Sport as a driver for the development of smart communities in smart cities

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Looking for a vision .....
Vision

Making Smart Cities *smarter* through sport by empowering smart communities
My working hypothesis

• Cities are rich and complex systems of communities

• Technologies are enablers for empowering communities → smart communities

• Hypothesis: sport is a powerful strategic driver for supporting smart communities in smart cities
Sport in a wider perspective

«... physical activity and sport form part of humanity’s intangible heritage ...»

Every human being has a fundamental right to physical education, physical activity and sport ...»

UNESCO, Charter on Sport (2015)

“Sport has the power to change the world.
It has the power to inspire.
It has the power to unite people in a way that little else does.”

Sport in a policy perspective

«... Sport can play an important role in driving the development of regions and cities.

[...]

Sport not only helps to keep us fit and healthy. It has the power to strengthen communities, and supports us in building more inclusive societies»
Sport in its economic dimension

The Vilnius Definition of sport (2007)

1. **Statistical Definition**: sport according to the system of national accounts for economic activities
   - E.g. operation of swimming pools

2. **Narrow Definition**: statistical definition plus all goods and services which are needed to do sport.
   - E.g. football shoes, billiard tables, repair services

3. **Broad Definition**: narrow definition plus all goods and services which use sport as an input.
   - E.g. all sport related tourism, sport betting
Case: Gross Value Added of sport in the EU

Table 25: Sport-related GVA of the EU-27 countries, in million Euro and shares in EU

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<td>Direct</td>
<td>28,160</td>
<td>112,179</td>
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<td>48,774</td>
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GVA equivalent to agriculture + fishery + forestry combined

This excludes:
- Impact on the healthcare system
- Impact of volunteering

Paolo Bouquet – University of Trento (Italy)
An investor’s perspective
Megatrends in sport innovation (2017)

MEGA TRENDS IN SPORTS

- The use of BIG DATA
- Sensors are taking over
- e-Sport VR
- Media disruption
Methodology: the IEEE Smart Cities matrix

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→ Lines: functional domain is involved
Rows: relevant application domain
Case 1: Morro da Mineira (Rio de Janeiro)

Opened by Brazilian football legend Pelé, Morro da Mineira is the world’s first football pitch to convert the players’ movements into energy. Through the use of 200 kinetic tiles, the pitch produces enough electricity to power the six LED floodlights in a nearby favela so children can safely play football into the evening.
## Smart City matrix

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Case 2: The Icelandic football revolution

Vision: a heated indoor “football houses” in every town across Iceland – to ensure anyone who wants to play has a facility to use from a young age

Achievements:
• 30 full-size all-weather pitches
• 7 are indoors
• almost 150 smaller artificial arenas

Impact:
• Activity for kids
• Social cohesion
• Community centers
• International branding
• Fun 😊

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Case 3: Glasgow 2014 Legacy Framework

A Prosperous Glasgow
A more Prosperous Glasgow will build on the investment and social renewal already achieved over the past decade, to create real and permanent economic progress.

An Active Glasgow
A more Active Glasgow will use the Games to inspire more Glasgow citizens to become physically active and participate in sport, leaving a community legacy of world class venues being developed as part of the Games.

An International Glasgow
A more International Glasgow will use Glasgow 2014 to showcase Glasgow and help strengthen the city’s image, worldwide reputation and civic pride.

A Greener Glasgow
A Greener Glasgow will use Glasgow 2014 to help Glasgow become one of the most sustainable cities in Europe by setting an environmental standard that the city will follow.

An Accessible Glasgow
A more Accessible Glasgow will see around £2 billion of investment in the city’s transport infrastructure, providing businesses, citizens and visitors with faster, more reliable access in and out of Glasgow.

An Inclusive Glasgow
A more Inclusive Glasgow will be an opportunity for all who don’t have a formal role in Glasgow 2014, to participate in this once in a lifetime event.

Glasgow named world’s Best Small City for hosting sporting events
Glasgow has retained its place in the world’s top five Ultimate Sports Cities of 2018 and also won the award for the world’s Best Small City for hosting sporting events.
# Smart City matrix

|-----------------------------|-----------------------------|-----------------------------|---------------------------|-----------------------|-------------------|-----------------------------|---------------------------------|-----------------------------|-------------------------------|
Case 4: bike-to-work (smart commuters)

Belgium:
- 0.23€ per km
- 400,000 commuters
- Overall budget: 93M €

Italy (project LoveToRide):
- Challenge among people / companies
- 12,000 people and 763 companies
- More than 5M km

Enablers:
- Mobile app
- Social media
- Sensors
- Gamification
Case 5: Sport4all at the University of Trento

- App for self-organization of workouts / events
- Distance learning for élite athletes
- Lifestyle self-monitoring and analytics
- Academic Credits for sports activity & volunteering
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Governance: sport is not a “vertical”: my little story at the University of Trento

2008: appointed as pro-rector for sport development.

Mission: monitoring the yearly budget and activity plan of the local student sport association
After 10 years (highlights)

**TOPSPORT**

Dual career program

**Governo Italiano**
**Presidenza del Consiglio dei Ministri**

EU group on the economic dimension of sport

**HYPE - Sport startups international network**

Sport for refugees
Sport is not just a «vertical»
Take home messages

• Sport as a **driver** for valuable “contents” (cross-cutting projects) on top of smart cities technological infrastructures

• **Business opportunities** with tested business models for smart cities (events, facilities, volunteers, startups, education, ...)

• We are not alone!!

• Focus on **smart communities** (*sport unites ...*)

• Need for new public officer profiles (beyond the standard “sport manager”)

• Sport naturally brings **passion, sense of belonging** and ...**fun**!
Thank you!