



Machine-to-Machine Applications for Smart Cities



From **SmartHome** to
SmartBuilding, innovative
Energy management
strategies and technologies
for **SmartCities**

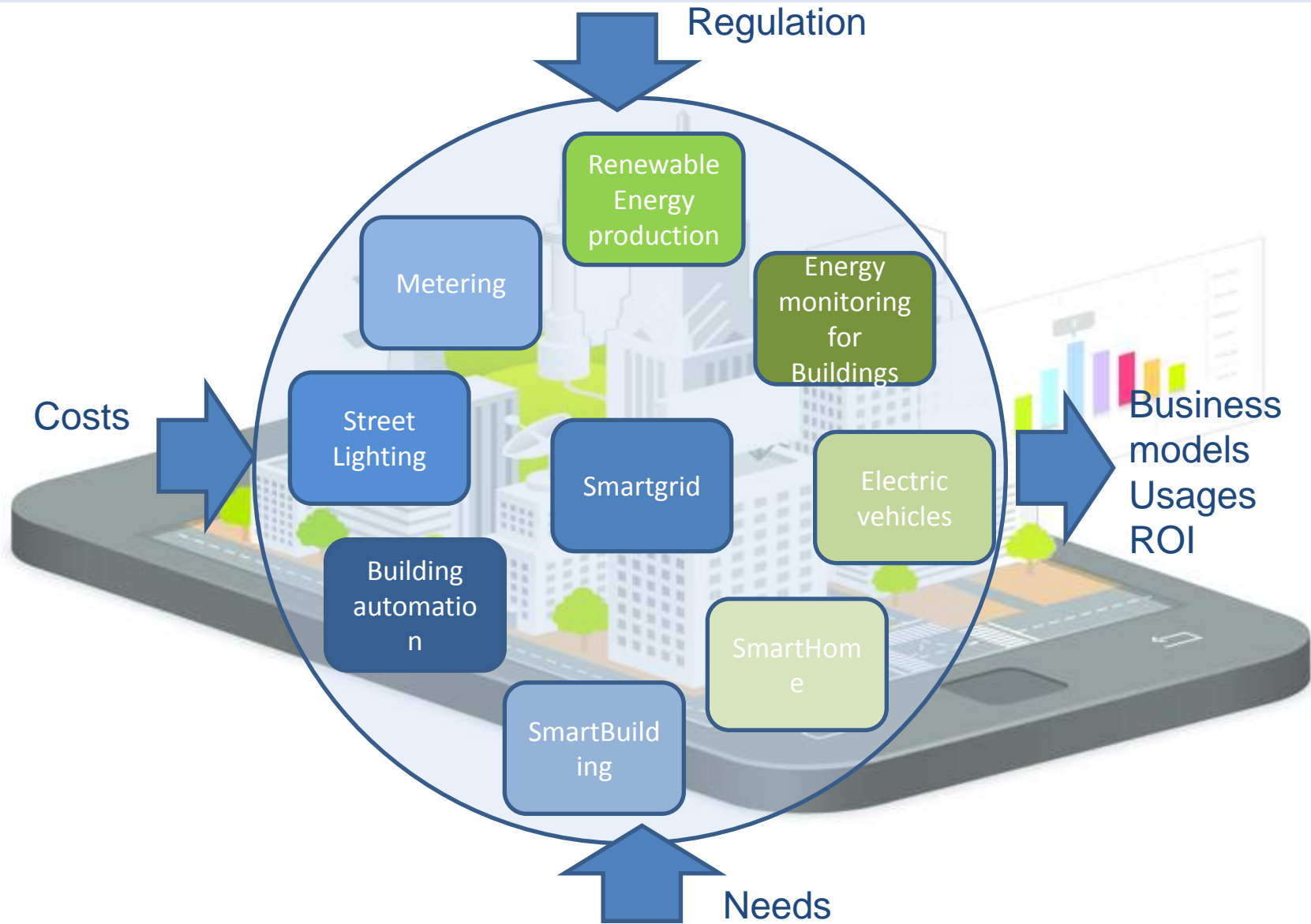
Maurice ZEMBRA, CEO Vertical M2M
May, 20th - MILAN

www.vertical-m2m.com

AGENDA

- Energy, M2M & SmartCities: key issues and drivers ?
- Use cases
- Vertical M2M's approach towards SmartCities

SmartCities – High expectations with Energy Management & M2M APPLICATIONS



Technology is a driver... but usage is the real issue !

