

# Part Three: Theory Base Impact Evaluation Approaches

Theories of Change, Main 'brands'; and a detailed example

# Varieties of Theory Based Impact Evaluation

- We began with causal inference able to answer Evaluation Questions, because as evaluation commissioners and managers in MAs you need to understand what sits under the bonnet of the car! A fine BMW that is sold to you without an engine is of no help!
  - Today I do want to go a bit further with concrete examples of TBIE
- This is **not** so you become experts able to apply these approaches but so you can recognise whether the proposals that come to you for TBIE have any substance....

# Varieties of TBIE Approaches

- Some of the main TBIE brands include Contribution Analysis; Realist Approaches; Comparative case studies – such as QCA (Qualitative Comparative Analysis); and Process Tracing
- Brands? Most combine different methods – ToCs, case studies and comparative case studies – & underlying causal logics also converge
- In your handouts you will see a in H 2/1 a description of the main TB 'brands' that can be used for IE purposes.....

Group Discussion

# Varieties of Theory Based Impact Evaluation

- Many (but not all) TBIE approaches depend in the first instance on some kind of 'Theory of Change'.
- Theory of Change has also been developed by some practitioners as a form of 'Impact Evaluation' in itself
  - ToCs feature explicitly in Contribution Analysis and in Realist Evaluations
- There is great confusion of language between: Programme Theory, Intervention Logic, Causal Pathways, Outcome Chains, Logic Models

*These 'chains' also take different forms.....*

# Varieties of Theory Based Impact Evaluation

What most ToCs acknowledge is the difference between:

- The starting programme theory of policy makers
- The enrichment of this with ‘theory’ (assumptions and hypotheses)
- The further enrichment of the model with evidence

*Through several iterations like this, the initial programme theory if sufficiently developed can then be tested & be confirmed or qualified*

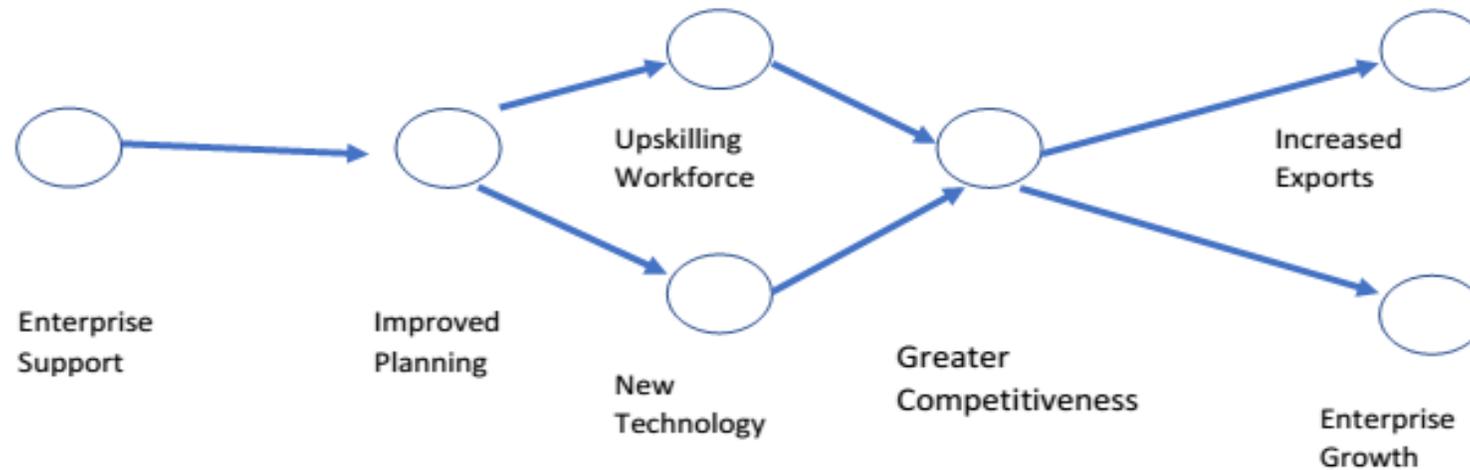
## *What is Theory Based Evaluation?*

There are also differences of focus among ToC approaches: they variously emphasise -

- The *process of change* the steps in a change process – this would be true of Theories of Change; and Process Tracing
  - The *moment of change*, the conjunction of factors that explain a particular outcome in a particular context – this would be true of Realist Evaluation
- The *system of change*, unpicking the contribution of multiple ‘causes’ in a complex system – this would be true of Contribution Analysis

