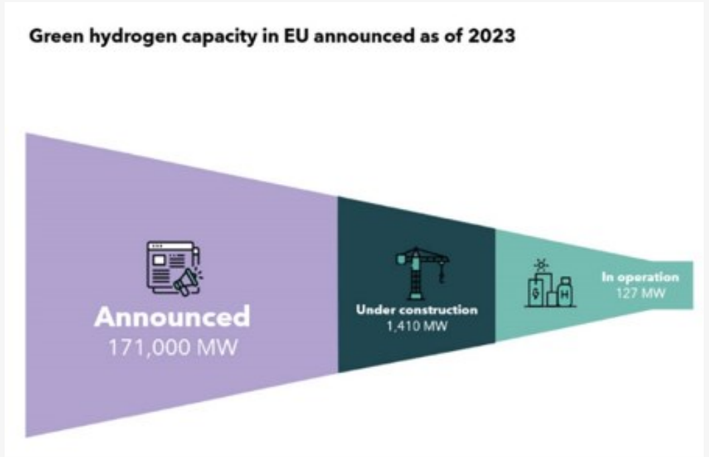
H2 Digital

The digital backbone for the hydrogen economy

Challenges in the H2 market

The ramp-up of the hydrogen market requires Transparency and Commitment



Lack of transparency about H2 supply and demand

Energy suppliers & DSOs need a clear planning basis for hydrogen

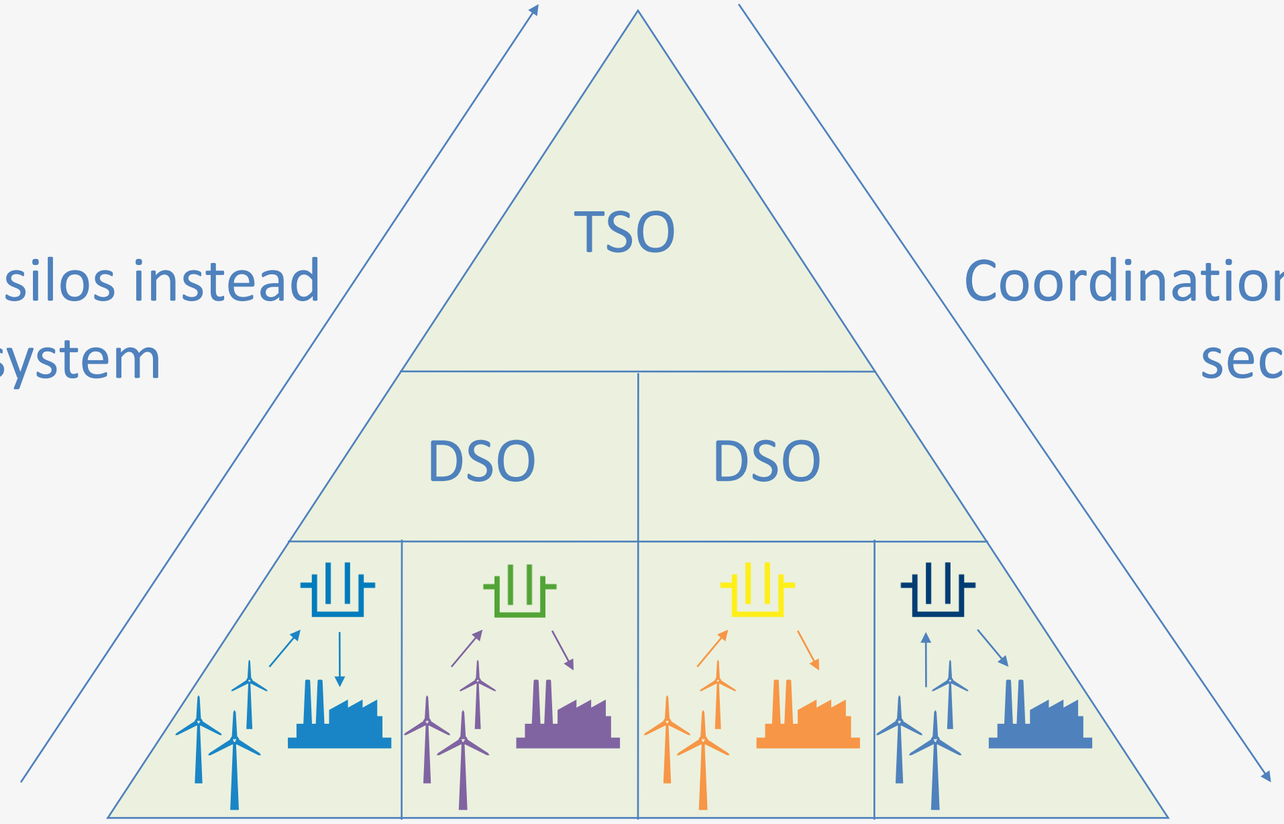
- Reliability and timeline to connect to the **TSOs' H2 backbone**
- **Hydrogen needs of industrial customers** (production and/or consumption)
- Inputs from other queries, such as municipal energy planning, can be used for this purpose

Industrial customers must **actively** participate in the transformation to H2

Traders would also benefit from greater transparency for the development of a liquid H2 **market**

