Introduction to Modelling Approach

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Glossary: Important Definitions

Metrics

- Quantifiable indicators consistent with three pillars of sustainability
- Measurable in real world and from model outputs
- Either linked to a specific SDG or an „informal“ indicator assigned to a SDG
- Not limited to the SDG time frame, go beyond 2030

Long-term Performance Goals (LPGs)

- Stated targets that can be measured
- Inherently globally harmonious
- Defined as outcomes in 2050
- Not all LPG‘s are necessarily harmonious (achieving one may make achieving another harder)
- Linked to energy related SDG‘s

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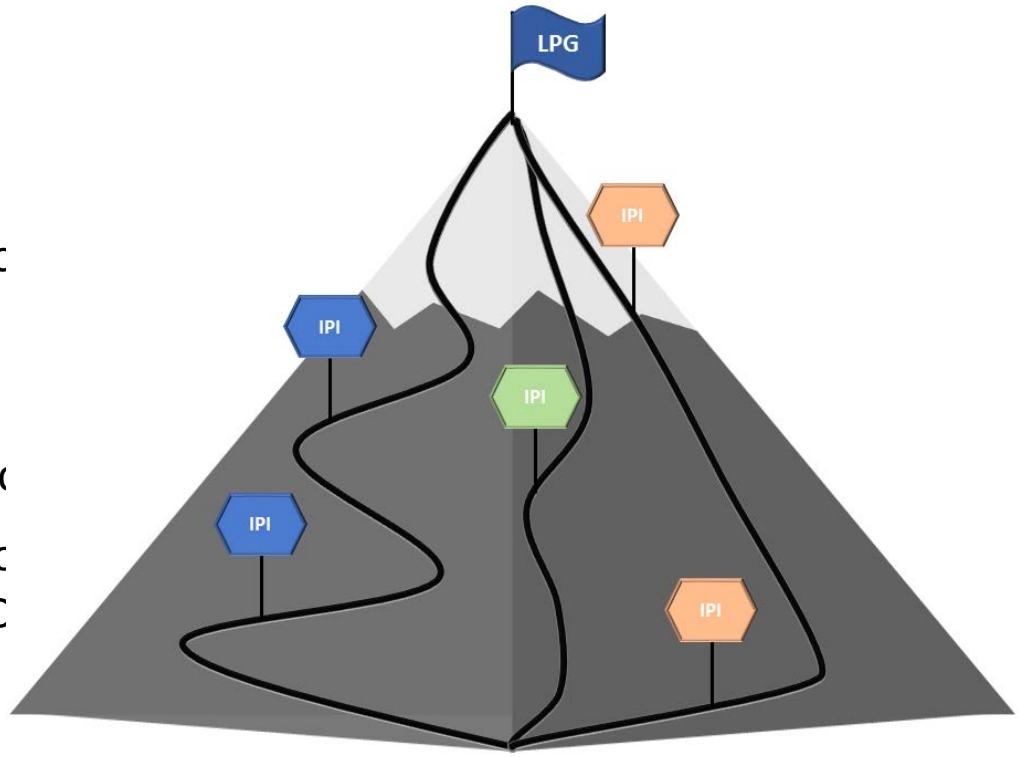
Interim Performance Indicators (IPIs)

- Modelled values of metrics at specific points in time along a given pathway
- Used to track progress towards LPGs
- May be LPG measures or other metric
- Either consistent with SDG indicator c an informal indicator assigned to a SD



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Glossary: Important Definitions

Storylines

- Narrative descriptions of alternative futures
- Qualitative in nature
- Do not contain strategies for achieving specific goals or outcomes

Scenarios

- Quantified descriptions of a future (often outlined by a storyline)
- Quantification in 3 stages:
  - Quantified Assumptions (Input)
  - Quantified Relationships (Modelling)
  - Quantified Outcomes (Output)

