

A European Battery Pageant

BESS Market Attractiveness Across Europe

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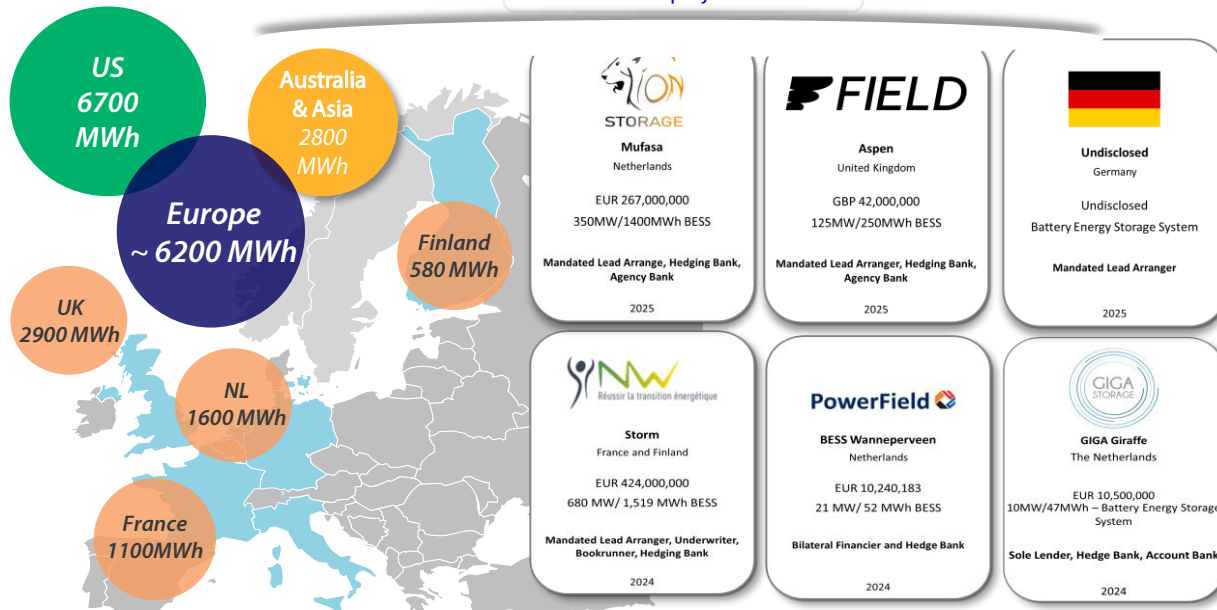
Rabobank has a well-established track record in battery storage project finance and advisory

BESS project finance

~5 GW of capacity across the globe, with various revenue strategies



Currently mandated for 3 other BESS projects



Overview of total project MWh's financed and mandated per country

BESS advisory

established financial advisory suite in the BESS space





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A country's attractiveness is shaped by many factors

