



Universiteit  
Leiden  
The Netherlands

## Leadership beyond hierarchies, toward public value: exploring, explaining and enhancing leadership in public sector networks

Akerboom, M.D.

### Citation

Akerboom, M. D. (2026, January 21). *Leadership beyond hierarchies, toward public value: exploring, explaining and enhancing leadership in public sector networks*. Retrieved from <https://hdl.handle.net/1887/4287829>

Version: Publisher's Version  
License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)  
Downloaded from: <https://hdl.handle.net/1887/4287829>

**Note:** To cite this publication please use the final published version (if applicable).



Addendum

A

## Appendix A: Chapter 2

### A.1. Interview protocol

#### 1. Introductory Questions:

- Could you briefly introduce yourself?
- In what way were/are you involved in [name of case]?
- How would you describe [name of case]?
- Can you tell more about the conditions and ‘rules of the game’ of the collaboration?  
(Is it formal/informal, what are the communication channels, who is/isn’t allowed to participate? Is there a secretariat or a lead organization?)

#### 2. Substantive Questions:

##### Collaboration and public value / common goal:

- Why does this collaboration exist? How would you describe ‘the purpose’ or the ‘societal task’ of [name of case]?
- From what objective was/is your organization involved in [name of case]?
- Follow-up question: Has this always been the case (since your involvement), or do you see changes or phases in this?

##### Leadership (general)

- Was/is there leadership in [name of case]?
- If so, who or what exercised that leadership?
- Is this leadership formally established, or is this your own interpretation?
- Was/is there also a lack of leadership in certain areas?
- If so, can you indicate where that lack occurred/occurs?
- Follow-up question: Can you describe a specific situation in which the leadership manifested itself? How did it show?
- Follow-up question: Has this always been the case (since your involvement), or do you see changes or phases in this?

##### Leadership and creating a common goal/shared purpose:

- Did the purpose of the collaboration feel ‘shared’ with other partners?
- In what way did that purpose feel shared?
- What did the [leader(s)] do to stimulate that shared purpose?

- Follow-up question: Has this always been the case (since your involvement), or do you see changes or phases in this?
- Follow-up question: Can you describe a specific situation in which leadership manifested itself to stimulate the purpose?

##### Other good practices and/or barriers in the collaboration:

- How do/did you experience the collaboration with the partner(s)?
- What challenges did you encounter during the collaboration?
- Follow-up question: Has this always been the case (since your involvement), or do you see changes or phases in this?
- Follow-up question: Can you describe a specific situation in which this challenge manifested? How did you deal with it yourself?

#### 3. Concluding

- Is there anything you would like to add that has not yet been discussed during the interview?
- Who else should I interview for this research?
- How would you like to be kept informed about this research?

## Appendix B: Chapter 3

### B.1. Interview protocol

#### 1. Questions for Introduction:

- Could you briefly introduce yourself?
- In what way were/are you involved in [NAME NETWORK]?
- How would you describe [NAME NETWORK]?
- Could you tell more about the conditions and ‘rules of the game’ of the collaboration?  
(Is it formal/informal? What communication tools are used? Who is allowed/not allowed to participate? Is there a secretariat or lead organization?)

#### 2. Substantive Questions:

##### Collaboration and the ‘shared purpose’/common goal orientation:

- Why does this network exist? How would you describe the ‘purpose’ or the ‘societal challenge’ of [NAME NETWORK]?
- From which objective was/is your organization involved in [NAME NETWORK]?
- Follow-up question: Has this always been the case (since your involvement), or have you seen changes or phases?

##### Leadership (General)

- Was/is there leadership in [NAME NETWORK]?
- If so, who or what exercised that leadership?
- Is this leadership formally established, or is that your interpretation?
- Was/is there also a lack of leadership at certain points?
- If so, can you indicate where this lack occurred?
- Follow-up question: Can you describe a specific situation in which leadership manifested itself? How did it show?
- Follow-up question: Has this always been the case (since your involvement), or have you seen changes or phases?

##### Leadership behaviors:

The respondent was asked to reflect on whether the following leadership behaviors occurred in the network. The researcher provided a brief description of the type of behavior, with examples.

- Task-oriented behavior
- Relations-oriented behavior
- Change-oriented behavior
- Externally-oriented behavior

##### Follow-up questions on leadership behavior:

- Who demonstrated that behavior?
- What did that person do? Can you explain how they did it?
- Has this always been the case (since your involvement), or have you seen changes or phases?

