

Supplementary Material: Appendix 1:

Article title:

## **Uncovering the Complexity of Care Networks – Towards a Taxonomy of Collaboration Complexity in Homecare**

Journal name: Computer Supported Cooperative Work

Authors:

Madeleine Renyi<sup>1,2</sup>, Petra Gaugisch<sup>3</sup>, Alexandra Hunck<sup>3</sup>, Stefan Strunck<sup>3</sup>, Christophe Kunze<sup>1</sup>, Frank Teuteberg<sup>2</sup>

<sup>1</sup>Technology and Inclusion Lab, Furtwangen University, Robert-Gerwig-Platz 1, 78120 Furtwangen, Germany  
{madeleine.renyi; christophe.kunze}@hs-furtwangen.de

<sup>2</sup>Institute for Information Management and Information Systems Engineering, Osnabrück University, Katharinenstr. 1, 49069 Osnabrück, Germany  
{mrenyi; frank.teuteberg}@uni-osnabrueck.de}

<sup>3</sup>Fraunhofer Institute for Industrial Engineering (IAO), Nobelstr. 12, 70569 Stuttgart, Germany  
{petra.gaugisch; stefan.strunck}@iao.fraunhofer.de  
alexandra.hunck@googlemail.com

### **Corresponding Author:**

Madeleine Renyi

Affiliation bound contact details:

Address: Robert-Gerwig-Platz 1, 78120 Furtwangen, Germany

Email: [madeleine.renyi@hs-furtwangen.de](mailto:madeleine.renyi@hs-furtwangen.de)

Permanent contact details:

Email: [info@madeleinerenyi.de](mailto:info@madeleinerenyi.de)

## Supplementary Material

Appendix 1:

Document Title: The ComCiN-Tool – A Tool to Examine the **Complexity** of the Collaboration in Homecare **Networks**

Description: English version of the practical guide developed out of the presented taxonomy

## Appendix 1



# The ComCiN-Tool

A Tool to Examine the **Complexity** of the **Collaboration**  
in Homecare **Networks**

Authors:

Institution	Last Name, First Name
Furtwangen University	Renyi, Madeleine
Fraunhofer IAO	Gaugisch, Petra
	Hunck, Alexandra

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## What's at issue?

Several different actors are involved in the provision of homecare or support to those in need of it. They form an individual homecare network. The networks of people in need of care are different, e.g. in terms of their size, composition and separation of tasks. With the help of the ComCiN-Tool, the complexity of cooperation in a care network is to be examined. The focus in the analysis of cooperation is on communication and organization in the networks.

