



NAS

Nordic Automation
Systems



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About NAS

Complete IoT solutions for
Utilities

www.nasys.no

Nordic Automation Systems

03



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Viljo has been very successful entrepreneur. He launched www.kalendrid.ee in 2004 which was online calendar ordering system with custom photos. The business was profitable from first day. Viljo sold the business just after a year. He also created one database, aggregating information from different online sources, which he exited within a month. Expertise in both firmware, software and hardware, he is natural born engineer.



Ivo Remmelg [Linkedin](#)

Phone: +372 5042 706

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Ivo is a serial entrepreneur and has founded more than 4 companies. He was 17 years the CEO and partner of www.telegrupp.ee, the systems integration company. In 2004 Ivo and his partners sold Telegrupp to Telia and after few years bought it back from Telia. Ivo exited Telegrupp (systems integration) in 2016 when company had 100 employees and 16 million in revenues being AAA rated company in Estonia. Ivo is active in Angel investing and also board member of ESTBAN. Ivo met Viljo in 2016 when Viljo invited Ivo to become co-founder. Ivo also invested 400 000 EUR personal money to NAS.

01

Real paying customers
in all continents around
the globe,
only paid trials

02

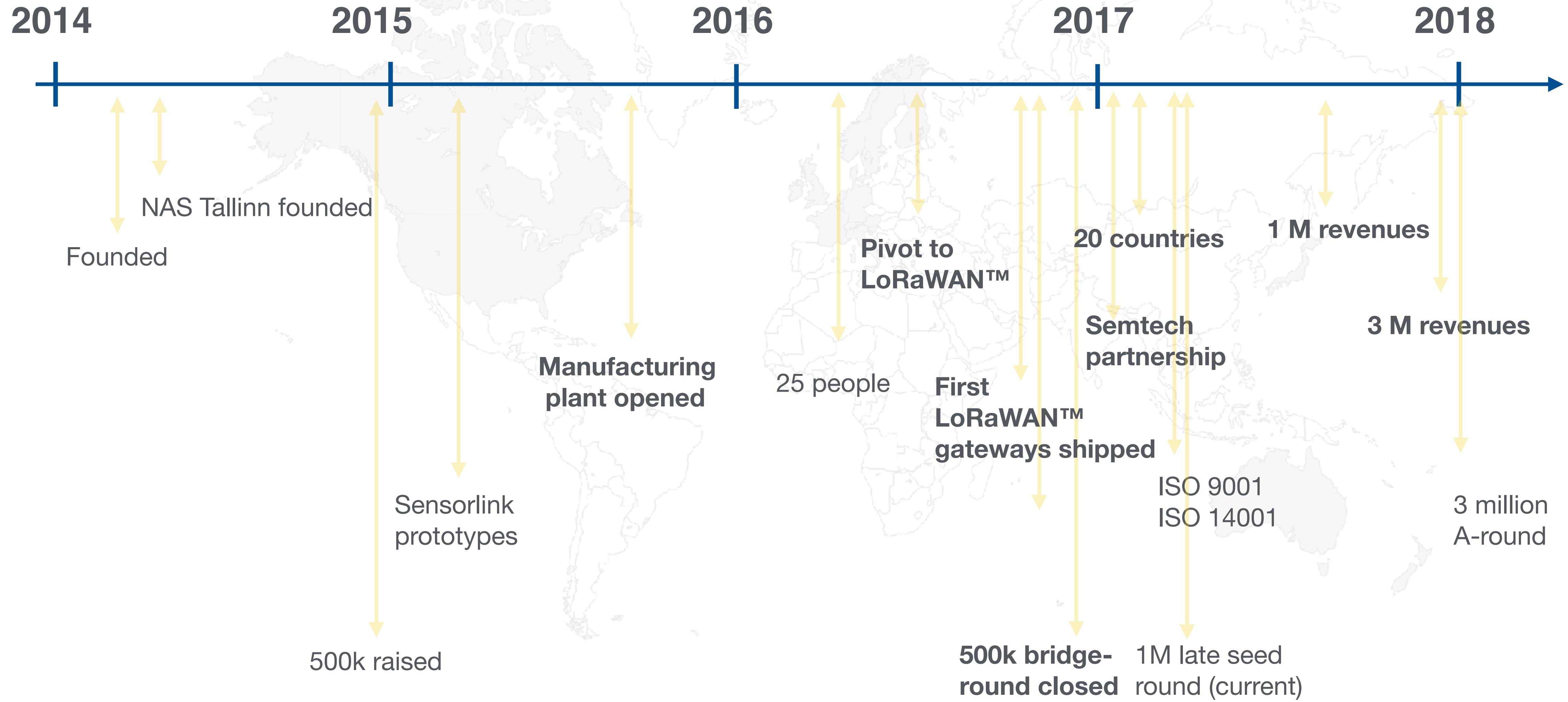
Just week after launching our
website, we got enquires for the
value of 1 million EUR

03

About 50% of web
enquires end up with paid
trial order.