One platform is needed to map the H2 market

Today: individual silos instead of an integrated system



Coordination is needed for security of supply

H2 Producers, Consumers, Storage

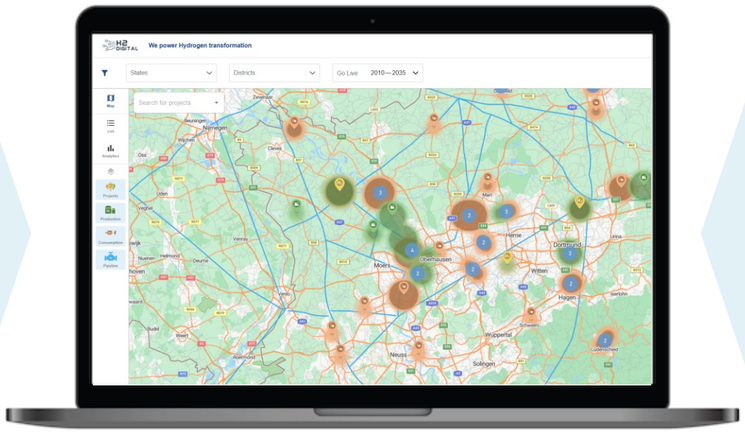
Vision: One H2 platform for all

TSOs:
Network planning/construction

DSOs & Utilities:
Market/Network Dev

Industry:
H2 Sources & Sinks

Traders:
Supply & Demand Matching



Large Energy Producers:
dynamic RE/H2 Production

Certifiers:
Tracking of H2 Streams

Hardware Providers:
Visibility & Sales

Politics & Associations:
Strategies & Cooperation

One "App Store" for Hydrogen

H2 DIGITAL

H2 DIGITAL

Apps

- Sizing & Costing
- Renewable Energies
- H2 Demand & Supply
- Certificates (CO2 etc.)
- H2 Network Planning
- Sales/CRM Connect
- Map Whitelabelling
- Content Management
- Analytics/Dashboards
- Collaboration
- Artificial Intelligence
- More

Platform

H2 Database:
Companies, Projects, Networks, Supply & Demand

Infrastructure on Microsoft Azure:
Security, Scalability, Multi-Languages

Microsoft Managed Partner

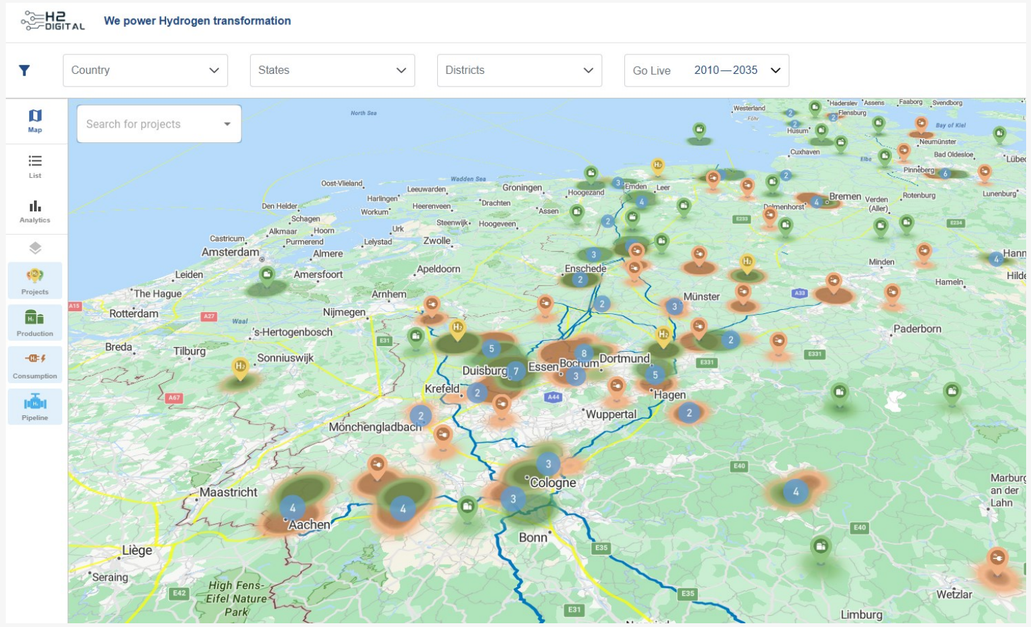
OGE

Overview H2 Digital

Existing solutions & added values of the platform

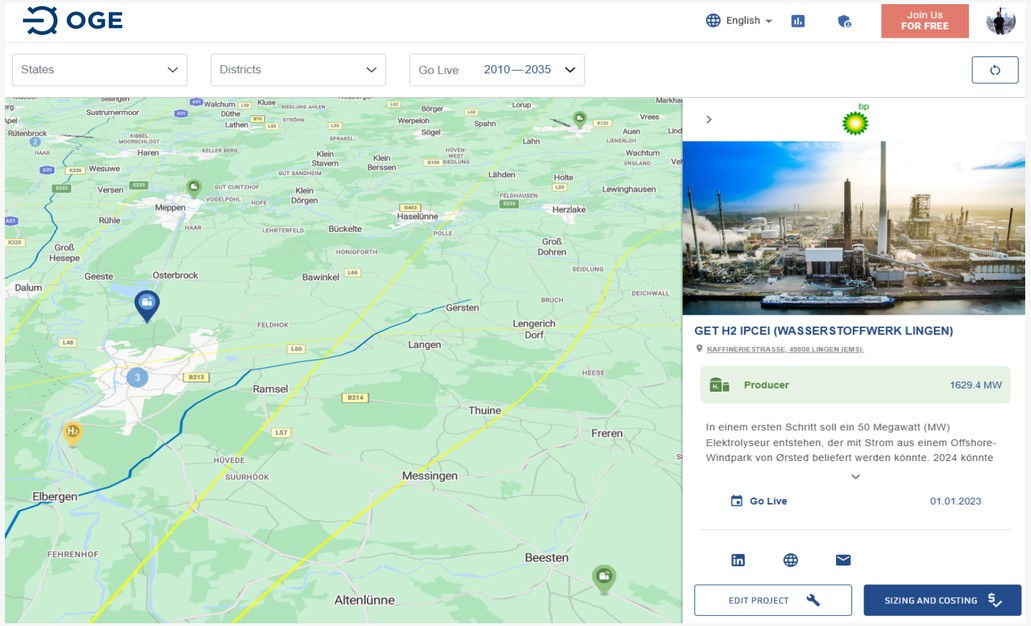
Platform Values

Public & Private on a single platform



Public

- Graphical overview of publicly registered H2 projects and pipelines over time
- Analytical evaluations of data on H2 production and consumption
- Filters and dynamic views of projects



