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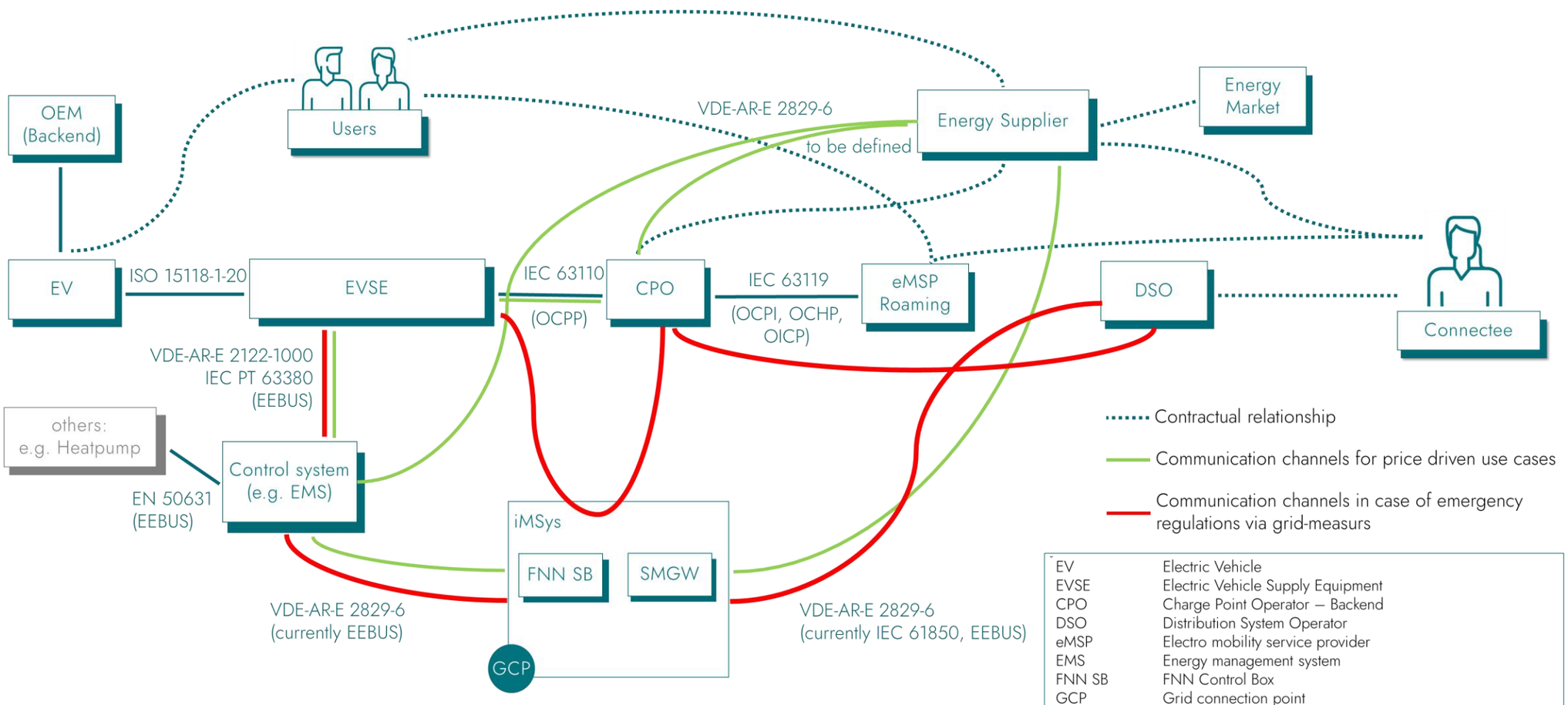
SMART CHARGING OF BEVs – A PROMISING CONCEPT

Projects of the funding program „Elektro-Mobil“ of the German Federal Ministry for Economic Affairs and Climate Action (BMWK) agreed on the use of specific standards and communication channels for smart charging



Promising Options and Needs for Actions

Grid Measures

- Peak load capping
- Increase of self-consumption
- System services

Smart Charging

- Reduces costs for DSO, users and improves the grid stability
- Bidirectional charging offers even higher incentives

Price Incentives

- Tariffs offer different advantages for different use cases
- Creates opportunities to increase the use of renew-able energies for charging

Tariffs

- Time-of-use pricing (TOU) is the most user-friendly smart charging tariff
- Dynamic real time pricing (RTP) is a more efficient tariff for the grid

Standardization

- Standards have been put in place already
- The compatibility of standards has to ensure a fully automated process – nationally and internationally

Standards

- Most promising standards in Germany following the Elektro-Mobil consensus:
  - ISO 15118
  - IEC 63110
  - VDE-AR-E 2829-6

The Accompanying Research of the Funding Program Elektro-Mobil of the German Federal Ministry for Economic Affairs and Climate Action (BMWK)

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