Wednesday, June 15th 2022

# Task 64 E-fuels and end-use perspectives

## E-Fuel mid-term workshop

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Technology Collaboration Programme
by iea

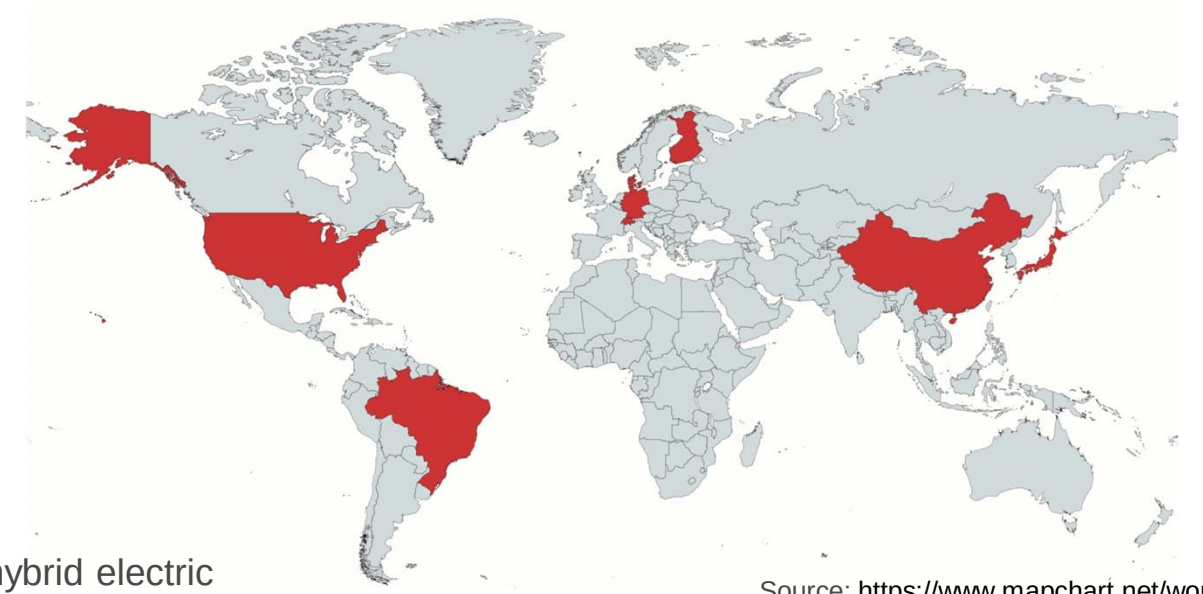
# Goal of the task

- Inventory of ongoing and past demonstration projects around the world, as well as examples of good practice and case studies
- Concise report on the findings from the workshops on different aspects.

The kick-off was on 2 June, the task will last until spring 2024.

# Contributing countries

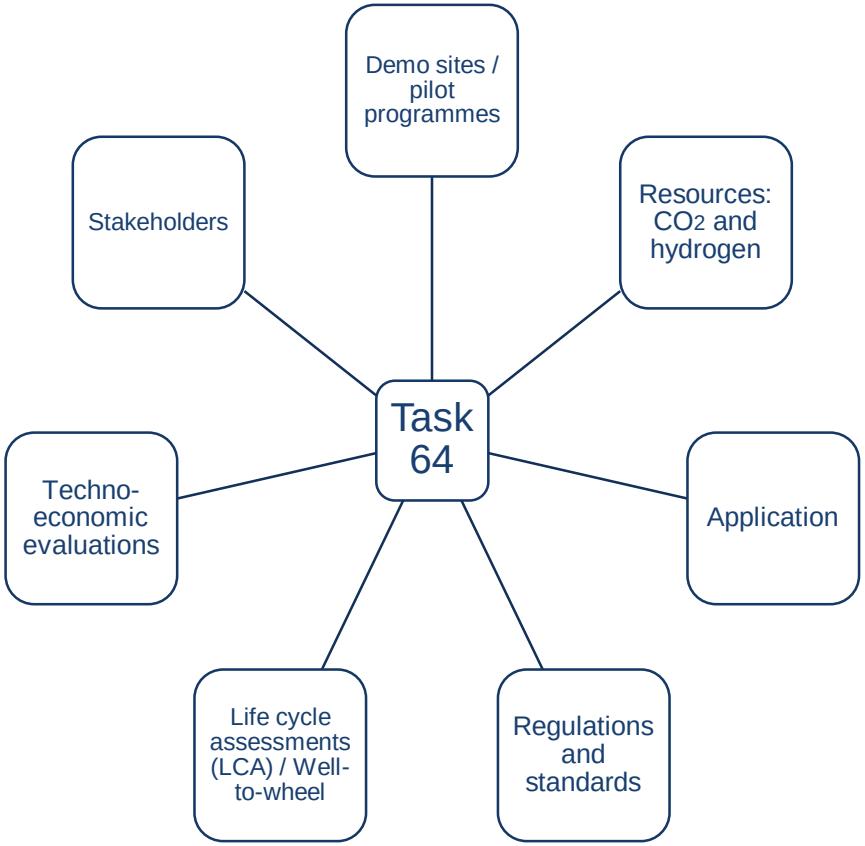
- Brazil
- China
- Denmark
- Finland
- Germany
- Japan
- Switzerland
- USA