NAS Timeline

05



LoRaWAN open standard

06



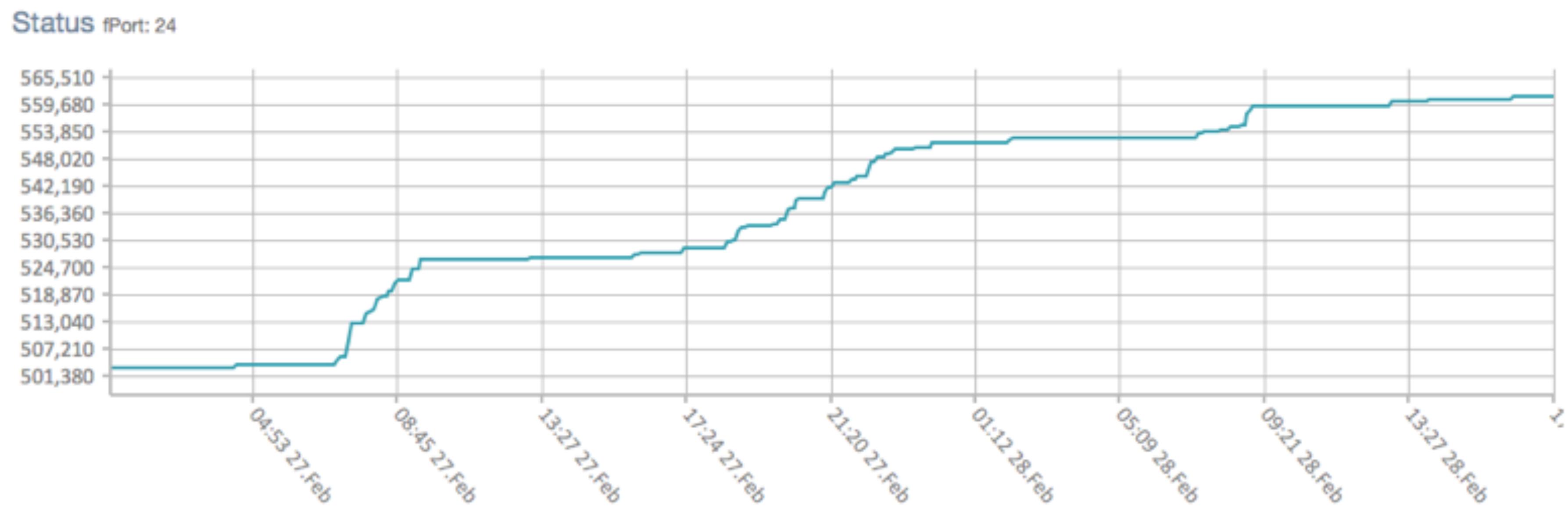
- Single chip manufacturer- Semtech
- Use local operator or build own network
- Modules available
- Network rollouts all around the world
- Primary cell lifetime up to 10 years

NAS LoRa Products
Full Vertical Solution Provider

- Water meter reader RETROFIT
- Luminaire controller
- Pulse reader
- OEM Radio modules for gas, heat and water meters
- Development board (incl. temp and humidity metering)
- Outdoor gateway
- IoThub Cloud



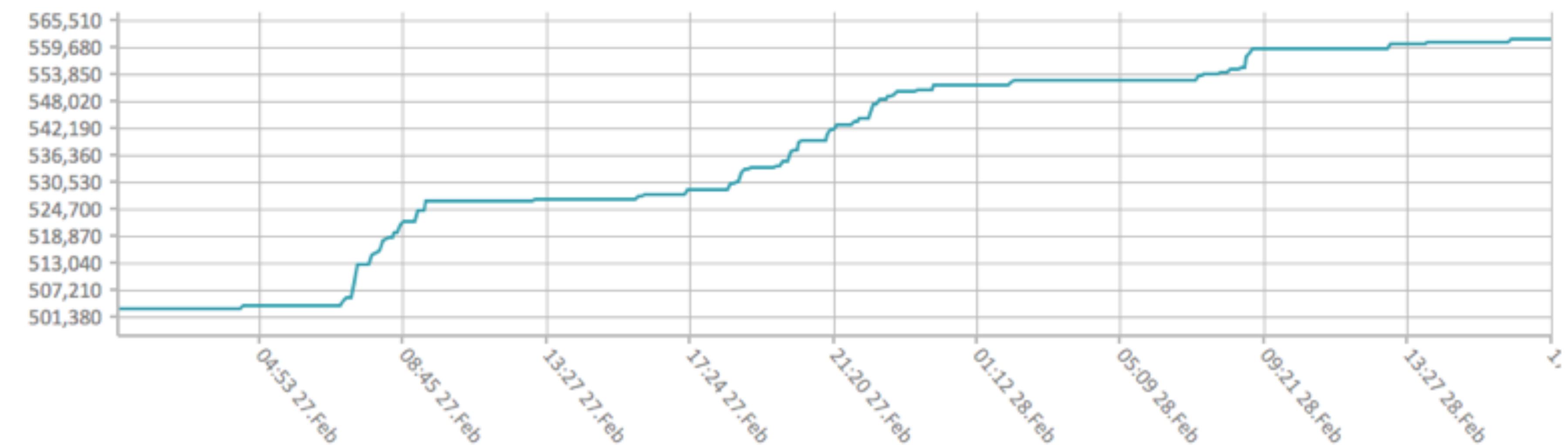
- Suitable for reading various equipment pulse outputs
- Water, gas, heat meter reading
- **In production, shipping**
- Sales price less than 50 EUR/unit depending on the volume



