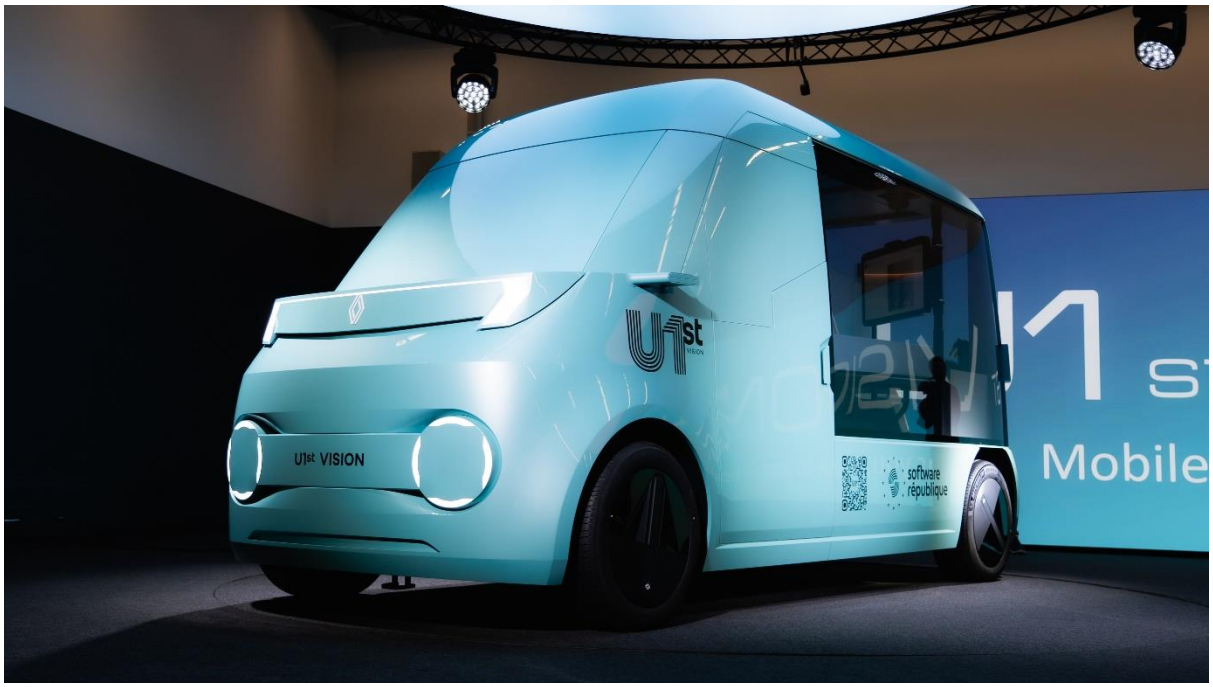
May 2024

Press Information

U1st Vision

“A first in citizen-centric mobile services with a focus on health”



Contents

INTRODUCTION

The "U1st Vision" (You First Vision) is a first in citizen-centric mobile services, bringing together 21 medical data streams (medical parameters) including 12 innovations, from 22 Software République partners and contributors and, like its H1st predecessor, designed and developed in just 6 months. The "U1st" demonstrator is made up of 2 parts: a multi-service self-contained module ("pop-up"), delivered on an electric light commercial vehicle platform. As part of its "U1st Vision", the Software République also introduces a comprehensive planning, monitoring and services management tool for public actors and private service providers.

Human-centric services
The 12 innovations in this functional technology demonstrator (the "U1st") are centred around people. It has been designed to meet the needs of people suffering from a lack of rapid access to services. The fully autonomous module is designed to be human operated and left in situ until needed elsewhere.

With the "U1st Vision", the Software République would work in consultation with local stakeholders - regional authorities, municipalities, villages, and local mobility providers – to bring services, such as health and medical care, civil self-service desk support or bike repair services, when and where needed, to improve the quality of life for citizens.

Health Focus
With an array of public services and businesses as possible use cases for the "U1st", the Software République consulted with various authorities and experts, and decided to choose 'healthcare' for its first demonstrator, showcased at VivaTech this year. This "health pop-up" seeks to provide a solution to the challenge of 'medical deserts' by delivering an integrated one-stop mobile service for preventive care, diagnostics and monitoring of diseases. Its aim is to redefine healthcare provision, taking advantage of our increasingly interconnected world and the new capabilities that allow for continuous 'end-to-end' health metrics measurement through smart devices while ensuring patients' data privacy.

The full "U1st Vision" experience features:

- **Territories Experience**

This advanced solution enhances public service provision setting and visualization, fosters a deeper understanding of the impact of city planning initiatives, and secures support from all relevant stakeholders, both within and outside the territories. For example, it can be used to support the planning, monitoring and management of new mobility policy consequences on traffic, air quality and noise or to view the impact of city planning on heat islands. It is a fully scalable solution that incorporates data, tools, and services. It can also integrate the "health pop-up" concept to assist authorities in making key decisions optimizing the daily lives of citizens.

- **'Health pop-up'**

This healthcare service module embeds 12 innovations and was driven by a collective ambition to make healthcare secure, interoperable, and accessible to everywhere, without compromising on quality and privacy. This customized, modulable unit is equipped with the latest in healthcare technology, devices, and services. Is is operated and managed by a medical assistant (human),

assisted by an AI-enabled virtual assistant and features an external link for a teleconsultation with a healthcare professional.

It features:

- **Connected healthcare solutions, devices & technologies**
- **Embedded AI: Artificial Intelligence**
- **Safe and secure IT environments: A trusted digital space**
- **Virtual Patient Twin Experience: Revolutionize medical care**
- **Interoperability**
- **Scalable and modular**

The U1st Vision Method by Software République

The Software République is an open innovation ecosystem, made up of seven member companies (Dassault Systèmes, Eviden (part of Atos Group), JCDecaux, Orange, Renault Group, STMicroelectronics, Thales) and has set itself clear objectives to help create a European ecosystem of sustainable, sovereign, and safe mobility.

After six months of cooperation between the seven members, in addition to 3 partner companies (EssilorLuxottica, Praesens and Withings) and 12 other contributors, the robust governance put in place, together with a detailed understanding of each partner's technologies, has enabled 21 medical data streams (parameters) to be implemented in a unique concept.

The 12 contributors are ANCT, Emsense, Flexis, Kanopymed, Loxamed, Mon Espace Santé, NorbertHealth, OneVisage, Orosound, Sonup, TIB and Usense.

VivaTech 2024

From 22 to 25 May, the Software République will exhibit the "U1st Vision" concept at VivaTech (Booth D28, Hall 1) with two experiences: its 'health pop-up' and its territories experience. It will offer a fully immersive showcase, integrating Virtual Reality (Apple Vision Pro), Augmented Reality, and 3D / Holographic innovative experiences.

The “U1st Vision” EXPERIENCE

U1st Vision

The “U1st Vision” concept is a human-centred working technology demonstrator. It features many innovations which are either already available on the market or will arrive very soon. It is not just a modular concept vehicle but a veritable AI-driven ecosystem supporting municipalities in providing quality public services, where and when needed: for you, closer to you.

