

# Energy Track & Trace

System operator coordination  
on Granular Certificates in the EU

April 2024

“

**Energy Track and Trace is your  
digital proof that sustainable  
energy choice actually  
makes a difference**

## Who is Energy Track & Trace?



East Germany and Belgium



Estonia



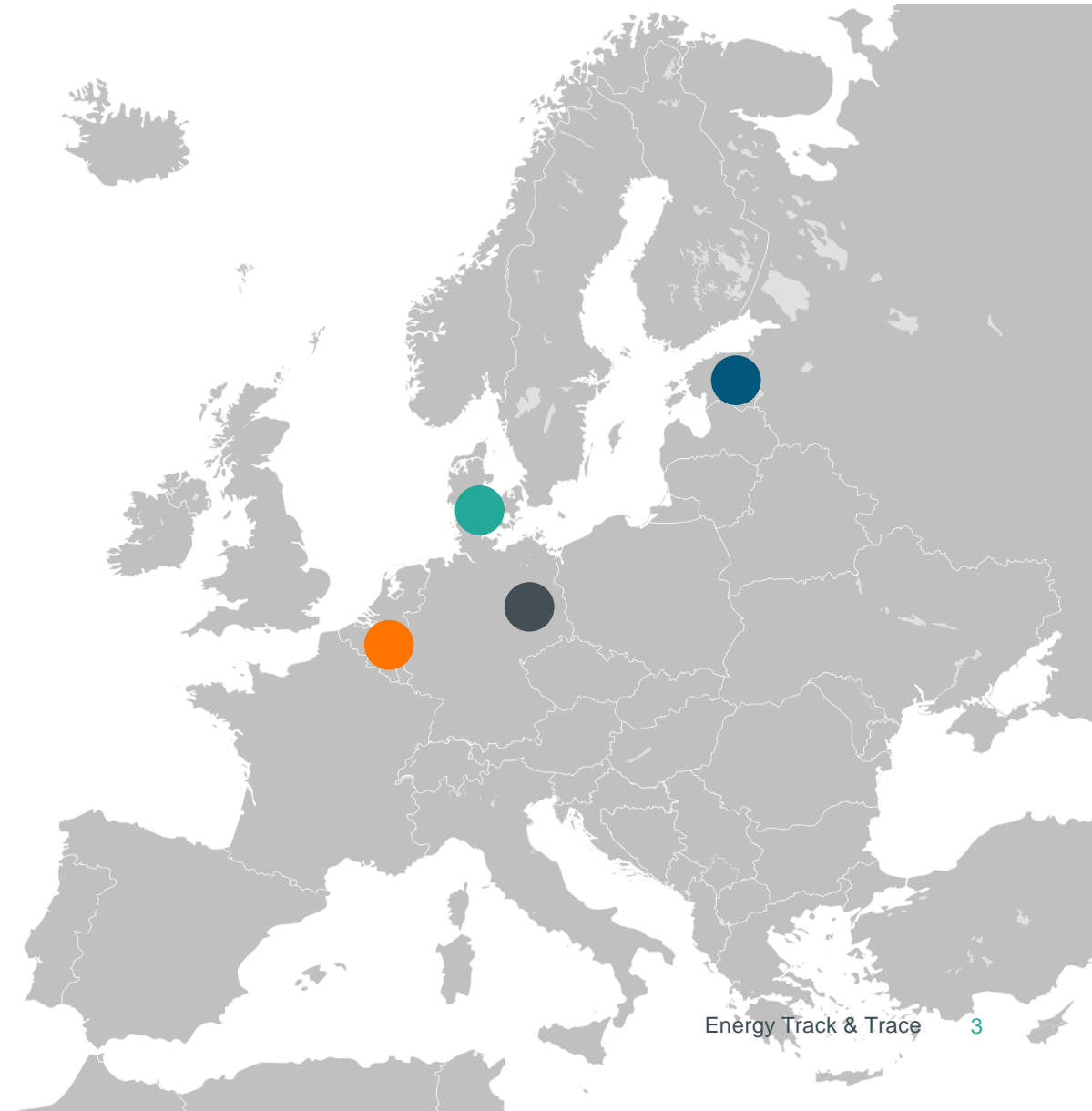
Denmark

## We cooperate

With **Consumers** who want to be meaningfully sustainable.

