



2022 Paris Motor Show

Software République presents a smart, secure charging station for electric vehicles

Paris, October 6, 2022 — [Software République](#), an open innovation ecosystem for intelligent, secure and sustainable mobility launched by Atos, Dassault Systèmes, Orange, Renault Group, STMicroelectronics and Thales, will present a secure, connected and bidirectional charging station demonstrator for electric vehicles (EVs), intended for individuals and professionals, at this year's Paris Motor Show.

Currently, nearly 80% of electric and plug-in hybrid car owners choose to charge their vehicle at home, at work, in an apartment building or in a private parking lot. As the EV market grows rapidly, convenient access to charging has become a priority. In Europe, IHS Markit forecasts that the cumulative deployment of EV charging stations will increase at 24% CAGR during the 2020-30 periodⁱ.

The "Mobilize Powerbox®ⁱⁱ from Software République is an innovative technology demonstrator addressing several key objectives in Europe to:

- Facilitate access to recharging for all users of EVs.
- Contribute to the intelligent management of electricity networks.
- Provide a solution to the cybersecurity risks in the integration of EV charging networks.
- Strengthen the industrial and technological sovereignty of this new market segment.

The charging station, with a power range of 7 to 22 kW, integrates the expertise of:

- Orange in 4G telecommunications and related services.
- Renault Group in the architecture of Electric Vehicle charging systems.
- STMicroelectronics in semiconductors, with its microprocessor (1) and communication coprocessor (2) ensuring an interoperable solution capable of providing intelligent charging services, especially bidirectional V2G (vehicle-to-grid) charging.
- Thales cybersecurity and data protection - thanks to Thales' secure access and credential management system, which is fully compliant with interoperability standards.

The project members also teamed with other technology partners for their expertise, including **IoTecha Corp**, for the electronic design of the charging station, and **LACROIX** for its manufacture at Symbiose, the company's new electronics assembly factory of the future in France. In collaboration with Mobilize — the Renault Group brand dedicated to new mobility — the products of the "Mobilize Powerbox®" range will be marketed in 2023. The bidirectional version will allow the storage capacity of a vehicle's Li-ion battery to be used as an energy source. Without impacting the autonomy required for mobility and with complete simplicity, the system will make it possible to control the flow of energy, to improve the rate of use of renewable energy and to support the electricity network by re-injecting energy into it when needed: a scalable, adaptive charging station that can transform a vehicle into a model power plant. Fifty thousand systems of this type (vehicle and charging station) combined produce the equivalent of a power plant and can thus supplement fossil fuel production. Thus, each owner of the "Mobilize Powerbox®" V2G charging station connected to an EV becomes an actor of the ecological transition.

With the “Mobilize Powerbox®”, Software République wishes to democratize bidirectional charging functionality and contribute to intelligent energy management. The charging station will be on display at the **Mobilize booth (Hall 6)** on the media day, **October 17**, and will be presented by the Software République team at **11 a.m.**

Technical information

(1) ST’s microprocessor (an STM32MP1) is an open platform for the development of industry applications that are increasingly demanding in terms of performance and security. It allows users the flexibility to develop their solutions based on open-source software, while combining real-time management and low power consumption. The use of OpenSTLinux distribution and the STM32Cube ecosystem also drastically reduce development lead times. In addition, the STM32MP1 microprocessor series is included in ST’s rolling commitment to supply industry qualified microprocessors for at least 10 years.

(2) The ST2100 is a communication component optimized for the smart building market and designed to allow the easy integration of new protocols such as ISO 15118 based on a Linux architecture. It efficiently covers the use case of the connected charging station thanks to the expertise of IoTecha Corp, a partner who ensures the development and maintenance of the services inherent to a connected charging station. This expertise has been built up over the last decade through close collaboration between STMicroelectronics and IoTecha Corp.

For more information on Software République, visit: softwarerepublique.eu

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About Atos

Atos is a global leader in digital transformation with 112,000 employees and annual revenue of c. € 11 billion. European number one in cybersecurity, cloud and high-performance computing, the Group provides tailored end-to-end solutions for all industries in 71 countries. A pioneer in decarbonization services and products, Atos is committed to a secure and decarbonized digital for its clients. Atos is a SE (Societas Europaea) and listed on Euronext Paris.

