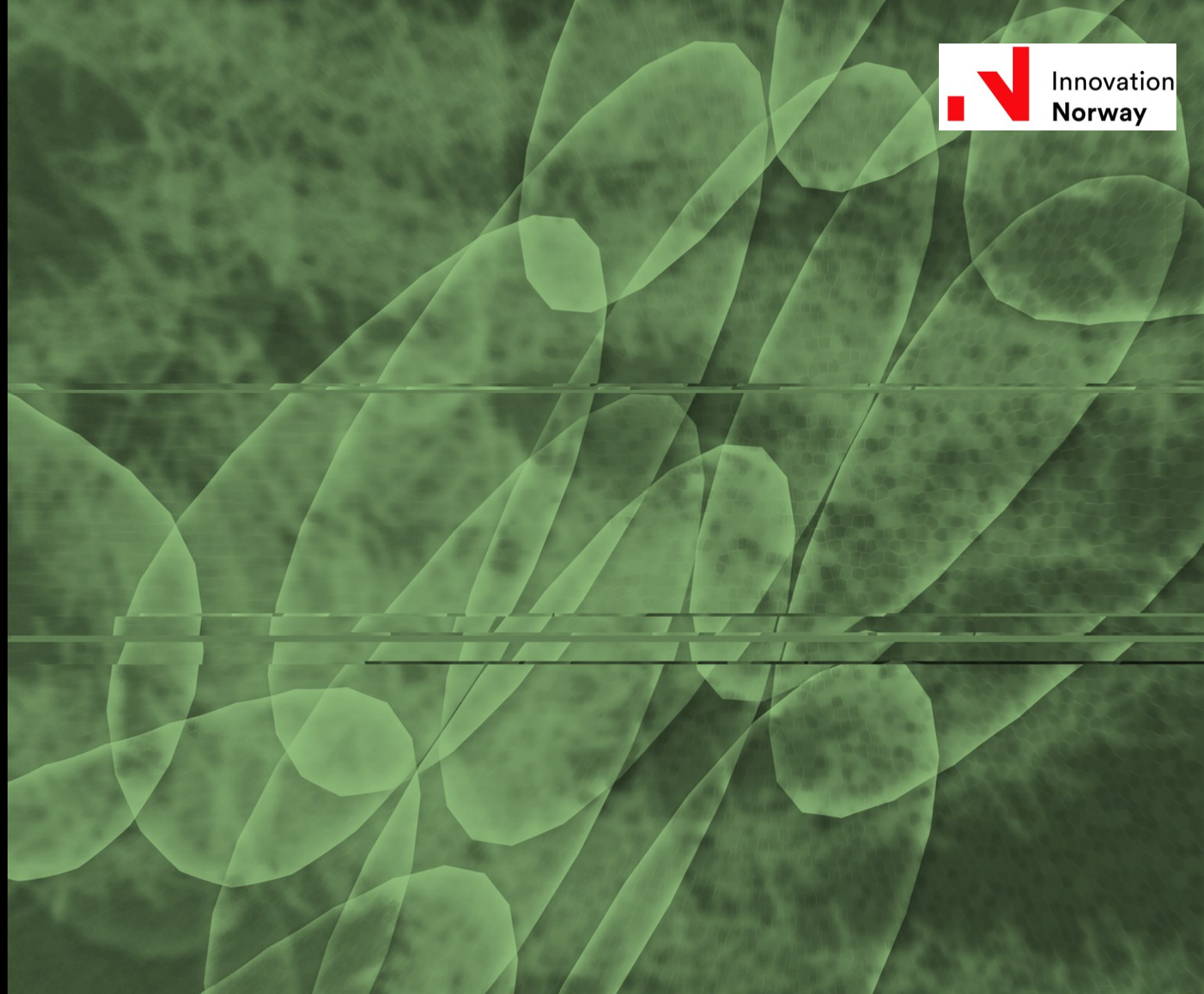
BiOT

Biosense intelligent technology

Frontier PENTA SRL

patented



Innovation Norway

Thanks to Innovation Norway .

Grant 2021/335056 – BIOT- Intelligent Biosense device

Duration 1 year Jul,1 2022 - June 30, 2023

Total: 118,164 € EEA grant: 98,706 €

Grant 2023/380592 – Restricted Call Application – BIOT AI

Duration 5 months Dec,1 2023 - Apr 30, 2024

Total: 72,720 € EEA grant: 61,085 €

BiOT

40% of biological agents (bacteria, fungus, etc) spread through contact with non disinfected surfaces… air quality -> replication vector

10- E. Coli
9- Clostridium Botulinum
8- Salmonella
7- Vibrio cholera
6- Tetanus
5- Klebsiella
4- Staphylococcus
3- Syphilis
2- Streptococcus
1- Tuberculosis

Ex. A Bacteria is duplicating from 4 to 20 minutes

Poor air quality hurts your health from 20mins exposure

Clean services managed superficially

- no info about area clean and IAQ level
- no QUALITY CHECK after cleaning

RESULTS

higher infestation trend
people get allergic or sick
waste of money

HEALTH IMPACT (year)

