Online diagnostics for Electrolyzers

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volytica diagnostics

After >10 years of applied battery diagnostics we monitored >10 GWh battery units across industries

2026

>10 GWh of battery monitored globally

With ~30 experts in Dresden and all over Europe
we are one of Europe's leading battery diagnostics companies

2019

Spinoff from the Fraunhofer Gesellschaft

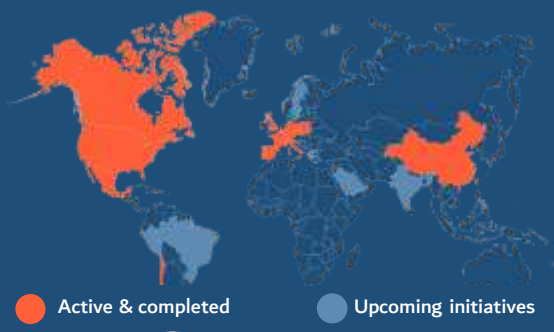
For further growth and industrialization volytica is spun out of Fraunhofer Society as an independent company

2012

Launch of First Battery Monitoring Platform

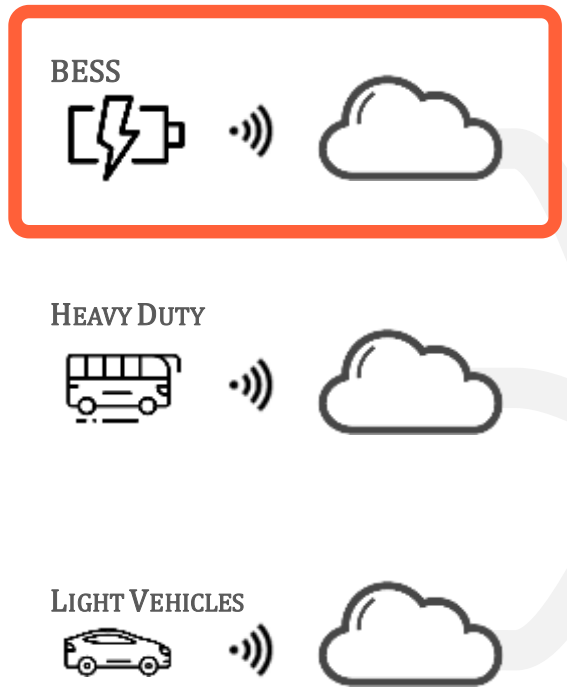
IVImon, the first version of today's *vdx engine,* is launched into pre-commercial operation by Fraunhofer IVI (link, link)

