opinum
IMPACT WITH DATA

The First Data Hub Designed for Energy & Environmental Actors

Loïc Bar, CEO

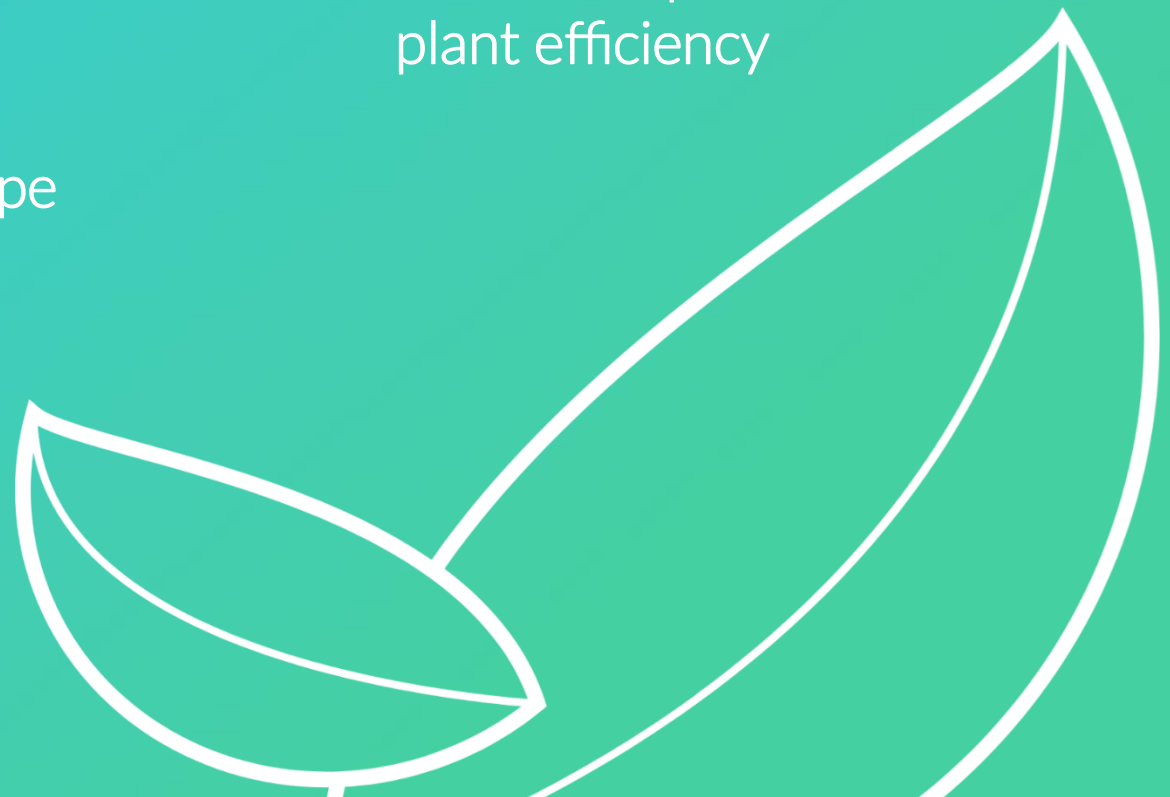
IMPACT WITH DATA

Our impact

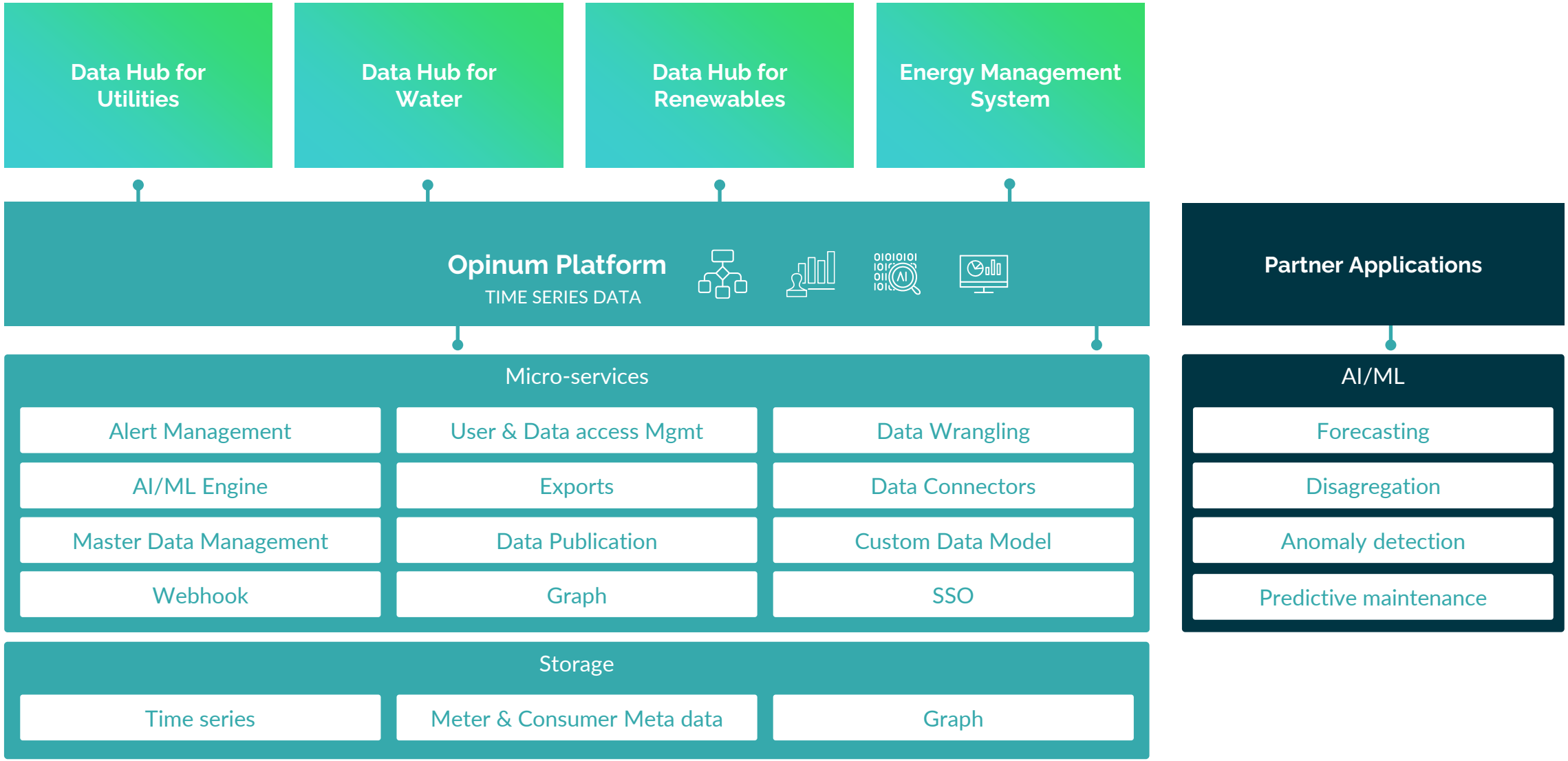
We help Power & Water Utilities consumers better understand their consumptions

We prepare the grid for future electrified and decarbonized energy landscape

We improve renewable power plant efficiency



A flexible solution to meet your ever-evolving needs



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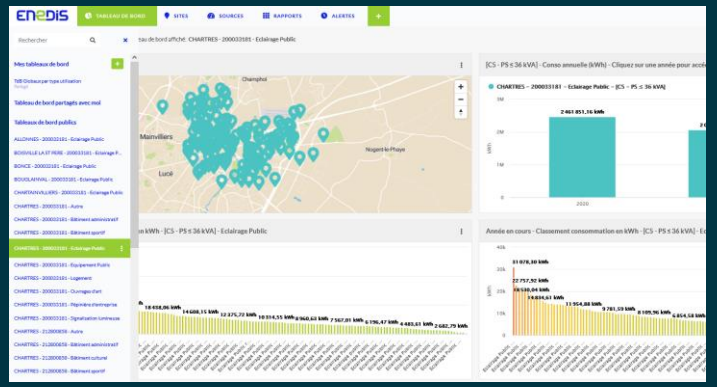
Utilities

