
Dutch Societal Innovation Hub (DSIH)

Lessons learned and insights



Introduction

The Dutch Societal Innovation Hub (DSIH) was a European programme running from 2022 to the end of 2025, aiming to increase the societal impact of digital innovations within municipalities and provinces. DSIH is formed by the following seven organisations:

- [Association of Netherlands Municipalities \(VNG\)](#)
- [Association of Dutch Provinces \(IPO\)](#)
- [Digicampus](#)
- [Data and Knowledge Hub Healthy Urban Living](#)
- [Urban Development Initiative](#)
- [Brightlands Smart Services Campus](#)
- [Municipality of Rotterdam](#)

The DSIH worked on responsible, human-centred solutions for societal challenges such as climate-neutral cities and regions, healthy soil and biodiversity, and climate adaptation. In this publication, the DSIH partners share their lessons learned and insights on mission-driven innovation at three levels (micro, meso, and macro), each increasing in scale of collaboration. We suggest (programme) managers from organisations working on societal challenges to use and integrate

the knowledge within this document. Together we will increase mission-driven innovation by governments in public-private partnerships. The aim is to stimulate mission-driven innovation by governments in public-private partnerships.

To structure the key lessons from DSIH we use bees, the cells of their honeycomb, the hive, and the interaction between bees and their environment as a metaphor. This metaphor highlights the importance of collaboration and interactions between organisations in the context of societal developments.

Lessons are divided into three levels:

- **Micro level:** The micro level is characterized by lessons that relate to the people involved within an organization and the organizational level itself. This is represented by a bee forming and maintaining cells in a honeycomb. This is the level of lessons learned for small collaborations involving just a few people (the interpersonal level) as well as for the organizational level;

- **Meso level:** The meso level is defined by lessons about collaboration between organizations (for example, a consortium). This is illustrated by multiple bees and a larger section of the honeycomb. This refers to the level of collaboration between organisations (for example, a consortium);
- **Macro level:** The macro level concerns how innovations can become successful within a collaboration involving many organizations, as well as through interaction with society and the wider environment. We depict this with bees flying out of their hive and interacting with their natural surroundings. This refers to the ecosystem level: the interactions between organisations, societal developments, and the connection with the natural environment.

Beehive metaphor

A beehive is a strong metaphor for collaboration across organizational boundaries, as it shows multiple layers (micro, meso, and macro) of collective behavior and shared responsibility. This is how we can interpret this metaphor:

Shared task over individual interests

Bees do not work “for themselves” or for one department; everything is in service of the survival and flourishing of the entire colony. In the same way, people work on societal challenges (such as climate, nature conservation): the goal is larger than one organization, department or function.

No central boss, but clear coordination

In a beehive, there is no top-down manager who divides every task. Coordination arises through signals, routines and mutual attunement (such as the bee dance). In a networked collaboration, people adjust each other on the basis of information, trust and shared meaning, not just through hierarchy.

Specialisation and flexibility

Bees have different roles (scouts, caretakers, workers), but can switch roles if the situation

requires it. In collaborations across borders, people bring their own expertise, but also step out of their formal role if necessary for the assignment.

Local action, collective effect

Each bee performs small, local actions (collecting nectar), but together a great collective result is created (honey, pollination). In social challenges, too, individuals and individual organisations contribute from their own context, while the effect only becomes visible in the whole.

Trust and mutual dependence

A bee relies on other bees to do their job; failure of one component affects the entire system. Working across organizational boundaries requires the same realization: success is mutually dependent, not competitive.

The hive as an ecosystem, not as a machine

A beehive is a living system that adapts to circumstances (weather, food, threat). Collaboration on shared social tasks is also not a rigid project, but a dynamic process in which learning and adaptation are central.

Index



Within each level lessons are divided into the following categories:

- Mission
- Collaboration & culture
- Instruments (e.g. communication & training)
- Embedding in the organisation (e.g. ownership and work processes)
- Measurability & impact (e.g. feedback)
- Resources (FTE and finances)

Micro



This is the level of lessons learned for small collaborations involving just a few people (the interpersonal level) as well as for the organizational level.

Micro

Mission



Micro



An innovation and change process starts with outlining a mission focused on one or more societal challenges to which the process can contribute. Leave room for input from other stakeholders.

- As the initiator of an innovation process, set up a process to involve stakeholders and all necessary experts at an early stage.
- As the initiator, carry out a stakeholder analysis to:
 - identify the parties involved;
 - gather more information about their interests, influence, and expectations regarding the innovation process;
 - define a joint mission.

Micro



For the innovation process to succeed, it is important to work on building support within your own organization for the joint mission.

The recommendation is to focus at the management and executive level on:

- involving employees at an early stage;
- providing backing to those involved throughout the entire process, including completion and aftercare;
- communicating openly and clearly and actively listening;
- being open to feedback and allowing room for changes in the process.

Micro

Collaboration & culture



Micro



In mission-driven innovation, attention to behavioural aspects is crucial, such as motivating the parties involved, stimulating skills, and seizing opportunities. See, for example, the [Mission Driven Innovation Power \(MIK\) model](#) from TNO Vector and the Erasmus Centre for Entrepreneurship.

A lack of embedding of results in the organization can, for instance, reduce the motivation of the initiators and thereby decrease the likelihood of successful innovations.

An engaged executive, who acts as an ambassador for mission-driven innovation both at the governance level and at the content level, is of great importance.

Micro



Commitment from those involved is essential, including a willingness to collaborate, even across boundaries. This requires skills such as genuine interest, connecting, relationship building, and thinking beyond one's own functional role.

Micro



Prioritization, time management, and high workloads leave little room to reflect on underlying causes and solutions and for deep learning. Therefore, provide opportunities for experiments and for reflection, introspection, and gaining inspiration. It is important that employees have sufficient time to work on an innovation project and that their time is not too fragmented.

True innovation in ecosystems is not about accelerating, but about deepening connections and creating meaningful impact.

Micro



Trust is an important precondition for the success of mission-driven innovations. Effective collaboration and co-creation grow by investing in mutual trust and understanding before measurable outputs are expected. This has to do with the different nature of organizations in a public-private partnership. It is therefore important to make time for this process. Physical meetings and informal exchanges have proven essential in the DSIH consortium to bridge the different cultures within a public-private partnership and to foster a sense of shared interest.

Micro



Encounters are indispensable for innovation. The recommendation is to facilitate spontaneous encounters to promote gaining inspiration, knowledge exchange, and idea generation. This contributes to cross pollination from different perspectives and disciplines, which is essential for innovation. During a visit to Denmark, the DSIH visited innovation hubs where much attention was devoted to architecture and interior design of the building to stimulate these spontaneous encounters and creating connections between functions.

Micro



Ensure a renewed appreciation of operational craftsmanship. The recommendation is to provide space for professionals to deliver high quality work from their expertise and to bring the systems and processes for control and increasing efficiency more into balance with this. The mission must also be implemented, for which their knowledge and skills are essential. Involve professionals early, i.e., in testing and shaping the mission.

Micro



Being pulled back and forth between collaboration in an innovation ecosystem (focused on complex societal challenges across organizational boundaries with shared responsibility) and working on the tasks of one's own organization can lead to discomfort.

It is therefore important to support boundary workers (someone who works at the interface between organizations and networks and whose personal style heavily influences how these connections between their own organization and network partners are formed) in collaborating within ecosystems.

At the same time, this discomfort often also leads to being open to new insights and tapping into creativity. Without discomfort, there is less need to learn.

Micro



The starting point of change is: 'you are the innovation!' This means the realization by people that they themselves have an influence on the change process. The recommendation is therefore not to focus on the technical solutions (what) in transitions, but on the form and the process (how), appropriate to the change and the people involved.

It is important to tap into the deeper layers (the social innovation processes) in order to truly get to know those involved and to learn from each other (see also the implicit layers in the Six Conditions of System Change by John Kania, Mark Kramer and Peter Senge ([2018, The Water of Systems Change – FSG](#))).

The recommendation is to use working methods in meetings that bring out the value of mission-driven innovation and the knowledge present among the participants.

Micro

Instruments



Micro



Ensure that employees are familiar with the Impactful Innovation Menu and can apply the offered methods. In this menu, the DSIH has brought together knowledge and instruments in a structured way in a user friendly infrastructure with an approach for the entire innovation process. Knowledge within the organization can, for example, be disseminated even more quickly via the train-the-trainer modules. This menu brings together knowledge and instruments for mission-driven innovation in a structured manner and makes them accessible. The menu contains methodologies, trainings, and services that help people and organisations to address societal challenges creatively and purposefully at different stages of the innovation process.

Micro



Ensure that initiators are familiar with design tools for future scenarios and encourage them to involve other parties in order to use the collective imagination and gather more feedback.

