



To Whom It May Concern:

Dear Ladies and Gentlemen,

Subject: Call for cooperation with the EU's CryoHub project and applications for 'CryoHub Champions'

As you are known to be one of the foremost professional organisations dealing with refrigeration and food cold chain across Europe and worldwide, we would like to bring to your attention an exciting pan-European research and innovation action. This should be of paramount interest to your member companies as it might dramatically change the future of our metier. Hence, we will be extremely grateful if you familiarise your members with the information detailed below.

The CryoHub innovation project (www.cryohub.eu) investigates and extends the potential of large-scale Cryogenic Energy Storage (CES) and applies the stored energy for both cooling and power generation. By employing Renewable Energy Sources (RES) to liquefy and store cryogens, CryoHub balances the power grid, while meeting the cooling demand of a refrigerated food warehouse and recovering the waste heat from its equipment and components.

As you know, the intermittent supply is a major obstacle to the RES power market. Renewables are fickle sources, prone to overproducing when demand is low whilst failing to meet requirements when demand peaks. As Europe is about to generate 20% of its energy demand from RES by 2020, the adequate RES integration and renewable energy storage throughout the entire food cold chain poses continent-wide challenges.

The Cryogenic Energy Storage (CES) is a promising technology enabling on-site storage of RES energy during periods of high generation and its use at peak grid demand. Thus, the cryogen serves for grid energy storage and is boiled, when needed, to drive a power generator and to restore electricity to the grid. To date, CES applications have been rather limited because of the poor efficiency due to unrecovered energy losses.

The CryoHub project is therefore designed to maximise the CES efficiency by recovering energy from cooling and heating through a RES-driven cycle of cryogen liquefaction, storage, distribution, efficient use and power regeneration. Refrigerated warehouses or factories for chilled and frozen food commodities are large electricity consumers, possess powerful installed capacities for cooling and heating and waste substantial amounts of heat. Such facilities provide the ideal industrial environment to advance and demonstrate the CES benefits.

CryoHub is an intelligent technology capable of converting a conventional refrigerated warehouse or food factory from a simple power consumer to an interactive energy hub, thus providing substantial economic and environmental benefits for both the food refrigeration and energy sectors. **CryoHub has nothing to do with the long-lasting competition between 'mechanical' and 'cryogenic' refrigeration in the food preservation sector.** The project brings together the advantages of both principles and overcomes most of the existing bottlenecks at one go, thereby broadening the market prospects for sustainable energy technologies across Europe.

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More information: www.cryohub.eu

Coordinator: Prof. Judith Evans (j.a.evans@lsbu.ac.uk)



The CryoHub project consortium, in coordination with the European Commission, is privileged to invite you hereby to become part of one of the most fascinating innovation actions in the food refrigeration sector over the recent decades. Join us ASAP and apply for the status of a 'CryoHub Champion' company by completing the 5-minute CryoHub Mapping Survey (www.surveymonkey.co.uk/r/cryohub) and expressing your potential desire to host free Case Studies or the CryoHub Demonstration Plant.

If you wish to:

- * boost your company sustainability credentials;
- * gain free publicity and a green image across Europe;
- * be recognised as an environmental pioneer in a high-profile EU project;
- * tune into cutting-edge energy storage research;
- * identify methods for energy saving and grid feed-in;



does not miss to apply ASAP for the status of a 'CryoHub Champion', as detailed in www.surveymonkey.co.uk/r/cryohub

Those who properly complete the survey will be recognised as 'Bronze' CryoHub Champions. Applicants for Case Study and Demo Plant hosts will further be contacted to investigate their preferences and local conditions on site. Selected hosts for Case Studies and the Demo Plant will be distinguished as 'Silver' and 'Gold' CryoHub Champions, respectively. All CryoHub Champions will be rewarded with a Certificate and publication of their company logo in a dedicated section of the CryoHub website (www.cryohub.eu).

Very truly yours,



As Prof. Kostadin FIKIIN
Work Package Leader
Technical University of Sofia (Bulgaria)



Prof. Judith EVANS
Project Coordinator
London South Bank University (UK)

