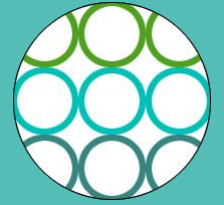


KADENDESIGN  
KADENDESIGN  
KADENDESIGN

# Guiding the Design Journey



# COLLECTIVE COLLABORATION MAPPING

Co-creation of Collaboration | KADEN DESIGN



# How can design contribute to co-creation of the process for equal collaboration towards an inclusive citizen science approach?

Challenge:

Co-creation of the collaboration process unfolds over time while doing design or research activities.



# Citizen Science perspectives

- “Imagine a future in which any community, regardless of literacy, can initiate and run projects that utilise science to address their local issues.” by Mordechai Haklay
- “When people come together and make the decision to work together to create or produce something (e.g., product, service, positive change, policy), this creates a need for openness toward different kinds of knowledge stemming from all corners of society.” by Alan Irwin
- Ten principles for Citizen Science by ECSA (European Citizen Science Association) [www.ecsa.ngo](http://www.ecsa.ngo)

# RESEARCH APPROACH

Inclusive Citizen Science

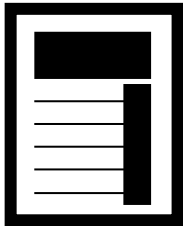


# Key Points in the Research Approach

## JOIN

### SHARE & EVALUATE KNOWLEDGE

- KJ Method ('intuitive' method)
- Analyses & Evaluation (Mapping)
- Visual Analytic Models
- Tools open-source



**The value of visual co-analysis models for an inclusive citizen science approach.**

Fteval journal

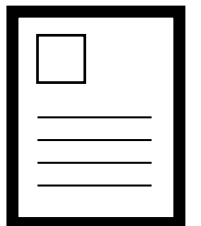
June 2022

Catharina van den Driesche & Sarah Kerklaan

## SYNERGY OF KNOWLEDGE

### KNOWLEDGE COMMONS

- Comparative analysis of methods
- Mental Models of concepts
- Affinity diagramming
- Co-creation techniques



**Role of Mental Models in Citizen Science**

Aarhus Engaging Citizen Science

May 2022

Ekatharina Egorova &

Catharina van den Driesche &

Kirsten E. Bevelander

## CO-CREATE COLLABORATION

### RECURSIVE PROCESS

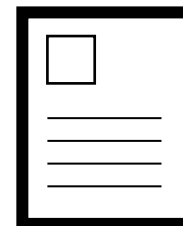
- Intermediate-level Knowledge
- Inclusive citizen science approach
- Touchpoints creation
- Building Network

**Touching on 'Collective Collaboration Mapping'**

Journal Design Principles and Practices:

An International Journal – Annual Review

Catharina van den Driesche





# Inclusive collaboration process

...a co-creation process, can inform the design of the research question, and the research process itself (i.e., inclusiveness).

- 1) Onboarding in an inclusive project is to (co-)create open and dynamic entry points during every phase of the research process.
- 2) Share knowledge, information, or insights from all participants at the start of the onboarding process for evaluation and collaboration purposes.
- 3) Support working together in a way suited for and agreed upon by all participants towards collaboration on an equal basis.

An important factor for these three conditions is being able to decide on what role to take on.

C. Driesche van den and S. Kerklaan. (June 2022) The value of visual co-analysis models for an inclusive citizen science approach. Fteval Journal for Research and Technology Policy Evaluation. Special Issue: Participatory Evaluation and Impact Assessment in Citizen Science.




# Context of participation in Citizen Science

Follet and Strezov (2015) classify citizen science projects according to the type of voluntary participation. The CCM Framework focus is on co-created projects:

a. **Contributory projects:** participants take part in data gathering, analyze the data at certain points in the project and help disseminate the results.

b. **Collaborative projects:** as well as the above, the participants analyze samples and (on occasions) help design the study, interpret data, draw conclusions or disseminate the results.

 c. **Co-created projects:** the participants collaborate in all stages of the project, including the defining of the questions, development of hypotheses, discussion of results and responding to further questions that might arise.