- 829 000 people estimated deaths
  - 297 000 deaths children aged under 5
- 2.8 million infected people treatments costs >$2 billion a year

ENVIRONMENT IMPACT

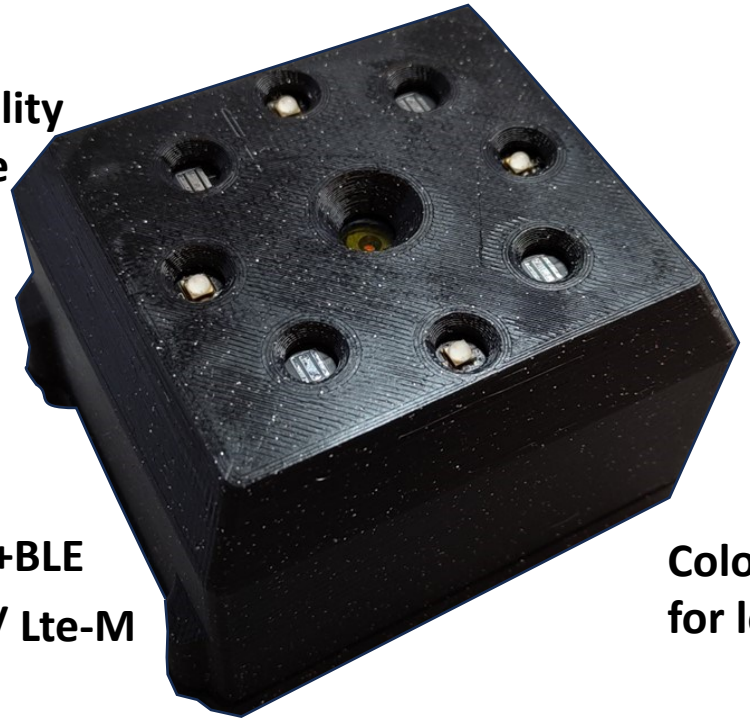
Yearly 3 million liters of surface disinfectants (7MUSD) generating > 300.000 tons of GHG emissions

