



Smart City Life Cycle Management



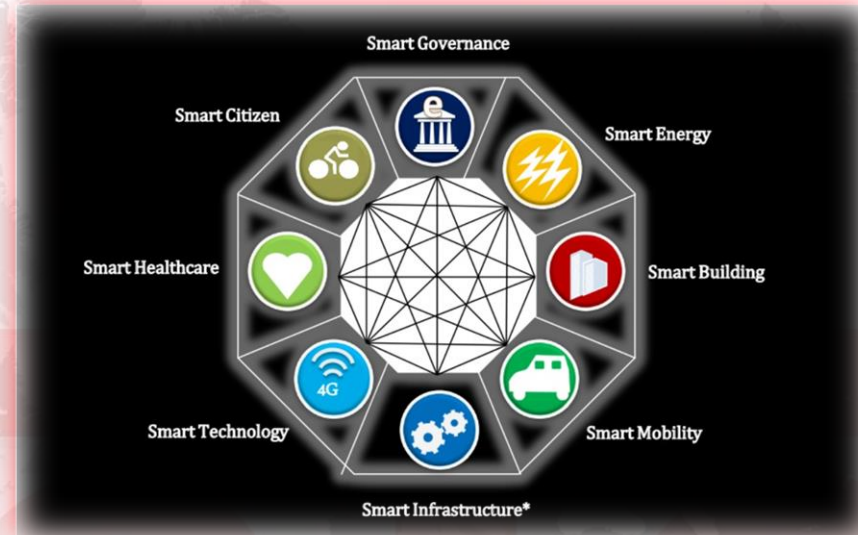
1973 - 2013

GRUPPO
SeTeL

WHAT IS A SMART CITY?

How many topics
pertain to the
Smart City
scenario?

Scenario



SMART CITY IN A BOX

5J has developed a set of apps based on the four pillars of a Smart City - Sustainability, Efficiency, People and Security. These apps can be used independently or in conjunction with other apps for a seamless monitoring and management.

SUSTAINABILITY

- ENERGY MANAGEMENT**
Gathering energy usage data through meters in buildings to advise clients how to mitigate the energy usage.
- WATER MANAGEMENT**
Detect water quality by using camera analytics to examine marine life in water.
- CLIMATE CHANGE AND FLOOD MODELLING**
Tool that allows users to model flooding and climate change, particularly in cities that are in a coastal stage.
- SMART LIGHTING**
Sensors and controllers in light fixtures that allow light to dim if no presence is detected, saving energy and expenditure.

EFFICIENCY

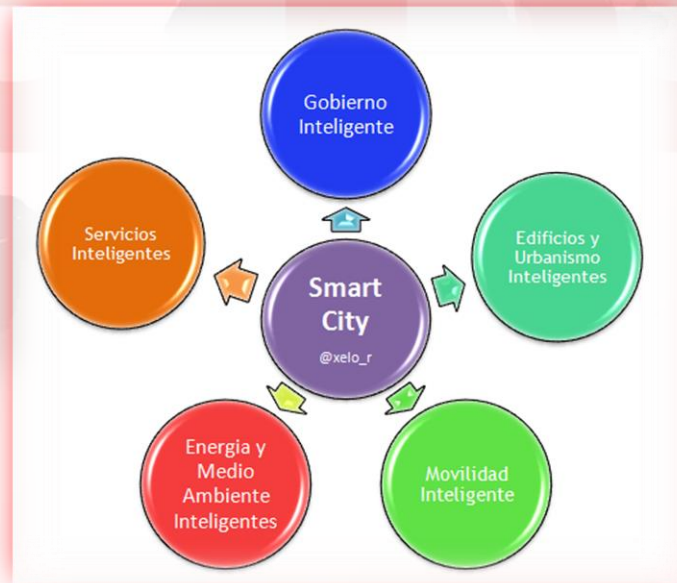
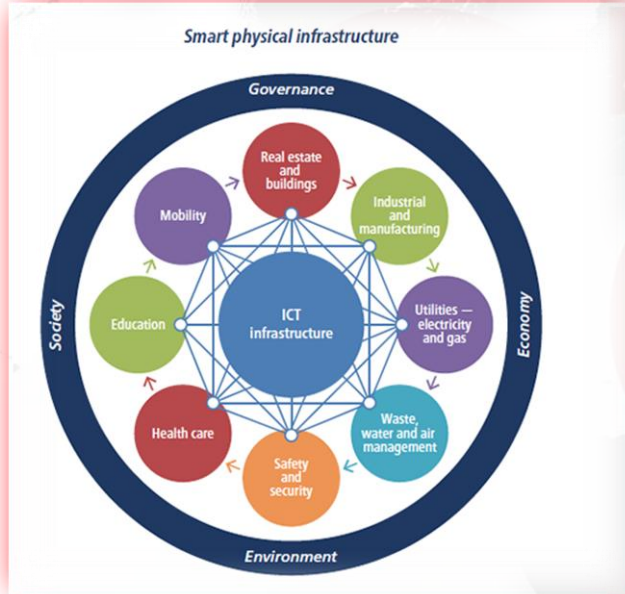
- PREDICTIVE LIFT MAINTENANCE**
Enables the analysis of data received from sensors installed in lifts to predict breakdowns.
- TRAFFIC MONITORING**
Camera with video analytics installed at highways to detect traffic jams, accidents and other traffic incidents.