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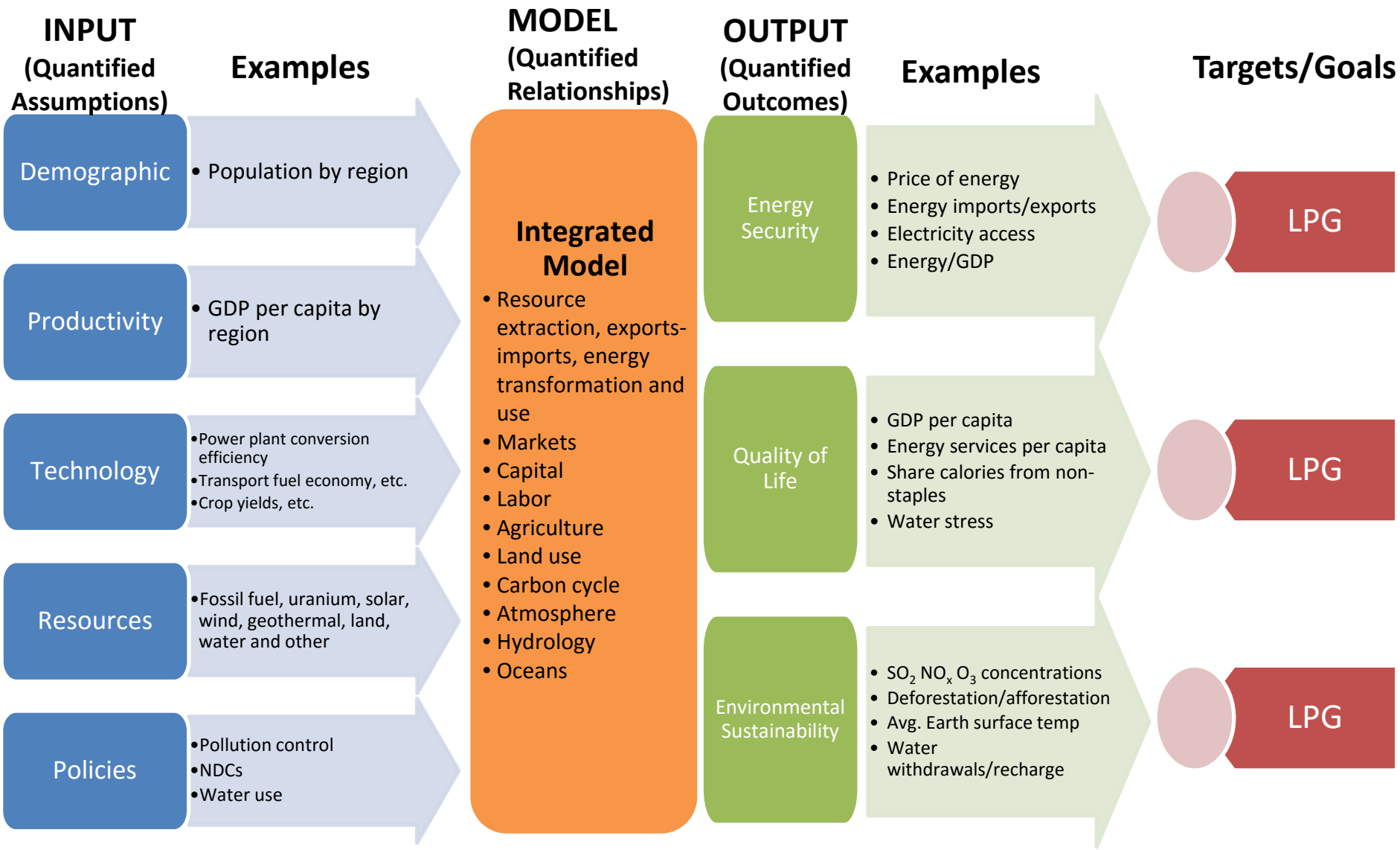
Model Overview and Definition Summary



