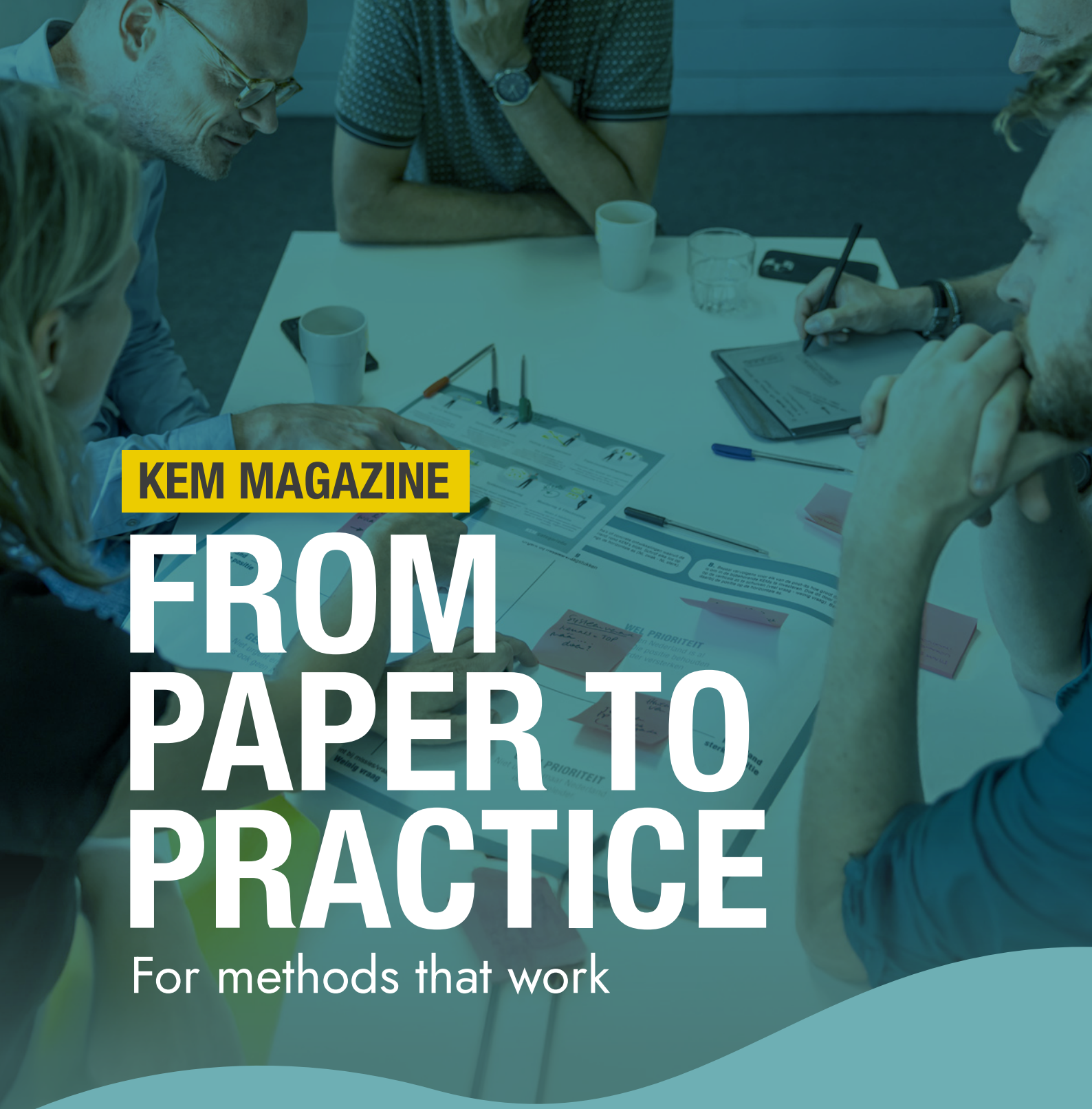


KEM MAGAZINE

FROM PAPER TO PRACTICE

For methods that work

Ten guidelines for selecting and applying the right methods

Page 11

May 2025 | A publication by CLICKNL programme Key Enabling Methodologies (KEMs)

CLICKNL

INTRO

A magazine by and for practitioners

In recent years, much energy has been invested in strengthening the knowledge base around Key Enabling Methodologies (KEMs). This has led to an updated KEM agenda and the launch of an accompanying KEM network. With this solid foundation in place, it's time for the next step: effectively putting KEMs into practice. How can we make optimal use of these methods to address, scale up, and accelerate societal transitions? After all, the knowledge base only becomes truly valuable when we succeed in moving from paper to practice.

This magazine marks the beginning of that exploration. It is intended for project teams working on societal challenges, who have little experience with KEMs. This magazine offers insights, experiences of others who have been working with KEMs and guidelines for the successful application of KEMs. At the same time this magazine also serves as an open invitation to the KEM network to engage in further dialogue.

The magazine is an initiative of CLICKNL, in collaboration with the KEM network. Its content is based on insights gathered during two working sessions held in 2024, where experts from a variety of disciplines shared their knowledge and experiences. We hope this magazine will inspire you—and contribute to broader and more effective use of KEMs in practice!

Paul Hekkert
Topteam Topsector Creatieve Industries

Join the KEM network
Sign up for the newsletter and stay informed about all our activities!

KEMS: BUILDING BLOCKS FOR A RESILIENT SOCIETY

Whether we're talking about the agricultural or climate transition, housing shortages, pressure on the healthcare system, or polarisation, each of these challenges demands the design of interventions that help us move forward together, in ways that improve society as a whole. This kind of societal innovation does not emerge from ivory towers or behind the closed doors of institutions or governments. The kind of change that truly matters is designed and developed in the heart of society.

It is in communities and on the ground where everything comes together. Being hands-on forces you to stop looking at isolated problems and instead take in the system as a whole—from technology to environment, from citizen to policy. This requires involvement from many different sectors, disciplines, groups, and institutions. And it demands that we learn to collaborate in new ways, drawing on our diverse strengths and perspectives. To do that, we need to develop new shared languages that enable transdisciplinary and interdisciplinary collaboration.

THE KIND OF CHANGE THAT TRULY MATTERS IS DESIGNED AND DEVELOPED IN THE HEART OF SOCIETY.

Methods that contribute to tackling societal challenges.

This is the domain of Key Enabling Methodologies (KEMs). This broad collection of methods, strategies, processes, and tools offers us the means to develop meaningful interventions and innovations that can drive the changes we need.

KEMs have proven themselves in research and in comparable contexts, offering guidance for the process behind a wide variety of societal innovations. They do not ask us to put on a lab coat and close the door behind us—they are designed to be applied within society itself. They help us uncover the question behind the question, by defining it in collaboration with those involved. They ensure we design with the whole system in mind, rather than in isolation. They support the development of shared ownership—sustained beyond the life of any single project. And they strengthen people, society, and nature by making them part of the development process.

Want to learn more about KEMs?
Turn to page 34 for more on the KEM research agenda and the eleven categories it outlines.

IDFA DocLab supports creative makers and thinkers in shaping the future of digital storytelling through interactive and immersive documentaries. Image: Nichon Glerum

Hands-On Innovation

The potential of KEMs for social and technological innovation.

At the end of 2024, CLICKNL organised two KEMs Expert Sessions, in which participants discussed the use of methods in social and technological innovation processes. Writer Twan Eikelenboom brings together insights from these sessions in an article about the potential of Key Enabling Methodologies (**KEMs**) to find solutions to complex challenges, and to inspire teams engaged in hands-on innovation themselves.

‘KEMS ARE PART OF WHAT WE CALL THE DESIGNERLY APPROACH.’

To get straight to the point: KEMs in themselves are no cure-alls. They do not guarantee successful collaborations, interventions or innovations. Instead, they are part of what we call the designerly approach, in which people and competencies, technologies and methods, and insights from social and behavioural sciences converge (also see ‘The definition of the designerly approach’). This approach can enable many forms of innovation: from social innovation that strengthens neighbourhoods and communities, to technological innovation in which public values are embedded in both the design and development processes.

Crucially, a designerly approach is not limited to designers, architects, makers or artists from the creative industries. If you work in a research department, a tech firm, an engineering consultancy, or an innovative public agency, chances are you too are applying design competencies. Perhaps your team has discovered that a stand-alone solution won’t solve a complex challenge, prompting you to explore root causes together and address them collaboratively (also see ‘Getting started as designerly civil servant’).

This mindset of striving for systemic solutions by any means necessary is at the heart of a designerly approach. Complexity is not an obstacle but a source of inspiration for shaping transdisciplinary processes that unite a wide range of perspectives, backgrounds and qualities. At the same time, you are aware that the world is still largely organised in silos, that transition processes unfold abruptly, and that individual projects cover only part of longer timelines.

