

Edge computing to support **sustainable** and **circular** economy

Your *friendly neighbourhood* IT solution

Marc-Elian Bégin
CEO & Co-founder
SixSq

“There will be 41.6 billion connected IoT devices generating 79.4 zettabytes (ZB) of data in 2025.”

Cloud is not designed to directly handle this scale.

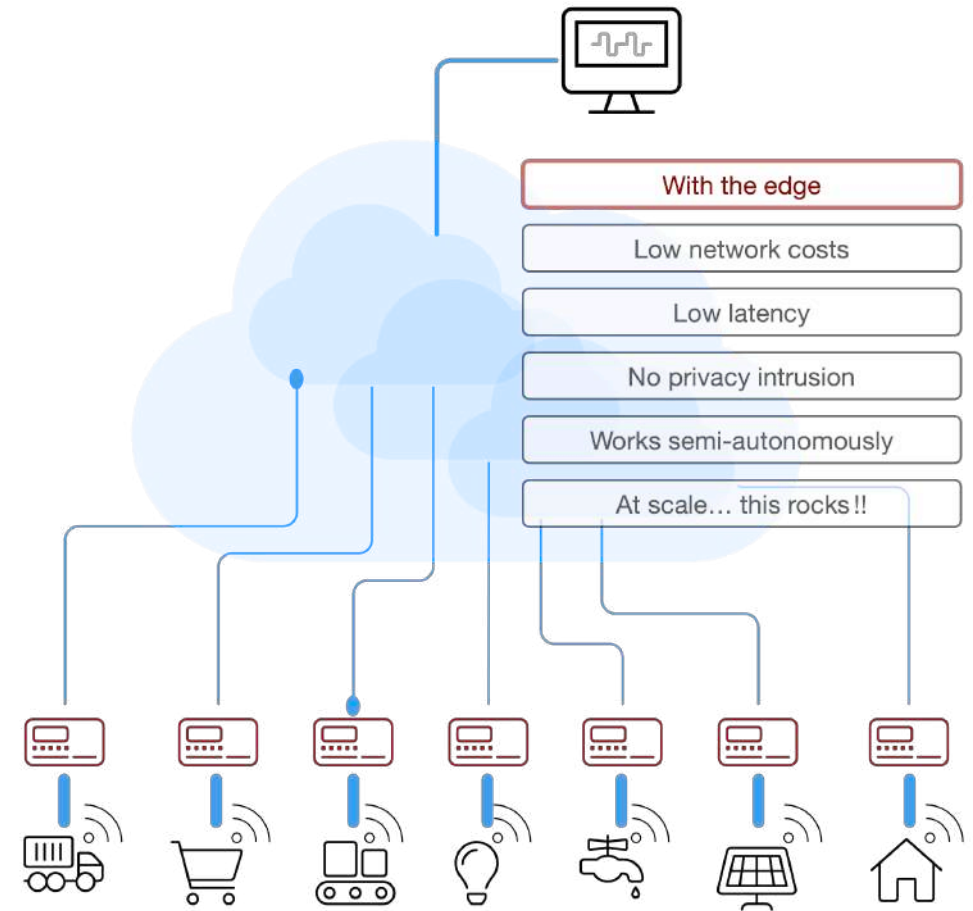
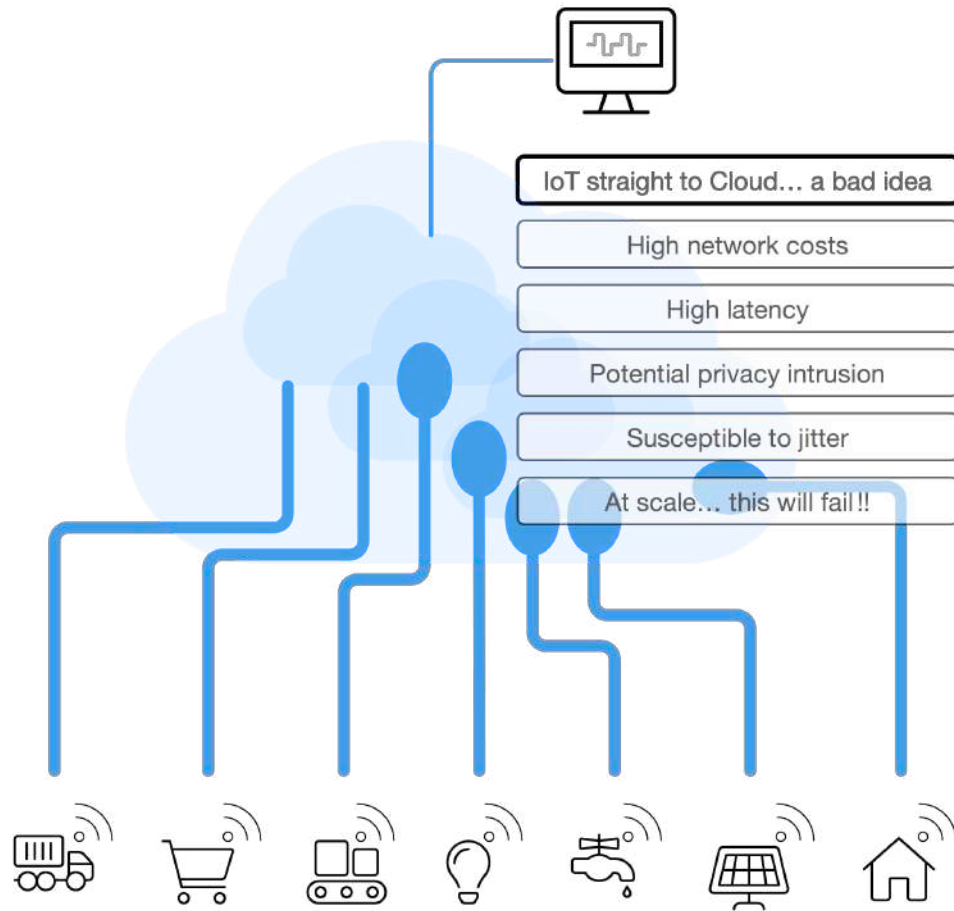


