FLEXHARVESTER ©:
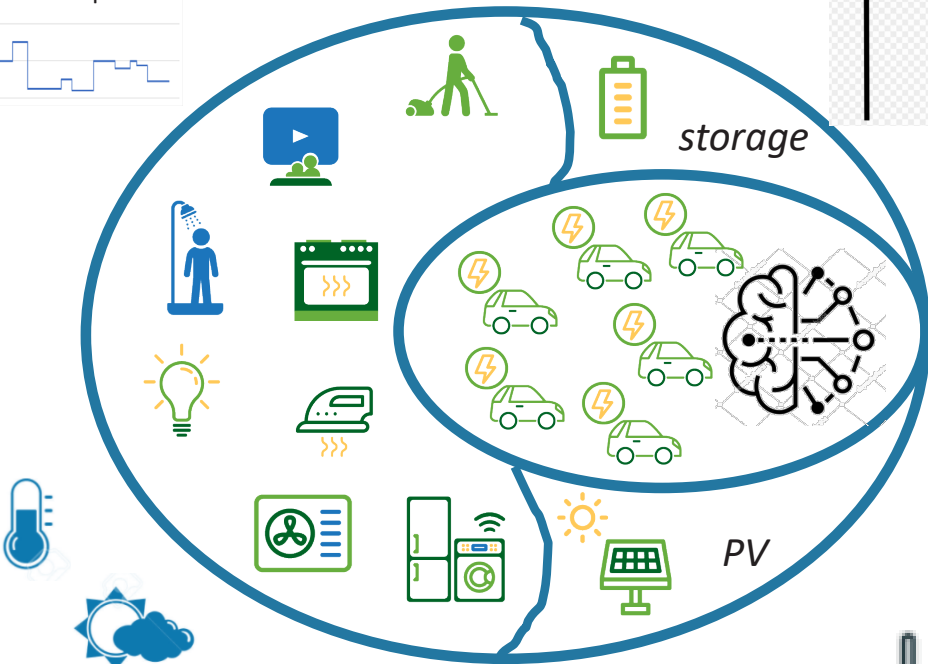# TECHNOLOGY PLATFORM FOR CAPTURING THE FINANCIAL GAINS OF ENERGY FLEXIBILITY

