

Project Ten-Year Network Development Plan 2012

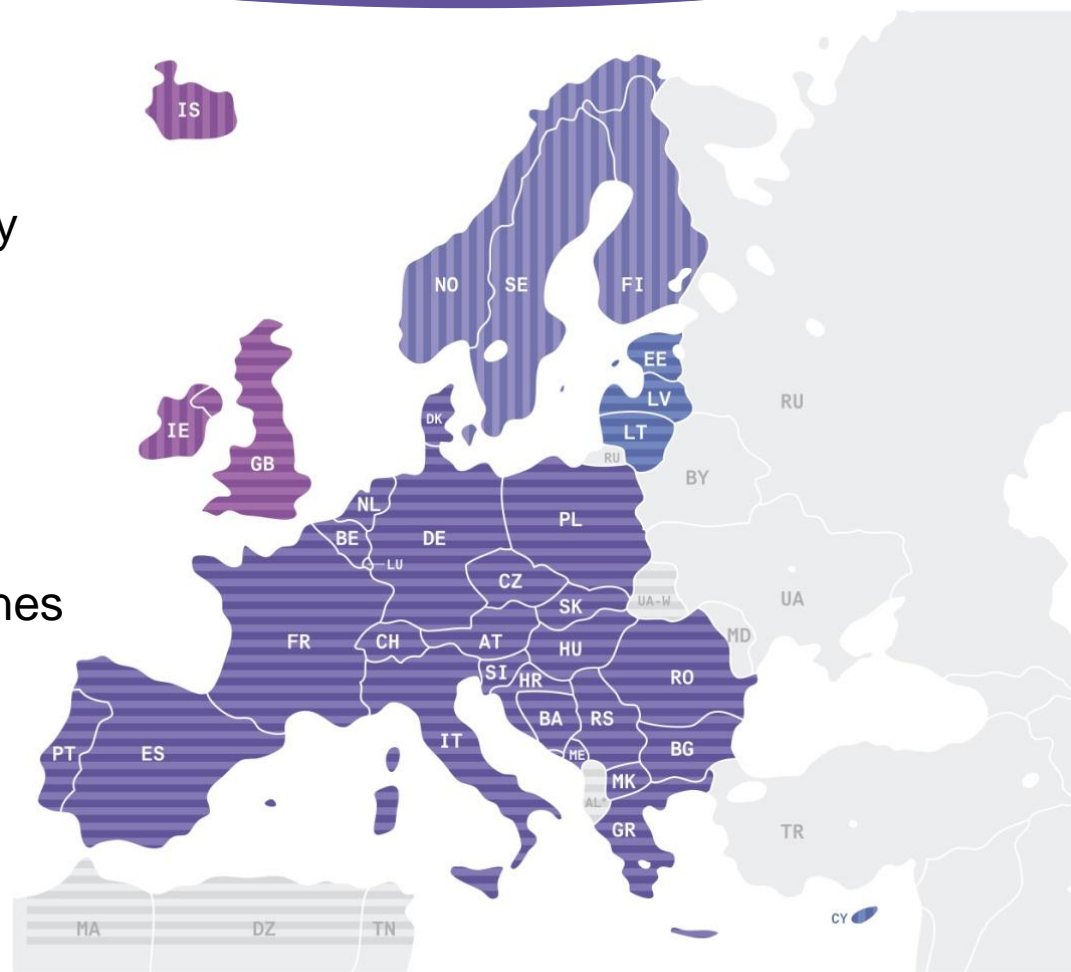
Elaboration Process

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Convener Working Group
Ten Year Network Development Plan

Ten Year Network Development Package 2012 Workshop
Brussels, 28 March 2012,

We are ENTSO-E

- **41 TSOs from 34 countries**
- Founded on 19 Dec 2008 and fully operational since **July 2009**
- A trans-European network
 - **525** million citizens served
 - **828** GW generation
 - **305,000** Km of transmission lines
 - **3,400** TWh/year demand
 - **400** TWh/year exchanges
- Legal mandate, among which TYNDPs, based on Reg. (EC)714/2009



ENTSOE releases the TYNDP 2012 package



A vision for the
future
European
extra high
voltage grid

- A non-binding plan, updated every 2 years by ENTSO-E
- A modeling of integrated networks
- A generation adequacy outlook

