



# Stakeholder Management Report

Presentation



This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No 101056874.

# What is SCALE?

- **SCALE (Smart Charging Alignment for Europe)** is a three-year Horizon Europe project that kicked off in June 2022.
- It aims at preparing EU cities for the **mass deployment of electric vehicles** and the accompanying smart charging infrastructure.
- To deploy a **user-centric approach**, systematically collecting knowledge, removing existing acceptance barriers and developing solutions
- To develop an open system architecture for smart charging & V2X which ensures **interoperability**, connectivity, the openness of the system and **fair market conditions**.
- SCALE will establish **smart charging and V2X testbeds** across seven countries to bring standards, protocols, tendering and infrastructure to the next level.
- To create the necessary momentum across Europe and maximize exploitation, securing impact beyond the project's lifetime through SCALE's **V2X Alliance**.



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# 29 Partners across Europe

## OEMs



## E-mobility fleet & software



## Research & knowledge institutes



## Cities & associations



## DSOs & TSOs



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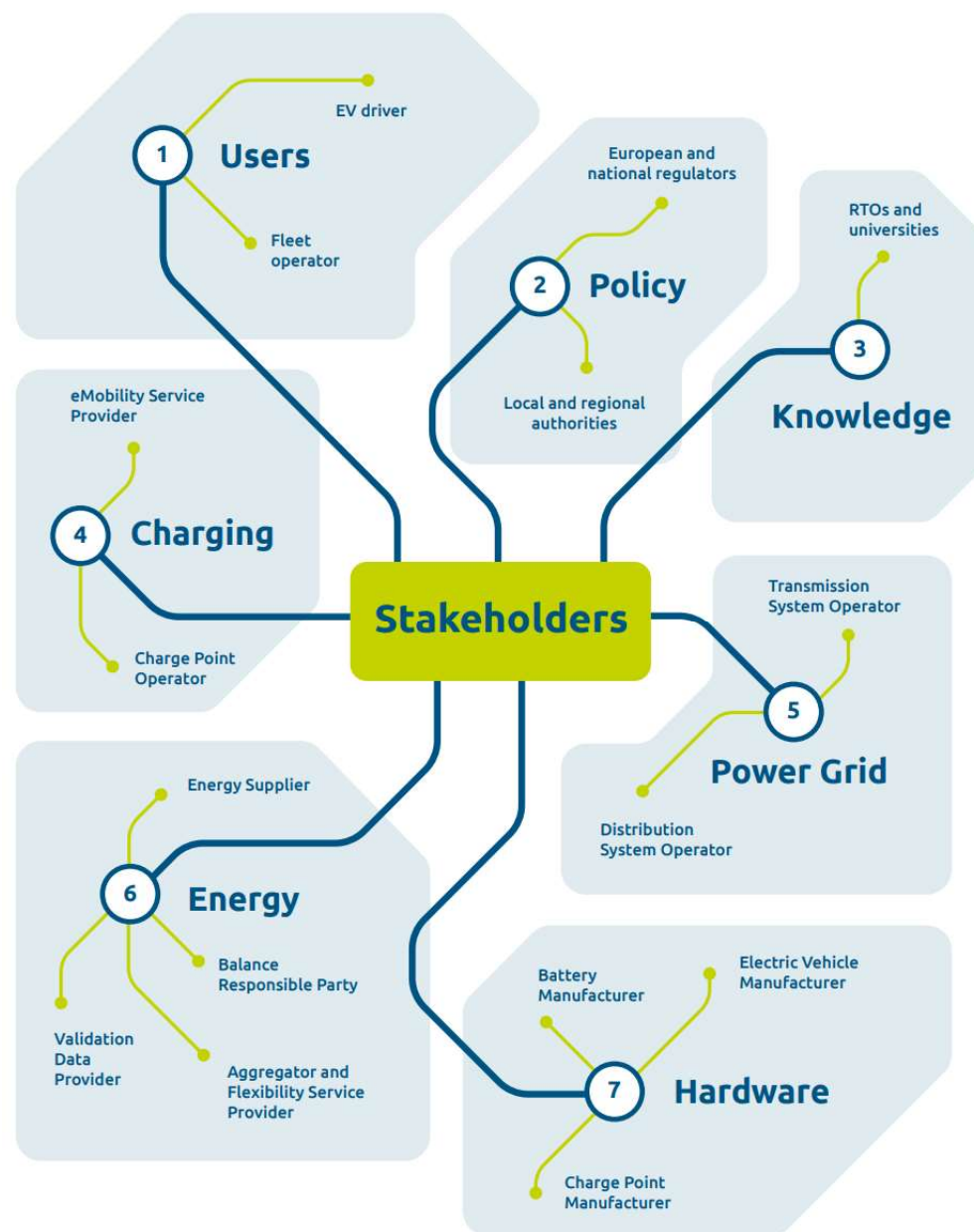
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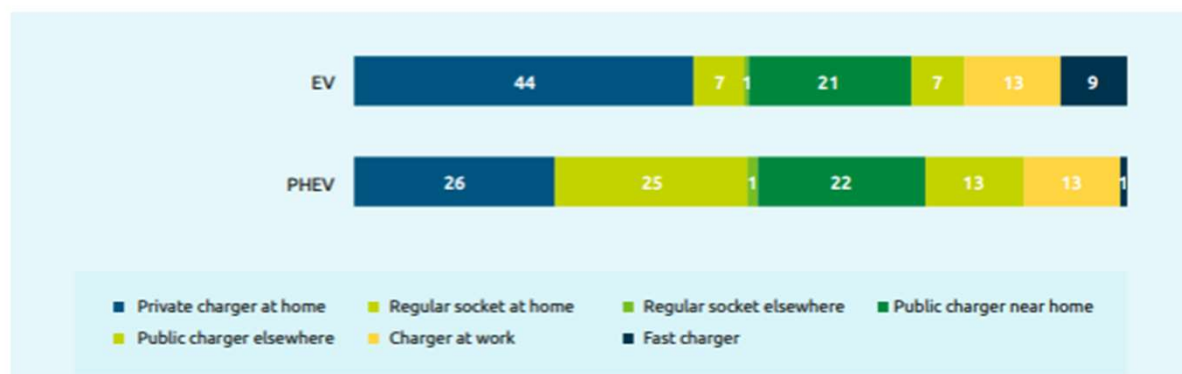
**SCALE**



