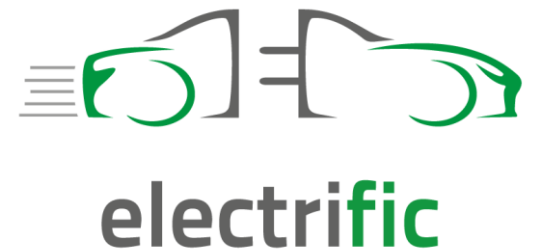


ELECTRIFIC: SEAMLESS ELECTROMOBILITY

María Pérez Ortega – Gfi



MOTIVATION: CHALLENGE ELECTROMOBILITY

Today in
Europe:
~600.000

Goal
2020:

Problem 1:

Challenges for the grid stability (DSO)

→ + 5-15% load till 2030

Goal 2030:

~Half of all
vehicles in Europe!

Reasons:

Uncoordinated charging

Unknown loads

Unknown duration and speed of charging

MOTIVATION: CHALLENGE RENEWABLE ENERGY

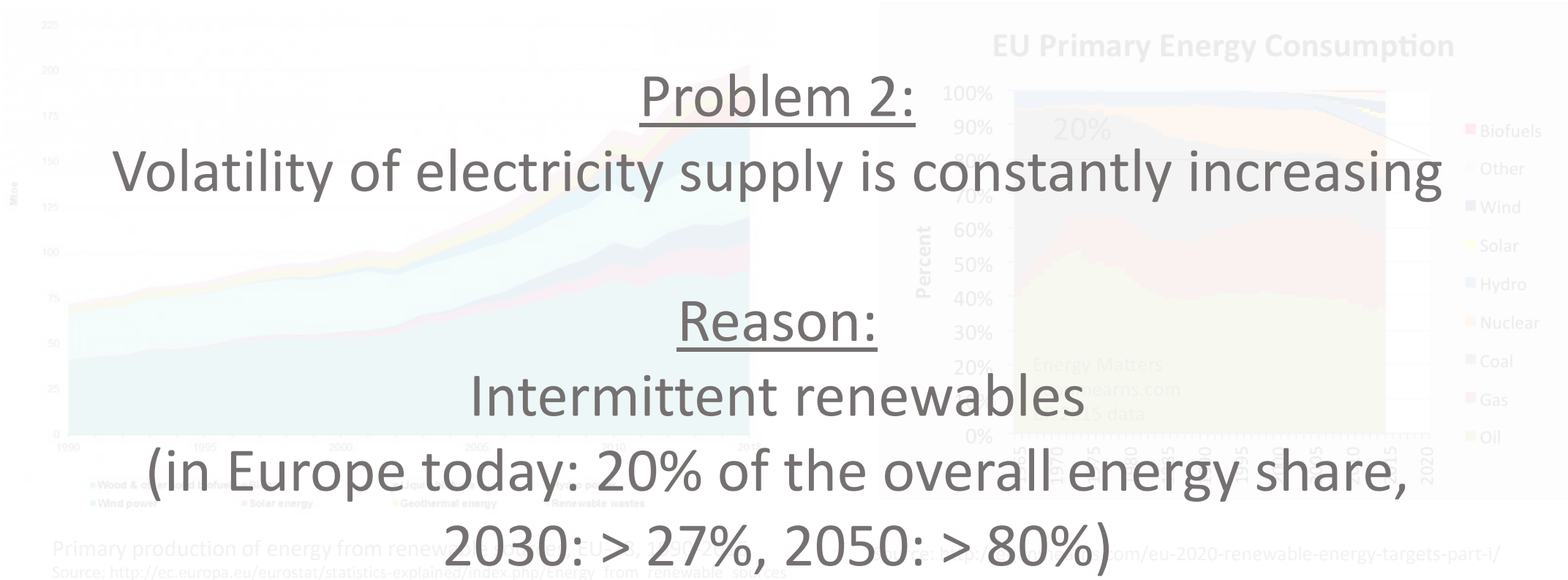
Problem 2:

Volatility of electricity supply is constantly increasing

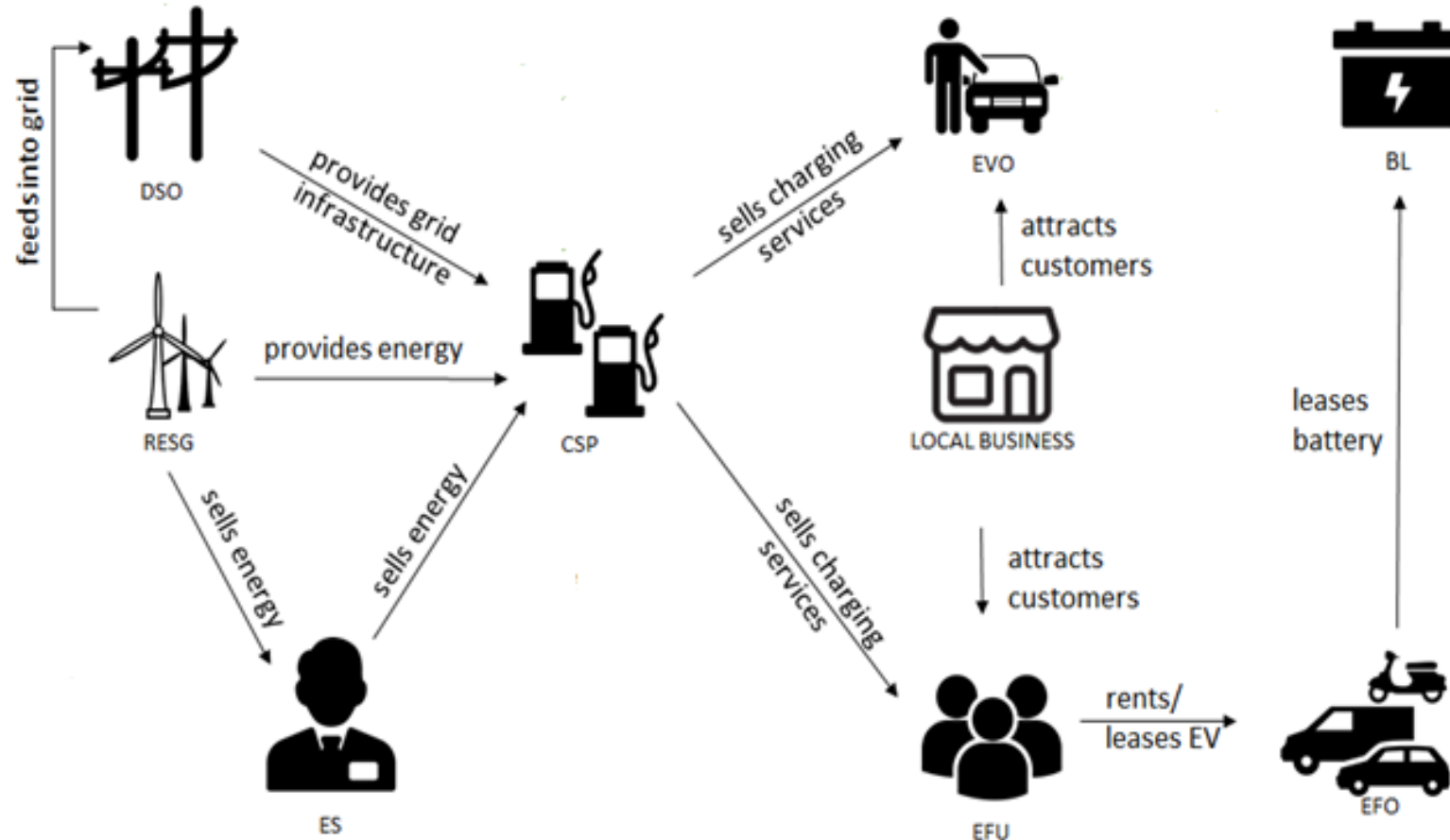
Reason:

