

# HOW TO ESTABLISH COLLABORATIVE OPEN FORESIGHT PROCESSES



Get it started

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# OUTLINE

- Introduction
- Open Foresight & Collaborative Open Foresight
- Research Objective
- Conceptual Background
- Research Design
- Results
- Discussion & Conclusion

# INTRODUCTION

- Strategic foresight can be an effective approach to anticipate future developments and to create superior positions in future markets  
(Rohrbeck/Kum, 2018; Ehls et al., 2016 )
- The complexity and uncertainty in an organization's environment make it increasingly difficult for organizations to recognize future developments on their own. (Heger/Boman, 2015)
- Interorganizational learning and knowledge sharing among different organizations become more and more important - also in foresight activities.  
(Janowicz-Panjaitan/Noorderhaven, 2009; Rohrbeck et al., 2015)

# OPEN FORESIGHT

## ■ Various types of open foresight:

- Crowd sourcing activities** - where everyone can participate (Miemis et al., 2012; Ramos et al., 2012)
- Participatory foresight activities** - where various internal and external stakeholders participate in a single public or corporate foresight project (Cuhls and Georghiou, 2004; Farrington et al., 2012; Heger and Rohrbeck, 2012; Weigand et al., 2014)
- Networked foresight** - foresight activities in innovation networks where both the participating partners and the network organization should benefit (Heger and Boman, 2015; Van der Duin et al., 2014)
- Collaborative open foresight**

# COLLABORATIVE OPEN FORESIGHT

- Collaborative open foresight can be described as
  - an **interorganizational** collaboration
  - with a **few organizations**
  - which jointly look into the future
  - in relation to a commonly defined search field and
  - share their expectations and **develop knowledge** concerning **future developments**.
  - Know-how about the future is generated together and then used on a single company level

(Daheim/Uerz, 2008; Gattringer et al., 2017; Wiener et al., 2017)

# RESEARCH OBJECTIVE

- Not every external collaboration becomes a success and adds value to the participating companies.  
(Giannopoulou et al., 2011).
- Especially the beginning of a collaboration is a cornerstone for its further success.  
(Chan/Harget, 1993; Ungureanu et al., 2017)
- **The objective of this study is to identify key activities and key factors in the start-up phase of a collaborative open foresight process.**
- This research aims to deliver important insights within this largely unexplored research field.

# CONCEPTUAL BACKGROUND (1)

- This study integrates three different research areas:
  - **Organizational theory** - in particular the findings on interorganizational learning
  - **Open innovation**
  - **Collaborative foresight**
- In this way isolated knowledge pools will be integrated and novel perspectives should be developed.

# CONCEPTUAL BACKGROUND (2)

## ■ Interorganizational learning (1):

- **Benefits:** e.g. exchange of different experiences and knowledge and development of new knowledge  
(Lane/Lubatkin, 1998; Yang et al., 2014).

- **Challenges** (already at the beginning): E.g. conflicting interests based on divergent organizational aims, cognitive distances (different mental models) or the fear of uncontrolled information disclosure

→ can lead to low motivation and a lack of ability to communicate and absorb knowledge between organizations

(Khanna et al., 1998; Larsson et al., 1998; Nooteboom et al., 2007; Yang et al., 2014).



# CONCEPTUAL BACKGROUND (3)

## ■ Interorganizational learning (2):

□ Approaches to manage these challenges:

- creation of effective and safe collaborative learning environments,
- dealing with cognitive distances,
- long-term orientation,
- collective awareness and trust

(Larsson et al., 1998; Muthusamy/White, 2005; Janowicz-Panjaitan/Noorderhaven, 2009; Yang et al., 2014)

# CONCEPTUAL BACKGROUND (4)

## ■ Open Innovation:

- Important in the starting phase: Aligning individual goals and defining shared goals  
(Bergman et al., 2009; Maurer/Valkenburg, 2014; Ollila/Elmquist, 2011; Pullen et al., 2012)
- Trust and an innovative and open learning environment  
(Hardwick et al., 2013; Maurer/Valkenburg, 2014; Rosell, 2014; Wan/Quan, 2014).
- Comparison of the different structures and systems of the participating companies  
(Maurer/Valkenburg, 2014; Munsch, 2009; Slowinski/Sagal, 2010).
- Intermediaries - who effectively support and manage the process  
(Agogu e et al., 2013; Cresp in-Mazet et al., 2013; Katzy et al., 2013).

