FRIENDS OF THE SUPERGRID

Interconnection electricity for Europe's sustainable growth

Mini-symposium in het Huis van Europa:
Can a European Energy Union contribute to a sustainable European energy policy?

The Hague, November 13, 2015
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Introduction

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The Friends of the Supergrid

FRIENDS OF THE SUPERGRID

Europe's largest industrial alliance for interconnections

FOSG **promotes** the **policy** & **regulatory framework required to enable an European Supergrid**

Representing the entire supply chain

We are present in sectors that develop, install, own, operate and deliver **Supergrid infrastructure & related technology**.

- ✓ **1 million jobs**
- ✓ **> €200Billion annual turn-over**

Interconnecting electricity for Europe's sustainable growth!

The new energy landscape

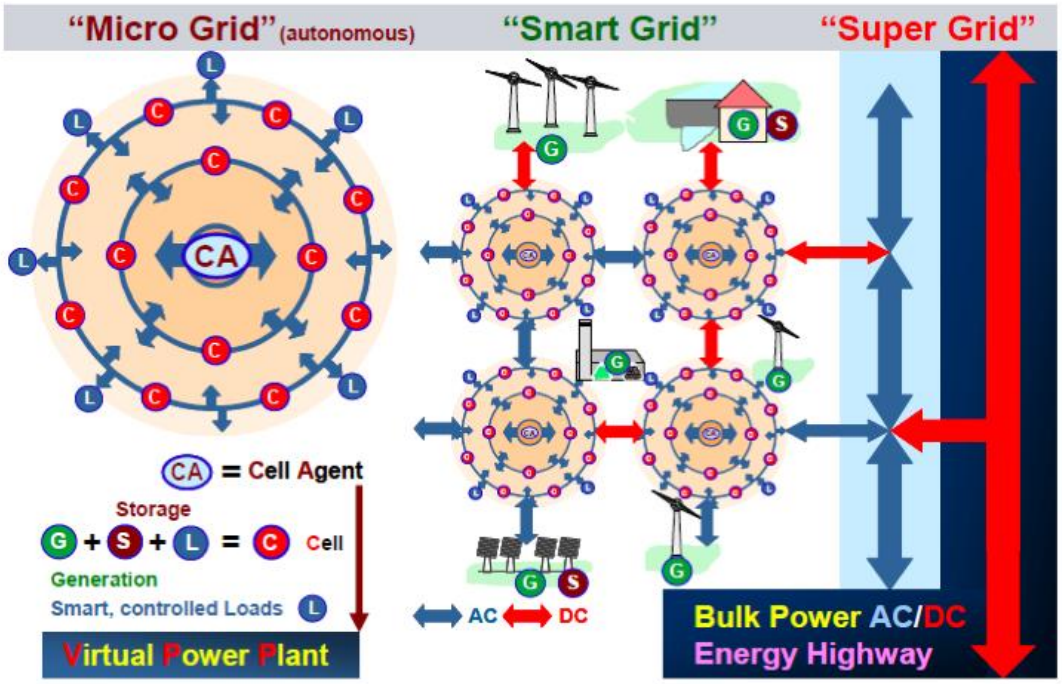
The energy world is changing… will we miss the boat?

- The Internet of Things
- Storage technologies
- Decentralised generation
- RES revolution
- Smart cities
- Prosumers

EUROPE should take the LEAD of this technological (r)evolution

What is the Supergrid?

The electricity system of the future



Source: Siemens paper "Highly Efficient Solutions for Mart and Bulk Power Transmission of Green Energy"

- The power system of the future will require integration of Supergrid and Smart grid principles with ICT combining the two.
- High power AC/DC technology will turn Smart Grids into a Supergrid with bulk power energy highways, fully suitable for connecting smart cities and secure and sustainable access to huge RES.

The Energy Union

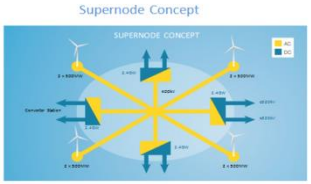
Energy Union Dimensions	How does the SG contribute?
1. Security of Supply	SG increases security & sustainability of supply
2. Internal market	SG will integrate national electricity markets
3. Energy Efficiency	Smart grids technologies will increase system efficiency
4. Decarbonisation	SG will integrate RES which are essential for a decarbonised Europe
5. R&I	Innovative SG technologies offer export opportunities & skilled employment opportunities
+ Consumer	SG will help reducing costs

Supergrid: Essential element of the Energy Union

Energy Union: What is required?

FRIENDS OF THE SUPERGRID

A successful cost-efficient energy transition will require building a strong Pan European-Grid on time



More European technological leadership

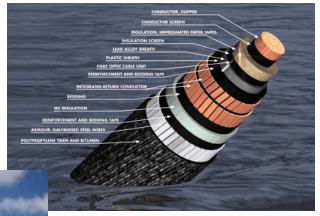
A harmonised European energy policy

Building the SG: What are the issues today?

