



The Stations of the Future for user- centric electromobility

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USER-CHI

CHARGING YOUR E-MOBILITY FUTURE

 This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No [875187]

A user-centric project

Qualitative research

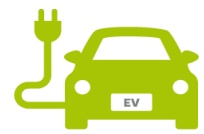
- **2. Netnography**
621 end users, 3 EU countries (Norway, Spain, Germany)
- **3. Delphi Questionnaire**
57 professionals, 5 EU countries (Finland, Germany, Hungary, Italy, Spain)
- **4. Field Diary**
131 end users, 5 EU countries (Finland, Germany, Hungary, Italy, Spain)

Quantitative research

- **5. Survey**
2,737 participants, 6 EU countries (Finland, Germany, Hungary, Italy, Norway, Spain)

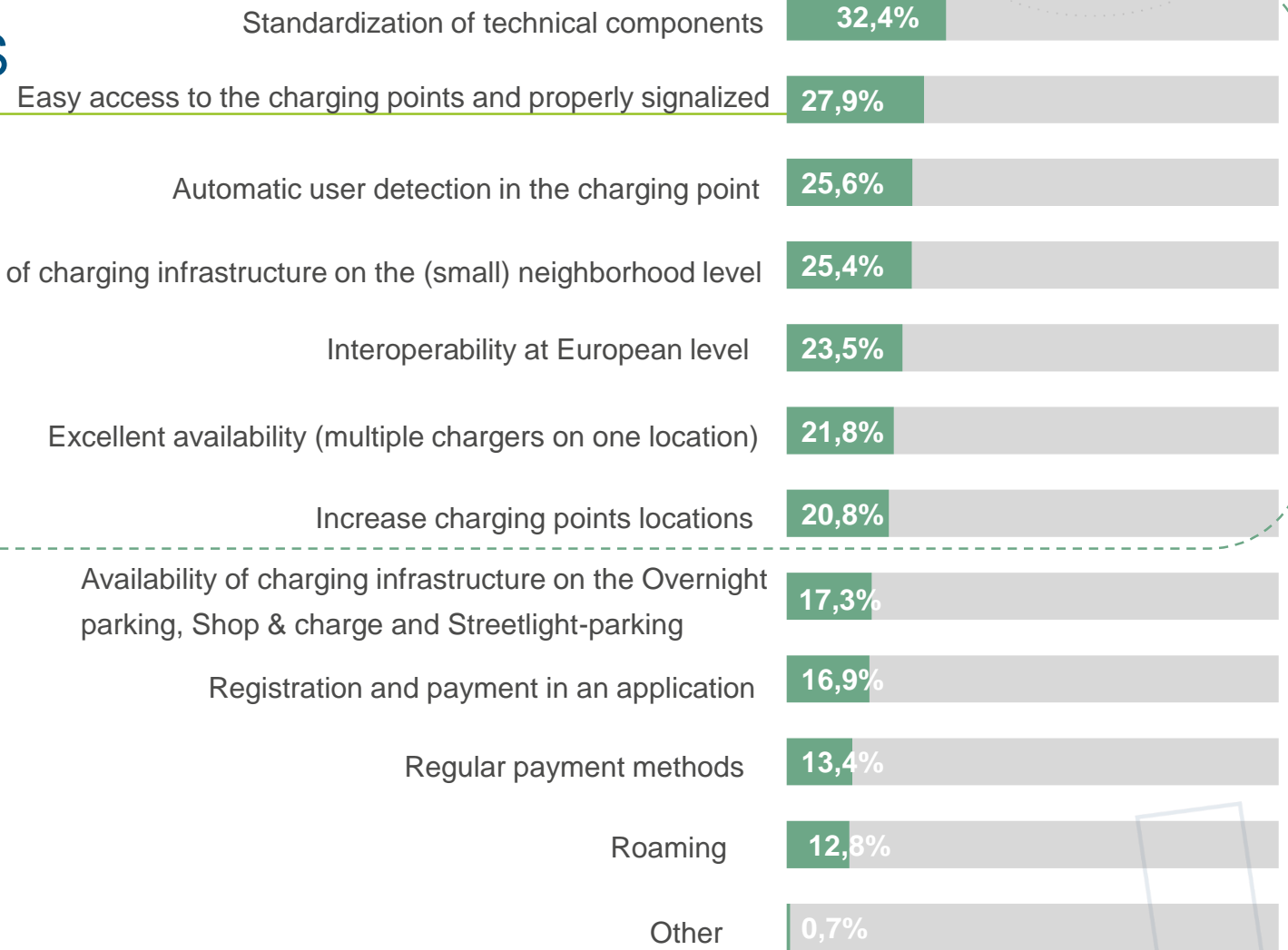
Co-Creation

- **6. 2 Workshops**
End users (5) & professionals (11), and professionals (30), 4
USER-CHI products: INCAR, INSOC, INDUCAR and SotF



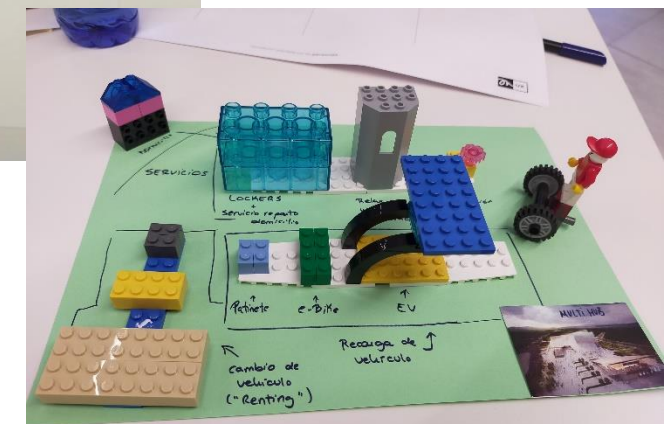
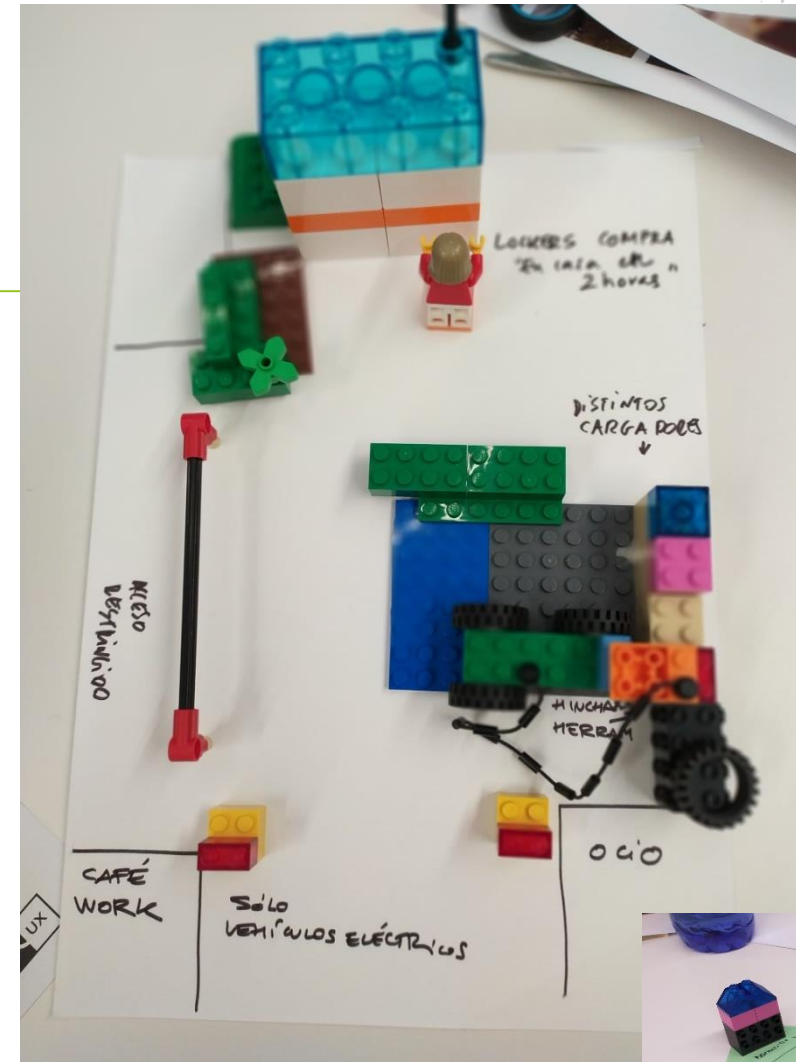
1.5. ELECTROMOBILITY PLANS

