Collective knowledge development: towards better recognition and reward of transdisciplinary research

Mutual shaping of science, technology and society

What do we want to know?

1. What **obstacles and opportunities** do researchers and civil society partners encounter when **setting up** and **carrying out** transdisciplinary projects?
   1. Day-to-day working practice
   2. In cooperation during the project
   3. In cooperation with funding bodies

2. What **happens** in **concrete** transdisciplinary research projects?

   -knowledge exchange and knowledge integration?

   -different values, interests and agenda-setting?

Transdisciplinary research

- *A form of research and knowledge development that **involves cooperation between different parts of society and science, throughout the whole research process***

- ***Interdisciplinary collaboration** (within and across domains)*

- *Transdisciplinary research often **starts from tangible, real-world problems**.*

- *Solutions are devised in collaboration with multiple stakeholders"(Thompson-Klein et al 2001; Bunders et al 2010)*

What did we do?

Lack of time, space and capacities

- Funding requirements are complex
  - *"These requirements also mean that writing such an application has a huge **impact on your private life. All this must be done in addition to the ongoing work of supervising research and teaching**. Therefore, there are only a **limited number of scientists** who can make this happen. This should change."* (R26)

- No network of scholars from other disciplines or societal partners
  - *"Sommige universiteiten hebben subsidiedesks en innovatiegroepen / knowledge transferteams die hierop meehelpen. Maar de meeste van die groepen zijn weinig gericht op geesteswetenschappelijk onderzoek."* (R20)

- Project leaders and (PhD) researchers continuously have to inquire, articulate and navigate different interests ('keep everyone on board')

Request to universities

- Create **physical opportunities** to meet each other
  - Value of '**informal**' meetings (work, play, eat, cf. role of 'placemaking' Hesjedal 2022)
  - **Capacity building** to (critically) question each other, learn about other research paradigms

- Recognize and reward **the effort** of setting up and carrying out transdisciplinary research, even if proposals **do not** make it
  - *"You have to invest time and energy in learning to understand each other, and to   understand the 'question behind the question" (researcher)*
  - *"(...) dare to give confidence and the possibility of gracefully' fail" (researcher)*
  - *"cherish the network with societal partners also after a project (proposal)"*

- Recognize and reward the **(additional) skills** that ID-TD requires

Request to grant providers

- Create opportunities to do ID-TD **without** all kinds of co-funding requirements and thematic missions associated with it

  - *"Smaller projects, based on very vague, rudimentary ideas should become available more often, where the expectation is actually that 2/3 will actually fail."*

- TD (or collaboration with societal partners) can also be **curiosity driven** research

- More **flexibility** in adjusting research questions and deliverables during projects

- More **flexibility** in spending budgets, e.g. by hiring so-called 'integration experts' or mediators (cf. Hoffman 2022, Bammer et al 2020)

Knowledge exchange is not self-evident

- **Asymmetry** between scientists and societal partners (e.g. time investments, resources, capacities) (and asymmetry between disciplines)

- Project-focused

*"Researchers, with good intentions, sometimes mainly collect information from social parties, and not 'bring something back' (literally or figuratively), for example because the person in question is already involved in another project or in another workflow. There is then **little reciprocity** and jointly completing a project becomes difficult"* (researcher)

"Societal parties do not use others' input, have short-term interests and want to see concrete solutions" (researcher)

- In –exclusion processes of actors, topics, due to in cash, in kind requirements

"We are often asked as an NGO to make a fairly large and long-term contribution, financially and in kind, because this is a requirement in the call. We often cannot promise that commitment. Certainly not over several years" (roundtable discussion, May 23, 2023)

Lack of knowledge exchange (2)

- Different timelines: *"the pace of scientific research is often much slower than the pace in healthcare. The time between data collection and a usable product is very long. This is often difficult for care workers to oversee and it does not motivate them to participate in a questionnaire, for instance (...)"* (care organisation)

- Interviews, surveys, focus groups, not always suitable methodologies to facilitate exchange of experiences, concerns, underlying values

Request for universities and grant providers (1)

- Availability of **resources** to **try out** collaborations and **get to know** each others, e.g. each others' **'business model'**

- Mutual learning via (paid) **internships** –PhDs participating in organizations, societal stakeholders participating in research institutes

- Resources for scientists *ánd* societal stakeholders

- Offer **tailor made leadership training** for project leaders
- *How to inquire and deal with different (competing) interests of participants?*
- *Separate administrative and substantive leadership;*
- *Train people in complex project management*

Request (2)

- Create **joint moments** for reflection, for instance having projects come together twice a year

    - *"Not to punish, but to learn from each other"* (researcher)

- Transdisciplinary does not happen in a '**social vacuum**': map with whom you (not) collaborate (on a more collective level)

- **Public role as university**: which 'publics' are in- and excluded from transdisciplinary research? Which problems and solutions become (in)visible?

