Integrated design for demonstration of efficient liquefaction of hydrogen (IDEALHY)

Fuel Cells and Hydrogen Joint Undertaking (FCH JU)

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Title:	Industry Audit on Evaluated Process
Authors / Project Partner:	Lars Blum, Lutz Decker, Klaus Ohlig / Linde Kryotechnik AG
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Contacts
lutz.decker@linde-kryotechnik.ch **info@idealhy.eu**

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Publishable summary

In the development and optimisation of an efficient hydrogen liquefaction process in the IDEALHY project, great care has been taken to ensure that the selected large scale process would be capable of being realised using existing or improved components and sub systems.

A detailed technical audit has been carried out by Linde Kryotechnik which shows that the IDEALHY process for a >50 tpd hydrogen liquefier is technically sound and well based on state-of-the-art technology. Although the process contains a number of innovative solutions, the fact that all these "new" systems can be developed out of state-of-the-art reliable technology reduces the resulting risks substantially. None of the discussed risks would prompt a STOP in further process elaboration.

Because of the potentially high investment costs required to build such a large scale plant, some consideration must be given to the level of innovation included in the first plant and the extent of prototyping and pilot scale testing required.

Key words

Industrial audit
Risk
Risk assessment
Risk matrix
Ffrequency classes
Consequence classes

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