

IEA-Advanced Motor Fuels ANNUAL REPORT

2019

Annex 59



Annex 59: Lessons Learned from Alternative Fuels Experience

Project Duration	April 2019 - September 2020
Participants	Austria, China, Finland, Japan, Sweden, United States
Task sharing	
Cost sharing	No cost sharing
Total Budget	~€140,000 (~\$155,000 US)
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Purpose, Objectives and Key Questions

Decarbonizing the transport sector is one of the key goals of national and international climate change mitigation policies. Alternative fuels and propulsion systems are of particular importance in reducing GHG emissions from this area. Many countries are actively seeking to increase the share of renewable energy sources in the transport sector.

However, experience with various attempts to introduce alternative fuels and vehicles to the market has shown that this is not always successful. Several participants in the AMF TCP have therefore proposed an annex on lessons learned from market launch attempts.

The questions that this project should answer are:

- Which factors determine whether the market launch of alternative fuels and vehicles will succeed or not?
- Can success factors and pitfalls, lessons, and recommendations for better action be deduced from the experiences of different countries in the last decades?
- How can people involved in the development of market introduction measures be supported?

Activities

To answer these questions, Annex 59 analyzed particular case studies that take into account the specific framework conditions for each country. The first step was to identify relevant case studies for each participating country.

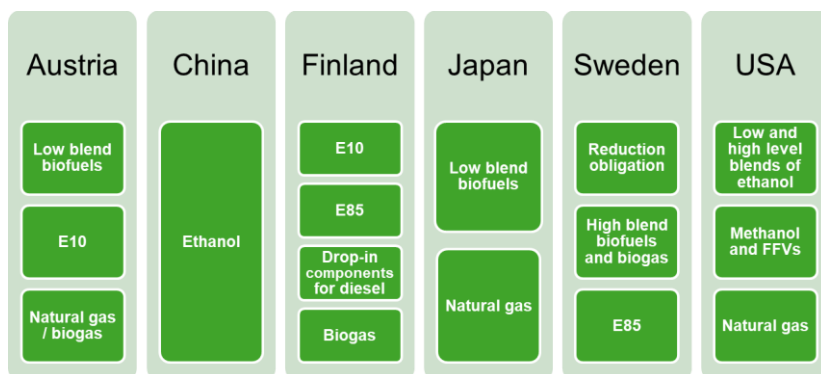


Fig. 1 Overview of the defined specific case studies.

Austria, China, Finland, Japan, Sweden and the United States collected data and information on past market introduction case studies and described these according to the developed template. In addition to the descriptions, relevant stakeholders were interviewed and their insights were collected.

The case studies' drivers for market implementation, country-specific circumstances, measures taken, and stakeholders involved were checked against the result of the market implementation as part of the analysis. Success factors and show-stoppers as identified in the case study descriptions were supplemented with the results from analysis by the annex.

Results will be discussed in an expert workshop with experts from and outside the AMF TCP. Based on the results and discussions of the expert workshop, the annex determined the final lessons learned and recommendations, as well as policy briefs and key messages.

Key Findings

Stakeholder interaction

One of the first insights of the project was the complexity of the interaction of the different stakeholder groups. The different groups of stakeholders include automotive industry, motor fuels industry, fuel and vehicle marketers, costumers, government and advocates. For a successful market introduction, the major concerns of all these groups must be addressed and it is beneficial that major issues are not overlooked. Benefits for all stakeholders need to be developed.

Implementation barriers

There are many implementation barriers which can occur within, prior to, or after market introduction of alternative fuels. The findings from the country case studies in the AMF Annex 59 project were clustered into five groups of implementation barriers: Technical issues/Infrastructure, Politics/Authorities, Costs/Economics, Consumers/Public, and Country Specific Barriers.

Importance of policies

Policies are a very important instrument for transitioning the future transport system. A constant political driver is necessary to overcome the peak of implementation barriers. Policy measures need to be strong, comprehensive, and developed with a long-term perspective.

Main Conclusions

Consistent policy and integration of all stakeholders are both necessary to overcome the peak of different implementation barriers for a successful market implementation of alternative fuels and propulsion systems.

Publications

Andrea Sonnleitner, “Lessons Learned from Alternative Fuels Experience,” Presentation at the CEBC Central European Biomass Conference, Jan. 24, 2020, Graz, Austria.