Intermittent renewables

(in Europe today: 20% of the overall energy share,
2030: > 27%, 2050: > 80%)

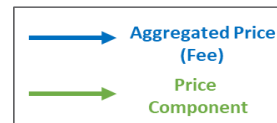
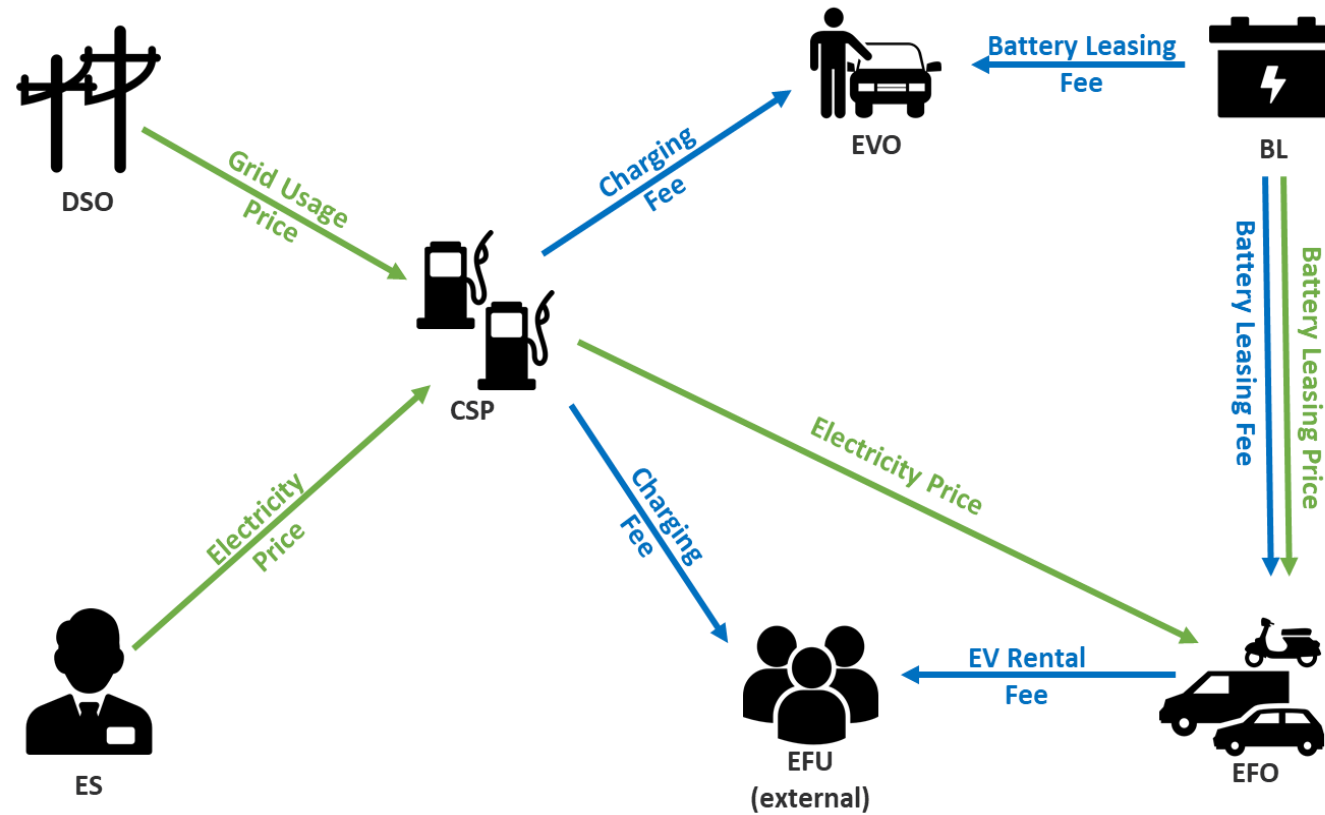


