# Theoriebasierte Evaluation am Beispiel der Großunternehmensförderung

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# Agenda

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| 01 | Projekthintergrund & Ziele |
| 02 | Erste Ergebnisse |
| 03 | Evaluationsdesign: Contribution Analysis |
| 04 | Bewertung von „Theories of Change“ |
| 05 | Resümee: Stärken und Limitationen der theory-based impact evaluation |
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# Projekthintergrund



## Ex Post Evaluation of the ERDF and CF

The DG REGIO Evaluation unit - in cooperation with the Member States – is carrying out the ERDF/Cohesion Fund ex post evaluation 2007-2013 of 320 co-funded programmes. The evaluation consists of a set of 15 working packages most of them thematic in nature.

- Work package 0 - Data collection and quality assessment
- Work package 1 - Synthesis
- Work package 2 - Small and medium sized enterprises, innovation, ICT
- Work package 3 - Financial Instruments for Enterprises
- Work package 4 - Large enterprises
- Work package 5 - Transport
- Work package 6 - Environment
- Work package 7 - Modelling the effects of transport projects
- Work package 8 - Energy efficiency
- Work package 9 - Tourism and Culture
- Work package 10 - Urban development and Social infrastructure
- Work package 11 - European territorial Cooperation
- Work package 12 - Delivery System
- Work package 13 - Geography of expenditures
- Work package 14 - Effect on macroeconomic aggregates

## Konsortium und Ländernetzwerk

### Konsortialpartner

KPMG cutting through complexity

prognos

### Externe Experten

**Prof. Elliot Stern**

University of BRISTOL

**Prof. Dirk Czarnitzki**

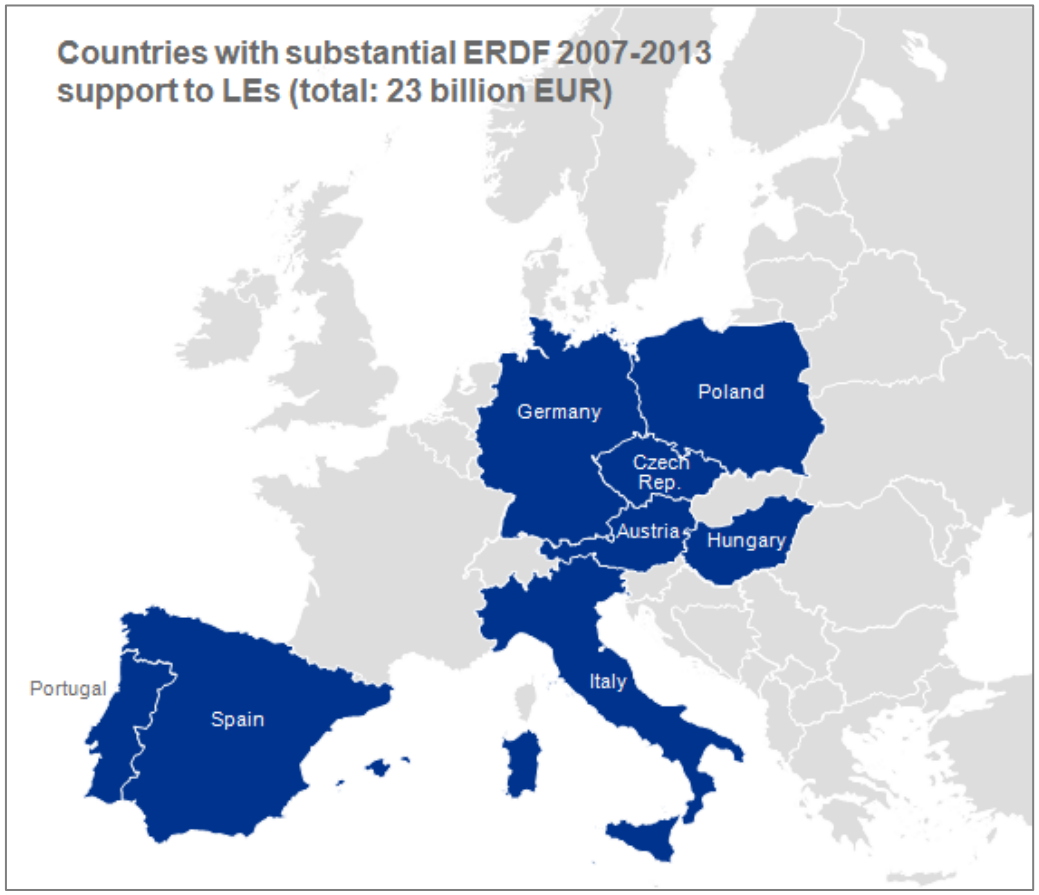
KATHOLIEKE UNIVERSITEIT LEUVEN

**Rafał Trzcinski**

IDEA

### Ländernetzwerk

## Ziele der ex-post Evaluation




## Evaluation of LE support to

- take stock of the support (quantify and qualify commitments)
- identify policy rationales, theories of change (ToC) and existing contribution stories
- integrate results of previous studies & evaluations
- assess its effectiveness and the materialization of ToCs (test ToCs, identify contribution stories)
- delineate policy implications, good practices and lessons learnt

## Übergeordnetes Ziel

**Provide evidence on large enterprise support**

**“to assess the rationale, implementation and evidence of effectiveness of Cohesion Policy support to large enterprises”** (Tender Specifications, p. 11)

## Übergeordnete Fragestellung

# To what extent has the programme been the cause of the observed change?

(Is it attributable to the programme?)

