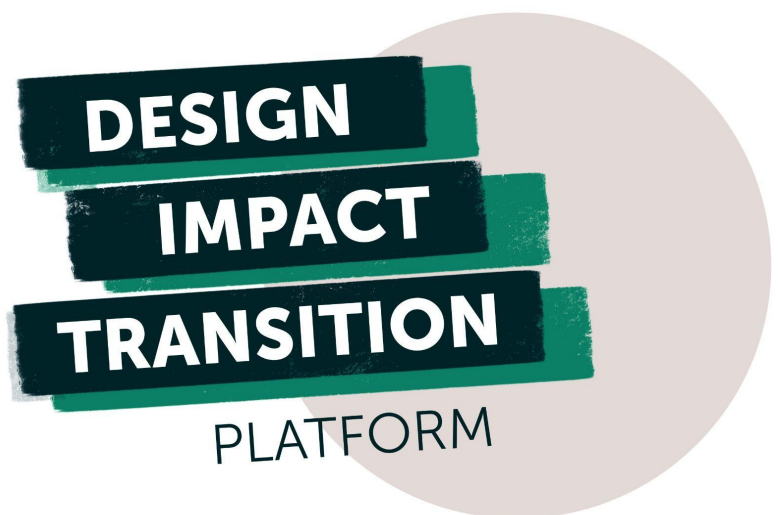


Funding & Governing Transdisciplinary Sustainability Research Programmes

Lessons from 5 years of ACCEZ

Authored by the Design Impact Transition platform, in collaboration with ACCEZ



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Introduction

This report conveys the findings of a 5-month learning journey into the funding and governance of the ACCEZ programme. ACCEZ is a collaboration between the Province of South Holland, four universities in the region, and an entrepreneur's association, mandated to fund action research projects bringing together entrepreneurs, scientists, and other relevant stakeholders, in order to accelerate the Province's transition to a sustainable and circular economy.

Both the ACCEZ programme and this learning journey depart from an accumulating body of research on regional sustainability transitions that evidences a need to experiment with more collaborative and transdisciplinary approaches to knowledge creation, which simultaneously engage a diversity of sectors, stakeholders, and perspectives in the transition process, from governments to firms, from scientists to civil society, and beyond.

This learning journey has paid particular attention to what can be learnt regarding the funding and governing of programmes of this nature. Our primary and secondary research questions are shown below.

Primary Research Question:

How can programmes that intend to contribute to sustainability transitions by supporting transdisciplinary knowledge exchange between researchers and practitioners be funded and governed to amplify their (transformative) impact?

Secondary Research Questions:

1. How and to which extent did the ACCEZ programme make a (transformative) impact on the transition to a circular economy in the Province of South Holland?
2. How and to which extent did the conditions and selection criteria used to fund ACCEZ contribute to increasing the (transformative) impact of the programme?
3. How and to which extent did the governance of and by ACCEZ, including supervision and management activities, contribute to increasing the (transformative) impact of the programme?
4. What, and in which ways, can we implement from these learnings to design better funding and governance in future programmes of this nature?

As such, this report is intended to offer insights to anyone interested or participating in transdisciplinary or multi-stakeholder sustainability programmes, including policy makers, funders, entrepreneurs, managers,

researchers, and facilitators. Where traditional evaluation processes often seek to establish quantifiable evidence of change, we have instead focussed on eliciting qualitative, narrative data, recognising that the value of early-stage endeavours to create deep and lasting transformation is often poorly captured by quantitative metrics. Taking two of ACCEZ's ten projects as case studies, alongside an overarching focus on the programme as a whole, we describe both its successes and its limitations, and on that basis, point to how future programmes of this nature could be funded and governed to maximise their impact.

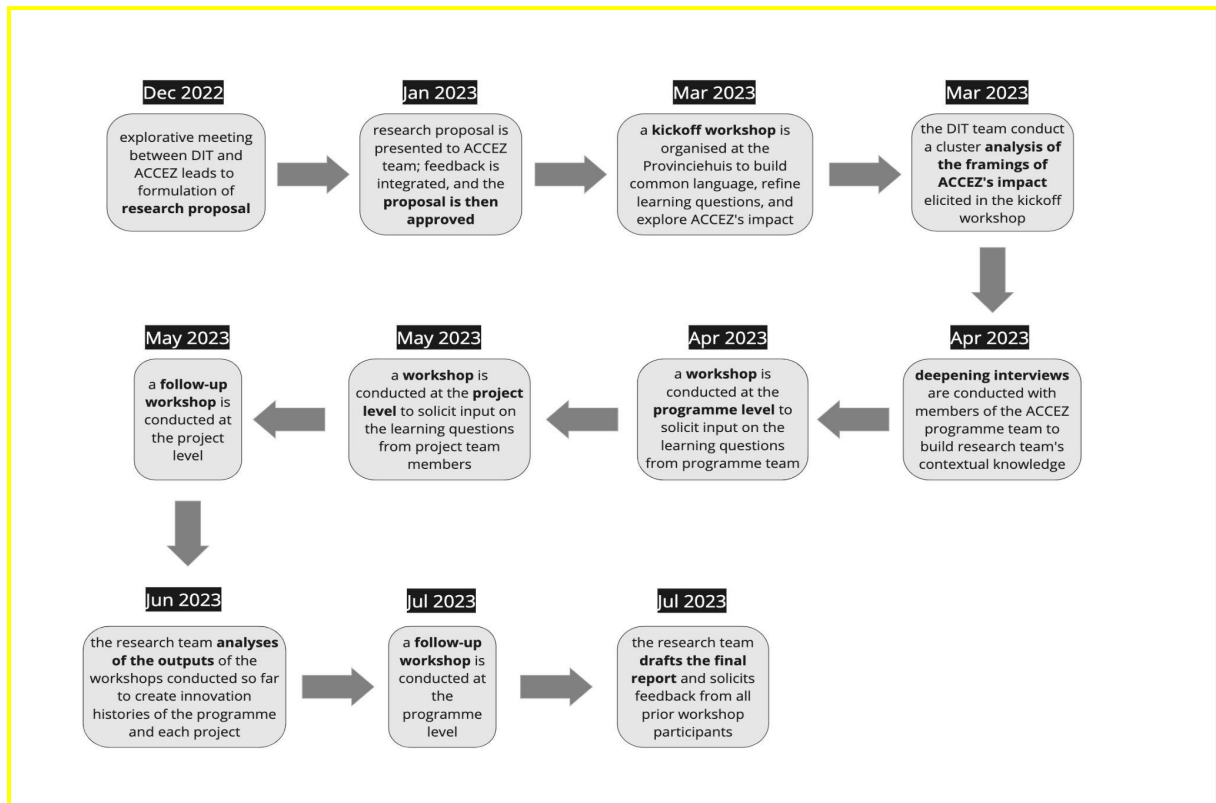


Figure 1: An overview of our research process

The DIT Platform at Erasmus University Rotterdam has worked closely with the ACCEZ team to produce these findings. As a transdisciplinary venture itself, (see Annex 1), DIT is both author and audience to these findings, and has therefore engaged in this research with a view to exploring the possible implications of the experiences and lessons described herein on its own approaches. As such, in our separate briefings report, which provides summaries of key insights tailored to various relevant audiences, we have included ourselves as one of these audiences.

Report Structure: Impact, Tensions, Insights

The report begins with an overall framing of the ACCEZ programme and some of the relevant impact it has achieved, before detailing a range of the

tensions, dilemmas, and obstacles encountered in its pursuit of this impact, namely concerning how the programme has been funded and governed. These tensions surfaced through documentary analysis, as well as through several workshops and interviews with ACCEZ representatives. We conclude by deriving a range of actionable insights from these tensions, intended to help inform and guide similar programmes in the future. In an annex, we have also attached some information about the DIT Platform, as well as detailed *innovation histories* of the ACCEZ programme and of the two projects chosen as case studies, to provide some narrative context for our findings.

1. Positioning ACCEZ

Some Background Information

The Dutch Government has made commitments to transition to a fully circular economy by 2050 (MvIM & MvEZ, 2016), and its constituent local and regional authorities, including the Province of South Holland (PZH), are required to support these national-level ambitions (PvZH, n.d.). ACCEZ¹, or Accelerating Circular Transitions in Zuid Holland, emerged in 2018 as part of PZH's contribution.

The programme is a partnership between PZH, four universities in the region (namely: TU Delft, Universiteit Leiden, Erasmus Universiteit Rotterdam, Wageningen Universiteit & Research), and VNO-NCW West (the region's entrepreneurs' association). As such the programme follows the *triple helix* model, bringing together the public, private, and knowledge sectors, but it also extends the model, incorporating various civil society organisations in some of its projects too. As well as corresponding to national sustainability goals, the programme resonates with the desires of many universities in the Netherlands and beyond to stimulate academic research with tangible societal impact, and to move away from images of academia as socially disengaged. Aligning the needs and assets of the PZH, academic institutions, and entrepreneurs, the partnership transcends each party's respective disciplinary knowledge systems, and as such, can be understood to be a transdisciplinary programme.

In the five years until mid-2023, €5 million has been granted in cash, and €4.5 million contributed in-kind to the programme by the parties of the coalition. The program was created to sit within, and be accountable to, the

¹ The name ACCEZ initially stood for the programme's founding title 'Accelerating Circular Transitions in Zuid Holland', but as the scope of the programme broadened its focus from circular economy to sustainability more widely, and beyond South Holland to include other connected regions as well, its founding title was abandoned in favour of ACCEZ as a standalone name.

Province, but acts as a semi-autonomous unit monitored by a supervisory board composed of representatives from each funding party, who approve proposals for new projects and then monitor their progress once initiated. Funds are deployed to initiate and accompany various action research projects, and to support a core programme team of 6 staff, prorated to full time equivalents (FTE), including a range of specialist project managers, known within ACCEZ as Accelerators, as well as a Knowledge Impact Team, comprising a wider community of specialists tasked with developing support processes and cross-cutting knowledge.

Each of these projects intends to support transitions in particular industries, concerning particular environmental issues, or within particular geographical areas. While these programme funds have been sourced mostly from provincial government budgets, the universities co-fund the research via their tariff structures, and other stakeholders have also contributed in-kind. To a lesser, yet growing, extent, project stakeholders also contribute in-cash to particular projects, concerning the agriculture industry, for example.