##### Other good practices and/or barriers in the collaboration

- How do/did you experience the collaboration with the partners?
- What challenges did you encounter during the collaboration?
- Follow-up question: Has this always been the case (since your involvement), or have you seen changes or phases?
- Follow-up question: Can you describe a specific situation in which this challenge manifested? How did you handle it?

#### 3. Concluding questions

- Is there anything else you would like to add that hasn’t been discussed yet?
- Who else should I interview for this research?
- How would you like to be kept informed about this research?

## Appendix C: Chapter 4

### *C.1. Survey items*

For each of the variables, survey items were developed on the basis of existing (validated) scales, if available. To assess validity, an exploratory factor analysis was conducted, followed by a reliability analysis of selected items.

#### *Leadership*

To measure the independent variable ‘leadership’ Yukl’s taxonomy of leadership behaviors was used, which distinguishes task-, relations-, change-, and externally oriented behaviors. For each sub-category of leadership behaviors, multiple items were developed. For each of these behaviors, respondents were required to indicate the frequency in which the behavior was displayed – not specifying who displays the behavior. Response options ranged on a six-point scale from “Never” to “Always” and included the option not to answer.

#### *Task-oriented leadership*

The task-oriented leadership subscale consisted of 9 items ( $\alpha = 0.863$ ). The items aimed to measure the following behaviors: clarifying, planning, monitoring operations and technical problem solving.

#### *Relations-oriented leadership*

The relations-oriented leadership subscale consisted of 11 items ( $\alpha = .910$ ). The items aimed to measure supporting behaviors, helping others to develop skills, recognizing efforts and empowering others.

#### *Change-oriented leadership*

The change-oriented leadership subscale consisted of 6 items ( $\alpha = .855$ ). The items aimed to measure the following behaviors: advocating and envisioning change, encouraging collective learning and encouraging innovation. An exploratory factor analysis confirmed the compatibility of the survey items.

#### *Externally-oriented leadership*

The Externally-oriented leadership subscale consisted of 4 items ( $\alpha = .908$ ) measuring three types of behaviors: networking, external monitoring and representing. An exploratory factor analysis confirmed the compatibility of the survey items.

### *Collaborative process in inter-organizational networks*

#### *Operational capacity*

The measurement of dependent variable “operational capacity” consisted of five items measuring clarity (formalization) and resource munificence. One item was retrieved from a validated measurement scale by Wageman, Hackman and Lehman (2005). Due to the unavailability of existing scales, the authors formulated four other items. Response options ranged on a five-point scale from “I completely disagree” to “I completely agree” and included the option not to answer. The scale has a reliability score of Cronbach’s  $\alpha = .701$ .

#### *Member relations*

*Member relations were measured through three dimensions: psychological safety, trust and shared identity.*

##### *Psychological safety*

The measurement of psychological safety is based on four items developed by Edmondson (1999), though slightly altered to include ‘networks’ rather than ‘teams.’ Response options ranged on a five-point scale from “I completely disagree” to “I completely agree” and included the option not to answer. This scale has a reliability score of Cronbach’s  $\alpha = .753$ .

##### *Trust*

The dependent variable ‘trust’ was measured through five survey items developed by Klijn, Edelenbos and Steijn (2010) which measure agreement trust, benefit of the doubt, reliability, absence of opportunistic behavior, and goodwill trust. Response options ranged on a five-point scale from “I completely disagree” to “I completely agree” and included the option not to answer. This scale has a reliability score of Cronbach’s  $\alpha = .797$ .

##### *Shared identity*

The measurement of shared identity was based on a scale of group identification by Henry, Arrow and Carini (1999) which measure both affective, behavioral and cognitive conceptualizations of a shared identity. Response options ranged on a five-point scale from “I completely disagree” to “I completely agree” and included the option not to answer. This scale has a reliability score of Cronbach’s  $\alpha = .837$ .

### Goal orientation

(Common) goal orientation was measured through three dimensions: mutual interdependence, joint problem solving orientation and (goal) commitment.

#### Mutual interdependence

To measure interdependence, the survey included items measuring both task and goal interdependence.

Two items were retrieved from Wageman, Hackman and Lehman (2005), and two items were retrieved from Pee, Kankanhalli and Kim (2010). Response options ranged on a five-point scale from “I completely disagree” to “I completely agree” and included the option not to answer. This scale has a reliability score of Cronbach’s  $\alpha = .674$ .