Thinking in a new generation of charging stations: which are your expectations regarding features they should have? (Check the most relevant three options)



Co-creation workshop

- **Intermodal station.** Public and private medium distance and last mile transport.
- Spaces integrated into **nature**.
- Indoor / outdoor.
- Connections with walking and bike path.
- Parking for electric vehicles.
- **EV charging and LEV** in separate areas.
- **Anti-theft / safe zone.**
- High time flexibility.
- Locations on highways, accesses to the city and **key points** of the city such as shopping centers, universities, hospitals, public transport stations.
- Management similar to a **civic center** (multiple activities and interests in coexistence).



SotF

CONCEPT SOLUTIONS TO **Charging station of the future**

eBikes — eScooters

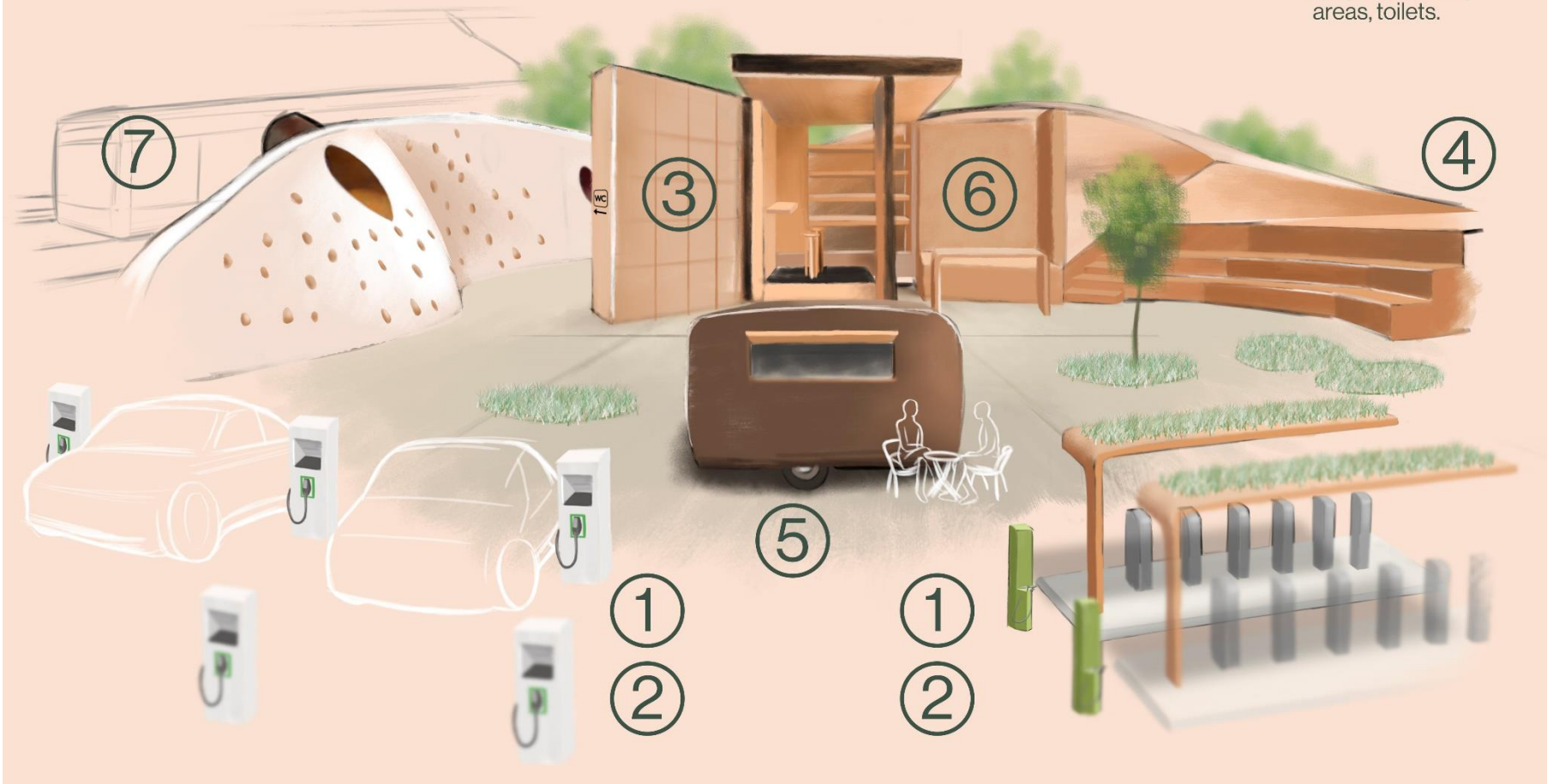
Vehicle charging
— EV + LEV
¹Separate zones

