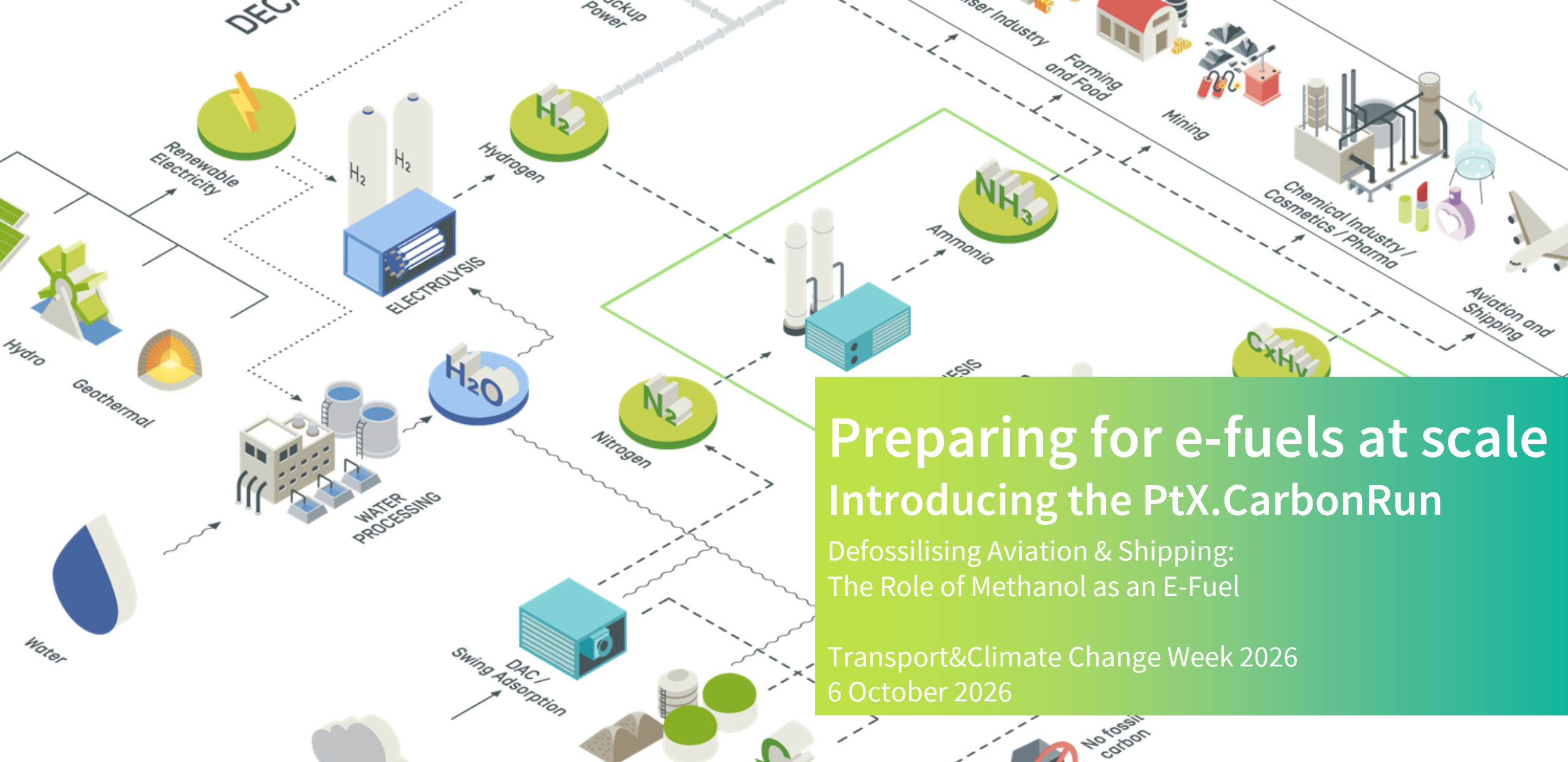




Preparing for e-fuels at scale

Introducing the PtX.CarbonRun

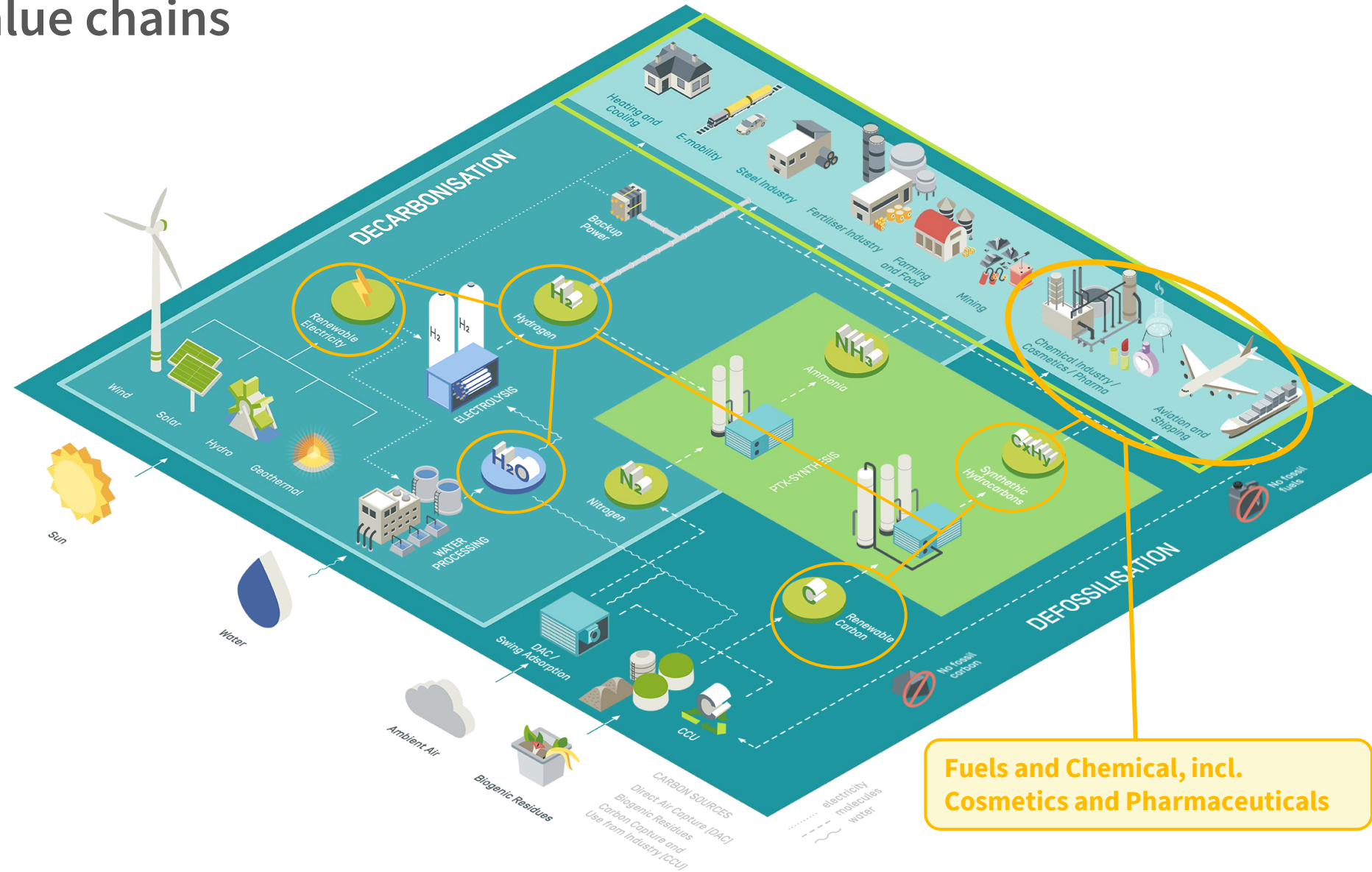
Defossilising Aviation & Shipping:
The Role of Methanol as an E-Fuel

Transport&Climate Change Week 2026
6 October 2026

Aviation and Shipping will continue to need fuels for long-haul flights and heavy cargo.