Fraunhofer IVI

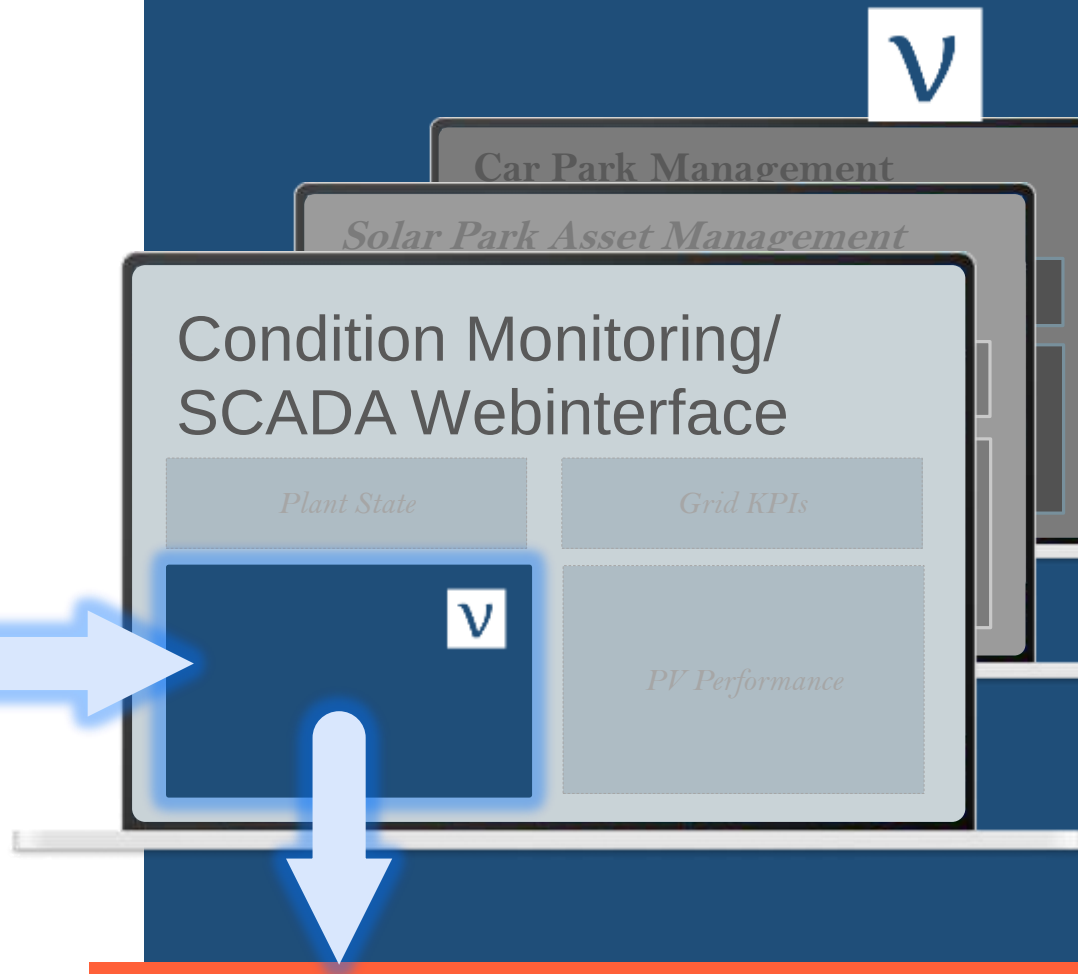


volytica diagnostics

We crack abundant data that others discard, using our proprietary battery algorithms



Cloud Platform
vdx engine



Operation & Safety Management

Investigate & Resolve Issues

Value Retention & Stress Measures

No Additional Hardware
No hardware necessary – we tap into existing fleet or condition monitoring systems

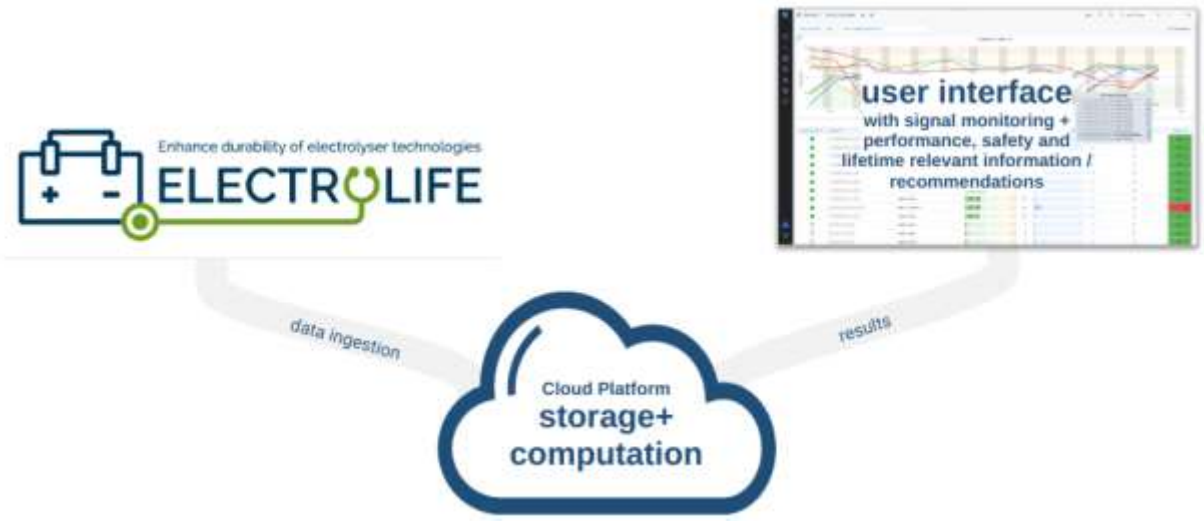
10+ years of R&D
More than 10 years or R&D went into a smooth and easy onboarding process without lab experiments

