

Design Journeys through Complex Systems

Practice Tools for Systemic Design

Peter Jones & Kristel Van Ael

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The tool templates presented in this book can be downloaded from systemicdesigntoolkit.org/journeys



Design Journeys through Complex Systems

Systemic Design for Systems Change Designers

A tour guide for system navigators

Creative professionals face unprecedented complexity, increasingly affecting our impact and influence as the 21st century unfolds. Of course, designers are supposed to thrive in such chaotic times, to navigate creative solutions within multiple intersecting complex issues, such as economic delusion, media illusion, technology evolution, information profusion, and cultural confusion. That may just be a story we tell, since designers collaborate with mixed teams on real projects, we are all infused together.

This apparent chaos (that some call supercomplexity) imposes directly consequential demands on the individual and collective cognition as well as performance of decision-makers and implementers. As they are our clients and fellow travellers, we might plan better preparations for the long journeys we face together into complex systems and systems change. The following is a tour guide for both expert Explorers and novice Tourists into systemic design practices, from the testbeds of practice in numerous travels of recent years.

Designers, social innovators, and business leaders are now called to address transformational challenges for which we have no relevant academic or practice training. For those employed in design agencies or creative strategy, for large-scale services or digital platforms,

these challenges are fascinating, but not quite welcome. We are not often contracted to directly design solutions for systemic problems such as regional economic rejuvenation, food webs in poverty zones, or educational systems redesign. Systemic contexts in general are problematic because they break defined boundaries that focus our work and limit project scope.

Design teams are rarely project owners; we are service providers with and for larger teams. We have to question when it's responsible to break boundaries that raise system-level problems when given a focused remit. Upselling the sponsor's brief to solve systemic problems can massively impact project scope and cost, and most clients have no organisational on-ramp into complex systems challenges. Disciplined and constructive tools are needed for stepping into systems contexts with an ever-expanding group of fellow travellers.

Design Journeys offers a repertoire of collaborative practice tools for system solutions developed and tested in dozens of projects. The book integrates theory and practices of the Systemic Design Toolkit for cocreation, in a single handbook. As a text, it informs practice and teaches relevant theories to help new system leaders coordinate much better design processes for these challenges. The Journeys methodology anchors powerful system methods from the Toolkit with cases from the two authors' years of experience in systemic design projects and method development.



Design Journeys through Complex Systems



SYSTEMIC DESIGN TOOLKIT



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Systemic Design Toolkit

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Systemic Design Methodology

Design Journeys and the Toolkit

The Systemic Design Toolkit^[1] has been innovated and evaluated continuously for more than five years of development. The Toolkit was designed from its origin as a non-proprietary collection of PDF canvases (licensed as CC BY-NC-ND^[2]) with public access to a smaller set of tools in the public version. The Toolkit has been successfully adopted by organisations adopting in the public sector, social innovation, and education, as well as in small and large businesses.

We know that toolkits are a kind of translation of theory to practise by way of method, and they can have gaps and shortcomings. Any “toolkit” carries a promise to relieve the burdens of research and rigorous skill development by packaging guidelines for easier adaptation. While the Systemic Design Toolkit is used in graduate design education, most toolkits are not taught in advanced education. Many aggregations of resources labelled as toolkits are merely a curated set of branded training templates or guidelines provided by a popular practitioner. Also, there are so many toolkits now produced for design and innovation methods that practice leaders can be overwhelmed with choice. This is perhaps exemplified by the lead of the OECD public sector innovation lab declaring that the field has reached “peak toolkit”.^[3]

Critiques are always helpful, as there are points any new toolkit should address. The material should not be too broad, or too granular. Tools ought to be feasible to learn without extensive training, and training requirements should be explicit. The tools themselves should be aligned to real purposes.

The intent of the Journeys book is to provide the support for learning this powerful portfolio of methods, step-by-step, as well as to learn sufficient theory and application techniques to be able to apply the tools with confidence and credibility. The seven-stage Design Journeys methodology was designed to scaffold and assign a large number of tools that otherwise might be experienced as a *complicated* process, in its search to provide a framework for complexity.

Why the Toolkit

Systems thinking history shows at least four eras of systems education in management that have attempted to integrate systems thinking into management of complex organisations. In the 1960’s, operations research approaches were predominant; in the 1980’s, Russell Ackoff and IBM were among the systems thinking leaders; and in the 1990’s, Peter Senge’s *Fifth Discipline* led the management revolution. In the 2000’s, we saw the rise of integrated methodologies (e.g. Michael Jackson), the move toward engagement (e.g. Appreciative Inquiry and Open Space), and the schools of design thinking (e.g.

[1] The Toolkit was inspired and developed in workshops at the Relating Systems Thinking and Design Symposia, with the RSD proceedings tracing its development. <https://rsdsymposium.org>.

[2] The Creative Commons license assigned to all tools is BY-NC-ND Attribution Non-Commercial, No Derivatives <https://creativecommons.org/licenses/by-nc-nd/4.0/legalcode>.

[3] Angela Hanson (2018). Have we reached Peak Toolkit?. *OECD, Observatory of Public Sector Innovation*.



IDEO and service design). The Systemic Design Toolkit takes the lessons learned into account and offers an array of tools designed for stakeholder engagement that (if chosen appropriately) will support any system design context or organisation.

The methodology has been carefully constructed to address known issues and failures of these prior attempts to adapt systems thinking tools to business and public organisations. In 2009, Fred Collopy, professor at Case Western Reserve University, proposed^[4] that design thinking might succeed in organisations where systems thinking had failed because its simpler, more accessible entry points allow people to try out parts, and satisfy short and long-term objectives over time. Dr. Collopy's critique noted:

“Each of systems thinking's various manifestations demands some degree of subscription to an orthodoxy (a particular view of just what systems thinking is). And each requires that the user master a large number of related ideas and techniques, most of which are not particularly useful on their own.”

Peter Jones responded^[5] that the rigorous, deliberative tools of systems thinking were never designed to match the enacted and improvisational styles of modern management. Management practice is trained as if it were a quantified, scientific approach to business administration, yet in reality, managing is a mix of communications and decision support skills adapted to organisational settings. The history of systems thinking in business assumed that managers would undergo a period of training, reflection, and long-term adoption of systems methods. Instead, systems thinking – and predictably, design thinking later – became management fads. Systems thinking was popularised for a period but rarely used seriously in mainstream organisations, because of the commitment required to employ its abstract and reflective practices.

It is telling that Peter Senge,^[6] the author of the Fifth Discipline methodology that was widely trained in the

1990's, extended 50 years of systems thinking toward a practice of *systems leadership* in our current era of complexity. Systems leadership develops competencies to see and engage the larger system, to collaborate toward the health of the whole system rather than symptomatic fixes, and to lead from one's own place in the system, “shifting the collective focus from reactive problem solving to co-creating the future.”

The goal of a systemic design competency might be to amplify the capacities for pragmatic design and action toward change in complex systems by choosing from a powerful set of thinking models adapted for effective collaboration and design action. All of *Design Journeys'* tools are helpful when used in context, but as with any systems model, they can be challenging at first to learn and to train others. The Journeys book has been designed for use in engagements, and to ease that learning curve. In the Systemic Design Toolkit, these thinking-and-doing tools are harmonised and translated as design tools that can be used by practitioners in one to two-hour workshops with modest training. The tools are prepared as visual templates in image formats for virtual workshops, and printable at several sizes for live meetings, with a deliberate balance of design thinking and systems thinking.

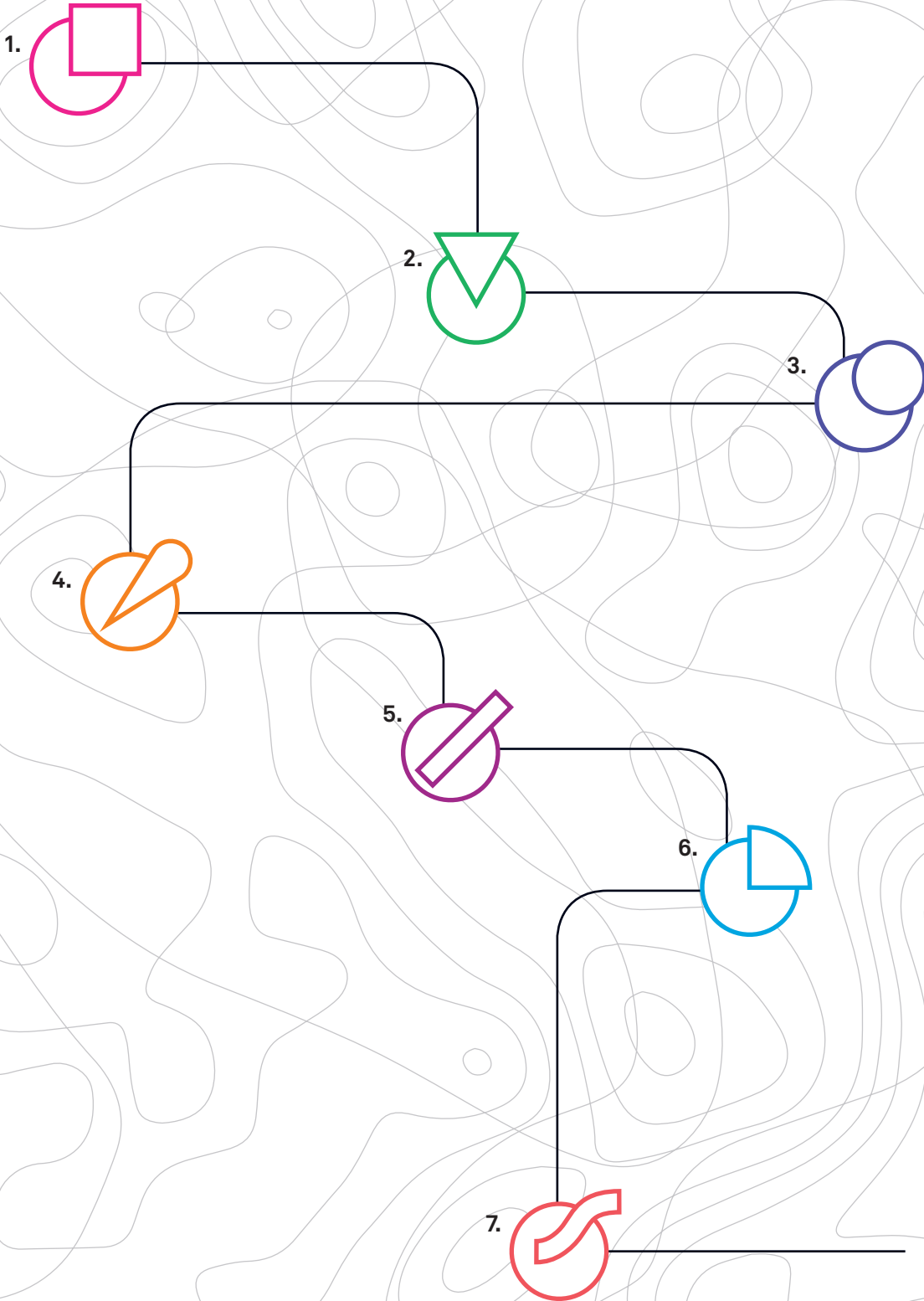
Toolkit Value Proposition

The Systemic Design Toolkit is a complete set of systems methods, with over 40 modelling canvases designed for participatory workshops, following the seven-stage Design Journeys methodology. Validated through years of applications, academic training, testing, and workshops, the Toolkit bridges systems thinking, human-centred design, and service design approaches to address complex systems contexts. The Toolkit provides a full stack of powerful resources for systems change and complex design that can be learned and adapted into a personal repertoire.

