



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

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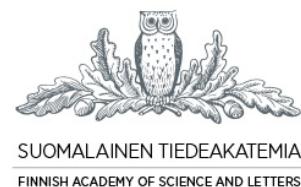
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## Main objectives of Sofi (2019–2021):

- 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.





## Decarbonisation of transport: options and challenges



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Science Advice for the Benefit of Europe

<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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