

Regional Factors Contributing to the Emergence of the Green Hydrogen Economy

Laura Victoria Brock
Dr. Yuri Cassio Campbell Borges

Background

In recent years there has been an upswing in climate action in European and Global politics. Following the proposal of the European Green Deal, the German government produced their German Hydrogen Strategy in 2020. Building a resilient hydrogen economy throughout Germany is viewed as a key method of achieving climate neutrality by 2050 and offers enormous economic growth potentials.

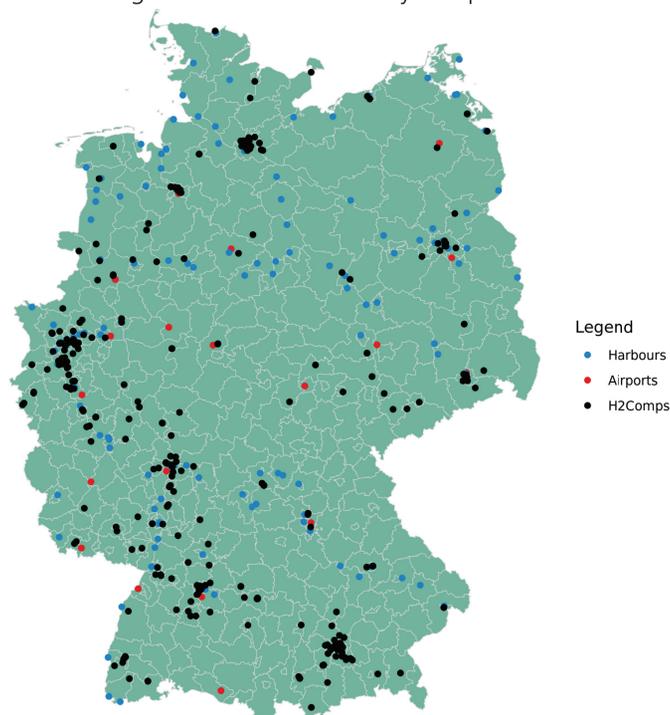
Project Description

The aim of the project is to define regional characteristics for areas that have previously attracted the green hydrogen industry in Germany. This research can help identify strategic locations for industrial players that will allow them to profit from synergies developed within regions, as well as help policy makers determine which factors are key to attracting future oriented industries such as the green hydrogen industry.

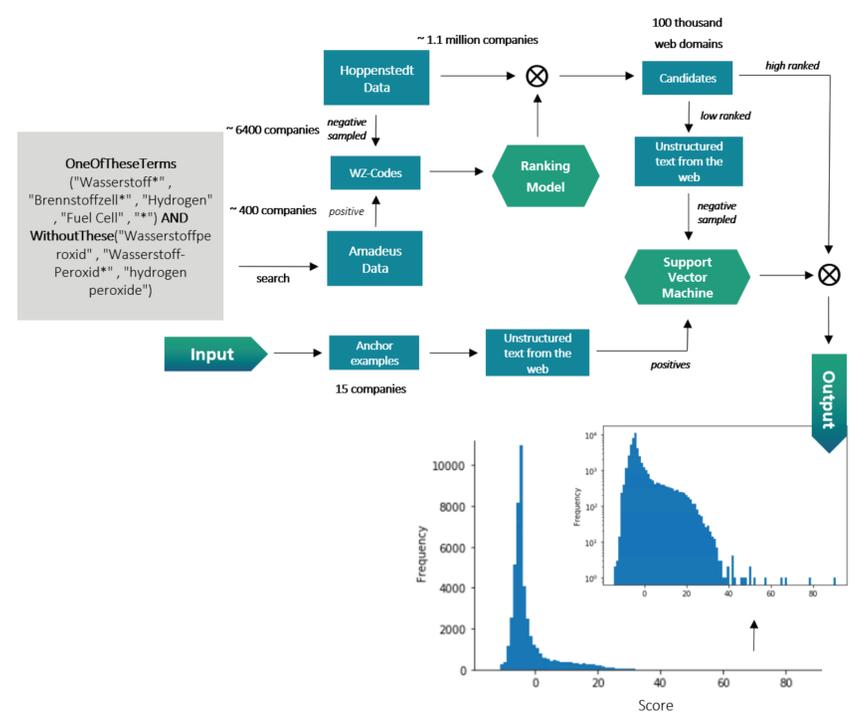
Methodology

For the first stage of the analysis the Fraunhofer IMW created an algorithm that sorts through the Hoppenstedt database of 1.2 million websites to find firms that produce electrolyzers in Germany (Bisnode Deutschland GmbH, 2021). The initial results will be manually verified and compared with data retrieved from other data bases.

In the second stage, these results will be evaluated using the panel data analysis. The number of firms per region will be compared to factors determined in previous research to contribute to, industry agglomeration and the attraction of foreign direct investment. These factors include policy interventions, industrial structure, access to transportation infrastructure, availability of qualified labour and regional access to university and public research.



Location of hydrogen electrolysis firms in Germany in relationship to access to transport
Source and picture credits: Own representation based on www.hoppenstedt-firmendatenbank.de (23.8.2021).



Hoppenstedt Algorithm Process Diagram
Source and picture credits: Own representation.



Laura Victoria Brock

Economics of Technology and Management
Division
Center for Economics of Materials CEM
Phone +49 345 131886-133
Fax +49 345 131886-9133
laura.victoria.brock@fraunhofer.de
Fraunhofer Center for International
Management and Knowledge Economics
Neumarkt 9-19
04109 Leipzig
www.imw.fraunhofer.de/en

**Dr. Yuri Cassio Campbell
Borges**

Data Science for Innovation
Phone +49 345 131886-241
Fax +49 345 131886-9241
yuri.cassio.campbell.borges@imw.fraunhofer.de
Fraunhofer Center for International
Management and Knowledge Economics
Neumarkt 9-19
04109 Leipzig
www.imw.fraunhofer.de/en

