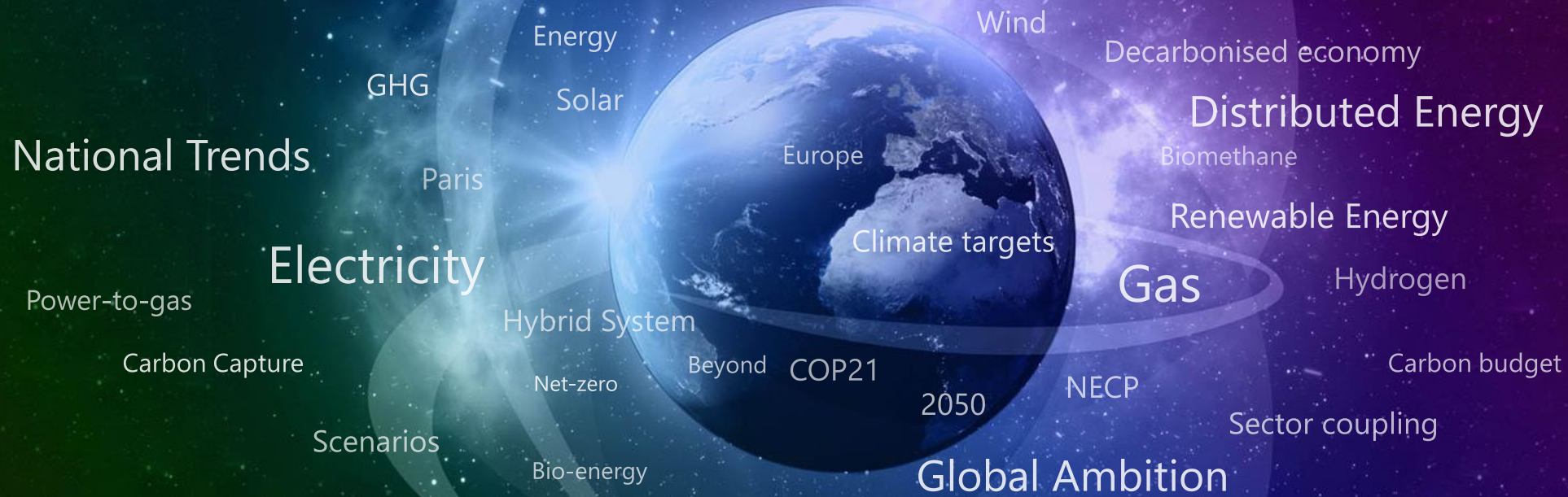


TYNDP 2022 Scenario building process



TYNDP 2022 Scenario building process

Presentation of TYNDP Scenarios

The scenario building process as part of the TYNDP framework

- By regulation (EU) 347/2013, ENTSO-E and ENTSG are required to develop a Ten-Year Network development plan (TYNDP) on a bi-annual basis.
- Both associations have decided to develop a joint set of scenarios since the TYNDP 2020
- Stakeholder engagement is key to ensure confidence in scenarios and to factor external expertise