U1st = You First - Technology that benefits the user

It is as advanced as it is simple and intuitive to use. The user experience has been a priority in the innovation process; we’ve brought together and integrated the best high-end technologies for an optimum and seamless user experience.

U1st 'Health pop-up'

The fully equipped health pop-up could cover up to 85% of regular health tests to optimise citizen waiting time, alleviating pressure on hospitals and clinics while reducing traffic and CO2 emissions.

1.1 - Prevention Experience

The prevention experience illustrates use cases where potential health issues can be anticipated, thereby potentially avoiding more serious complications later in life. Being closer to the 'User' it is more practical and time saving. It helps encourage citizens to attend pre-checks, and to participate in optional innovative medical trials, being reassured in having the latest medical care offered by a human operator.

The 'Health Pop-Up' is connected, offering a continuous end-to-end monitoring solution. It connects to the user's personal health space and integrates data than can be securely collected from the latest smart devices: watches, phones and increasingly compact and easy to use portable health devices.

The advanced secure data management tool enables authorities to anticipate where and when to deploy the health pop, so reducing stress on health services before they arrive. For citizens, health services and advice are brought directly to them, encouraging healthier life choices, and all conveniently available on their doorstep.

1.2 - Care Experience

Existing health conditions require regular follow-ups, avoiding aggravation and anticipating complications. By decentralising access to specialist services, offering "on the spot" test and analysis, reassuring human contact along with remote consultations, these check-ups can become easier and less stress full to the citizen.

The "U1st Vision" 'health pop-up' uses the latest innovative technology to allow around 85% of medical tests to be completed in situ. Advanced AI analysis and interconnectivity enables the rapid presentation of results, allowing doctors and specialists to make medically precise and efficient diagnosis.

Keeping the experience humanised is central to the U1st experience. Tests are completed by a human medical assistant, using the latest medical innovations on the market, and a quality medical report is generated with the aid of an AI-assisted medical avatar, which collects and amalgamates patient data from various sources - Electronic Health Records (EHR), real-time data from medical devices, and direct conversations with the patients themselves.

Through the latest 3D-enabled remote consultations, the citizen can see and talk to their health practitioner almost as it they were there. Being digitally connected or not, diagnosis and treatment solutions are provided in a humanised way, offering continuous health support as close as possible to the citizen's home. Going for a checkup or having a medical appointment has never been easier. Improving quality of life, reducing time and stress, easing pressure on medical resources and bringing them to areas that would otherwise not be able to offer such services.

1.3 - U1st 'health pop-up' features

a. Connected healthcare solutions, devices & technologies

Equipped with the latest technological innovations, citizens can benefit from the latest technologies and services for a smoother consultation, close to where they are and when needed. Likewise, healthcare providers can also gain time and efficiency in their patient consultations with these advanced technological innovations. Below is further information about each of the solutions, devices and technologies in the 'health pop-up'.

b. Withings BeamO - Multiscope 4-in-1 health check-up device

Withings is a major global actor in healthcare, with millions of users across more than 40 countries. The team of engineers, data scientists, and healthcare professionals at Withings work alongside clinical experts to make it possible to provide powerful health scans seamlessly integrated into smart scales, hybrid watches, blood pressure monitors, sleep analyzers, and more to deliver tangible health benefits. withings.com/Vivatech

BeamO is a disruptive 4-in-1 health checkup device. This advanced "multiscope" will place the ability to measure core health vitals taken typically during physician visits into the palm of your hand. For the first time, BeamO will combine ECG, oximeter, stethoscope, and thermometer sensors to turn the humble thermometer into a powerful tool for regular monitoring of heart and lung health. Portable and smaller than a smartphone, it is designed to help individuals and families perform at-home checkups and to substantially improve the quality of telehealth visits. The device embeds STMicroelectronics technology for processing and connectivity.

It will become available in Europe following CE Clearance and in the United States following FDA Clearance.

More information - Revolutionary at-home checkup - BeamO | Withings

c. Withings BPM Connect - WiFi Blood pressure monitor

BPM Connect is a Wi-Fi blood pressure monitor providing medically accurate blood pressure and heart rate measurements with immediate feedback on the device and full data history in the app. The product features a battery life of up to 6 months and it is rechargeable via a micro-USB cable.
More information - Wi-Fi Smart Blood Pressure Monitor - BPM Connect | Withings

d. Withings Body Scan - Smart Scale

Body Scan is the most advanced smart scale ever conceived. It integrates the breakthrough technology of segmental body composition, allowing a much higher level of precision to help spot fat and muscle imbalances. Designed to also identify changes in cardiovascular health, it offers a variety of cardiovascular measurements at every weigh-in, including: 6-Lead ECG, Pulse Wave Velocity and standing heart rate.

Developed with neurologists, Body Scan can also follow nerve health to help detect signs of peripheral autonomic neuropathies, to facilitate screening for disease and help physicians treat issues earlier.

Pursue your health goals while enjoying a state-of-the-art experience, including a one-year battery life, high-res color screen, automatic tracking for multiple users, and various modes. Enjoy a seamless experience thanks to Wi-Fi connectivity and sync all your health data to our highly rated app, where you can view trends, progress and daily inspiration for long-term improvement. The device embeds STMicroelectronics technology for processing & connectivity.

More information - The ultimate checkup of your body, for accelerated progress in physical fitness and the power of a clinically validated electrocardiogram. - Body Scan | Withings

e. Praesens Mobility Solutions - Mobile Medical Lab, integrating a variety of testing services in the field of biology

Praesens is a French-Belgian group that develops and deploys innovative mobility solutions to serve patients in a decentralized approach, since 2017. Through next-generation technologies, Praesens is making healthcare more accessible in medical deserts whether they are urban or rural, African or European. Praesens designs, builds, and scales healthcare service delivery platforms that integrate fit-for-purpose vehicles and broad service offerings. Praesens' global health solutions range from open platforms, medical sensors, imaging devices and assays, assisted by AI. Quality, sustainability, accessibility and scalability have defined their design, development and implementation. Praesens serves patients and clients around the world with a variety of use cases in civil, humanitarian and medical military domains. It believes that integrating innovative technologies in an open mobile platform and deploying at the point of need, plays an important role in democratizing and revolutionizing health delivery.

More information - www.praesens.eu

f. Praesens Connected Ultrasound probe

Praesens pioneers an innovative ultrasound probe tailored for decentralized settings, integrating advanced guidance systems for superior image quality alongside unparalleled ease of use, revolutionizing the landscape of decentralized medical imaging. The device uses STMicroelectronics' IMU (Inertial Measurement Unit) sensors to precisely monitor moves of the ultrasound probe and contribute to the superior image quality rendering.

g. EssilorLuxottica – A reliable vision screening service based on an immersive refraction station

EssilorLuxottica is a global leader in the design, manufacture and distribution of ophthalmic lenses, frames and sunglasses. With over 200,000 employees across 150 countries, 650 operations facilities and 18,000 stores, in 2023 the company generated consolidated revenue of Euro 25.4 billion. Its mission is to help people around the world to 'see more and be more' by addressing their evolving vision needs and personal style aspirations. EssilorLuxottica is home to the most advanced lens technologies including Varilux, Stellest and Transitions, the most iconic eyewear brands including Ray-Ban and Oakley, the most desired luxury licensed brands and worldclass retailers including LensCrafters and Sunglass Hut.

