

Trans-Atlantic Symposium on ICT Technology and Policy (June
19-20, 2017) ★ ★

Best Practices for Academic/Industry Collaboration in Smart Cities



Minneapolis
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Cities can act as drivers for innovation



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To become smarter, Cities:

INNOVATE within their own organizations



BUY innovation from innovative VENDORS



PROMOTE innovation ECOSYSTEMS



And they cannot lack key elements



Long term **Strategy** and strong **Execution** capabilities



Agile development + **collaborative** and open approach



Customer focus (obsession?) and **co-created services**



Source: Deloitte - UK government digital transformation journey, 2017

Academia & Industry collaboration 4 Smart Cities



Academia

- ✓ Knowledge Creation & Capacity Building
- ✓ Fundamental Research, Industrial & Technology Development, Technology Transfer
- ✓ Talent development



Industry

- ✓ Consumer / Citizen driven approach
- ✓ Velocity & Execution
- ✓ Focus on real problems for real customers and viable Business Models



People



Government

- ✓ Guidance and direction
- ✓ Regulation
- ✓ Financing to start innovation processes
- ✓ Talent attraction

The Torino City experience



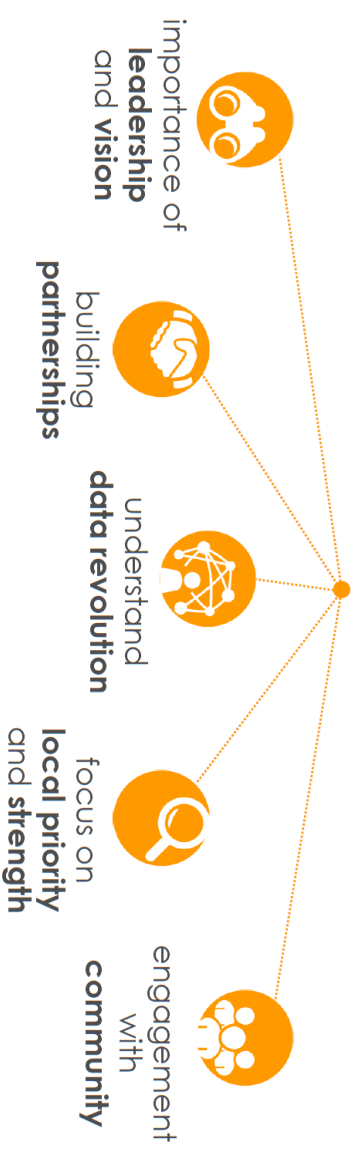
VISION



A **smart city** is a city characterized by the **integration of technology** into a strategic approach to **sustainability, citizen well being** and **economic development**.



5 KEY POINTS TO DRIVE TORINO SMART CITY



3 MESSAGES FOR CENTRAL GOVERNMENT

- ▶ supporting the move to large-scale development
- ▶ encouraging collaboration and knowledge sharing
- ▶ invest in digital infrastructure

The Torino City experience, cont'd

SMILE SMART | MOBILITY INCLUSION LIFE & HEALTH ENERGY

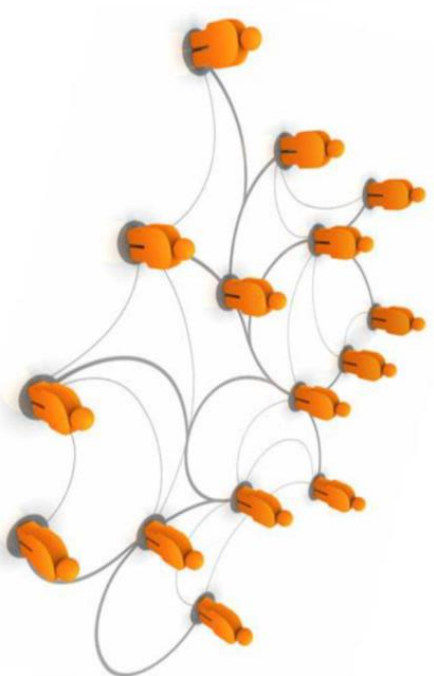
350 PEOPLE INVOLVED } 5 RESEARCH CENTERS 23 ENTITIES
10 ASSOCIATIONS 28 COMPANIES

CITY OF TURIN

77 PEOPLE INVOLVED
ALL DEPARTMENTS PARTICIPATED



150 WORKING DAY
10000 MAN HOURS SPENT



The Torino City's running projects

CYCLING POLICY



176 ToBike stations
178 KM cycle tracks

Bicipian to increase the mobility by bike:
3% ▶ 15% in 10 years

ELECTRIC CAR SHARING



150 electric cars
80 stations
250 parks

INFO-MOBILITY



- road **traffic information** services in real-time
- ITS systems for public transport
- **travel planning** service via web or app
- **BIP** - Piemonte Integrated Ticket

CITY LOGISTIC



URBELOG - Urban Electronic LOGistics Management and real-time monitoring of logistic processes of the last mile.

