Traditional approaches:

Different measures:
• Absolute number of innovations
• Innovations per inhabitant
• Innovations per R&D employee

Varying definitions:
• Complete regional economy
• One sector
• Single industry

Consideration of regional factors
• No consideration
• Knowledge production function (Cobb-Douglas type)
• Linear production function

Approach: Regional Innovation Performance
• Regional innovation outputs are seen in relation to the economic efforts (input factors) used to generate them
• Application of nonparametric production frontier techniques
• Estimation and comparison of different performance measures

The Bright and Dark Side of Cooperation for Regional Innovation Performance

Theory:
• Cooperation is crucial for R&D activities
• Cooperativeness can yield positive and negative effects
• Intra- and inter-regional cooperation matter

Empirical evidence:
• Mainly case study research
• Few large-scale quantitative studies
• Use of knowledge production function

Approach:
• Intra- and inter-regional cooperation investigated simultaneously
• Cooperation modeled as cooperativeness
• Regional innovation performance approach
• Nonparametric production frontier techniques
• All 270 German labor market regions
• Industry-specific data (Electrics & Electronics)

Results:
• Bright and dark side effects
• Lock-in and lock-out situations
• Non-technological regional factors of little importance