#### Joint Problem-Solving Orientation

The variable ‘joint problem solving orientation’ was measured through translated survey items from Kerrissey et al (2010). Response options ranged on a five-point scale from “I completely disagree” to “I completely agree” and included the option not to answer. This scale has a reliability score of Cronbach’s  $\alpha = .810$ .

#### Goal commitment

The dependent variable ‘goal commitment’ was measured through four items developed by Klein et al. (2014). Response options ranged on a five-point scale from “Not at all” to “Very strongly” and included the option not to answer. This scale has a reliability score of Cronbach’s  $\alpha = .865$ .

#### Control variables

To control for team factors that are not included in the conceptual model, the following control variables were included: *gender*, *age*, *position of the respondent (managerial or non-managerial)*, *network layer* (strategic/tactical), and *time spent* on the network according to the respondent.

### Overview of variables quantitative survey

Variable	Survey items	Cronbach's alpha
Task-oriented leadership	Clarifying responsibilities of partners in the network	0.863
	Dividing tasks among partners in the network	
	Setting targets and deadlines for the partners	
	Sending relevant information to partners	
	Identifying required actions to achieve common goals	
	Monitoring progress regarding agreements made	
	Identifying bottlenecks in the collaborative process	
	Evaluating the quality of the collective work	
	Sharing organizational capacity for the benefit of the network	
	Emphasizing collaborative successes (“we have done X well!”)	
Relations-oriented leadership	Complimenting partners for their efforts	0.910
	Offering assistance to partners when they experience a bottleneck in the collaboration	
	Taking the initiative to get to know partners better outside of meetings.	
	Showing empathy when a partner experiences a bottleneck in the collaboration	
	Delving into the context of partner organizations (such as legal frameworks) to better understand partners	
	Asking partners to provide input on a proposal	
	Showing interest in the perspectives of other members.	
	Asking partners what their needs are regarding the collaboration	
	Asking partners how they see ‘the purpose’ or ‘the task’ of the collaboration	
	Emphasizing what partners have in common with each other	
Change-oriented leadership	Emphasizing the common goal	0.855
	Describing a vision of what the network could achieve for the target group	
	Emphasizing the added benefits of collaboration in tackling the societal problem	
	Encouraging a change of the networks’ modus operandi	
	Encouraging partners to do more than strictly required	
Making partners aware of potential chances or risks for the network		

## Overview of variables quantitative survey (continued)

Variable	Survey items	Cronbach's alpha
Externally-oriented leadership	Initiating external relations in order to gather budget or expertise for the benefit of the network.	0.908
	Identifying new potential network partners.	
	Initiating relationships with potential network partners.	
	Using your own professional network to provide new knowledge to the network.	
Operational capacity	It is clear what everyone's tasks is in the network to achieve the common goal.	.701
	The knowledge of each partner is utilized.	
	The network has sufficient administrative support to facilitate the collaboration	
	The network has sufficient resources to achieve the common goal.	
Member relations: trust	Formal agreements in this network clarify our collective course of action.	0.797
	The parties in this project generally live up to the agreements made with each other.	
	The parties in this project give one another the benefit of the doubt.	
	The parties in this project keep in mind the intentions of the other parties.	
Member relations: psychological safety	Parties do not use the contributions of other actors for their own advantage.	0.753
	Parties in this project can assume that the intentions of the other parties are good in principle.	
	I feel I can bring up problems and tough issues with the other party.	
	I feel the other party would not deliberately act in a way that undermines my efforts.	
Member relations: shared identity	If you make a mistake, the other party often holds it against you.	0.837
	It isn't difficult to ask other members of this network for help.	
	I see myself as quite similar to other members of the group	
	I enjoy interacting with the members of this group	
	Members of this group like one another	
	I think of this group as part of who I am	

## Overview of variables quantitative survey (continued)

Variable	Survey items	Cronbach's alpha
Goal orientation: Joint Problem-Solving Orientation	I view the other parties as true partners	0.810
	We always ask one another questions to understand how best to proceed	
	Each party offers important points to help our work together proceed	
	We invite one another to be part of the problem-solving process	
Goal orientation: mutual interdependence	Members of this team had their own individual jobs to do, with little need for them to work together (reverse coded).	0.674
	Generating the outcome or product required a great deal of communication and coordination among members.	
	The [partners'] task completion often depends on [my tasks]	
	I depend on [the partners'] task completion.	
Goal orientation: commitment	How committed are you to [this target]?	0.865
	To what extent do you care about [this target]?	
	How dedicated are you to [your/the/this] [target]?	
	To what extent have you chosen to be committed to [your/the/this] [target]?	

