

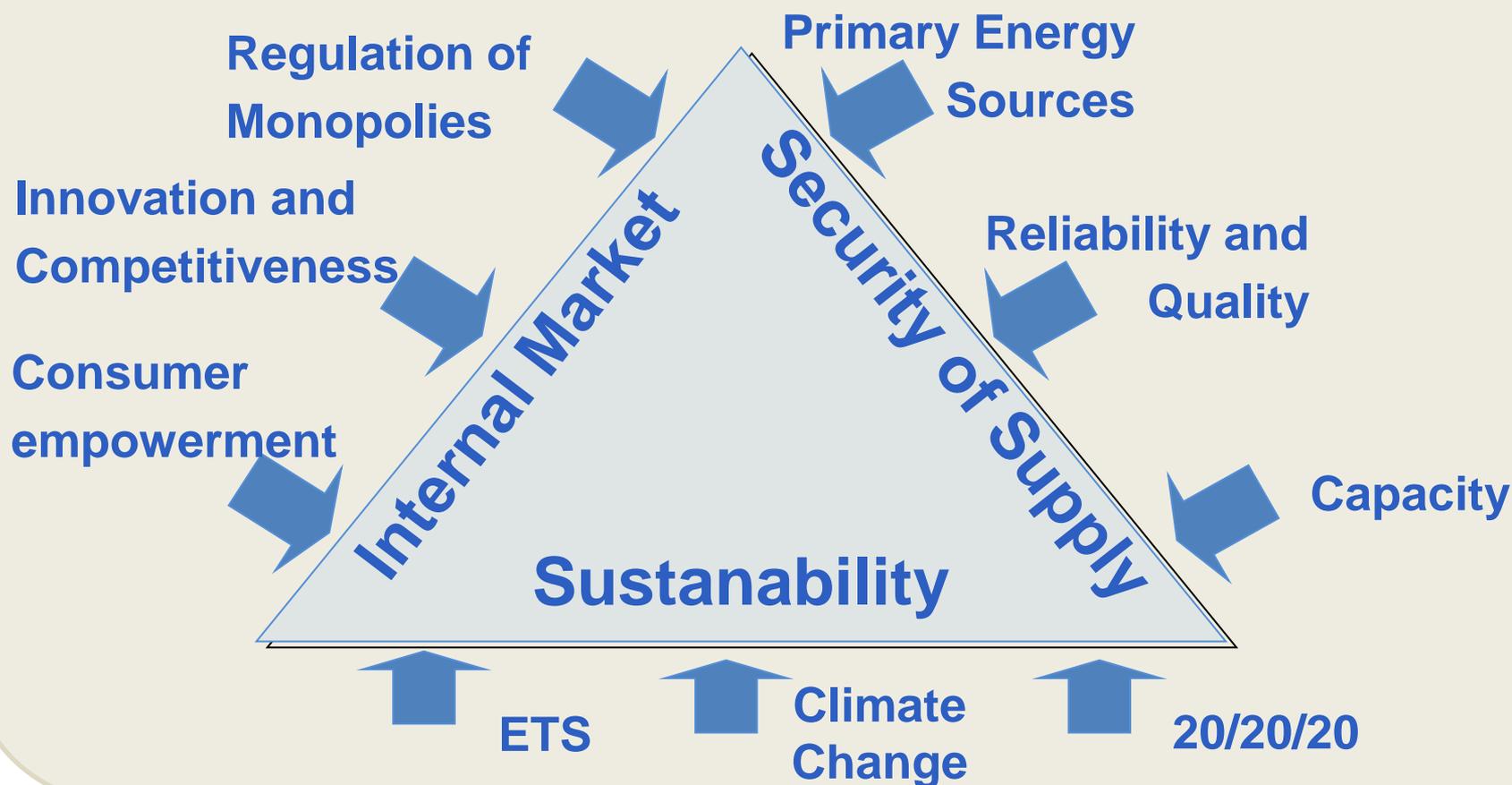
Keys for Demand Response

Manuel Sánchez, Ph.D
Team Leader Smart Grids
Directorate General for Energy
European Commission