Scope of the TYNDP Scenario process

Step 1
Storylines

Step 2
Quantification

Joint scenario development process

Joint Scenario
report



Network calculations
& project assessment



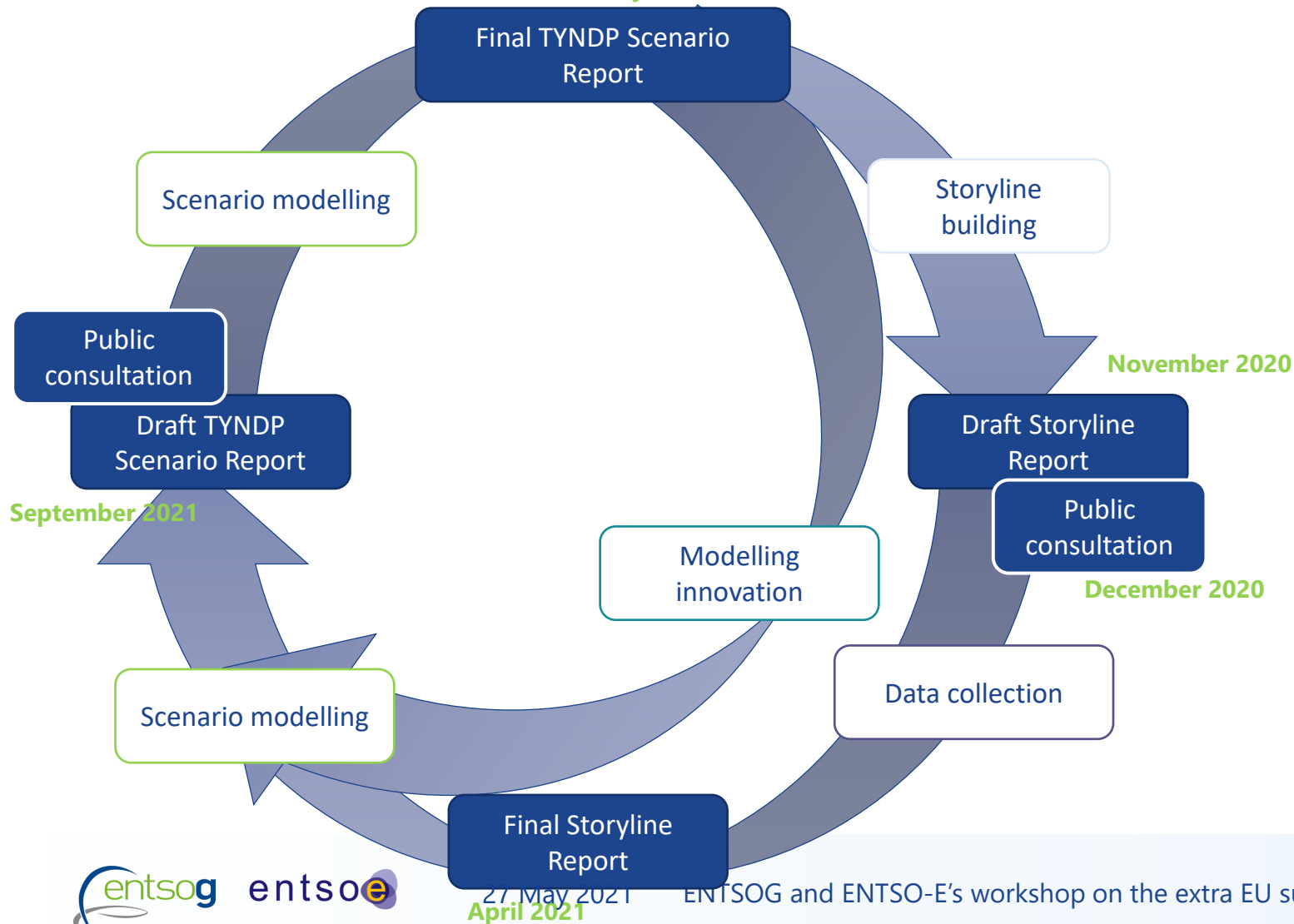
Gas and
electricity TYNDP
reports



Focus on the scenario building process

2020 edition: July 2020

2022 edition: January 2022

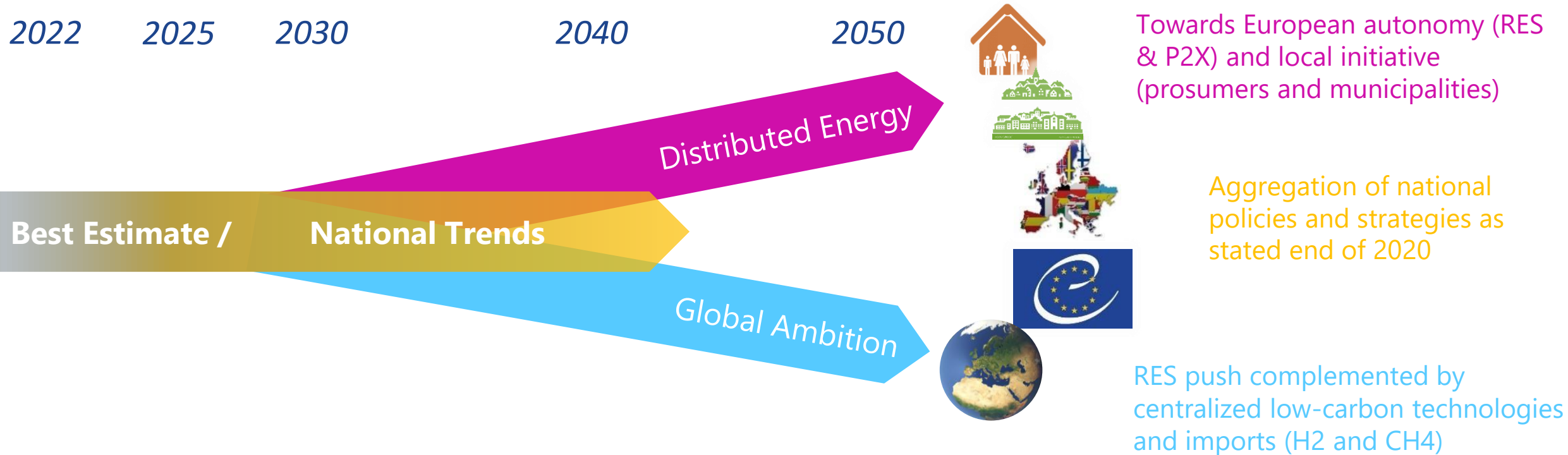


Year 1: Defining storylines with stakeholders and innovative modelling methodology (P2G, prosumer, EV...)

