#### Smart Mediterraneo

Best practices, innovation and pilot projects in smart grid development in the Mediterranean region

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Technology, Regulation and Consumers behaviors

# Smart Communities main ingredients

Solutions available Solutions available in regions with when consumers Harmonised Technology preferences is not an regulation/legal Reasonably issues framework invariant (automatic adjustment) Regulation / Consumers Institutional Dependent on Solution available when framework individual and different/competing local • Some degree of technologies are possible circumstances transferability

# Market and Regulatory factors influencing smart grid investments

- Results from 459 SG projects in Europe
  - Negative impact on investments
    - Market concentration . Solution: horizontal unbundling (not political palatable)
  - Positive impact on Investments
    - Regulation Incentive based spur new investments in SG
    - Innovation stimulus mechanisms (eg WACC+ or adjustment revenues)

Based on Cambini et al. (2016)

### Role of demand side

From market to consumers

- Competition and regulation in network industries
  We typically distinguish
- Supply side
- Consumer protection and Consumer empowerment Increasing complexity in defining consumers, consumers' needs, remedies

# Information and protection

#### Traditional approach

- 'the inframarginal consumer' and the perfect competitive benchmark
- protection against market power through market competition
- protection against contractual power through regulation
- Challenge: efficiency under perfect discrimination
  - Informed choice vs Informed profiling?
  - Exogenous conditions (preferences, needs...even information)

## Efficiency vs Protection

- Discrimination versus general conditions
  - Under the traditional approach more information generates higher efficiency through greater competition

But more information can generate higher efficiency through greater discrimination (and competitive arbitrage, splintering, reselling must be banned)

- Two issues:
- Supply side Competition ON information (profiling, retention, winback)
- Endogeneity between informed choice and profiling

# The challenge of endogeneity

- The role of information devices on reciprocal learning
  - The problem of access to information
  - Profiling vs sharing info
  - Do information devices (supply side/demand side) change the dynamics of consumers' choice (And welfare?)
  - Is willingness to pay independent of outside options?
- The new problems we face
- Competitive access to information vs discrimination
  - Targeting versus imitation (as opposed to remedies banning discrimination)
  - The automatic consumer, 'smart device'
  - Switching, multi-party contract, contractual unbundling
- Not only information but also 'automatic' choice
  - Will you protect the consumer' or the 'system'?
  - Standard distinction between Sophisticated and Naïve consumers would not hold anymore

## Towards Consumer Protection 2.0

- 'Solving' the discrimination-protection dilemma through learning devices (supply and demand side)
- Allowing 'automatic adaptation to needs' revealed by consumers
- Sharing information on both sides
- However: does 'maximal' protection-empowerment leave room for Schumpeterian innovation?

## I hanks for your attention

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