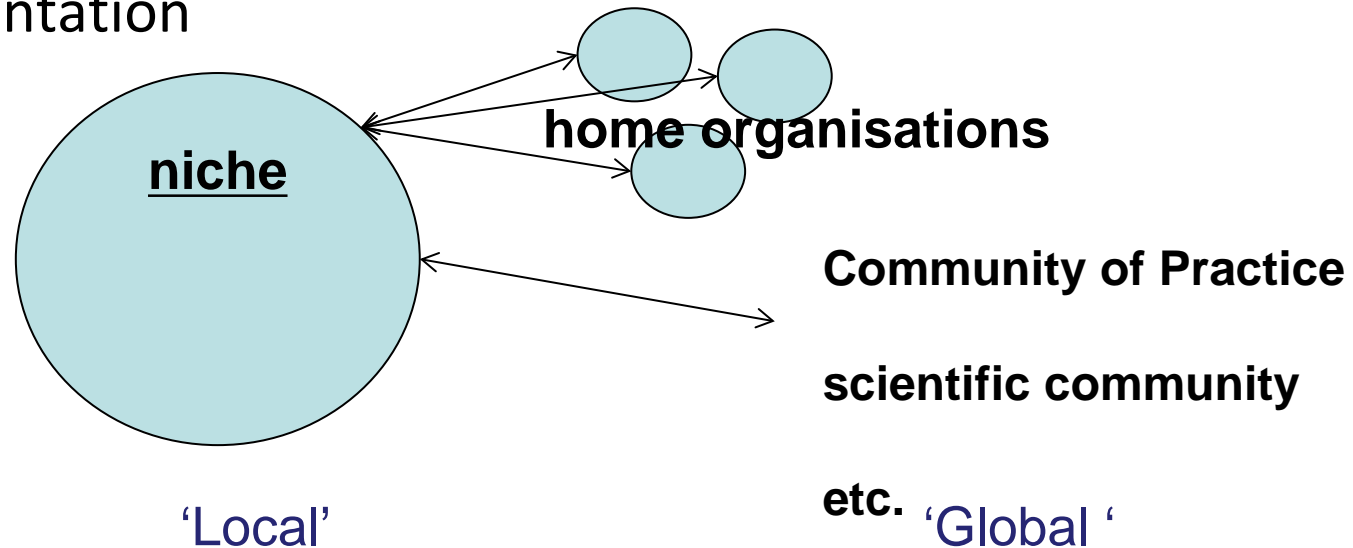
- Struggle to align with rules of ‘home organizations’; representation
- Link to ‘global’ community but leave room for local interpretations as articulated by users
- Geographical dispersion: choice for skills; knowledge is tacit and ‘unsticky’



Conclusions

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- Users co-produce niche boundaries through shielding, nurturing and empowering
- Empowerment: users co-produce narrative (vis-à-vis anti-narratives)
- Protection and aggregation: incentives; transfer; representation





Discussion



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- Currently, 15 projects studied in Knowledge for Climate
- Further research: comparison to other projects in which protection is differently organized:
 - other programmes?
 - monodisciplinary projects?
 - other sectors?
 - other kinds of users?

Evaluation of transdisciplinary research

- Classical output indicators fall short
- Scientific output does not adequately represent the nature and design of transdisciplinary research programmes or the process of knowledge co-production
- The societal impact of a transdisciplinary programme is multidimensional. There are different types of impact, achieved through a range of channels.
- Achieving specific impacts requires a custom organisation: every type of impact is associated with different variables.

Training of early career scientists

- Collaborative PhD training trajectories impart a broader set of skills.
- An optimal effect of collaborative training trajectories on skill development depends on three conditions.
 - PhD students should be exposed to and participate in actual multi- and transdisciplinary processes.
 - The development of a broader set of skills depends on involvement in both academic and society-oriented activities and processes. A challenge-driven approach should be an addition to rather than a substitute for an academic outlook.
 - Most of the variance in skill development is explained by initial skill levels, mindset, and attitude..