

71 Visions

on our role in social-environmental transformative change



WAGENINGEN
UNIVERSITY & RESEARCH

Executive summary

There are growing calls for more transformative approaches to addressing persistent interlinked societal problems such as hunger, climate change, biodiversity loss, unsustainable growth, poverty and social inequality.

These problems cannot be addressed by merely ramping up the things that are already being done, often termed “incremental change”. Instead, calls are growing for “transformative change” – a fundamental system-wide reorganization of how societies are governed. This includes shifts in social, economic, environmental, and technological dimensions, and underpinning paradigms, goals and values.

While there is growing consensus that transformative change is needed, there is less agreement about what it entails and how it can be achieved?

Many approaches to transformative change exist. Grassroots and “bottom up” approaches emphasize small new steps, through experimentation and innovations that emerge and accumulate over time. Structural and “top down” approaches generally focus on radical overhaul of dominant political and economic structures; for example, how production and consumption is organized by societies. Different approaches vary considerably in whose voice they prioritize; for example, whether relatively marginalized or powerful perspectives. While distinct approaches are often presented as opposing viewpoints, there are also many complementarities and mutual benefits to having a diversity of approaches to transformative change.

It is also not clear what the role of research is in informing and fostering transformative change. There certainly seems to be an increased global emphasis to fund research that has “transformative impact” along combined social, cultural, economic, environmental, institutional, and technological dimensions. Wageningen University & Research (WUR) has long since had “science for impact” at the core of its strategy. However, this new emphasis on transformative impact comes with additional responsibilities for researchers to critically question whether prevailing ways of acting are – deliberately or inadvertently – creating lock-ins to socially and environmentally damaging pathways, and to experiment with alternative innovations that may better serve the common good. It also requires researchers to navigate the many tensions that are inherent to change processes, especially when changes are transformative.

This report explores the role that WUR can play in fostering transformative social-environmental change. It is the first step in a broader project aimed at co-developing collaborative pathways across WUR that inform and foster transformative change. Based on 71 visions gathered across the five WUR science groups, we found that many researchers in WUR care deeply about the societal impacts of their work, yet hold divergent visions over how research can be transformative for the environment and society. The explicit exploration of these differences can enable researchers to move away from producing potentially contradictory impacts in isolation, to recognizing how they can mutually enhance the transformative potential of their collective research. The purpose of this report is therefore to stimulate reflection and dialogue over the critical tensions, dilemmas and barriers that WUR researchers face in their efforts to foster transformative change. The ultimate aim is to build common ground that forges more diverse yet collectively powerful pathways to transformative social-environmental change.

A main finding of this work is that achieving an outcome of transformative change fundamentally depends on the process of working together in different, more transformative ways. This may seem obvious, yet research in WUR frequently emphasizes the content and outcome of transformative change, without sufficient attention to the process used to explore the content. We identify four “ways of working” that were consistently seen to enhance the transformative potential of research: **(1) Pluralizing** – finding common ground in ways that foster respect and learning across diverse beliefs, values and goals; **(2) Empowering** – building individual capacity to act and collective momentum to move towards transformative visions; **(3) Politicizing** – becoming politically aware and engaging with power in ways that accelerate rather than block systems change; **(4) Embedding** – integrating research and learning into every day decision making without compromising its moral and intellectual independence.

These four “ways of working” connect in powerful ways. Pluralizing forms the basis for transformative research; it was viewed as crucial to enabling conflicting perspectives to interact in constructive ways. **Empowering** change from below, and **Politicizing** change from above were seen as complementary processes to activate cross-scale systems change. **Embedding** research and learning into decision making was reported as crucial to empowering and politicizing systems transformations. In this report, we highlight key points of tension in WUR that can inhibit researchers from effectively pluralizing, empowering, politicizing and embedding. At the same time, we spotlight inspiring existing examples of transformative work from all science groups, and outline some critical dilemmas that must be explored to potentially enable even more transformative efforts.

A second main finding is that researchers overwhelmingly feel that fundamental changes must happen inside WUR for it to be a proactive global leader in positive outward transformation for society and the environment.

Researchers frequently experienced gaps between the kind of work they feel would be transformative and the kind of work they actually do. Many reasons were highlighted for these gaps – at the individual, institutional and external level – which can interact to lock-in status quo research by avoiding or polarizing existing tensions. At the same time, researchers identified many ideas to overcome these lock-ins to enable WUR’s transformative potential. While some researchers saw their struggles as being due to more distant dynamics, like institutional policies or external stakeholders, others emphasized the role of particular individual mindsets in blocking transformative work. If mindsets are resistant, changes in the institutional or external level may not enable more transformative approaches. Similarly, shifts in mindsets that enable transformative work may lead to frustration if broader environments remain unsupportive.

For transformative change to flourish in WUR, it is therefore important to simultaneously shift individual and group mindsets, create enabling institutional environments that incentivize change, and proactively foster supportive external relations and funds. At the individual level, dialogues and small interdisciplinary groups were proposed as “safe spaces” to speak about tensions, dilemmas and fears of change, and generate common ground, broader research ideas, and inspiration to overcome challenges. At the institutional level, people called upon WUR leadership at all levels to participate actively in these dialogues, and to give a clear signal of commitment to support the transformative ideas that emerge. Many

pointed out the importance of revising WUR’s performance metrics and incentives to better recognize the value of transformative work and the additional inputs and risks it requires. At the external level, various researchers felt that WUR should play a far more proactive global leadership role in setting diverse but complementary agendas for transformative change. For example, WUR researchers could openly deliberate the dilemmas of different approaches to change with diverse groups of external stakeholders to foster mutual learning. WUR’s future reputation as a global leader was seen as fundamentally dependent on its ability to build more symmetrical partnerships by bringing together not just large funders and big businesses, but also by elevating the voice and role of marginalized players.

This report celebrates the diversity of views and approaches among WUR researchers, not holding any approach as “better” or “worse”. We therefore see this report as offering an entry point for a wide range of researchers and educators in WUR to collectively explore ways of making their work more transformative. We use quotes throughout the report to anonymously elevate diverse voices in WUR; yet, the 71 interviewed researchers/educators are neither fully aligned with nor responsible for all of the content we share. We invite people to actively reflect on the following questions while reading this report: **(1) Which perspectives do you find most valuable and inspiring? Why? (2) Which perspectives make you feel uncomfortable or annoyed? Why? (3) Which important aspects of transformative research are missing from this report?**

In early 2021, we plan a series of cross-WUR dialogues on the different aspects presented in this report where we invite you to discuss your reflections. The overarching purpose of these dialogues is to connect researchers to co-develop concrete strategies that mutually enhance the transformative potential of WUR’s collective research.

Why transformative change?

There has been an increasing prominence in global calls for social-environmental “transformative change” – in the [Sustainable Development Goals](#), [Paris Agreement](#), [Convention on Biological Diversity](#) and [European Union Green Deal](#), and most other multi-lateral agreements. These calls stem from concern over the failure of current societal systems to address persistent interlinked problems such as hunger, climate change, biodiversity loss, unsustainable growth, poverty and social inequality. Findings show that human society is “locked in” to many socially and environmentally damaging pathways, and that incremental adjustments are insufficient to transform these pathways to better serve the common good. Transformative change is therefore imperative – implying a fundamental system-wide reorganization of how societies are governed, including shifts in paradigms, practices, and institutions.

Responding to these calls, research funders are placing increasing emphasis on the transformative impact that research can have along combined social, cultural, economic, environmental, institutional, and technological dimensions. “Science for impact” has long been at the heart of WUR strategy, and this new emphasis on “transformative impact” requires researchers to at the very least critically examine the role that their science may play in reinforcing unsustainable lock-ins or masking inequities. This requires broader research agendas that navigate tensions across multiple societal goals, perspectives and forms of expertise. While it is not necessarily the role of all research to contribute to transformative change, there are emerging roles for researchers, new funding sources, and increasing responsibilities to consider the social-environmental implications of research.

Many approaches to transformative research and change exist. Systemic approaches usually emphasize non-linear and complex dynamics among institutions, technologies and actors that reinforce system lock-ins, and thus seek to break down undesirable systems and simultaneously make space for more desirable innovations (Loorbach et al. 2017). The fossil fuel to renewable energy transition is a well-known example, which illustrates the systemic nature of the shifts needed – change is not merely technological, but also fraught with power struggles and socio-cultural changes that have a deep effect on prevailing institutions, norms, and beliefs. In contrast, structural approaches to transformative change focus on radical overhaul of dominant political and economic structures to change the way production and consumption is governed,

organized and practiced by societies (e.g. societal reorganization post-covid-19 pandemic; universal basic income – Fouksman & Klein 2019). The extent to which all of these different approaches consider power relations and marginalized perspectives varies considerably (Avelino 2017; Jenkins et al. 2018). So too do the scales considered, with ‘top down’ approaches seeking large-scale political, institutional and economic change, and ‘bottom up’ approaches emphasizing grassroots experimentation and small innovations that emerge and accumulate over time (Leach et al. 2012; Moore et al. 2014).

