CPS & Tourism: Smart City Monitor perspective
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1. Introduction
Tourism is one of the largest socio-economic activity in the EU and employ over 12 million people in the European Union.

Europe’s share of global arrivals fell from 60% in 1990 to just over 50% in 2015; European destinations are still favoured by today’s travellers.
Inside Airbnb: Mallorka

11,271 accommodation listings
PSMSL.org

Station Information

Station ID: 2061
Latitude: 39.56015
Longitude: 2.63748
Coastline code: 225
Station code: 12
Country: SPAIN
Time span of data: 2009 – 2014
Completeness (%): 88
Frequency Code: Not Specified
Date of last update: 12 Jan 2016

Green Arrow: Current Station
Yellow Marker: Neighbouring RLR Station

Please note: In many cases, the station position in our database is accurate to only one minute. Thus, the tide gauge may not appear to be on the coast.

Monthly Data (mm)

Link to larger image of monthly data plot. Download monthly mean sea level data.
CPS are physical and engineered systems whose operations are monitored, coordinated, controlled and integrated by computers and communications.
The connection between tourism and urbanity is complex: the city is the physical place where tourist’s desires and inhabitant’s needs intersect. This means that cities must face different demands by offering adequate services and facilities. In this sense, tourist load on the city can compromise its balance, affecting urban quality of life.
Now we have:

- The vision for tourism and its relations to city is fragmented
- No holistic view to complex interlinked urban processes
- No “Just right” single solution every urban area / island
- Most of mid/small cities are aside of Smart City trends
- Only technical focus does not improve Quality of Life
Smart City Monitor enables digital transformation of big data streams from smart everything into rich set of data driven information services for citizens, businesses, administrations, tourists to control, prevent, command, answer questions and take right actions in real time.
2. Practice
A connected world: urban model
A connected world: data sources

Each IoT can be easily linked to the relevant node in the model (RESTful, CoaP, MQTT, etc).
Smart City Monitor: View of cyber-physical objects:
Cyber physical object example:
Wastewater
Cyber physical object example:
Total amount of Collected Wastewater
Cyber physical object example: Wastewater dependencies
Urban model of a real world cyber-physical system:
3. Tourism as Cyber-Physical Object
“For too long local policymakers have relied on a limited range of statistics, such as visitor-arrival numbers, employment surveys and visitor-satisfaction ratings, to monitor tourism in their destination. These statistics do not tell the whole story of tourism’s impact. Collecting data and information on a broad range of issues relevant to the impact on local economy, community and environment will help destinations build an accurate picture of what is really going on.”
Smart City Monitor

27 core indicators

Big Data
Open Data
Data Sources

40 optional indicators

Smart Tourism as CPO

Smart City Monitor
Make your own models of complex Cyber-Physical Objects at win2biz.com!

Integrated vision of the smart city for smart governance

Smart City Monitor

enabling digital transformation of big data streams from smart everything into rich set of data driven information services for citizens, businesses, administrations, tourists to control, prevent, command, answer questions and take right actions in real time

Click here to run Smart City Monitor online for some urban area in real time
thanks!

Any questions?

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Visit our website to find out more about Smart City Monitor:
smartcity.win2biz.com
Credits


Smart Tourism Destinations by Dimitrios Buhalis and Aditya Amaranggana
http://www.cyberstrat.net/ENTER14SmartTourismDestinations-libre.pdf

https://www.researchgate.net/publication/293175927_The_Role_of_Tourism_in_Planning_the_Smart_CITY


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  □ KIT TECO, bPart industrial IoT device https://www.flickr.com/photos/138891539@N03/23908928999/