Electricity system

- BESS capacity
- Share of renewables
- Interconnection
- Grids



Markets

- Arbitrage opportunities
- Ancillary markets
- Capacity markets



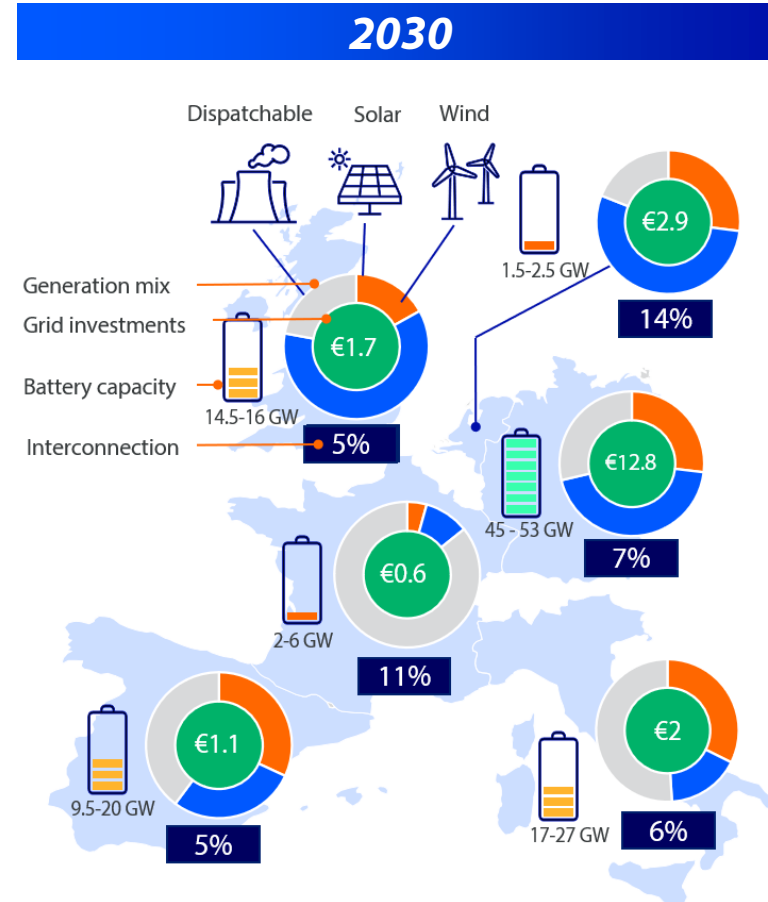
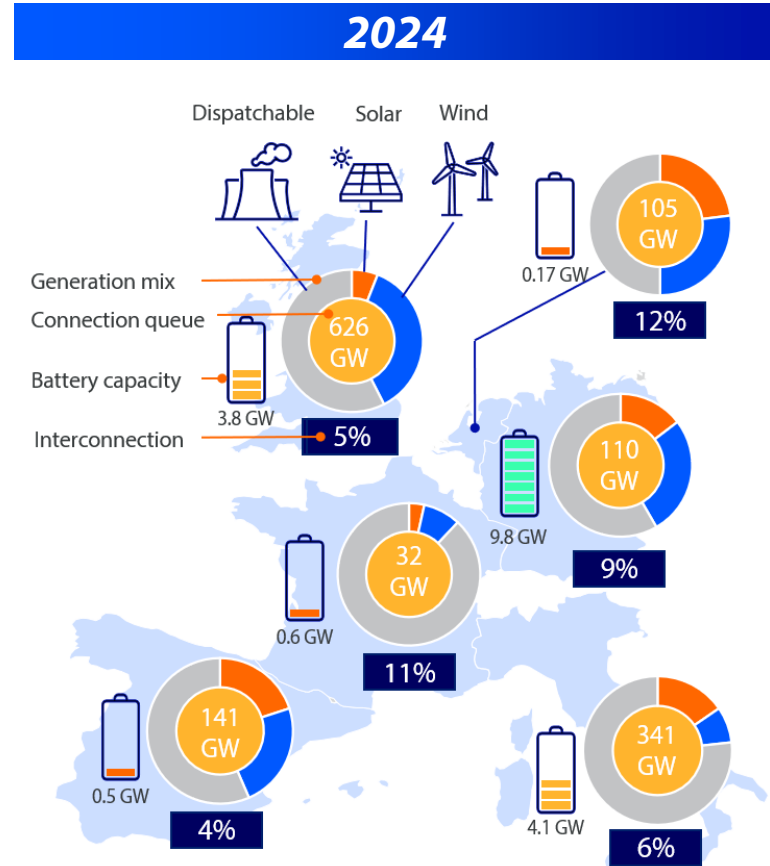
Regulatory environment