## Users: EV drivers

Over 4000 surveys performed February-May 2023

Results expected after summer



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CURRENT LEGISLATION	EU CODE	DESCRIPTION
<b>MOBILITY AND CHARGING INFRASTRUCTURE</b>		
Alternative Fuels Infrastructure Regulation (AFIR)	COM/2021/559	Revision of the Alternative Fuels Infrastructure Directive (AFID) of 2014. Expected to be published in early 2023. Sets targets for publicly available charging infrastructure and rules on interoperability of plugs, billing procedures, and communication procedures.
Energy Performance of Buildings (EPBD)	2018/844/EU	Is currently being revised (COM 2021 802). Sets targets for semi-public and private charging infrastructure at new and renovated buildings.
Clean Vehicle Directive (CVD)	2019/1161/EU	Sets targets for the public procurement of clean vehicles, including purchase, lease, and rent.
Emission Performance Regulation	2019/631/EU	Sets targets for the CO2 emission performance of new passenger cars and light commercial vehicles.
Renewable Energy Directive (RED)	2018/2001/EU	Is currently being revised (COM 2021 557). Sets a target for the amount of renewable energy in the energy mix, which includes rules on charging infrastructure and battery data sharing.
<b>ENERGY SERVICES</b>		
Electricity Market Regulation	2019/943/EU	Provides rules for the internal market for electricity, including trading on energy markets and balance responsibility.
Electricity Market Directive	2019/944/EU	Provides a framework for the participation of small-size consumers in the electricity markets, including rules on aggregation, demand response, and dynamic prices.
Energy Taxation Directive (ETD)	2003/96/EC	Is currently being revised (COM 2021 563). Includes rules on energy taxation for storage units, which will mitigate double taxation.
European Network Codes [ENTSO-E]	Multiple	A set of eight legislative acts aimed at harmonising national network codes. Includes rules on electricity balancing markets, congestion management, and grid connection requirements.
<b>DATA</b>		
Directive on batteries and waste batteries	2006/66/EC	Is currently being revised (COM 2020 798). Rules on sharing battery information.
General Data Protection Regulation (GDPR)	2016/679/EU	Sets binding rules on the availability of data streams and the security of data privacy.
Data Sharing Acts	Multiple	Legislative acts such as the Data Act, Data Governance Act, Digital Markets Act, and Open Data Directive are all aimed at creating a framework to facilitate data-sharing and innovation based on EU wide data availability, while ensuring privacy and interoperability. A sector-specific regulation on EV data sharing is expected in late 2022 (Ennis and Colangelo, 2022).

