

BERLIN, SEPTEMBER 21ST

**INNOVATION ECOSYSTEMS AND PUBLIC-PRIVATE PARTNERSHIPS FOR
SUSTAINABLE MOBILITY WORKSHOP**

RESEARCH PROJECTS OVERVIEW AND FOCUS ON MOBILITY RELATED PhDs

ECOLE POLYTECHNIQUE

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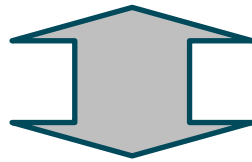
MANAGEMENT SCIENCE KEYWORDS



OUR RESEARCH APPROACH

Our labs practice « action research » for decades, in close relationship with companies :

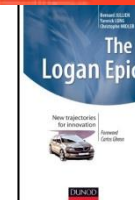
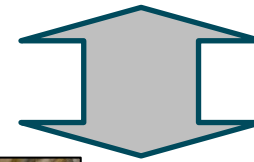
- **Specialized in the automotive industry**: eg. benchmark Advanced Engineering 9 global carmakers (incl. Nissan), disruptive project management (Logan Epic).
- **Experience in various industries** (digital, construction, luxury, etc), with similar issues: shift from product towards [product+service], enlarge to a wider « ecosystem ».



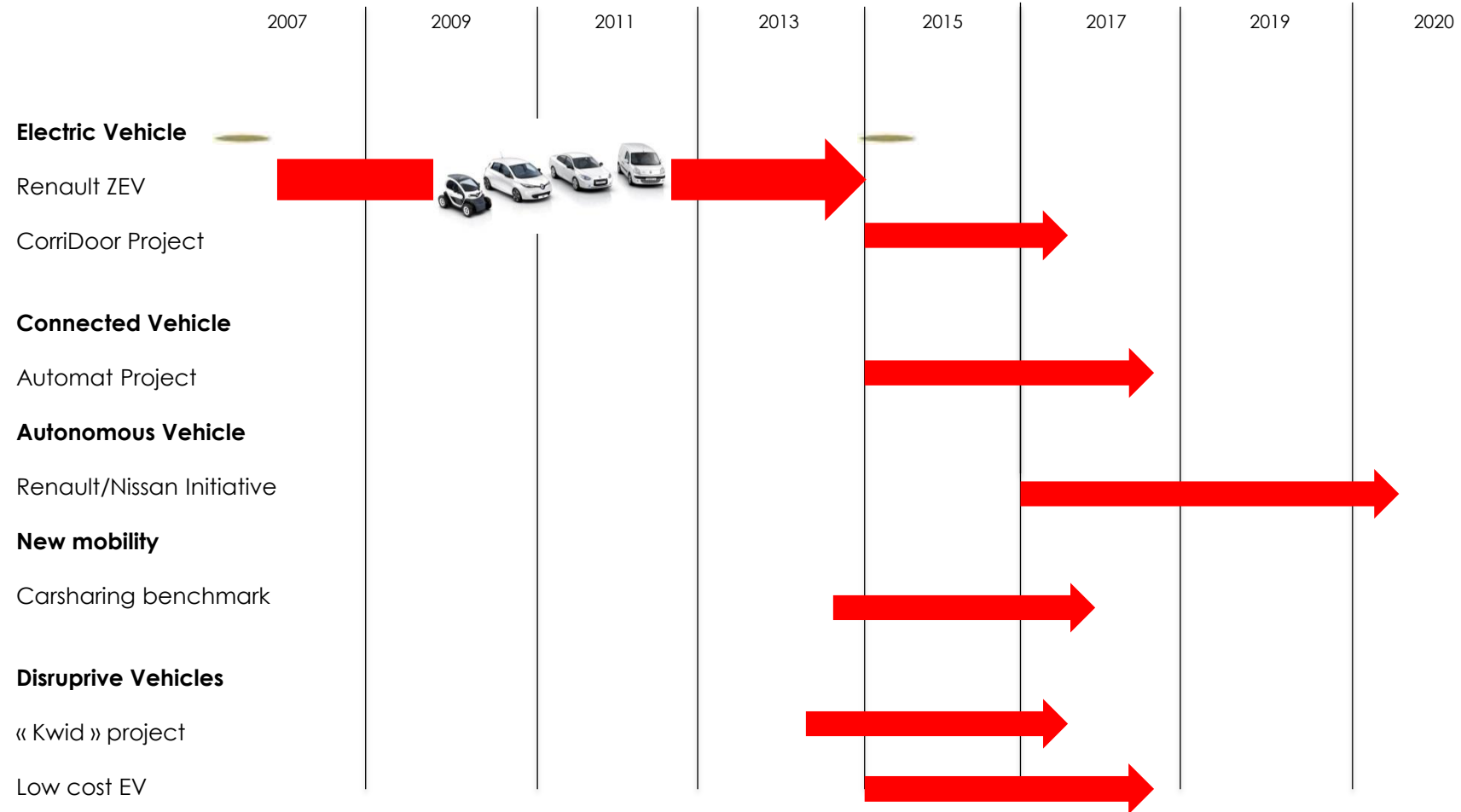
Double output

- Scientific publications in leading journals, books.
- Close and « short-loop » feedback to counterparts within companies