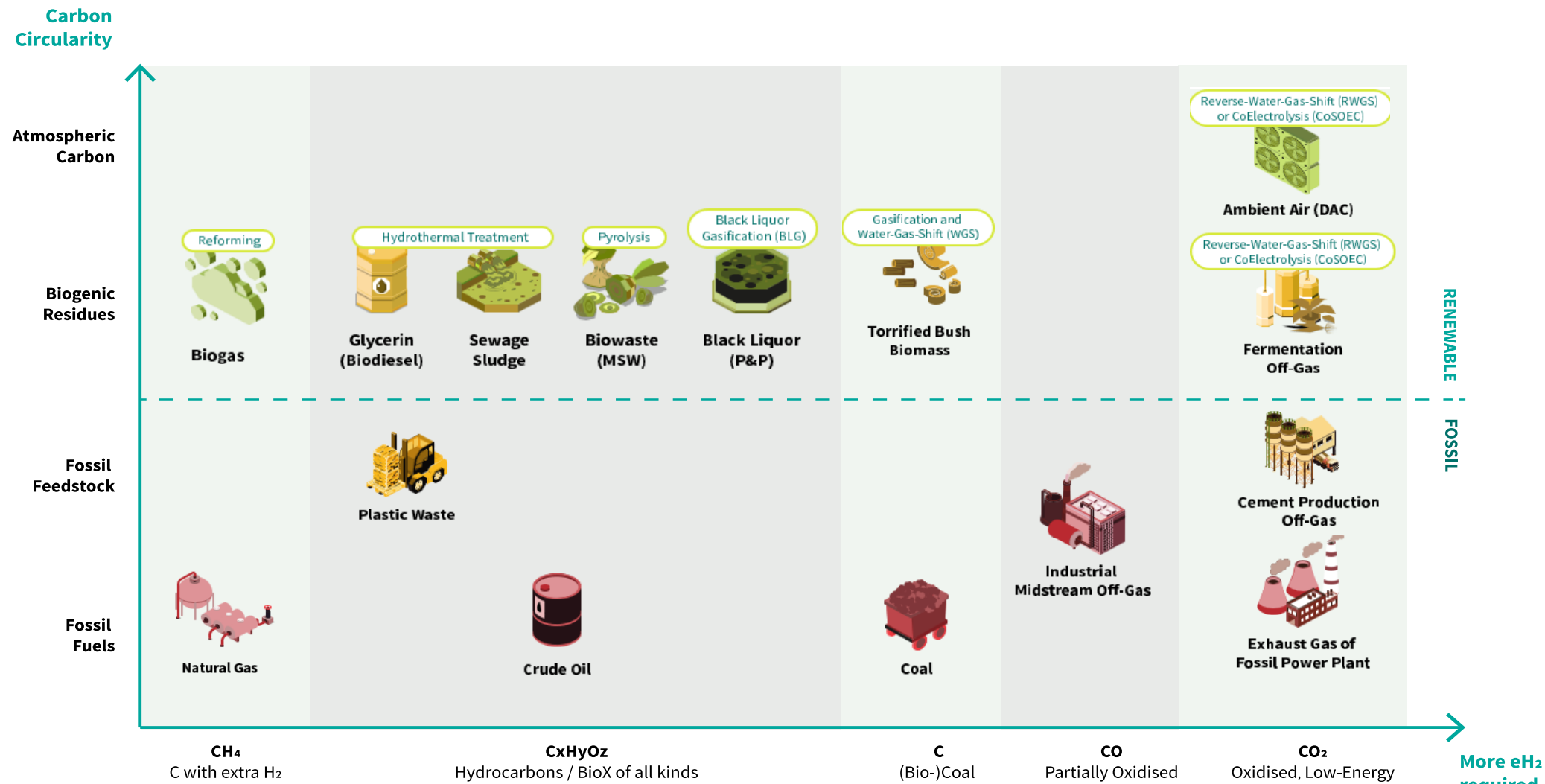
3





Sustainable carbon sourcing
is a bottleneck

Carbon sourcing: Feedstock Variety: Waste & Biogenic Residues, not Energy Crops!



CARBON SOURCE COMPLIANCE

Process

Unquestioned

More Sophisticated Audits

Phase Out

The carbon challenge

Renewable Carbon is **not** a point source!

Renewable carbon:

- Geographically **dispersed**
- In **small** quantities
- **Seasonal**
- In **diverse** forms