## Appendix D: Chapter 5

### D.1. Topic list focus groups

#### Part 1: Understanding Leadership Needs in Network Contexts

##### 1.1 Perceptions of Network Leadership

- What comes to mind when you hear the term leadership in networks?

Probes: Who provides leadership? What does it look like in practice?

##### 1.2 Ideal Role of Leadership

- In your view, what role should leadership ideally play in a network or collaborative chain?

Probes: Is it about creating consensus, connecting stakeholders, securing resources?

##### 1.3 Organizational Support

- How does your organization support you in working within networks or collaborative chains?

Probes: Are there training opportunities? Do you receive support from your manager?

##### 1.4 Leadership Challenges

- What kinds of leadership challenges do you encounter in network settings?

Probes: Lack of leadership, unclear responsibilities, dominant or competitive behavior between organizations?

##### 1.5 Collaboration Barriers

- Have you encountered obstacles in collaborating with chain/network partners?

Probes: Relational issues (lack of initiative, finger-pointing), resource issues (personnel or budget shortages), lack of consensus on shared goals?

##### 1.6 Knowledge Needs

- What kind of knowledge about leadership in networks and chains would be useful to you?

Probes: Awareness of leadership dynamics, understanding different types of leadership behavior, practical strategies for applying leadership?

#### Part 2: Practical Requirements for the Intervention

##### 2.1 Desired Impact of the Intervention

- What outcomes or effects would you like a leadership intervention to achieve?

Probes: Raising awareness, challenging taboos, identifying blind spots, surfacing sensitive issues?

##### 2.2 Preferred Format

- What kind of intervention format would you prefer?

Probes: Card game, digital game, board game, role play, virtual reality (VR)?

Probes: Should it target individuals or groups?

Probes: Should it involve realistic cases or simulations?

##### 2.3 Practical Conditions and Constraints

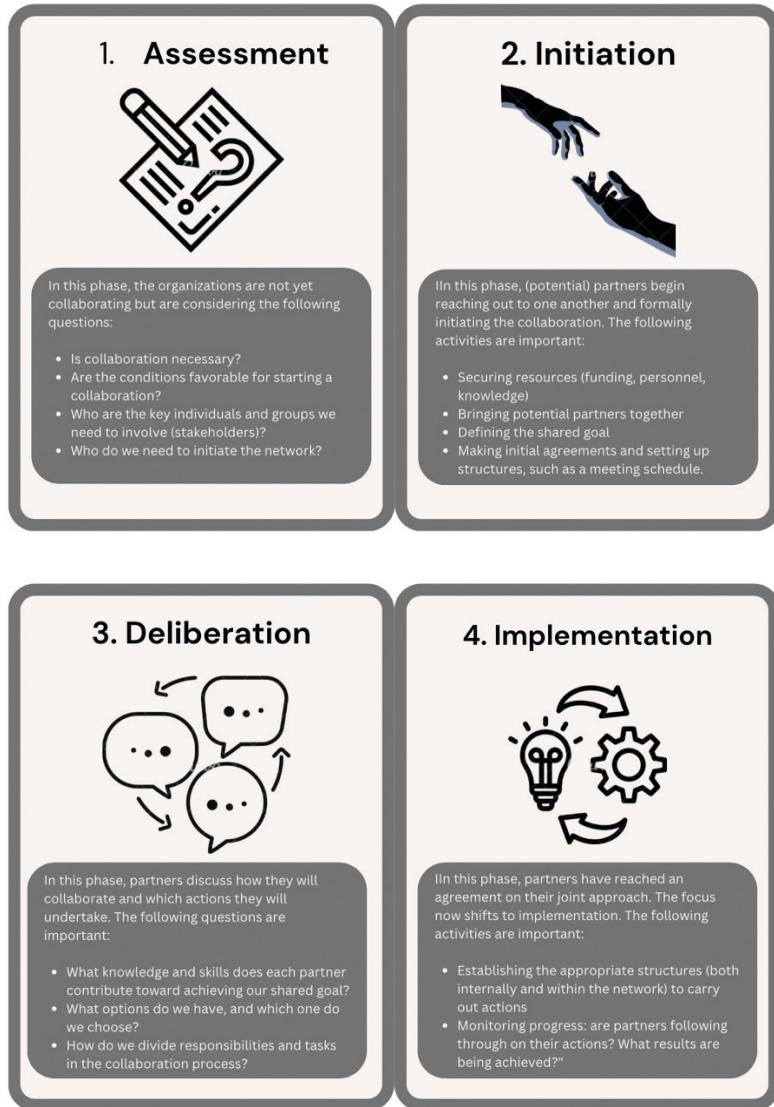
- What practical factors need to be considered when designing the intervention?