[4] Fred Collopy (2009). Lessons learned — Why the failure of systems thinking should inform the future of design thinking. *Fast Company*.

[5] Peter Jones (2009). Learning the lessons of systems thinking: Exploring the gap between thinking and leadership. *Integral Leadership Review*.

[6] Peter Senge, Hamilton & Kania (2015). The dawn of system leadership. *Stanford Social Innovation Review*.





Open-Ended

Unlike other design disciplines, systemic design is not bound to a specific outcome, be it a product or a service, or the creation of a single solution. Systemic design aims to identify, develop, and stimulate interventions to change and adapt the system on the way.

Pluriversity

Systemic design embraces a pluriversal worldview^[11] that recognises a commitment to design supporting a pluralism of cultures, societies and experiences that seek or are expressed in movements toward social transformation, moving away from a Western or modernist universalism. Pluriversity seeks a relational appreciation among multiple ontologies that coexist, often in many territories at once, while expressing autonomy and local transformations through the power of design by co-participants.

Numinosity and Inner Reflection

While not an explicit frame of design action in most cases, systemic design recognises the mystery of human experience and the evolution of higher states of consciousness, leading to new outlooks on human possibility in nature and the universe. The emergence of the numinous, spiritual, and deep inner knowing are honoured in approaches to creative design for higher orders of meaning, including social, cultural, and civilisational systems of meaning.

Multi-Level and Multi-Perspective

The Journeys design process continuously modulates between levels of abstraction by alternating between levels (from human-focused to very abstract) and shifting perspectives (disciplinary or expert views, or life experiences associated with the system). The tools facilitate 'zooming in and out,' moving between levels of the system and the stakeholders. Several tools help reframe boundary judgments, to accommodate different stakeholder perspectives^[12] and to transcend paradigms.

Formative

The Journeys toolkit is not merely a structured sequence of methods, but rather a grammar that allows designers to bring the systemic design vocabulary (the methods and tools) together in a way that makes sense for a project, thus constructing a new narrative. The order of activities depends on the context of application and social dynamics of the moment.

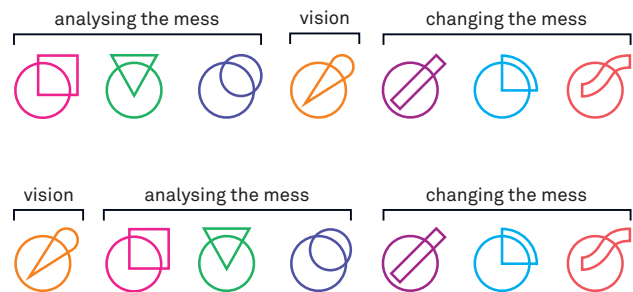
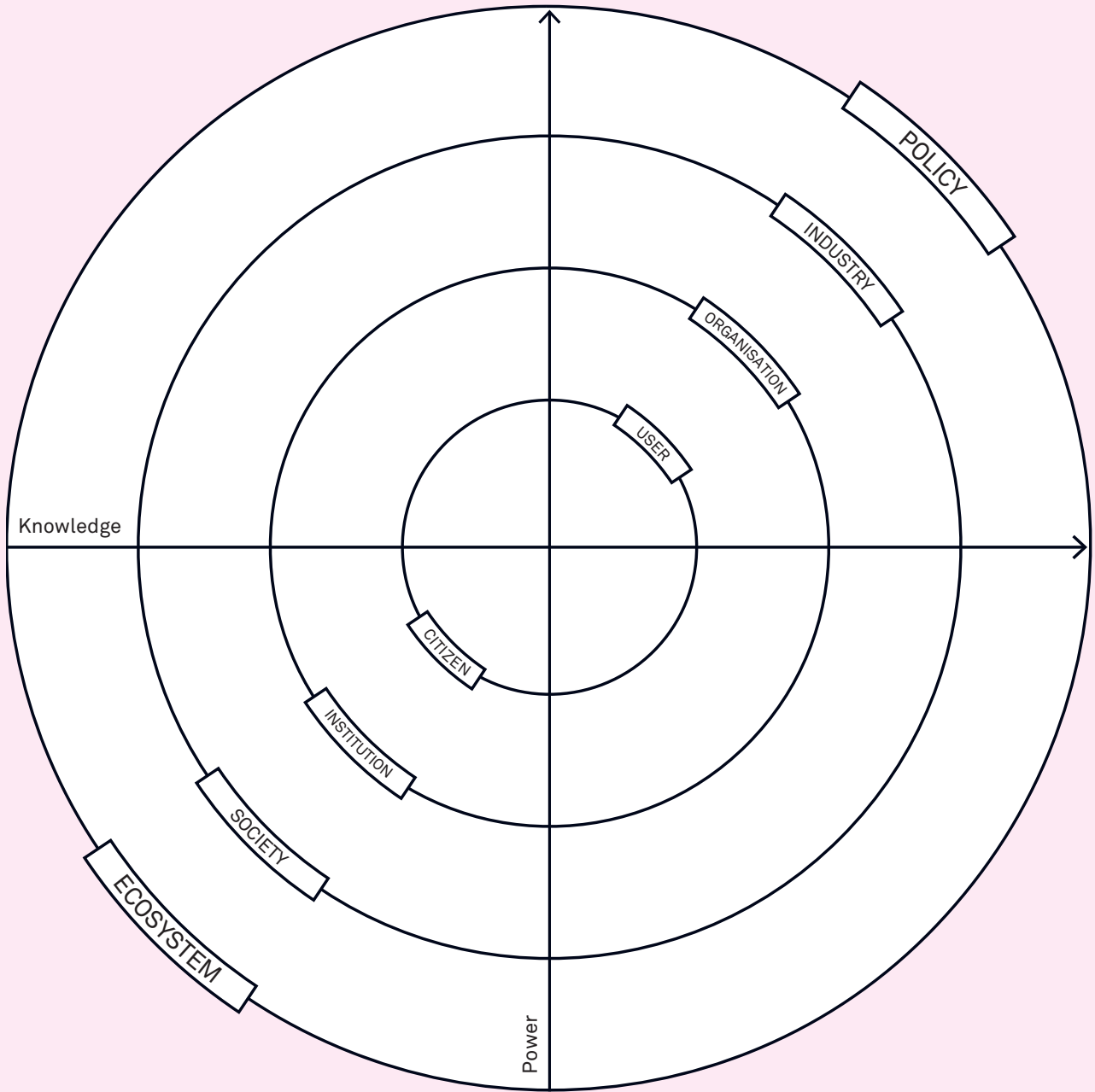


Figure 3

Blending Journeys - Visions of Stage [4] can also join Stage [1]

[11] Arturo Escobar (2018). *Designs for the Pluriverse*. Duke University Press.

[12] Philippe Vandenbroeck & Kristel Van Ael (2016). Codifying Systemic Design: A toolkit. *RSD5 Symposium*, Toronto.





expands into other dimensions is also available).

Teams generate responses to the Actors Map based on their own expertise or research. Iterative review with stakeholders and field studies will update the stakeholder models developed from the map.

Cocreating the Actors Map

Planning and Prep

Define the levels that correspond to a challenge or system of interest (change 'user' to the actual core constituency, e.g. patients, and each ring associated with the system structure). Try to find input from published reports and studies that can inform references to actors and stakeholders. If needed, create separate maps on sub-topics and/or different levels of detail to reduce complexity.

Mapping Method

1. Decide on the essential point of view (e.g. users, system). Then define the subsystems influencing the core (e.g. service providers, governance, industry sectors). Identify an initial set of key actors.
2. Start by generating notes with labels of actors and stakeholders drawn from earlier exercises. If an Iterative Inquiry was done, the roles identified as structures will also serve as actors.
3. Populate the map with notes labelled for the identified actors in a collaborative generative activity with a core team. Specify their roles. Arrange them according to their level of relative power (within the system, to change the system) and their knowledge about the issues. Note the boundaries of the system levels – power or knowledge is positioned at the edges of the boundaries.
4. Draw directional lines to indicate relationships between actors that the team can determine. Assess the quality of the relations, and use line types and colours to indicate relationship types: functional or dysfunctional; strong or weak; unbalanced, oscillating or balanced; conflicting, broken, or ad hoc; informal or emergent etc.
5. Additionally, the exchange of value between actors can be mapped, using other line types while labelling the value and return. This step creates a value network from the growing diagram.
6. Mark or group the collection of actors with similar interests and sets that may have conflicting interests.
7. Review and update the map as often as the team identifies more information about actors.

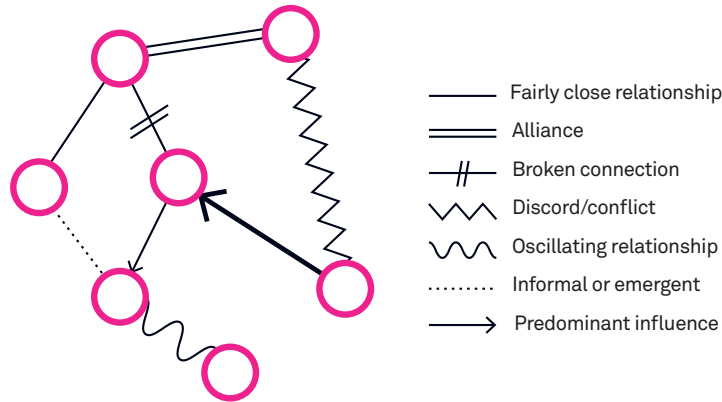


Figure 1-5
Relationships annotated on an Actors Map

Delivery and Destination

The Actors Map is a useful initial system map for all members of the design and research team. After reviewing all the notes and rendering it clearly as a final diagram, it can be shared as a defining image, as a poster, or included in a research proposal or other document.

The next step in utilising the Actors Map is to translate critical actors to stakeholders as participant segments. In Stage [2] Listening, a sampling frame is defined for planning, recruiting, and conducting interviews and observations. The Stakeholder Discovery tool defines each segment and specifies four to six profiles to interview for field study or virtual interviews.

Travel Tips

The Actors Map will be reviewed and updated over several iterations, with a final version reflecting the stakeholder analysis in [2] Listening. It is only at this stage that there will be an opportunity to include a requisite variety of participants. At the framing stage, it's typical to not have access to end-user participants, as the core team will consist of organisational members, sponsors and perhaps experts.