- Revenue stacking
- Grid tariffs
- Battery strategies









Six countries, six different electricity system

Assess the generation mix and grid conditions for storage needs



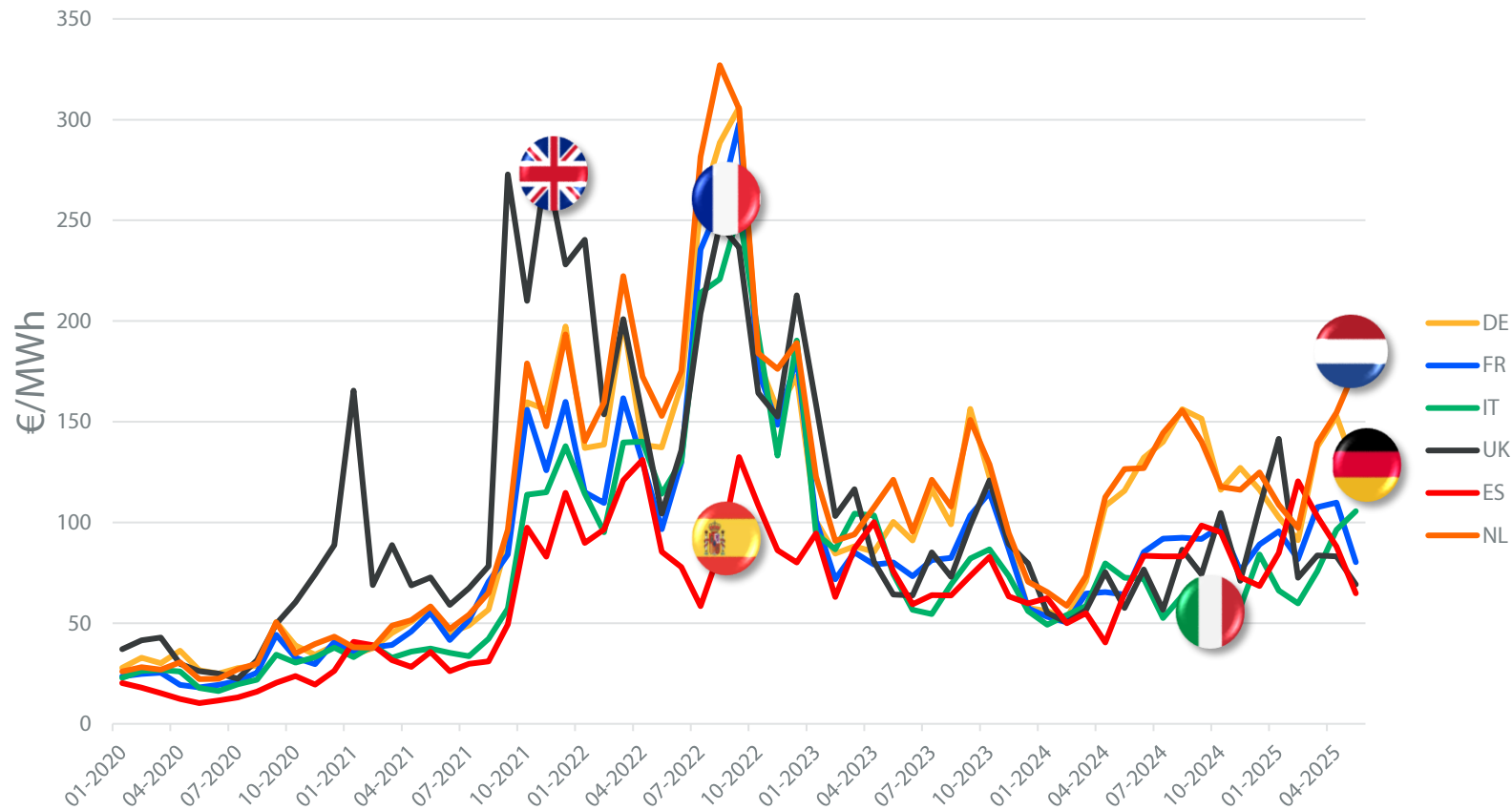
Source: RaboResearch 2025

Jury's verdict

-  high share of RES, strong BESS outlook and grid investment plans
-  high share of RES, grid congestion issues
-  Biggest grid-scale BESS capacity, high share of wind, low interconnection
-  Massive solar buildout, limited interconnection, large BESS pipeline
-  Low share of renewables, well-interconnected, small grid queue
-  Massive solar buildout, low interconnection, BESS yet to take off