Micro



Focus on applying the [TRL, SRL, CRL Maturity Model](#) to determine the level of maturity of:

- **TRL: Technological Readiness Level**

The TRLs indicate the degree of development of a technology (of a proposed innovative solution).

- **SRL: Societal Readiness Level**

The SRL indicates the degree of acceptance of the 'solution' (i.e. technology, product, process, or intervention) by society (end user). This shows how well the development of a 'solution' has taken end user acceptance into account.

- **CRL: Community Readiness Level**

The CRL indicates the degree of readiness of everyone involved (such as the organization, community/ecosystem, and partnership/consortium) in the realization (creation and delivery) of the solution.

Insight into the combination of the maturity levels of these three domains helps to steer towards increasing overall maturity and thus the success of the innovation. It also contributes to determining the next steps in the process: from steps in technological development to managing and coordinating relationships with the environment and society.

Micro



Encourage initiators to make use of Theory U (open communication: Scharmer, C. O. (2016). *Theory U: Leading from the future as it emerges*. Berrett Koehler Publishers) in order to consciously apply knowledge about communication, personal leadership, and behavioural change in innovation processes. This is a change methodology developed by Professor Otto Scharmer, which provides tools to structurally address complex societal challenges.

The methodology stimulates personal leadership and focuses on how people can start to think, sense, and learn differently by looking openly at future visions and new ideas.

The phases of this approach (sharing intentions, seeing with fresh eyes, sensing, presencing, crystallizing, building prototypes, and performing) are depicted in a U shape.

Micro



Embedding in the organisation

Micro



Ensure that mission-driven innovation or working in an assignment driven way is embedded in the organizational structure and in work processes and share this importance as the leadership of an organisation. Also ensure managerial support for this working method within the organisation, otherwise innovation remains stuck in the pilot phase and the results dissolve afterwards.

Micro



Create room within the organisation for both top-down, cross sector innovation and bottom-up experiments, and ensure that these come together in an innovation structure.

Micro



Encourage initiators to pitch their innovative ideas to their managers and provide constructive feedback on these.

Micro



Ensure that there is a shared workspace (where policy and craftsmanship come together) and a methodological toolkit (co-creation, prototyping, testing).

Micro



Ensure a strong connection between the organisation and the outside world. Invest time in getting to know each other better at both a personal and organisational level. Include networking and collaboration competences as part of job profiles.

Micro



Mission-driven innovation is a collective learning process. Therefore, provide space for experimentation, reflection, and learning.

Micro

Measurability & impact



Micro



Use models such as “The Six Conditions for Systems Change” [2018, [The Water of Systems Change - FSG](#)] and the maturity TRL, SRL, CRL Maturity Model ([Volwassenheidsmodel](#)) to measure progress in innovation projects.

Resources



Micro



Create space for initiators to work on innovations within the organisation. Organise contributions from different parts of the organisation for this purpose and provide a place for physical meetings if the distance between collaboration partners is large.

Micro



Give people sufficient weekly time to stay well connected to the collaboration and ensure that the link between the line organisation and the collaboration is supported by more than one person within the organisation. Otherwise, there is a risk that the rest of the organisation will not develop any connection with the project at all.

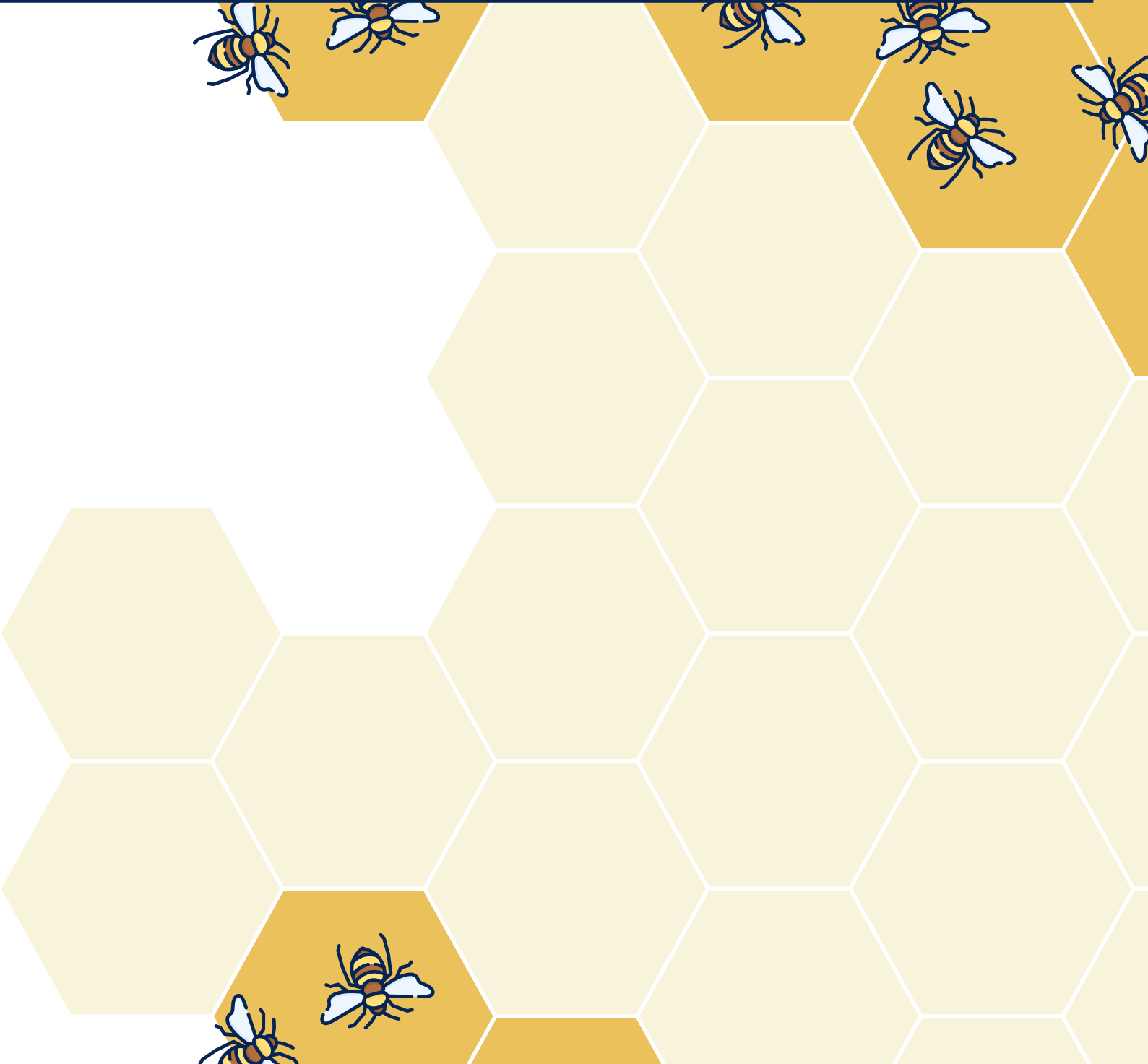
Meso



This refers to the level of collaboration between organisations (for example, a consortium).

Meso

Mission



Meso

Work towards a shared, cross organisational mission for the organisations involved in the ecosystem. Focus on a common societal challenge.



Meso

In the case of complex issues (so called *wicked problems*), the approach extends beyond the boundaries of a single organisation, making collaboration with other parties essential. In this context, the shared societal challenge (mission) is central rather than the organisation itself, and network structures provide the framework for collaboration. Agenda setting takes place through conversations, the exchange of ideas, insights, knowledge, and experience, and by learning and experimenting together.