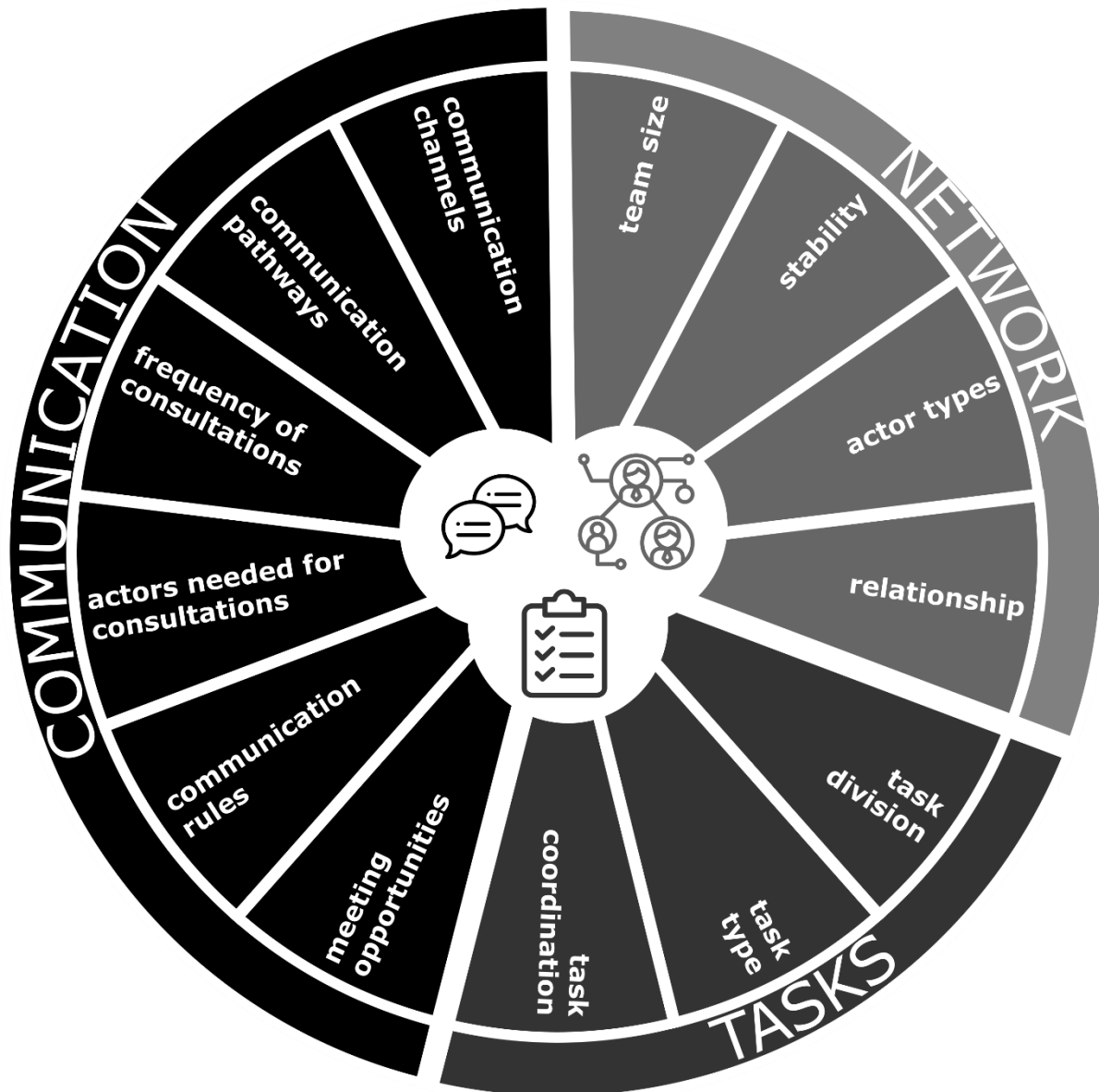


Figure 1: Visualization of the ComCiN-Tool for examining the complexity of collaboration in homecare networks

## What should the tool be used for?

The tool can be used to analyze the status quo of a homecare network. It helps understand the interrelationships of collaboration and fosters the discussion to derive measures for improvement. Thus, the target of the tool is to support the facilitation of collaboration in homecare networks.

## How does the tool work?

The tool contains 13 dimensions that influence communication and organization in homecare network. These can be subdivided into three meta-characteristics: network, tasks and communication. Figure 1 shows a visualization of the relationships between the dimensions and the meta-characteristics.

Each dimension of the ComCiN-Tool is divided into three characteristics: less, more, highly complex. For each dimension only one characteristic is chosen. At the end, the degree of complexity of each dimension is copied into a radar chart. This provides an overview of the complexity of communication and organization in a homecare network.

## Who may use the tool?

The tool can be applied by everyone who is interested in homecare networks and wants to understand how collaboration in homecare networks works.

This could be, for example:

- Outpatient care services that want to support their customers' networks in communication and organization.
- Purely informal networks, such as when only family members and friends care for a person in need of support. They can map and improve their collaboration.
- Software solution providers who want to understand how communication in homecare networks works. They may be able to improve their software product or more specifically address the target user group.

## Who developed the tool?

The tool was developed within the framework of the research project "EIKI". The project is funded by the "Ministerium für Soziales und Integration Baden-Württemberg" from 2018 till 2021 with funds from the state of Baden-Württemberg. The tool was developed through a cooperation between Furtwangen University and Fraunhofer IAO.

## Who can I contact with questions?

For questions, feedback and suggestions please contact the following persons:



Furtwangen University (HFU)  
Technology and Inclusion Lab

Robert-Gerwig-Platz 1  
78120 Furtwangen  
Deutschland

[www.mensch-technik-teilhabe.de](http://www.mensch-technik-teilhabe.de)  
[www.hs-furtwangen.de](http://www.hs-furtwangen.de)

Contact person:  
Madeleine Renyi  
Email: [madeleine.renyi@hs-furtwangen.de](mailto:madeleine.renyi@hs-furtwangen.de)



Fraunhofer Institute for Industrial  
Engineering (IAO)  
Team Cognitive Environments

Nobelstraße 12  
70569 Stuttgart  
Deutschland

[www.iao.fraunhofer.de](http://www.iao.fraunhofer.de)

Contact person:  
Petra Gaugisch  
Phone: +49 711 970 5147  
Email: [petra.gaugisch@iao.fraunhofer.de](mailto:petra.gaugisch@iao.fraunhofer.de)

# Instructions for using the ComCiN-Tool

1. **Map the network** and the collaboration of the network members. Use the following **guiding questions**:
  - a) Who is involved in the network? How many actors play a role? What types of actors are involved?
    - Informal caregivers (e.g. family, friends)
    - Semi-professional caregivers (e.g. organized in a neighborhood association)
    - Professional caregivers (e.g. nursing service, physician)
    - Non-human actors (e.g. technology, pets)
  - b) Which tasks are performed by the individual actors?
  - c) How engaged are they in the network?
  - d) In which distance to the person in need of care do the actors live, practice or work?
  - e) How do the actors communicate with each other? How often do they have to consult each other?
  - f) How long has the network existed? How often do actors in the network change?
  - g) How good is the relationship among the actors?
  
