**Call for proposals for cooperation projects on green hydrogen with EUREKA countries**

**Pitch of project ideas**

**Part 2: Technical / Content**

**Please send part 1 (company information, separate document) and part 2 to: eureka-green-hydrogen(at)dlr.de (until 30th September 2021)**

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| **Country of your company/institution** | Germany |
| **Potential target country/countries**  (if known) | Belgium (Flanders) Canada Finland Germany Ireland The Netherlands Portugal Spain Open |
| **Type of your company/institution** | SME Large enterprise Mid cap Research and Technology Institute University Other: |
| **Type of partner sought** | SME Large enterprise Mid cap Research and Technology Institute University Other: |
| **Which competences or knowledge should the partner bring in?** | Electrolysis, Generation of electricity, Logistics |
| **What is his role or what are his tasks in the envisaged project?** | Production of hydrogen, logistics partner |
| **Does a consortium exist already?** | No |

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| **Technical Area Keywords of your project idea** (multiple selection possible)  **N.B.:** For entities from Germany, please consult [Call for proposals for cooperation projects on green hydrogen with EUREKA countries - BMBF](https://www.bmbf.de/bmbf/en/home/_documents/call-for-proposals-for-cooperation-projects-on-green-hydrogen-with-eureka-countries.html) for details.  Material Infrastructure Sensors Logistics Monitoring, control Efficiency Safety Integration AI Digital control Grid Interface Storage Transport routes, analysis Certification Economic aspects Regulatory frameworks Market models Acceptance Value chain Processes Manufacturing Usage Design Other: |
| **Non-German entities** (multiple selection possible)  H2 production/generation  Batteries and fuel cells  Storage  Other (please specify): |

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| **The Pitch: What do you want to do?** (1200 characters max.) Please briefly describe:  The production of hydrogen by electrolysis allows to exploit fluctuations in the power grid to generate hydrogen with the surplus energy. However, the production can be subject to strong fluctuations due to boundary weather conditions. Since not all areas are connected to the natural gas grid and large quantities of hydrogen cannot be fed into it, the hydrogen currently has to be distributed by trucks. The challenge here is that the demand for hydrogen also fluctuates due to the currently still low demands.  In this project, the distribution of hydrogen is to be optimized by means of an intelligent logistics concept, which takes into account both the fluctuations in production as well as consumption by means of model-predictive forecasts. The goal is to only require a small fleet of transport vehicles and intermediate storage facilities in order to keep costs low. Furthermore, the purity of the hydrogen must be maintained under all circumstances so that it is also suitable for use in fuel cells after transport. The logistic concept should be demonstrated in a real world application considering at least one source of hydrogen from renewable energy and multiple consumers. |