Fraunhofer *inside*

Technology Agnostic
Every typical Li-Ion battery is supported

Diagnostic tools

volytica's role in the project

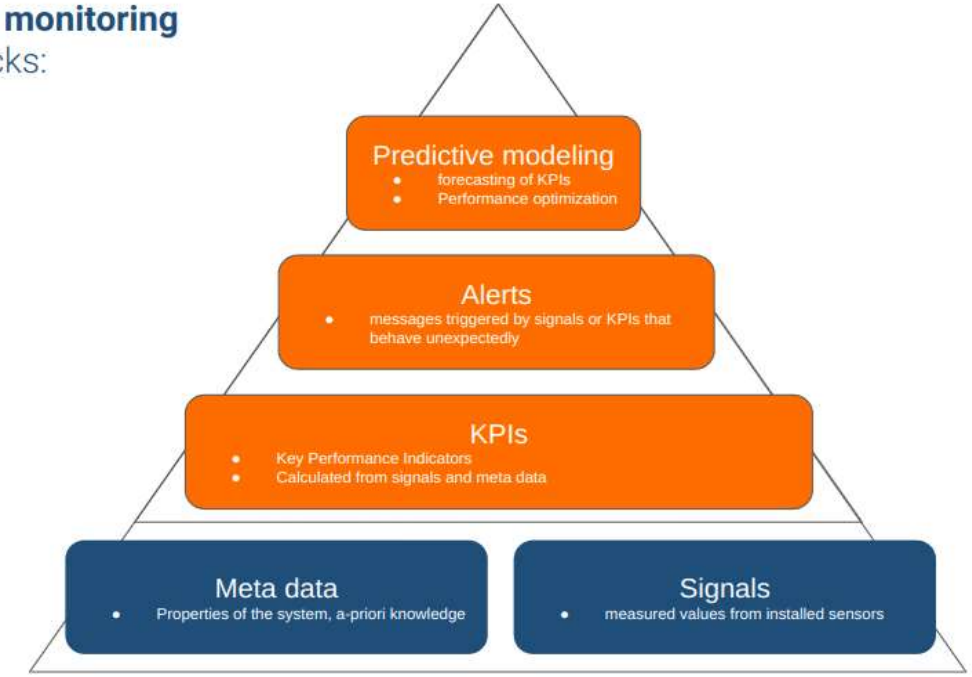


Electrolyser monitoring
Building blocks:

act

analyze

inputs



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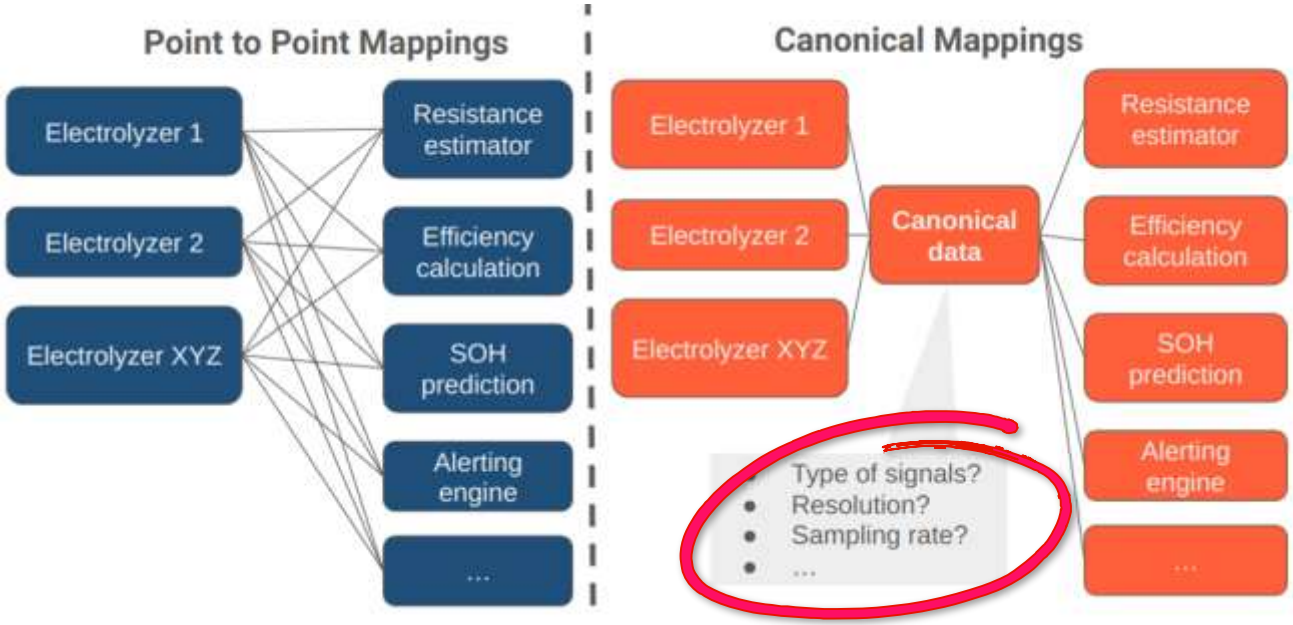
Diagnostic tools