Legacy infrastructures
(BMS, meters...) vs new
technologies ?

Wireless or Wired ?

Wireless: short or long
range ?

Sensors : IP or not IP ?

TECHNOLOGIES

Service

R.O.I & Savings

Sustainable Development

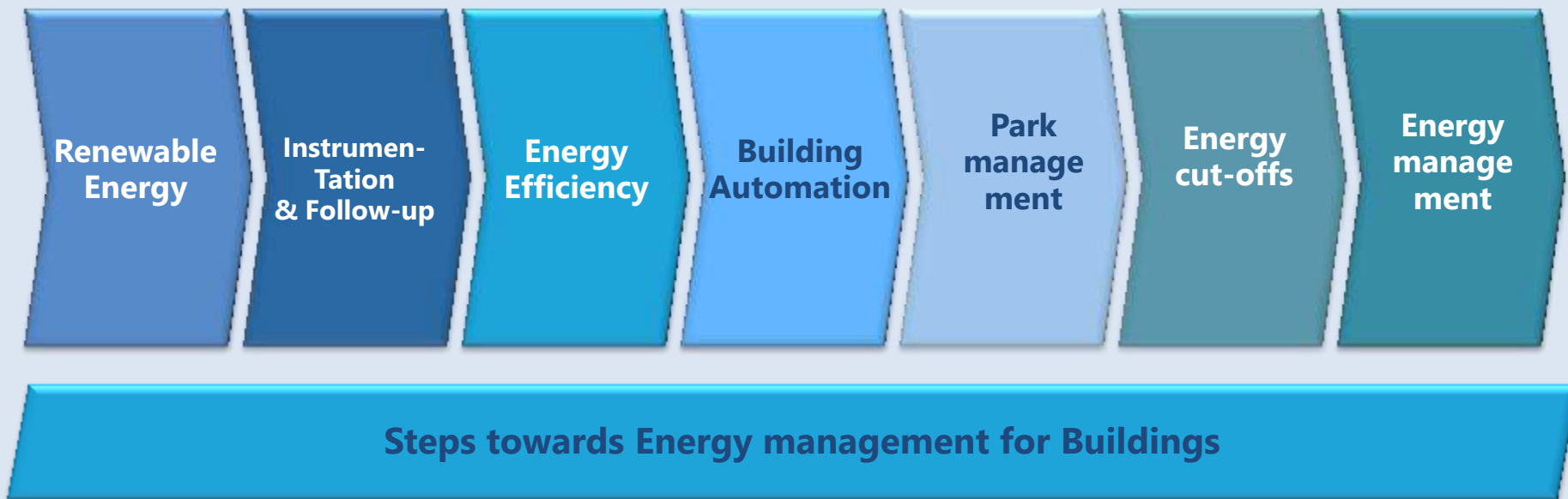
Life conditions'
improvement

USAGES

Rethinking Energy Applications (1/2)

- Energy management systems: a smooth path towards SmartBuilding

Energy savings and cost reductions can be brought at any step of the project...



Rethinking Energy Applications (2/2)

- SmartHome: combining storage, PV self-consumption and home automation to manage Energy costs at home (and much more...)
 - Provides a business model for SmartHome
 - Provides meaningful services to residential PV installations
 - Provides real savings (up to 30%) on Energy bills



Renewable Energy
Photovoltaics



Home automation



Storage

In short...

