

# OPEN INNOVATION MINDSET AND SCHOOL LEADERSHIP

## HOW INNOVATIONS CAN BE IMPLEMENTED AT SCHOOLS

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### The Need to Innovate

- COVID-19 increased existing problems and inequities in public education systems
- Schools need to innovate on all levels:
  - adapt to governmental regulations, management strategies, equipment or teaching methods
  - support students individual learning situations

### Innovation in Schools

- embedded in reforms
- resulting from social changes
- building on existing knowledge
- slow, incremental, based on established structures

### School Leaders: The Driver of Innovation

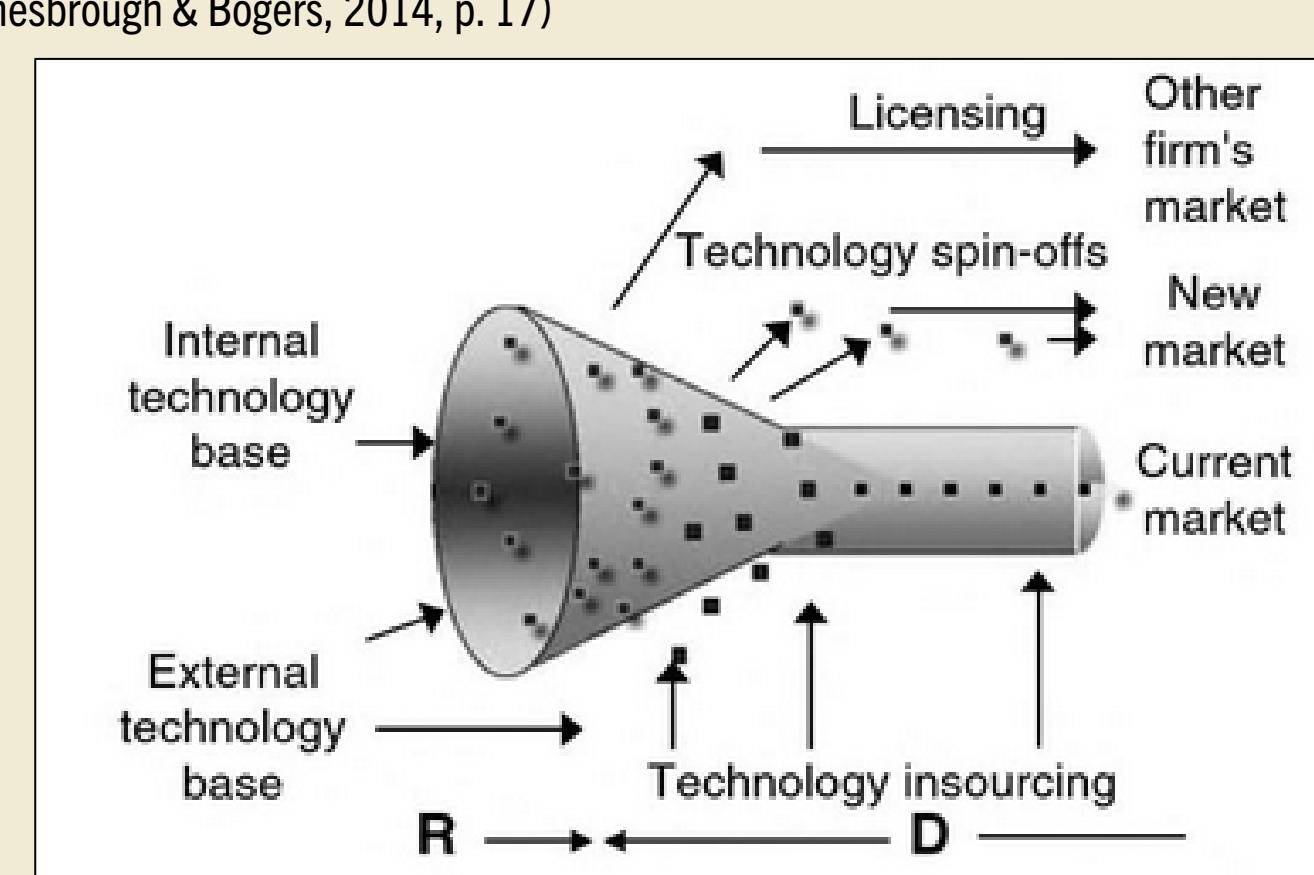
- realizing educational standards
  - knowledge exchange across school boundaries
  - convictions, motives, and mindsets
- innovation & cooperation awareness

(Bremm et al., 2021; Krieg & Haas 2021; Goldenbaum, 2012; Bonsen, 2016; Engelsberger et al., 2022)

### Open Innovation (OI)

"A distributed innovation process based on purposively managed knowledge flows across organizational boundaries, using pecuniary and non-pecuniary mechanisms in line with the organizations' business model."

