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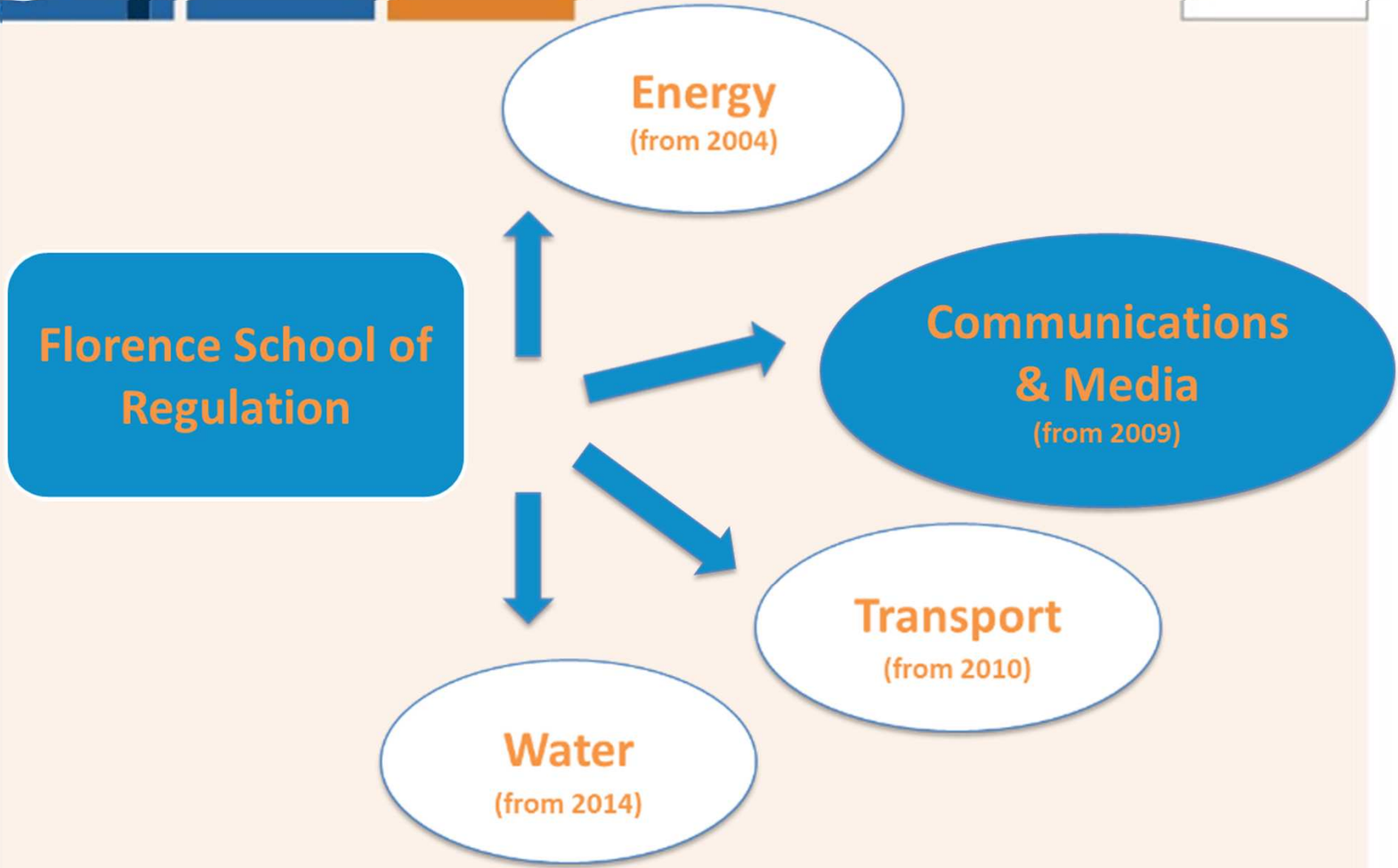
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Lessons learnt in competition and regulation in network industries that may be relevant for smart cities

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FSR C&M Activities

Training

- Annual Training
- Ad-hoc trainings
- Advanced executive trainings

Research

- Scientific Seminar
- Working Papers
- Ad-hoc studies

Policy events

- Annual Conference
- Workshops
- Inter-sectorial conferences



Annual Training on Business Models, Regulation and Innovation of the Digital World

- After five completed editions, we have completely renewed the programme
- 4 Blocks of residential training in Florence (70 plus hours lecturers)
- Online activities among the blocks
- Open to officers from NRAs, public institutions and private companies

Block 1

Competition and Regulation in the Telecom sector

26-30 October 2015

Block 2

Internet Technology, Law and Economics Part I: Search, Advertising
and e-Commerce

10-12 December 2015

Block 3

Internet Technology, Law and Economics Part II: Video,
News and Applications

11-13 February 2016

Block 4

Internet Technology, Law and Economics Part III: Big Data,
Cloud and Security

14-16 April 2016



Why should we need smart cities?