EMOBILITY ECOSYSTEM



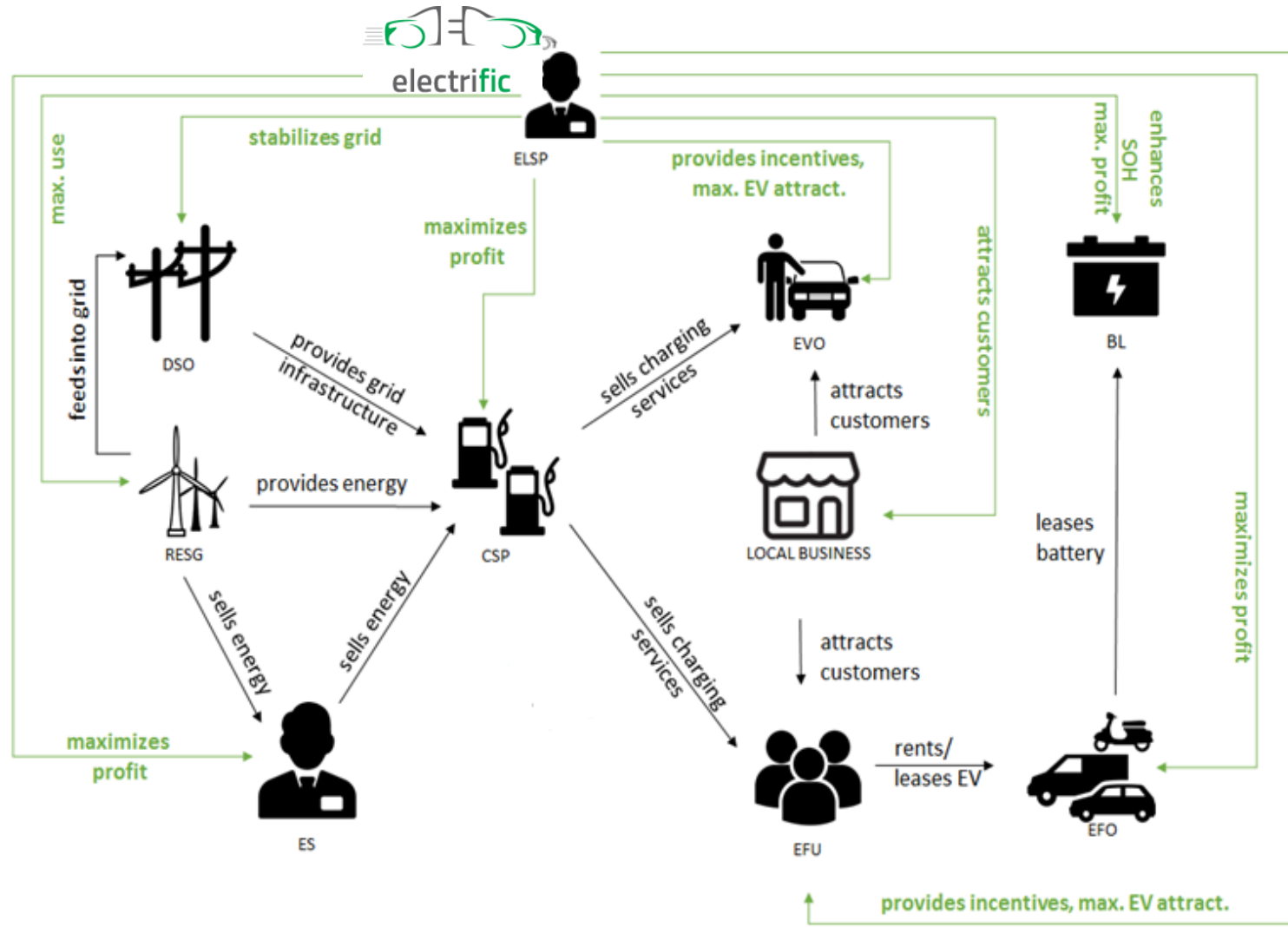
DSO	Distribution System Operator	EVO	EV Owner
CSP	Charging Service Provider	BL	Battery Leaser
ES	Energy Supplier	EFO	EV Fleet Operator
		EFU	EV Fleet User

