



Ajuntament  
de Barcelona



# Barcelona Innovation Center: Stage 1

Project presentation  
September, 2011



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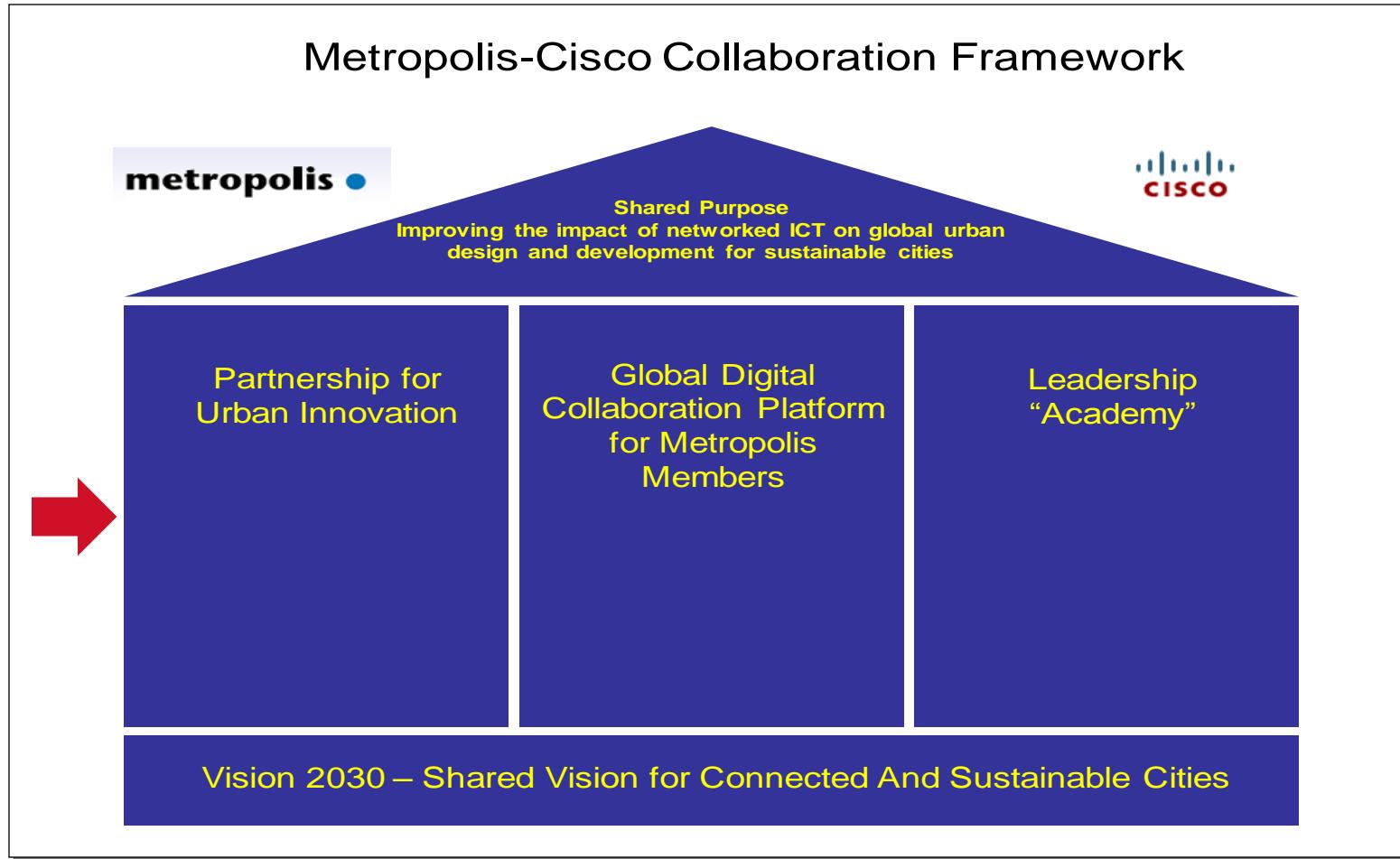


## 1. Project background

2. Urban platform: municipal network and infrastructure development
3. Barcelona development project
4. Project team and main tasks



