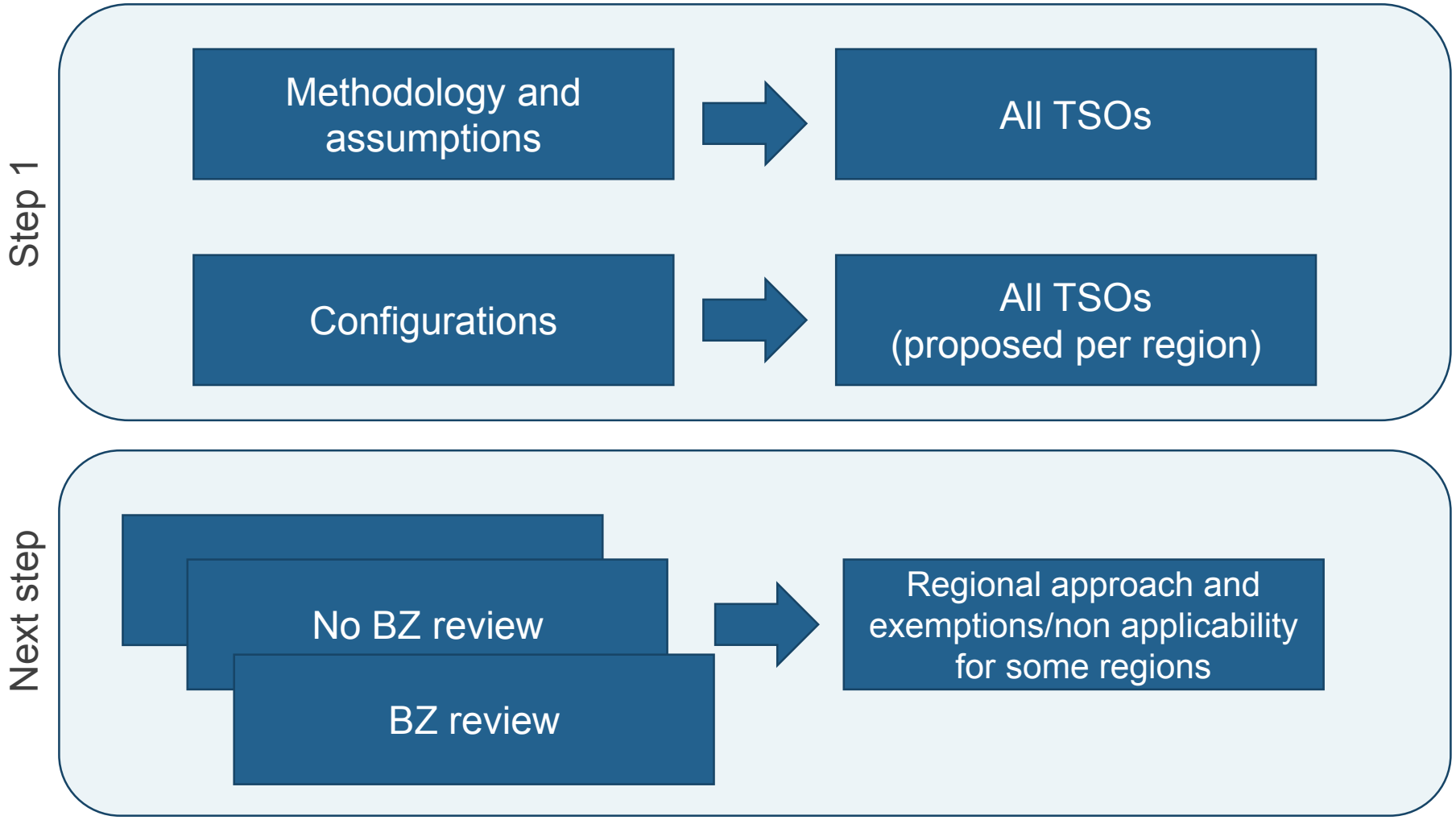
# Update on the on going work related to Bidding Zones