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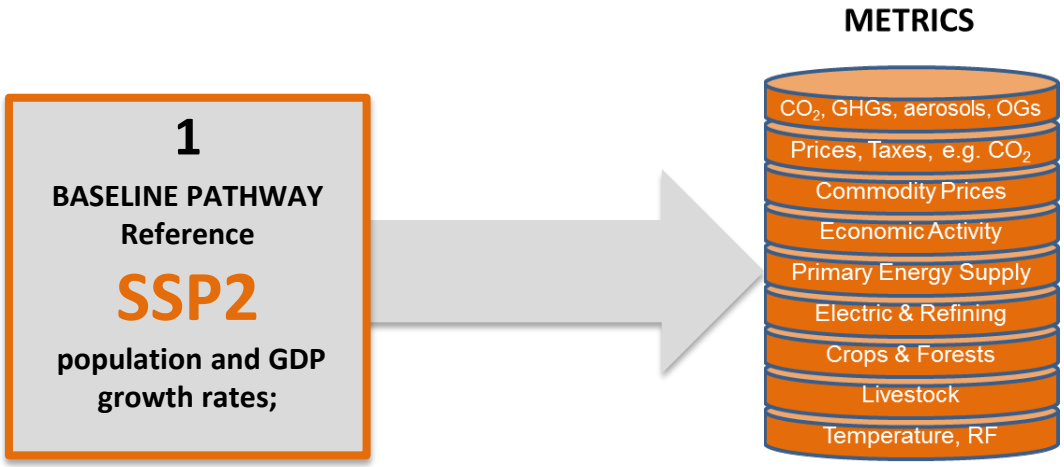
Modelling Approach: Start

Reference Scenario

- Contains baseline assumptions from historical trends and current policies
- Reference Scenario for this project is SSP2 (Shared-Socio-Economic-Pathway) – termed “the middle of the road”

Modelling starts with the reference scenario (SSP2)



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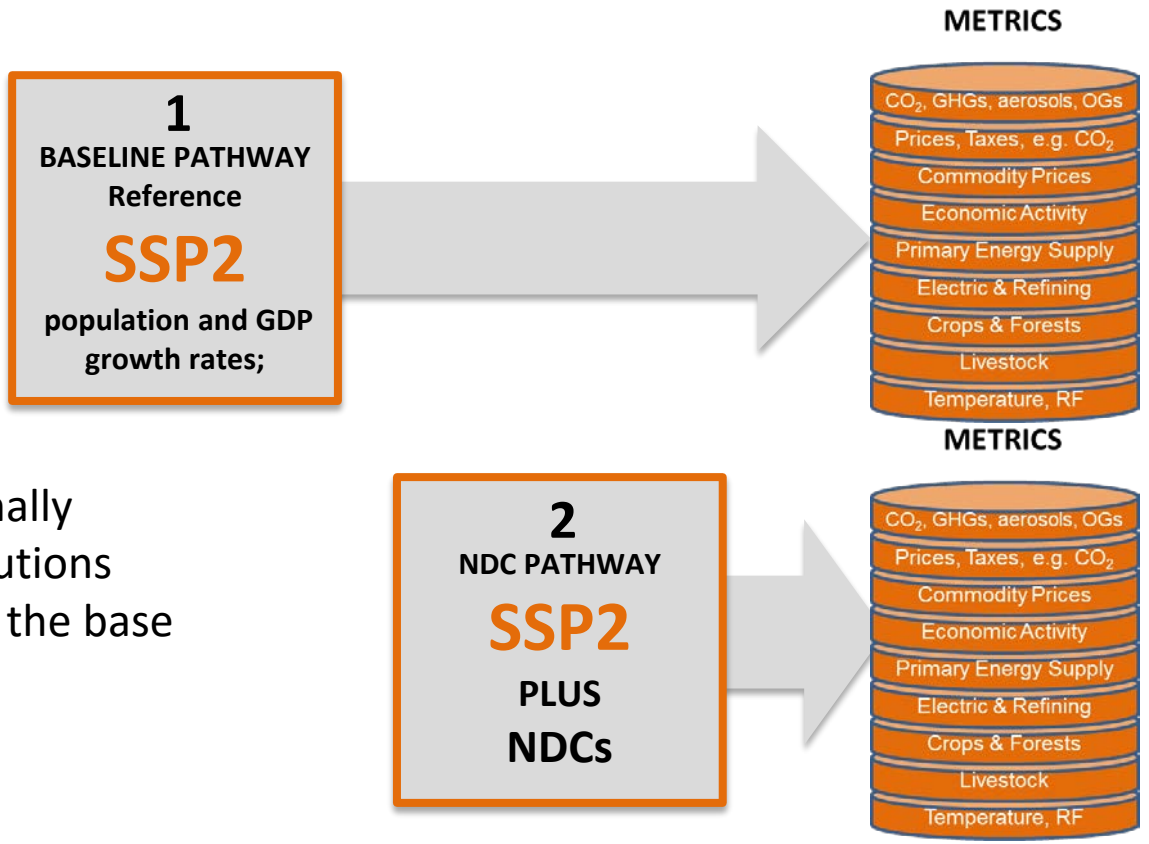
Modelling Approach: Next Step