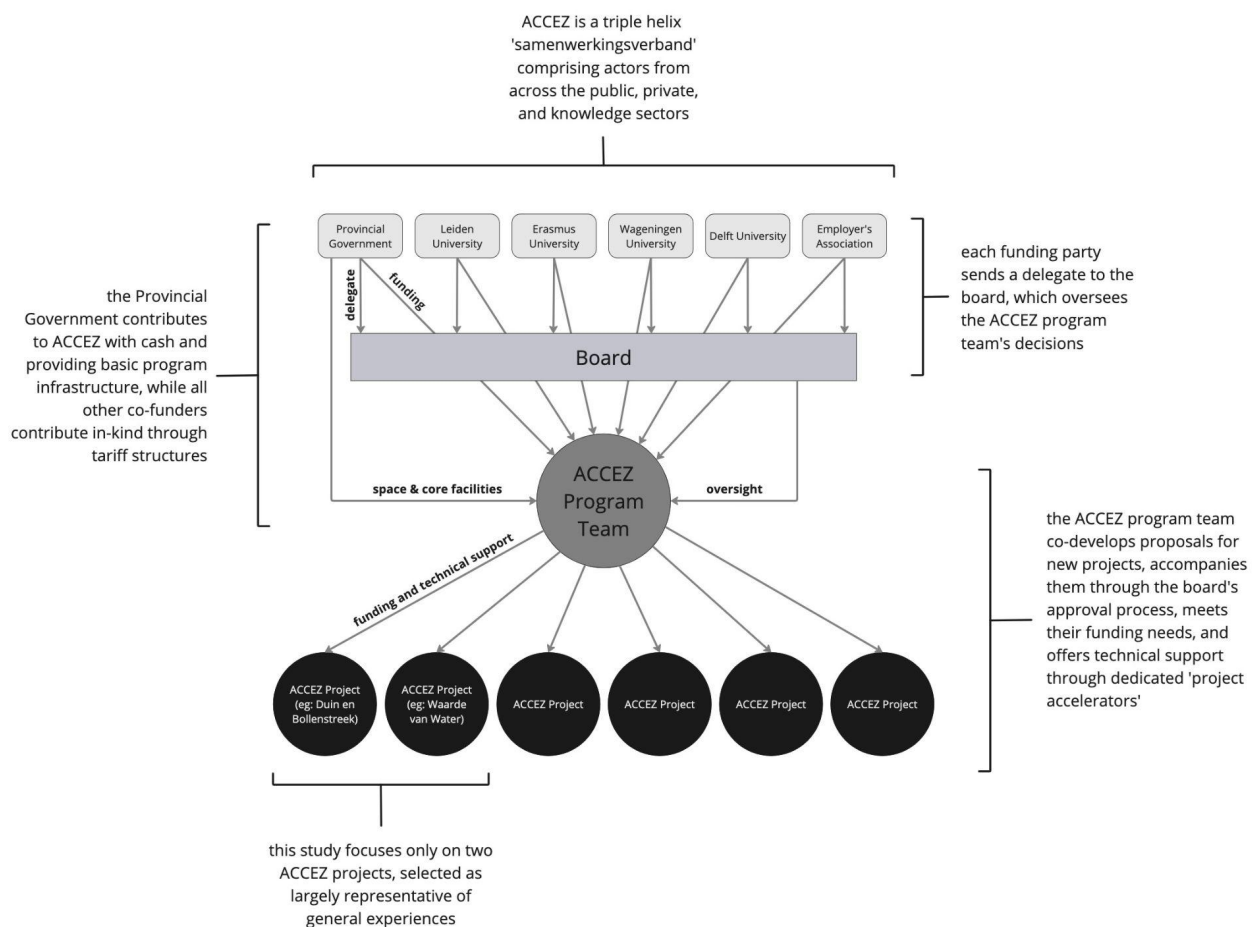


Figure 2: A visual representation of the main flows of funding and governance within the ACCEZ programme. It does not include the participants in ACCEZ projects. It is important

to note that there are numerous ways to visualise these flows, and that any attempt to convey these complex interactions will be limited. This attempt is not intended to be comprehensive in its account of these flows, only indicative of the principal inter-relationships.

ACCEZ is a System Innovation, Adopting an Emergent Strategy

From its very conception, ACCEZ sought to disrupt standard approaches to sustainability transitions, providing a platform for more visionary, cutting-edge ways of working that typically struggle to gain traction in institutional environments. Its core innovation is its transdisciplinary dynamic, facilitating dialogue and collaborations between sectors and stakeholder groups who traditionally work in isolation. By leveraging and converging the shared interests of a greater diversity of actors, ACCEZ aspires to make a more enduring impact across the cultures, structures, and practices which comprise the systems of knowledge production and economic production in South Holland. In this way, ACCEZ seeks to move beyond the fragmented and incrementalist notions of impact that predominate in institutional environments and which, while more easily manageable and quantifiable, pose few fundamental challenges to established societal systems. Based on framings offered by the sustainability transitions literature, ACCEZ can therefore be understood as a *system innovation* (cf. Van Mierlo et al. 2010).

Addressing whole systems, rather than individuals or organisations, implies greater diversity and complexity. Complex systems like agricultural supply chains or urban mobility networks exhibit emergent, non-linear, and latent properties, and knowledge of these is uncertain. These properties can make the optimal route to a desired impact impossible to accurately predict before an intervention begins. Instead, as research has shown, the optimal route to impact in a systems-scale intervention is often best revealed during the intervention itself (Vellema et al, 2017), as actors learn about the nature of the system iteratively through experimentation. As such we can see the impact that ACCEZ seeks as a *moving target*.

Pursuing such a moving target poses challenges for the institutions sponsoring these kinds of programmes, who typically require the use of logical frameworks to prescribe how a desired impact will be produced by the activities carried out. Recognizing these implications early in the programme's development, the ACCEZ team decided to seek alternatives to traditional logical impact frameworks.

One such alternative they considered was the Theory of Change (ToC), which emerged in the 1990s to address the inability of classical frameworks to accommodate the challenges of systems-scale interventions (CTC, n.d.), however it remains a result-oriented framework focused on measuring . This alternative framework focused on unearthing, challenging, and evidencing the predictions and assumptions underlying this linear

causality, ie: how certain activities will lead to certain outcomes, and how those outcomes will lead to higher-order goals (CTC, n.d.). Whilst some ACCEZ team members advocated for the use of ToC in the programme for this reason, this model too was ultimately not used, because it still suggested a predetermined trajectory of change, and couldn't sufficiently accommodate the high unpredictability of the complex systems in which ACCEZ was intervening.

After experimenting with a range of options, the programme team chose not to use a single explicit framework to conceptualise and communicate its impact, instead drawing partially on several frameworks. These included the Small Wins Framework created by Prof. Katrien Termeer and her team at the University of Wageningen, designed to help overcome the sense of paralysis that can result when facing the scale of wicked problems, by instead identifying and evaluating the cumulative value of smaller, more frequent steps made in longer journeys of unknown trajectories. This lack of formality challenged predominant modes of planning, monitoring, and evaluation, but provided ACCEZ the scaffolding it needed to conceptualise its an experimentalist approach, while calling into question prevailing perspectives on what it means to have impact and how this can be determined or assessed in the first place.

In the absence of a pre-existing framework against which to assess its successes, then, our research sought to elicit narrative accounts of the critical turning points (CTPs) that punctuated the evolution of the programme and the two projects selected, especially concerning their funding and governance. We then used the CTPs to prompt discussion on the tensions they generated, and the contributions they made towards the sense of transformative impact described above.

Case Study Projects

We see ACCEZ as essentially working at two levels: that of the programme, where strategic decisions are taken about the allocation of funding and support; and that of the programme's various research projects, where this funding and support was eventually invested to pursue specific objectives. We asked the ACCEZ team to select two out of the ten projects that the programme supported, with a view to ensuring a representative diversity of factors concerning funding and governance were reflected across them both. These choices were also informed by the availability of documentary material and participants that could be contacted for interview or participation in workshops. Notably, these two projects also represented distinct phases of the ACCEZ programme, allowing the research to account for evolutions in the programme which affected how projects were funded and governed. Some background information to these two projects is provided in brief below.

ACCEZ Project Spotlight: Duin- en Bollenstreek

The Duin- en Bollenstreek project was initiated by prof. Koos Biesmeijer as a follow-up to the earlier Groene Hart project, building on its learnings. The project aims to support the transition towards the economic, social, and ecological flourishing of the Duin- en Bollenstreek region. Current economic activity in the region's bulb cultivation industry is seen as damaging natural capital and negatively affecting the liveability of the region, so this project focuses on enabling the bulb cultivation industry to have a more positive impact on both ecology and society.

The project consists mostly of three research streams, which have produced: a biodiversity monitor, new governance arrangements, and a decision-making tool for actors in the region. The project also uses a co-funded voucher system, known as KICK Vouchers, to enable entrepreneurs in bulb cultivation to commission scientists to answer their concrete and urgent questions about transitioning to more circular practices. It has also worked to perennialize its results and methods, for instance by setting up a platform called 'Kennis Natuurlijk!' to enable more KICK Vouchers to be co-financed and used, beyond the bounds of the ACCEZ programme.

Initially proposed in 2019 and commencing in 2021, the project was still ongoing in 2023 when this report was being produced. Participants in the project were: PZH, TU Delft, Rabobank, Waternet, the Geestgrond Agricultural Nature and Landscape Association, Hollandse Duinen National Park, the Rhineland Water Board, Jub Holland, the Royal General Society for Flower Bulb Culture, and plant wholesaler Lubbe Lisse. The project received €560k in funding, mostly in the form of cash from PZH, but with €98k sourced from other partners.

ACCEZ Project Spotlight: de Waarde van Water

The "Kringlooptuinbouw: de Waarde van Water" project is concerned with questions of water management in the West-Holland region. It brings together a committed coalition of greenhouse horticulturalists, policy makers, and researchers. The aim of their collaboration is to identify whether and how surface water stores fed by rainfall can play a role in buffering and regulating the total available water supply for greenhouse horticulture in the area. A second concern of the project is how urban and rural water systems can be better connected, exploring, for example, whether a surplus of surface water in nearby cities can offer opportunities to meet the shortage of water around horticultural greenhouses, and vice versa. The Duijvestijn Tomaten company (and the surrounding area) is used as a practical case study in the project.

In phase one, the project aimed to develop shared understandings of the current and future uses and users of water in the region, and to scope new hydrological, technological, organizational, and economic possibilities for the regional water system, and developing new governance arrangements for collective water management on this basis. In phase two, the project developed a serious game, bringing key stakeholders together in a low-risk and gamified dialogue on various scenarios for water management, so that resistances could be named and addressed, and paths towards solutions could be co-designed, integrating interests and insights from a diversity of parties.

Initially proposed in 2017 and commencing in 2021, the project was still ongoing in 2023 when this report was being produced. The participants in the project were: PZH, various municipal authorities, the Rotterdam-The Hague metropolitan authority, various district water boards, and the Union of Water Boards, various greenhouse horticultural producers in the region as well as two of their suppliers, the four partner universities, Hogeschool Rotterdam the Sewage Treatment Works, the Centre for Environmental Sciences, Ecolab, the Leiden Living Lab, and triple-helix organisation Greenport West-Holland. The project was granted €300k for its first year, and €150k for its second year, on the condition of securing matched co-funding.

Figure 3: Summaries of the two projects chosen as case studies

2. Assessing ACCEZ’s Transformative Impact

As a system innovation, ACCEZ can be understood as pursuing transformative impact, insofar as that it aims to go beyond incrementalist, non-disruptive, and system-optimising forms of impact, to instead “challenge, alter, and replace” (cf. Avelino et al, 2019; Pel et al. 2020) the dominant ways of thinking (cf. cultures), ways of organising (cf. structures), and ways of doing (cf. practices).