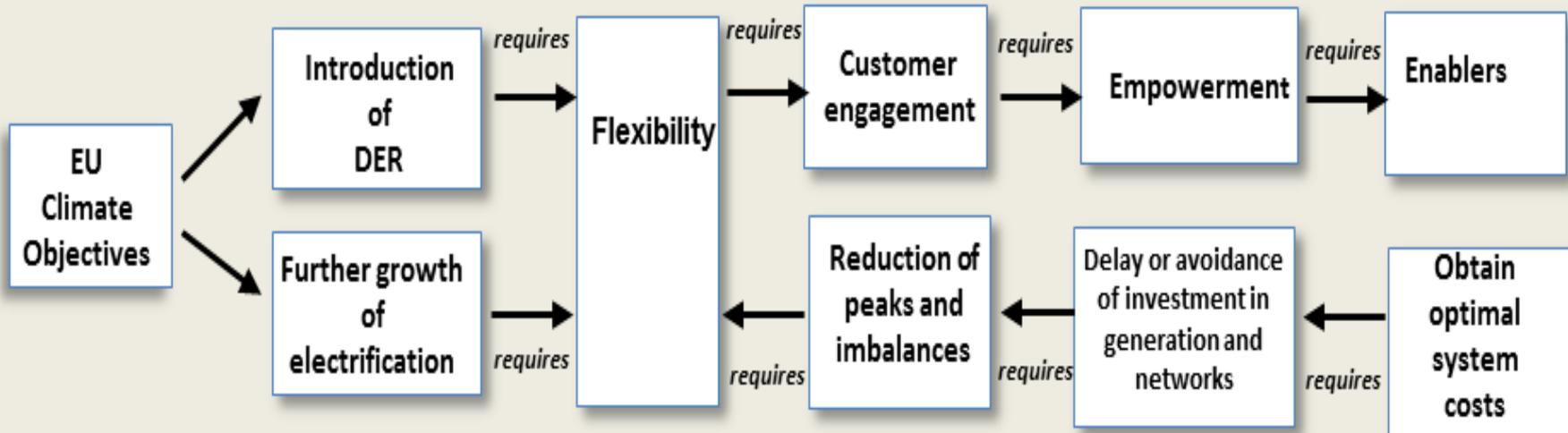


ELECTRICITY SECURITY ADVICORY PANEL
Workshop on Demand Response
Paris, 3 July 2014

Energy policy drivers....



....significant change of energy systems



Demand Response in the EU framework...

Legal basis

- Electricity Directive 2009/72/EC
- Energy Efficiency Directive 2012/27/EC

Policy paper

- COM(2011) on SG
- RECOMM OJ L/73 13/03/2012
- COM(2013)7243 on IEM and Public Intervention
- SWD(2013)442 on DR

...to be understood as voluntary changes in respond to market signals and rewarded.



Energy Efficiency Directive

Art 15.8 Member States shall ensure that national energy regulatory authorities **encourage demand side resources**, such as demand response, to participate alongside supply in wholesale and retail markets.

Member States shall ensure that transmission system operators and distribution system operators, in meeting requirements for balancing and ancillary services, **treat demand response providers, including aggregators, in a non-discriminatory manner, on the basis of their technical capabilities.**

.... where their national regulatory systems so require, transmission system operators and distribution system operators in close cooperation with demand service providers and consumers, **to define technical modalities for participation in these markets on the basis of the technical requirements of these markets and the capabilities of demand response.** Such specifications shall include the participation of aggregators.

Realization: ACER Framework Guidelines and the ENTSO-E Network Codes

Commission Communication C(2013)7243, 5.11.14

"Delivering the internal electricity market and making the most of public intervention"

http://ec.europa.eu/energy/gas_electricity/internal_market_en.htm

EN

EN

Staff Working Documents

- i. Generation adequacy in the IEM – guidelines on public interventions
- ii. EC guidance for the design of RES support schemes
- iii. Guidance on the use of RES cooperation mechanisms
- iv. Notification forms and model agreements for cooperation mechanisms
- v. **Incorporating demand side flexibility, in particular demand response, in electricity markets**

