

Final Event 21 / 22 November 2023

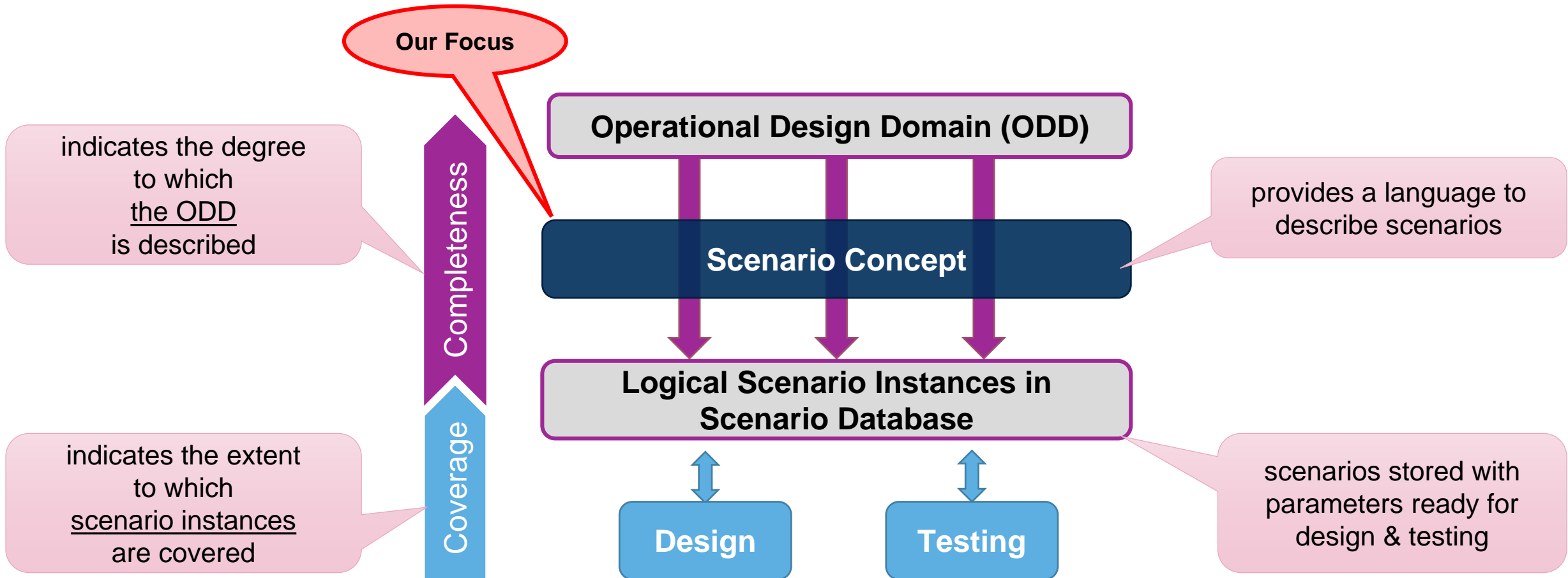
# Building Blocks of the Argumentation: „Towards a sufficient ODD Completeness Argumentation

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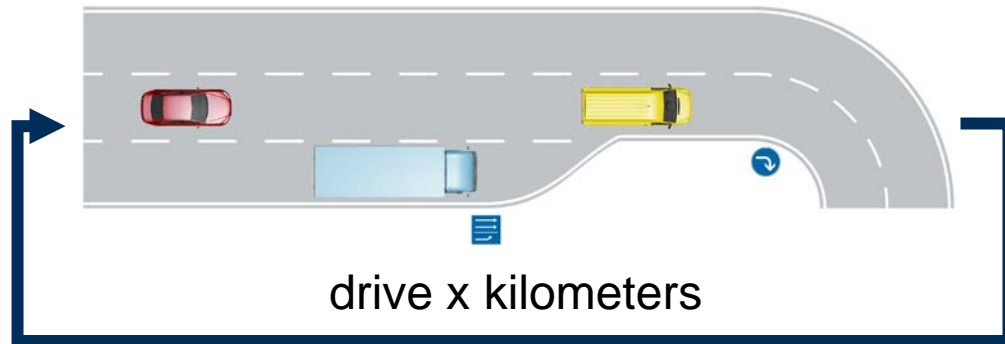
on the basis of a decision  
by the German Bundestag



Note that any incompleteness of the *scenario concept* leads to incomplete scenarios.

