SMART MOBILITY

SOLUTIONS TO SUPPORT YOU IN THE DEPLOYMENT OF LOW-CARBON MOBILITY

ON THE ROAD TO ZERO CARBON

Make sure you read.
To use the term "low-carbon", the entire energy chain must be "low-carbon", including the means of producing the electricity that powers the batteries or electrolysers.

With its experience, the EDF Group can help you implement zero-emission mobility and, thanks to its tools, take you through the stages of its large-scale deployment, whether for electric or hydrogen-powered vehicles for individuals or public transport.

EDF, with the support of its subsidiaries, provides you its expertise across the entire value chain: sizing the mobility requirement, positioning and building the infrastructure, management platform, investment financing and the supply of carbon-free electricity.

Engineering → Financing → Installation → Electricity/H2 → O&M

YOUR CHALLENGE: REDUCE POLLUTING EMISSIONS

- **By being a direct actor**

Implementing public transport solutions such as electric or hydrogen buses

- **By deploying the infrastructure**

Reducing the carbon footprint and pollution by providing citizens with the necessary charging infrastructures to help them in this transition

OUR ASSOCIATED SOLUTIONS

Sizing and integration of electric or hydrogen vehicle charging

Optimize the location of charging stations to satisfy users while taking into account the constraints of electricity networks and road transport. Knowing how to choose which charging station technology (fast charging, induction, etc.) to deploy at which location to meet the need.

Development of new charging solutions

Study different scenarios using electric or hydrogen solutions.

Equipment testing and supplier qualification

Deploy solutions adapted to your environment and needs.

Supervision tools

To monitor the charging station park, to provide a simple and efficient interface to users, to help the network operator to manage demand (V2G, peak loads), to ensure the traceability of the decarbonized origin of energy, to allow corporate EV fleet managers to calculate the costs inherent to charging.

OUR STRENGTHS

- Expertise in electrical engineering
- Knowledge of connected objects
- Numerical simulation and optimization
- Mastery of geographical constraints and GIS skills
- Use of a test laboratory designed to accommodate all types of vehicles (cars, buses, trucks)
- Important means and resources dedicated to mobility issues (more than 200 people in R&D)

CASE STUDY: MASERA, THE SMART MOBILITY CLOSE TO SINGAPORE

Microgrid

Possible adaptation to an autonomous environment

Electricity storage

Lithium-Ion battery
Zinc-Air battery prototype

Renewable energies

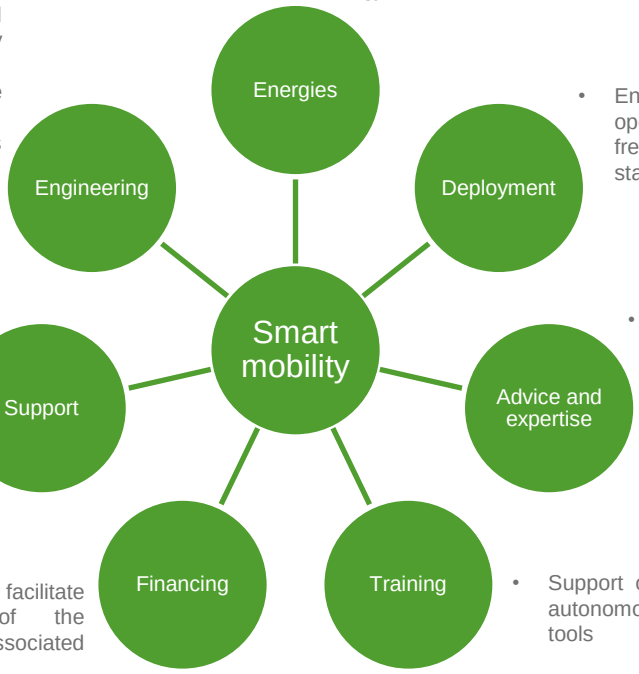
50kW of photovoltaic panels

V2G Smart charging

Bi-directional charging
Choice of electricity source
Real-time arbitration on electricity usage

OUR OFFER

- Sizing of energy consumption and calculation of polluting emissions
- Provision of assistance in the design and implementation of low-carbon mobility solutions
- Geolocation of the best spots for the installation of charging points
- Estimation of the lifetime and energy needs of a fleet of vehicles based on daily trips



- Provision of decarbonized energy (electricity or hydrogen) to achieve a zero carbon footprint throughout the chain
- Implementation of a Blockchain technology to certify the zero carbon nature of the energy used

- Engineering, supply, construction and operation of infrastructure for carbon-free mobility: hydrogen charging stations, electrolysers

- Integration and management of electric or hydrogen vehicles in an infrastructure

- Development of services integrating electric mobility in the world of communicating objects
- Use of Blockchain technology to certify transactions

- Investment assistance to facilitate the implementation of the infrastructure and the associated vehicle fleet

- Support of the final actors in the autonomous use of the proposed tools

SOME REFERENCES

- Setting up a "territorial hydrogen hub" in the Auxerre region, France
- Construction of a hydrogen charging station in Cologne, Gernmany
- Study on Smart Charging in Singapore
- Deployment and operation of charging stations for electric vehicles in Saclay, France

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