PEOPLE

- ITOWN**
A mobile app allowing users to conveniently take pictures of defects and submit feedback to city councils.
- SMART HOME**
A system that can control both locally and remotely the aircon and lighting curtain of home.
- ELDERLY MONITORING**
Installation of sensors in homes to detect the well-being of elderly persons and their movements.
- SMART TOILET**
Sensors that detect if the toilet is used or has run out of toilet paper, enabling the deployment of cleaners based on need rather than scheduled cleaning.

SECURITY

- FIRE & SMOKE DETECTION**
Camera and video analytics that detect fire and smoke.
- FACIAL RECOGNITION**
Camera and app setups with stored data used to identify blacklisted individuals.
- SMART CCTV**
Usage of camera and video analytics to facilitate people-counting, illegal activities, objects left unattended and vehicle plate recognition.
- BEHAVIOUR ANALYTICS**
Camera that detect persons who may be drowning in a pool.



By Wikipedia

A **smart city** is an urban area that uses different types of electronic data collection sensors to supply information which is **used to manage assets and resources efficiently**. This includes data collected from citizens, devices, and assets that is processed and analyzed to monitor and manage traffic and transportation systems, power plants, water supply networks, waste management, law enforcement, information systems, schools, libraries, **BY WIKIPEDIA** vices.

The **smart city** concept integrates information and communication technology (ICT), and various physical devices connected to the network (the Internet of things or IoT) to optimize the efficiency of city operations and services and connect to citizens.

Smart city technology allows city officials to interact directly with both community and city infrastructure and to monitor what is happening in the city and how the city is evolving.

Scenario

SECTORS	Mobility	Energy	IT and Telecom	Security	Healthcare	Governance
Products / Services	Traffic management	Smart grids; energy management	City Cloud Computing	Identity Management	Integrated health record system	e-Services Transactions and Payments
	Electric vehicle charging infrastructure	Smart meters	Data-centric Consulting Services	Cyber Security	E-health	e-Communication Notifications and alert service
	Tolling and congestion charging	Smart home appliances	Information Management Services	Intelligent, real time security management	M-health	e-Administration Tools for public administration
	Integrated mobility management	Flow and regenerative technologies	IT Advisory Services	Sensor actuator solutions	Tele-consultation facility	e-Security Law enforcement and emergency management
	Geo Fencing & Asset Tracking	Renewable integration	Managed Security Services	Logistics / Mobility security management	Home health	e-Businesses Registration Services Patent Renewals
	Parking Management and Payment Solutions	Sensors and Smart Material	Authentication and Monitoring (Sensors, Video Surveillance)	Building security	Data and Business Analytics for Healthcare	M-Governance SMS Tax Returns SMS Utility Bills

Source: Frost & Sullivan Analysis 10



**Who takes care that
the efficiency is to be maintained**

FOREVER

(or, at list, for hundred of years)

**GRUPPO
SeTeL**

Smart city technology is continuously enhanced, consequently the city is subject to a fast obsolescence.