Electricity systems influence markets

Diverse and volatile price spreads

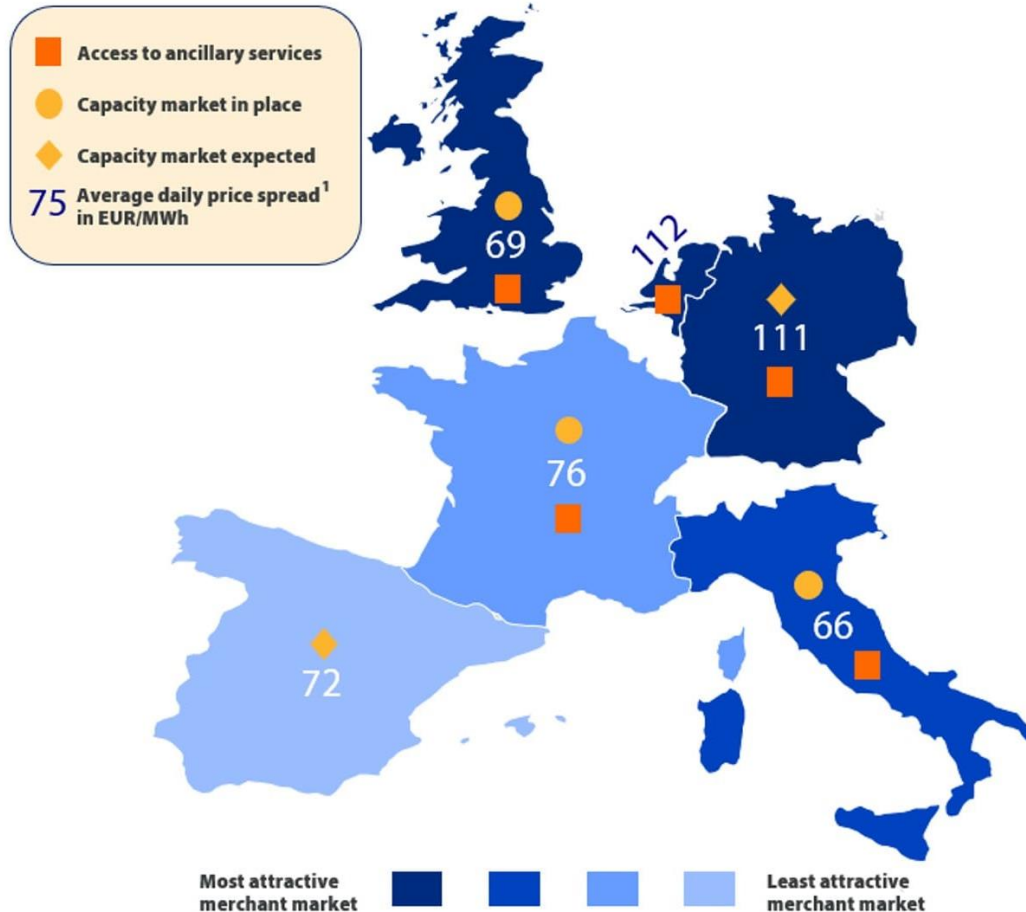


Jury's verdict

-  Wind+solar+gas leads to large spreads. Strong correlation with NL
-  Solar overcapacity and gas peaks lead to highest price spreads
-  Wind energy leads to lower spreads compared to solar
-  Hydro in the north stabilizes prices. Spreads are larger in southern bidding zones
-  Stable prices from firm nuclear. Imports price spreads from BE, DE
-  Island-like operation. Negative price hours are increasing

Merchant markets go beyond day-ahead

Access to ancillary markets, balancing mechanism, and capacity markets



Jury's verdict



Large price spreads and high balancing market prices. Capacity Market expected



Largest price spreads high balancing market prices.



Biggest revenue stack. Improved Balancing Mechanism. High share of renewables and gas generators.