# RESEARCH DESIGN (1)

## Three action research projects:

- **Action Research#1:** Human-Machine-Interface and Machine-to-Machine-Communication as Enablers for New Business Options (2030)
  - Project period: 2014/2015
  - 5 companies: welding technology provider, agricultural machinery manufacturer, software consulting company, fire equipment manufacturer, start-up: real-time asset monitoring systems
- **Action Research#2:** Blockchains as enabler for new business (2033)
  - Project period: 2017/2018
  - 7 companies (more heterogeneous): Energy provider, injection molding machine producer, bank, software product company, software consulting, steel producer, packaging company

# RESEARCH DESIGN (2)

## ■ Action Research#3: Quality 2030

- Project period: 2018/2019
- 10 companies: producer of water treatment systems, engineering company for established and future powertrain systems, home-technology provider, cellulose and fibers producer, producer of cleaning products, automation systems provider, semiconductor and system solutions provider, intra-logistic systems manufacturer, furnisher manufacturer, and a geriatric health center
- the organizations are quite heterogeneous coming from B2B as well as B2C

# RESEARCH DESIGN (3)

- Our research in these action research projects focused on
  - the initial preparations,
  - the kick-off workshop and
  - actions necessary to manage conflicting interests and distances
  - actions to motivate the participants to exchange ideas and knowledge intensively – at the beginning of the project
- The action research projects are initiated and carried out by the research team together with a specialist for the respective project topic: a mechatronics research center or a quality certification agency
  - possibility to take and to evaluate actions
  - exclusive access to data not only from the workshops, but also from the participating companies

# RESULTS (1)

- The results of Action Research#1 and #2 and the first results of Action Research#3 indicate that, above all, three activities and factors are of high relevance:
  - **Intensive team building** in the start-up phase of the interorganizational collaboration
  - **Merging the different goals and context factors** of the participating companies
  - The role of the **project initiators and intermediaries**

# RESULTS (2)

## ■ Intensive team building in the start-up phase of the interorganizational collaboration

- **Challenge/Fear:** Handling of confidential information
- **Must:** Willingness to share information openly
- **Key Factors:**
  - Inspiring Kick-Off Workshop
  - Development of a common “expedition spirit”
  - Enthusiasm for interorganizational working and discussing

# RESULTS (3)

- **Merging the different goals and context factors of the participating companies**
  - **Qualitative interviews** of the project initiators (intermediaries) in each participating company.
  - Thus, individual goals and context factors could be analyzed and **taken into account** in the further process design.
  - This is especially important but also very difficult for the process - if we have many very different companies.



# RESULTS (3)

## ■ The role of the project initiators and intermediaries

- Intermediaries who take on the task and responsibility for integrating the participating companies – e.g.
  - to manage conflicting interests and distances
  - to gather know-how for all different industries
  - to motivate the participants to exchange ideas and knowledge,...

# DISCUSSION & CONCLUSION (1)

Collaborative open foresight is a **very special form of inter-organizational cooperation** – where special factors have to be considered

- Conflicting interests based on divergent organizational aims or **cognitive distances** (→ interorganizational learning/open innovation) are also a challenge in collaborative open foresight.
- However, it is also the great advantage in promoting **"out-of-the-box-thinking"**
- The findings show that through the kick off workshop and through the interviews (with the participating firms) the willingness, the motivation and the ability to share information openly were supported.

# DISCUSSION & CONCLUSION (2)

- There is a certain **fear of uncontrolled information disclosure** (→ interorganizational learning).
- But this fear is **less pronounced** because of the long-term future perspective.
- That's why **trust** plays a less important role (compared to open innovation).
- As the companies do not develop joint innovations - **no coordinated structures and systems** are necessary (compared to open innovation).

# DISCUSSION & CONCLUSION (3)

- We claim that **intermediaries are more important** in collaborative open foresight projects (compared to open innovation).
- The reason is that the projects are **less binding and less urgent**.
- Intermediaries are needed, who
  - coordinate and align individual goals and
  - promote the development of a common “expedition spirit” and the enthusiasm for interorganizational working and discussing

# THANK YOU FOR YOUR ATTENTION!

