

# Efficiency increase of cryoplants by retrofitting with state-of-the-art turbine technology

*Thursday 25 July 2024 14:00 (2 hours)*

Linde Kryotechnik AG is known as a supplier of high quality products in the field of cryogenics. This results in the fact, that still many users are operating helium liquefaction and refrigeration systems that are 30 years and older. Technology has developed and the efficiencies of todays cryogenic plants have increased. Instead of replacing the entire cryogenic plant an upgrade of only dedicated components might be already a benefit and does not involve too high cost.

The most effective method to increase efficiency and consequently improve performance by considering the restrictions of space and accessibility is the use of state-of-the-art turbines.

The new approach presented here combines existing infrastructure with state-of-the-art turbine technology by means of a special adapter. The adapter allows a modification of the turbines without the need to change the inner design of the cold box.

The turbine adapter technology can be used for liquefiers and refrigerators as well as different process mediums like helium or hydrogen.

## Submitters Country

Switzerland

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**Session Classification:** Thu-Po-3.3

**Track Classification:** Tracks ICEC 29 Geneva 2024: ICEC 01: Large scale refrigeration and liquefaction