2. **Assess the complexity** of the collaboration in your network **for the dimensions 1 – 13** in any order. Proceed as follows:
  - a) First, read the description of the dimension.
  - b) Below the description, you can see which actors of the homecare network should be included in the assessment of the dimension. These are either all actors in the network or only the actors who collaborate in everyday life (everyday actors). Everyday actors are involved between once a week up to daily. They are very important for the network. They may be informal (e.g. family, friends), semi-professional (e.g. neighborhood helper), or professional (e.g. professional caregiver, technology)
  - c) Then assign a degree of complexity for the dimension. You can choose between "less complex", "more complex" or "highly complex". The considerations are always based on the assessment of the communication and cooperation within the network.
  
3. Summarize the complexity of the dimensions in the **radar chart** on the last page of this document. This gives you an overview of the collaboration complexity in the network. The visualization allows you to see at a glance how complex the dimensions in your network

are. Investigate the consequences of complexity on the collaboration within the network, seek exchange with your network partners and possibly take joint measures to facilitate collaboration.

Taking on responsibility of another person in need is an honorable endeavor. You are doing an indispensable job. We hope this tool may support you with this.

We wish you a tension free, clear and reliable collaboration in your network.

**Good luck!**



# 1. Team Size

## Description of the Dimension «Team Size»:

One actor and the patient himself form the smallest possible network. The more actors are involved in a network, the more complicated the cooperation is. The size of the network thus influences the complexity of cooperation in homecare networks.

The following actors must be considered in the assessment: **everyday actors**.

**Example 1 (less complex):** Mrs. A's network consists of her and her daughter. Cooperation in Mrs. A's network is easy, as everything happens only between the two of them.

**Example 2 (more complex):** Mrs. B's network consists of her daughter, her son-in-law and two grandchildren. The tasks are distributed among the actors. They have to coordinate among themselves and pass on information. Cooperation is therefore complicated.

**Example 3 (highly complex):** Mrs. C's network is very large. This includes her daughter, her son-in-law, her two grandchildren, an outpatient nursing service and a physiotherapist. The number of actors in Mrs. C's network is more than 5. Many arrangements among the actors are necessary. Communication and organization in the network are complex.

**Rating Scale:**

The collaboration in the network is...	Degree of Complexity
<b>less complex</b> , if only one actor supports in everyday care.	1
<b>more complex</b> , if only few actors (2 to 4) collaborate in the everyday care.	2
<b>highly complex</b> , if many actors (5 or more) collaborate in the everyday care.	3

Degree of complexity of the dimension „Team Size“:

## 2. Stability of the Network

### Description of the Dimension «Stability of the Network»:

A network is stable if it has existed for a long time, the actors do not change and all of them reliably fulfil their tasks. Network instability makes collaboration more complicated. When actors leave the network, gaps in the structures arise. As soon as new actors join, they have to be integrated into the network. A network is also unstable if individual actors do not reliably fulfil their tasks. Both factors mean that the cooperation of the actors has to be restructured and regulated and a reliability has to be established.

The following actors must be considered in the assessment: **all network actors.**

**Example 1 (less complex):** Mr. A has needed care for more than two years. Since then, his two sons have been taking care of him reliably. The network has not changed. The network is therefore stable, and collaboration is easy.

**Example 2 (more complex):** Mr. B has needed care for more than two years. Since then his two sons, an outpatient nursing service and a physiotherapist have been looking after him. One son is professionally very busy and cannot always reliably fulfil his duties. The physiotherapist has recently changed. The other actors have not changed. The network is only partially stable, and the cooperation can therefore be classified as complicated.

**Example 3 (highly complex):** Mr. C has needed care for more than two years. He receives support from his two sons and a nursing service. There are always changes in the staff of the nursing service. One of the two sons moved far away last month and can no longer fulfil his duties. No replacement has been found for him yet. Again, and again, the senior neighbor spontaneously stands in for the son. The network is unstable. Communication and organizational rules must be redefined repeatedly, and the cooperation is complex.