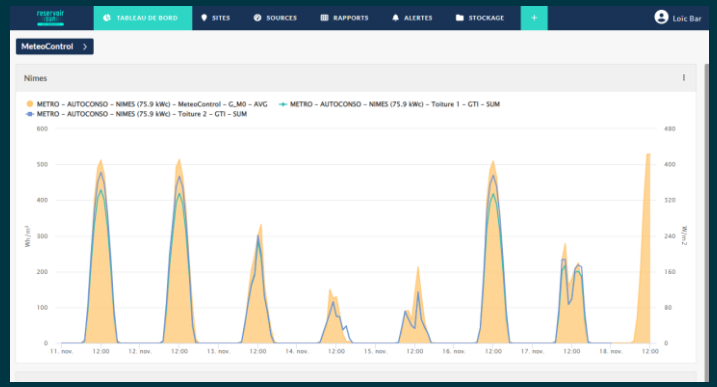
A Data Hub to leverage smart meters data



ENEDIS L'ELECTRICITE EN RESEAU · ORES OPÉRATEUR DES RÉSEAUX GAZ & ÉLECTRICITÉ · Sibelga energizing the city

Renewables

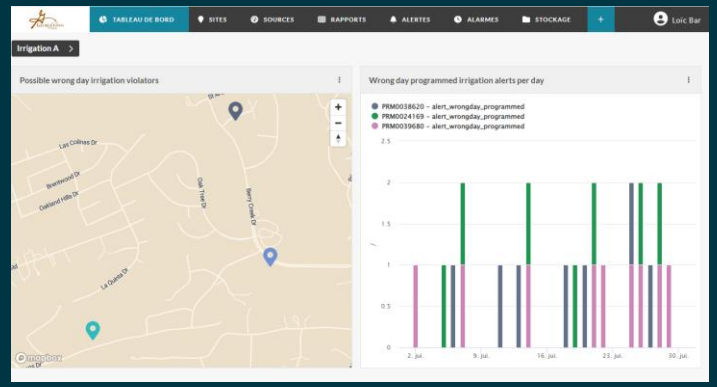
A Data Hub to optimize their portfolio & maintenance



agregio GROUPE EDF · SOLVAY asking more from chemistry® · reservoir sun votre énergie est ici

