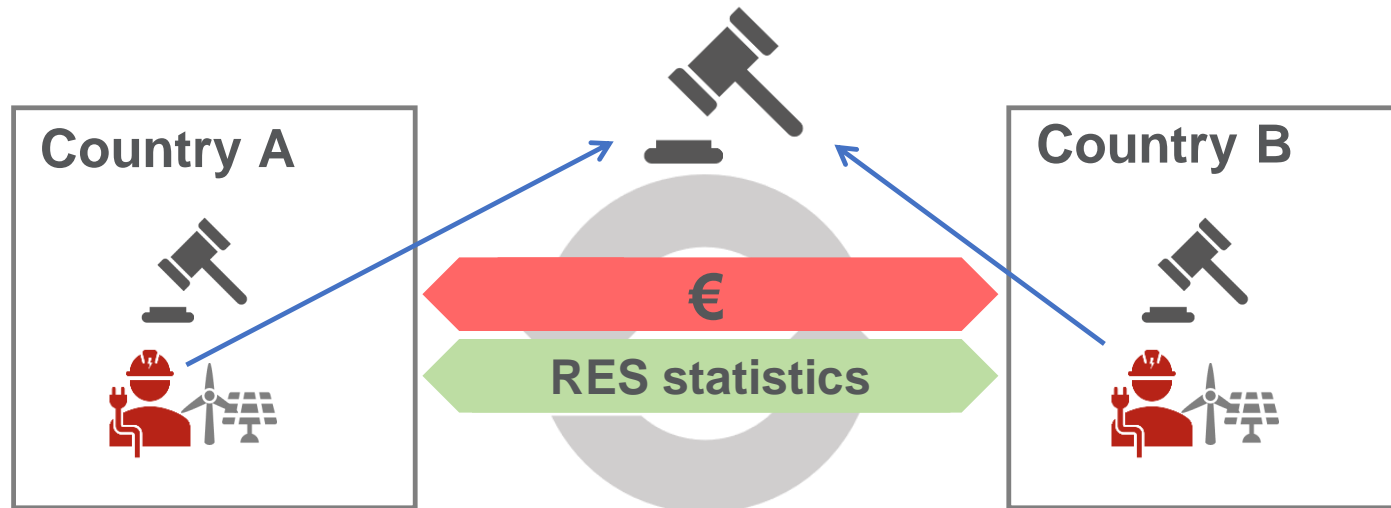




Policy options and challenges for cross-border collaboration

Lena Kitzing, Technical University of Denmark (DTU)

What are cross-border auctions?



Cross-border auctions are characterized by:

being open for participation of projects from more than one country,
 creating competition between project developers from different countries,
 typically resulting in cross-border flow of support payments and RES statistics

Legal provisions in EEAG and REDII

RED II, Article 5:

“Member States shall have the right [...] to decide to which extent they support electricity from renewable sources which is produced in another Member State.”

But: **“indicative shares may, in each year, amount to at least 5 % from 2023 to 2026 and at least 10 % from 2027 to 2030”** (or to the level of interconnectivity)

By 2023, EC assesses need to introduce an obligation on MS to partially open their support schemes

→ **potentially obligatory as of 2025**

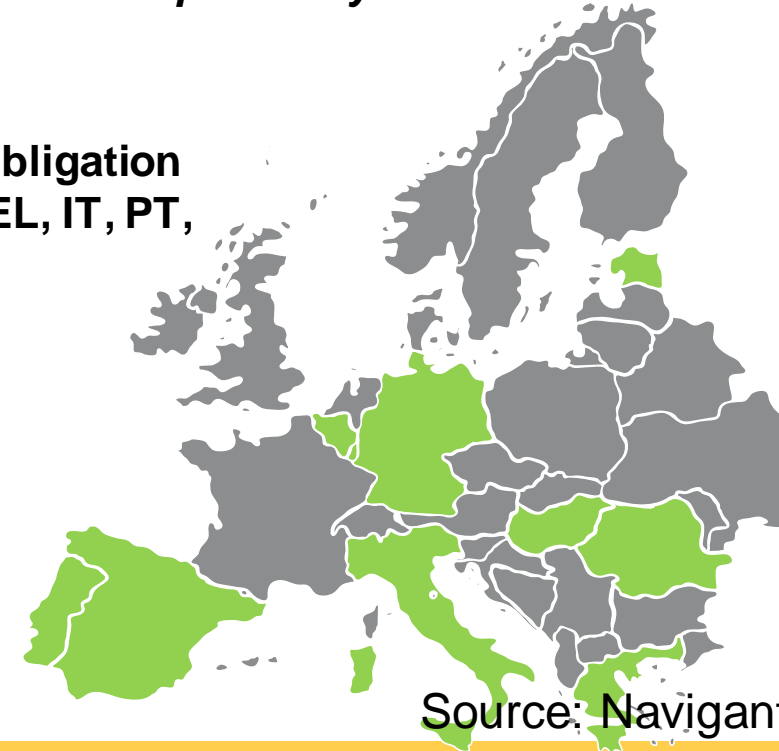
MS may request:

