The Horizontal Electricity System Think Tank

Agenda The Horizontal Electricity System Think Tank

1. **Welcome and agenda “The Horizontal Electricity System Think Tank” co-creating the road towards net zero**
2. **Introduction – Frédéric Dunon – Deputy CEO Elia Transmission**
3. **Think Tank**
   a. Rules of Procedure
   b. Membership
   c. Appointment independent Co-chair
4. **EV BELGIUM – Toekomstvisie en uitdagingen (incl. barrières) i.v.m. *elektromobility***
5. **ELIA – System Blueprint studie (studie over de mogelijke configuraties van het horizontale elektriciteitssysteem op de lange termijn)**
6. **ELIA – Supply chain disruption in the context of the energy transition**
7. **Feedback & agenda 19/12/2023**

The Horizontal Electricity System Think Tank

Introduction

Frederic Dunon, Deputy CEO

Vlaanderen rondt kaap van 2,5 miljoen digitale meters

Une Tesla en passe d'être le modèle préféré des Belges en 2023

SNELLADERS MAAL DRIE IN EEN JAAR TIJD

België komt bij koplopers in laadpalen

La guerre des prix dans le véhicule électrique donne des maux de tête aux constructeurs européens

La guerre des prix laisse l'industrie automobile européenne dans une position compliquée, alors que les besoins en financement nécessitent de beaux volumes de vente de véhicules électriques.

Compteurs communicants obligatoires en Wallonie pour fin 2029

Groeipijnen teisteren windmolenbouwers

ENERGIE De Europese windturbinebouwer Siemens Gamesa zinkt dieper weg in de rode cijfers. Terwijl de vraag naar windmolens stijgt, zien de makers ervan zich geconfronteerd met gigantische uitdagingen.

‘Het is vijf voor twaalf voor de chemie’

De chemische sector in Duitsland bloedt. De hoge energieprijzen zijn een veelvoud van wat de Amerikaanse en Chinese concurrenten moeten betalen. ‘Ik vrees dat zeker 20 procent van onze energie-intensieve chemieproductie zal verdwijnen’, zegt de ceo van een industriepark met veel chemische bedrijven.

Belgen verliezen 300 miljard aan koopkracht door hoge inflatie

Energietransitie vuurt ‘ongeziene’ vraag naar kritieke mineralen aan

ENERGIE De markt voor grondstoffen die cruciaal zijn in de productie van ‘groene’ technologieën is in vijf jaar tijd verdubbeld, leert een analyse van het Internationaal Energieagentschap.

‘De energietransitie is een materialentransitie geworden’

Ambitious european road to decarbonisation will lead to 50% electrification increase in Belgium by 2032

2021

Fit for 55

2022

Commissione europea

REPowerEU

2023

EU NET-ZERO INDUSTRY ACT

Energy and climate targets

Decarbonisation

55% *less GHG emissions by 2030* compared to 1990 levels

Energy efficiency

*From 9% to **13%** reduction of energy consumption by 2030*

Renewable energy

*From 40% to **45%** share of energy from renewable sources by 2030*

Offshore Wind

111GW *by 2030 and towards 317GW in 2050 (12GW in 2020)*

Ambitious electrification …

Which will require still unidentified green electron sources

2032

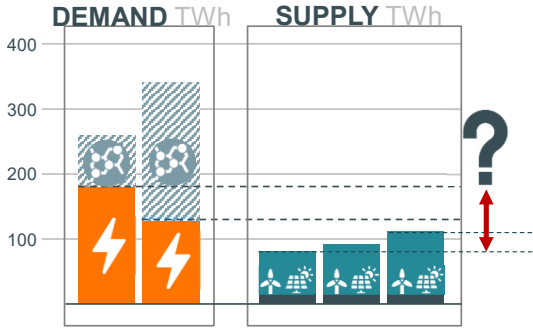
+10 TWh

+20 TWh

+10 TWh

READY FOR **50%** INCREASE **BY 2032**

2050



For the next 10 years priorities are clear…

… and challenging implementation is ahead …

… beyond this horizon a lot still needs to be shaped

130

110

90

120 TWh

10 year plan

2020 2025 2030 2032 2035 2040

FOUNDATION DEFINITION

IMPLMEMENTATION PLAN

FUTURE BUILDING

Even if current programs are the foundation of our transition, the paths to achieve the ambition will require intens interaction

FUTURE BUILDING

2050

Offshore | Onshore | Industrial | Industrial | Residential

2035

Offshore | Onshore RES | EU integration | Industrial electrification & flex | Residential electrificaiton & flex

- Energy mix/new technologies
- Supply chain constraints
- HVDC technology (…)
- North Sea Grid development
- Additional interco‘s…
- …

IMPLMEMENTATION PLAN

- Offshore bidding zone
- PEZ offshore integration
- Incompressibility
- Security of Supply
- Remove Technical & Legal barriers for flexibility
- Digitalization
- …

FOUNDATION DEFINITION

1 Deliver infrastructure on time for electrification

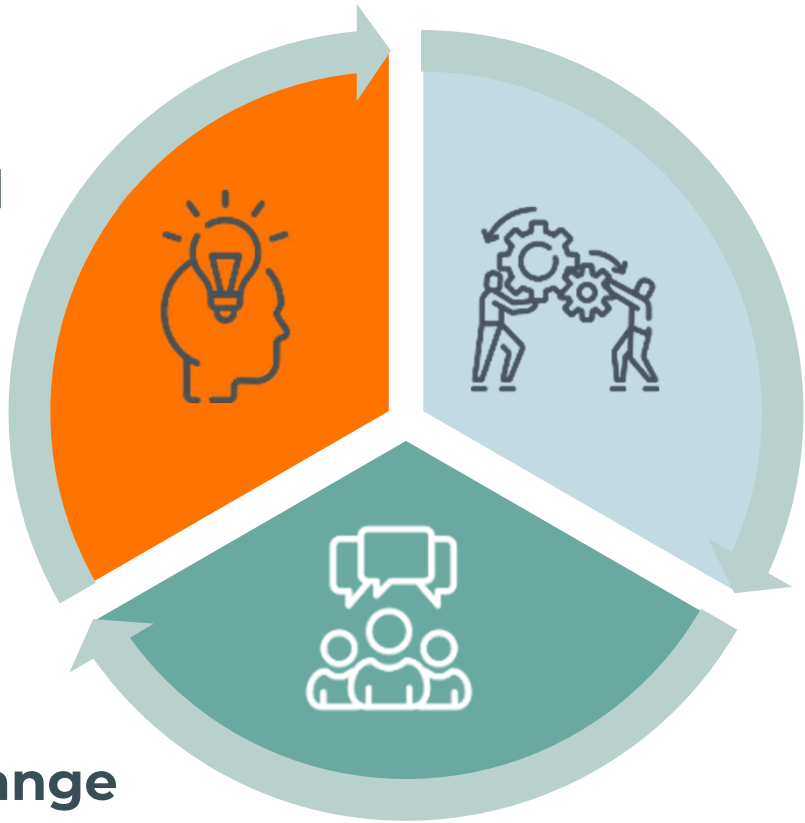
2 Strengthen Security of supply - Adequacy

3 Unlock consumer flexibility to follow variable RES

- Known programs to define future of market

Think tank: create (mutual) understanding, exchange, co-create… the future of the horizontal electricity system, in the interest of society

Anticipate



THANK YOU

The Horizontal Electricity System Think Tank

Rules of Procedure & Membership

Rules of procedure (for discussion)

- All members may propose agenda topics
- Members are encouraged to present topics themselves
- Agenda is determined by co-chairs
- 4 meetings/year – fixed upfront in agenda's – more meetings can be organized if needed
- Membership list: see following slide
- Existing members may choose their delegation (max. 3 party)
- Co-Chair may decide to welcome new members
- All presentations & MoM will be published on a dedicated page on the website
- MoM but under Chatham house rules
  - Reflection of the discussions but no reference to names or association

The horizontal Electricity System Think Tank

Appointment independent Co-chair

Independent Co-Chair (for decision)

Role description

- Independent, neutral co-chair
- Role:
  - Moderating discussions
  - Joint agenda determination with Elia Co-chair
- Appointment:
  - Elia proposes, UG members approve
- Term:
  - 2 year mandate
  - Re-appointment possible
- Remuneration:
  - No (only travel expenses, if any)

Proposal: Prof. Leonardo Meeus

Leonardo Meeus is a professor at the European University Institute. He is the Director of the Florence School of Regulation and the Loyola de Palacio Chair in the Robert Schuman Centre.

Leonardo is also part-time professor at the KU Leuven in the engineering department. He also teaches public affairs at Vlerick Business School where he used to be a partner.