**MESC 02/07/2019**

# 1. The concept

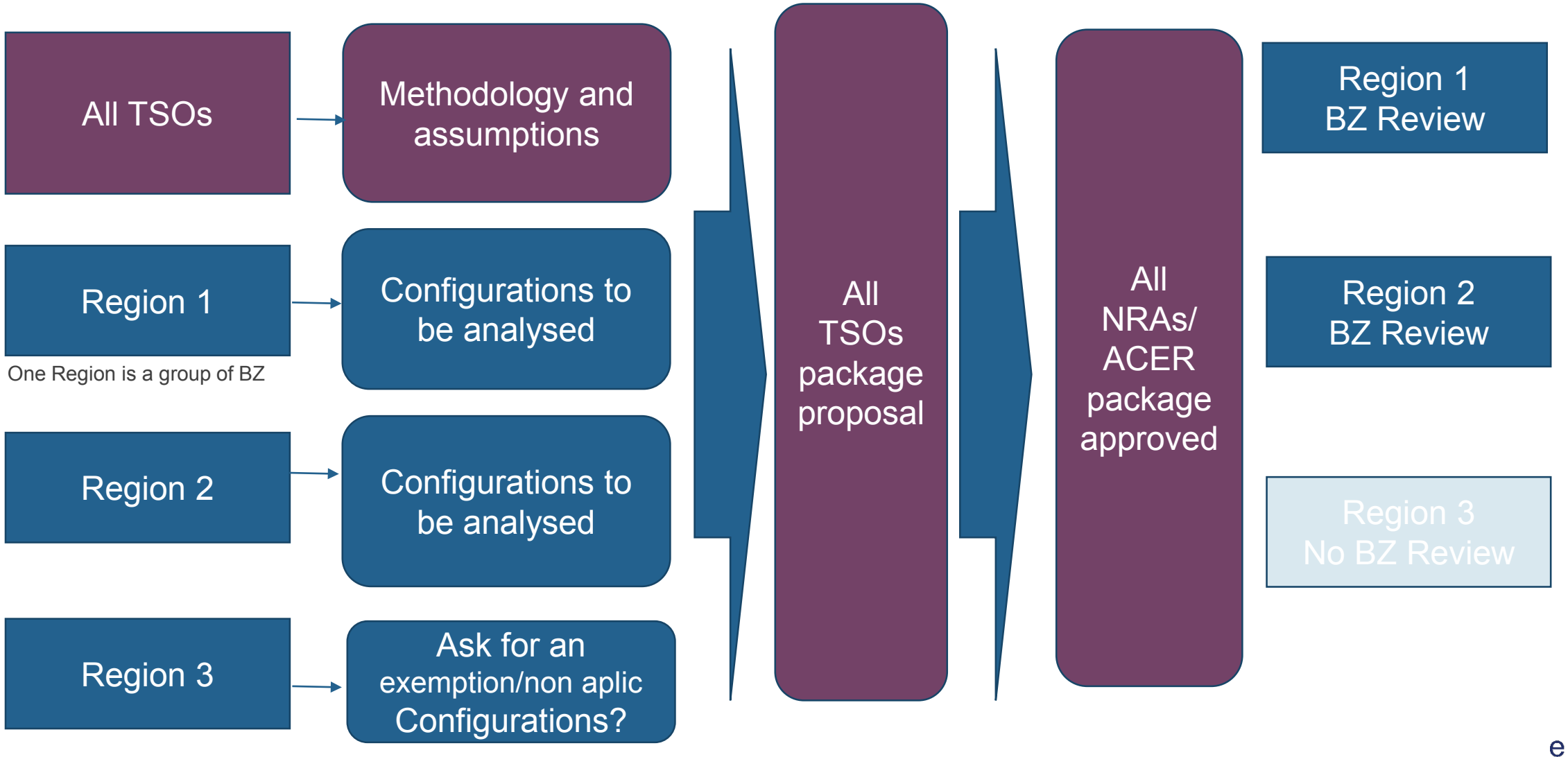
- **All TSOs for the methodology and assumptions and regional approach for configurations and reviews**

# Overall concept to be approved by NRAs: All TSOs for the methodology and regional approach for configurations and reviews




One package to be delivered by October (3M after EIF of CEP)

# Overall concept to be approved by NRAs: All TSOs for the methodology and regional approach for configurations and reviews



# Concrete proposal by TSOs for Bidding Zone Review Regions* Amended

| Bidding Zone Review Region | Bidding zones included | Deliver configurations additional configurations in addition to status quo? |
|---|---|---|
| **Central Europe** | FR, BE, NL, DE/LU, AT, CZ, PL, SK, HU, SI, HR, RO<br>DK1, CH, IT1 | Yes* |
| **Nordic** | FI, SE1, SE2, SE3, SE4, NO1, NO2, NO3, NO4, NO5, DK2 | Yes* |
| **GR-IT** | IT2, IT3, IT4, IT5, IT6, | New configuration being implemented in 2019 and 2021 |
| **Iberian Peninsula** | ES, PT | Status quo configuration*<br><br>Pending NRAs feedback* |
| **UK** | GB | |
| **SEE** | BG, GR | |
| **Ireland** | IE | |
| **Baltic** | EE, LV, LT | |