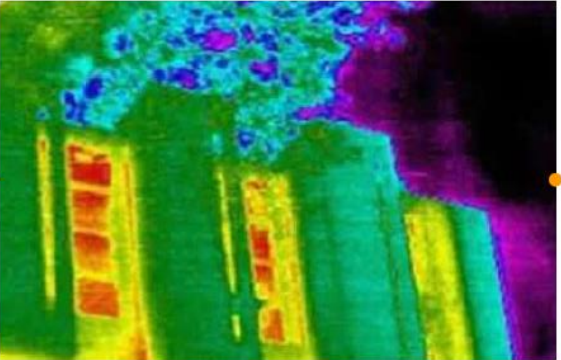


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The Torino City's running projects

ENERGY MANAGEMENT



Energy efficiency measures in **60 public buildings**, based on:

- energy audits
- 3D models
- new models for energy management of buildings

SWITCH TO LED #TorinoLED



Switching to LED of public lighting

55.000 lights
25.000.000 KWH saved
-10.700 t/ year CO₂
€ 20.000.000 invested
€ 5.000.000 saved per year

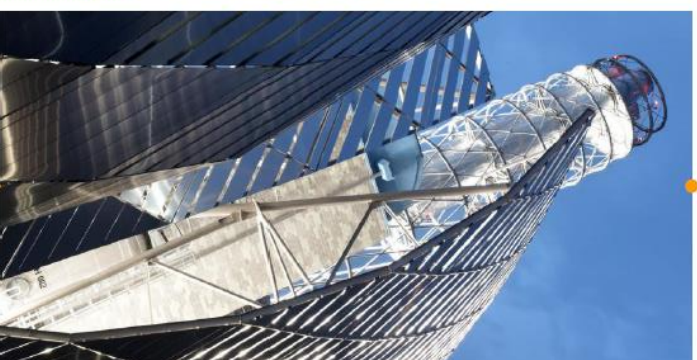
ENERGY SAVING AT SCHOOL



Retrofitting of school buildings to achieve a reduction in the energy consumption.

41.000 MQ area
70-80% energy saving
1000 t/year of CO₂ emission reduction

DISTRICT HEATING



526 KM pipes
55,8 MLN MC
560000 people served



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The Torino City's running projects

WASTE MANAGEMENT



ALMANAC

Smart Platform for innovative management of the waste cycle, able to collect, analyze, and translate in real time data from a network applications, sensors and gauges.

SCHOOL CANTEENS



INNOCAT

Project to build tender specifications for school canteens in terms of environmental sustainability and to study the next contract in order to minimize environmental impacts and promote innovation.

URBAN GARDENS



TOOC Project (Torino Città da Coltivare)

to develop agriculture in the urban area.
105000 MQ urban gardens
11 community gardens

URBAN SECURITY



FIWARE

Technological platform for sharing of data and development of innovative applications and services based on the Future Internet.

The Torino City's Living Labs

REAL-LIFE TEST AND EXPERIMENTATION SPACE



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LEAN APPROACH

Clear administrative procedure and work flow for engaging with PA.

TRUST

Public private partnership to co-develop and test innovative solutions with a participatory approach.



1 district

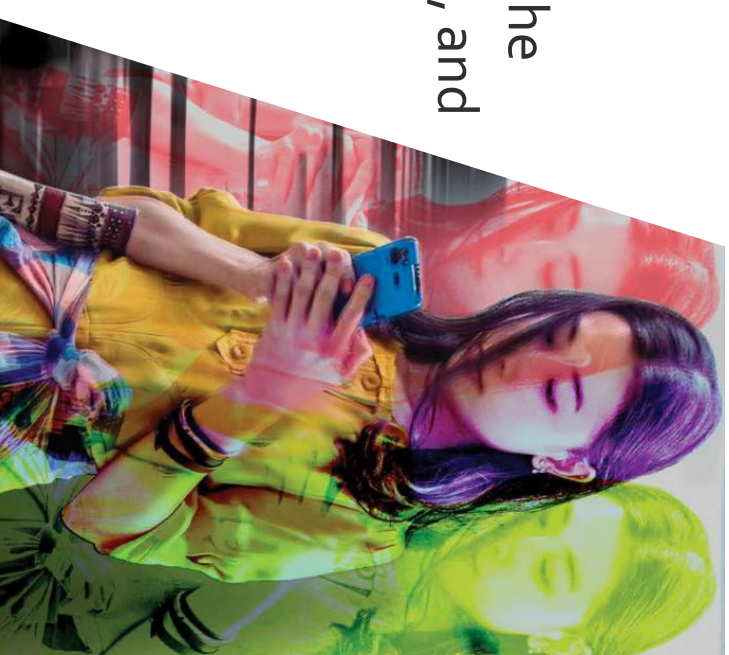
32 Projects

Health and wellness, inclusion, mobility, energy efficiency, environment, security and land monitoring, tourism



Conclusions

- ✓ None (neither Cities) can develop & spread innovation alone
 - too many competences are needed
 - innovation must be open and citizens proof
- ✓ Universities and Private Companies are a key player in the design & implementation phase of innovative solutions, and they are fundamental to find and deliver sustainable business models
- ✓ Citizens expect a «consumer experience»



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Thank you!

The logo for POLOICT, featuring the word "POLOICT" in a bold, sans-serif font. The letters "POLO" are in grey, and "ICT" is in red. A thin red vertical line passes through the center of the letter "O".

POLOICT

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The logo for torinowireless, featuring a large grey letter "O" with a red vertical line through its center. Below the "O" is the text "torinowireless" in a lowercase, sans-serif font. To the left of the "O" is the text "ICT e Innovazione in Piemonte" in a smaller, lowercase, sans-serif font.

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The logo for Smart Communities, featuring a stylized circular icon composed of concentric arcs in orange, green, and blue. To the right of the icon is the text "Smart COMMUNITIES" in a bold, sans-serif font. Below this is the text "Italian Technology Cluster for Smart Communities" in a smaller, sans-serif font.

Smart COMMUNITIES
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