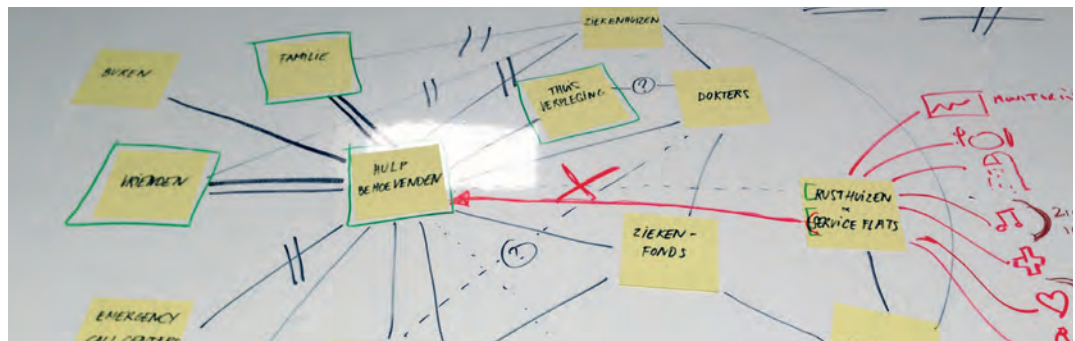
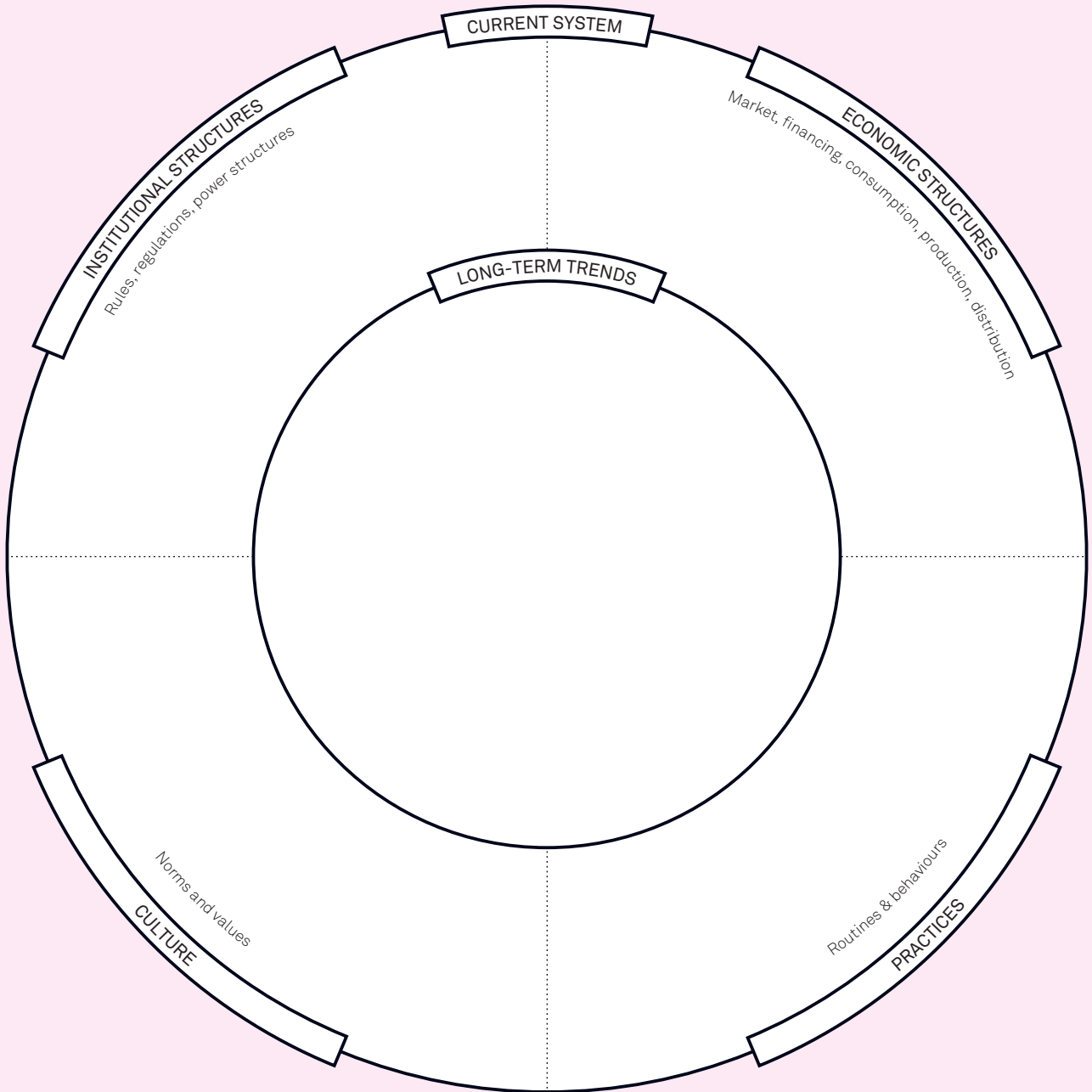


Figure 1-6
Cocreating a future Actors Map for Zyo, a product-service system aimed at improving the daily contacts between elderly, their family and their caretakers





practices, rules and services, technology and infrastructure, and existing networks and power relations.

4. Identify niche projects – emerging innovations that address the issue in a novel way. These notes are positioned at the outside and can be located by the same quadrant labels depending on their relevance.
5. Optional step: Draw connections between the regime-level practices and the long-term landscape trends. Also connect the niche innovations to the regime practices they might disrupt. Review the final map to identify the most systemic regime elements (those most connected).

Delivery and Destination

The Rich Context map is most useful to the immediate design team, but can be rendered as a creative system map for documentation. The Rich Context can be used throughout the stages as a reference to the current system issues and tensions, and especially informs the systems models in [3] Understanding. It also suggests new actors, or feedback to the Actors Map, and indicates stakeholder groups to interview in [2] Listening.

Travel Tips

- It is important to be aware of the dominant regime around a defined project, as the regime can be a support or a barrier for innovation. In the second case, regime change or the creation of a sub-regime is part of the innovation challenge.
- The Actors Map complements the Niche Discovery by identifying the core and peripheral participants, some of which will be engaged in innovations changing the system over time. A second Actors Map can be constructed to present these observations or if relationships between niches and the dominant regime are non-existent.

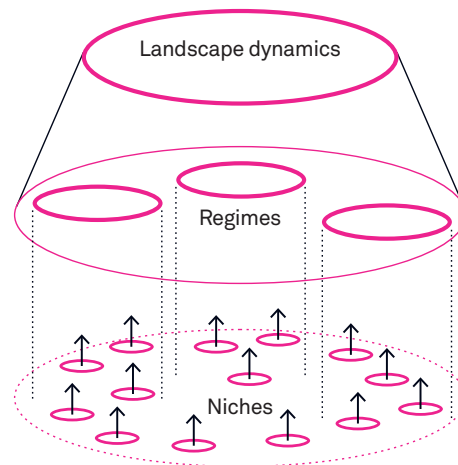


Figure 1-8
Landscape, regime and niche interactions

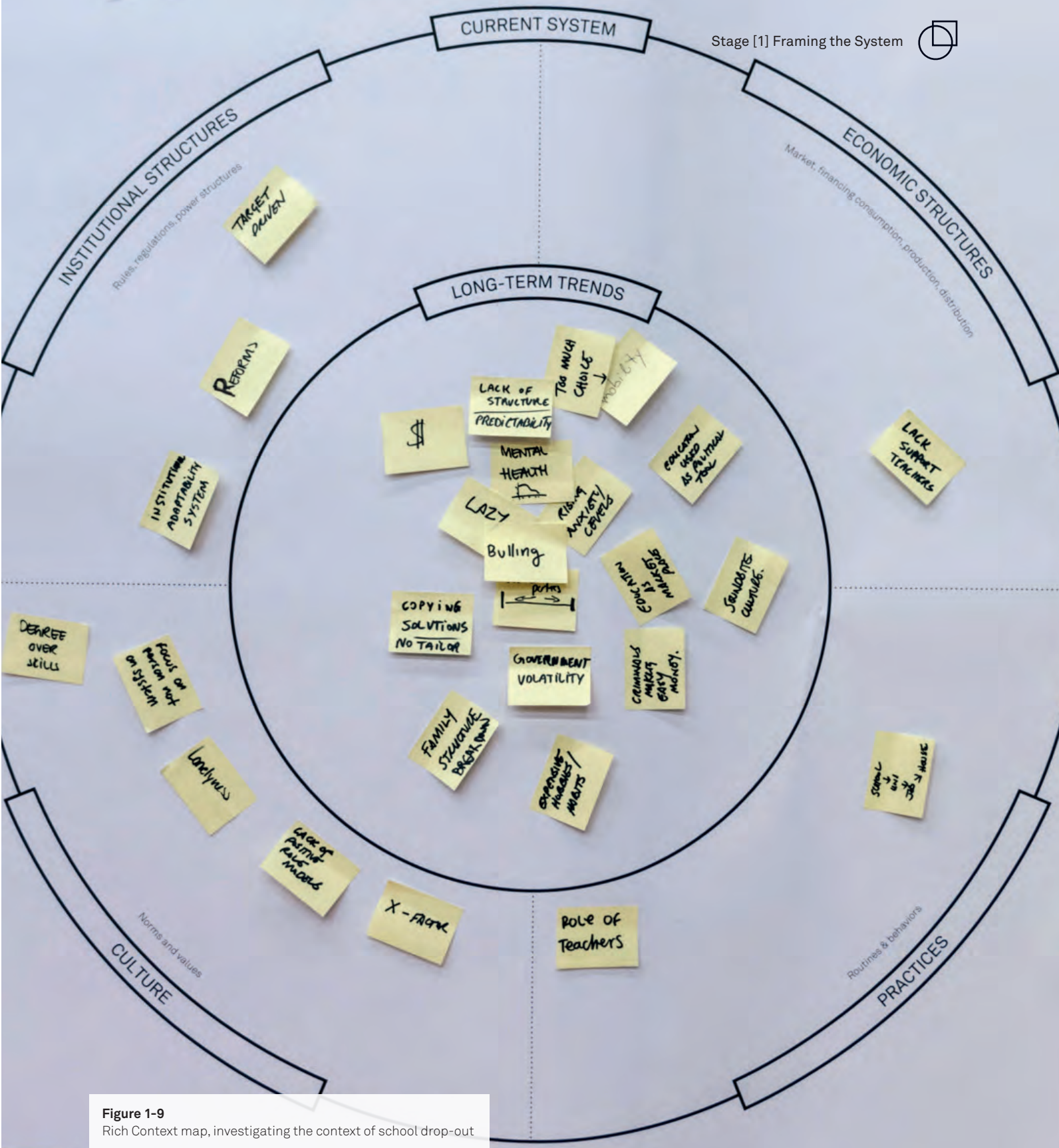


Figure 1-9 Rich Context map, investigating the context of school drop-out



Mapping Method

1. For each of the two uncertainty axes, name the line and define the end points for the high and low ends. For example, if the axis is 'economic growth,' the poles can be stated as 'Low' and 'High,' but the team should also discuss and agree on what these positions might mean. They are not meant to be value-laden, as low growth can be a deliberate sustainability strategy and high growth can be corrupt.
2. By crossing the axes, define four distinct, alternative scenarios for the time horizon. The two lines will normally create four spaces that can be defined as More / Less or Pro / Con for the relative effects of the uncertainty variables. But do not name the quadrants until after composing their attributes.
3. Generate responses (notes) to fill each of the quadrants with trends, themes, and drivers identified in the prior systems maps. Consider how each of the four scenarios will start from different initial conditions that lead to some trends, and not others, taking shape in accordance with the two axes.
4. For each scenario quadrant, use the value system framework to expand the dimensions available in the scenario extremes at different levels (user, organisation, ecosystem, society) and from different perspectives. This also helps to ensure each scenario includes comparable systems levels and impacts, and analytical categories.
5. Be sure to identify unforeseeable or extreme outcomes ('Black Swans') in each scenario quadrant that might symbolise the unique character of that future state. Capture the conclusions in a text description that begins with the conditions of the future state and continues with their impact on the different areas of the systems map.