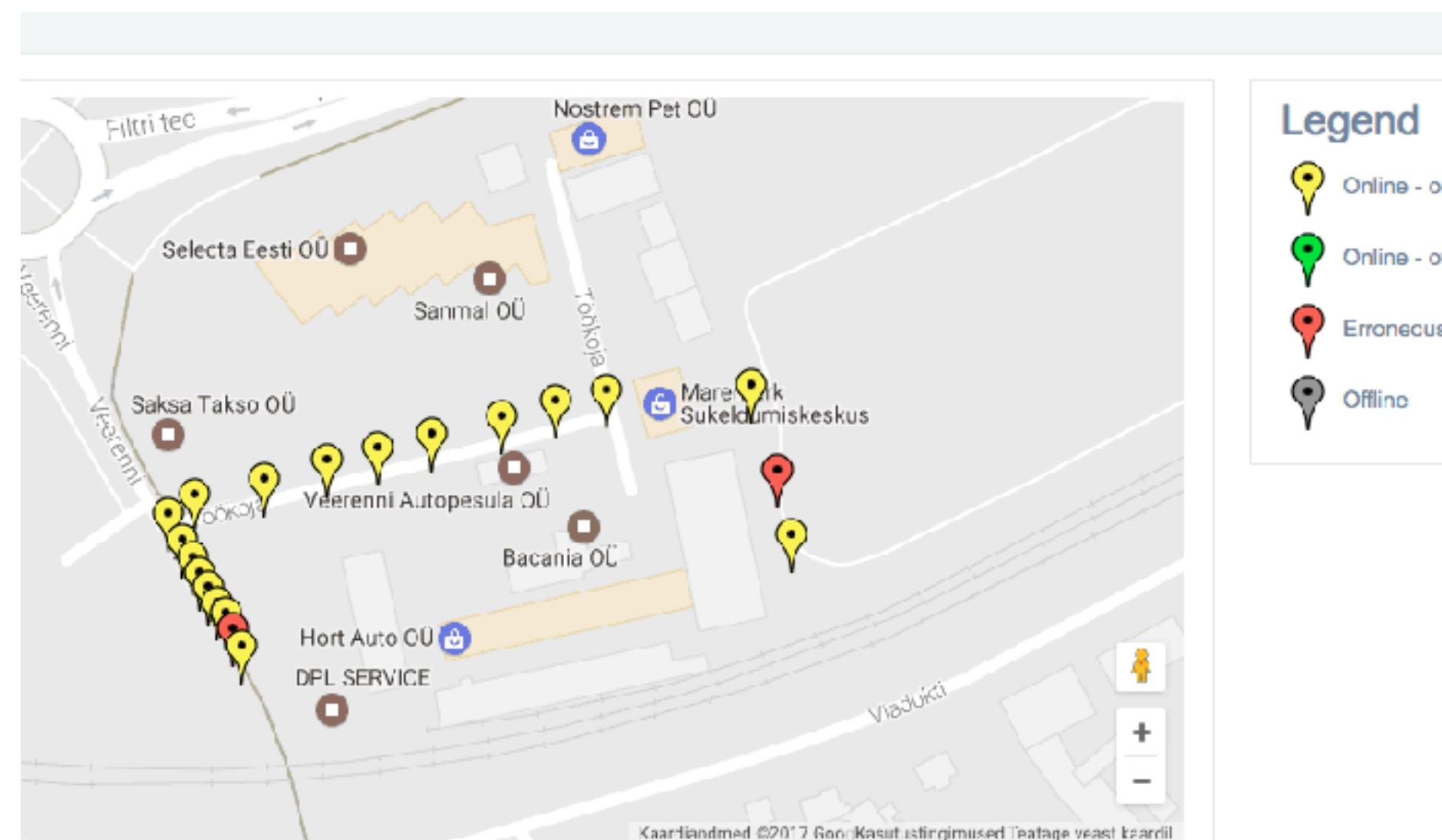
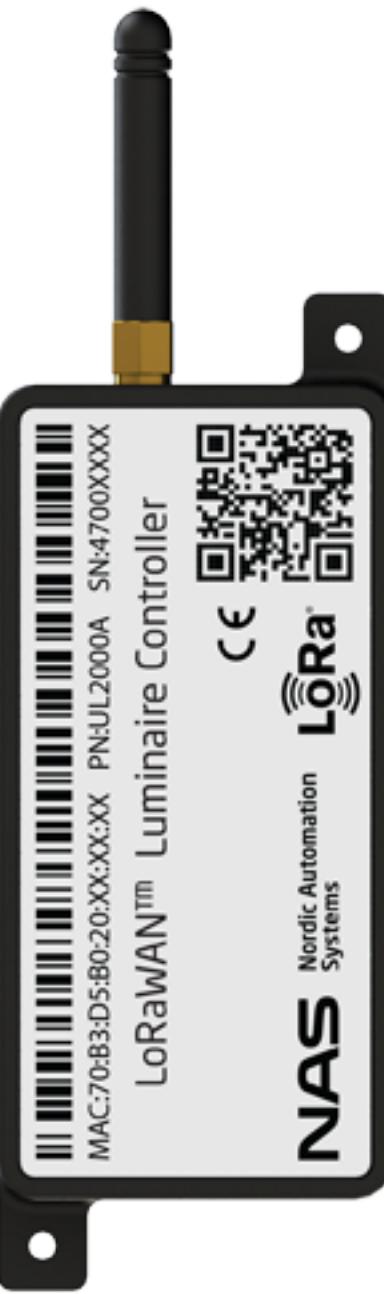