EMOBILITY ECOSYSTEM – FINANCIAL EXCHANGE

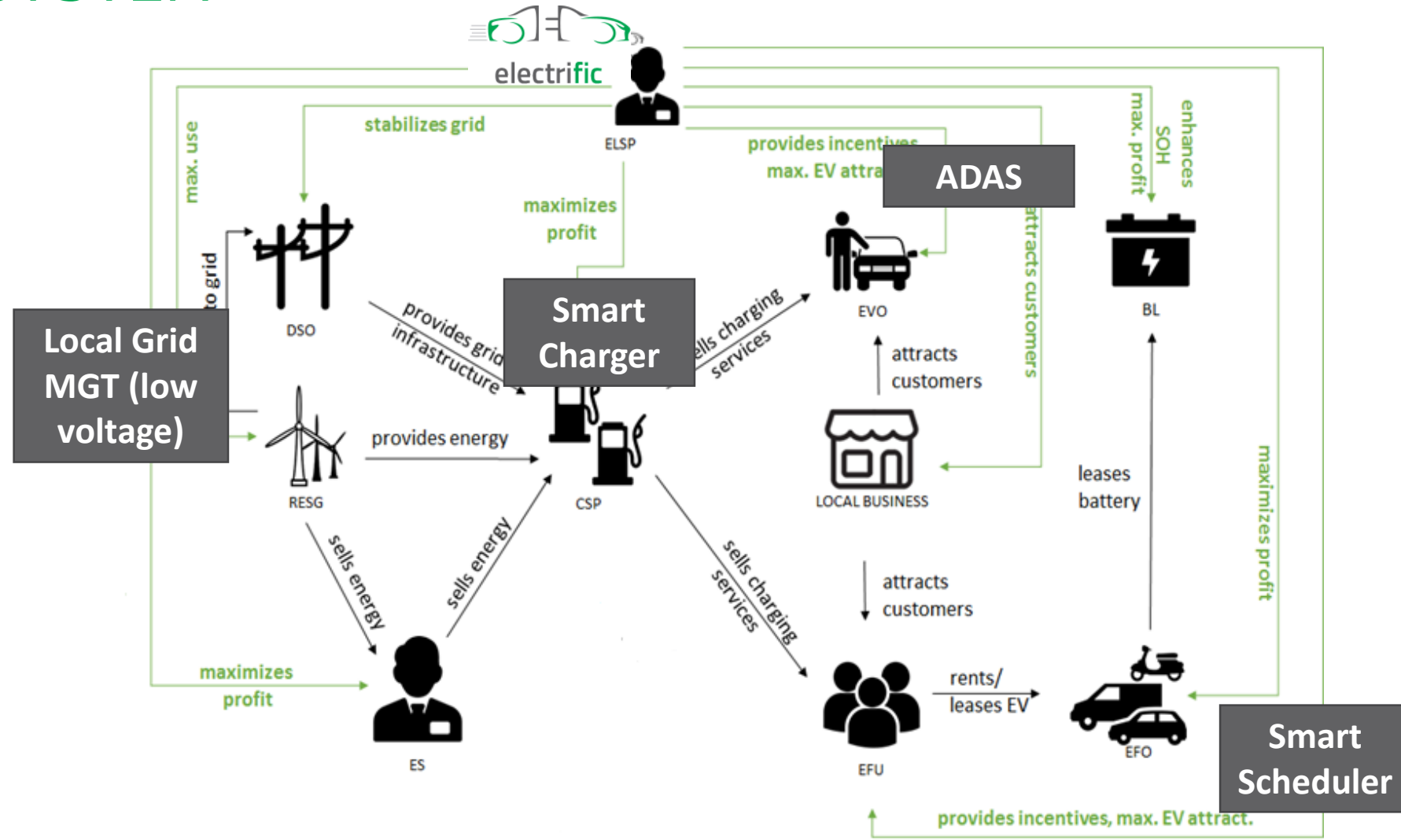


DSO	Distribution System Operator	EVO	EV Owner
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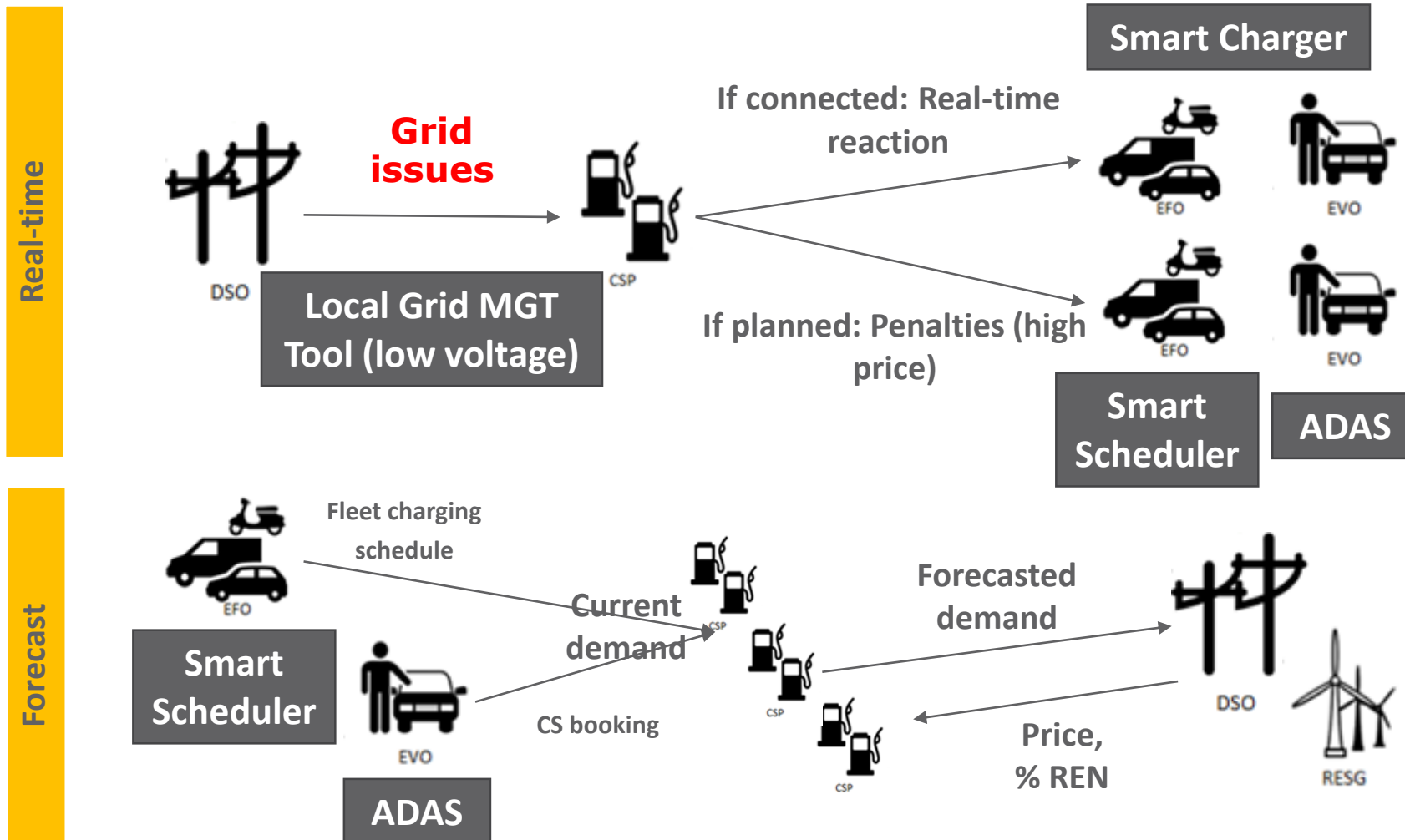
EMOBILITY ECOSYSTEM- ELECTROMOBILITY SERVICE PROVIDER