We can consider ACCEZ to be intervening in dominant ways of thinking, organising, and doing across two main scales: (1) that of the programme, which operates as a semi-independent agency of the provincial government and acts as a funder and facilitator for various projects, and (2) that of the projects, which operate ‘on the ground’ in various contexts across the province.

At the programme level, ACCEZ’s impact can be understood as an attempt towards transforming how knowledge is produced and applied in the context of sustainability transitions, by convening a greater diversity of stakeholders and sources of knowledge that span disciplines and sectors, and developing processes to make their interactions more impactful.

At the project level, ACCEZ’s impact can be understood in terms of an attempt towards transforming the way in which key industries and sectors in South Holland function, by fostering collaborations among relevant actors, such as entrepreneurs working in a transitioning sector and researchers specialised in the aspects of these transitions, to assist in the sector’s overall uptake of circular and sustainable economic activity.

Based on this framing, we provide a non-exhaustive account of the transformative impact that the programme and two projects had below.

	TRANSFORMING WAYS OF THINKING	TRANSFORMING WAYS OF ORGANISING	TRANSFORMING WAYS OF DOING
PROGRAMME LEVEL	Opening up new vistas for the Province	Improving long-term relations across and beyond the triple helix	Managers learning to relinquish some control in uncertain environments
	Increasing appreciation for stakeholder management		Embracing relationality, experimentalism, and creativity
	Developing new language to reframe persistent issues		Measuring impact in new ways

PROJECT LEVEL: WAARDE VAN WATER	Developing futures literacy	Stepping outside of politics to build relationships through dialogue	Finding solutions through play
	Transcending myopic problem framings		
	Pinpointing gaps in knowledge		
PROJECT LEVEL: DUIN EN BOLLENSTREEK	Listening to and empathising with farmers	Fostering collaborative group dynamics with serious games	Improving communication skills across differences
	Inspiring a proactive approach	Bridging knowledge systems to enable cooperation	Sensitising the finance industry to the needs of transitioning firms

Figure 4: A Summary of some of ACCEZ's Transformative Impact

a. Impact through Transforming Ways of Thinking

Across the programme and project levels, ACCEZ has supported stakeholders to develop new mental models and perspectives, and to adopt new values and priorities.

At the programme Level

Opening up new vistas in the Province: Actors within the PZH gained new perspectives on the roles that academic knowledge from diverse scientific disciplines can play in transition governance, and on the viability of trans-disciplinary coalitions to jointly fund the research and the action needed for transitions. ACCEZ also reportedly increased the use of transitions thinking by certain actors. This could in turn increase the likelihood that other Province programmes in future also pursue systemic and transformative impacts, challenging cultures of incrementalism and optimization over time. Moreover, the role played by artists and by creative processes in some ACCEZ projects, established a precedent for the inclusion of less technical perspectives.

Increasing appreciation for relationship building: Members of the ACCEZ team learnt through their work supporting projects that the success of a project can to a large extent depend on good practice in forging and nurturing relationships with stakeholders, and that this is a craft which needs to be deliberately learnt and honed, which in turn requires an investment of time and resources.

Developing new language to reframe persistent issues: Several members of the ACCEZ team reported a need to adopt new vocabulary shared by various parties to describe and deconstruct the problems they faced in facilitating projects. It was found that whilst using buzzwords can help sustain old ways of thinking when they are devoid of real meaning, in many cases using new language can help to normalise new values and to more effectively focus attention, from novel expressions of specific issues, such as the 'grip' (houvast) stakeholders have on a project, or the 'line of sabotage' (borrowed from the Deep Democracy approach) that needs to be anticipated and negotiated when seeking buy-in from stakeholder groups. It was found some words were best avoided, like "resistance", in order not to exacerbate the difficulties they described. It was noted however that new language can take time to be adopted and won't always catch on with all stakeholders.

In the 'Waarde van Water' Project

Developing futures literacy: Project participants developed the ability to think beyond the present, both in terms of practising more foresight concerning environmental changes, and of becoming more imaginative concerning the possible alternative ways in which the sector could operate. A lot of this impact was attributed to the serious game and to the scenario envisioning exercises.

Transcending myopic problem framings: During the project, stakeholders began to approach the question of water management with more collectivism. For instance, some asked: "who will be able to use the water when there is a shortage?". More generally, entrepreneurs were reported to become more invested in notions of societal value, going beyond the concerns of their respective companies to think of the sector's sustainability as a whole.

Pinpointing gaps in knowledge: It became clear through the project that the challenges of managing surface water (oppervlaktewater) in the context of agriculture were less researched, prompting researchers to prioritise new investigations into this topic.

In the 'Duin en Bollenstreek' Project

Listening to and empathising with farmers: Some researchers reported undergoing personal transformations, realising new dimensions of the issues they specialise in by relating through 'heart' (not just 'head'), becoming more sensitive to the perspectives of the farmers whose practices they critique. Some farmers and growers in the agriculture sector used the opportunity to show their vulnerability, asking "am I still allowed to exist?" ("mag ik er nog zijn?"), a question which was already somewhat symbolic for the movement of farmers in the Netherlands protesting

top-down changes to the industry that would appear to threaten their livelihoods. By beginning to appreciate the intense worry for the future and public demonization that many Dutch farmers feel, not only did relationships improve, but farmers' knowledge was more highly valued, widely shared, and became more central in the research.

Inspiring a proactive approach: Stakeholders came away more aware of the urgency of the problems at hand and were reported to be more inclined to take initiative and look for solutions themselves rather than blame others for their predicaments.

b. Impact Through Transforming Ways of Organising

Across the programme and project levels, ACCEZ has supported the emergence of new relationships and networks through which stakeholders could share information, find alignment, and coordinate action.

At the programme Level

Improving long-term relations across and beyond the triple helix:

ACCEZ fostered new connections and provided new channels through which useful knowledge and a new respect could flow between the public, private, and knowledge sectors, which previously operated in more isolation. In particular this enabled mutual awareness of their respective logics, written and unwritten rules, and niche developments. Within the private sector, noteworthy relationships were formed between entrepreneurs as well, enabling greater coordination between their firms. And beyond these three sectors, interfaces were also created with students, informed citizens, and with organised civil society.

In the 'Waarde van Water' Project

Stepping outside of politics to build new relationships through

dialogue: By bringing often-excluded parties, in particular environmental organisations, to the table, entrepreneurs and researchers were able to build new relationships and have new conversations. Moreover, by using the serious game format, parties who were already in contact, including municipal authorities and the water board, had the opportunity to deepen their relationships outside of the political tensions that normally mediate their interactions. Whilst these relationships were reported to be unlikely to have happened without the project, it was also noted that if the project were to stop now, the relationships would likely not last.

In the 'Duin en Bollenstreek' Project

Fostering collaborative group dynamics with serious games: The serious game activities were reported to effectively stimulate participants to connect and collaborate imaginatively and productively. Overall, it produced a greater sense of unity among entrepreneurs and has enabled more co-creation.

Bridging knowledge systems to enable cooperation: Using data visualisation technologies, biodiversity data was rendered accessible to and insightful for entrepreneurs and policy-makers, enabling more effective exchanges between academic and non-academic knowledge systems.

c. Impact Through Transforming Ways of Doing

Across the programme and project levels, ACCEZ has supported stakeholders to challenge established methods and procedures, acquiring new skills and capabilities and adopting new practices.

At the programme Level

Managers learning to relinquish some control in uncertain environments: Observing the need to work with a more emergent strategy, managers began to learn how to “let go” of the command-and-control, top-down, pre-planned managerial approach that dominates elsewhere. Instead, they reported attempts to adopt an emergent strategy, informed by best practices in iterative project design, the ACCEZ team learnt not to begin with fixed and pre-formulated research questions inspired only by scientific literature, but instead to begin projects with more open and flexible and socially robust learning questions grounded in context.

Embracing relationality, experimentalism, and creativity: Managers also reported having learnt to appreciate a more in-depth and long-term process of management. Their new approach was reported to be more attentive to the quality of relationships, to legitimise experimentalism by embracing failure as an opportunity to learn and reconfigure, and to incorporate more artistic and creative approaches to reach more people in more ways. This shift in turn required the development of managers' listening and conflict-resolution skills.

Measuring impact in new ways: Commensurate with the systemic and transformative approach ACCEZ took to impact, managers navigated political pressures from funders to institute new ways of reporting and auditing that met the needs of overseers without imposing excessive structure on the program team. Program managers engaged in frequent internal conversation around how notions of impact were evolving, as well

as regular dialogue with Province officials to convey the impact being achieved iteratively, rather than against predetermined targets.

In the 'Waarde van Water' Project

Finding solutions through play: Through the serious games, concrete ideas for solutions to specific problems were developed, such as: the possibility for 'green-blue' corridors to be constructed through agricultural areas, which brings benefits for both business and biodiversity, and the possibility of collecting water on business parks, which, would enable better regulation of the water supply, although requiring new multi-stakeholder cooperations.

In the 'Duin en Bollenstreek' Project

Improving communication skills across differences: Researchers became better at communicating their thoughts and insights to other participants in the project. More generally, participants developed collaborative skills, becoming better at dealing with their differences in backgrounds, interests, and mental models.

Sensitising the finance industry to the needs of transitioning firms: A course taught at Rotterdam School of Management as part of this project helped to sensitise people working in the finance industry to the needs and concerns of entrepreneurs and firms in industries looking to transition to more circular ways of working.

3. The Challenges of Funding and Governing Transdisciplinary Research: Synthesising Tensions from ACCEZ's Experience

ACCEZ's ambitions to create transformative and systemic impact bring it into sharp contrast with existing cultures, practices, and structures. Its experience reveals several tensions that can arise when funding and governing transdisciplinary research. The following section explores some of these tensions in closer detail, using examples from ACCEZ's work. These examples aim to show how these tensions were encountered by ACCEZ in practice, without diving too deep in what ACCEZ did to navigate the tensions. This will be part of chapter 4 on insights. It should be noted that tensions are here framed as inevitable and useful phenomena from which important learnings emerge, rather than something negative to be avoided. That ACCEZ experienced tensions should be seen as a natural consequence of its efforts to do things differently, and a positive, or at least generative, second-order outcome of its work.

Tension (between)	Guiding Question
Emergent Design & Accountability	How can transdisciplinary research programmes maintain a commitment to emergent design, whilst maintaining a critical level of compatibility with the traditional means and cultures of accountability that seek to regulate the risk of programmes and projects diverting from their mandated purposes?
Emergent Design & Codification	How can an emergent, reflexive, continuously evolving organisation be codified without jeopardising its flexibility? What is the need for codification when frameworks and ways of working quickly become outdated in light of new learnings?
Top-down & Bottom-up Learning	How can lessons be integrated both in a top-down (from programme to project) and a bottom-up (from project to programme) manner?
Contrasting Logics & Collaboration	How can the contrasting logics of different parties across and beyond the triple helix be navigated to ensure productive collaboration?
Inclusion & Momentum	How can transdisciplinary research projects balance the advantages of a diverse consortium of actors whilst ensuring that the size and complexity of a team doesn't inhibit momentum being built toward its goals?
Steering & Critical Distance	How should the respective merits and risks of the approach of the engaged, co-creative funder and that of the impartial, bureaucratic funder, be balanced to facilitate

	transformative impact in programmes like ACCEZ?
Commitment & Continuity	How can the reliance on the individual commitments of stakeholders be navigated to ensure continuity?