A
comprehensive
and synthetic
8-document
suite

- Ten-Year Network Development Plan report
- Scenario Outlook & Adequacy Report
- 6 Regional Investment Plans



ENTSO-E 10-YEAR NETWORK
DEVELOPEMENT PLAN 2012
PROJECT FOR CONSULTATION

DRAFT

V8 – 24.02.2012

In consultation
until 26th April



National Development Plans

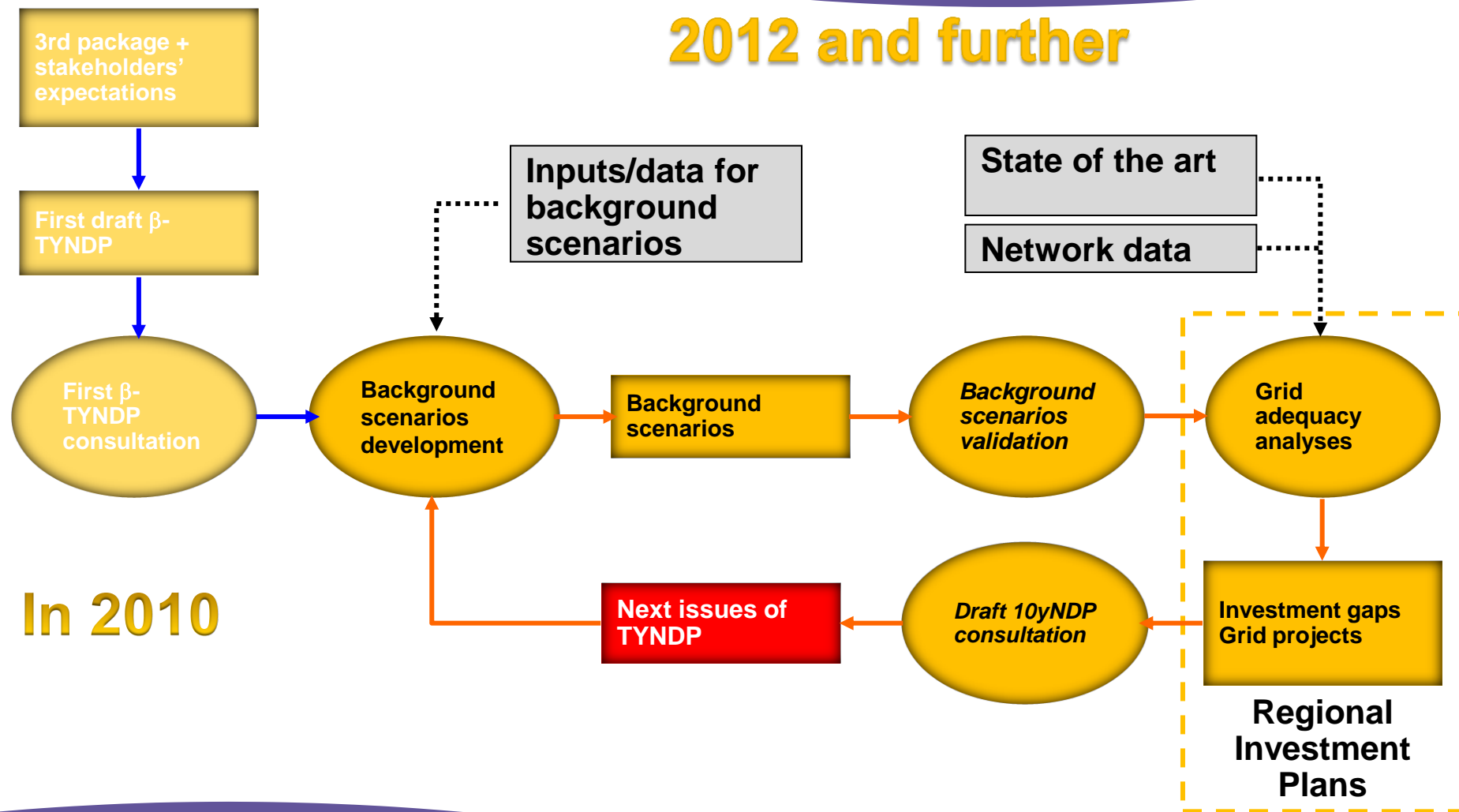
- Binding

Regional Investment Plans

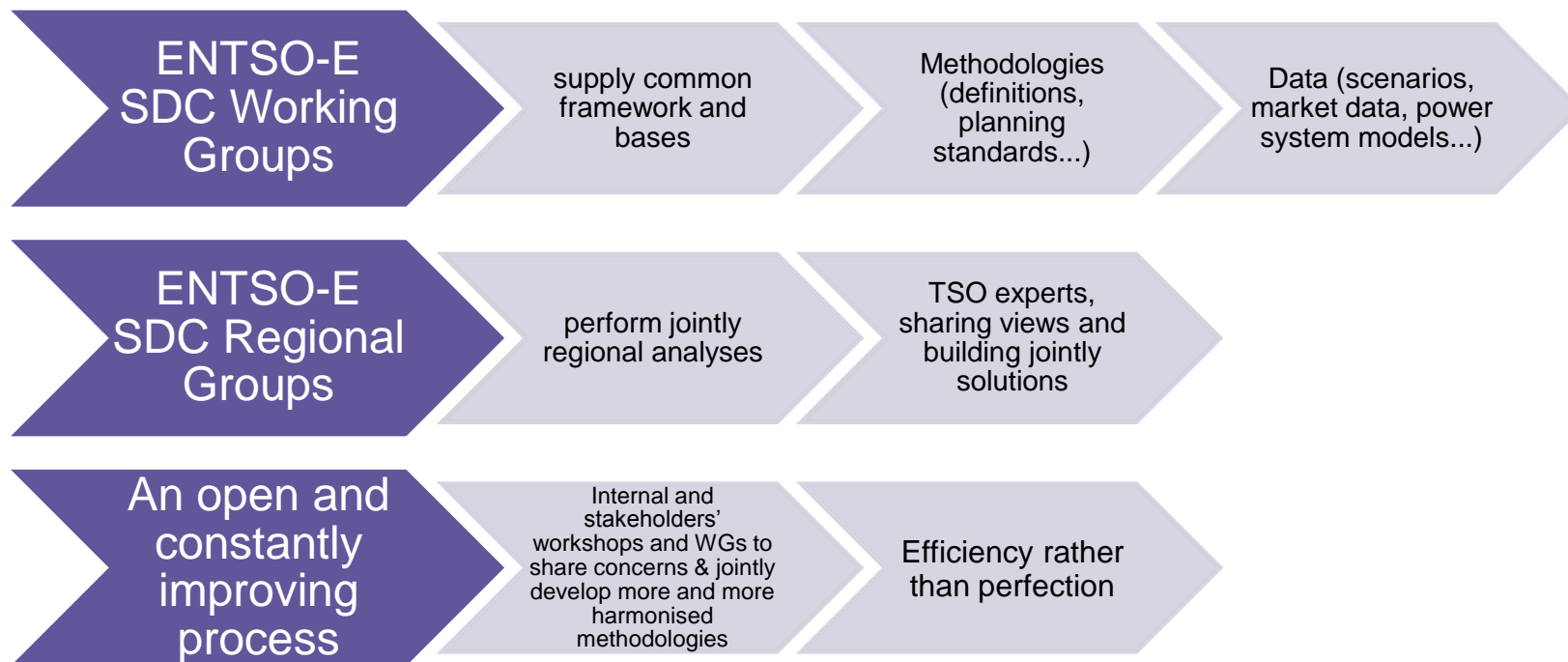
ENTSOE's Ten-Year Network Development Plan

- A vision for the future European EHV grid
- A generation adequacy outlook (5/15 years)
- An integrated modeling of networks and market
- *A non-binding plan, updated every 2 years*
- *National Regulatory Authorities to check consistency with National DP*

A looping elaboration process, constantly improving



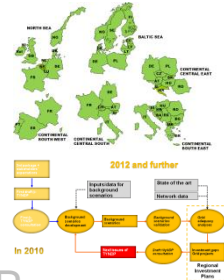
A top-down, open and constantly improving process



Major improvements compared to the TYNDP 2010 report

- An organisation framework to elaborate Plans

- Identification of Europeans regions relevant for grid development
- A looping elaboration process, constantly improving
- A public procedure to identify 3rd Party projects
- Consistent approaches for Regional Investment Plans and TYNDP