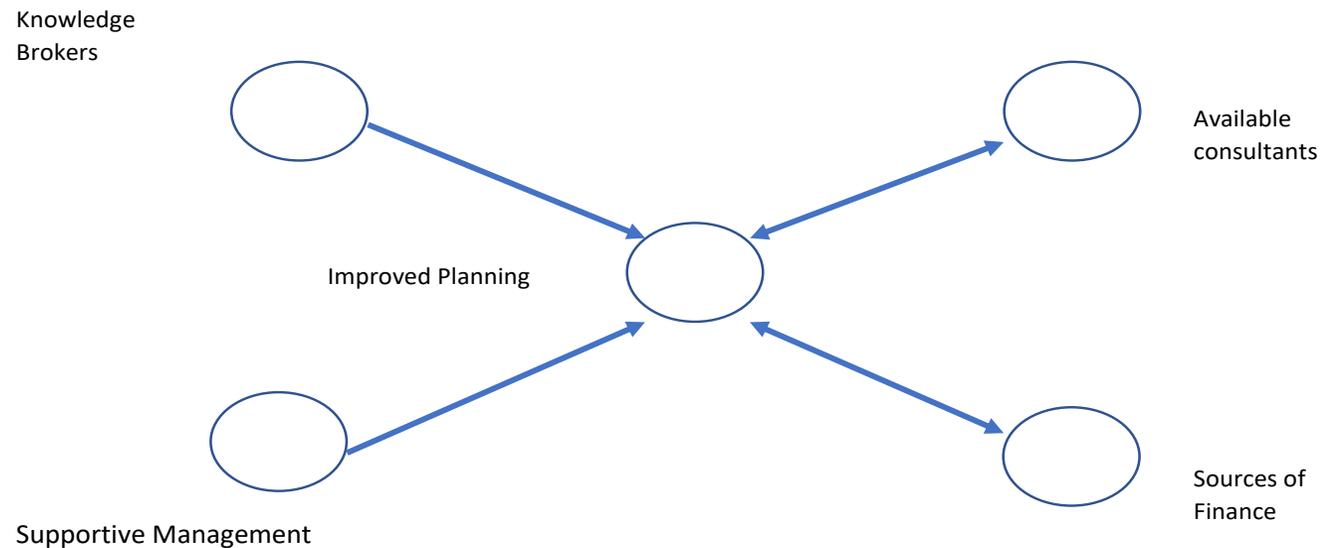
# What is Theory Based Evaluation?