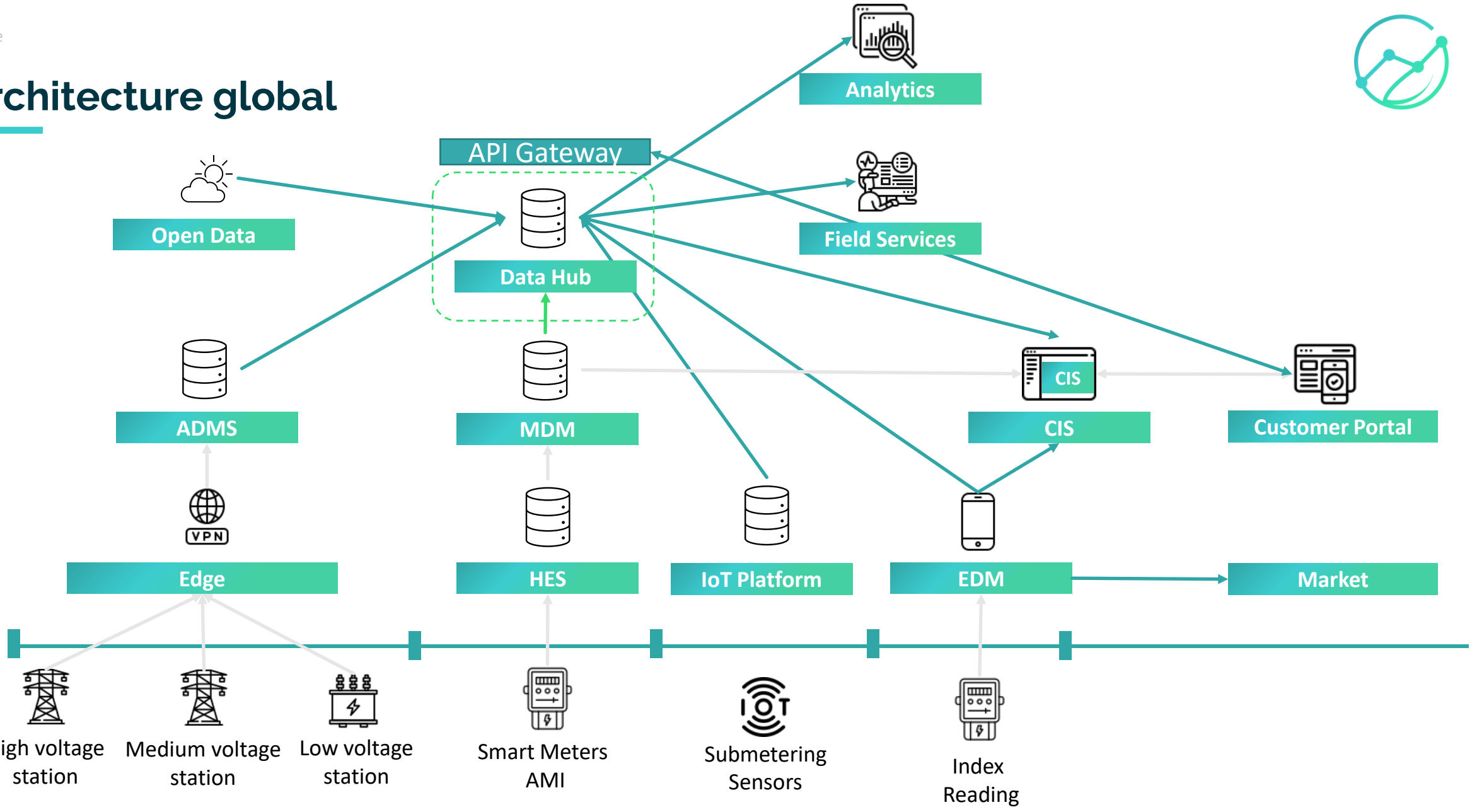
Water

A Data Hub to preserve water resources



La société wallonne des eaux · GEORGETOWN EST. 1848 TEXAS

Architecture global



Use cases

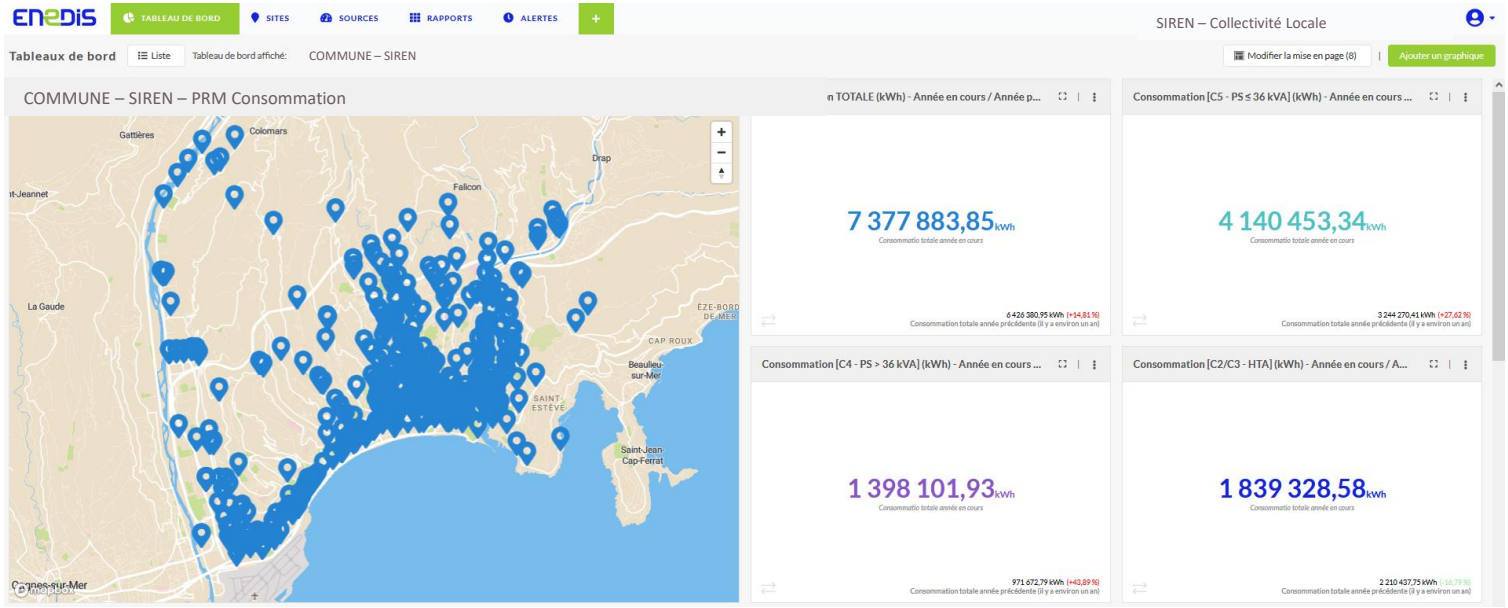
DSO, Water Grids, Renewable Energy Operators, & Energy Utilities