**Energy Producers and Suppliers** who are providing the clean energy.

**TSOs** who are facilitating the green energy transition.



# The Essence of Energy Track&Trace

European Co-creation to set new standards for Granular certificates



We want to **create official, secure and trustworthy registries** and become issuing body for granular certificates

With **open APIs**, we offer users and service providers a suitable green electricity register for their solutions



We coordinate our registries with the **existing GO** registries to circumvent double issuance and double counting

We provide **data access to regulated, verified data** coming from the same data sources as for the GOs

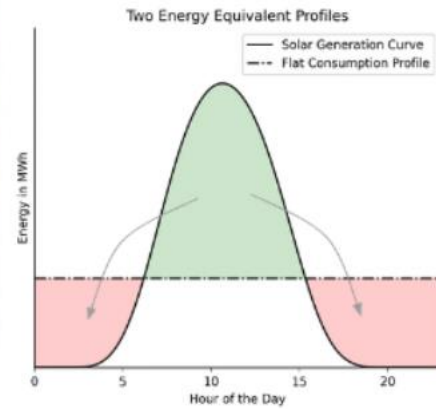




# Building a strong system for granular certificates



## Annual Matching between Consumption and Generation



Source: EnergyTag



**Simultaneous**  
Consume energy when renewables are actually available.

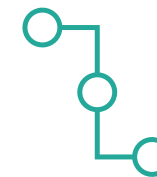
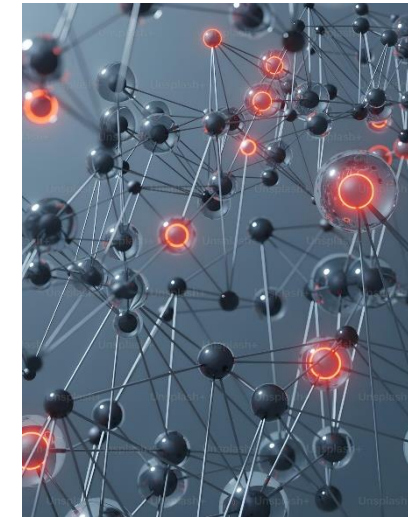
## No Deliverability between Generation and Consumption