Year2: Building fully-fledged scenarios with a modelling update for Distributed Energy and Global Ambition based on Draft TYNDP 2022 Scenario report public consultation

Process has shifted by 2 months compared to initial planning mostly based on the very high load necessary for innovation modelling testing

2022 scenarios are an evolution from the 2020 edition

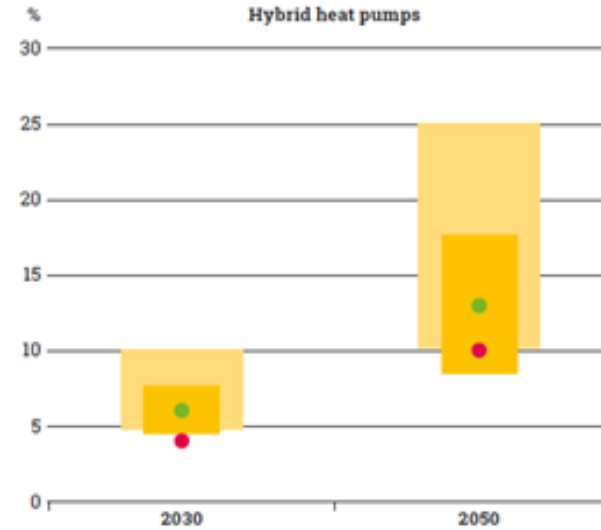


- A set of scenarios meeting regulatory requirement of aligning with:
 - **National policies:** National Trends scenario
 - **European policies:** Distributed Energy and Global Ambition scenarios as two paths to carbon neutrality with different infrastructure needs