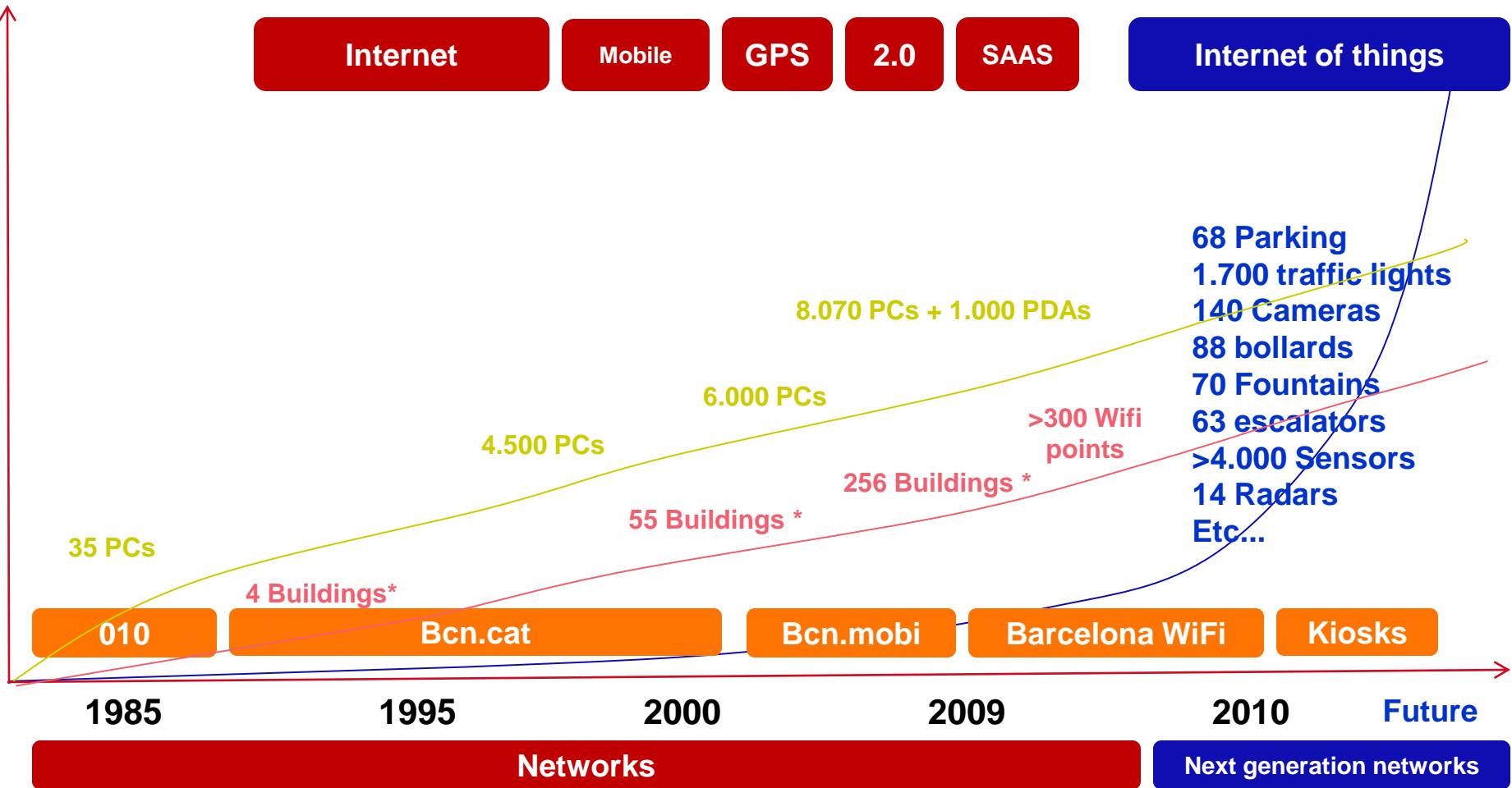
# Refresh the concept



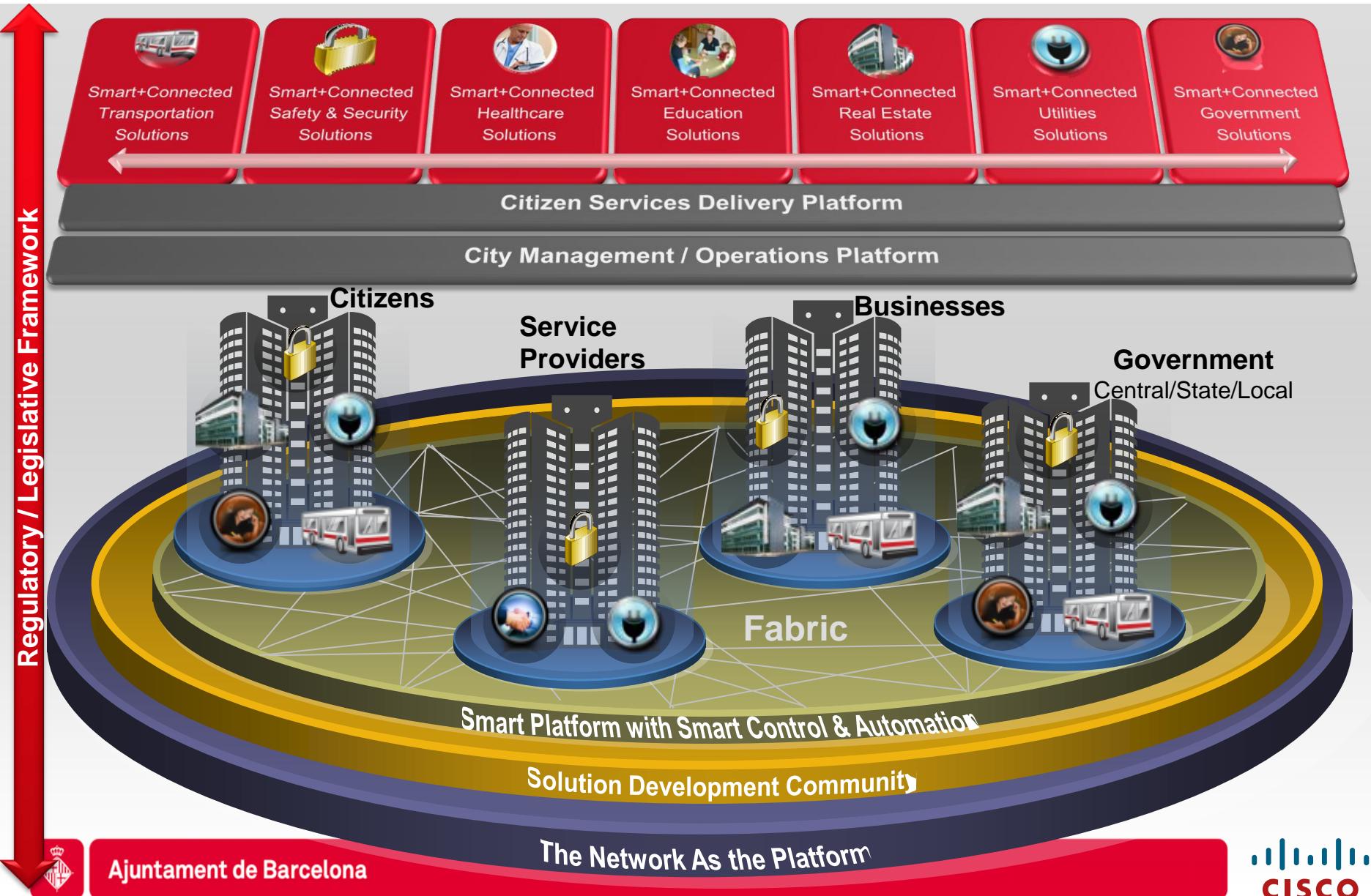
# Future connectivity demand comes from urban space