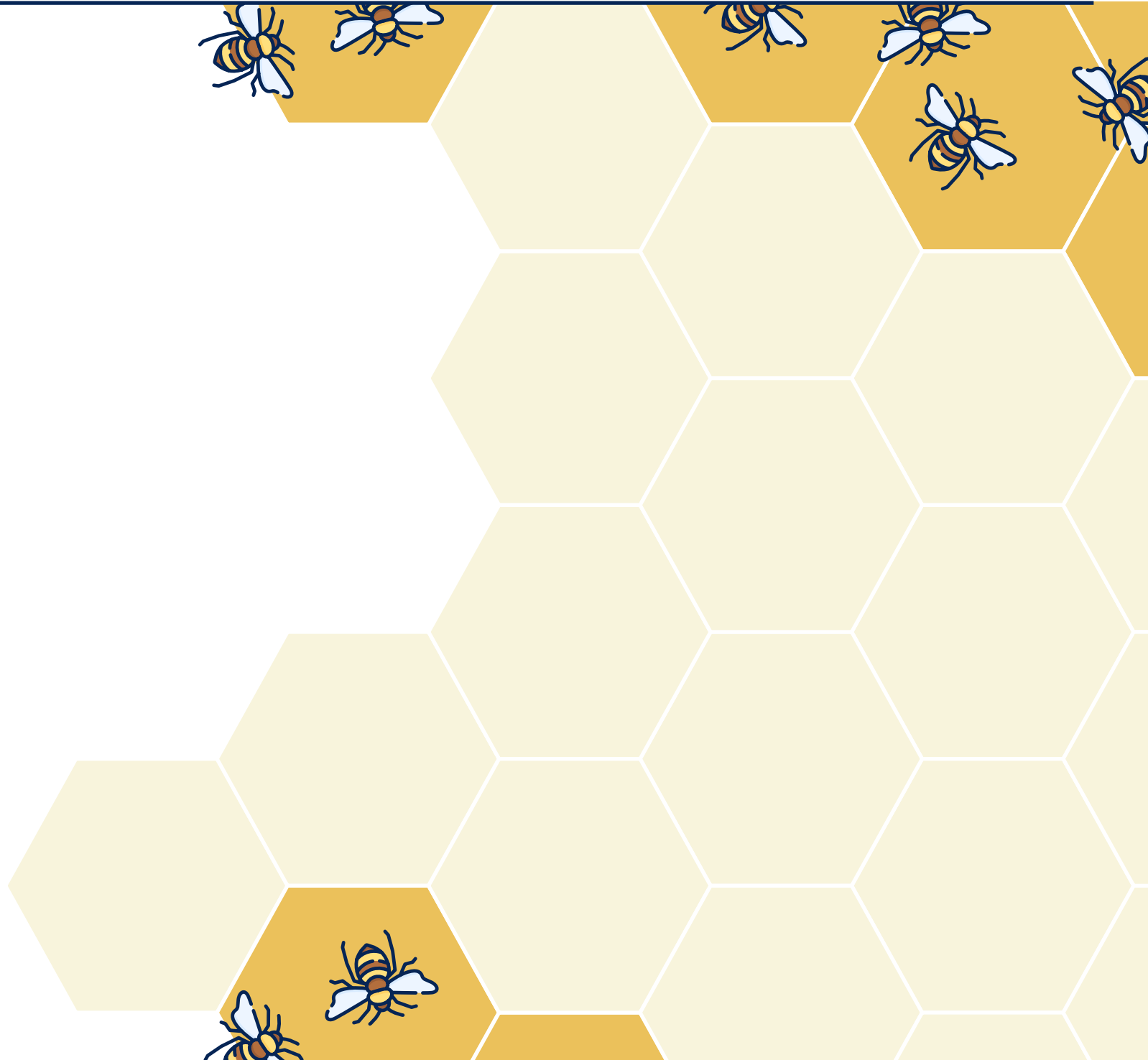
Meso

Identify the shared interests. Develop new forms of collaboration contracts, cooperation agreements, and partnership arrangements. Systemic changes require a new narrative.



Meso

Collaboration & culture



Meso

Focus on improving the CRL (Community Readiness Level) of the organisations and on embedding the working methods within them. When the collaboration reaches a high CRL, profound changes can take place more easily. This increases the likelihood of successful innovation and a positive societal impact.

Meso

Ensure that both the organisation and the collaboration are familiar with mission-driven innovation and have confidence in this approach.

Meso

Working in silos—barriers that separate functional units and organisations within an innovation ecosystem, causing them to operate in isolation—limits mission-driven innovation and leads to fragmentation. Without trust, silos dominate. Therefore, build strong relationships to promote knowledge sharing and innovation. In doing so, new connections emerge within broader, more interactive collaborative structures.



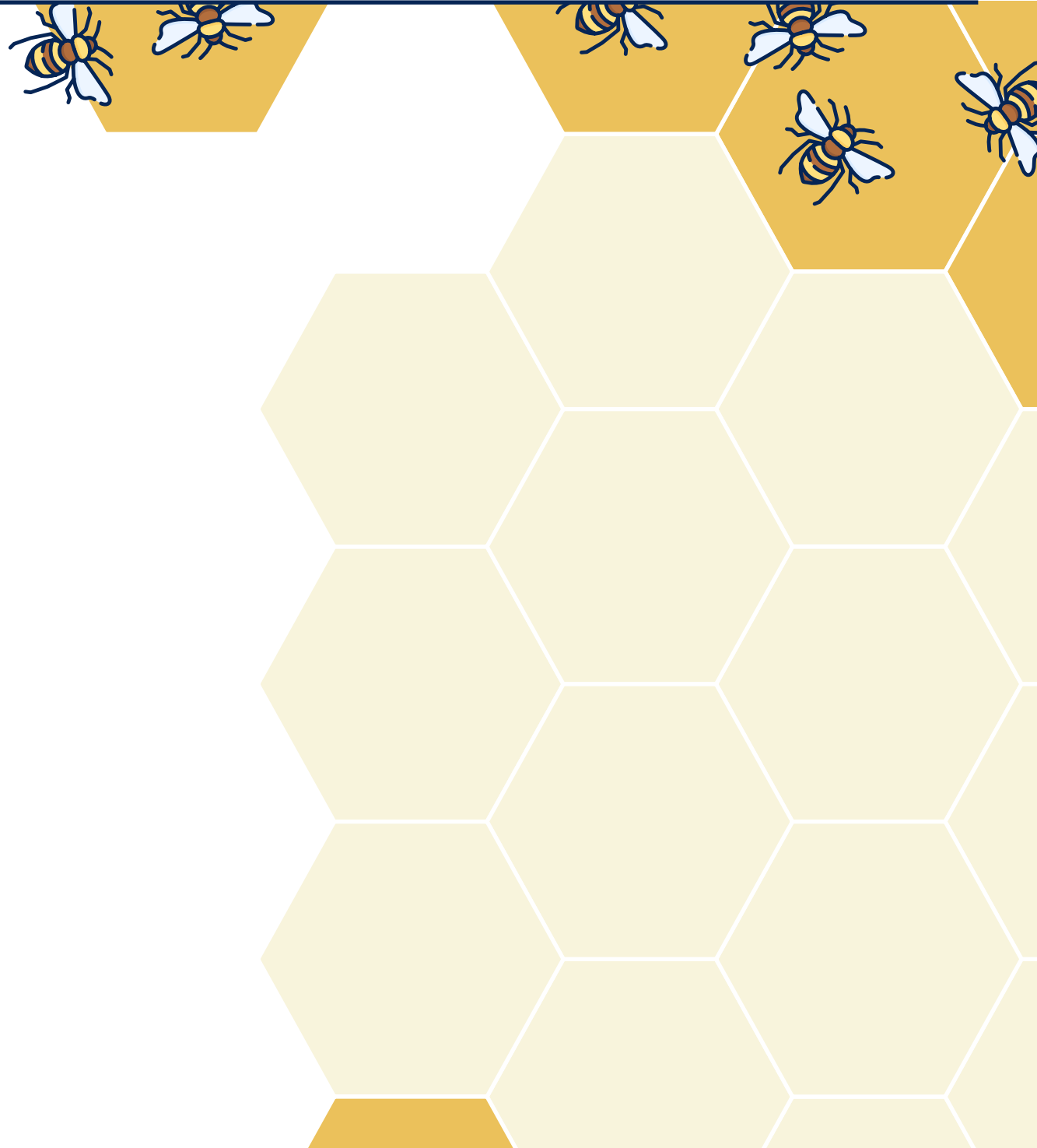
Meso

Place the shared societal challenge at the centre and explore with partners how digital innovations can support it. Be selective: innovate only where it truly adds value and helps advance the challenge.



Meso

Instruments



Meso

Organisations that wish to transform their structures, culture, and working methods can apply the model of the Six Conditions of System Change by John Kania, Mark Kramer, and Peter Senge (2018, *The Water of Systems Change – FSG*) within their organisation and in their innovation pathways. For organisations seeking to innovate in a mission-driven way, it is important to apply these approaches to systemic thinking (Mariana Mazzucato, *Moonshot*, 2021).