Storylines for Global Ambition and Distributed Energy

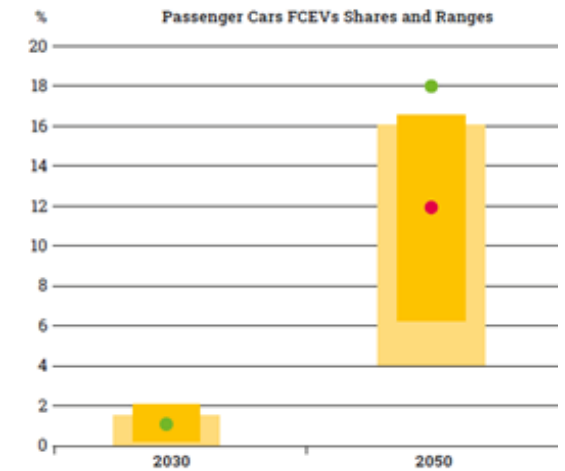
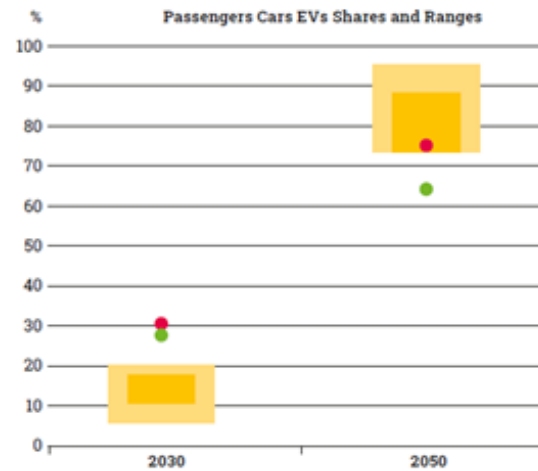
	Distributed Energy	Global Ambition
	European autonomy with renewable and decentralised focus	Global economy with centralised low carbon and RES options
Green Transition	Compliant with the 1.5°C target of the Paris Agreement At least -55% reduction in 2030, climate neutral in 2050	
Driving force of the energy transition	Transition initiated on local/national level (prosumers)	Transition initiated on a European/international level
	Aims for EU energy autonomy through maximisation of RES and smart sector integration (P2G/L)	High EU RES development supplemented with low carbon energy and imports
Energy intensity	Reduced energy demand through circularity and better energy consumption behaviour	Energy demand also declines (<i>in draft storyline, increased economic activity offset efficiency gain</i>), priority is given to decarbonisation of energy supply.
	Digitalisation driven by prosumer and variable RES management	Digitalisation and automation reinforce competitiveness of EU business and industry (<i>in draft storyline it resulted in increased exports of goods</i>).
Technologies	Focus of decentralised technologies (PV, batteries, etc) and smart charging	Focus on large scale technologies (offshore wind, large storage)
	Focus on electric heat pumps and district heating	Focus on hybrid heating technology
	Higher share of EV, with e-liquids and biofuels supplementing for heavy transport	Wide range of technologies across mobility sectors (electricity, hydrogen and biofuels)
	Minimal CCS and nuclear	Integration of nuclear and CCS

Public consultation on draft storyline has reinforced... ... electrification ambition in space heating and passenger mobility

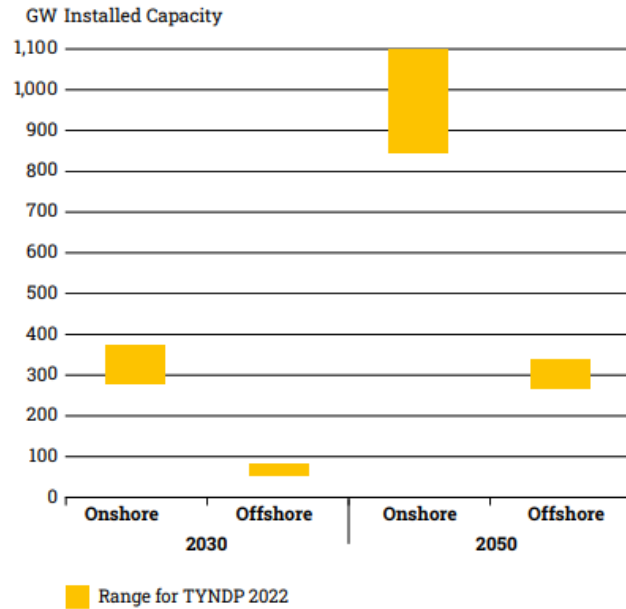
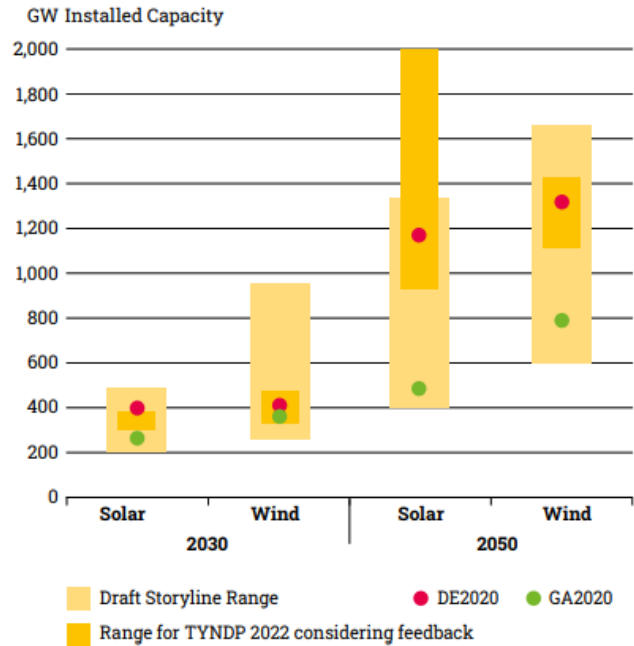