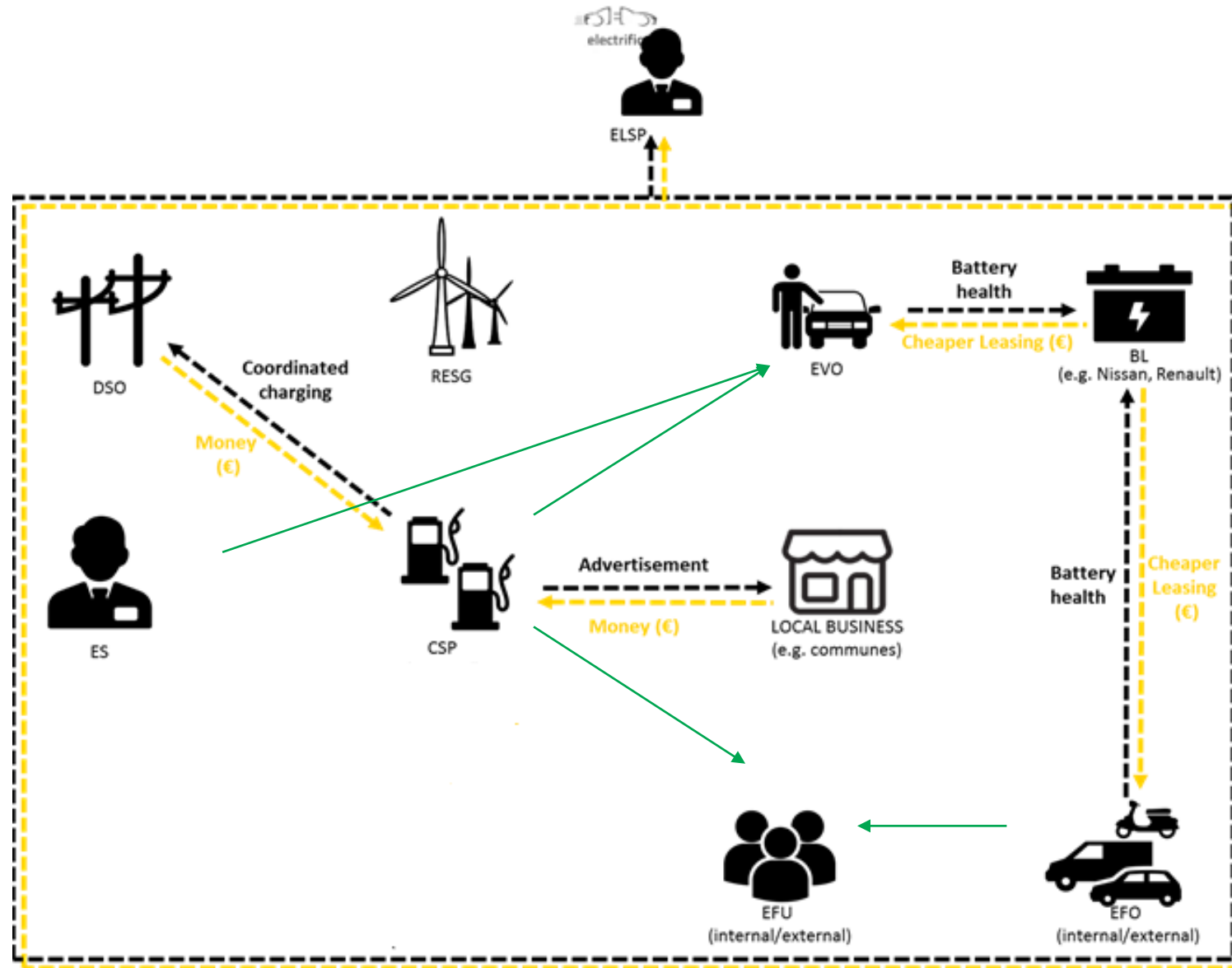
ELECTRIFIC, KEY TECHNOLOGIES FOR A SUSTAINABLE ECOSYSTEM



HOW DOES THE COLLABORATION WORK?



CONTRACTUAL CHANGES AND INCENTIVES



ADAS, ROUTING FOR SMART CHARGING

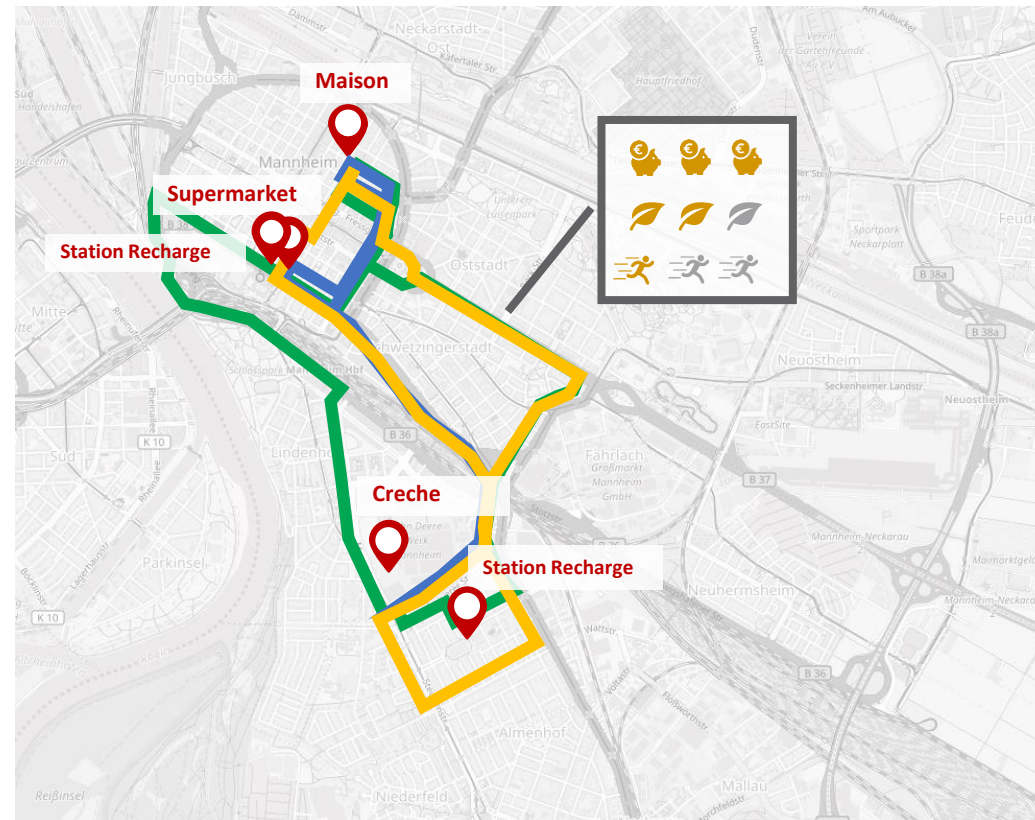
3 ways to optimize journeys

The driver gets 3 suggestions:

- The «greenest» route
- The fastest route
- The cheapest route, in terms of energy price