“The Edge Will Eat The Cloud”

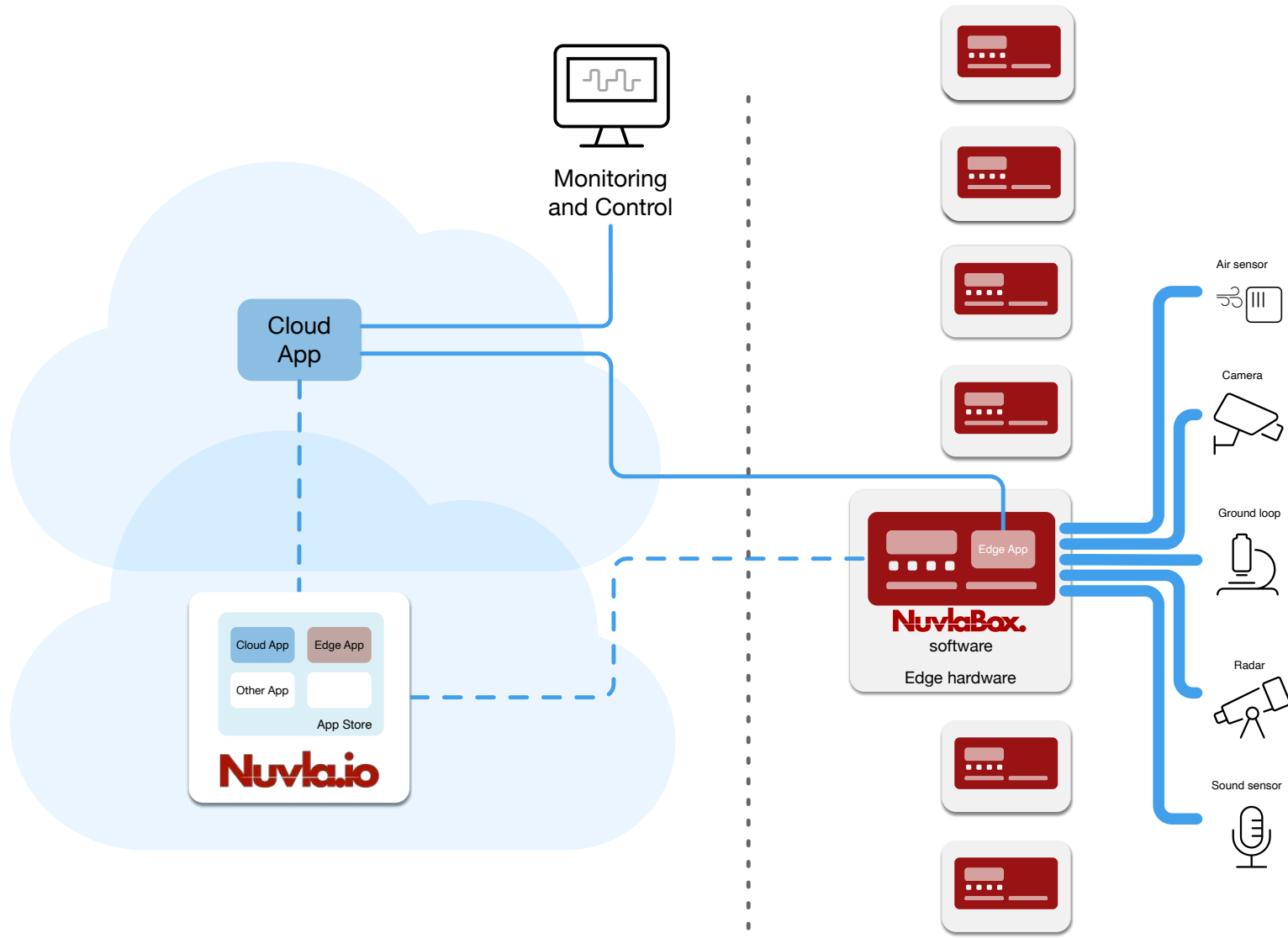




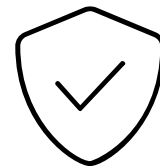
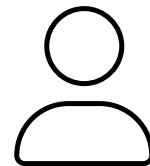
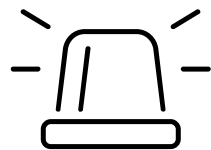
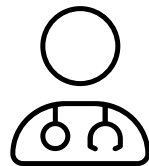
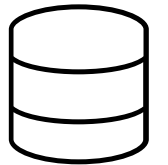
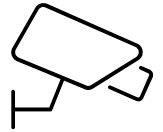
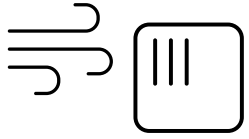
Edge is the solution for **scale**.



Simplicity matters.



Circular IT.



Smart lighting and traffic monitor

Smart City

20 current cities,
including:

- ▶ Porto
- ▶ Florence
- ▶ Berlin
- ▶ Geneva
- ▶ Zurich
- ▶ Basel
- ▶ Bern



30 more under
deployment,
including:

