# Frost & Sullivan European Smart Grid Market Overview

In the next 10 years European Smart Grid Market will Witness the Fastest Growth as Compared to Other Regions Globally

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### **Key Findings for the European Smart Grid Market**

European smart grid market revenue is expected to grow at a CAGR of 8.6% from 2015 to 2025.

Demand response will be the fastest growing segment within the European smart grid market with a 10 year growth rate of 17.6%.

Future of the Smart Grid Industry European smart meter rollout is going slower than expected. The market will peak in 2021. France, the United Kingdom, Germany, and Italy will be the key countries with bulk smart meter shipments in 2025.

Distribution automation, which is a subset of distribution grid management (DGM), has strong growth opportunities with revenue growing at a CAGR of 8.2% from 2015 to 2025. Europe is the biggest distribution automation market globally and is expected to maintain its leadership position even in 2025.

Projects of common interest and the European Council target for 10% interconnection by 2020 will drive growth of HVDC and FACTS.

Source: Frost & Sullivan

### **Key Trends in the Future Electrical System**











Generation

**Transmission** 

Distribution

**End-users** 

New Utility Business Models

High Voltage Technologies Advanced Distribution Automation

Demand Response

Key Trends

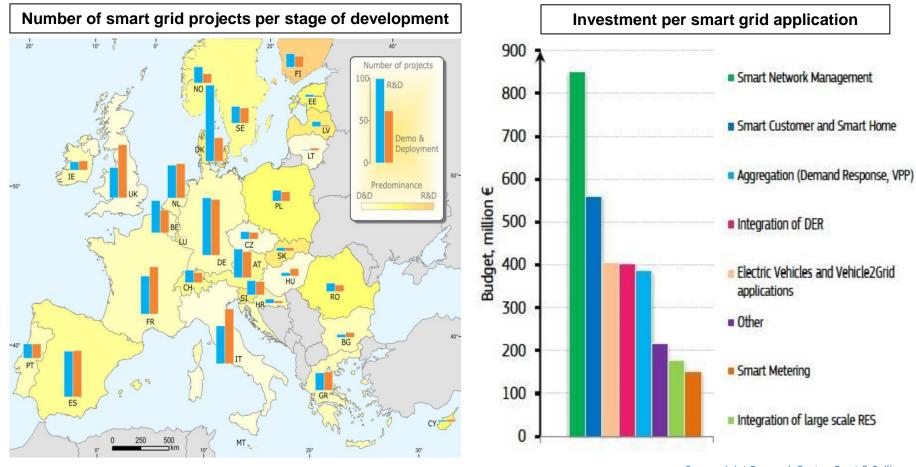
Data-driven Utilities

Single Market

Changing Role of Distribution System Operators (DSOs) Advanced Metering Infrastructure (AMI)

Source: Frost & Sullivan

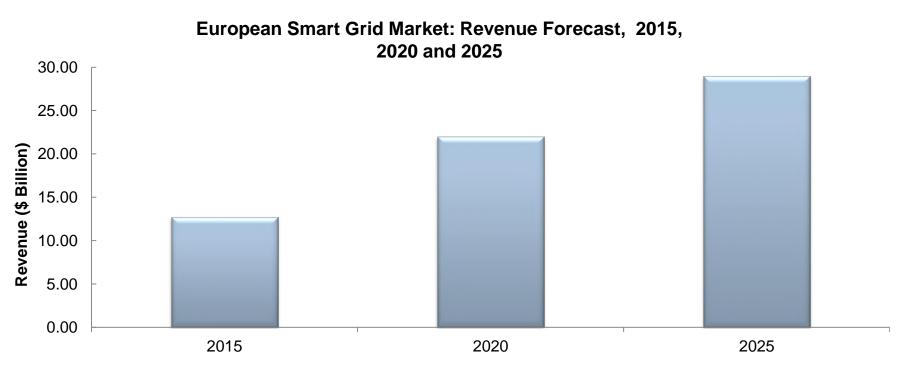
### **European Smart Grid Projects – Where is the Focus in Terms of Countries and Applications?**



Source: Joint Research Center, Frost & Sullivan.

- Smart Network Management projects accounted for 26% of the total budget.
- Germany leads the European nations in terms of the number of smart grid projects, followed by Denmark.

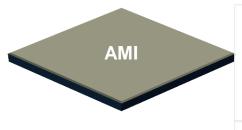
### How Big Is the European Smart Grid Market and How Fast Is It Expected to Grow?



Source: Frost & Sullivan analysis.

- > European smart grid market is expected to grow at twice the rate from 2015 to 2020 as compared to from 2020 to 2025.
- Smart Grid includes AMI, demand response, DGM, and HV technologies.
- > Although DGM occupies around 68% of the revenue, AMI and demand response are expected to grow the fastest.

### **Top Growth Areas within Smart Grids in Europe**



AMI revenue is likely to to grow at a CAGR of 12.4% from 2015 to 2025. The revenue will witness very high growth of 31% between 2015 and 2020 due to massive rollouts in the United Kingdom and France. In fact, France is expected to surpass Spain to become the largest smart meter market in Europe in 2018.

Demand Response France, Switzerland, the United Kingdom, Sweden, and Belgium offer good growth opportunities for demand response. The National Grid in the United Kingdom has tied up with various aggregators to implement DR programs and recently tendered for 200 MW of fast frequency response. EDF in France offers load management to its customers and is now in the process of setting up third-party aggregators to facilitate load curtailment during peak periods.

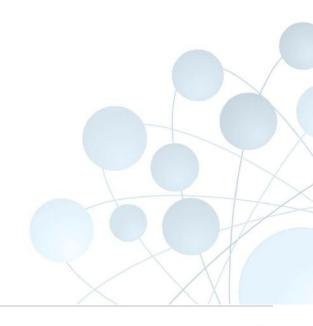


The European substation and distribution automation market was worth close to \$3.1 billion in 2015, and is expected to grow at around 8% CAGR till 2020. New technological trends include intelligent equipment that are able to perform remote monitoring and are based on wireless sensor networks (WSNs).



Cross border integration of electricity markets and growth of large scale Renewable Energy Sources (RES) are driving the growth of advanced transmission technologies (ATT). Revenue for HVDC and FACTS accounted for \$2.0 billion in 2015 and is expected to reach \$2.8 billion in 2020. Wireless power transmission is a ground-breaking technology which is still in the demonstration phase and if successful, could revolutionise the transmission of electricity.

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- Sector-based organisation ⇒ 9 divisions, including Environment
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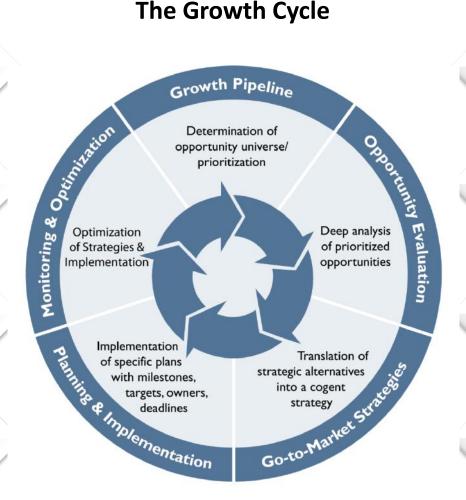
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Implementation
Planning,
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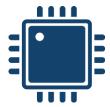
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