- Proof of physical import (direct connection)
- Assistance by EC, providing:
 - information and analysis on direct and indirect costs and benefits
 - guidance and technical expertise

Guidelines for state aid, (122):

- **“Operating aid schemes should in principle be open to other EEA countries [...] to limit the overall distortive effects”**
- **“The Commission will consider positively schemes that are open”**

→ **MS have opening obligation (DE, LU, ES, EE, RO, EL, IT, PT, BE, HU)**



Source: Navigant

Basic models of cross-border auctions

Intensity of cooperation

1. „Unilateral opening“ – Only one country opens its national auction

**Simplest model;
achieves fundamental
benefits of cooperation**

2. „Mutual opening“ – The cooperation countries both open their national auction schemes to another.

**Higher transaction costs;
reciprocal nature may
increase public acceptance**

3. Joint auction – The cooperation countries set up a joint auction.

**Agreement on auction and
remuneration design;
increased auction volume
may attract more bidders**

New instruments at EU level will facilitate cross-border approaches to RES deployment



The EU financing mechanism...

... introduces **EU wide auctions** (“gap filler”)



New funding line under CEF

... **allocates grants** (~ €1.3 bn) to cross-border RES projects, provided there is a funding gap and the project has “EU added value” (cost savings, innovation, GHG, etc.)

→ **grants for studies** (e.g. preparatory studies, technical studies) and **grants for works** (investment aid to RES plants)

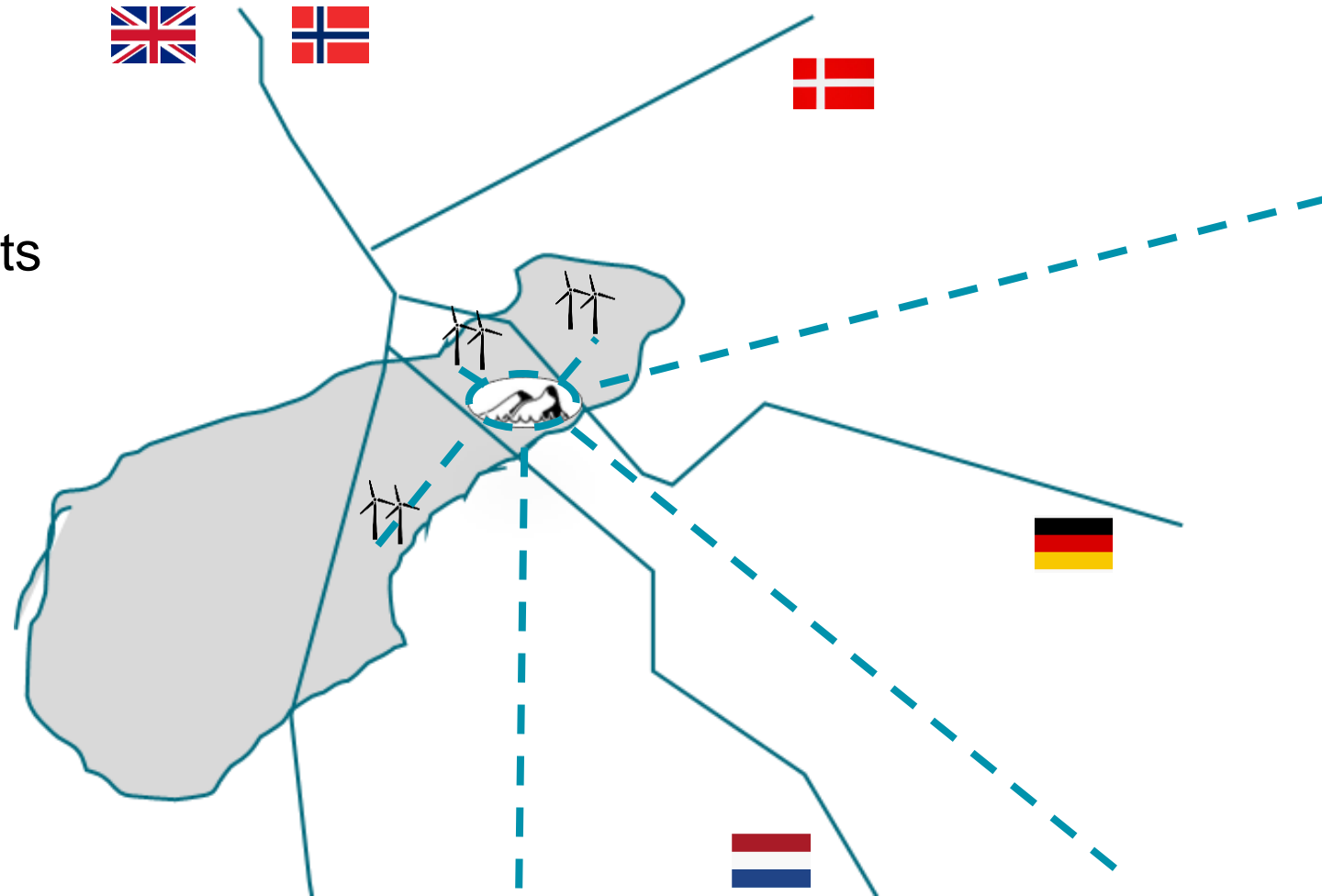
→ Member State **governments** and private **project promoters** can apply for funding