A *'process of change'* is often conceived as a causal chain

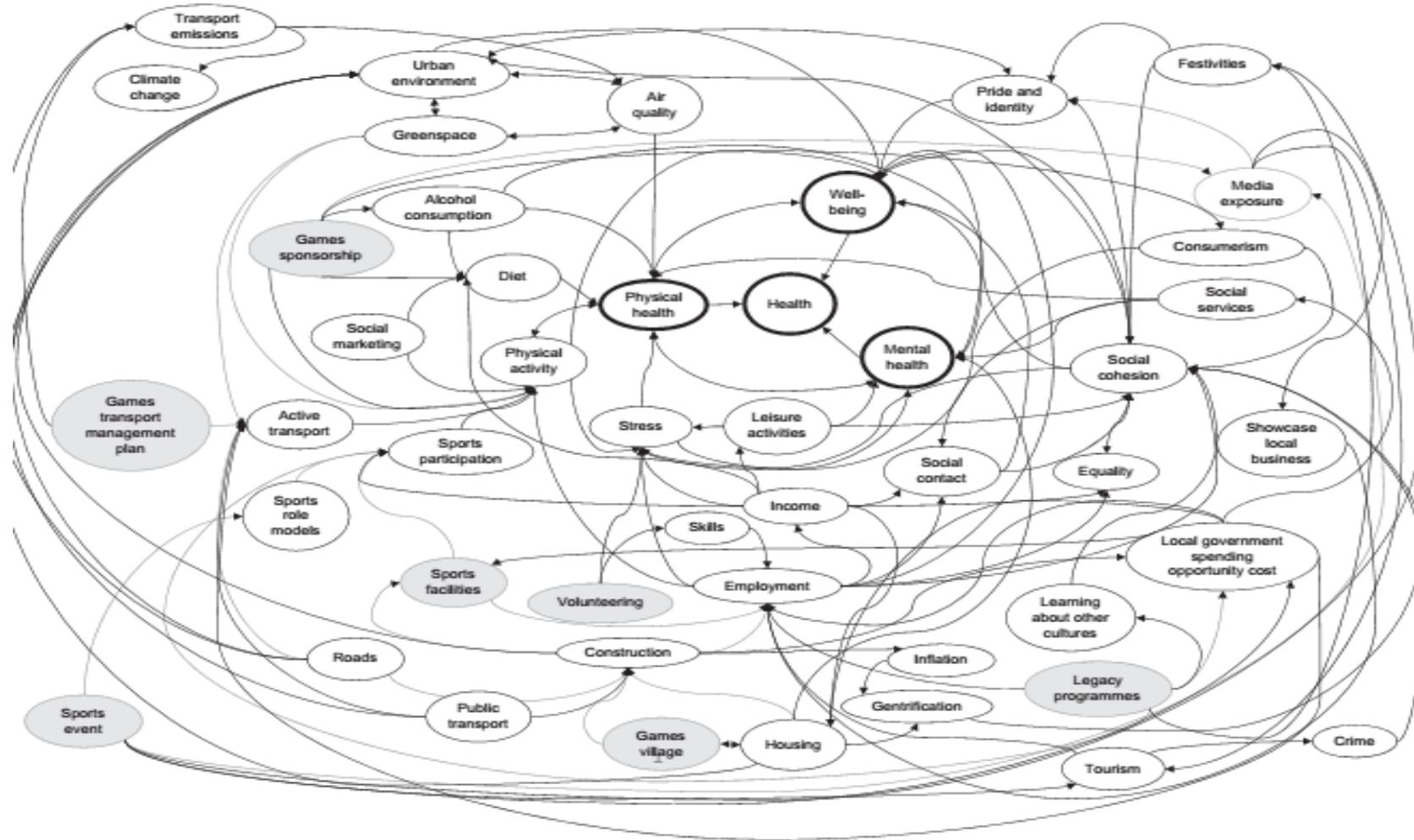


# What is Theory Based Evaluation?

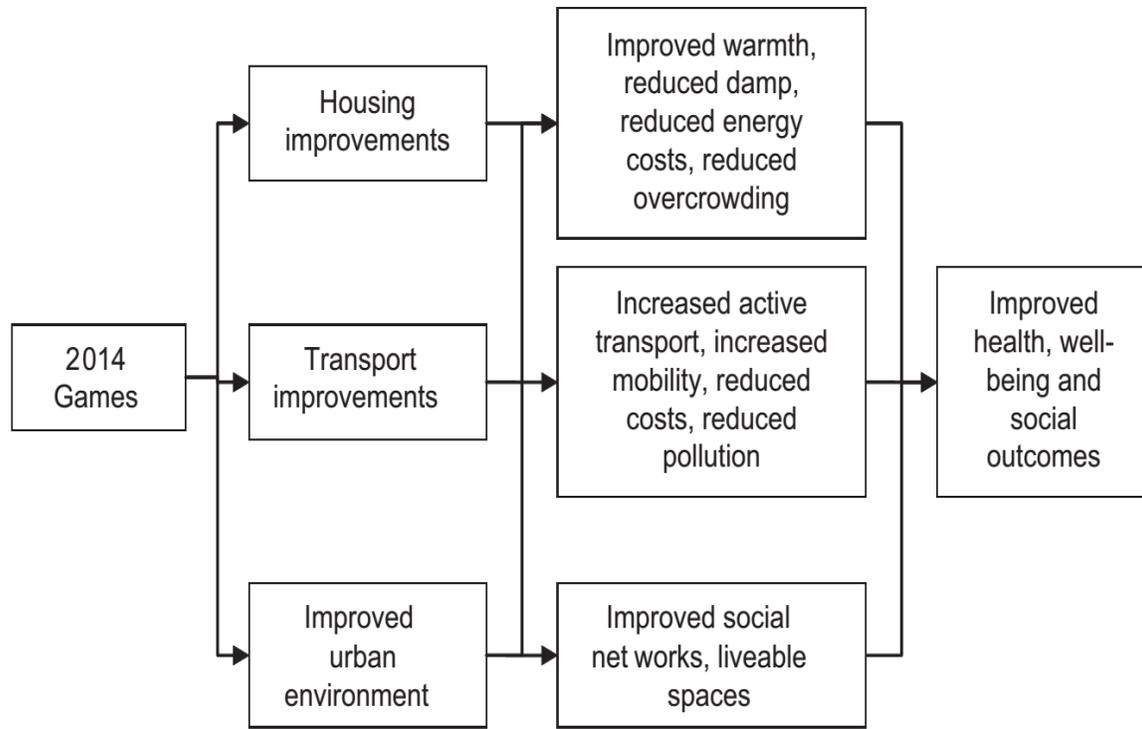
A *'moment of change'* is the conjunction of causal influences at a particular conjunction in the causal chain