Google



MOBILITY RESEARCH PROJECTS



THE CONTEXT



Empirical Context

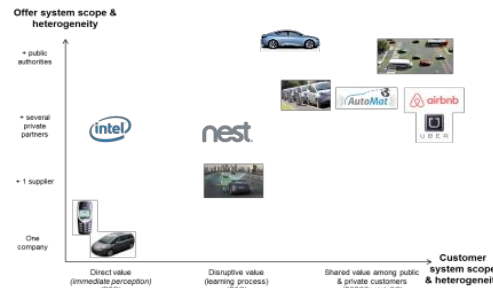
Research question

Automotive markets shift in geography, opening avenues for disruptive products



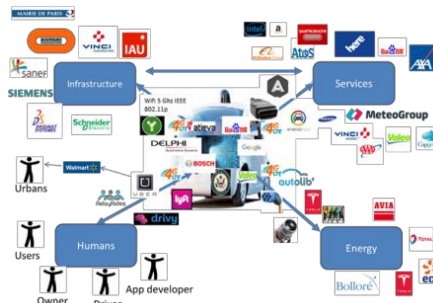
How systemic and disruptive innovation should be managed under globalization?

Automotive-based mobility solutions become increasingly systemic / public-private



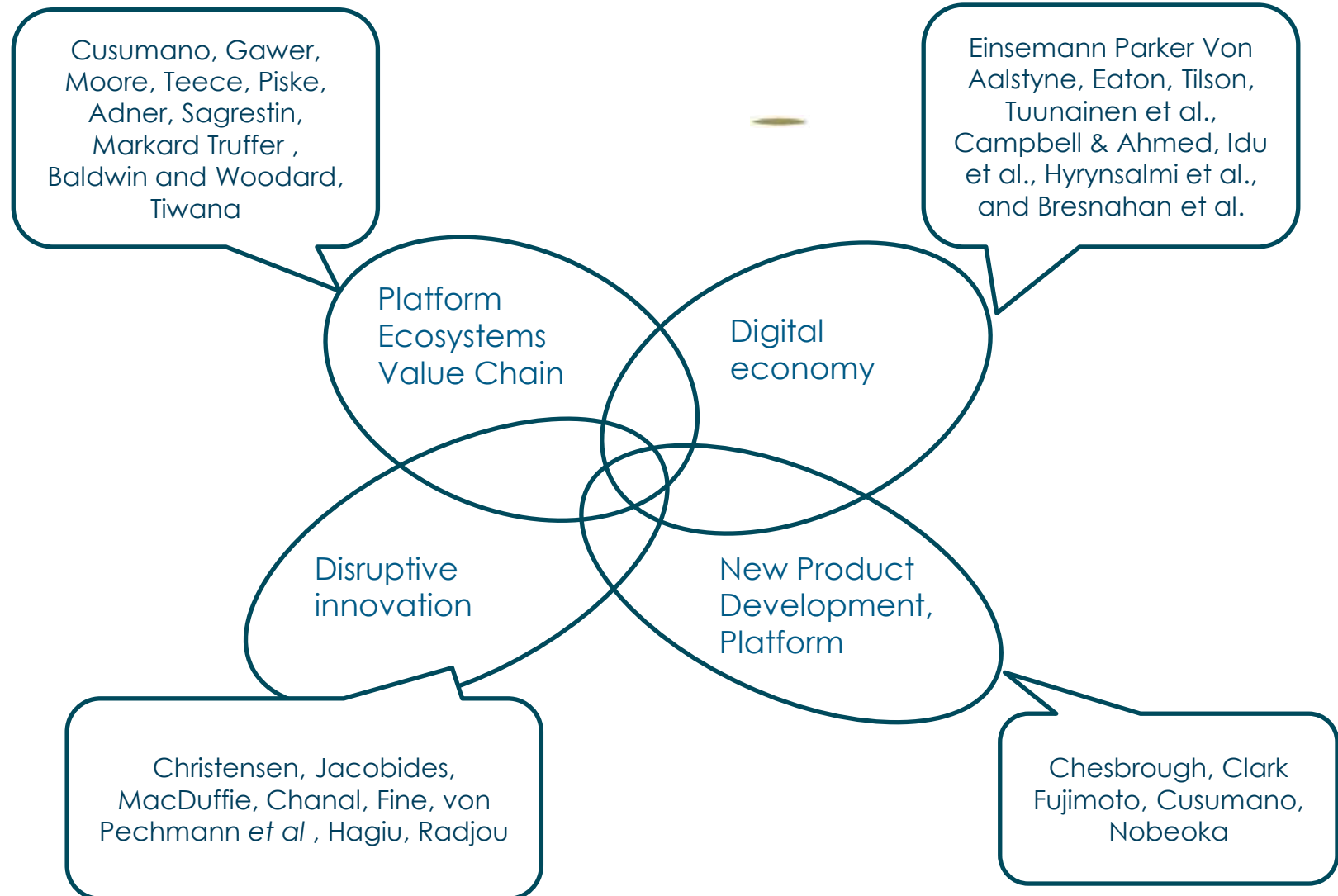
How systemic and disruptive innovation should be managed in this new arena of competition?