- Retrofit form factor. Works on majority of water meter designs.
- In discussion with Werle, to produce White Label Radio module into Werle water meters
- Unique world, dual technology, magnetic and optical.
- Easy 2 min installation, can be done by household owner
- **In production, shipping**
- Sales price less than 50 EUR/unit depending on the volume

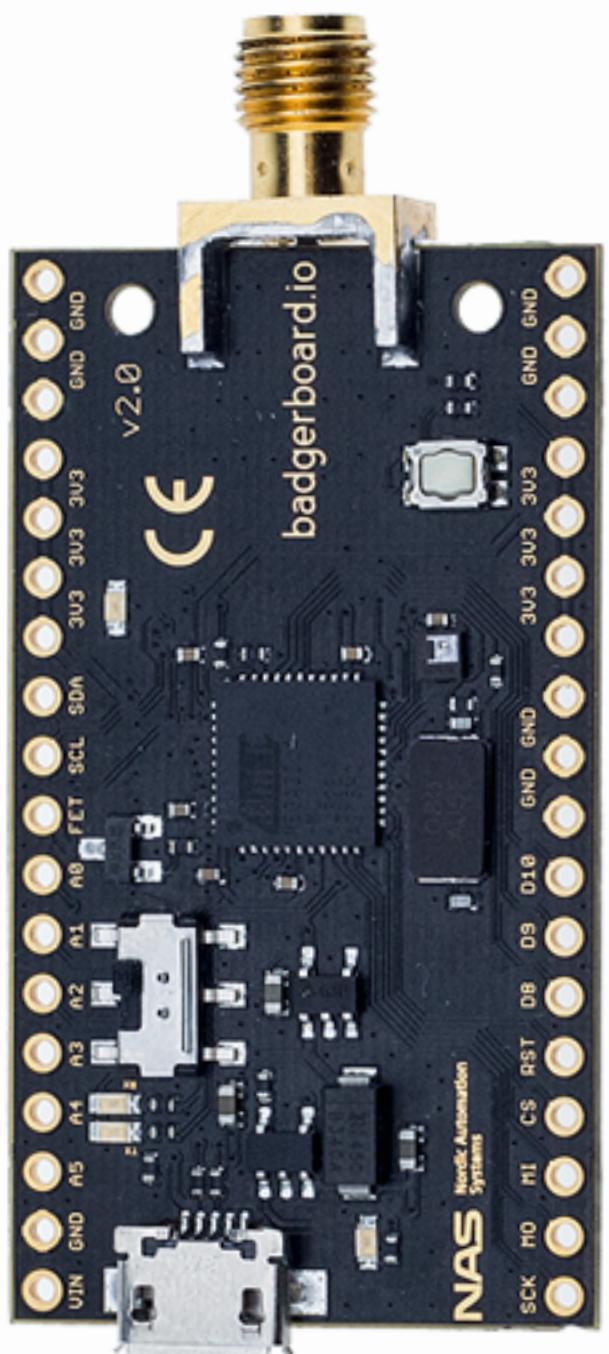
Status #Port: 24



- There are only two suppliers in the world NAS and Flashnet.ro
- Dali interface
- On/Off and dimming
- Class C device
- IP68
- **In production, shipping**
- Sales price about 75 EUR/unit depending on the volume



- Arduino compatible LoRaWAN prototyping platform.
- Class A
- Onboard temp & humidity sensor
- Long range radio transceiver; 433, 868 / 915 MHz
- **In production, shipping**
- Sales price about 50 EUR/unit depending on the volume





- Indoor and outdoor (IP67) gateways
- Modular design, Ethernet, WiFi, 4G uplink options
- PoE powered
- EU/US versions
- **Outdoor model in production and shipping, indoor due summer 2017**
- Sales price 250-550 EUR/unit



01

Founded in 2014

02

Offices in Ålesund
(Norway), Tallinn and
Kuressaare (Estonia)
Own SMT production
unit

