

IMPLEMENTING AGREEMENT FOR ADVANCED MOTOR FUELS STRATEGIC PLAN 2020–2024





AMF TCP Strategic Work Plan 2020-2024

AMF is one of the actors putting transport on track to sustainability and reducing the environmental impacts from transport. Established in 1984, AMF has a strong international network that serves to foster collaborative research, development, and deployment (RD&D) and to provide unbiased information on clean, energy-efficient, and sustainable fuels and related engine and vehicle technology.

Vision of AMF

Advanced motor fuels, applicable to all modes of transport, significantly contribute to a sustainable society around the globe.

AMF brings stakeholders from different continents together for pooling and leveraging of knowledge and research capabilities in the field of advanced and sustainable transport fuels. Our cooperation enables an exchange of best practices. With our broad geographical representation, we are able to take regional and local conditions into consideration when developing policy briefs and facilitating deployment of new fuel and engine technologies.

Mission of AMF

The mission of AMF is to advance the understanding and appreciation of the potential of advanced motor fuels towards transport sustainability. We provide sound scientific information and technology assessments facilitating informed and science-based decisions regarding advanced motor fuels on all levels of decision-making.

Internationally, there are several fuels-related organizations. However, these organizations are solely focused on a specific fuel or group of fuels — for example, alcohols, natural gas, liquid petroleum gas, and synthetic fuels. In addition, there are organizations promoting electro-mobility. In the field of transport fuels, AMF is the only internationally recognized, technology-neutral clearinghouse for fuels-related information.

AMF has the following objectives:

1. Expand our network and continue our fruitful contributions to R&D,
2. Strengthen the collaboration with other topically closely related TCPs
3. Continue to involve industry in our work
4. Encourage activities on all modes of transport and assess the optimum allocation of different fuels

The AMF group understands that the progress in electric vehicles challenges ICE vehicles to operate with even better efficiency, lower GHG emissions and close to zero local air pollutant emissions. While maintaining our broad scope, AMF will focus on sectors that are difficult to electrify, such as heavy-duty vehicles, ships and aviation. For these sectors, AMF will strive to identify the best available

technologies and their impacts and costs. AMF also desires to pursue synergy with EVs and electrification (such as plug-in hybrid electric vehicles and range extenders).

Work plan 2020-2024

Fuels:

- Performance evaluation (energy efficiency, GHG and air quality) of new fuels and technology platforms
- Focus on fuels substituting diesel (including substitution of marine fuels)
- (Pre) studies on emerging fuels (such as electrofuels, ammonia and alternative aviation fuels)

Vehicles:

- Real driving emissions, including deterioration of emission performance over distance
- Efficiency of heavy-duty vehicles (with possible spill-over towards non-road machinery)
- Range extender options for EVs

System analysis:

- Comparison of different energy carriers for transport applications (timeline, impact, cost)
- Assessment of drop-in types of fuels vs. fuels requiring new vehicles and technologies and new infrastructure

Communication and dissemination:

- Provide information on AMF publications on the AMF website
- Provide information on advanced motor fuels on the AMF website and through the AMF newsletter
- Organize topical workshops for exchanging information and deepen understanding

Some of the themes are well suited for cooperation between transport related TCPs (Bioenergy, Combustion, HEV etc.), e.g.:

- Efficiency and emissions: Combustion
- Emerging fuels: Bioenergy, Hydrogen
- Fuels for HEVs and FCVs: HEV and Advanced Fuel Cells
- Lessons learned and deployment of new technologies (several TCPs)

We are also actively seeking cooperation with relevant industries, NGOs, and other stakeholders.

AMF provides technology analysis and policy recommendations to support achieving energy policy and environmental sustainability goals. AMF initiates new activities and generates first hand data, whether through cost sharing, task sharing, or a combination of these two modes. Cost-shared activities enable AMF to quickly react to new developments, if necessary. New Annexes can be initiated either top-down or bottom-up and it takes three contracting parties to start up an Annex. Annex reports and key messages are published on the AMF website immediately after completion, and feed into related IEA publications. AMF thus contributes to IEA's authority on technology analysis, strengthens the IEA's position as a key global clean energy hub, and helps IEA Members and Partner countries to advance the global agenda for energy innovation.