- ▶ Paris
- ▶ London
- ▶ Barcelona

Principle

Low traffic



Low light

Medium traffic



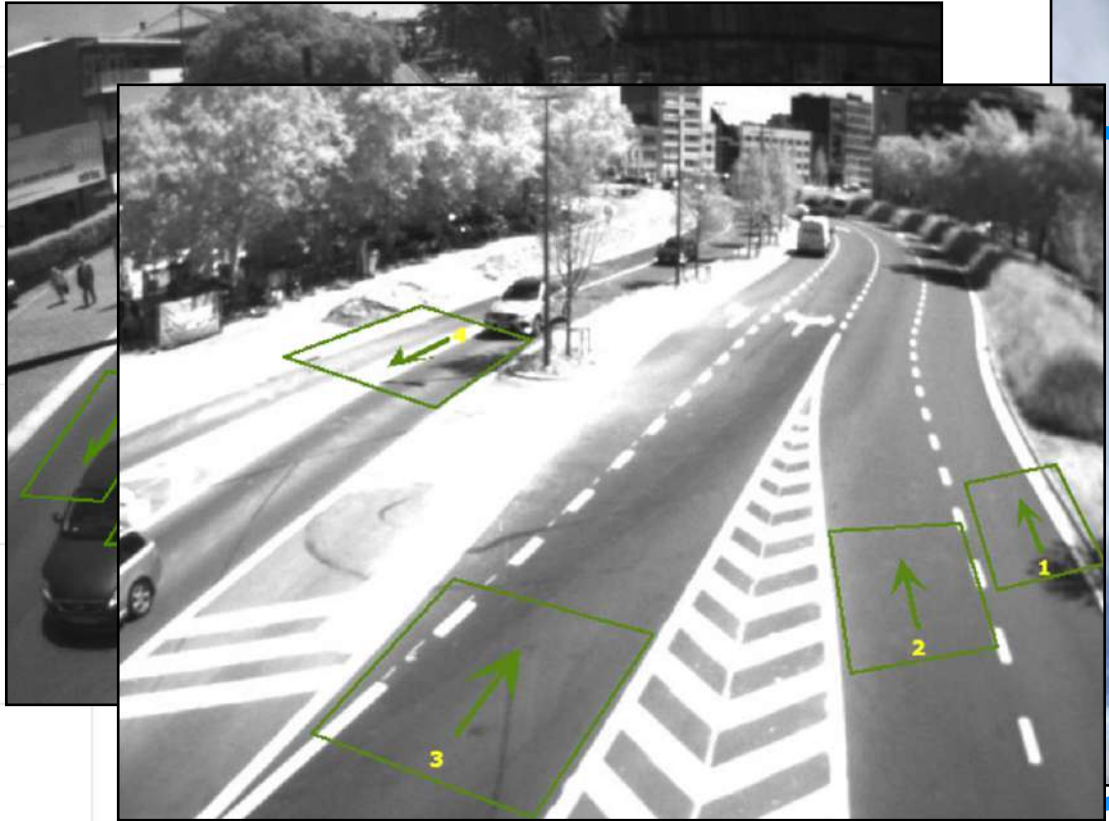
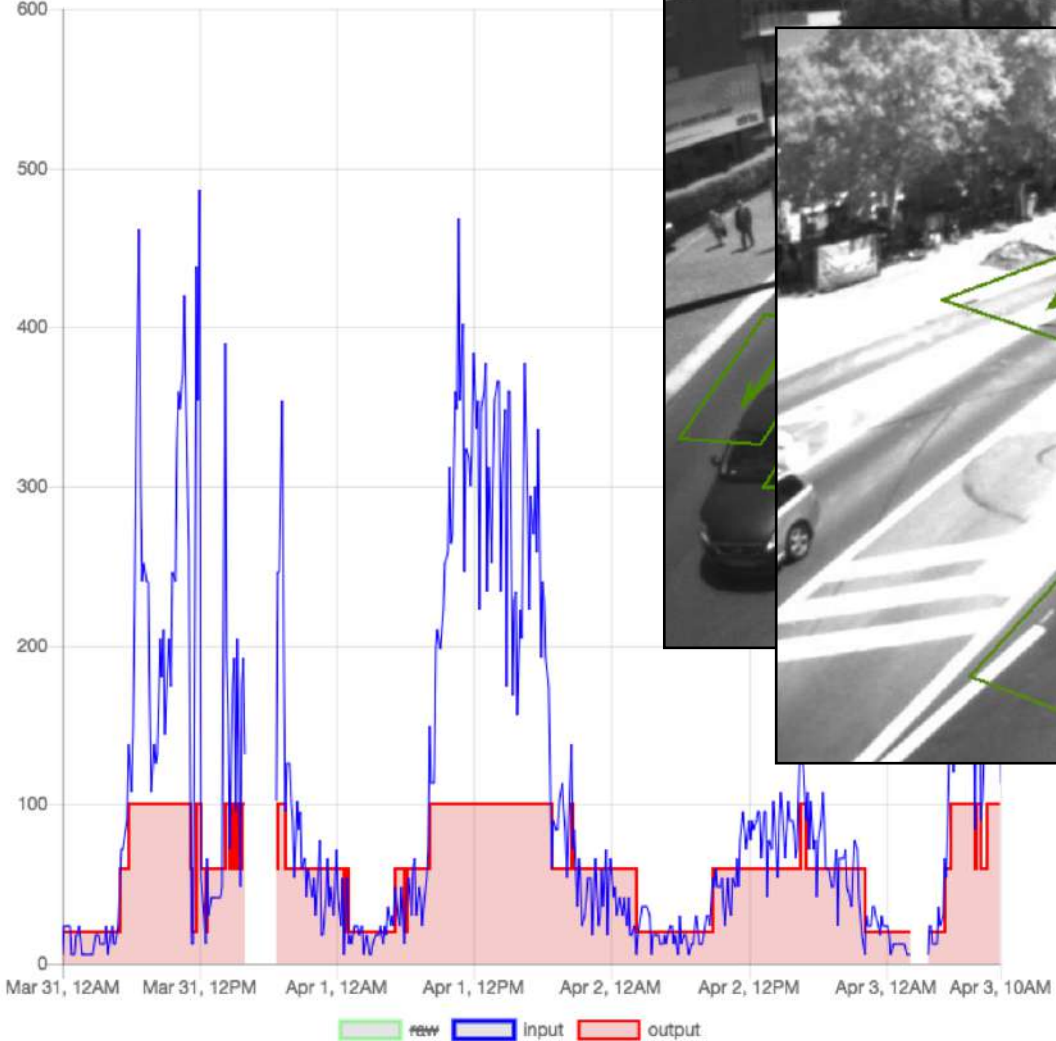
Medium light

