Project deliverable D1.1

D1.1 Baseline user demands and results from co-designing

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DELIVERABLE ADMINISTRATIVE INFORMATION

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EXECUTIVE SUMMARY

Deliverable 1.1 is an output of WP1 Task 1.1. The deliverable summarises the recruitment process of citizens across the three demonstration sites (Helsinki, Klagenfurt, and Nicosia). In addition, it includes the results of the co-design process conducted during spring 2025, together with the local partners of each demo. This helped in understanding and collecting the initial set of behaviours and preferences when the user charges the car at home or at another location. The deliverable also analysed the baseline mobility patterns within the demonstration sites, such as parking patterns and the existing number of EVs.

The demonstration sites utilised a combination of participatory approaches to collect user feedback from the identified clusters, such as EV owners, potential buyers of EVs, and people with special mobility needs. The discussion with the users was also an opportunity to gather suggestions for the prototype charger design, such as the improved height of the charger to suit a person with a wheelchair.

Recruitment of users is a non-linear process; therefore, partners were encouraged to reach out to the users as early as possible to gather an adequate amount of user feedback. Indeed, each of the sites held successful discussions with the users; however, the expected amount of time to find users was longer in some cases. Nonetheless, the collected amount of user feedback was sufficient to provide an understanding of the EV landscape in each demonstration area.

In addition to presenting the user feedback, D1.1 also processed the raw feedback into User Requirements per demonstration site. To support this, a template was developed to structure the User Requirements into four categories: 1. Technical Requirements, 2. Infrastructure Requirements, 3. Functional Requirements, and 4. Application Requirements. The purpose of this process was to determine which aspects of user feedback fall within the scope of the demonstration and which could be addressed later or outside the project's scope. Moreover, transforming raw feedback into structured User Requirements helped the partners clarify responsibilities: for example, providing sufficient parking spaces is the responsibility of the housing company, not the city authority.

The User Requirements will be expanded upon further in *D1.3 End user requirements* (M10, UNIVLEEDS). The results of D1.1 are also highly important for *WP2 Low-cost charging and Apps.* The template developed in this deliverable is intended for the project's internal use only and will be utilised by each demo's local partners for clarification and implementation purposes. The template can be found in the Annex.

D1.1 key takeaways

- During the period of 2030-2040, the EV markets are expected to have stabilised in all three demo regions.
- V2G slow charging was initially unfamiliar to the workshop participants, survey responders, and interviewees; however, after further discussion of the V2G concept, both interest and understanding increased.
- Of 114 user needs identified across the three demonstration sites, 74 were drafted into User Requirements. After analysis and consolidation in D1.3, this number is expected to settle at around 35–40 specific requirements, accounting for overlaps.
- Potential V2G users identified the following points as the key conditions for acceptance: fair compensation, battery care, information transparency, and trustworthiness.
- Night-time V2G (including battery discharge) appears more acceptable than daytime use, as it avoids potential conflicts with immediate mobility needs.