This plethora of approaches and rationales can turn “transformative change” into a black box or panacea that obscures the implications of different perspectives. We therefore launched this project, asking: ***What can we learn from the diversity of all these different perspectives? How can we explore their tensions and leverage their complementarities? And what is the role of research in pursuing transformative change?*** We hope that this exploration will help clarify the potential role that WUR can play in response to the growing global calls for transformative change. This report presents the first exploratory step that feeds into dialogues aimed at co-developing more transformative pathways of change.

Purpose and structure of this report



This project was initiated to explore the diverse ways that research can contribute to the growing global calls for transformative change, and to open up dialogue around this among WUR researchers. The project leverages the contributions of all disciplines across WUR science groups. The following activities support the overall aim of this project – to co-develop collaborative pathways across WUR that enable transformative social-environmental change:

- 1 Exploring the many different perspectives of “transformative change” across WUR science groups, with a view to: (a) uncover inspiring existing examples of transformative work from all science groups; (b) surface key commonalities and tensions over how research can be transformative for society; (c) identify main barriers that currently hinder such work; (d) propose potential ways that WUR can enable its transformative potential.
- 2 Fostering dialogue and learning about each other’s perspectives, as well as those of outside stakeholders, so that we mobilize collective knowledge across WUR to co-develop pathways that support transformative change for society and the environment.
- 3 Aligning internal and external WUR collaborations, partnerships and financing mechanisms to support research innovation that fosters social-environmental transformation.

This report documents the methods and findings of the first activity of the project (above). Its purpose is to stimulate reflection and dialogue over the critical dilemmas and barriers that WUR researchers currently face in their efforts to foster transformative change so as to forge more diverse yet collectively powerful pathways to change. To accomplish this, we conducted semi-structured interviews with 71 WUR



researchers. The first section of the report outlines the methods and rationales used to identify the interviewees, design the interviews, and analyze perspectives on the enabling and inhibiting conditions for research that fosters transformative change.

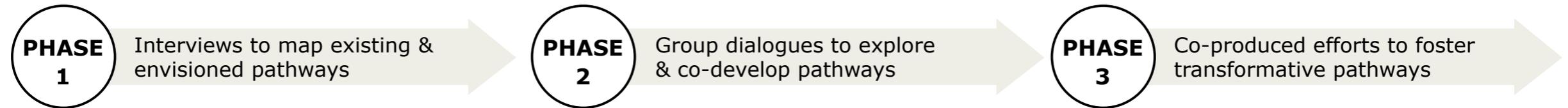
The next section, ‘From Tensions to Transformations’, surfaces some of the main underlying tensions expressed in the interviews, which may constrain transformative change. These tensions arise from seemingly binary viewpoints shared by researchers that hold different approaches as opposing choices, instead of seeing how they can be mutually supportive for achieving transformation. Through examining these tensions across WUR and practical ways in which these have already been transcended, we highlight promising examples on which to build in order to realize WUR’s transformative change potential, as well as potential areas in which WUR can expand.

This is followed by the section, ‘From Lock-ins to Enablers’, which describes key lock-ins that constrain the current role of WUR research in transformative change. These were identified from the many challenges that researchers raised, and were linked to suggestions that researchers made for creating more enabling conditions for pursuing research that contributes to transformative change.

The concluding section explores the implications of the findings and outlines the next steps forward. It reflects on what the findings mean for diverse individual researchers across WUR, WUR as an institution and WUR as an international player in enabling transformative change. It then poses suggestions to be taken forward into the next activity of this project (above) – fostering dialogue and learning among WUR researchers to co-develop collaborative pathways for transformative social-environmental change.



Gathering 71 visions from across WUR



This report shares the overall project approach and the findings of Phase I. These findings inform the dialogues of Phase II to support WUR researchers in co-developing more collectively powerful pathways to social-environmental change. The project approach is inspired by the Seeds of the Good Anthropocene initiative (Raudsepp-Hearne et al. 2020; Sellberg et al. 2020). However, we developed an adapted framework (see [overview](#)), which differs from the original in three ways. First, we interviewed individual WUR researchers prior to group activities to explore the diversity of perspectives present and uncover critical tensions and dilemmas. Second, we emphasized “pathways towards change” rather than past and future possible “states”. This is because people can more easily agree on past and future static states, but differences often emerge over the pathways from the past to the future. Third, we also examined how people’s “ideal” pathways compare to their existing pathways, and the reasons for discrepancies, to better understand lock-ins and enablers of transformative pathways. By exploring individual perspectives and pathway diversity first, we aimed to surface collective tensions and promote individual reflection before moving to group dialogues in Phase II.

The findings are based on a total of 71 interviews, which were conducted between June and September 2020 across all WUR science groups (ESG – 28; SSG – 15; ASG – 10; PSG – 6; AFSG – 6; Cross-cutting – 6), including both university (WU) and research (WR) sides. To begin, researchers were selected who were known to be working on diverse aspects of transformative change, starting within ESG. Further respondents were identified through snowball sampling during the interviews. Researchers were selected based not only on repeated mention, but also to achieve representation of gender and career stage. To broaden the outreach, an online request for input into the interview process was also posted on the WUR intranet and Twitter. In the end, we interviewed 71 researchers from 51 groups; 44% were women, 26% early careers, 26% group heads and 13% non-EU citizens.

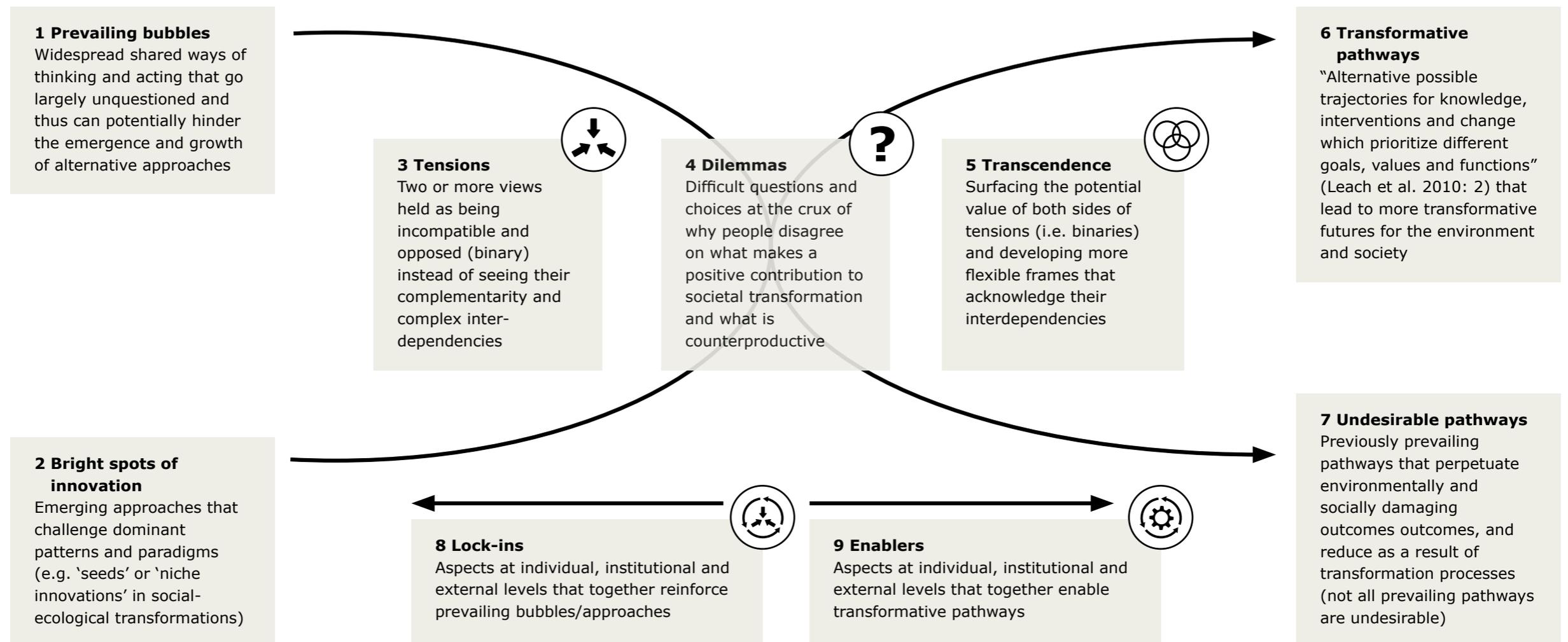
Semi-structured interviews were conducted by two researchers from Wageningen University (JC) and Wageningen Research (JN). Invitations were sent with a project description to 84 people in total. We had a high response rate, with only nine non-responses or declines and four referrals. Upon consenting to an interview, researchers were sent a question to foster initial reflection: ***If WUR received funding for collaborative initiatives to produce transformative change that fosters healthy relations between people and nature, what kinds of projects would you like to see done?*** We intentionally did not provide a definition for transformative change for the interviews. Our view was that “transformative change” is interpreted in vastly different ways, depending on the disciplinary lens. Maintaining an open-ended definition helped us surface frequent tensions around how WUR researchers conceptualize and pursue societal impact.

