



INAUGURATION

LA FABRIQUE NUMÉRIQUE

of the smart territory

opens its doors in Angers

The Fabrique numérique du territoire intelligent has just opened its doors in Angers, with Christophe Béchu, Mayor and President of the Angers Loire Métropole local authority in attendance. A place for teaching and jointly building the services of tomorrow for a smart and sustainable territory, this Factory is a centre for sharing between citizens, the Angers Loire Métropole local authority teams and all of the project's partners.

Angers, France, 27 June 2022

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A unique location serving local authorities

The *Fabrique numérique* local authority digital factory has the ambition of becoming a forum, a place for exchanges between all of the players. It brings together elected representatives, users, citizens, local authority officials and project partners with the aim of addressing three primary goals:

1. Teaching people about uses, especially in terms of public lighting solutions, safety, digital twins and hypervisor systems;
2. Providing highly operational training, for all of the teams committed in the field, thanks especially to awareness modules;
3. Jointly building and supporting these new uses.

Immersion, prototyping, training

In addition to the solutions deployed across the territory, the inauguration of the *Factory* offers the opportunity to provide a very real explanation of how the process for creating, implementing and deploying the innovative services offered to residents and public service users actually works.

Figures, pictures, explanations, the approach is truly a learning one that is based on real-life illustrations. With events and workshops, it is now possible to understand the mechanisms for moving from an idea to its implementation in the field. Parking, access to information on health-care services available in the greater Angers area, are so many issues that are covered at the Factory.

Jointly built with the local authority and the partners, the tools made available at the Factory serve to better understand the entire smart territory project and the benefits that flow from the deployment of digital technologies.



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“A hybrid, innovative and modular location, the The Smart Territory Digital Factory is a novel location that contributes to developing and accelerating the project that was initiated two years ago now. With all of their partners, Angers Loire Métropole is proud to be writing a new page in urban innovation serving the environmental transition” says Christophe Béchu, Minister delegated to local authorities, Mayor of Angers and President of the Angers Loire Métropole local authority.

Demonstrators to combine teaching, training and joint building

The *Smart Territory Digital Factory* is equipped with installations for better understanding the solutions designed and implemented to serve citizens. Four demonstrators are already available and operational to service the major challenges that are public lighting, security, digital twins and hypervision used to optimise all of the mechanisms deployed across the territory.



FOCUS #1 Public lighting

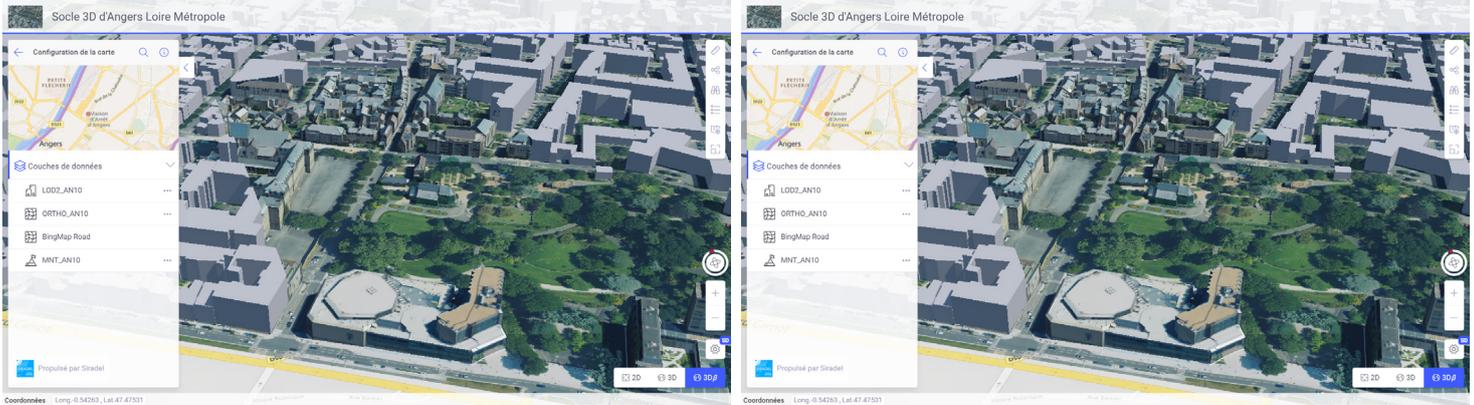
The demonstrators are used to illustrate the possibilities offered by the renovation work on the public lighting installations undertaken by the consortium across the Angers Loire Métropole local authority area. It is also possible to better understand the equipment implemented and how it is remotely controlled. The deployment of these technologies aims to achieve public lighting energy savings of 66%. Although reducing the carbon footprint and mobilising to face the climate challenge are essential, energy price tensions also underline the necessity of these operations.