Erik De Schutter
VITO / EnergyVille

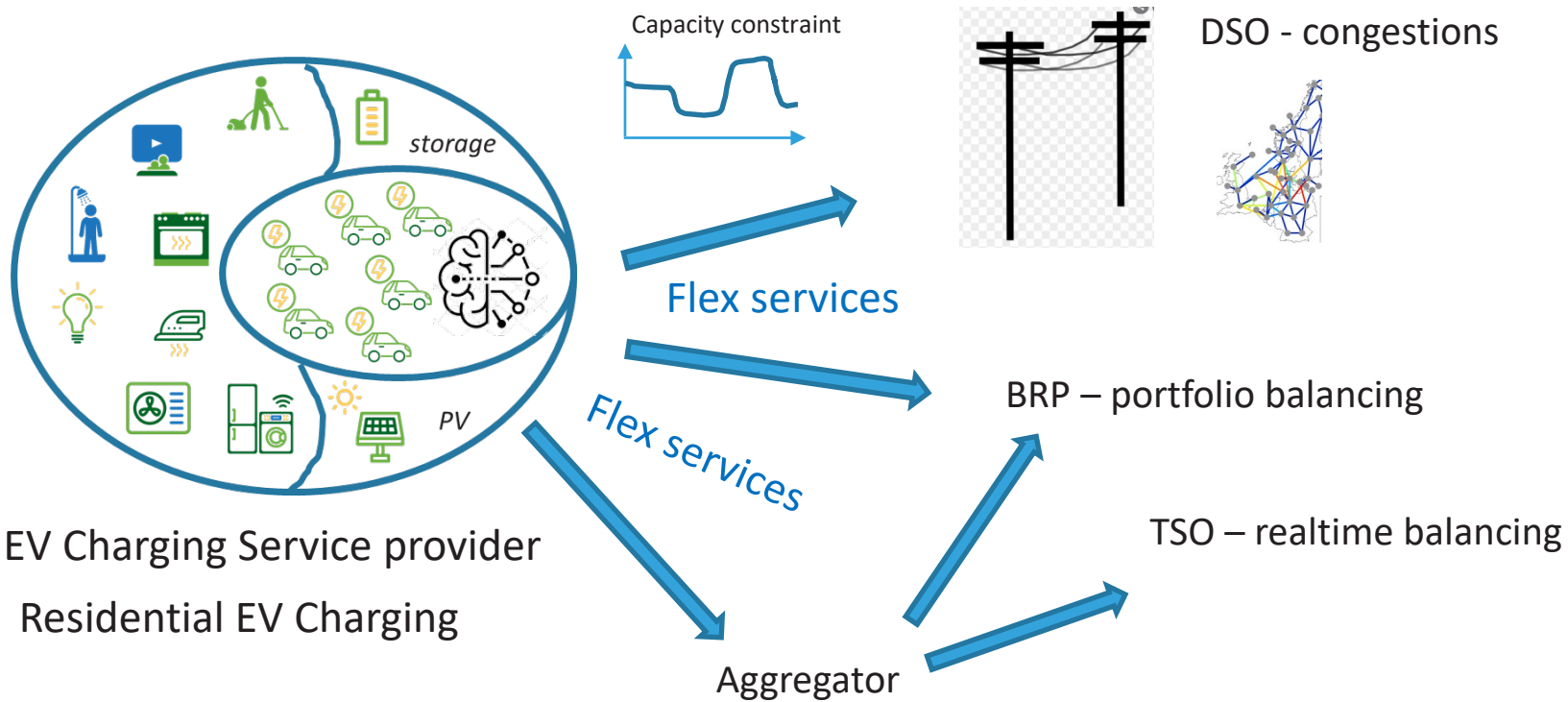Other consumption forecast

Capacity constraint

storage

PV
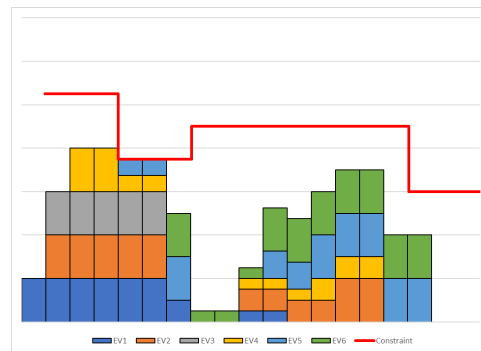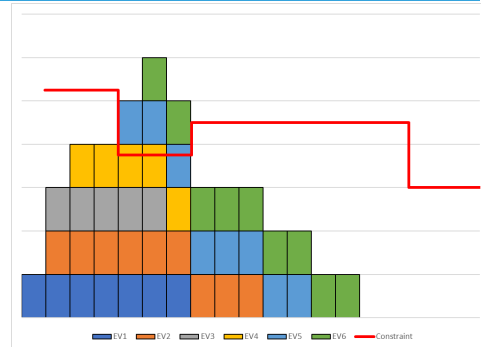
FLEXIBILITY SERVICES PROVIDED BY SMART EV CHARGING

Capacity constraint

DSO - congestions

Flex services

BRP – portfolio balancing

Flex services

TSO – realtime balancing

EV Charging Service provider

Residential EV Charging

Aggregator

storage

PV

CONCEPTUAL ARCHITECTURE

FLEXharvester Application

- Forecasting Other Consumption (ML)
- Retrieving (Dynamic) Grid constraints
- Retrieving Tariff and price information/forecast
- Retrieving Weather (incl Solar Irradiation) forecasts
- Forecasting local generation (ML)

Model Predictive Optimization

Retrieving car status change information (and optionally charging parameters)

Forecasting charging parameters (ML)

Charging Plan

Status Change

EVSE

EVSE cloud

User app