- Urbanisation trend
- Mobility needs
- Efficient use of private resources
- Efficient use of public resources
- Environmental protection
- Efficient services for citizens
- Citizens' quality of life



What is a smart city?

- ❑ There are still different interpretations of how smart cities should be defined and even more deeply about what they are

- ❑ Yet, some common elements emerge as ingredients of the various definitions:
 - ❑ Government
 - ❑ Better life
 - ❑ Quality
 - ❑ Resources
 - ❑ Efficiency
 - ❑ Urban
 - ❑ Interaction
 - ❑ Citizens
 - ❑ Synergy



What is a smart city?

“a city is smart when investments in human and social capital (smart people), traditional transport (smart mobility), and modern digital infrastructure (ICTs) fuel sustainable economic growth (smart economy) and high quality of life (smart living), with a wise management of natural resources (smart environment) through participatory governance (smart governance). ”

(Giffinger et al., 2007; Nijkamp and Kourtit, 2011)



What is a smart city?

In the **Strategic Implementation Plan of the European Innovation Partnership on Smart Cities and Communities** they are defined as:

“systems of people interacting with and using flows of energy, materials, services and financing to catalyse sustainable economic development, resilience, and high quality of life, these flows and interactions became smart through making strategic use of information and communication infrastructure and services in a process of transparent urban planning and management that is responsive to the social and economic needs of society.”

(European Commission, 2012)



A smart city is a matter of interaction and collaboration between different players

- Cross-sector approach (different industries involved)
- Involvement of both public and private sectors (public-private partnerships)
- Services for the citizens, but with citizens' collaboration
- Need of collaboration/coordination between different regulators



How to realise a smart city?

- ❑ From an industrial perspective, we can think of three main paths:
 1. The public authority takes the lead
 2. One or more traditional market players take the lead
 3. A new business player takes the lead



If the public authority leads

- ❑ Possible obstacles:
 - ❑ Budgetary constraints \Rightarrow local administrations often have low budget at their disposal
 - ❑ Technical constraints \Rightarrow smart projects are highly technological, thus the implementation requires sophisticated competences



If one or more traditional market players lead

- ❑ Possible obstacles:
 - ❑ Too vertical/sectorial approach, which could exclude relevant industries from the process
 - ❑ The first mover could affirm itself as a platform and endanger competition



If a new business player leads

- Possible obstacles:
 - Winner-takes-all dynamic
 - Lessening of the incentives of traditional operators to upgrade their infrastructures



Focus: if a new business player leads

- Player not coming from a traditional industry, but able to provide innovative and highly technological solutions. Some time “disruptive” solutions!
- In charge of the realization of all infrastructure upgrades needed to realise the smart city
- One-stop partner for the public authority
- Interoperability as the key factor



General critical issues (I)

- Technical requirements to be shaped on local needs \Rightarrow no one – size fits all
- The business case appears to be different depending on which player takes the lead
- Investments and incentives to invest are a key factor.
- Competition for the market and platformisation



General critical issues (II)

- ❑ Overlapping and conflicts among different fields of law/regulation might create an environment hostile to innovators
- ❑ Gatekeepers need to be subject to special responsibilities
- ❑ Protection of fundamental rights has to be ensured (especially data protection and privacy)



Instruments to solve the critical issues

- Ex ante v. ex post tools of intervention
- Ex ante: State Aid policy, Public Private Partnerships, merger regulation, different types of regulation, licences, etc..
- Ex post: antitrust



What we have learned so far from competition and regulation

- ❑ In competition for the market: technological neutrality and interoperability are suitable elements to avoid market foreclosure and obstacles to innovation
- ❑ Economic regulation taking due account of market dynamics helps overtaking bottlenecks



What we have learned so far from competition and regulation

- ❑ Flexible and modern regulation that takes into account incentives might act as enabler for innovation
- ❑ Legal certainty is an essential element for attracting private companies' investments



What we still need to tackle

- The winner-takes-all dynamic potentially impedes competition and slows down innovation
- Firms providing similar products/services should be subject to similar rules (level playing field for actors)
- Infrastructure security and data protection



A few conclusions

- ❑ Smart cities are a complex phenomenon
- ❑ There is not a single model, but multiple models
- ❑ Present competition and regulation may play the role of a tools box: we should extract the tools that better fit with the specific critical problem at stake
- ❑ Some problems, however, remain unresolved even with the application of competition and regulation tools. This is the case, for example, of the winner-takes-all dynamic, especially in highly technological market



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Many thanks for your attention!

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