- ✓ Technologies for Smart Energy applications are **directly depending** on usages: building automation, metering, building follow-up, smarthome, smartgrid...
- ✓ Growing need to manage **heterogeneous technologies & systems**
- ✓ SmartCities want to **share value**: same data and sensors for several applications, opendata, bigdata
- ✓ Lots of Energy Apps mean **1 single IS for smartCities**
Energy-based connected objects

What we do at Vertical M2M

MARKETS

- Energy
- Environment
- Healthcare

SOLUTIONS

- Remote asset monitoring & telemetry
- Telemaintenance
- Automation & process control

Application Development

Telecom management

Cloud computing services

CommonSense



TECHNOLOGIES

Providing a global framework and a portfolio of applications for Smart Cities

APPs for Buildings

Renewable
Energy
Monitoring
(U-SHINE)

Energy
follow-up &
managemen
t (OneSense
Energy)

Remote
automation
Apps (em4
WEB)

SmartHome

APPs for Infrastructures

Billboard
Manage-
ment

Tank Level
monitoring
(U-TANK)

Water
station
managemen
t
(StepViision)

NEEDS & EXPECTATIONS

- complete monitoring and management of all photovoltaic / renewable energy installations
- performance analysis for improved ROI
- predictive maintenance

OUR SOLUTION

- a global solution that manages heterogeneous installations (from residential – few KWp up to MWp)
- a web-based park management application for both energy producers/utilities companies and photovoltaic installers

OVERVIEW & REFERENCES



www.u-shine.net




NEEDS & EXPECTATIONS

- manage energy consumption and expenses for any kind of buildings (commercial, residential...) and any source (electricity, gas, water...)
- support sustainable development strategy
- help lower energy costs

OUR SOLUTION

- a single platform to manage all Energy building management needs for all buildings
- dedicated and customized web-based portals
- compliant with a broad range of metering solutions and sensors

OVERVIEW & REFERENCES



Vue personnalisée: appartement de M. MARTIN



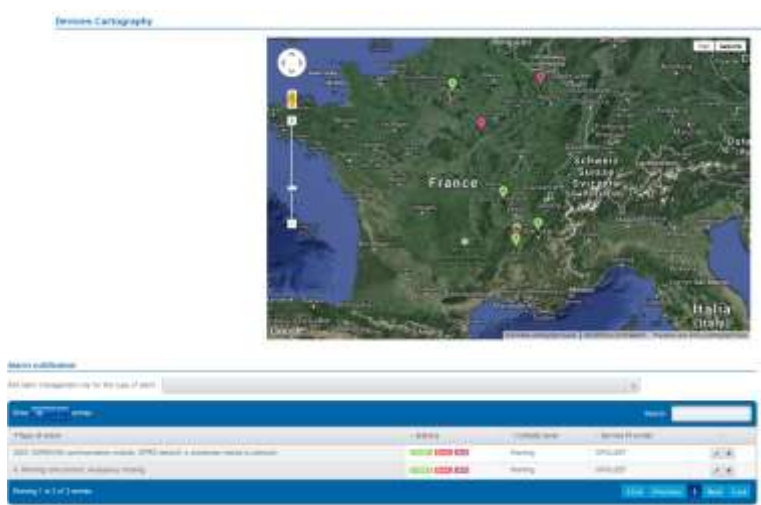
NEEDS & EXPECTATIONS

- energy management and home automation solution
- reliable, flexible and easy-to-use
- easy-to deploy and to maintain
- supporting a wide range of sensors (current loops, plugs, actuators, sensors,...)

OUR SOLUTION

- open intelligent energy management and home automation solution
- combines renewable energy production & energy consumption
- compliant with existing Internet boxes
- full remote management and maintenance


OVERVIEW & REFERENCES



Statistica BAC CROUZET1300693

Start date: 1/10/2011
End date: 28/02/12

Display



Sébastien De Peretti ,
CROUZET
Automation's General
Manager:

« With VerticalM2M,
we help our customers'
applications to enter
into the Internet of
Things world. »

NEEDS & EXPECTATIONS

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OVERVIEW & REFERENCES



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