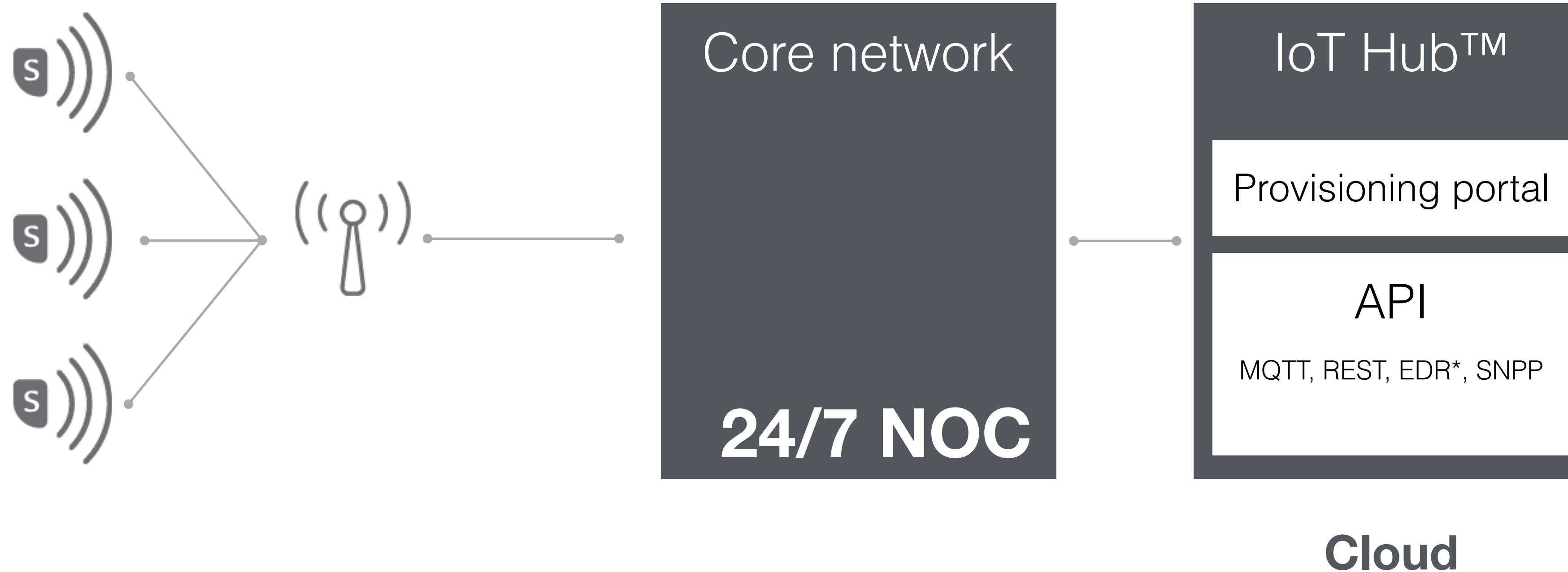
03

Exports to 25 countries
in all continents

04

1,3 Million Euros
invested by Norwegian,
Swedish and Estonian
investors 1 million EUR
late seed round by
1Q2017

Recurring revenues from Network API connectivity platform and service providers portal. From 1-9 EUR/year/sensor



01

India - Smart city

- 200 Luminare controllers with Tata Telecom

02

Estonia-Nationwide coverage with Levira

- About 100 GW and nationwide coverage
- Projects including Rimi supermarkets and Kakumäe haven