Use cases

DSO

Enedis, biggest DSO in the world, manages 95% of the distribution network in France and delivers electricity to 37 million customers in more than 34,000 municipalities.

To support local authorities in the ecological transition, Enedis wanted to provide them with electricity data to offer them modernized, reliable and comprehensive services in support of their energy sobriety challenges in various use cases.



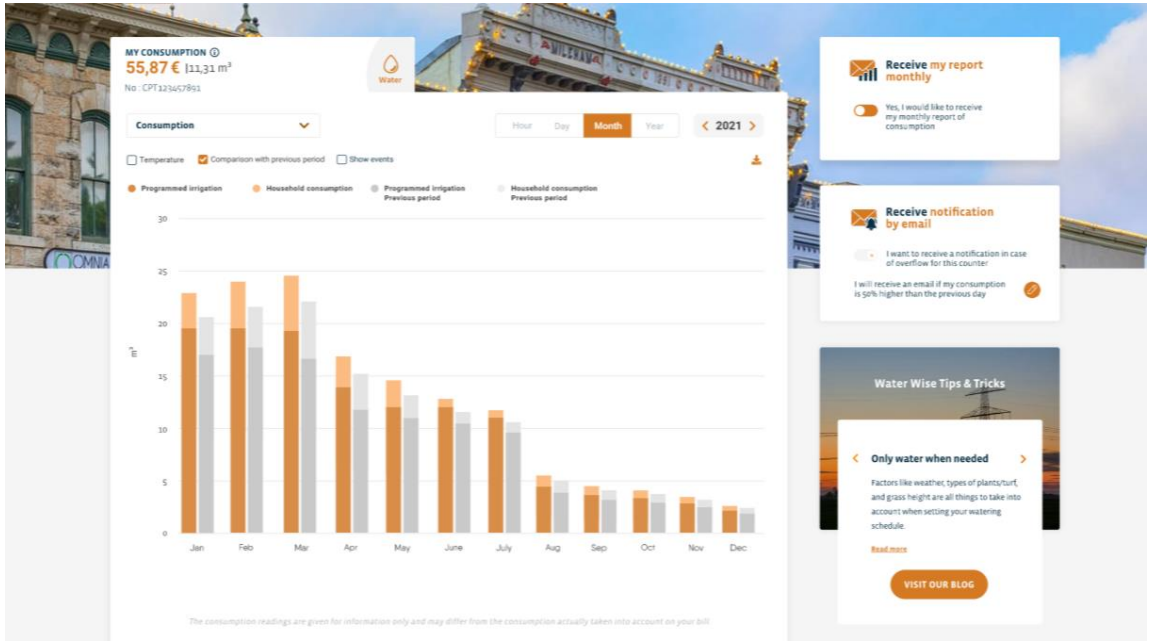
Our Solution

- Product oriented, does not require custom development
- Great flexibility that allows you to add new services
- Detailed security access rules
- Compliant with the group's cyber security requirements (such as Sovereign Cloud) as well as with GDPR and CNIL requirement
- Up to 2,000,000 counters with 10min data

Use cases

Water Grid

The city of Georgetown, Texas, has approximately 80,000 residents who use its water service. The city is located in a severe drought zone. During the dry season (April-September), the city imposes restrictions on the use of water for garden irrigation. People violating these restriction rules are subject to penalties.



