



EU LEVEL EVIDENCE SYNTHESIS ON DECARBONISATION OF TRANSPORT: ADAPTING IT IN THE FINNISH CONTEXT

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Main objectives of Sofi (2019–2021):

- > Develop a new mechanism to the science advice ecosystem in Finland.
- > Promote dialogue between researchers and decision-makers.
- > Facilitate systems levels discussions on future vision of science advice.

Sofi on a joint venture of the four Finnish science academies (*The Finnish Academy of Science and Letters, the Finnish Society of Science and Letters, the Finnish Academy of Technical Sciences and the Swedish Academy of Engineering Science in Finland*). It is funded by the Ministry of Education and Culture.



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Decarbonisation of transport: options and challenges



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<https://easac.eu/publications/details/decarbonisation-of-transport-options-and-challenges/>

THERE IS NO SILVERBULLET

The frame of the recommendations:

1. **avoiding demand** for passenger and freight transport services
2. **shifting** passengers and freight to transport modes with lower emissions
3. **improving** performance through vehicle design, deploying more efficient powertrains, and substituting fossil fuels with low-carbon energy carriers.

1. **Avoid and contain the demand for conventional motorised transport**, and reverse EU policy that 'curbing mobility is not an option'.
2. **Shift** passengers from private cars **to public transport services** (trains, buses, trams, etc.).
3. **Shift** more **freight off the road** and onto railways or waterways.
4. **Improve/introduce regulations** during the transition period to decrease consumer demand for **oversized vehicles and oversized engines**.
5. **Improve/reduce** the average **emissions** of all passenger cars and light duty vehicles during the next 10 to 15 years – a crucial transition period.
6. **Improve/increase** the rate of market penetration of **battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs)** for passenger transport as soon as possible.
7. **Improve/increase** the penetration rate of **lowcarbon electricity** generation into the grid urgently.
8. **Improve and adapt** the design and regulation of **electricity markets and tariffs** that apply to electric vehicles, so that costs are minimized for all consumers.
9. **Improve and simplify** guidance on use of **biofuels, biogas, natural gas and methane** for transport.
10. **Improve/increase** resources for the development of technologies for producing **synthetic fuels**.
11. **Improve/increase** the levels of investments in **information and communication technologies** and autonomous vehicles.
12. **Improve/strengthen** preparations for long-term emission reductions by making long-term policy commitments to **invest in innovation, jobs, skills and interdisciplinary research**.

THE MOST RELEVANT RECOMMENDATIONS FOR FINLAND

Evaluation by four researchers + The Finnish association for nature conservation + The automobile and touring club of Finland

6. **Improve/increase** the rate of market penetration of **battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs) for passenger transport** as soon as possible. (6 mentions)
5. **Improve/reduce the average emissions** of all passenger cars and light duty vehicles during the next 10 to 15 years – a crucial transition period. (5)
1. **Avoid and contain** the demand for conventional **motorised transport**, and reverse EU policy that ‘curbing mobility is not an option’. (3)
2. **Shift** passengers from private cars **to public transport services** (trains, buses, trams, etc.). (3)
9. **Improve and simplify** guidance on use of **biofuels, biogas, natural gas and methane** for transport. (3)
10. **Improve/increase** resources for the development of technologies for **producing synthetic fuels**. (3)

LET'S PLAY THE BUDGET GAME?

Thank you!

Questions, comments, ideas?

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