03

Sweden- Uppsala

- LoRa network 4 GW
- 100 sensors

04

Kazhakstan

- 200 apartment building smart metering project

05

Italy-Venice

- Venice smart metering

06

Latvia

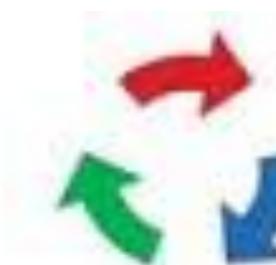
- Nationwide LoRa network
- 100 GW

9 million EUR sales pipeline

Monitoring energy, heat and temperatures in grocery stores



levira
IoT network provider

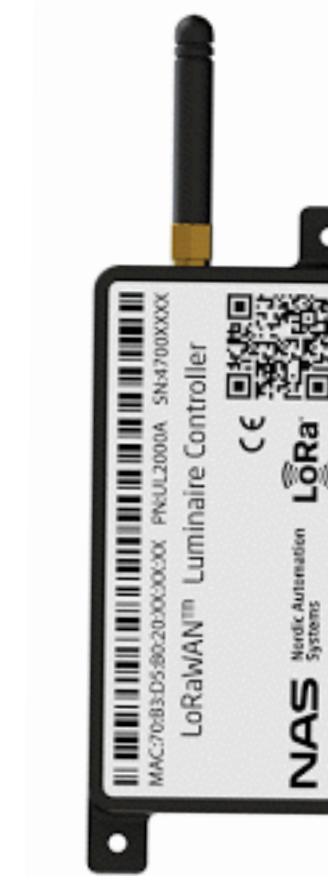


Estonian Energy Service Company
www.energiateenus.ee



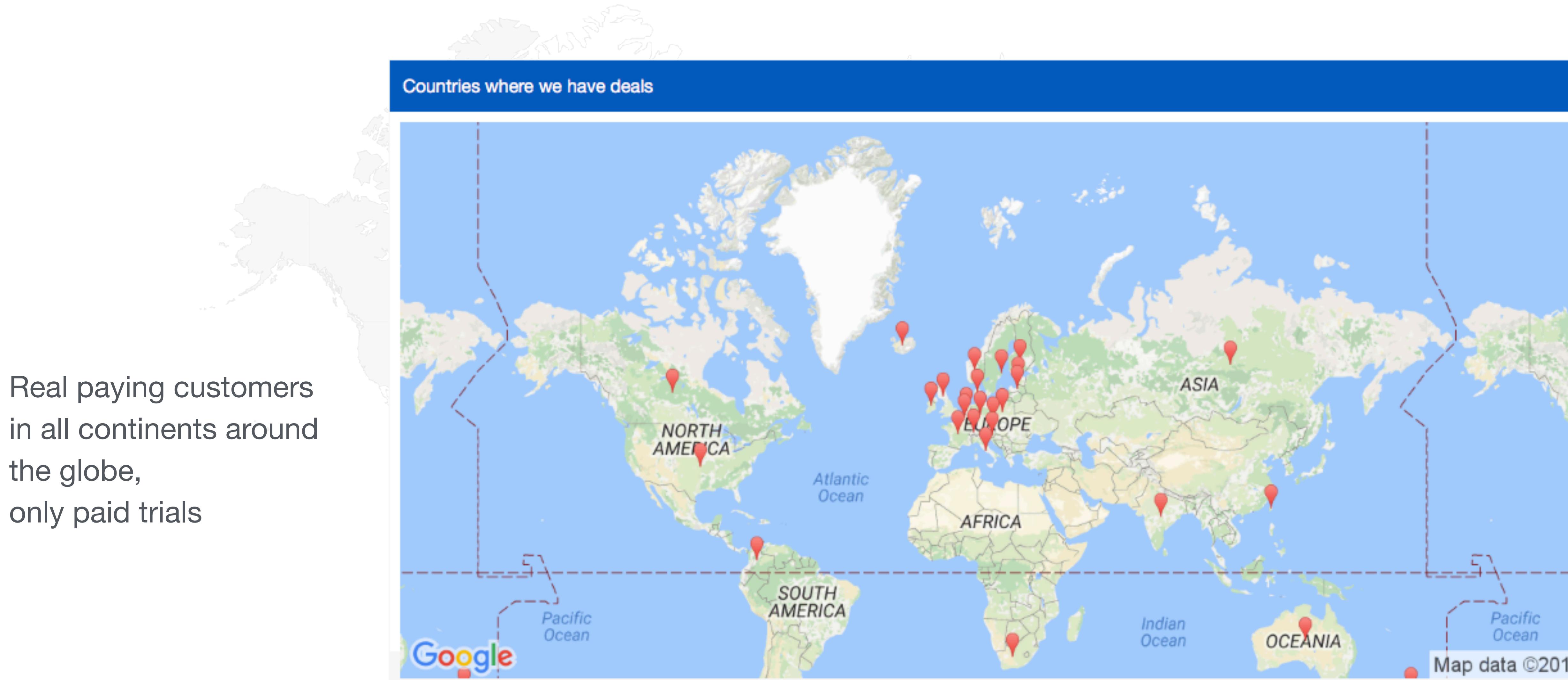
Big data

Controlling street lights



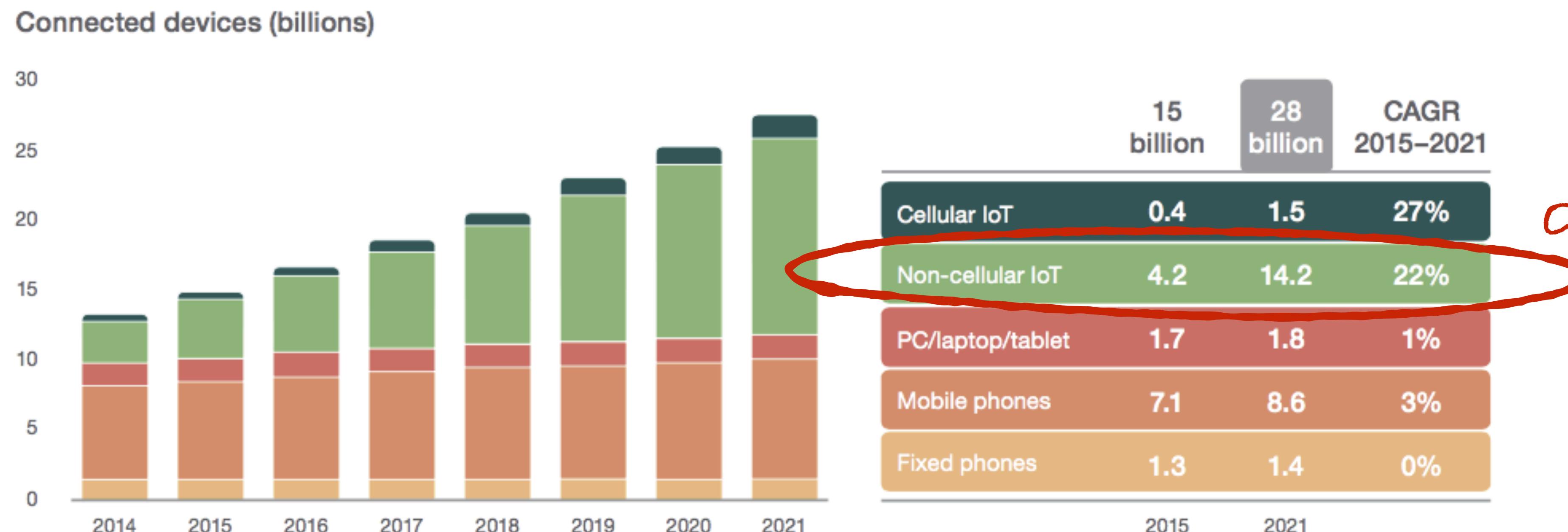
Worldwide presence through partners

17



IoT total addressable market

18



ERICSSON MOBILITY REPORT JUNE 2016

Growth

USD 10.06 Billion in 2015 to
USD 19.52 Billion by 2020

CAGR of 14.2%

<http://marketsandmarkets.com/>

USD 50 Billion in 2020
growing 24,4% CAGR

<http://www.strategyr.com>

Size

From 20 to 50 Billion USD
worldwide in 2020

NAS

We plan to reach 3 Million EUR revenues by the end of 2017
Average deal size from 500 nodes to 50 000 nodes.
Average node price 30-50 EUR
10 000 to 2 000 000 EUR/deal
First utility deals closed soon

