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**Scenarios for Norwegian H<sub>2</sub> value chain**  
**Publishable summary**

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<b>Deliverable number:</b>	D5.6.2
<b>Deliverable title:</b>	Scenarios for Norwegian H <sub>2</sub> value chain – Publishable summary
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Authors		
Name	Organisation	E-mail
Rahul Anantharaman	SINTEF	<a href="mailto:Rahul.anantharaman@sintef.no">Rahul.anantharaman@sintef.no</a>
Simon Roussanaly*	SINTEF	<a href="mailto:Simon.roussanaly@sintef.no">Simon.roussanaly@sintef.no</a>

\*Mark Lead Author with asterix

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## 1 PUBLISHABLE SUMMARY

The main aim of the ELEGANCY project is to accelerate the deployment of Carbon Capture and Sequestration (CCS) technologies in Europe through H<sub>2</sub>-CCS chain networks. Five country case studies are included as part of WP5.

The Deliverable D5.6.2 provides a summary of the scenarios for the Norwegian case study. To identify these, a workshop was arranged in January 2019, bringing together the different Norwegian partners of the project, to identify the questions that the Norwegian case study will aim to answer and how they should be defined.

The following scenario topics have been identified to be of key interest for the Norwegian case study:

- Level of H<sub>2</sub> demands (quantities and evolutions over time) individual levels for Norway, Europe and Japan/World
- Successful development of a Norwegian CCS infrastructure which would result in synergies and cost-reduction potential for the CCS part associated with H<sub>2</sub> production
- Constraints on development of a H<sub>2</sub> transport infrastructure (development based only on existing transport infrastructures, possibility to develop new pipelines, development of liquefied hydrogen shipping) which may impact the cost of hydrogen transport and in some cases also limit the amount of H<sub>2</sub> which could be exported from Norway
- Cross-boundaries transport of CO<sub>2</sub> legal status which may restraint transport of CO<sub>2</sub> to suitable storage, thus favoring hydrogen as a clean energy carrier from natural gas
- Learning rate level considered which will impact cost-reductions achievable through capacity deployment over the development horizon

These scenarios, combined with the overview of H<sub>2</sub> utilization numbers and CO<sub>2</sub> storage options for the Norwegian case study from D5.6.1 (see Figure 1), will form the basis for the evaluations in the Norwegian case study.

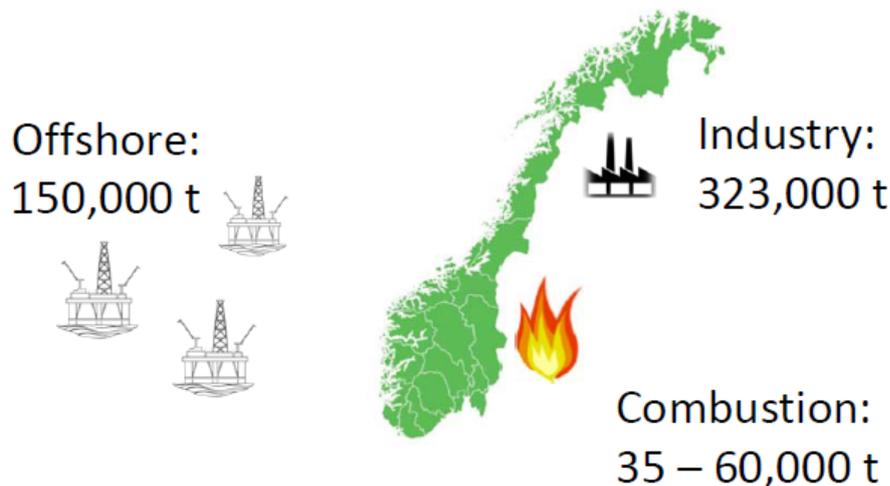


Figure 1 Hydrogen utilization potential in Norway - 2030