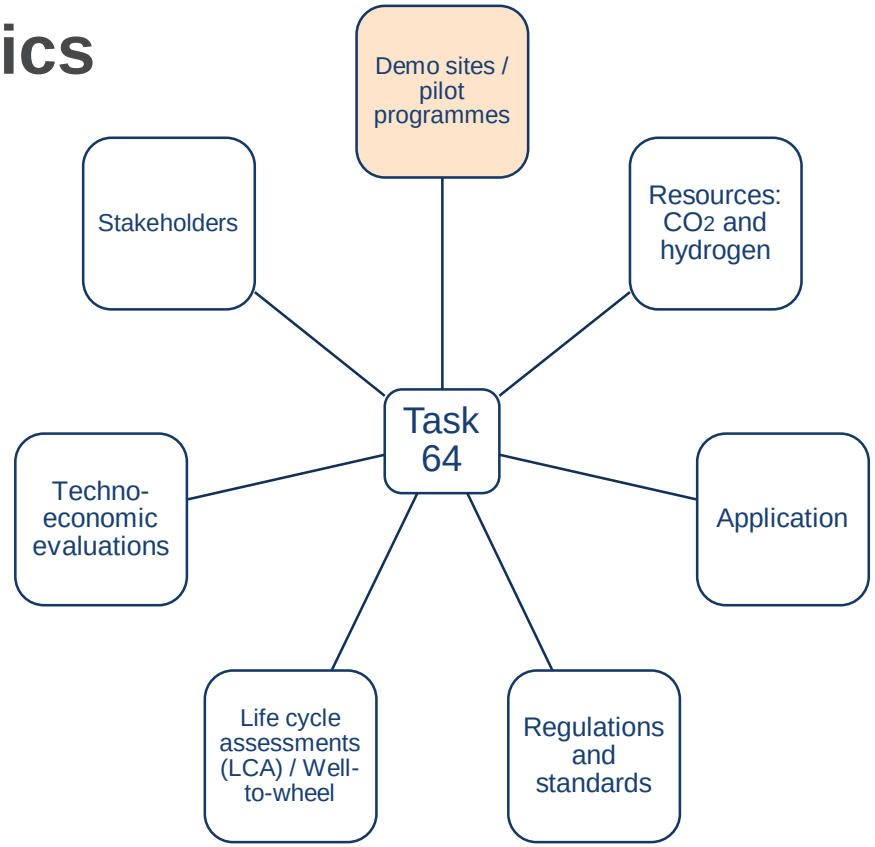
Source: https://www.mapchart.net/world.html

- Collaboration with HEV (hybrid electric vehicles) TCP Task 46 on LCA

# Topics


Demo sites / pilot programmes
Stakeholders
Resources: $CO_2$ and hydrogen
Task 64
Techno-economic evaluations
Application
Life cycle assessments (LCA) / Well-to-wheel
Regulations and standards