The purpose of Atos is to help design the future of the information space. Its expertise and services support the development of knowledge, education and research in a multicultural approach and contribute to the development of scientific and technological excellence. Across the world, the Group enables its customers and employees, and members of societies at large to live, work and develop sustainably, in a safe and secure information space.

About Dassault Systèmes

Dassault Systèmes, the 3DEXPERIENCE Company, is a catalyst for human progress. We provide business and people with collaborative 3D virtual environments to imagine sustainable innovations. By creating virtual twin experiences of the real world with our 3DEXPERIENCE platform and applications, our customers push the boundaries of innovation, learning and production to achieve a more sustainable world for patients, citizens, and consumers. Dassault Systèmes brings value to more than 300,000 customers of all sizes, in all industries, in more than 140 countries. For more information, visit www.3ds.com



About Orange

Orange is one of the world's leading telecommunications operators with sales of 42.5 billion euros in 2021 and 137,000 employees worldwide at 30 June 2022, including 76,000 employees in France. The Group has a total customer base of 282 million customers worldwide at 30 June 2022, including 236 million mobile customers and 24 million fixed broadband customers. The Group is present in 26 countries. Orange is also a leading provider of global IT and telecommunication services to multinational companies under the brand Orange Business Services. In December 2019, the Group presented its new "Engage 2025" strategic plan, which, guided by social and environmental accountability, aims to reinvent its operator model. While accelerating in growth areas and placing data and AI at the heart of its innovation model, the Group will be an attractive and responsible employer, adapted to emerging professions. Orange is listed on Euronext Paris (symbol ORA) and on the New York Stock Exchange (symbol ORAN). For more information on the internet and on your mobile: www.orange.com, www.orange-business.com

About Renault Group

Renault Group is at the forefront of a mobility that is reinventing itself. Strengthened by its alliance with Nissan and Mitsubishi Motors, and its unique expertise in electrification, Renault Group comprises 4 complementary brands - Renault, Dacia, Alpine and Mobilize - offering sustainable and innovative mobility solutions to its customers. Established in more than 130 countries, the Group has sold 2.7 million vehicles in 2021. It employs nearly 111,000 people who embody its Purpose every day, so that mobility brings people closer. Ready to pursue challenges both on the road and in competition, Renault Group is committed to an ambitious transformation that will generate value. This is centred on the development of new technologies and services, and a new range of even more competitive, balanced and electrified vehicles. In line with environmental challenges, the Group's ambition is to achieve carbon neutrality in Europe by 2040. <https://www.renaultgroup.com/en/>

About STMicroelectronics

At ST, we are 48,000 creators and makers of semiconductor technologies mastering the semiconductor supply chain with state-of-the-art manufacturing facilities. An integrated device manufacturer, we work with more than 200,000 customers and thousands of partners to design and build products, solutions, and ecosystems that address their challenges and opportunities, and the need to support a more sustainable world. Our technologies enable smarter mobility, more efficient power and energy management, and the wide-scale deployment of the Internet of Things and connectivity. ST is committed to becoming carbon neutral by 2027. Further information can be found at www.st.com.

About Thales

Thales (Euronext Paris: HO) is a global leader in advanced technologies, investing in digital and "deep tech" innovations – connectivity, big data, artificial intelligence, cybersecurity and quantum computing – to build a confident future crucial for the development of our societies. The Group provides its customers – businesses, organizations and governments – in the defense, aeronautics, space, transport, and digital identity and security domains with solutions, services and products that help them fulfill their critical role, consideration for the individual being the driving force behind all decisions. Thales has 81,000 employees in 68 countries. In 2021, the Group generated sales of €16.2 billion. www.thalesgroup.com

ⁱ <https://ihsmarkit.com/research-analysis/ev-charging-infrastructure-report-and-forecast.html>

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ⁱⁱ MOBILIZE POWERBOX® is a registered trademark of Renault Group.