‘A DESIGNERLY APPROACH IS NOT LIMITED TO DESIGNERS, ARCHITECTS, MAKERS OR ARTISTS FROM THE CREATIVE INDUSTRIES.’

Expert session 'From Paper to Practice'. Image: Marcel Krijgsman

Methods are not rigid instructions

Whether or not you're familiar with KEMs, and regardless of your discipline or sector, if you and your team are working on innovation at the heart of society, methods form a key part of your toolkit. These methods may arise from personal experience—something that worked well previously and is worth repeating—or you may have learned about them in school or while working at an organisation.

Over time, you've built up a toolkit filled with methods that underpins your professional signature as a designer or innovation professional. The same applies to your teammates. Your team likely brings together diverse backgrounds—designers, artists and coders, but also political scientists, ethicists and engineers. Each member brings their own perspectives, experiences and methods, shaping a unique collective toolkit. The choice of method depends on the situation, the stage of the process, and your desired outcome. Do you need more insights first? Or are you aiming to drive action or force certain outcomes with stakeholders?

Once you and your team go hands-on, methods are not rigid instructions. In practice, methods even blend when the context calls for it, producing hybrid approaches. Methods are evolving continuously, allowing you to incorporate lessons—your own as well as others'—and build on them. But this only works if you take the time to truly understand a method: Why was it developed, by whom and from what background.

'THE CHOICE OF METHOD DEPENDS ON THE SITUATION, THE STAGE OF THE PROCESS, AND YOUR DESIRED OUTCOME.'

Making space for the process

Viewing methods as tools, including selection based on context and phase of the process, may clash with how clients want to operate, the conditions set by financial backers, or policy makers' desired impact. They want to be certain in advance that the investment they make will also lead to a certain result. Which method will we use? Has it been sufficiently validated? And how will your team ensure it will lead to the desired result?

In reality, however, the true question behind the question often only emerges once you've understood the context and engaged with stakeholders.

To choose appropriate, promising methods, you must therefore slow down at the start of the process. This prevents you from choosing a method based on assumptions—and from turning it into a goal in itself.

Another pitfall is opting for familiar methods in proposals, just to avoid lengthy explanations. You could try convincing clients or financial backers that a lesser-known or home-grown method can be equally effective—but that takes a lot of time. And even then, you still haven't solved the real issue, because what you want is space to work step by step and to choose methods appropriate for the situation or phase (also see 'Prioritise together', page 17). You want to use your team's full toolkit—not just the screwdriver and hammer. You want space for the process.

When you do manage to carve out that space with a client or financial backer, surprising insights and solutions can emerge that you couldn't have predicted beforehand. For instance, a virtual

‘TO CHOOSE APPROPRIATE, PROMISING METHODS, YOU MUST SLOW DOWN AT THE START OF THE PROCESS.’

reality application might not solve neighbourhood polarisation, but the act of co-creating it with residents might spark mutual understanding (also see ‘The Empathy Journey’). A circular new housing estate does not necessarily need more construction regulations, but rather a cultural shift that helps future residents make energy-conscious interior choices. Or you may find that the quality of elderly care in nursing homes can improve through an unexpected partnership with a local dog-walking service (also see ‘Creating Cultures of Care’).

What these examples have in common is that they did not arise from a priori assumptions, but because space for the unexpected was created in the process. Outcomes of informal methods such as a pizza night for locals, collaborative drawing and painting, or shared walks are impossible to script. Yet it is precisely these encounters that provide insight into challenges in unexpected ways, reveal possible solutions, foster engagement and create support for change.

Creating space for the process not only makes it possible to arrive at unexpected insights and solutions. It also allows you to work iteratively and make intermittent adjustments based on new insights and data. Where are we now, and is the intervention having the desired effect? That’s why it’s crucial to define suitable forms of monitoring and effect measurement with stakeholders and embed them in the process. How might we track the wellbeing of people, plants and animals at a local level (also see ‘Zoöp´)?

KEMs for your team’s toolbox

As you’ve probably realised, you and your team are constantly working on intersections in innovation processes. Intersections of the expected and the unexpected, but also evidence and intuition, theory and practice, plan and process, short and long term, hard and soft values. It’s important that your toolkit contains a variety of methods to support your team when working on these intersections.

KEMs are well-researched methods designed for large-scale social and technological innovation that you can add to your shared toolbox. They add breadth and credibility to the methods you can present to clients and financial backers. They help create space for more process-oriented work. And they provide your team with inspiration and tools for organising innovation processes right at the heart of society.

Immersive technologies such as AR and VR offer us opportunities to experiment with social interventions in digital environments. Image: Nichon Glerum

‘KEMS ARE WELL-RESEARCHED METHODS DESIGNED FOR LARGE-SCALE SOCIAL AND TECHNOLOGICAL INNOVATION THAT YOU CAN ADD TO YOUR SHARED TOOLBOX.’

Furthermore, they help you recognise that complex challenges or desired changes rarely exist in isolation. They are part of a wider **systemic change**, where many elements are interconnected. A holistic perspective, along with insights into the historical evolution of a challenge, can help you and your stakeholders decide where and how to intervene to accelerate a change or transition.

Data can also play a role in developing insights into a challenge or situation: during early exploration, data can help you unravel systemic complexity. What stories are hidden in the data? How can we use data to provide challenges with inspiration and inquiry? During development and later stages, data can support **monitoring and impact measurement**. This will help you to determine whether the changes you’re implementing are leading to intended results, and to create moments to adjust.

KEMs also help surface core values early on and integrate them into the innovation process. This ensures that a technology does not compromise public values by making questions around **ethics and responsibility** part of development from the outset. They can also help you define the type of **value creation** you’re aiming for before and during the process. Economic value is important but may be unattainable or unsustainable if social, cultural and ecological values are not accounted for. How might you combine and integrate these values during development and upscaling?

Expert session 'From Paper to Practice'. Image: Marcel Krijgsman

'KEMS ADD BREADTH AND CREDIBILITY TO THE METHODS YOU CAN PRESENT TO CLIENTS AND FINANCIAL BACKERS.'

So far, we have filled the toolbox with KEMs that help you gain a priori and intermittent insights into situations and create a good starting point. But insight alone is not enough to get the ball rolling. Where do you go from here? Where might your shared steps lead you? KEMs focused on the use of **imagination** can help with this, creating visions of the future that inspire processes in unexpected ways. These visions can take many forms, from installations to prototypes and performances, allowing stakeholders to look ahead and imagine alternative futures in a holistic manner (also see 'Climate Imaginaries at Sea', page 30).

With the future in sight, does the technology you aim to develop still offer the right solution? Or does it demand a shift in culture or **behaviour** first? What **institutional change** is required to make the vision real? Are regulations blocking urban innovation, for example? Temporary policy changes might create room for living labs and other **experimental environments**, where assumptions can be tested, solutions developed, and impact tracked. In doing so, a shared vision of the future can gradually come to life.

Finally, an important strength of KEMs is that they give your team the tools to organise co-creation processes at the heart of society. Methods and examples in the field of **meaning and awareness**, rooted in artistic research and art practices, can inspire you to involve stakeholders in participation processes in more profound and diverse ways (also see 'Testing the Waters'). Empower them with agency and resources and let them explore ways to play an active role based on their own perspective.

Additionally, KEMs for **participation and co-creation** offer your team ideas on how to build new forms of collaboration with stakeholders. Which qualities are already present in-house, for example? How do you make use of them together? What roles are needed to take action, and what responsibilities do you have towards each other? How do you organise ownership, whether it's about maintaining a technology or funding a neighbourhood initiative, for the long term? You will find that around a shared challenge, a new language gradually emerges. A language that unites disciplines, sectors, institutions and communities.

Ten practical guidelines for selecting and applying the right methods

for project teams working on innovation and transitions.

WRITTEN BY MARTIJN ARNOLDUS AND DORIEN VAN ALPHEN.

Innovations aimed at societal transitions and challenges are not developed in 'splendid isolation', but rather within projects that involve a wide variety of stakeholders. So how do you select the KEMs you want to apply in such a project, and how do you ensure these methods are actually put into practice? You wouldn't be the first to encounter all kinds of questions and obstacles along the way.

To support you, the following pages present ten practical guidelines to help your project team take concrete steps towards making informed, workable choices in the selection and use of KEMs. The steps are grouped into three sections: 1. preparing your project, 2. selecting KEMs, and 3. implementing your project. The ten guidelines are not necessarily sequential; particularly in the preparation and selection phases, they may be addressed in parallel or revisited iteratively.