New MACSE capacity mechanism. Increasing share of solar. Zonal prices. Power market reforms TIDE



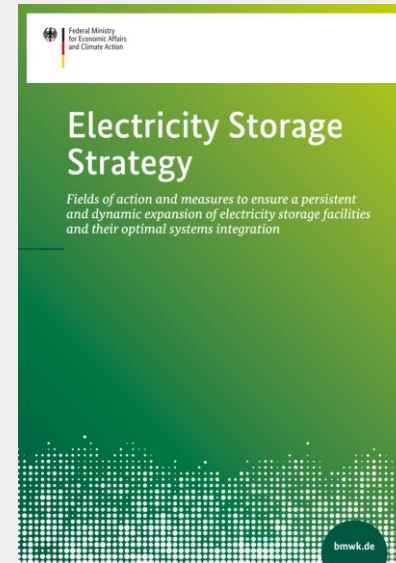
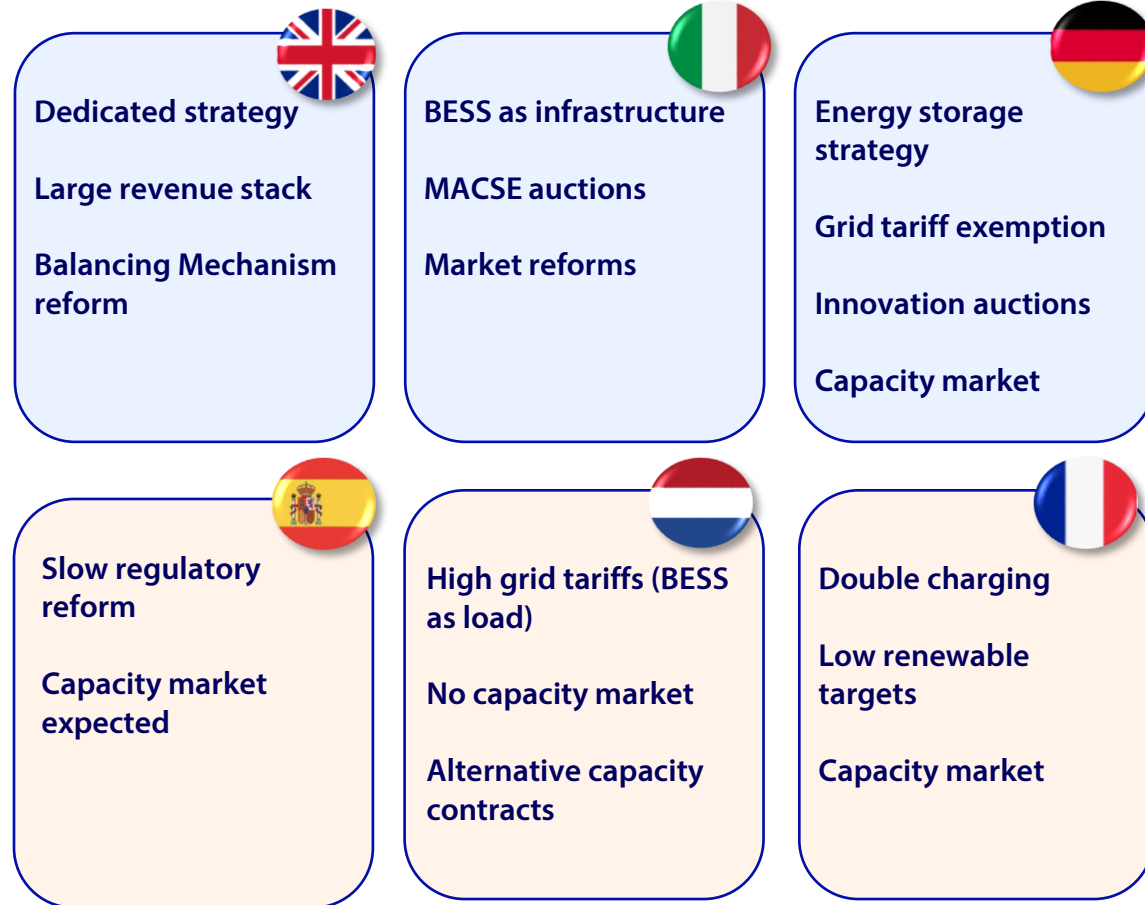
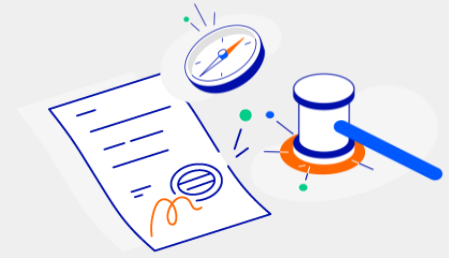
Access to frequency services and capacity mechanism. Imports price spreads. Preference for firm power.