Carbon sourcing

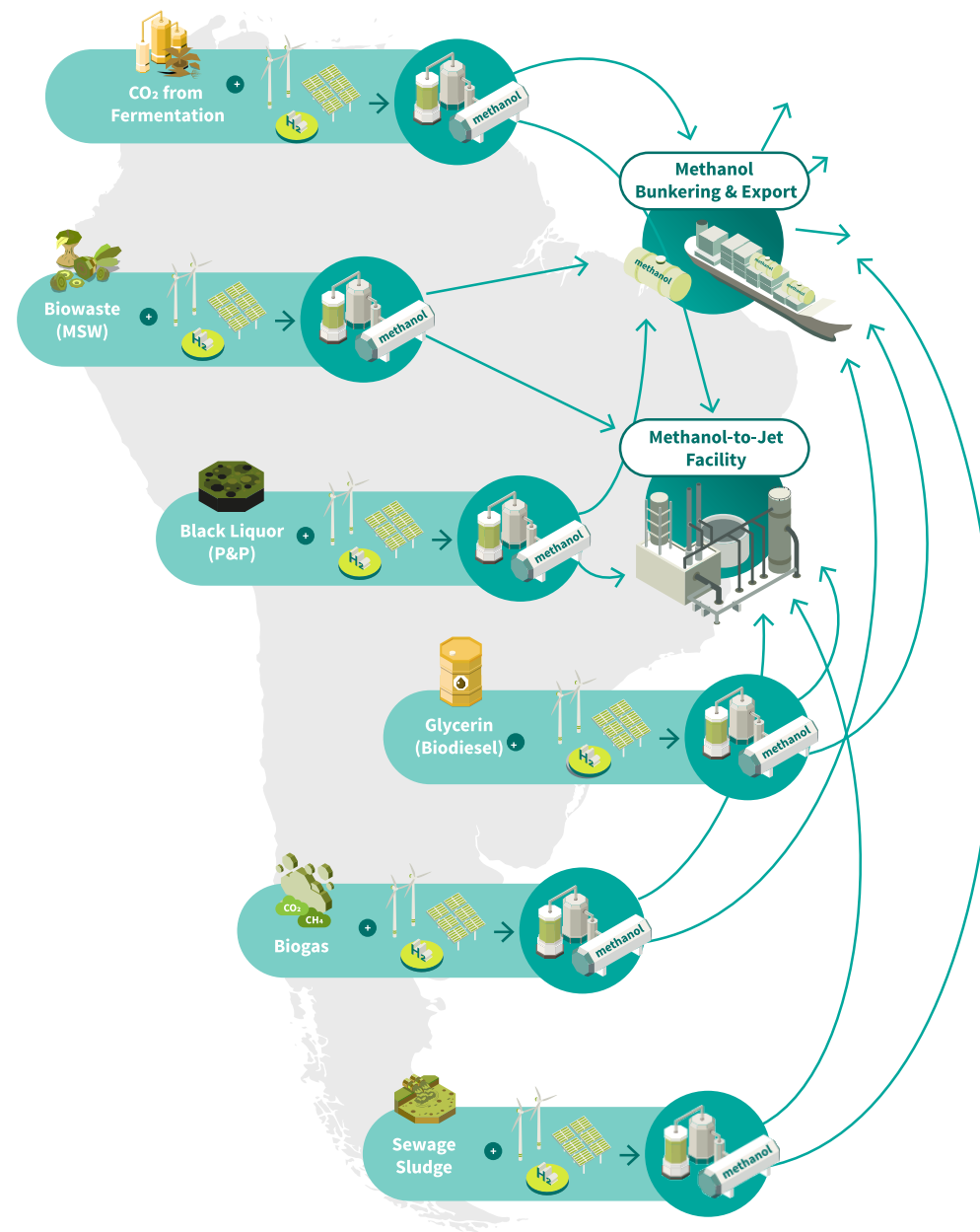
Decentralised production of renewable methanol



- **Simple molecule:** CH_3OH — only one carbon molecule
- **Versatile building block:** Can be used directly as a fuel or converted into other fuels and chemicals.