Figure 5: An overview of tension in transdisciplinary research

Emergent Design & Accountability

Putting into practice the experimentalism, reflexivity and agility that system innovations require can challenge established cultures of accountability. By continually responding to insights generated along the way, a programme team might decide to adopt new ways of working or new criteria of success, which diverge from its supervisor’s or funder’s prior expectations. These expectations, often expressed in the form of fixed targets for desired results, can then be rendered inappropriate or irrelevant by those adaptations. Supervisors and funders may be left confused and frustrated with no immediately clear means to benchmark and assess the programme’s impact or return on investment, undermining its perceived quality. How can transdisciplinary research programmes maintain a commitment to emergent design, whilst maintaining a critical level of compatibility with the traditional means and cultures of accountability that seek to regulate the risk of programmes and projects excessively diverting from their mandated purposes?

ACCEZ has experienced pressure from the Province to conform to established accountability measures since its inception. But following a reassignment of the Province staff member responsible for direct supervision of the programme, the pressure increased. The Province expected ACCEZ to account for the extent to which its activities had contributed to achieving the circular economy transition policy objectives that had provided the context and legitimacy for the programme’s approval in the first instance. Some staff in the Province were critical of how ACCEZ had broadened its scope from circular economy in South Holland explicitly, to sustainability more widely, as it was not clear to them how ACCEZ’s newer scope could honour its older commitments.

At the project level, there have been instances in which initial conditions for project funding stipulated by the programme were abandoned when it became clear that they could not be met. For example, funding for the Waarde van Water project was extended into a second phase, despite the project not meeting requirements to have secured a certain amount of co-funding at that time. Rather than definitively stopping the project, the programme team emphasised the project’s transformative potential, and lowered its co-funding requirement.

This can be argued to demonstrate ACCEZ's commitment to constructive and collaborative working, and to suggest that the conditions initially stipulated for continued funding may not have been sufficient indicators of the project's transformative value. However, it may also suggest a biased form of accountability, where the critical distance that could allow the programme team to enforce its standards was compromised (see also 'Steering & Critical Distance' for further discussion on this challenge). It is worth noting, however, that it was subsequently reported to be likely that the Waarde van Water project will, through its very continuation, go on to secure the co-funding that was originally stipulated, giving further weight to the argument that ACCEZ's decision to repeal earlier requirement was an instance of sound emergent strategy.

Emergent Design & Codification

Linked to tensions concerning accountability are tensions concerning codification, by which we mean the creation of enduring documentation that articulates how the programme works, especially with a view to enabling the replication of its more innovative aspects. Codification is valuable for making an organisation transparent, giving team members and collaborators a better 'grip' (*houvast*) on working principles, and making the lessons learnt and the knowledge developed through the experience of a programme communicable and accessible to a wider audience. Customarily, programmes will have relatively static documents laying down their purpose, ways of working, assessment criteria, internal roles and responsibilities, etc. However, for a continuously evolving programme pursuing an emergent strategy, codification poses a challenge. How can ways of working that are so constantly evolving be usefully codified, when by the time it is made available to people, it may no longer be representative?

Given its commitment to continual reflection and adaptation, many of ACCEZ's ways of working have not been consistently captured in documents, but rather live intangibly within the people that work in and with ACCEZ. On the one hand, this enables the knowledge to be activated and conveyed in more immediate, context-appropriate, interactive formats, but also renders it liable to the transience of the staff that hold it, such that when they leave the programme, the knowledge can leave with them, if no other people, no documents, and no enduring protocols has enshrined it (see also 'Commitment & Continuity' for further discussion on this challenge).

Though the programme team has produced several written versions of the framework it uses to assess whether to fund a project, for example, or of the rubric of questions it poses to projects to monitor and evaluate them, none of these are integrated into a comprehensive or definitive account,

and each of them is now partially outdated. Not being tied down to any particular way of evaluating projects has allowed, for example, innovative forms of monitoring and evaluation to emerge, such as through reflexive dialogues, as was done in the Duin- en Bollenstreek project. At the same time, the lack of comprehensive and stable, consistent frameworks makes the considerations behind ACCEZ's budget allocation less transparent, and makes it more difficult for would-be applicants to know what is expected of them.

At times, there has been external support for codification processes. For instance, during a strategic repositioning of ACCEZ, an external organisation helped ACCEZ redefine its goals and narrative. This process motivated ACCEZ to lay down seven guiding principles of its work (see Figure 6 below). These are seen by ACCEZ as a valuable way of codifying its work because they are easily communicable and broad enough to leave room for emergent dynamics.

ACCEZ's Approach & 7 Principles

ACCEZ offers organisations a way of working that guarantees lasting renewal and relates this approach to the well-being of people and planet. ACCEZ does this:

- with entrepreneurs, researchers, and governments;
- transdisciplinarity;
- with an area-specific approach;
- by starting with questions from practice;
- by centering end-users;
- by offering concrete action perspectives.

This approach is guided by seven principles:

1. Resistance has value
2. Invest in collaborative research process
3. Show courage and vulnerability
4. Safe space for open exchange
5. Diversity is the raw material for renewal
6. Realising transitions requires influence on the system
7. Small, irreversible successes amount to big results

Figure 6: ACCEZ's way of working and seven guiding principles, formulated in 2022

Top-down & Bottom-up Learning

In a system innovation, new ways of working and organising can emerge at different scales simultaneously. Processes of experimentation, reflection, and learning both on the programme level and in the projects themselves. The programme needs to learn from experiences in projects, and ensure its strategic decisions reflect the insights gleaned. To maximise the impact of collective learnings, it is important that they are integrated into new and running projects. However, because of the parallel innovation on project and programme level, it can be more challenging to integrate learnings in both directions. How can lessons be integrated both in a top-down and a bottom-up manner?

In ACCEZ we have seen that insights gleaned from the project level don't always translate into strategy at the programme level and that decisions taken at the programme level do not always translate into actions at the project level. In the Duin en Bollenstreek project, a new method for impact evaluation using reflexive dialogues was used, which was considered a meaningful tool by ACCEZ. However, this tool was not incorporated into general practice for other projects, as the Waarde van Water project, which was evaluated shortly after, did not make use of this tool. Insights from the programme levels, such as reflections on the assessment framework and impact evaluation criteria were not structurally applied in the projects.

Contrasting Logics & Collaboration

ACCEZ aims to enable lasting transdisciplinary collaborations across and beyond the triple helix, between researchers, entrepreneurs, policy-makers, and other stakeholder groups. However, collaborative efforts in this context can quickly expose hard-to-reconcile differences between the various parties. Entrepreneurs, policy makers, and researchers differ greatly from each other in terms of their motivations, assumptions, expectations, needs, paces, vocabularies, and working cultures. They are typically embedded in distinct institutional environments, governed by distinct logics, e.g. for-profit and not-for-profit, or public and private. Often, these differing approaches directly contradict each other, posing challenges to productive collaboration. How can the contrasting logics of different parties across and beyond the triple helix be navigated to ensure productive collaboration?

Policy makers, such as those within the PZH, often come with a more managerial and bureaucratic mindset, that includes a focus on the predictable, linear pursuit of policy goals and targets. The economic context of entrepreneurs, on the other hand, demands that they focus on finding efficient solutions regardless of externalities, eliciting the business case, and attending to profit margins to maximise profits. In universities, researchers climb the ladder through publications, prioritise scientific

robustness and empiricism, and work enclosed within disciplinary boundaries.

In ACCEZ's Waarde van Water project, the difference between entrepreneurs and researchers became apparent when the first phase concluded that surface water ("oppervlaktewater") could only provide partial solutions to the water demand of entrepreneurs. Though researchers were set on continuing the project, developing governance arrangements and further exploring surface water scenarios, some entrepreneurs did not see the value in doing so, considering that any results would not provide a comprehensive solution to their particular needs. It was later reported that this seemingly irreconcilable difference in agendas could have been solved with a minor reframing, whereby the inclusion of surface water in areas beyond the initial geographical remit of the project, and of underground water stores, could have led to a viable solution for entrepreneurs.

Inclusion & Momentum

Differences between actors can complicate the governance of a project, yet the strength of a transdisciplinary intervention relies a great deal on the diversity of its consortium, where the more representative the range of perspectives and experiences at the table, the more balanced, realistic, just, and actionable that interactions can be. But empowering so many people to have a say and a role in a single project environment can also potentially water down the perspectives of each party beyond the point of meaningful contributions, impede responsive and decisive action, slow momentum, and even prevent a project from getting off the ground entirely. How can transdisciplinary research projects balance the advantages of a diverse consortium of actors whilst ensuring that the size and complexity of a team doesn't inhibit momentum being built toward its goals?

One instance in which this problem was encountered by ACCEZ was in the Waarde van Water project, when initial broad consultation led to a stagnation in the momentum. A smaller group of researchers then decided to take the initiative to get the project started by organising more targeted interviews with stakeholders, reporting back to –rather than fully co-creating with– a broader consortium. However, further along in the project, lack of inclusion became an issue, when the expectations of entrepreneurs mismatched those of researchers and support for the project dwindled.

Steering & Critical Distance

Granting public funds to non-governmental parties often implies strict protocols for maximising impartiality. But these formalities can often

isolate funding programmes from those parties, constraining the development of the kinds of close relationships that, while subject to biasing or even nepotistic effects, can also lend themselves to more integrated and co-creative project development processes, to more targeted and therefore more readily fundable project proposals, and ultimately to more productive partnerships across the rest of a project's life-cycle. ACCEZ sought to deliberately harness these benefits, actively nurturing relationships from which proposals could emerge collaboratively, rather than maintaining a critical distance and staying neutral.

How should the respective merits and risks of each approach, that of the engaged, co-creative funder and that of the impartial, bureaucratic funder, be balanced to facilitate transformative impact in programmes like ACCEZ? How can a funder maintain critical distance for assessing the feasibility, success, or potential of a project, when the funder is actively involved with its project partners in shaping the project?

Over time, ACCEZ has become more closely involved in the projects that it funds. What might in more bureaucratic contexts be framed as a 'project manager' role is referred to within ACCEZ as a 'project accelerator', precisely to reflect their especially active and supporting involvement. Projects are typically initiated sandpit-style, whereby ACCEZ's own networking and scoping activities inform which parties will start formulating a project proposal. Accelerators then taken up more prominent roles accompanying proposal development than can be typically seen in traditional funding programmes. Proposals are ultimately approved or denied by the ACCEZ board, but the board's decisions are informed by the professional opinions contributed by the programme team. While the programme team had initially planned to recruit an independent expert panel to review all proposals and advise the board in their decisions, these plans were scrapped in favour of a less bureaucratic approach. As such, the same people are at least partially responsible for initiating, designing, steering, approving, and evaluating ACCEZ's projects, for helping both to solicit and to administer the funds available. In these instances, greater emphasis on diligent impartiality protocol is presumed to undermine transformative potential, and co-creative grantor-grantee relationships are posited to require alternatives to standard checks and balances.