Leonardo is an editor for the IEEE Transactions on Energy Markets, Policy and Regulation. He published the open access book "The Evolution of Electricity Markets in Europe", and blogs about research with impact. www.leonardomeeus.com

The Horizontal Electricity System Think Tank

EV Belgium
toekomstvisie en uitdagingen

The Belgian Association for Zero Emission Mobility

Elia

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13 September 2023

EV Belgium

1. Introduction
2. Market forecast
3. BEV's as source of flexibility
4. Important trends for the future
5. Challenges
6. Questions

contact@ev.be

1. Introduction

The voice for all actors that are active in the field of zero emission mobility

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Our Organization

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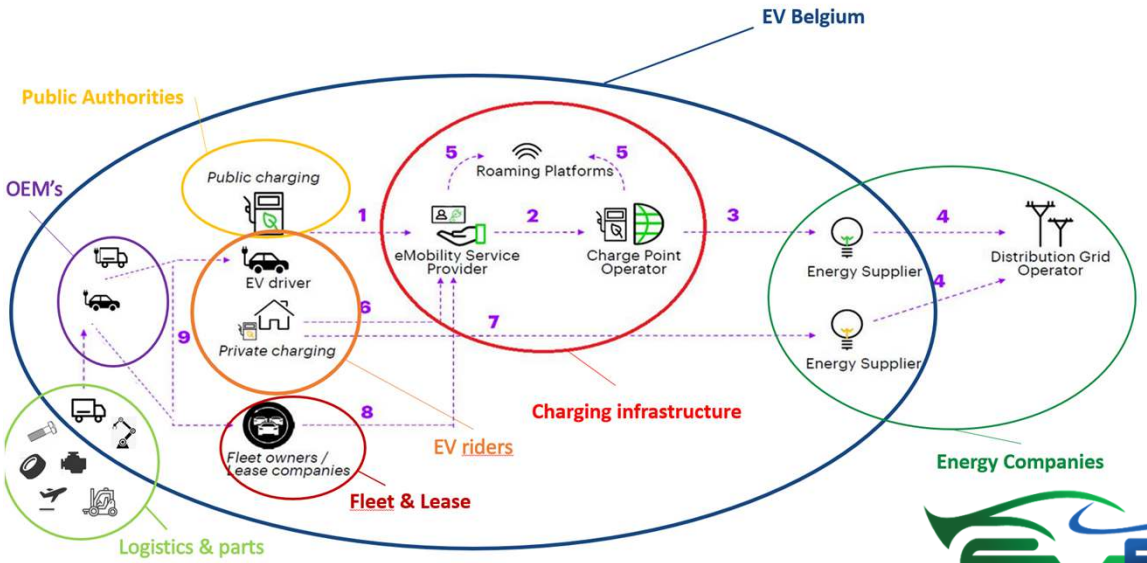

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1. **Recognise electrification as a sustainable and important solution** for obtaining the different international, EU and national sustainability goals
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E-mobility at the center of the transition in Belgium

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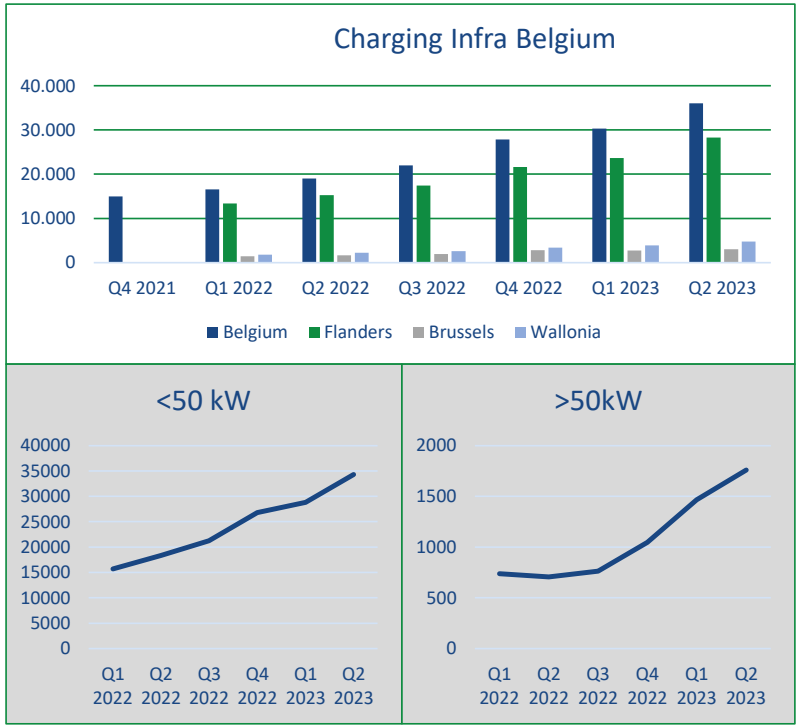
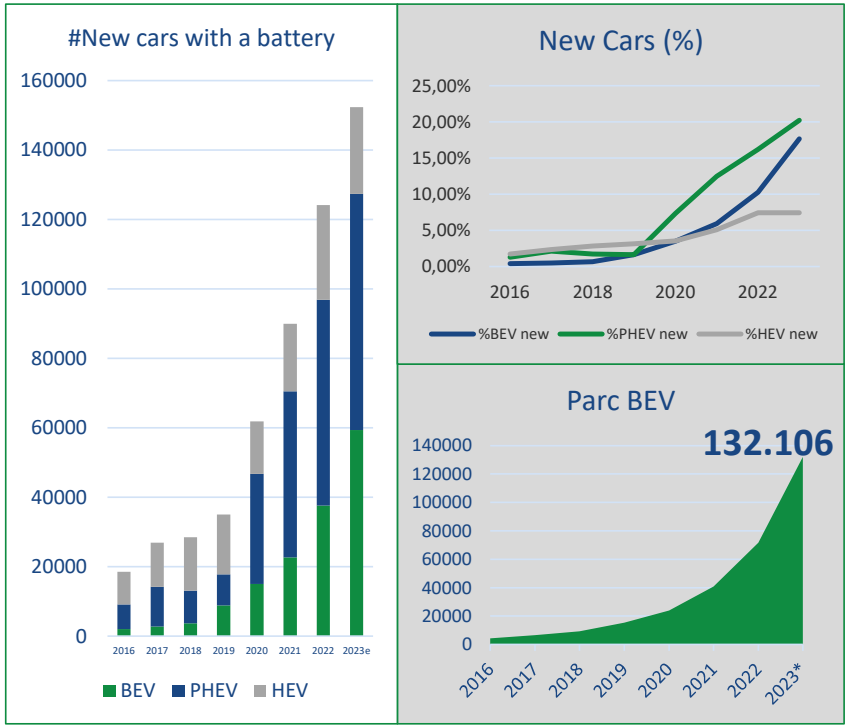
Current market

Charging Infrastructure



Vehicles (LDV)



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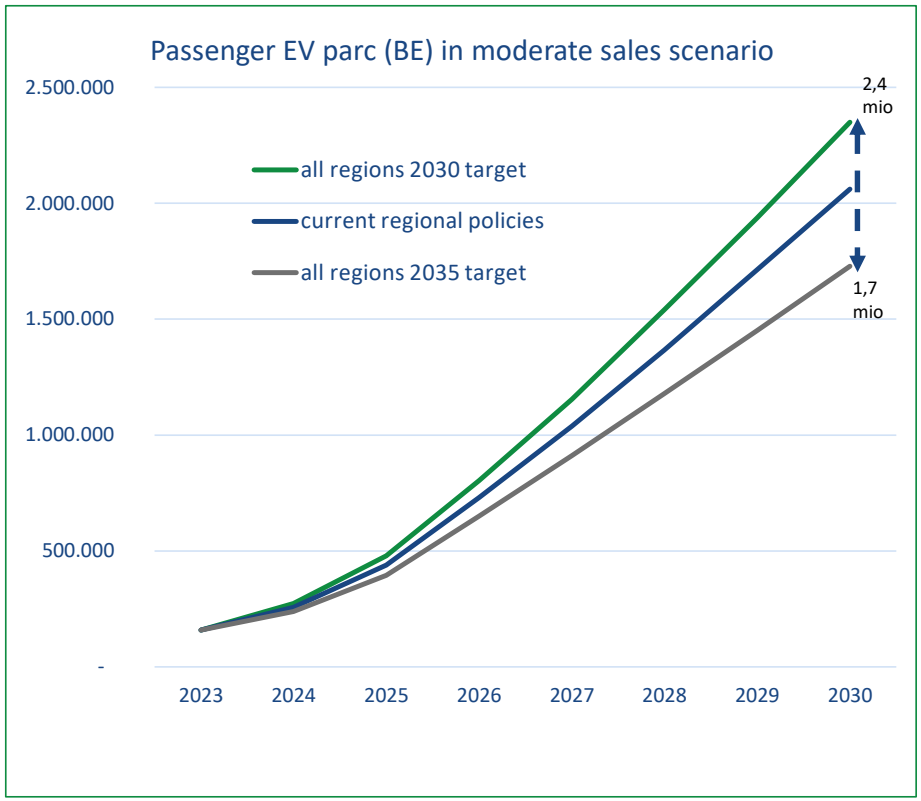
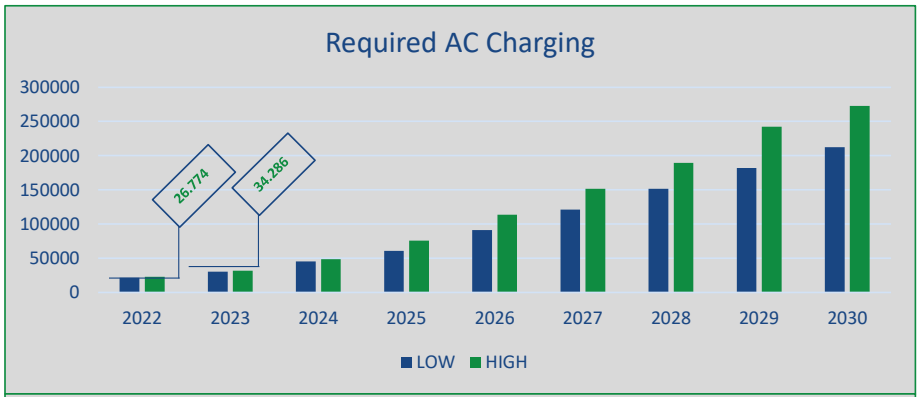
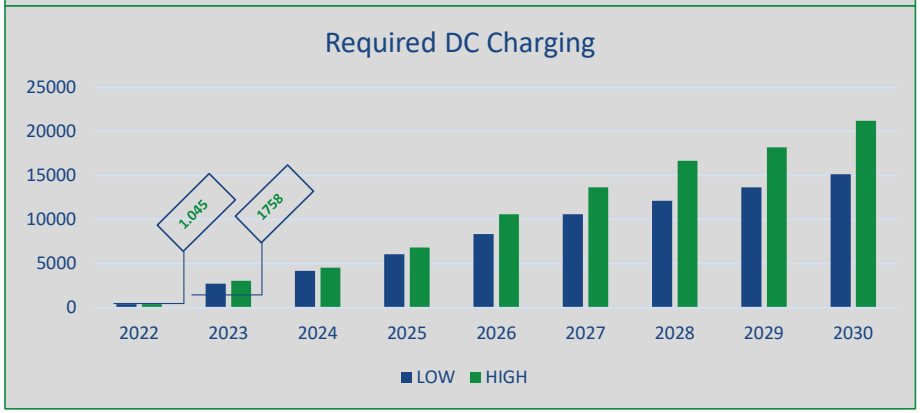
Forecast passenger cars







