



## Market Scenario Planning: Green Methanol - 2023

**Market Scenario Planning: Green Methanol - 2023** is one in a series of reports published as part of NexantECA's Markets & Profitability program.

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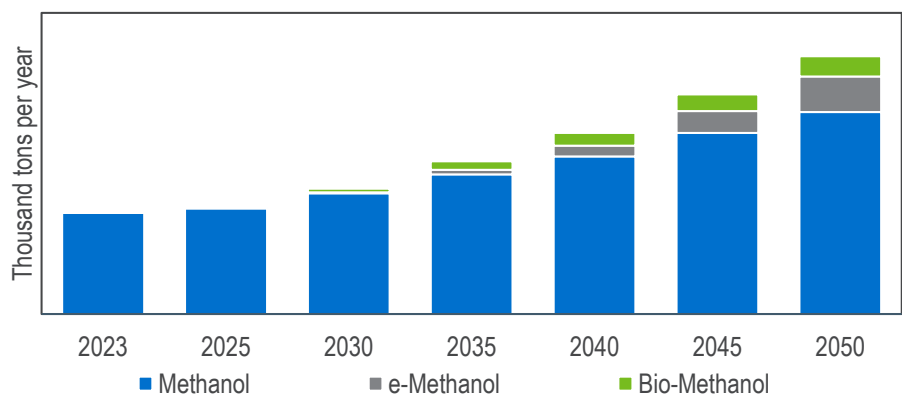
### Report Abstract:

Methanol is one of the largest petrochemical markets by volume and its impact on the environment has therefore entered the spotlight as the global community looks to mitigate climate change by limiting emissions.

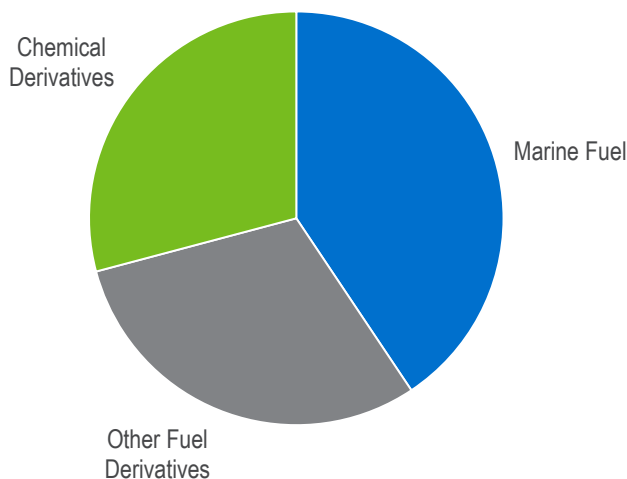
There are three broad routes to make methanol production 'greener' and more sustainable:

- E-methanol involves using renewable power to produce hydrogen via the electrolysis of water. This can then be reacted with captured carbon dioxide, to produce methanol.
- Bio-methanol involves harnessing biomass feedstocks, such as agricultural waste, forestry residues or even landfill garbage to produce methanol via gasification
- 'Blue' methanol involves capturing the emissions from a conventional methanol facility before sequestering them.

**Global Methanol Demand by Type**  
*NexantECA Base Case*



**Global Green Methanol Demand, 2030**



The improved environmental impact of green methanol and policy targeting climate change are driving interest in its adoption for fuel applications.

In 2023, the total green methanol capacity represented less than 0.1 percent of global capacity for methanol.

To accelerate adoption, e-methanol developers must focus on scale up as current world-scale capacity is less than one percent of the capacity for traditional natural gas-based technologies – the contribution of fixed costs to e-methanol production is therefore much higher.

As well as technical limits, this analysis looks at the impact of policy developments and market pressure on the adoption of e-methanol. The number of variables and the emerging status of e-methanol leads to a large uncertainty in forecasting and as a result, NexantECA has developed three scenarios based on varying assumptions for adoption.

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NexantECA defines the three market scenarios as:

- Base: NexantECA's expectation for demand given current knowledge of policy, technical and market drivers.
- Aggressive Adoption: NexantECA's expectation if barriers for adoption are lower – i.e. policy is more ambitious and scale up happens more quickly
- Business as Usual: NexantECA's expectation if barriers for adoption are higher – i.e. policy is less ambitious and scale up is delayed

This analysis will identify the key policy, technology and market drivers shaping these scenarios.

For related analysis, please refer to:

[Profitability and Price Forecasts: Methanol & Derivatives](#)  
[Quarterly Business Analysis](#)

[Market Analytics: Methanol & Derivatives](#)

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Subscription to **Market Scenario Planning: Green Methanol - 2023** includes:

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  - Downloadable data in Excel from the Online Database
- Webinar
- Consultation time with the project team

Customized subscriptions are also available.

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