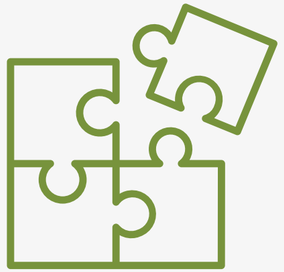
Private

- Secure access via Microsoft User Management
- Access to your own database and services used: demand queries, analytics, network planning, content management, sales connectivity
- Optional: whitelabelling of the platform with embedding on your own website

Platform Values

Integrated

- Resources and cost savings through joint development
- Uniform data storage and data quality
- Everything for hydrogen in one system – no isolated solutions
- Integrated into existing IT system landscape



Modular

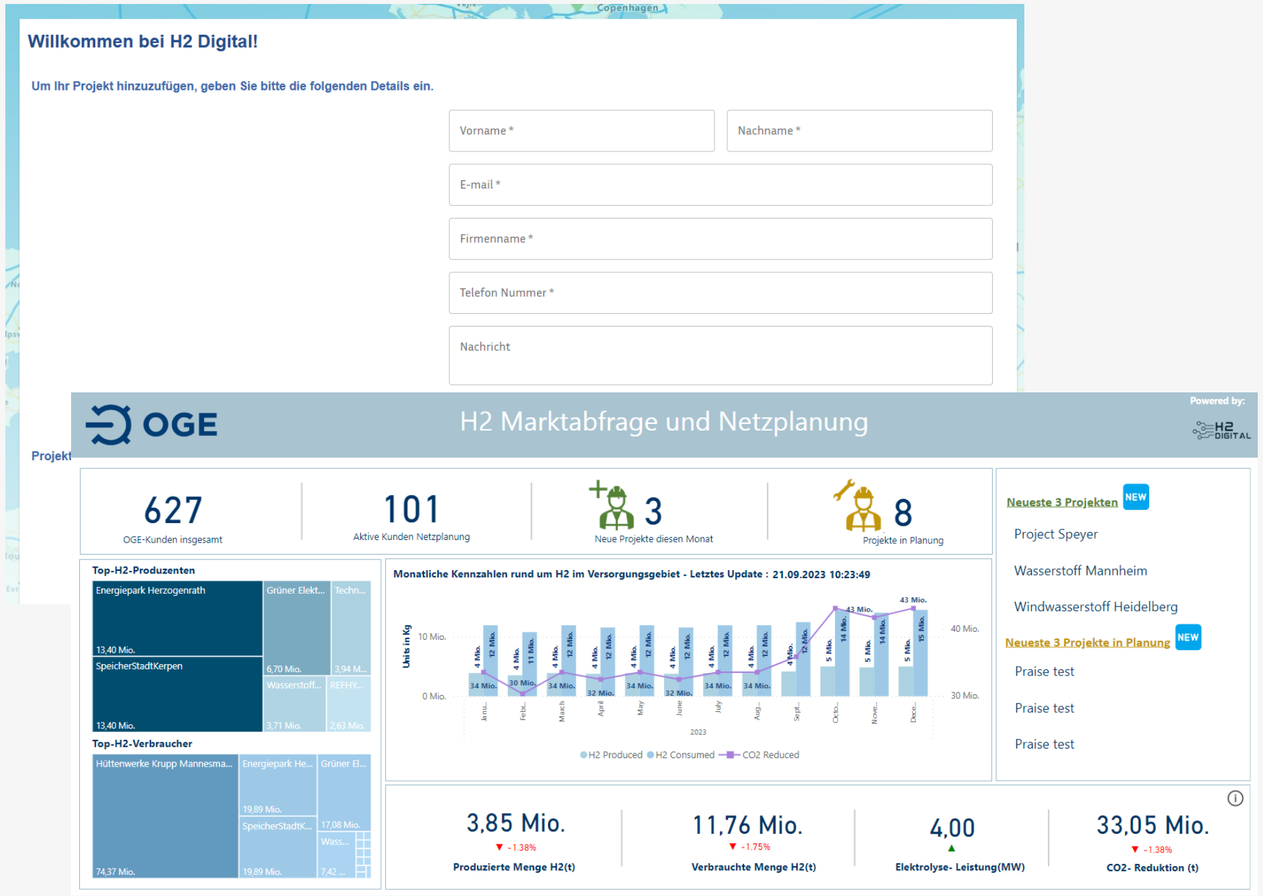
- Use the services you need to develop your market
- Provision of new services possible immediately with little training effort
- A central basis for managing and analyzing data
- Dynamic access for registered users and customers with Microsoft User Management

Future-proof

- Scalable architecture on Microsoft cloud infrastructure
- Further development of the H2 Digital platform by existing development team
- Partnership cooperation for lasting further development

H2 Digital

Use of the platform to query DSOs and their customers



- Digital workflow for querying transport customers in hydrogen
- Replace existing separate queries and bundle them into one platform
- Central data management by a neutral service provider
- Control over the input and updating of the queried data by TSOs and DSOs