**Rating Scale:**

The collaboration in the network is...	Degree of Complexity
<b>less complex</b> , if the network is stable.	1
<b>more complex</b> , if the network is unstable, but there exists a basis of reliable actors.	2
<b>highly complex</b> , if the network is unstable, and therefore communication and cooperation rules must be constantly explained and redefined.	3

Degree of complexity of the dimension „Stability of the Network“:

### 3. Actor Types

#### Description of the Dimension «Actor Types»:

Different types of actors can be involved in a homecare network. A distinction is made between the following types of actors:

- Informal actors, such as relatives, neighbors or friends
- Semi-professional actors, such as neighborhood associations or voluntary institutions
- Professional actors, such as nurses, physicians, therapists, active\* technology

Each type of actor has its own rules of communication, different communication media and possibly different (institutional) requirements. The more types of actors are involved in a network, the more complicated the cooperation.

The following actors must be considered in the assessment: **all network actors.**

**Example 1 (less complex):** Mrs. A's network includes her husband, her two daughters and a committed neighbor. All of them belong to the informal actors. Cooperation is simple.

**Example 2 (more complex):** Mrs. B's network includes her husband, her two daughters and a volunteer from a neighborhood association. Thus, two types of actors are represented in the network. The cooperation is complicated.

**Example 3 (highly complex):** Mrs. C's network includes her husband, a volunteer from a neighborhood association and a nurse. Thus all 3 types of actors are represented. The cooperation is highly complex.

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\* Technology can act as active collaboration actor or be an as passive infrastructure. Only if technology plays a role in coordinating tasks (e.g. a matching tool for tasks and actors) or actively communicates information to the other actors (e.g. a monitoring system that surveys a person in need of care and alerts other actors in case of emergency) it can be counted as an collaborating actor of the network. Else, it may be a crucial part of the network infrastructure, but not an active, steering, executing actor in the collaboration.

**Rating Scale:**

The collaboration in the network is...	Degree of Complexity
<b>less complex</b> , if only one type of actors represented in the network (informal, semi-professional or professional actor).	1
<b>more complex</b> , if two types of actors are represented in the network.	2
<b>highly complex</b> , if all actor types are represented in the network (informal and semi-professional and professional actors).	3

Degree of complexity of the dimension „Actor Types“:

## 4. Relationship

### Description of the Dimension «Relationship»:

Whether actors see themselves as part of a network and are open to collaboration depends to a large extent on the relationship between them. Tensions and conflicts limit collaboration in networks. There is a danger that information is not passed on directly to all or relevant actors. Complicated ways of communication are created and the potential for help is not fully exploited.

The following actors must be considered in the assessment: **all network actors**.

**Example 1 (less complex):** In Mr. A's network his two daughters, an outpatient nursing service and a neighborhood helper support him. They all get along very well. The collaboration in the network is simple.

**Example 2 (more complex):** In Mr. B's network his two daughters, an outpatient nursing service and a neighborhood helper support him. Between the two daughters there are often conflicts, which is why they do not speak to each other anymore. The collaboration in the network is complicated.

**Example 3 (highly complex):** In Mr. C's network his two daughters, an outpatient nursing service and a volunteer helper support him. Between the two daughters there are often arguments. They also do not get along so well with the nursing staff of the outpatient service. They all try to avoid each other. Collaboration in the network is highly complex.

**Rating Scale:**

The collaboration in the network is...	Degree of Complexity
<b>less complex</b> , if the relationship is free of tension.	<b>1</b>
<b>more complex</b> , if tensions exist between few actors.	<b>2</b>
<b>highly complex</b> , if the relationships are severely disrupted.	<b>3</b>

Degree of complexity of the dimension „Relationship“:



## 5. Task Division

### Description of the Dimension «Task Division»:

Collaboration in care networks is simple if tasks are not interdependent and are clearly separated between everyday actors, making permanent communication and organization unnecessary. It gets more complicated if several actors share the same tasks and therefore need to coordinate their work and exchange information. A complex situation is one in which there are no clear fields of activity differentiated between actors or in which everyone does everything. As more actors become involved in everyday care, the situation regarding communication and organization becomes increasingly complex.

The following actors must be considered in the assessment: **everyday actors**.

**Example 1 (less complex):** Mrs. A is supported by her daughter and her granddaughter. The daughter takes care of domestic tasks and her granddaughter takes over the driving services. The tasks are clearly separated and the cooperation in the network is easy.

**Example 2 (more complex):** Mrs. A's is supported by her daughter and her three grandchildren. Her daughter takes care of domestic tasks and her three grandchildren take over the driving services in turn. The grandchildren have to agree on the hours of service. The collaboration is complicated.

**Example 3 (highly complex):** Mrs. A's is supported by her daughter and her three grandchildren. However, there is no clear distribution of tasks. The actors spontaneously take over the tasks at hand. The actors often must communicate with each other in order not to duplicate or forget any tasks. The collaboration is highly complex.