Source: EnergyTag



**Locational**  
Ensure that the energy can be delivered.



**Linking to GO's**  
Keeping a link towards the current GO's where necessary

# Energy Track & Trace solution

A federated network of GC registries across Europe



**Issuance of GC's**  
by GO issuing  
bodies or TSOs



**Common registry**  
in a federated  
network



**Standardized and  
open source**  
approach



**Easy to implement**

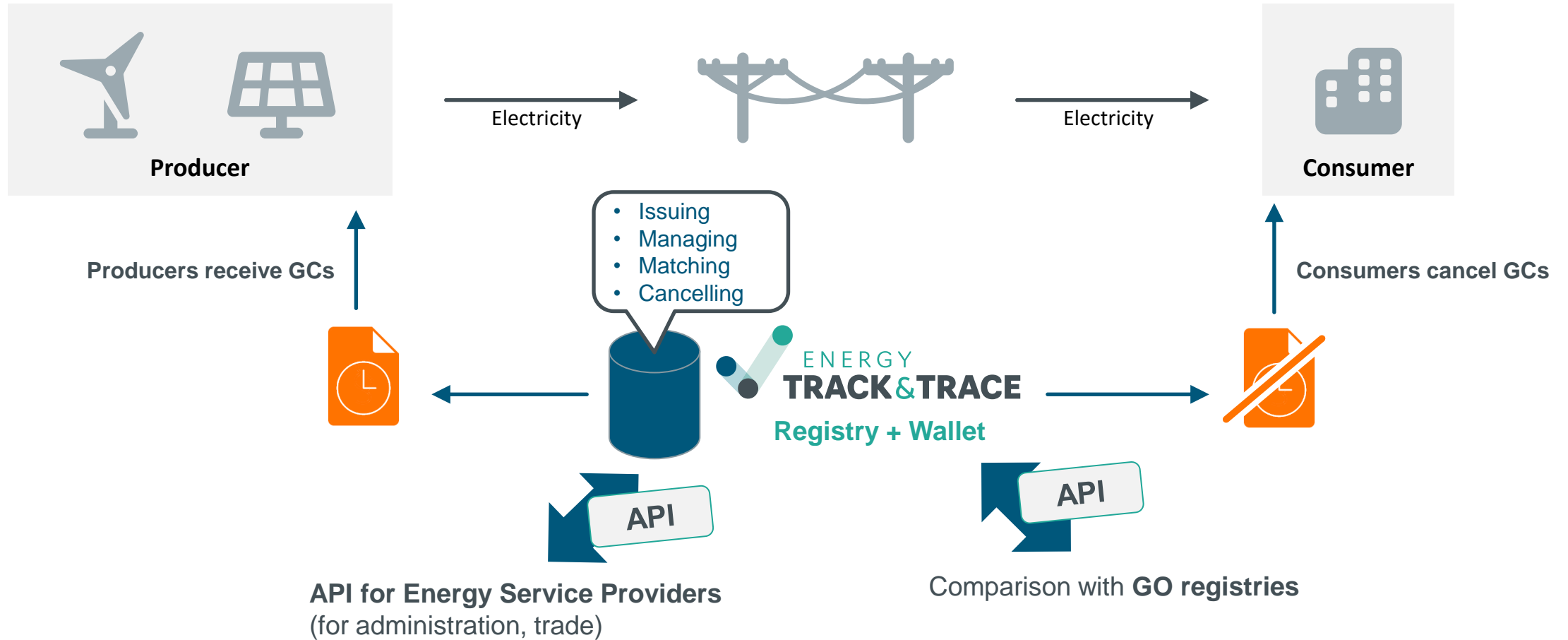


**Blockchain agnostic**



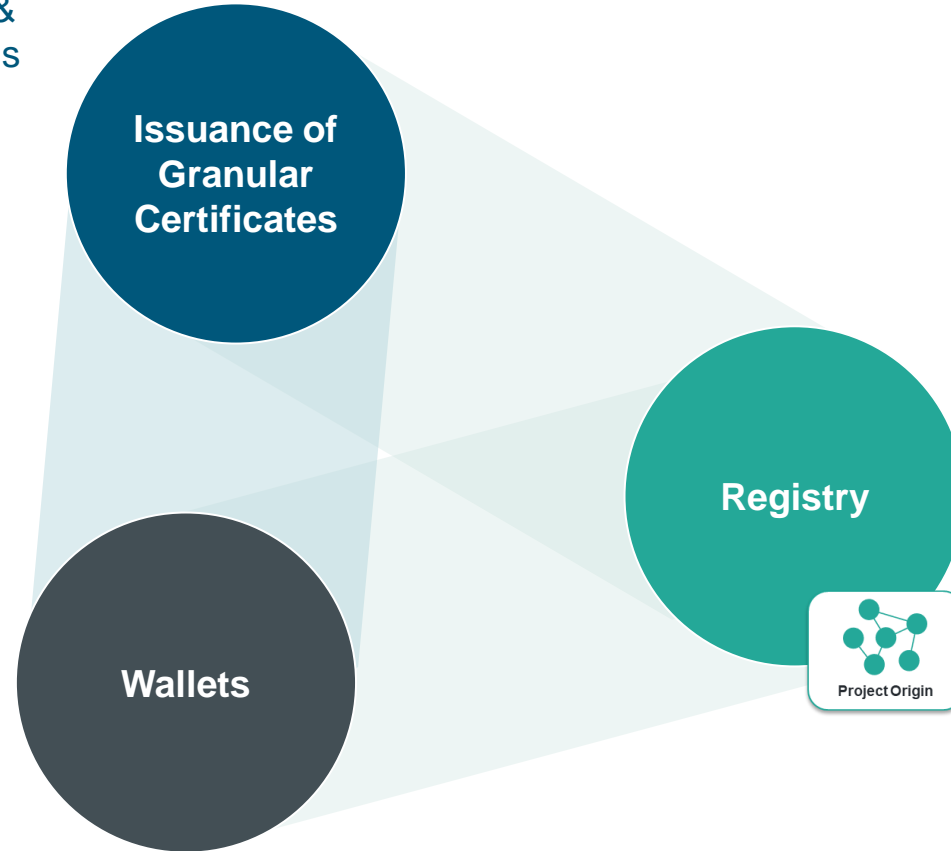
**Close cooperation**

# Analogue to the classic GOs Energy Track & Trace (ETT) generates granular certificates (GCs)



# Energy Track & Trace has three main capabilities

- **Onboarding** of production & consumption assets/ devices
- Connect to **trustworthy metering data** to issue granular certificates
- Certificates are **kept in wallets**
- Wallets can be **owned by asset owners**, energy suppliers, traders, etc.
- Certificates can be **transferred between wallets**