(Chesbrough & Bogers, 2014, p. 17)



(Chesbrough, 2006, p. 3)

### Open Innovation Mindset

- A dynamic capability, including skills, knowledge, and psychological attributes that allow:
- knowledge sensing and sharing with external partners and knowledge sources
  - adapting and integrating external knowledge to internal structures

(Engelsberger et al., 2022)

### External Search Strategies

- Different strategies and competencies to explore and use new knowledge and expertise
- potential and information predominantly lie outside internal structures
    - organizations must overcome inward-centered strategies of R & D
    - allow external sources and ideas to be implemented and used

(Chesbrough, 2006; Laursen & Salter, 2005)

### Search Breadth

Amount of different sources organizations draw their knowledge from (universities, authorities, schools)

### Search Depth

Extent to which organizations use, integrate, and intensively draw their knowledge from external sources.

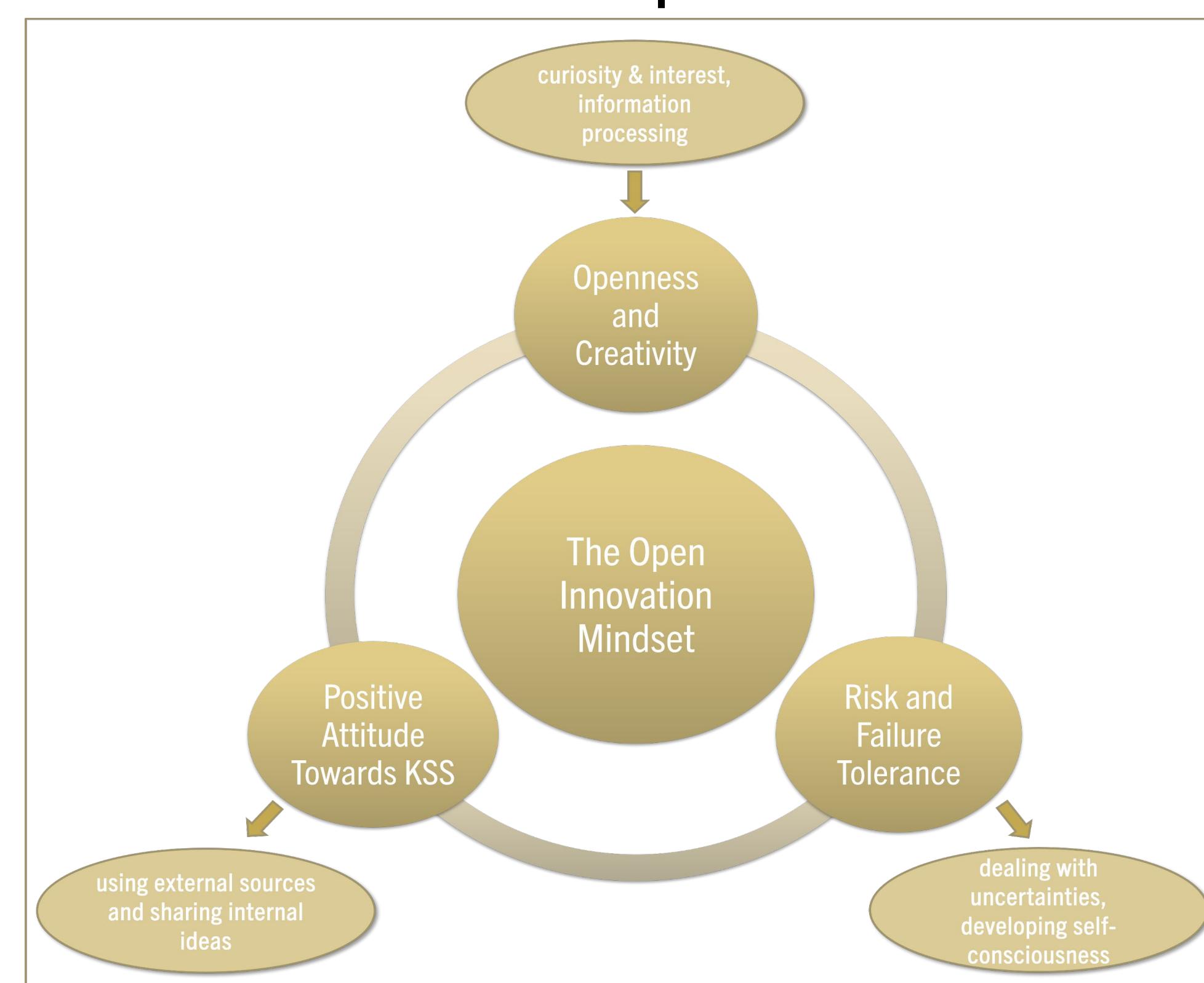
### Does The Open Innovation Mindset of School Leaders Affect the Innovation Performance at German Schools? If so, How?