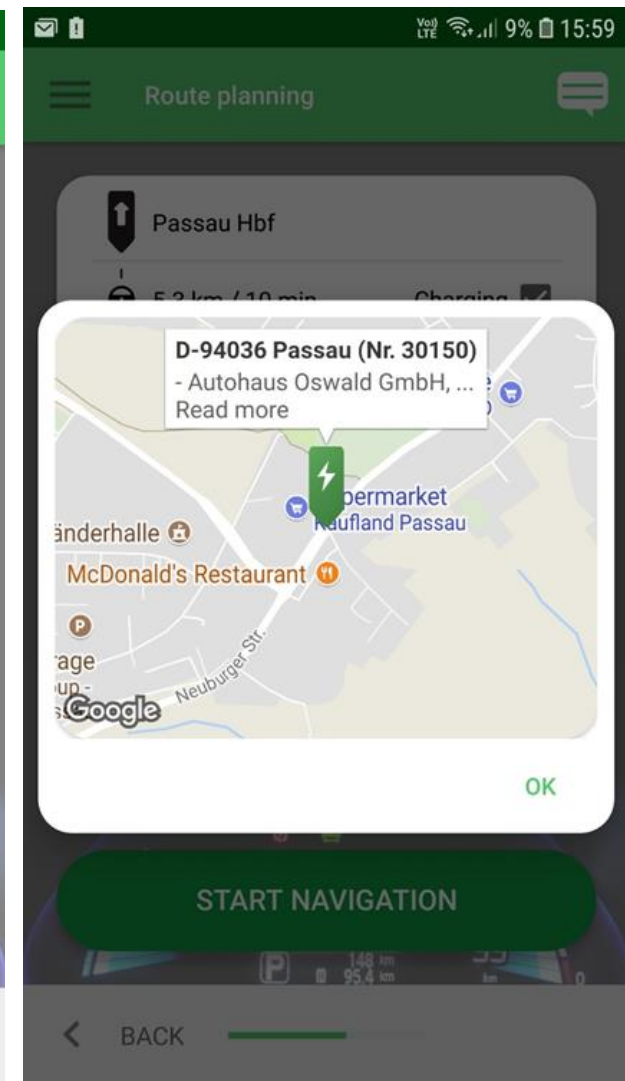
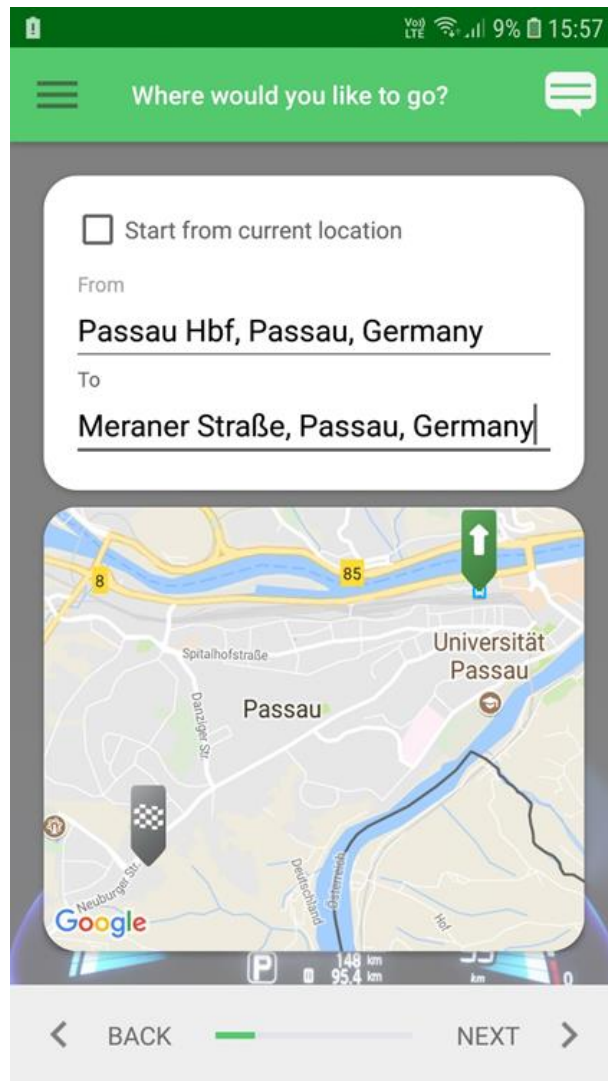
Key parameters collected:

- % of REN available during the charging process
- Journey price (incl. grid cost)
- Journey duration including the charge