The interviews lasted between 40 to 90 minutes, via online video call. They were designed to explore the respondent’s perspectives on pathways to transformative change, discrepancies in the way they currently work compared to their ideals, reasons underpinning these discrepancies, and opportunities to enable more transformative work. In doing so, we investigated assumptions underpinning work to identify collective tensions, transcendences, lock-ins and enablers across WUR, and existing bright spots of innovation upon which to build ([see term definitions](#)). We used an inductive approach – a bottom up, exploratory method of analyzing patterns in qualitative data – to explore patterns in respondents’ perspectives. The interviewers initially identified dominant conflicting perspectives and barriers expressed in the interviews. These were then respectively clustered into tensions and lock-ins. Tensions were linked to bright spots of innovation which showed signs of transcending them. Likewise, lock-ins were linked to suggested opportunities or enablers to address them. The interview transcripts were then qualitatively ‘coded’ to further interrogate the dominant patterns identified.

Identifying transformative research pathways

The figure below explains the concepts that guided our exploration of different views around what research is seen as most “transformative”, how this compares to people’s actual work, and why discrepancies exist. The numbered labels on the figure outline the full process of this project, beginning with identifying bright spots of innovation (1) and prevailing bubbles (2) around WUR that may limit the emergence of these innovations. This can create tensions (3) and dilemmas (4) that affect choices researchers make at individual or collective levels. We surface some approaches that

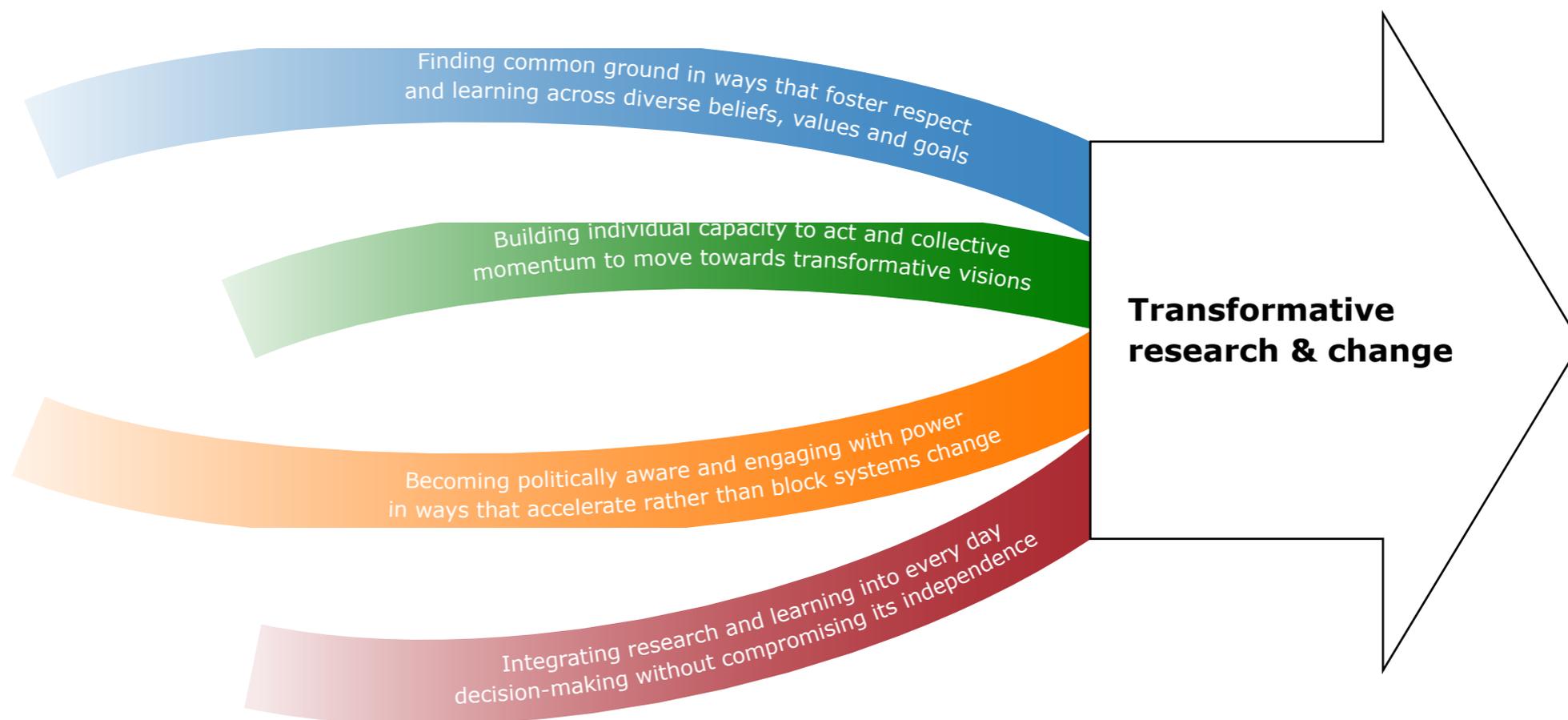
have been used to overcome, or transcend (5) these tensions through ways of working and doing research that open up more transformative pathways (6) and move away from socially and environmentally damaging undesirable pathways (7). We also identify several lock-ins (8) and enablers (9) that can respectively hinder or promote more transformative pathways. The process of change can be fostered by transformative dialogues that help researchers and societal stakeholders transcend these lock-ins, tensions, and dilemmas.



Introduction: from tensions to transformations

The interviews uncovered diverse approaches to transformative research and social-environmental change. Four main “ways of working” together emerged as being especially important for transformative change. The five science groups in WUR demonstrated that there are diverse possible approaches to each of these four pathways, and no singular approach to transformative research and change. At the same time, the collective exploration of different views on transformative change can enable dialogue on how people can potentially move their research into more transformative directions. The following pages focus in depth on each of the four “ways of working” depicted in the figure below. Each is presented across two pages. The first page highlights why people felt that points of disagreement around this topic hinder

transformation (“tensions”), and shares inspiring examples from different science groups that show diverse ways that transformative ways of working are put into practice (“transcendence”). The examples of transcendence are drawn from inspiring initiatives that various researchers we interviewed are involved in; however, this is just a small sampling among many diverse approaches to transformative research and change, both within and beyond WUR. For each example, we list the interviewee who contributed it as a contact point, although they are not necessarily the initiative leader. The second page for each theme stresses the key dilemmas people are experiencing that would benefit from in-depth reflection and dialogue across WUR and beyond.



1 Pluralizing Limited Agendas



Tensions

"People are on their little hobby horses... I don't see any big scale projects which are really going to make a fundamental difference to what happens globally."

Limited agendas

People expressed this concern in many ways: **"we are in our little boxes and feeling good about it, but we need to zoom out"**; **"It's the 'frog in the well' – I can see only my sky on the top"**. The general consensus is: **"We keep saying we have to integrate research and incorporate all of the sciences but we don't."**

Ignored or polarized conflicts

Why do people see being stuck in limited agendas as hindering transformative change? **"You get this 'us against them'... instead we need a framing where we are in this together"**. For example, *"There's still a barrier between what is sometimes called the soft ecological 'goat wool socks'... and technological high extremes in plant and animal sciences groups. So you look one way – they cause the problems, and the other way – they're naïve"*. People also critiqued work within their own groups, such as ecologists and technologists **"not taking responsibility for social impacts"**, or many groups *"leaving out biodiversity"*. The group divisions meant people could easily ignore other agendas and overly stereotype other groups.

Integration to nowhere?

There are efforts to integrate, such as via OneWUR, but many worried this can **"kill transformative change"**: **"It is very slow and frustrating talking with one voice. We really need to cherish the variety."** People identified many reasons why it is imperative that WUR improve approaches to integration. From an ethical standpoint: **"There's a legacy in WUR – very much about us going in and saving the world through our science and that's just not on anymore"**. From an economic view, people saw that if WUR can figure out how to better pluralize conflicting views, **"that's how we can separate ourselves from competition"**.