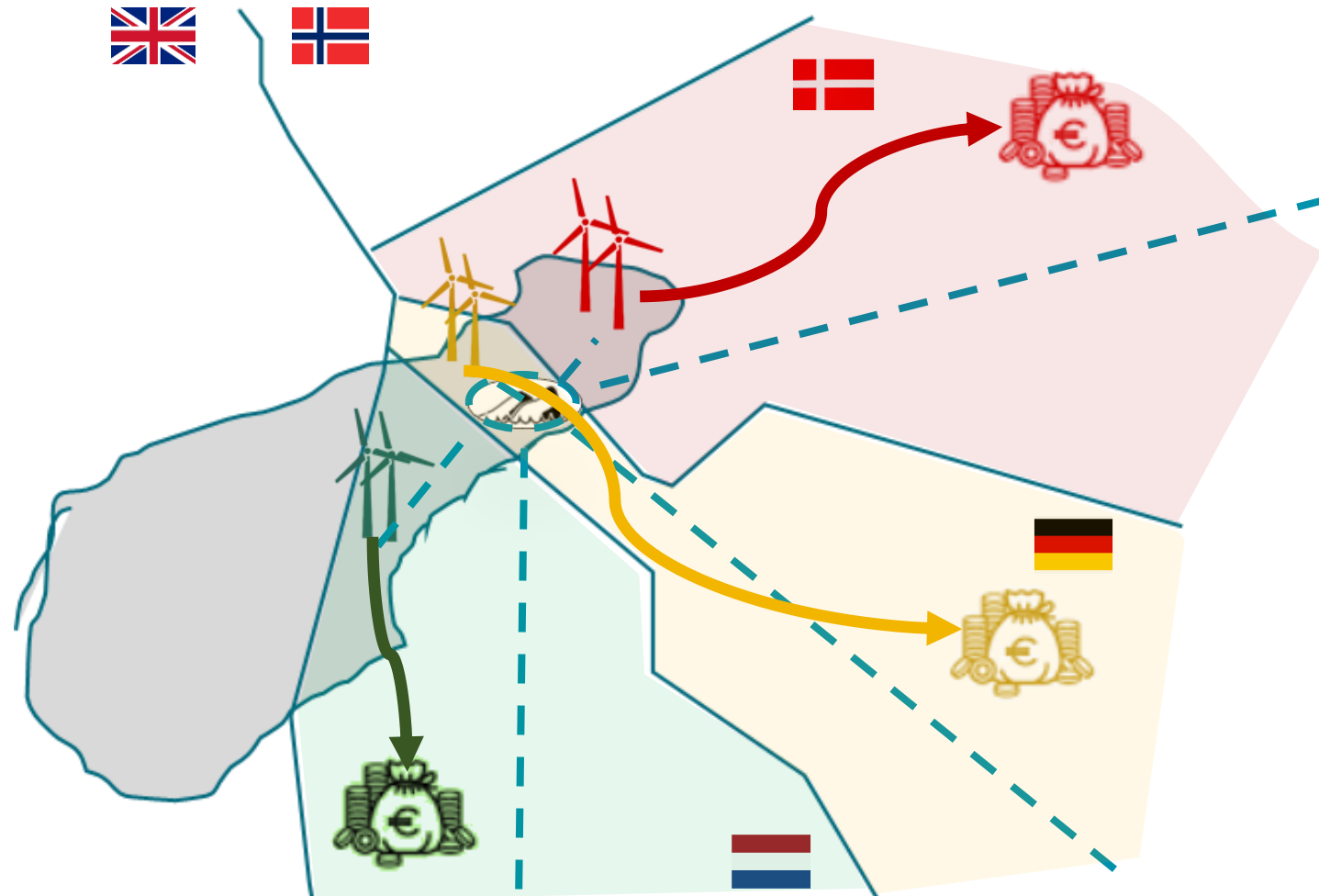
Relevance of cross-border auctions will likely be increasing in the future.