## Barcelona connectivity needs evolution and future demand from urban space



# The Smart+Connected Community



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CISCO

# Barcelona Innovation Centre: Stage 1



## Guiding Principle for the Partnership

### BCN brings

- Urban Planning
- City Management
- City as Living Lab
- Investment

### Cisco brings

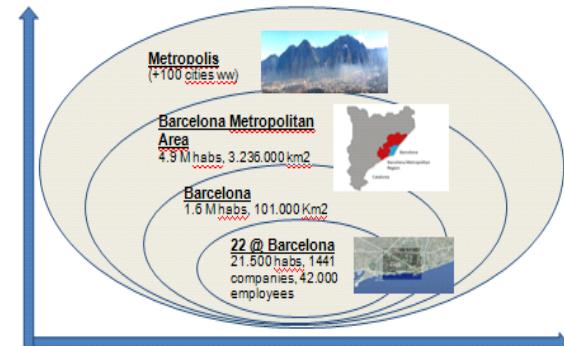
- Experience & Vision
- Technical Expertise
- S+CC Knowledge
- Investment

### To Create

- Urban Platform
- Innovation Centre
- Living Lab
- Replicable Model
- Brown field regeneration model
- Real life collaborative model

### Benefits

- BCN an end-to-end city showcase
- Replicable Model
- Innovate with Urban experts
- Design & Test new Urban services
- Access to Metropolis



# Barcelona Innovation Centre: Stage 1

## Creating new Ecosystems & Industries

Barcelona Departments



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Other Municipalities  
and Governments



EU R&D  
Programs



Universities &  
Technology  
Institutes



Barcelona Innovation Center



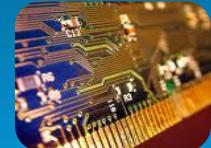
Service Providers



Start ups



Technology  
Companies



Metropolis



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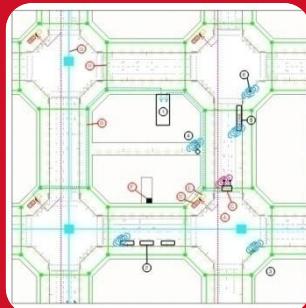
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# Barcelona Urban Platform Model



## 3 dimensions



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# Current evolution



## Multiplication of isolated networks and infrastructures



IMI

- On-going investment in Fiber and Wifi
- On-going service deployment
- Saving generation from own connectivity services: >1,8 M€/Year



**Mobility & BSM**

- Own infrastructure
- Slow integration to Municipal network
- High amount of connected devices:  
+2800 devices generating savings (Mobility)
- +3.900 devices with connectivity costs (BSM)



**Safety and security**

- No integration to municipal network
- Fast growth of connectivity costs due to the growing use of PDAs for mobile workers (+1.000 PDAs)
- High potential of growth due to growing use of street cameras and other sensors



**Environment**

- No integration to municipal network
- High potential for growth from sensors deployment (Noise, Air, humidity etc.): +8.000 in next 5 years