1st step: Standardization of data set for experimental data

Enhance durability of electrolyser technologies
ELECTROLIFE



CEDM 1.0

* Canonical Electrolyzer Data Model

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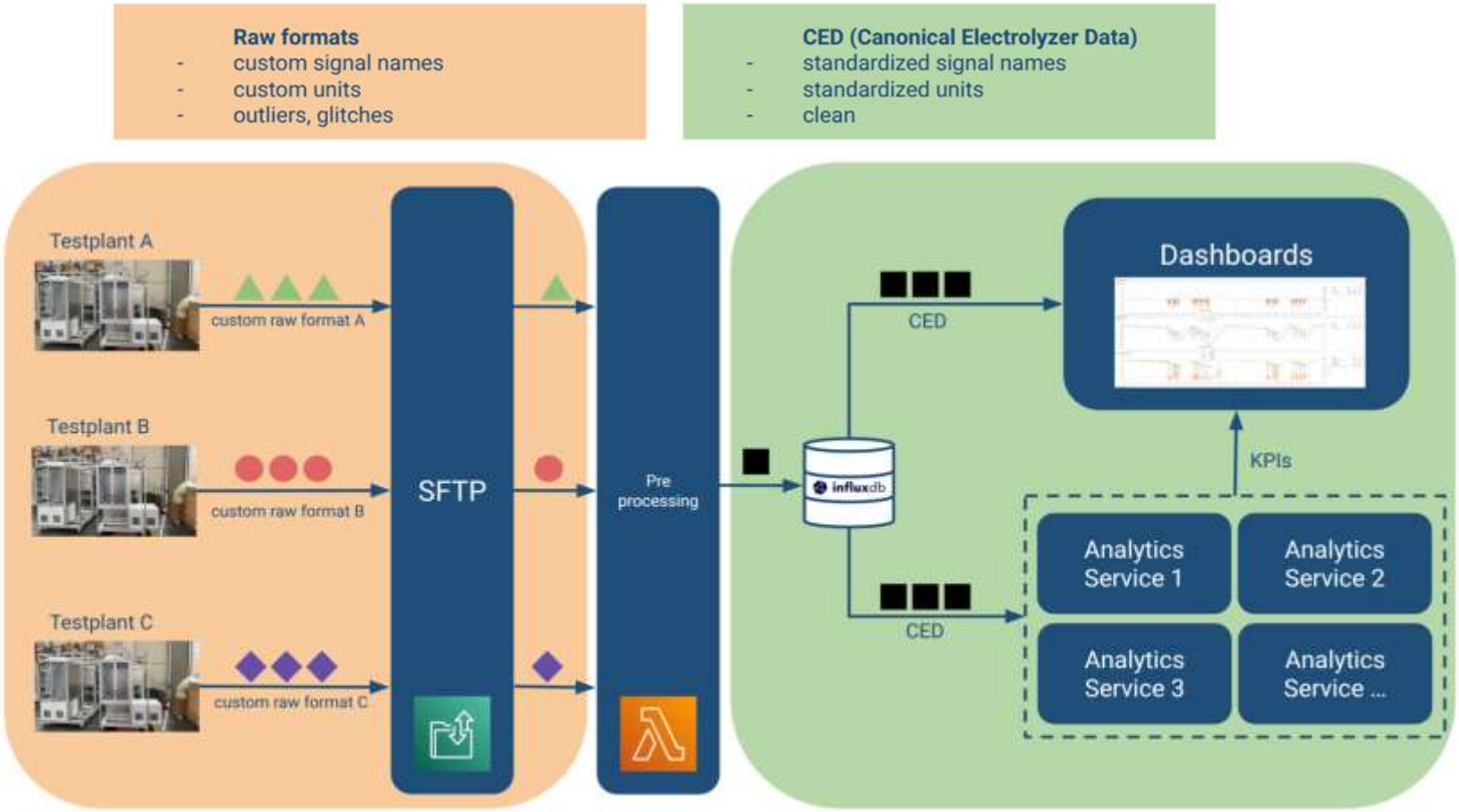
Diagnostic tools