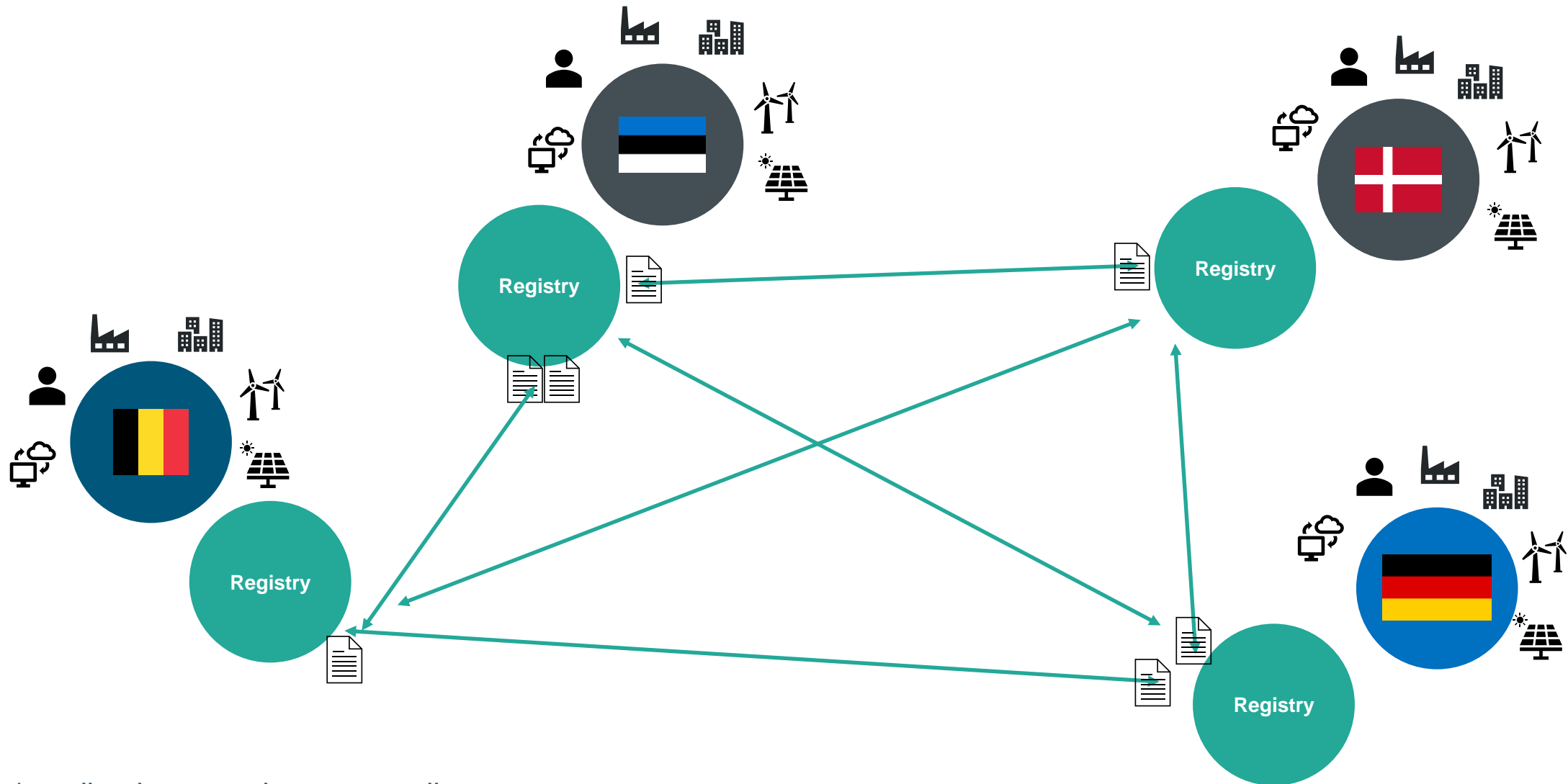


- **Registry is single source of truth** for immutable granular certificates.
- Registry is **publicly verifiable**, but sensitive data is obfuscated/ encrypted (Pedersen commitments)
- Registry is **auditable** & tamper evident (Merkle trees & layer-2 blockchain)
- A certificate **never leaves a registry** but changes ownership on the wallet