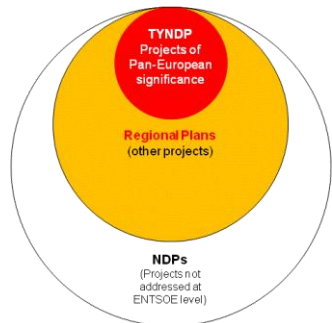
- Bottom-up & top-down scenario development

- Consulted, complying with EC initiatives and Member States positions

- Methodology for project assessment

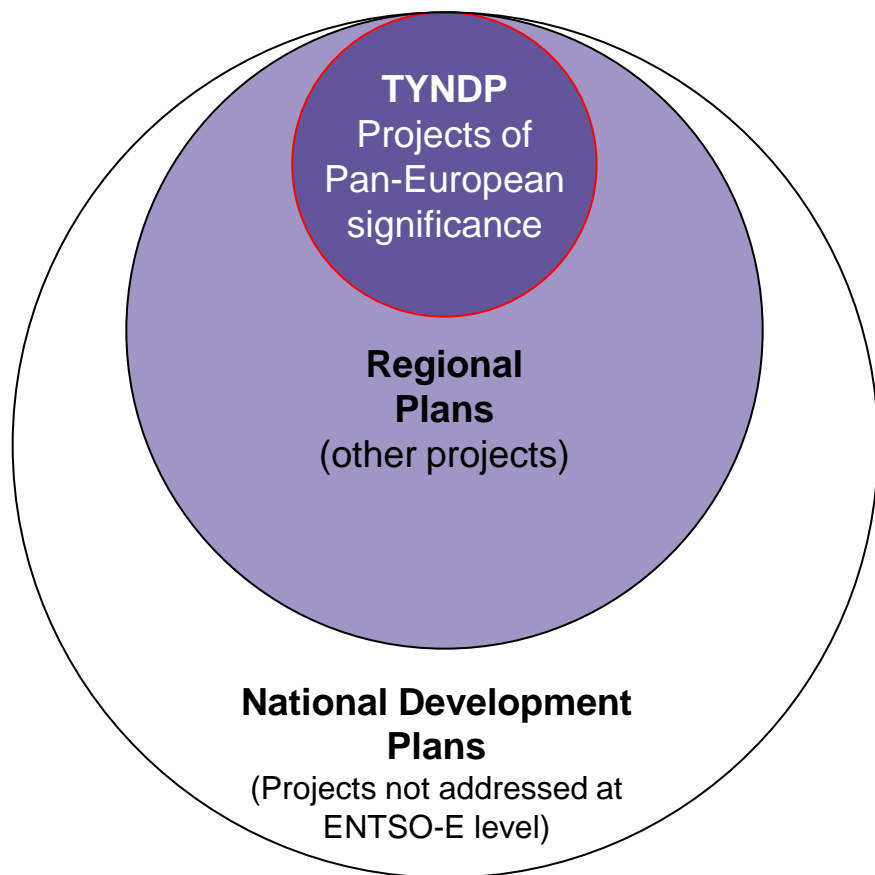
Grid transfer capability increase	Social and economic welfare	RES integration	Improved security of supply	Lower operational	CO2 emissions reduction	Technical resilience	Flexibility	Social & environmental impact	Costs
+	+	+	+	+	+	+	+	+	+

- Explicit definition of projects of pan-European significance
- Projects identification & standard assessment: **Cost Benefit Analysis**
- **Basis for future Project of Common Interest selection at Regional level**



⇒ Many bilateral meetings, external workshops, consultations
 ⇒ ... with limited feedback

