Empirical Study on Management of Global Manufacturing Networks and Agility
Empirische Studie zum Management globaler Produktionsnetzwerke und Wandlungsfähigkeit

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PROBLEM AND OBJECTIVE
This empirical study in progress aims to close two research gaps. First, there is a lack of up-to-date empirical evidence on managerial characteristics of global manufacturing networks. More precisely, we focus on:

- Motivating factors for the formation of global manufacturing networks, especially related to agility, i.e. changeability on the manufacturing network level.
- Network (re)configuration and network governance aspects, especially with respect to the lead factory concept (see Christian Katzfuß’ poster), the concept of operational flexibility (see Dominik Heber’s poster), the concepts of pooling and allying of manufacturing resources (see Max Monauni’s poster), and the role of ICT (information and communications technology) enabled services (see Tobias Tauterat’s poster).
- The above-mentioned characteristics of a certain form of global manufacturing networks, namely value-added partnerships of manufacturing companies with software and service providers.

Second, agility, i.e. changeability on the manufacturing network level, and here especially the business perspective has not received a lot of attention.

We attain deeper insights into this perspective by considering the reciprocal relationship between agility and the other dimensions of changeability on the lower production levels. In particular, we aim at answering the following research questions (Fig. 1):

- In what way does agility motivate the formation of global manufacturing networks?
- In what way does agility relate to network (re)configuration and governance, especially with respect to the concepts of lead factory, operational flexibility, pooling and allying of manufacturing resources, and the role of ICT enabled services?
- Do value-added partnerships of manufacturing companies with software- and service providers deal with agility in a different way?

APPROACH
This research is of descriptive (first research gap) as well as explanatory nature (second research gap). We collect the data through a quantitative online survey as the core of our study. In order to supplement selected quantitative data by more qualitative, deeper insights, we then subsequently study the case of a few global, sino-german manufacturing networks by using a qualitative approach.

Figure 1: Explanatory Research Design