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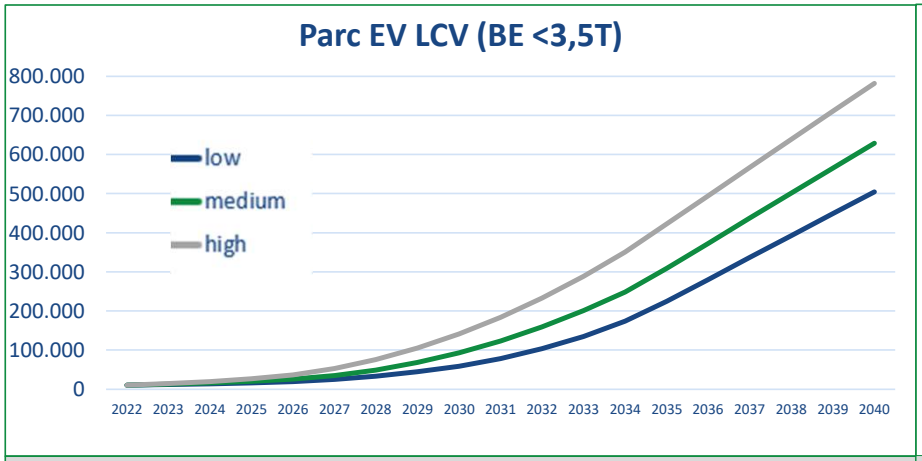
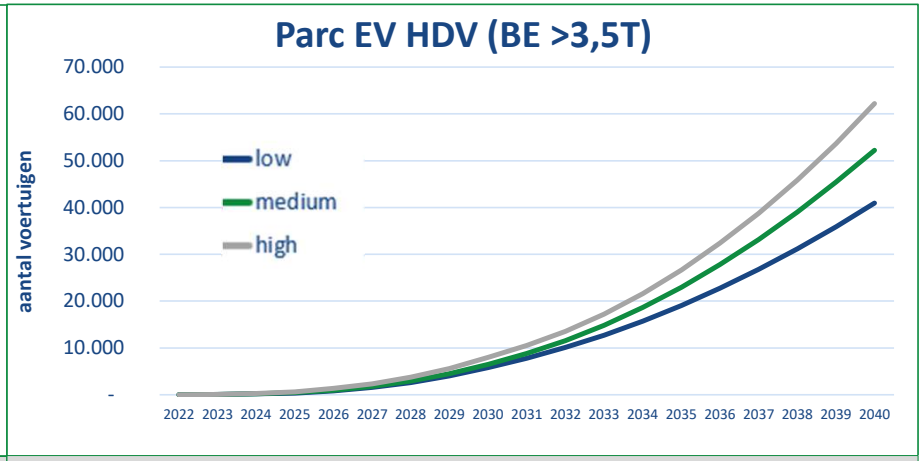
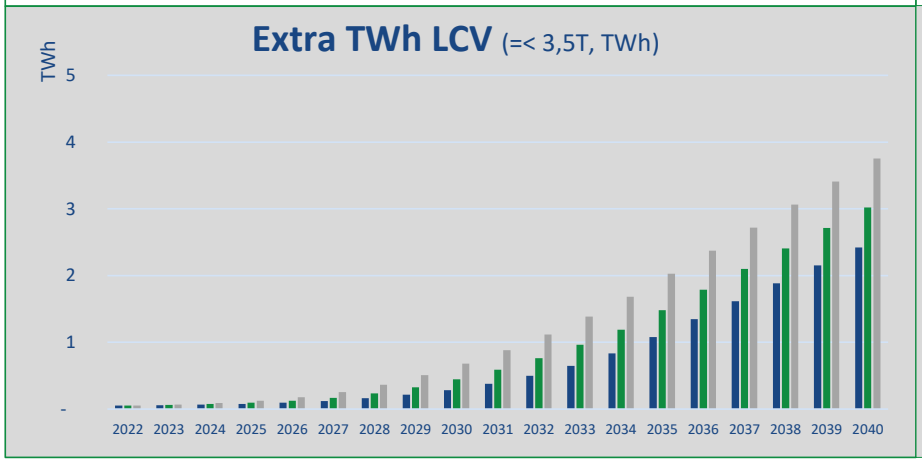
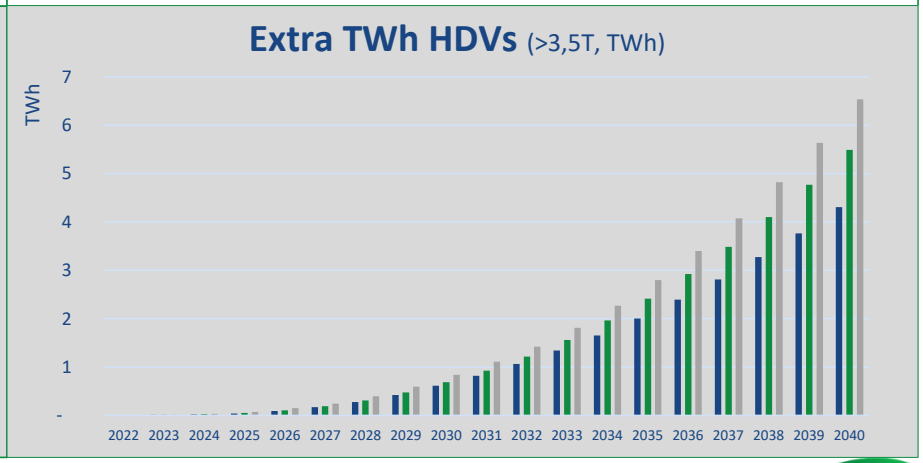
Forecast LCV & HDV









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3. BEVs as a source of flexibility

Onlocking flexibility on a large scale

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Strong & flexible grid is key

- ✓**Enabling the transition towards zero emission mobility**
- ✓**Preparation and planning for charging infrastructure**
  - **Locations & connections on low, medium and high power grid**
- ✓**Optimize capacity through market based flexibility**
  - **EVs are part of the solution in a highly intermittent energy system**

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Flexibility (a)

A. **Stimulate optimisations behind the meter**

B. **Dynamic pricing and smart tariffs (ToU)**

C. **Market/commercial flexibility as basis**

D. **Technical flexibility as emergency brake**

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Flexibility (b)

A. **CPO/MSP's want to play a role in the end-user-flex market, on top of the existing balancing market**

B. **New business model(s) for flexibility**
   - **Dynamic prices:**
     - **Day ahead**
     - **intra-day incentives** (liquidity?)
   - **Specific incentives for fast flex**

C. **Need for digital infrastructure**

D. **Smart Public Charging**

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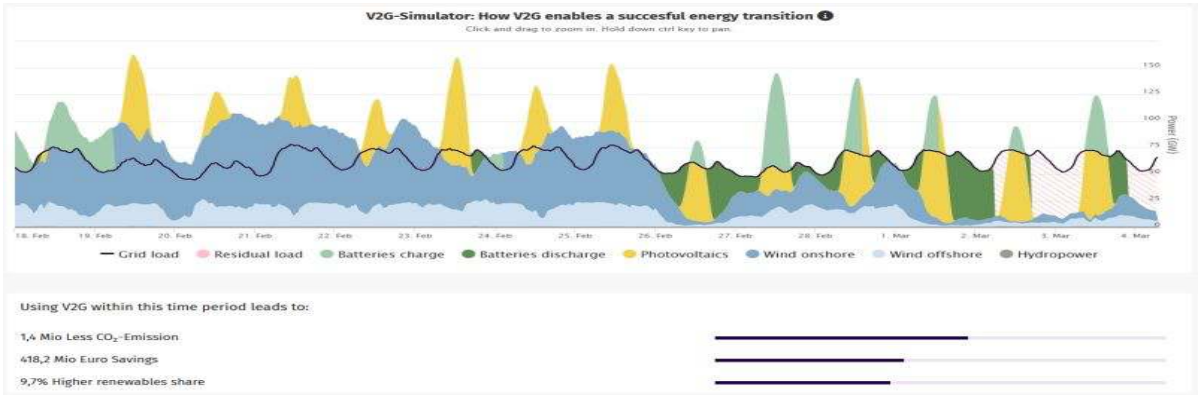

V2X charging and flexibility

- Uncertainty on impact on batteries, but market is starting to move
- Open approach from OEMs needed
- Charging technology AC & DC
  - Need for clear choices
- Provide a sufficiently interesting business model
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4. Important trends for the future

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EV driving will continue to further evolve

- Vehicles and batteries
  - Range extension with current technology
  - Low(er) cost EVs (?)
  - New battery materials: solid state (2030)
- Charging technology
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  - Price transparency (AFIR)
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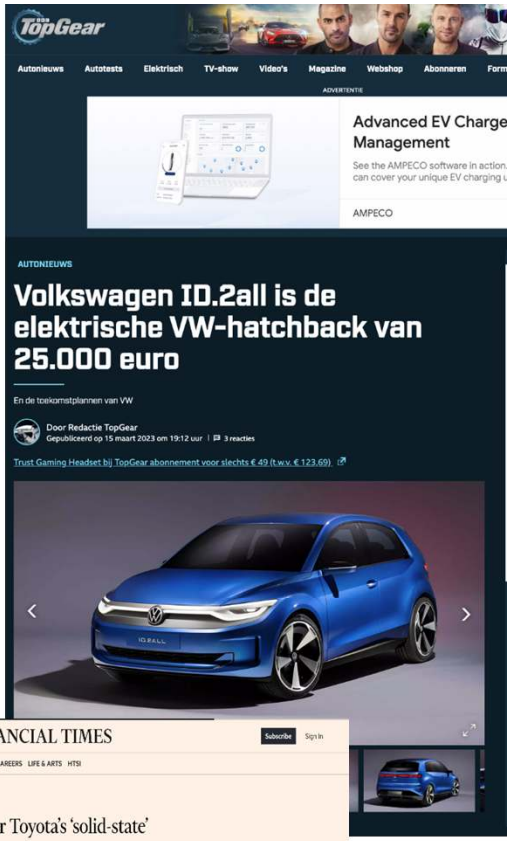