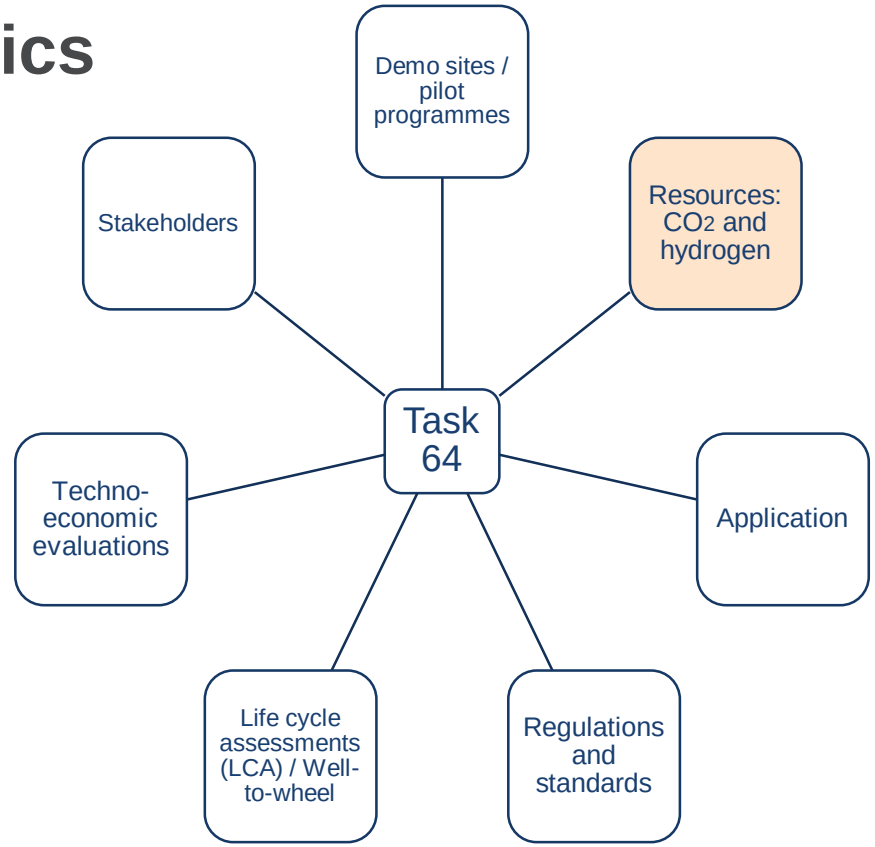
# Topics




Demo sites / Pilot programmes:

- Which demo sites focusing on the development and improvement of e-fuel production technologies exist in the participating countries?
- What were the chosen technology routes and what is their state of development?
- Which technical challenges were faced in the demonstration plants?