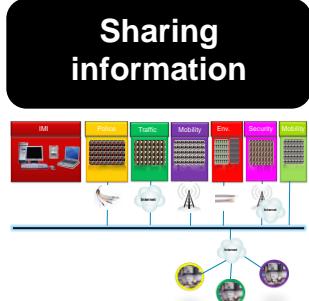
**Other**

- High potential for growth due to increasing mobility of workers (Inspectors, Social workers, Proximity workers etc.)
- Private sector demand for access to urban space information and infrastructure (exemple: 22@ urban lab)





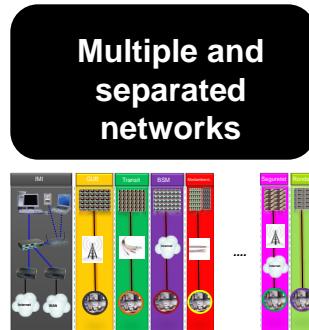
# Towards a sustainable and leading growth model



## Sustainable growth: urban platform

- Optimize urban services management and integration through urban platform model development

- Low risk and Technological Trend
- Efficiency
- Scalable



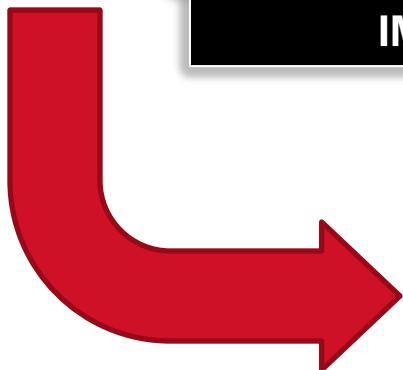
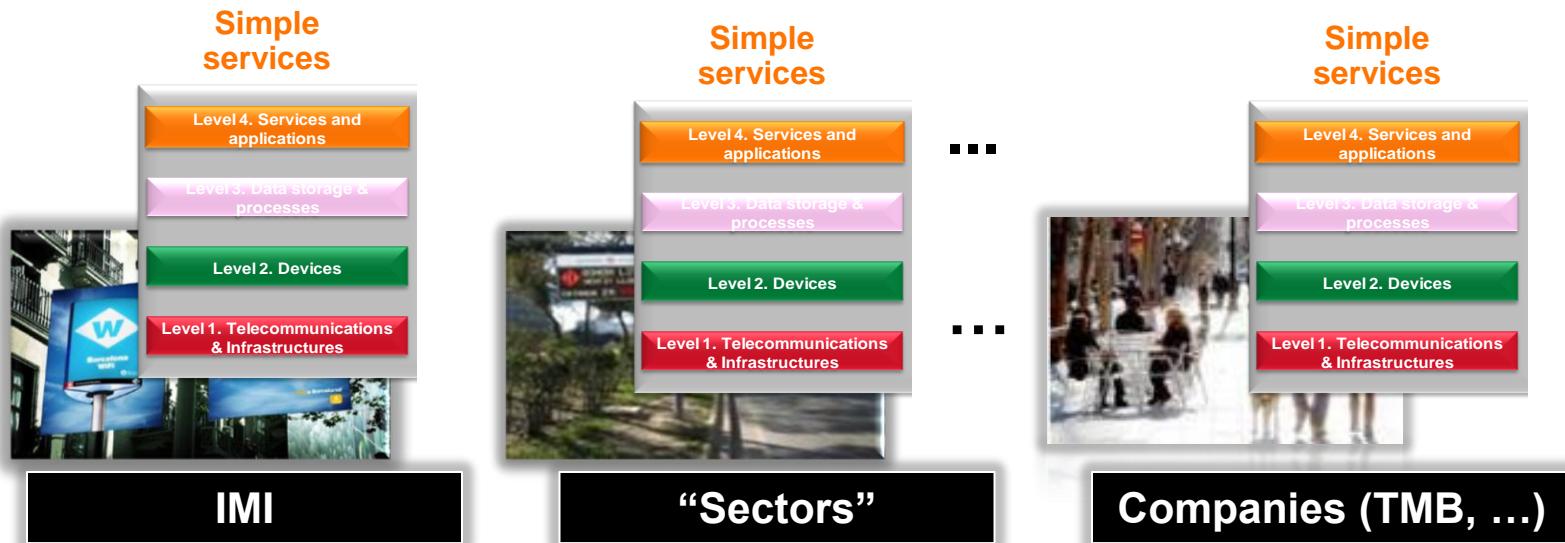
## Unsustainable growth

- Minimum integration of urban services
- Dependency of the growing telecommunications costs
- Complexity of management
- Limited services production capacity



# Sustainable growth: urban platform development

Current situation

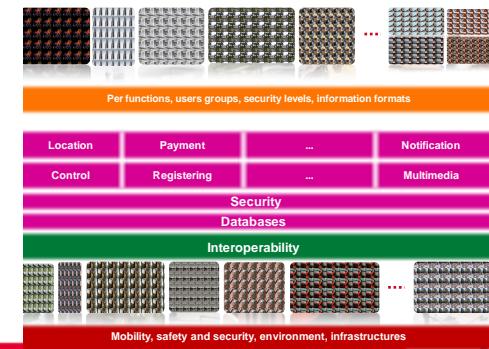


Integration and optimization –  
Innovation through innovation center

- Optimization of urban services management
- Industrialization of services creation and scalability of platform to face connectivity needs growth
- Improve management accounting of urban services