Hypothetical case in offshore border region

- How to incentivise wind farm investments and allocated sites ?

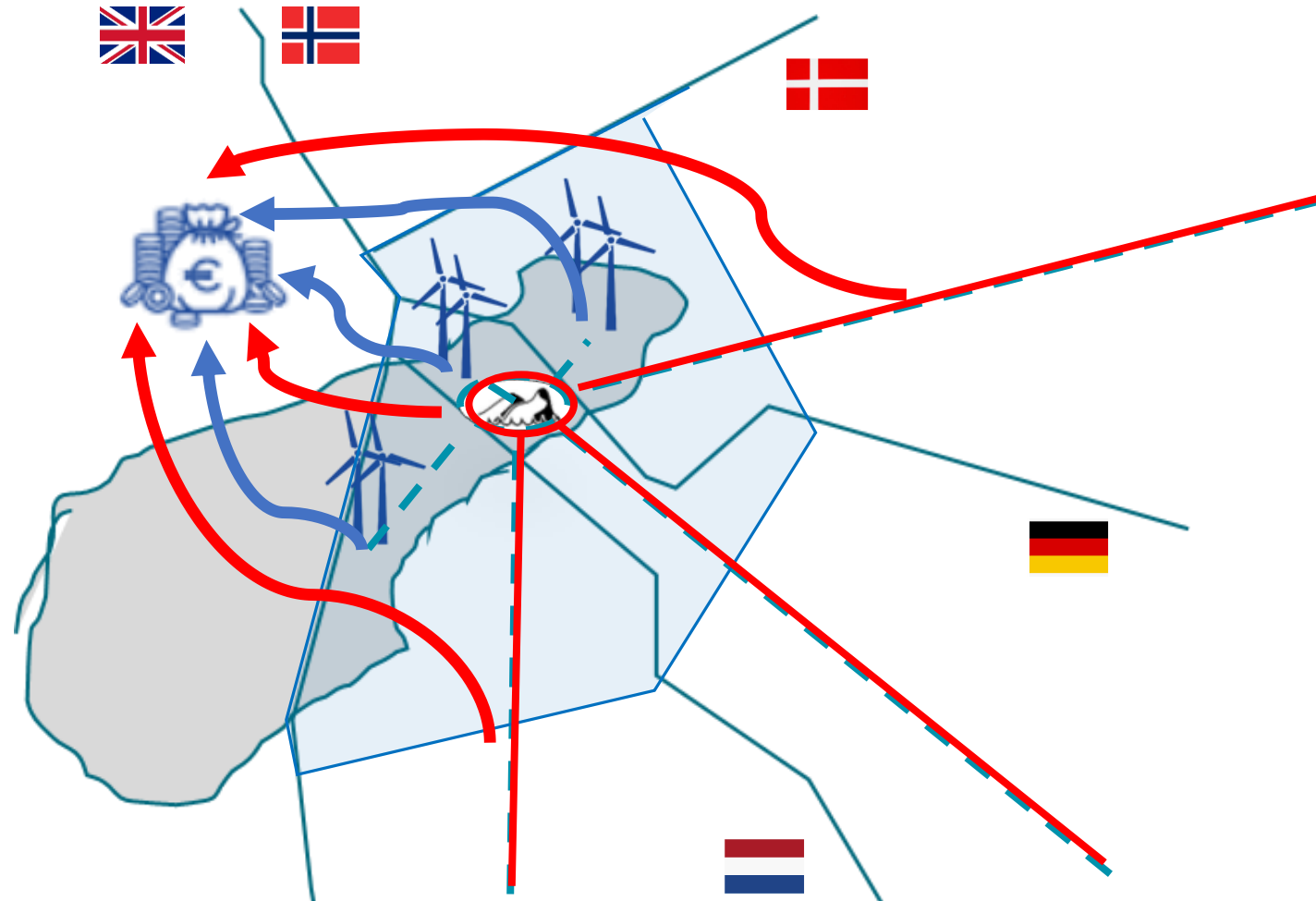


Separate sourcing of wind farms?



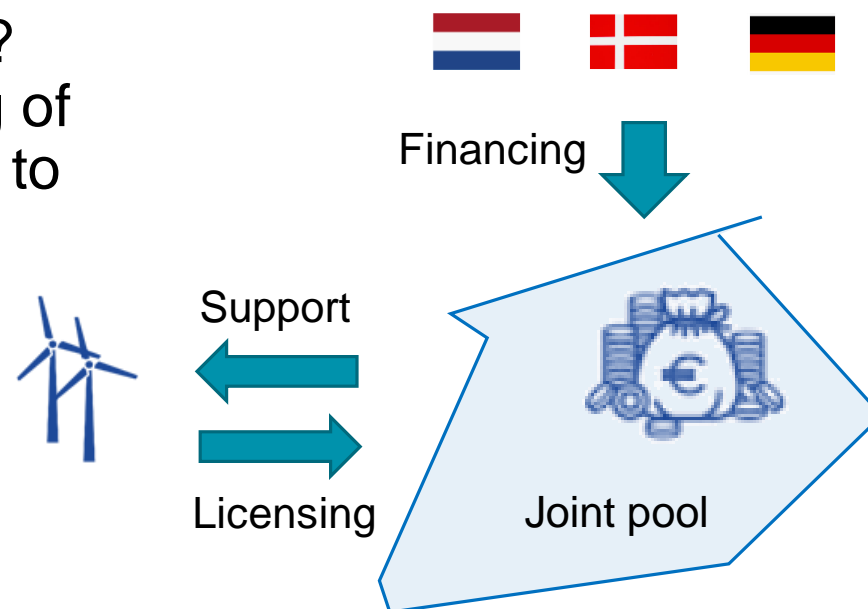
Joint sourcing of wind farms?

- ...or contribute to a joint pool?
- ...even the infrastructure assets?



Joint auction for the hub / island

- Joint support scheme?
