

INTERNATIONAL POWER-TO-X-HUB

Catalysing defossilisation globally



PtX.Aviation Training

Defossilising aviation with e-SAF

The global aviation industry would rank among the top 10 global emitters if measured as a country and emissions are likely to increase over the next years. The industry, now receiving clear policy signals to defossilise, focuses on sustainable aviation fuels (SAF) as the most viable means to climate neutrality. But SAF production needs to increase worldwide. Both large scale projects and decentralised local approaches will be necessary.

*Investing in local Sustainable Aviation
Fuel (e-SAF) production drives
development anywhere.*



The International Power-to-X Hub supports interested actors with trainings, stakeholder dialogues and support for a pilot plant projects.

Discover the potential of e-SAF in transforming the maritime sector!

The PtX.Aviation Training focuses on the potential of e-SAF for the transformation of the aviation sector, but also for the development of countries entering these emerging markets.

In a three step process, learnings gain **knowledge on the challenging context** of defossilising the aviation sector, and SAFs as the most urgent solution to it.

A **deep dive tech module** provides an understanding of the whole value chain from sustainable feedstocks to compatible SAFs. Bankable approaches between biogenic and electricity based fuels are discussed.

The third module sheds light on everything necessary to **get eSAF plants on the ground**, presenting referential binding policies, finance options, EPC contracting and airport infrastructure adjustments.

An interactive **Transfer Workshop** can help participants to define a clear vision and next practical steps.

The training is designed to be adaptable to national contexts, allowing for country-specific modifications or expansions to address regional needs and policy frameworks.

PtX.Aviation Training outline

Training content

Understanding Aviation and its future fuelling

1. Introduction and global context
2. Clean aviation solutions
3. Fuelling the future: SAF pathways

Deep Dive into Power-to-X technology

4. From feedstock to syngas
5. The magic synthesises
6. Becoming SAF and jet fuel
7. Mixed approaches to bankable SAF solutions

Getting started with real life e-SAF production

8. Policy instruments and sustainability
9. Finance for e-SAF projects
10. Insights to EPC (& O&M) for SAF
11. Supply chains and airport infrastructure

Transfer Workshop / Next steps

Duration and format:

2 hours – 4 days | on site, hybrid or virtual

Training sessions can be tailored with a focus on specific interests of the target groups.

Target audience

- Decision-makers in transport, infrastructure, energy, and environment ministries
- Experts from regulatory authorities and other relevant administrations
- Experts in public and private research institutes, energy associations and renewable energy agencies
- Private sector professionals

What is Power-to-X?

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 (PtX) is the missing link.

PtX enables us to produce anything historically dependent on fossil feedstocks, now using 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.

PtX offers a tremendous potential for many countries all over the world. Due to their favorable conditions for renewable energy production, they can leverage new business opportunities with PtX and become frontrunners in emerging global PtX markets.

What does the International Power-to-X Hub offer?



Access to cutting-edge research and insights on PtX



Training on PtX for key decision makers



Exchange platforms for PtX experts & enthusiasts



Advisory on regulatory frameworks, partnerships, and financing for PtX projects



Access to 120 GIZ cooperation countries

The PtX.Academy

Since 2019, the International PtX Hub offers trainings and workshops for decision-makers on green hydrogen and PtX. The goal is to train and connect a critical mass of people who are enthusiastic about renewable PtX and can accelerate the uptake of PtX production, usage, and trade in their countries.

To date, the PtX Hub has delivered more than 100 trainings in 27 countries to more than 1,800 learners.

The training offer consists of our standardised **Renewable Power-to-X Basic Training**, add-on modules for several topics, 3 e-learning courses and a Train-of-Trainers programme, which has already certified 100 trainers. The PtX.Community connects the training alumni and enables an international exchange of experts around the globe.

The on-site trainings are organised at the request of GIZ projects and political partner institutions in selected countries. If you are interested in individual training, please check out our e-learning courses.

Add-on modules:

- Sustainability
- **Aviation**
- Shipping
- Sustainable Chemistry and Power-to-Chemicals
- Certification of PtX products
- PtX project finance
- Carbon Border Adjustment Mechanism (CBAM)
- Coming soon: Green steel, green fertiliser, safety

Free e-learnings (self-paced):

- Renewable PtX Basic Training
- PtX.Sustainability & EESG Framework
- Green Hydrogen & PtX Certification



More information on the training offers:
<https://ptx-hub.org/academy/>

Contact

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Learn more about the project activities on the website:
www.ptx-hub.org