Urban platform model development

Composite services & Applications



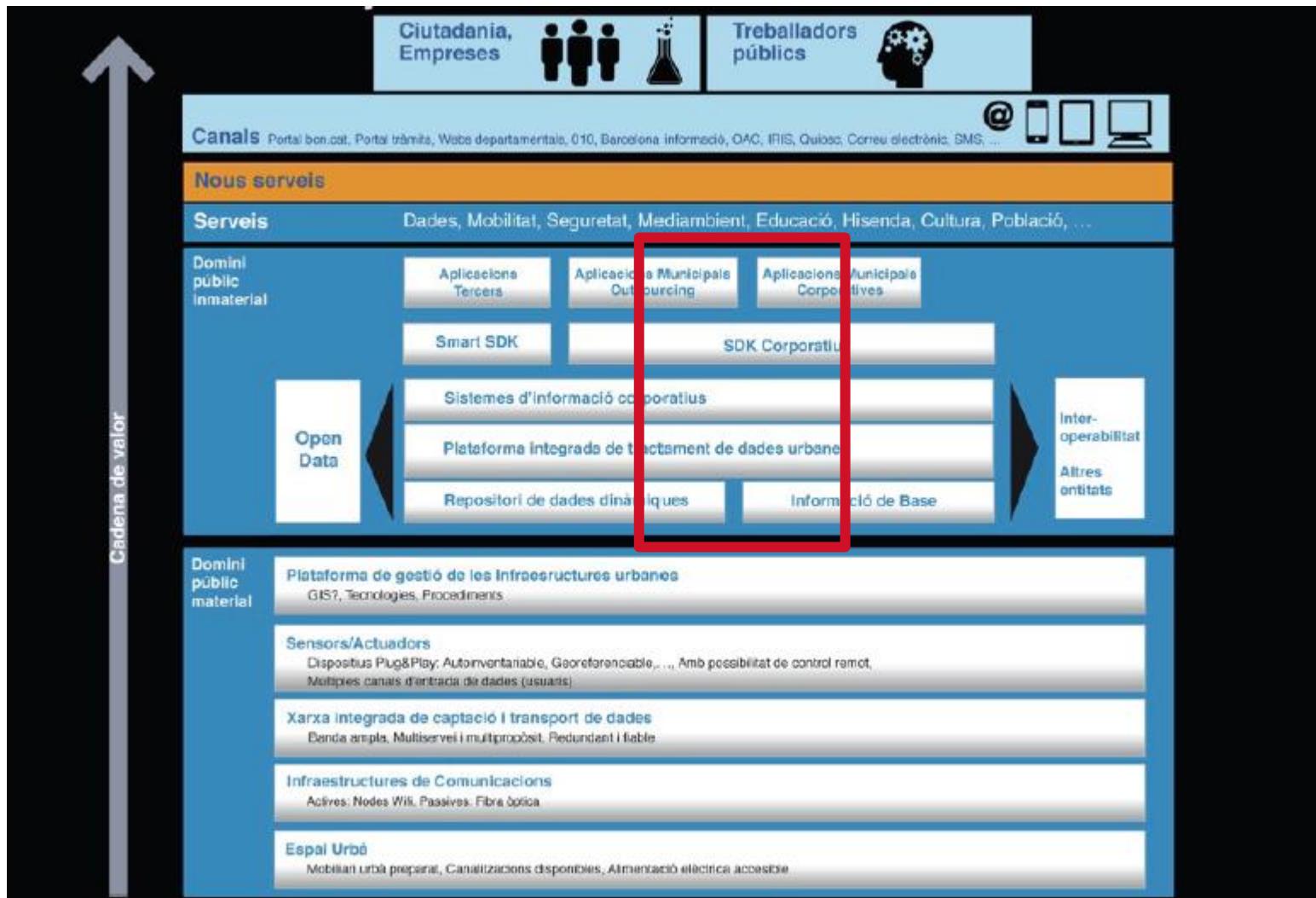
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