Energy Union: step in the good direction, but still many issues to tackle:

- ✓ How to speed up permitting?
- ✓ Who owns the new assets?
- ✓ Who operates it?
- ✓ Who regulates it?
- ✓ What grid code will apply?
- ✓ Financing?

Technology is not a blocking point



What is required?

Opportunities for further harmonisation

More coordination & cooperation at Pan-National level

- Market rules
- Security of Supply
- RES support schemes

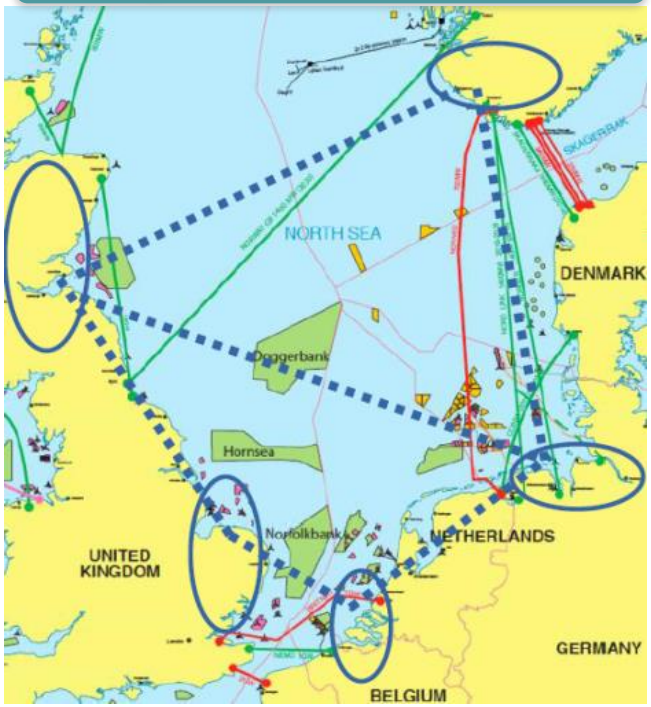
Revised Energy Infrastructure Regulation

- One-Stop-Shop for Permitting
- Coordinated XB regulatory frameworks
- Effective incentives to deploy innovative technologies

What is required?

Need to move from theory to practice….