**Registry and Wallet are OpenSource and can be further developed and used everywhere in all countries!**



# Establishing a network of GC exchanges across Europe



\* trading happens between wallets

# ENERGY ORIGIN

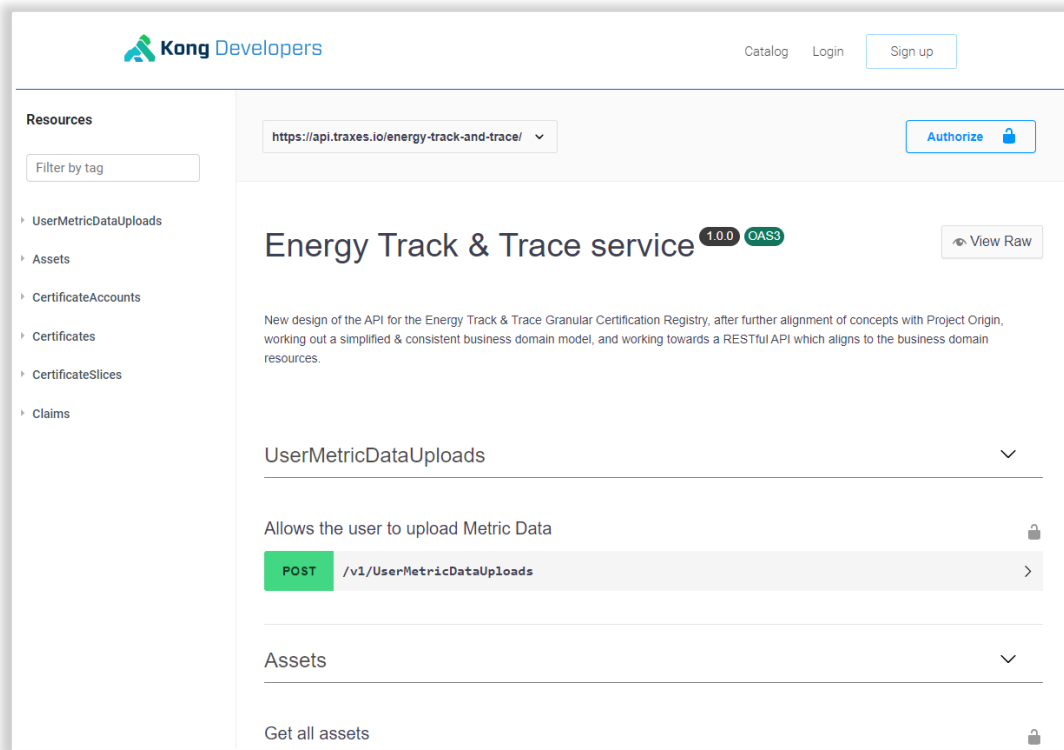
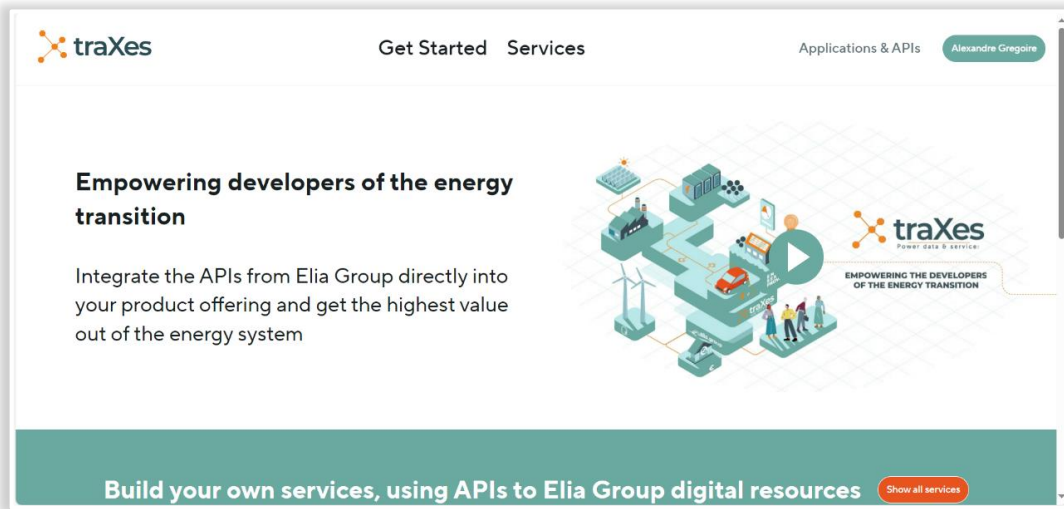
Energy Origin is the Danish interface and implementation for issuing granular certificates:

