Evaluating support for R&D

An example for theory-based evaluation
ERDF Berlin

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The subject

- **PA 1 Innovation**
  - 605,687 mio. €

- **PA 2 Investment in enterprises – start-ups**
  - 140,000 mio. €

- **PA CO2-Reduction**
  - 243,921 mio. €

- **PA 4 Integrated Urban Development**
  - 230,000 mio. €
Background – Innovation System in Berlin

- Investment in R&D > 3% of GDP
  - Maximum 4% in 2003

- Reduction of both R&D-expenditure of enterprises and R&D staff in enterprises between 2001 and 2011
OP – Strategy – PA 1 Innovation

Intensify innovation activities in the economy (R&D, Services, Creative Industries)

- R&D in enterprises
  - 6 measures
  - 2 of them Infrastructure

- Creative Industries
  - 2 measures

- Cluster and Networks
  - 1 measure
Programme Theory and Evaluation Design

Step 1 -> Step 2 -> Step 3 (Developing the Evaluation design) -> Step 4 -> Step 5
Step 3 – Developing an evaluation design

• Main purpose of the evaluation:
  • Grasping effects on R&D-capacities
  • Better understanding of what affects the development of R&D capacities in enterprises in Berlin

• Evaluation Questions
  • „EU-model“
    – Contribution to the objective (only 1)
    – Taking context factors into account
  • Strengthening innovation capacity in Berlin

• Specific situation in Berlin: How to stimulate innovation activities in the economy?
• Focus the innovation activities of the beneficiaries (enterprises as well as research institutes and universities)
Step 3 – Evaluation Questions

• On project level
  • Did the project reach its objectives?
  • Effects for the enterprise?
  • Effects on other enterprises (Spill-overs)?

• On enterprise level
  • Improved competitiveness?
  • Changes in innovation behaviour?

• External factors
  • What influenced the innovation process
Step 3 – (preliminary) programme theory (to be translated!)
Step 3 - Methods

• „Innovation-Biographies“
  • new method for analysing knowledge dynamics in innovation processes (Butzin et. al. 2012)
  • Following an innovation process from the first idea to final product/services
• Case-Studies
  – Document analysis
  – Annual interviews over up to three years
  – Participating observation (seminars, meetings)
  – Network-analysis
• Cases
  – 19 enterprises
  – 4 universities/research institutes
• Combined with analysis of data and documents to cover all projects
Programme Theory and Evaluation Design

Step 1: Developing the OP-Strategy
Step 2: Developing the Evaluation Plan
Step 3: Developing the Evaluation Design
Step 4
Step 5
Step 1 – Developing the OP-Strategy

• Crucial Points:
  • Decision to define only one specific objective
  • Intensive discussion with the actors responsible for the measures
    – linking different types of measures to the common specific objective:
      - Contribution of Infrastructure?
      - Role of creative industries?

► First sketch of a coherent „story“ for the PA
Step 2 – Developing the Evaluation Plan

• Crucial Points
  • Explicit decision for theory-based approaches
  • Literature review for each axis
    – Internal Working Paper
    – Bringing in existing evidence and knowledge
  • First draft of the evaluation concepts
    – Tentative evaluation questions
    – First ideas for evaluation design
  • Establishing the framework for actor involvement
    – Steering Group
    – Training Sessions

► Outline of the evaluation design – embedded in an evaluation system (Communication!)
Programme Theory and Evaluation Design

Step 1: Developing the OP-Strategy
Step 2: Developing the Evaluation Plan
Step 3: Developing the Evaluation design
Step 4: Carrying out the evaluation
Step 5: Feedback and (potential) use of results

Steering Group
Conclusion

• „Programme Theory“ is (partly) the theory of the „programme people“
  • Taking into account existing „evidence“
  • But also the views of programme people
• Context-sensitive: In how far do general mechanisms apply in a concrete context?
• TBE: more than testing theoretically justified hypothesis -> Learning about processes and mechanisms
• TBE: „Evaluability depends partly on the programme design“