e.g. DESIGN GRID

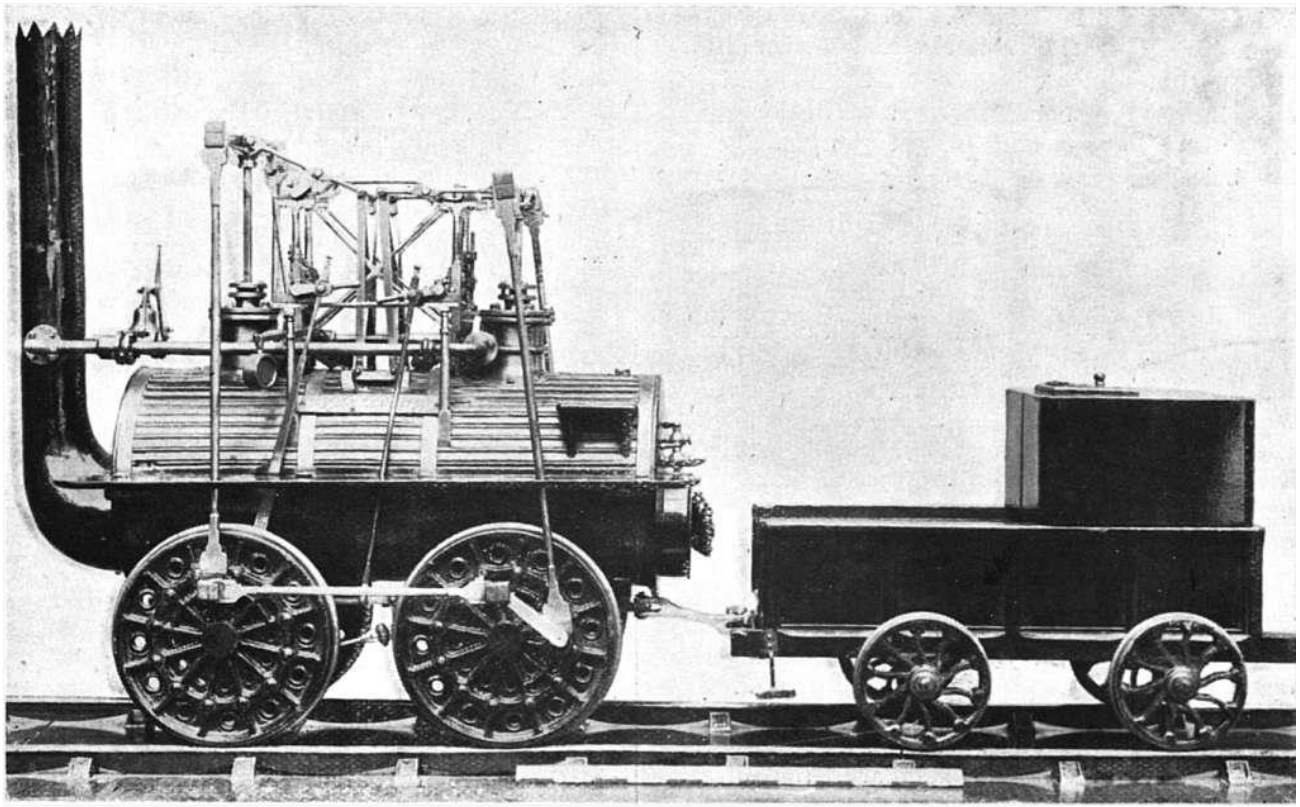


e.g.: Integrated offshore project in the North Sea

European Flagship project

North Sea must become a model of cooperation to be expanded to the rest of Europe

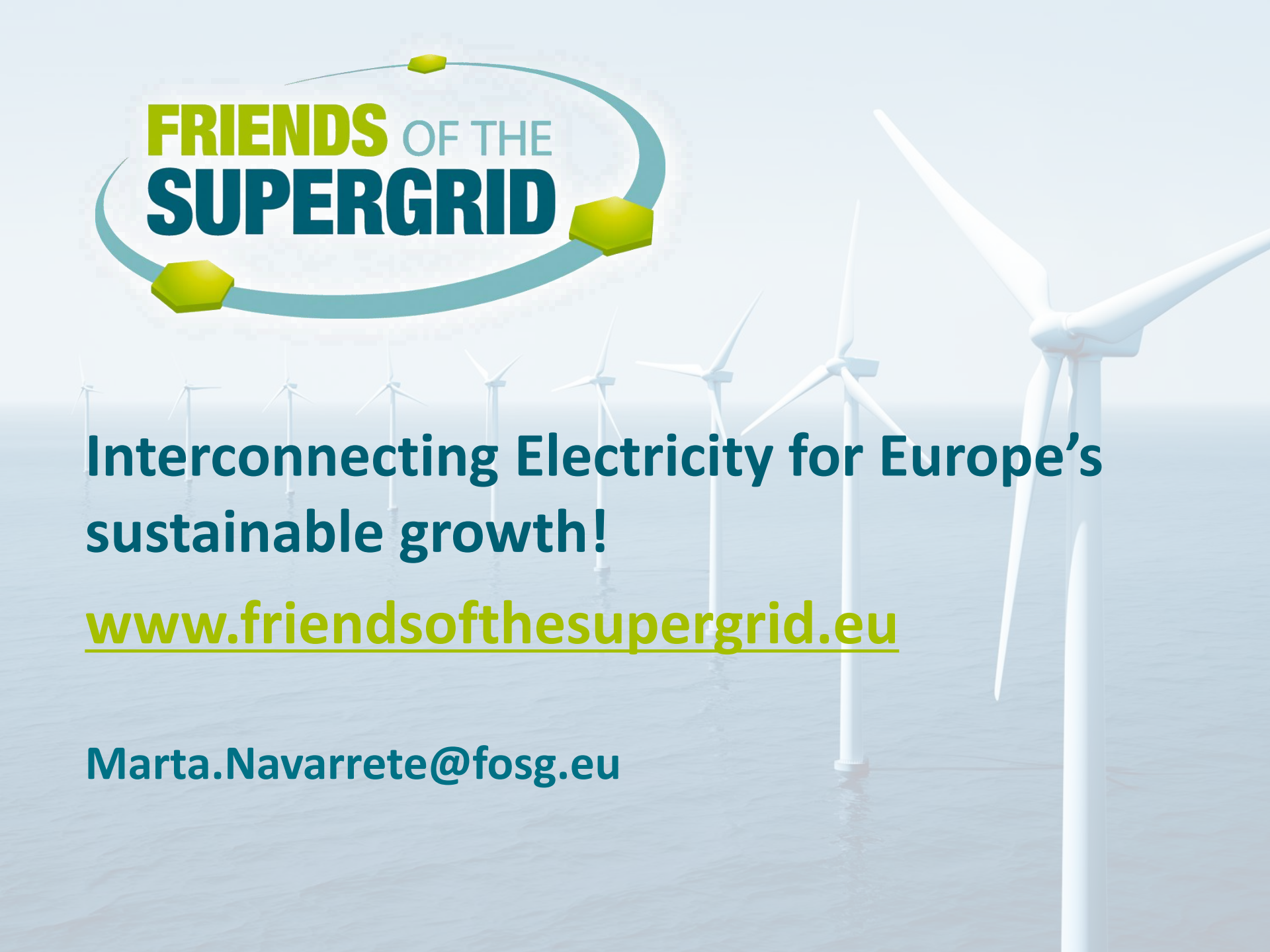
Take Aways



"LOCOMOTION No. 1."

This is George Stephenson's quaint looking engine which drew the world's first passenger train over the Stockton and Darlington Railway one hundred and two years ago. It is depicted resting on the rails used on the pioneer railway.

Photograph by courtesy of the Science Museum, London.



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