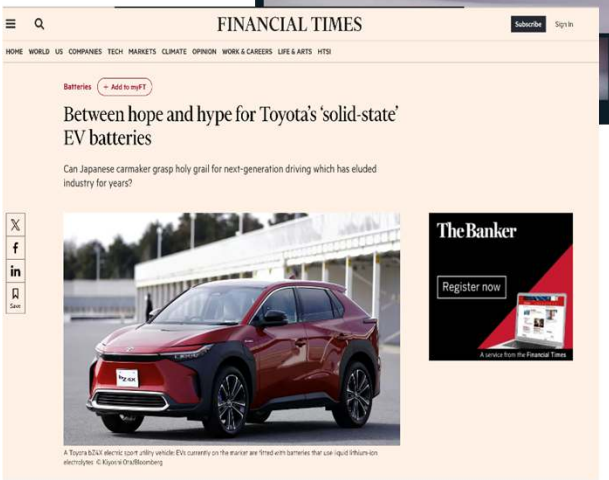

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5. Challenges

Challenges remain

- Think **TCO**
  - Tax shift
  - Second hand market
  - Incentives for e-vans and e-trucks
- **Avoid framing** e.g. fire safety …
  - No additional risks
- **Industrial policy** and **geopolitical strategy**
  - Create local innovators and champions
  - Supply chain, materials are crucial

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6. Questions

A federation serving all needs for information

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Thank you!

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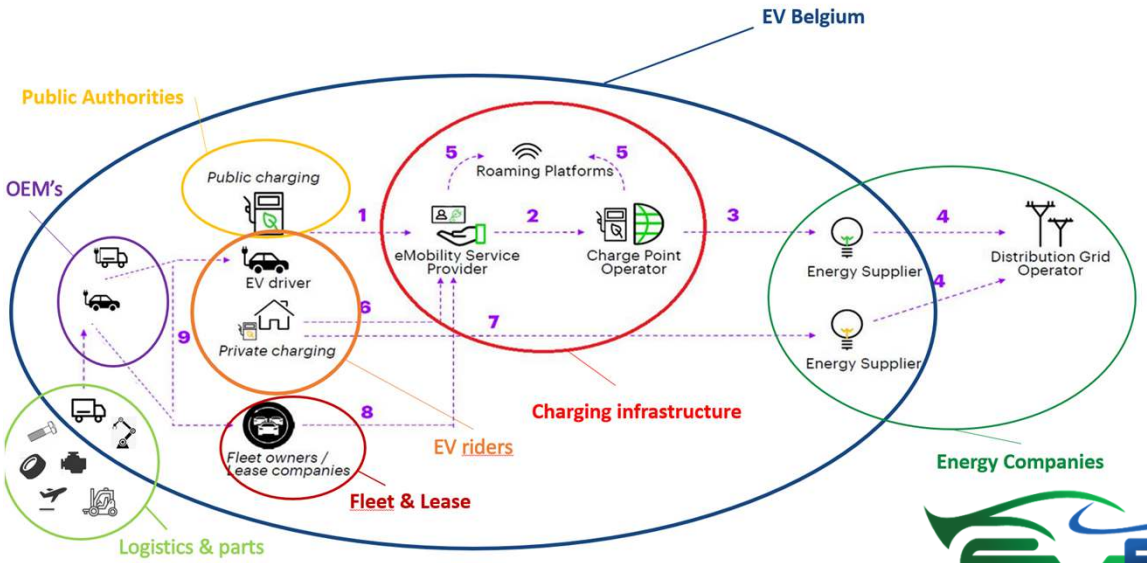

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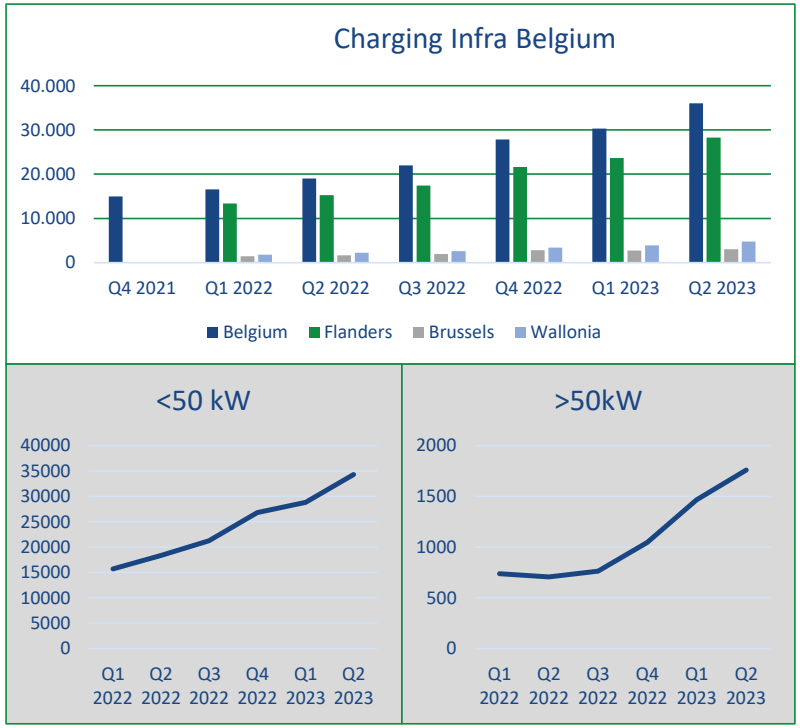

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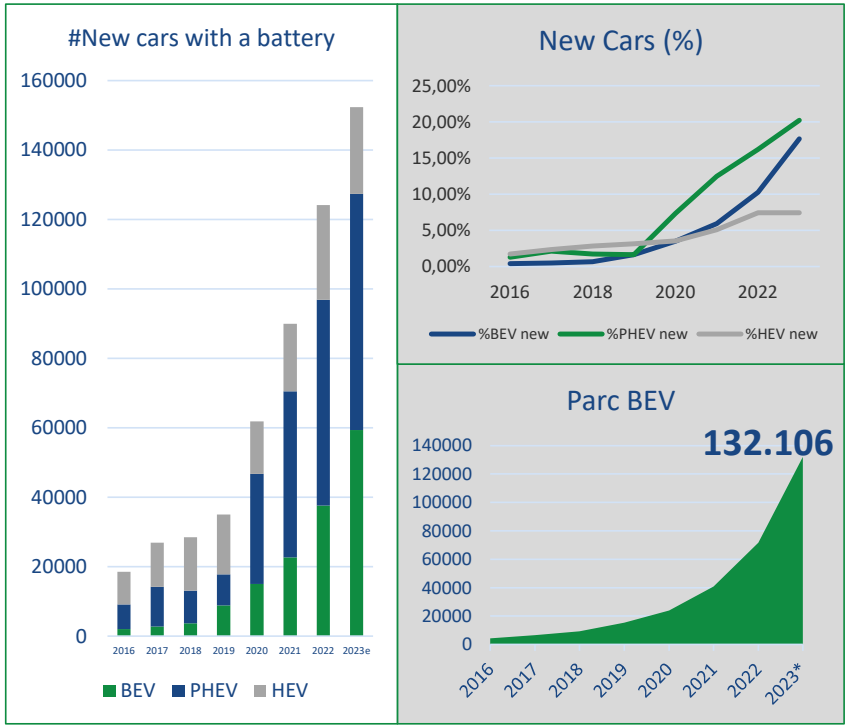

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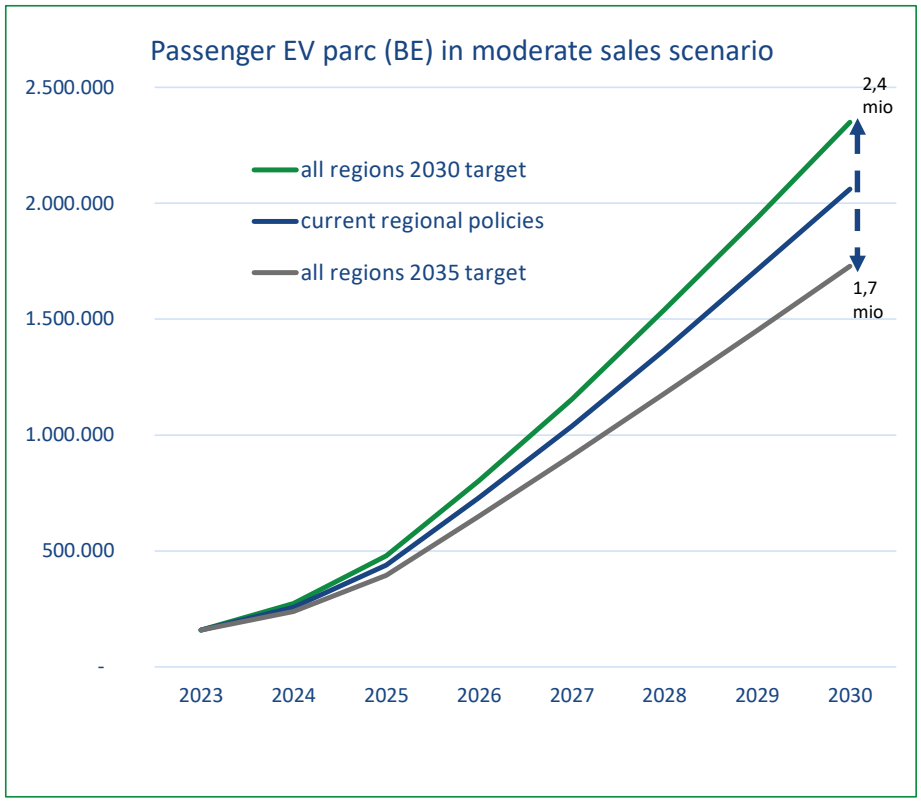