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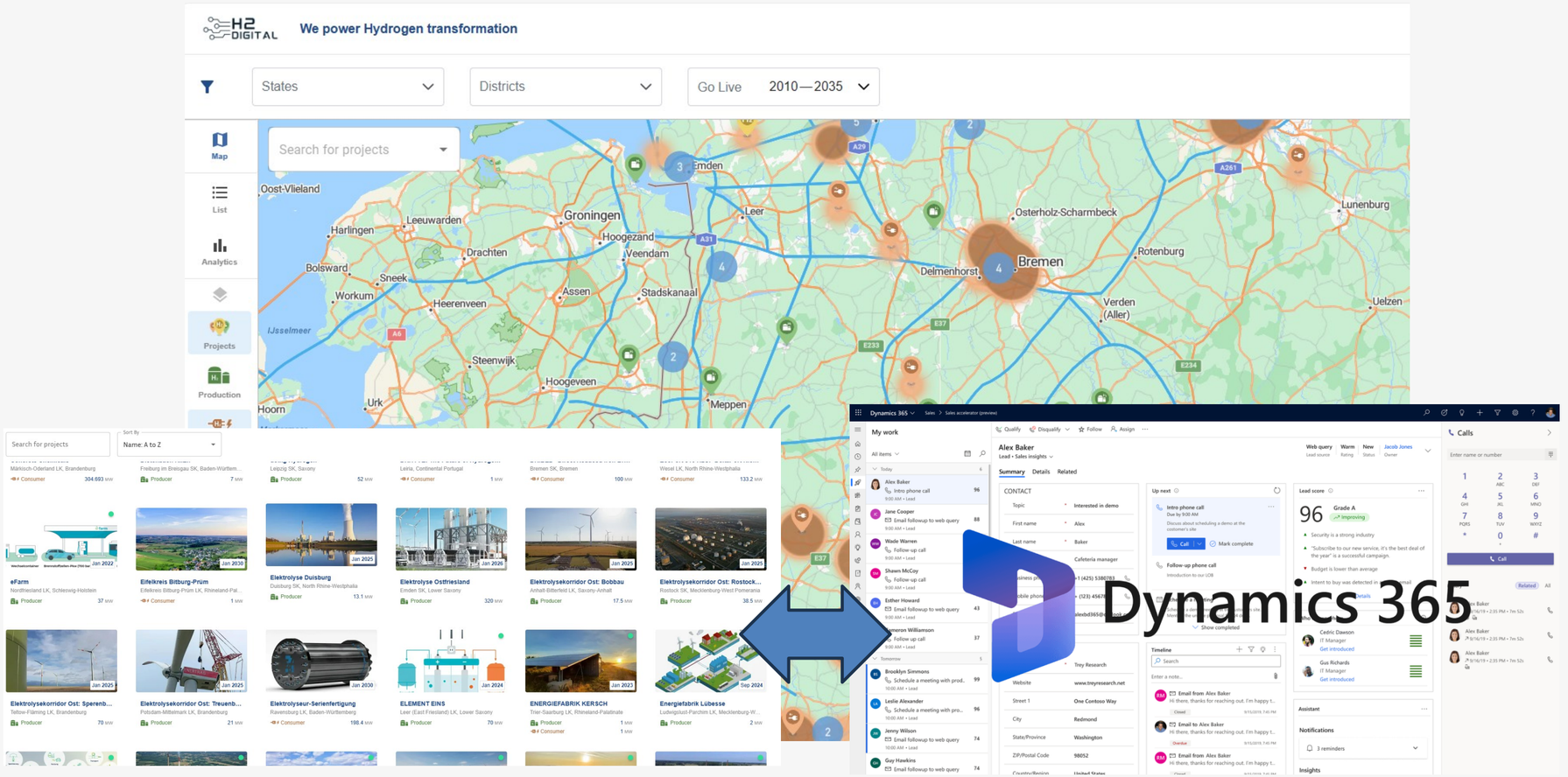
Targeted use of data for business development

- Support for transport customers in the transformation to hydrogen
- Advice on grid connection planning
- Synchronization of grid connections for hydrogen with core network planning
- Interface to your own CRM for seamless sales support