Probes: Time limitations, preference for individual or guided (moderated) formats, availability of digital tools/computers in your organization?

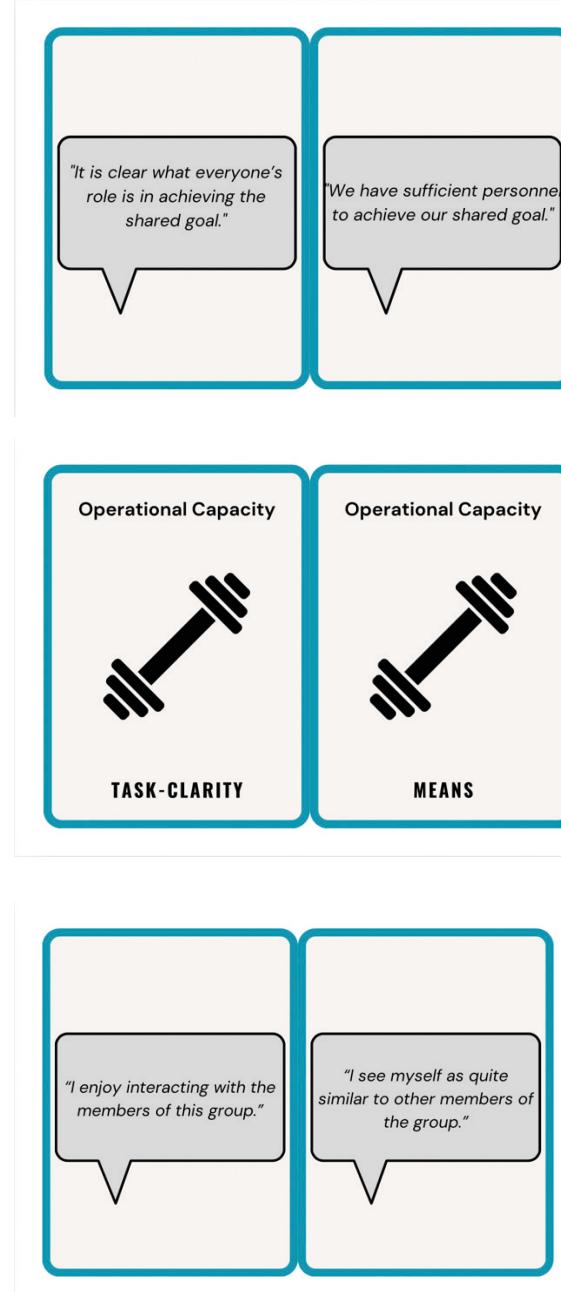
Probes: Are there other important considerations such as organizational culture, structure, or implementation constraints?