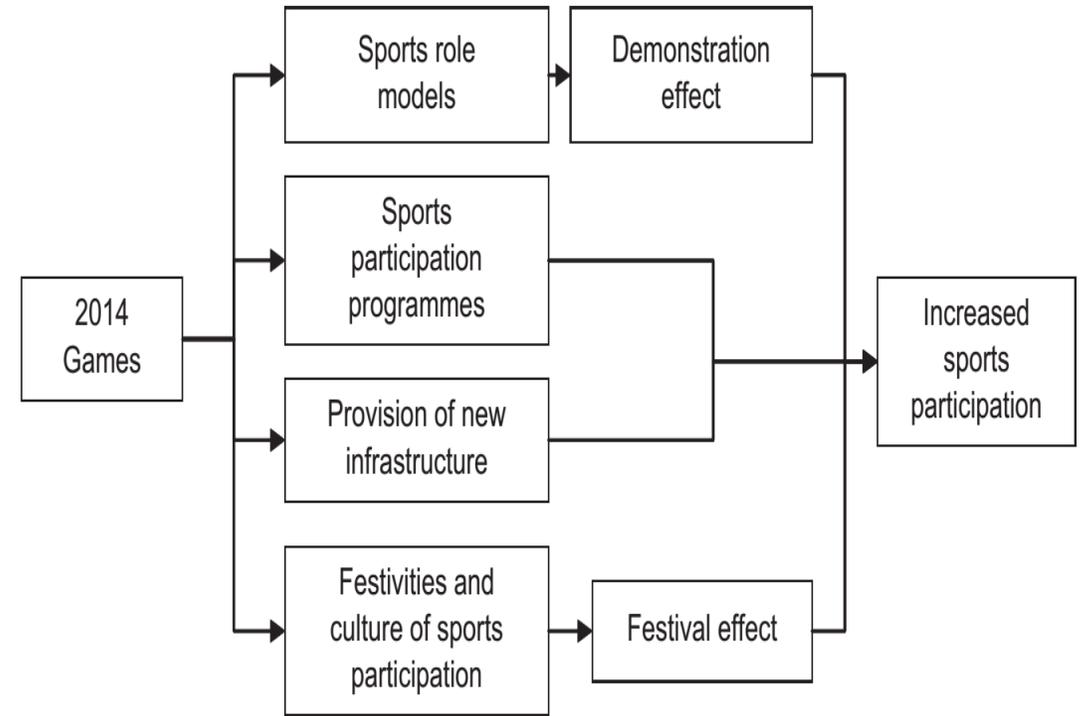
A 'system of change,' unpicking of multiple 'causes' in a complex system



How the Games are theorized to impact on health.