## ▶ Naïve statistical approach

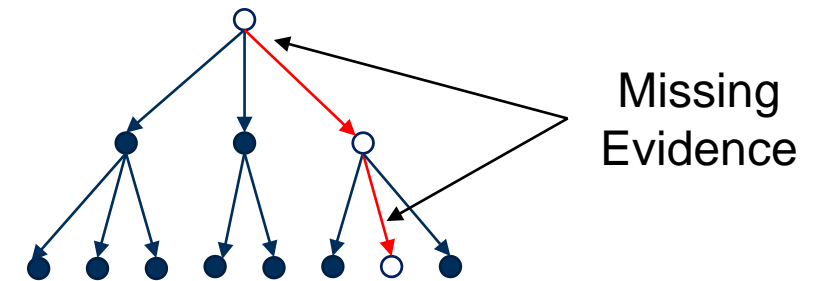
- ▶ The more observations are gathered, the stronger the evidence supporting safety claims!



- ▶ Gather observations until x kilometers are driven

## ▶ VVM approach

- ▶ The more evidence supports our arguments, the stronger the safety claim!

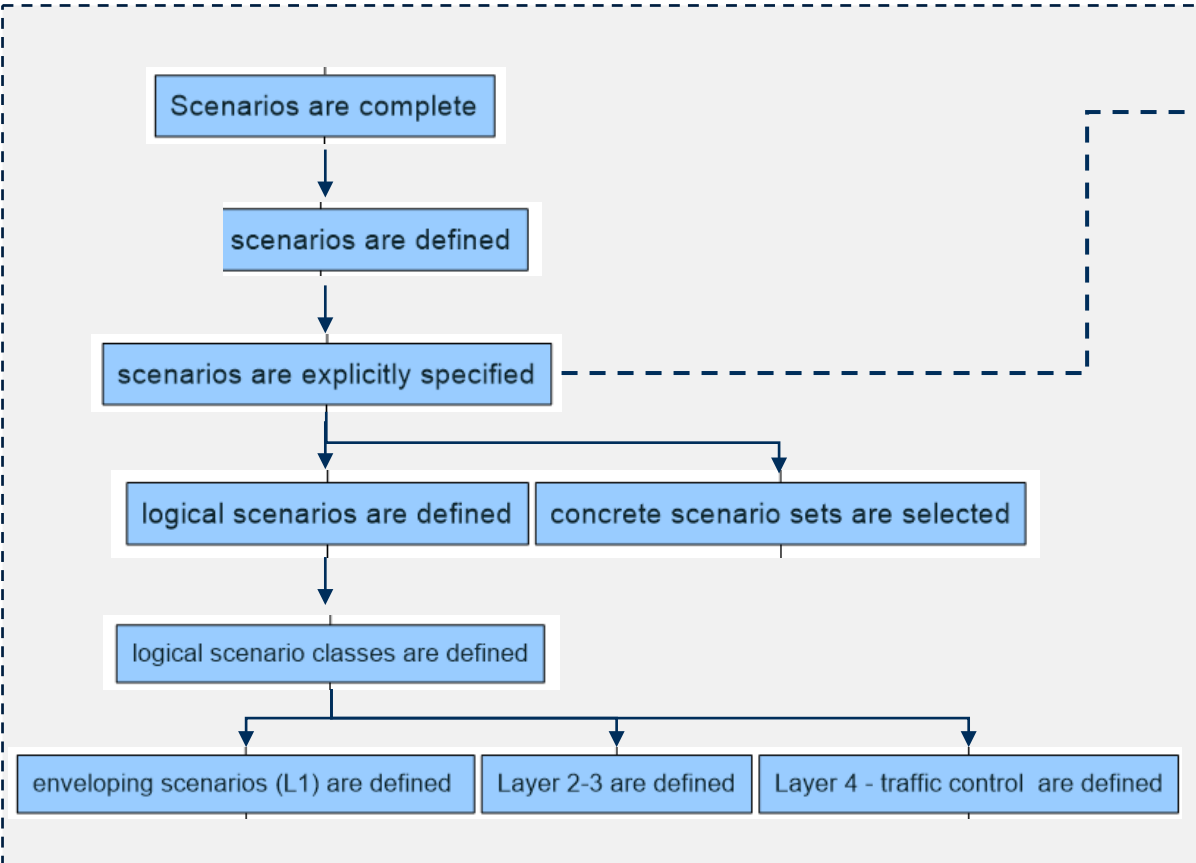


- ▶ Gather observations until evidence becomes available for all arguments

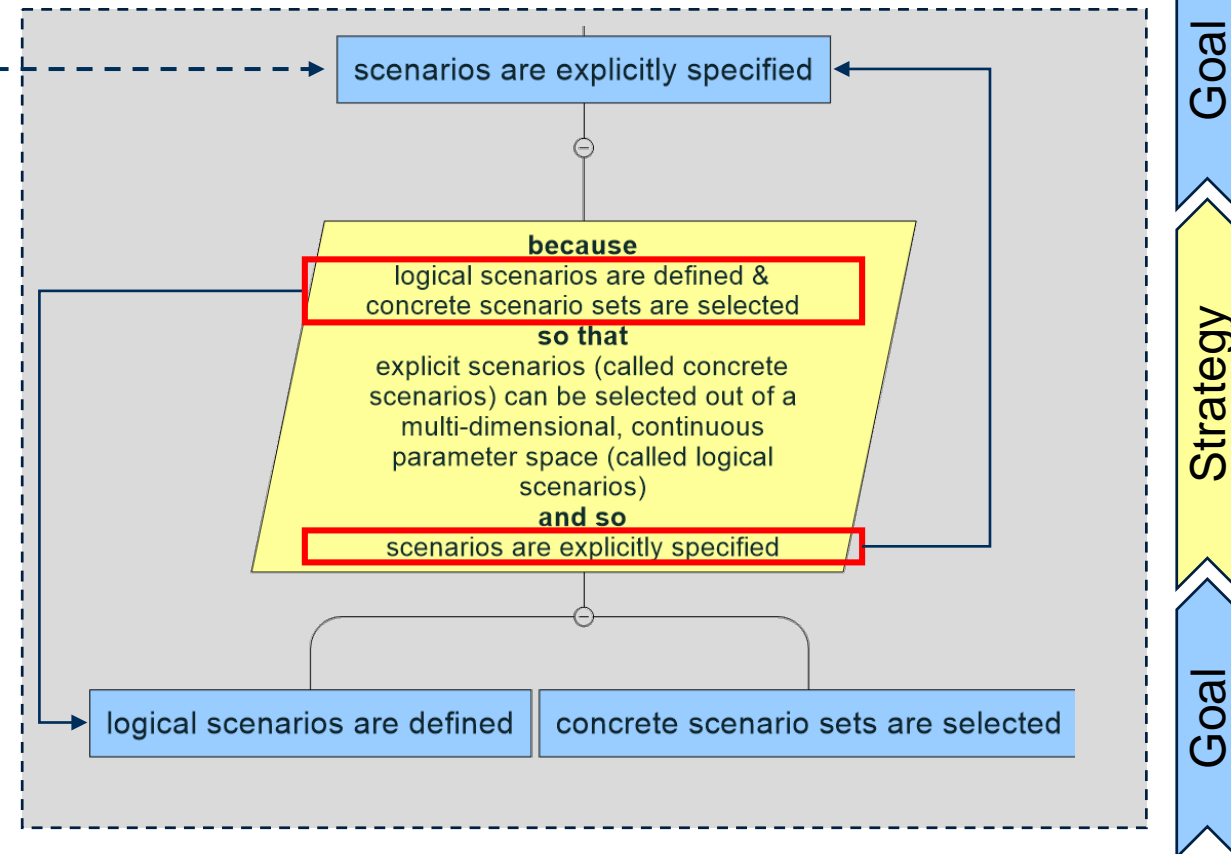
Safety claims can only be sound if all arguments are supported by related evidence!