## Policy and legal Inventory of existing legislation



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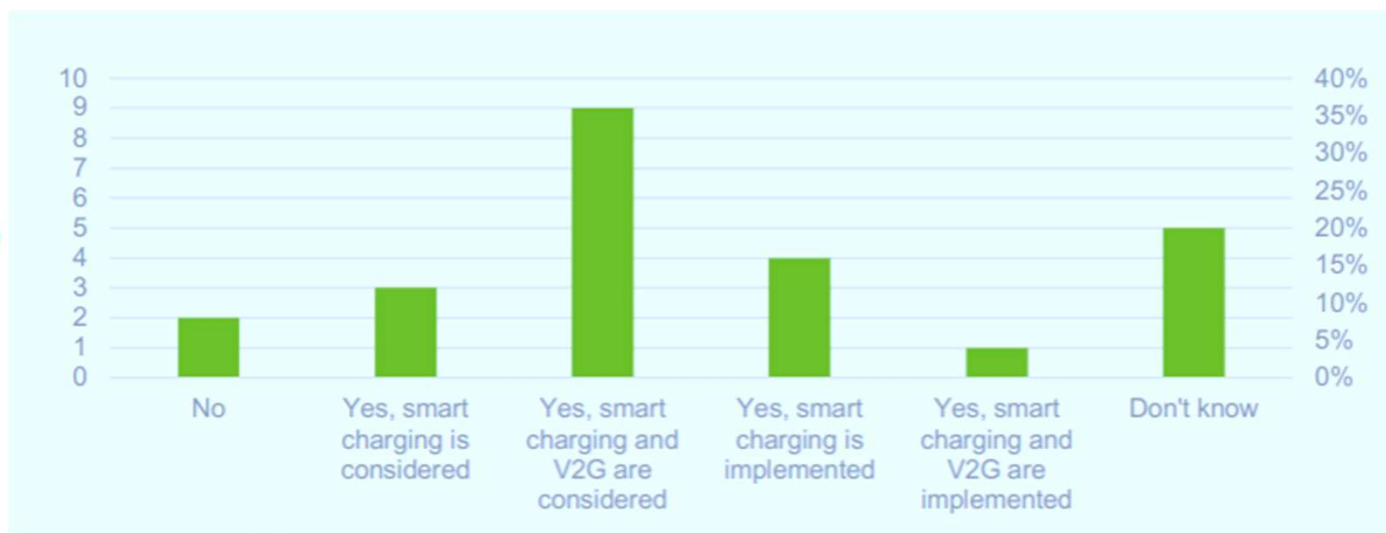