Currently no access to balancing markets. Crucial reforms are near. Capacity market expected.

Regulatory Environment

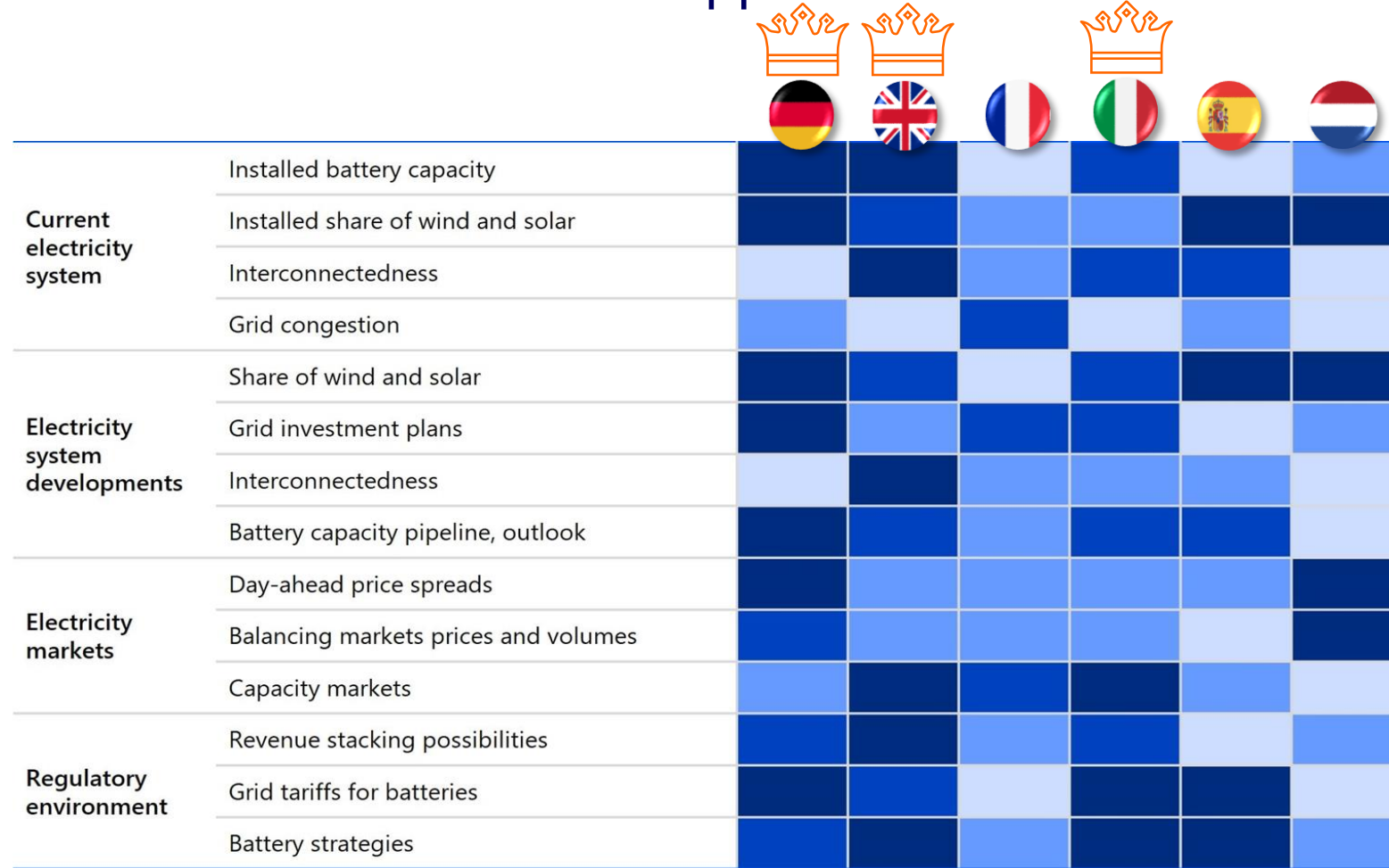
A European patchwork



GC0166: Introducing new Balancing Mechanism Parameters for Limited Duration Assets

Who gets the tiara?