Delivery and Destination

After the workshop, designers can further enrich the generated scenarios with descriptions of impact that the participants might have missed. Scenarios can take some further time to develop. The goal of the tool is to generate high-quality participation to include the ideas from all team members with different perspectives. The final iterations of scenarios are the composition of compelling imaginaries that bring the scenario features to life. In a follow-up session, participants can generate ideas to intervene in each scenario as possible futures, using the Intervention Strategy canvas and leverage points for inspiration.

Embellish the narrative construction, and be sure to find or illustrate provocative imagery to bring the scenarios to life and relevance. It's especially helpful to generate memorable and even playful titles that become working themes and can travel far in discussions. Scenarios are very much like research findings and can be published, shared, and discussed within team dialogues independently of other design activities.

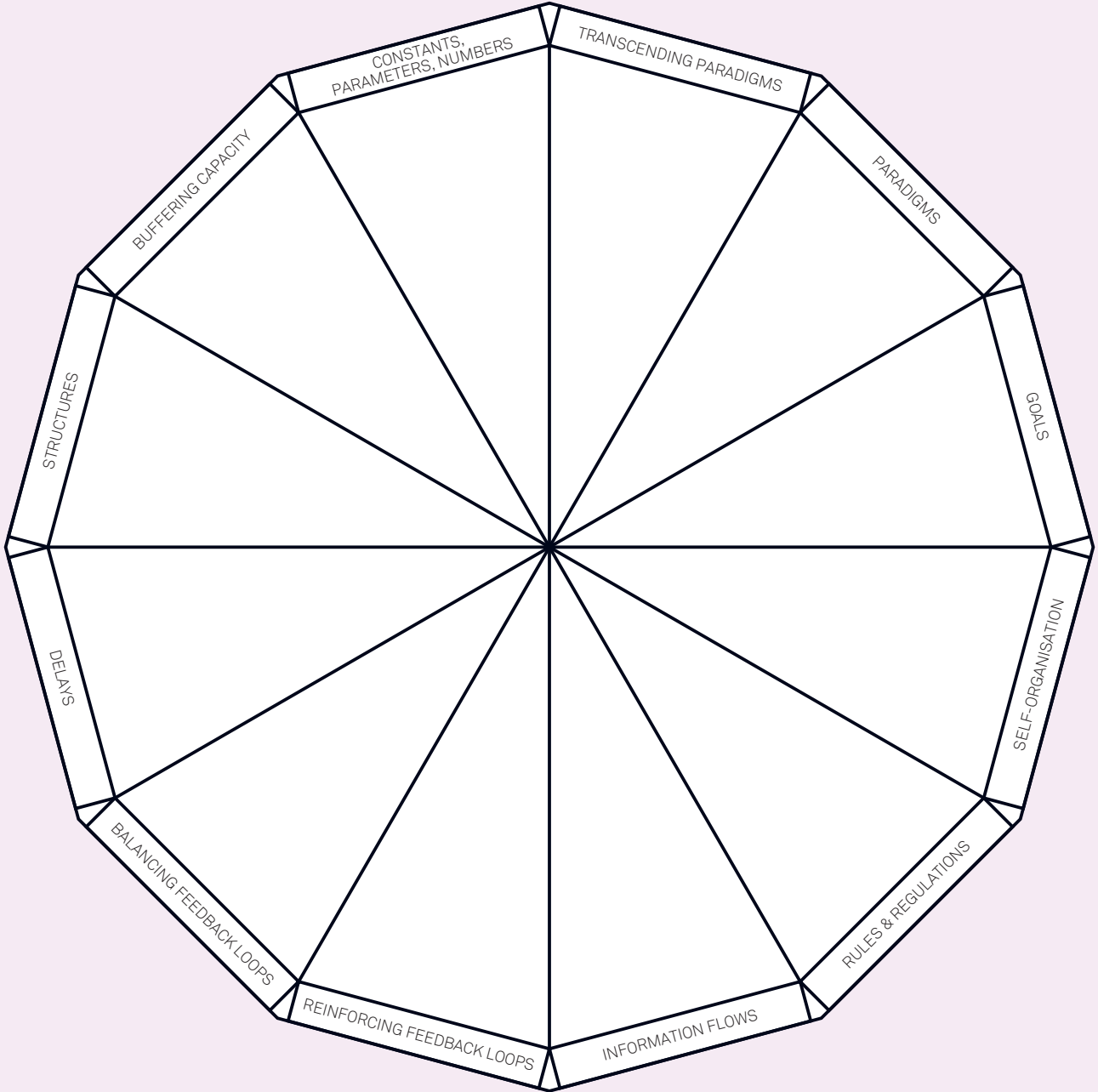




Table 5-1 presents a model strategy with prompts and responses for a systemic policy approach, including guidelines for nine of twelve leverage areas that apply to policy and programme planning.

Taxes & subsidies	Buffer capacity	Digital/physical infrastructures	Timing and coordination	Information flows
<p>Constants and parameters such as subsidies, taxes, standards, pricing schemes.</p> <p>Ex. Food prices, pricing schemes, minimum wage rate</p> <p>Can we influence behavior through incentives and restrictions?</p>	<p>The “volumes” that the system can contain.</p> <p>Ex. Enough doctors to handle a sudden flue outbreak; enough money to be able to pay an onforeseen bill</p> <p>Can we stabilize the system by introducing some buffers?</p>	<p>Digital systems or physical infrastructures, and their nodes of intersection.</p> <p>Ex. Production plants, fisheries, road network, digital network infrastructures, virtual communities</p> <p>Can we adapt the infrastructure in function of our goal?</p>	<p>The duration of changes relative to the rate at which the system changes.</p> <p>Ex. The introduction of a new technology does not correspond to its adoption: it takes a certain amount of time for people to learn to use it, and this time will cause a delay in the uptake</p> <p>Can we shorten the uptake?</p>	<p>The structure of who does and who does not have access to information.</p> <p>Ex. Do the consumers know the carbon footprint of a product? Can we intervene to provide them this information?</p> <p>Can we support access to information?</p>

MEANING FOR POLICY

<p>Policy can intervene by changing rules and legislation, the existing system of standards, introducing or reinforcing resource taxes, pollution taxes and so on. Intervening on this level does not determine a relevant change in the system.</p> <p>impact</p> <p>< 1 year</p>	<p>Screening current policies and relative effects, monitoring uncontrolled processes of growth, adopting proper indicators (e.g. decoupling) are actions to guide policy interventions aimed at preventing the exploitation/ depletion of resources, and maintaining balance in the system stocks and relative flows.</p> <p>5+ years</p>	<p>Policy should promote complementary interventions addressing a common goal: infrastructure provision needs to match programs to change/introduce habits, supportive land use planning or restrictions. Moreover, intervening on infrastructures, both new or existing, implies a cautious evaluation of delays, time for adoption and impact.</p> <p>3 to 50 years</p>	<p>Taking into account the system's time means evaluating the time span between the implementation of an intervention and its actual impact/effects on the system. A comprehensive evaluation of the processes in the system, along with their mutual dependencies, is mandatory to define new policy interventions.</p> <p>10+ years</p>	<p>Policy should identify and tackle information asymmetries and gaps: targeted information campaigns, measures on labelling and transparency, education programs might be beneficial interventions to disclose information to consumers.</p> <p>< 6 months</p>
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Table 5-1
Leverage points briefing for policy makers



Rules	Governance & Self-organisation	Goals	Paradigms
<p>Incentives, punishments, constraints, regulations: the codified norms which govern the system's behaviour.</p> <p>Ex. Changing mandatory standards for existing buildings or specific processes, providing incentives for the application of resources conservation methods</p> <p>Can we steer the systems by changing the rules?</p>	<p>The possibility of local actors to organize by themselves so as to add, change, or evolve the system structure.</p> <p>Ex. In neighborhood planning different actors (neighbours, major, commercial activities, ...) might join together and "self-organise", by taking collective decisions on the future neighbourhood, assigning responsibilities and rules</p> <p>How can policy makers foster this?</p>	<p>The purpose or function of the system or subsystem, which is shaped by the values, goals, worldviews of the actors.</p> <p>Ex. If the current goal is "increasing GDP", an intervention might turn it into "increasing people's wellbeing". In the same way, "efficient use of natural resources" might be turned into "conservation of natural capital stocks"</p> <p>Can we attain the goal by changing the viewpoints about the purpose?</p>	<p>The mindset out of which the system - its goals, structure, rules, delays, parameters - arises.</p> <p>Ex. Malnutrition might be tackled by changing established taboos on specific types of food, and spreading awareness on the nutritional value of a varied diet</p> <p>Can we change beliefs on how things work?</p>