The automotive product becomes part of the « Internet of Robots », discovering the digital-specific market rules.



How an efficient ecosystem should be structured? Which consequences in partnership strategies?

LITERATURE REVIEW





How to manage the impact of digital innovation on mobility ecosystem structuring and partnership definition?

On going PhD research (2015 - 2017) with

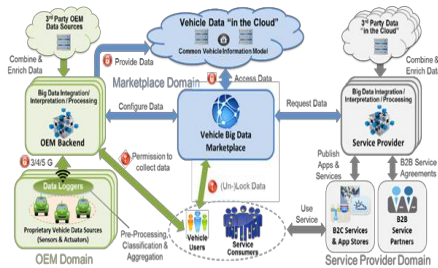
- Horizon2020
- Renault's Sustainable Mobility Institute (IMD)

Research Director :Remi Maniak

Field Research in Europe

- 2 EU research project for mobility service creation Jan 2015 - Jan 2017
- 1 IMD project 2016-on

MOBILITY BUSINESS MODELS RESEARCH CASES



AUTONOMOUS VEHICLE PROGRAM IMD

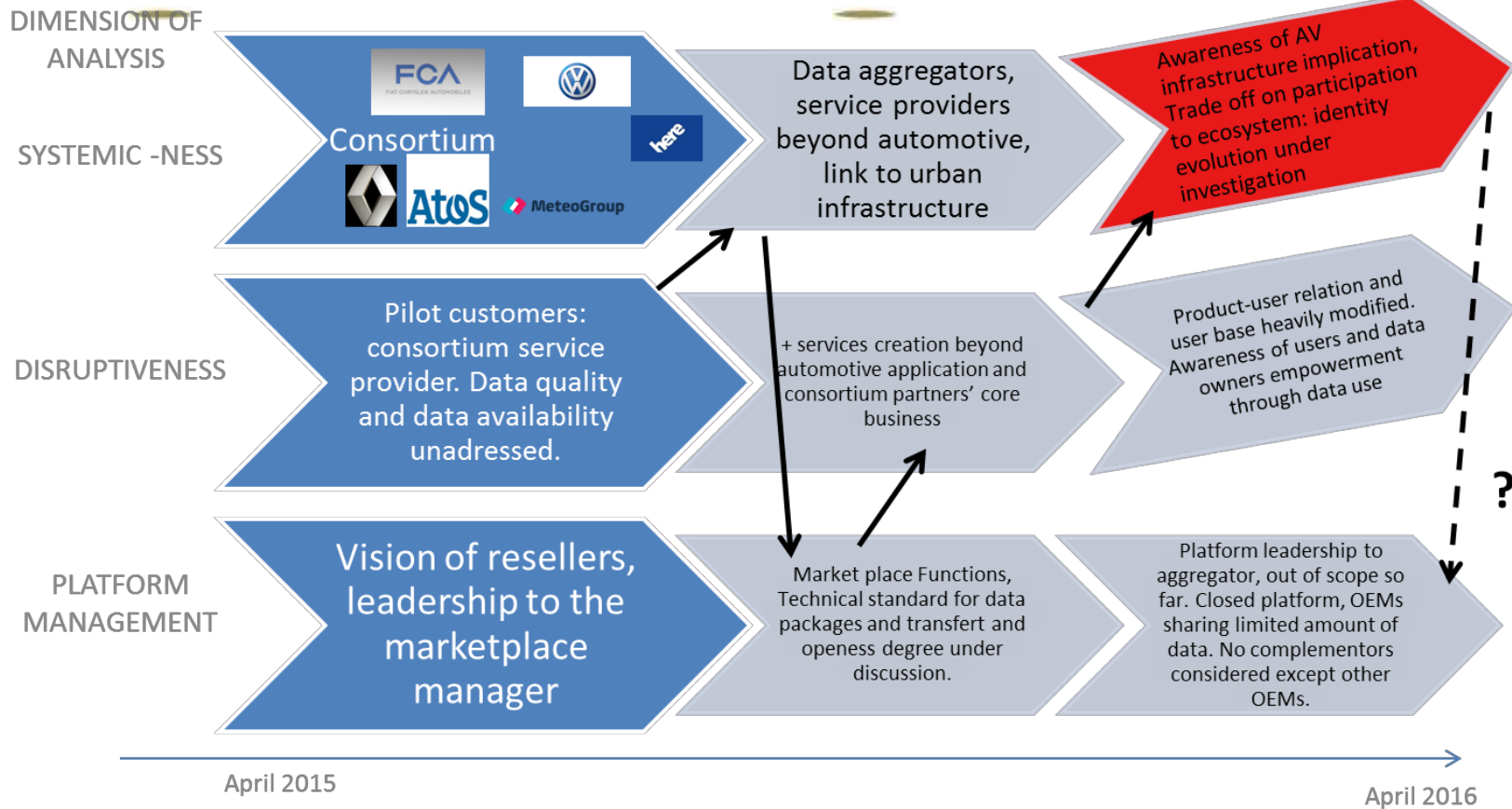


PAINPOINTS



- **Value identification**
- **Business Model focus**
- **Alignment**
- **- Standard and Interoperability impact evaluation**