And who cares? BESS offers opportunities in all markets



Jury's verdict

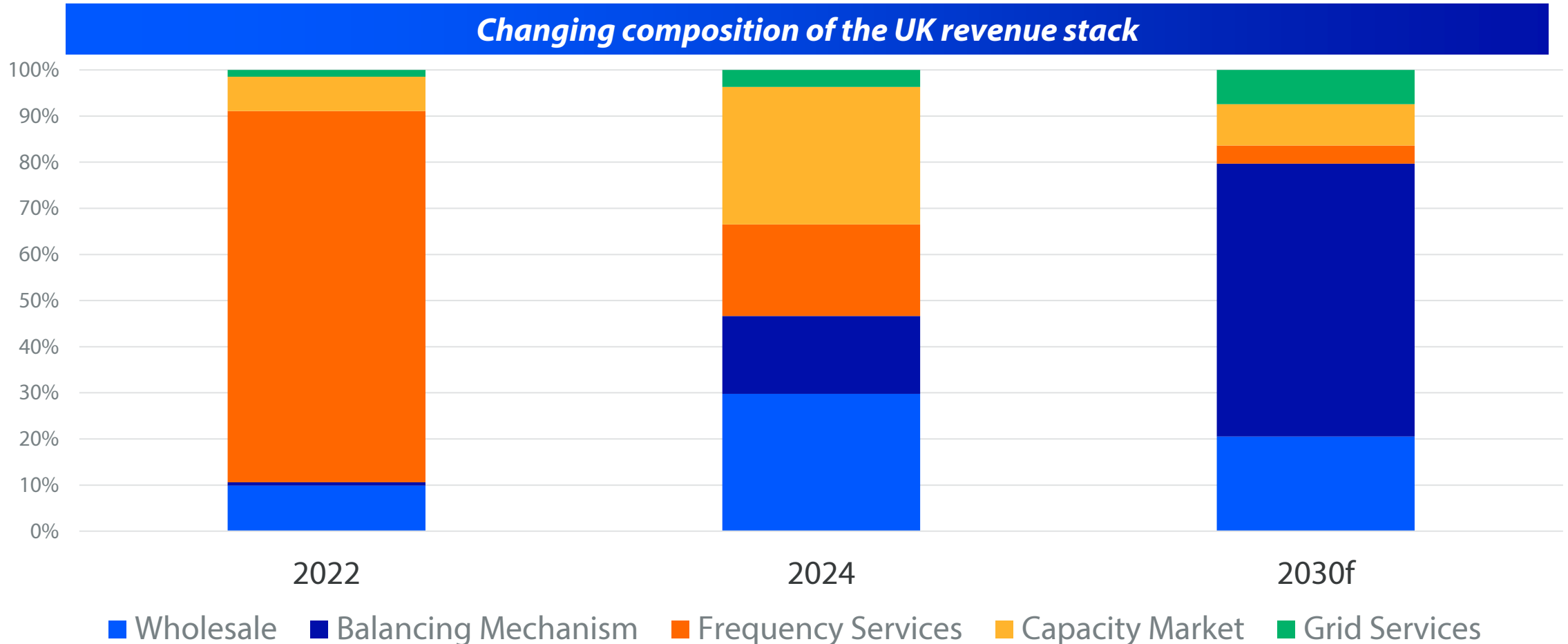
- Strong performance in all categories
- European frontrunner, strong governmental support
- A hidden gem?
- BESS as infrastructure, revolutionary MACSE mechanism
- Spain is getting ready for BESS
- Great system and market conditions, regulatory hurdles