MEANING FOR POLICY





SCENARIO 2

gentrification
fewer public schools
sending kids to
schools + maybe outside
neighborhood → move
to disseminate info to
public schools, more
of school policy

for owners

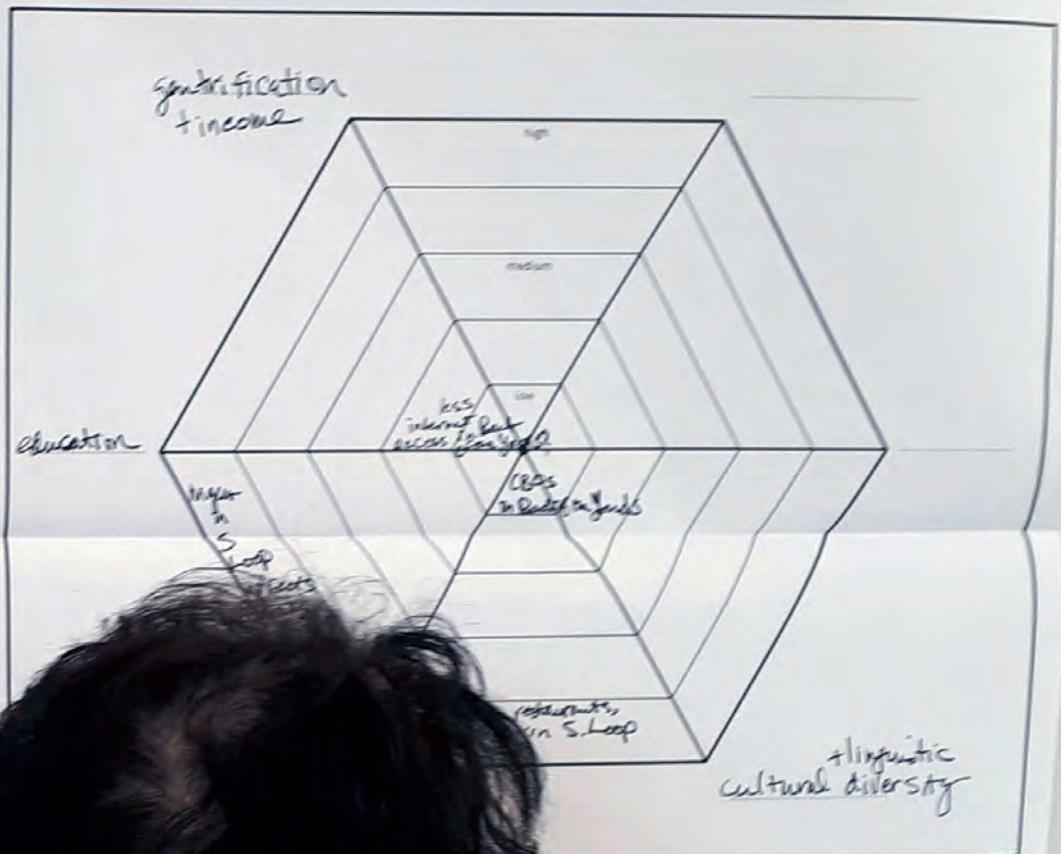
leverage point A - increasing →

public schools closing
+
less public schools

in schools →
centralization of
policies - more stakeholders

community gardens
stores - makes
community
gardens
potentially more
in

anchors
in neighbo



community gardens
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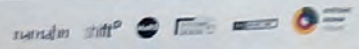
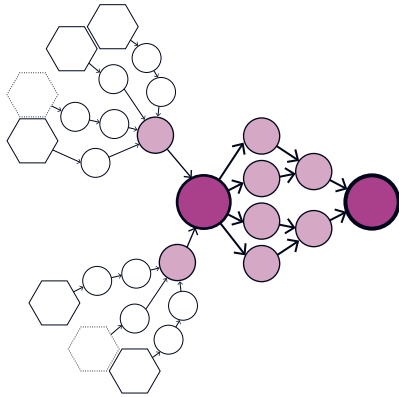


Figure 5-11 Testing the tool at RSD8 (Chicago)



Outcome Map



Outcome mapping^[4] defines and visualises the major activities and outcomes of a change programme to the intended strategy and desired system impacts.

An Outcome Map incorporates interventions and desired outcomes from [4] Envisioning into a single integrated change or transition roadmap. While there are numerous different techniques for defining outcome (or impact) maps, they can be considered a method encompassing the logic of influence maps and the purpose and style of a theory of change.

The Outcome Map tool depicts:

- Direct intentions (sustaining purposes) and indirect (strategic impact) strategic intentions of the programme. These are indicated by the two large circles in the middle and to the right.
- The smaller circles throughout the map are the intermediate outcomes that help to achieve the strategic goal.
- Activities and other actions needed to create these outcomes are shown as rectangles.
- Arrowed lines connect the related outcomes to indicate their influence and progress.

Figure 5-12

The outcome mapping structure

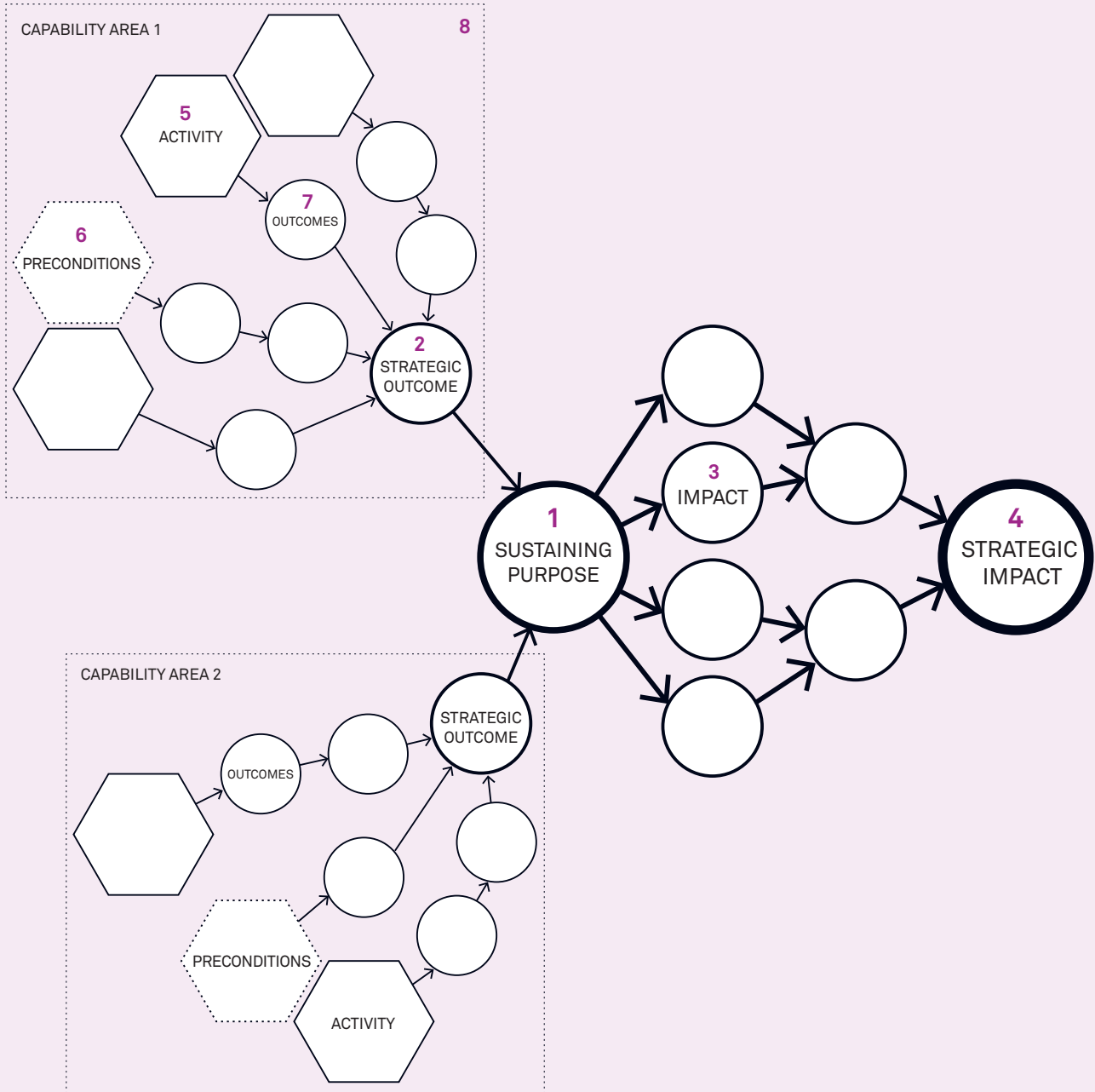
- Time to Run: 2-4 hours
- Session context: Lab, revise with Studio
- Workshop type: Codesign
- Process time: 3+ days
- Connections to:
 - [3] Multicapitals Model
 - [3] Influence Map
 - [3] Story Loop Diagram
 - [4] System Value Proposition
 - [4] Three Horizons
 - [5] Intervention Model
 - [6] Theory of Systems Change

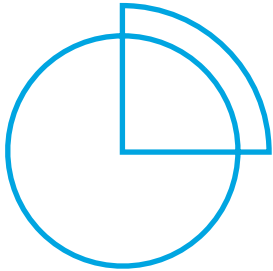
Cocreating the Outcome Map

Planning and Prep

The Outcome Map tool builds upon the leverage points, System Value Proposition, the full Intervention Model. These outputs can be provided in a codesign workshop. Constructing a well-defined Outcome Map requires at least several major reviews and iterations, so a series of 3-4 short workshops could be planned, or at least as review phases with the team. It could be used to define, or be used instead of a Theory of Change.

[4] Peter Tsisis, et al. (2013). Outcome mapping for health system integration. *Journal of Multidisciplinary Healthcare*.





[6] Planning the Change Process

Organising to Mobilise Systems Change

Planning tools in Design Journeys prepare the capacity of a team or entire organisation to organise and lead the change process. ‘Leading change’ is a common expression in systems change programmes, but what does it mean exactly to lead or design for change in complex systems that, by definition, cannot be designed directly? And likewise for sociotechnical systems, are we ‘leading change’ in a proper design process?

Up to this point, Design Journeys led to a vision for system value and potential interventions for complex design or system change. Yet the effectiveness of the entire methodology, of semi-structured tools for collaboration, will be realised in the ability to implement a design strategy. Roadmap tools in this chapter and [7] Transition provide agreement structures for strategic, organisational, or transition planning.

The interventions defined in [5] Exploring push on tension points where leverage has been located, creating opportunities believed by the design team to result in desired change. After defining interventions in the different forms of cooperative governance, the collaborative team is now organised to own, or at least represent, the recommendations from the preceding

design work. Uniquely provided in this journey are tools for designing organisational identity, process, and roles. These might not be required in every programme, but every major project ought to assess whether they have the best-fit organisational structures in place to lead the transition or system change.

Practical systems change planning is done by mixed-discipline design teams and (usually) a sponsoring organisation of stakeholders. Organisational change (Design 3.0) is not the goal in systemic design. Rather, the aim is to form a change organisation as a coalition or ‘fractal team’ that represents system leaders and can self-organise to lead the work. This focus of systemic design activates the micro-system level, the team unit.