2nd step: Building architecture and data ingestion pipeline



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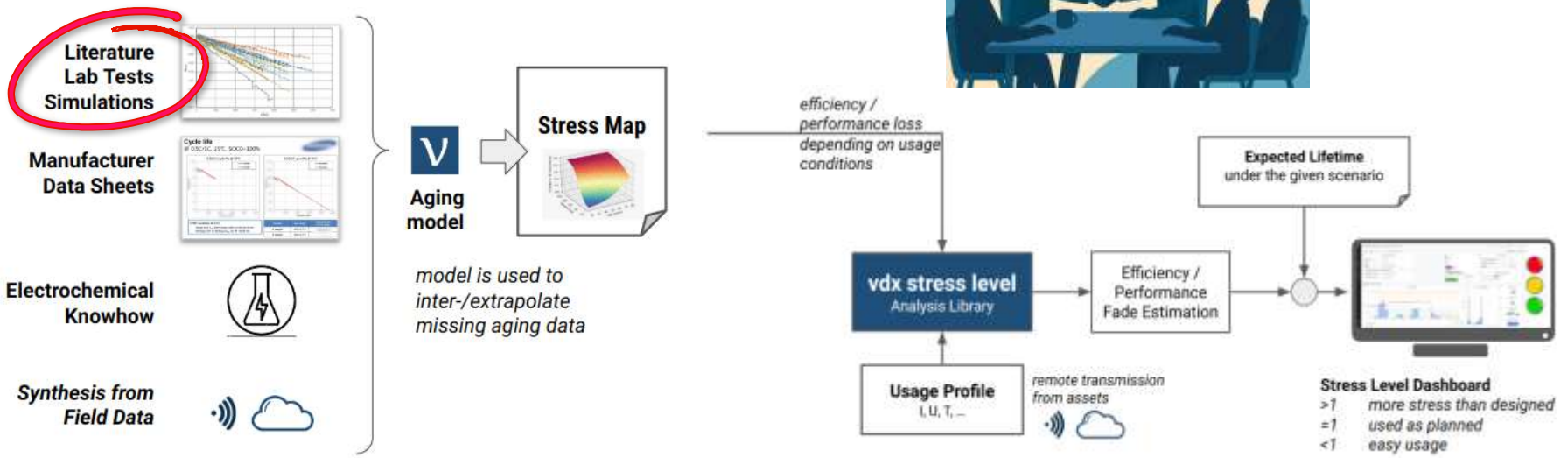
Diagnostic tools

3rd step: Developing diagnostic tools for SOH of electrolyzer

- Collecting data about degradation factors and effects
- SOH and RUL prediction
- Anomaly detection

