

# PtX Hub



Catalysing  
defossilisation  
globally

## We provide a knowledge and exchange platform to accelerate market development of Power-to-X on a global scale.

To reach climate neutrality by 2050, we must transform our economies to operate emission-free fast. While 100 % renewable energy is key for this transformation, some industries and transport sectors cannot yet directly use renewable electricity to become climate neutral. Until they can, **Power-to-X is the missing link**. Power-to-X enables us to produce anything historically dependent on fossil feedstocks, now using only air and renewable electricity. **These sustainable, climate neutral e-fuels and chemicals can defossilise high-emission industries**, including the chemical, fertiliser, steel and cement industry, as well as aviation and maritime transport.

Power-to-X also offers a **tremendous potential for developing countries and emerging economies**. Due to their favorable conditions for renewable energy production, they can leverage new business opportunities with Power-to-X and become frontrunners in emerging global Power-to-X markets. Not only can countries accelerate their economic development with Power-to-X and become less dependent on fossil fuel imports, but they decrease their CO<sub>2</sub> emissions at the same time – taking an important step towards reaching their climate goals.

We at the PtX Hub aim to leverage these opportunities together with our 13 partner countries around the world, among them Argentina, Kenya, Morocco and South Africa. Our approach is to find bottom-up solutions for local needs and demands **so that we can start the transformation now, everywhere, in parallel, and fast**.

Through our extensive global network, we connect local and global players across the public and private sector, academia, and civil society. We provide exchange platforms for experts, advise governments on Power-to-X strategies, publish studies and data tools, and organise trainings and workshops for key decision-makers.

## Who we are

We think outside the box. We are an interdisciplinary team from around the world, each with their own expertise, language skills, and work experience across a variety of sectors. We are a team of engineers, economists, and social scientists, come from the private sector, academia, and international cooperation, which puts us in the position to see challenges from different angles. Our mission is to catalyse defossilisation globally and reduce global inequality with Power-to-X.

The PtX Hub currently partners with 13 countries. The cooperations include a Power-to-Liquid pilot plant in Morocco, developing strategies for the transformation of the South African coal industry and leveraging Argentina's renewable energy potential to become a frontrunner in Power-to-X. Starting in Kenya we will first focus on finding the most suitable narrative.

### Building a Knowledge Hub

- Promoting sustainable Power-to-X
- Providing methods and tools to analyse Power-to-X potentials
- Organising Power-to-X Trainings to build capacities

### Accelerating sustainable economic development

in partner countries

### Shaping demand markets

in importing countries

## We promote sustainability

Agreed upon sustainability standards are necessary to ensure a fully climate neutral, as well as socially and ecologically sound Power-to-X value chain. We **actively shape the discussion on the sustainability of producing and applying Power-to-X products** and aim at maximising climate protection and sustainable development.

## We build capacities and networks

Countries which agree on technology pathways and harmonise regulation will accelerate and benefit from the global transformation to defossilised economies.

To support this development, **we build capacities in Power-to-X and promote partnerships and initiatives.** The PtX Hub thus serves as a knowledge and exchange platform, which connects key players from politics, business, science and civil society.

## Power-to-X is not inherently sustainable

For Power-to-X production to be truly climate-neutral as well as socially and environmentally beneficial, **ambitious sustainability rules should apply from the start and to the entire value chain.** Certification standards must guide the trade of sustainable Power-to-X products and put reliable long-term conditions for investments in place.

We have identified four distinguished sustainability dimensions – **E**nvironmental), **E**(conomic), **S**ocial), and **G**(overnance).



Find our Scoping Paper on PtX Sustainability here: [ptx-hub.org/ptx-sustainability](https://ptx-hub.org/ptx-sustainability)

## Our funders

The Power-to-X Hub is implemented by the **Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH** on behalf of the **German Federal Ministry for Economic Affairs and Climate Action**. Financed by the **International Climate Initiative (Internationale Klimaschutzinitiative, IKI)**, the PtX Hub is a contribution to the **German National Hydrogen Strategy of 2020** and represents one of the four pillars of the **BMUV's PtX action programme** initiated in 2019.

