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Introduction eFarm project

Germany's largest green hydrogen mobility project in operation

eFarm in North Friesland represents the **entire value chain** from production to use of 100% green hydrogen

The project won the „**German Renewables Award**“ 2020 as well as the „**German Mobility Award**“ in the category of change

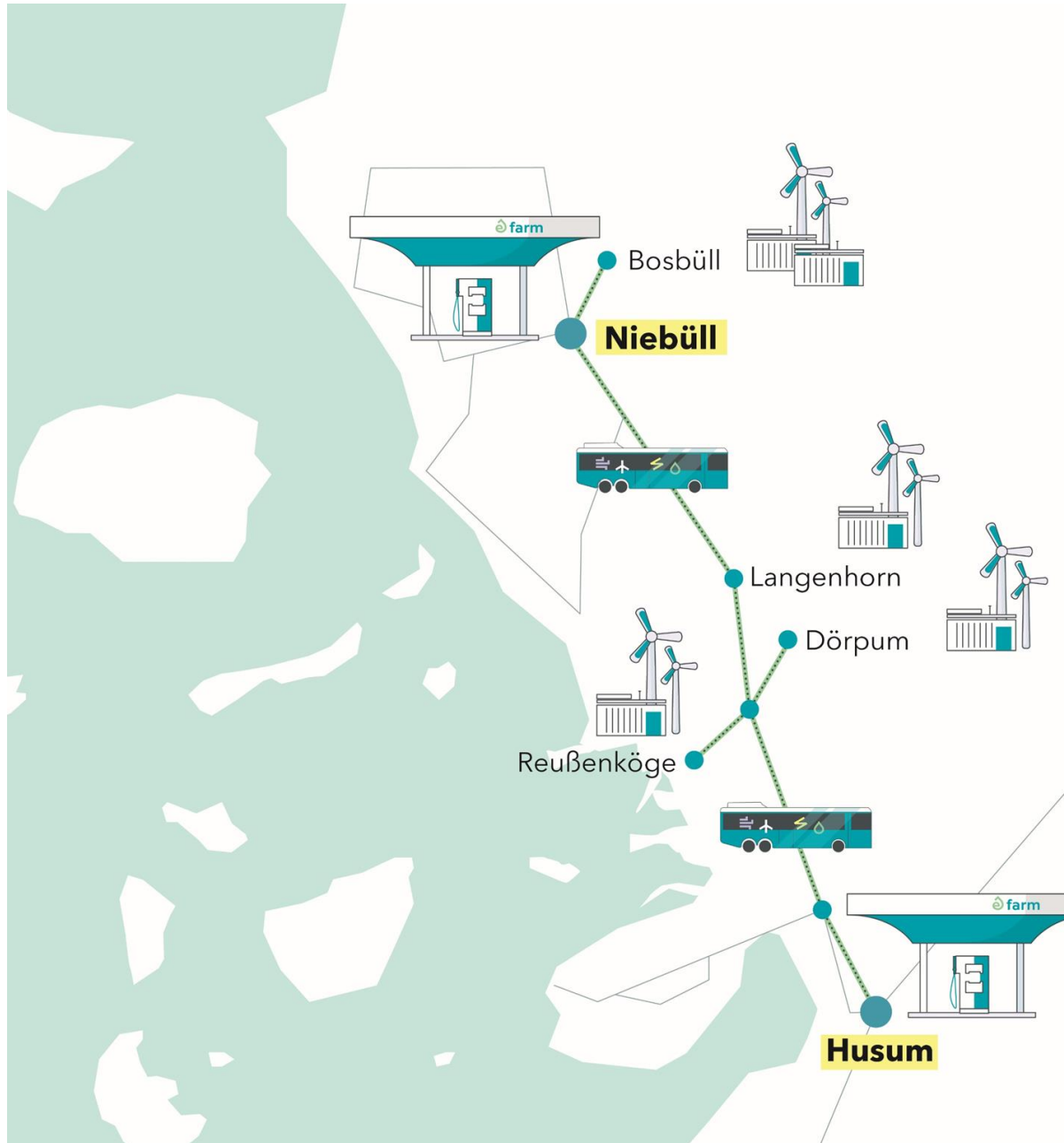


Dimensions of the project

- **2 H2** filling stations
- **5 H2** production locations at wind parks
- **1,125 MW** total output
- **7 mobile storage** devices for H2-transport
- **2 fuel cell buses** for public transportation
- **+60 fuel cell cars**

Deep dive: Major steps of the value chain





Financing & funding

Investments of 16 mio. to be collected:

- 50% support through **NIP II by BMDV**
 - **Prerequisite** to obtain further investments
- 30% through loans, provided by **3 banks**
 - **Solid business case** and long-term loans as success factors
- 20% in equity, provided by a consortium of **20 regional shareholders**
 - Key for **regional acceptance** by important stakeholders

Stakeholder commitment & public acceptance

- **Stakeholders as shareholders**
 - Regional participation & **value creation**: >3,000 citizens as “indirect” shareholders
 - Avoidance of shutdowns for wind parks **boosts approval**
- **Integration into local structures**
 - The district included new technologies in **transport tenders** & covers surplus costs
 - Local workshops included to establish **service network**
 - Buses generate **public visibility** e.g., as attraction for school children



Challenges in the approach:

- High number of shareholders requires **coordination & participation**
- **Extensive approval procedures** on federal and municipal level to be passed

Key success criteria for the eFarm project

- **Create hydrogen demand** to ensure solid business case and secure financing
- Foster **regional value creation** to increase stakeholder engagement & commitment
- **Mitigate permit & funding challenges** by proactive approaches and high level of transparency



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Hydrogen production site in Bosbüll



Mobile hydrogen storage in Reußenköge, Nordfriesland



Hydrogen refuelling station in Niebüll, Nordfriesland