EVOLUTION TIMELINE



EARLY RESULTS



Interest is diffused and location-related

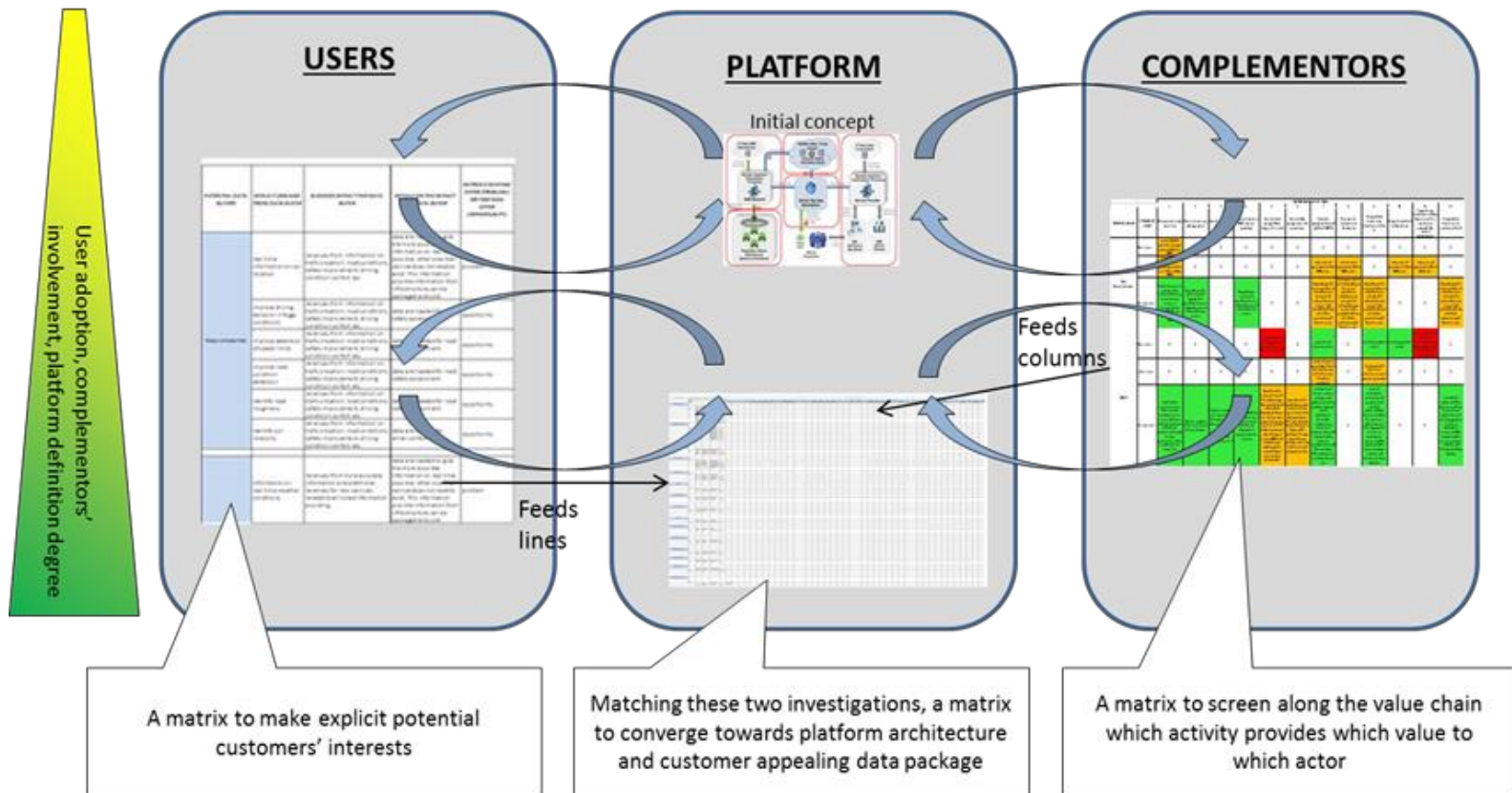
ACTOR	URBAN DENSE		PERI-URBAN		HIGHWAYS		RURAL	
	Direct value	Strategic value	Direct value	Strategic value	Direct value	Strategic value	Direct value	Strategic value
Carmakers 	Low EV volumes sales increase	Increase the competence in services related to new technology, increase competence in the connected car ecosystem	Low EV volumes increase to private owners,	Increase the competence in services related to new technology, increase competence in the connected car ecosystem	EV volumes increase, fossil fuel powered cars sales authorization maintained	Increase the competence in services related to new technology, increase competence in broad alliances and cooperation with actors of same sectors or other sectors, increase competence in the connected car ecosystem	EV volumes increase, fossil fuel powered cars sales authorization maintained	Increase the competence in services related to new technology, increase competence in broad alliances and cooperation with actors of same sectors or other sectors, increase competence in the connected car ecosystem
	Low value	Moderate value	Low value	Moderate value	Moderate value	High value	Moderate value	High value
Energy suppliers and/or managers 	Vehicle to grid / smart gridding, network maintenance improving, equipment operation improvement	Customer consumption knowledge,, infrastructure valorisation, Delay or decrease the general interest in the development of alternative infrastructures, competitor to electric powered car (e.g. hydrogen)	Vehicle to grid / smart gridding, network maintenance improving, equipment operation improvement	Customer , consumption knowledge, infrastructure valorisation, Delay or decrease the general interest in the development of alternative infrastructures, competitor to electric powered car (e.g. hydrogen)	Low	Infrastructure valorisation, Delay or decrease the general interest in the development of alternative infrastructures, competitor to electric powered car (e.g. hydrogen)	Customer , consumption knowledge, equipment operation improvement	Customer consumption knowledge, Delay or decrease the general interest in the development of alternative infrastructures, competitor to electric powered car (e.g. hydrogen)