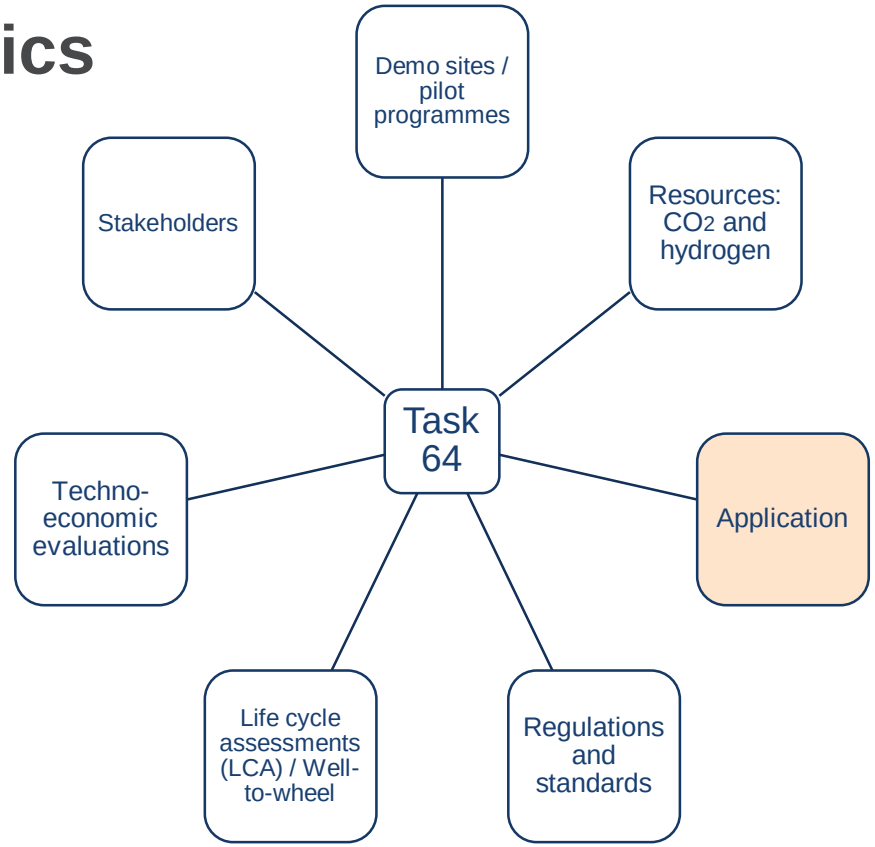
# Topics




Resources: $CO_2$ and $H_2$:

- Which resources of $CO_2$ are promising in key countries?
- What renewable power for hydrogen production is considered promising for the production of e-fuels?
- What is the qualitative assessment of the national feedstock potential for the production of e-fuels?

# Topics

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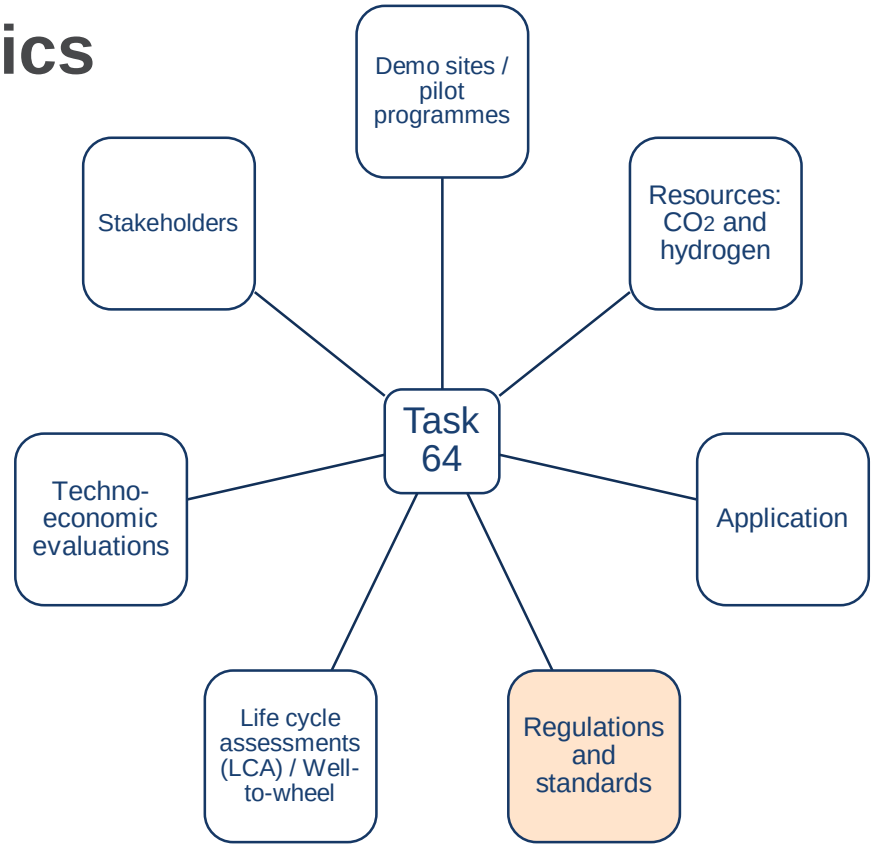
Application side:

- Which experiences were made in the application of e-fuels (aviation, maritime sector and road transportation)?
- Which e-fuels are regarded promising in which sectors
- Which challenges in the use of e-fuels arise?
- What are the challenges of a market introduction of e-fuels?