# COLLECTIVE COLLABORATION MAPPING

Intermediate-level Knowledge via Touchpoints



# Intermediate-level knowledge in collaborative research

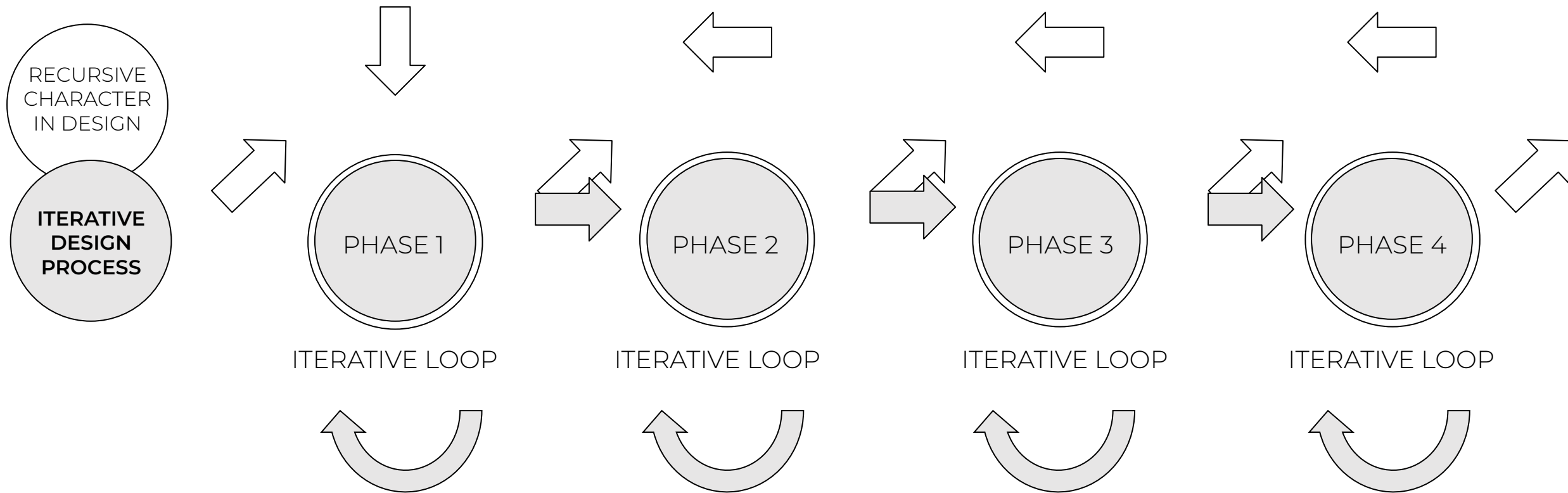
## Indicators towards Touchpoints

Intermediate-level knowledge as co-created paths towards new knowledge and creating value for others. "...what is becoming known and acted upon in the encounters of collaborative research" as a formal "negotiation model". (2018)

Ràfols, I. (2018). S&T indicators in the wild: Contextualization and participation for responsible metrics. *Research Evaluation*, 28(1), 7–22.



# Iterative and Recursive Design Process





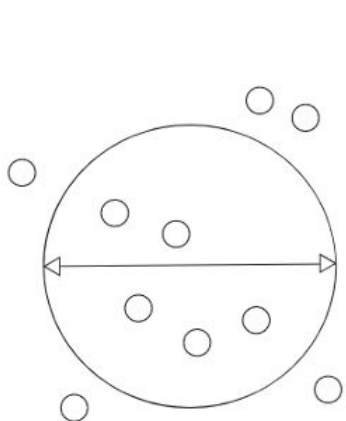
# Touchpoints: What?

Continuously develop the collaboration as an evolving and constantly negotiated framework in which procedures and key decisions are shared by all stakeholders.

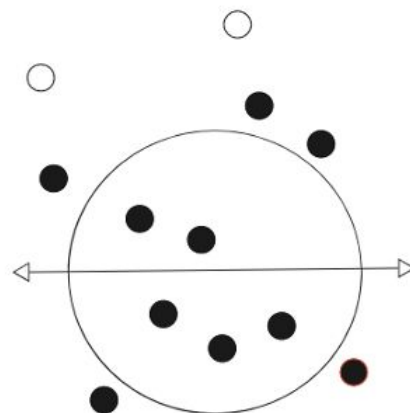
- Form of intermediate-level knowledge that unfolds over time at the recursive level of design.
- Assessment of relevance by describing the links to the collaboration. (roles, equality, building on expertise, growing skills, knowledge and network, responsibility)
- Continuous mutual adjustment of onboarding techniques, roles, deliverables, process and methods.
- Emphasis on the 'core anchor point' within the issue that will be the foundation for collaboration (i.e., issue centred).