7.7% annual grow for such emissions

Biosense & IOT

cleaning quardian

Hyperspectral area scanning technology
3x sensitive than eye perception



Air quality module

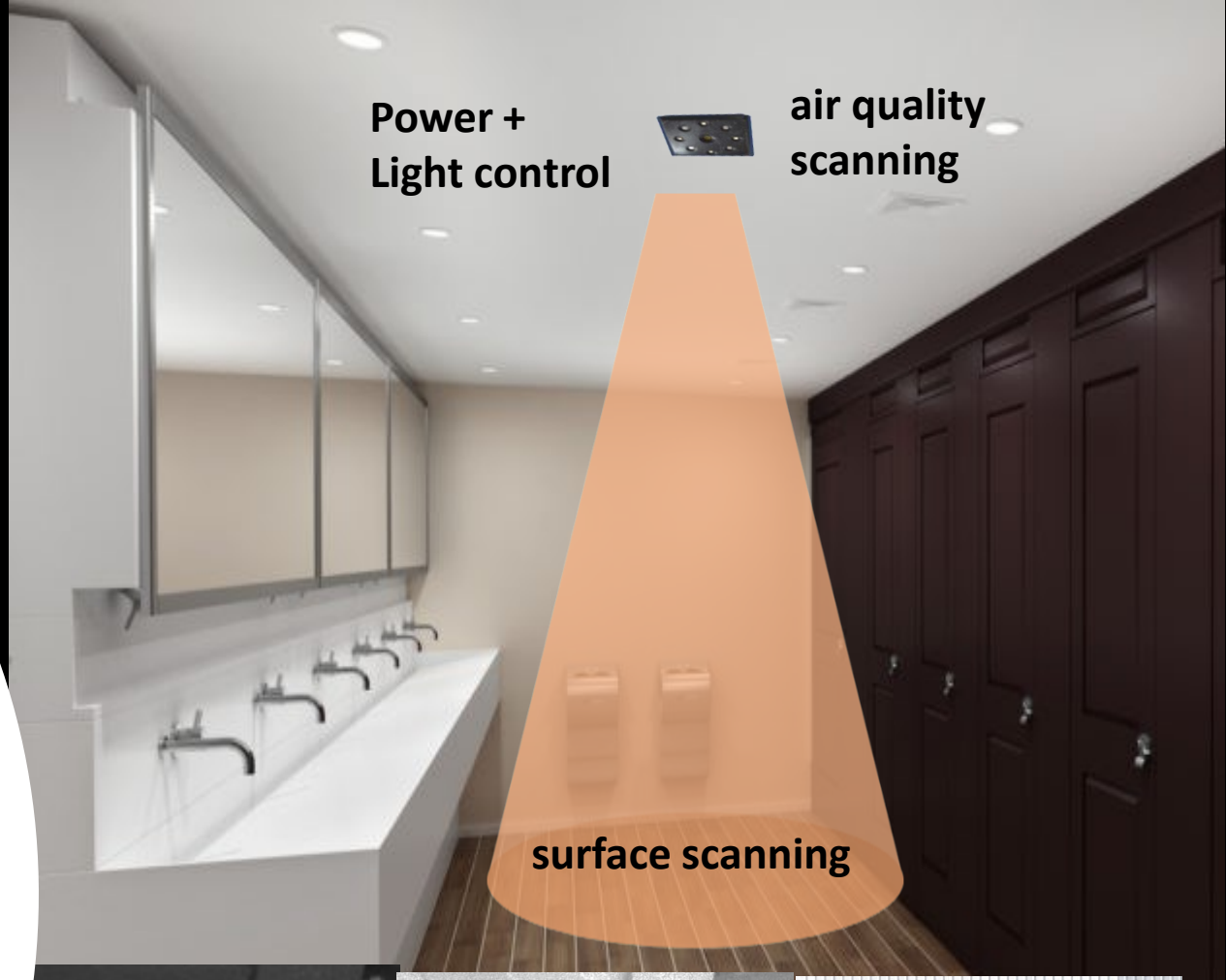
Power + Light switch control

Wifi +BLE

Nb-Iot / Lte-M

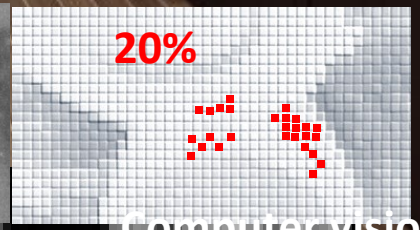
Colored status light for level

Spectral scanning



Eye perception

Spectral



Computer vision

AI Training

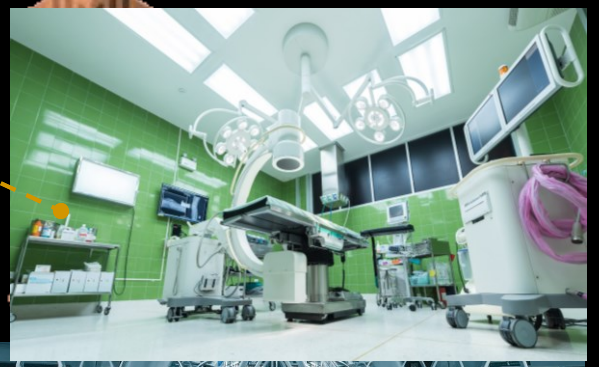
Biological monitoring service

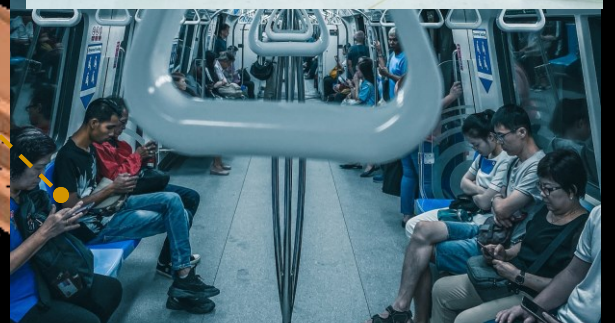
- Alerts & call for action
- Optimized cleaning activity
- Reducing substances and emissions

AI support for
identifying various infested areas
Analytics (devices, janitors, people)

BiOT

30% less
cleaning
costs and
emissions





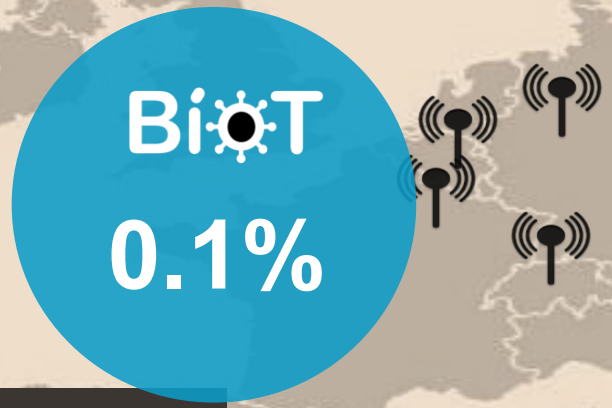
Market and competitors

European market size

9.2M sqm office/schools spaces

24,290 hospitals in Europe

692,207 buses, trains



Competition

- no such devices on the market
- dummy UV lamps or IAQ sensors

Channels

- B2B - Facility management companies
- B2B2C - Service Providers: TELCO
- B2C - Web stores

BIOT (devices)