Projects of Pan-European significance



Definition of Projects of Pan-European Significance

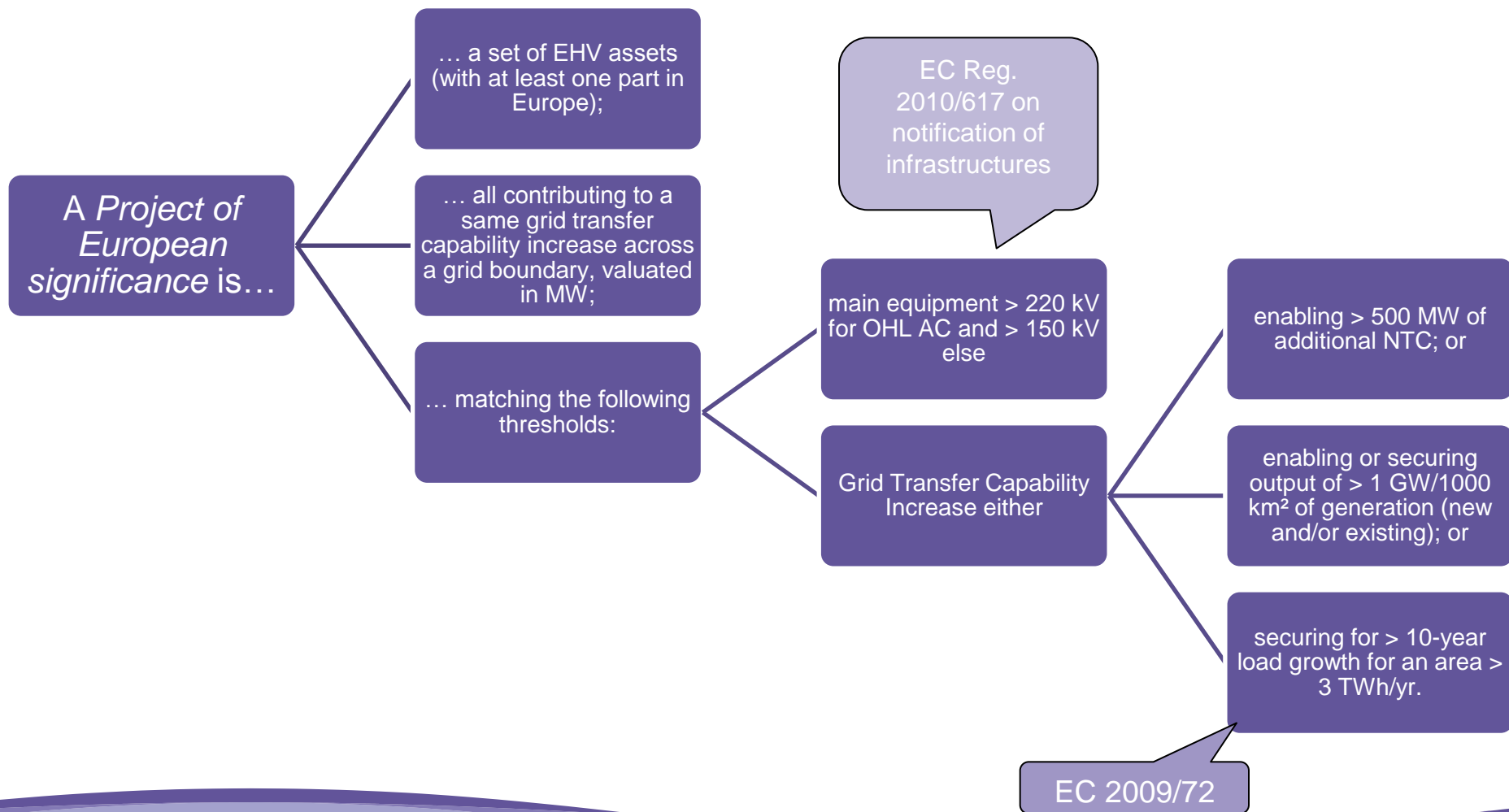
- Meeting the EU energy targets: RES, SoS, IEM
- Voltage & capacity thresholds

From TSOs & 3rd parties

- Non-discriminatory procedure

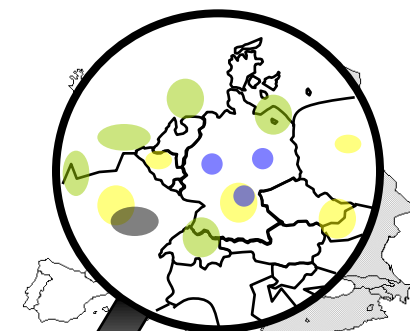
Basis for further selection of Projects of Common interest

