New Generation Sensors

The IoT Company

Claudio Salvadori

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What we provide

Building Internet of Things ecosystems

Providing IoT connectivity exploiting several interoperable communication protocols

Thus we sell Internet of Things hardware solutions…

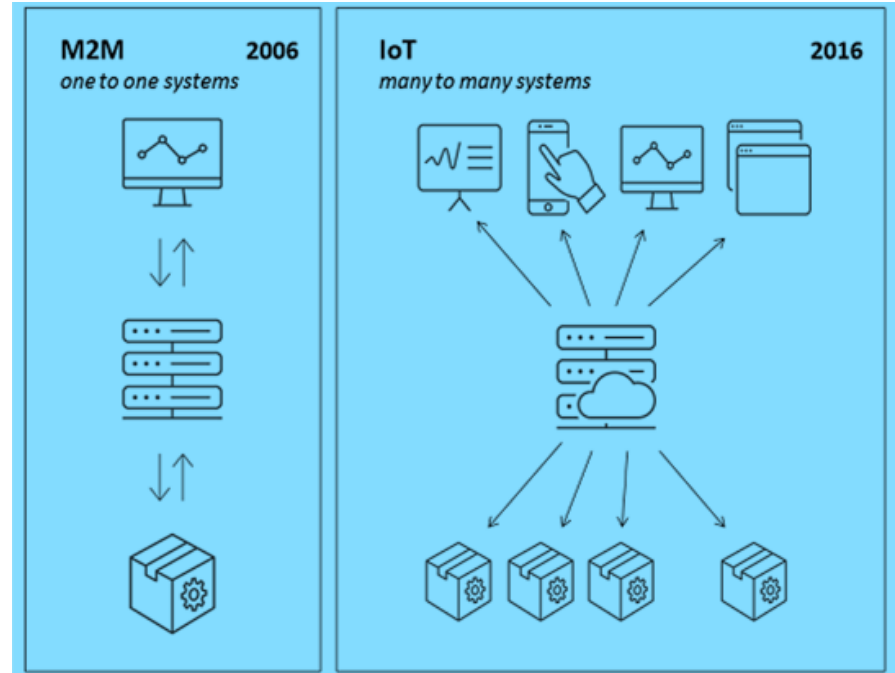… But also we enable the end user to add-up third parties compliants components.

M2M vs. IoT: motivating example

Vertical M2M (2006)
    One type of Sensor
    One Vertical Application
    One user
Horizontal IoT (2016)
    Many to many
    Many independent Sensors
    Applications as a Service
    Many users

M2M   2006
one to one systems

IoT   2016
many to many systems

Toward the smart factory

- NGS solutions enable the horizontal combination of independent sensors capable to create "*applications as a service*" toward a *safe* and *optimised factory*