**Working assumption to be confirmed by NRAs*

# All TSOs for the methodology but allowing for Regional specificities… Why?

| | |
|---|---|
| Feasibility of the model | •Regional approach reduces model complexity<br>•pan-EU model is infeasible in the timeframe of the study<br>•Need to ensure feasible simulation environments and short simulation times (providing the possibility to enlarge the set of configurations/scenarios evaluated in the assessment);<br>•In some countries, national regulations regard certain data as confidential and do not allow sharing of this data |
| Consider technical Regional specificities | •Different capacity calculation and allocation methodologies (FB or NTC for different regions)<br>•Radial or meshed grid: In "radial" structure of the grid, relevant technical constraints shall be properly incorporated and evaluated in the simulation environment. This could endanger the feasibility/timing of a European scale simulation (where, typically, such constraints can be neglected thanks to the highly meshed degree of the network structure). |
| Reduce governance complexity | •By reducing the number of parties involved |
| Common methodology with TYNDP data, but focused review | •Which may allow for exemptions of some regions… |

# 3. Configuration selection and criteria

# General approach for determining configurations

- A **common general guidance** on configurations for investigation will be developed by all TSOs.

- **Criteria** on how to determine the configurations for each of the following 3 options will be proposed for:
  - Expert-based configurations
  - Model-based configurations
  - Nodal configuration

- The TSOs of the regional BZR will follow these guidance and criteria when proposing BZ configurations, assessing the different options and **choosing the one(s) that best fit their region/country**

# General guidelines for regions regarding configurations

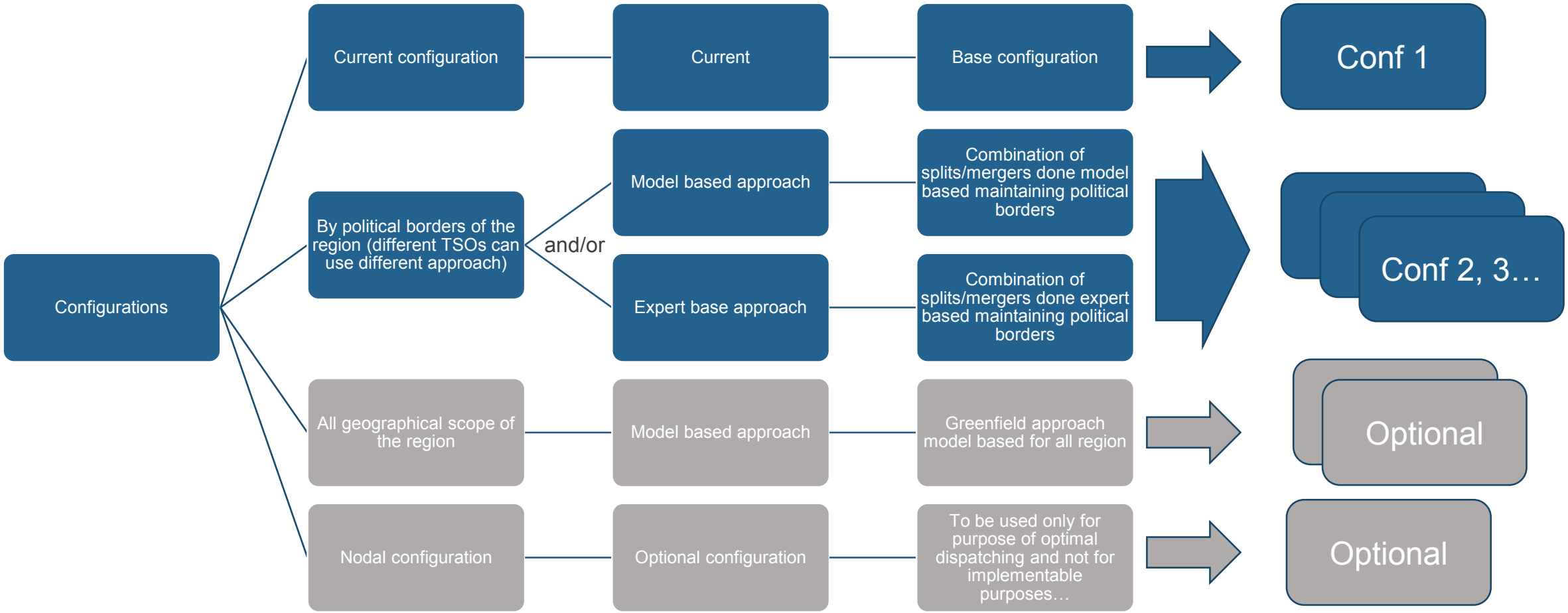
**The current BZ configuration shall be used as the benchmark**