Enhance durability of electrolyser technologies
ELECTROLIFE



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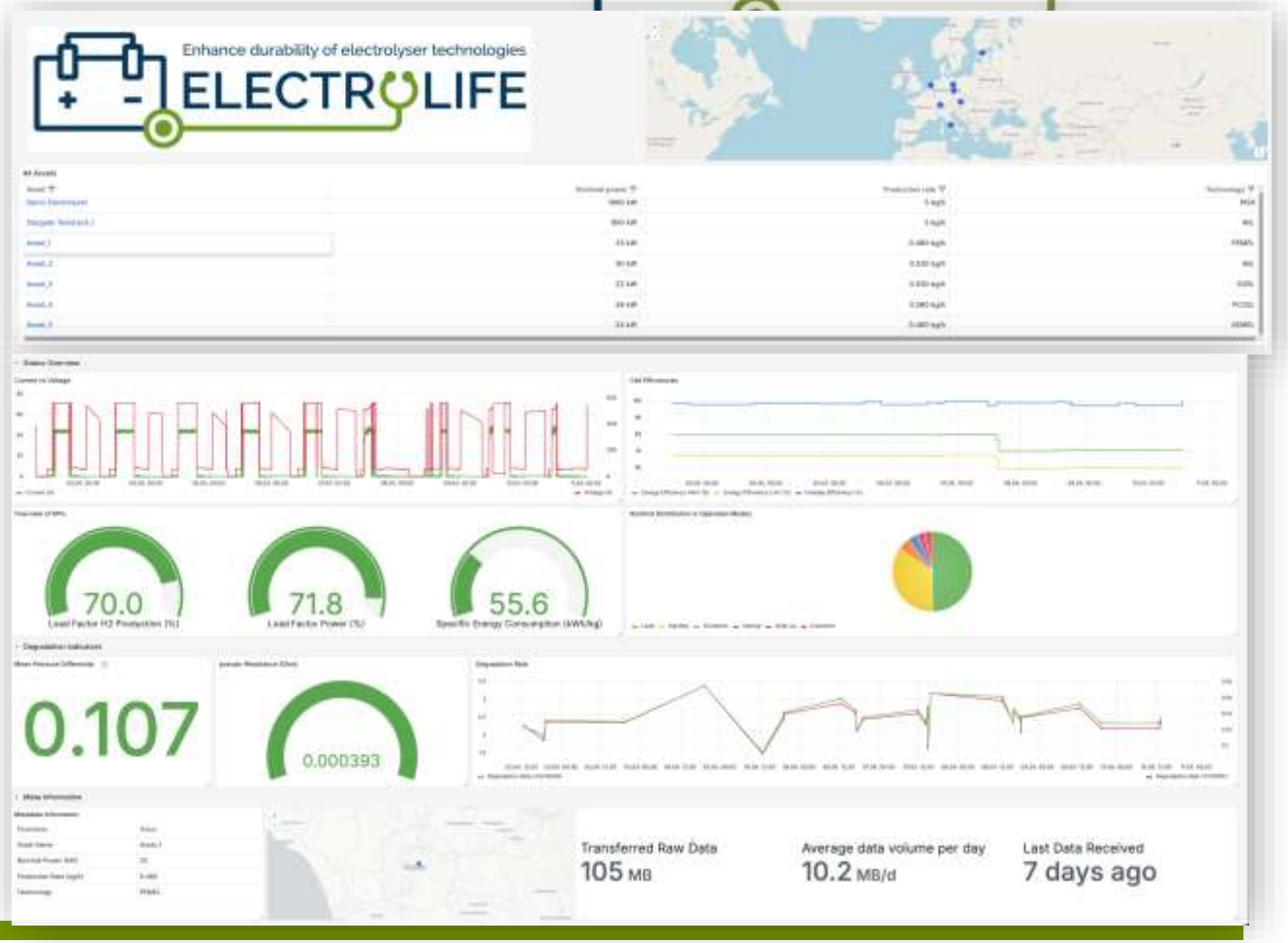
Diagnostic tools

4th step: Creating a User Interface

- Quick overview of all monitored electrolyzers
- Assessment of all relevant KPIs
- Deepdive into raw signals to gain detailed information about the behaviour



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