German Economic Team

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TECHNICAL NOTE KOSOVO

NECP Modelling Framework and Data Requirements

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Structure

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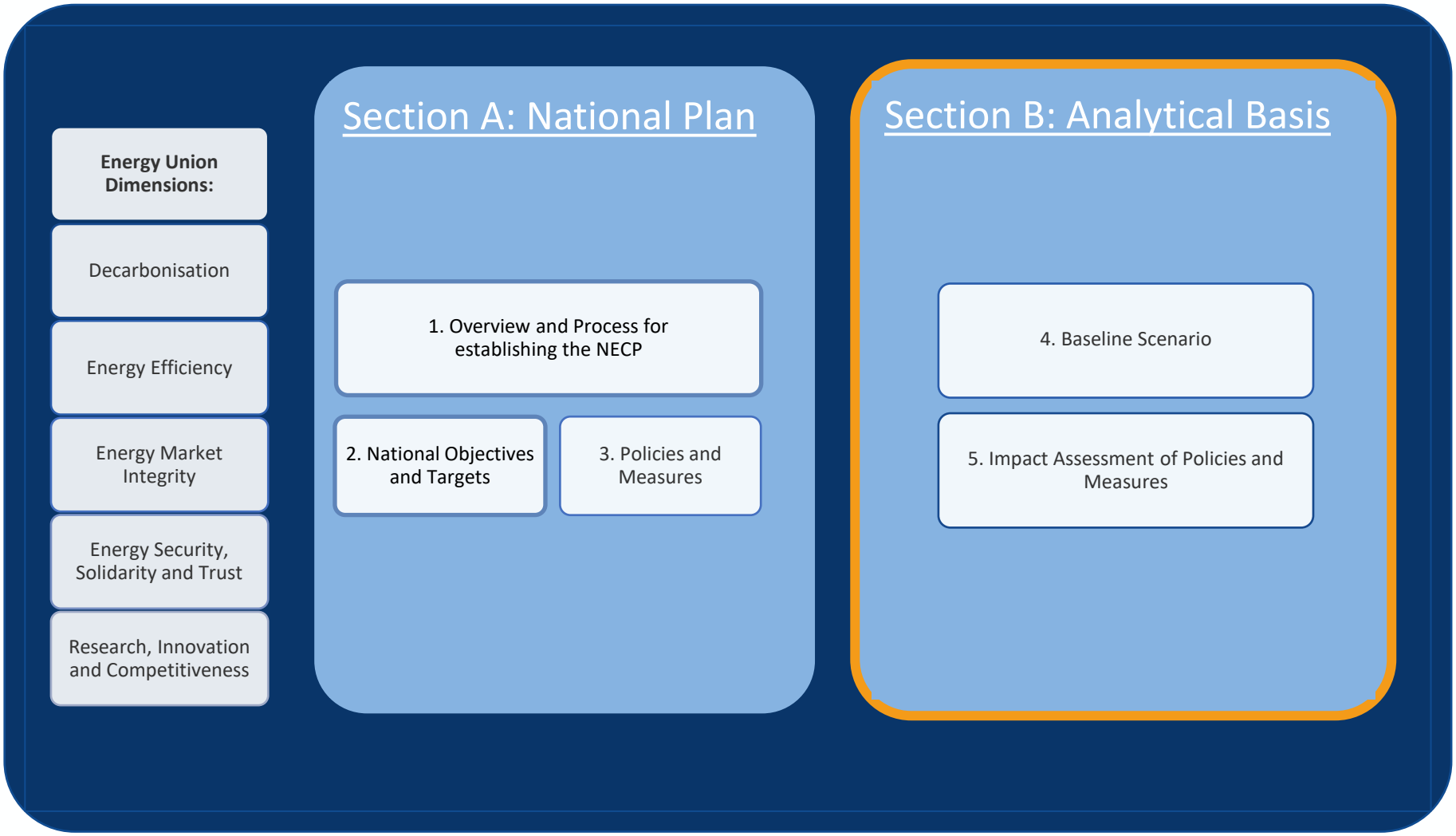
    - » Transformation Sector (Electricity & District Heat)
7. Base year selection NECP