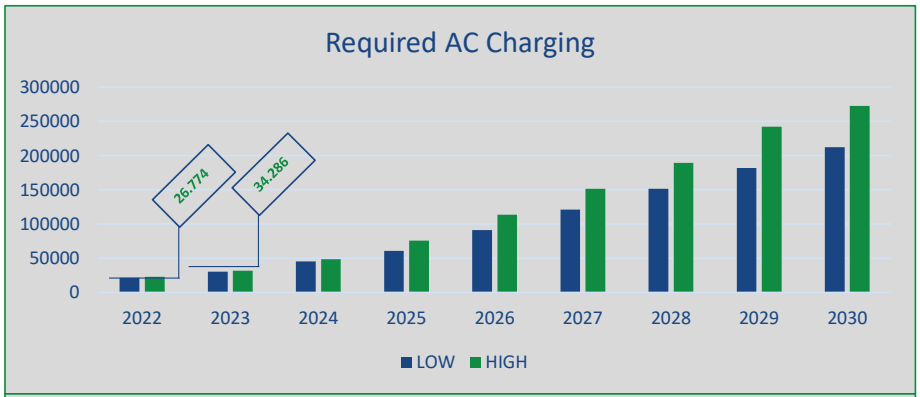

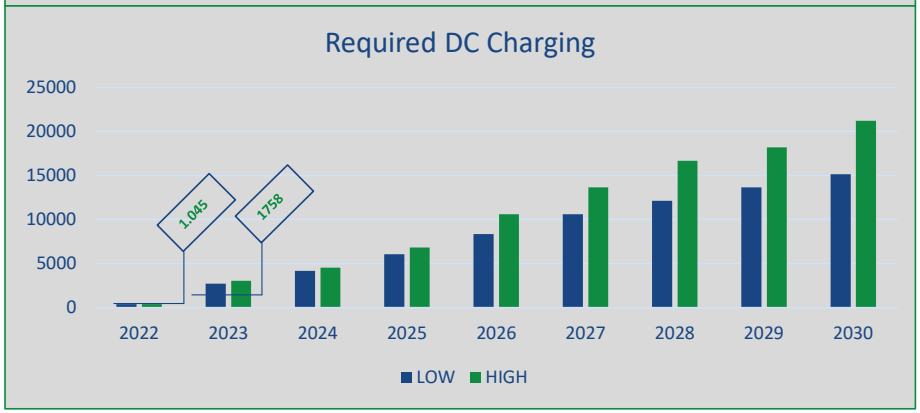

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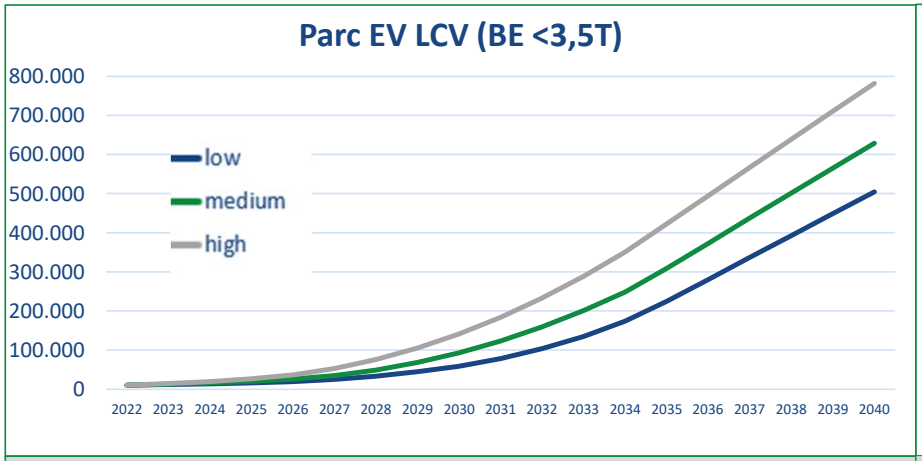

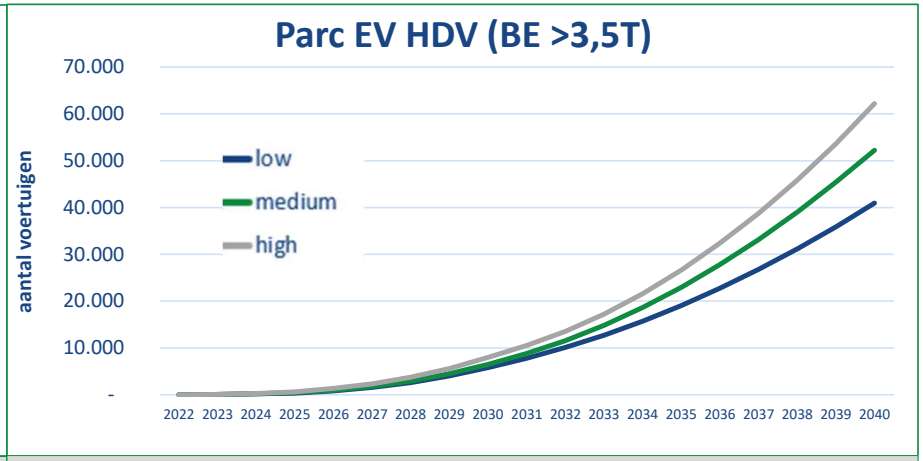

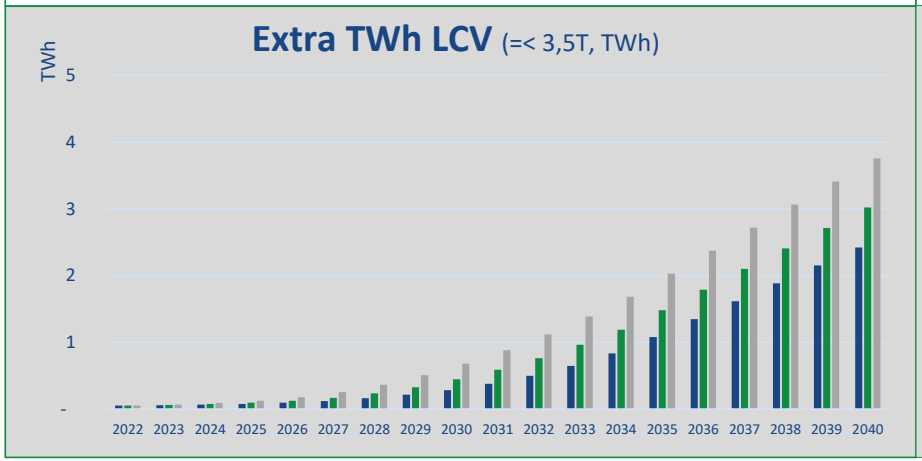

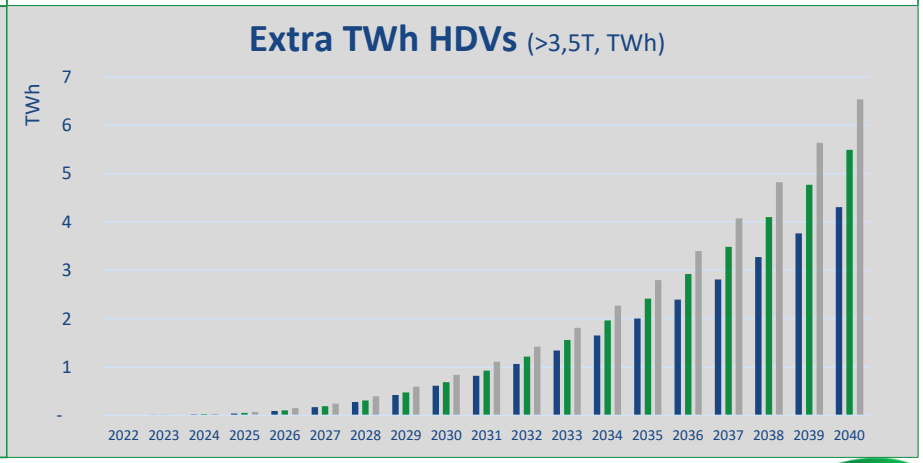

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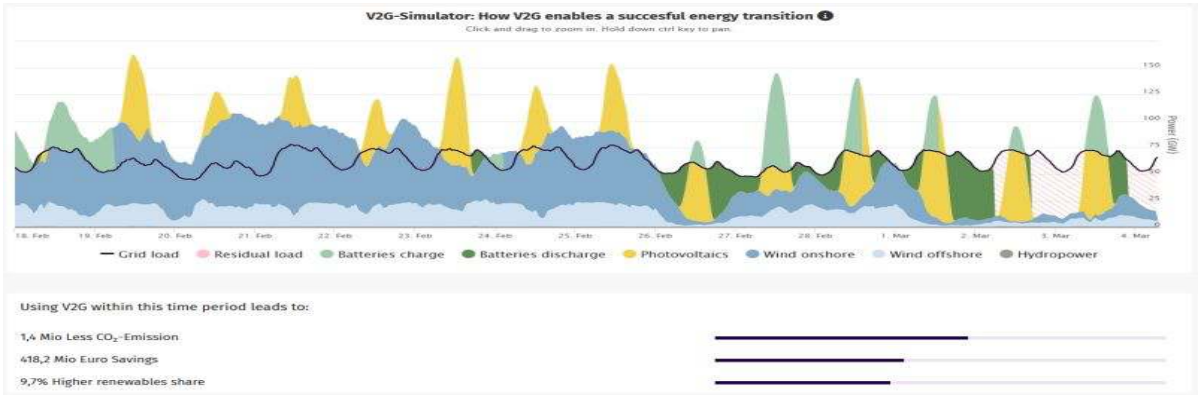