- The BZR should investigate whether there exists a more suitable zonal configuration than the current one
- The criteria to be investigated can only be compared between zonal configurations and not between a zonal and a nodal configuration (e.g. several indicators require assessment of real market operation data)

**The number of configurations shall be kept reasonable and limited from a computational point of view**

- What is reasonable depends inter alia on the dimension of the regions

# Catalogue of configurations to be proposed per region



# 4. Scenarios

# Time horizon: legal and proposed

## CEP: 2022 - 2024

**CEP IEM art. 14(5):** *The methodology shall be based on structural congestions which are not expected to be overcome within the following **three years**, taking due account of tangible progress on infrastructure development projects that are expected to be realised within the following **three years**.*

## CACM: 2030

**CACM:** *A bidding zone review in accordance with Article 32 shall include scenarios which take into account a range of likely infrastructure developments throughout the period of **10 years** starting from the year following the year in which the decision to launch the review was taken.*

## Proposed: 2025

**TSOs propose to use 2025 as year for the base case:**

- Aligned with TYNDP, where recent data is available and reliable, transparent and accepted by TSOs;
- New grid model creation specifically for 2022, 2023 or 2024 takes time, effort and extensive discussions;
- In 2025 Action Plans in accordance with CEP IEM art. 15 shall be implemented, therefore most precise information on infrastructure development projects shall be available;
- Decisions based on this bidding zone review likely to be implemented by 2025. 2022 would be too early as it is in the middle of the Action Plan process.
- Major grid changes expected after 2022 which would raise issues on credibility of results

# TSOs proposal on scenarios

## Modular structure with two main parts: Base + Sensitivities

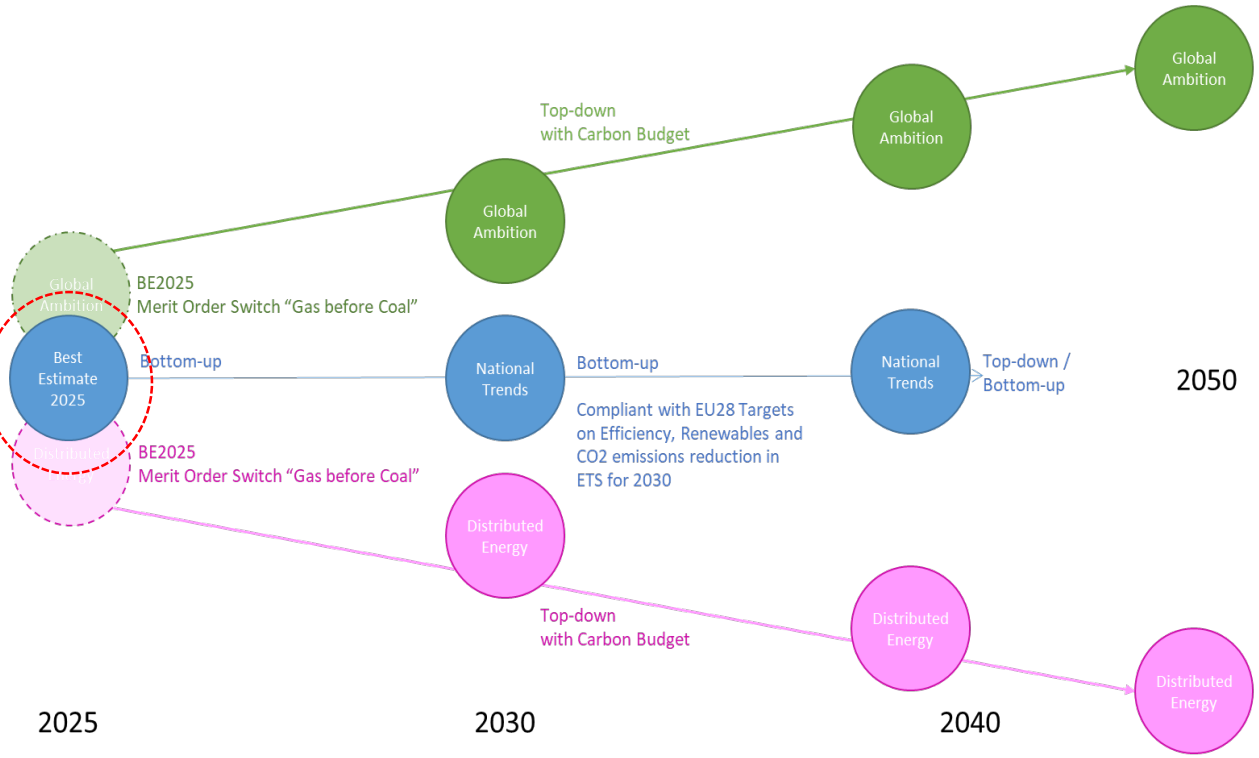
**BASE SCENARIO:**
1 mandatory scenario:
1 demand/generation dataset, 1 grid, 1 study year
2025 “national trends” scenario (TYNDP2020)