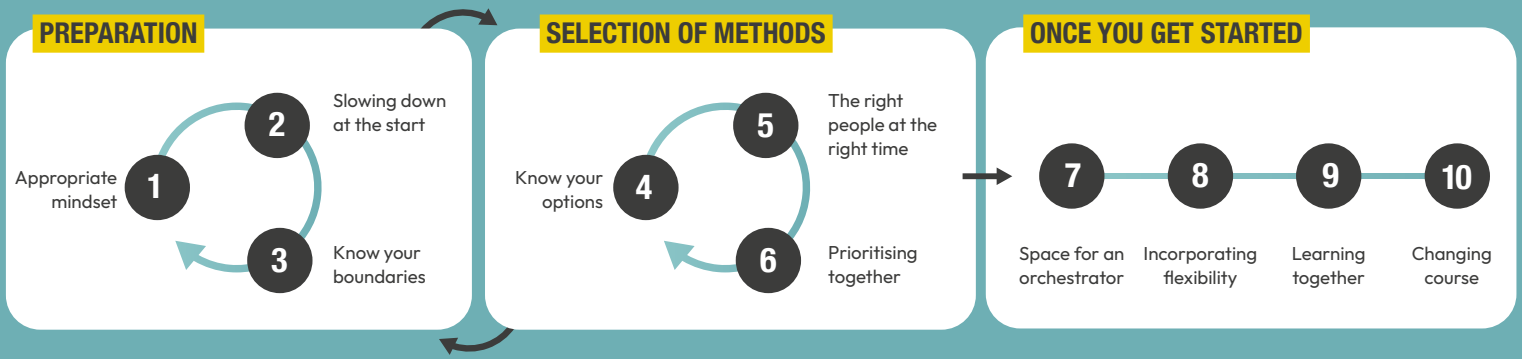
Moreover, selecting and applying KEMs will at times be influenced by external factors that are difficult to control, such as limited resources or time. But there is still plenty your project team can exert control over!

FROM EXPERT SESSIONS TO GUIDELINES

The ten guidelines emerged from two expert sessions organised by CLICKNL at the end of 2024 through the KEM network, focused on the selection and application of methods within projects addressing societal transitions and challenges.

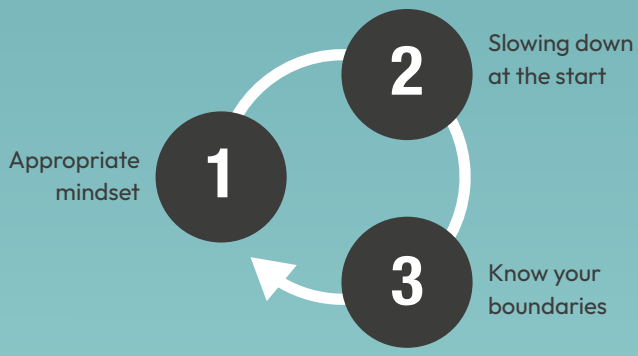
Participants in the expert sessions came from across the country and represented a wide range of backgrounds—from designers to theorists, and from artists to water technologists. More than forty projects were examined, some of which are briefly described from page 22 onward. The projects are as diverse as the project leads themselves, covering a range of transitions, spanning from a few months to several years, and enabled through various forms of support—for example, research funding from NWO, practice-driven PPP contributions via the Netherlands Enterprise Agency (RVO), or grants from the Creative Industries Fund NL.

What these projects share is the involvement of many different stakeholders (governments, knowledge institutions, industry, and often citizens), a multidisciplinary approach, an ambition to apply new technologies, and a focus on addressing societal transitions or challenges. And, as has become evident, many projects encounter similar challenges in selecting and applying methods.



Preparation

Before you can start a project, a number of things need to be in place: defining and scoping the assignment, clarifying preconditions, and building partnerships. What should you pay attention to if you want to select the right methods?



1. AN APPROPRIATE MINDSET

A solid foundation for selecting and applying KEMs in transition-focused projects starts with a shared understanding that the chosen approach is crucial to a project's outcomes. What can an approach mean for the project—and more importantly, for the intended impact? It is not self-evident that all stakeholders will place the same value on using methods, or even on carefully considering them in advance. This applies to both delivery partners and commissioning clients, funding bodies, or other financiers. Everyone holds implicit or explicit expectations about what a project is meant to achieve and how to get there. Sometimes, there are firmly held ideas about what constitutes an effective—or ineffective—method. At other times, expectations may be based largely on intuition. And occasionally, there are stakeholders who have little to no interest in the methods used in the project.

That's why it's important to start by collectively addressing the question: 'how, exactly?' How will you get from the starting point of the project to the desired outcome? It's helpful to point out that—whether or not you label it explicitly—there is always some kind of approach at play. It might be very open-ended, strictly defined using pre-agreed methods, or something in between. You can begin exploring that during the proposal stage—but most importantly, you should agree from the outset that this is something to be consciously addressed. That's what defines the appropriate mindset.

TOGETHER, BE AWARE OF HOW YOU INTEND TO MOVE FROM THE PROJECT'S STARTING POINT TO ITS DESIRED OUTCOME. THAT IS THE APPROPRIATE MINDSET.

If your project proposal is being submitted under a specific funding scheme, that scheme may also provide helpful structures for thinking about your approach. Calls from NWO and Regieorgaan SIA, for example, often require applicants to formulate a 'theory of change' and include an 'impact pathway'—articulating how you intend to achieve the desired impact.

It's also important to remember that not every party involved needs to be substantively engaged in the choice of methods. Not everyone will feel like an expert—and that's fine. What matters is that everyone values the fact that serious consideration is being given to the use of methods during the project's preparation phase.

2. SLOWING DOWN AT THE START

The saying 'well begun is half done' holds true in many contexts—and it's particularly relevant when it comes to the effective use of methods. But how often is there little time available to prepare a project proposal properly, due to tight submission deadlines? Or limited resources, with no compensation for the time and energy put into developing the proposal? As a result, there's often little opportunity to slow down at the start and carefully consider what kinds of methods are needed. So, what should you, according to your fellow project leads, be mindful of?

Tip 1: Take time to get to know one another as project partners.

Have conversations around everyone's values, goals, needs, and motivations within the project. Where are the boundaries? How much flexibility is there to do things differently? Who takes on which role? What does each partner bring to the table? This builds trust between partners and provides clarity about what needs to happen. You'll also start to speak each other's language—both literally (communication styles) and figuratively (needs and expectations). As a result, collaboration between partners becomes easier and you're less likely to encounter friction or delays later on. One practitioner shared that their team needed the first six months after the proposal was approved just to 'get going together,' purely because roles and approaches had not been sufficiently discussed up front.

Tip 2: Involve the KEM practitioners as early as possible.

It's common for methodology practitioners to only be brought in during the implementation phase—hired in as designers, facilitators, workshop leaders, etc. But involving them earlier in the process allows them to contribute their expertise to formulating the central question, defining the challenge, and shaping the approach. This naturally creates more space for applying KEMs. Related to this is the next point:

Tip 3: A sound selection of KEMs follows from a clear articulation of the question.

Take enough time at the beginning to formulate the right question together—otherwise you may end up stuck with the wrong approach. Societal challenges are complex and require clear insight (and research) into the problem in order to arrive at the right research question. In practice, it often turns out that the original question—and thus the chosen approach—is misaligned once the project is underway. This can cost you valuable time, especially if you're obliged to stick with a certain approach due to prior agreements or funding conditions. Try to involve the commissioning party or financiers in the question-formulation process, even though this isn't always straightforward. In the case of open calls or tenders, the frameworks are usually more fixed than in projects where you can engage directly with the client.

3. KNOW YOUR BOUNDARIES

As project partners, you rarely have full control over how much space there is to apply KEMs within a project. Financial limits and the project's timeline can act as constraints. So can content-related requirements from a funding scheme or tender. That's why it's important to develop a clear picture during the preparation phase of the various boundaries that may apply to the use of methods—and how fixed those boundaries really are. Be mindful of three things.

MAKE SURE YOU UNDERSTAND THE BOUNDARIES PLACED ON THE USE OF KEMS DURING THE PREPARATION PHASE.

The Social Design Showdown challenges designers to critically reflect on one's own design practice and the added value of social designers in addressing societal challenges. Image: Afdeling Buitengewone Zaken

1. Content-related boundaries

Sometimes, calls or funding schemes prescribe the use of certain methods. For example, a degree of co-creation may be required. Or the use of simulation techniques. Or more generally, an expectation that artistic or design-based methods will be employed. When this is the case, the financier or commissioner clearly has reasons for requesting those particular approaches—and it's always worthwhile to understand those reasons fully. Less explicit but equally important are conditions around monitoring, impact measurement, testing (interim) results, or involving particular target groups. All of these touch on relevant KEM categories, each with methods that may be helpful—for instance, categories such as **Vision and Imagination** or **Ethics and Responsibility**.