**Rating Scale:**

The collaboration in the network is...	Degree of Complexity
<b>less complex</b> , if there is a clear division between the types of tasks and these do not overlap.	1
<b>more complex</b> , if several actors share the same task types.	2
<b>highly complex</b> , if there are no clear fields of activity differentiated between the actors or if everyone does everything.	3

Degree of complexity of the dimension „task division“:

## 6. Task Type

### Description of the Dimension «Task Type»:

The tasks in care networks are grouped into three types:

- (1) hands-on nursing and support
- (2) coordination and organization
- (3) visits and care.

Collaboration in a homecare network is simple if one actor manages the organization (2) and provides daily care (1+3). In this situation, other actors provide support on a less frequent basis in the form of tasks such as transport service or housekeeping (1+3). Collaboration can be considered complicated or complex in situations in which the workload of organizing and providing care is shared. This type of care network may relieve individuals, but it also complicates the collaboration because tasks must be distributed and coordinated. As more actors share in the organization of tasks, collaboration becomes increasingly complex.

The following actors must be considered in the assessment: **everyday actors**.

**Example 1 (less complex):** The wife of Mr. A, who needs care, organizes all tasks for the daily care. At the same time, she herself assists in the nursing and housekeeping activities. She is therefore responsible for both the coordination and the provision of care. Cooperation in the network is simple, as she does not have to consult anyone.

**Example 2 (more complex):** The wife of Mr. B, who needs care, organizes all tasks related to care. A nurse and the son carry out the nursing tasks. The workload is therefore shared among several people. The collaboration is complicated.

**Example 3 (highly complex):** The wife and the oldest son of Mr. C, who needs care, organize all care tasks. A nurse and the younger son carry out the tasks. Both the organization and the execution of the tasks are divided among several actors. The collaboration is highly complex.

**Rating Scale:**

The collaboration in the network is...	Degree of Complexity
<b>less complex</b> , if one actor organizes and carries out the tasks of daily care.	1
<b>more complex</b> , if one actor organizes, but several carry out the tasks of daily care.	2
<b>highly complex</b> , if the organization and the execution of daily care tasks is shared between several actors.	3

Degree of complexity of the dimension „Task Type“:

## 7. Task Coordination

### Description of the Dimension «Task Coordination»:

This dimension focuses explicitly on task type (2), which consists of coordination and organization. In “simple” cases, this work is done by one actor (who may be professional, semiprofessional, informal or the care recipient). This one person manages the care network, the tasks to be done and the decisions to be made. If several actors share the coordination task, the situation is characterized as “complicated.” Task coordination is characterized as “complex” in a situation in which no one is explicitly responsible for the coordination of everyday tasks. In this case, all actors take action according to the individual situation. Therefore communication, decision-making processes and the distribution of tasks become very complex.

The following actors must be considered in the assessment: **everyday actors**.

**Example 1 (less complex):** In the network of Mrs. A, who is in need of care, her sister is responsible for the coordination of daily care. She has an overview of the network. She distributes the tasks for everyday care among the actors. The collaboration is simple.

**Example 2 (more complex):** In the network of Mrs. B, who is in need of care, both the sister and the daughter are responsible for the coordination of the tasks. They share the coordination of tasks and take turns. The collaboration is complicated.

**Example 3 (highly complex):** In the network of the Mrs. C there is no actor coordinating the tasks. All actors spontaneously take over the tasks that need to be done. The collaboration is highly complex.

**Rating Scale:**

The collaboration in the network is...	Degree of Complexity
<b>less complex</b> , if one actor (who may be professional, semiprofessional, informal or the care recipient her/himself) organizes and coordinates daily care.	1
<b>more complex</b> , several actors share the organization and coordination.	2
<b>highly complex</b> , if no one is explicitly responsible for the organization and coordination of everyday tasks.	3

Degree of complexity of the dimension „Task Coordination“:

## 8. Meeting Opportunities

### Description of the Dimension «Meeting Opportunities»:

The closer the actors live or practice together, the higher the chance for encounters, e.g. at the baker's. Random and spontaneous meetings allow information to be exchanged quickly and easily. If the actors live or practice far away from each other, there is no chance for encounters. The exchange must be planned with foresight.

The following actors must be considered in the assessment: **everyday actors**.

**Example 1 (less complex):** The actors of Mr. A's network all live in the same house. Mr. A, who is in need of care, lives in the lower flat. On the first floor his son lives with his wife. On the second floor the grandson lives in his own apartment. The actors therefore often bump into each other by chance in the hallway and can quickly come to an agreement. The collaboration is simple.

**Example 2 (more complex):** In the network of Mr. B, who is in need of care, his neighbor and his daughter provide support. The daughter lives just a few minutes away. The daughter and the neighbor often meet by chance at the baker's and can exchange ideas. The collaboration is complicated.