(Has it contributed to it to some extent?)

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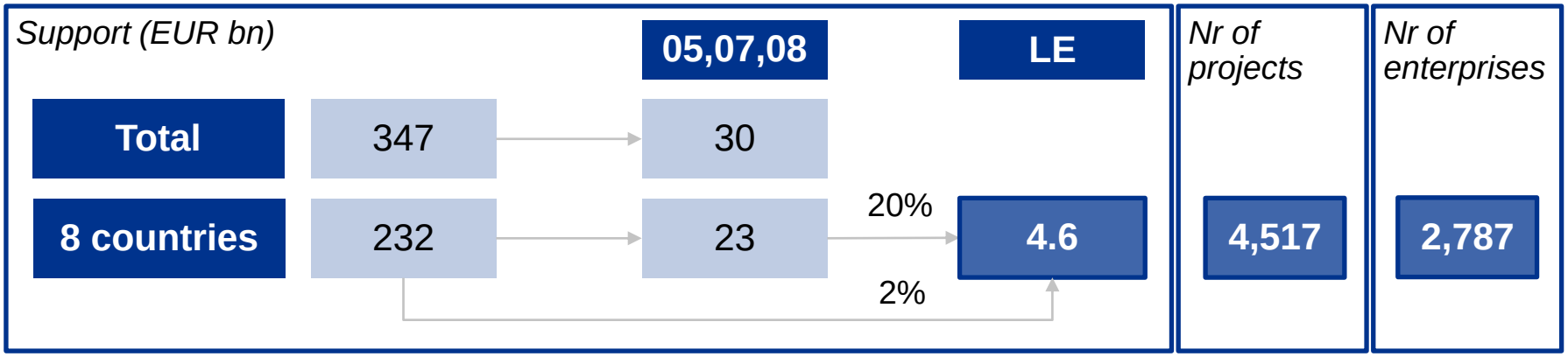
# Erste Ergebnisse

## „Taking stock of support“



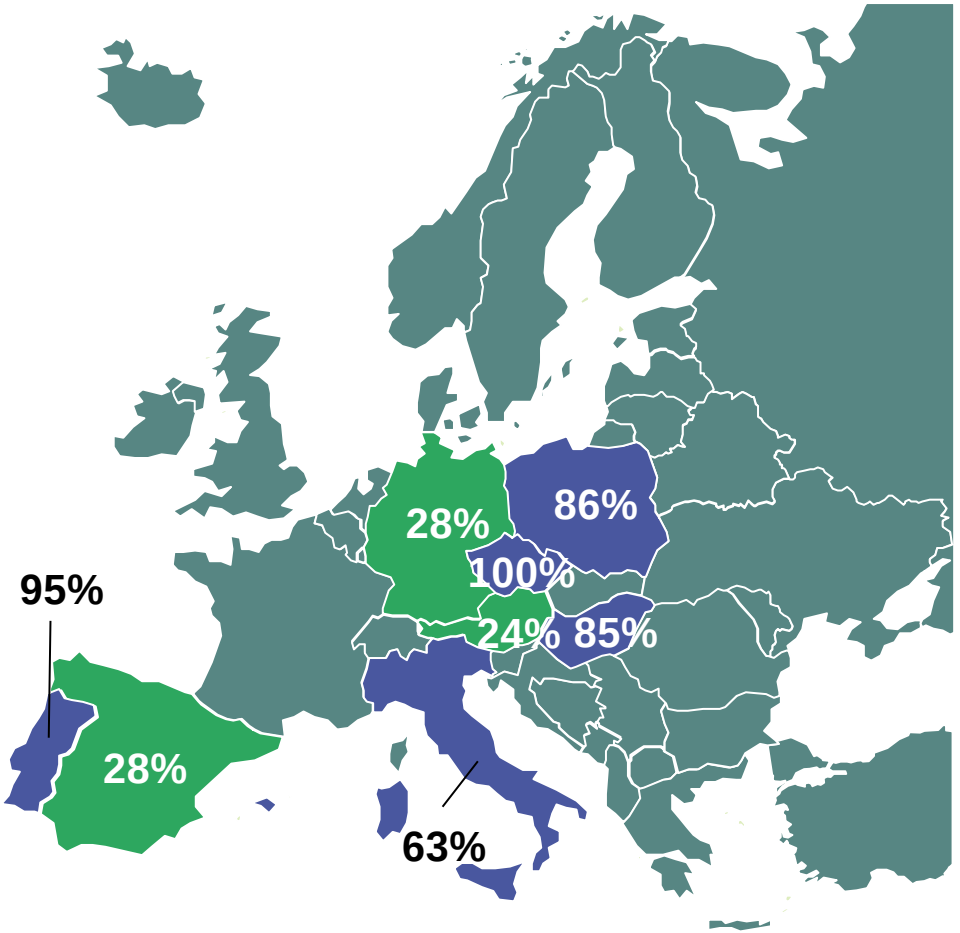

### Key findings

1. 80 out of 140 ERDF OPs supported large enterprises
2. The average project size was EUR 1 million
3. A large enterprise implemented 1.6 projects and received EUR 1.6 million support on average
4. The share of supported national (indigenous) companies averages 40%, domestic MNCs take 29% while foreign MNCs 31% of the support

## Programmfallstudien

| Country | Selected OP (EUR mn) | |
|---|---|---|
| Austria | Styria | 32 |
| Czech Rep. | Enterprise and innovation | 467 |
| Germany | Thuringia | 200 |
| Hungary | Economic development | 386 |
| Italy | Research and competitiveness | 154 |
| Poland | Innovative economy | 1 352 |
| Portugal | Thematic factors of competitiveness | 1 072 |
| Spain | Comunidad Valenciana | 88 |
| Total | | 3 751 |

Committed support from case study OP / total committed support to LEs on 05, 07 and 08 expenditure codes



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## Contribution Analysis

### Definition des CA-Ansatzes nach Mayne (2011)

Contribution analysis explores **attribution through assessing the contribution** a programme is making to observed results. It sets out to **verify the theory of change** behind a programme and, at the same time, takes into consideration **other influencing factors**.