High traffic



Full light

Smart Street Lighting Solution - Edge application



Information in action.



Antwerp
Traffic dashboard

Dates 9/3/2019



All weekdays

All hours

All streets and lanes

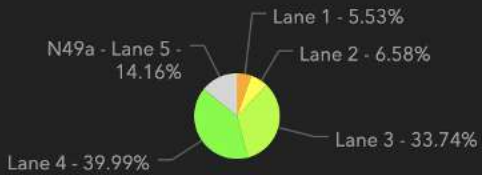


Vehicles

858,432

Traffic distribution

by lane



Last update: a minute ago

by lane

by direction

Current traffic load

based on the last 20 minutes



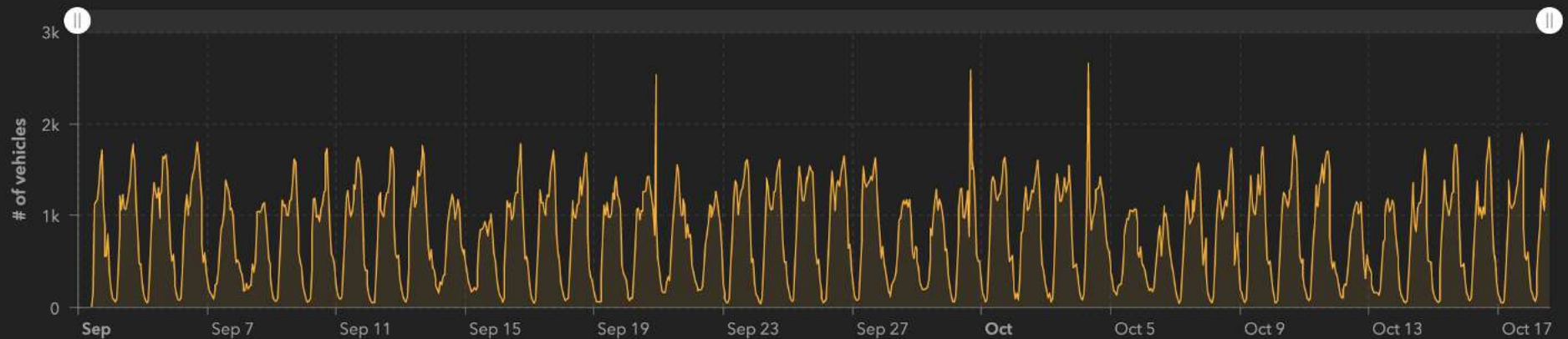
Last update: a minute ago



SYNCHRONICITY