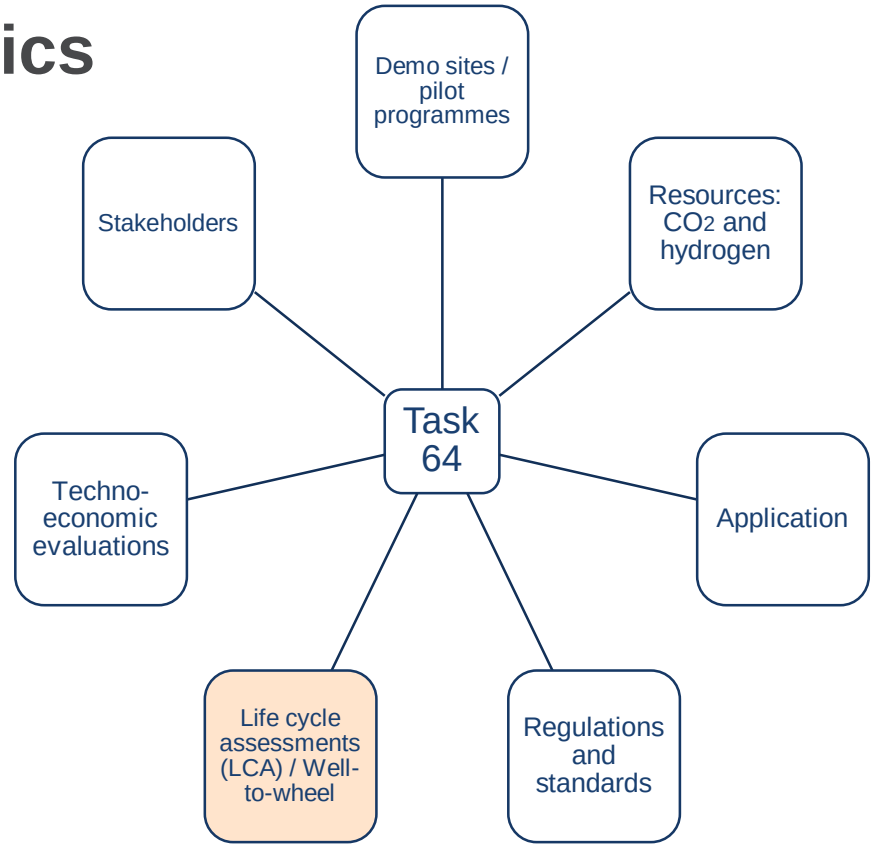
# Topics




Regulations and standards:

- Which standards and/or regulations for the application of e-fuels exist?
- Are there regulations concerning decarbonisation which could foster the implementation of e-fuels on the market?
- What incentives are / will be available in different countries to promote e-fuel production and utilisation?

# Topics

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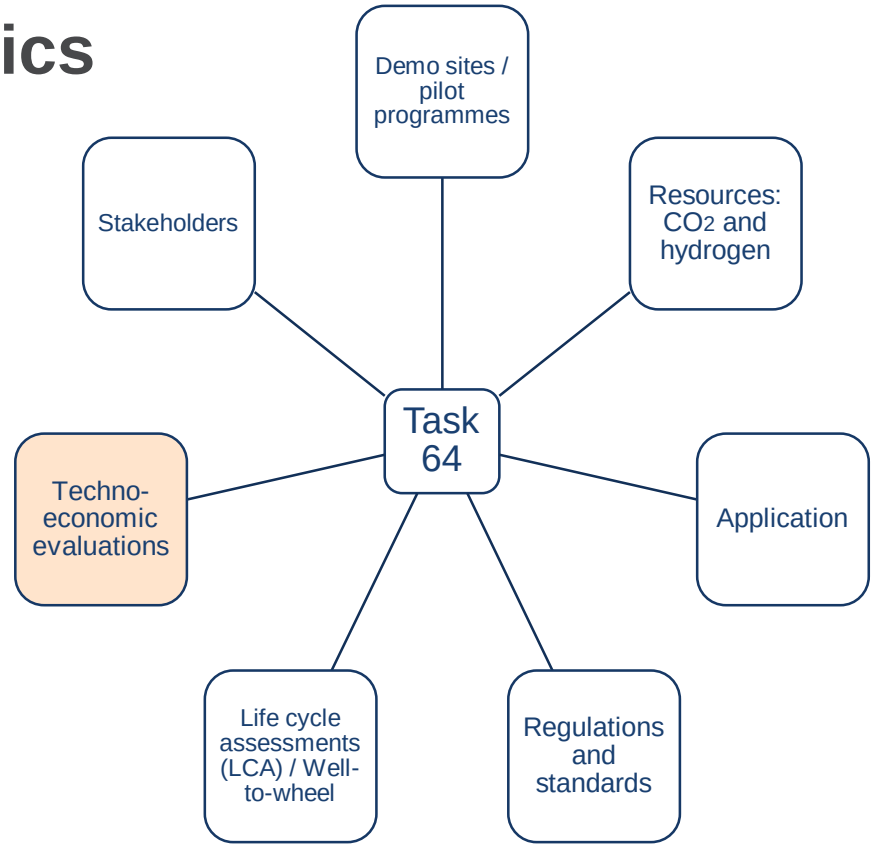
<u>Life-cycle assessments (LCA) / Well-to-wheel (WTW):</u>