# Argumentation of the Scenario Concept

This box shows some goals, as an excerpt, of our argumentation chain.

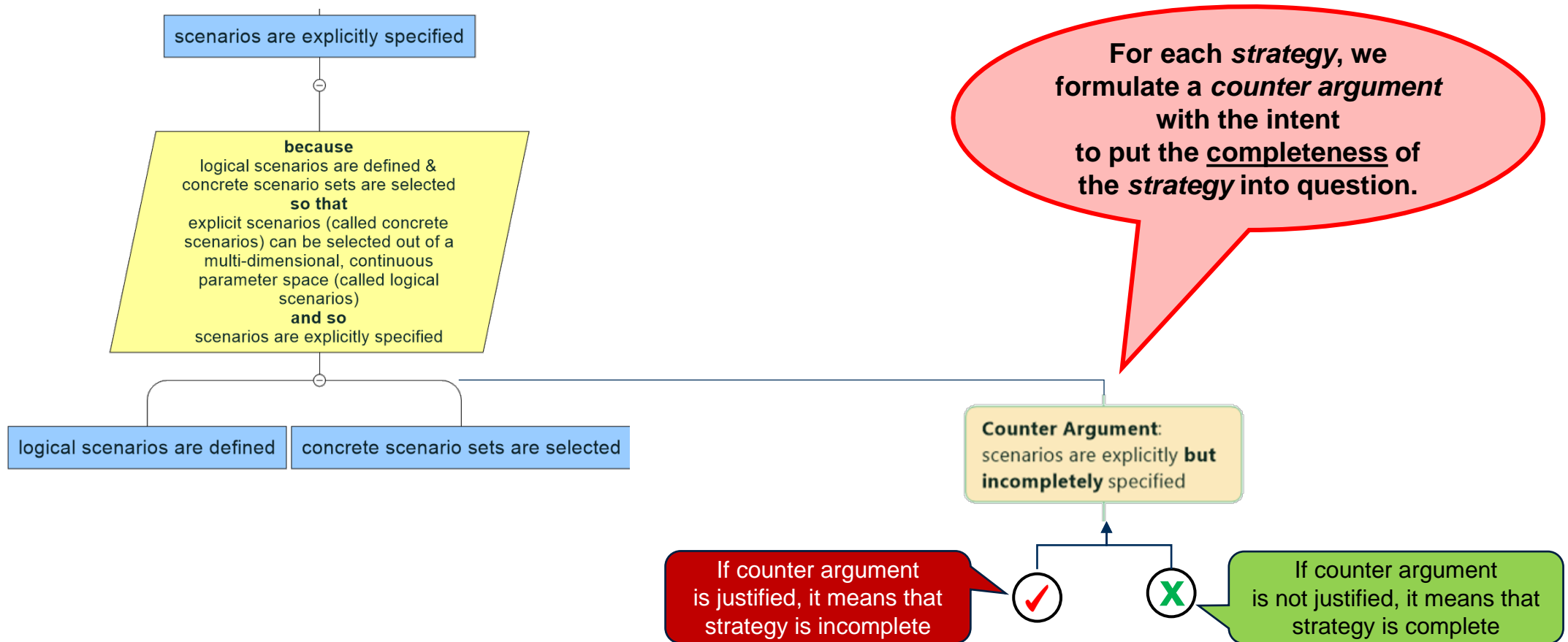


Note that we use the “goal structuring notation” (GSN) to represent our argumentation chain.