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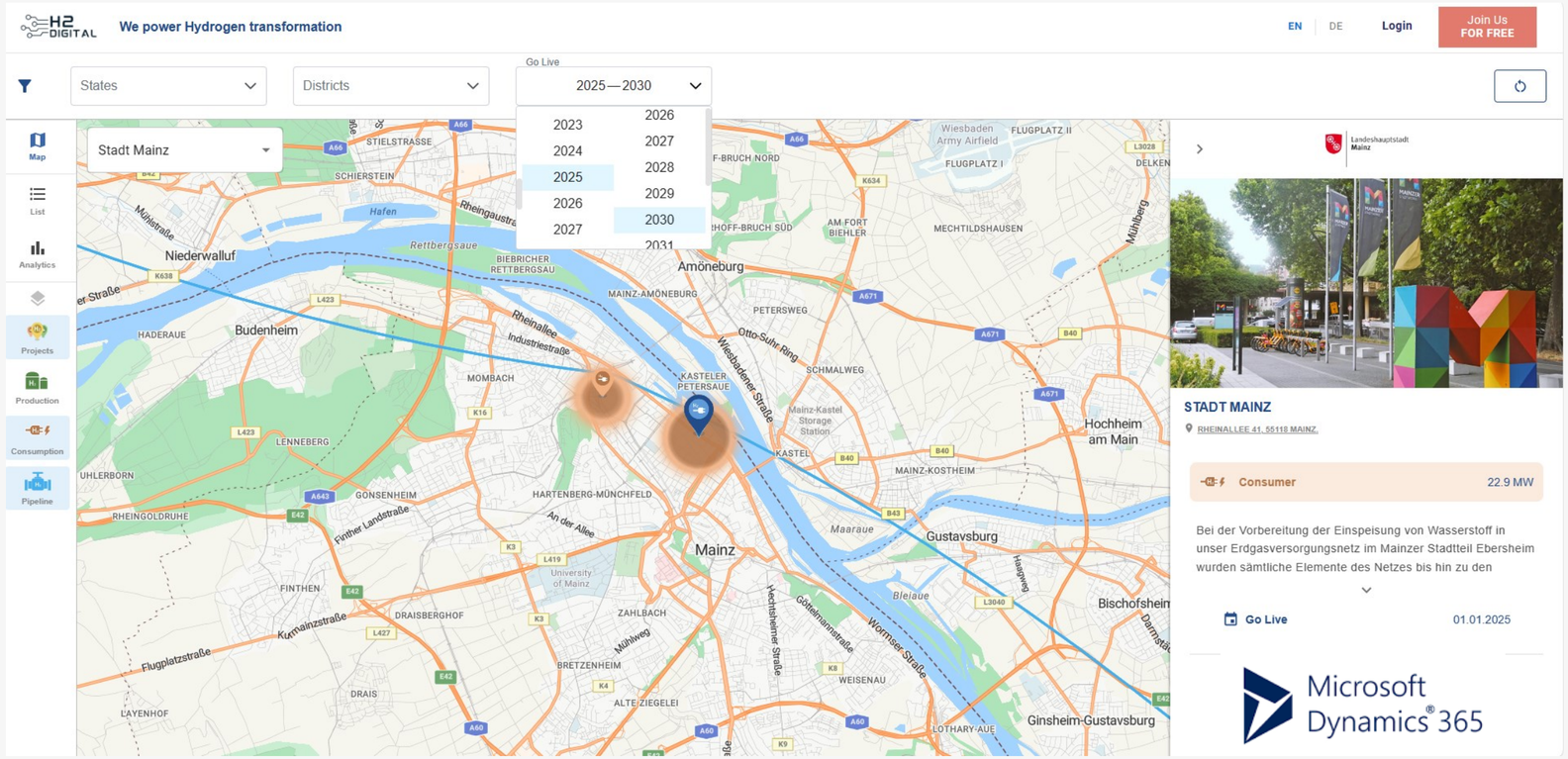
H2 Network Development and Planning



- Overview of your own network development over time
- Targeted sales planning of grid connections for efficient business development
- Different views of network planning for stakeholders
- Comparison with hydrogen core network planning
- Planning of transfer points to DSOs with aggregated transport requirements over time

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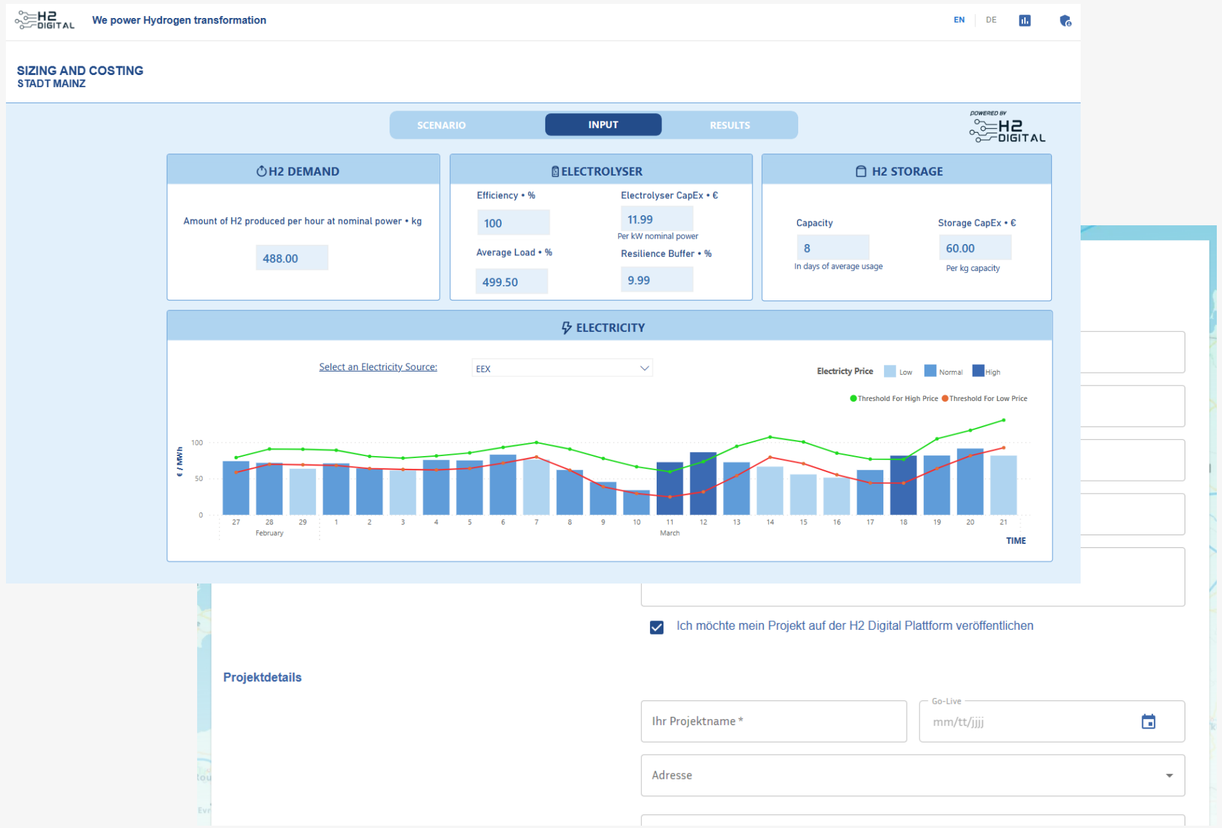
Grid connection enquiry portal for transport customers

- Support in planning the transition to H2
- Site investigation for suitability for H2 supply
- Cost planning of connections based on real consumption and generation data
- Consideration of existing framework conditions (e.g. PPAs, consumption profiles,...)
- Integration of an enquiry portal for grid connection for hydrogen



