EXECUTIVE SUMMARY

ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

BUSINESS MODELS, TECHNOLOGIES, POSITIONING: AN OVERVIEW OF START-UPS

August 2023

SprintProject

End-to-End INNOVATION

About Sprint*Project*

Sprint*Project* puts competitive intelligence at the service of innovation.

Sprint*Project* supports corporate groups in the Supply Chain, Food & Drink, Retail and FMCG sectors, in their innovation strategy, from strategic thinking to the implementation of practical solutions.

Sprint*Project*, is a unique expertise that: consolidates strategic data and provides its clients with an exhaustive and exclusive monitoring service; raises awareness and educates decision-makers about innovation trends and new business models; leads and supports innovation and transformation in the ecosystems of the Supply Chain, Food and Beverage, Consumer Goods and Retail; helps and guides large groups and investors in their collaboration with start-ups; pilots large-scale innovative programs in a collaborative and multi-actor (public/private) mode.

Foreword

Changes in the regulatory context and environmental constraints are going to transform the energy model of certain companies over the long term.

As a result, in the coming years, we should see a gradual transformation of logistics zones in the Retail, Supply Chain and industrial sectors, which will soon be home to a whole range of components of these new energy models:

- Energy production, particularly solar energy
- Storage of surplus energy
- Carbon-neutral vehicle fleets
- An energy management and orchestration system
- Charging facilities for electric vehicles

1. Tertiary sector companies to become energy producers

In fact, French (and European) regulations require the installation of solar panels or green roofs on existing tertiary buildings from the 1st of January 2028, and a gradual roll-out for new building form the 1st of July 2023.

Car parks are also subject to new regulatory constraints. New car parks of more than 500 m² will have to equip 50% of their surface area with green shading or solar production. Existing car parks <10,000 m² will be affected in July 2026 and those <1,500 m² in 2028.

These regulations will therefore lead companies to deploy solar infrastructures that produce electrical energy. Optimising the use of this energy is therefore becoming central to the economic equilibrium.

2. Energy storage systems will be deployed

Given the possible asynchronicity between energy production and consumption, there will almost certainly be a surplus of energy, which should be recovered as much as possible. If the energy is not injected directly into the electricity grid and sold at a low market price, a storage system (battery or hydrogen, for example) could be considered.

A storage system will make it possible to optimise the use of the energy, by allocating it to buildings, vehicles or even the electricity grid during peaks in solar production, for sale when the purchase price of the energy is high.

Finally, a storage system could also enable businesses to become levers for balancing the electricity network (for example, by switching off[1]) and to be remunerated for this[2].

3. **Vehicle fleets will gradually move towards zero-emission vehicles**

With the increasing availability of electric vehicles and the regulatory deadlines, the transition from combustion to electric vehicles should intensify.

However, this transition will take place over a long period of time, and the sizing of the infrastructure will have to be designed to support the development of vehicle fleets.

4. **Accelerating the roll-out of a network of electric charging points**

These new fleets of electric vehicles require a territorial network of charging stations sufficient to support their energy needs. The success of the transition to low-carbon vehicles depends primarily on the upgrading of charging infrastructure.

Against this backdrop, SprintProject has taken an in-depth look at Electric Vehicle Charging Infrastructures (**IRVE**), an essential component of the future energy system.

Even today, these infrastructures are designed, deployed and managed by various players with a multitude of economic and technological models, the value and relevance of which are sometimes difficult to perceive. At the same time, the choice of the best solution depends on each company's ambitions and energy strategy. For companies wishing to study the viability of this innovation before including it in their strategy, it is often difficult to find their way around.

SprintProject has analysed the value chain, market trends and the positioning of start-ups offering Electric Vehicle Charging Infrastructures, in order to shed light on this complex subject for professionals in the Retail, Supply Chain, Industry and, more broadly, Tertiary sectors, and to guide them in their decision-making.

Are you interested in this topic and would you like support in your approach? Let's discuss your projects together and explore solutions tailored to your needs.

[1] Deliberate and temporary reduction in electricity demand by a user or a network, often in response to price signals or constraints on the network (consumption greater than production).
[2] La montée en charge du réseau de distribution électrique constitue un des enjeux majeurs de la transition énergétique pour les acteurs publics et privés.

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