	High value	Moderate value	Moderate value	Moderate value	Low value	Moderate value	Moderate value	High value
Interoperability platform operators for roaming and payments 	Increase revenues by capturing customers and complementors	Becoming a potential actor in a broader service platform for smart cities need in several sectors	Increase revenues by Capturing customers and complementors	Becoming the key actor of trans-border service adoption for establishing a long term position	Increase revenues by Capturing customers and complementors	Becoming the key actor of trans-border service adoption for establishing a long term position	New customer base creation	Revenues capture by capturing new complementors
	High value	Moderate value	High value	Moderate value	High value	Moderate value	Low value	High value

- Low value
- Moderate value
- High value

EARLY RESULTS



The Significance Prober Process A methodology to overcome the "chicken & egg problem"



EARLY RESULTS



The impact on firm's functions

Function	Focus	Scope driver
STRATEGY	Formulation is moving upward, at Concept level and not at Product level	Externalities capturing via current potentialities identification and ecosystem-driven exploitation scenario
PURCHASING/CORPORATE VENTURE	Internal and external analysis in order to identify best source of competence and decision of partnership/investment	Competence acquisition in order to support strategy in company's position in the ecosystem
MARKETING/COMMERCE	Customer segmentation by use-customer experience oriented	Scope is more B2B, B2B2C, B2I , B2S than B2C
PRODUCT DEVELOPMENT	From product focus to ecosystem focus	Stakeholder scope wider than firm and project scope longer than product
RESEARCH	Focus on technology able to federate, in order to develop proprietary interfaces or capabilities to understands others' interfaces	Customer experience design, which define the new competences field application