Commitment & Continuity

Transdisciplinary research asks a lot of researchers and other stakeholders. It requires them to step into uncharted territory where there is a lot of uncertainty, working on projects that call into question their regular ways of working and of validating their work, and might not guarantee them the customary outputs or rewards and recognitions for accomplishment (eg: publications, new business opportunities, specific policy goals reached

within specific timeframes, etc.). Navigating such difficult terrain can require sensitivities, capacities, motivations, and job securities that not all stakeholders have. Therefore, transdisciplinary research projects may lean on relatively few committed individuals, and their openness to, or capacity for these new ways of working, from which the project cannot be depersonalised. The reliance on individuals can pose a threat to the continuity of projects, for example when a key figure withdraws. How can the reliance on the particular profiles and commitments of individual stakeholders be navigated to ensure continuity?

On the programme level, continuity was hampered by ACCEZ's ambiguous governance, being on the one hand partially independent of the Province and overseen by an external board, and on the other, being embedded within the PZH and subject to its discretionary supervision. When the key figures within PZH who were tasked with this discretionary supervision changed, ACCEZ's vulnerability to the risk of opposing interests between these two governance mechanisms was laid bare. Where PZH supervisors had previously been strong advocates of ACCEZ's unconventional methods, their successors set their expectations in more managerial terms, and were less familiar with the experimental approach to impact that ACCEZ sought to champion. In its reliance on the particular sensitivities and preferences of individuals, the ACCEZ team's ability to operate consistently through time was challenged.

This tension was also encountered in a different way by ACCEZ during the Waarde van Water project, when the efficacy of the project team struggled to recuperate from the departure of a project lead who was seen as the "mother figure of the project" -- a trusted and capable leader that could not be easily replaced.

4. How Should Transdisciplinary Research be Funded and Governed? Extracting Insights from ACCEZ's Experience

Collaboratively reflecting on the critical turning points as described in the innovation histories (see Annex 2), the tensions, and lessons learnt of ACCEZ has produced a number of insights for answering our research question of how to govern and fund transdisciplinary research with transformative impact. The insights are not directly linked to the tensions above, though they do reflect on what ACCEZ has done to navigate these tensions. The insights are based on our understanding of ACCEZ's experience as well as ACCEZ's own learnings and are in that sense inductive as well as somewhat contingent to ACCEZ's particular situation. Still, insights from ACCEZ's experience may be relevant for understanding how to fund and govern transdisciplinary research more broadly. In this

way they are valuable for funders of transdisciplinary research, those running a transdisciplinary research programme, and those involved in the projects of such a transdisciplinary research programme.

The following section contains an overview and short description of seven main insights, in no particular order:

1. Invest in the pre-project phase
2. Invest in (iteratively) building relations with actors and across them
3. Create a project structure that supports collaboration and increases impact
4. Formalise and fund iterative reflection and learning processes
5. Provide an alternative form of accountability and link this with the formal accountability process
6. Help supervisors/funders understand your work
7. Formalise ways to protect against groupthink, bias, or nepotism

Invest in the pre-project phase

The first insight is that to amplify a project's transformative impact, it is crucial that the support of a broad consortium of stakeholders is gathered and that this consortium is included in formulating the knowledge questions to ensure stakeholders' ownership of the project as well as the project's direct connection to practice. Getting parties from different sectors and different institutional logics to speak the same language and develop a common understanding of the transition task at hand takes time and effort.

One way to formalise the pre-project phase can be to take it up as a concrete design phase which is separately budgeted for. In this phase, the process, stakeholder consortium, knowledge questions, and envisioned outputs can be co-designed. This phase results in a full project proposal, which upon successful evaluation, can result in the actual implementation of the proposal. Depending on who takes the lead in the pre-project phase, one or the other institutional logic might prevail. Therefore, it is important to reflect on what should be the skillset and institutional embeddedness of the pre-project lead, whether this role is best taken up by a researcher or perhaps more of a knowledge or partnership broker, whether it should be carried out by ACCEZ or a third party. Indeed, in the second phase of Waarde van Water, it was reported that having someone with a relatively outsider perspective helped integrate different needs and foci.

ACCEZ's experimentation with a similar approach has shown that this can work. In the Glastuinbouw project, and to a lesser extent, in the Waarde van water and Duin and Bollenstreek projects too, ACCEZ dedicated specific time and budget to a design phase, in which the process,

governance, relevant stakeholders, and knowledge questions were explored before any technical researchers were onboarded. This resulted in a highly committed consortium of stakeholders contributing considerable co-funding to the project.

Invest in (iteratively) building relations with actors and across them

The second insight is that building new and lasting relationships across organisations and sectors is critical for transformative sustainability transitions. The success of transdisciplinary research projects relies on the strength of the relations between the specific parties involved. Within the context of a transition challenge, there can be tensions between different stakeholders who are practically and ideologically far removed from each other. Building relations across such differences throughout all project phases is crucial for creating a productive collaboration that propels a project forward and that can last beyond the project's duration. This requires targeted efforts and funding.

It requires active efforts from project/programme leads to bring together diverse actors and focus their attention not only on the operational aspects of the transition challenge at hand but also on the barriers and opportunities for their collaboration on this challenge. This includes speaking to more existential, value-based questions that underlie transition challenges.

Through their experience, ACCEZ has learnt the importance of a more effective approach to navigating the resistances that exist against collaboration and transition. ACCEZ has been able to surface these underlying tensions in various ways, for example by gamifying transition dynamics in the form of serious games, which have allowed actors to address loaded questions in a less risky manner; by engaging in the co-development of future scenarios; and by embarking on learning journeys based on Theory U, a framework developed by the Presencing Institute.

Create a project structure that supports collaboration and increases impact

The third insight is that transdisciplinary collaboration and transformative impact do not happen self-evidently or overnight. Most researchers and practitioners are not used to working in transdisciplinary and transformative ways and without structural safekeeps they easily revert to disciplinary or professional divides. Therefore, transdisciplinarity and transformative impact demand project structures that are specifically designed for them.

ACCEZ experience has shown that stakeholder management should be at the heart of project design, being allocated specific funds and staff for planning and carrying out stakeholder engagement. Creating shared goals and products, for instance by having work packages shared between universities, is another way to ensure transdisciplinary collaboration. We have seen that in ACCEZ's projects where this was not the case, research efforts became more disjointed, and the project lost its collective strength.

Collaboration also requires that actors are actively committed to the project. The commitment of entrepreneurs is especially crucial for the transformative impact of the kind of transdisciplinary research projects that ACCEZ envisioned. However, entrepreneurs can be hesitant to commit to activities with uncertain outcomes. There are several ways in which commitment can be formalised and ACCEZ has tried to use co-funding as a tool for this. Requiring co-funding from stakeholders might be tricky, given the caution of entrepreneurs, as well as the lack of resources available to NGOs or smaller entrepreneurs who tend to work innovatively at the margins, or are the voice of underrepresented stakeholders (i.e. nature, specific communities). In one of ACCEZ's projects co-funding was gathered by producing smaller intermediate knowledge deliverables that answered specific questions of entrepreneurs (these were called KICK vouchers). This instrument allowed parties to contribute to parts of the project that had more immediate benefit to them. It lowered the threshold for co-funding and showed to be an effective means to (at least partially) involve third parties in the (co-funding of the) project.

Though experimentation, co-creation, and emergent design are crucial elements of transdisciplinary research, it is important to establish a certain degree of 'project hygiene'. This entails having effective streams of information through your project/programme, having well-organised internal files, communicating regularly between staff, having a shared planning and agenda for managing projects, and having clear roles and responsibilities, among other things. ACCEZ's experience shows that no matter how experimental the programme, basic project management activities still matter to ensure transdisciplinary collaboration and transformative impact.

Formalise and fund iterative reflection and learning process

The fourth insight is that transdisciplinary research requires continuous learning by doing through experimentation, reflection, and continuously incorporating learnings. Funding and governing transdisciplinary research in transdisciplinary collaborations means entering uncharted territory:

current institutional structures, professional skills, and cultures simply do not support this type of work. Therefore, it is important to formalise the learning process, incorporating it as a key activity of the programme, by allocating structural funds and staff to reflect on lessons learnt and report on these both internally and externally. It is also important to connect with the long-established and rapidly growing communities, networks, and ecosystems of actors interested in transdisciplinary research, both to leverage the learnings that they have already synthesised through their previous work and made available to others, as well as to make any new learnings available for those actors in return.

In ACCEZ, we have seen that the learning curve in (funding) transdisciplinary research is steep: processes and activities get altered regularly based on new insights. The innovative character of their work lies in the many trials, errors, and learnings that they have gone through. Formalising the process of reflecting on such experimentation, for instance by a reflexive monitoring approach or a dynamic learning agenda, can provide a way to maximise the reflexive innovation of the programme as well as to communicate those learnings to a wider audience.

Provide an alternative form of accountability and link this with the formal accountability process

The fifth insight is that doing and/or funding transdisciplinary research within existing accountability structures can be challenging. The logic of accounting currently applied by funders cannot always account for the transformative value of transdisciplinary research. Yet, working within existing institutional structures also means being forced into some degree of accountability to them. Therefore, it is important to create room for redefining accountability and linking this to the more established formats. This also means “playing a double game”, in which you build legitimacy by accounting for activities in more established formats, such as spreadsheets (at least to a basic extent), while also providing alternative ways of accounting more suited to the transformative nature of the programme’s activities.

To give legitimacy, while being innovative and iterative at the same time, it is important to formulate a clear concept of what accountability is for the transdisciplinary programme or project and how such accountability will be taken. Even though this concept may deviate from the usual standards, it must be clear, transparent and activities must be consistent with it so that overseers can be taken along in the reasoning behind it. Redefining accountability can also mean diluting commitments in project designs to anticipate potential changes later on.

ACCEZ has tried different ways to communicate their value to the Province, some of which have been more in line with the Province's standard methods than others. ACCEZ has constructed its own terms for accountability by developing seven broad principles to describe its way of working (see Figure 6). This has created a way for them to set up their own framing for what they are accountable to, while still allowing themselves room to experiment. At the same time, ACCEZ has also benefited from the external legitimacy which it was awarded by the consultancy firm KWINK (2022), which was hired by the Province to review ACCEZ. KWINK concluded that ACCEZ made valuable contributions to the policy goals of the Province and that ACCEZ's value was underutilised

Help supervisors/funders understand your work

The sixth insight is that part of doing innovative work within an environment that is not conducive to experimentation is attentively and empathetically navigating different institutional logics. It can be frustrating to experience institutional push backs against the work you are doing, and it is true that institutional conservatism remains a major barrier to transdisciplinary research. This may lead to tensions between those that are doing the innovative work and those that fund/supervise their activities. Relieving this tension is essential to ensure productive collaboration and it requires an understanding of each other's contexts that goes both ways.