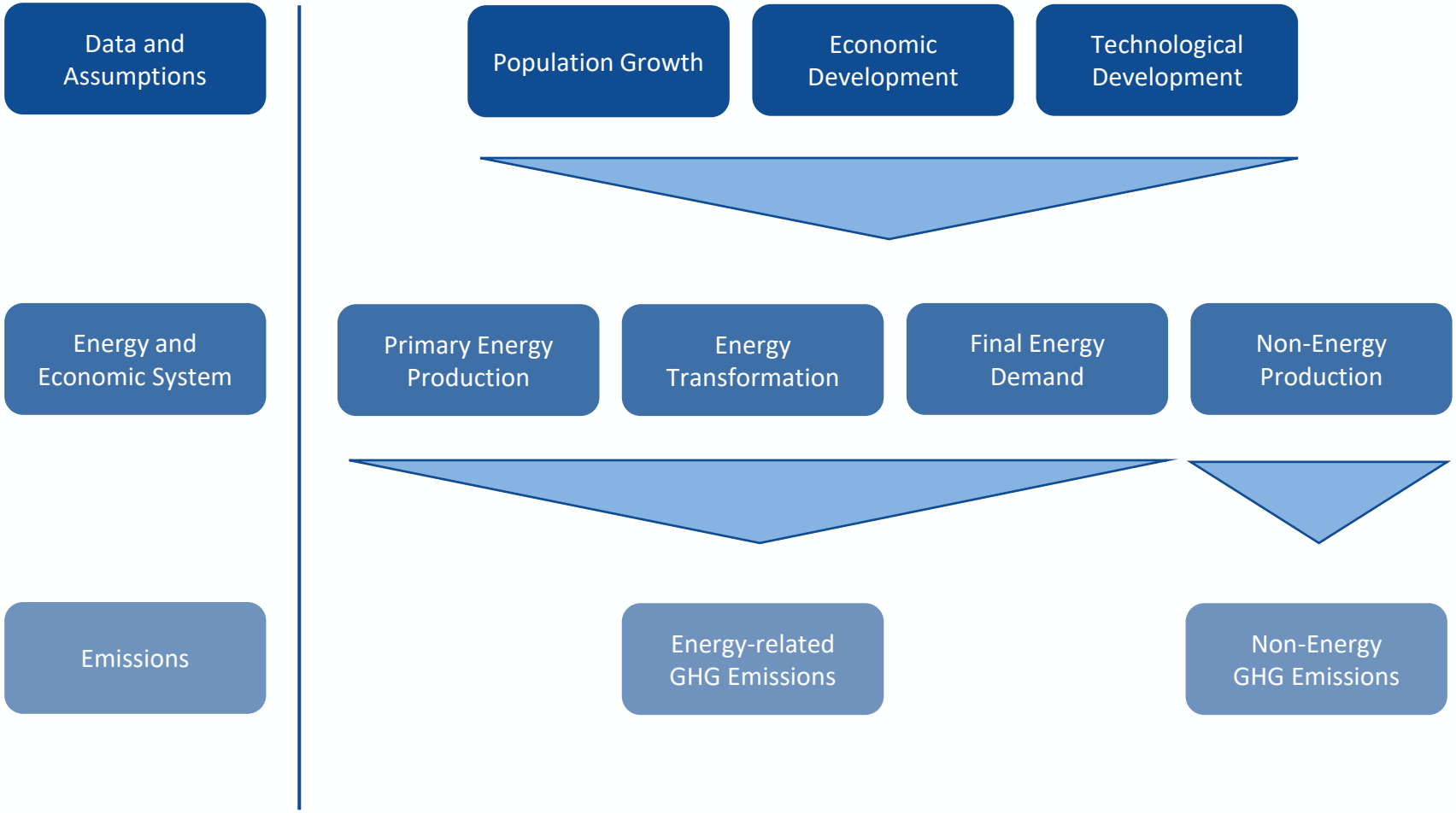
1. NECP structure and current role of GET



