

Combining working methods and tools in a pragmatic approach | System mapping – Part 5

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From workshop to usable system view

In the fifth part of this series on system mapping, we look at how to turn insights from workshops and discussions into a usable and analysable system view. Because system mapping is not just about visual presentation: it is also about structuring complex interactions and supporting decision-making.

How can companies, sectors or policymakers get to grips with complex issues such as extending the lifespan of products within a circular economy? Topics such as reuse, repair, refurbishment and remanufacturing are part of a network of interlinked factors, such as technology, the market, regulations, behaviour and data. System mapping helps to make that complexity visible and open to discussion. At the same time, a challenge often persists in practice: how do you turn insights from workshops and discussions into a robust and practical system model?

In this article, we outline a pragmatic approach that combines co-creation, analysis and decision-making. This approach has been implemented and refined as part of the [HEATReX-project](#) and combines tools such as Miro, AI and Kumu into a single coherent workflow.



1. Don't start from scratch: combine co-creation with a targeted system scan

A brief preliminary system scan speeds up the process considerably. Gathering information in advance on trends, roadmaps, policy developments and niche innovations will ensure that your workshop starts at a higher level. In this way you can prevent discussions from getting bogged down in the current system and ensure that future developments are considered too.

It is important to keep this scan light and focused: work with an input list rather than a detailed report. Focus on inspiration rather than steering the discussion. A targeted system scan often improves both the speed and the quality of co-creation.

2. The quality of your system map starts in the workshop

In practice, system maps are often created during workshops, using tools such as Miro, Mural or Microsoft Whiteboard, or still in the traditional way with Post-it notes on a wall.

A well facilitated workshop:

- Supports accessible co-creation
- Encourages interaction and discussion
- Allows you to quickly visualise and rearrange ideas

Digital whiteboards offer additional benefits such as real-time collaboration, flexibility and scalability. The essence remains the same, though: working visually and iteratively. At the same time, there is also a significant pitfall. Without clear ground rules, confusion can quickly arise, such as duplicate variables, vague wording or unclear causal relationships. This is why a basic framework remains crucial, even at this initial exploratory stage. For example, work with:

- One variable per element

- Concise and unambiguous wording
- Explicit positive and negative relationships

3. Co-creation and structure reinforce each other

Tools such as Miro make it possible to think quickly and broadly. However, without a basic structure, much that is of value is lost, so track relevant variables and relationships in a simple table during the workshop. Ideally, this should be done by someone other than the facilitator. This offers significant benefits:

- Faster post-analysis
- Fewer differences of interpretation
- Greater reproducibility

4. AI speeds up system mapping, but does not replace it

While creating system maps, we experimented extensively with AI. In practice, AI proves particularly effective at supporting tasks such as:

- Harmonising variables
- Removing duplicates
- Tagging variables and linking them to system layers
- Helping to define relationships

System maps generated entirely by AI rarely meet the desired quality standards. They often include poorly defined variables, confuse causality with correlation or introduce inaccurate feedback loops. As a result, they lack the systemic robustness required for analysis and decision-making. An important lesson is this: use AI to review and refine a system map, not to create one from scratch.



5. The real value lies in how the system map is used

The real value of system mapping lies not in the map itself, but in how you use it. Tools such as Kumu make it possible to use the same system map for different applications, such as:

- Policy analysis
- Sector coordination
- Stakeholder dialogue

By using different perspectives, filters and narratives, you can highlight different insights without changing the underlying structure. A system map is therefore not an end product, but a flexible tool that supports discussions, analyses and decision-making.

Conclusion

System mapping isn't a tool, but a process. Combining a targeted system scan, strong co-creation and smart tools creates an approach that is:

- Participatory
- Analytically sound

- Action-oriented

Exactly what is needed to accelerate circular strategies such as extending product lifespans.

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