

Imecon. Spread technology.

Digital Transformation means the introduction of **innovative technology** in every field: technology available not only to experts and insiders, but to everyone during everyday life.

A **smart space** is a physical or digital environment in which people, processes, services, machineries and every connected element are able to communicate, creating an enveloping, interactive and automated experience for citizens, workers and enterprises.

This can be seen in the advent of smart cities, digital workplaces, smart homes, and connected factories.

Summarizing, the two key words driving the Digital Transformation are **Smart Cities** and **Smart Enterprises**.

The creation of Smart Cities and Smart Enterprises is poised to accelerate rapidly and become an integral part of the daily life of employees, customers, consumers, community members, and citizens.

It means different level of **development** in every sector, from technological innovation, to social and financial digitization, environmental sustainability, alternative mobility, new business models, culture and interactive education.

Cities have a central role in the technological progress, because they are able to involve citizens creating new opportunities of interactions and offering innovative digital experiences.

The aim of Smart Cities is to create a **radical change**. The final scope is to improve the quality of life through new services, opportunities and ways of knowledge. Enabling an advanced use of information and a new kind of communication, the use of **cloud computing** and **IoT** platforms introduce great innovations, based on their combined use.

Data of every single function, operation and service in an intelligent space is collected, analyzed, processed and stored, following the **big data paradigm**, to give to as much information as possible at the service of the entire community.

Big Data analysis allows researchers to go deeper and deeper in the knowledge of the analyzed phenomenon.

Close links are established with the concept of **Industry 4.0**: it means completely interconnected machines, which are able to interact with the others and perform **self-diagnosis** and **predictive maintenance**.

Industry 4.0 makes plants flexible, allowing companies to shape quickly the production chain, to create products customized, satisfying every customer need.

The industrial workflow can be **virtually** reproduced to check possible behaviors in real or hypothetical situations, enhancing the performance and avoiding waste.

Basis of Industry 4.0 is the **cloud technology**: it allows to build an innovative industrial strategy, more effective and efficient, by the use of sensors, artificial intelligence and robotic.

Cloud technology, coupled with **big data paradigm**, accelerates the industrial digital transformation: this combination gives the **computational power** useful to detect and exploit new business opportunities.

To say it in a world, factories are becoming **intelligent**.

For companies nowadays the challenge is to catch up with this new market's trends.

Imecon answers with two integrated software solutions: **JoT** and **theTail**.

JoT is the **IoT** software solution that allows **remote management and control** of connected devices. JoT collects **every single second** of devices life, enabling advanced **big data analytics**. That allows the implementation of **deep learning** algorithms, to reach **predictive maintenance**. It means **lowering unexpected issues**, greatly reducing the number of on-site interventions and the expertise of people on-field. In the end an **important cutting in maintenance costs**.

Imecon's totems are constantly under control. **Remote commands** are provided and every machine sends to **JoTCloud** real time data collected by sensors. Data is analyzed and displayed in dashboard, available through JoT's web interface.

An advanced **alerting** and notification system is provided. Issues and unexpected patterns are immediately detected: multichannel and real time notifications are sent to correct users.

Not only totems: JoT controls any kind of machinery. It can be integrated with ERP systems, enabling the **Industry 4.0** evolution. It makes machines communicate each other and with ERPs, collecting and analyzing operational data. Machines can be remotely controlled and monitored from the ERP system. But this is not all: through JoT's complex algorithms analysis companies are able to deepen in the knowledge of the machinery functioning, preventing issue and undesirable behaviors.

JoT makes cities smart thanks to **theTail**, the integrated **cloud based player** for the Digital Signage. Digital Signage is a form of **digital communication** that allows to transfer messages or promotional material through the use of screens. The purpose is to offer a more direct interaction with the customer through any kind of digital content. Screens create people engagement. Citizens can ask for information and discover services directly through screens.

Nowadays the Digital Signage market has extended his boundaries: the aim is not only to one way communicate a message, but also to receive **feedback** and **input** from people. Everything obviously **remotely controlled**.

theTail provides **programmatic digital out-of-home**: screens interact with the environment, reacting to event, like people actions or environmental changes.

theTail allows users to manage the contents of one or more monitors fleets in a dynamic and flexible way from a remote location. The web interface allows the user to load multimedia contents in an agile way, to create customizable playlist and planning.

theTail solves a sore point in the Digital Signage industry: it gives **colorimetry based contents certification**. All data collected are sent to **theTailCloud** and analyzed. Through the **colorimeter analysis**, theTail is able to real time monitor the functioning of screens and to ensure that the correct contents are reproduced in defined time slots, allowing a proactive management if an issue occurs.

theTail makes it possible to **certify** the successful transmission of contents, providing advertising space vendors with reports on the content played in a particular place and in the established time slot. theTail gives, at the same time, to advertisers the certainty that they are getting the service purchased. Through theTail it is possible to send to each monitor commands schedule the time of switch on and off of the backlight.

Imecon's trump card to overcome the Digital Transformation challenge is to create **synergy** between hardware and software giving **value** to enterprises and **services** to citizens.

The progress is real only if the advantages and benefits that **technology evolution** brings with are available not only to a narrow community, but to **everyone**.