IoT LPWAN Competitors

20



Nordic Automation Systems



| | Nordic Automation Systems | Multitech | Adeunis RF | Kerlink | NKE Watteco | SigFox closed standard |
|--------------------------------------|--|--|---|-----------------------------------|---------------|------------------------|
| Water meter reading | Dual mode retrofit covers | N/A | Pulse reader, STRONG PLAYER Only pulse reader. | N/A | In production | Pulse reader |
| Electricity metering / Pulse reading | In production Size | N/A | DIN mounting option | N/A | Price | Pulse reader |
| Luminare control | In production | N/A | N/A | N/A | N/A | N/A |
| Gateway | Outdoor model | Indoor and outdoor model STRONG PLAYER | N/A | STRONG PLAYER Expensive | N/A | Sigfox own production |
| Platform | API-s No analytics | N/A | N/A | N/A | N/A | Sigfox own platform |
| Main competitive advantage | Single full vertical solution provider | N/A | N/A | N/A | N/A | N/A |
| Markets | EU, Australasia | All markets | EU, US | All markets | EU | EMEA, US, Australia |

We have seen our clients using mostly Multitech gateways and Adeunis pulse readers

01

IoT full vertical
solution provider

02

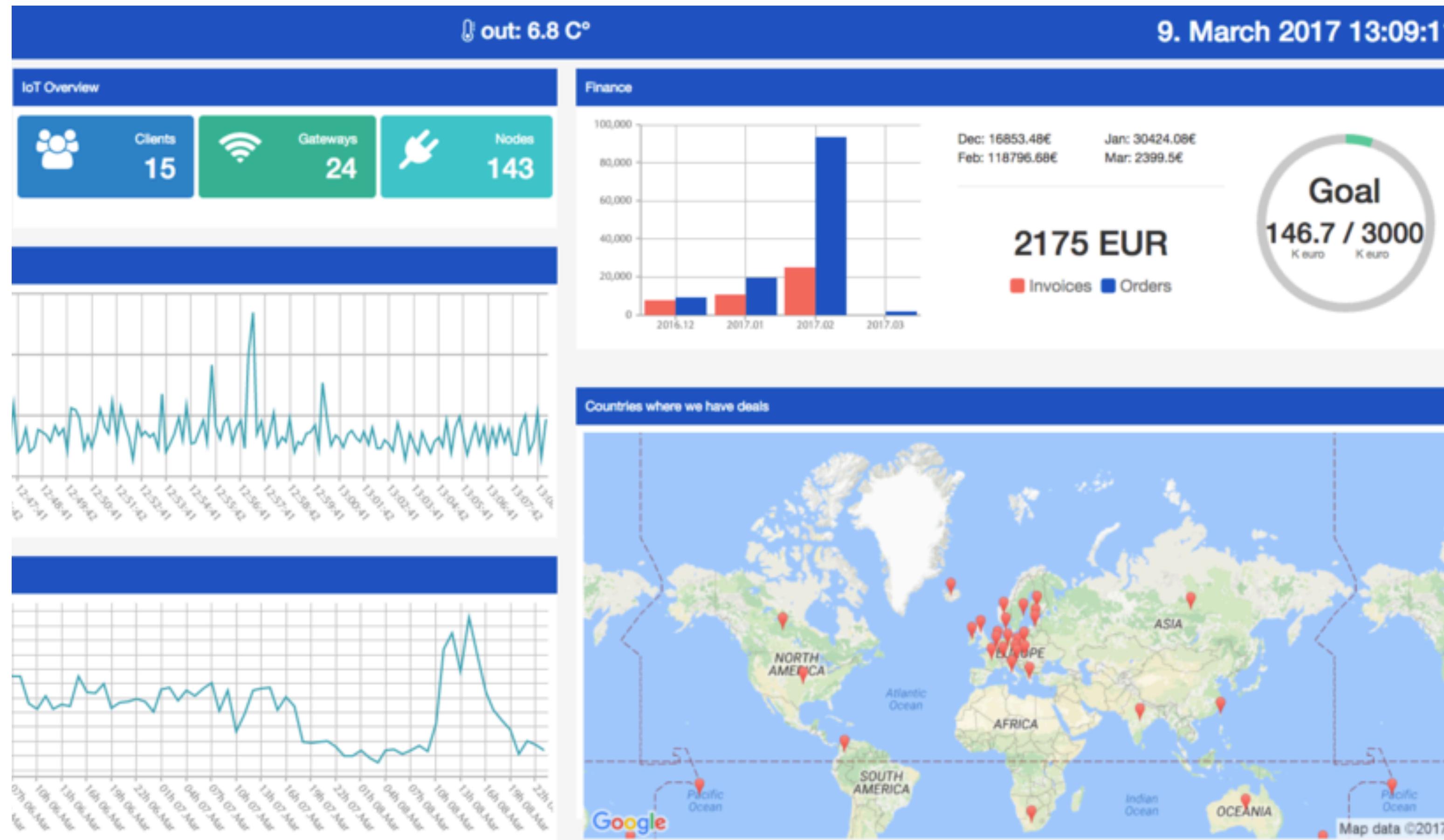
Going after big Utilities- first
deals closing soon, trials
underway, focusing to
underserved Australasia
region

03

Partnership with
Actility and Etteplan

KPI screen

22



KPI-s

Revenue

Orders

Pipeline

Full vertical solutions provider

Hardware

IoT sensors and gateways

Design-prototyping-production-sales.

Sensor lifetime up to 10 years.

Cloud services

For integration with billing,
monitoring and Client portals.