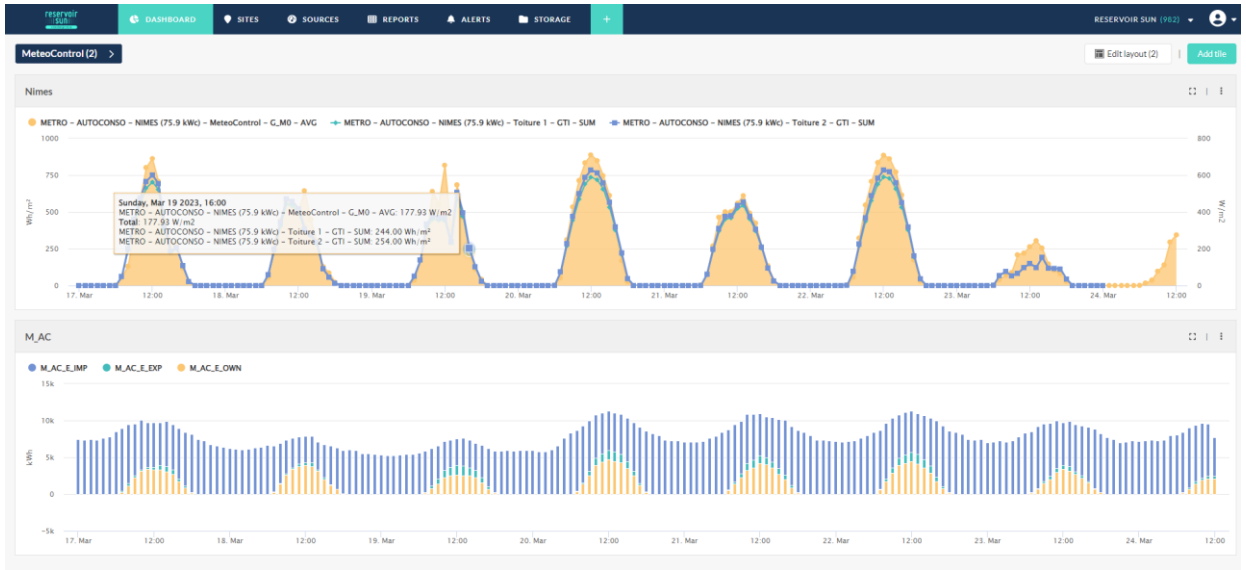
Our Solution

- Built-In programmed irrigation algorithms
- Highlight unauthorised irrigation : up to 52% of meters
- Fast implementation with direct result
- Automated solution reduces manual collection of data

Utilities

Reservoir Sun was looking for a supervision solution for 110 renewable photovoltaic assets that could meet the need to automate the monitoring of the activities and performance of its solar parks in conjunction with external data (Météocontrol, Solargis, Enegysoft S4E, Enedis...).

They use Data Hub to centralize all timeseries related data: solar production, market price, meta data and apply algorithms on these data to better operate their energy trading.