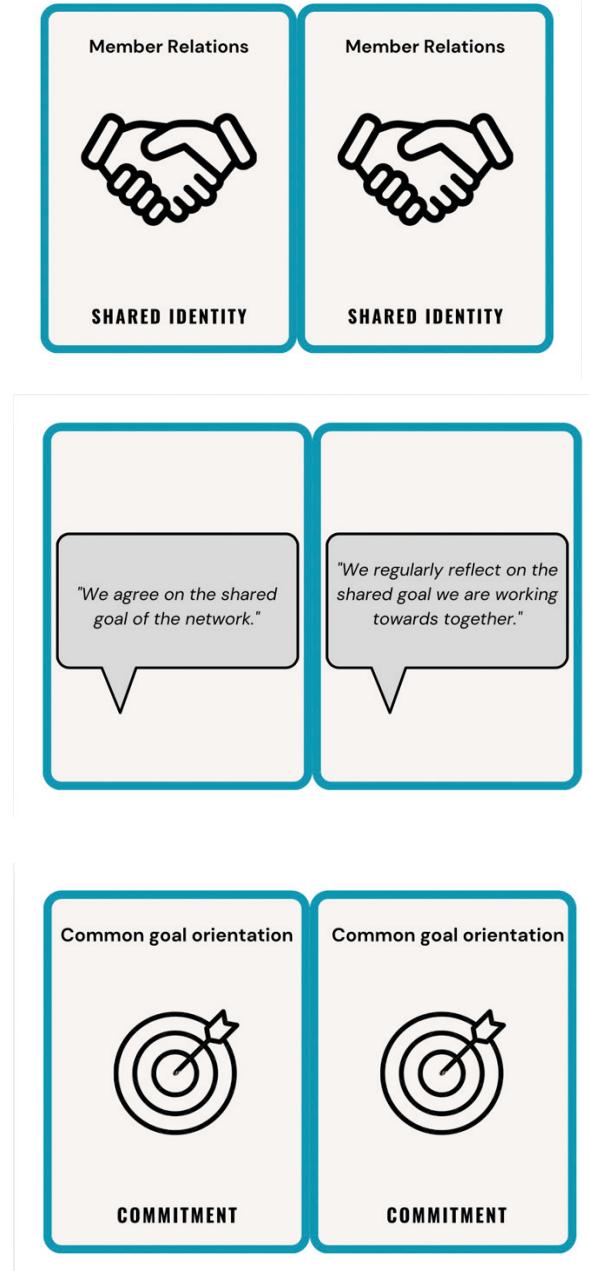
## D.2. Intervention materials

## 1. Network phase identification

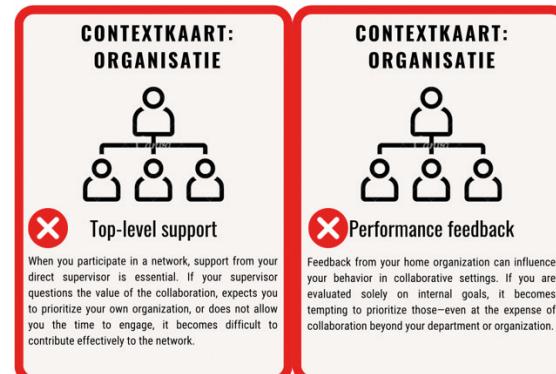
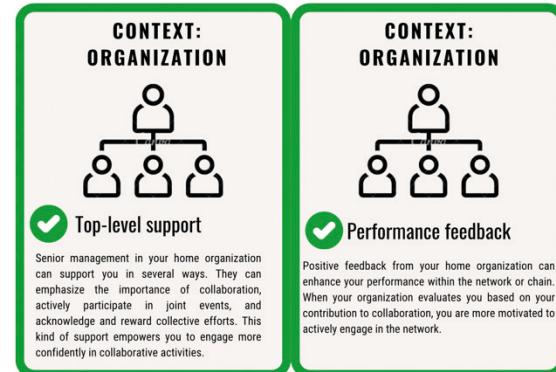