Source: RaboReserach 2025



Keep your business model up to date

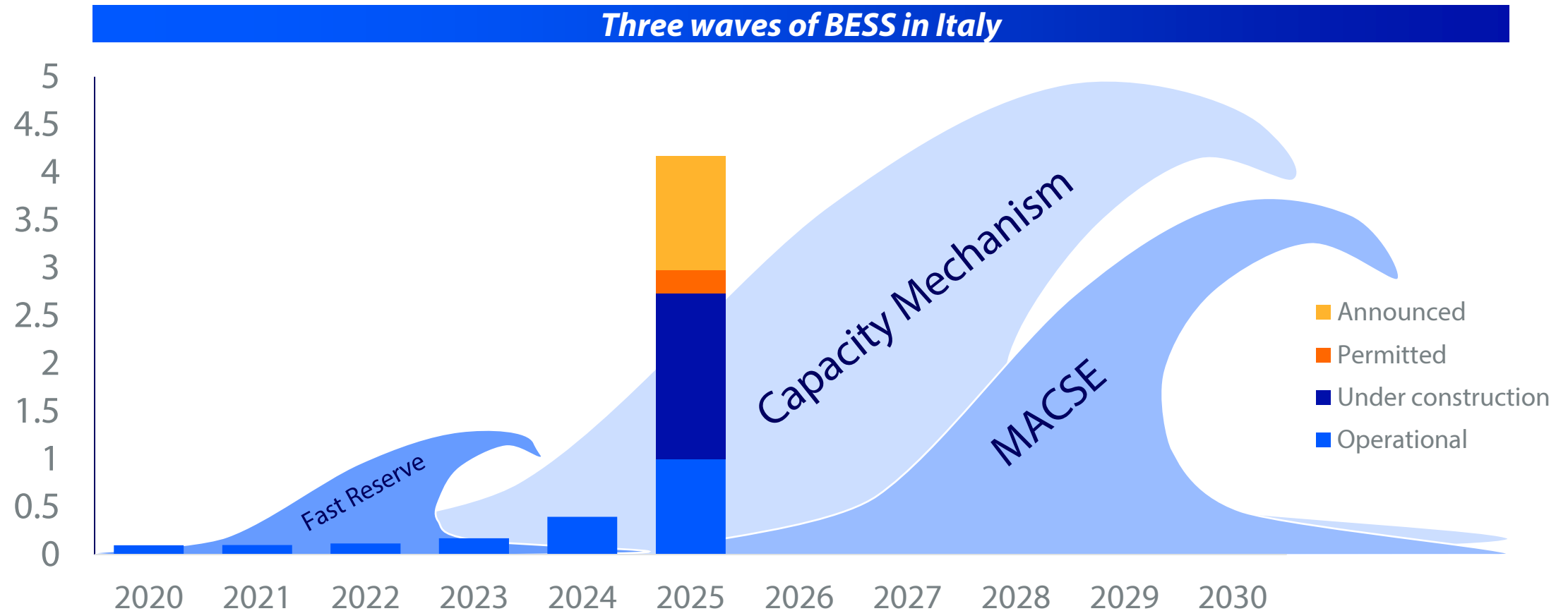
The energy transition has only just begun and markets shift



Source: BloombergNEF, Modo Energy, RaboReserach 2025

Stay updated on regulatory frameworks

And know when the next wave is coming



Source: BloombergNEF, RaboResearch 2025

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Backup power for Europe - part 1: Country attractiveness for battery energy storage systems

BESS are vital for integrating renewable energy. This report analyzes key factors in six countries, highlights top markets and emphasizes assessing local conditions.

Research 🕒 9 January 2025

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Sector coverage

Clean tech and offshore

Renewable production

Storage

Grids & networks (electricity markets)

Clean energy trading

Mobility & transport

Circular Economy

Other topics



Susan Hansen



Hyung-ja de Zeeuw



Pablo Ruiz



Sanne de Boer



Coen Hutters



Boglárka Márkus



Owen Thomson



José Serrano



Nina Fahy



Amit Mathrani

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The background of the page features a series of high-voltage power transmission towers, also known as pylons, stretching into the distance. The towers are silhouetted against a warm, orange-hued sky, suggesting a sunset or sunrise. The perspective is from a low angle, looking up at the towers, which creates a sense of scale and depth. The power lines are visible as thin, dark lines crisscrossing the sky.

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