Transformations

How can we genuinely pluralize limited and conflicting agendas? We highlight promising efforts by WUR researchers to transcend these tensions:

1 Pluralizing processes

Pluralizing is inherently difficult because **"everyone has a justifiable feeling that what they want to put on top is the most urgent thing"**. Thus, people most often reported using collaboration to advance their own interests. However, this reinforced imbalances of power and funds, with the perceived hierarchy being: economy/health > animals/crops > nature > social/humanities. Yet, *"as long as people feel that their framing doesn't require justification, then you don't even have a conflict... we need to all get off of our moral high ground"*. How to do that? In research, diverse methods are used to **"build shared language and visions"**, such as in Unusual Collaborations (J. Duncan). A critical aspect is creating spaces where people see the value of mutually questioning diverse perspectives (including their own). In education, some groups are interrogating Eurocentric aspects of their curricula to diversify it (B. Boogaard), while certain courses help students explore/question their beliefs (Intuitive Intelligence – M. Wink).

2 Broad bridging 'hooks'

Pluralizing processes help broaden people's values to form collective agendas. However, researchers also showed the power of **starting with broad 'hooks' to enable pluralization**. For example, feed-food competition research fosters links between sustainable food production systems and healthier diets (H. Van Zanten). Many other inspiring ideas are emerging; for instance, research that: (1) connects everyday tourism experiences to reflection and dialogue on slavery heritage and systemic racism (E. Adu-Ampong); (2) examines cross-cutting societal dynamics that can prevent diseases, instead of mainly backing the curative/reactive medicine model (W. Hendricks); and (3) explores the social dimensions of sustainable technologies (D. Machado de Sousa).

1 Pluralizing Limited Agendas

Critical dilemmas @WUR

What contributes a "genuine step towards pluralization", and what simply "legitimizes already dominant agendas"?

Researchers often faced dilemmas about whether or not an effort to integrate different perspectives and goals is genuine or superficial, i.e. does the integrative effort openly deliberate and fairly include all viewpoints? This poses a dilemma of **whether to say yes or no to collaborative opportunities, and under what terms**. A choice to integrate with broader agendas runs a risk of having your own concerns being "watered down" or co-opted by those with greater power. On the other hand, if you choose not to integrate, this can alienate or exclude others who do not agree, potentially furthering polarization. A critical question is therefore: **How can integration processes be designed and facilitated in ways that genuinely empower instead of further marginalize already marginalized agendas?**



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The risks of integrating?

If people integrate ignored agendas into dominant ones to gain traction, they risk reinforcing those systems that continue to **hinder their own and others' long-term concerns**. For example, many concerns were raised over how WUR works with certain companies: *"The message that is implicitly coming out is that it is helping nature, and in fact we are building something that will harm it".*

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The risks of not integrating?

If people whose agendas are often marginalized try to integrate by placing their interests first, partly out of fear that they will be diluted, this often **limits who they can engage and what change they can create**. As one person explained: *"If we say 'biodiversity, that's my importance', then we might lose sight of the things that go beyond... things that are more important to be able to better work on biodiversity."*



2 Empowering collective influence



Tensions

"The focus is almost always on knowledge and facts and data, which can be helpful, but in the end, most people do not act based on dry data, they act on emotion."

Simplistic theories of change

Tensions among beliefs about how change happens constrained opportunities to produce change together. For example, some advocated for a linear impact model that presumes: data → knowledge → solution → action: "You have to **make a case with numbers... you need to answer what's in it for me**". Some approaches assumed that people need data, carrots or sticks in order to change. In contrast, others rooted problems in emotions: "The biggest barrier for transformative change is that **we don't WANT to see what is needed or should be done because of some (existential) fear for an uncertain future**". Additional concerns were raised over how target driven data can back problematic forms of agency, such as "**a fake sense we are in control**", despite lacking nuance on how change happens and "**who wins and loses?**".

Narrow spheres of influence

People also differed in their opinions about the type of knowledge that could deliver positive change. For example, many critiqued work that assumes "**it's local people who are causing the problems**" and that leaves global processes largely unquestioned. While some felt fine to say "I don't work on these external drivers", others felt frustrated: "you can adapt these [local agricultural inputs] in any way but in the end of the day it's the structural issues – inequalities, finances, access to land – that are the problem". Another researcher explained: "**I don't ever seem to have the space to influence the research process so that we can achieve transformative change... we have these big technical questions like how to increase productivity. I would argue that you can't achieve this without also analyzing and intervening in the social and institutional context in which you operate, and then they would only want technology.**" People were divided over the role of technology – some saw it as **holding powerful potential**, while others worried it often **leads "further on a path towards a dead end"**.



Transformations

How can we empower people to act together for change? We share creative approaches that WUR researchers used to transcend tensions among views:

1 Empowering methods

Many showed that a key first step to forge collective pathways is to question beliefs about why outcomes happen: "**If you don't have enough discriminating power to identify boundaries, then you come up with the same solutions always.**" Then, it was important to open up shared social spaces "where people can talk about their experiences of living in this world... **It is very very important to ask people what do you feel, not what do you think? It's a very different game**". For example, the biographical method (E. Shah) is an approach that gathers personal narratives related to experiences and analyzes them in ways that create new layers and connections between them. For example, this method can be used to connect actors with seemingly incommensurate views, such as women farmers and CEOs, to identify their shared humanity and potential ways forward.

2 Realistic imaginaries

Future visioning helps people move beyond simply "contesting other people's choices" to "imagining what could be otherwise". For example, the NL 2120 (T. van Hattum) showed what a sustainable Netherlands could look like: "**So many people said, wow this is the country I want to live in. So it gives them hope for the future. That's what brings people into action.**" Yet, visions are "**a journey rather than an end point**" and thus entail continuously navigating diverse wisdom to take steps towards an uncertain future. Two notable approaches include: new strip cropping technology to overcome monoculture lock-ins (D. van Apeldoorn & W. Sukkel), and 'small-wins' governance towards circular economies (K. Termeer): "**There is a big difference between small wins and quick wins, which are your low hanging fruit. Often quick wins are not so transformative**".

2 Empowering collective influence

? Critical dilemmas @WUR

How can you be "one step ahead of the crowd – a leader" without being "two steps ahead – out of tune"?

For many, transformative change is "**way beyond their imagination and feeling that they can make a difference**". Thus, researchers faced the constant challenge of finding the right balance between trying to be visionary in their approach – imagining the unthinkable – yet, without making ideas so radical that they lacked tangible strategies for change from within existing systems. Researchers varied widely in the extent to which they relied on data or knowledge to mobilize change, or other aspects such as emotions or imaginations. Critical questions are therefore: **How can radical ideals be connected to concrete steps for change within current systems? And what is the role of scientific rationales versus other ways of knowing/feeling/being in catalyzing change?**



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Incremental or visionary?

"Is it better to see how you can make incremental steps, or is it better to have really radical research that could fundamentally reorganize the economy?"

The former "**might lead to a cascade, but the risk is people think it is done and you can go home**". The latter can "**get sidelined due to being called too radical**".

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The limits of knowledge?

The role of scientific knowledge in transformation is contentious. Some see it as central: "**you need to get it to the wider public at all levels**". Others see this view as limited, or even problematic: "*we think that if people understand they will change their behavior, which of course isn't true*". This raises issues over the role of a knowledge institute to **engage with emotional (and other) aspects of transformation**.



3 Politicizing power relations



Tensions

"My view on transformative change is to politicize the debate... This brings in so many issues of justice – justice in ways of knowing, distribution, participation, etc."

Local vs. global action

Shifting power was seen as vital to transformation, yet **people held different perspectives on how best to do so**. Some saw the local level as best placed to politicize (i.e. open up genuine debate around) the need for change: *"In the end, development is local; you can go and change the national laws, but if in the end the ones on the ground are not on board with that, the law will be written out"*. Others critiqued how local efforts ignore bigger issues: **"It is much easier to work with a local farmer than to take on large scale agri-business. And it is the large-scale agri-business that is the problem"**.

Disruption vs. collaboration?

But then, how to engage with such powerful actors? People hold different views on **whether to work with them to create change, or to be disruptive**. The former approach tended to see powerful actors as part of the solution, while the latter saw them as squarely the problem: *"I see a lot of well-meaning people from capitalist societies trying to find solutions, but the problem is they are still thinking within a capitalist framework"*.

Whose power is a problem?

People also differed in their views on **whose power needs to be questioned**. For example, some praised the role of international organizations and technology, while others were critical. **The role of WUR was also a point of contention**. Views like: *"It is society that needs to transform not us [scientists]"* stood in direct contrast to calls for internal change: **"The more radical examples, we don't do much on. We are paid by the big companies... we put plasters on the wounds"**. **Many people stated the imperative to diversify power structures in WUR**: *"I still look around and see white men as chair holders in almost every department, and every chair group. And I see conversations about gender with only women attending"*.