As an innovator who works within the fringes of the system but who also aims to transform that very system, it is important to accompany funders/supervisors in understanding the work that you are doing. Funders/supervisors themselves often also work within cultures with legal and technical barriers that make innovation difficult, making them cautious of your new methods. Communicating with them not only about the activities and why but also about the dilemmas faced in carrying them out may create a greater sense of mutual understanding. Being transparent about the difficult choices of transformative work can make others part of the experiment' rather than externalise them from the work. Innovating a system that you are part of requires more work in taking people along in the new logic, especially when this new logic contradicts the dominant logic of the system you aim to transform.

Formalise ways to protect against groupthink, bias, or nepotism

The seventh insight is that being an active player in initiating and shaping the research projects that you also evaluate and fund carries a risk of groupthink, bias, or nepotism. It is important to preemptively set up a formal and consistent way of insulating an organisation against the

influence of such dynamics, to prevent (allegations of) the misuse of public funds. Whatever works –whether this be a code of ethics, an external advisory board, or other forms of checks and balances– there must be some way to explain how the risk of groupthink, bias, or nepotism has been avoided.

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6. Annexes

Annex 1: About DIT

The Design Impact Transition (DIT) platform at Erasmus University Rotterdam aims to transform the university by empowering radically new ways to do research, education and engagement for a just and sustainable future.

As a platform, we bring together academics, students, non-academic staff and external stakeholders around complex and persistent societal challenges. We aim at building a strong and engaged community and a collaborative, experimental and design-based culture of transdisciplinarity. DIT is in the heart of the EUR Strategy, living the [Erasmian values](#) of global citizenship, social commitment, an open and critical mind-set, cooperation and entrepreneurial spirit.

Our team consists of dedicated Erasmians that work on building the DIT platform and transforming the university from the ground up. The core team consists of three quartermasters, an organisational and an academic lead, complemented by affiliated academics from different Schools and Institutes. You can always contact the core team if you have questions, remarks or if you want to contribute to the platform. For more information and contact details, please visit our [website](#).

Annex 2: Innovation Histories

Programme Level Innovation History

2017: From professorship to collaborative knowledge development

Against the backdrop of increasing attention to the transition towards a circular economy in business, society, and academia, and the governmental program “Nederland Circulair 2015”, the Province of South Holland reserves funds to invest in a “smarter, cleaner, and stronger South Holland.” It recognizes that businesses who are working on circular transitions experience various institutional, legal, economic, societal, and technological obstacles. Whilst the wide range of academic disciplines represented in the province’s knowledge institutions provide insights into how to overcome obstacles in practice, the potential of South Holland’s unique composition of academic disciplines is underutilized.

Initially it was proposed that the funds available for circular economy research should be used to create a chair or research position at one of the Province's universities, as is the typical approach. But then the program designers decided to consult the four universities, to ask 'what was needed' in terms of knowledge creation, and the model behind ACCEZ emerged as

a result, and was successfully proposed as an alternative use of the funds. Instead of a single chair, there was to be a cooperation agreement between universities and relevant stakeholders, funded with 5 million euros by the Province. This approach was visionary, as it broke with the typical method of creating a professorship or procuring services from an outside organization.

2018: From managerial program set-up to creating room for experimentation

The new cooperation under the name ACCEZ is signed into being on April 5th, 2018, by the universities of Leiden, Erasmus, Delft, and Wageningen, and employers' federation VNO-NCW South Holland. Instead of having project managers reporting to the board, which was envisioned earlier, the ACCEZ program attracts an external director who is tasked with overseeing and steering its activities. The new director, Judith, leverages the freedom of her role to reshape the governance approach of the program. Though the initial proposal of the province had been visionary, under the pressure of Province protocol, the program set-up had become more managerial in nature, leaving less room for experimentation and emergence. With Judith as director, ACCEZ was redesigned to be more in line with earlier visions. This redesign included the introduction of the 'accelerator' role, adding a dimension of technical support, where projects were previously envisioned as consisting only of an offer of funds.

2018: Establishing an assessment framework and process for project proposals

In its first year, the founding partners and ACCEZ team members collaborate on determining the mission, goals, strategies, activities, and products of the program. They set out a plan for developing a multi-annual strategy along three strategy lines: transition tasks, knowledge sharing and dissemination, and sustainable anchoring of triple-helix collaborations. In this, ACCEZ also acknowledges the importance of clear and transparent working methods and assessment frameworks. The role and composition of the Advisory Board is determined as well as the timeline for its installation. The board consists of experts in circular economy that have an affinity with transdisciplinary research. They offer strategic and content-related advice on directions taken by ACCEZ in general, as well as specific advice on the assessment of project proposals. A workflow is created describing the stages of a project and the responsibilities of each actor in the process. ACCEZ drafts a first version of an assessment framework for project proposals, deciding on a set of guiding principles that a project must comply with: removing barrier to circular transition; clear academic contribution possible; different sectors are represented; complimentary to other efforts on the same topic; added value to existing

knowledge development. These are supplemented with specific criteria regarding a project's scope, potential, and contribution.

2019: Refining the assessment (or project development?) process: From external advice by an Advisory Board to close involvement of accelerators in proposal development

Over the next year, the project workflow is filled in with more detailed descriptions of tasks and responsibilities. During its reflection on this project workflow, ACCEZ' Board finds that the envisioned role of the Advisory Board in reflecting on the content-related and strategic aspects of the project is excessive given the close involvement of the accelerator in developing the project and its proposal. It agrees to halt ACCEZ's plan to install an Advisory Board and continue without one.

2019: Refining the assessment framework: adding thematic and geographical criteria

Following a request of the board in 2018, thematic and geographical criteria are developed for the assessment of projects: ACCEZ decides to focus on projects concerning Biomass and Food, Built environment, and Plastics, within the geographies of urban areas, rural areas, port areas, and greenhouse horticulture. From an analysis of the successes of ACCEZ so far and the strategic choices ahead, the decision is made to sharpen the thematic focus of ACCEZ projects to only Built Environment, and Biomass and Food. A 3rd accelerator is added to the project to focus on developing a sustainable knowledge infrastructure (3rd strategic line). Towards the end of the year the assessment framework is simplified, and criteria are specified for each strategic line of ACCEZ. The board agrees to these short bullet points as assessment and evaluation criteria, emphasizing that the assessment framework is a work in progress, to be added to along the way.

2020: The introduction of 'small wins' framework as an understanding of project success

Inspired by the management chair of WUR and their analysis of the transition management of the Infrastructure and Water Management, ACCEZ adopts the "small wins" framework as a way to evaluate potential and success in projects, the team reflects on what lessons can be taken from the framework, translating them into critical questions for the evaluation of projects. The framework also provides insights for the role of the board and ACCEZ team members in targeting "small wins" in the program.

2020: From circularity within the Province to sustainability around the Province

2020 also marks a year of strategic repositioning for ACCEZ. Partly as a result of the establishment of the task force Circulair Zuid Holland (CZH), and upon reflection of their successes so far, ACCEZ decides to reposition itself with a broader focus thematically and geographically, removing explicit reference to both 'circularity' per se, and to Zuid Holland as a strict regional focus. Though the Province willingly permitted this shift as it happened, tensions arose when provincial supervision was changed, partly because the broader focus made it more difficult to explain ACCEZ's concrete contributions to the policy goals of the province.

2021: Repositioning programme governance: from providing funds towards active steering and connecting of projects

2021 marks a pivotal year for ACCEZ as it reflects on its mid-term review. The initial strategy for ACCEZ was to fund 5 big, hands-off projects, following more traditional funding dynamics. However, the mid-term review reveals that projects have not been progressing as anticipated, and that ACCEZ needs to play a more proactive role, to act with 'more skin in the game', to design projects with more specific and more monitorable briefs, and to try and create a sense of community among all participants. This means shrinking the scope and budgets of projects, thus enabling the existing funds to be deployed to a larger total number of projects (from 5 to 10), which in turn provides the program team with increased opportunities to hone their process. As such, this is accompanied by the realisation that the real 'deliverable' of ACCEZ is the process itself and the guiding principles and ways of working that can be derived from it: active steering, continuous contact, and close monitoring of each intervention -- a new and innovative way to use government funding for research. So, rather than issue university partners with funding for a total of (approx.) 5 large projects with the €3m cash budget earmarked for interventions (remaining after €2m was earmarked for operations and overheads), the ACCEZ program team decides that smaller projects should be funded. Though this realisation had already begun dawning as early as 2020, the mid-term review cements this insight and results in concrete change to program strategy.

2021: Planning for the future: From a temporary impulse for knowledge development to prolonged engagement for knowledge impact

The ACCEZ team and board agree that the ACCEZ program is only in its beginning stages, and that now is the time to double down on its efforts and keep going. The team develops a vision for the future of ACCEZ, beyond its planned end in 2023. Judith presents this vision for 2023-2028 to the board at the end of the year. The vision contains a summary of ACCEZ' strengths: its strength to transform, realise, and guide the cooperations within the triple-helix of South Holland. ACCEZ' strategy is envisioned to

consist of two parts: the research program, and the impact program. The latter is added to satisfy the growing demand for active support from ACCEZ in ensuring the sustainability of knowledge impacts from projects. The impact program dedicates human and other resources to set up impact activities before, during, and after a project's duration. In the budget for 2022, funds will be allocated to this impact program already.

The vision for the future also proposes to set up a meta-program as part of its research efforts, creating a database of ACCEZ's developments, learnings, and impacts making them communicable and transferable, and setting up reflexive monitoring.

The vision necessitates an upscaling of ACCEZ finances from 10 to 25 million euros as well as increased contributions from third parties. ACCEZ will still be providing the basic funding for projects, but co-financing must create a greater multiplier.

The board, however, is critical of the separation made between impact activities and research projects. Impact should always be integrated into ACCEZ research activities – it should be the starting point.

2022: From knowledge development to explicitly putting impact first in practice

The dialogues with the board about putting impact first have direct consequences for the working methods and procedures of the program. In order to make an impact it is necessary to spend more time in the start-up phase to formulate the innovation needs, forming a consortium, and defining the challenge and potential researches. The structure of projects is changed by putting impact central, focussing efforts in the first phase of projects on design research shaping the process of the project, to be supplemented by more technical research in a second phase. These phases could be split up in terms of their approval and funding. Ultimately, this development means ACCEZ is more actively involved in projects, focussing its efforts on developing processes and methodologies, rather than merely acting as an external funder to research projects.

2022: Adapting messaging/communication to the shifts in program strategy

The shift in program strategy is translated to a repositioning of ACCEZ through communications as offering a distinct approach to knowledge creation, not just a mechanism to fund traditional research. Previously ACCEZ had communicated to some extent that there would be multilateral exchanges between the collaborating parties, but its activities were generally perceived as one-way encounters, as if ACCEZ were providing funds to enable academics to conduct research on a specific

circular economy challenge. Messaging is adapted here to better reflect the importance and generalizability of ACCEZ's more collective approach: bringing parties together to uncover the barriers they were facing in engaging with transitions and co-create new knowledge about how to address them. Despite the importance of adapting the approach to specific contexts, its wide applicability beyond circularity and even beyond 'triple helix' partnerships makes this a central part of ACCEZ's offering or value.