Supported by:



on the basis of a decision by the German Bundestag



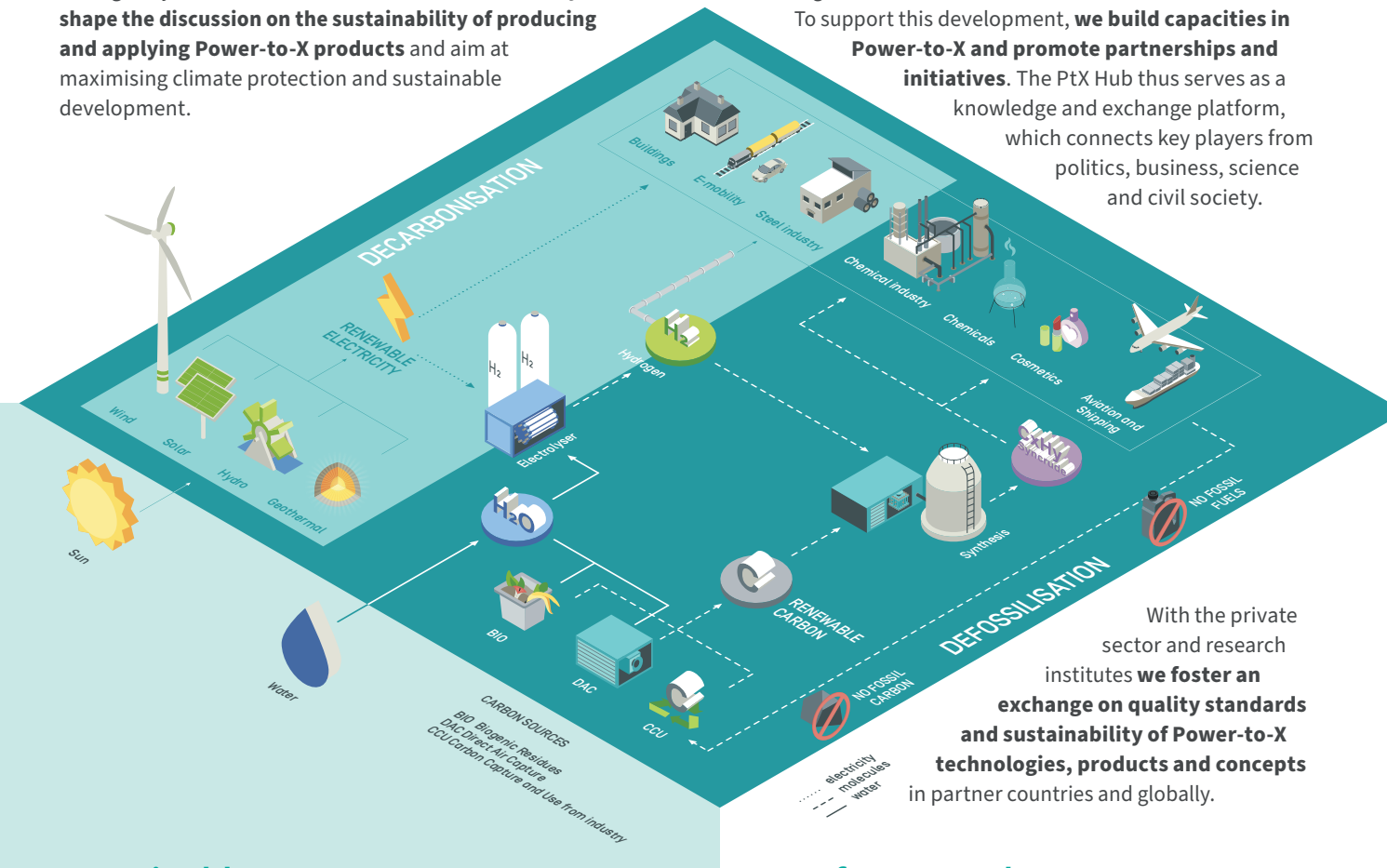
Implemented by



## We foster market development

The PtX Hub **supports decision-makers in accelerating the Power-to-X market uptake** by identifying market potentials, giving an overview on global funding, organising training courses and study visits, as well as providing policy and technical advisory.

With the private sector and research institutes **we foster an exchange on quality standards and sustainability of Power-to-X technologies, products and concepts** in partner countries and globally.



## Sustainable Power-to-X – How does it work?

Power-to-X (PtX) stands for the conversion of electrical energy into material products, represented by the 'X' in the name. X stands for gases like methane and ammonia (Power-to-Gas), or liquid fuels like kerosene and maritime diesel (Power-to-Liquid), or even base materials for the chemical industry (Power-to-Chemicals).