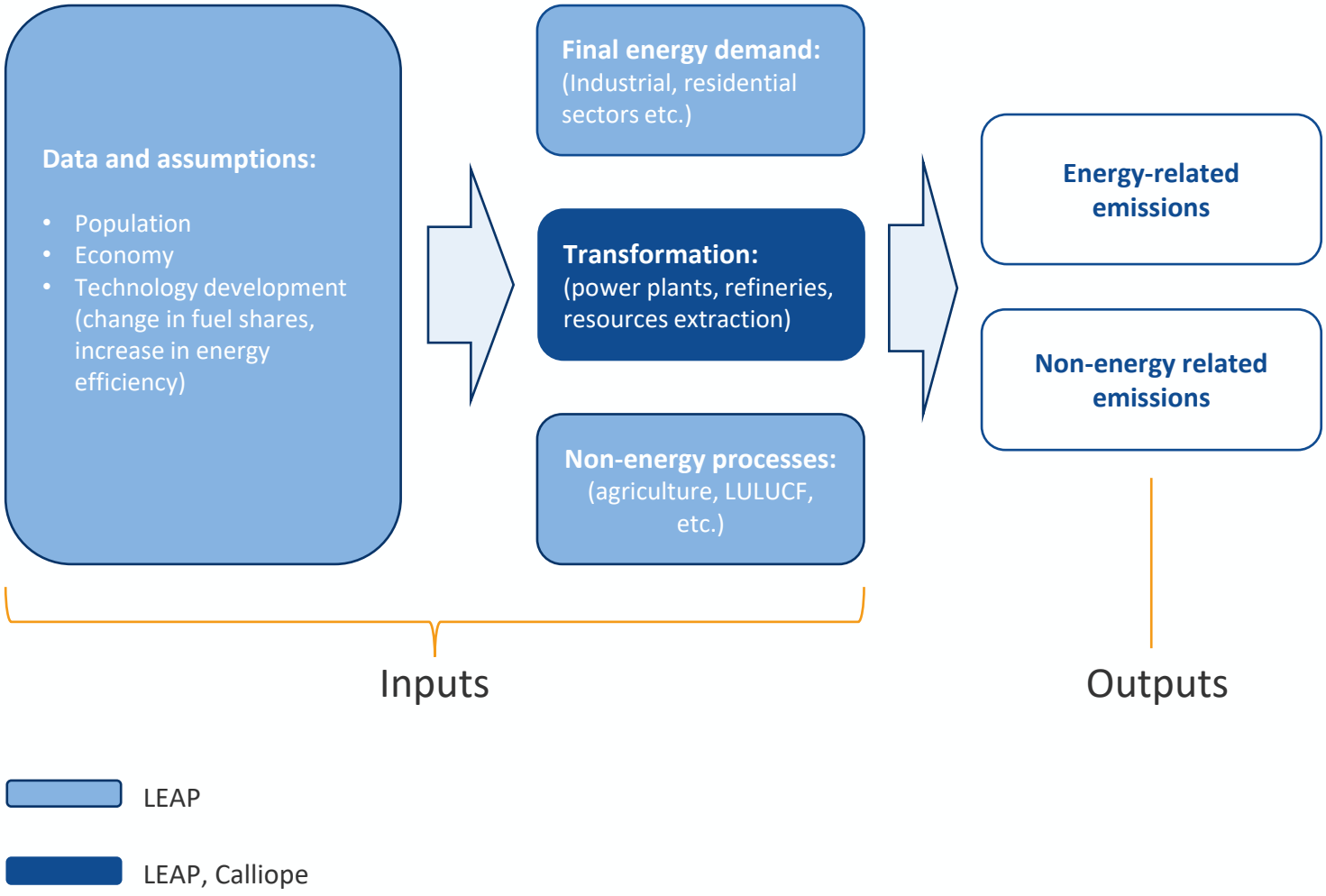
Source: own representation based on GIZ (2019)

Current scope of GET

2. NECP Modelling Approach



3. Modelling suite for Kosovo‘s NECP



4. Baseline Scenario

- Depicts current situation and projections with existing policies and measures
- A proper calibration of the baseline scenario requires extrapolating and quantifying the impact of policy measures that are in force in the country
- Where policy measures do not provide quantitative estimates on particular targets, assumptions should be taken to represent in the best possible ways the trajectory of the baseline scenario
- After approval, the Energy Strategy will become Baseline Scenario (Approval expected in coming months)
- The final energy consumption of the policy scenario should be lower than the one of the baseline scenario

5. Data Sources for NECP Model

Key Data and Assumptions

- KAS (GDP, GVA, etc.)
- EUROSTAT

Demand

- EUROSTAT Energy Balances
- MAED (All sectors especially transport)
- BRS (Residential, Services)
- KOS Ministries (additional data and key assumptions)