Make safe your high risk plant

Malfunctioning detection

Harmful gases detection

Fire prevention

Toward the smart factory

Distributed

- Collecting data directly from the field

Smart

- Transforming data in information, enhancing the usability

Usable

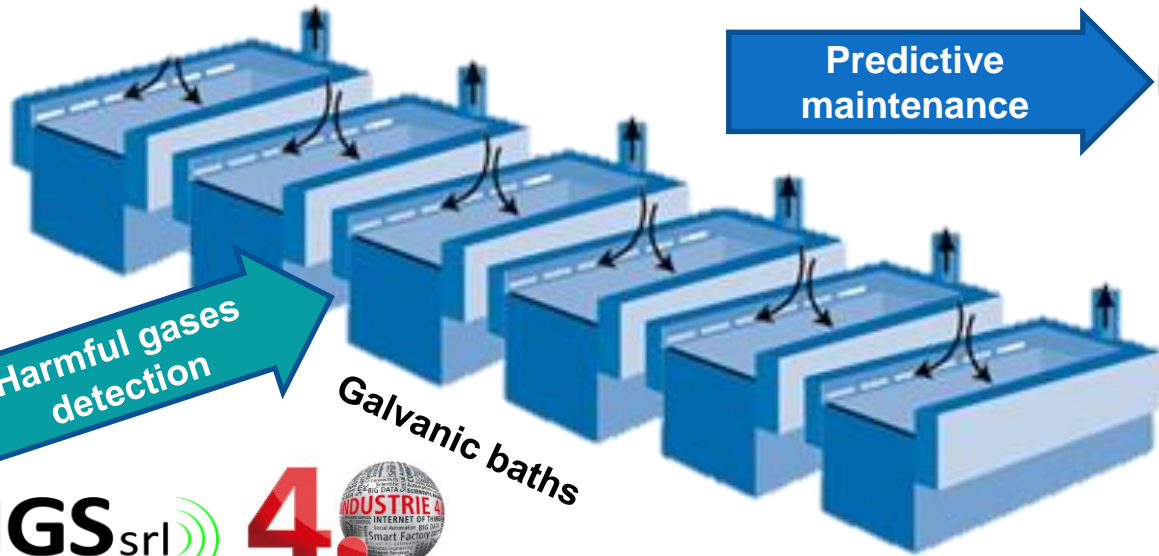- Providing information to all the factory users, from the workers to the managers

Interoperable

- Cooperating with third parties Cloud applications (e.g. ERP)

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Motivating use case: galvanization plant

A galvanization plant uses dangerous chemicals liquids that can generate harmful vapours (hydrogen cyanide).

PlantOne for malfunctioning detection
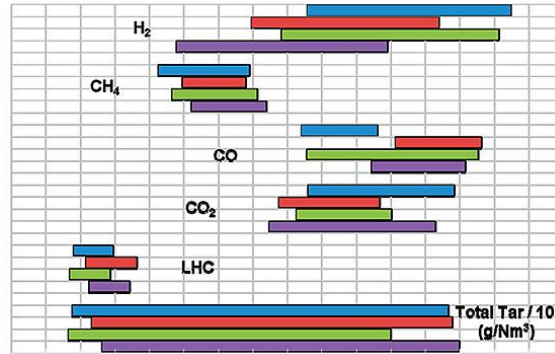

PlantOne:
From the field to your PC

PlantOne:

- **Understand the health state of your electric machineries!**
- **Low cost**, **plug'n'play**, **easy to install predictive maintenance (PdM)** system
- **non-invasive** (wireless and battery powered)
- **simple logic** (threshold) apply to every sample. The threshold is set by the user. An **alarm** is remotely visualised
- Ready for the **market**

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GasOne for harmful gas detection

□ Distributed ecosystems of wireless node for the ubiquitous harmful gases monitoring

  □ Need to understand local events monitoring the air the workers are breathing

□ Buzzer and screen to visualise and warn about dangerous events

FireOne for electrical fire prevention
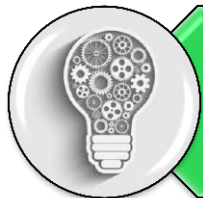
- Electrical panel over-heating could pose a fire hazard
  - Monitoring of the differential temperature…
  - Monitoring the CO levels…
- will enable the electrical fire prevention in your plant.

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NGS Factory 4.

Toward the Smart Factory democratisation

Integration of the **logic to understand the evolution of the data gathered from the sensors**

Provision of easy to understand **information** and **warning** toward a safe and efficient plant

Interoperation with **common commercial mobile devices**, e.g. **mobile phones, wireless screens, …**

BE in CPPS
SmartPlantOne • EXPERIMENT

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Toward the Smart Factory

- NGS systems are thought to be interoperable with third parties Cloud-based environments (e.g., ERP, CMMS)
- Real time data collection from the field to improve the functionalities of:
  - Risk & Opportunity Management frameworks
  - LEAN manufacturing frameworks
  - Manufacturing Execution System

In collaboration with:

BEƎNOMIO

http://www.beenomio.com/

the whiteSwan

http://www.thewhiteswan.eu/

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Thank you!!

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