**SENSITIVITIES:**
Additional sensitivities (e.g. key projects, merit order variation) or full scenarios can be proposed and analysed by each region

There is a lot of uncertainties related to assumptions for future years like fuel and CO2 prices.
Thus, a right balance between simplifications and details for this kind of simulations is needed.

# Scenarios and Network Model: 2025 network as an option

- Scenario assumptions:
  - ***Generation/load data*** regarding power generation capacities, load profiles and external assumptions such as fuel prices, CO2 prices and climatic conditions
- Network model is built based on Scenario assumptions
- TYNDP2020 scenario for target year 2025:
  - **Bottom-Up** (National trends) for target year 2025 to be used in ENTSO-E TYNDP process
  - **Credible,** verified by experts, developed according to ENTSOE network development guidelines
  - New 2025 network model for the TYNDP 2020 CBA process is expected to be delivered <u>by December 2019</u>

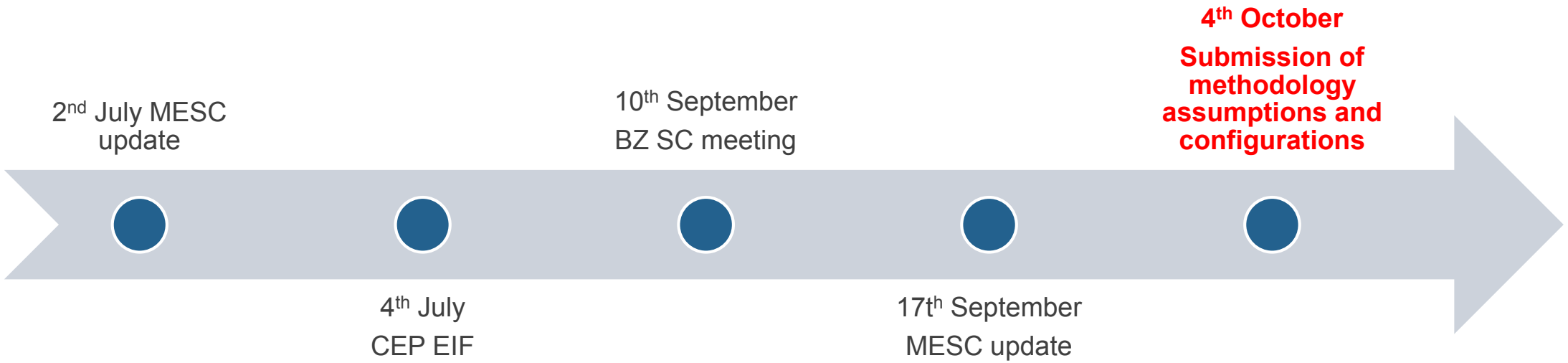


# Key argumentation for 2025 scenario

| Criterion | Argumentation for 2025 |
|---|---|
| **Credibility** | - 2025 scenario is verified, complete, transparent, and accepted by stakeholders. |
| **Availability** | - 2025 TYNDP is readily available and therefore strongly increases the chances of a successfull implementation of the bidding zone study. |
| **Robustness** | - BZ reconfiguration cannot be practically implemented before 2025, thus configurations based on 2023 bear the risk of being outdated when implemented due to new grid investments<br>- Configurations based on 2023 are not robust to the national action plans implementation, planned for 2025<br>- 70% min-RAM regulation will have to be attained on end 2025. A BZ reconfiguration with 70% min-RAM for 2023 would not be in line with the actual implementation year |
| **Consistency** | - The alternative of a 2023 grid with 2025 generation and load data bears consistency risks. Data are consistent only when the full TYNDP process for the target year is followed.<br>- Risks in terms of acceptability of results in case input data are not consistent and properly accepted by stakeholders in advance |

# 5. Next steps

# Timeline


2nd July MESC update
4th July CEP EIF
10th September BZ SC meeting
17th September MESC update
4th October
Submission of methodology assumptions and configurations