**Figure 6.** The improved environment critical pathway.

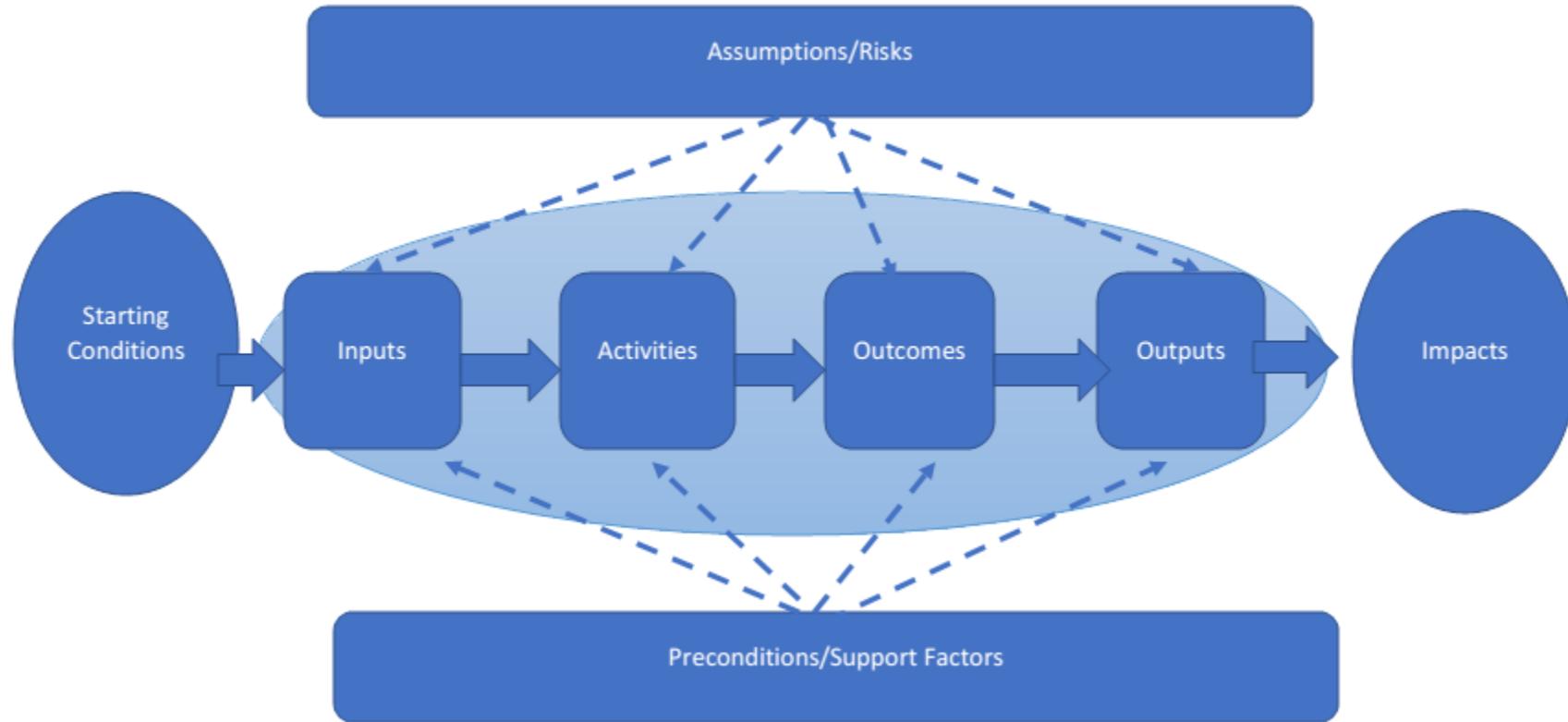


**Figure 3.** The sports participation critical pathway.

# Varieties of Theory Based Impact Evaluation

- ToCs make explicit the underlying assumptions about what makes a programme work and the enabling or 'support factors' that need to be present for the programme to succeed
- They do this by mapping out a sequence of stages. Traditionally these begin with starting conditions, programme inputs and activities, outputs and impacts – but not always helpful – carry over from log-frame planning

# Varieties of Theory Based Impact Evaluation



# Varieties of Theory Based Impact Evaluation

Assumptions according to John Mayne include:

- *Reach assumptions* e.g. that inputs get to intended beneficiaries
- *Capacity change assumptions* e.g. that inputs lead to changes in beneficiary capacity or disposition to behave differently
- *Behaviour change* e.g. that once capacities and dispositions change, so does behaviour
- *Benefits occur* e.g. the assumed benefits lead to direct and indirect benefits as intended

# Varieties of Theory Based Impact Evaluation

Enabling or 'support' factors include such things as:

- Effective managements and public administrations
  - Perceived legitimacy of programme funding
- Availability of resources and investment budgets
  - Peer group support
- Facilitating economic environment

Group Exercise

# The 'support for large enterprises' evaluation

- There are very few quality examples of TBIE applied to Cohesion Policy
  - One of the few exceptions was the “Ex post evaluation of Cohesion Policy programmes 2007-2013, financed by the ERDF and CF: Support to large enterprises”
    - Undertaken by the Hungarian Office of KPMG; and Prognos AG, the Brussels office of a large Swiss-based socio-economic consulting company
    - This evaluated large enterprise funding across 8 OPs in 8 EU Countries
- (Raises interesting questions about the choice of unit of analysis for IEs – Country? Theme? OP? Priority Axis)*

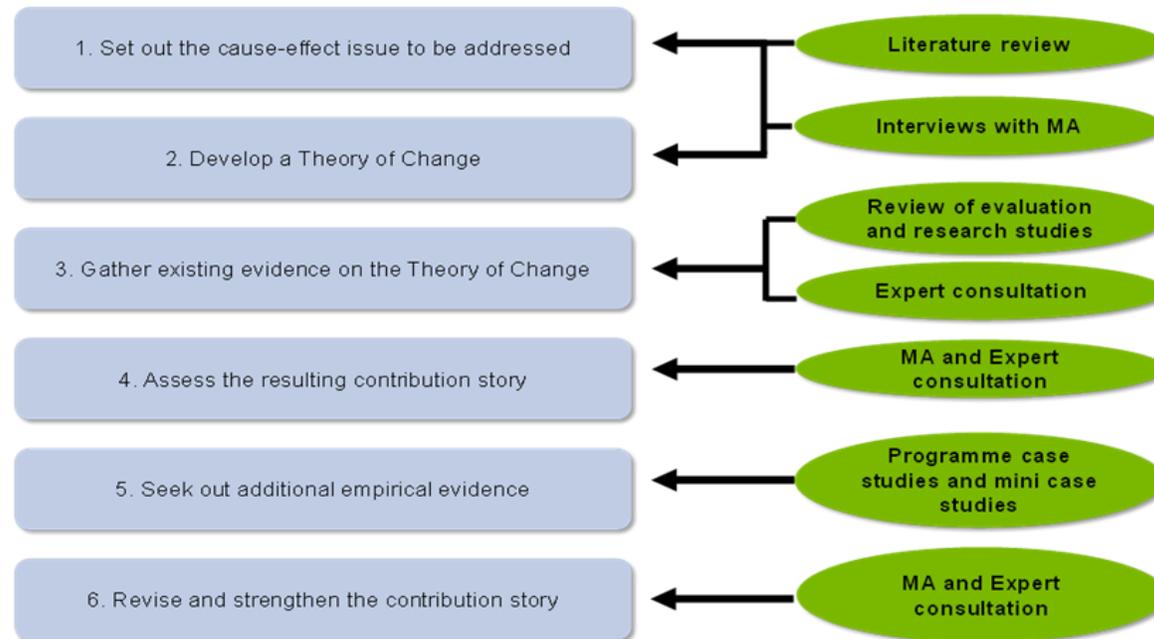
# The 'support for large enterprises' evaluation