EssilorLuxottica is contributing to the U1st Vision project by integrating its Vision-S 700 refraction station into the health pop-up's 'prevention' experience. Vision-S 700 is the Essilor Instruments-exclusive immersive imaging technology offering a highly accurate three-minute refraction and a totally new sense of involvement for patients, serving as the ultimate platform for remote care.

To learn more about Essilor Instruments and Vision-S 700, please visit www.essilor-instruments.com/vision-s-700

h. Loxamed healthcare solutions – expertise in mobile and innovative healthcare solutions

Loxamed is a company specializing in innovative healthcare solutions. Its mission is to get as close as possible to people, especially the most vulnerable and isolated, to give them easier access to diagnosis and care. Since 2020. It has offered a full range of health services, including prevention programs such as awareness, screening and vaccination. In addition, we have been working to facilitating access to care, by engineering healthcare solutions involving telemedicine and medical biology orchestrated by nurses trained to develop it with local practicians. Loxamed was awarded the Territorial Innovation prize (Territorial Development & Management category) at SMCL 2022. In the U1st Vision project, Loxamed provides expertise in mobile and innovative healthcare solutions.

More information - https://www.loxamed.com/

i. Orosound active noise-cancelling Bluetooth headsets - expertise in audio innovation & Edge-AI

Orosound, a French technology company and the only national manufacturer of professional audio headsets, is renowned for its cutting-edge advancements in embedded audio technology, and its dedication to more sustainable product design. Orosound Labs, its advanced innovation division, is world-renowned for its expertise in AI-enabled active noise control technologies. The groundbreaking innovations developed by Orosound Labs are embedded into consumer brands products, as well as into its own line of headsets Orosound Tilde®, which are trusted by thousands of businesses worldwide.
Orosound's state-of-the-art equipment plays a pivotal role in the U1st Vision project, assisting in the assessment of hearing disorders using the Sonup measuring solutions app, from the simplest to the most complex cases.

More information - Orosound • Headsets with World-Class Noise-Cancelling

j. SONUP hearing screening solution - hearing screening test for early detection of hearing disorders

Founded in 2019 by a team of independent professionals recognized for their expertise in hearing, neuroscience and psychoacoustics, SONUP develops applications for assessing hearing disorders, from the simplest (screening) to the most complex (diagnosis). The start-up's ambition is to accelerate the digital transformation in the audiology field, based on innovative technologies and a thorough understanding of hearing professions. In association with Software République

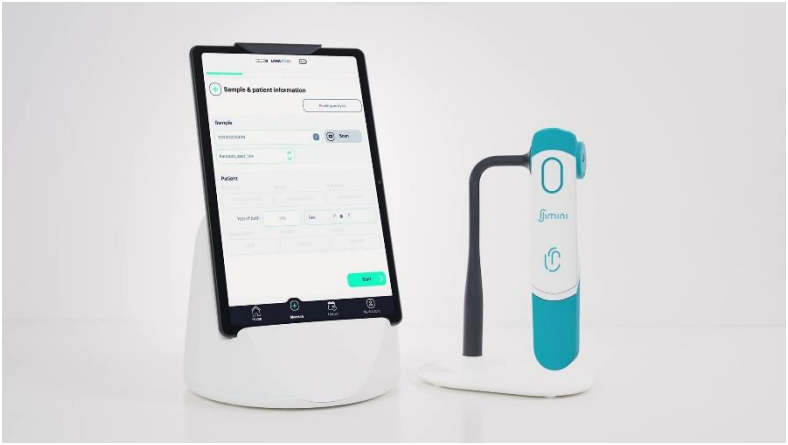
as part of its participation in Vivatech, SONUP is contributing to the U1st Vision project by providing a hearing screening solution that is integrated into the concept car's health experience.

More information - https://www.sonup.fr/en

k. Usense Jimini - Urinalysis device for results in seconds

Usense wants to universalize early diagnosis. Easily and precisely analyzing biological fluids is the most relevant way to make early diagnosis accessible for all and everywhere. For that, Usense has developed Jimini, the first integrated and portative solution for urinalysis that provides biological results in just a few seconds. Thanks to miniaturized patented technologies coupled with AI, and leveraging STMicroelectronics' connected microcontrollers, Usense can measure (in urine) the majority of parameters that are usually analysed in medical laboratories. In just one click and without any reagent, a non-invasive process is used to simultaneously detect the presence of multiple biomarkers to facilitate early diagnosis, in a health follow-up or to support decisions in an emergency context.

More information - Usense



l. Emsense - Vital signs real-time monitoring

Emsense can provide accurate contactless monitoring of an individual's health in real-time based on heart- and breathing parameters, including heart rate variability. Using AI and statistical modelling on the health data, Emsense can detect early signs of serious health issues. In the "U1st" concept, Emsense can monitor all individual's health in real-time inside the vehicle, to for example, prevent traffic accidents caused by "loss of control", enable smarter and safer deployment of airbag systems and to provide rescue services with relevant health data in real-time after an accident has occurred for planning and triage while still on the way to the accident.

More information - https://www.emsensetech.com

m. NorbertHealth AI Health Hub - vital signs monitoring & mobility assessment

With advanced AI-driven sensors, fully contactless vital sign monitoring, and comprehensive mobility assessments, Norbert Health's AI Health Hub empowers seniors to take control of their health with ease and precision. This purpose-built, medical-grade solution enhances patient and staff satisfaction and supports healthy behaviors.

More information - Home | Norbert Health

n. Dassault Systèmes' VORTHEX - a remote and immersive radiotherapy simulator **that allows patients undergoing radiotherapy to reduce anxiety, ultimately improving the response to treatment**

Radiotherapy is a major treatment for cancer patients**.** In France, 60% of cancer patients require it and access to advanced radiotherapy is limited, mainly concentrated in larger cities. This limited access to cancer centers and a low level of preparation creates stress and anxiety for patients, reducing treatment benefit. With a transportable and immersive VR simulator, VORTHEx transforms the patient journey by educating patients about their upcoming treatment. By familiarizing patients with the procedure, it reduces anxiety, improves comfort, enhances their understanding of the process, ultimately improving the treatment efficiency.

More information: https://3dexperiencelab.3ds.com/fr/projects/life/vorthex/

Dassault Systèmes' 3DEXPERIENCE Lab in collaboration with ELSAN Clinique Hartmann, and Accuray

o. Dassault Systèmes' MEDIDATA Sensor Cloud - a unified data platform to elevate patient care and enrich scientific evidence in clinical trials

Traditional healthcare systems often struggle to monitor patients who are not physically present in a clinical setting and often rely on one-size-fits-all treatment plans. This leads to gaps in care and potential delays in treatment. Designed as part of a unified data platform for clinical trials, Medidata Sensor Cloud enables at-home patient data collection through episodic and continuous sensors. With myMedidata—our patient-facing app—patients can manage objective and subjective data collection in one integrated experience. As patient data is collected from home, robust study management and reporting tools equip study managers and clinicians to see insights and analyze trends, ultimately elevating patient care.