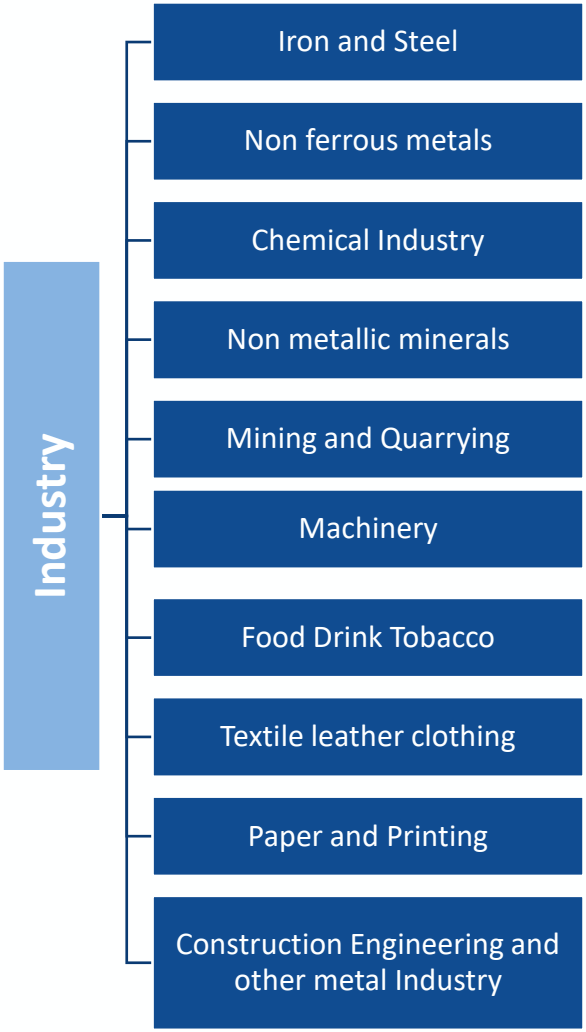
Transformation

- KOSTT
- Energy Community
- Draft Energy Strategy

Emissions

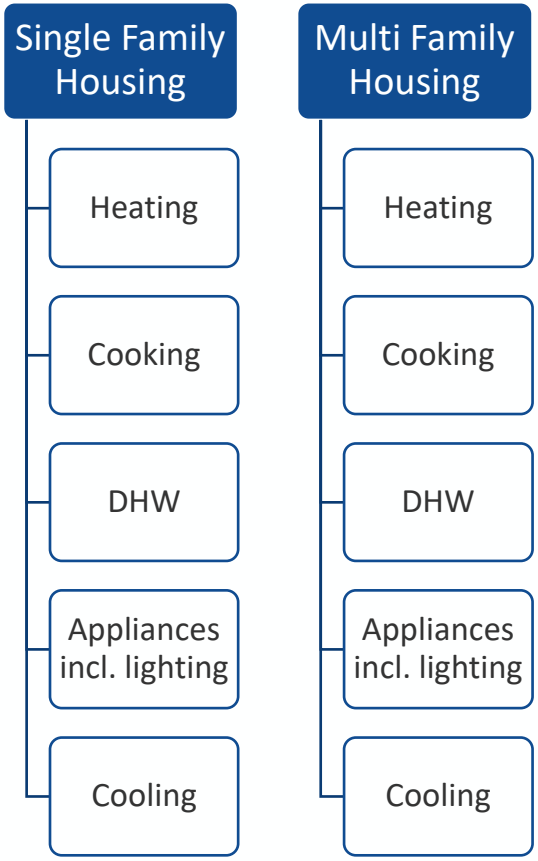
- UNFCCC (standard emission factors)
- Ministerial meeting, December 15 (emissions target)

6.1. Industrial Sector: Structure & Data Gaps



- Data available for activity levels (received from MoE) (Aggregation to match EUROSTAT Energy Balance needed)
- Energy consumption and fuel shares extrapolated from EB EUROSTAT
- Energy intensities calculated ex-post
- Emission factors obtained from UNFCCC
- **Information on measures within planned industry strategy affecting baseline and/or policy scenarios needed**