In this dashboard you can visualize real-time traffic data from *Ankerrui N49a* in Antwerp, BE. These data have been captured by the *VolumLight™* solution developed by Schreder and SixSq, which has been selected to be a pilot within *SynchroniCity* - a global market, where cities and businesses develop IoT- and AI-enabled services to improve the lives of citizens and grow local economies.

Here you'll find the statistical information about traffic density which is used to dynamically adapt the luminosity of the corresponding city street lights.



Last update: a minute ago

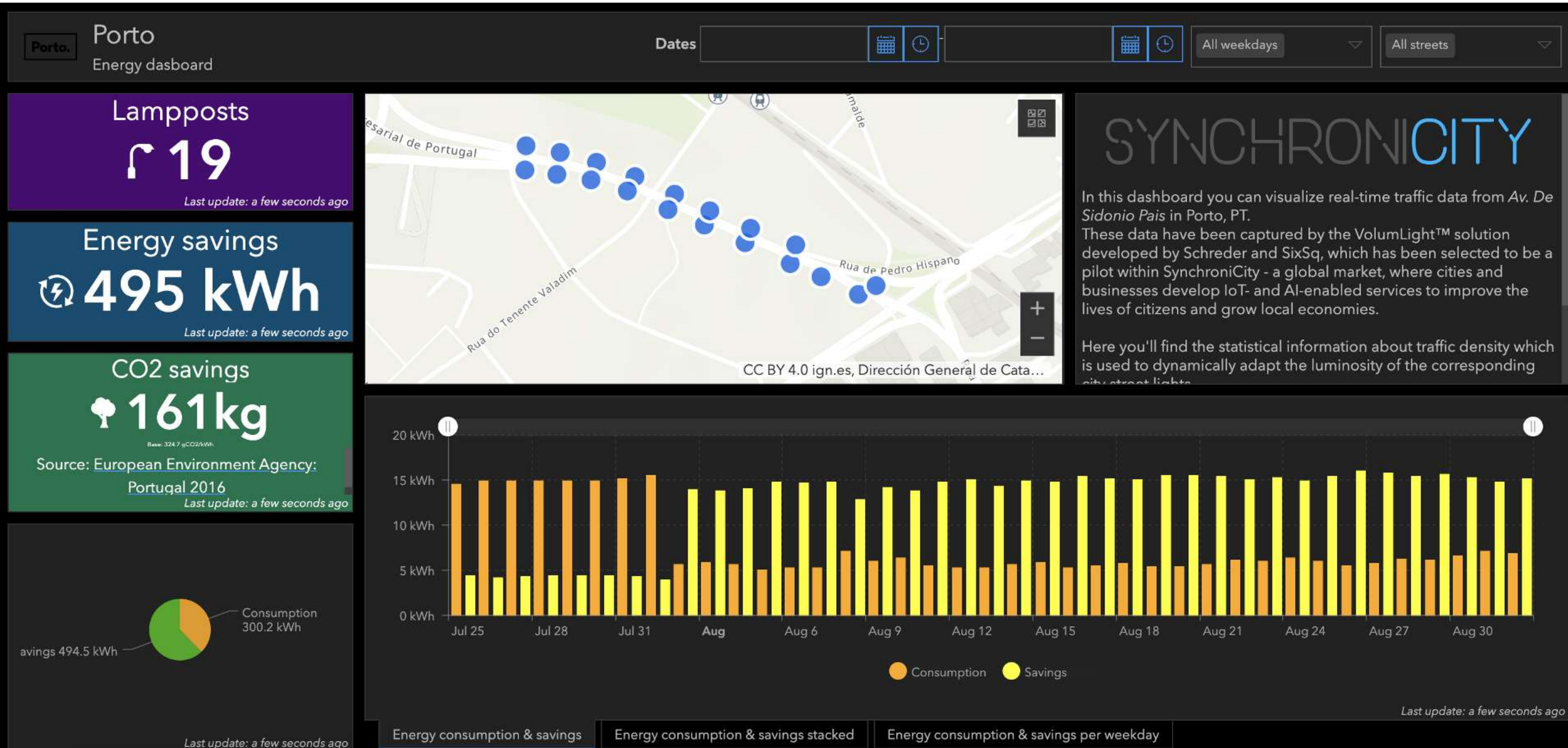
Vehicles count (per hour)

