

PRESENTATION FOR NOTRE EUROPE CONFERENCE

ENERGY UNION ONE YEAR ON:

PANEL ON INNOVATION: FOSTERING A PROFITABLE AND SOCIAL ENERGY TRANSITION

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25 February, 2016

CONTEXT AND KEY QUESTIONS











How best to enable Europe to win the new industrial economic 'race to the top'?

What approach best links energy to other industry and innovation policies?

Is it now time for a modern European industrial strategy focused on innovation?

A DADADICKA CHIET IN THE ENERGY INDUCTOR

	APANA	FROM	TO
ŏ-ŏ	MARKET PLAYERS	Dominant energy UtilitiesStreamlined value chain	Enlarged energy ecosystems inclusionsstart-ups, tech companies, cities,Disrupted value chain















ENERGY





GOVERNANCE

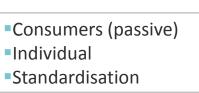
MODELS

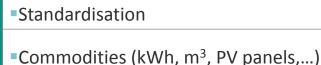




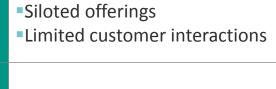


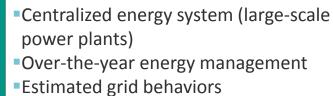




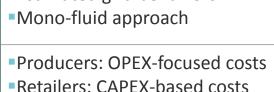


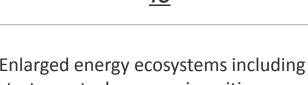
Centralized





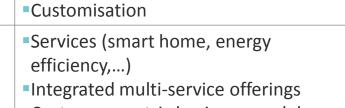
Limited energy democracy

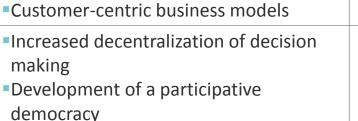


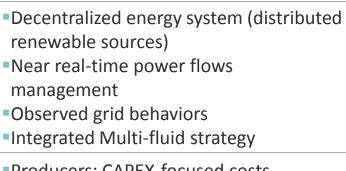


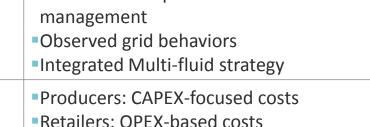












A PARADIGM SHIFT... IN INDUSTRIAL ECONOMICS

From



'Industrial'

Heavy manufacturing

Focused on technology

Sector-focused

- Value-add from products and services at scale
- Industrial ecosystems (value chains and clusters)

'Innovation'

Market-driven

- Mix of technology, industrial process, business model and mindsets
- Societal challenge-led, market enabled

'Competitiveness'

- Cost factors dominate
- Short-term at odds with decarbonisation

- Innovative capability most important
- Impossible without integration with decarbonisation strategy

A NEW APPROACH TO (ENERGY) INDUSTRIAL POLICY

From

- Resist change, preserve past successes and pick winners
- Embrace transition and disruption, allow failures without picking winners

Priorities of (energy) industrial policy

- Reverse de-industrialization regardless of specific new comparative advantages
- Focus on European industrial strengths and value-add in the new global economy
- Focus support on narrowly defined or declining industrial activities
- Foster integrated industrial role in key global value chains and local clusters focused on end-user and consumer needs
- Use industrial policy to meet wide range of socio-economic objectives
- Focus on deep innovation and use 'flanking' policy measures (e.g. fiscal or social) to manage transition challenges

5 LEVERS TO ENABLE EUROPE TO BE SECURE COMPETITIVE ADVANTAGE IN THE LOW-CARBON INDUSTRIAL ENERGY INNOVATION RACE



Levers	Hypotheses	Main enablers	Illustrations
1 MARKET PULL	CHALLENGE-DRIVEN POLICIES & INSTRUMENTS TO STIMULATE INNOVATION REGARDLESS OF TECHNOLOGIES	 Prospective vision & macro priorities Market pull instruments Strong CO2 price signal Public tenders rather than subsidies (FITs) Standards Support large-scale pilots (eg. Funding of smart cities challenges) 	SolarNorms on vehiclesSmart Cities
2 POLICY MIX	MARKET AND INVESTOR INTERESTS NEED CLARITY FROM CONSISTENT AND EFFECTIVE POLICY MIX	 Set of policy levers for each stage of the innovation cycle (up- and downstream) Consistency between policies Regulation as a driver, over-regulation as a barrier Improved market rules to value promising innovation (power storage, open data) 	 Budget allocation by DG Network operators Energy Storage
3 INNOVATION PORTFOLIO MANAGEMENT	MILESTONE-BASED MECHANISMS ARE NNESSARY FOR PORTFOLIO MANAGEMENT	 Prioritization method for funding allocation Milestones-based funding Encourage IP protection (patterns) ? 	ARPA-EEU Ocean energy gate funding
4 ECOSYSTEM STIMULATION	SYSTEMIC CHANGE NEEDS CROSS- BORDER AND CROSS-SECTOR COLLABORATION	 Clustering around each European countries strengths Knowledge & resources sharing Alliances with other geographies 	 Finland / China partnership Mars Discovery District Learning labs
5 METRICS	NEW METRICS NEEDED TO ASSESS RISK, PRIORITIZE FUNDING, TRACK PERFORMANCE & COMMUNICATE	 Priority Metrics as guidance to decision making Eg. Social impacts (jobs), economic impacts (GDP, exports), climate target Allocation of funding based on a "tech-to-market" approach 	 H2020: funding allocation by area Methods used by private corporation to take decisions