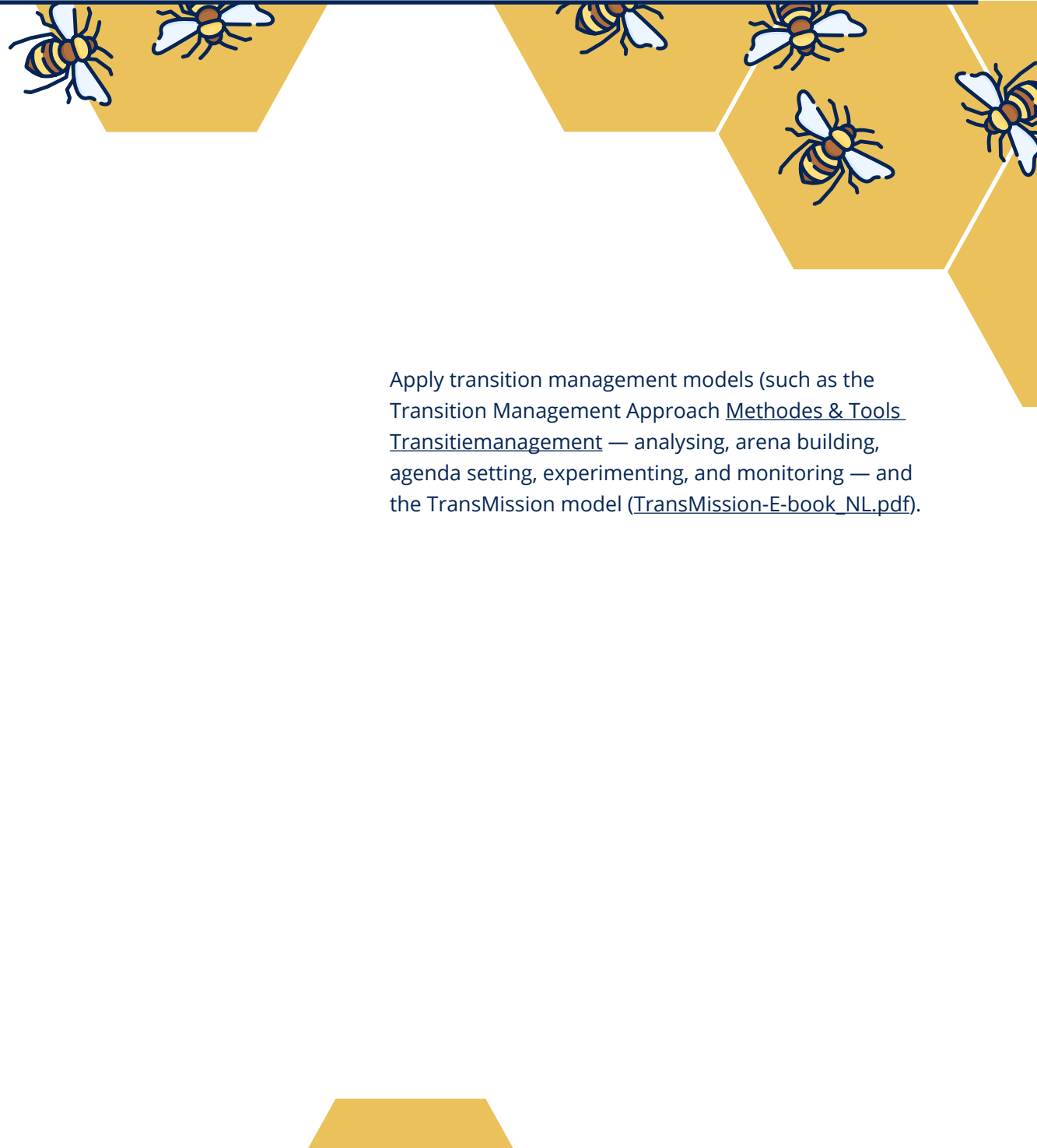
Meso

Use *design thinking* as a problem-solving discipline and mindset (define, research, generate new ideas to solve problems, conceptualize, and implement). See for example: <https://www.depubliekeontwerppraktijk.nl>



Meso

Apply transition management models (such as the Transition Management Approach [Methodes & Tools](#) [Transitiemanagement](#) — analysing, arena building, agenda setting, experimenting, and monitoring — and the TransMission model ([TransMission-E-book_NL.pdf](#)).



Meso

Apply Mariana Mazzucato's mission-driven innovation model (Mariana Mazzucato, *The Entrepreneurial State* (2013)).



Meso

Encourage the application of the [Scaling Canvas](#) from the [Impactful Innovation Menu](#) in different phases of innovation pathways. It is aimed at linking societal challenges with (digital) innovations to explore new solution directions. In addition to policy related and technical components, it also addresses socio cultural aspects. Scaling refers to the adoption of an innovation developed at the local level by multiple organisations.

Meso

Encourage switching between collaboration levels (European, national, and regional) and ensure these perspectives are well aligned.



Meso

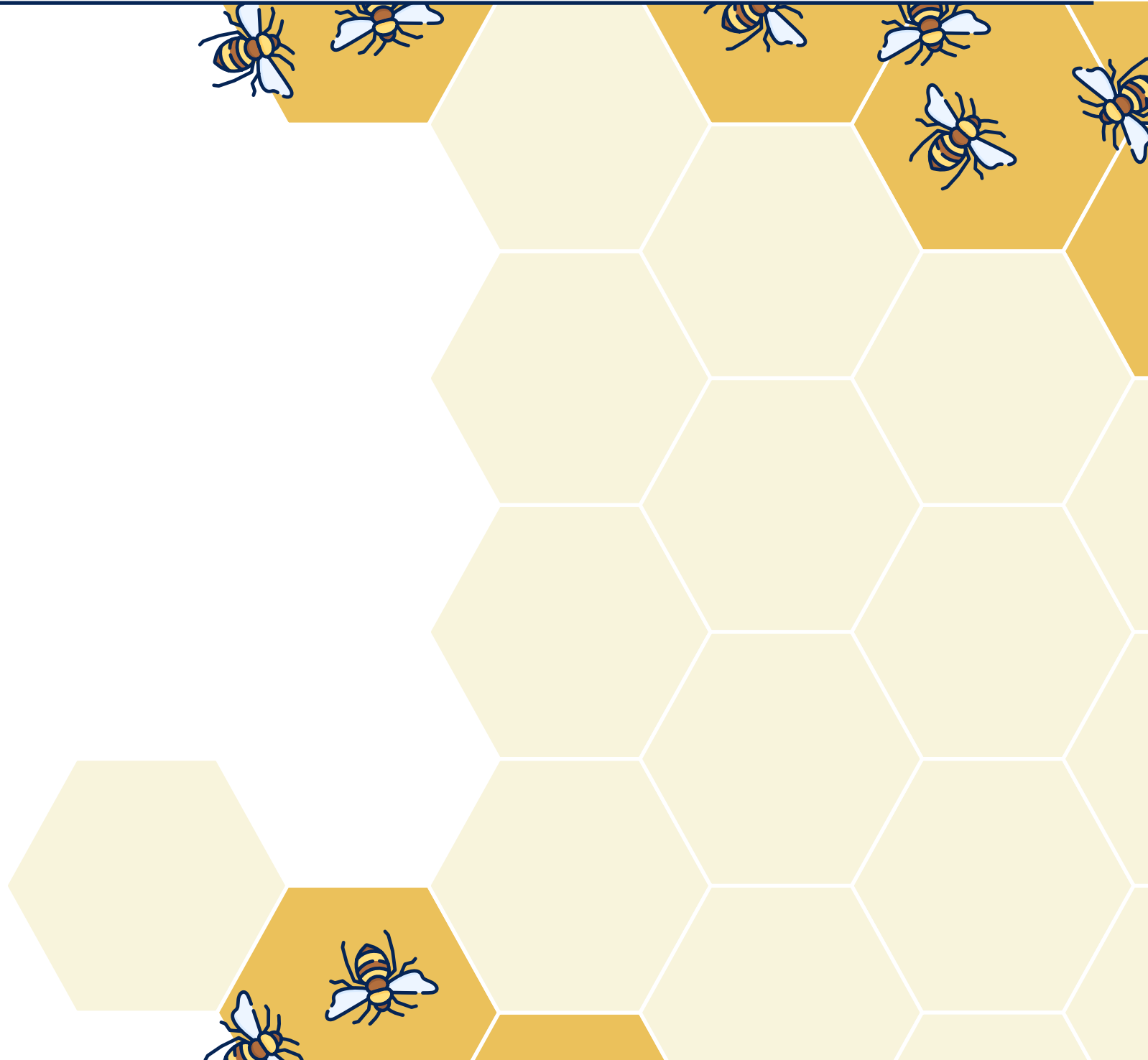
Current IT-systems and collaboration platforms are often designed from the perspective of an individual organisation. Designing digital collaboration platforms from the viewpoint of a collaborative partnership is both possible and desirable, but it still happens too infrequently, partly because the requirements of the various partners are often not aligned and there is no joint procurement organisation.

Meso

The UNhackathon is a gathering similar to a traditional hackathon (an event in which participants collaborate intensively to develop solutions for specific problems or challenges within a short period of time), but with the addition of a different perspective by inviting groups of participants other than the primary target audience and by creating the right setting as part of the innovation infrastructure. It also pays attention to the (underlying) social innovation processes.

Meso

Embedding in the organisation



Meso

Ensure high quality information provision and interoperability.



Meso

Apply the 'strategic foresight' instrument ([Strategic Foresight in the EU - The Joint Research Centre: EU Science Hub](#)) within your own organisation and the organisations involved, in order to work systematically with the future and to integrate a long term perspective into the decision making dialogue. Ensure that, as an organisation, you develop proficiency in the capacity to anticipate future developments. A shared vocabulary is essential to achieving this.