2. Financial boundaries

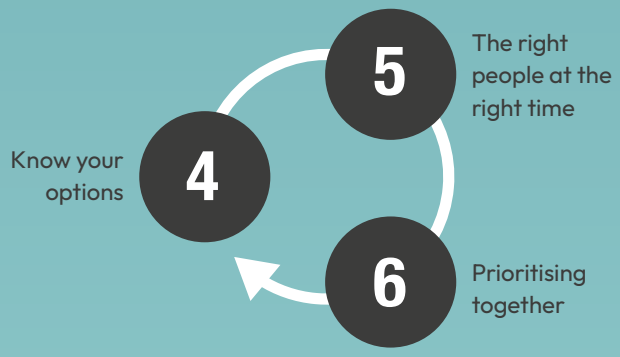
The financial scope for applying KEMs is not only shaped by the overall project budget, but also by what costs are eligible for funding or reimbursement by the commissioner. Try to form a realistic picture early on of the different types of costs that may be involved in using methods. For example, the operational costs of experimentation environments are often difficult to cover with research funding. Similarly, participants in co-creation processes—such as residents—are often not or only minimally compensated for their contributions.

3. Organisational boundaries

Funding schemes and tenders typically require at least some clarity about the organisational setup of the project from the outset. These structural requirements can influence how KEMs are deployed—for instance, if the full project team needs to be defined in advance. In that case, make sure the necessary methodological expertise is already included in the consortium.

Selection of methods

Once you have a (preliminary) understanding of the project question and its boundaries, you can begin identifying which KEMs you'll need.



4. KNOW YOUR OPTIONS

To make a sound selection of KEMs, you first need to be aware of which methods might be useful or relevant to your project. That means having visibility into the available options—and understanding how they work in practice.

The KEM agenda and the KEM website can be helpful starting points (see also page 34). These resources offer overviews and descriptions of methods, though they are not decision-making tools in themselves. A more practical tool—one that you can already use in the early stages of preparing a project proposal—is the KEM compass (see page 32). This tool helps teams define an approach by reasoning backwards from the eleven KEM categories. These categories together provide a clear picture of the full spectrum of potential methods, and they offer a shared foundation for identifying what's relevant to your project and where the priorities lie.

The KEM categories are the most comprehensive source, but by no means the only one for gaining insight into useful methods. We also recommend the following resources as additional places to explore:

- A compendium of innovation methods
- Brand-driven innovation
- Delft Design Guide
- Design. Think. Make. Break. Repeat.
- The Dutch Government's Innovation Toolkit
- Mission-driven innovation: how to make it happen!
- Patient Participation Toolbox
- Systems Innovation Network
- The Behaviour Change Wheel
- Toolbox for Ethically Responsible Innovation

Do you have suggestions to add to the list above, or do you use other approaches to help select suitable KEMs? Let us know via email (kems@clicknl.nl).

5. THE RIGHT PEOPLE AT THE RIGHT TIME

Entire books have been written about the dynamics of forming project teams and/or temporary collaborations. In practice, partnerships are often formed through existing (personal) networks and the connections of project partners. Factors such as positive past experiences working together or the need to include certain types of partners (e.g. SMEs) to meet funding requirements often come into play. Whatever the reason, those who are involved from the start will strongly shape how the project takes form—including the selection and application of methods. So how do you avoid ending up without the methodological expertise you actually need at the table? Here are two key tips from the aforementioned expert sessions that informed these ten guidelines:

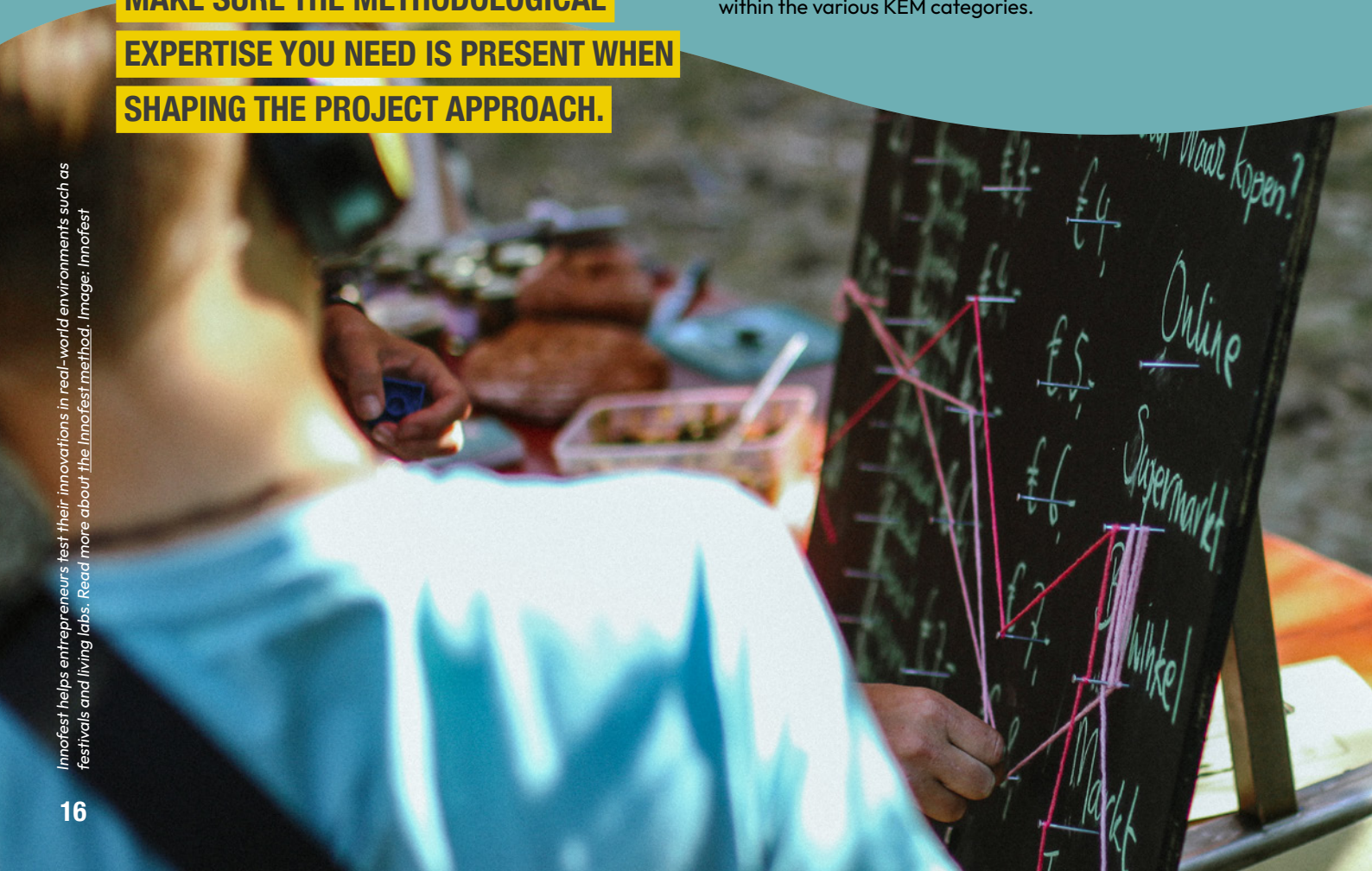
Tip 1: Appoint a critic.

Assign at least one person involved in developing the project proposal the role of critic—someone who can astutely identify who might be missing from the table. This doesn't just apply to methodological expertise but can be broader, depending on the project's needs.

Tip 2: Use the KEM compass.

The KEM compass, already mentioned under guideline 4, can also be helpful here: it helps surface the methodological expertise already present within your team and reveals where there are gaps. Selecting and applying methods requires substantial knowledge and experience, which means it should ideally be guided by a trained professional. So how do you find the right people? That's up to you to explore—but the KEM agenda and the project case studies on the KEM website can be excellent sources of inspiration. They can help point you to experts within the various KEM categories.

MAKE SURE THE METHODOLOGICAL EXPERTISE YOU NEED IS PRESENT WHEN SHAPING THE PROJECT APPROACH.



Innofest helps entrepreneurs test their innovations in real-world environments such as festivals and living labs. Read more about the Innofest method. Image: Innofest

6. PRIORITISE TOGETHER

The final selection of specific KEMs needs to be supported by all project partners. That decision is influenced by a wide range of factors—many already mentioned—such as the relevance of a method to achieving the project's goals, limited time and resources, the requirements of funders or clients, and the organisational and practical feasibility of applying the method. Past experiences—whether positive or negative—with certain methods can also weigh in. And there are undoubtedly other factors that may influence the selection. Because the decision is rarely straightforward, it helps to explicitly address how that decision is made. Two tips from the expert sessions can help guide this process:

Tip 1: Decide on your approach together.

Project leads in the expert sessions noted that, despite—or perhaps because of—the many influencing factors, the final selection of KEMs is often difficult to trace back to a clear rationale. Their advice: aim to make a brief, well-substantiated choice together with all project partners, so that everyone understands why certain methods have been selected. This not only builds mutual trust and confidence in the project but also helps prevent confusion or disagreement later during implementation.

Tip 2: See if you can determine your approach iteratively.

