

12th CIMAC CASCADES 2021

22 SEPTEMBER 2021 | GRAZ, AUSTRIA

**On the Way towards Decarbonization – Green Fuels,
Hybridization and Digitalization in Large Engine Applications**

Development and deployment of a 2-stroke marine engine digital twin

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The topic of digital twins has grown in importance in recent years. Currently, digital twins in the marine sector are primarily used for health monitoring and predictive maintenance. In this context, this presentation will initially focus on the development of an operational engine performance digital twin for large two-stroke marine engines including their particularities. Afterwards, current application developments and examples for the digital twin will be shown and an outlook on future developments will be given.