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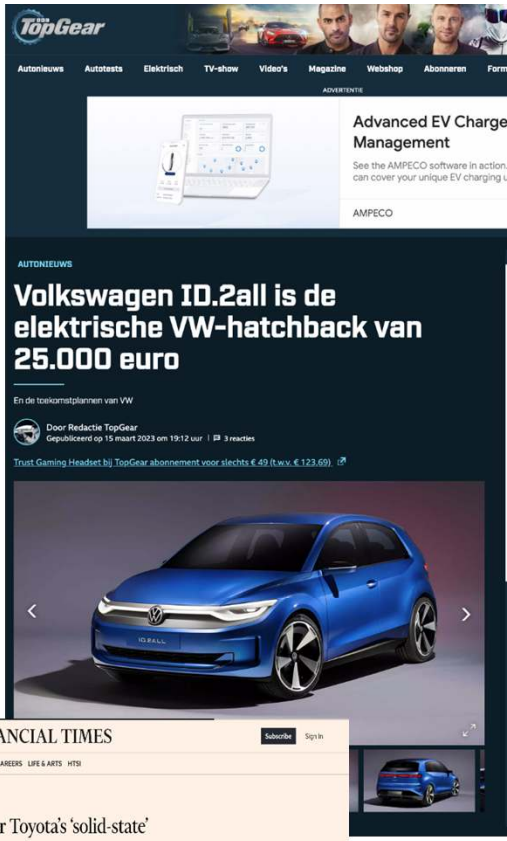

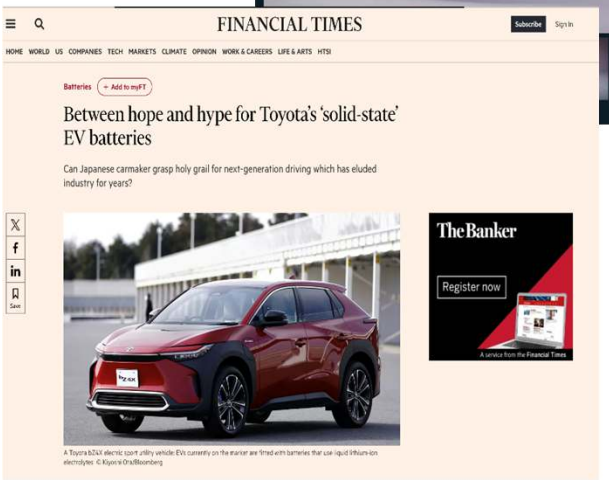

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The Horizontal Electricity System Think Tank

Elia
System Blueprint Study

Kristof Sleurs

Vision study on the Belgian energy system

Think Thank
13/09/2023 – For discussion

Content of today

- Scope of the study
- Scenario framework
- Other aspects
- Timeline & next steps

Scope of the study

Our ambition is to conduct a comprehensive study examining various energy scenarios for the years 2040 and 2050. This study will involve evaluating divergent visions for Belgium/Europe and analyzing how they might influence system costs and high-level infrastructure requirements for Belgium.

As TSO we have developed expertise and tools that allow to assess the impact of divergent scenarios on the costs and requirements of the system

- We would like to look at **divergent scenarios** for Belgium/Europe based on the **different views and visions** that are present in the market and assess the impact those have on costs, infrastructure...
- We would like to focus on the electricity system (while also quantifying the other vectors in less detailed way)
- We want to bring several improvements to such kind of studies to better grasp the specifics of the energy system (hourly granularity, European scope, physical constraints of the grid...)

  → **To date, no public study available for Belgium taking into account those features which are key when assessing the future scenarios**

As TSO we need to ensure that the future grid is developed 'on time' and 'fit for purpose'

- Grid infrastructure projects require several years to be built (>10 Y). Elia wants to assess which steps need to be taken in the coming years in order to ensure the required grid infrastructure corridors are reinforced or created.
- We would like to highlight what necessary steps and decisions need to be taken in the coming legislation period

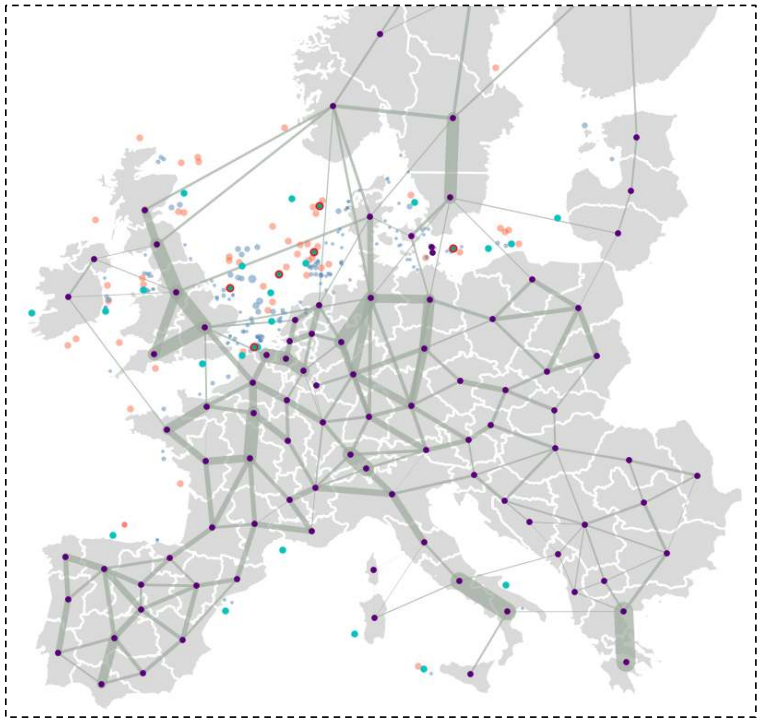
- Through this study we want to further inform the general public as well as policy makers on what different visions could look like and what they would mean for Belgium
- See this study as a first step for the next federal development plan: identifying how the next phase of infrastructure development after 2035 would/should look like

Our approach will bring several key novelties into the energy system modelling

	Most public studies available for Belgium	Proposed improvements
Temporal granularity	Yearly or 'typical days' approach	Hourly for electricity at least
Geographical scope	Only Belgium (or other countries in a very limited way)	Europe
Climate years	1 or not applicable given that hourly granularity is not applied	> 3 and forward-looking database
Physical grid constraints	Bidding zone level when modelled(assuming copperplate for each country if those are modelled)	Zonal flow based European model (>100 onshore nodes, >200 offshore nodes/windfarms)
Imports/ exports	Ex-ante defined or not optimized	Endogenously taken into account given the geographical scope
Investments	Depending on the study several approaches are followed but grid usually not optimized	Endogenous investments in the grid (onshore and offshore), generation and offshore

The KARI model (developed by Elia) will be used for simulating the electricity system and its investments

KARI model



Initial model

- Zonal starting grid
- Onshore zonal node
- Radially connected offshore wind farms representing existing and soon planned offshore wind farms that are not part of the optimization
- Radially connected offshore wind farms that can evaluate towards hybrid connections if chosen by the optimizer
- Radially connected hubs with pre-connected offshore RES that can evaluate towards multi-hub if chosen by the optimizer
- Offshore wind farm candidate (not connected in the starting grid) that can be radially/via hybrid connected if chosen by the optimizer

Zonal model of Europe (each country is divided in several zones, with every zone having its own price). Those were created to represent the physical flows as accurately as possible (given the amount of nodes).This allows to take **some internal bottlenecks into account**
For long term studies (looking 15, 20 years ahead), such assumption is **independent from current market design rules** (bidding zones, minRAM rules, redispatching,...) and looks at the most optimal solution for the system.

Investment can be done by the tool in **offshore wind farms** and their grid connections as well as in **onshore grid reinforcement**. In addition, the model would be able to optimize the location of **electrolyzers** (oversupply) and **thermal units** for adequacy reasons. Potential offshore wind farms are modelled as individual offshore bidding zone. Wind parks are aggregated in nodes of 2 GW. Each investment is done with 1 GW step.

Offshore wind farms can be **connected to any coastal** (or near-coastal) **area** and/or to any other **offshore wind farm**. The choice is made by the **investment tool which selects the most cost-effective links (onshore and offshore)**.

The investments are stopped when a certain economic **optimum** is found.

An example of results are shown below

The model was already used for the identification of system needs of the federal development plan and is based on the approach followed in the e-Highways2050 study and IoSN of the TYNDP

Other outputs:

- Generation mix
- CO_2 emissions
- RES penetration
- Imports/exports
- ...

High level methodology approach consists of several tools and steps

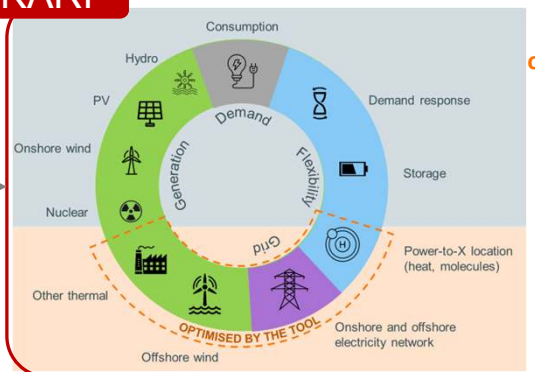
1 Yearly multi-energy scenarios

- European scenario
- National scenario

Yearly to Hourly/Zonal translation

- Non-electric supply
- Other energy vectors

KARI



European grid, thermal and offshore RES co-optimization

Belgian grid, thermal co-optimization

SoS check

2 Grid assumptions

Reference grid and investment candidates

3 Costs

Costs assumptions

(CAPEX, FOM, VOM, fuel prices...)

