



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

SP5 Assessment

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Preliminary evidence from FABRIC SP5

- Aiming at assessing future deployment
 - Under all uncertainties, with technological road map open
- eRoads are technically possible
 - Inductive, conductive, conductive overhead: it is a choice
 - Require significant reduction of battery size for environmental benefits to be obtained.
 - Case for trucks easier than for cars (energy needed!)

But pay attention to uncertainties around:

1. Consequences for road owners / operators
 - Wear and tear & maintenance modes
 - Change of role towards energy provider?
2. Sensitivities for regional effects on traffic patterns
 - Few eRoads can change routing and demand!
3. Lock-in effects of choosing a particular technology
 - Overhead catenary only for trucks, for instance
4. EMF questions need pro-active proof of safety
5. Is the local / regional grid capable of providing the power?

The 'right' questions

1. What goal(s) should an eRoad deployment fulfil?
 - CO2? Local emissions? Battery weight + cost reduction? All?
2. Is the eRoad a public infrastructure or a private solution?
3. How to deal with uncertainty on other tech developments?
 - Particularly improvements in batteries
 - Self-driving vehicles
4. Who is going to pay what for which benefits and drawbacks?

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Thank you!

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