The main phases of this evaluation were:

- A scoping/descriptive phase in order to understand the scale and form of large firm funding and where it was taking place
- A set of 45 company case studies in 8 OPs across 8 Member States – the outputs of these CSs included multiple 'theories of change' (between 2 to 5 per OP)
- On this basis 5 (subsequently 4) overarching 'theories' were identified

# The 'support for large enterprises' evaluation

The evaluation operationalised key steps in Contribution Analysis as follows:



# The ‘support for large enterprises’ evaluation

- The four identified overarching ‘theories’

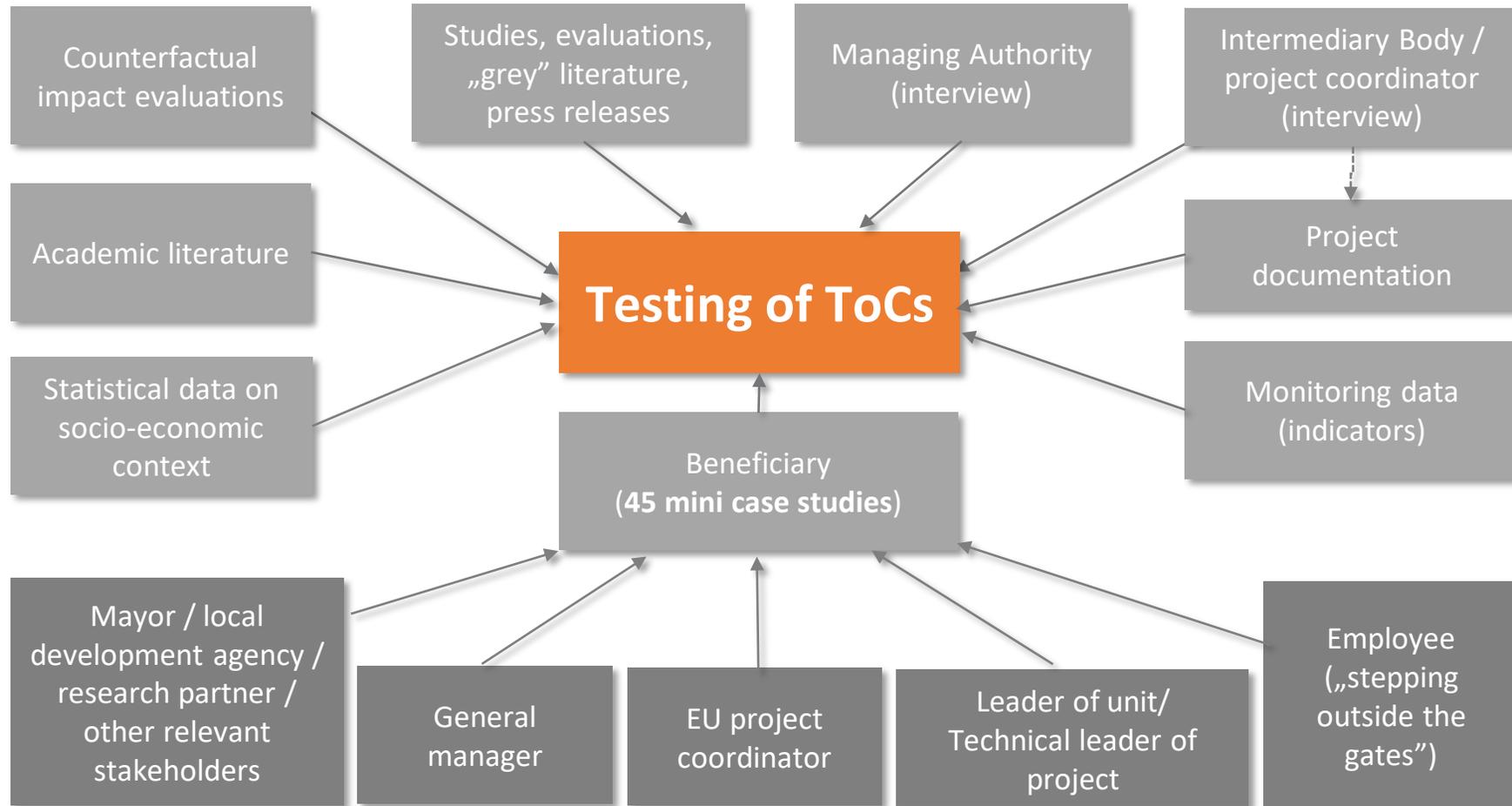
Name of ToC	Description
<b>“LE1: Large-scale business investment”</b>	Support to investment in large enterprises (including foreign-based ones) with the primary aim of increasing employment in the programme area in the long term.
<b>“LE 2: Technological upgrading”</b>	Support to large enterprises to assist them to implement upgrades in technology with the aim of strengthening their competitiveness and thereby the growth potential of the regional economy.
<b>“LE 3: Innovation support”</b>	Support to large enterprises to assist them to implement innovative investment projects in terms of new products, or processes, with the aim of strengthening regional innovation potential and the long-term growth of GDP and employment (quality jobs).
<b>“LE 4: Investment in R&amp;D capacity”</b>	Support to large enterprises to help them set up, expand or improve R&D facilities and/or to carry out R&D activities, with the aim of expanding the regional knowledge base and the long-term R&D and innovation capacity of the region (including the creation of research jobs).