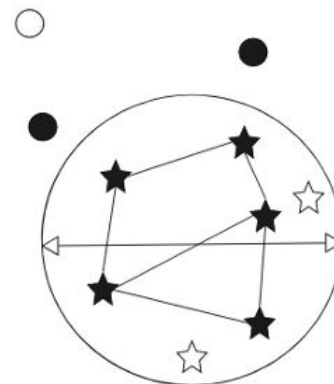
# Touchpoints: Stages of Collaboration



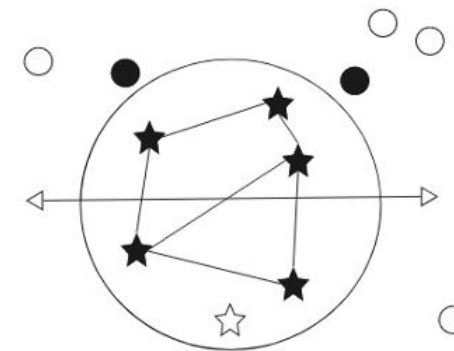
**SENSE-MAKING STAGE:**  
OPENING UP SPACE FOR TWO-WAY DIALOGUE



**VALUE STAGE:**  
FIND and EXPLORE ISSUE



**INNOVATION STAGE:**  
OPENESS IN CREATING SYNERGY



**NETWORK STAGE:**  
(RE)BUILD NETWORK

○ Stakeholder for collaboration; possible

● Stakeholder for collaboration: active

☆ Participant in collaboration: possible and inactive

★ Participant in collaboration: active

Inspired by OSR Model: Marcandella et al. 2012



# Stages of Co-creation of Collaboration

	<b>SENSE-MAKING STAGE</b>	<b>VALUE STAGE</b>	<b>INNOVATION STAGE</b>	<b>NETWORK STAGE</b>
<b>WHAT</b>	OPENING UP SPACE FOR TWO-WAY DIALOGUE	FIND and EXPLORE ISSUE	OPENESS IN CREATING SYNERGY	(RE)BUILD NETWORK
<b>GOAL</b>	IDENTIFY JOINED PROJECTS and ONBOARDING	EXCHANGE and EVALUATE KNOWLEDGE	COMBINE and CONSOLIDATE KNOWLEDGE	EXPLORATION of FUTURE COLLABORATION
<b>WHY</b>	ENABLING COLLABORATION	ENABLING COLLABORATION	ENABLING COLLABORATION	ENABLING COLLABORATION
<b>FOCUS</b>	INDIVIDUAL EXPECTATIONS	INVOLVEMENT/ INTERESTS	TEAM COLLABORATION	SHARE VALUE FOR NETWORK



# Stages of Co-creation of Collaboration

	SENSE-MAKING STAGE	VALUE STAGE	INNOVATION STAGE	NETWORK STAGE
<b>WHAT</b>	OPENING UP SPACE FOR TWO-WAY DIALOGUE	FIND and EXPLORE ISSUE	OPENESS IN CREATING SYNERGY	(RE)BUILD NETWORK
<b>GOAL</b>	IDENTIFY JOINED PROJECTS and ONBOARDING	EXCHANGE and EVALUATE KNOWLEDGE	COMBINE and CONSOLIDATE KNOWLEDGE	EXPLORATION of FUTURE COLLABORATION
<b>WHY</b>	ENABLING COLLABORATION	ENABLING COLLABORATION	ENABLING COLLABORATION	ENABLING COLLABORATION
<b>FOCUS</b>	INDIVIDUAL EXPECTATIONS	INVOLVEMENT/ INTERESTS	TEAM COLLABORATION	SHARE VALUE FOR NETWORK
<b>HOW</b>	METHODS SHORT 10-60 MIN. - Research Identity Memo - Cognitive Bias Codex - Plurimodal perspective mapping - Influence Map - Mutual sympathy sessions	METHODS SHORT 10-60 MIN. - Responsibilities/Roles - Policy research - Literature study - Evaluation tools - Ideas for collaboration	METHODS SHORT 10-60 MIN. - Role play/Did you mean? - Stakeholder map - Listening sessions - Debate map on collaboration - Support role switch	METHODS SHORT 10-60 MIN. - Business model - MVP - Strong concept - Design after design - Citizen ownership
<b>RESULT</b>	COMMITMENT	ROUTEMAP PROCESS	RESEARCH METHODS	NETWORK