Meso

Bring together the competencies of people and the necessary solutions to work on complex societal challenges, preferably by offering not only digital collaboration possibilities but also a physical workspace dedicated to this purpose. Complex challenges require new forms of collaboration. Build bridges between different disciplines and work within triple-helix structures (government-business-knowledge institutions), or quadruple-helix structures (the triple-helix supplemented by civil society actors), or quintuple-helix structures (the quadruple-helix supplemented by the natural environment). Collaborate within innovation ecosystems.

Meso

Use the TRL, SRL, CRL maturity model from the [Impactful Innovation Menu](#) to determine the maturity of the innovation trajectories and the partnership, in order to implement innovations and identify next steps.

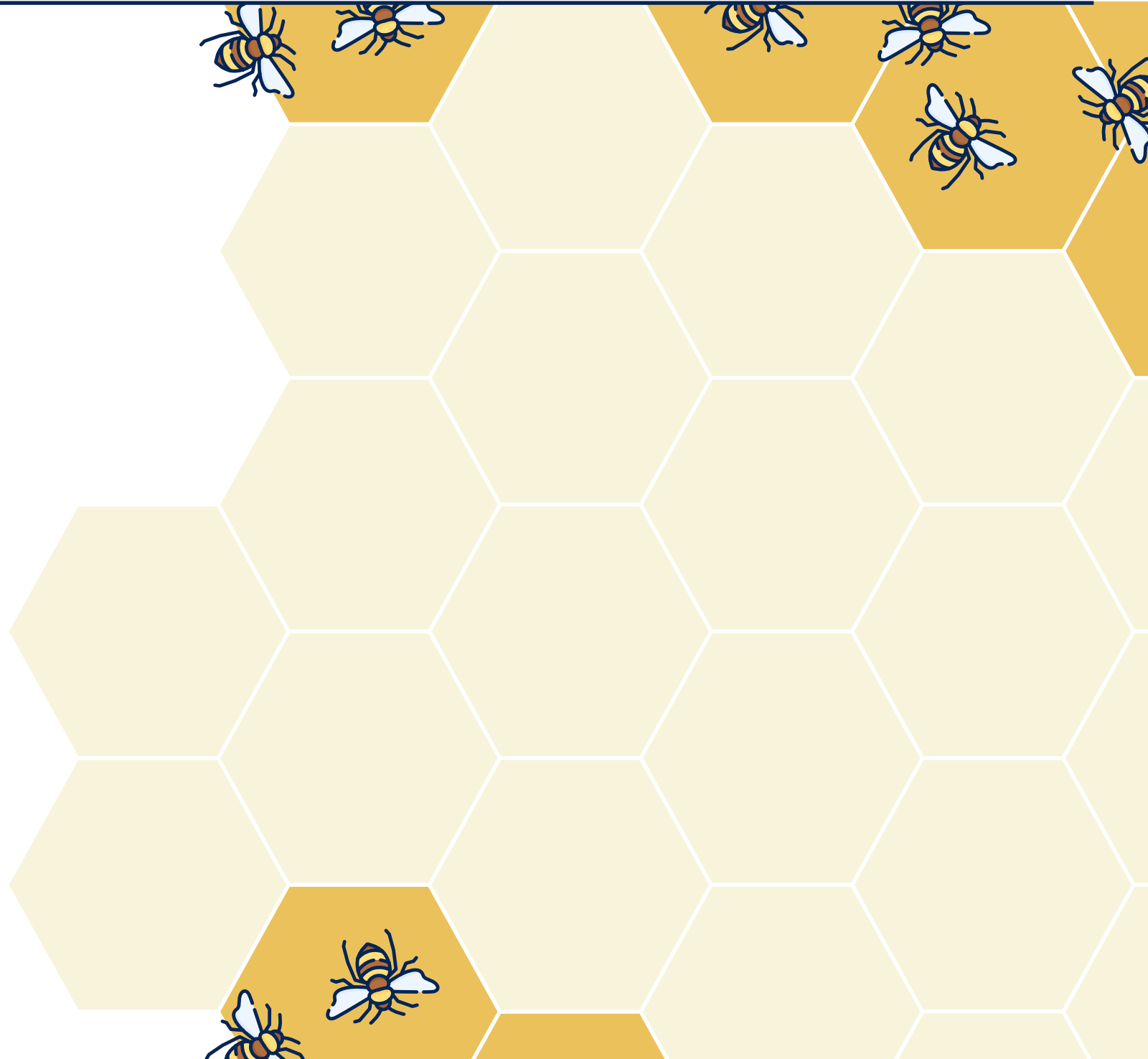
Meso

Encourage knowledge sharing between organisational units and organisations on digital transformation, based on European values such as ethics, privacy, citizen centred approaches, secure infrastructure and the use of open standards. See, for example, <https://digital-strategy.ec.europa.eu/en> en <https://eurostack.eu> Also refer to the work of the ethical committees of the Dutch public authorities.



Meso

Measurability & impact



Meso

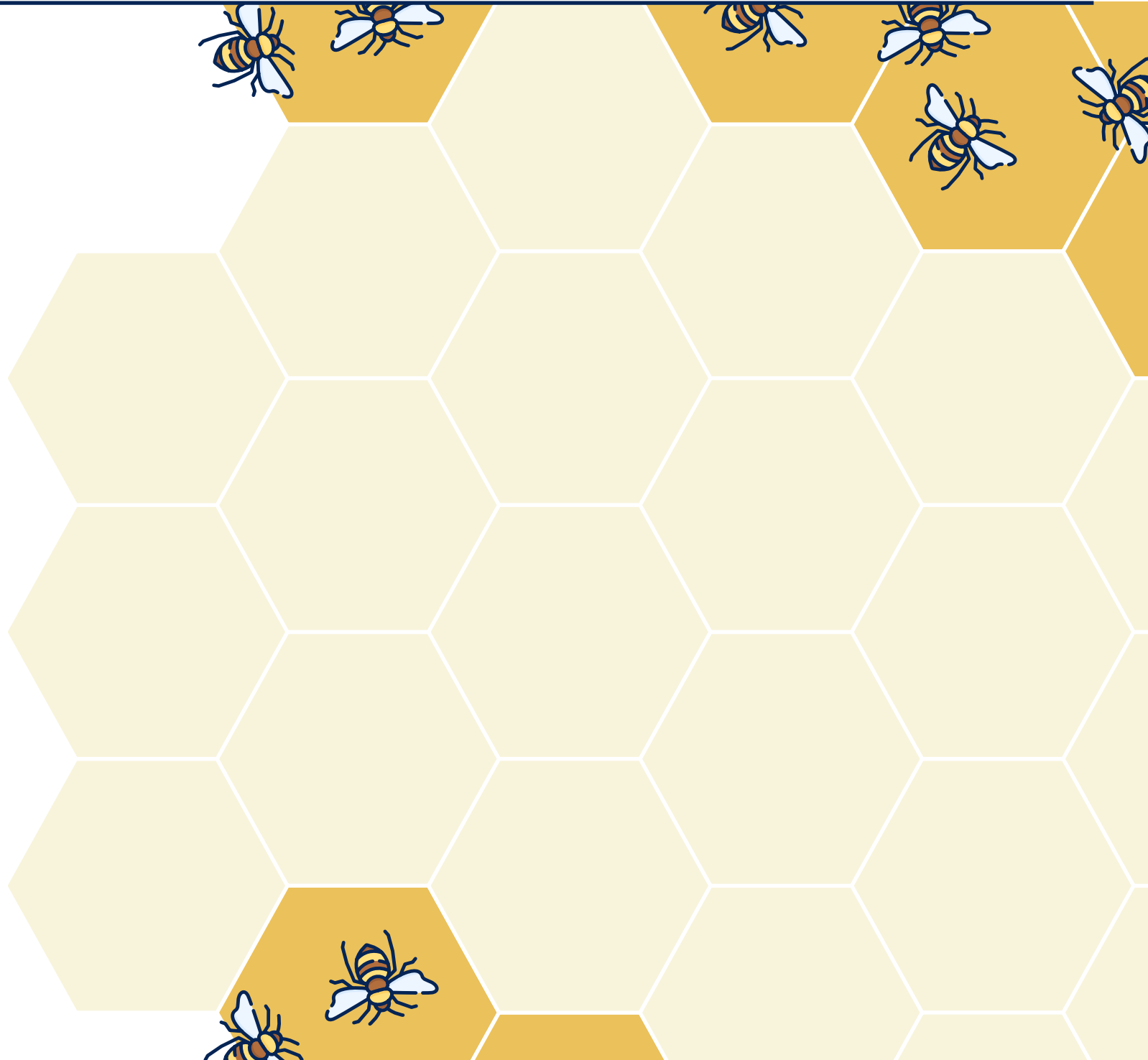
Ensure standardised, measurable KPIs are in place to discuss progress and adjust where necessary, linked to the shared objective, while leaving sufficient room for creativity (the capacity to change meanings, connections and the overall dynamic).