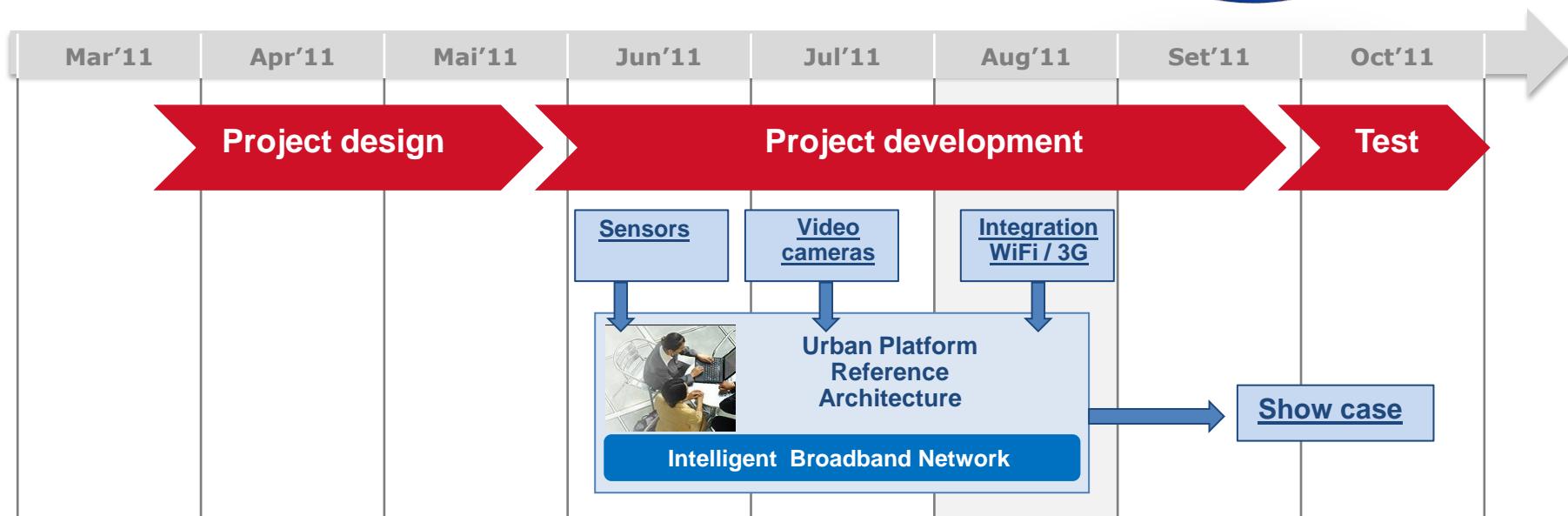
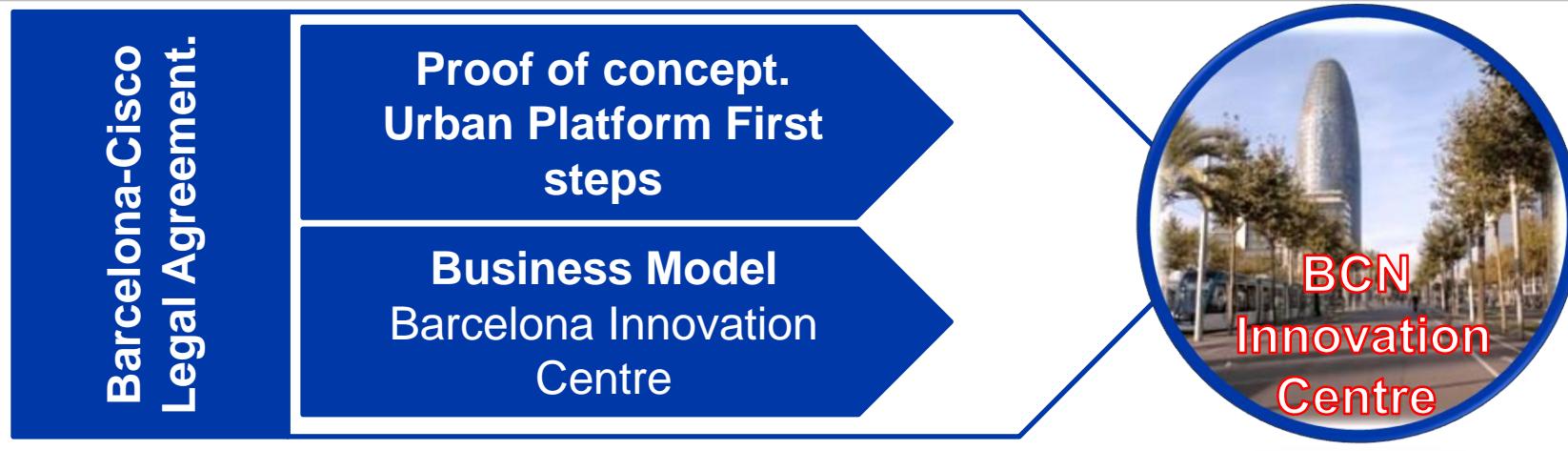
## The Smart City Barcelona Model and BIC project