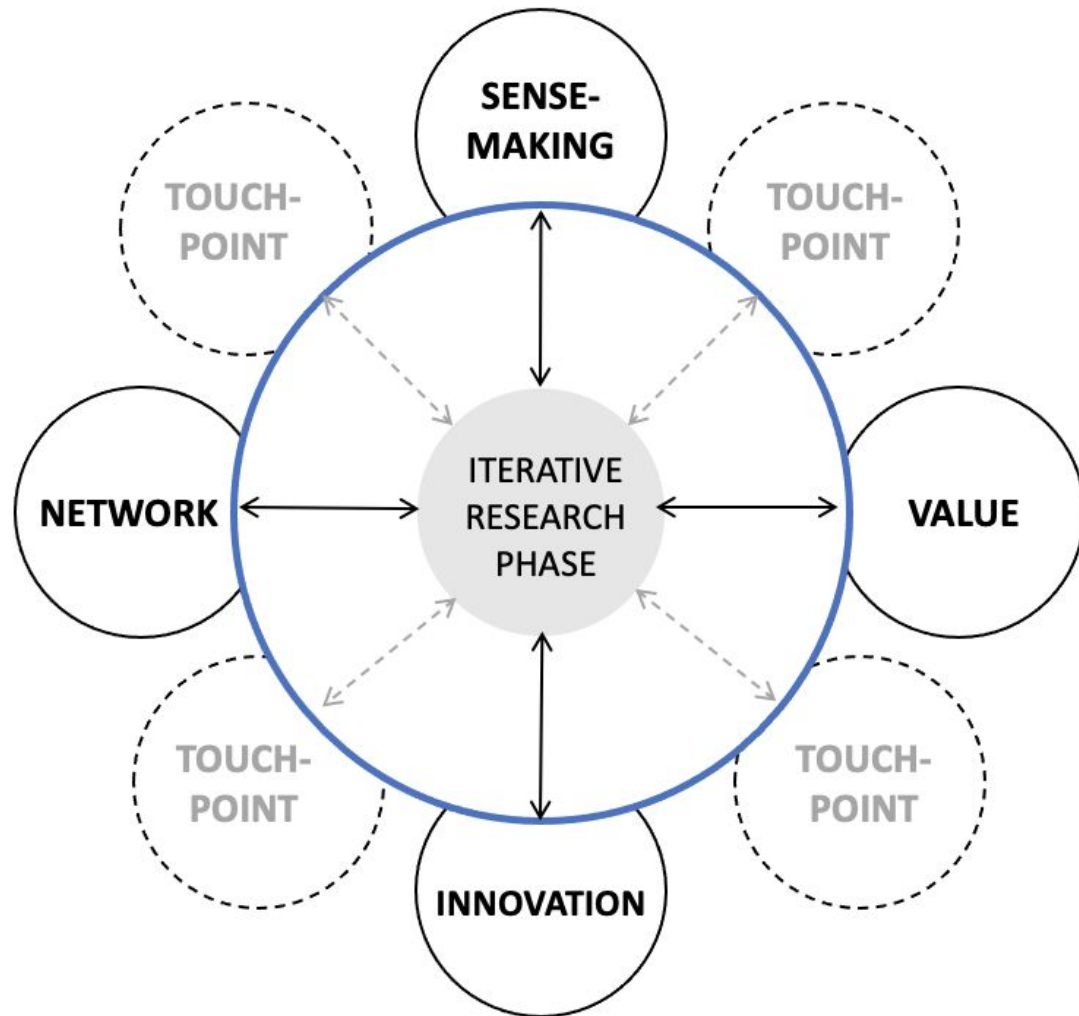
# Touchpoints: Why?

- Results or deliverables from touchpoints moments, in any shape or form, are directly integrated within the project and into society ('in-and outside').
- (Re-)Framing of problems and questions, by breaking up predefined categories.
- Co-create different ways to collaborate: personal framework for participation.
- Bring complementary skills together, training 'on the go'.
- Allowing different perspectives on directions in the research and collaboration process.
- Opening up collaboration by using that what is becoming known during the research or design process (i.e., intermediate-level knowledge)





# Touchpoints (re-)framing collaboration



- FREELY USABLE TOUCHPOINTS

- TOUCHPOINTS MAPPING COLLABORATION RECURSIVELY

- COLLECT and VISUALIZE KEY CHOICES MADE DURING TOUCHPOINTS



# Touching on 'Collective Collaboration Mapping'

- ↳ Build in how we work together, bottom-up, into the research process.
- ↳ Design process plays out in iterative and recursive level.
- ➡ Touchpoints for collaboration embedded in the research process.

**Co-create the collaboration process that unfolds over time while at the same time doing design or research activities.**



# Main references

- Marcandella, E., Garcia-Bardidia, R., Wannemacher, D., & Simon, C. (2012). The organizational social responsibility: a framework for the emergence of a new “innovation space” for clusters?
- Marres, N., & De Rijcke, S. (2020). From indicators to indicating interdisciplinarity.
- Mierlo van, B., Beers, PJ. & Hoes, A-C. (2020) Inclusion in responsible innovation: revisiting the desirability of opening up.
- Hatchuel, A. & Benoît Weil, B. (2003). A new approach of innovative design: an introduction to C-K Theory.
- Kristina Höök and Jonas Löwgren. (2012) Strong concepts: Intermediate-level knowledge in interaction design research.
- Vaughn, L. M., & Jacquez, F. (2020). Participatory Research Methods – Choice Points in the Research Process.

**THANK YOU**

In touch: [info@kadendesign.nl](mailto:info@kadendesign.nl)