More information: https://www.medidata.com

p. Embedded AI: Artificial Intelligence

Human-centric AI, including an avatar, supports healthcare providers in the smooth running of consultations and aids in efficient decision-making. On-device embedded AI also supports the analysis of blood, urine, and Vital Signs Monitoring etc.

Eviden - AI Medical Avatar at the Heart of Innovation

As part of the U1st Vision concept, Eviden introduces an intelligent medical avatar, designed to collect and amalgamate patient data from various sources, including Electronic Health Records (EHR), such as Mon espace santé, as well as real-time data from medical devices, and direct conversations with the patients themselves.

This solution supports health authorities carry out targeted health prevention campaigns as part of public health initiatives, and also supports with preparing-individual patient consultations, so that healthcare professionals have a comprehensive understanding of the patient's medical history, including any tests recently done, prior to the meeting. It also summarizes the consultation, updates the patient's EHR, and generates an electronic prescription (for approval

by the doctor), significantly reducing the administrative burden for healthcare professionals thereby optimizing their time.

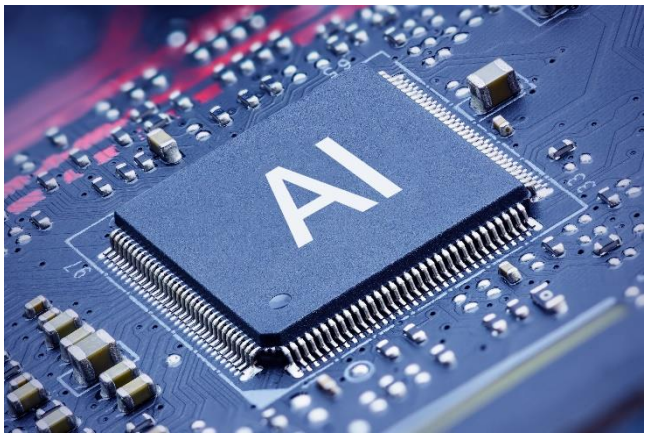
Embedded Technology & Responsible AI: Eviden's solution is embedded with the U1st 'health pop-up', operating within the pop-up itself. It uses Eviden's BullSequana server, which is assembled in France and specialized for AI, based on IBM's Watsonx.ai GenAI platform, together with a 'Made in France' Large Language Model (LLM), to ensure a sovereign and responsible AI approach.

For more information - https://eviden.com/

q. STMicroelectronics Edge AI - Enabling local & GDPR-friendly Artificial Intelligence use cases

Deploying AI at the edge offers several advantages over the cloud approach. It provides speed and ultralow latency, much lower data transmission loads, and significantly improved security. It significantly reduces power thanks to inference algorithms running at a few milliwatts on edge devices vs watts in the cloud. And it preserves privacy (GDPR compliance).

As part of the U1st Vision experience, and among others, ST & DuPont co-developed a smart wearable device concept for monitoring bio-signals for ease of use, better signal quality, longer wearing time and with embedded AI sensor to increase detection accuracy and even identify other markers of interest in the bio-signals. This semi-flexible design can analyze electrical and mechanical heart activity in full synchronization to extract multiple vital signs from a single compact module. This design moves from a *smart* patch towards an *intelligent* patch concept, soon it will be able to self-sense the potential diseases and trigger measurements only when required, saving battery life and enable longer usage/wear for the patient.



More information: ST's Edge AI Suite

r. Safe and secure IT environments: A trusted digital space – Eviden, Thales

Eviden and Thales have the most advanced capabilities to design the modular platform 'U1st Vision' which is able to capture, manage, and process sensitive data for and among people. Because sensitive data demands the greatest degree of privacy and security, Eviden and Thales are teaming together to create a concept gifted with their most sophisticated cybersecurity expertise, combining:

- **Data security and enhanced privacy** > protect data and achieve compliance through data **encryption** wherever data is stored, accessed or transiting, while assuring data privacy when it is being manipulated.
- **Identity and access management and strong digital identities** > to authenticate users' identity and guarantee data access is limited to those who are eligible; thanks to sophisticated cryptographic schemes, secure elements to fight ID fraud and phishing.

The platform concept relies on partner solutions such as:

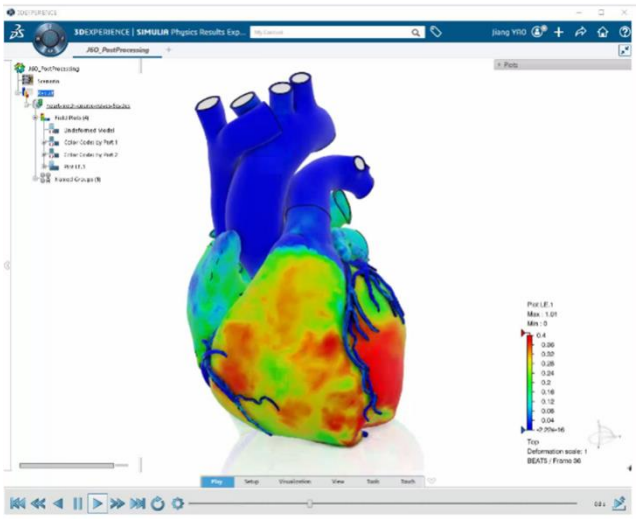
- Data security (data encryption): Eviden Trustway + Thales
- Identity and Access Management: Eviden Evidian + Thales
- Digital Identity (Public Key Infrastructure): Eviden IDnomic
- Data Privacy (Privacy Enhancing Technologies): Eviden + its PET pure players partners

s. Virtual Patient Twin Experience: Revolutionizing medical care – Dassault Systèmes

Dassault Systèmes' LIVING HEART - A 3D data-enriched virtual twin experience to empower patients and healthcare professionals for better outcomes

Patients are eager to gain deeper insight into their conditions and treatment plans, while doctors continuously search for ways to further integrate predictive outcomes in their clinical decisions, relying on guidelines, medical history, and examinations. Using a data-enriched, evolving 3D virtual model of the human body, this virtual twin experience empowers both patients to comprehend diseases and therapies more fully, and healthcare professionals to test treatment options and tailor them for improved outcomes.

More information: https://www.3ds.com/industries/life-sciences-healthcare/patient-care



t. Interoperability – Enovacom, Orange Business

The "U1st Vision" puts a focus on interoperability, to ensure the best possible use of data exchanged and shared between applications, patients, healthcare providers and other authorized providers such as Mon espace santé.

Following the project « connected personal car - Human 1st, Enovacom - the e-Health subsidiary of Orange Business – supports once again Software République and the other innovative players to achieve U 1st Vision.