**Example 3 (highly complex):** In the network of Mr. C, who is in need of care, his daughter and son support him. The daughter lives one street away. The son lives far away in another town. He rarely visits his mother in need of care but calls her every day. The two actors live too far apart to meet by chance. To exchange information, they always need to make an appointment. The collaboration is highly complex.

**Rating Scale:**

The collaboration in the network is...	Degree of Complexity
<b>less complex</b> , if all daily care actors live / work in the same house or on the same grounds. There are frequent possibilities for encounters.	1
<b>more complex</b> , if the daily care actors live / work in the same neighborhood. There are still many possibilities for encounters.	2
<b>highly complex</b> , if the daily care actors live / work in different neighborhoods. There are no possibilities for encounters.	3

Degree of complexity of the dimension „Meeting Opportunities“:



## 9. Communication Rules

### Description of the Dimension «Communication Rules»:

A regular exchange between the actors facilitates collaboration in the network. Fixed rituals such as weekly meetings provide an optimal basis for regulated communication. Without regular exchange, the complexity of collaboration increases.

The following actors must be considered in the assessment: **everyday actors**.

**Example 1 (less complex):** The actors in the homecare network of Mrs. A are all close family members. The daughter, her husband and the grandchildren meet every Sunday for lunch. They can exchange views on care issues at this time. Collaboration is simple.

**Example 2 (more complex):** The actors in the homecare network of Mrs. B's are all close family members. Mrs. B is supported by her daughter, her son-in-law and the grandchildren. They try to meet every Sunday for lunch. However, someone is always busy and is therefore missing out on the weekly ritual of communication on care issues. The collaboration is complicated.

**Example 2 (highly complex):** In Mrs. C's network the actors do not meet regularly and there are no fixed rules for communication among the actors. The collaboration is highly complex.

**Rating Scale:**

The collaboration in the network is...	Degree of Complexity
<b>less complex</b> , if there are fixed rules about communication regarding care issues (e.g. weekly team meetings).	1
<b>more complex</b> , if rules when to speak about care issues exists (e.g. weekly team meetings) but these are not strictly kept.	2
<b>highly complex</b> , if there are no communication rules about care issues.	3

Degree of complexity of the dimension „ Communication Rules“:

## 10. Actors Needed for Consultations

### Description of the Dimension «Actors Needed for Consultations»:

The complexity of cooperation depends on how many actors are needed to discuss a care topic. The more actors need to be involved, the greater the coordination effort. If consultations are only necessary between two actors, the situation is simple. If more actors are involved, the situation is characterized as complicated or complex.

The following actors must be considered in the assessment: **everyday actors**.

**Example 1 (less complex):** Mr. A, who needs care, is supported by his wife and a nursing service. Only the two actors have to agree on care issues. The collaboration is simple.

**Example 2 (more complex):** Mr. B, who needs care, is supported by his wife, his brother and a nurse. All three actors must coordinate their efforts to provide care. The collaboration is complicated.

**Example 3 (highly complex):** Mr. C needs much care. He is supported by many actors in his everyday life. His wife, his brother, his two children and a nurse are involved in his care. More than 4 actors must agree on care issues regarding Mr. C. The collaboration is highly complex.

**Rating Scale:**

The collaboration in the network is...	Degree of Complexity
<b>less complex</b> , if consultations are only needed between two actors.	1
<b>more complex</b> , if consultations are needed between several (3 to 4) actors.	2
<b>highly complex</b> , if consultations are needed between many (more than 4) actors.	3

Degree of complexity of the dimension „Actors Needed for Consultations“:

# 11. Frequency of Consultations

## Description of the Dimension «Frequency of Consultations»:

The complexity of the collaboration is affected by how often the actors have to coordinate their actions. Factors such as the health status of the person in need of care, but also the size of the network and the separation of tasks, play a role here. Often, the more unstable the state of health, the more different actors are involved in the care process and the more interwoven are the tasks. This means that the actors in the network often have to consult each other to coordinate their activities. This increases the complexity of collaboration.

The following actors must be considered in the assessment: **everyday actors**.

**Example 1 (less complex):** Mrs. A lives alone and organizes her care by herself. She has her family doctor examine her every three months as a precautionary measure and to replenish her stock of medication. She has arranged weekly housekeeping support with the neighborhood association. Tuesday, 14.00 - 16.00 o'clock is fixed for this. Every Thursday her daughter comes for two hours and keeps her company. There is no need for consultations among the actors. The collaboration is simple.

**Example 2 (more complex):** Mrs. B is cared for by her daughter at home. The local neighborhood association supports Mrs. B once a week with housekeeping activities. As Mrs. B falls, she breaks her right forearm. Her daughter is able to take over these activities in addition to her existing support services. Due to the clear separation of duties, consultations between the neighborhood association, Mrs. B and her daughter are rarely necessary even in such a situation. The collaboration is complicated.