Space heating
All electric and hybrid heat pumps market share will exceed 55%.

Passenger transport
Battery and Plug-in Hybrid EV will strongly dominate passenger transport
Electricity could cover up to 18% of aviation (focusing on national and European flights)



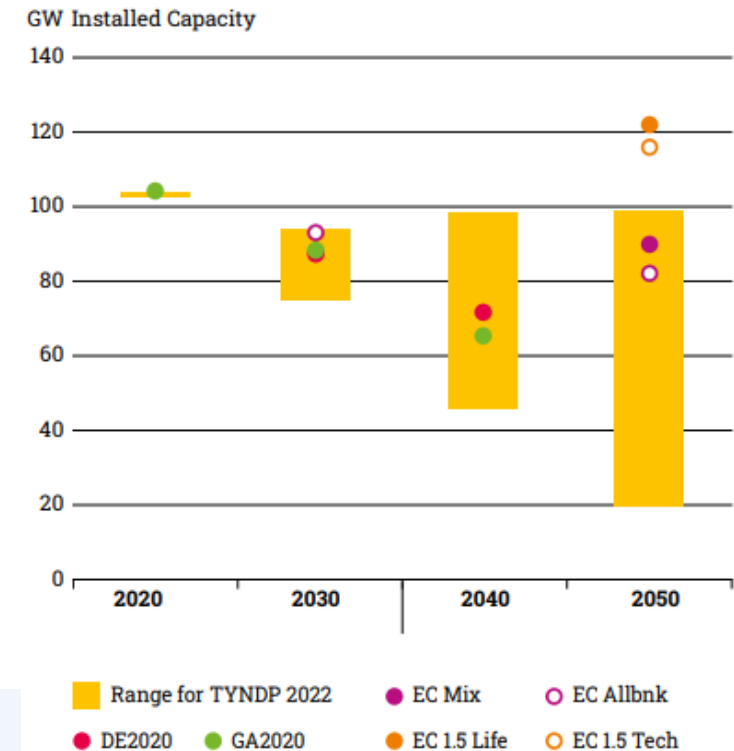
... RES ambition and confirmed the need of contrasted nuclear trajectories



Wind and solar

Public consultation resulted in increasing solar upper trajectory to match PAC and Energy Watch scenarios
 Consistent with Distributed Energy where prosumer may favour the development of rooftop solar and energy positive buildings

Nuclear
 TYNDP 2020 Scenarios show a low differentiation in this technology
 The new approach for Distributed Energy excluding new projects beyond those under construction results in contrasted trajectories



Next steps

- End of May: Finalization of modelling innovation testing
- Jun. - Jul.: Draft scenario modelling
- Aug.: Draft TYNDP Scenario report finalization
- Sep. - Oct.: Public consultation of Draft Scenarios (including a workshop)
- Nov. - Jan.: Scenario modelling based on public consultation
- Jan. - Feb.: TYNDP Scenario report publication

Thank you for your attention