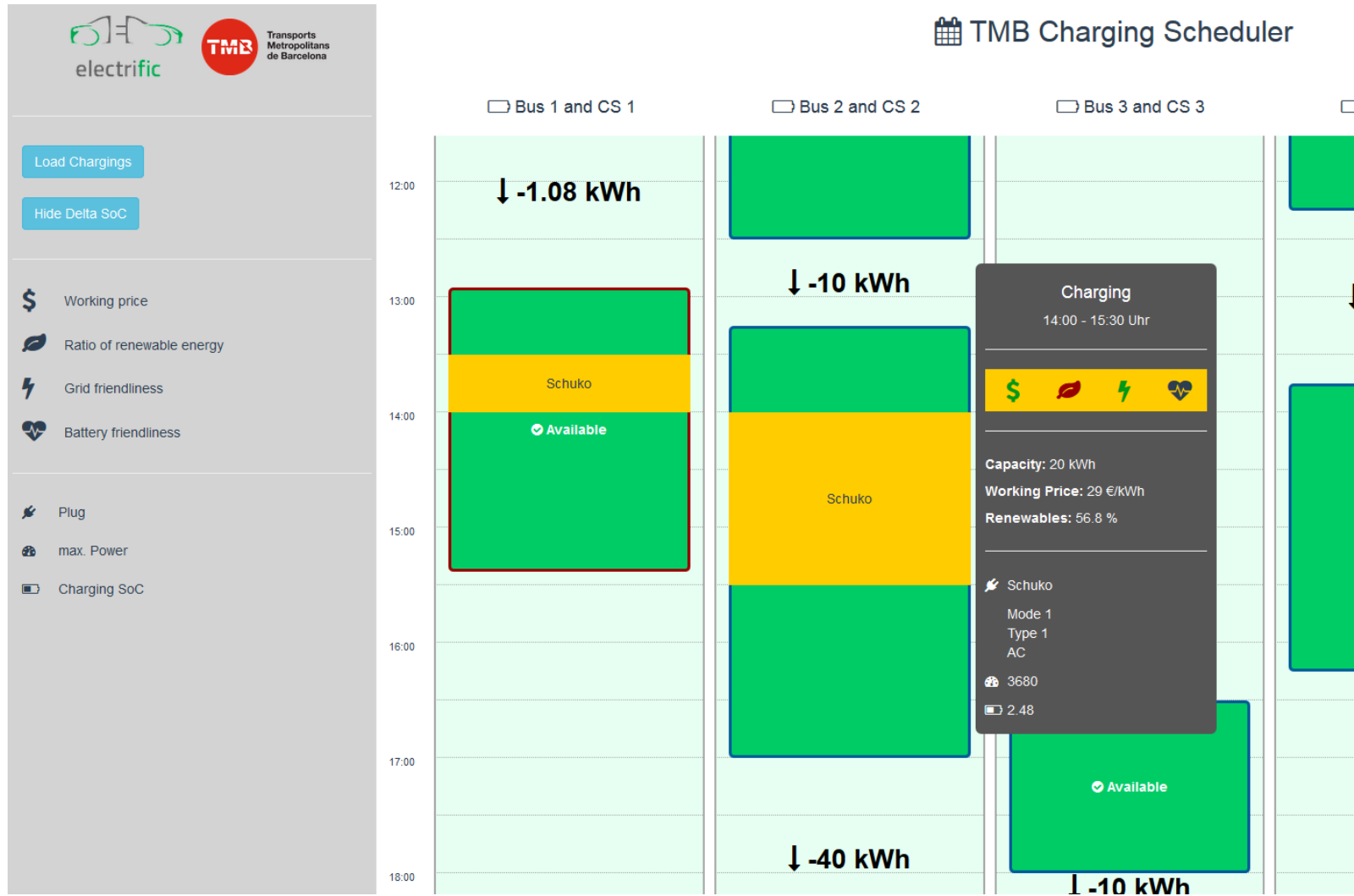


<http://electrific.eu>

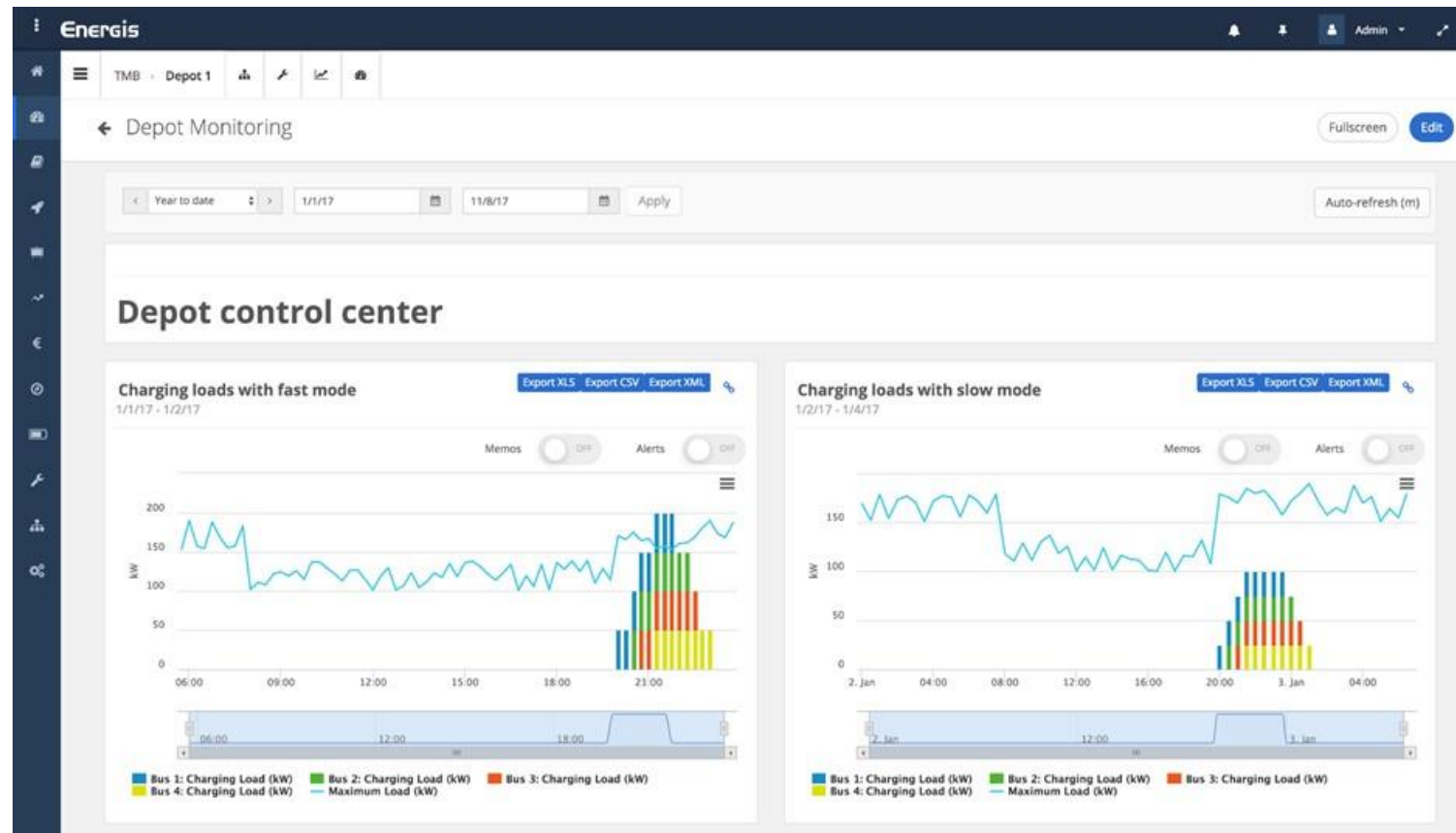
ADAS APP



SMART SCHEDULER



SMART SCHEDULER, INTEGRATION WITH ENERGY MANAGEMENT SOLUTIONS



Metrics

- Max consumption
- Average consumption
- Consumption per each charging station
- « State of Charge » of batteries
- Time till full charging

