



# **Introduction of the day 2: Session 2: energy efficiency, performance & decentralised energy systems**

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# Main Gas Turbine Pathways

Energy efficiency, performance & decentralised energy systems

- Increased energy efficiency and performance
  - Increased operational flexibility within emissions regulations (part-load and full load)
  - Centralised more efficient power hubs
  - Alternative GT cycles: Light and compact bottoming cycles (sCO<sub>2</sub>)
  - Air filtration
  - CHP (district heating etc.)
- Hybridisation of gas turbines with renewables and energy storage to provide flexible and dynamic solutions
  - Demonstration of cost-competitive carbon-neutral systems
- Performance and reliability

# Session 2: energy efficiency, performance & decentralised energy systems

Ehrlich 2 boardroom, 1st floor

Chaired by Peter Breuhaus, NORCE

08:30-10:00	<ul style="list-style-type: none"> <li>• <b>sCO<sub>2</sub> bottoming cycle</b>, Marco Ruggiero, Baker Hughes</li> <li>• <b>Thermal energy harvesting</b>, David Sanchez, University of Seville</li> <li>• <b>Combined heat and power technology and market developments</b>, Enrico Bianchi, Ansaldo GreenTech</li> </ul>
10:00-10:30	Coffee break
10:30-12:00	<ul style="list-style-type: none"> <li>• <b>ETN standard development: improving air intake filters in rotary machinery in harsh environments</b>, Dominique Orhon, Total</li> <li>• <b>ETN additive manufacturing WG activities and future prospects</b>, Vladimir Navrotsky, Siemens Energy</li> <li>• <b>Recent improvements on monitoring for reliability and performance</b>, Siavash Pahlavanyali, RINA</li> </ul>
12:00-13:00	Lunch & networking in Spagos restaurant on the ground floor

# Session 2: energy efficiency, performance & decentralised energy systems

Chaired by David Sanchez, University of Seville

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| 13:00-14:20  | <ul style="list-style-type: none"> <li>• <b>Potential technology barriers/ cooperation opportunities for energy efficiency, performance &amp; decentralised energy systems</b></li> </ul>  |
| <b>Plenary session in Döblin 2 boardroom, 2<sup>nd</sup> floor</b> |  |
| 14:30-15:30  | <ul style="list-style-type: none"> <li>• <b>ETN hydrogen techno-economic study adapted to new market conditions</b>, Jon Runyon, Uniper</li> <li>• <b>Session summary reports</b>, Session chairs</li> <li>• <b>Conclusions/final remarks on pathways for the three sectors: utility, industrial, oil &amp; gas</b>, Christer Björkqvist/Rene Vijgen, ETN</li> </ul> |
| 16:00-18:00  | <b>ETN hydrogen working group meeting: Ehrlich 2 boardroom, 1<sup>st</sup> floor</b>   |