Key features for demand response as a win-win market instrument



Simple and understandable

Provide choices

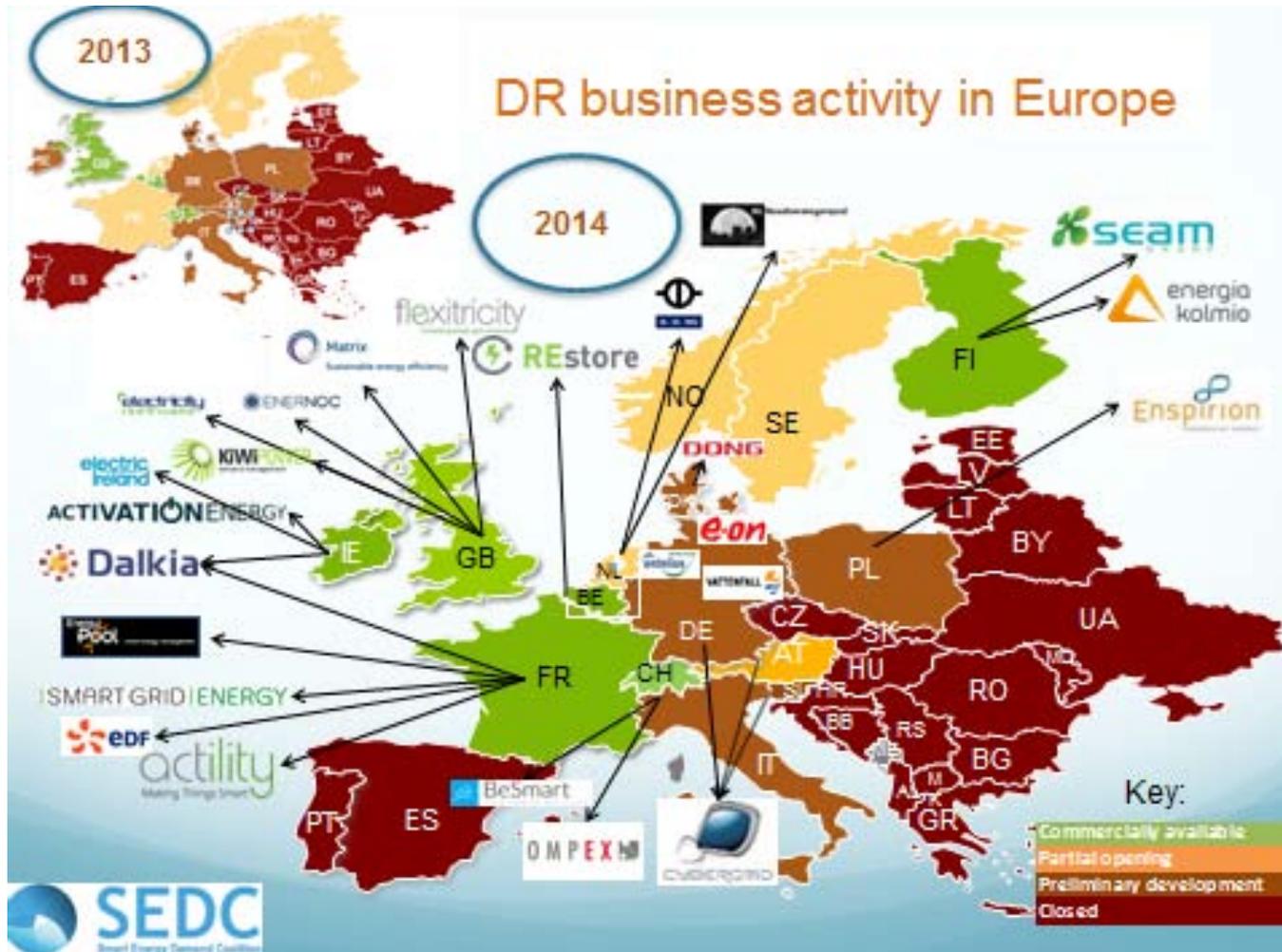
Provide benefits

Transparent and verifiable



European
Commission

Is DR already happening in the EU?



Demand Response Benefits and Potential

Consumer bills reduced

- Individual energy saving/reduction by 2-5%
- Potential shift to cheaper periods: 10 to 20%+
- Lower system costs

System cost efficiency

- Reduced peak generation: 60GW
- Reduced grid needs

Vicarious benefits

- Consumer engagement
- More RES and benefits for environment/CO2

Building the market for DR

Creating market-based and transparent incentives

- Dynamic pricing + tariffs and rewards
- Data security/privacy

Opening up the market to exploit DR potential

- Equal footing with supply
- Contractual/Technical clarity

Bringing technology into the market

- Smart meters and smart appliances

Final remarks



DR is a market-based
mechanism

DR integral part of the
consumer-centric vision

DR can happen now

But some steps needed...



manuel.sanchez-jimenez@ec.europa.eu

http://ec.europa.eu/energy/index_en.htm

http://ec.europa.eu/energy/gas_electricity/smartgrids/smartgrids_en.htm