Enovacom, a subsidiary of Orange Business, is a software publisher committed to healthcare for over 20 years. With unique expertise in healthcare data interoperability, we support most establishments in France on this crucial issue. Following the acquisition of Nehs, we have become a player in imaging and telemedicine in France. Backed by the Orange group, our solutions guarantee unique sovereignty and security in the market.

Enovacom, has a long run expertise in health data interoperability enabling healthcare providers and patient to protect, standardize, access, exchange and share their medical data.

Our knowledge of the ecosystem enables us to offer a suite of customized solutions to address healthcare organization needs and professionals.

Cloud interoperability platform

Securely exchange and share health data from medical applications or connected medical devices.

- Exchange Health data between application such as teleconsultation solution or with mon espace santé (MES) - a personal space where users manage their health data., ….
- Share health data through secure health messaging (messagerie sécurisée de santé (MSSanté)) with healthcare providers and the patient
  Health data encompass personal medical data, laboratory data, medical summary, medical visit report, …
- Standardized, secured, compliant with French and European regulations (HDS (hosting), GDPR, …)

Enovacom Data Repository – a FHIR data warehouse for storing and accessing healthcare data.

Availability of anonymized health data collected for research or studies at the territory level.

u. Mon espace santé

The Délégation au Numérique en Santé (DNS) is responsible for steering the digital health roadmap and all digital health transformation projects with its partners. The DNS reports directly to the French Minister for Labour, Health and Solidarity. It is responsible for the tight management of the Agence du Numérique en Santé.

The DNS contributes to the U1st Vision with Mon espace santé, the French digital health record solution. Through Mon espace santé, individuals can seamlessly manage their medical information, ensuring secure and easy access to their health records and facilitating proactive

healthcare management in line with the U1st Vision's goals of enhancing healthcare accessibility and patient empowerment.

More information - https://www.monespacesante.fr/

v. STMicroelectronics & Alifax – Molecular mouse for PCR analysis

As part of U1st Vision, giving easy access to healthcare, is an important asset. PCR testing is one of the very common tests that can be done by practitioners. Leveraging technology developed and licensed from ST, Alifax manufactured and marketed the Molecular Mouse, a small portable instrument that contains a broad range of ST components, including STM32 MCUs, sensors, amplifiers, and other devices. With the smallest footprint in the market, the Molecular Mouse can run real-time Polymerase Chain Reactions (qPCR) in less than one hour, leveraging Alifax customized biological content and reagents on small disposable cartridges, manufactured by ST using its high-volume semiconductor manufacturing process technology.

More information:

- Alifax Molecular Mouse
- STMicroelectronics collaboration with Alifax

w. STMicroelectronics & Dupont - Wearable Liveo smart patches

Making monitoring of bio-signals available in the U1st Vision Health Pop-Up is one of the key enabler of healthcare in Mobility. STMicroelectronics & DuPont Healthcare are collaborating to create a new concept in wearable biosignal monitoring devices that merge patient comfort with high performance. The Smart Biosensing Patch, a flexible intelligent electronic skin patch platform, use ST's sensor, processing and low power management in a compact and single solution to monitor the electrical signal and the mechanical functionalities of the heart in fully synchronization, to allow physicians to have a better understanding of the heart rhythm. Electrically conductive silicone technology in the form of DuPont™ Liveo™ Soft Skin Conductive Tape is used as a skin electrode for biosignal-monitoring where good skin conformability, no

drying over time, and repositionability with gentle adhesion and atraumatic removal is vital. The conductive tape is used in combination with DuPont's Soft Skin Adhesive which allows for long-term wear and monitoring of seven days or more.

More information:

- Dupont collaboration with STMicroelectronics

1.4 - Support & Infrastructure

a. Scalable and modular

The 'health pop-up' is just one of many use cases for which the "U1st" can be used. This fully modular service unit can be adapted for other proximity services (such as civil self-service desk support or bike repair services) and can easily be scaled up to meet the demands of local stakeholders and municipalities depending on requirements.

b. Interconnected / data – OneVisage

OneVisage - Premium Protection for Sensitive Data

OneVisage develops white-labelled 2-factor authentication solutions that help large integrators, cybersecurity vendors and IAM solution providers increasing security levels by instantaneously eliminating digital identity theft and cyberattacks at endpoints. Unlike most alternatives in the market, its solutions comprise AI-based 3D facial verification that bring a high level of trust (99.99% minimum), a seamless user experience (no passwords or pin-codes), a high interoperability versatile architecture and comply with the strictest data privacy regulations, including the GDPR and French CNIL.

OneVisage's innovation is enabled by performant hardware cameras using state of the art imaging and time-of-flight solutions from STMicroelectronics.

OneVisage provides an entry solution for VIP visitors to the U1st stand at VivaTech. The solution provides self-registration and lottery kiosks so visitors to the stand can register and also enter into a competition, using AI-based 3D facial biometry technologies.

More information - www.onevisage.com

c. Battery passport – Dassault Systemes, Eviden, STMicroelectroincs

The Battery Passport is a secure and transparent ecosystem that tracks a battery's journey, from raw materials to recycling for a sustainable and cost-effective battery supply chain solution. It utilizes a combination of electronic devices, cloud storage, and secure blockchain technology to capture critical data throughout a battery's entire life cycle. Users can access this data, to understand thea battery's composition and past performance, and make environmentally friendly decisions on future battery usage, maintenance, repurposing and recycling.

The data from Battery Passports even feeds into the development of next-generation high-performing, and eco-friendly batteries. Being integrated with advanced design software, it allows scientists to create virtual models, improving simulation and predictions, which optimizes performance and sustainability.

Partner solutions used:

- Battery Traceability: Dassault Systemes
- Battery Passport: Eviden
- Battery Management Systems for health monitoring: STMicroelectronics
- Battery Authenticity & Security: STMicroelectronics

d. Efficient energy systems – STMicroelectronics

In medical deserts, availability of electricity might be a challenge, therefore, the "U1st Vision' is equipped with solar panels and batteries to store energy.

Electricity is at the heart of future energy systems. Whether sourced from the grid or from installed photovoltaic (PV) panels, electricity is converted for immediate use or for storage in batteries.

The intelligent and efficient conversion and distribution of electricity from various sources enable the optimal utilization of this resource. This also increases the use of clean energy and reduce costs for the end-users.

STMicroelectronics provides technologies, products, and solutions that enable our customers to improve energy efficiency everywhere whether it is for inverters and distribution, EV chargers, Solar micro-inverters or Energy storage systems. ST's portfolio features highly efficient power devices, advanced power management systems, power conversion ICs, energy metering, and comprehensive sensing and connectivity solutions.

More information:

- Energy distribution & generation: STMicroelectronics
- Metering solutions: STMicroelectronics

e. Satellite communication / connectivity – Orange, STMicroelectronics, Thales

In medical deserts, there can be a potential lack of terrestrial connectivity (fiber, DSL, ...). Access to the Internet and to the patient information is therefore provided by satellite connectivity. STMicroelectronics, Thales and Orange are key players to build an EU sovereign LEO (Low Earth Orbit) satellite constellation enabling low latency high-speed internet everywhere thanks to the technologically mind-blowing user terminal placed on the roof of the "Health Pop-Up".