- **Track electricity from production to consumption**  
Energy Origin is the Danish implementation for granular certificates.
  - **Issue granular certificates based on DataHub data -**  
Energy origin issues GC's via the data from the Danish DataHub.  
Energy Origin connects consumers and producers through the platform at <https://energioprindelse.dk>.
  - **Full access via API's and UI**  
Energy Origin aims at building a solution that users and developers can interact with. Companies can follow their electricity flows via the UI or build their own solution with the platform API's.



# ENERGY ORIGIN

<https://energioprindelse.dk/>  
<https://demo.energioprindelse.dk/>  
<https://energioprindelse.dk/developer/>



# Current status



Issuance of granular certificates by the Elia Group under the *Energy Track & Trace* brand



- **API first:** The Elia Group's register can be controlled via an API first. Interested users can build their own solution via the API or collaborate with service providers for simplified processes.
- **Input data:** In Belgium, as in Germany, we rely on regulated electricity meter data.
- **Current status:** Together with the service provider "Granular Energy", we are already testing the register in pilot projects. The first certificates have now been issued.

Access to Kong



## Whats next in 2024

### Germany



- Pilot projects
- Data access whole Germany
- Connect GO registry

- Further development of the register
- Automation of the onboarding process

### Belgium



- Pilot projects
- Integration in TSO portal
- Emissions reporting UI

### Denmark



- Open to test!
- Developer Portal (API)
- Access (oAuth2.0)
- Emissions reporting in UI/ API
- Go Live!

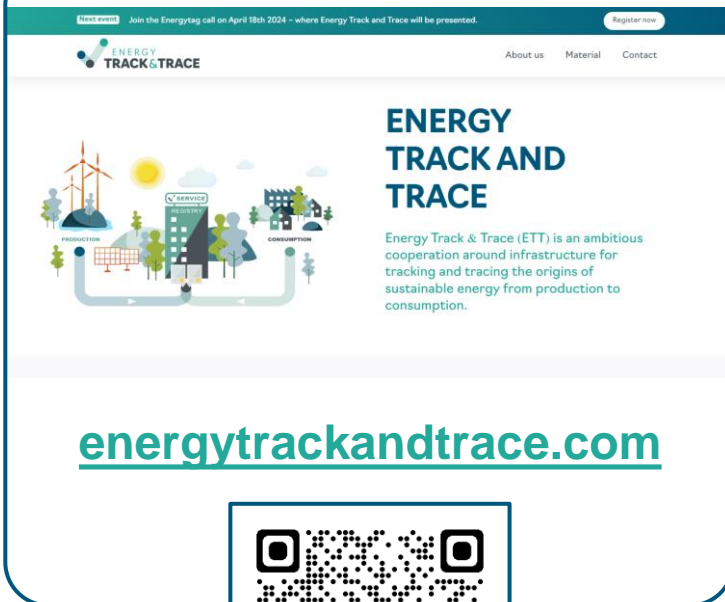
### Estonia



- Business analysis
- Planning a first MVP in 2024

# Let's stay in touch!

## Website



Next event Join the Energytag call on April 18th 2024 – where Energy Track and Trace will be presented. Register now