New towns run the risk to become, in short time, an example of industrial archeology.

Smart City Maintenance

Maintaining and updating the systems during its lifecycle is a big challenge

Smart City Life Cycle Management



PHOTO BY DAJETHY

Since the 2° World War, the Integrated Logistic Support Engineering (ILS) faces the degradation and obsolescence of Complex Systems, seen in the entire life cycle span.

Today, ILS can be successfully applied to the Smart Cities challenges

SeTeL operates in this sector since 1973, has managed more than 120 complex systems and fill itself qualified for this challenge



J5F



**EFA2000
EUROFIGHTER**



TORNADO



MIRAGE



G222



C27J



NH-90



A-149



A-129



EH-101



NH-500 MD



**ATC GIOIA del COLLE
SATCAS-80-2-G**



**ATC TRAPANI BIRGI
SATCAS-80-2-G**



ATR 42



ATC SIGONELLA



**AEROPORTO DI
LOCARNO**



**ATC KUWAIT
AIRPORT**



**CRAV ROME
CIAMPINO**



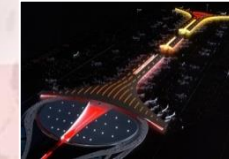
**B.AIRES EZEIZA
AIRPORT**



**MOSKOW
SHEREMETYEVO
AIRPORT**



**BEIJING
INTERNATIONAL
AIRPORT**



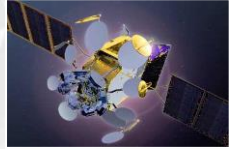
**ANKARA
ESEMBOGA
AIRPORT**



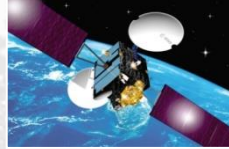
**ATC DECIMOMANNU
SATCAS-80-2-G**



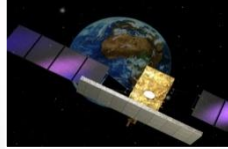
ASTROLINK



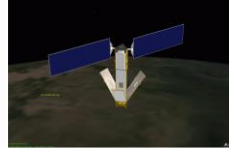
ARTEMIS



COSMO SKYMED



IRIDIUM



INMARSAT



EUMETSAT



OPTSAT 3000



SICRAL-SICRAL 1B



ENVISAT



VEGA



PGS FUCINO



CGC VIGNA DI VALLE C. GEOD. SPAZ. (MT)



ESRIN



S.MARCO



EMPAR, FADR, PAAMS, VTS, KRONOS, SINDRE, RAN 40-L, PANAMA HOMELAND SECURITY, ATCR33S, PAR, GRIFO, SIR-M, RAT-31 S, MRCS-403, NA25X; RAN 20S; ARGOS 73, ARES B



SCALO MERCI



HABSAN – RUWAI (EAU)



AV TORINO – PADOVA



FERROVIA TIRRENICA MERSIN - BOGAZKOPRU



AV GEBZE -



ALE 711-132-FM



TAF (TRENO ALTA FREQ.)



VOSSLOH G2000



METRO ATLANTA



METRO MANCHESTER



METRO COPENHAGEN



METRO ANKARA



METRO MADRID



METRO LEGGERA AARHUS



METRO ROMA C



METRO MILANO 5



METRO BRESCIA



METRO STOCOLMA



METRO ROMA B1



METRO GENOVA



TRAM SIRIO



TAIPEI CIRCULAR LINE



RETE FERR. NORVEGESA METRO LOS ANGELES



E464 FS



CAVOUR



ORIZZONTE



FREMM



BDSL ALGERIA



MAESTRALE



COMANDANTI (NUMC)