Recognize **multiple (conflicting) roles** of early career scholars

- Torn between 'demands' from faculties, departments, supervisors and 'demands' from societal partners

- Building trust with social partners (and scholars from other disicplines), requires time, efforts, continuously

- Time that cannot be spend on writing

Request to universities

- Develop **more education** on inter-transdisciplinary research
    - *"not just for students, but also for supervisors"*
    - *"stimulate and improve cross-disciplinary PhD supervision and intervision"*

- What counts as a **good PhD thesis** in a transdisciplinary project?
    - *Balance between scientific output and societal relevant output*
    - *What are criteria for good, relevant societal output?*

In conclusion

- There is a need among scientists and societal stakeholders to share experiences and seek solutions

- Our study is not representative, but first exploration

- Autumn 2024 report with more findings and recommendations

- To improve R&R, choose a suitable and recognizable 'organization form' for inter-transdisciplinary research
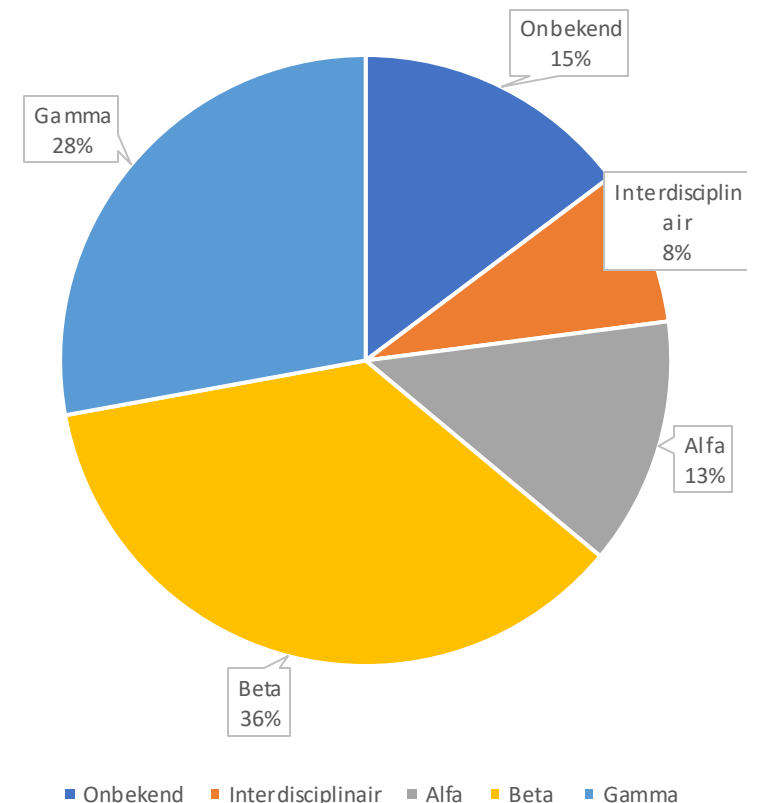
What (PhD) researchers want to do themselves

- *'Take more time to inquire into other disciplines'*

- *'Take more time to explain what I am doing to 'outsiders', including my research paradigm and assumptions about 'good science'*

- *'Connect to other early career scholars, learn from them, and make a case to improve institutional conditions for TD'*

- *'create more time and competences to train my PhDs and postdocs in TD research'*

- *'Be humble, I cannot totally control the course of the research'*

Survey scientists

- Filled in by 69 respondents

- Primarily researchers (88%)

- Lots of experience with project applications, as lead and/or co-applicant (78%)

- About half of the respondents have experience with NWO instruments

- Also funding from EU funds, first-flow funding and CuCo

- Various disciplinary backgrounds

Onbekend 15%
Interdisciplinair 8%
Alfa 13%
Beta 36%
Gamma 28%

Legend: Onbekend, Interdisciplinair, Alfa, Beta, Gamma

Survey societal stakeholders

- Completed by 55 people, including 30 civil society parties (patient organizations, environmental groups, public organizations, foundations, artists)

- Also completed by policy staff of NWO, SIA, ZonMW, scientists