- What kind of methodologies for LCA and WTW are used in the different countries/regions (e.g. REDII in EU)?
- What are typical and expected net GHG effects of e-fuel production and utilisation?
- What is the result of other sustainability evaluations related to air pollutant emissions and water consumption?

# Topics

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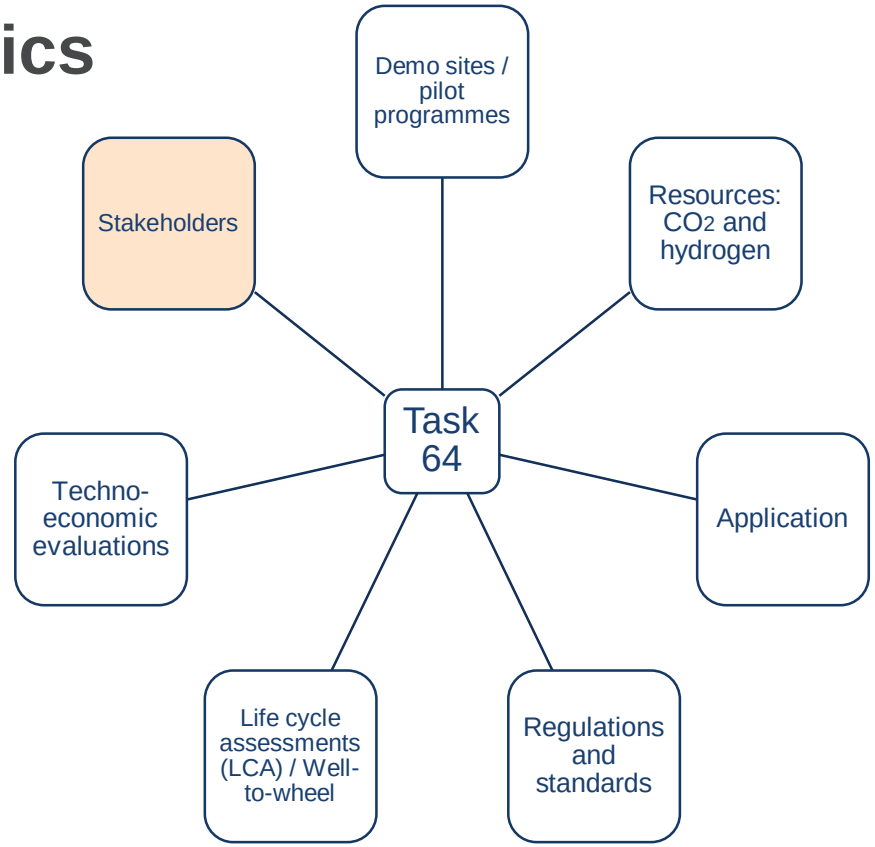
<u>Techno-economic evaluations (TEE):</u>

- What are the costs of the different e-fuel production value chains in the different countries?
- What costs arise on the application side when switching to e-fuels?
- What kind of methodologies for TEE are used in the different countries/regions?

# Topics

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Stakeholders:

- What are the national actors from research, industry and administration along the value chain (feedstock supply, conversion technologies, e-fuel suppliers, e-fuel consumers)?

# Activities

- Information exchange and data collection
  - Workshops / virtual meetings on different topics
  - Contribution of the participating countries: Individual contributions to the workshops (e.g. invitation of experts, presentations, on-site visits) and review of the key-findings afterwards.
- Dissemination of results
  - One public web-seminar at the end of the task to present the key findings.
  - Concise report on the key findings of the workshops.
  - Communication of the web-seminar, concise report and the key findings of each workshop via AMF's social media channels (LinkedIn)

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# Thank you!

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