The main achievements highlighted during the demonstration comprise:

- Replacing light bulbs by changing to LEDs: 30,000 of the 50,000 light bulbs across the territory are replaced with far more virtuous LEDs, as they use little energy and offer a far longer service life.
- Installing modules that allow reducing the brightness of the lighting during the night.
- Installing presence sensors that keep lighting switched off in less travelled areas while retaining the ability to light the lighting when pedestrians pass with a view to ensuring safety on public roads.
- Separating the electric power supply to public lighting from that of other related equipment. Hence, while retaining the set lighting period, it becomes possible, for example, to switch end of year illuminations on and off in line with a different schedule, i.e. to light them before and extinguish them after, the rest of the public lighting in town.

FOCUS #2

Digital twins



The *Smart Territory Digital Factory* equipment provides a real life illustration of just what modelling using digital twins can bring when it comes to improving the development of the territory and risk management. Angers Loire Métropole is a pioneer in developing these new digital technologies that are used to produce dynamic mock ups for optimising buildings, territories and their uses. The potential for using this data is enormous and constitutes one of the keys to the smart territory of tomorrow.

- Territory modelling: performed from high resolution pictures take from the air, this is used to enrich the authority's 3D data base and offer 2D/3D views suited to a variety of uses. The textured LOD2 representation of the buildings therefore offers a realistic view of buildings located in the territory.
- Risk management: the territory around Angers, where the Maine and the Loire rivers come together is subject to flooding. Thanks to the use of digital twins technology, it becomes possible to provide updated forecasts during slow rising flooding situation as well as being able to evidence which sensitive infrastructure is threatened by these phenomena (buildings hosting fragile populations, electrical cabinets located on public roads, etc.).
- Assisting with territorial development: urban heat island phenomena represent an increasing threat to areas of high population densities and being able to characterise them is one of the criteria to take into account when planning and prioritising urban development operations. A digital twin improves the ability to measure these phenomena at the macro scale level (urban heat island morphology), through analyses undertaken as part of the alternating day/night hours during heat wave periods, taking care to especially illustrate comfort indexes for the the population. The recent peak heat levels observed in France, remarkable by both its intensity and its precocity, remind us of the importance of climate challenges that are now also public health issues.

FOCUS #4

Security: protecting property and people

Security is without a doubt one of the most sensitive themes for residents and political decision makers. Without adopting a generalised surveillance approach, Angers Loire Métropole wishes to guarantee citizens and visitors alike safe public space, to prevent risk situations, manage event and more generally, rationalise and share equipment.

The OC.Vision security supervisor provides a centralised vision of security in outdoor and indoor public spaces, based on real-time alerts triggered if anything unusual is detected by connected objects. The Briefcam picture analysis tool lets operators view a video summary corresponding to the subject of their search. These tools save the security operators precious time.

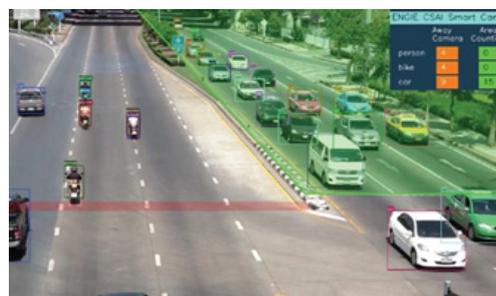
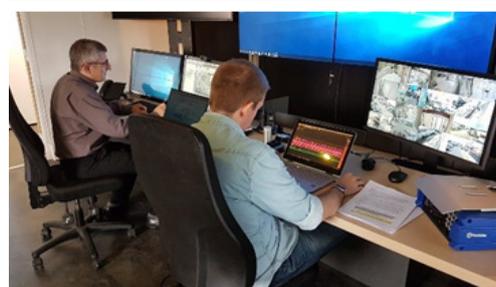
A security system comprises an information system, a communications infrastructure and specialist solutions such as access control, intrusion detection, CCTV, hypervision, video analysis, etc.

The solutions deployed by the consortium will make it possible to:

- provide protection for people and property,
- speed up law enforcement reaction times, or
- reduce the risk of aggression and vandalism.

The demonstrations at the Digital Factory are there to show just what these solutions have to offer in situations like:

- Where fly tipping is suspected
- When public road CCTV is used
- Interactions between the security supervisor/hypervisor for managing retractable barriers
- Interactions between the security supervisor/hypervisor for managing public lighting
- Waze notifications
- Computerised event logging

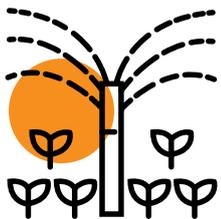


Supporting the emergence of a significant smart territory

Since it was launched at the end of 2019, the Angers Loire Métropole smart territory project has clearly stated its ambition to move to dynamic equipment management to combine energy savings and quality public services. This two-fold challenge makes the Métropole the French smart territory pioneer by making digital technology one of the keys to responding to the challenge of environmental transition and to reinforce its benefits to users by optimising the control over public services.