Office/School buildings	➡ 10 K
Hospitals	➡ 10 K

Business overview

Key partners

- Factories
- Electronics suppliers
- Online retailers

Key activities

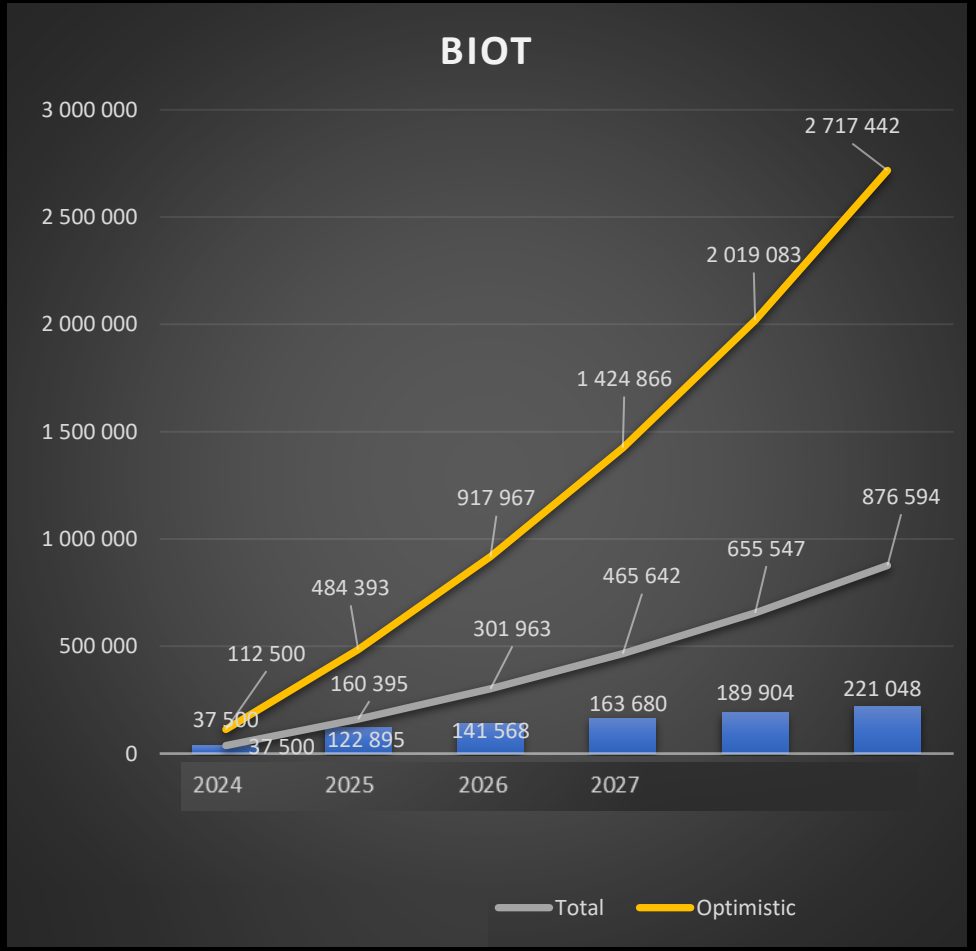
- Test & package electr.
- Software maintenance
- CDE Integration

Rev. streams

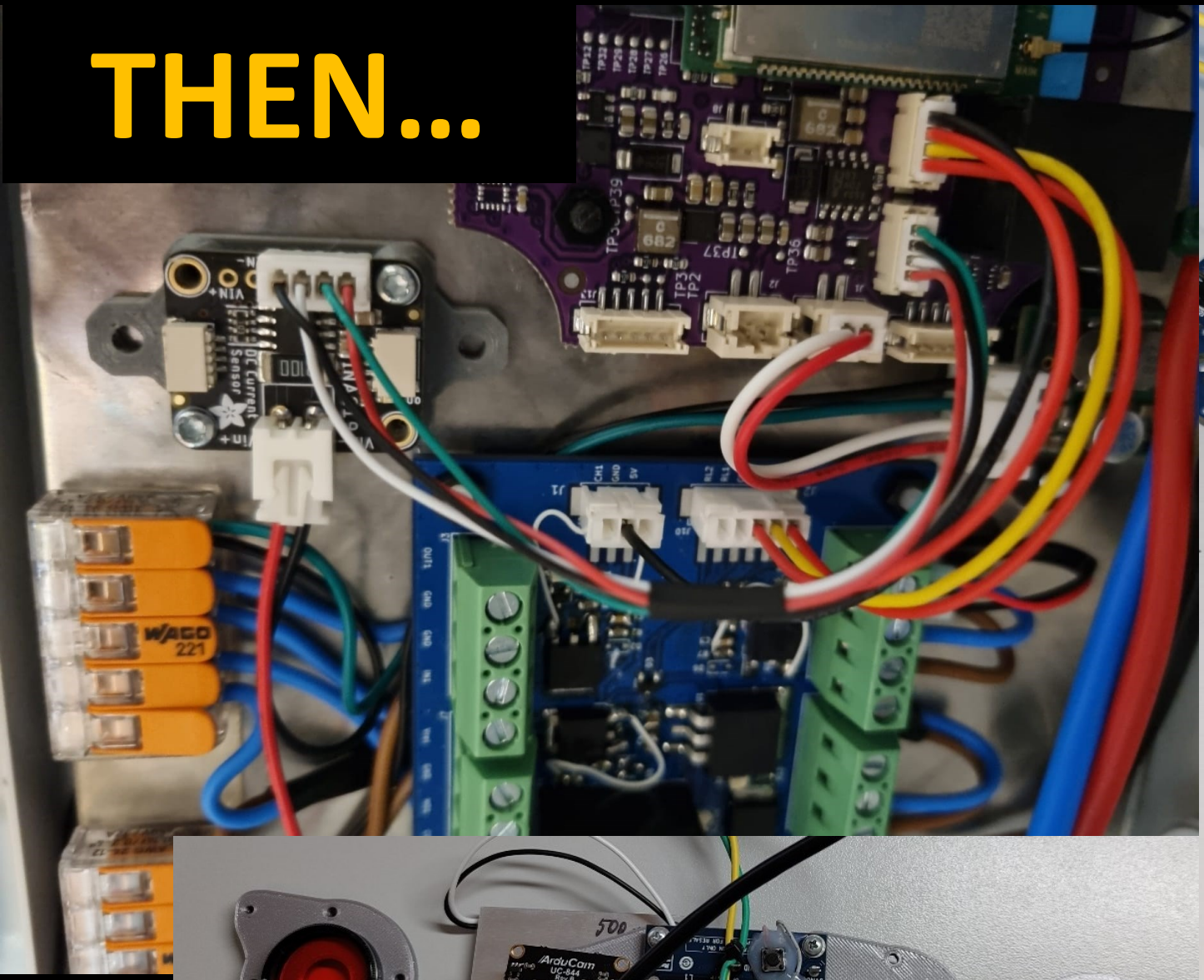
- Low price x High volumes
- Subscriptions