Following a request from the board, the ACCEZ team develops a financial plan of action, laying out the expected sources of funding in 2023-2028 and the necessary steps towards soliciting them. ACCEZ plans to gradually grow into a program of 25 million euros by attracting co-funding for ACCEZ as an organisation for instance through ESG investment, but also co-funding based on ACCEZ' themes for investors interested in insights in future green returns on investments. The already existing co-funding efforts for projects are to be extended, for instance by further implementing the KICK-voucher approach as developed in Duin en Bollenstreek.

2022: External validation by KWINK increases internal legitimacy at the Province

In the same year, KWINK produces report evaluating ACCEZ's contributions to provincial policy goal implementation. In it they include reflections on ACCEZ's governance and funding arrangements and come with a set of recommendations for ACCEZ. KWINK's evaluation helps previously sceptical Province officials see the value in ACCEZ's approach. Where previously they had struggled to see the impact or relevance of the program's divergence from typical approaches to the execution of transition dossiers, they now recognise ACCEZ as a 'motor for new ways of working.' Closer collaborators were already seeing the benefits of the approach, but the KWINK's external and more objective conclusions help province officials realise they haven't been profiting as extensively as they might have done from the experiences accumulated through ACCEZ's emphasis on co-creation, and as a result more collaborative methods are now being applied across other transition dossiers. These developments reassure the Province support of ACCEZ.

2023: Declaration of intent as first step towards future activities

Entering its final year according to the original cooperation agreement, ACCEZ manages to gather support for its own extension. The founding parties sign a declaration agreement showing their commitment to extending the ACCEZ program until 2028. The declaration of intent also includes the intent of parties to match the funding contributions set out in the original agreement, with the amendment that the tariffs for

knowledge institutions are to be indexed annually and that additional funding is to be gained from the business sector, increasing ACCEZ's multiplier in projects.

Waarde van Water Innovation History

The Kringlooptuinbouw: de Waarde van Water project is a 3-year long running project concerned with questions of water management in Greenport West-Holland. It brings together greenhouse horticulturalists, policy makers, and researchers through a “coalition of the willing”, partners in the region that are committed to collaborating with researchers on this project. The aim of their collaboration is to explore whether and how surface water can play a role in buffering rainwater and water supply for greenhouse horticulture in Greenport West-Holland. This involves research into hydrological, technical, organisational (social and governance) and economic possibilities. It also means looking at the various functions and users of the water. The company (and surroundings) of Duijvestijn Tomaten is used as a practical case within this project. A second question of the project is how city and country can be more connected. For example, does a surplus of water in the urban environment offer opportunities to meet the shortage of water in horticulture and vice versa? Can surpluses (winter) in the greenhouse area be met elsewhere?

The project consists of two phases. The first is an exploratory phase focusing on scoping the water demand, availability, and quality in greenhouse horticulture in the Greenport, exploring the use of surface water as a possible storage of water for horticulturalists, and developing governance arrangements for collective water management. The second phase consists of a serious game, bringing stakeholders together in a risk-free way to discuss scenarios for water management so that resistances can be brought to the table, and paths towards solutions can be co-designed.

ACCEZ recognizes that the horticulture in South-Holland is an important sector in the transition to a circular economy. For this reason, the ACCEZ team has exploratory conversations with entrepreneurs, policy makers, and researchers in Greenport West-Holland. The challenges and opportunities surrounding the topic of water are a recurring theme; the idea to develop a project on water in horticulture emerges.

2019: From broad consultation to smaller team creating momentum

To initiate this process, Greenport and ACCEZ organize a meeting on the topic of water in horticulture with representatives from 20 organizations within the triple-helix of the region. Though the participants express their interest in tackling the question of water collaboratively, there are differences in perspectives, languages, and expectations between them

that hinder the formulation of a concrete plan of action within the one meeting. Reflecting on the relative lack of momentum created by this broad consultation of stakeholders, a small group of initiators decide to take the lead in developing the project. They organize interviews and work sessions to create concrete knowledge questions to form the project idea.

2019: Evaluation of project idea: substantive suggestions from the Board

The project idea submitted to the board of ACCEZ, outlining the transition task at hand and presenting five knowledge questions that have been produced by the consortium. The questions address a wide range of issues related to water, from a more technical inquiry into water use and availability in the Greenport, the question of governance for water management, to broader questions on changing attitudes on the value and use of water. Each question is supplemented with a potential practical case/output. The project idea specifies how the project fits ACCEZ' thematic-strategic assessment framework, highlighting the focus on greenhouse horticulture, the commitment of stakeholders, the co-created knowledge questions, and the balanced representation of triple helix parties in the project. There is no concrete plan of action or budget contained yet in the idea proposal.

The Director of ACCEZ emphasizes the amount of knowledge and expertise available within the network represented in this project and points towards the ways its efforts can be connected to existing projects in horticulture. She advises the Board to accept the project idea and reserve 300k for now, suggesting this could be supplemented with 50k to ensure knowledge dissemination and relevant knowledge activities. The board takes on the Director's advice, though it also has some apprehensions, questions, and suggestions concerning the project: It provides a list of potential additional partners; It cautions ACCEZ and the project team that other regions are doing similar work and that they should be clear on how the project makes use of this; It suggests that the project and its research could be more oriented towards solutions; It asks for attention to the many technical research projects running in the same region, suggesting ACCEZ to focus on the systems level questions; It also inquires about the availability of resources from Greenport to join the project.

2020: Incorporating the Board's advice and making the project concrete

The next half a year, the project team works on making the project more concrete, incorporating the Board's advice, and producing a project plan. The scope of the project is specified in terms of its long and short-term goals; the decision is made to focus efforts in the short-term on exploring the potential of surface water as a buffer for the use of water by

greenhouse horticulture in times of scarcity, with attention to how other water users can contribute to the water supply of horticulture (the “what”), and to which governance arrangements could structure such collaborative water management (the “how”). These short-term inquiries form the basis of the project, though their aims are also to provide new ways of working and “small wins” towards achieving a circular water management system in Greenport West-Holland in the long term. The project is to have both a technical-economic, and a governance-transition line of inquiry.

The project plan presented to the ACCEZ board explicates the project’s refined direction and plan of action. As per the board’s advice, specific attention is paid to the connection of the project to similar initiatives in horticulture. For example, the project team takes the efforts towards circular water management of horticulturalist Duijvesteijn Tomatoes as a starting point for a practical case study in the region.

2020: Additional conditions from ACCEZ: co-funding, project management, and practical relevance

The board accepts the project plan, however it also creates a list of conditions related to the funding, governance, and content of the project that need to be met before the project can start. The project plan contains a rough budgeting of 300k per year, and ACCEZ is willing to provide 300k for the first year only, followed by 150k for the second year, on the condition that this contribution is matched with 150k in co-funding. The board asks the project team to create an annotated budget that conforms to the agreed-to tariffs. In terms of governance, the board demands that the project management is professionalized and that the interdisciplinary collaboration is broadened within the project. Regarding content, the project must strengthen the relevance for practice as well as its connection to education. The board requires that the suggestions are implemented before 13th of March, 2020.

The updated project plan submitted on 18th of March contains a clear outline of the roles and responsibilities of project partners for each of the project’s activities, and a list of three practice-oriented knowledge activities that are supplemented to the original project plan. The first is a water scan for greenhouse horticultural businesses, creating quantified insights on their water flows in collaboration with students from InHolland. The second is an inquiry into the connection between challenges surrounding urbanization and the water question for horticultural companies. This will be explored through the minor Creating Resilient Cities at Hogeschool Rotterdam. The third is the development of a co-created vision for the future of water management in Greenport West-Holland. These activities, though, are budgeted separately from the project proposal. The incorporation of these elements satisfies the requirements from the Board of ACCEZ, and the project is started with a kick-off meeting in June 2020.

2021: Phase one produces disappointing technical results: entrepreneurial commitment shrinks and problems with continuity

The technical analysis of water flows and the availability of surface water produce disappointing results: there is too little surface water available to satisfy the needs of horticultural businesses. Now that the “what” is unsolved, the project loses the active support of some of the entrepreneurial stakeholders. They are of the opinion that if the project cannot solve their water issues, then the project is not relevant to them. Though the researchers are still working on the “how”, producing scenarios for governance arrangements towards collective water management, some of the stakeholders do not see the relevance thereof and have apprehensions about further collaboration.

In the midst of this, project lead Ellen Beerling from WUR leaves the project due to personal reasons. She has been crucial in driving the project forward, bringing actors together, and creating momentum. Because of her unexpected leave, the project experiences issues with continuity. Without its lead and with doubts from stakeholders about the relevance of the project for them, Waarde van Water phase two as a possibility is hanging by a thin thread.

ACCEZ still believes in the governance-transition aspect of the projects, though it emphasizes that the project will need co-funding if it is to continue to a second phase. However, because of the lack of concrete yields that the project can provide to entrepreneurs, the project team does not manage to gather substantial co-funding.

In 2022, the final technical report of phase 1 is finished, presenting the technical and governance-related results of the project. These consist of, on the one hand, calculations on the water requirements of businesses in the area, potential areas for surface water storage, and the amount of water they could theoretically store, which are translated into scenarios, and on the other hand, an overview of different governance arrangements for water management in the Greenport, analyzed through the seven principles of a Common Pool Resourcing (CPR), developed by political economist Elinor Ostrom. The report concludes that there is not one scenario for the storage of surface water for horticulture developed in the project that meets the water demands of the businesses involved, even a combination of scenarios does not easily point towards a solution for the use circular use of water in dry periods. The report points towards the intended second phase to further develop the scenarios, explore the possibilities within their combinations, and work towards implementing them.

2022: Continuing to a different form of phase two: smaller, shorter, and focused on broader questions

For this second phase, the project team submits a proposal to the board. The proposal contains a new plan for this second phase: a co-design process with stakeholders on technical and governance on partial solutions to water challenges through a serious game. In this game, stakeholders will work through different fictional but realistic scenarios with gaming material that represents the actual values of water, money, and space available in the Greenport. Parallel to the serious gaming, the project will also carry out sub-studies iteratively responding to knowledge questions arising from the game. Overall, phase two is broadened in its scope, and reduced in its time span: from one year to half a year. The budget of the project is also reduced from 300k for a whole year to 130k for 7 months, 65k being provided by ACCEZ, and 65k being contributed in-kind by participating parties.

Initially, ACCEZ and its board do not accept this proposal. The most important reason is the lack of co-funding arranged by the project team. ACCEZ reiterates that the intention behind the 150k co-funding requirement was to make the commitment of the parties in the region concrete. This has not been accomplished by the project team. ACCEZ recognizes that in-cash contribution from businesses is not feasible for this project at the moment. Another reason for the rejection of the plan is that the importance of nature organizations for the process is not reflected in their involvement in the plan.

