Summary of Agile Pilot

Company name	**AGEVOLT**
Company location	**Poprad, Slovakia**
Domain	**Shared and green mobility**
Municipality	Liptovský Hrádok, Slovakia
Project period	July – December 2025, 6 months
Solution	Two innovative EV charging concepts. The goal was to test curb-side charging of electric vehicles using public lighting infrastructure in urban public spaces to verify its technical feasibility, user acceptance, and potential for replication in other small and medium-sized cities. The solution would leverage existing infrastructure (public lighting), reduce construction interventions and capital expenditure, be accessible to residents of apartment buildings without private parking, and provide valuable insights to other cities in Slovakia and internationally.
Stakeholders	Municipality, the public-lighting operator, local electricians, and residents. “The involvement of this spectrum of actors was key to understanding what is needed for smaller cities to realistically implement a similar project."
Lessons learned	Overall, the Agile Pilot is considered successful in learning, stakeholder engagement, and validating the technical concept. It also clearly identifies the regulatory and organizational barriers that must be addressed for broader implementation. The project uncovered common challenges faced by small municipalities, including lengthy, unclear permitting processes for innovative solutions, limited staff capacity, and a lack of practical knowledge of e-mobility among municipal and permitting authorities.
KPI 1 Number of innovation prototypes tested	Two prototypes (Dimension X and boom with swivel cable) The Dimension X prototype has been successfully tested in real operation, and the boom prototype has been manufactured and is ready for installation. Testing is scheduled after the pilot. While the solution is technically ready, delays caused by the building office and property management issues related to public lighting prevented installation within the pilot timeframe.
KPI 2 Number of innovative EV charging solutions ready for the market	Two. Two solutions are prepared and integrated with the MyAgeVolt platform. Dimension X has proven successful in real-world use, and the boom is prepared for deployment elsewhere.
Evaluation of the business model focusing on its viability and potential for growth	• Target customers are smaller and medium-sized cities aiming to expand e-vehicle charging for residents of apartment buildings without private parking. • During the pilot, the city set a price of €0.27/kWh including VAT. A full charge from overnight charging (6–8 hours) costs roughly €10–15, which users find acceptable. • Using existing public lighting poles and connections minimizes the need for excavations, new switchboards, and extensive construction, enhancing ROI compared to traditional stand-alone AC chargers. • The MyAgeVolt platform enables the city to set tariffs (residential/public or free), monitor usage, and manage revenues, supporting electromobility alongside financial sustainability. • Scalability. The solution is modular—each Dimension X or boom serves as a separate charging point that can be added gradually based on demand and budget. • It is suitable for dozens to hundreds of locations. • The interest from other cities (e.g. Štrba, Kežmarok) and participation in the EIT Urban Mobility program highlight the potential for this solution not only in Slovakia but also in international markets.
Impacts	Impact on Liptovský Hrádok and its community: strengthening capacity building and increasing awareness.

	• The town gained its first practical experience with EV charging infrastructure. • Both officials and technical staff experienced the permitting and implementation process. • The city now has a reference solution for ongoing use following administrative approval. • Additionally, the community's awareness of electromobility increased, with several residents noting that the availability of charging stations has made them consider EVs as a future option. Impact on AgeVolt: foundation for future technical enhancements. • Verification of prototypes in real-world conditions outside the laboratory. • Gathering feedback from the municipality, technical services, and users. • This process helps better understand processes and limitations in small cities, such as permitting and capacities, and opens new opportunities in other cities like Štrba and Kežmarok, as well as within the EIT Urban Mobility project. • Additionally, it provides a foundation for further technical improvements, including boom mounting, installation procedures, and tariff settings.
Suggestions for future actions, especially focusing on sustainability and replication	Recommendations for replicating and scaling • Engage partners early by establishing a working group that includes the city, public lighting administrator, solution provider, and community, and maintain regular communication. • Incorporate an educational element—such as brief training sessions on e-mobility and technology—for officials and technical staff in similar pilots. • Prepare backup plans, like simulations or alternative locations, to ensure the core concept can be demonstrated even if prototype installation faces issues. • Simplify permitting processes by encouraging discussions at ZMOS/MIRRI levels and within departments about “pilot-friendly” regulations for temporary setups, and share best practices among cities. • Clearly define success metrics, including KPIs such as the number of charges, user satisfaction, partner involvement, and demand for scaling, and systematically track these metrics for future pilots. Broader significance • The public lighting charging solution advances sustainable mobility goals by enabling faster deployment of charging stations in areas with limited parking, removing the “no place to charge” obstacle for residents of apartment buildings, providing a more economical infrastructure solution, and being adaptable to historic or complex spatial settings.
Next steps	• Complete the permitting process and install the boom with a swivel cable at either Liptovský Hrádok or another suitable location to conduct real-world testing for both prototypes. • Develop a short “methodological package” for cities, including a site selection checklist, a sample application to the building authority, and recommendations to the VO, to help reduce barriers to approving similar solutions. • Based on pilot outcomes, create a reference pricing and operational model tailored for small cities, with suggested tariffs and a straightforward business case for 1–5 charging points in a housing estate. • Choose 2–3 additional cities, such as Štrba or Kežmarok, to expand testing and compare results across different street types and housing estates. • Utilize pilot findings in EIT Urban Mobility projects and other initiatives to support scaling the solution beyond Slovakia.
Provider's Reflection	We view this agile pilot as a crucial step bridging the gap between a paper prototype and actual city operations. It confirmed that: • We can safely connect charging to public lighting using current technology. • Local users show interest in the service if it is accessible and affordable. • The main challenge lies in permitting procedures and the capacities of local authorities, not the technology itself.

	The pilot demonstrated that, beyond technological development, we need to support cities with “soft” resources—such as sample documents, procedures, arguments for authorities, and training. Although we couldn't install the boom within the pilot’s timeframe, we consider it a ready solution for further testing in other projects. The results from Liptovský Hrádok serve as a strong reference point and foundation for expanding the solution to other cities in Slovakia and internationally.
Municipality's Reflection	The project provided our first practical experience with electric vehicle charging infrastructure. We value the solution: • utilizes existing public lighting poles, • does not need extensive construction work or new distribution lines, • is suitable for smaller municipalities with limited resources. We understand that electromobility is not yet a common daily practice for most residents. Therefore, we prioritize initiating small-scale pilots that enable the city and its citizens to gain practical experience with minimal investment and risk. Additionally, the project highlighted areas where we need to enhance our internal capabilities, particularly in enabling innovative solutions and in our technical understanding of e-mobility. Going forward, we see potential for expanding similar initiatives in residential areas.
Expert's Reflection	External independent experts did not participate in the pilot project.