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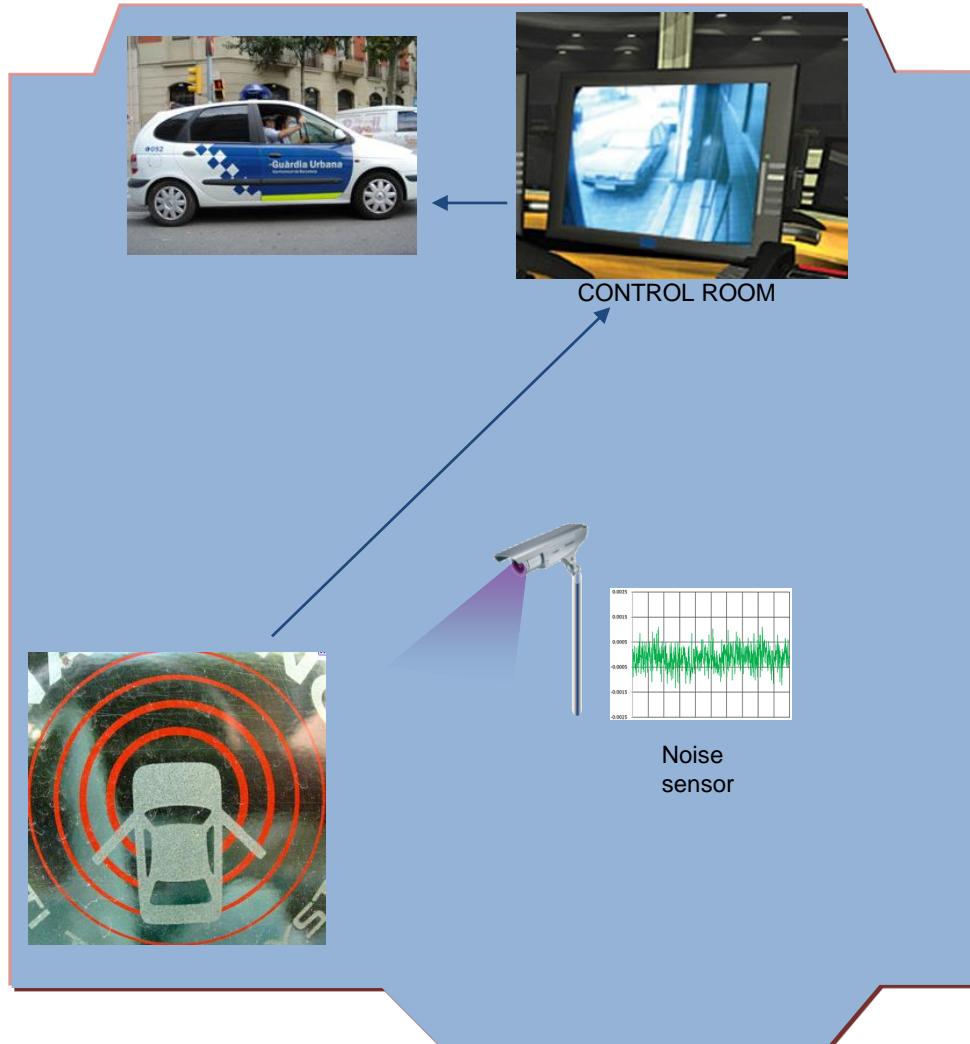
# Barcelona Innovation Centre Journey...