Vehicles count (every 10 minutes)

Vehicles count (per day per lane)

Vehicles count (per weekday)

Information in action.



Creating value for all edge participants.

- **Software Vendors** – ease and acceleration of go-to-market and monetisation.
- **System Integrators (SI)** - coherent global control, including edge and cloud with app marketplace.
- **Edge Hardware Manufacturers** - transform hardware into a smart edge device, connected to the Nuvla.io eco-system.



In the last 12 months:

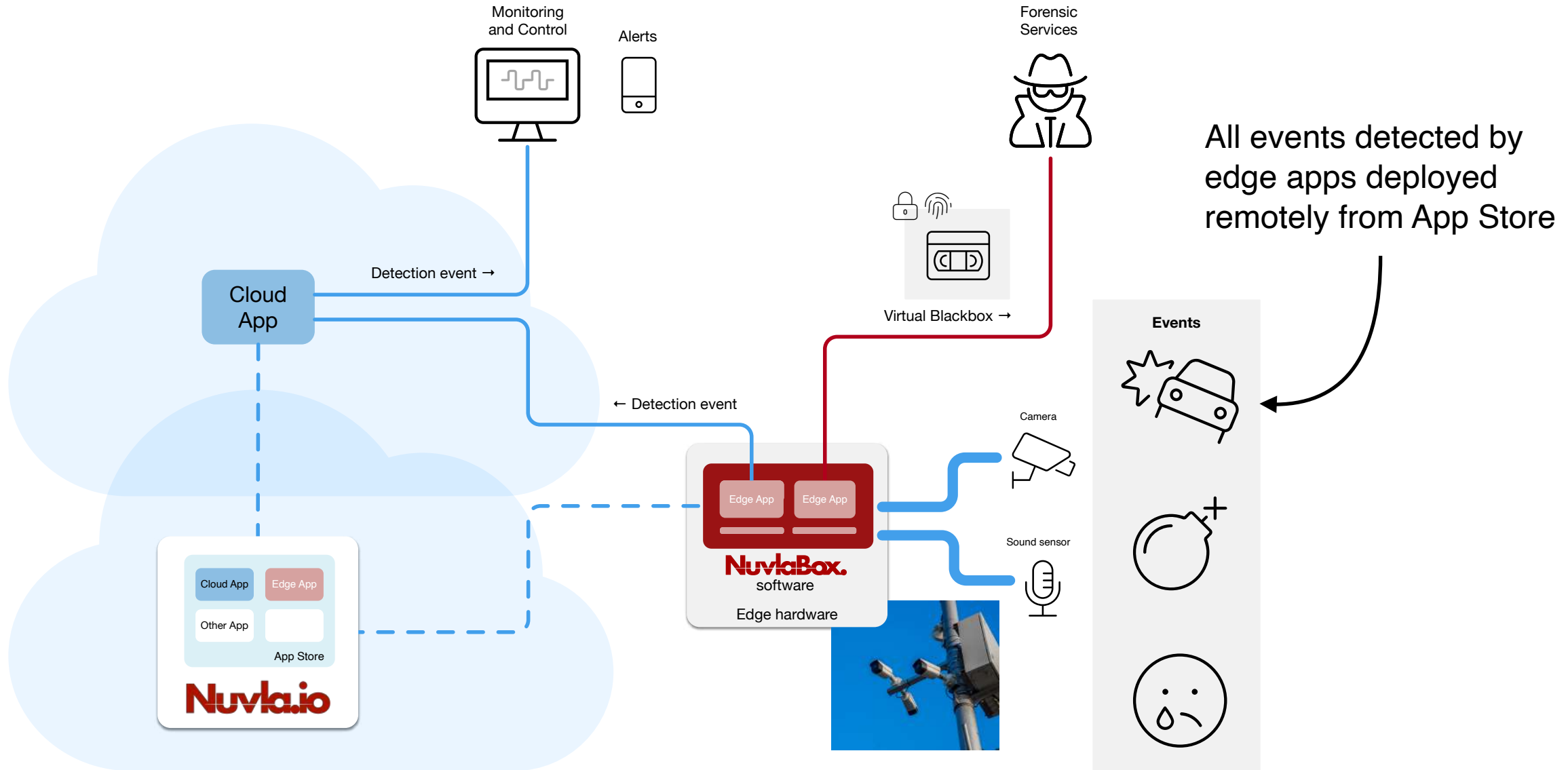
>50 PB

Data processed at the edge
Data that would otherwise be lost.

>1 PB

Data transferred to clouds
High quality data for more insights.

When I need the **data**?



Conclusion.

- 1. Edge computing is key in making IT sustainable and contribute to a circular economy**
- 2. Information matters → local transformation is required**
- 3. In cities, edge infrastructures could become shared/public/public-private assets**
- 4. Governance matters**
- 5. It's a lego challenge, as we have all the bricks: little risk!**
- 6. We are committed to realise this vision, but need public and private partners**



Thank You

The screenshot shows the Nuvla Apps dashboard. On the left is a vertical sidebar with icons for Home, Dashboard, Apps, Nuvlabox, Credentials, Notifications, Data, and Infrastructures. The main content area is titled "Apps" and includes a search bar, a "Refresh" button, and a navigation bar with "App Store", "All Apps", "My Apps", "Navigate Apps", and "Deployments". Four app cards are displayed:

- Cognitive Service**: bytelAKE's Cognitive Services is a collection of Artificial Intelligence (AI) models designed to address Industry 4.0 needs. Each AI model has been designed and trained to be razor... [launch](#)
- SONAL**: By Securaxis, AI expert, SONAL counts and categorizes vehicles, indicate speed and flow of traffic, monitor level of noise and smarten your street light. [launch for 2€/day](#)
- Video Analysis Object Detection**: For demonstration, this app uses a local video feed, such that no external camera is required. [launch for 1€/day](#)
- BlackBox**: This app allows users to trigger the creation of a black box, yes like in an airplane. [launch for 0.33€/day](#)

For more information please contact: Marc-Elian Bégin, CEO & Co-founder, meb@sixsq.com