Meso

Encourage digital leadership within the organisation and strengthen the digital skills of policy officers in order to increase awareness of the added value of digitalisation for societal challenges. In 2025, Utrecht University developed a [validated instrument to measure leadership in the digital age](#).

Meso

Resources



Meso

Increase knowledge about European cooperation initiatives. Public authorities are still insufficiently familiar with European projects and funding opportunities, which means valuable chances for knowledge sharing and the use of European resources are being missed. Organisations often experience a barrier when applying for European grants due to the complexity, and the time and effort required. Work together with other public authorities; for example, establish a Europe desk jointly with several provinces, or with a province and a number of municipalities.

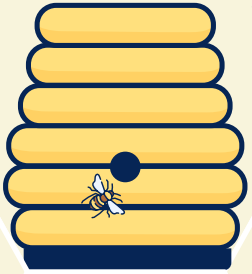
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The ecosystem level:
the interactions between
organisations, societal develop-
ments, and the connection with
the natural environment.

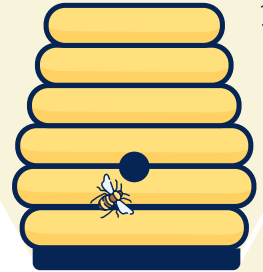


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Mission

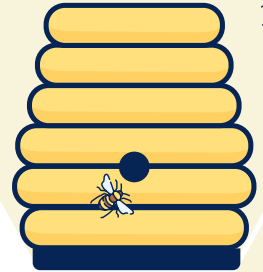


Macro



For steering system change from within a network structure, the recommendation is to shift the focus from stimulating the growth of start ups into scale ups ("incubator") towards initiating conversation and dialogue ("prompter"). Place greater emphasis on leadership. Also look at the question behind the question (from all stakeholders) and keep the societal challenge at the centre. Often, the technological solution already exists, but the desired societal impact has not yet been achieved. This shift is therefore necessary.

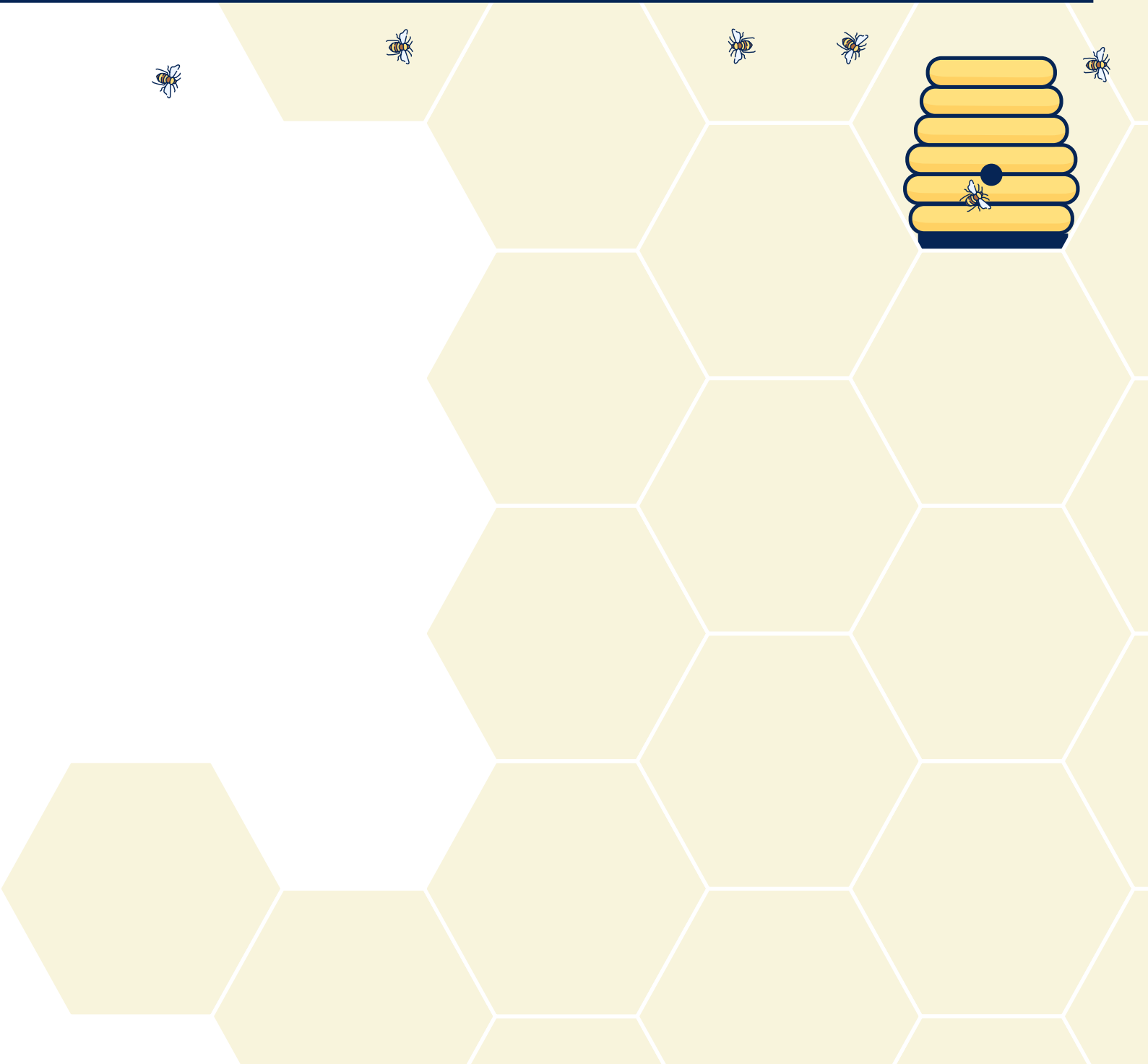
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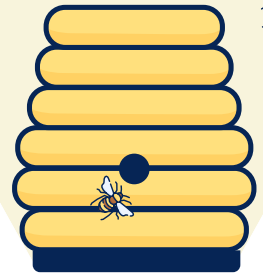
Understanding the dynamics of change is important for creating future scenarios. Work from knowledge of global megatrends in the domains of 'people and society', 'technology and science', 'economy', and the 'natural environment'.

Macro

Collaboration & culture

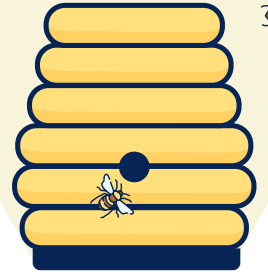


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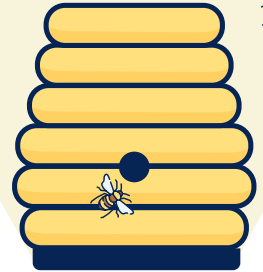
- Steer towards a structured approach by organising collaboration along several dimensions:
- intergovernmental, across all levels: international – national – regional and local
 - multidisciplinary
 - intergenerational
 - cross sectoral
 - and in cooperation with societal actors and citizens who take initiative, such as in citizen science (see the Hollandse Luchten project: <https://hollandse-luchten.org/> and Snuffelfiets: <https://www.samenmeten.nl/snuffelfiets>)
 - public-private collaborative partnerships

Macro



Ensure a central coordinator and leader is in place to maintain the connection between the parties and the wider environment, and to prevent fragmentation, including fragmentation of focus. Ensure that the project partners maintain a shared vision and common interest, and move forward in the same direction.

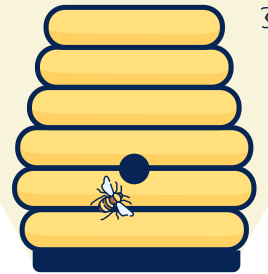
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In a collaboration involving many different parties and interests, it is important to align the innovations effectively with the shared interests and societal goals.

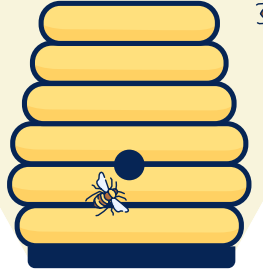


Macro



When setting up partnerships, look at functional systems (partnerships, systems and global cohesion) and at resilience (nature: biodiversity as an asset, regenerative mindset).