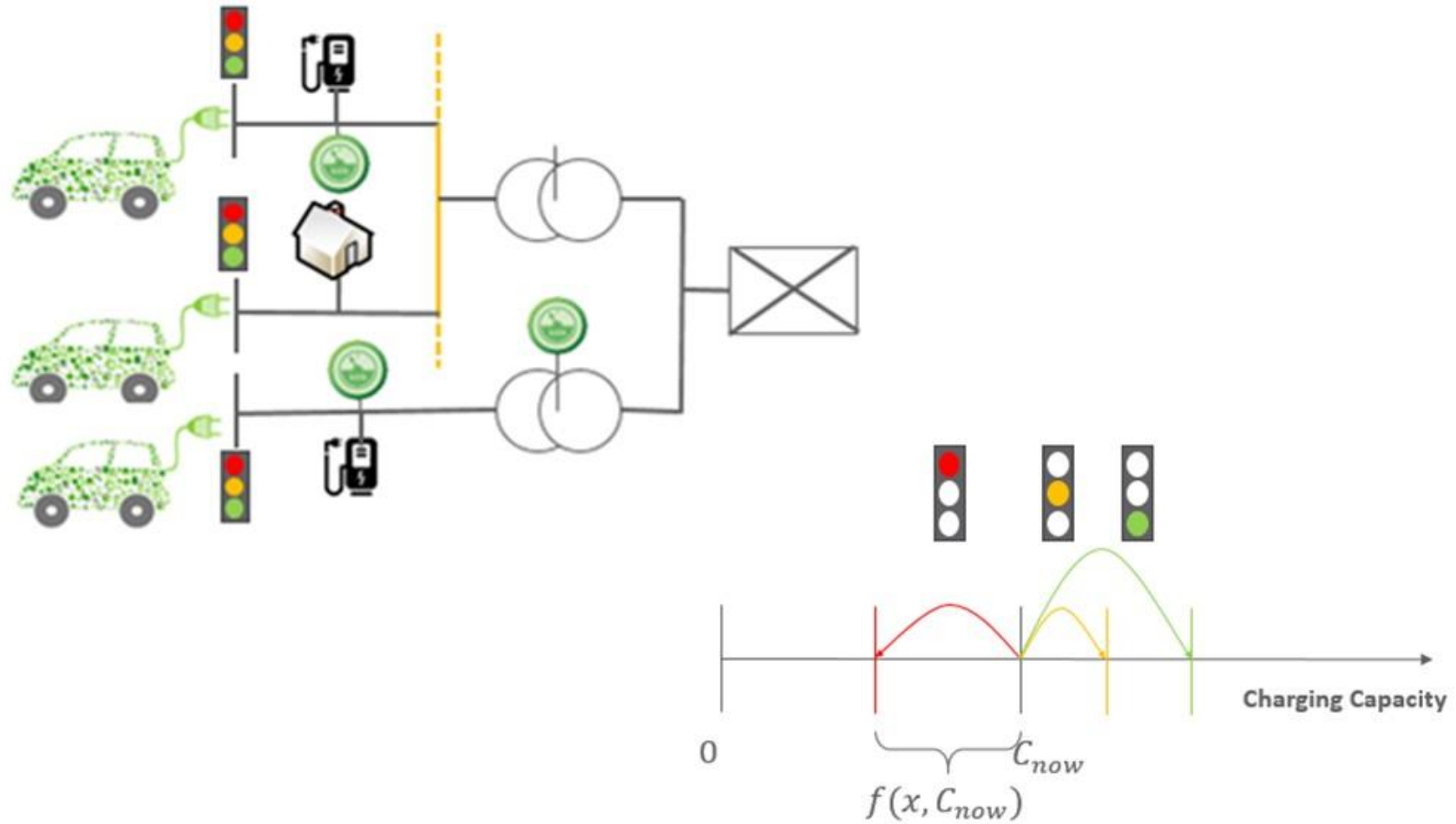
Assets

- Depots
- Feeder lines
- Charging stations
- EV (Batteries)

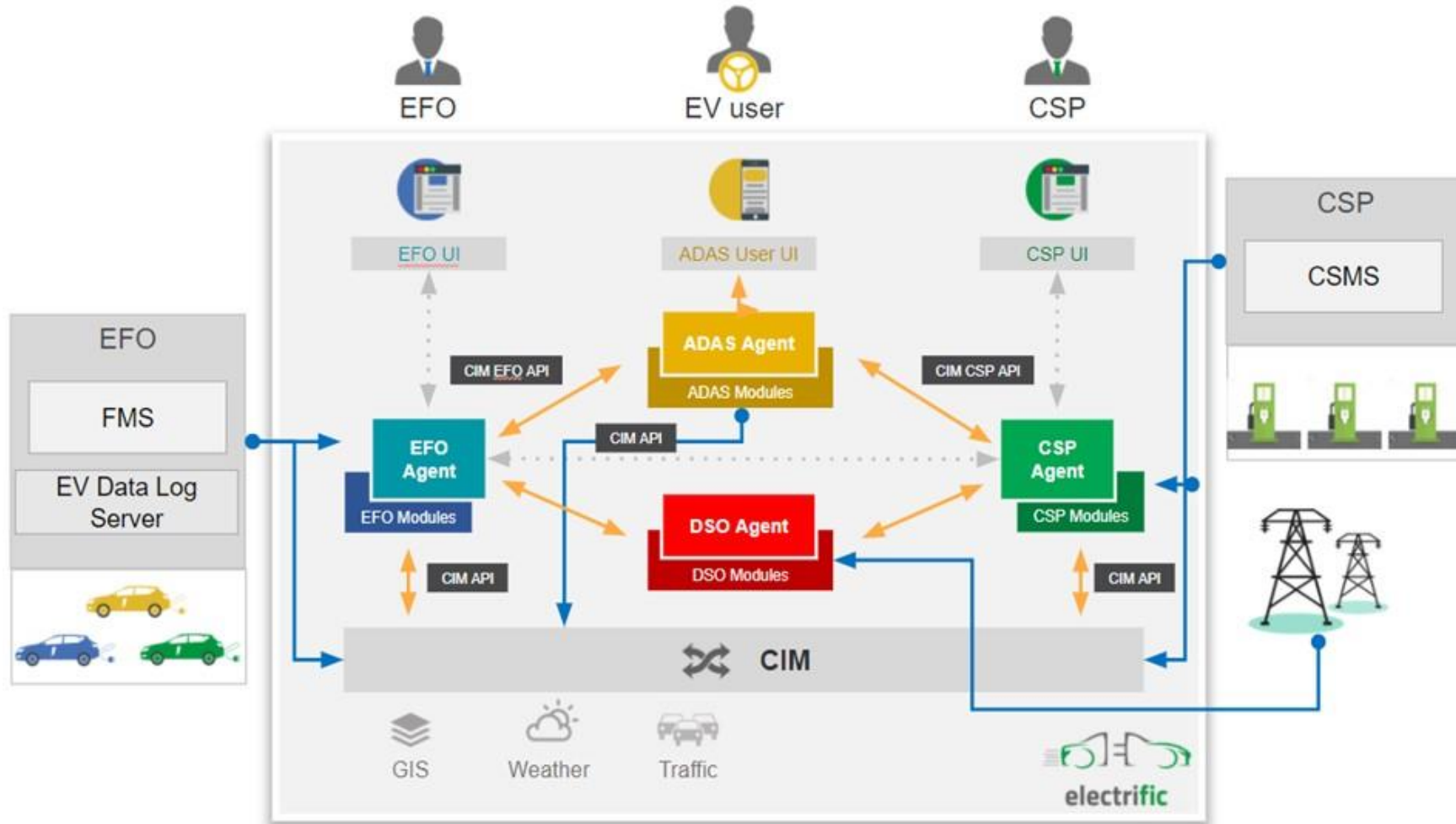
Dashboards

- Charging stations usage (current and historical)
- Usage of « feeder line » per contract

SMART CHARGER, DECENTRALIZED CHARGING MANAGEMENT



HIGH LEVEL ARQUITECTURE



THANK YOU FOR YOUR ATTENTION



Any question?

Contact us: Maria.perez.ortega@gfi.be

www.electrific.eu



bayernwerk

