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Summary of open seminar and industry workshop

Author: VTT Technical Research Centre of Finland Ltd

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Introduction

This deliverable summarizes the open seminar and industry workshop arranged by the EMPOWER project to share information on methanol powered fuel cells and gain input on end user needs regarding these applications.

The initial plan in the work plan was to arrange the seminar and workshop in spring 2020 but due to the Covid-19 pandemic, this was postponed to fall 2020 and later changed into a virtual webinar. The first attempt for a webinar was arranged 15 December 2020 but a technical problem prohibited a part of the participants to join the session and it was decided to reschedule the webinar to 14 January 2021.

This report gives an overview of the webinar content, targeted audience, participants and the next steps for communication and dissemination based on this webinar experience.

Webinar contents and participants

The webinar was a scheduled to be a short and efficient one-hour presentation. The audience was encouraged to engage in the discussion and presented their opinions. There were three presentations, which are presented here below in the form of which questions did the presentation try to answer.

1. Introduction of EMPOWER project and its partners
 - How the current project is involved in the discussion about methanol as an energy carrier. What is going to be taken from the laboratory and put in the field.
 - The targets of the project: efficient 5 kW CHP, design for upscaling to 50-100 kW, business case analysis for renewable methanol.
 - Introduction of the partners in the project – the partners' businesses and tasks in the project
2. Renewable methanol - the production and potential applications
 - Production alternatives
 - Thoughts on P2X, how does transport of electricity with methanol compare with other alternatives?
 - The role of renewable methanol to decarbonize the energy system, i.e. effect on the global emissions
3. Methanol FCs in different applications: marine, mining, transport, CHP, etc
 - Operation principle, shown with a clear picture, i.e. methanol tank an fuel cell system and electricity into batteries and electrical motors
 - How does MeOH compare to other fuels in different applications, e.g. battery operated vehicles/working machines?
 - MeOH FC system produces both heat and electricity. Could be of interest as BEV discussions ongoing, lower distance when you heat the cabin.
 - Methanol infrastructure and how to change current infrastructure to cope with methanol, compared with e.g. a hydrogen infrastructure
 - Change in local emissions compared to e.g. diesel for working machines
 - Actors in the field of renewable methanol, including BlueWorld's Renewable Methanol World Map.

The targeted audience was end-users of methanol fuelled fuel cell applications and companies developing products that could be powered by such fuel cells, as well as academia and research institutes. There were in total 37 registered participants from 19 different organizations. The attendees represented companies acting in sectors such as marine, work machine production, telecommunication, chemical and construction industry, as well as research institutes and universities. All the participants were based in Europe.

Next steps

The project plans to arrange at least four events for end-users and other stakeholders. The next event will be arranged when the prototypes or subsystems have been further developed and it small demonstrations are possible. It is also possible to arrange the next event as a subevent to a larger event.

The webinar participants will be contacted and invited to the next event to continue the discussion and present some of the results of the project. It would also be beneficial to involve these participants in the market potential analysis that will be done within the project to gain an understanding of the needs in various industry sectors.