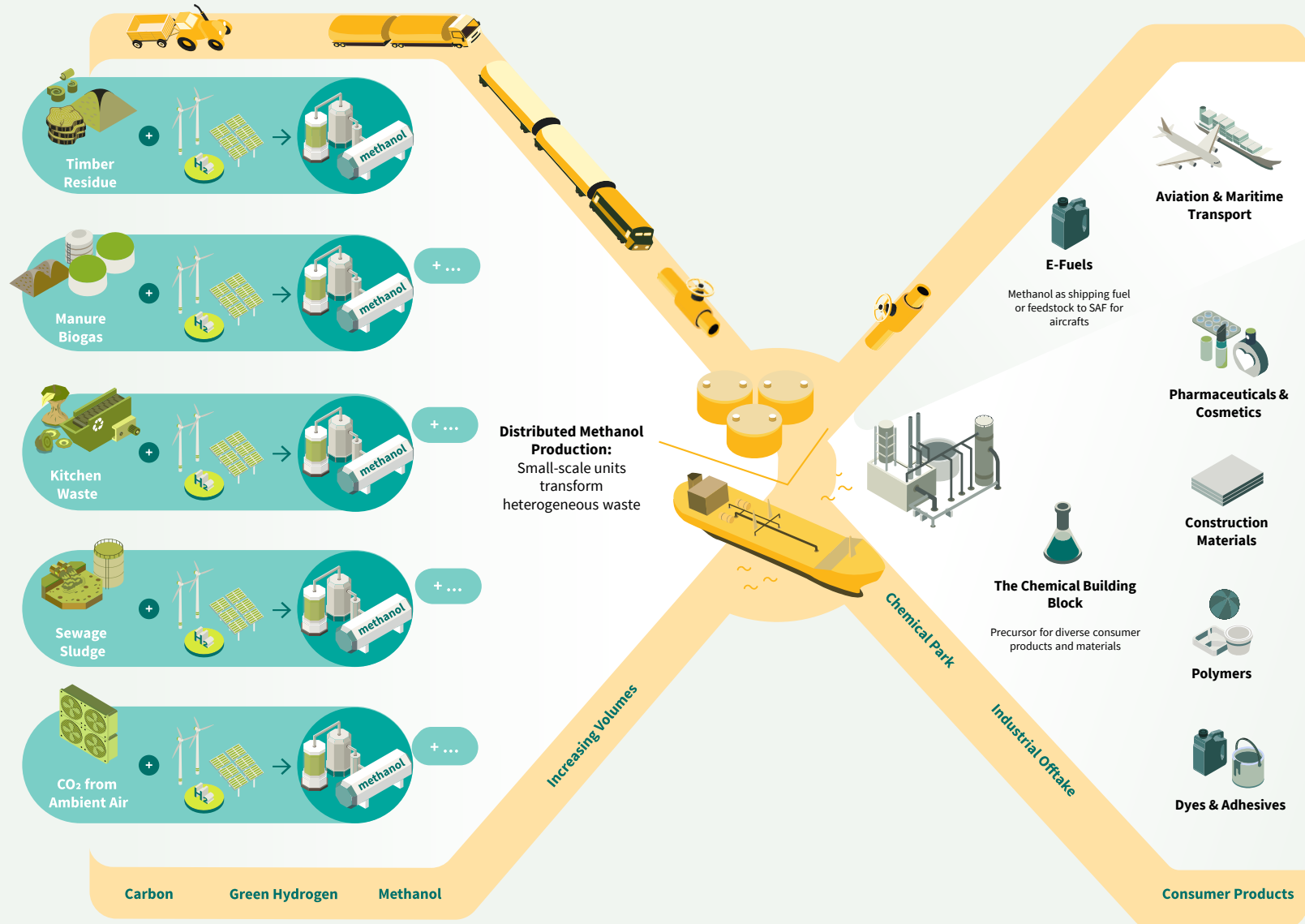
The graph illustrates the upstream part of the PtX.CarbonRun. Any carbon containing residue, no matter where and in which form it occurs, can be transformed into methanol at site. More or less hydrogen is needed depending on the form of occurrence, or on how much oxygen is tied to the carbon (see graph of previous chapter). Since methanol is relatively easy to produce, and economically viable even at smaller plant sizes, this decentralised setup is possible. The methanol can then be transported like any other fuel to agglomerate volume at ports or refineries.



The PtX.CarbonRun

Scaling decentralised renewable carbon to supply industries globally

Source: PtX Hub 2026, [International-PtX-Hub_2607_Preparing-for-e-SAF-at-scale.pdf](#)



The graph illustrates the PtX.CarbonRun as a whole. The left part shows the carbon sourcing and the transformation to methanol. The pivot point of the hour glass represents the methanol ecosystem already in place, with its storage facilities, terminals, pipelines, the associated norms, certificates, and trading system. On the right side of the pivot point, the diverse landscape of offtake sectors take over the methanol, fossil today, renewable in the future, but always the same substance, no technical changes necessary.