**Example 3 (highly complex):** Mrs. C is bedridden. Many actors are involved in her care. Due to the unstable state of health, complex work processes and consultations between the actors are necessary every day. Cooperation is highly complex.

**Rating Scale:**

The collaboration in the network is...	Degree of Complexity
<b>less complex</b> , if actors have to consult each other less than monthly.	1
<b>more complex</b> , if actors have to consult each other between weekly to monthly.	2
<b>highly complex</b> , if the actors have to consult each other several times a week.	3

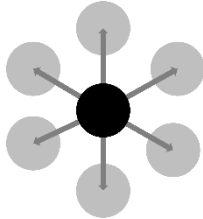
Degree of complexity of the dimension „Frequency of Consultations“:

## 12. Communication Pathways

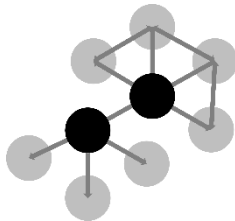
### Description of the Dimension «Communication Pathways»:

The communication pathways can be differentiated into three types:

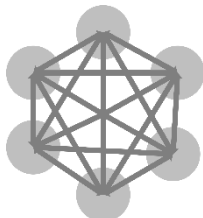
- **Star-shaped Communication:** One actor is at the center. Over this actor runs all communication. This means all actors address questions and issues to this person.



- **Separated Communication:** Actors communicate with several actors but not with all. Information is exchanged between the groups via intermediaries.



- **Meshed Communication:** There are no central actors controlling the communication.



The following actors must be considered in the assessment: **all network actors.**

**Example 1 (less complex):** In Mr. A's network, all communication runs over the daughter. She therefore aggregates all information of the network and can easily pass it on to whomever asks for it. The collaboration is simple.

**Example 2 (more complex):** Mr. B is cared for by his son and daughter, among others. Both work together in the same company and exchange information closely with each other due to the physical proximity. Mr. B's daughter-in-law supports the network with housekeeping activities. She communicates in the network exclusively through her husband. The communication is therefore divided and can be described as complicated.

**Example 3 (highly complex):** In Mr. C's network is no actor where information is gathered. If an actor wants to know something, he must ask around to get the relevant information. No information is pooled at one person. The collaboration between the actors is highly complex.

**Rating Scale:**

The collaboration in the network is...	Degree of Complexity
less complex, if there is star-shaped communication.	1
more complex, if there is separated communication.	2
highly complex, if there is meshed communication.	3

Degree of complexity of the dimension „Communication Pathways“:



## 13. Communication Channels

### Description of the Dimension «Communication Channels»:

Habits are especially important in stressful situations. Caring for a person, means for example, that in an emergency everyone knows how to best reach important actors like the family doctor, the nursing service or maybe the neighbor.

The following actors must be considered in the assessment: **all network actors.**

**Example 1 (less complex):** In Mrs. A's network all actors communicate by telephone. When Mrs. A recently complained of a severe skin rash, the nurse automatically picked up the phone to contact Mrs. A's daughter. The collaboration is simple.

**Example 2 (more complex):** In Mrs. B's network, everyone communicates via different communication channels. The nursing service is easily accessible by e-mail. The doctor must be called by phone. Her children use a messenger service. Despite all these different communication channels, it is clear to everyone how to reach the others. When Mrs. B recently complained of a skin rash, the nurse first had to think about how to reach Mrs. B's daughter. After checking her records, she wrote a short message to the daughter. The collaboration is complicated.

**Example 3 (highly complex):** The actors in Mrs. C's network do not know how best to reach the other actors. The right communication channel must be found out each time according to the situation. When Mrs. B recently complained of a severe skin rash, the nurse first tried to call the daughter, then wrote her an email and finally reached her via a messenger service. The collaboration is highly complex.

**Rating Scale:**

The collaboration in the network is...	Degree of Complexity
<b>less complex</b> , if all actors communicate via the same communication channel.	1
<b>more complex</b> , if the actors communicate via different but clearly regulated communication channels.	2
<b>highly complex</b> , if there are no rules regarding communication channels.	3

Degree of complexity of the dimension „Communication Channels“:

# Overall Assessment

Now you have evaluated all dimensions of homecare collaboration regarding their complexity.

1. The next step is to **transfer the assigned degrees of complexity** for each dimension **to the template** of the radar chart (Figure 2).  
For each dimension, make a dot in the corresponding circle 1, 2 or 3.
2. **Connect the points** with each other.

This gives you a visualization of the cooperation in your homecare network in the form of a radar chart.