# The 'support for large enterprises' evaluation

Evaluation Questions & design assumptions were summarised as follows

Key question	Related questions	Underlying assumption	Requirements	Suitable designs
<b>Has the intervention made a difference?</b>	<p>What causes are necessary or sufficient for the effect?</p> <p>Was the intervention needed to produce the effect?</p> <p>Would these impacts have happened anyhow?</p>	<p>There are several relevant causes that need to be disentangled</p> <p>Interventions are just one part of the causal package</p>	<p>Comparable cases where a common set of causes are present and evidence exists as to their potency</p>	<p>Experiments</p> <p>Theory-Based Evaluation, e.g. <b>Contribution Analysis</b></p> <p>Case-based designs, e.g. qualitative comparative analysis</p>

# Testing: multi-respondent design & triangulation



The 'theories of change' were analysed using detailed data sheets

<b>SECTION C: Direct effects</b>											
<b>C.1 Has the project resulted in the following direct outcomes?</b>											
	Observed		Was the previous ToC			Comments (If yes, to what extent? If not, why not?)	Evidence			Source, comments	
	Yes	No	... cause?	... pre-condition?	supporting factor?		Strong - facts	Medium - strong belief	Weak - speculation		
increased private investments?	x		x			EUR 8.3 million support generated EUR 21.7 million private investment (2.61 EUR leverage for 1 EUR)	x			CEO, project documents, EU coord., on-site visit	
increased production level and capacities?	x		x			//// production of 1.4 million generators in 2015	x				
involved cutting edge technology?	x		x			Modern computer integrated manufacturing was implemented (with kanban system)	x				
improved productivity?	x		x			Productivity gains were directly linked to the support (decreased unit costs)	x				
<b>SECTION D: Indirect and wider effects</b>											
<b>D.1 Has the project contributed to any indirect or wider effects?</b>											
	Did it happen?			Was the project the.... of the			Comments, explanations (to what extent? why?)	Evidence			Source, comments
	Yes	Partly	No	... cause	... pre-condition	... supporting factor		Strong	Medium	Weak	
a) Demand for "quality" jobs	x			x			//// a major employer of engineers from the university.	x			Deputy mayor, CEO, advisor
b) Attract other companies, investors or FDI in the region	x					x	Other large companies (////) have moved to (close proximity)		x		Deputy mayor, CEO, desk research
c) Business infrastructure (roads, rail, ICT, etc.)			x				Not material		x		CEO, EU-coord., advisor