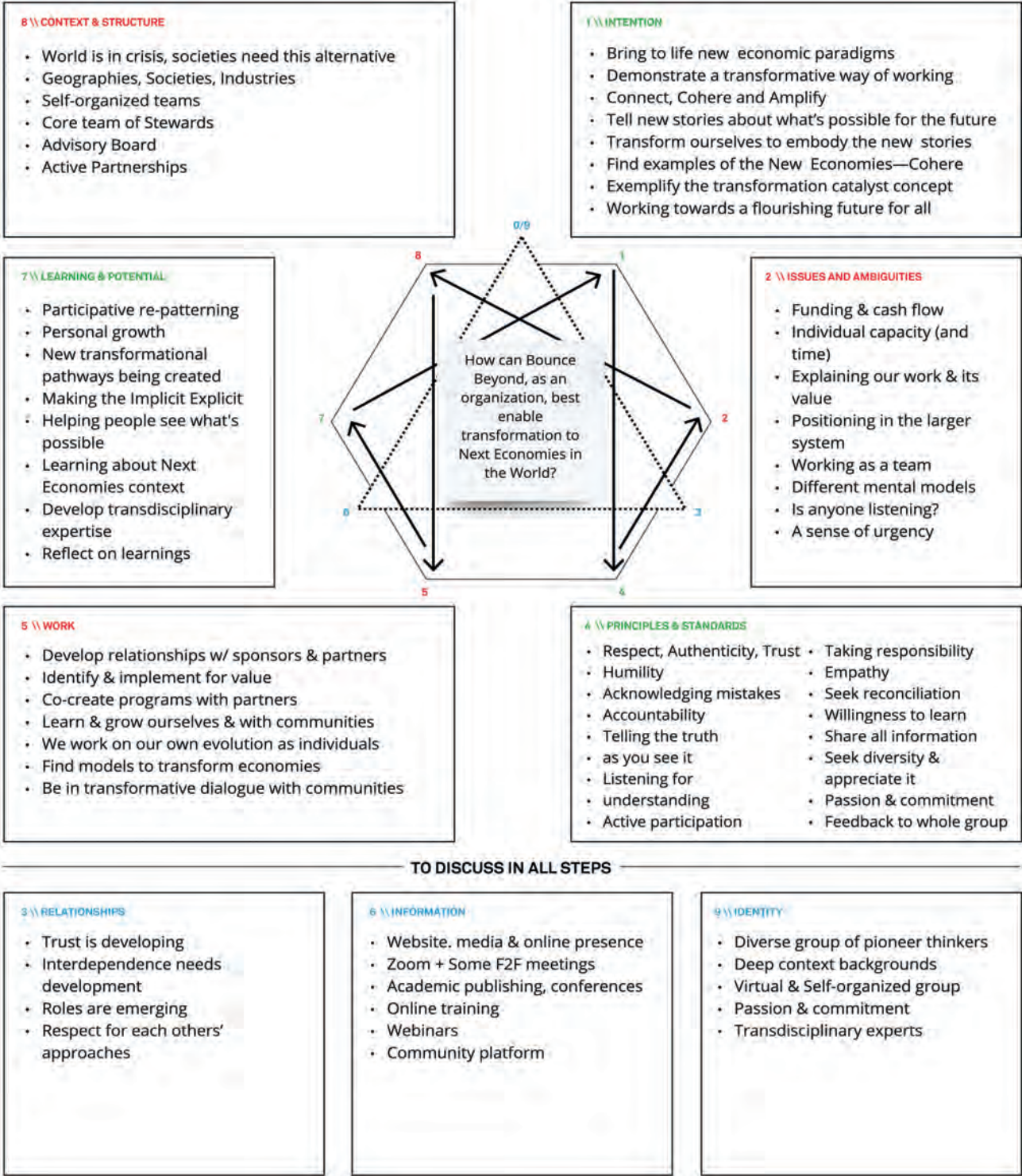


Figure 6-5
The Process Enneagram results of the Bounce Beyond project



Change Readiness Assessment

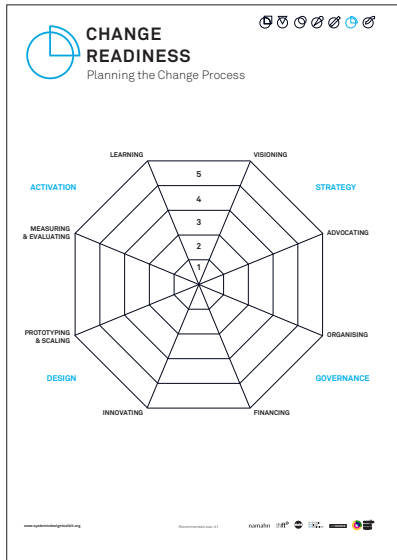


Figure 6-6
The Change Readiness Assessment

- Time to Run:
.5-1 hour
- Session context:
Studio
- Workshop type:
Sensemaking
- Connections to:
[4] System Value Proposition
[5] Outcome Map
[6] Theory of Systems Change
[6] Process Enneagram

The third tool in this Journey is the Organisational Readiness Assessment, designed as a novel tool to fill a gap perceived in the continuity of systemic design for change. The assessment can be used as a quick internal evaluation of capabilities, organisational readiness, innovation capacity, and team development. The tool provides a critical determination for which a team must be honest – if a systemic design (and proposal) team is not the right group to staff and lead the systems change initiative, a transparent self-reflection should be made. The checklist format will help guide this assessment and provide feedback to the organisation about steps to be taken for progress on readiness and team confidence.

Checking Change Team Readiness

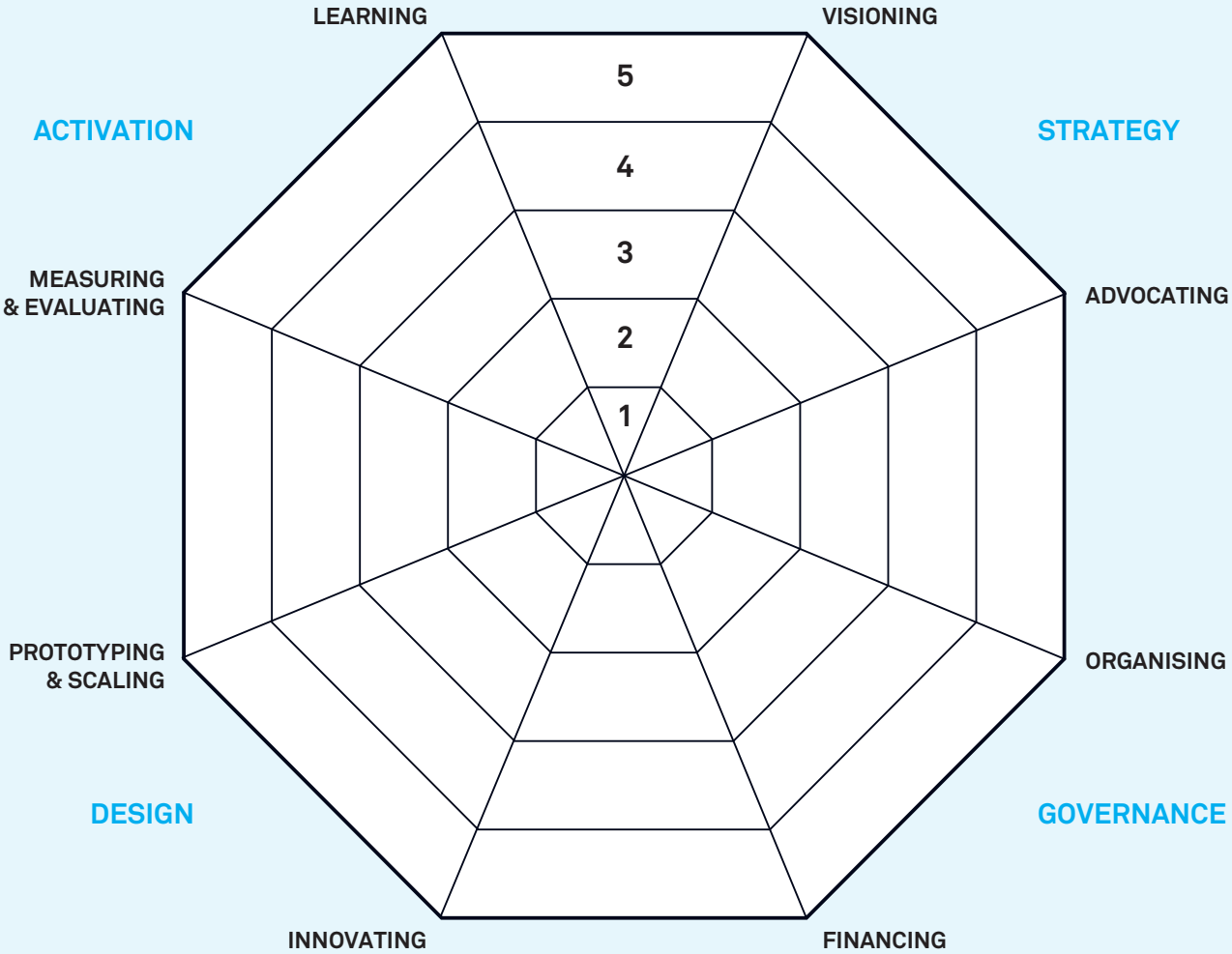
Planning and Prep

The purpose of the Change Readiness tool is to assess the development capacity, functional readiness, and maturity of a team, organisation, or multistakeholder coalition. The tool is designed as a radar diagram, which can be posted or printed and annotated with responses by a workshop facilitator. The radar is structured around eight dimensions, cross-sectioned by five levels of concentric octagons within the diagram boundary.

The eight dimensions are nominally defined as follows (drawn from Steve Waddell's model^[5] of societal transformation systems):

1. Visioning
2. Organizing
3. Financing
4. Learning
5. Measuring & evaluating
6. Advocating
7. Innovation process capacity
8. Prototyping & scaling

[5] Steve Waddell (2016). Societal change systems: A framework to address wicked problems. *The Journal of Applied Behavioral Science*.





These are paired into four clusters of capability areas: Strategy, Governance, Design, and Activation.

The relative scores marked at each point in the radar scale can be referenced by the maturity of each dimension as developed in the organisation. An evaluation can be done by checking-off the relative maturity level at the time of review.

- Level 1: Ad hoc level, no process
- Level 2: Initial level of process in place
- Level 3: Defined processes in place at a project level
- Level 4: Alignment between projects and organisational management
- Level 5: Capability is defined at a strategic level with continuous improvement

Mapping Method

The Change Readiness tool can be convened by a small group or a full team. Set up the evaluation criteria for the tool and instruct participants to score each dimension with an indicated level or number according to the assessed readiness level. Decide on the organisational scale to be assessed: team, organisation, or a multi-member coalition. Assess the following dimensions:

Strategy

1. **Visioning:** What is the level of shared purpose and direction? Is a common mission narrative emerging and communicated both internally and externally?
2. **Advocating:** What level of programme advocacy or diffusion is currently demonstrated? Does the team have a realistic change strategy that generates pressure and energy for change?

Governance

3. **Organising:** What level of organisational structure is in place or being developed? What degree of internal development (process and practices) and external (advisories and constellation network) is being coordinated?
4. **Financing:** What financial resources are available and continuing for the initial phases of implementation? How well-developed are plans and support for attracting funding in later phases?

Design

5. **Innovation:** Score the level of skill and multidisciplinary of the implementation team. What level of innovation experience is assessed for team leads? Do the available team competencies represent a complementary mix of skills?
6. **Prototyping and scaling:** What is the capacity for rapid prototyping of sociotechnical services? How well prepared is the core team at team organising, policy development, communications, and service design? How well developed is the capacity to scale to larger social systems?

Activation

7. **Measuring and evaluating:** Does the programme have an evaluation process in place to assess the programme outcomes and impacts? At project, programme, and societal level (see also outcomes in Outcome Map of [5] Exploring)?
8. **Learning:** Does the whole organisation have the knowledge and capacity to implement transformation? What processes and tools are in place to share and build knowledge?



A score can be derived from the assessments of each dimension, relative to general progress over time. With eight dimensions and five levels to be scored from 1-5, the highest possible single score is 40, and the lowest is 8. However, single number scores might only be of value for determining the magnitude of change over time.