Intermodal
Medium-distance
transport — «last
mile».

**In harmony with
nature** — «green
space»

**Multi-service —
holistic concept**
²Maintenance &
repair of vehicles,
³courier service,
⁴leisure, ⁵cafeteria,
⁶coworking,
⁷physical activity
areas, toilets.

Main concepts:
Charging
EV&LEV,
Intermodal,
Sustainable,
Additional
services, Civic
center



StationOfTheFuture: concept enrichment. Which are the features and functionalities you miss?



INSOC

Main concepts:
Solar surface,
Secure
parking, Modal
hub,
Sustainable
mobility, Urban
Furniture

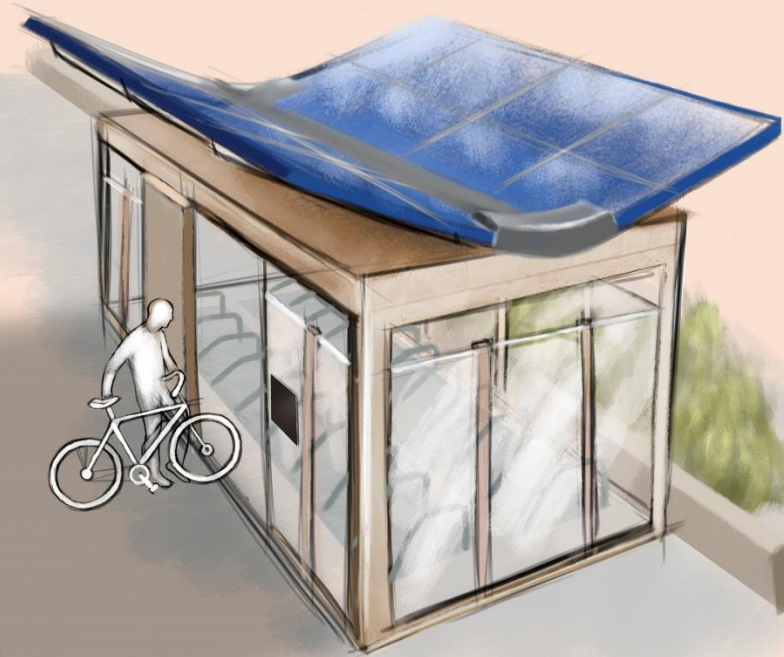
CONCEPT SOLUTIONS TO

Solar charging for LEVs

eBikes — eScooters — eMotorbikes

Solar street lamps
— solar energy
system for LEVs in
urban areas

For quick charging
of individual LEVs
while strolling
around town.