BAYNUNAH



FALAJ 2



LERICI



LAT-YA



LAKSMANA



GAETA



U212A



MS ROTTERDAM



SPARVIERO



EL KASSEH ALGERIA



NITEROI



LUPO



VITTORIO VENETO



MEDINA SAWARI



Requirements & Verification Management

1388 1A e 2B; S3000-L S1000-D SCORM & S1000-D TRAINING

LISA Logistic Integrated Support Analyzer

DESIGN & DEVELOPMENT

Baseline (Configuration Control)

Reliability Maintainability

Logistic Support

Traditional & Interactive Technical Publications

Traditional & Technology Based Training

Integrated Logistic Support Engineering

OPUS Suite

ICT

Since 1973

Services



TPS
Technical Publication Suite



TBT
Technology Based Training Engine



Customer

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IT Logistics





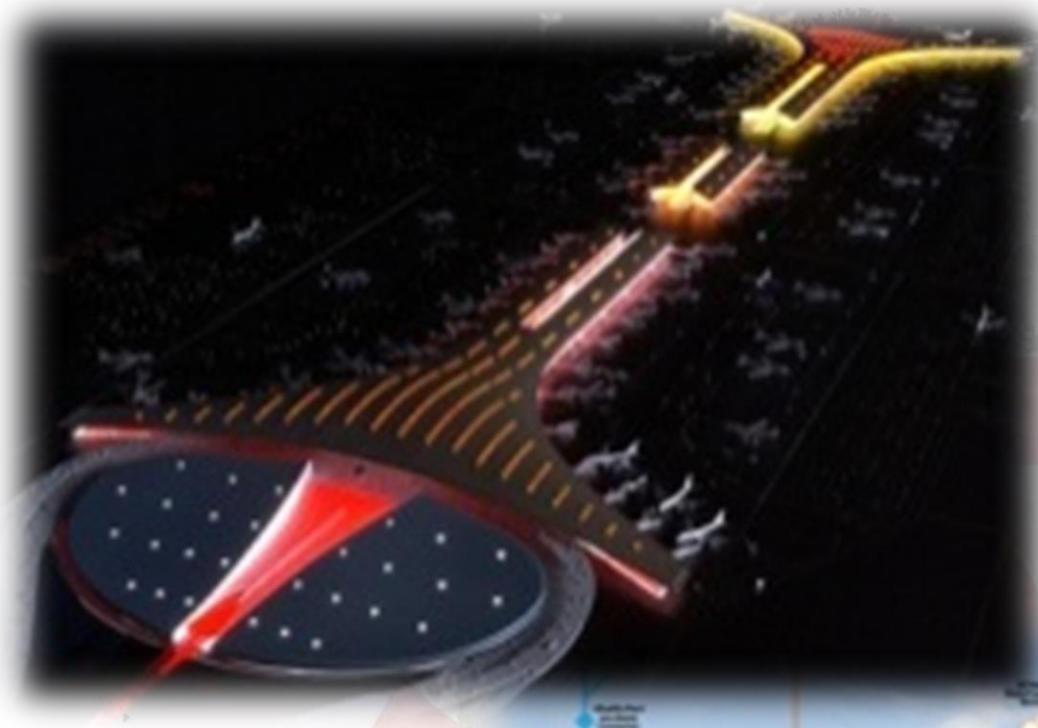
Since 1973

We would use the heritage for:



Example 1
Smart Cities vs.. Huge Ships Life Cycle Management





Example 2
Smart Cities vs..Transportation Life Cycle Management





Example 3
Smart Cities vs.. Communications Life Cycle Management



SeTeL



Proposal

SeTeL proposes to the **Smart City Cluster** the setting up of a Smart City Life Cycle Management (LCM) Panel, to built a network for an European project.



Smart City LCM includes and integrates, at least :

- Vertical technologies obsolescence management
- Configuration management
- Vertical technologies maintenance policies
- Maintenance sites and spares optimization
- IoT diagnostic
- Big Data Prognostic
- Maintainers and Operators Training Policies
- Operational Availability Optimization
- Life Cycle Cost management





Grazie

An illustration of two hands shaking, with the word 'Grazie' written in a large, red, cursive font across the hands.



Integrated Logistic Support Engineering

Since 1973



1973 - 2013

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