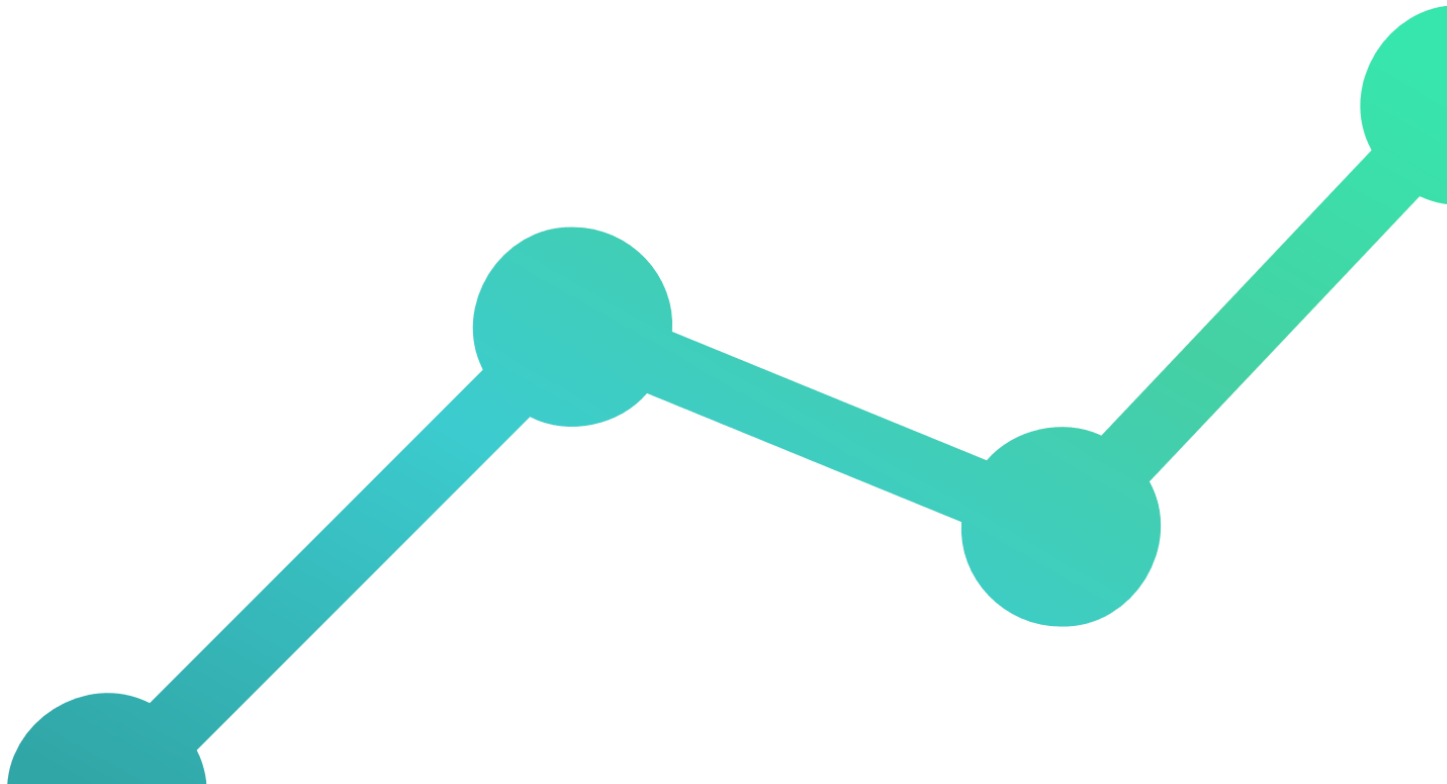
Our Solution

- The automated solution aggregates data and information from external sources (weather data, energy prices, irradiance, Enedis flows), reduces manual data collection and entry
- Automated calculation and allocation of production and monitoring of alerts
- Active management of individual and aggregate assets
- More efficient and accurate site performance management

data hub
BY OPINUM

Backbone of your digital transformation

Scalable, Flexible, Secure



Architecture

API Gateway

Trusted Zone

Web

- API
- Identity Server
- Portal ANGULAR

Micro-services (Kubernetes)

- Alert management
- Webhook
- File storage
- Connectors
- Analytics engine
- Export
- Data time-slicing
- Customized data model
- Master Data management
- Data Push
- Typology & relations
- an more services...