Indeed, this user terminal can send/receive data to/from a satellite orbiting at ~500kms from earth & moving at ~20 000km/h thanks to STMicroelectronics' 40 years' experience in Space & expertise on key communication technologies,

Thales brings its expertise in secure RF communication & Orange, leader in connectivity solutions, provides exceptional connectivity with significant data rates, consistent data capacity, minimal latency and flawless reliability.

Partner solutions used:

- Orange Business Internet Satellite solution with ground equipment, integration & validation capabilities: Orange
- Expertise in secure RF communication: Thales
- Subsystem that enables communication between the user terminal & the satellite: STMicroelectronics

f. Vehicle

1/Flexis

Flexis offers a comprehensive and sustainable value proposition with revolutionary modular, urban proof, native electric vans, along with full-services and B2B tailored solutions for key players of last mile delivery.

Flexis is a game-changer**,** determined to support key players in the booming last mile delivery market on their transitional journey while embracing the sustainability revolution. Flexis possesses a unique DNA to become a European champion of clean and efficient urban logistics solutions. Flexis offers a comprehensive value proposition with a superior hardware solution – revolutionary modular, urban proof, native electric vans – along with full-service and B2B tailored solutions that are easier, faster, and more effective for a seamless integration into customer ecosystems.

The multiservice autonomous module ("pop-up") is delivered on the future electric LCV platform, which is under development by Flexis. Committed to an agile and collaborative co-creation with customers, Flexis has one obsession – to reduce the total cost of usage for its customers while achieving their sustainability targets. Based in Europe (France), Flexis SAS was announced in April 2024.

2/Renault Group

Renault Group is a founding member of the Software République and a founding member of Flexis, the platform used for the concept-car. For the "U1st Vision", Renault Group brings its expertise as a leader in the Light Commercial Vehicle (LCV) market in Europe and an EV (Electric Vehicle) pioneer. U1st Vision is a key application of Renault Pro and its strategy in innovative solutions and bespoke adaptations that simplify and boost the business of its professional customers.

The U1st vision concept comes in addition to the initiatives of Renault Group's CareMakers programs for solidarity and inclusive mobility, as part of its sustainable development policy, such as access to new vehicles under leasing and microcredit or the recently launched "voitures de future function".

3/Dassault Systèmes

For a better quality of life and a sustainable economy, mobility should transform deeply, including reinventing the way we move around, as well as live in, cities and territories. The FlexEVan was fully developed in the cloud with Dassault Systèmes' **3D**EXPERIENCE platform. Designing this first-of-a-kind, highly connected, modular and flexible vehicle required close collaboration across all engineering disciplines, starting with system engineering.

As regulations become more stringent and vehicles increasingly interact with their environment, designing and testing mobility systems and their connections have become more complex. To overcome these challenges, automakers must test the models and the software virtually, while minimizing the need for physical testing. To ensure a consistent design overall, end-to-end traceability between system and software layers is needed. This **model-based systems engineering (MBSE)** approach, along with massive simulation on the cloud, simplifies the development of software-defined vehicle systems including Advanced Driver Assistance Systems (ADAS) capabilities. This is one of the many benefits of virtual twins and the multidiscipline collaboration facilitated by the 3DEXPERIENCE platform on the cloud.

Virtual twins also allow the exploration of infinite variations of the services potentially provided by "U1st Vision", and the identification of the one that best meets the local needs of citizens. Designers, citizens and decision makers can experience with immersive virtual and/or augmented reality all possible configurations of the "U1st Vision" 'pop-up' and its target environments, potentially generated by artificial intelligence. The full potential of this new paradigm can therefore be revealed and optimized before it exists.

4/Made-to-measure healthcare vehicles – TIB

TIB, based in Brézolles, France, is a leading manufacturer of made-to-measure healthcare vehicles. Our expertise as a bodybuilder enables us to design customised solutions that meet the specific needs of healthcare professionals. Thanks to our technical know-how and our commitment to quality, TIB offers reliable, functional sanitary vehicles adapted to the most stringent requirements of the medical sector, guaranteeing the safety and well-being of patients.

g. Detect and Respond - Cybersecurity solution - Thales

The Software République has developed a unique solution using AI to detect, analyze and respond rapidly to attempted cyberattacks to protect the vehicle. This comprehensive solution shortens the time required to respond to cyberthreats: it detects the type of attack up to eight times faster, to anticipate and prevent risks more effectively, all this while meeting the most stringent applicable standards and regulations. This solution will be deployed in Renault vehicles by 2026.

Technologies used:

- Cybersecurity, embedded software for Electronic Control Unit, AI-enabled cyberthreat detection, interface to Security Operations Center: Thales

h. X-Ray Portable System – Thales

Thales showcases its X-Ray portable system currently in development phase. The system's key advantages include its ability to be easily dismounted for transportation in vehicles. It will involve Thales' expertise in cybersecurity, as well as teleradiology features. The system is designed for usage outside of the hospital and has a tablet-controlled interface.

i.Computer Vision Platform – Eviden

The Computer Vision Platform (CVP) is a comprehensive end-to-end AI video analytics solution powered by Ipsotek VISuite software and Eviden's BullSequana servers. It empowers users with precise object tracking, robust alarm triggering, and tailored object classification for enhanced security, safety and operations. This innovative platform offers a wide range of pre-trained AI models for all industries. In the case of the U1st, it offers pre-trained AI models for roadway management to detect common incidents and issues and to help redirect traffic and address issues faster; to monitor parking use to generate reports and live alarms; and to protect a critical vehicle with intrusion and loitering detection.

More information: https://eviden.com/solutions/advanced-computing/computer-vision/

j.Mobilize PowerBox - A smart two-way secure charging station made in France for the FlexEvan & its Health Pop-Up

Mobilize PowerBox encompasses a range of smart, connected and secured 7, 11 or 22 kWh AC charging stations. These chargers include V2G technology and will be marketed by Mobilize Power Solutions in particular. You can use an app to operate them remotely.

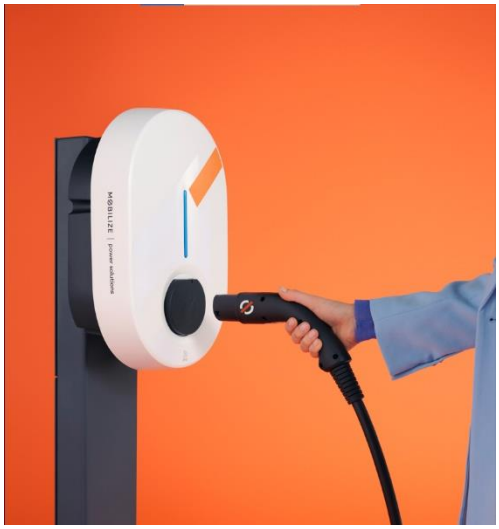
See also : Mobilize PowerBox ® The Charging Station produced in France at Lacroix and marketed by the Renault Network

Technologies used:

Semiconductor components: microprocessor, communication, and security: STMicroelectronics

- Cybersecurity, data protection and connectivity module: Thales
- Digital tools (platform and app): Renault Group
- Telecommunication: Orange

- Field-proven smart charging hardware and software, industrial control, ISO15118 and OCPP protocols: IoTecha Corp



“Territories” EXPERIENCE

Enhancing Public Service delivery: Mobility of Services

Territories bring public services closer to you

As part of its “U1st Vision”, the Software République introduces a comprehensive planning, monitoring and services management solution for municipalities, local governments, and various other authorities, designed to help support them improve public service provision across their regions. This advanced solution enhances public service provision setting and visualization, fosters a deeper understanding of implementation impacts, and secures support from all relevant stakeholders, both within and outside the territories and their agencies. It is a fully scalable solution that incorporates data, tools, and services, integrating functionalities such as the “health pop-up" to assist authorities in making key decisions ultimately enriching the daily lives of citizens.