It can also be useful not to treat the selection of KEMs as a one-time decision, but as something that can evolve throughout the project. In the childcare financing case study described on page 25, for example, the team followed a phased, iterative approach. After each simulation, participants reflected on their experience: what went well, what was unclear, and how things could be improved. This allowed the project team to maintain flexibility in their approach, delivering and evaluating iteratively—both in terms of process and results.

PRIORITISING KEMS TOGETHER BUILDS TRUST IN EACH OTHER AND THE PROJECT, AND HELPS AVOID DISPUTES LATER ON.

Once you get started

How do you apply KEMs during the course of the project?

7 Space for an orchestrator

8 Incorporating flexibility

9 Learning together

10 Changing course

7. SPACE FOR AN ORCHESTRATOR

Both during the preparatory phase and throughout the execution of a project, there needs to be space for a coordinating role—an orchestrator—who can oversee and steer the application of KEMs (also see orchestrating innovation). This is especially important in complex projects that are divided into work packages or multiple phases. In the expert sessions, many participants noted that this role was often missing in their projects, but frequently recognised, in hindsight, as a critical gap. Where the role was present—usually filled by a designer—the key question was how much trust and space the orchestrator was given by the project partners to actually take the lead in shaping and guiding the process. In practice, tight timelines, deadlines, and the daily demands of project delivery make it difficult to maintain a clear overview of how KEMs are being applied. That 'helicopter view' is easily lost under the pressure of day-to-day operations.

The orchestrator is not an automatic or default role within most projects. Nor is it typically a task that falls to the project lead, who is usually focused more on the operational than the methodological or content-related aspects of project management. It is also not a monitoring or evaluation function per se. Rather, it's a guiding role that safeguards the coherence of the methods in use and, based on subject-matter expertise, identifies where and how they can be improved or adjusted.

Tip: Appoint an orchestrator.

The orchestrator role can be combined with that of the project lead, but it can also be assigned separately. What matters is that:

- the role of orchestrator is clearly communicated from the start within the project partnership,
- the orchestrator has the subject-matter expertise needed to oversee and guide the application of KEMs, and
- all project partners trust the orchestrator and are willing to follow their lead in shaping the approach.

THE ORCHESTRATOR SAFEGUARDS THE COHERENCE BETWEEN KEMS AND USES SUBJECT-MATTER EXPERTISE TO INDICATE WHERE AND HOW THEIR APPLICATION CAN BE IMPROVED.

8. INCORPORATE FLEXIBILITY

A defining feature of working with KEMs is that the outcomes of each step in the process are difficult to predict. The effectiveness of a method—and therefore the quality of the intervention—is ultimately shaped by the context in which it is applied. Consider factors such as the amount of time and space available, or the willingness of participants to engage. The way a method is applied also plays a major role, and is influenced by the knowledge present within the project team. KEMs provide a tried-and-tested framework—but not a step-by-step blueprint—and as such, they are often adjusted during implementation. A method is never truly finished.

That means projects always need to allow for a certain degree of flexibility, to enable shifts in approach when needed. These adjustments might be small (for example, tweaking the format of a co-creation session), or more significant—such as replacing one method with another (for instance, using a simulation instead of co-creation). In the latter case, it may be necessary to bring in new expertise or partners, or even make substantial changes to the project's setup or budget.

Whether such flexibility can be incorporated will vary by project. It's important to keep an eye on what's possible within the funding scheme or commissioned assignment. What kinds of changes can you make without needing prior approval from the funder or client? How easy is it to add new partners to the project? If the guidelines are unclear, don't hesitate to reach out directly to them for clarification.

Internal agreements between project partners carry just as much weight. Budgets and responsibilities are typically set early on, and any mid-course adjustments will require mutual consultation and understanding.

INCORPORATE FLEXIBILITY SO YOU HAVE ROOM TO ADAPT YOUR APPROACH ALONG THE WAY, WHENEVER NEEDED.

That's why it's wise to discuss early—during the preparation phase—the likelihood that changes may be needed during the project to ensure a more effective approach and, ultimately, better outcomes. Such changes shouldn't come out of nowhere, which is why interim reflection and shared learning are so important—something we'll explore further in the next guideline.

The case 'Getting Started as a Designerly Civil Servant' shows how public officials learned to apply a flexible, design-driven approach. Image: Sylla, Zeewaardig

9. LEARNING TOGETHER

The best way to apply KEMs is by learning what works—and what doesn't. As we mentioned earlier, a method is never truly finished, as was repeatedly emphasised during the expert sessions. What works in one context may not apply in another. An experimentation environment focused on healthy living has a very different character from a living lab for new medical technologies. Likewise, the same combination of KEMs may work very differently across different transition challenges. Applying KEMs always involves a degree of exploration—and if you want to manage that well, you have to be open to learning.

Learning together is a process that requires space throughout the entire project. As one project lead remarked during the expert sessions: 'We often dedicate lots of time to stakeholder meetings, but much less to understanding the process itself.' Or, more bluntly: you have to keep asking one another, 'What are we actually doing here?'—and whether it's helping you move towards your intended goals. In larger projects, it's common for funders or commissioning clients to request interim evaluations and reflections. NWO and Regieorgaan SIA, for example, use the previously mentioned impact pathway, while other funders may provide their own formats. Sometimes these take the form of a learning community, where shared learning and development are given a clear role. But not all these approaches specifically ask for reflections on the chosen approach and the KEMs applied. To ensure that this learning process is properly supported, it's a good idea to assign someone responsibility for it within the project.

Tip: Appoint a learning facilitator for shared learning.

This is something you can organise internally as a project. An orchestrator can effectively guide shared learning, for example, by encouraging stakeholders to document their experiences and insights in a learning journal. In any case, it's important to bring everyone together regularly to share experiences, so that learning becomes a truly collective process. For further inspiration, see these tools:

- Learning communities tools

APPLYING KEMS REQUIRES ONGOING REFLECTION. AN ORCHESTRATOR CAN GUIDE THE PROCESS OF SHARED LEARNING AND ADAPTATION.

De LOBBY. Image: Afdeling Buitengewone Zaken

10. CHANGING COURSE

This final guideline is all about making clear choices. It may sound obvious, but actually implementing a change in course is often easier said than done. Part of the challenge lies in the formal barriers already discussed in previous guidelines. But just as often, it comes down to a lack of clear agreements within the project partnership on how decisions are made when it comes to adjusting the application of KEMs.

We cannot get around explicitly asking for attention to this in this last guideline. You can appoint an orchestrator without listening to them. You can incorporate flexibility without utilising it. You can monitor and record experiences without translating the learned lessons into actions. In other words, make an agreement with each other that if a course correction is needed, you'll actively invest the energy needed to make that change happen—together.

The LOBBY is the result of a design-driven research project with and for adolescents in detention. The goal: to bridge the gap between detention and the outside world. Image: Afdeling Buitengewone Zaken

CASES

KEMs reveal their true value in practice. On the following pages, you'll find a selection of projects in which KEMs have been applied. These projects, among many others, were presented as cases during the KEMs expert sessions 'From Paper to Practice'.

01. Outlook Energy System 2050

From deep expertise to a shared perspective.

DURATION
2023 (1 year)