Costs for the optimized technologies

Optimized grid
Investment in new capacity
Prices

Fuel consumption

Multi-E

- CO_2 emissions
- Imports of other vectors
- Multi-E primary fuel mix

Already used in the Federal Development Plan scenarios

COST tool

- Total system costs
- Qualitative assessment on other aspects

NEW. To be developed with a consultant

Scenario framework

Scope of the scenarios: EU vs BE

- On the one hand, we want to focus on Belgium, and show the impact of Belgian policy decisions
- On the other hand, what happens in EU has a major impact on Belgium, and only defining scenarios for Belgium might create too little differentiation. Additionally, we want to ensure our conclusions are also robust towards variations in EU scenarios

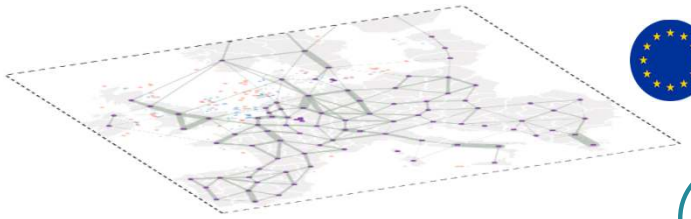
We will try to develop a two-layered approach:

- Creating different scenarios for Europe (including Belgium), however attempting to keep national specificities of each country according to current policies
- Creating a second layer, creating variation on the mix in Belgium

In all scenarios we will assume that:

- Adequacy is met for all countries
- Climate targets are met

Scenario methodology – a two-step scenario methodology



Level 1: European optimization:

- *Starting from latest communicated ambitions, create a varied set of European scenarios.*
- *For each set of scenario optimize the full European grid (onshore & offshore) + offshore wind*

Main scenario

National Trends+
(ERAA2023 & TYNDP 2024)

- Latest national policies (NECPs, announcements...)
- FF55, RePowerEU
- ...

More electrification
(~DE TYNDP 2022/2024 or EPros from FDP)
More electricity-based

- Higher energy efficiency
- More electrification
- More decentralized generation
- EU more 'self-sufficient'

Less electrification
(~GA TYNDP 2022/2024 or GI from FDP)
More molecule-based

- Lower electrification
- More centralized generation
- More imports outside of EU

Level 2: Belgian optimization with higher granularity:

- *Imposing an EU context, apply a set of the most vocative scenarios for Belgium, representing visions present in Belgium*
- *Reoptimize Belgium (grid, …), evaluating the impact of the energy policy BE takes on key aspects (grid layout, system costs, generation capacity, …)*

Several sensitivities can also be performed (variations of 1 or 2 parameters)

1 Yearly multi-energy scenarios

SCENARIOS for 2050
To capture broad ideological differences

Driver	8 GW baseload		6 GW baseload		4 GW baseload		0 GW baseload		Comments
	A	A'	B	B'	C	C'	D	D'	
Demand	*Demand scenario aligned with EU context (hence following the storyline of the EU scenario)*								
Existing Nuclear	*3 GW up to 2040; 2 GW up to 2045*		*2 GW up to 2045*		*2 GW up to 2045*	0	0		*Ex-ante defined*
New Nuclear	**8 GW**	**4 GW**	**6 GW**	**2 GW**	**4 GW**	0	0		*Ex-ante defined*
Far-out Baseload RES (pre-connected to BE)	0	*2 GW (2036)* **4 GW (2050)**	0	*2 GW (2036)* **4 GW (2050)**	0	*2 GW (2036)* **4 GW (2050)**	0		*Preconnected (but more can be invested)*
Inland RES *Mainly onshore wind/PV*	LOW		LOW		MEDIUM		HIGH		*PV and onshore wind*
Offshore in BE	min 6.5 GW but more possible		8 GW		8 GW		8 GW		*In any case 8 GW max*
Flex & Storage	LOW		MEDIUM		MEDIUM		HIGH		*'Daily storage' in the form of batteries/demand flex*
O/CCGT *with CCS and/or low carbon gas*	LOW		LOW		MEDIUM		HIGH Semi-baseload	HIGH Peakers	*Enough to ensure SoS*
Imports/dependence	Expected LOW		Expected LOW		Expected MEDIUM		Expected MEDIUM	Expected HIGH	*Expected result after optimization*

See next slides for the details on nuclear and phase-out/phase-in and Baseload RES

We plan to simulate 2040 and 2050. If possible also 2036

Possible sensitivities: sobriété/sufficiency... (applied on all scenarios)

Regarding nuclear maximum potentials (existing and new)...

What could be possible, how much and for when ?

EXISTING	2036	2040	2045	2050
D4/T3	2 GW	2 GW	2 GW	0 GW
T1	1 GW	1 GW	1 GW	0 GW

Assuming a 3rd reactor could be further extended (on top of D4/T3) and for 20 years

What could be possible, how much and for when ?

NEW	2036	2040	2045	2050
new SMR	0.5 GW	2 GW	3 GW	6 GW
new EPR	0	1.6 GW	1.6 GW	3.2 GW

Assuming existing SMR tech commercially available and possible to be installed as from 2036

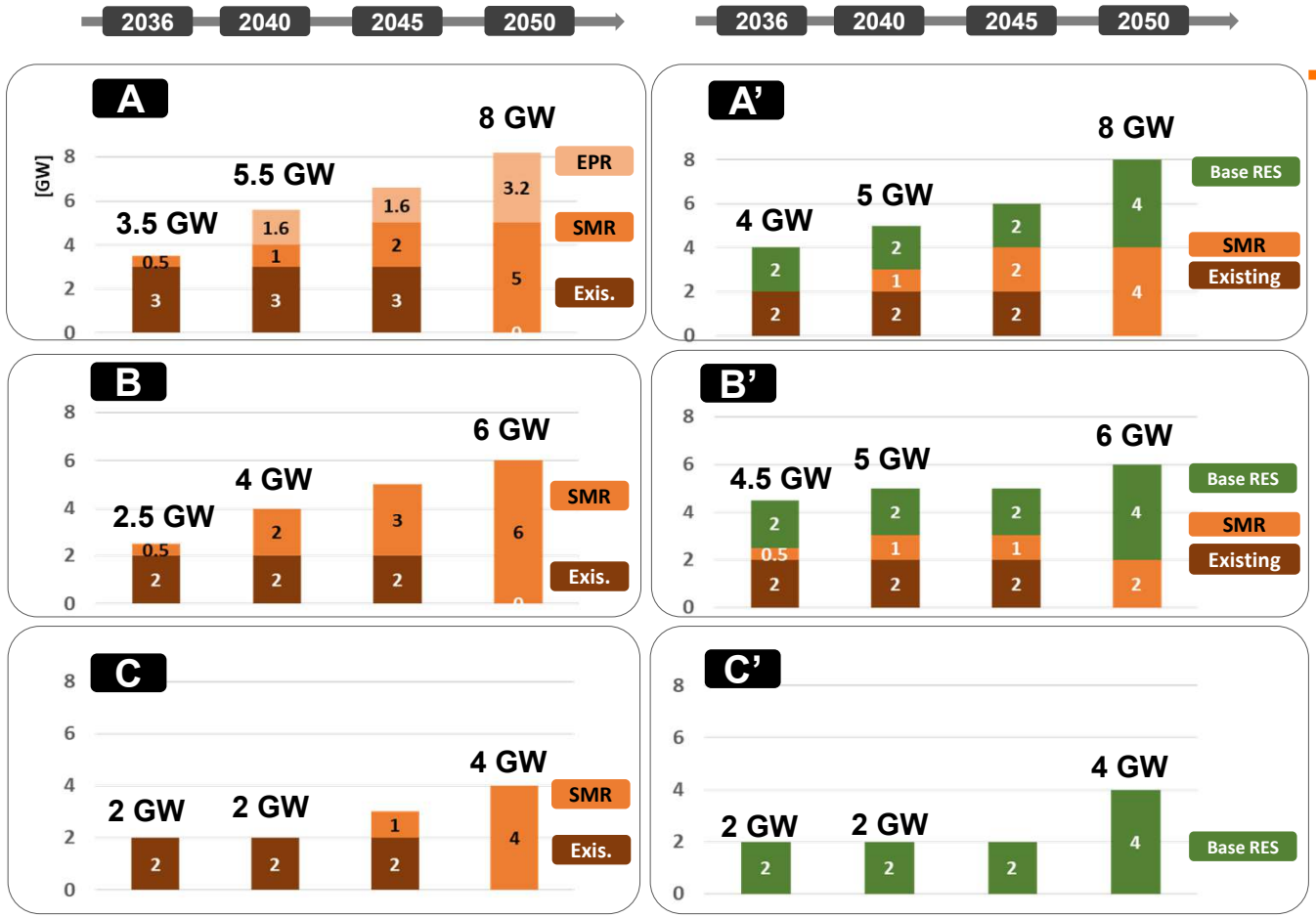
Only at 1 at existing sites (Doel and Tihange)

Do we have strong opinions on those potentials ?. 6 GW SMR would mean minimum 20 reactors in Belgium (assuming 300 MW size).