Transformations

How can we gain power to shift power towards fairer relations? We spotlight approaches used by WUR researchers to make progress from different angles:

1 Politicizing approaches

Power relations can be disrupted in many ways: *"it doesn't have to be only civil disobedience or protesting"*. One such approach, "transgressive learning" (A. Wals), is **"about creating dissonance and friction, and utilizing it to make people think differently"**. It has been used in education and learning spaces to reframe dominant narratives and break away from vested interests that are hindering collective well-being. An example of politicizing debate over the validity of different scientific approaches is research that engages WUR students and researchers in transformative dialogues with African philosophers to open up alternative ways of researching and understanding farming (B. Boogaard): **"These can be uncomfortable and sometimes painful topics, but we need to go there."**

2 Multi-scalar connections

Some research was particularly attuned to the role of scale in shifting power structures. For example, the CONVIVA – or convivial conservation – project (B. Büscher & K. Massarella) combines critical interrogation of structural issues and exploration of grassroots alternatives to promote co-existence, (cultural and bio) diversity and justice in wildlife conservation. Legal perspectives also play a critical role in bridging efforts across scales. For example, research on Polycentricity in the European Union examines how legal processes can "encourage self-governance from the bottom up" (J. van Zeben). An important aspect is to reveal how **"our legal framework has very important normative underpinnings... law often seems to be objective or neutral, but it is always a decision to keep in place the status quo or change it"**. Many additional approaches are emerging to explore the flow of ideas and impacts globally to politicize change.

3 Politicizing power relations

? Critical dilemmas @WUR

How can people navigate power-laden conflicts in ways that do not exacerbate them, but enable transformation?

Researchers faced many challenges around how best to engage with powerful ideas, actors and systems in order to foster change. While recognizing that not all powerful actors are linked to bad outcomes, various prevailing pathways perpetuate widespread global social and environmental problems. The crux of the dilemma is: **"You need to have some power to accomplish transformative change, but to get the power you have to be stable, which is totally contradictory"**. Researchers held different views on which strategies can best understand and reshape power relations. Critical questions are therefore: **How can researchers gain power without reinforcing problematic forms of power? And how can they best engage relatively powerful actors to foster change across scales?**

“

Emancipation or revolution?

People seek to shift power in distinct ways. One approach is to **work with powerful actors to “emancipate” them** (and those affected) from their problematic paradigms. A contrasting approach is to critique from the outside, by **elevating the voices of marginalized actors, or by publicly calling out injustices**. While emancipation can be “naïve” or harmful if actors are not genuine, revolutionary calls can become trapped in academic echo chambers, or if picked up, potentially worsen polarization.

“

The challenge of scale?

Despite growing efforts in WUR to connect global and local actors, **many disagree over what multi-scalar relations are transformative**. For example, is engaging companies to improve local farmers’ practices empowering local change from below, or shifting responsibility away from companies? Some politicized at local levels, while others worked at broader or multiple scales. Scale was often seen as a crucial aspect for WUR researchers to better navigate.



4 Embedding learning systems



Tensions

"You need to balance solutions-oriented work with analysis that questions it in order to safeguard WUR's competitive edge and not turn it into the next consultancy."

To embed or not?

Various tensions emerged in processes that sought to connect research to processes of change. However, some did not seek to embed their research; this was critiqued by others: **"They are more or less on the sidelines – they think they can do what they want without really being involved in real world issues."** Others worried that this *"places too much responsibility on scientists"* and leads to **"talking people" who lack a basis for it.**

The role of how/can questions

Many focused on issues with how research is often embedded: *"Wageningen Research is too focused on the how/can questions – **It's very much solution-oriented**".* These people felt that rushing in with a fixed solution can unknowingly reinforce damaging practices and it is important to first *"pause and reflect on the underlying mechanisms, principles and values"*. Many felt WUR is losing its independence: *"People aren't bad because they work with a corporation, but **the kind of questions you can ask and the truths you can speak to power become very much reduced**".* Those who use research to advocate for local justice also face push back: **"We are accused of being biased... yet, if I was doing work with a corporation and that is reinforcing particular narratives around trade, then that isn't seen to be biased."**

Science as biased or objective?

Others wanted a return to "objectivity": *"What we can do as scientists is **supply information that is objective**, without judgement. But as an activist I am full of judgement. I really try to separate these roles"*. Yet, many pointed out **"all science is biased – but being explicit about it is important"**. While some thought *"it's not up to me to make judgement over those value decisions"*, others criticized this for *"letting others make the difficult decisions"*.



Transformations

"How can we mobilize the role of research in change without undermining it? We show ways that WUR researchers are navigating these tricky dilemmas:"

1 Embedding mechanisms

Research can stimulate real world change in many ways. One way is through active communication in society. For example, in platforms like NatureToday.com over 30 institutions reach millions of people with their stories on topical developments in nature (A. van Vliet). Research can also be a change agent by building partnerships to develop and monitor solutions to societal problems that arise in cities (e.g. AMS – Amsterdam Institute for Advanced Metropolitan Solutions – H. Wolfert) and to enhance biodiversity in landscapes (Deltaplan Biodiversity Recovery – D. Kleijn). Another important role for research is to foster learning by questioning deeply held assumptions about problems and solutions. For example, Reflexive Interactive Design (RIO) facilitates participants to analyze the root causes of problems to *"really interrogate the WHY beyond the goal"* (B. Bos). No matter the role of research, it was vital to **"reflect on how you are being influenced, make explicit your lenses that you look through, and bracket them to be transparent in what you do."**

2 Learning-action iterations

Various projects showed how research **can engage societal actors in continual processes of learning and change**; for example, Responsible Research & Innovation (RRI) (A. Pols), Reflexive Monitoring in Action (A.C. Hoes), and Social Innovation Approach (N. de Roo). Instead of being driven by scientific questions, "transformative learning" approaches (A. Wals) enable a *"relational way of doing research, teaching and learning"* that is guided by *"existential questions that bubble up in the world around us"*. Transformative learning requires scientists to move past *"science supremacy"* and *"recognize that there are other ways of knowing and understanding the world"*.

4 Embedding learning systems

? Critical dilemmas @WUR

What does it mean for research to be "morally and intellectually independent" of all political/economic power?

Many researchers in WUR struggled over their positionality in processes of societal change; for example, whether to combine or separate activist and researcher roles. While some saw impact creation as coming after the knowledge production process, others saw involving societal actors in knowledge production processes as crucial to generating impact. Researchers within WUR varied greatly in the extent to which they focused on solving particular problems versus questioning the very framing of issues. Critical questions are therefore: **How can researchers engage with societal actors in ways that connect learning and solution-oriented approaches? And how can research become embedded in advancing processes of change while protecting its moral and intellectual independence?**

“

Politically neutral or active?

There are strong disagreements within WUR over the appropriate role of research in change. Some call for a "fact-based organization" and feel it is dangerous for scientists to take a political stand "**because you make yourself vulnerable**". Others feel this shirks the duty of researchers to engage: "**I'm not so afraid of being normative. I think the challenges we have to deal with are so big, we don't have the luxury to not think about these kinds of solutions.**"

“

Reframe or solve problems?

There is also a division within WUR between research that **works with societal actors** to create novel solutions to predefined problems, and research that **critiques societal dynamics** and change efforts (often in academic journals). While the former can breed reactive research cultures that reinforce dominant views, the latter often struggles to build relations that can substantially influence societal processes due to their critical nature.