ILAC Brief 16 May 2008

**Contribution analysis:**
**An approach to exploring cause and effect**

*John Mayne*

Questions of cause and effect are critical to assessing the performance of programmes and projects. When it is not practical to design an experiment to assess performance, contribution analysis can provide credible assessments of cause and effect. Verifying the theory of change that the programme is based on, and paying attention to other factors that may influence the outcomes, provides reasonable evidence about the contribution being made by the programme.

**Introduction**

A key question in the assessment of programmes and projects is that of attribution: to what extent are observed results due to programme activities rather than other factors? What we want to know is whether or not the programme has made a difference—whether or not it has added value. Experimental or quasi-experimental designs that might answer these questions are often not feasible or not practical. In such cases, contribution analysis can help managers come to reasonably robust conclusions about the contribution being made by programmes to observed results.

Contribution analysis explores attribution through assessing the contribution a programme is making to observed results. It sets out to verify the theory of change behind a programme and, at the same time, takes into consideration other influencing factors. Causality is inferred from the following evidence:

1. The programme is based on a reasoned theory of change: the assumptions behind why the program is expected to work are sound, are plausible, and are agreed upon by at least some of the key players.
2. The activities of the programme were implemented.
3. The theory of change is verified by evidence: the chain of expected results occurred.
4. Other factors influencing the programme were assessed and were either shown not to have made a significant contribution or, if they did, the relative contribution was recognized.

Contribution analysis is useful in situations where the programme is not experimental—there is little or no scope for varying how the program is implemented—and the programme has been funded on the basis of a theory of change. Many managers and evaluators assessing the performance of programmes face this situation. Kotvojs (2006) describes one way of using contribution analysis in a development context. "as a means to consider progress towards outputs and intermediate and end outcomes" (p. 1).

**Box 1. Contribution Analysis**

**Step 1:** Set out the attribution problem to be addressed
**Step 2:** Develop a theory of change and risks to it
**Step 3:** Gather the existing evidence on the theory of change
**Step 4:** Assemble and assess the contribution story, and challenges to it
**Step 5:** Seek out additional evidence
**Step 6:** Revise and strengthen the contribution story

**Conducting a contribution analysis**

There are six iterative steps in contribution analysis (Box 1), each step building the contribution story and addressing weaknesses identified in the previous stage. If appropriate, many of the steps can be undertaken in a participatory mode.

***Step 1: Set out the attribution problem to be addressed***

***Acknowledge the attribution problem.*** Too often the question of attribution is ignored in programme evaluations. Observed results are reported with no discussion as to whether they were the result of the programme's activities. At the outset, it should be acknowledged that there are legitimate questions about the extent to which the programme has brought about the results observed.

***Determine the specific cause–effect question being addressed.*** A variety of questions about causes and effects can be asked about most programmes. These range from traditional causality questions, such as

- To what extent has the programme caused the outcome?

to more managerial questions, such as

- Is it reasonable to conclude that the programme has made a difference to the problem?

Care is needed to determine the relevant cause–effect question in any specific context, and whether or not the question is reasonable. In many cases the traditional causality question may be impossible to answer, or the answer may simply lack any real meaning given the numerous factors influencing a result. However, managerial-type cause–effect questions are generally amenable to contribution analysis.

***Determine the level of confidence required.*** The level of proof required needs to be determined. Issues that need to be considered are, for example: What is to be done with the findings? What kinds of decisions will be based on the findings? The evidence sought needs to fit the purpose.

***Explore the type of contribution expected.*** It is worth exploring the nature and extent of the contribution expected from the programme. This means asking questions such as: What do we know about the nature and extent of the contribution expected? What would show that the programme made an important contribution? What would show that the programme made a difference? What kind of evidence would we (or the funders or other stakeholders) accept?

***Determine the other key influencing factors.*** In determining the nature of the expected contribution from the programme, the other factors that will influence the outcomes will also need to be identified and explored, and their significance judged.

### Logik der TBE nach Mayne:

1. "programme is based on a **reasoned theory of change**: assumptions behind why the program is expected to work are sound, are plausible, and are agreed upon (by at least the key players).
2. Activities of the programme were **implemented**.
3. Theory of change is **verified by evidence**: chain of expected results occurred.
4. **Other factors influencing the programme** were assessed and were either shown not to have made a significant contribution or, if they did, the relative contribution was recognised."