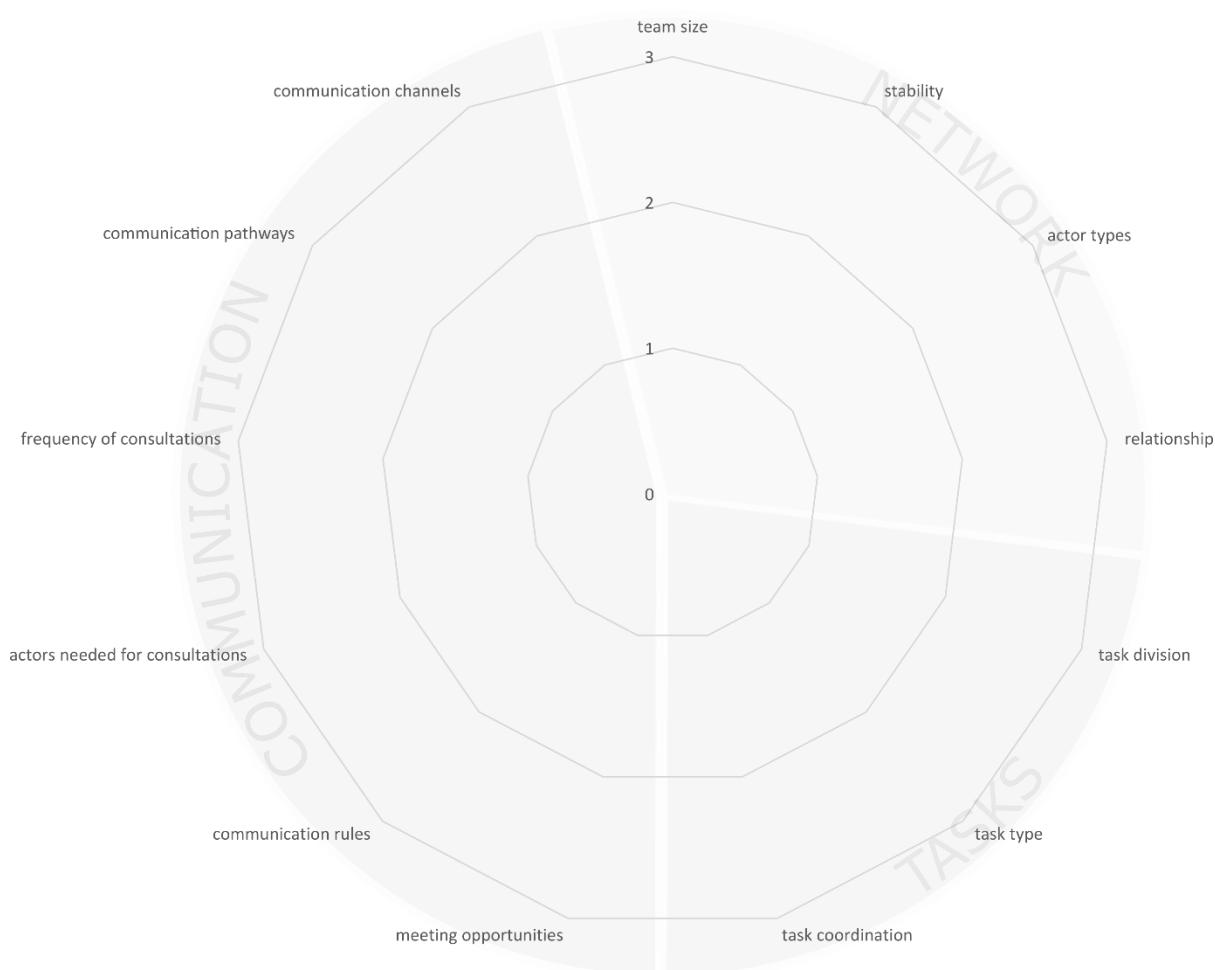


Figure 2: Template of the radar chart for the summarizing visualization of the complexity of the collaboration in the homecare network

The visualization in the form of the radar chart allows you to get an overview of the complexity of individual features of your network. The resulting **possibilities for action** are manifold. The chart can serve you, for example, as a **basis for discussion** in the network to suggest improvements.

It is important to note here that a **high level of complexity** does **not** mean a **negative** evaluation. For example, it cannot be concluded from a complex network size that the number of network actors should be reduced. It is rather the case that the distribution of tasks among many actors tends to have a positive effect on the burden on caregiving relatives. It simply means that organization and communication are complex.

The ComCiN -Tool should help to make people aware of the ACTUAL situation of collaboration in the network and to point out the complexity of communication and organization. Based on this dialogue, possibilities for good collaboration can jointly be developed.

**We wish you every success in your collaboration!**