# The evaluation of 'support for large enterprises'

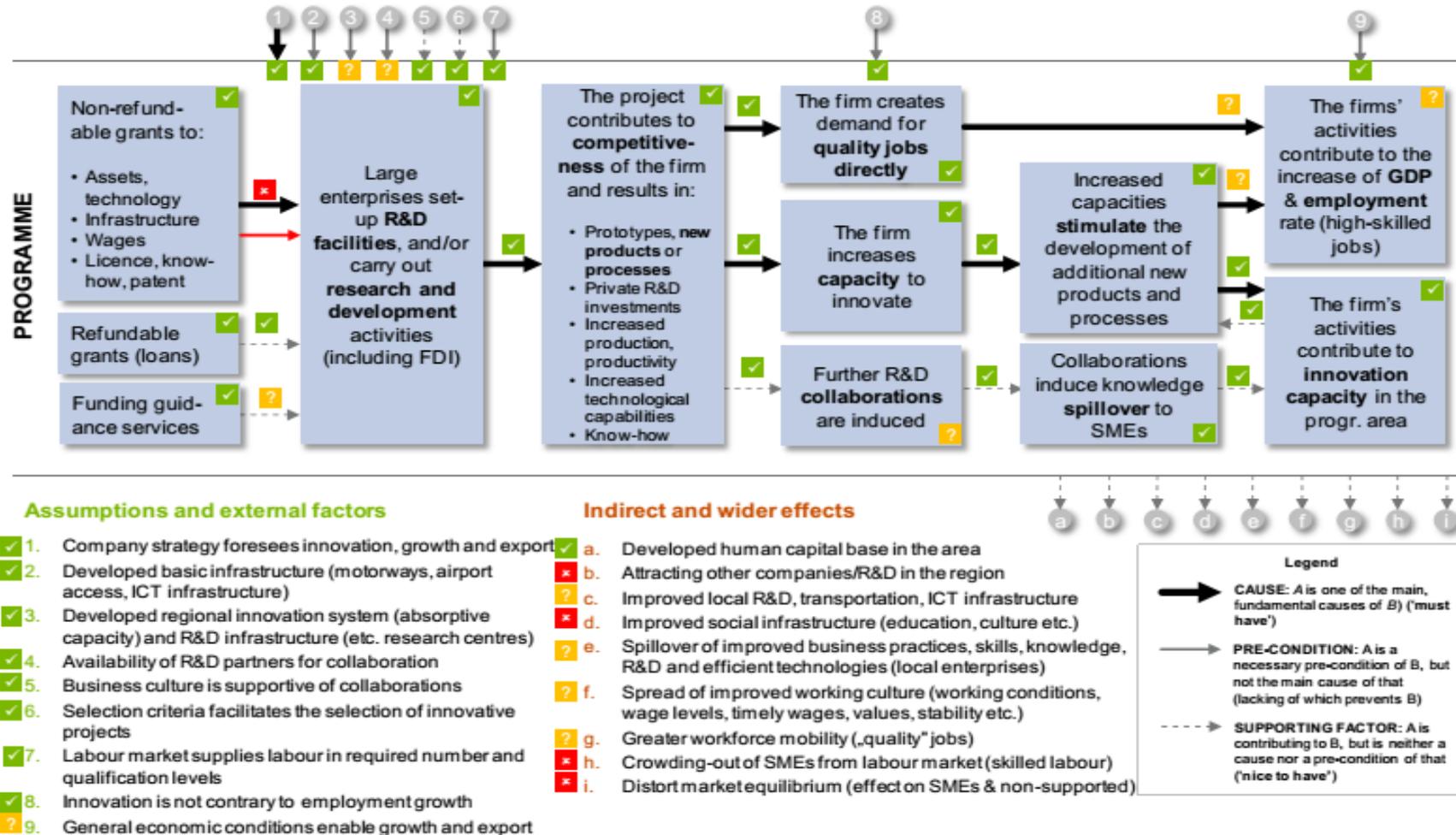
For each of the 4 'theories' ToCs were developed using a format consistent with 'Contribution Analysis' approaches

The 'theories of change' were then represented on the ToCs as follows

-  Confirming evidence of the element / causal relationship
-  Insufficient or contradicting evidence of the element / causal relationship
-  Disconfirming evidence of the element / causal relationship

The following example from one of the OPs indicates how this was applied

# ToC for 'LE 4 – Investment in R&D Capacity'



# ToC for Investment in R&D Capacity' in One OP

1. What was the causal relationship between the EU funds and project implementation?	<b>The EU-funds rather functioned as a pre-condition than as a causal relationship.</b>
2. Is the programme a necessary part of the causal package?	<b>The programme has been a necessary, yet not sufficient part of the causal package</b>
3. Were the intended <b>direct effects</b> induced by the supported projects?	<b>Direct intended changes for the companies were widely induced. In terms of intermediate outcomes an increase in sales and number of employees as well as an increase in capacity to innovate took place.</b>
4. Have the <b>intended indirect and wider effects</b> been reached by the supported projects?	<b>The expectation that large enterprises involve more local suppliers, establish further collaboration and that the firms activities increase GDP and employment rate in the programme area are of mixed evidence and are not directly visible. Wider effects seem not be induced on a large scale.</b>
8. Can alternative explanations for the behavioural change be ruled out?	<b>The change in employment seems to have occurred according to assumptions described in the theory of change. No parallel causal packages have emerged as competing theories.</b>

## Discussion of Large Firm Case

Group Discussion