Macro

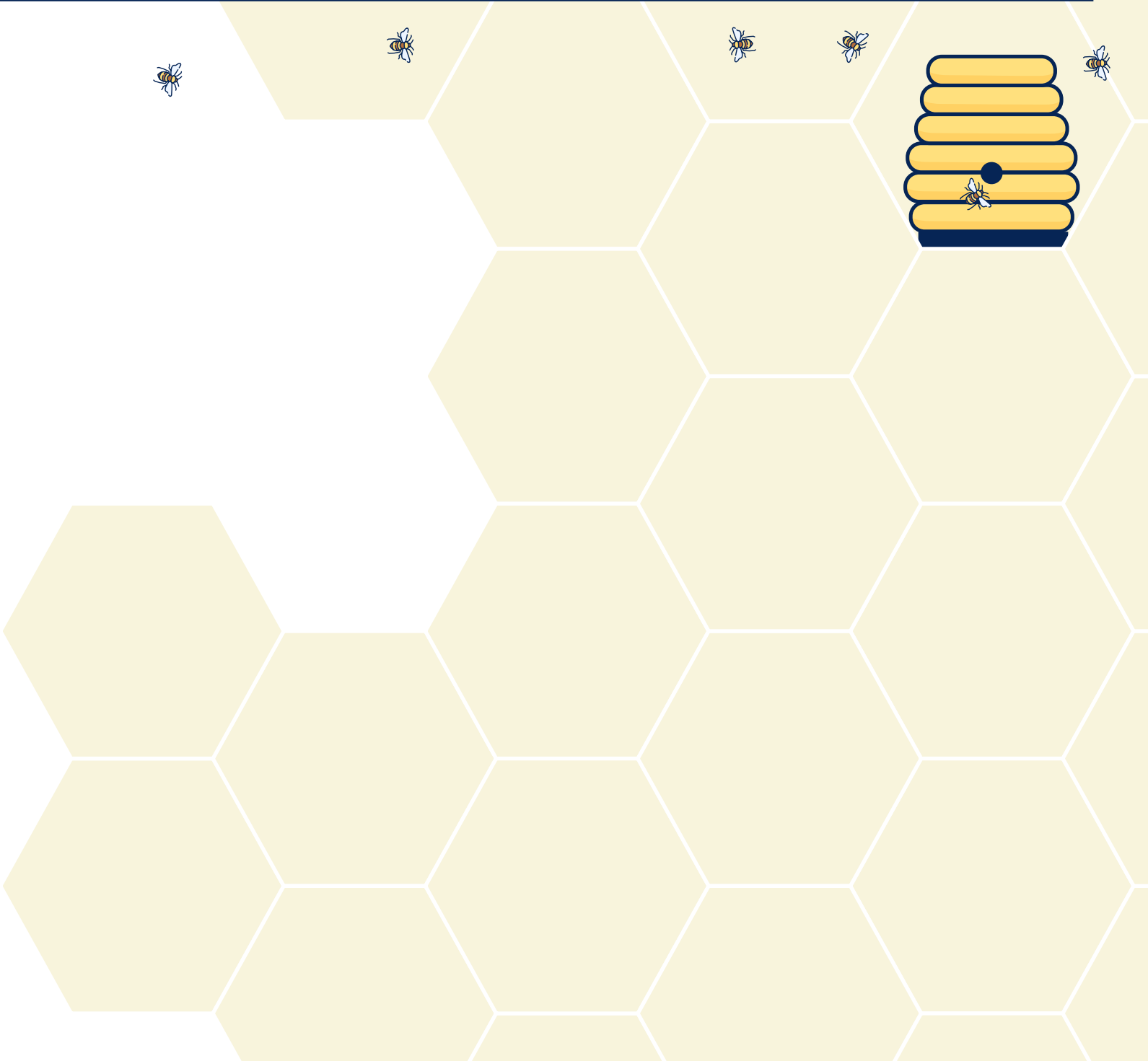


Build a community to drive a system transition and develop a change agenda.

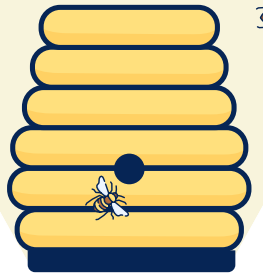


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Instruments



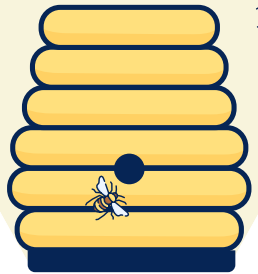
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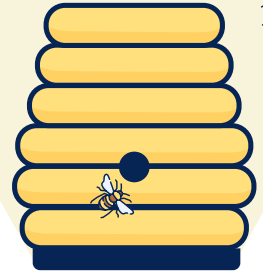
Apply the “Six Conditions for Systems Change” model to the innovation ecosystem. (2018, John Kania, Mark Kramer en Peter Senge, [The Water of Systems Change - FSG](#)).

Macro

Focus on storytelling.



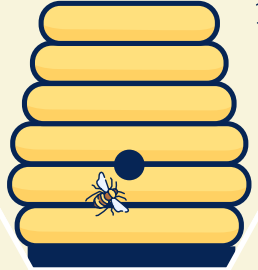
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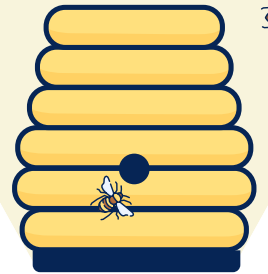
Make use the AI tech art model *Garden of Friction* ([Garden of Friction](#)) developed within the framework of the DSIH. This model is fed with data from the Living-in-eu database. It is a 'test before invest' activity to find new ways to learn how to work mission-driven. The goal is to learn together across the different transition arenas (strategic, programming, implementation and execution) and to provide systematic feedback loops. This allows users to experience and reflect on how creative interventions contribute to societal challenges and create greater awareness of their complexity, uncertainties and contradictions.

Macro

Embedding in the organisation



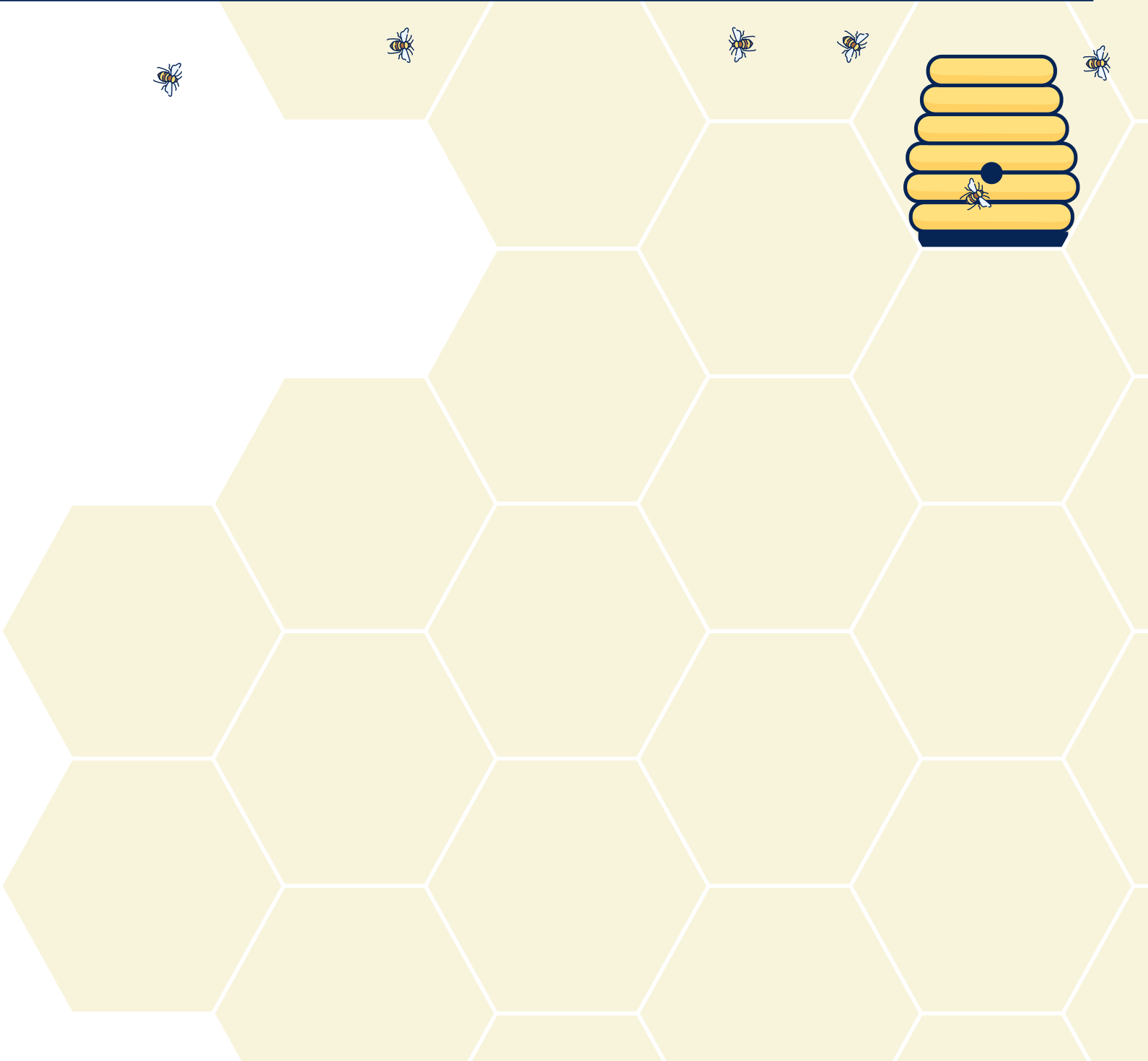
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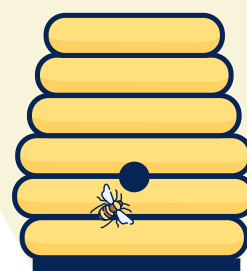
The recommendation is to give the interaction between network partners and society an appropriate and well defined place within the organisation.