## 2-stufiger Ansatz der TBIE

# Theory Based Evaluation


reconstruct theory

test theory

## Definition der „theory of change“ (ToC)

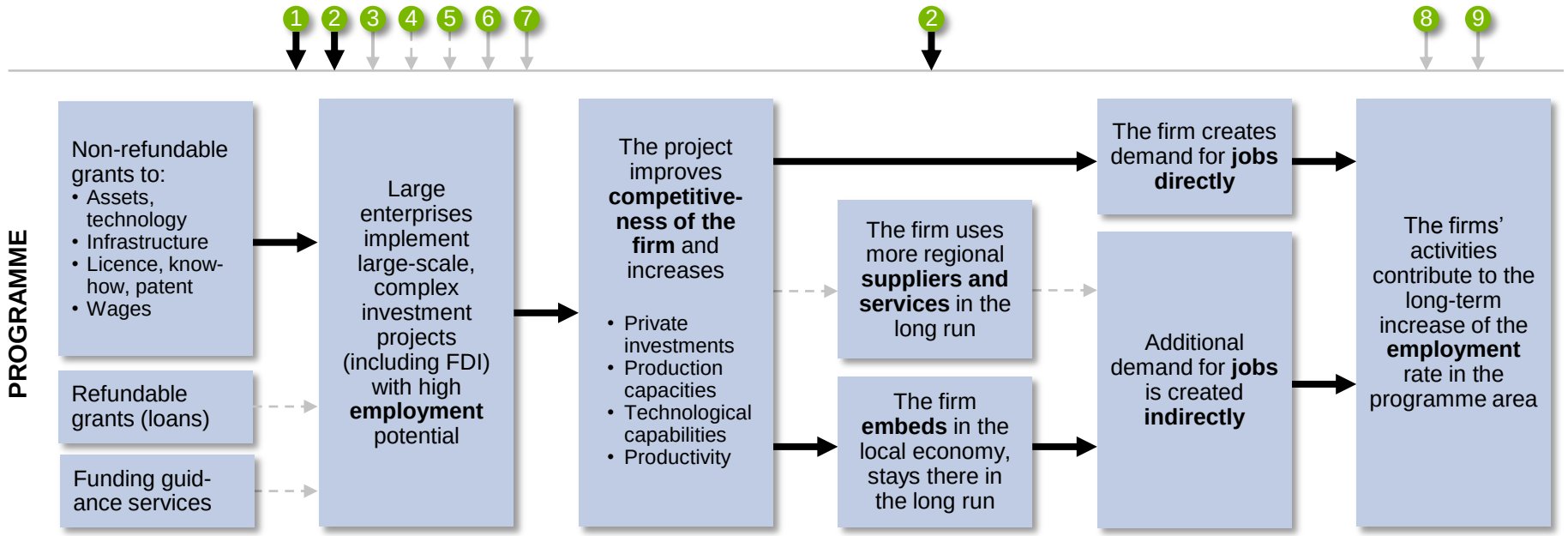
The paper of Leeuw (‘Theory-Based Evaluation’, prepared for EVALSED) borrows the definition of Theory of Change from Carol Weiss, which is

> ‘a way to describe the set of **assumptions** that explain both the **mini-steps** that lead to the long term goal and the **connections** between policy or programme activities and outcomes that occur at each step of the way’.

**Good programme theory must fulfil certain criteria it must be**

- Plausible
- Doable
- Testable

# ToC „LE1: Productive investment support“




## Assumptions and external factors

1. Tax incentives are competitive (internationally)
2. Company strategy supports long-term stay in the country
3. Developed basic infrastructure (motorways, airport access, ICT infrastructure)
4. Business / industry „heritage” is present in the area
5. Supportive local government (permits, procedures)
6. Selection criteria facilitate selection of projects with high employment impact
7. Labour market supplies labour in required number and qualification levels
8. Investment is large enough to influence the labour market
9. General economic conditions enable growth

## Indirect and wider effects

a. Increased demand for „quality” jobs in the area
b. Attracting other companies/investors in the region
c. Improved local transportation and ICT infrastructure
d. Improved social infrastructure (education, culture etc.)
e. Spillover of improved business practices, skills, knowledge, R&D and efficient technologies (local enterprises)
f. Spread of improved working culture (working conditions, wage levels, timely wages, values, stability etc.)
g. Greater workforce mobility
h. Crowding-out of SMEs from labour market (skilled labour)
i. Distort market equilibrium (effect on SMEs & non-supported)