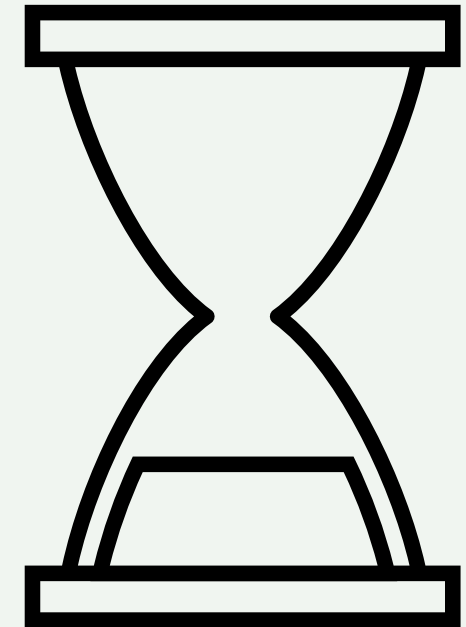
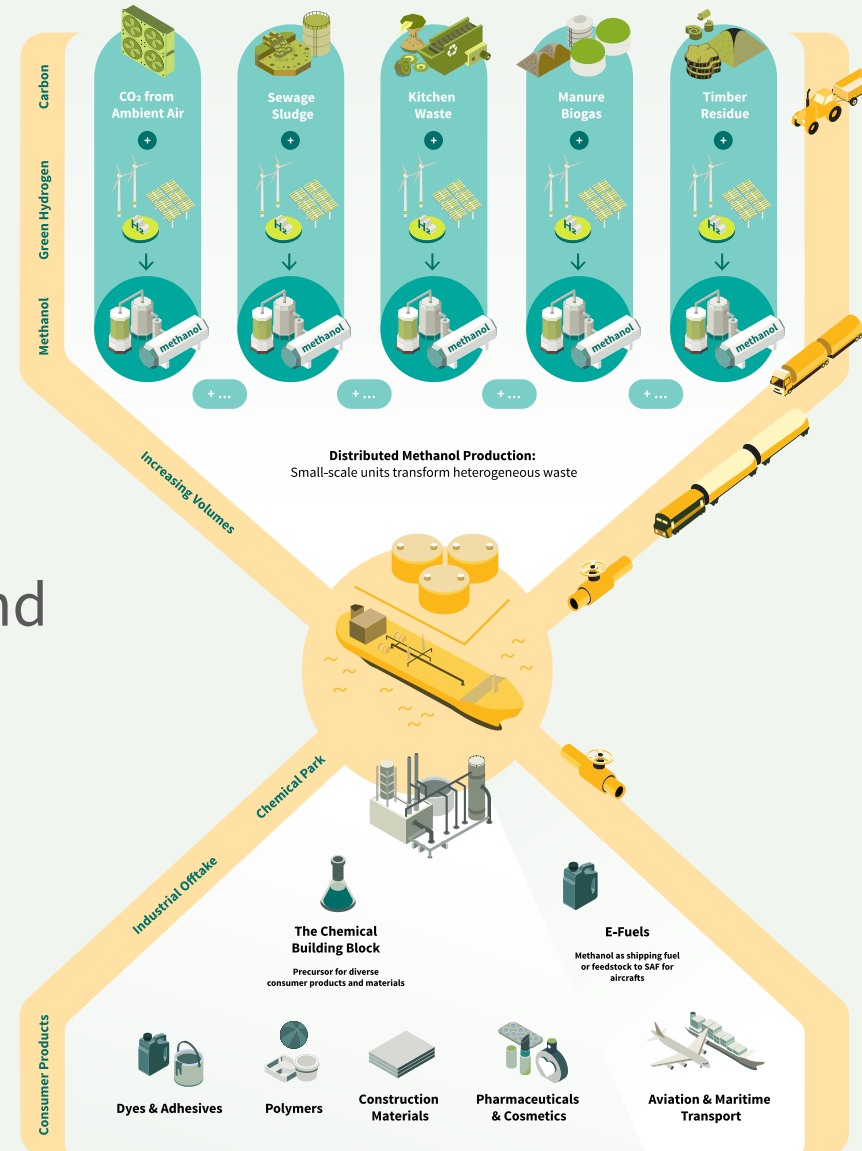
The PtX.CarbonRun