At the same time, ACCEZ also sees the potential of the project, represented by the high quality of the research consortium and serious game, which fits ACCEZ' focus on developing methodologies for impact. Therefore, ACCEZ proposes the project team gets a month to meet a list of conditions, so that the continuation of the project can be reconsidered. These conditions are: formalizing the in-kind contributions of parties, according to a reduced co-funding requirement of 40%. The board of ACCEZ adds to these conditions: there must be more entrepreneurs showing commitment; at least one nature party must participate; participation of institutions (rather than individuals) is made concrete through Letters of Commitment.

The project team has a hard time arranging more concrete commitment from the parties in the region, as they show apprehension about collaborating with each other. In the end, however, the project team manages to satisfy the conditions set by the board. Greenport West-Holland signs a letter of intent committing themselves to organizing a targeted entrepreneurs meeting as well as communicating the results of the project and connecting it to other initiatives. Two nature parties are also included in the plan: the State Forestry (Staatsbosbeheer) and the

Association for Nature and Environmental Protection Pijnacker. The board awards the project 65k for phase two of Waarde van Water.

2022-2023: Focusing on resistance and serious gaming

The project team takes on phase two and starts having individual interviews with keyholders about resistances against the transition to circular water management in the Greenport. A serious game is developed that represents the actual situation of water availability and flows in Greenport yet allows stakeholders to engage with different scenarios from different positions in a risk-free way. The game is found to be quite successful in bringing to the surface deeper, more existential questions and tensions regarding the use of water: In case of drought, who will be allowed to have water? What does that mean for the position of horticulturalists?

Duin en Bollenstreek Innovation History

The Duin- en Bollenstreek project was initiated by prof. Koos Biesmeijer as a follow-up to the Groene Hart project, building on its learnings. Through creating a knowledge basis for the transition to a more circular and nature-inclusive economy in the region, the project strives towards the economic, social, and ecological flourishing of the Duin- en Bollenstreek region. Within the current system, bulb cultivation (economy), natural capital (ecology), and livable region (society) oftentimes affect each other negatively. It is argued that a flourishing region requires a circular system in which economic activity, ecology, and society strengthen each other. To contribute to this transition, the project has found answers to concrete knowledge questions of entrepreneurs by matching urgent knowledge requests to researchers through the KICK-voucher system. More broadly, the project has set up three larger research projects developing a biodiversity monitor, governance arrangements, and a decision-making tool for the Bollenstreek. It has also worked to sustainably anchor its results and methods, for instance by setting up a platform for the facilitation of KICK-vouchers outside of the bounds of the project: Kennis Natuurlijk!

2019: Gathering support for a follow-up on Groene Hart in a new region

The Duin- en Bollenstreek project is initiated in 2019 by Koos Biesmeijer as a follow-up to the Groene Hart project of which he is the head researcher at the time. Rather than continue working in Groene Hart, Koos proposes taking the learnings from the project to a whole new region: the Duin- en Bollenstreek. Koos draws up the start of a project idea and brings together stakeholders from the region, some of which he already knew personally, presenting his plan for a project to them. Koos is met with much support from stakeholders, who are enthusiastic and feel seen by Koos' proposal.

The stakeholders, together with the project initiators agree on three themes that will guide the project: Circular cultivation and Chain (instruments for circular horticulture); Liveable region (governance arrangements); Natural Capital (spatial integration, ecosystems services, economics and Nature). From these themes, the project initiators work collaboratively with stakeholders to formulate the project idea through a workshop and a series of conversations. From the very start, the project is collaborative and participatory in nature, to both the researchers and stakeholders this is seen as innovative.

2020: Evaluating the project idea: strengthen co-funding, transdisciplinary collaboration, and “small wins”

The collaborations result in a detailed project idea which is presented to the board of ACCEZ. It contains a clear description of the transition task at hand, describing how the project contributes to the long-term vision for the region but also pointing out steps in knowledge creation in the short-term. A sketch is made of the research idea with preliminary work package contents and how these will be distributed among the participants: there is to be two research projects, one producing a position paper on governance for transitions, the other developing a planning tool and scientific publication on an integral area approach. Furthermore, the project also sets out to mobilize knowledge on issues by writing accessible reports relevant to particular end users. Based on lessons from the Groene Hart project, an additional work package is included focusing explicitly on managing the process of the project, this includes a strategy for connecting the project to other initiatives in the region. A rough estimate is made for the budget, amounting to 500k for the first phase.

Judith advises the board to approve this idea reserving 300k for the first year and 150k for the second on the condition that this contribution of 150k will be matched by co-funding arranged by the project team. This advice does not include any substantial justification. Furthermore, she suggests that the project plan should contain a clear description on how the different universities will collaborate as well as an indication of how the knowledge produced connects to ACCEZ' other circular horticulture projects. The board takes on her advice, adding their own recommendations that the whole chain, including the consumer side, should be incorporated, and that the different academic disciplines are involved in the scientific part of the project. Indicative of the program's newly adopted small wins framework for the evaluation of success, the project team is asked to indicate in the project plan what are the possible small wins for this project.

2020: Navigating the emergence of a new initiative in the region with the same task

While developing the project plan, the project team is made aware of a new initiative that is started in the Bollenstreek: Living Lab B7. The initiative works on the same transition task within the exact same region. For this reason, the project team reaches out to them to collaborate, but the LLB7 initially denies. It is suspected the reason for this was that the LLB7 does not know how to organize such a collaboration. With both projects working side-by-side, the involvement of stakeholders is more difficult. Ultimately, some form of collaboration emerges wherein prof. Wolf Mooij joins the DeB project meetings. This collaboration is laid down in the project plan.

2020: Making the project concrete and developing a new tool for co-funding

At the end of 2020, the project team presents the final project plan, including a financial, and content-related plan for their project, and a time path. The project team has finetuned the work packages, created research tools, and specified their outputs in the short, medium, and long term. In the short-term, knowledge will be mobilized through an innovative KICK-voucher system. By having stakeholders articulate knowledge questions and linking them to junior researchers who produce targeted briefs for end-users, the project team adopts an innovative way of creating actionable knowledge and leveraging co-funding. In terms of funding, the KICK-vouchers also offer a new way of attracting investments into the project by allowing funders to contribute to smaller, targeted research projects within the bigger project that have clear deliverables. For the medium term (2-4 years), the team will develop three small research projects creating: a biodiversity monitor for the Bollenstreek, governance arrangements for the Bollenstreek, and a decision-making tool for an integral area approach. Following the recommendations of the ACCEZ board, the project team specifies how these knowledge products are connected to ACCEZ' other work in circular horticulture and sets out to contribute to long-term developments within the regions by connecting and contributing to other innovative activities in the Bollenstreek. Though the financial plan does not meet the 50% co-funding criteria that ACCEZ put for the second year, work package 4 on integration and coordination explicitly mentions arranging co-funding as part of its core activities. The project plan also speaks to some of the funding opportunities the team is exploring.

The ACCEZ team writes a positive assessment of the project plan, arguing that the project: fits ACCEZ' thematic framework, has a diverse and committed consortium, and shows great potential for accelerating the transition to a circular economy through its substantive depth and co-creative nature. On these grounds, Judith advises the board to accept the plan. ACCEZ will allocate 300k for the project's first phase, and actively

support the project team in arranging follow-up funding to meet the 50% co-funding criteria for a second phase.

2021: Developing a methodology for KICK-vouchers and creating a lasting platform for its sustainable anchoring

After the project plan is approved, a Kick-off meeting is held with stakeholders in which KICK vouchers are set up by gathering knowledge questions from entrepreneurs and prioritizing them. This process results in a total of 5 questions, most of which are related to soil quality.

Researchers are linked to each of the questions and the process of mobilizing scientific knowledge on four of these questions – by translating it into accessible visual reports–started. Each of the small research projects is funded by external parties interested in having them answered.

In setting up the KICK-vouchers, the project team does something that is considered truly innovative. They create a methodology for an way of co-funding actionable science that is linked directly to end users facing knowledge barriers in the transition to a circular economy. As a way of sustainably anchoring this method, the project initiates the establishment of a platform facilitating KICK-vouchers beyond the project called “Kennis Natuurlijk”, which is funded by a.s.r and ASN to be a permanent platform to be used by any organization interested in having a particular knowledge question related to nature-inclusive living, housing, and working.

Within the bounds of the project itself, the fifth knowledge question arising from the KICK-vouchers “what are the risks of sustainability and who carries them?” is taken up through the development of a serious game in which stakeholders think through scenarios in order to explore creatively and without risk some of the deeper tensions related to the transition task.

2022: Mid-term review through new methods provides the basis for an extension of the project

In 2022 the project team and ACCEZ collaborate on evaluating the progress of the project so far. Three reports are part of this evaluation: a report on research progress (deliverables); a report on the finances of the project so far; an experimental evaluation produced by ACCEZ through reflective dialogues.

The progress report on research activities contains a table in which the status of all planned activities for the project is indicated. It shows that the project has successfully completed or made considerable progress in most of its planned activities. Only the biodiversity monitor has not been developed and will likely not be, due to lack of support from the

agricultural sector. Fitting the intention by the board of ACCEZ to carry out more detailed accounting of budget used by the Universities, the financial report contains a detailed accounting of all the hours made by researchers for the project.

Next to the more traditional reporting of project progress, ACCEZ adds a third more experimental report produced through reflective dialogues on success of the project. Central to this report are the questions “what has changed since the start of the ACCEZ project?” and “what new action perspectives have entrepreneurs obtained and how do research activities accelerate the transition?”. The main takeaways reflected in this report are: the insight that soil quality is the central issue for entrepreneurs in the Bollenstreek; the project has transformed functional network connections of researchers with bulb growers into deeper connections of researchers with the system of the Bollenstreek, allowing them to build trust and enact change within; the insight that resistance only happened in the project on big, more existential questions. For ACCEZ itself, the project has also produced insights on the time, competences, and type of researcher needed for transdisciplinary research. On top of that, the project has shifted the idea of the role of entrepreneurs in ACCEZ research projects. ACCEZ is focused on what impact it can make for entrepreneurs, which guides the choice for and evaluation of projects. Researchers have found this view too narrow, since accelerating transitions requires a wide range of activities, not all easily relatable to the benefit of an entrepreneur. Results of a research project can be found undesirable by entrepreneurs, or entrepreneurs might not ask the transformative questions needed. These things might hinder ACCEZ from taking up important transition tasks or elements thereof. Additionally, though it can be clear how entrepreneurs are involved in the formulation of knowledge question, it cannot be determined whether the results following from these questions benefit the same entrepreneurs. More work is therefore needed to be able to ask “big” questions and discuss painful results.

2022: ACCEZ is satisfied with the progress of the project: extension and additional budget

ACCEZ and its board are positive towards the progress the project has made, specifically highlighting the use of KICK-vouchers and its sustainable anchoring in Kennis Natuurlijk! as concrete successes. They also agree that more work is needed and believe the project team has a clear and convincing plan for carrying on the work through the use of a serious game. The board agrees to an extension of the project by 6 months, with an additional budget of 20k, and a repurposing of 10k from Naturalis to Erasmus within the project, as requested by the project team.