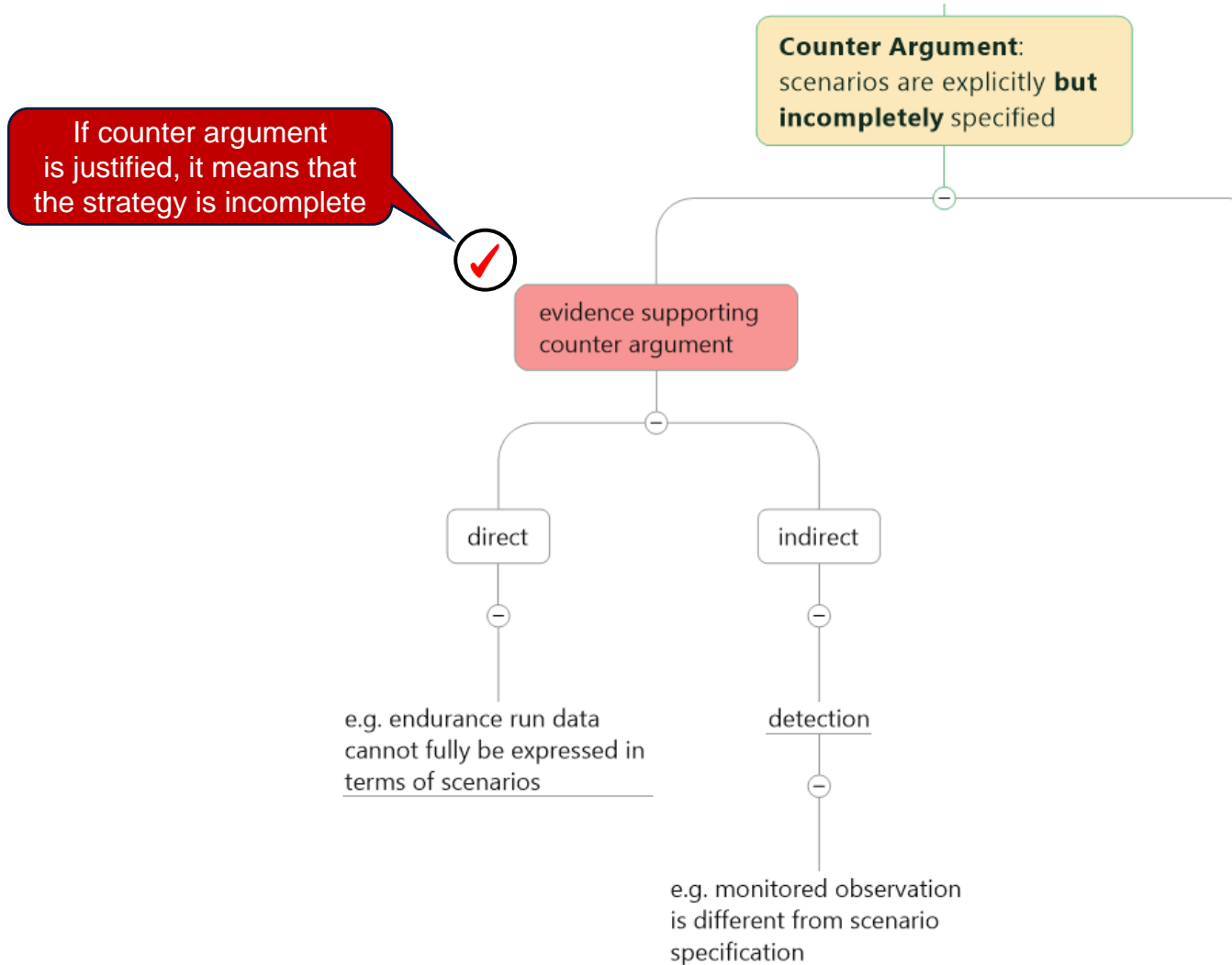


The *scenario concept* will be complete if our *strategies* are complete.

# Scrutinizing the Completeness of a Strategy



# The Pattern for Structuring “Counter Arguments”



If counter argument not justified, it means that the strategy is complete

## Why do we deal with the completeness of the scenario concept?

- ▶ Safety is a guarantee for the provision of a specific system property within a specific context.
  - ▶ In case the described context is deficient, the safety claim will be inconclusive.
- ▶ Any incompleteness of the scenario concept leads to incomplete scenarios.

## How did we deal with the completeness of the scenario concept?

- ▶ We elaborated a GSN argumentation that explains the soundness of the scenario concept.
- ▶ Next, we scrutinized the completeness of our argumentation by counter arguments.
- ▶ Finally, we have been seeking for evidence that support or refute the counter arguments.

Further information is provided at Poster



# Thank you!

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A project developed by the VDA Leitinitiative  
autonomous and connected driving

Supported by:



on the basis of a decision  
by the German Bundestag