



Feasibility analysis and development of on-road charging solutions for future electric vehicles

Overview of assessment rationale for e-Road deployment

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Society-level deployment

1. Dynamic Wireless Power Transfer (DWPT) as an enabler of:
 - Full electrification of transport systems;
 - Modernisation of transport concepts.
2. Feasibility assessment:
 - Will DWPT deliver positive results for CO2 and €?
 - Include all effects over life cycle of vehicle plus infra;
 - Incentives for societal actors? Business case;
 - Alternative technologies.
3. Integration aspects as blockers:
 - Technical: Security, electric grids, supply chains;
 - Social: travel patterns.

Feasibility Assessment Methodology

1. **Initial assessment of major uncertainties:** Societal Feasibility Studies (WP52)
 - To steer the assesment work in:
 - (WP53) road infrastructure & impacts,
 - (WP54) integration of EVs to ICT and energy infrastructure and
 - with regards to (WP55) Business and Societal Consequences
2. **Integrated Life Cycle Analysis (CO2) and Life Cycle Costs (€):**
 - Alignment on deployment scenarios;
 - From road infrastructure (WP53) to vehicles (WP54) to system (WP55).
3. **Business case development:**
 - Including LCC, societal costs (CO2), etc.;
 - From perspective of infrastructure owner, vehicle owner, public administration;
 - Social costs benefit analysis for affecting factors.
4. **Relations with other technical systems:**
 - Road engineering: structural integrity, changes in maintenance;
 - Electrical grid and cyber-physical transporation systems.



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Thank you!



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