POLICY BRIEF

RECOMMENDATIONS FOR A MASSIVE DEPLOYMENT OF USER-FRIENDLY CHARGING INFRASTRUCTURE IN EUROPE

JUNE 2024

In 2022, 70% of EU transport emissions came from road transport, contributing to air and noise pollution in European cities. To reach **climate neutrality** by 2050 and **tackle air pollution-related deaths**, a transition to cleaner fuels and vehicles is necessary.

The share of electric vehicles (EVs) is growing rapidly in Europe, with electric car registrations in 2022 accounting for 21.6% of total new car registrations. This growth must be **matched by the deployment of a reliable, affordable, and coherent charging infrastructure** throughout a **dense European network** in both urban and non-urban areas.

Despite significant advancements in the deployment of charging infrastructure, EV drivers still face challenges in finding a denser and more reliable charging network. Issues include the **availability of charging points**, the **standardization of technical components** and **signalization**, and the **provision of ad-hoc and contactless payment alternatives**, as identified during USER-CHI user research phase. The higher electricity demand can lead to **grid congestion** during peak charging times.

The revision of the **Alternative Fuels Infrastructure Regulation (AFIR)** that entered into force in April 2024 is a huge step in the right direction. But **decisive efforts are still required** to foster a **European electromobility services market**, including c**ross-border roaming and interoperability**.

This policy brief outlines key recommendations for EU policymakers, national authorities, and local authorities to ensure the massive deployment of user-friendly charging infrastructure across Europe.

RECOMMENDATIONS FOR EU POLICY MAKERS

Mainstream and coherent regulation to send strong regulatory signals

- Enforce coherently integrated regulations in key areas impacting the EV market: vehicle and battery size limitations (Weights and Dimensions Directive), electrification of corporate fleets (Greening Corporate Fleets Initiative), tyre and brake emissions (EU pollutant emission standards/Euro 7), and sales regulations for combustion engine vehicles (CO2 standards for new cars and vans).
- Upholding current regulations, particularly the agreed CO2 standards for cars and vans, is crucial for the incoming European Commission.
- This will offer clear and strong regulatory signals to support long-term investments in the EV market, ensuring confidence and equitable access for all EU citizens.
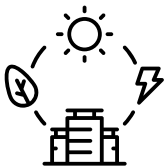
Renewable energy prioritization

- In 2022, 38.7% of electricity was generated from fossil fuels in the EU and 39.4% from renewable energy sources. The EU must set ambitious targets for renewable and decarbonized energy sources to diversify the energy mix and ensure a fully decarbonized electromobility ecosystem.
- This aligns with the revised Renewable Energy Directive, which raises the EU's binding renewable energy target for 2030 to a minimum of 42.5%, with the aim to reach 45%.
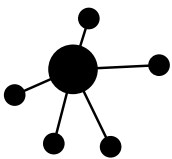
Going beyond

- AFIR lacks specific provisions for deploying infrastructure for shared vehicles and integrating multimodal aspects. Future regulations should promote shared mobility solutions to reduce the negative externalities of individual transport modes. They should support the development of infrastructure specifically for shared vehicles and integrate multimodal aspects into the regulatory framework.

Reduce red tape

- Limit bureaucratic hurdles for operators by harmonizing permitting and administrative procedures across the EU.
- For example, providing EU-wide guidelines as is the case for permitting and grid connection procedures for recharging infrastructure here can significantly aid Member States and local authorities.

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RECOMMENDATIONS FOR NATIONAL AUTHORITIES
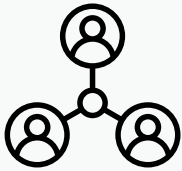
Consultation and stakeholder engagement
- Member States should establish national consultation frameworks that involve regional and local authorities, wider transport and energy sector stakeholders, and the public to inform the development and update of the National Policy Frameworks required by AFIR.
- Cooperation with neighbouring Member States is essential to ensure a cross-border interoperable and reliable charging network.
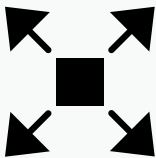
Balanced infrastructure deployment
- Implement the national 'fleet-based' charging targets in a decentralised way, so that deployment of charging follows EV uptake at regional or even provincial level; This approach supports a balanced expansion that meets actual local demand.
- As part of the national implementation of the AFIR provisions, Member States should ensure, that all needed infrastructures are deployed in a territorially balanced way either through public service obligations or positive incentives
- Public financial support should be focused where market failure occurs, such as where infrastructure is needed but underutilized and does not attract private investment.

Be ambitious
- Deploy fast-charging hubs every 60 km along main roads by 2025 – ahead of the 2030 deadline under AFIR
- Extend the targets to other major national roads.
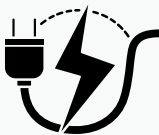
Electricity production and stability
- Maintain the stability of electricity production at the national level to support the increasing demand from electric vehicles.
- Anticipate the benefits of smart recharging and bidirectional charging for the flexibility of the electricity system.
- Ensure that national legislation on electricity does not interfere with the implementation of smart charging on public charging networks.

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RECOMMENDATIONS FOR LOCAL AUTHORITIES

Local authority as a steering entity
- Act as a steering authority to oversee and ensure the deployment of sufficient, future-proof, and accessible charging infrastructure.
- Fully integrate the deployment of charging infrastructure into the Sustainable Urban Mobility Plan (SUMP) as a tool to achieve sustainable mobility targets. Align with existing strategies and priorities from your SUMP and Climate action plans (e.g saving public space, improving air quality, or reducing car usage).
- Calibrate charging infrastructure and deployment targets according to modal shift and traffic reduction goals, recognizing and mitigating the risk of rapid infrastructure deployment not matched by demand.

Planning ahead
- Use Decision Support System (DSS) tools such as the CLICK tool to support and inform the planning and location decisions.
- Choose a strategic approach and consider semi-private and publicly accessible private land in your planning to save public space

Procurements
- Select a procurement model after assessing your financial, technical, and human resources. This procurement model should also help you align with existing strategies and priorities.
- Procure charging points in several phases and monitor their use, reliability and challenges to manage deployment effectively.

Future-proofing
- Deploy charging infrastructure without delay but consider the evolving nature of standards. Contractual agreements should ensure that charging infrastructure operates according to the latest available standards and that hardware and software are upgradable.
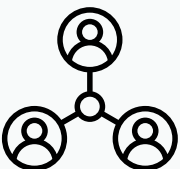
Stakeholder engagement framework
- Engage public and private local stakeholders in an organised and systematic way (e.g., list and map, define role and responsibilities, set regular meetings and communication flow).
- Based on the experience of developing the Turku e-charging master plan, engagement with service providers is advisable as early as possible when setting your deployment strategy.

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