Hour glass logic for methanol ecosystem

Scale in numbers
the decentral feedstock
sourcing

Scale in volume
for centralized logistics and
upgrade technologies

Distribute the
commodity to various
applications



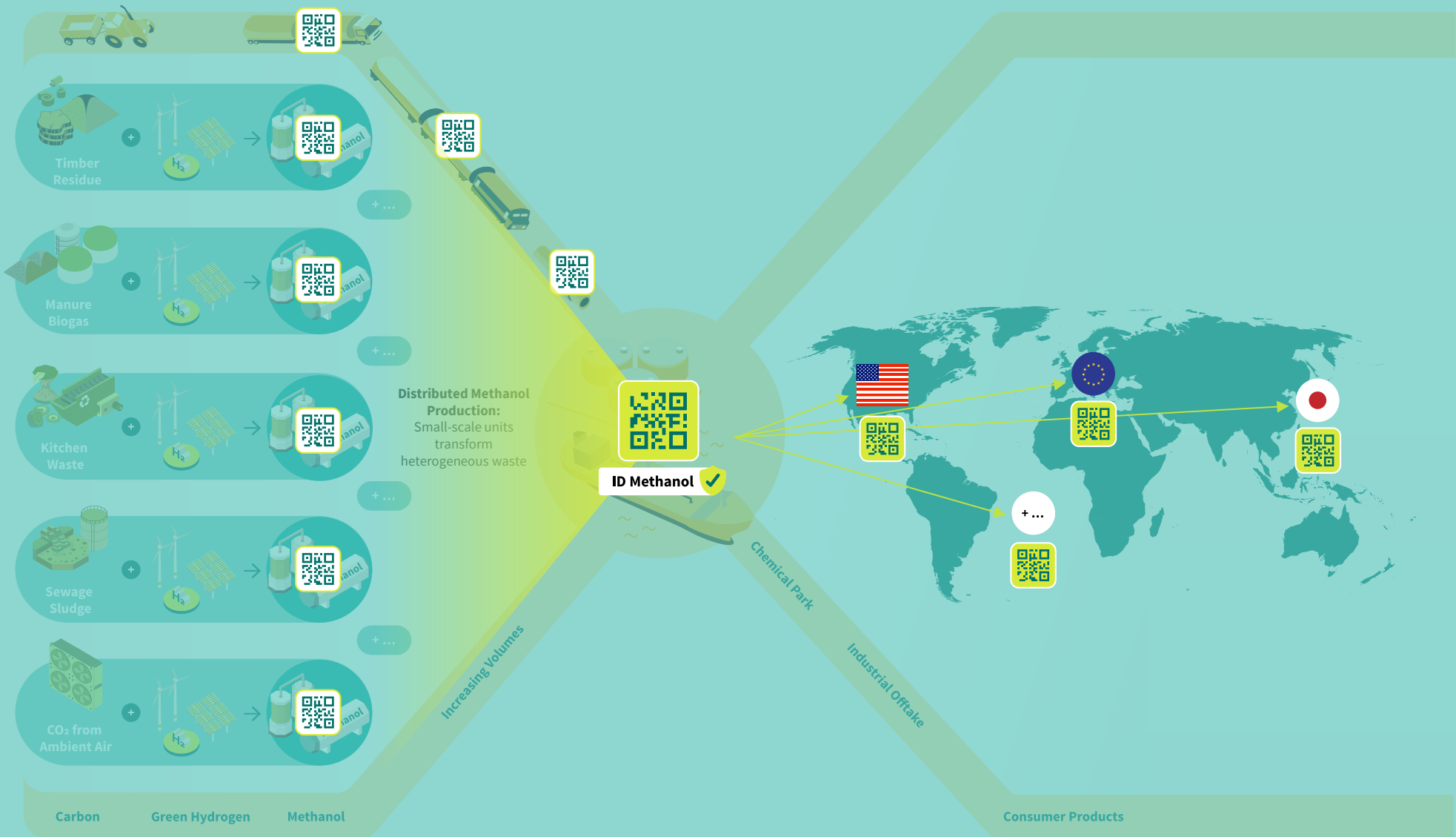
Chain-of-Custory Digital by design

Compliance as a system-inherent digital feat

Source: PtX Hub 2026, [International-PtX-Hub_2607_Preparing-for-e-SAF-at-scale.pdf](#)



The graph illustrates how a digital chain-of-custody chain could look like. Any batch of methanol produced anywhere gets its digital fingerprint at the production site, the data being fed into a global registry. The volumes and quality control data is constantly fed into the system using the batch's QR code. Agglomeration generates a new entry, combining the previous data. Eventually, a trustworthy product arrives at the off-taker's terminal or a border control point.