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## Policy and legal

17 interviews

37 surveys



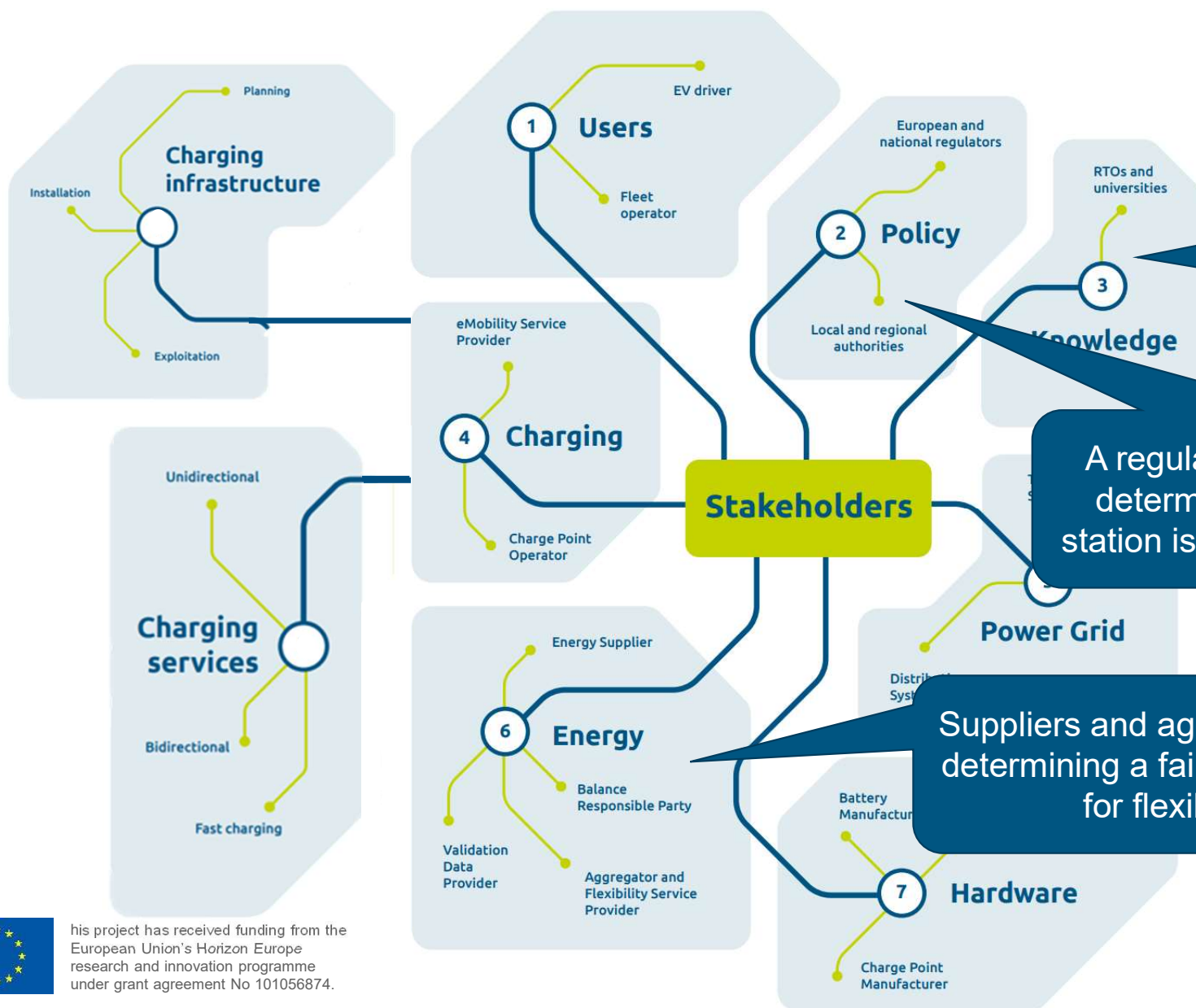
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Data availability is a prerequisite to get the most value out of Smart Charging

A regulatory framework is needed to determine when an EV or charging station is Smart Charging or V2X-ready

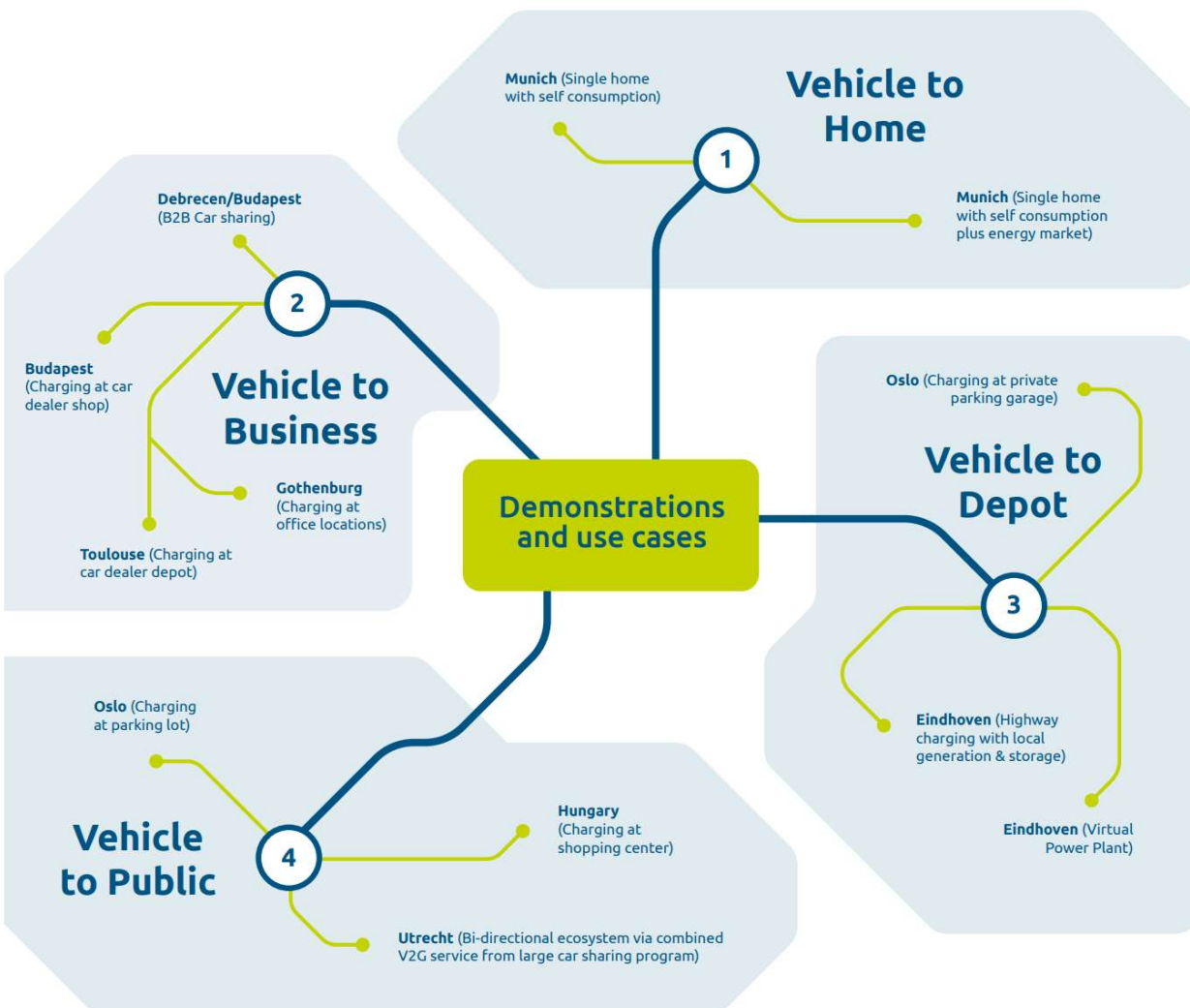
Suppliers and aggregators struggle with determining a fair and competitive price for flexibility services