The best measure of readiness would be adapted to the readiness of selected dimensions critical to the performance of a given change programme or project. Scores associated with each of the four summary themes might be more valued for these purposes, between 2-10. For the early stages of a new project, Strategy and Design might be more critical to success than Governance or Activation. Immediately preceding implementation, the emphasis might be switched, requiring further development of management and evaluation practices.

Delivery and Destination

The Change Readiness tool provides an important reference model for comparison of programme and team development over time, and for use in proposals and funding discussions to demonstrate capacity level associated with programme management. The completed diagram can be rendered as an image from an online whiteboard to be circulated in presentations or reports. Figure 6-7 shows a completed map for the Bounce Beyond case, which can be used as a baseline for facilitating this tool.

There is insufficient data on the use of the model in this tool form. Organisations using this might determine their criteria for the level of readiness necessary for a project greenlight, funding pitch, or stage-gate decision based on an agreed level of performance readiness.

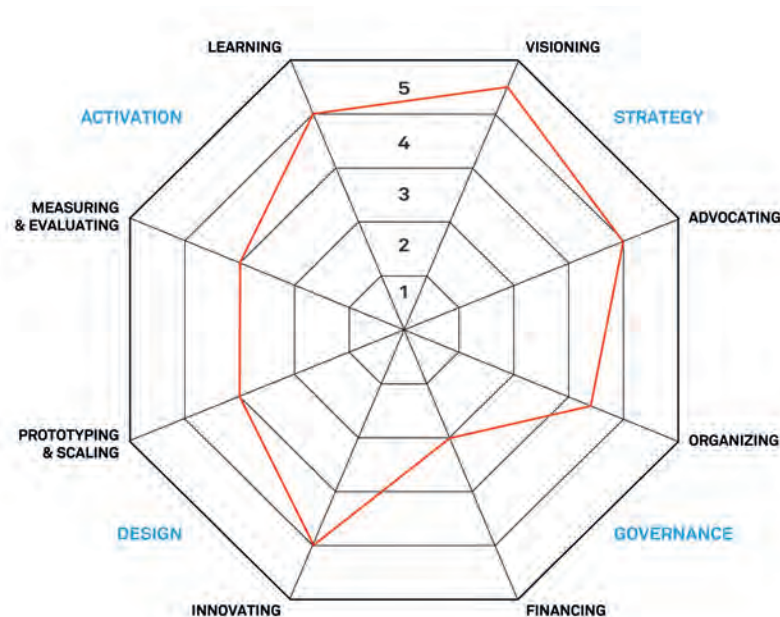


Figure 6-7
The Change Readiness results of the Bounce Beyond project



Ecosystem Governance

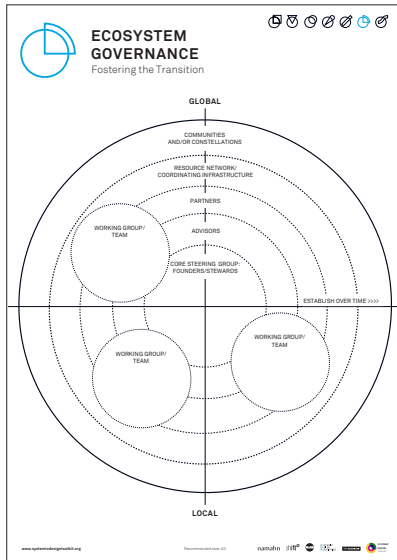


Figure 6-8
The Ecosystem Governance

- Time to Run:
2-4 hours
- Session context:
Studio
- Workshop Type:
Roadmap
- Process time:
1+ day
- Connections to:
[6] Theory of Systems Change
[6] Change Readiness
[7] Transition by Design

The Ecosystem Governance tool provides another novel, fit-to-purpose organising framework designed for this stage of the Journeys process. Its purpose is to analyse and map out a programme’s organisational networks to determine their contribution to planning outcomes, adapting the Social Ecosystem Map from [3] Understanding. Ecosystem Governance maps the relations among networks and actors in system-wide governance. The tool is uniquely useful for clarifying relationships, identifying gaps in relational support and complementary strengths, and finding and leveraging leadership across the value constellation.

The Ecosystem Governance framework was inspired by Stafford Beer’s Viable System Model (VSM),^[6] a foundation of management cybernetics animated by a whole-system model of organisational coordination (itself inspired by the communications functions of the nervous system). The VSM models the distribution of management functions from strategy and governance to line-level operations. The VSM can be challenging for new users to learn and use, especially in facilitation. The VSM model also has no generally accepted multi-organisational model that might apply in an ecosystem context.

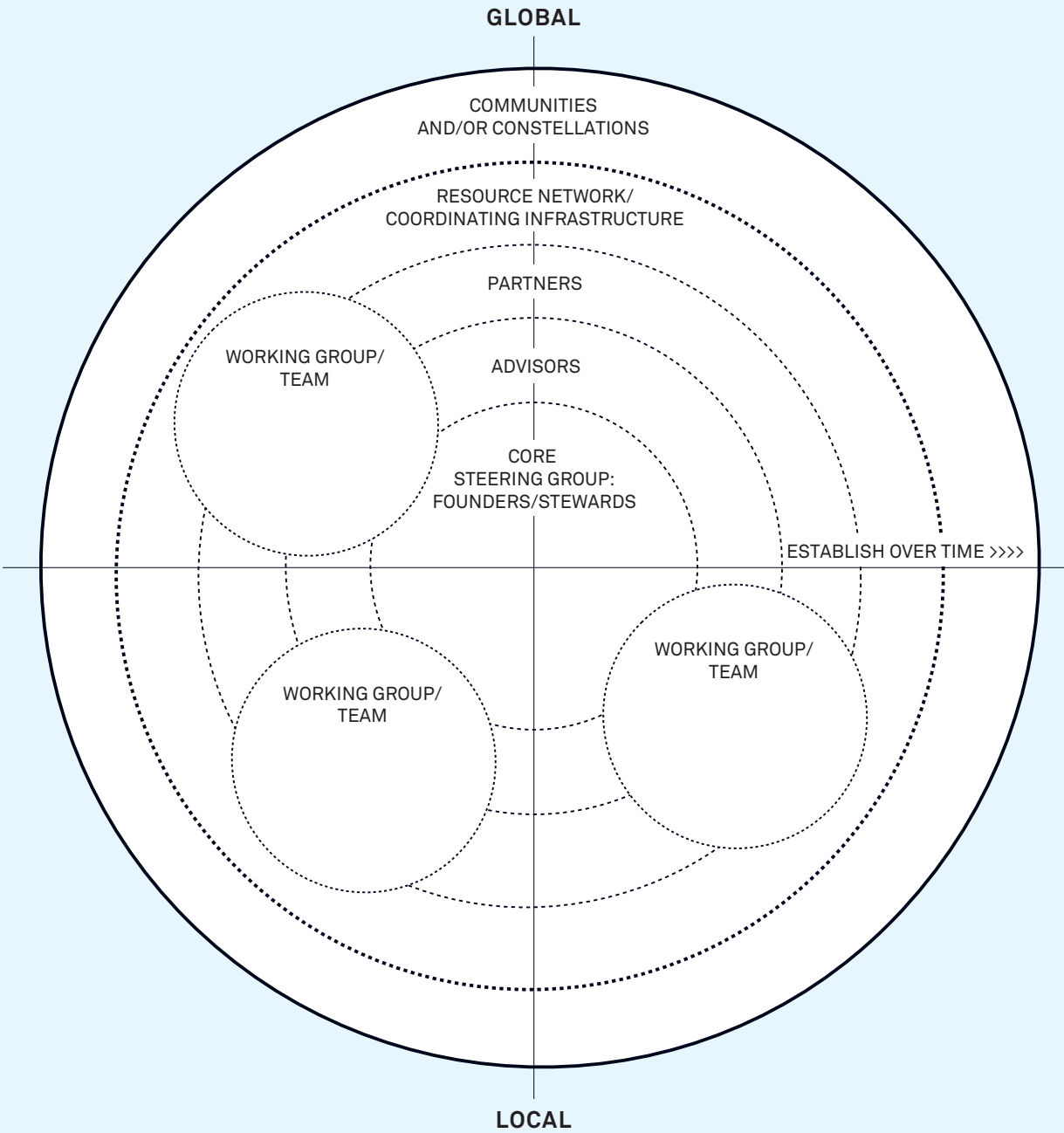
Based on the Social Ecosystem model, the Ecosystem Governance tool can be used to define leadership, influence, and connections among networks within and across social systems and allied change programmes. Activities and strategies coordinated across multiple organisation teams and groups, rather than a firm or single-purpose team, is useful for task and role clarification, emergent leadership formation, and governance across the social ecosystem.