Macro

Measurability & impact

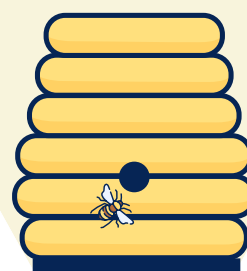
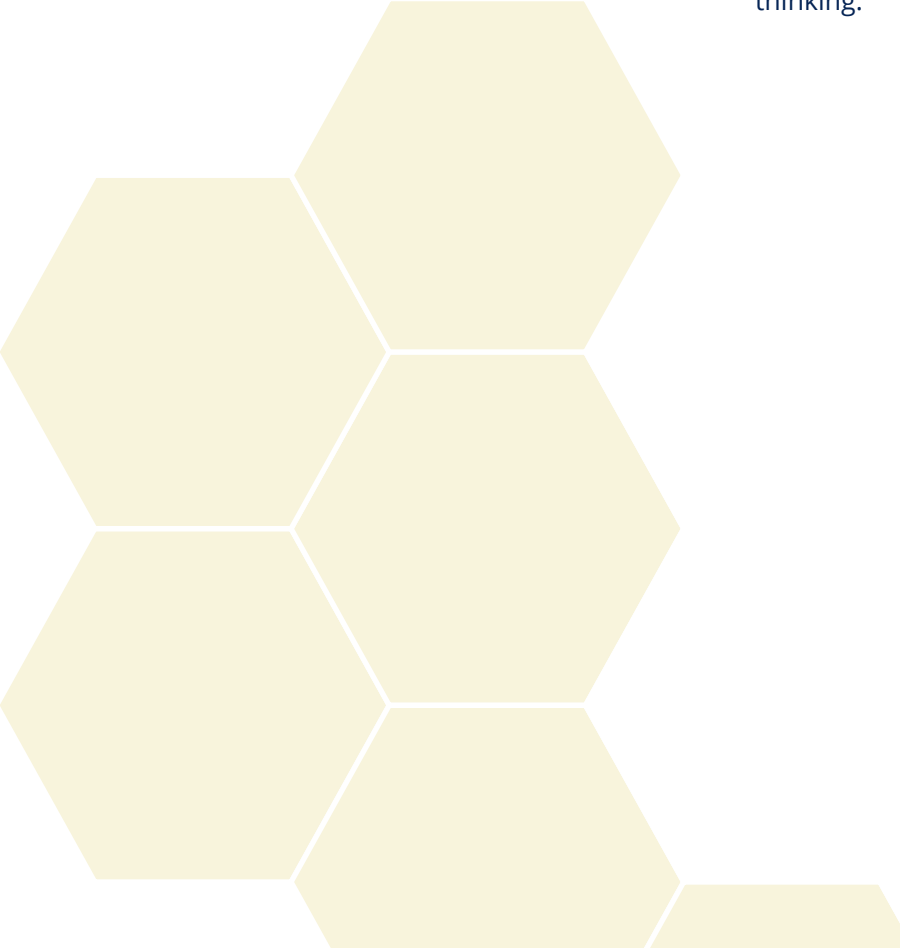


Macro



Seek, as a consortium, both public and private investors for innovation hubs.

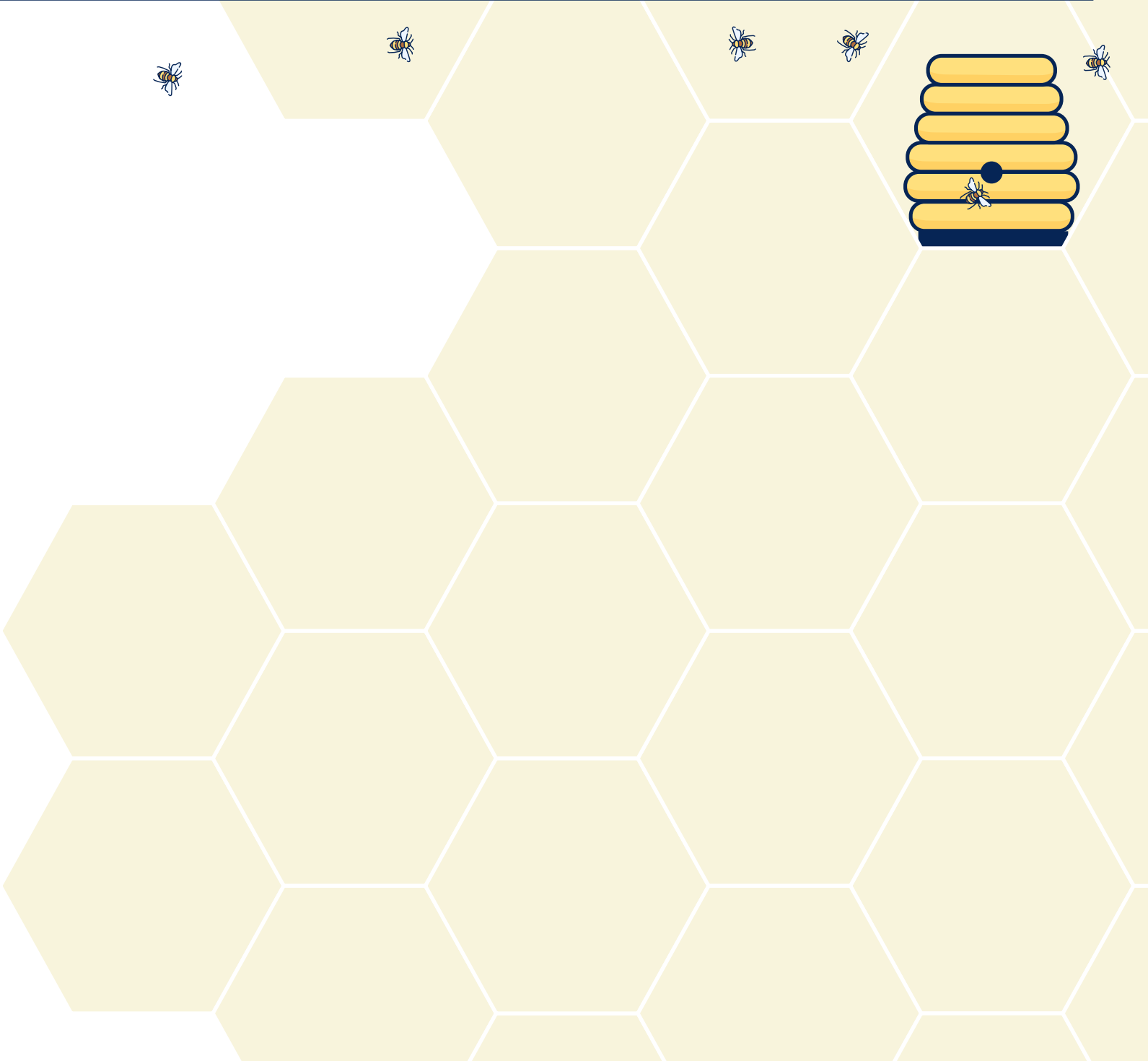
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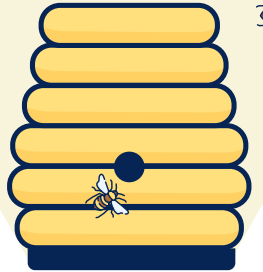
Leverage data and digitalisation to stimulate systems thinking.

Macro

Resources



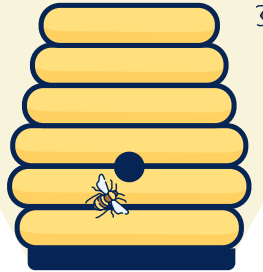
Macro



Collaboration is limited by financial barriers between organisations.



Macro



Organise collaboration and trust between competing organisations so they can share their data and resources, enabling them to achieve more collectively.



Colophon

Commissioned by the Dutch Societal Innovation Hub (DSIH),
coördinated by the Association of Dutch Provinces (IPO)

Publication year: 2026

Design and layout: Kris Kras communicatie

Text: written by the partners of the DSIH (VNG, IPO,
Digicampus, DKH-GSL, UDI, BSSC, Municipality of Rotterdam)

Contact: digitalisering@ipo.nl

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Co-funded by
the European Union