Nuclear/Base RES phase out/in in Scenario A, B & C

Rationale:

- **A, B and C**: scenarios with nuclear
- **A', B' and C'**: scenarios with Baseload RES complemented with nuclear if need to reach the same amount of baseload by 2050



8 GW baseload

6 GW baseload

4 GW baseload

Other combinations are possible as long as the total is kept:
e.g. for scen A' :

- 6 GW Base RES &
- 2 GW SMR

Other aspects

We aim to start from the approved projects in the Federal Development Plan of Belgium and the TYNDP reference grid for 2030

- The model will be able to invest in:
  - Upgrades of the existing AC corridors (e.g. HTLS)
  - New onshore corridors
  - New offshore links, hubs and wind farms

- Each option will be given a cost depending on the technology and distance
- The model will look beyond existing connections and projects

An extensive literature review will be performed on the costs (with external help)

- We aim to work with ranges for costs as there are many uncertainties
- The goal is to quantify total system costs of the energy system (-> not only electricity). However, for sectors other than electricity a simpler approach will be used as detailed hourly modelling will not be available.
- Costs for technologies will be based on existing studies and sources (IEA, Bloomberg, EnergyVille, EC studie, TYNDP...). The amount of capacity for each technology will depend on the scenario and model optimization
- Costs of the grid will be based on the outcome of the optimization model

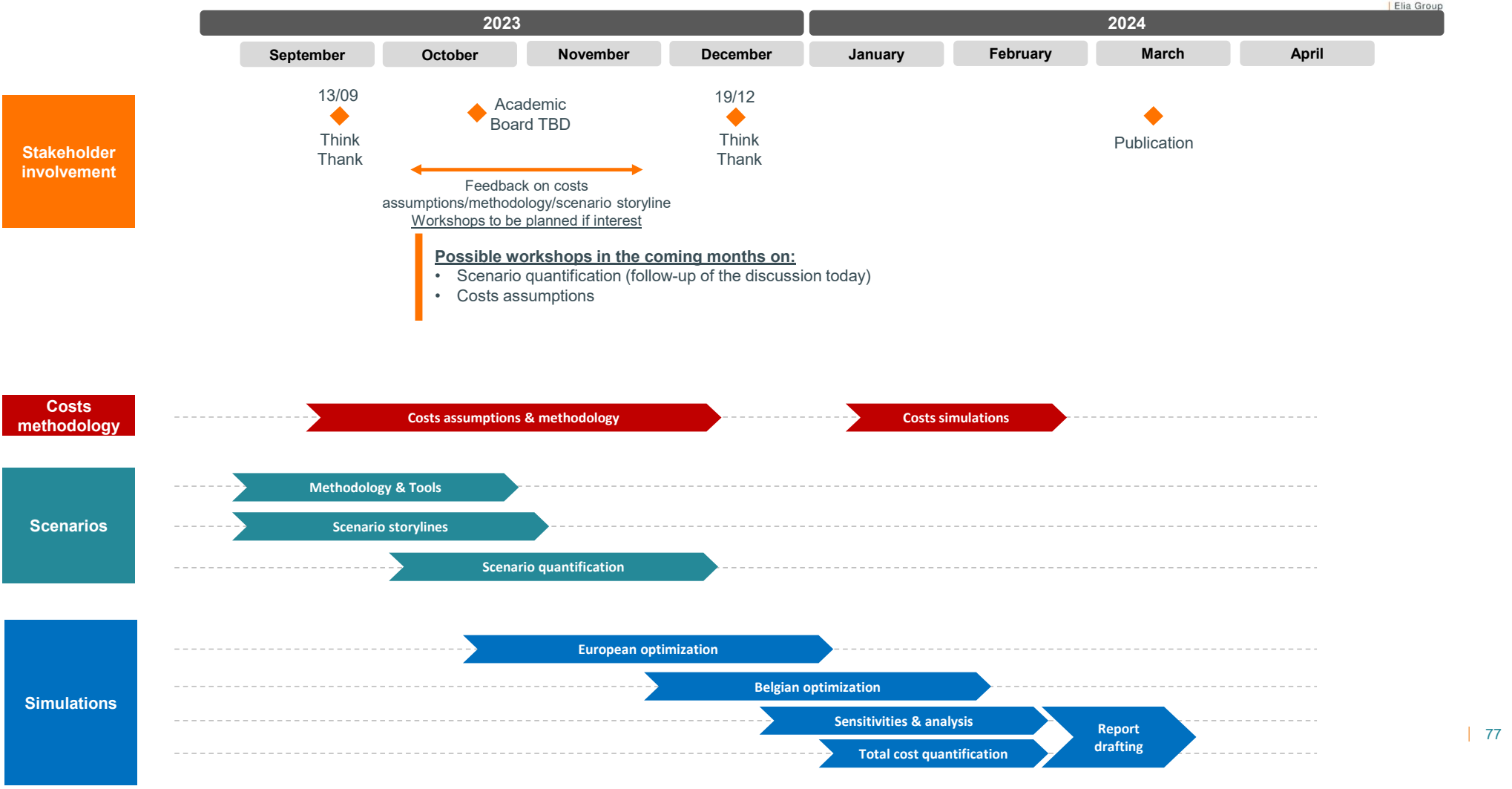
We aim to share cost ranges of technologies to get feedback in the coming months. We are also eager to have discussions on those values

Possible outputs of the modelling and study:

- Amount of CAPEX/OPEX + total system costs
- Capacity required for adequacy + type
- Wholesale electricity price
- Import dependency
- Grid investments (with the zonal granularity)
- ...

Timeline

Current timeline (subject to changes)



The Horizontal Electricity System Think Tank

Elia

Supply chain disruption in the context of the energy transition

Harald Van Outryve d'Ydewalle

Today's context – From buyer's market to supplier's market

- **Geo-political context**

  As a consequence of the pandemic situation and the Russia-Ukrainian conflict, the scarcity of raw material like lithium, rare earth, steel, copper or iron for Europe has generated important disruptions in our supplier's supply chain. In addition, the price of energy has a direct impact on the cost of production and transport of Electrical Equipment. Events like the boat blocking the Suez canal or statements from China and the US on securing more and more locally their supply instead of further increasing global trade shows how fragile supply chain is today. What will be the impact of the upcoming recession? Invasion of Taiwan by China? Energy transition in the US?

  As a result, the **prices are increasing** with almost all suppliers (including already awarded Framework Agreements) and some supply chains become more risky

- **Market capacity**

  As all European TSO's but also other industries (which are not submitted to public procurement law) are investing massively in the horizon 2024-2027 and even beyond, the available capacity of our European suppliers diminishes and can change overnight due to a large order. A competition between grid operator has started. The whole sector is anticipating orders for critical equipment or activities in order to secure the supply which amplifies the saturation of the European market. All our main suppliers are giving the signal they will not be able to support the demands and they lack a clear long-term perspective in Europe.

  As a result, the **delivery times are increasing drastically** for some critical categories and our room for technical/financial negotiation shrinks drastically.

Today's context – From buyer's market to supplier's market

- **Supplier**

  As suppliers are facing a huge demand, they tend to impose their rules of the game and are less reluctant to accept a transfer of risk. Moreover suppliers are reluctant to offer "special solutions" or to enter into a long term fixed contract. TSO's have to accept the market standard from the supplier. Some suppliers state the special wishes, complex tender documents, national specificities are not attractive for them.

  As a result, **contracts clauses are less protecting** and are being renegotiated (even after award). Next to that **suppliers are cherry picking the tenders** in which they participate and are **de-risking their offer**.

Actions undertaken by Elia Group

- **Identification of categories at risk and associated mitigation measures** (see next slides)
- **Get outside-in challenge**
  - Challenge our categories at risk and mitigation measures with external partner
  - Identify the supply chain disruption risks at Tier 2, Tier 3 level
- **Enter into partnerships with**
  - Suppliers (LT orders, JV)
  - TSO's (bilateral exchange)
- **Develop new internal competencies and increase staff**
  - **Strategic buyers**: Increased market intelligence (supplier, technology, competition…) and stronger category management
  - **Contract / claim managers**: capacity will be secured with more uncertainty
  - **Expeditors:** Close follow-up the orders during the production and installation process
- **Sensibilization of major stakeholders and call for action**

Set of mitigation measures

Generic actions 1.0	• Early order: Eg: transfo up to 36 months in advance • Better planning / more transparency of needs & share forecasts with suppliers • Develop new (but known) suppliers (Getra for transfo, Line Works BE…) • More active contracts per assets • For existing contracts, renegotiate terms (fixed price, no indexation formula) to keep the existing suppliers • For new contracts, simplify requests to suppliers (less documents, market conform T&C's…) • Standardize (beyond harmonization) requirements – buy out of the shelf
Generic actions 2.0	• Analyze partnerships with suppliers (M&A, JV…) • Lobby at EU / country level to adapt the existing EU tendering rules to the new market environment • Open the market for new non EU suppliers (Corea, China, India…) • Commit on volumes without knowing exactly for which projects • Develop a more strategic "supplier care" approach for Top10 supplier to raise our attractiveness

Categories @ risk where specific actions are implemented

AC Cable	• Wave 1 of needs up to 2027 locked • Wave 2 of needs will be secured after summer • Securing additional production line at Nexans Charleroi under investigation
DC Cable	• 50Hz: Tender for >7000km launched. Award expected after the summer. • ETB: separate tender launched for MOG 2
Transfo, SHR	• Needs blocked up to 36mo in advance
Convertor	• MOG 2: tender launched, procurement strategy revised in order to go faster to a preferred supplier • SOL+: award under negotiation
Line works ETB	• Close monitoring of available capacity • Tender in September to block capacity for upcoming projects
Lattice towers	• 7 suppliers qualified, orders are placed well in advance

Potential EU regulation evolutions

- **Increase EU threshold**

  → Current threshold do not take into account latest market evolutions

- **Implement an exception regime for specific assets (long lead items) with direct award**

  → TSO and private companies compete for the same assets but with different rules

- **Better exchange, long term planification and prioritisation between TSO's in order to avoid bottlenecks on the market**

  → TSO are competing against each other, not in the interest of the EU energy transition

- **Incentivise European suppliers to increase their capacity in EU**

  → ,EU market shortages will be compensated by Asian suppliers

- **Support Asian suppliers to set up an EU antenna to better serve our needs**

  → Project management makes cooperation difficult, technical specs are different

Thank you

The Horizontal Electricity System Think Tank

Feedback & agenda 19/12/2023

Feedback & agenda

Agenda 19/12/2023:

1. External topic - TBD
2. Elia – System Blueprint studie: vervolg
3. Elia – Offshore: integration of IBRs
4. Planning 2024

Data 2024 – 13-16u:

- 01/03/2024
- 10/06/2024
- 23/09/2024
- 25/11/2024