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CATEGORY	FEATURES	REMARKS
<b>VISION</b>		
Context	At this depot where cars are stored before transported to the dealers shops, 8 chargers are placed. These chargers need to get the electric cars charged to around 50% SoC (or more depending on clients requested service) in a specific time frame.	
Stakeholders involved	Site owner MSP DSO	To be confirmed Current Enedis
Motivation	The deadlines and the needed SoC are relatively clear for the cars that need to be charged.  The future of EVs flows are unknown, which makes the decision to equip the charging infrastructure difficult to optimise. It is therefore needed to have in mind smart charging strategies to better use the installed chargers and limit the power capacity.  Therefore, this is the perfect opportunity to test smart charging peak shaving and time-of-use shifting. Specifically will be looked to reduce the costs. Trial will include signals from PV surplus in the area.	
<b>VALUE CHAIN &amp; REQUIREMENTS</b>		
Charging infrastructure	Exploitation	V1G controllable charger
Mobility services	n/a	
Charging services	Unidirectional charging	Central controllable charging, able to differ charging power & shift time of sessions.
Energy services		
<b>USE CASE SPECIFIC SYSTEM ARCHITECTURE ELEMENTS (input for WP2)</b>		
Functional requirements	• Have insight in the data as to enable optimisation of charging strategies.	
Hardware	• V1G capable charging stations.	
Software solutions		
Data	• Access to the data of the site, depot, PV installation, and cars. This can be difficult since they have different owners. • Access to meteorological office local data for weather forecast.	

## Results & Outcomes

### D1.1 - Report on consumer behaviour (1st edition)

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### D1.2 - Stakeholder Analysis

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### D1.2 - Short Read - Stakeholder Analysis of smart charging ecosystems

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### D1.5 - Analysis of hard- and software requirements



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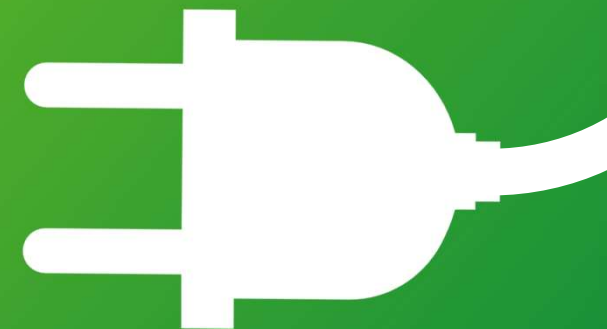


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 SCALE project

[www.scale-horizon.eu](http://www.scale-horizon.eu)

# Thank you!



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