- Auctioning / Tendering of wind farms connected to the hub / island



Challenges:

- Allocation of cost shares
- CfD design (reference price)
- Joint planning / timing

Cost and benefit sharing between countries

Cost and benefit sharing



Cost sharing:

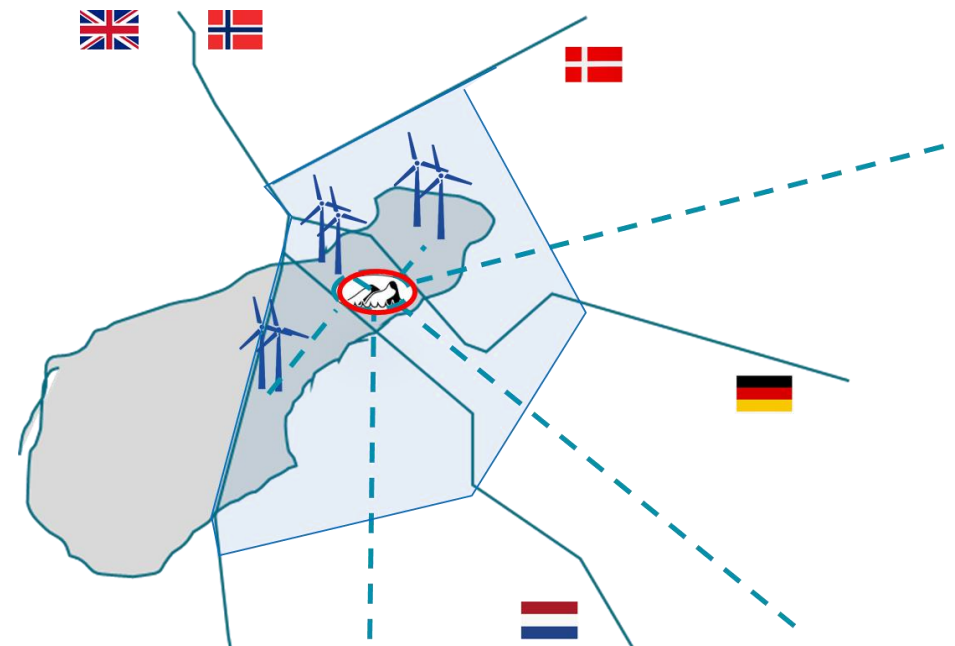
- Equal shares
- Based on interconnector capacities
- Based on actual power flows to the country (ex-post)