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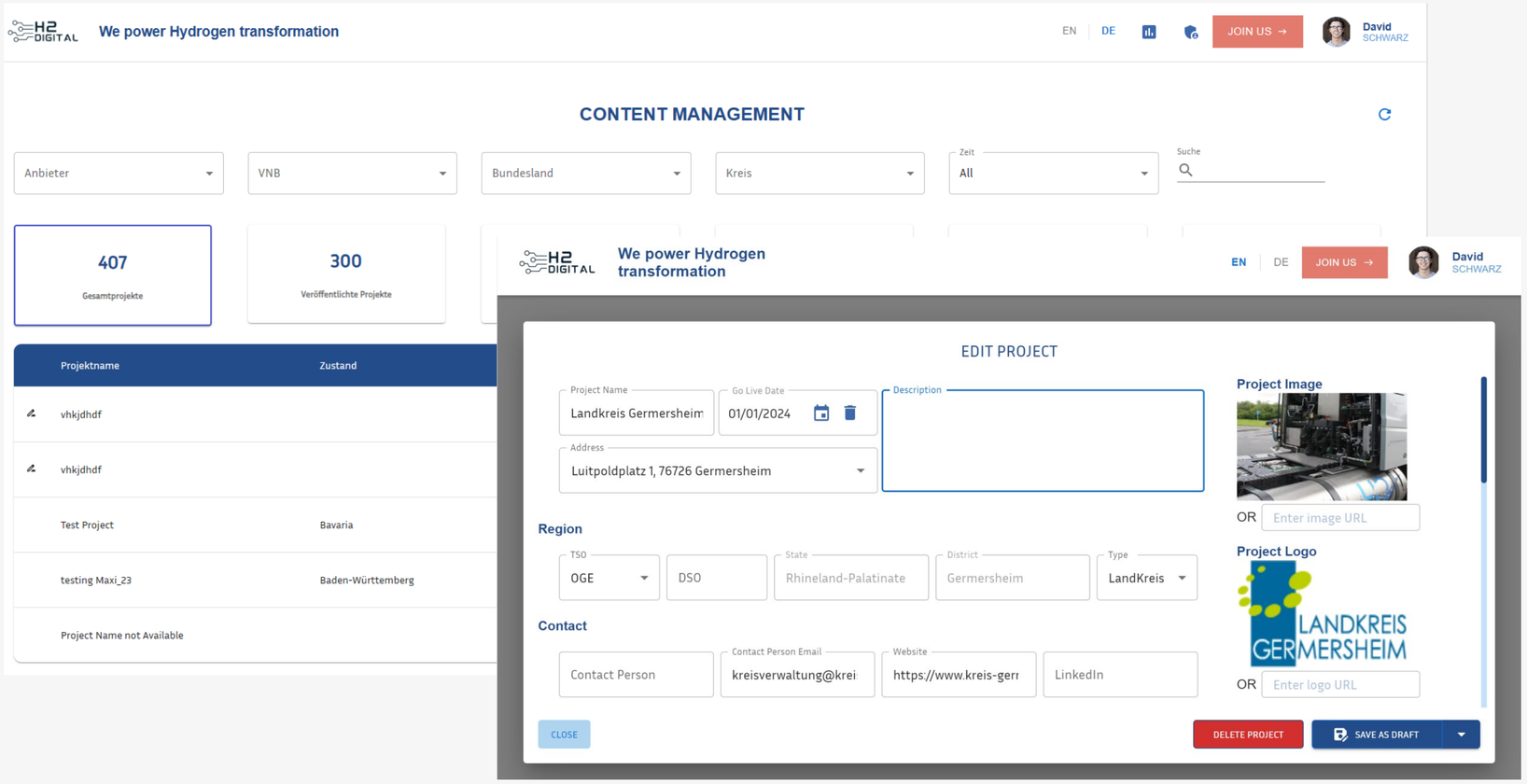
State-of-the-art content management for all users