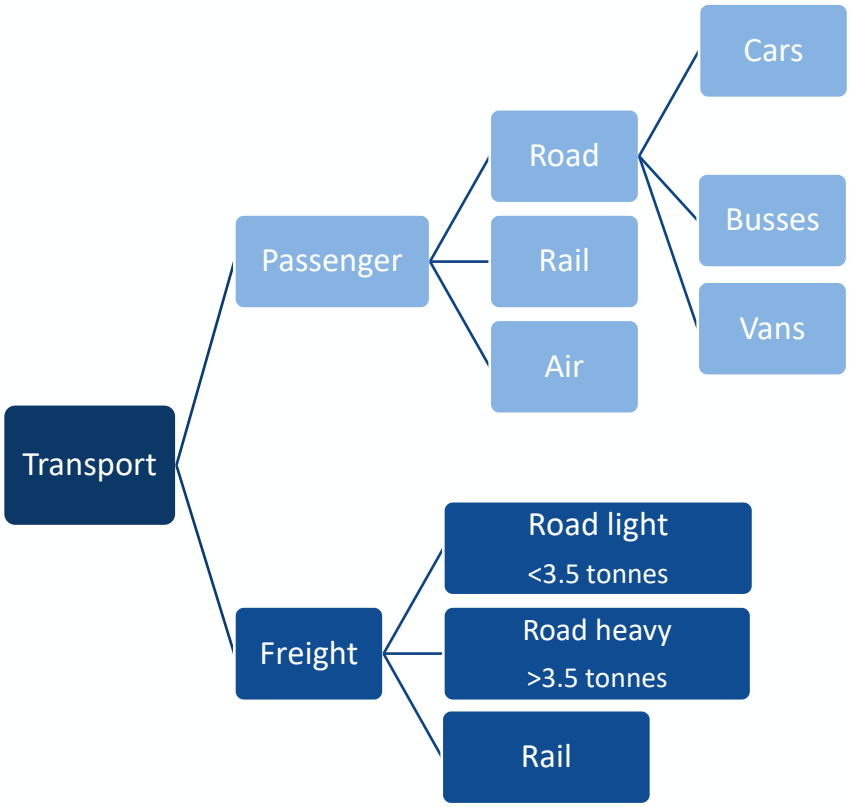
6.2. Residential Sector: Structure & Data Gaps



Required Data (by subsectors):

- Total energy consumption
- Fuel shares
- Energy efficiency

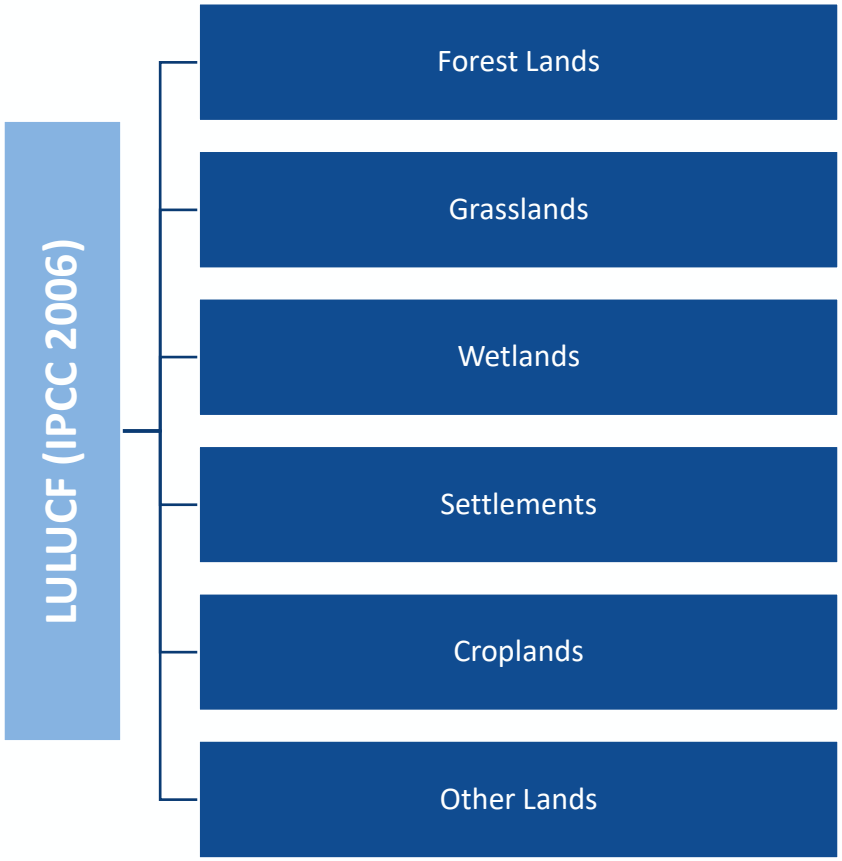
6.3. Transport Sector: Structure & Data Gaps