### Methodology

### Results

- OI-Mindset: multilayered construct of dynamic capabilities
- positive correlation between OI-Mindset and innovation performance ( $r = .12, p < .001$ )
- no significant correlation between external search breadth and innovation performance ( $p > .05$ )
- positive correlation between external search depth and innovation performance ( $r = .23, p < .001$ )

### The Open Innovation Mindset

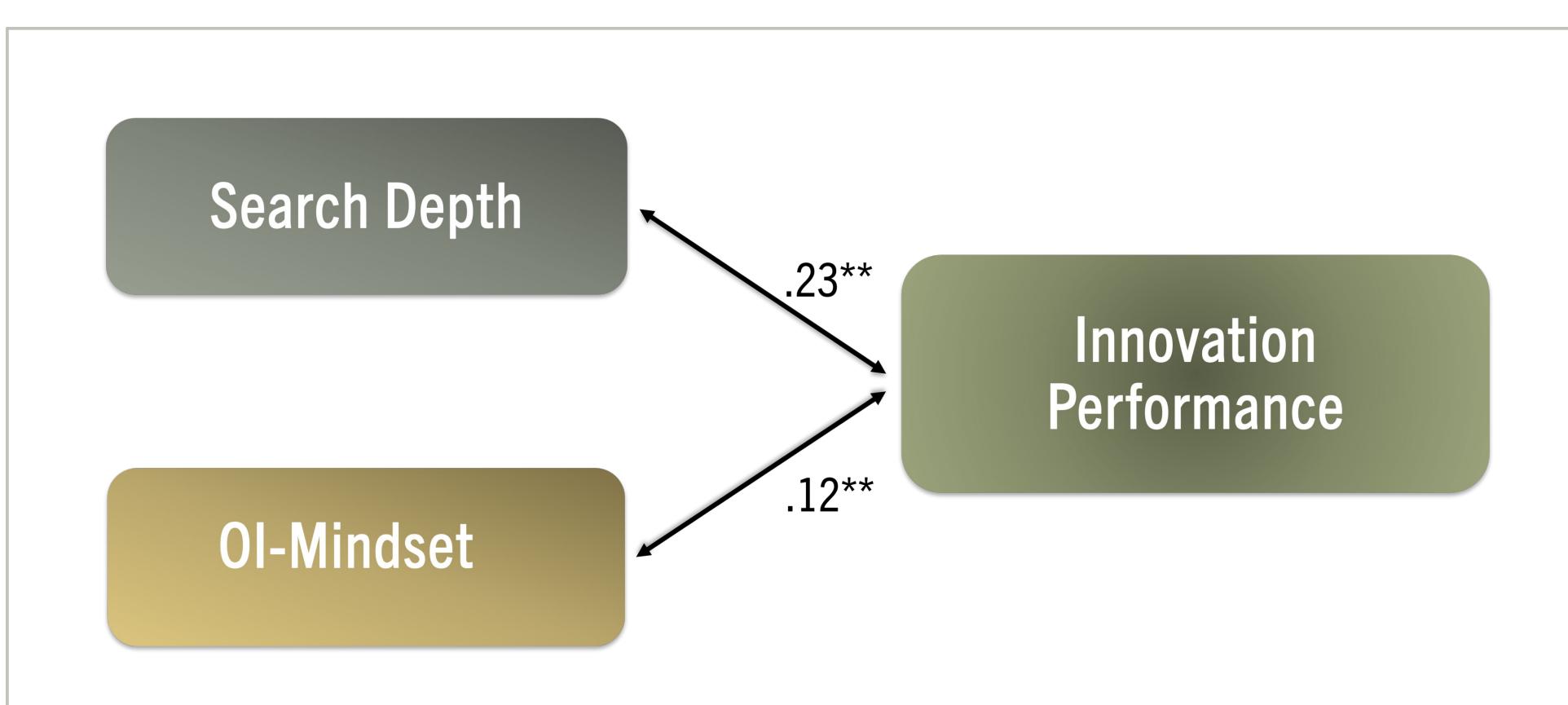


### Closed Innovation in German Schools:

- inward oriented innovation strategies
- extensive use of internal sources
- minimal use of external sources (breadth and depth)
- Limited exchange between schools and external partners

### The OI-Mindset of School Leaders Positively Affects the Innovation Performance

- OI as a conceptual approach can sustainably support innovation processes in schools



Note: Spearman-Rank Correlations, all correlations are significant: \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ , the relation between innovation performance, OI mindset, and external search depth. OI mindset consists of three subdimensions. Innovation performance correlates positively with search depth and the OI mindset.

### Sample and Survey Procedure

- third wave of Leadership in German Schools (LineS) (August - November 2021)
- principal panel ( $n = 411$ ), representative for Germany

### Analysis

- factor Analysis (PCA) using the varimax orthogonal rotation method
- correlations between components
  - examine direction and strength of the relationship between OI-Mindset, external Search Breadth and Depth, OI-Mindset and Innovation Performance

### Literature

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