Recurring revenues

Our pretty aggressive financial estimates

| ESTIMATES | 2017 total | 2018 | 2019 | 2020 |
|--------------|------------|------|------|------|
| Sales Total | 3M | 9M | 30M | 90M |
| Gross Margin | 30% | 45% | 50% | 50% |
| HR | 30 | 50 | 100 | 200 |
| Profit | 0 | 1,5M | 6M | 15M |

12
MONTHS

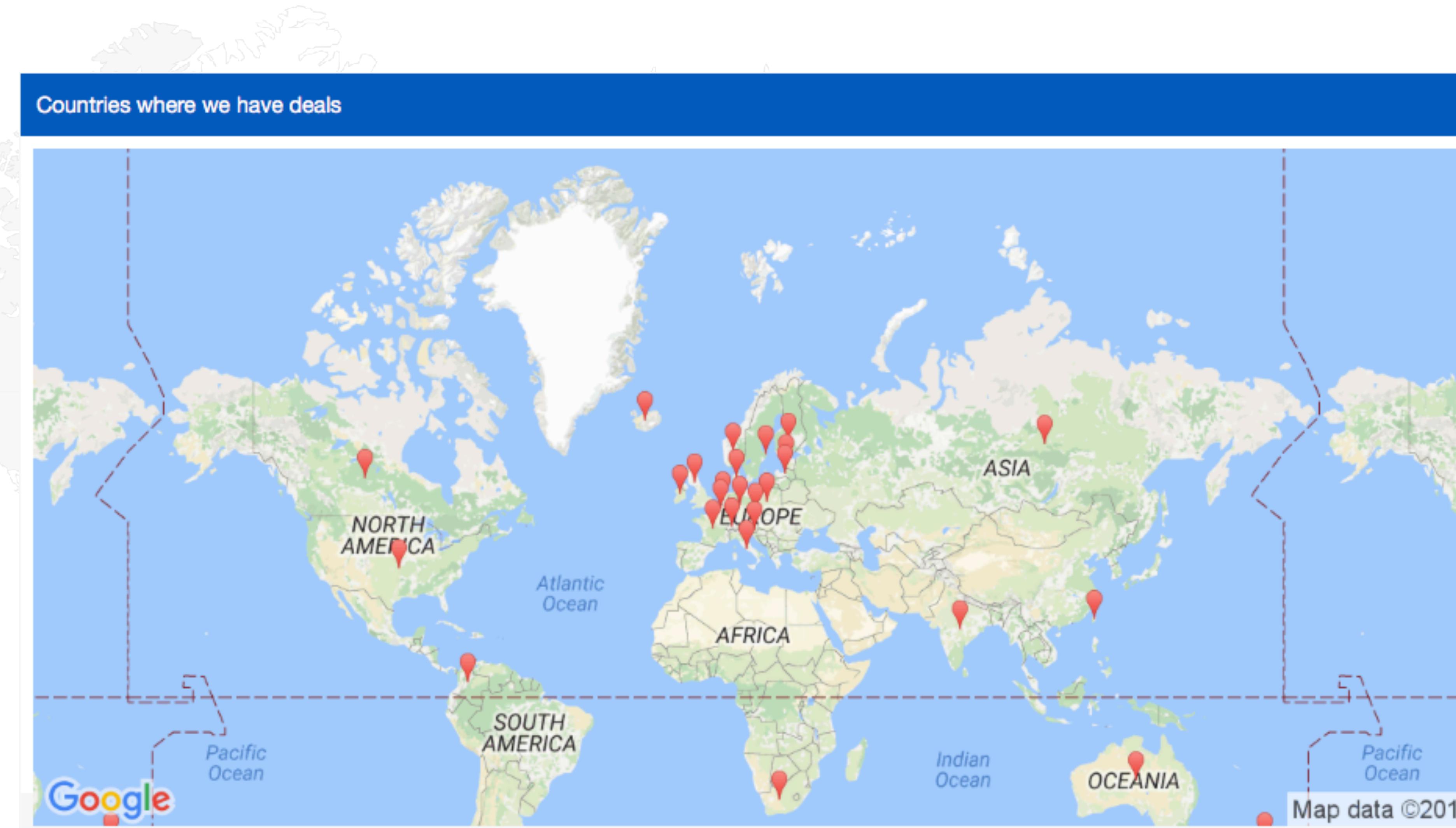
Up to 12 months to Cash Flow Positive
and self sustainable

Worldwide presence through partners

25

02

Real paying customers
in all continents around
the globe,
only paid trials



* 1H2017

Financials

26

Single Norwegian
Holding entity

| CAP TABLE | Raising late seed round | Holding after investment % |
|-----------------------|--------------------------------|----------------------------|
| Valuation | 5 M premoney | Founders 100 |
| Norwegian investors | | 20 |
| Viljo Veesaar Founder | | 42 |
| Ivo Remmeli COO | | 20 |
| Investors | 1 M (100 k committed and paid) | 18 |

Gives about 12
months runway



Reaching Cash Flow
Positive and self sustainable

Our talents, team of 25



Viljo Veesaar
Founder / CEO



Tanel Liik
ICT



Ivo Remmelg
Founder / COO



Urmo Männi
Product manager



Arne Kaasik
Sales



Allan Tuvikene
Mechatronics



Tago Kalbri
Mechanics / CAD



Kuldar Loime
Services/documentation



Leonid Bortnikov
Founder / Design



Leevi Põldaru
Electronics



Andres Laretei
Radio Engineer



Sven Kautlenbach
SW

Great minds, better together.



President of Estonia