**Legend**

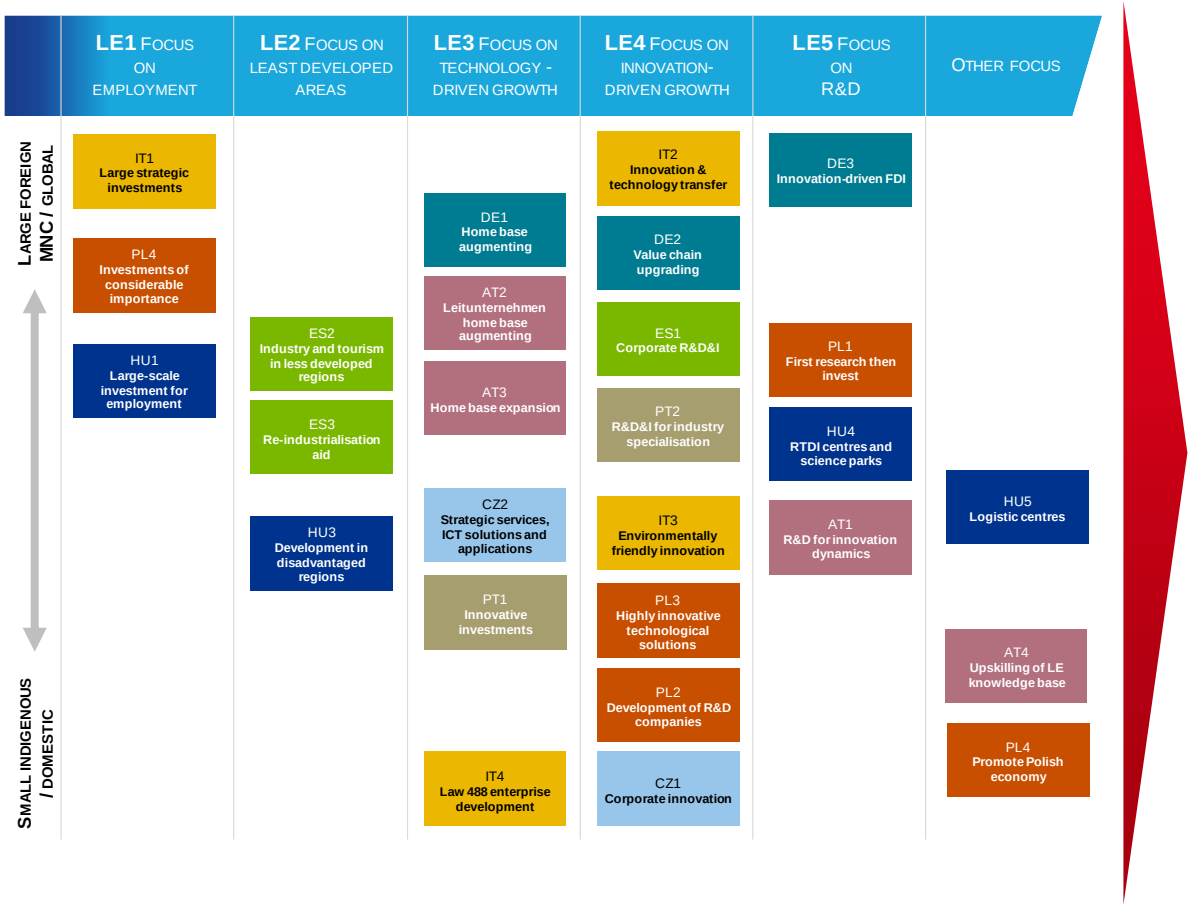
**CAUSE**: *A* is one of the main, fundamental causes of *B*) (‘**must have**’)

**PRE-CONDITION**: A is a necessary pre-condition of B, but not the main cause of that (lacking of which prevents B)

**SUPPORTING FACTOR**: A is contributing to B, but is neither a cause nor a pre-condition of that (‘**nice to have**’)

# Evaluationsdesign

## Länderspezifische und fünf generalisierte ToCs

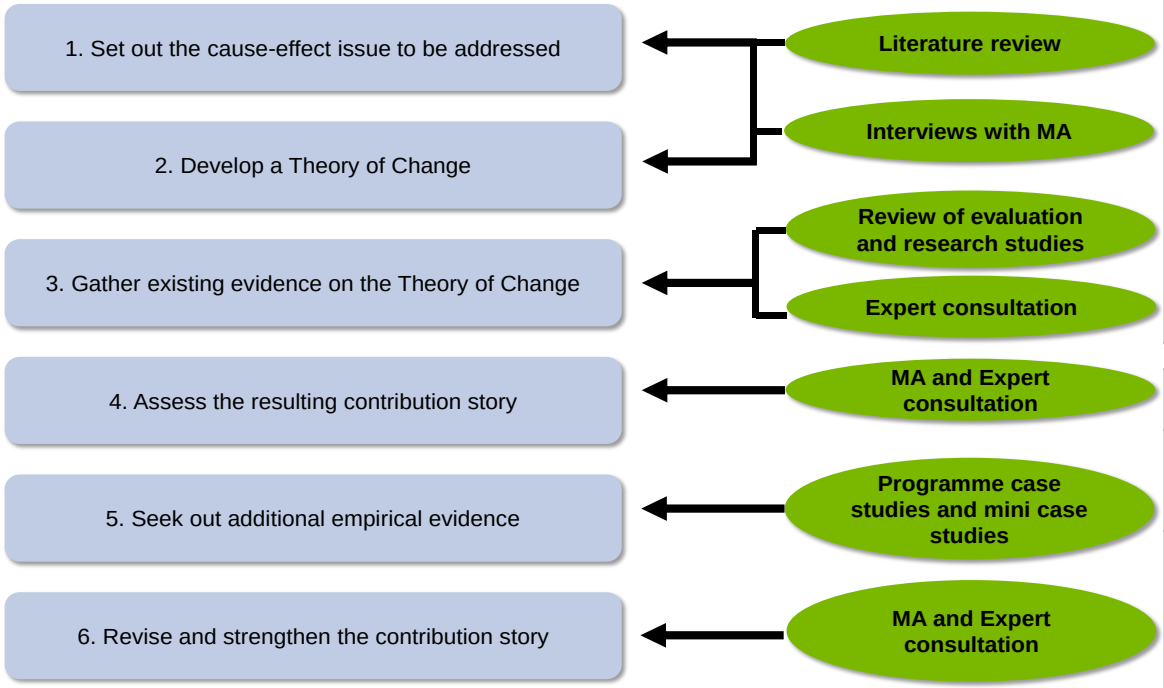



## Five generalised ToCs

- **ToC "LE1:** Productive investment support to increase employment in the programme area"
- **ToC "LE2:** Enterprise investment promotion to strengthen least developed areas"
- **ToC "LE3:** Technology investment support to upgrade growth and export capacities"
- **ToC "LE4:** Supporting knowledge-capital investments to increase regional growth capacities"
- **ToC "LE5:** R&D investment promotion to enhance innovation and growth capacities and create quality jobs in the programme area"

## Contribution Analysis mit Programm- & Mini-Cases

Mehrstufiger, iterativer Bewertungsprozess:




### Programme case studies

**Data**: LE-database, interviews with MAs, IBs, local economic development authorities, existing evaluations, funding guidelines.

