

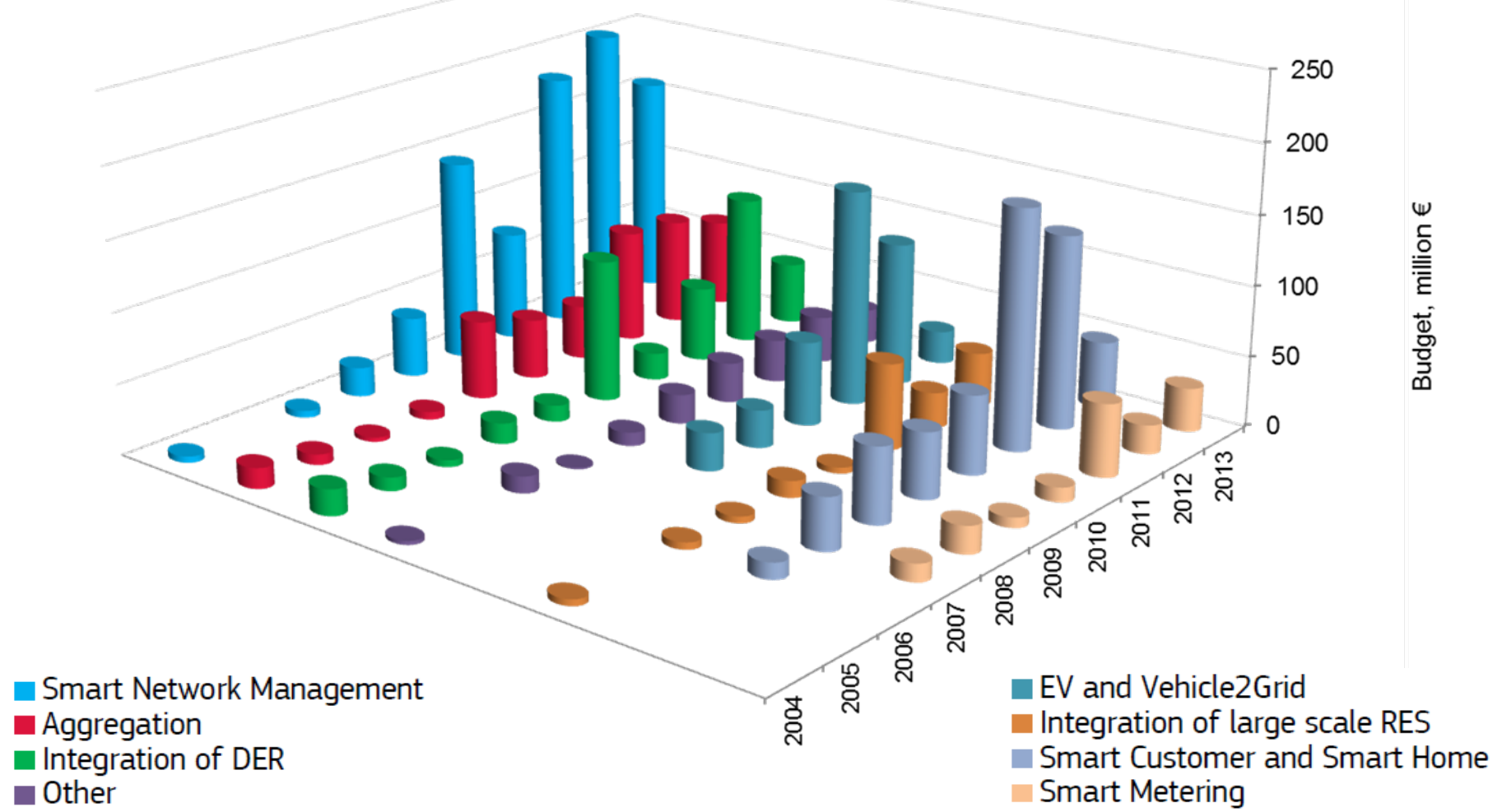


## Japan Smart Community Summit , June 2014, Tokyo

Tony Carroll,  
CEO,  
Smart Grid Ireland



# European smart grid projects – application, year, budget



Source: JRC Inventory – provisional data

# RES strongest driver, unbundling and retail competition

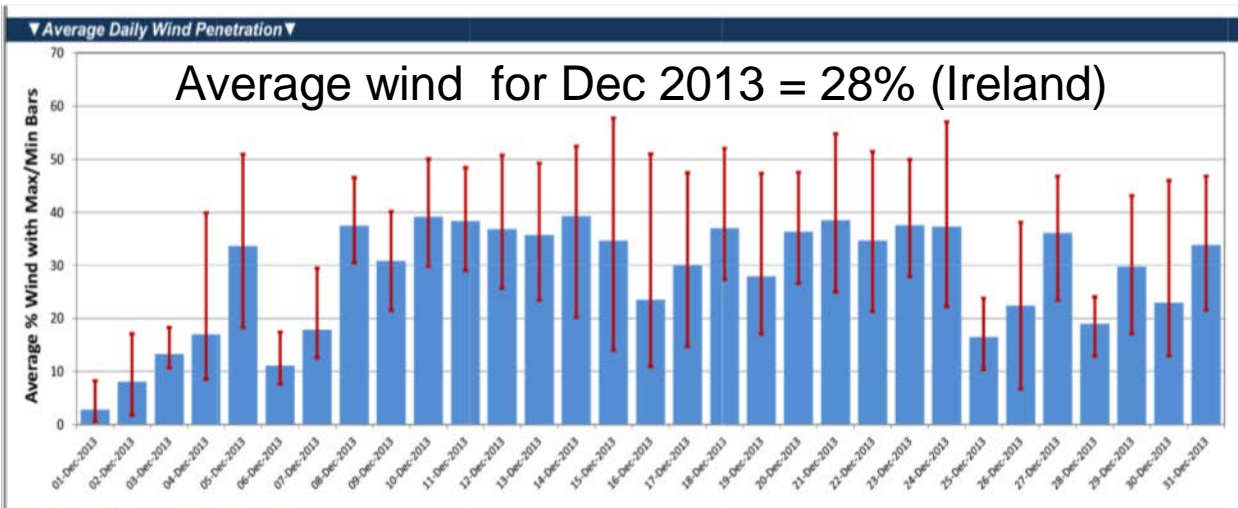
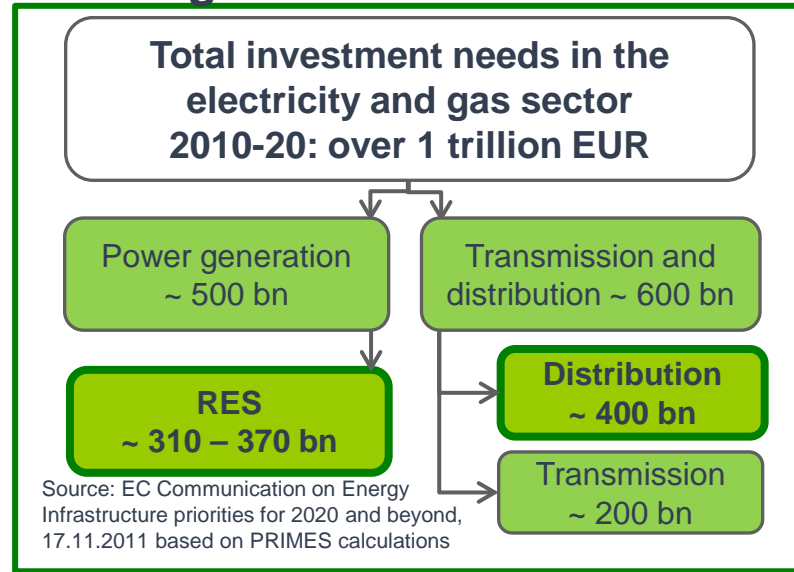
## Strong European drivers

- EU 2020, 2030, 2050 objectives
- Market deregulation and integration

## European market design

- Retail market competition
- Unbundling Generation/Supply <> Distribution

## Huge investment needs



| Share of Renewable Generation 2012 (ex Hydro) |      |         |
|---|------|---------|
|   | EU28 | Ireland |
| Wind  | 47%  | 91%     |
| Solar   | 17%  | 0%      |
| Biomass                                       | 19%  | 4%      |
| Others  | 18%  | 6%      |

# Main Smart Grid challenges



## Investments

Transmission to integrate RES; Regulatory frameworks that incentivise investments in smart grids, including EV charging infrastructure.

## New solutions

Large scale demonstrations – RD&D/ innovation funding

## System Operation

DSO as active system operator– data management, **flexibility**, TSO-DSO cooperation and boundaries, etc.

## Interoperability

Standards for EU-wide/global interoperability

## Data

Privacy and cyber/system security

## Integrate RESE

Accelerating the development of electricity networks capable of handling the massive deployment of RES (Getting above 50% PNSP) and DER

## The consumer

Involve the consumer, demand response, communicate benefits

While maintaining secure supply and quality of service



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