Visitors to the stand will have the opportunity to experience three distinct use cases in a virtual twin. The first is the implementation of the U1st ‘health pop-up’ to provide local adapted healthcare to citizens; the second showcases the impact of mobility policy scenarios (such as electric mobility or speed management on traffic and air quality and noise) and the third analyses the impact of city planning on heat islands.

Partner solutions used:

Eviden’s UDP (Universal Data Platform) provides health data aggregation, as well as mobility and monitoring services for municipalities and local governments.
UDP is a data exchange platform, interoperable in real-time and developed on open source and open standard. A “single pane of glass” to transform data into actionable intelligence, enabling data aggregation and monitoring across various consolidation layers (for example: location, or type of buildings). It enhances the decision-making process, fosters collaboration with partners, and helps its users deliver high-quality services. Eviden aggregates data according to market standards to ensure that all data is in the same format and can be cross-referenced, limiting the calculation required and also increasing the quality of the processing carried out.

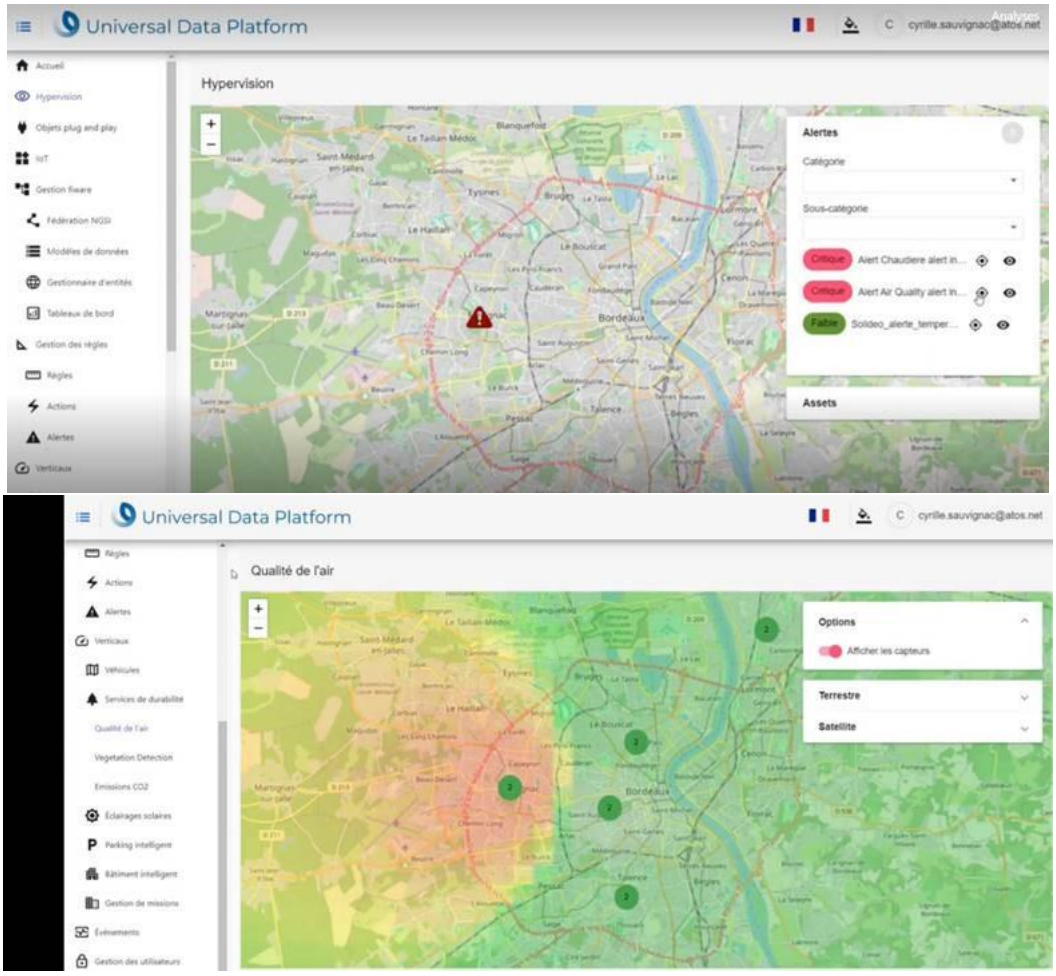
Innovating our Data Platforms for the Future - Collaborative Research on Modeling Mobility's Influence on Air Quality

As part of the “U1st Vision”, Eviden’s UDP provides a standardized approach to connect sensors and monitor devices strategically placed throughout the city to collect real-time data on air quality, pollutant levels, weather conditions, and traffic patterns.

Collaborating with IFPEN, a French laboratory that specializes in mobility and aims to integrate with the UDP-Mobi cloud platform, this platform is designed to analyze air pollution and the dispersion of pollutants, taking into account not only meteorological and wind data, but also

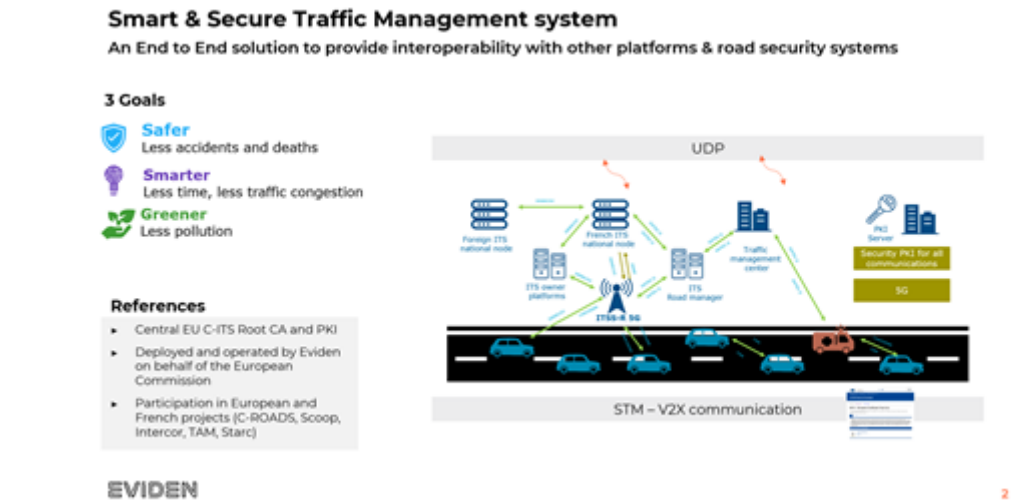
factors such as traffic, congestion, and time of day to provide accurate and comprehensive reports on air quality.