Easy user guidance to collect and modify data – without training effort

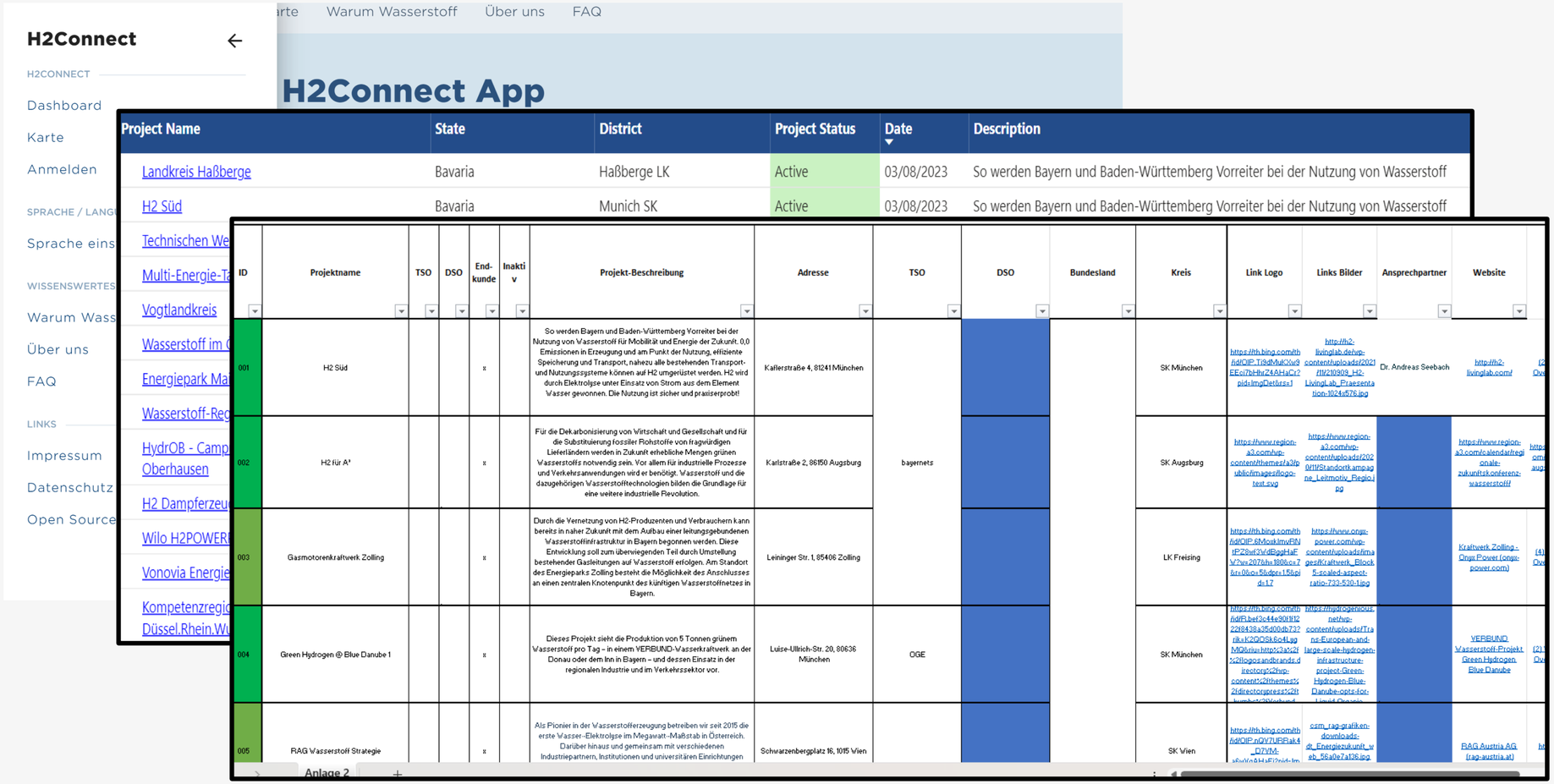
- No more separate isolated solutions necessary for business development in H2
- One central platform instead of many individual systems
- Setting up user groups to edit selected data

H2 Digital

Data integration of various stand-alone solutions

The platform can easily integrate all relevant data sources from your previous network development

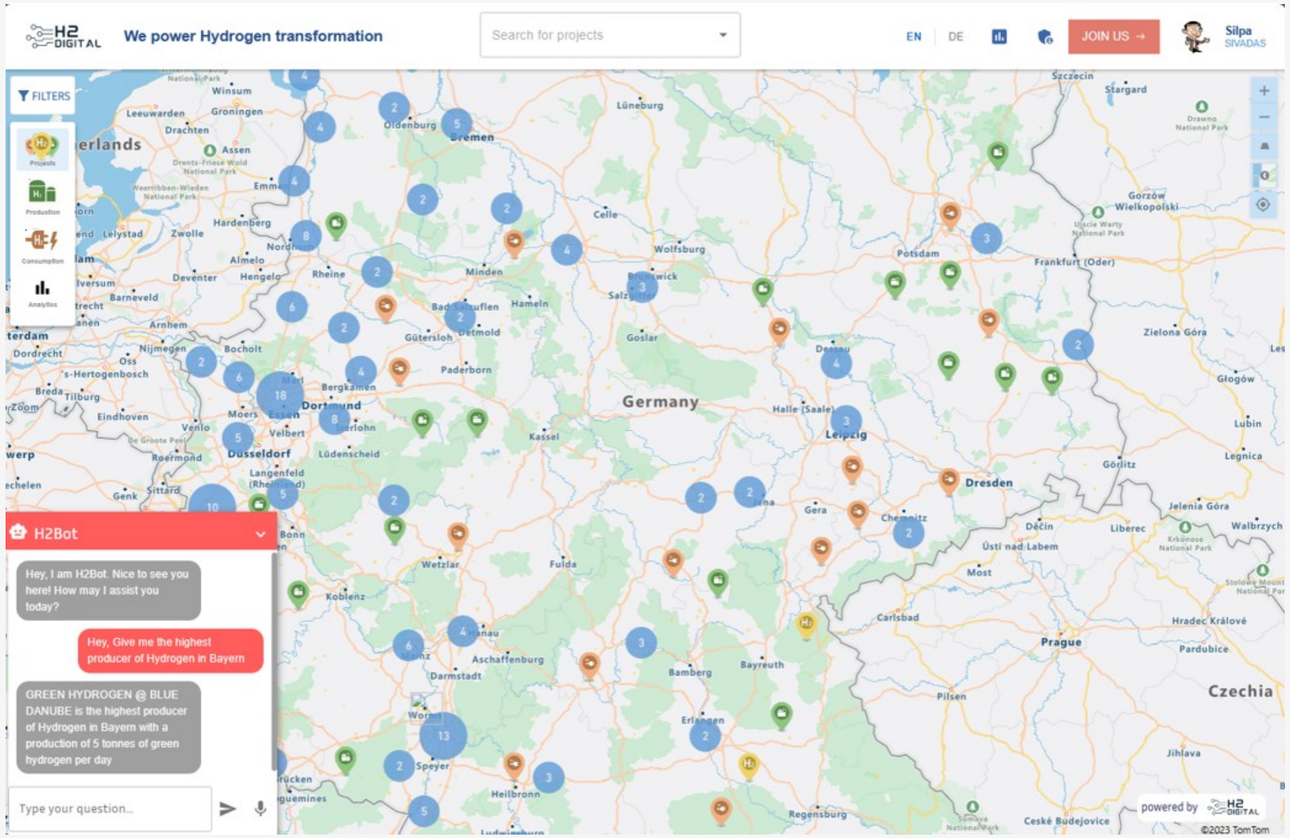
- Project databases based on previous market studies
- CRM data about H2 in your service area