**Analytical focus:**

- main forms of support / packages to large enterprises
- LE-characteristics
- typical conditions of grant agreements
- Qualification criteria
- Strategic rationale for support in programme area (incl. integration in regional strategies)

### Mini case studies

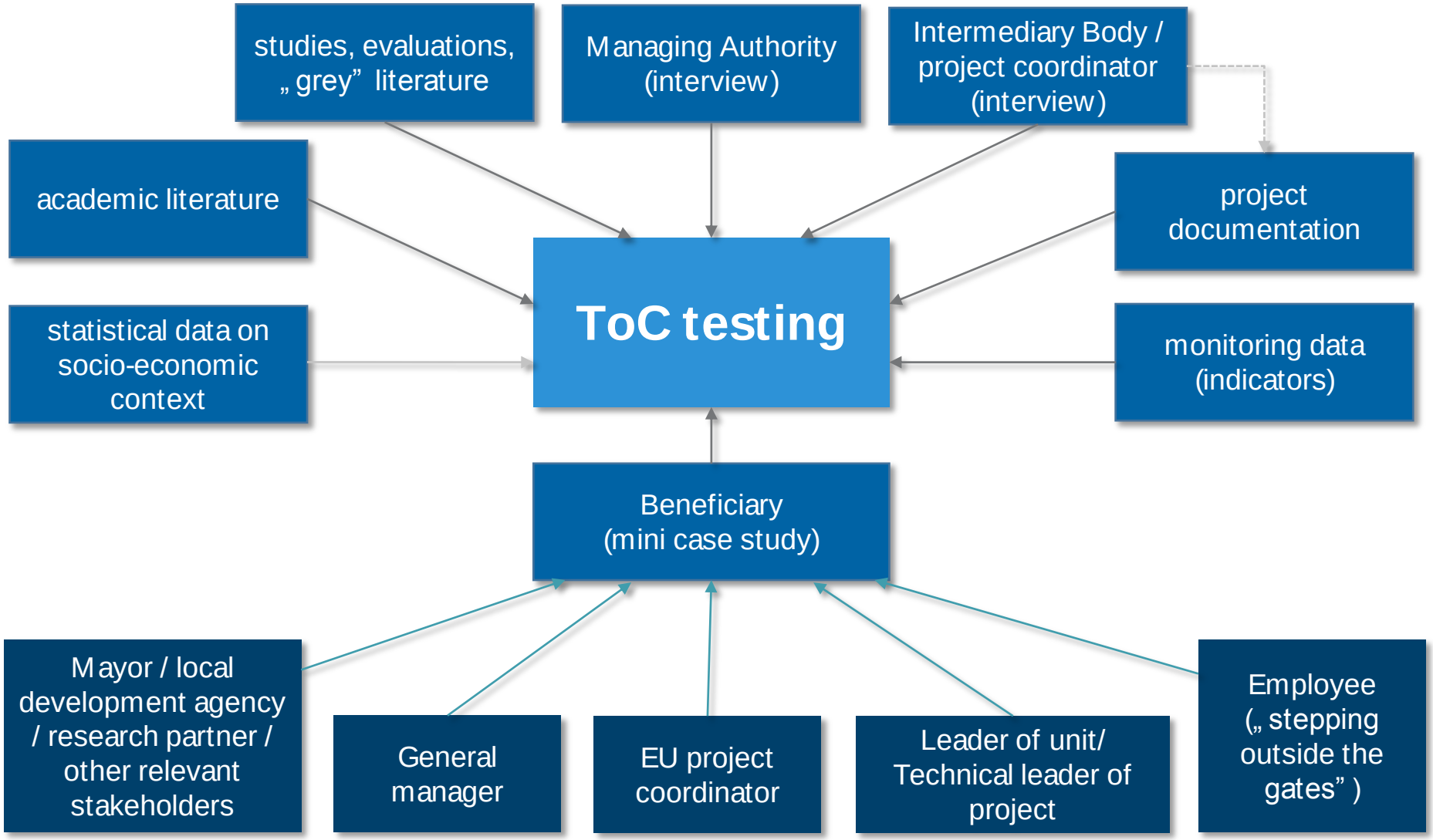
**Data:** interviews with firm level respondents and local authorities, project / media reports.

**Analytical focus:**

- Testing of relevant ToC, in particular causal relationships
- Key areas comprise: effectiveness of support, sustainability of impacts & quality of jobs, wider benefits, differences in effects by indigenous or foreign LEs
- Identification of systematic failures or achievements in ToC-materialisation