## 2. Baseline measurement

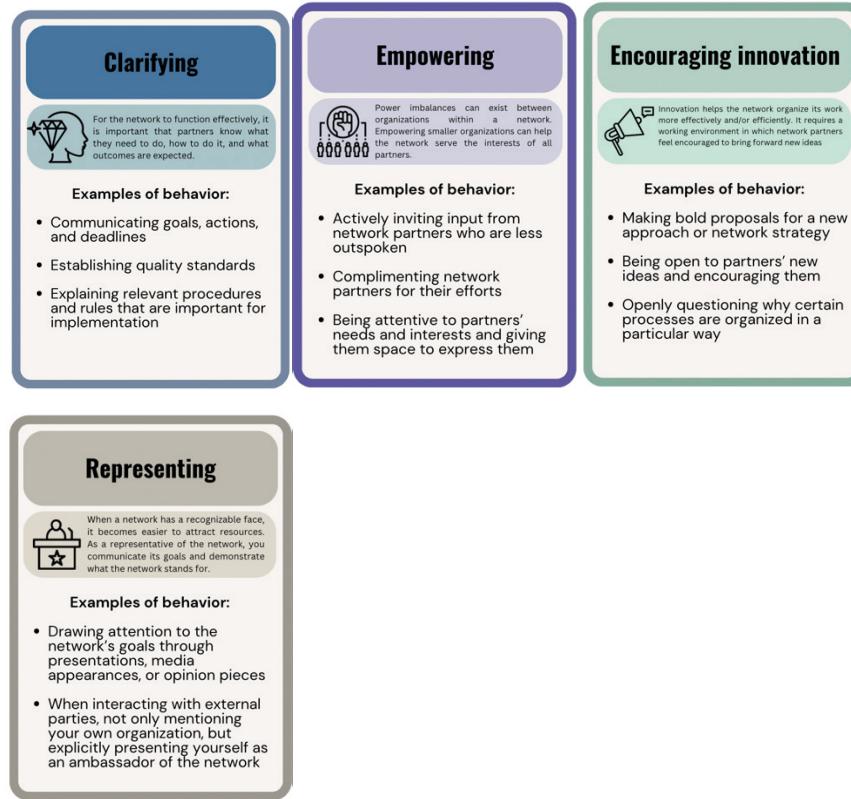




## 3. Context Mapping



## 4. Leadership scan



## 5. Reflection

Which **relations-oriented leadership** will you (further) apply in your chain or network in the coming period, and in which direction will you demonstrate it? Multiple options are possible. Tick only the behaviors that apply

## In which direction will you (further) demonstrate leadership?

Home organization (e.g. colleagues)	Network partners	Other actors (external)
<b>Supporting:</b> Offering partners help and/or advice when they need it.	<input type="radio"/>	<input type="radio"/>
<b>Empowering:</b> Ensuring that smaller network partners are also seen and heard.	<input type="radio"/>	<input type="radio"/>
<b>Demonstrating interest:</b> Showing interest in partners by asking questions and understanding their perspective.	<input type="radio"/>	<input type="radio"/>
<b>Showing empathy:</b> Listening without judgment and showing understanding toward partners.	<input type="radio"/>	<input type="radio"/>
<b>Emphasizing collective identity:</b> Highlighting shared needs and interests, and more frequently inquiring about the other party's needs.	<input type="radio"/>	<input type="radio"/>

## D.3. Qualitative questionnaire

Questions can be answered using a five-point scale (1; *completely disagree*; 2; *disagree*; 3; *neutral*; 4; *agree*; 5; *completely agree*)

A

1. "This intervention has helped me identify what is going well in the collaboration and which areas require improvement."

*Can you explain your answer?*

2. "This intervention has helped me gain an understanding of the factors that positively or negatively influence the collaboration."

*Can you explain your answer?*

3. "The intervention has helped me gain an understanding of the leadership I can (further) demonstrate to elevate the network."

*Can you explain your answer?*

4. "The intervention has helped me address topics in the collaboration process that are typically not discussed within the network."

*Can you explain your answer?*

5. "The intervention has taught me to better understand the type of leadership my network currently needs."

*Can you explain your answer?*

#### D.4. Group interview protocol

1. Can you indicate what insights the intervention has given you?

2. What intention did you have to change something in the collaboration process based on those insights?

- *Is there a specific aspect of the collaboration (strength, relationships, shared goal) that you want to improve?*
- *Do you want to show (different) leadership behavior towards each other?*
- *Do you want to demonstrate (different) leadership behavior towards your home organizations?*
- *Do you want to demonstrate (different) leadership behavior to the outside world?*
- Is this purely a change in behavior, or (also) the distribution of this behavior across the group?

3. Has anything changed at network level since then in the behavior you show towards each other?

4. Has anything changed at organizational level since then in the behavior that you yourself, or together with the partners, employ towards your home organization for the benefit of the network?

5. Has anything changed in the way you as a network position yourself to the outside world?  
(For example: the media; subsidy providers)

#### Ethics and AI Statement

##### Ethics Committee

For each empirical project included in this dissertation (Chapters 2, 3–4, and 5), an ethics application was submitted to the Ethics Committee of the Faculty of Governance and Global Affairs, Leiden University. All applications were reviewed and approved by the committee prior to data collection. The studies were conducted in accordance with the ethical standards and guidelines of the faculty and the broader principles of research integrity.

#### Use of AI tools

The content, ideas, and conclusions presented in this dissertation are entirely my own. Artificial intelligence tools were used solely to refine the phrasing of specific sentences, not to proofread or edit the dissertation as a whole. Specifically, I used ChatGPT (OpenAI) to check grammar, improve phrasing, and ensure appropriate academic tone, as English is not my native language. AI tools were not used to generate or analyze content, nor to assist with interpretation or argumentation. Their use complied with institutional and academic integrity guidelines.