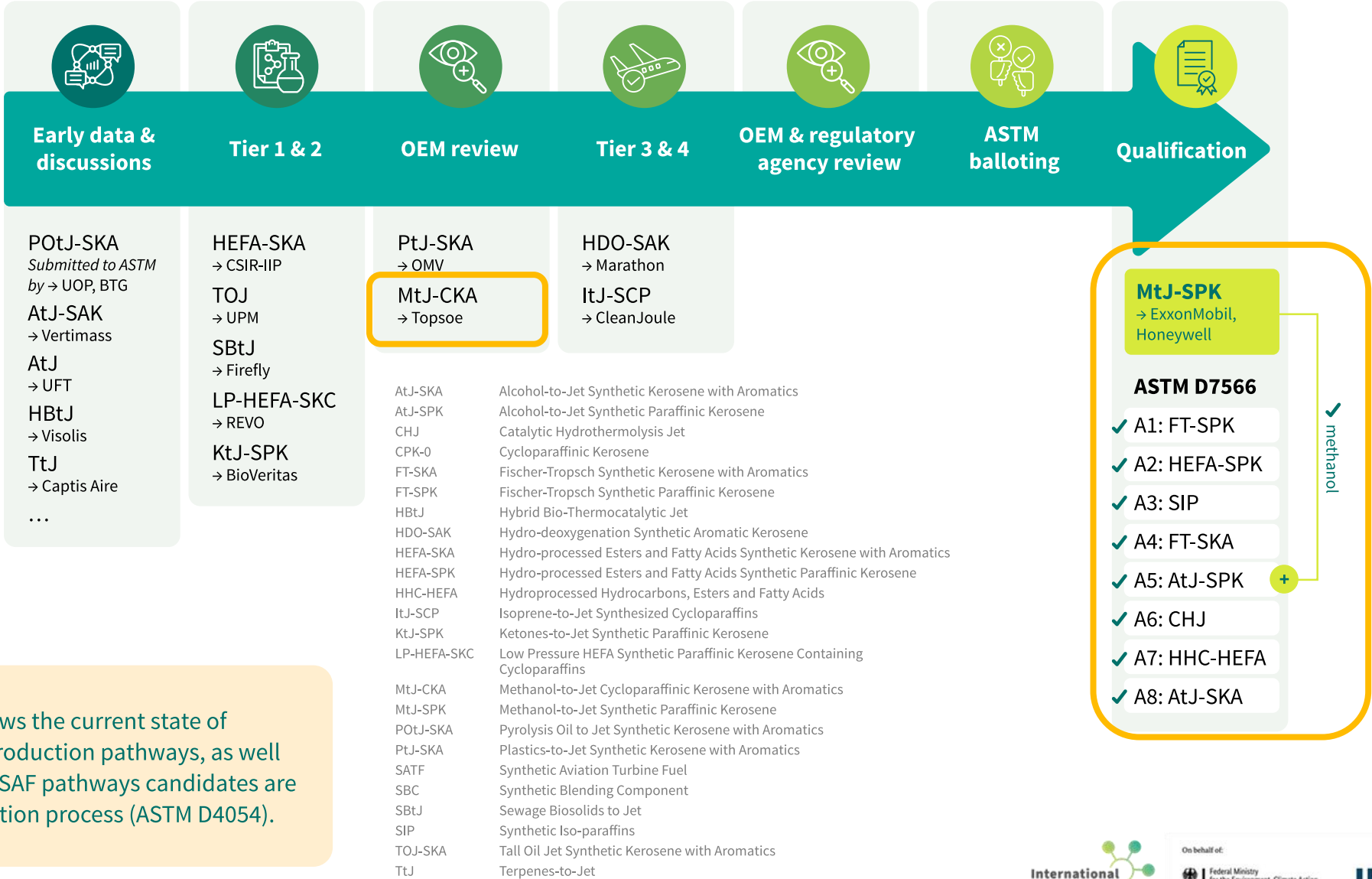




Is Methanol an e-fuel we can use for aviation?

Methanol was approved as feedstock for SAF in 2026

ASTM D4054 Pipeline



i

The graph shows the current state of existing SAF production pathways, as well as where new SAF pathways candidates are in the certification process (ASTM D4054).

Read further !



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Hub 2026

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Introducing the PtX.CarbonRun





Thank you!

Ruth Barbosa
Advisor Capacity Development & PtX.Aviation
International PtX Hub
ruth.barbosa@giz.de

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