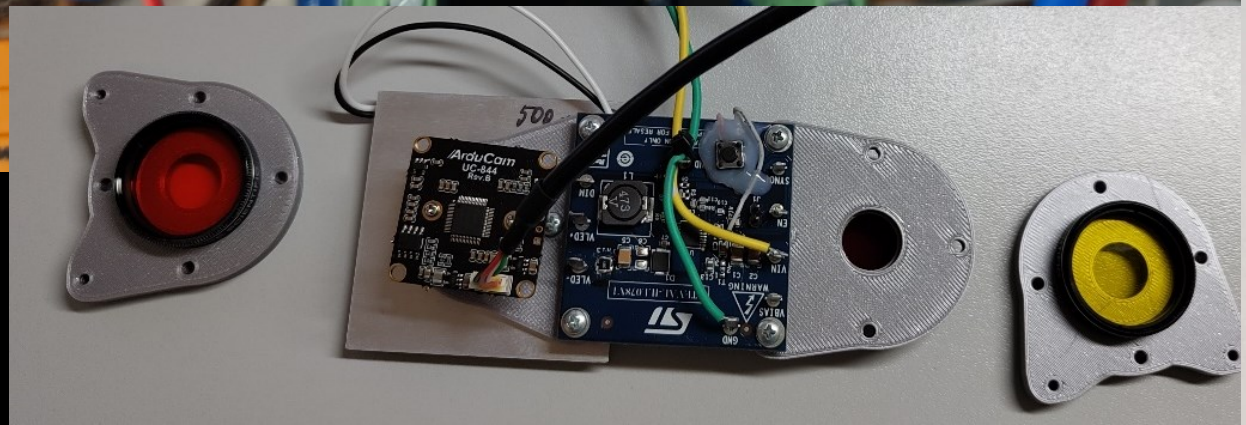
Risks

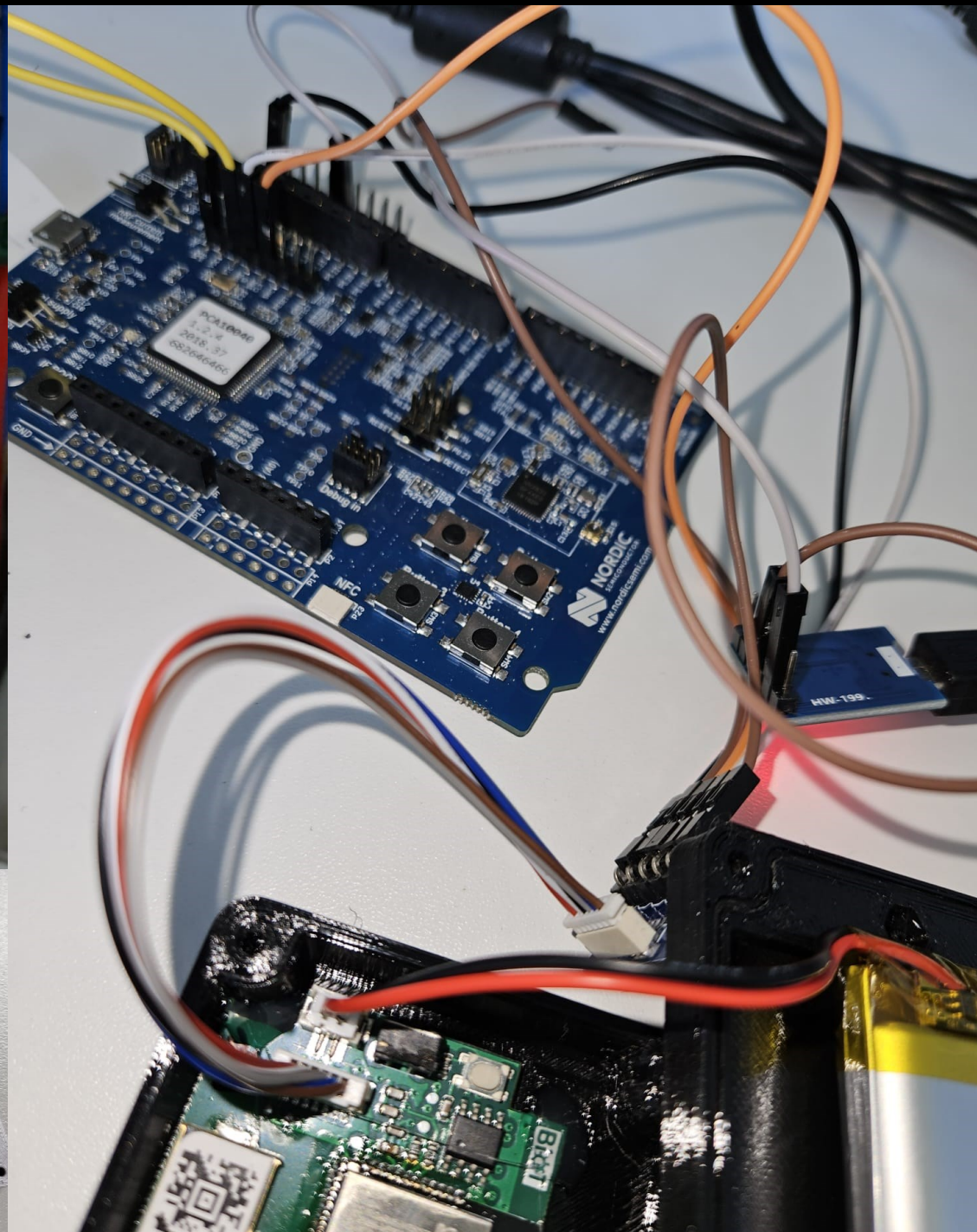
- HIGH - electronic components crisis.
- LOW - COVID-19 situation



