

# Model of an efficient cooperative innovation process

for small- and medium-sized enterprises (SME) and basic orientated research institutions (N. Dähne, K. Heisig, R. von der Weth)

## Introduction:

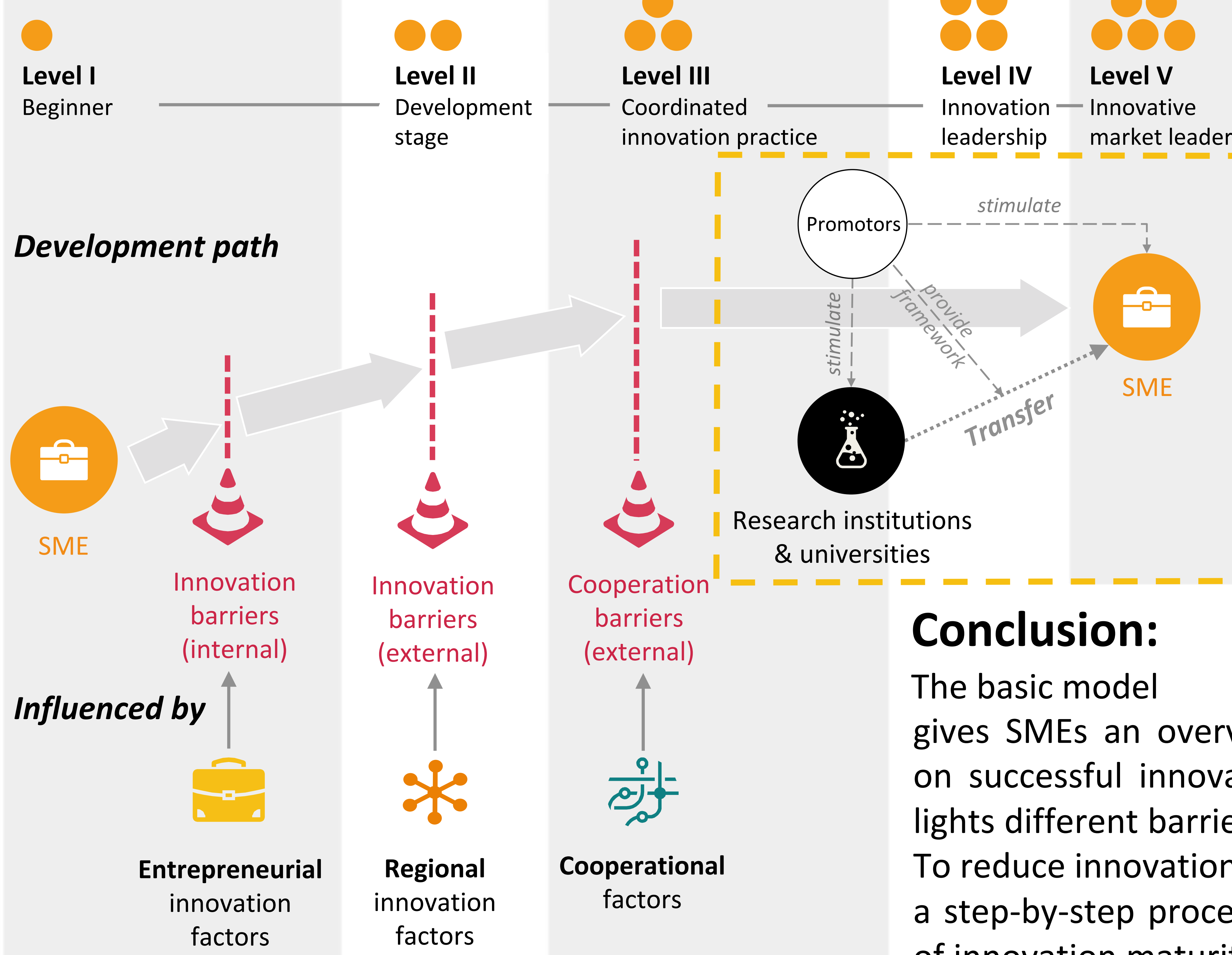
In Germany, more than 99% of all firms are small and medium sized enterprises (SME) (ifm Bonn; 2015). Compared to large firms, SMEs have a more restricted access to production factors (labor, land, capital) for innovations (Welsh, White; 1981). Part of our current research project\* is to show a successful way of sharing knowledge, research results and human resources between basic research institutions and SMEs. The objective of this work is to provide a functional basic model of an efficient cooperative innovation process. This model may help SMEs to understand what restraints innovation and shows useful steps for being successful in innovating and cooperating.

## Methods:

First step: Literature review on the state of the art of innovation and cooperation. Second step: Analysis of best practice examples in literature and realization of interviews with 22 persons of SMEs, transfer institutions and research institutions in Dresden area (Saxony). Third step: Structured evaluation of results by analyzing barriers and factors of cooperative innovation by applying the MoP (Model of promoters - von der Weth, Dähne; 2017) and comparing best-practice examples with non-functional examples.

## Result: Basic model incl. MoP - Model of promoters

### Innovation levels of maturity



### Fundamental assumptions of MoP - Model of promoters:

Prerequisite for a successful cooperative innovation process is a functional structure of motives and incentives for all participants and providing a framework for well-functioning innovation.

Two cooperation partners often cannot provide all prerequisites for successfully innovating by themselves (Schumpeter; 1912), especially due to the lack of resources of SMEs.

Therefore, additional project partners (promoters) for missing functions are included.

## Conclusion:

The basic model gives SMEs an overview of different theories on successful innovation processes and highlights different barriers and influencing factors. To reduce innovation barriers the model shows a step-by-step process to reach the next level of innovation maturity and points out the need for functional completeness by including additional complementary partners.

Innovation levels of maturity (Berg, 2013); Entrepreneurial innovation factors (Astor, et al.; 2013 and Rothwell; 1994); Regional innovation factors (Schmeisser, Kantner, Geburting, & Schindler, 2006); Innovation barriers (Müller-Prothmann & Dörr; 2009 and Agrawal; 2006 and Astor, et al.; 2013); Cooperational factors and cooperational barriers (Heisig & Dähne, et al.; 2018); Cooperation readiness (Geuna & Muscio; 2009); Model of Promoters (Dähne, von der Weth; 2017)