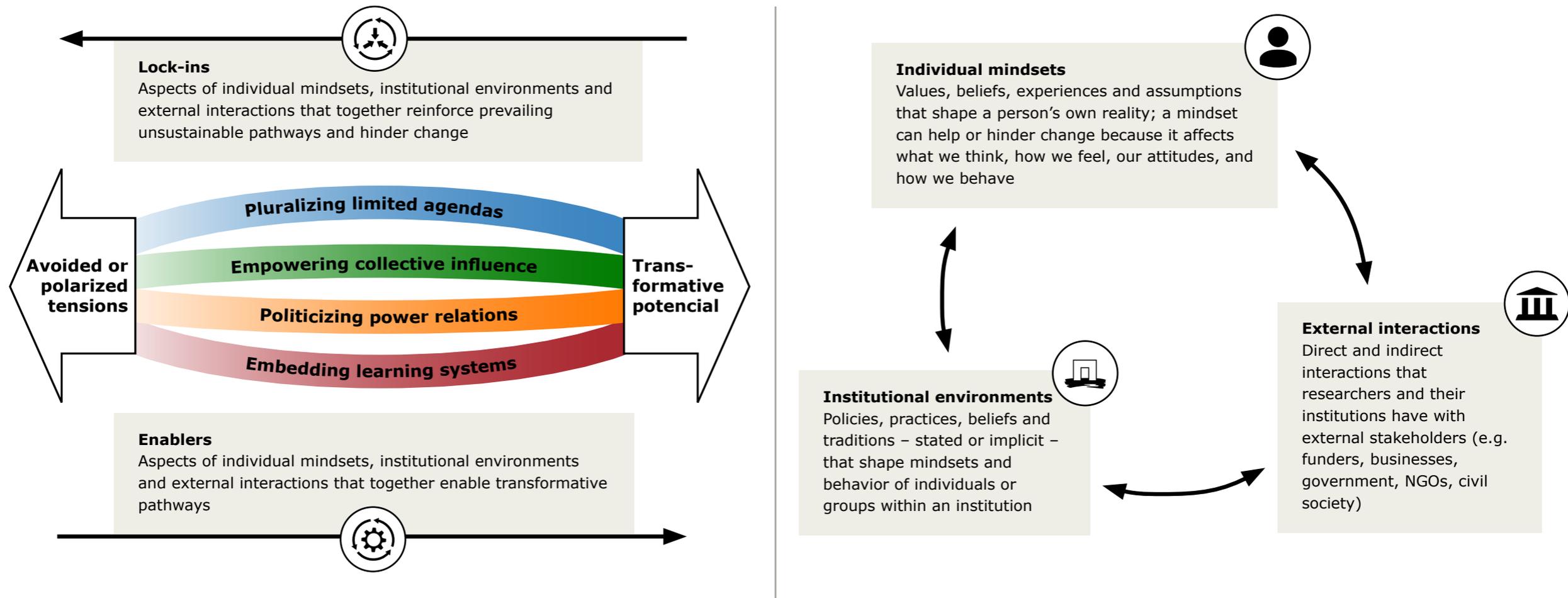
Summary: from tensions to transformations

The following diagram provides a summary of the four main transformative “ways of working” we identified. For each area, we summarize the two main aspects we highlighted through examples in the previous pages, which helped researchers to constructively navigate and transcend tensions through: (a) processes that can help build towards transformative change, and (b) relations that can help enable transformation. The two-way arrows show how both processes and relations are mutually reinforcing; processes can create space for more transformative relations to emerge, and vice versa, fostering these types of relations through research can enable more transformative processes that spur change.



From lock-ins to enablers

Researchers highlighted many reasons - at individual, institutional and external levels - for why it is often difficult to pursue transformative research and change. The diagram below shows that these different dynamics interact in ways that can either lock-in status quo research through avoided or polarized tensions, or enable transformative ways of doing research and fostering change. While some researchers saw their struggles as being due to more distant dynamics, like institutional policies or external stakeholders, others emphasized the role of particular individual mindsets in blocking transformative work. Changes in institutional environments or external interactions may not enable individuals to do research in more transformative ways if individual mindsets are resistant. Similarly, shifts in individual mindsets that enable transformative work may lead to frustration if broader environments remain unsupportive. For transformative change to flourish in WUR, it is therefore important to shift individual and group mindsets, while at the same time creating an enabling research environment that incentivizes change, and proactively fosters supportive external relations and funds. On the next pages, we present the most common lock-ins WUR researchers identified at individual, institutional and external levels (p. 19-21, in the left panel), and the key enablers that were proposed to escape these lock-ins and foster more transformative research and change (p. 19-21, in the right panel).



Shifting individual mindsets

Lock-ins

How do we individually hinder our own potential roles in transformative change? Researchers raised several dynamics that interact to limit worldviews and the scope of research:

Ego: All too often we think *"we know how this works, we know the solutions"* and *"that what we do is the most important"*. This creates blind spots that limit perspectives and learning. These beliefs can also breed a sense of *"superiority in academia, looking down on the other side"*, which can lead to *"much more subtle forms of discrimination and stereotyping"*.

Fear and risk: Fear locks researchers into *"a tendency to not give the space to others since we are afraid to lose"*. Many researchers also expressed fear that *"doing innovation work is a path that no-one knows, and it is scary to not know where we are going"*. *"Creating this space will take a lot of courage – it is not just about time and resources"*.

Objectivity: Yet, fundamental beliefs about the role of science in change posed major barriers to being more courageous together. Some felt that transformative change *"is not in the realm of university"* and that *"you cannot have scientific integrity as an activist"*. Others worried that this *"idea that science is neutral and objective"* can keep research *"stuck as an innocent bystander"*, where people feel a persistent mismatch between *"the things I think are most important in society, and what I investigate"*. Many felt that views such as *"here is our objective knowledge, now politicians go away and do something about it"* can even be dangerous because it *"pretends we are value free and just happen to be aligned with dominant agendas"*.

Efficiency: There are very real individual challenges of doing this kind of work, given the need to constantly be *"moving forward, moving forward, moving forward"*, or centered around *"I, I, I"*. This often breeds an efficiency mindset and *"what's in it for me mentality"*, which inhibited people from putting in the *"enormous amount of time"* it takes to do transformative research and *"to learn each other's language"*.

Due to mindsets fueled by the above, researchers often retreat to tried and trusted networks, reinforcing limited worldviews. This hinders WUR's *"ambition to go global"* and the leveraging of novel ideas from newcomers to WUR.

Enablers

Two activities were consistently identified to address the range of lock-ins at the individual level. Examples already exist in WUR that have helped people take steps conducive to transformative research:

1 Safe spaces for self-awareness, reflection & learning: Safe spaces offer researchers the opportunity to listen and learn about each other's perspectives: *"instead of seeing the hole in the debate, researchers really listen and try to see the connection across the debate"*. This can create trust so that researchers can openly speak about their vulnerabilities and resistance to change, so that *"you can still touch the human dimension as a scientist; to have facts doesn't mean we have no emotions"*. Learning to *"see the problem through different glasses"* helps to broaden research networks and provides an opportunity to move to a *"we're in it together"* paradigm. Researchers mentioned facilitated processes, such as the WUR dialogues to help *"identify where there are differences"* and *"make sure people can really contribute and develop their thoughts to come to more collective understandings"*. There was a strong sentiment that leadership at all levels of WUR participate in such processes. Funding of courses or projects was also suggested as a means of cementing innovative collaborations beyond dialogue. For example, the Interdisciplinary Research and Education Fund (INREF) was particularly highlighted for spurring innovative collaborations across groups: *"we are all fresh combinations – we're not old buddies that worked together for the hundredth time"*. Fostering self-awareness, reflection and learning is strongly reinforced by institutional enablers (next page).

2 Space holders to navigate dilemmas and conflicts: Transformative change challenges the status quo and inevitably results in dilemmas and conflict. This requires *"people who can hold space. People who can stay and name the pain and don't shy away from the difficulty. People who know about step wise approaches that can bring groups further in their thinking, and not be too results oriented but take the time that is needed"*. Facilitation for transformation requires a special skill set which is often under recognized: *"we need to get people in who know how to navigate different ideologies. So often we don't bring in skilled people and we have these dialogues where you are not given the space to explore or work through the differences"*.

Changing institutional environments

Lock-ins

Several institutional lock-ins limit researchers from pursuing transformative research and change:

Leadership: Researchers felt that "change has to come from the top" as well as from within science groups: "A leaders attitude trickles down to everyone" and "if it's only tokenism, then many other people will probably not take it too seriously". Researchers felt that "people at high positions could play a more visible role as a knowledge institute that does not pretend they already have the answers" but are prepared to journey together.

Diversity: Many felt that this was not given priority: "I literally don't know if there is a single black chair holder. And let alone from the global South. That's not to mention that we even have very few women". Furthermore, people tended to turn a blind eye: "there is a generation that is now in charge of a lot things and this generation is complacent, and judges from a position of privilege". Researchers were concerned that "this very parochial point of view is a real problem for WUR in proving that they are not simply a little domestic university and in terms of achieving transition".

Competition: WUR's group financing structure was seen to breed competition and undermine collaboration: "If we only finance competition, that's not how you will get a holistic and interesting university". Tenure track performance metrics left researchers feeling "caught up in the rat race – trying to constantly publish more, and get more PhDs". Academic researchers (WU) felt they no longer had "research time of their own" and that "putting it all on PhDs can hamper creativity". Institute researchers (WR) felt constrained because "everything needs to be very productive – you need to write every hour of your time". Numerous challenges were raised around collaborating across university and research institutes: "university researchers are so preoccupied with education that they don't have time to cooperate".

Incentives: Researchers repeatedly emphasized that transformative change incurs additional obligations that are currently under-acknowledged. "It's not only about having strategies on how to change, but that you also have incentives researchers can count on to do that". Transformative change was perceived to come with personal and research group sacrifices: "it seems to come on top of everything else. We do not get extra teaching capacity".