THEN...

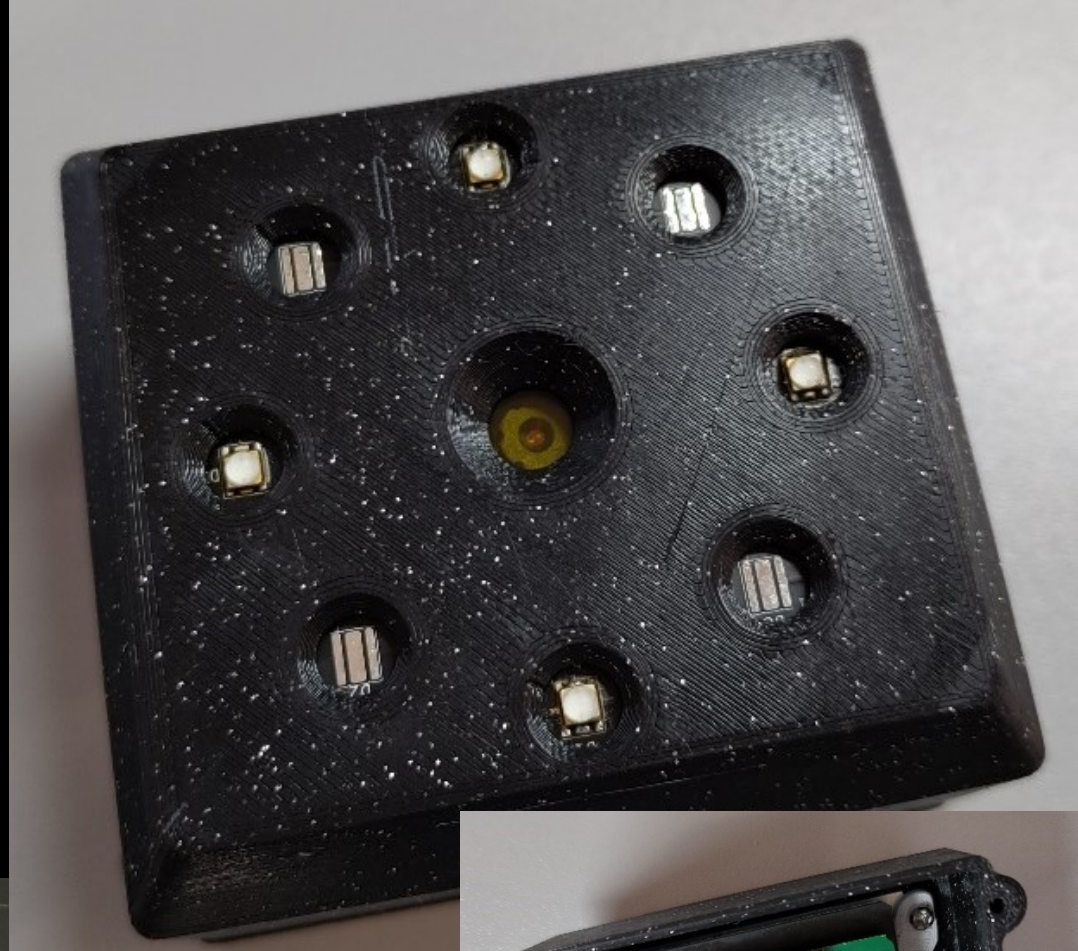


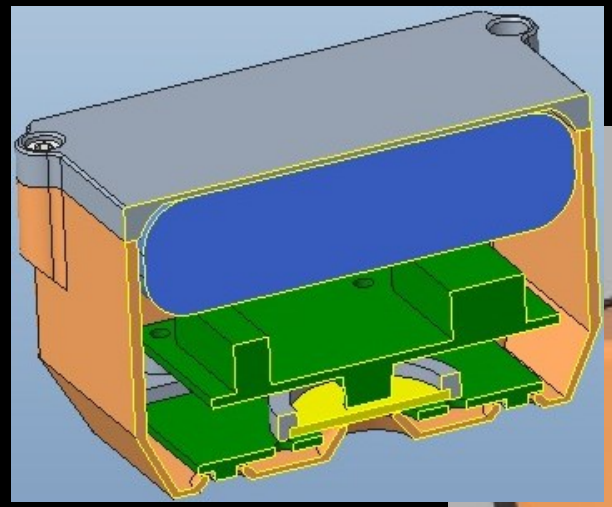


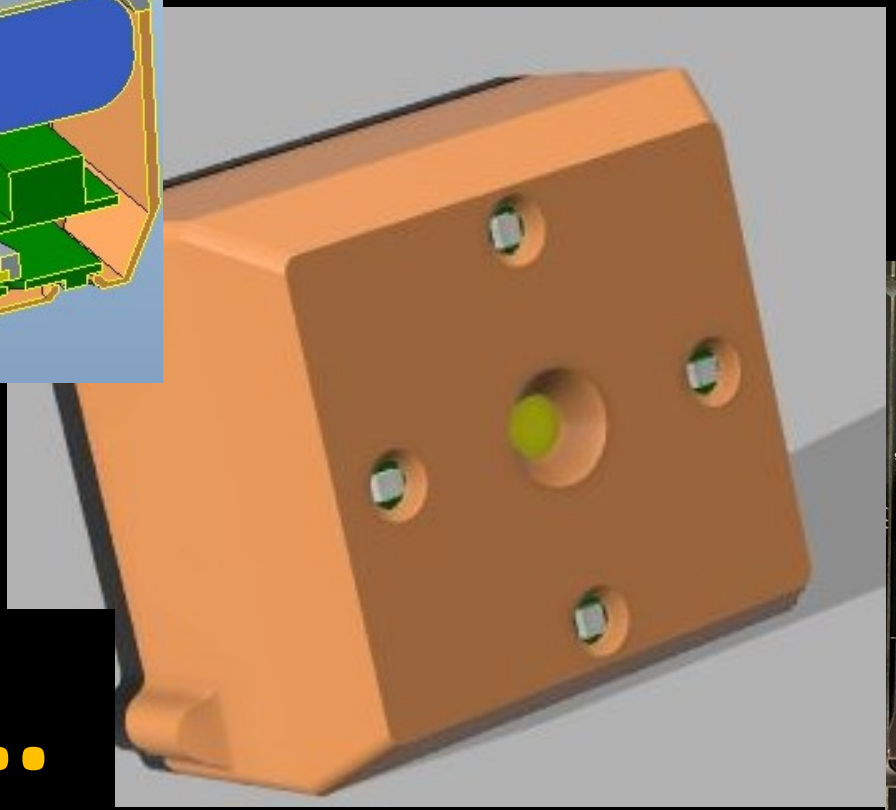


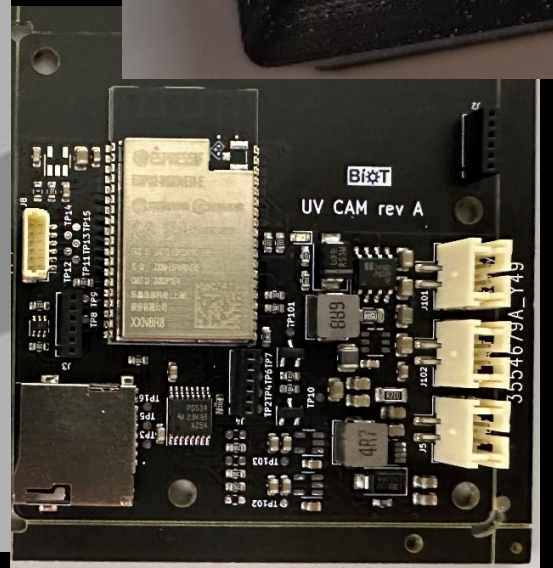
Linx
ANT-LTE-SP610
BioT air GSM module rev A
GM02S