Data Bases

- Apache Cassandra
- MongoDB
- SQL Server
- Redis

Security

- SSO
- User Management
- Encryption

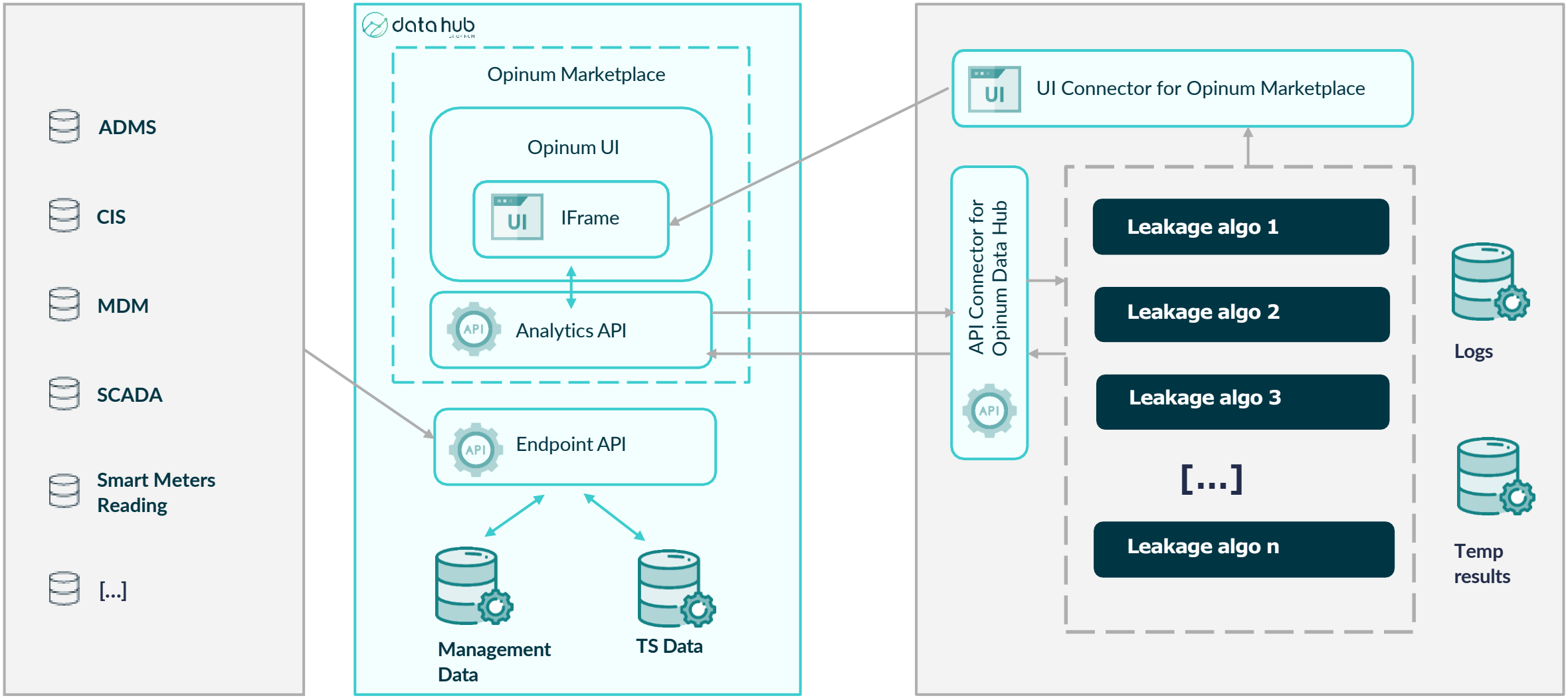
Supervision

- Pingdom

Log

- Graylog

Architecture



AI Apps (1/2)

Schneider Electric

Building Energy Modeling (BEM) detect abnormal consumption from smart meters in buildings

enersee

M&V application to calculate savings

enersee

Anomaly detection application to monitor change in behavior in time-series

Tangent Works

Forecast application using AutoML to predict time-series behaviour

meteoblue
weather close to you

Weather forecast applications dedicated to building, solar and wind power plants

AI Apps (2/2)

inetum

Predictive maintenance application for solar & wind power plants

MONTEL

Portfolio balancing forecast for grid operators

EMP EnergyMarketPrice

Energy Market Price application to access energy market data in EU and US

itineris

Desagregation application for Water consumptions

Opinum Data Hub

Security

Encryption

- Secure access in HTTPS,
- HSTS security policy,
- Use of a certificate with a 2048 bit RSA private key.

Authentification

- Oauth v2,
- JWT (JSON Web Token),
- Open ID Connect authentication standards.

Database

All communications linked to databases are encrypted and nearly all databases are encrypted “at rest”.

Confidentiality

The Data Hub architecture is based on an API First principle secured by authentication.

Behind this authentication, authorization management ensures that the connected user will only be able to retrieve the information to which he/she actually has access and will only be able to perform the actions that he/she is authorized to do.

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