- In a next step Nationally Determined Contributions (NDCs) are added to the base scenario

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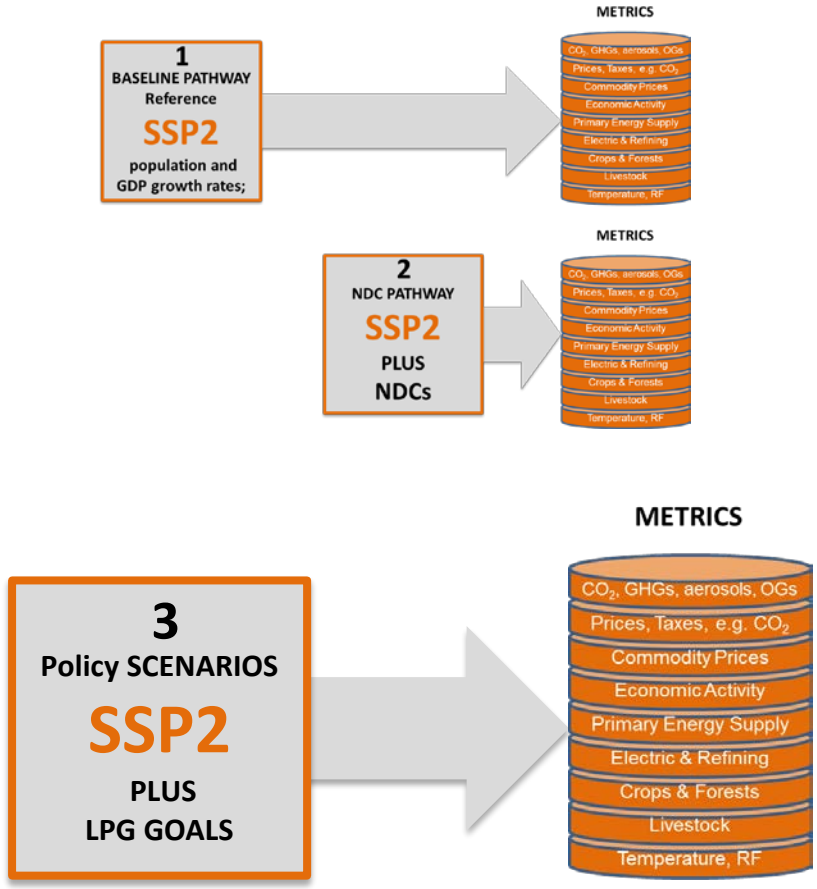
Modelling Approach: Policy Scenarios

In a third step policy scenarios are added

Policy Scenario

- 2 types of policy scenarios
  - A **<u>policy proposal</u>** is given (i.e. a subsidy for technologies x,y,z) and modelled on top of the base scenario
  - Or an **<u>LPG</u>** can be analyzed. For this the target range/value of the LPG is inserted into the model as a constraint