THEMES
Energy transition

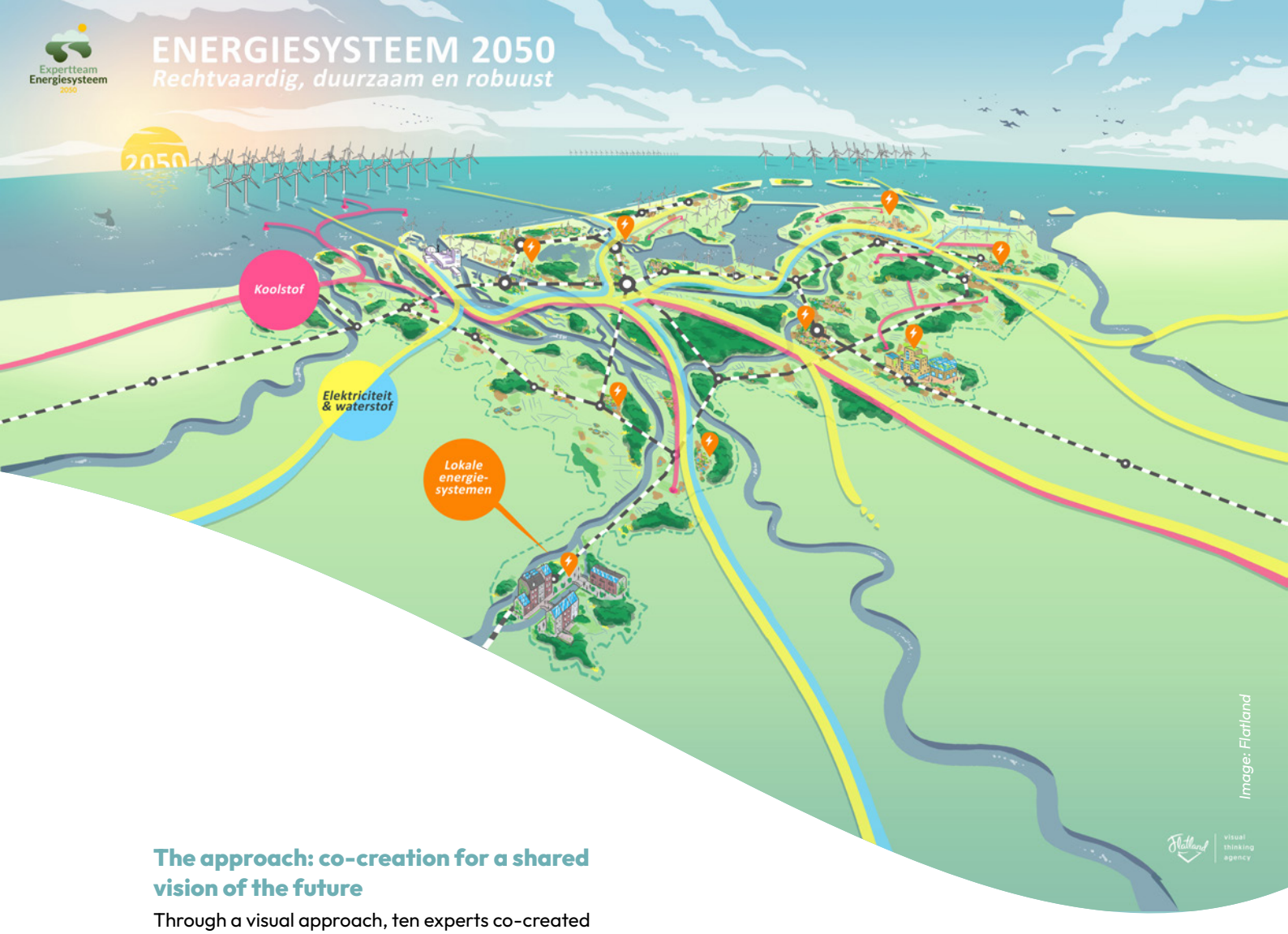
PARTNERS
Flatland, RVO, TNO, Ministry of Economic Affairs, 10 experts from various organisations

KEM CATEGORIES
Vision and Imagination
Participation and Co-creation

The energy transition is fraught with uncertainties, scenarios, and diverging stakeholder perspectives. How do we create clarity and develop a shared forward-looking vision that will actually shape the energy system of 2050?

The challenge: fragmentation and a lack of a shared vision of the future

The energy transition has produced a multitude of reports, recommendations and scenarios. Governments, companies and social organisations all have varying priorities and assumptions. As a result, there's no unified vision of the future—and thus no clear direction for decision-making. What's needed is a shared compass towards 2050 to facilitate concrete policy choices, investments, and collaborations.



The approach: co-creation for a shared vision of the future

Through a visual approach, ten experts co-created tangible visions of the future. Making abstract and complex scenarios visible opened up space for direct dialogue around differences and commonalities. In various phases, we went from fragmented knowledge to shared choices. Subsequent validation of the visuals with the target audience made it clear whether the message came across clearly and whether they could drive action. The outcome: a series of visualisations that provide policymakers and stakeholders with a solid foundation towards 2050.

The outcome: a shared future vision to guide the way

The visualisations made a future vision of the complex energy transition tangible and palpable. This sparked engagement. The illustrations struck a balance: specific enough to clarify the shared narrative, yet abstract enough to allow experts from different fields to interpret and apply them in their own contexts. The result is an overarching framework that gives direction to detailed recommendations and strategic decision-making. It continues to inspire and connect stakeholders towards 2050.

Want to know more? Explore:

- The full Flatland case study
- Outlook Energy System 2050: A Just, Robust and Sustainable Path to 2050. The report from the independent Expert Team Energy System 2050, as a building block for the National Energy System Plan

02. A precarious balance

Behaviour of people receiving occupational disability benefits.

Image: Thomas van Arkel

As the population ages, labour shortages in the Netherlands will only increase . At the same time, over 800,000 people receive occupational disability benefits. These are people who, with appropriate support, could potentially take steps towards employment. That's why we explored the question:

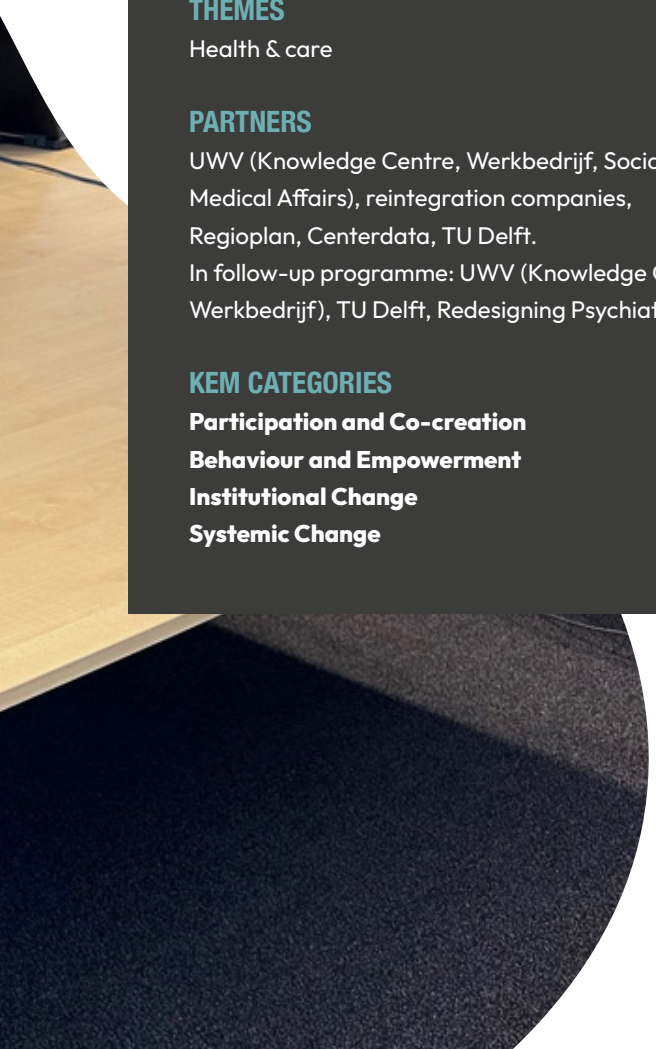
How can we improve reintegration services so that everyone, regardless of their occupational disability, has the opportunity to make a meaningful contribution to society through sustainable labour participation?

DURATION
First project: 2021-2023 (2 years)
Second project: 2024-2026 (2 years)

THEMES
Health & care

PARTNERS
UWV (Knowledge Centre, Werkbedrijf, Social Medical Affairs), reintegration companies, Regioplan, Centerdata, TU Delft.
In follow-up programme: UWV (Knowledge Centre, Werkbedrijf), TU Delft, Redesigning Psychiatry

KEM CATEGORIES
Participation and Co-creation
Behaviour and Empowerment
Institutional Change
Systemic Change



The challenge: a new perspective on action

Traditional linear behavioural models used in reintegration services fall short when it comes to explaining the complex realities faced by people with disability benefits. Reintegration is not simply a matter of 'pushing the right behavioural buttons'. To develop action perspectives as requested by UWV for more effective reintegration support, a new perspective on reintegration necessary.

The approach: methodological pluralism

To develop a new perspective on action, we applied several complementary research methods. Through literature research on social-ecological systems theory, expert interviews, 60 in-depth interviews with beneficiaries, observations of conversations, and co-reflection workshops with professionals, we gained a broad understanding of the systemic context of the issue. This revealed that reintegration is not a linear process but a cycle of disruption, reorientation, and growth towards a new balance—where the interaction between professionals and beneficiaries may cause people to get stuck in their reintegration process. These insights led to the development of a behavioural intervention aimed at reshaping this dynamic.

The outcome: demonstrating potential

By evaluating this intervention in a short pilot, we demonstrated its potential. Early results showed that beneficiaries experienced more agency to contribute their own input and regained momentum towards employment through self-awareness. These findings have paved the way for a follow-up project to further develop and implement this novel perspective on action within UWV's service delivery.

Want to know more? Explore:

- Final report: 'A precarious balance: behaviour of people receiving occupational disability benefits'
- The publication 'Resilience as a driver of reintegration' (Sociaal Bestek)

03. Sustainable Frontline Game

Design research into sustainability awareness and logistical independence within the Royal Netherlands Army.

Image: NHL Stenden Hogeschool

There is a clear need to integrate sustainability into military operations, but not all stakeholders recognise its importance. This project offers an opportunity to engage military personnel in an interactive workshop, allowing them to experience firsthand how alternative choices in the structure of military missions contribute to both operational readiness and logistical independence.