Enablers

Three areas were consistently identified at the institutional level to encourage the shifting of individual mindsets and actively support more transformative research and change:

1 Clear transformative leadership at all levels: This is different to "leadership towards management" and rather seeks to find root causes that hinder change, which are often not explicit or intellectual: "it's not just funding, but also looking towards overcoming the boundaries". Leadership participation in safe spaces for reflection (above) was viewed as important to "give a message that we are allowed to question the system". This means that the leaders themselves, "the powers that be, will also have to challenge their own approach and big power dynamics around vested interests and partners". It pays attention to the emotional levels of change, where the idealized futures are balanced with a sober appreciation of the challenges. Diversifying the debate is a critical aspect of this leadership and "clear criteria for diversity related to race, gender and age" are required. These include processes to ensure that resources flow fairly to new researchers and minorities: "You have to mandate that there will be different players at the table".

2 Different kinds of performance and incentive metrics: New metrics could focus on "signs of improved connections and signs of improved agency, or signs of empathy, or signs of co-creation", or exploring social media metrics. There was widespread agreement to "focus on quality of PhDs rather than treating them as a thing to get my tenure" and to "provide recognition for those researchers that step out of their comfort zone" by "giving people a liberation of time from their duties to do this" and providing additional capacity where necessary to "make sure the research group doesn't suffer from taking on additional obligations".

3 Funding transformative research: This would communicate a clear signal of WUR's commitment. Two forms of investments were consistently raised. "Cross-WUR investment to bring different researchers together" was suggested as a way to not only open up safe spaces for reflection and reframing of individual mindsets (above) but also to "make something concrete". A second suggestion was to support novel exploratory research: "We do not need too many successes. Only one in a few years gives momentum."

Influencing external interactions

Lock-ins

The external environment poses several constraints that limit the role of individual researchers and WUR in transformative change:

Funding: Divergent perspectives were expressed around WUR funding flows, often related to tensions around whether it is ok to view research as a “service”. Many researchers felt this *“impedes us from having a counter-narrative to ‘our clients’ or challenging them in their thinking”*. The research institutes (WR) were perceived as vulnerable to research that *“delivers what the client wants to have or wants to hear”*. Researchers often raised dilemmas *“around the role of the private sector on campus that don’t have the best environmental reputation internationally”*. Yet many researchers also pointed to benefits of *“facilitating partnerships with the bigger players”*: *“Companies are realizing how dependent they are on this system, they realize resilience is needed, but they don’t know how to build it... We need to partner more with these sort of people”*. Concerns were also raised around government funding, which *“keeps us in a nice position of not doing too much harm to them”*. Similarly EU policy *“funds research according to alignment of their mandate, not questioning that mandate; it is a vicious circle”*. EU funding was also perceived to limit cross-WUR collaboration as *“the schemes reward that you make diverse coalitions outside rather than within WUR”*.

Traditional science framings: These have also been slow to change. Interdisciplinarity was perceived as *“letting yourself land in nowhere”*. It is *“hard for the natural scientists to get publishable data out of this; journals don’t want to publish this kind of transdisciplinary work”*. Science funders also limit transformative processes because *“donors want to know in advance exactly what they are paying for, but you don’t know exact outcomes”*.

Short-termism: *“WUR are so project-oriented, we look at projects first and then at what we want to do. This is not transformative for our long term because we are restricted in the systems where we are in rather than going beyond”*. This project-oriented research evoked frustrations *“to move ahead, move ahead and move ahead”, or onto “next, next, next”*. Falling victim to lack of long-term government vision was a particular concern: *“Their agenda is 4 years. There is no real long term perspective. This is a big problem not just for researchers but also for farmers and investors”*.

Enablers

Researchers felt that WUR could play a far more proactive role in influencing external interactions and positioning itself as a global thought leader in transformative change. Two areas were consistently mentioned for how WUR can enable such change:

1 Deliberations with external stakeholders on serving collective purpose:

Rather than be reactive to external requests, WUR should openly deliberate the dilemmas of change with societal stakeholders in processes that stimulate joint learning and reflection: *“It’s about the politics of knowledge, research and funding, and also maintaining a viable funding organization, and some of the dilemmas we have there. We can be more idealistic, but how do we discharge 50% of our staff?”*. It is helpful in this process to *“understand what type of companies are the winners in the new pathways, as these are ones with not too many stakes for maintaining the status quo”*. Some called for bold decisions on funding cuts if values are deemed incommensurable: *“WUR is a multiple headed dragon and there are some parts of it – especially in the past – which were much more regime reinforcing. Maybe we need to consider that we will not accept funding from some companies”*.

2 Catalyzing new partnerships: Many called for building *“more symmetrical partnership with all kinds of partners, not only big business”*, and bringing marginal voices into the arena. It was seen as important to convene deliberative spaces for new partners in civil society, business and government to openly discuss dilemmas around alternative options. For example, WUR could stimulate more societal participation in public-private partnerships *“so that a collective like Land van Ons can have a sustained stake in which a large number of different perspectives can have power in setting the agenda”*. Several ways to achieve this deliberation among partners were suggested, such as *“events where stakeholders can openly pose topics”* and jointly learn about each other’s processes and challenges: *“In a number of cases I am surprised by how public-private partnerships and the multinational corps can use their power together to make decisions based on ethics”*. Funders could thus be provided with a space to learn more about how they themselves can support transformative research, and WUR can devise *“a more mixed funding approach”* that includes multiple perspectives.

Conclusions: the power of 71 visions

The 71 visions we gathered from across WUR together emphasize the importance of celebrating diversity in all its forms – diversity in knowledge, methods, approaches and disciplines: **"It is important that we do a variety of things, not all people have to do the same thing"**. Many pointed out the difficulty of judging what is "transformative" and what is not. Yet, at the same time, to unquestioningly embrace all approaches would ignore the critical tensions among views that, if left unexplored, can keep efforts fragmented, or even in direct opposition. **This report therefore aims to stimulate reflection over different approaches to social-environmental transformation.** A dialogue series in 2021 will constructively explore different tensions and synergies as a creative force to co-developing transformative research pathways, and cultivating an enabling environment.

To catalyze this dialogue, we identified four main "ways of working" within WUR that were seen to enhance the transformative potential of research. First, **"pluralizing" enables diverse people to mutually question their perspectives to establish transformative collaborations.** Efforts to "integrate" across disciplines and sectors are commonplace in WUR, yet integration ≠ pluralization. It is imperative to collectively examine the implications of different approaches to combining multiple perspectives and goals. Second, **"embedding" research in society can foster learning mindsets and practices throughout collaborations to enable more transformative ideas and actions over time.** However, there are clear challenges to discuss around how to make research an active partner in change without compromising its moral and intellectual independence.

These two "ways of working" – pluralizing and embedding – provide a strong basis for transformative social-environmental change, yet miss important aspects of how transformations occur. We identified two main ways of working that can open up pathways to systems transformation. First, **"empowering" inspires people's ability to mobilize collective action for change,** such as by engaging with emotions and building transformative visions. A key dilemma here is how to take realistic steps that build on the present towards dramatically different futures, but without reinforcing the present. To preempt potential barriers to change, empowering efforts can be complemented by **"politicizing" efforts, which open up pathways to change by**

directly questioning relations of power that cut across scales. A key dilemma, however, is to find ways of building trust and influence in spaces of power without simply reinforcing that power.

We found a wealth of experience across WUR in these four aspects of transformative research, yet also important divisions and fragmentation across science groups. **WUR's five science groups could therefore benefit from collectively exploring the potential value and limitations of different approaches.** For example, by understanding the quite different approaches that groups take to "empowering" or "embedding", or the different emphasis placed on each of the four ways of working. Crucially, not all research needs to draw upon all four of these approaches, and there are undoubtedly additional aspects to consider. Yet, it is useful to foster awareness of what researchers are implicitly choosing not to do and why. In general, we find that **transformation is not about reducing perspectives to fewer pathways, but rather finding mutual connections that can strengthen the coordination among diverse pathways to change.**

While reading this report so far, you may be asking yourself: ok, but what does this have to do with my research?: *"My work is about content X, which is not relevant to transformative change"*. Yet, many people showed the value of pushing beyond their own boundaries. For example, a researcher in ASG shared: *"I've been at the university many years, and it's the first time I do these big projects outside of my own expertise. I find it very exciting – it's fun, nice colleagues, and we are all from different fields... so the aim is to learn from each other"*. Another researcher in ESG explained: *"I would say start with small case studies where there's a claim of transformative change – then see if it is true that it also cascades into positive biodiversity effects"*. A researcher in SSG showed how personal journeys of transformation can inspire students: *"I did my postdoc in a very naïve way, really from a European perspective... In my course, I start by reflecting on how Eurocentric I was, which opens a door for everyone to reflect on eurocentrism... For some of the students this is the first time they become aware of it and you can see the awareness that is happening, and this is what transformative change is really about."*

We also saw active leadership from many chairs who want to expand the transformative potential of their group: *"You shouldn't do your science-oriented research and then in the end involve your stakeholders and try to get them with you, but you should involve them from the start. So it's more about the process than really the content of the research, and that's something that I want to increase in my group."* Some chairs recognized the challenges for researchers to pursue transformative research directions and directly supported them to do so: *"I told them if you write exceptional things, even if not in journals that are well recognized, I will lay down my life on the line saying you are an exceptional scholar"*.