Benefit sharing:

- Physical flows
- Market affiliation
- Financing contribution
- > Statistical transfers vs. payments

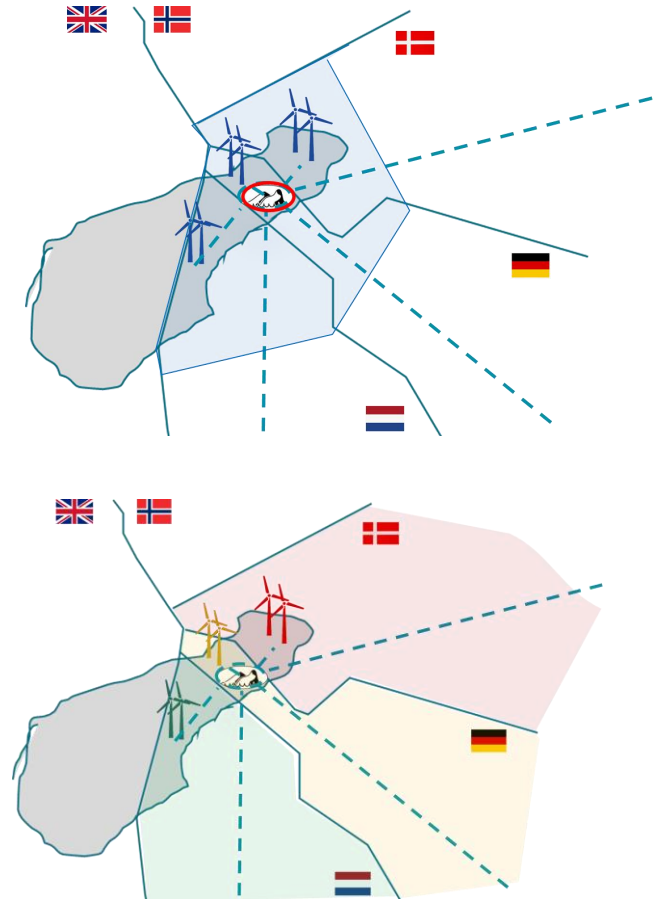
Design option for a joint auction

- Common offshore market area with own price formation (reference price)
- Two-sided Contract for Difference design (fixed guaranteed price)
- Support paid out by a joint pool. MS contributions to the pool based on actual physical electricity flows into their country
- Risks: minimal for investors during the CfD // MS assume market price risks of foreign countries (similar to DE open PV auction)



FOR DISCUSSION

1. Will a joint auction scheme be realistic? Desirable?
2. What will the most difficult differences to overcome in establishing a joint pool?
3. Will it make a difference if income is expected from the wind farms? (anticipatory investments?)
4. What would be a realistic model for sharing of costs and benefits?
5. Will the share / allocation of RES amounts play a role?



AURES



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Discussion: ownership model for the cross-border hub-and-spoke concept



POTENTIAL DESIGN OPTIONS

	Hub / Island	Interconnectors	Wind Farms
“National model”	hosting TSO > Limited interaction	respective TSOs jointly	private firms
“Central model”	joint TSO SPV	joint TSO SPV	private firms
“Market model”	private firm(s)	private firms	private firms
	> Hosting country could auction out licenses to build and operate		

Discussion: auction model for the cross-border hub-and-spoke concept

POTENTIAL DESIGN OPTIONS

	Auctions	(virtual) Market Access
“National model”	national	home country
“Cooperation model”	mutually open / joint	home country
“EU model”	joint financing mechanism	offshore market area(s)