# Agenda

# Bewertung der ToCs

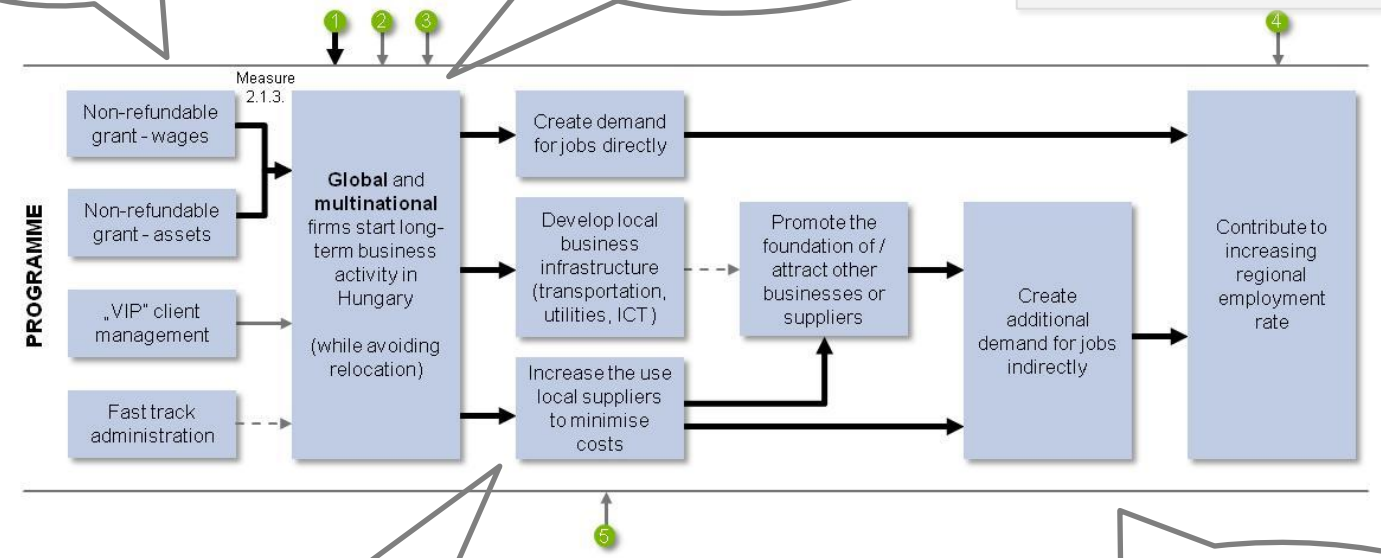


# Bewertung der ToCs

- **Erwartete Effekte beobachtet?**
- **Kausale Zusammenhänge und Annahmen bestätigt?**
- **Andere Einflussfaktoren ausgeschlossen / relativiert?**

1. Overall theory **credible**?

2. **Strengths** of the theory? (e.g. evidence-based key links)

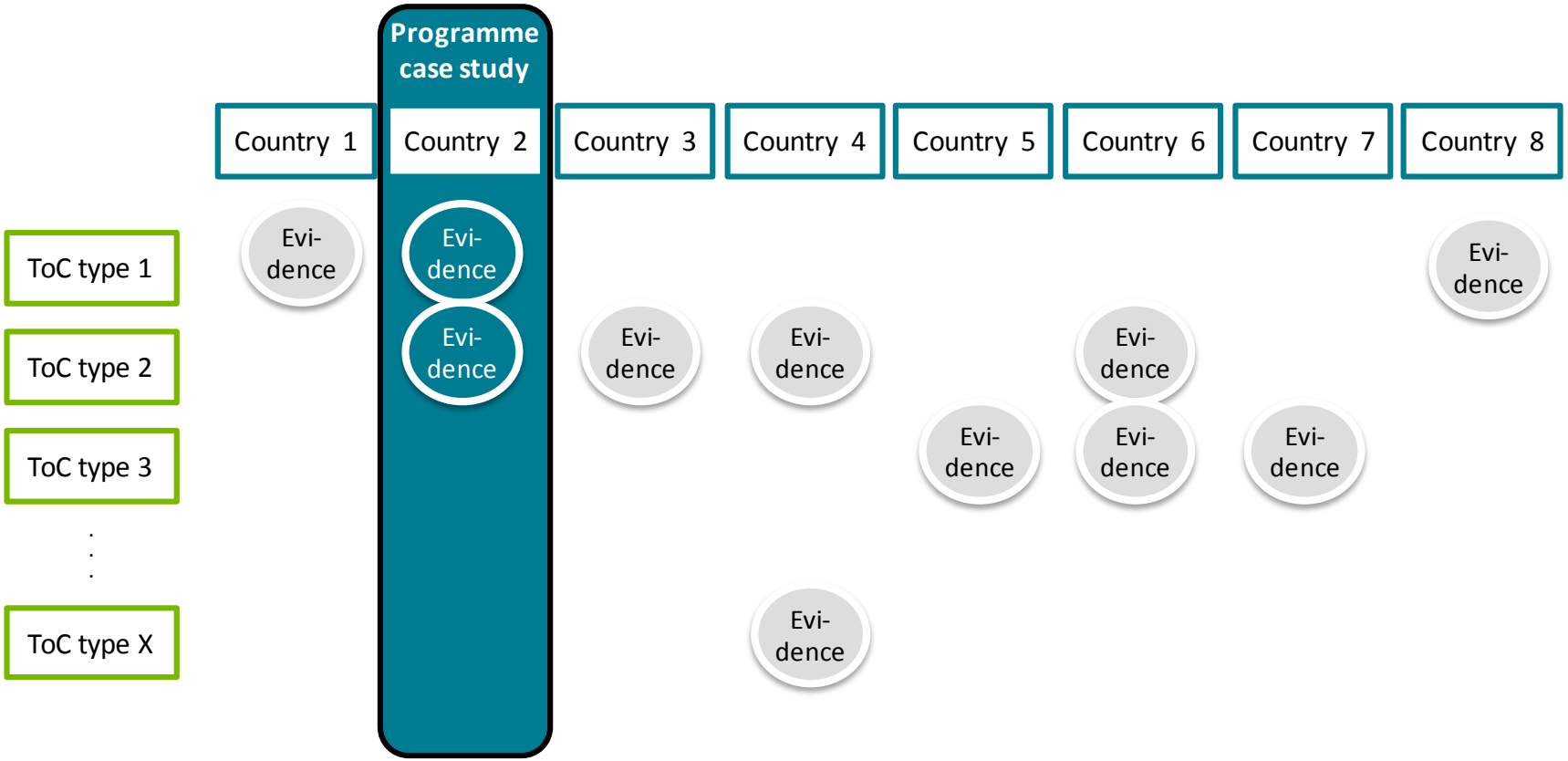



3. **Gaps** in the theory? (e.g. key links unsupported by facts?)