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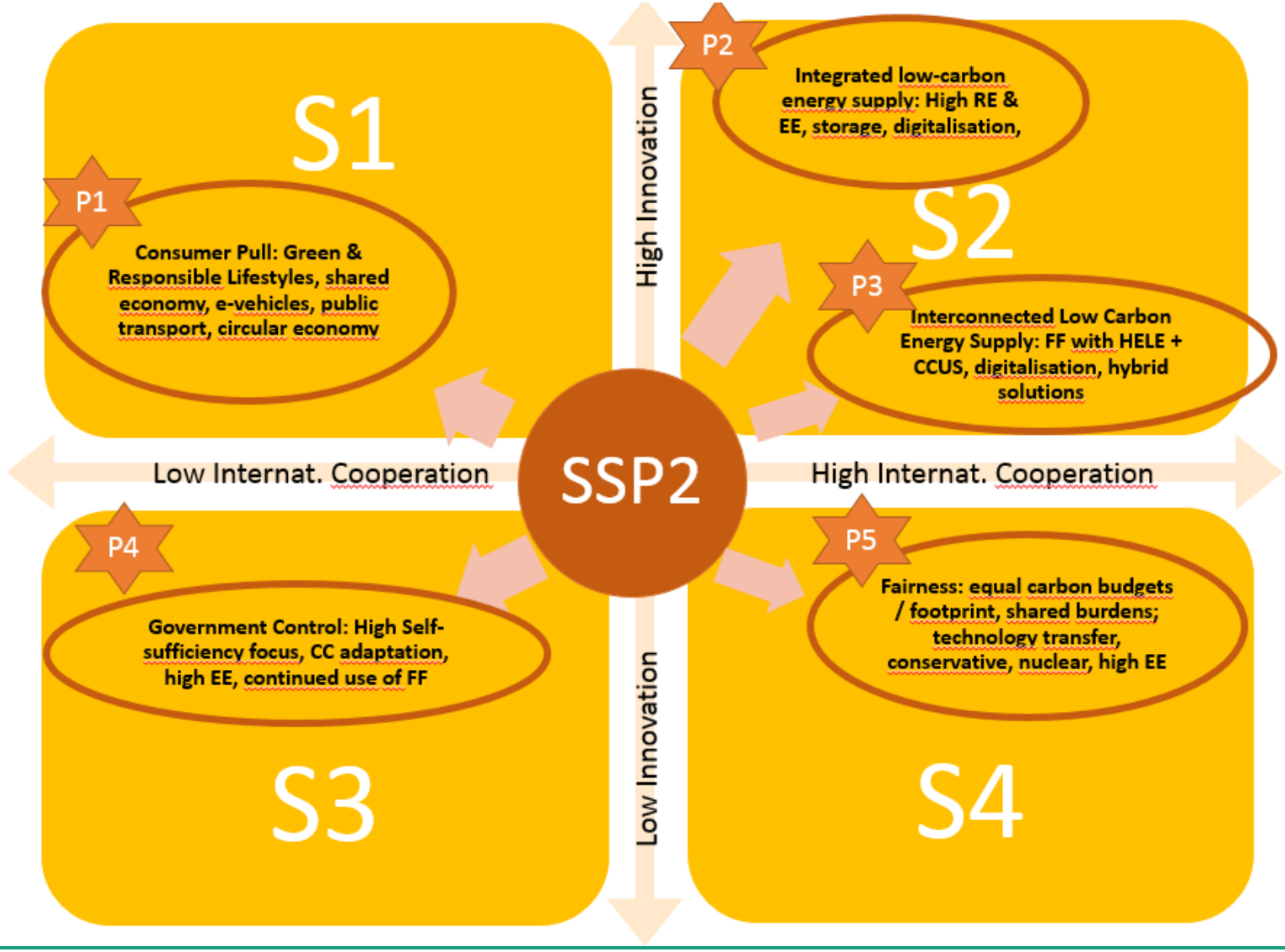
Example Policy Scenarios



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