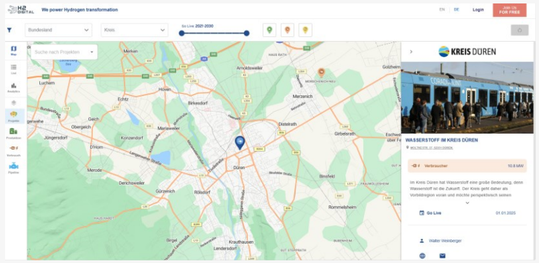
AI meets H2 Digital

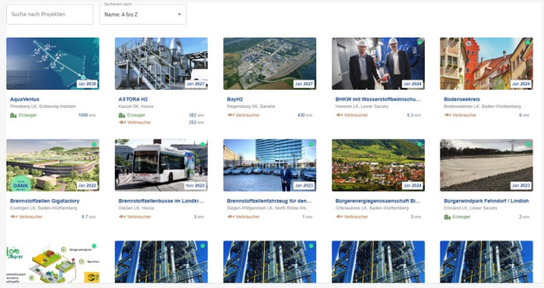
Integrated AI solution for optimal usability

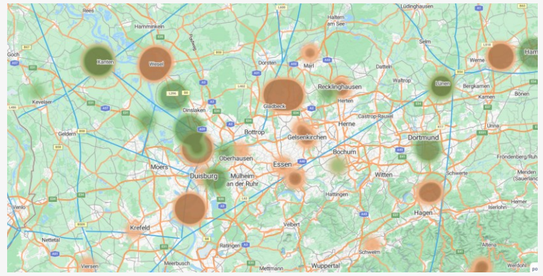
- Exemplary integration of AI: **ChatGPT H2Bot**
- Ability to process natural language in a wide range of applications
- Ability to respond quickly to natural language queries
- High precision in answering questions
- High scalability to communicate with a large number of users at the same time



Roadmap H2 Digital







Market Rollout

- Expansion in Europe: Projects and pipelines in the European H2 network
- Extension to CO2 Management (CCUS)
- Networking of H2 production and consumption with all forms of renewable energy

Market Development

- H2 Demand & Supply Matching for Network Planning
- Digital site development for H2 projects
- Worldwide use of the H2 Digital platform – launch of the USA and other Lighthouse projects worldwide

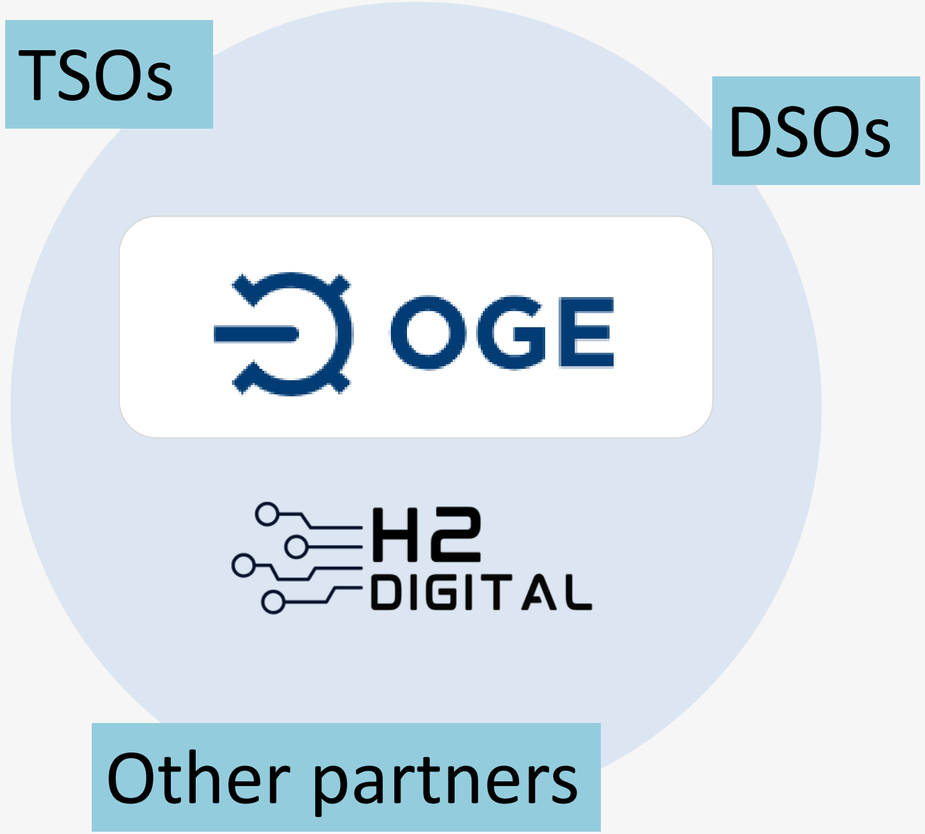
Marketplace

- Establishing H2 Digital as a marketplace based on demand and supply matching
- Certificate trading (H2 and CO2)
- Connection to network control in real-time
- Certificate processing according to renewable energy standards

H2 Digital as central platform for the networking of sustainable forms of energy

Modular structure & agile development

Hydrogen is teamwork



- We have know-how and market knowledge for the development of the physical infrastructure for the transformation into hydrogen
- This complements experience and know-how in the development of scalable and reliable software infrastructure
- H2 Digital builds on an active network of partners for the joint development of the platform

Contact Us

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