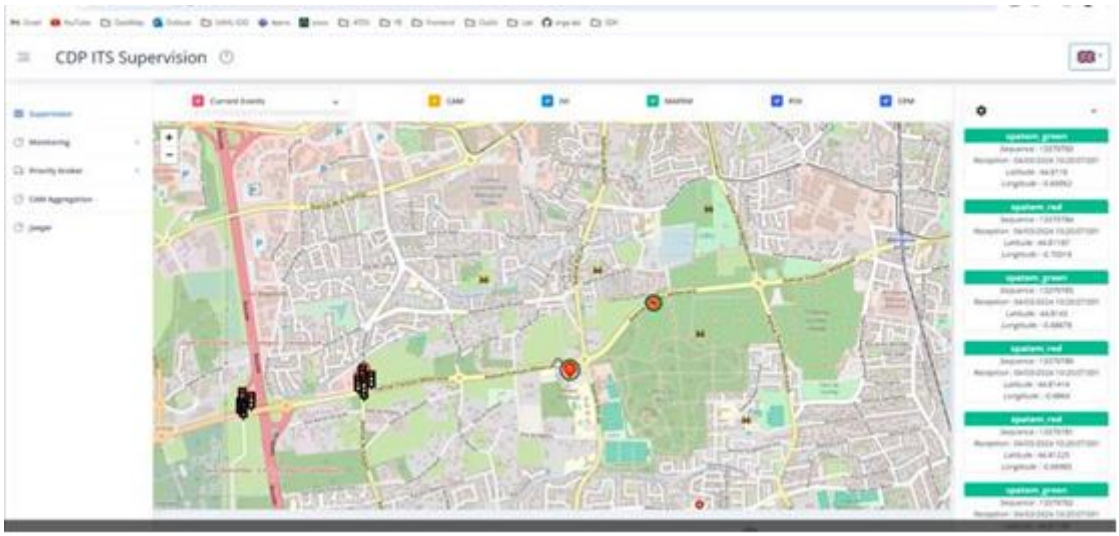
With all these data sources and factors at its disposal, the data platform generates accurate and detailed reports on air pollution levels, pollutant dispersion patterns, and areas of high pollution concentration. These reports are invaluable for city planners, environmental agencies, and the public in making informed decisions and taking appropriate actions to improve air quality.



Eviden's Smart & Secure Traffic Management system **- An end-to-end solution to provide interoperability with other platforms & road security systems**

Eviden's Smart & Traffic Management System, based on the Intelligent Transport System standard (ITS) is a standard, secure and comprehensive V2X solution designed to optimize traffic flow, enhance road safety, and improve overall transportation efficiency. It integrates advanced technologies such as real-time traffic monitoring, intelligent signaling, and data-driven decision-making to effectively manage traffic congestion, prioritize emergency vehicles, and provide timely information to commuters. Additionally, coupled with the UDP (Urban Data Platform), the system offers features for smart parking management, vehicle counting, and adaptive traffic signal control, while leveraging data for AI monitoring and prediction, contributing to a more sustainable and seamless urban mobility experience.





Dassault Systèmes - 3DEXPERIENCE platform

Dassault Systèmes is a catalyst for human progress. We provide business and people with collaborative virtual environments to imagine sustainable innovations. By creating virtual twin experiences of the real world with our 3DEXPERIENCE platform and applications, our customers can redefine the creation, production and life-cycle-management processes of their offer and thus have a meaningful impact to make the world more sustainable. The beauty of the Experience Economy is that it is a human-centered economy for the benefit of all – consumers, patients and citizens. Dassault Systèmes brings value to more than 350,000 customers of all sizes, in all industries, in more than 150 countries.

The 3DEXPERIENCE platform integrates 3D modeling, simulation, social and collaboration, and information intelligence applications that allow stakeholders to collectively access and apply knowledge and know-how at hyper speed and try infinite possibilities for innovation. For local authorities, the platform provides a territory virtual twin that enables them to aggregate data from multiple sources in a single environment and make public-data-driven informed decisions. With a territory virtual twin, they can model and visualize a city's complexity, simulate intricate

scenarios, and analyze and validate options. The collaborative platform involves all experts, which improves efficiency, eases communication with stakeholders and citizens, and facilitates consensus.

ANCT (L'Agence nationale de la cohésion des territoires)

The ANCT's Digital Society program (Société Numérique) supports local authorities and all local players on digital issues of general interest. Committed to the development of the digital commons, the program implements the digital inclusion policy as part of the government's France Numérique Ensemble roadmap. For the “U1st Vision” project, the ANCT has mobilized its expertise and feedback from associations, by organizing and providing digital support for the most vulnerable and isolated members of the public.

More information - https://societenumerique.gouv.fr/fr/

Kanopymed

KanopyMed was born out of the encounter between medicine and AI. Based on the twofold observation that the healthcare system is facing major challenges, and that healthcare professionals lack relevant and validated tools to personalize patient care, KanopyMed develops and markets decision-support tools using available data and artificial intelligence methods. As part of the “U1st” project KanopyMed provides data that is used for the territorial public health diagnosis at a fine geographical level. This enables optimal deployment of healthcare resources, maximizing patient benefit and minimizing the impact on public spending.

More information - https://kanopymed.com/

JCDecaux

Global leader in outdoor advertising and present in over 3,900 major cities across the globe JCDecaux, joined the Software République in March this year, bringing its expertise in designing and deploying innovative solutions with communities, local authorities, and smart cities to expand Software République's technological and business footprint. JCDecaux possesses significant expertise in data, mobility and traffic analysis as well as in advertisement technology. Integrating this with the founding partners' complementary capabilities, the Software République's open ecosystem reinforces its mission to develop innovative services for towns and cities and their citizens, positioning it as a key player in shaping digital solutions for the future of communities and territories.

More information - "6 become 7" : Software République welcomes JCDecaux (softwarerepublique.eu) and https://www.jcdecaux.fr/

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About Software République:

The Software République is defined as an open innovation ecosystem dedicated to intelligent, secure, and sustainable mobility. It was created in April 2021 by six founding members: Atos, Dassault Systèmes, Orange, Renault Group, STMicroelectronics and Thales. The Software République builds collective projects focused on tomorrow's mobility through its unique horizontal collaboration model. The ecosystem stands out for its innovative approach, combining established companies and startups from different backgrounds to bring to market products and services that meet the new challenges of the connected vehicle, the smart city and energy. These projects are based on the complementary expertise of its partners in data analysis, artificial intelligence, cybersecurity, connectivity, and virtual twins, and on the ambition to invent a new model of innovation while keeping people and the environment at the heart of its motivations. Further information can be found at https://softwarerepublique.eu/en/