Projects of European significance – Definitions

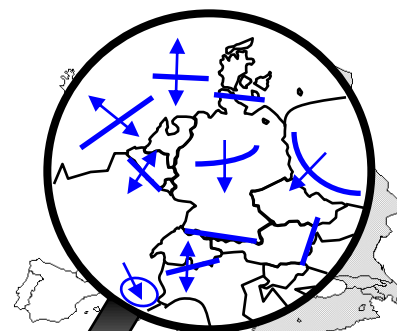


TYNDP main deliverables

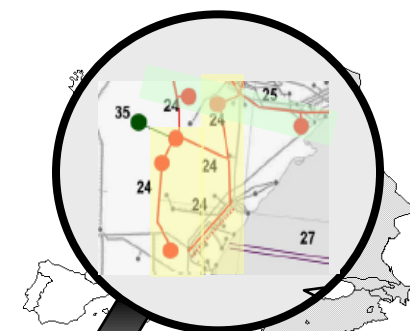
Achieving an adequate grid transfer capability



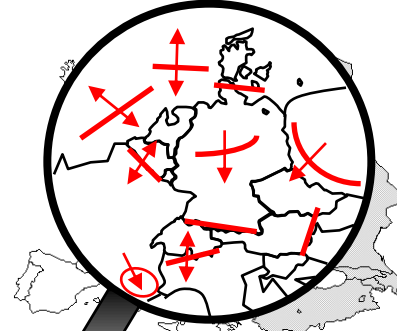
Market studies



2020
in 2020
(+)



Network studies





- Every project valuated against 9 criteria

Grid transfer capability increase	Social and economic welfare	RES integration	Improved security of supply	Losses variation	CO2 emissions variation	Technical resilience	Flexibility	Social & environmental impact	Costs
+ ... MW									

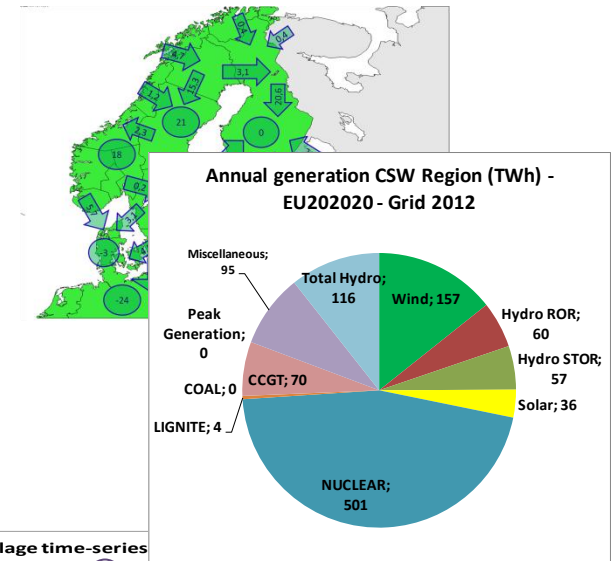
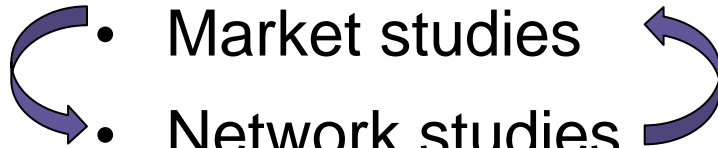
- Basis for further selection of
Projects of Common interest

+ technical description
+ monitoring

A dense 2-year long study process



- Scenario elaboration & validation
- Market studies
- Network studies
- Project identification & valuation
- Reports compilation

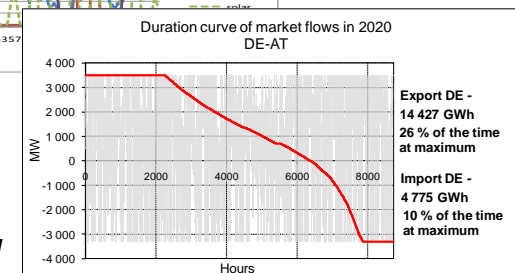
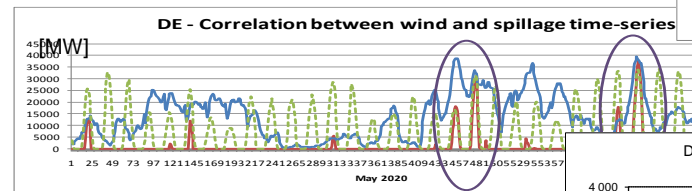


at stake

timely delivery

consistent results

limited resources



Presently being investigated

Subject to adaptations &/o changes