Required Data (all subsectors):

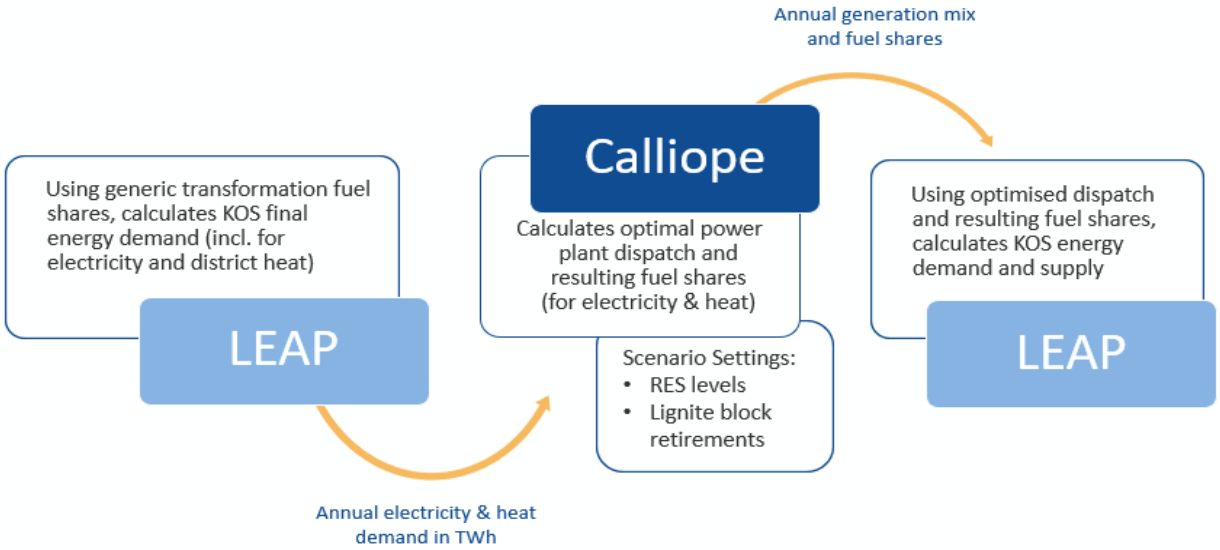
- Exp. growth rates of activity levels for passenger and freight transport by specific transport mode. (Passenger-km p.p., Tonne-km p.p.)
- Projected change of fuel shares for every transport mode by 2030.
- MAED data potentially needs to be updated (base year is 2017) MAED builds on administrative data from MESP (?).
- **Policies/Measures from Transport Strategy to calibrate Baseline and/or Policy Scenarios**

6.4. Agriculture & LULUCF Sectors: Structure & Data Gaps



- Data for Baseline Scenario: E3 Modelling, EC Study.
- **Policy scenarios require specific data on policy measures and targets for the Agriculture & LULUCF Sectors.**

6.5. Transformation Sector: Modelling Framework and Data Needs



The LEAP-Calliope Link

Required data inputs (lignite units):

- Decommissioning: 1 or 2 units?
- Efficiency (retrofits: eff. change?)
- Minimum load
- Availability factors

Required data inputs (district heat):

- Heat demand/regime (DH systems)
- Lignite cogen.: th. eff., power/heat ratio
- Fuel/eff./min. load other heat plants

7. Base year selection NECP (2025-2030)

- All projections are to be performed on the basis of constant prices (2016 prices used as base year) – EnC Regulation 2018-1999
- The base year should be as up-to-date as possible and consistent for all data entries.
- The current data sources should ideally be updated:

MAED	KAS	EUROSTAT	Globio/G4M	BRS
2017	2020	2020	2015-2018	2017-2020

- Update data where possible (by iterating with Ministries and KAS)
- Where not possible, update base year using assumptions and/or interpolation according to historical trends.

About the German Economic Team

Financed by the Federal Ministry for Economic Affairs and Climate Action, the German Economic Team (GET) advises the governments of Ukraine, Belarus*, Moldova, Kosovo, Armenia, Georgia and Uzbekistan on economic policy matters. Berlin Economics has been commissioned with the implementation of the consultancy.

**Advisory activities in Belarus are currently suspended.*

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