DURATION
2021-2024 (3 years)

THEMES
Safety

PARTNERS
NHL Stenden University of Applied Sciences, Royal Netherlands Army – Kenniscentrum Logistiek

KEM CATEGORIES
Vision and Imagination
Participation and Co-creation
Experimentation Environments
Behaviour and Empowerment
Value Creation and Upscaling
Systemic Change
Ethics and Responsibility
Data for Inquiry and Evidence

The challenge

The problem lies in the ambition to promote sustainability, the long-term deployability of equipment and logistical independence within military operations, without compromising operational effectiveness or personnel safety. Although there is increasing recognition for the importance of sustainability, some soldiers still find it challenging. This intervention raises awareness by allowing military personnel to experience in an interactive workshop how alternative choices in the structure of military missions contribute to both operational readiness and logistical independence.

The approach

The approach is iterative and based on a design-research approach for the development of serious games. This has led to a game in which participants take responsibility for energy supply, water supply, logistics and waste streams, and work together on a shared scenario to achieve sustainability goals. They make choices, such as converting conventional power generation with diesel generators to solar or wind energy, supported by batteries, or creating their own water supply for flushing toilets with filtered rainwater. Through a live dashboard, players can see the impact of their choices on the operational situation (KPIs), with each participant's decisions also affecting the outcomes for others—fostering dialogue during the game.

The outcome

The project has resulted in a hybrid game that challenges military teams to make collective decisions to promote sustainability. The game promotes collaboration by making interdependencies visible and encourages behavioural change by having participants reflect on their gaming experience. In addition, a design has been developed to translate the lessons learned into everyday practice. The game is designed to function both as a stand-alone intervention and as part of military curricula.

The game offers a safe, motivating learning environment in which participants discover how they can integrate sustainability into their operational duties through play. Debriefings contribute to greater awareness and provide practical tools for behavioural change, both within and outside the military context.

04. The new childcare financing system

Insight through simulations.

DURATION
2024 (8 months)

THEMES
Health & care

PARTNERS
Fronteer, Ministry of Social Affairs and Employment, DUO, Benefits and the childcare sector

KEM CATEGORIES
Participation and Co-creation
Experimentation Environments
Value Creation and Scaling

The Ministry of Social Affairs and Employment (SZW) aims to not only design the new financing system for childcare on paper but also test and optimise it in practice. To this end, they have collaborated with potential implementing organisations right from the design phase. Together they had the following questions:

- *Does the system work as intended on paper?*
- *Is it feasible and practical for parents, childcare providers and administrators?*
- *Where are the biggest opportunities for optimisation?*

The challenge

Financing systems are complex and abstract. Without concrete examples or tangible elements, it is difficult for users to grasp how a system works in practice. This makes it difficult to obtain valuable feedback and insights. This project therefore focuses on creating a simulated user experience to visualise the system and make iterative improvements.

The approach

The functionality of the preliminary system has been tested through a simulated user experience. By placing parents, childcare organisations and administrators in a simulated user scenario, it became clear how the system would function in practice. In a separate room, observers, including policymakers, tracked the process and discussed their findings in real-time. By combining multiple perspectives, the impact on different stakeholders could be analysed simultaneously and areas for improvement could be identified immediately.

The outcome

The simulations provided crucial insights into the functionality and feasibility of the system. The main findings:

- Simulations are an effective method to introduce users to the new system and for gaining insight into the practical feasibility of the system.
- Iterative adjustments within the simulation enable progress towards a more workable solution.
- To accurately interpret the insights gained, a clear and predefined frame of reference is essential for assessing what qualifies as ‘good’, ‘feasible’, or ‘effective’.
- Although the development of simulations is time-consuming, they provide valuable insights that go beyond theoretical analyses.

This approach allowed the preliminary financing system to be further refined and optimised, resulting in actionable practical improvements.

Image: Fronteer

05. Climate Imaginaries at Sea

Harnessing the power of imagination for living with rising sea levels.

DURATION
2022 - (ongoing)

THEMES
Health & care

BETROKKENEN
Art & Spatial Praxis research group at the Gerrit Rietveld Academy (GRA), the Academy of Theatre and Dance research group at the Amsterdam University of the Arts (AHK) and Visual Methodologies research group at the Amsterdam University of Applied Sciences (HvA); Centre of Expertise Creative Innovation (CoECI), ARIAS Platform for artistic research, Tolhuistuin, Institute for Sound and Vision, Villa Zapakara, The Beach, Noordje, Framer Framed

KEM CATEGORIES
Vision and Imagination
Participation and Co-creation
Meaning and Awareness

Image: Simon Pillaud

Climate Imaginaries at Sea brings together artists, designers and researchers in artistic research that focuses on underexposed perspectives on climate change.

The challenge

Designers, artists and artistic researchers play an important role in enriching our imagination. Through their work, they can evoke new perspectives, stir emotions and create space for reflection and imagination. Artistic and design research can make the complex issues of rising sea levels and climate adaptation palpable for a wide range of audiences in an accessible and inspiring manner.

The approach: Artistic Research Studios

Climate Imaginaries at Sea works with three thematic studios: Global South & Indigenous Perspectives, hosted by AHK, Interspecies Inquiry at the HvA and Material Research at the GRA. Here, artists, designers, researchers and students work together on projects that appeal to the imagination and evoke new perspectives. The results of this research are presented in various forms: installations, performances, films, sound work, photography, text and spoken word. During 'studio mixers', the studios share methods and insights with each other. In addition, an Open Studio takes place every year, in which participants show their works-in-progress to a wider audience and discuss their research.

The outcome

Since 2022, Climate Imaginaries at Sea has focused on connecting artistic research and design approaches around the theme of rising sea levels. The programme brings together artists, designers and researchers to develop new ways of climate imagination. This imagination is crucial to make the abstract concept of climate change imaginable and palpable and to foster reflection on climate adaptation now and in the future.

A highlight of recent years has been the Climate Imaginaries at Sea Festival, where artists and researchers presented their work in the form of exhibitions, lectures and performative interventions. For example, Leanne Betasamosake Simpson gave a keynote lecture and a concert in the Tolhuistuin. The exhibition Unimaginable: Clarion Calls from Rising Seas brought together various works by the artists and researchers involved in the studios.

The strength of the programme lies in the diversity of output: from publications and exhibitions to podcasts, zines and guided city walks.

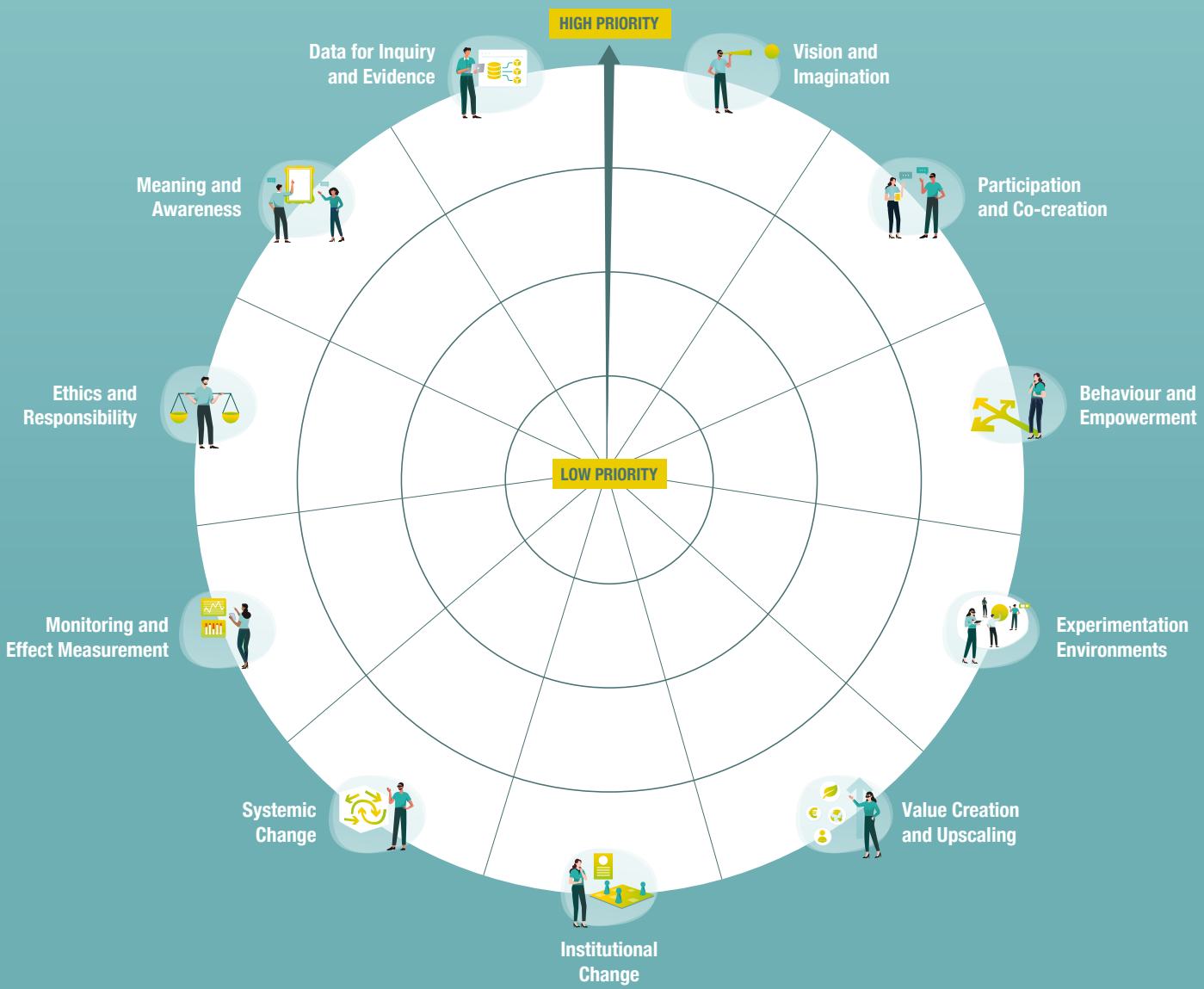
At the same time, the programme faces a challenge: how can the developed methods and practices be documented and shared in a way that is both accessible and inspiring to a wider audience, without compromising the complexity of the issue? To that end, in 2025, work will be done to bundle and share the methods, practices and gained insights in a desktop documentary and an online course for teachers in higher education, with the support of CoECI.