We were generally blown away by people's inspiring visions, and the passion behind them. Yet, many themselves noted a recurring gap between the work they feel is most worthwhile, and what they actually spend their time doing. This suggests great potential for change, if people can find mutual connections that both support and critically question different visions for change, and an environment that better enables transformative work. Yet, **WUR researchers often noted that there is rarely space to openly discuss the tensions and lock-ins that hinder their ability to do transformative research.** Keeping such struggles hidden can breed distrust upwards, downwards, and across science groups, and further withdrawal into narrower research spaces. While individual beliefs and fears may lead researchers to self-inhibit their own transformative potential, this is also reinforced by institutional incentive structures that overemphasize disciplinary publications, limit time for collaboration and create a competitive and overstretched work environment. There were additional concerns over how to maintain financial stability while better questioning the ways external funding often further pushes research into less transformative spaces. **Issues at all three levels – individual, institutional, external – are therefore ideally addressed simultaneously.**

At the individual level, safe spaces are needed to speak about fears, and question values and assumptions that may hinder change. This can shift fixed mindsets to learning mindsets that help researchers find mutual connections for transformative collaborations. Such processes can be positively reinforced **by clear leadership signals that incentivize transformative ways of working at the institutional level.** Currently, such work relies on the moral choice and risk tolerance of individual researchers. WUR can greatly incentivize transformative change by establishing incentives that acknowledge the costs of the additional obligations, skills, and risks that transformative research entails. **WUR and its researchers can also**

take a much more powerful and proactive role in questioning and influencing external agendas towards societal change. Many external interactions currently direct WUR's agenda, with funding flows being a primary concern. WUR can help to influence these agendas by setting up new partnerships to catalyze change via pluralizing platforms and open deliberations with external stakeholders on how to serve collective purpose.

What is the power of 71 visions on our role in transformative change? It has allowed diverse voices within WUR to **"stick their necks out"** and share honest and radical perspectives on change, without facing the individual burden of doing so. It is critical to bring these voices to the surface to constructively explore their tensions in processes that open up real opportunities for change. Our findings are highly complementary to other calls within WUR for institutional change to support transformative research, transformative learning, and transformative forms of societal engagement. Furthermore, calls are growing at Dutch, European and international policy levels for more transformative forms of research and societal change. WUR's position as a future leader in this space therefore depends on taking a proactive role to map out collectively desired trajectories.

We see several ways in which the contents of this report can contribute to more transformative directions within WUR. These directions will be explored through a dialogue series in 2021 that brings diverse views across WUR together to reflect on and discuss these issues to form joint ideas and outline concrete strategies for action. An important input into these discussions will be people's active reflections on this report, by asking: **(1) Which perspectives do you find most valuable and inspiring? Why? (2) Which perspectives make you feel uncomfortable or annoyed? Why? (3) Which important aspects of transformative research are missing from this report?** More concrete plans for the dialogues are outlined on the next page.

This report is therefore an ongoing reflective tool to support transformative dialogue, research, teaching and action to grow diverse collective pathways towards transformative change within and outside of WUR.

Next steps: onwards to dialogue!

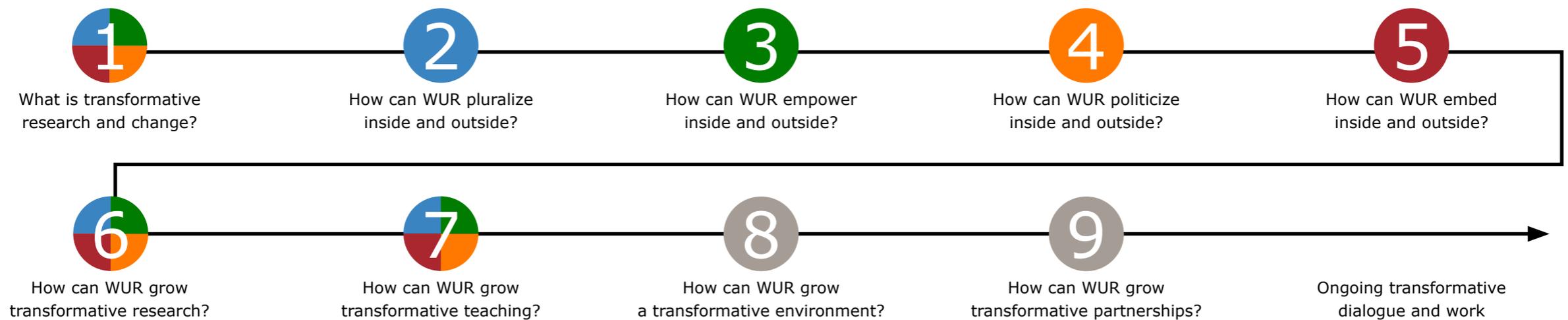
These 71 visions are a call for diversity and openness within WUR. We purposely do not call for specific actions, but rather outline a process to bring diverse views into dialogue to co-develop transformative ideas and actions for society and the environment. This research shows the numerous exciting initiatives around WUR to build on, and a great willingness to discuss differences. At the same time, we are concerned that tensions among views are often avoided or exacerbated within WUR. We therefore propose a monthly dialogue series in 2021 to provide a platform for people to listen to each other’s perspectives and explore their differences and commonalities. Yet, who is responsible for turning dialogue into actual change?

We call for the participation of all layers of WUR – from individual researchers/educators to science groups, senior leadership, and external partners, to use the dialogues to learn and co-develop possibilities for transformative research and collective action.

The dialogue series (see diagram below) will begin with overarching questions that are relevant to all researchers in WUR: **What is transformative research and change, and why does it matter? What aspects are important to some groups, but may raise concerns for others?** This initial session will be followed by four sessions that delve into each of the four transformative “ways of working” we have identified. This provides people with an opportunity to explore how they approach pluralizing,

empowering, politicizing and embedding in complementary, or even contradictory ways, to develop “state of the art” transformative research practice. By fostering connections across groups in WUR, there will be opportunities to forge new collaborative ideas and relations. This turns people’s differences into a creative force for change, as opposed to something to be suppressed or ignored.

These five dialogues will lead into four additional dialogues that build concrete strategies for action in each of four critical areas in WUR. First, to co-design **transformative research** proposals that build on previous dialogues to forge tangible new collaborations. Second, to enhance **transformative teaching** by exploring ideas and methods that can really prepare students to do transformative work. Third, to grow a **transformative environment** by discussing the individual and institutional barriers people face, and concrete strategies to address them. Fourth, to explore **transformative partnerships** by opening up dialogue with current and potential partners of WUR to determine how partnerships can best serve collective societal concerns. These four dialogues will involve the main initiatives in WUR that are already doing critical work in these four areas to build on and coordinate efforts. **We see dialogue and action in these areas as critical to proactively position WUR as a global leader of thought and action for addressing today’s grand social-environmental challenges.**



References

Avelino F. 2017. Power in Sustainability Transitions: Analysing power and (dis) empowerment in transformative change towards sustainability. *Environmental Policy and Governance* **27**:505–520.

Fouksman E, Klein E. 2019. Radical transformation or technological intervention? Two paths for universal basic income. *World Development* **122**:492–500.

Jenkins K, Sovacool BK, McCauley D. 2018. Humanizing sociotechnical transitions through energy justice: An ethical framework for global transformative change. *Energy Policy* **117**:66–74.

Leach M et al. 2012. Transforming Innovation for Sustainability. *Ecology and Society* **17**:11.

Leach M, Scoones I, Stirling A. 2010. Governing epidemics in an age of complexity: Narratives, politics and pathways to sustainability. *Global Environmental Change* **20**:369–377.

Loorbach D, Frantzeskaki N, Avelino F. 2017. Sustainability Transitions Research: Transforming Science and Practice for Societal Change. *Annual Review of Environment and Resources* **42**:599–626.

Moore M-L, Tjornbo O, Enfors E, Knapp C, Hodbod J, Baggio JA, Norström A, Olsson P, Biggs D. 2014. Studying the complexity of change: toward an analytical framework for understanding deliberate social-ecological transformations. *Ecology and Society* **19**:54.

Raudsepp-Hearne C, et al. 2019. Seeds of good anthropocenes: developing sustainability scenarios for Northern Europe. *Sustainability Science* **15**:605-617.

Sellberg MM, Norström AV, Peterson GD, Gordon LJ. 2020. Using local initiatives to envision sustainable and resilient food systems in the Stockholm city-region. *Global Food Security* **24**:100334.

Credits

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Design

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