# Barcelona Innovation Centre Stage 1



## User case: Noise detection



- Noise sensor identifies noise (uncivil activities, car alarm, ...)
- Process checks noise, establishes validity.
- Closest camera streams pictures to control room.
- Control room checks image and decides if police must be alerted.
- Live video feed of incident area is routed to nearest police car.
- Police car arrives at incident area and sends images.



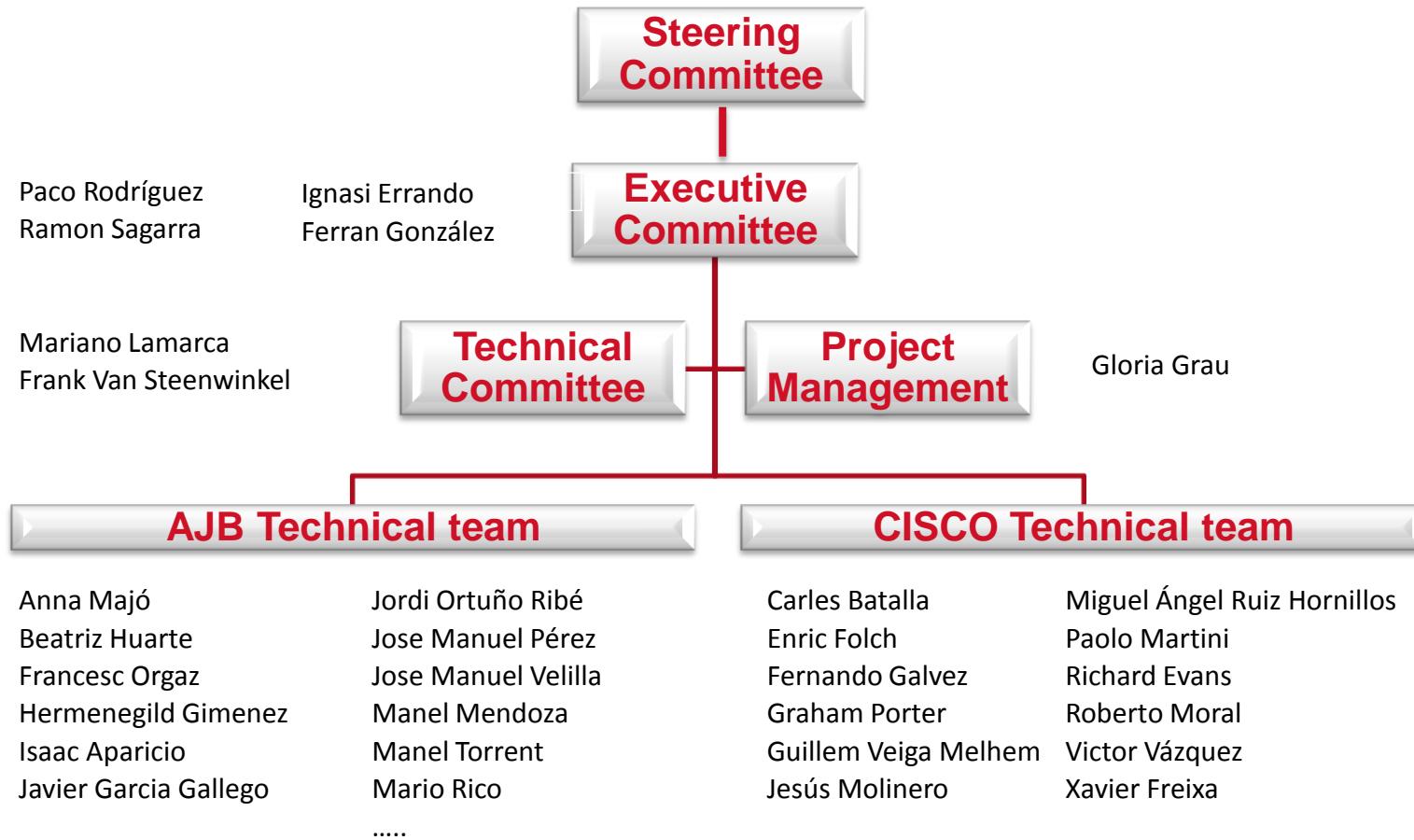
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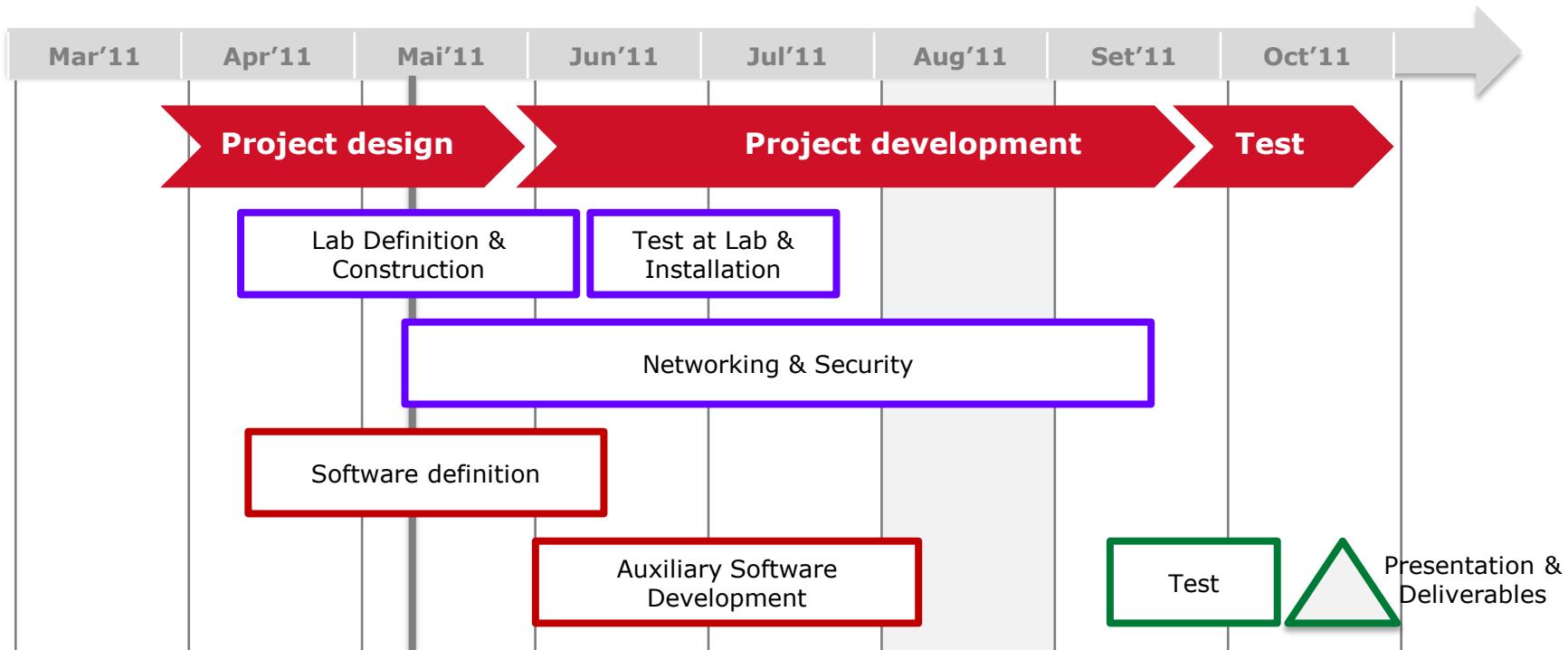
## Project team



# Proof of concept/ Show case



## Planning





# Thank you