It was truly the policy at Angers Loire Métropole in seeking to renew local governance by building on joint building approaches that led the consortium of companies to design the *Smart Territory Digital Factory*.

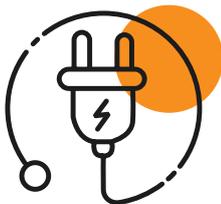
Some goals in figures



A **30%** reduction is expected in water consumption for watering public parks and gardens



Energy savings of **66%** are expected from public lighting by 2025 across the entire urban area



Savings of **101.2** million euros will be generated by deploying the smart territory across the urban area



Savings of **20%** are expected in electricity, gas, ventilation, etc. in public buildings

About INEO, an EQUANS brand

Rooted in a history spanning more than a hundred years, EQUANS is the new world leader in energy services with major ambitions in France, especially thanks to Ineo and Axima. Building on a strong territorial density synonymous with proximity, its 27,000 employees in France accompany their customers in rising to the challenge of a threefold energy, industrial and digital transition. EQUANS acts to achieve decarbonated production, digitalising processes and reinforcing the contributive economy. Electrical engineering, HVAC, refrigeration, fire safety, IT and telecommunications, digital solutions: the complementing areas of expertise at EQUANS are deployed in France through a unique combination of multi-technical skills for taking up design, construction and installation projects as well as operating and maintenance services. EQUANS connects, protects and supplies energy flow to territories, cities, buildings, industrial companies and transport infrastructures. In 2021, EQUANS achieved sales of 5 billion euros.

For more information: www.equans.fr

About SUEZ

SUEZ is a major player in environmental services. For almost 160 years, SUEZ has supported local communities and industrial companies in the management of essential services such as water, waste and air quality. We supply drinking water to 66 million people around the world, create two million tons of secondary raw materials every year and 3.1 TWh of renewable energy from waste. To meet the challenges of environmental transition and climate change, SUEZ builds on the expertise and commitment of its 35,000 people (especially in France, Italy, Central Europe, Africa, Asia and Australia) to offer high value added and custom environmental solutions for all of its customers. Our expertise especially allows customers to avoid releasing 4.2 million tons of CO₂, thereby improving their carbon footprint and their impact on the climate. With sales of over 7.5 billion euros in 2021 and on the strength of its expertise and capacity for innovation, SUEZ offers strong prospects for growth and counts on a solid consortium of investors comprising Meridiam and GIP - each with a 40% equity stake - and on the Caisse des Dépôts et Consignations Group that has a 20% equity stake, including 8% held by CNP Assurances, when it comes to continuing its expansion in France and internationally.

About the La Poste Group

A public-owned limited company, the La Poste Group is held by two shareholders: the Caisse des Dépôts Group and the French State. The La Poste Group is organised into four business units: Parcels & Mail Services, Retail Customers and Digital Services, GeoPost, La Banque Postale which with its CNP Assurances subsidiary form Europe's 11th largest banking and insurance entity. La Poste distributes over 18 billion items (letters, marketing materials and parcels) annually, worldwide, six days a week. Attached to its territorial presence, the Group has 17,000 contact points (post offices, town postal agencies, postal counters in retail outlets) and 18,000 postal service access points (pickup points, pro spots, drop boxes or drive-in parcel points). In 2021, 41% of the La Poste Group's 34.6 billion euros revenue was generated outside of France. The Group employs some 245,000 people in 63 countries on 5 continents including 193,000 people in France. Since June 2021, the company's mission is to be a leader in the environmental transition and in green finance and La Poste aims to achieve "net zero emissions" by 2030. With its "La Poste 2030, committed for you" strategic plan, the public company has set itself the ambition of becoming the leading European platform for linking people and for human and digital, green and citizen-focused exchanges serving its customers in their projects and society as a whole in its transformations.

About the VYV Group

The VYV Group, Entrepreneur du mieux-vivre: The better living company, as its tag line states, is the leading mutual medical insurance provider France. Around its three specialities (insurance, healthcare and patient support, housing), the VYV Group offers complete and customised products for assisting and protecting everyone throughout their lives. The VYV Group's everyday commitment is to be useful to all: over 10 million people protected, 73,000 companies that trust it to provide healthcare and insurance solutions, over 19,000 local authorities and 14 ministries and public administrative entities. In 2021, the Group's combined scope represented revenues of 9.9 billion euros (not counting revenues from the housing division). The insurance business accounted for 7.7 billion euros including 5.7 billion euros in healthcare premiums and 1.5 billion in insurance premiums.

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