Want to know more? Explore:

- The Climate Imaginaries at Sea website
- An impression of the Climate Imaginaries at Sea festival 2024
- The presentations of participating artists and researchers Leanne Betasamosake Simpson, Mikki Stelder, Joy Brandsma, Janine Armin, Carlo De Gaetano, Femke Dekker (aka Loma Doom), Müge Yilmaz, Kim Spierenburg, Claudine Arendt, Katía Truijen & René Boer (Loom Collective), Marialena Marouda
- The lectures by artists Müge Yilmaz and Loom collective about their participation in Climate Imaginaries at Sea

The KEM compass

Navigating towards a shared and effective approach.



In a world where societal challenges are becoming increasingly complex, it is essential to think outside the box. The KEM compass supports the exploration of methods, the identification of gaps in methodological knowledge or expertise within your team, and the co-creation of a tailored approach for your project.

A shared approach

The KEM compass is a discussion tool for project teams to jointly determine an effective project approach. This often takes place at the start of a project, but it can also be a valuable activity during the process, as a means to reflect or adjust course.

Using the eleven KEM categories, your team explores the full range of potentially useful methods, identifies what matters most for your project, and sets priorities together. From this shared foundation, you can build a well-founded, shared approach.

The right expertise and division of roles

The KEM compass also helps to reveal different perspectives and (missing) expertise within the team. By giving direction and creating space for dialogue about the project approach, it facilitates mutual alignment and clarity around role and task division. It also encourages thinking beyond existing knowledge and skills within the team, opening the door to new collaborations and more creative, innovative solutions.

Workflow

The KEM compass consists of five steps. You can choose to complete the first three steps individually and then discuss as a team, or work through them together from the start.

1. **Exploration of categories:** Start by reviewing each of the eleven categories. Which might be relevant to your project? Explain when and why they could add value.

2. **Refining with specific methods:** For each relevant category, list potential methods, tools or approaches. Having trouble? Try to articulate what you think is needed instead.

3. **Prioritisation:** Use the KEM compass to indicate the priority each category (or even each method) should have in your project execution.

4. **Group discussion:** As a team, reflect on your answers and formulate key conclusions. What stands out? Are there strong differences within the team regarding the preferred project approach? Does the team have the necessary knowledge and expertise to execute the project? If needed, fill out the KEM compass once more together with your team to summarise the conclusions.

5. **Translation into a methodological approach:** Try to translate your insights into a concrete methodological approach by mapping them on a timeline. Which method(s) are needed in which phase(s) of the project? Can anything already be said about the division of roles within the team?

Download the KEM compass!
Here you can find the official KEM compass worksheets.

The KEM agenda

The KEM agenda is the national research agenda that guides the necessary research into tools and methods (KEMs) that contribute to addressing societal challenges. Primarily intended for researchers and policymakers, it also serves as a source of inspiration for anyone working on transition challenges.

Where does the agenda come from?

The KEM agenda was developed because of the crucial role that KEMs play in innovation policy. On the one hand, to improve our knowledge and encourage development. On the other hand, to increase the general understanding of, and awareness about KEMs. Thanks to the agenda, methods are given a prominent place in the government's research programming.

What does the agenda contain?

Simply put, the agenda provides an overview of the eleven KEM categories listed below. For each category, it outlines the available methods, the current scientific landscape, urgent research questions, and existing knowledge gaps. Rather than describing individual methods, strategies, models, processes and tools in depth, the agenda refers to the original research.

Want to know more?
Download the full KEM agenda here!

Eleven KEM categories

The eleven KEM categories are the building blocks for an effective approach to innovation and transition challenges. Each category represents a collection of methods, processes, and strategies that collectively serve a shared purpose.

Vision and Imagination
A clear vision of the future is essential for every societal mission. In some cases, that vision must first be designed. KEMs in this category help map the current world, imagine new ones, and look at phenomena and problems from different perspectives. In doing so, they give direction to the desired change.

Participation and Co-creation
Many different actors with varying interests are involved in societal missions and challenges. KEMs in this category support stakeholder engagement in the process, enabling them to take initiative and fostering involvement and support.

Behaviour and Empowerment
For a transition to succeed, behavioural change is needed — not only from citizens but from all stakeholders. KEMs in this category assist in developing, testing, and validating interventions aimed at directly or indirectly influencing the behaviour of individuals or organisations.

The KEM agenda is part of the Knowledge and Innovation Agenda Mission-Driven Innovation (KIA MV) 2024-2027, and is coordinated by CLICKNL.

Experimentation Environments
Innovation requires space to try out new things and to learn. Early in the process, this means room to freely explore ideas; later, to test interventions in realistic or simulated settings. This category offers methods for setting up learning and experimentation environments.

Value Creation and Upscaling
Achieving societal impact takes more than a good idea. KEMs in this category focus on understanding value creation in a broad sense — economic, societal, ecological — and on scaling up initiatives with the potential to make a difference.

Institutional Change
Transitions are often slowed down by existing rules and structures. KEMs in this category offer insight into the influence of institutions and tools to support institutional change. The context in which a transition takes place is crucial for determining the direction and scope of change.

Systemic Change
Transitions require a transformation or pivot of existing systems. Systems are difficult to define and inherently unpredictable. KEMs in this category support system-oriented and future-oriented working, and help to spark debate and feedback.

Monitoring and Effect Measurement
Is the initiated change going in the right direction, and does it have the intended impact? KEMs in this category help measure the effects of interventions and monitor their long-term impact on the system.

Ethics and Responsibility
Ethical and moral questions are ever-present in societal missions and transitions. This category offers a range of methods to ensure responsible innovation and critical reflection on technologies, including AI and digitalisation.

Meaning and Awareness
Transitions require a rethinking of entrenched values and norms. KEMs in this category, often rooted in artistic practice, foster awareness and help make sense of societal challenges.

Data for Inquiry and Evidence
Data can offer both inspiration and validation. This category presents a spectrum of approaches, ranging from data-inspired to data-driven, to explore and substantiate complex challenges.

Want to know more about the KEM categories? Visit kems.nl!

CLICKNL – CREATING IMPACT TOGETHER: THE NEXT STEP

Societal transitions are complex and require courage, vision and collaboration.

Successful change demands strategic cooperation, shared knowledge and a solid foundation. A designerly approach is essential to ensure applications are integrated into society with support and legitimacy.

At CLICKNL, we work together to accelerate transitions and develop and scale up sustainable solutions. Our goals are to:

- **Stimulate mission-driven innovation.** We build programmes that contribute to both wellbeing and prosperity. Discover more at www.clicknl.nl/en/our-programs/.
- **Strengthen the power of design.** We promote the development and strengthening of knowledge, methods and skills, with a focus on deploying design power for societal challenges. Explore The Power of Design Agenda at www.clicknl.nl/en/agenda-ontwerpkracht/.
- **Guide research into methods.** Methodological approaches help develop the right interventions or applications. The KEM agenda provides insights into key categories of methods and methodologies based on their objectives, and sets a direction for further research into methods. Learn more at www.kems.nl/en/.

WANT TO KNOW MORE?

Contact us at kems@clicknl.nl.

Download the digital version of this magazine here.

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