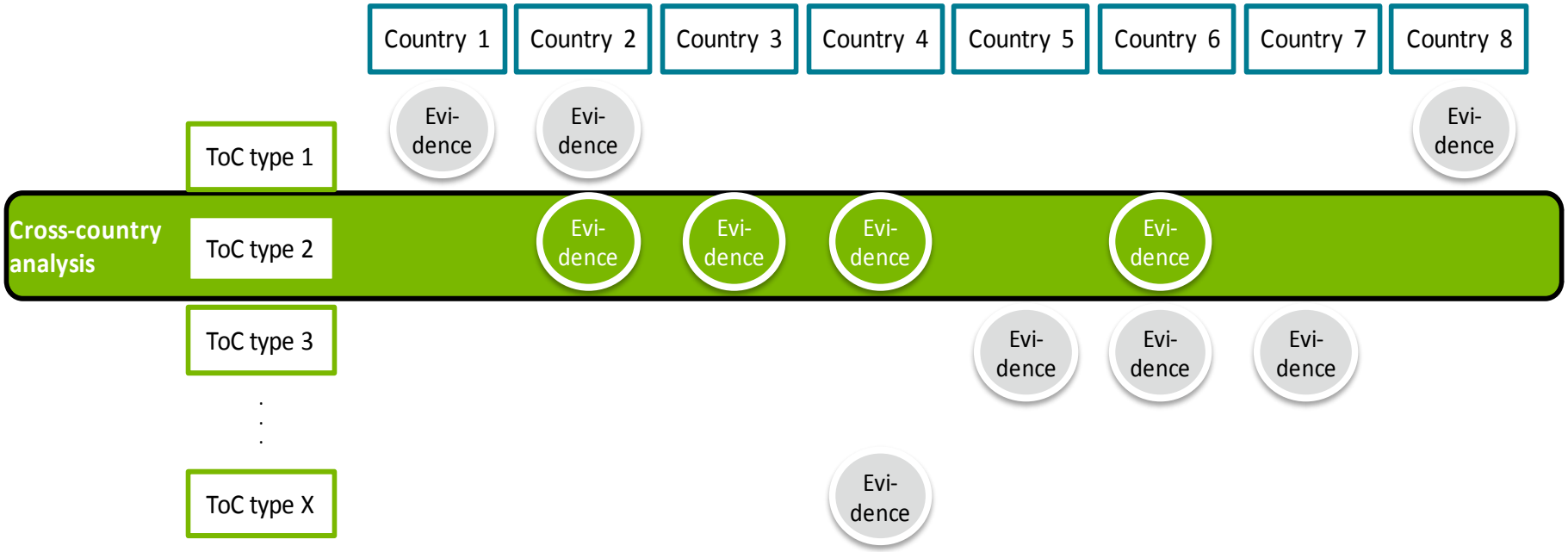
4. Stakeholders' **agreement**?

# Bewertung der ToCs

## Analysing different Theories of Change in similar context



## Analysing similar Theories of Change in different contexts



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# Resümee

## Stärken

- **Systematischer Prüfansatz** mit transparenten Annahmen und Effektkategorien (Länderspezifika, generalisierter Ansatz)
- Ermittlung von **relevanten**, z.T. versteckten, **Fördereffekten** (auch: indirekte Effekten)
- **Visualisierung** über ToCs erhöht Verständnis über Interventionslogiken, generierte Effekte und v.a. kausale Beziehungen in der Intervention
- Nutzbarkeit mit **holistischer Bewertungsbasis** (inkl. Perspektive der Zuwendungsempfänger) ohne alle zu belasten

## Limitationen

- Herausforderungen bei der **Generalisierbarkeit** der Ergebnisse (➔ Aggregation von Mini-Cases zu übergeordneten Erkenntnissen)
- **Signifikanz** der Effekte, insb. auf regionale Wirtschaft, schwer bemessbar
- Risiko für **Verzerrungen** in der Bewertung durch empirische Basis (➔ Triangulation essentiell)
- Bedarf großen **Willen zur Mitarbeit** bei Zuwendungsemfpängern (➔ multiple-respondent design gerade bei GUs nicht immer einfach)

I was very impressed by the systematic and careful way you undertook this analysis. To be honest I cannot think of another example of such an extensive CA analysis that is so thorough.
**... CA does get below the surface.** However some effects are marginal, applying only to some projects or where most decisions but not all are taken in a distant HQ. The point I'm making is the likelihood that a careful CA of the kind you have conducted will turn up many more weak effects than large scale statistical studies. **But how do we judge whether these are significant, justifying the expenditure?** (External Expert, April 2015)

# Wir geben Orientierung.

**Prognos AG – Europäisches Zentrum für Wirtschaftsforschung und Strategieberatung.**

# Hier erreichen Sie uns


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