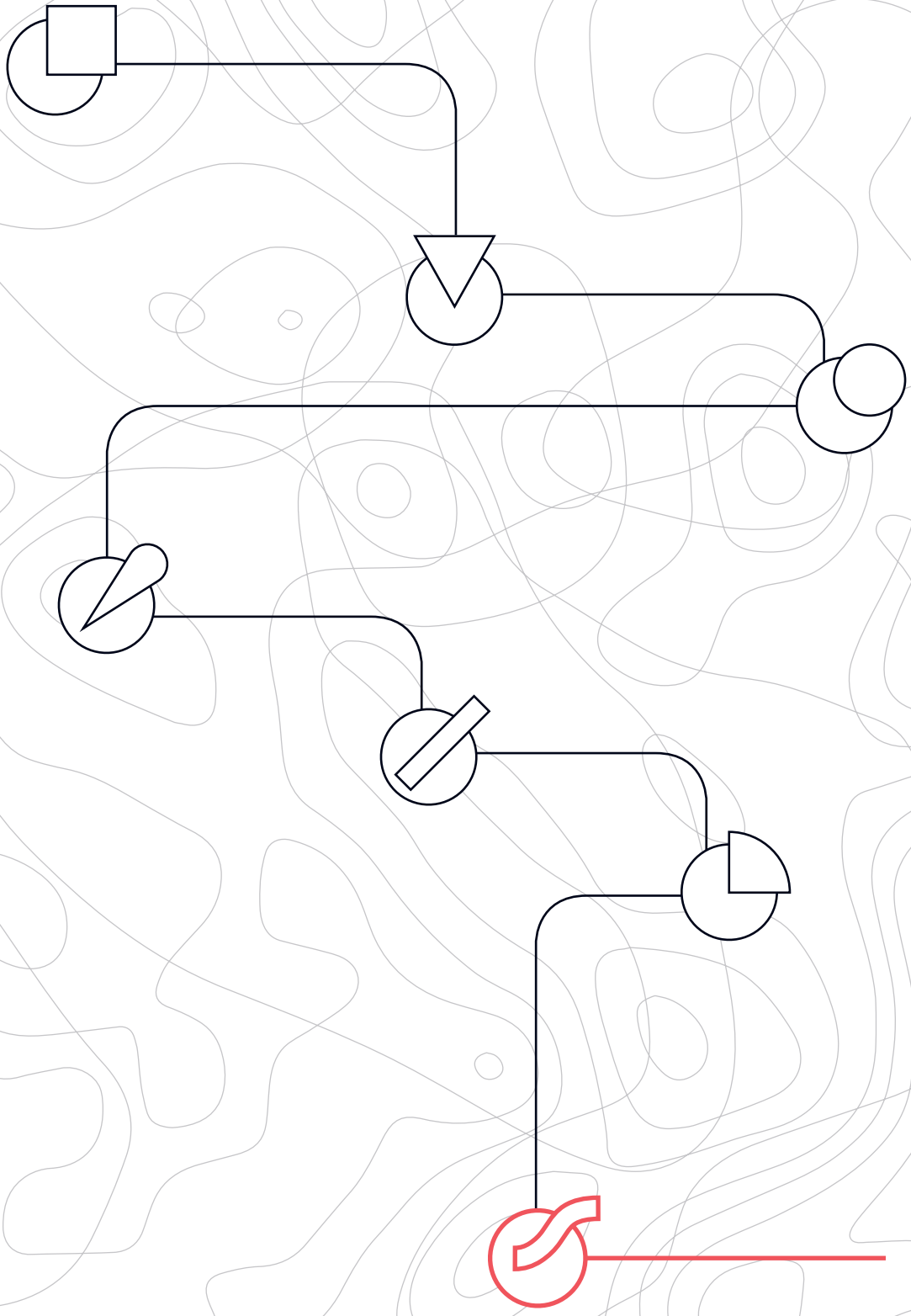
Mapping Ecosystem Governance

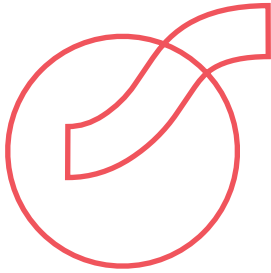
Planning and Prep

Ecosystem Governance might be considered experimental, as more is learned, and feedback is developed from a wider range of uses. There are several ways that the tool can be used in systems change planning. A baseline model of the current social ecosystem can be mapped as a network analysis of the identified networks and organisations that support the purposes of the

[6] Stafford Beer (1984). The Viable System Model: Its provenance, development, methodology and pathology. *Journal of the Operational Research Society*.







[7] Fostering the Transition

Preparing the Transition to Transformation

The major weakness of all design methodologies (not to mention systems processes) is the total abandonment of guidance for implementation. In many well-known five-stage-style design processes, the end result of an intensive design programme is merely ‘delivery.’ This implies the chief role of the design project as imagining, prototyping, and validating an innovation. The implementation is left to the client organisation.

Admittedly, we do not redeem this failing in Fostering the Transition. Yet the whole rationale for this step is to prepare and advise the implementation team, whether the same as the design organisation or not, for the execution of audacious strategies for long-term value in a complex world.

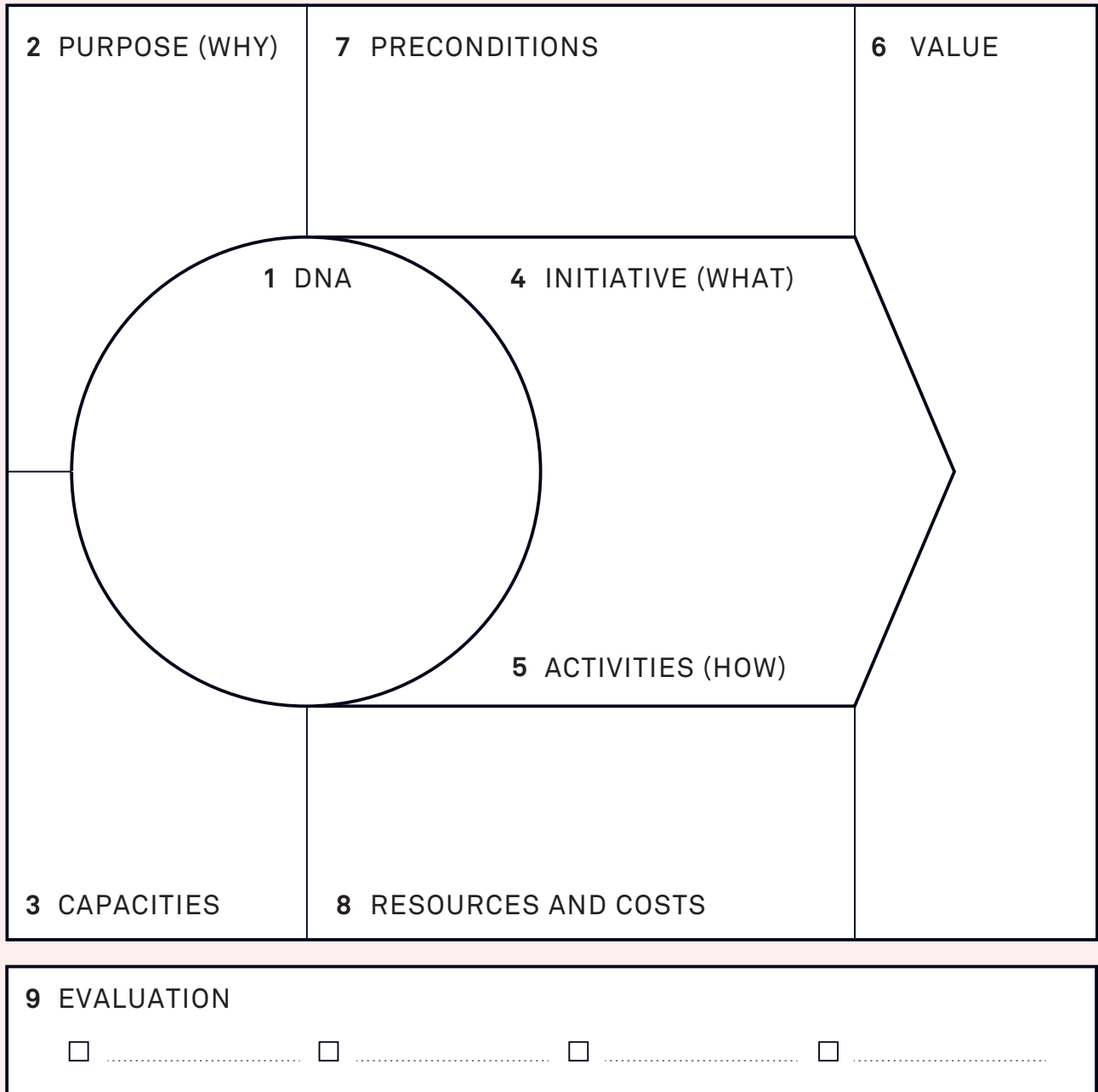
Transition requires, more than the other journeys, the core team to lead from their practical knowledge and ethical understanding. Moving into action draws upon the skills of *phronesis*, one of Aristotle’s three forms of knowledge. The majority of *Design Journeys* emphasises, embedded in the tools, two learned forms of knowledge – the theoretical frameworks of *episteme* and the technical knowledge of *techné*. A selection of complementary systems theories and models for system change and design have been developed based on their epistemic value. As tools, we have reduced the cognitive workload of learning and translating these methods for each application. Their

techné is demonstrated by their validity (in our experience) as practical techniques that fulfil complex requirements, and are reusable and teachable as well.

Moving from planning to doing demands practical knowledge, that blends experience, ethics and judgment. Flyvbjerg’s^[1] work on planning for complex megaprojects emphasises *phronesis* as pragmatic and realist, a problem-driven orientation for which tools can only be supportive. Flyvbjerg focuses on issues of purpose and direction, of desirability, of power and benefit, of gains and risks – all with practical ethical import.

We cannot embed *phronesis* into the tools. We can only suggest the value of taking a pragmatic approach, and cultivating social wisdom, repertoires of skilled experience, and practical ethical insight within the team. These qualities can only be suggested by the tools; they cannot be relegated to a series of steps.

[1] Bent Flyvbjerg (2004). Phronetic planning research: Theoretical and methodological reflections. *Planning Theory & Practice*.





upon the desired future (scope, purpose, and DNA). Provide access to the tool in print or online whiteboard and use a simple Generate-Dialogue-Select model to facilitate the contributions.

With this workshop, it is essential for participants to hold a trusted space for sharing authentically with others. Have members share their personal vision for the team – there are exercises from organisational development (such as the Team Spirit^[5] mandala) that can create a ‘clearing’ or space of disclosure. Individual mandalas (hand-drawn shapes forming a personal expression of values and vision) can also be constructed as a team mandala in this exercise.

Following the opening exercise, have members present their ideas of purpose and role to each other.

Mapping Method

1. Start with **the organisation’s ‘DNA’** as the first step. This could be the team vision or essence. What are the key characteristics of the team that might inspire the collaboration going forward?
2. Discuss and define the central **Purpose** of the collaboration. What is the continuing purpose, what is the ultimate goal to be achieved together?
3. Identify **Capacities** – define the necessary roles, skills, and competencies. What roles will each member or partner contribute?
4. Generate the ideas and titles for the main **Initiative(s)** to be pursued by the collaboration. What are the major projects that will meet the purpose?
5. Develop a list of near-term **Activities**. What activities (building a website, hosting learning events, a workshops series) will be done to engage collaboration and launch the initiatives?
6. An ‘arrow’ that joins 1 (DNA) to 4 (Initiative) to 5 (Activities) points to step 6, **Value Impact**. Here, the expected value cocreated in the programme, short and long-term, for all stakeholders is listed and refined. Consider how to measure value cocreation when naming the points of the value proposition.
7. List the **Preconditions** (or assumptions, from the Theory of System Change). What regulations, policies, processes, dispositions in the team are preconditions for the initiative? What should change to make the initiative possible or more impactful?
8. Estimate **Resources and Costs** for the collaborative project. What does the team believe is required for the near and long-term sustainability of the programme? What fixed or one-time costs are known? What major issues require budgeting? How will you finance the initiative?
9. **Evaluation** is the final component, placed at the bottom of the panel. For a new organisation,

[5] Barry Heermann (1997). *Building Team Spirit: Activities for Inspiring and Energizing Teams*. McGraw-Hill.



there will be no concrete actions to assess, but rather, there will only be the criteria and principles to be used in future evaluation by agreement from team members. Define the fit to purpose, vision, and mission. Define criteria for assessing programme diffusion (or connection), the quality or production of innovation, expected economic and social impact, ecological improvement, or scalability (involvement of partners over time).

Delivery and Destination

The Collaboration Model draws from across the foundation methods used up to this point, but it is not duplicative. This stage is the first point at which the design team will be focusing inward on the organisation and stakeholder team itself. Most teams would not have a sufficiently developed plan to build the appropriate organisational system until this point.

There are numerous social adjacencies that deliver real value within the team or multi-stakeholder engagement. The Collaboration Model provides the opportunity for a dialogue on team purpose, and to explore possible strategies for coordinating (as well as funding) a complex project. The entries in this tool reflect choices and identities of the organisation planning the systemic design work. The consensus reached goes well beyond the material representation of the tool and provides a durable mental model of the organisational agreement. Of course, the results of the tool can be represented differently in a final presentation, to present the findings back to the large organisation or the stakeholders.



Figure 7-6
Exploring collaborations to foster embracing diversity