ENERGY TRACK&TRACE

About us Material Contact

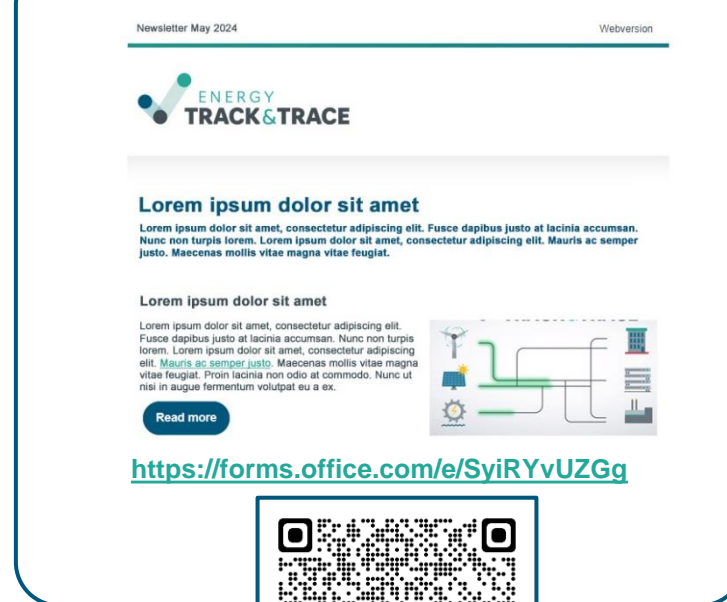
### ENERGY TRACK AND TRACE

Energy Track & Trace (ETT) is an ambitious cooperation around infrastructure for tracking and tracing the origins of sustainable energy from production to consumption.

[energytrackandtrace.com](https://energytrackandtrace.com)



## Newsletter



Newsletter May 2024 Webversion

ENERGY TRACK&TRACE

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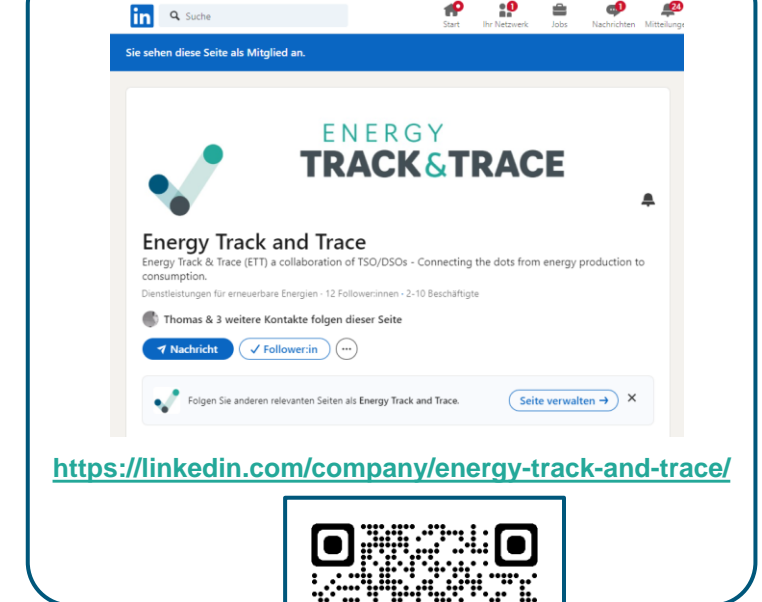
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## LinkedIn



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ENERGY TRACK&TRACE

### Energy Track and Trace

Energy Track & Trace (ETT) a collaboration of TSO/DSOs - Connecting the dots from energy production to consumption.

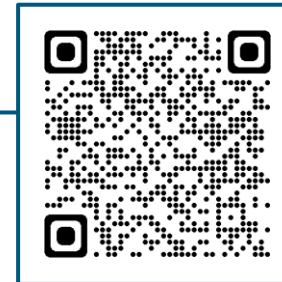
Dienstleistungen für erneuerbare Energien · 12 Follower:innen · 2-10 Beschäftigte

Thomas & 3 weitere Kontakte folgen dieser Seite

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<https://linkedin.com/company/energy-track-and-trace/>





# Questions or interested to test?

Contact us



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**Any questions** 