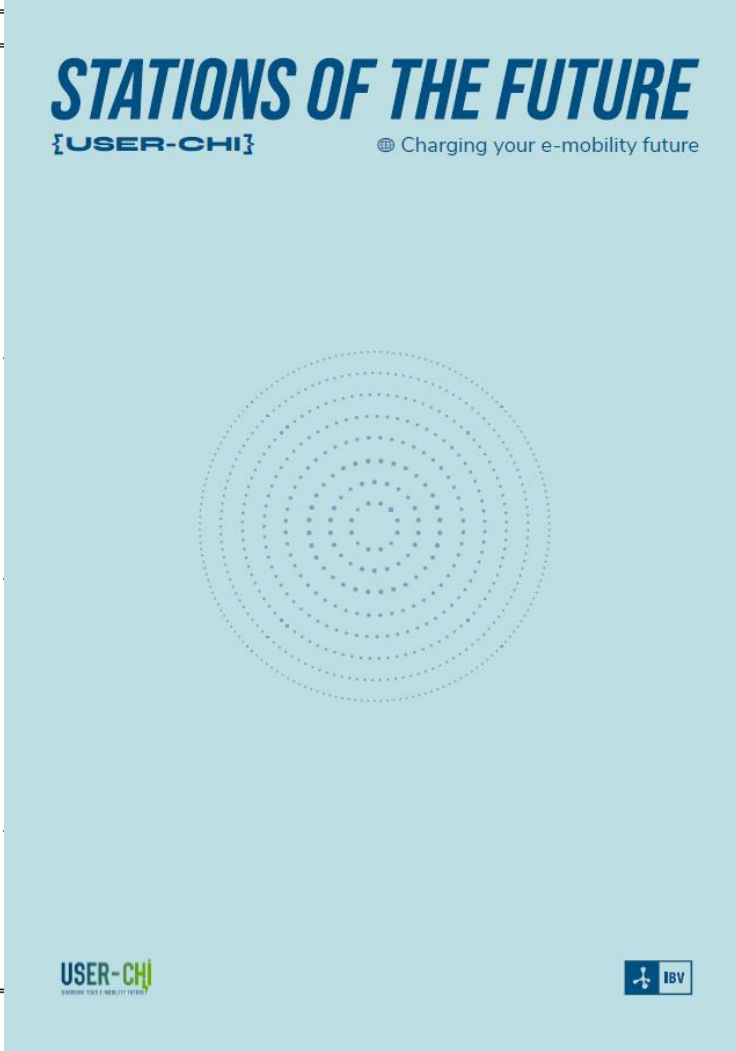
**Shelter —
secured parking
space for LEVs**
For overnight
parking of light
electric vehicles.

Reinforced with
double factor
security: App +
in-place screen to
unlock physical
access.

INSOC concept enrichment. Which are the features and functionalities you miss?



Four different Stations

	Services / User demands	Location
	<p>Introduction</p> <p>USER-CHI is a research innovation project, aimed at unlocking the massive potential of electromobility in Europe, from a user-centric perspective. Following a User Driven Innovation approach, the project performed a deep qualitative and quantitative research of charging needs, demands and requirements of citizens and users in six different European countries: Norway, Finland, Hungary, Germany, Italy and Spain. As a result of this research work, subjective perception of charging options, decision influences and acceptance barriers have been analysed to define the innovative features and value-added services needed and expected in the next generation of future charging stations.</p> <p>STATIONS OF THE FUTURE This document, Stations of the Future, presents the four different stations envisaged by the project team to fulfil the needs and expectations of Electric Vehicle users (including Light Electric Vehicles), according to the results obtained in our user research.</p> <p>USER-CHI — Stations of the Future 1</p>	<p>Highlights</p> <p><i>THE UPCOMING SCENARIO IN MOBILITY IS</i> ELECTROMOBILITY</p> <p>Plug-in hybrid electric vehicles became the most popular type of passenger electric vehicles in the European Union in November 2020. This transition technology is supporting today electromobility, but to achieve a full electromobility, we need to provide appropriate charging infrastructure.</p> <p>2</p> <ul style="list-style-type: none"> • street lights and benches • Bus canopies, underground • University campus



THANK YOU!

Any questions or
comments?

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