Linx
ANT-LTE-SP610
BioT air GSM module rev A



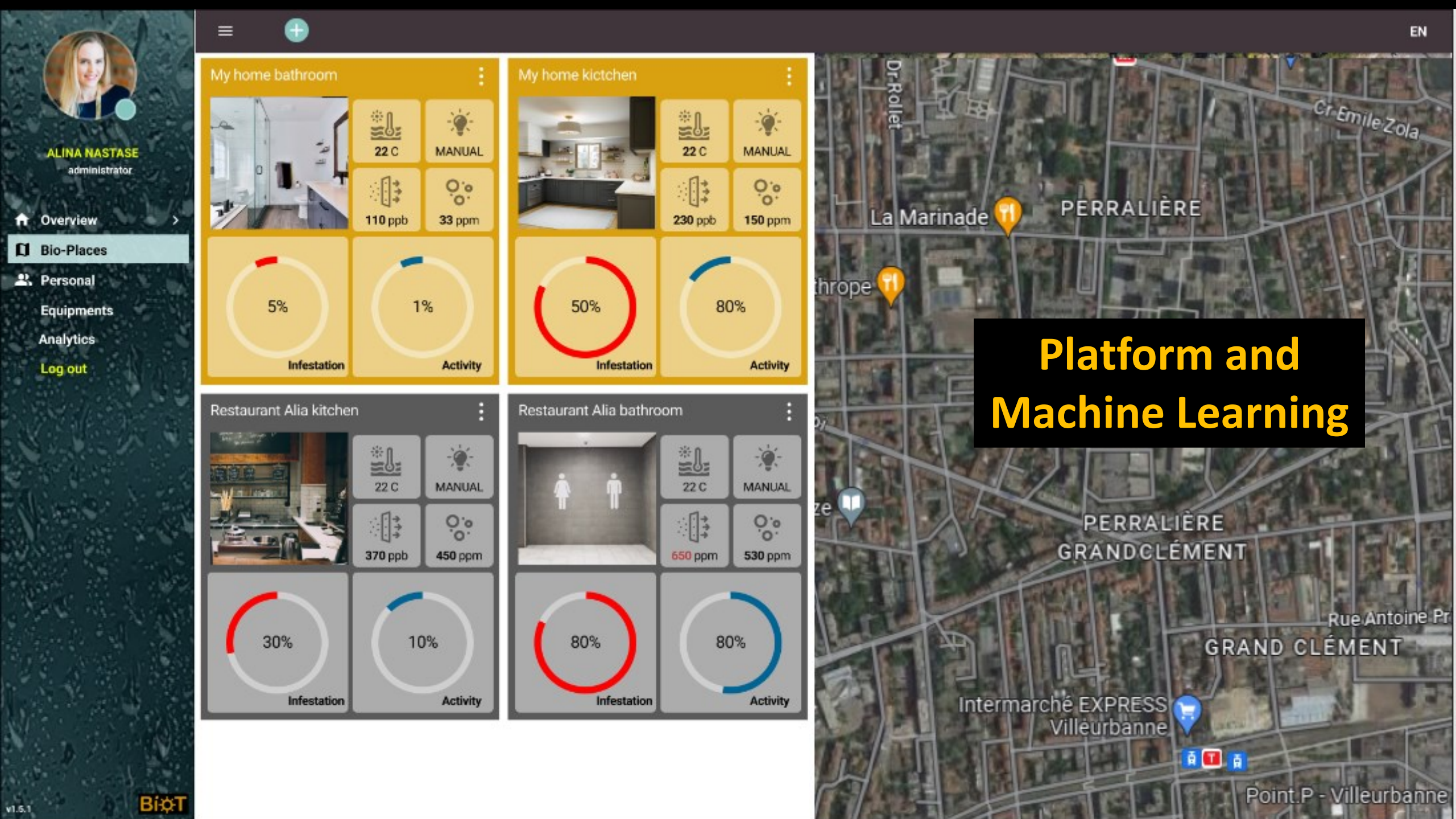





BioT
UV CAM rev A

Linx
ANT-LTE-SP610
BioT air GSM module rev A

NOW...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ALINA NASTASE
administrator
Overview
Bio-Places
Personal
Equipments
Analytics
Log out
v1.5.1
BiOT
My home bathroom
22 C
MANUAL
110 ppb
33 ppm
5%
Infestation
1%
Activity
My home kictchen
22 C
MANUAL
230 ppb
150 ppm
50%
Infestation
80%
Activity
Restaurant Alia kitchen
22 C
MANUAL
370 ppb
450 ppm
30%
Infestation
10%
Activity
Restaurant Alia bathroom
22 C
MANUAL
650 ppm
530 ppm
80%
Infestation
80%
Activity
Platform and
Machine Learning
Dr Rollet
Cr Emile Zola
La Marinade
PERRALIÈRE
PERRALIÈRE
GRANDCLÉMENT
Rue Antoine Pr
GRAND CLÉMENT
Intermarché EXPRESS
Villeurbanne
Point.P - Villeurbanne

SYSTEMA®
CERTIFICĂRI

Certificate of Registration

This certificate is awarded to the organization

FRONTIER PENTA SRL

Brașov City, Lânii Street, No. 104A, Room 2, Brașov County,
Postal Code 500465 (Head office)
Work point: Ghiroda City, Caraiman Street, No. 5, Timiș County,
Postal Code 307200, Romania

for the recognition of
The Quality Management System
according to the requirements of

ISO 9001:2015

The scope of activities covered by this certificate is

Production of electronic air quality monitoring devices

IAF code according to IAF ID 1: 19

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for the recognition of
Information Security Management Sy
according to the requirements of

ISO/IEC 27001:20

The scope of activities covered by this c

Production of electronic air monitoring devices

About Us

CONTACT

Str Laniii 104A, Brasov
Str Marginii nr.2 Timisoara

COMPANY OVERVIEW

The company was founded end of 2021, associates having years of experience with TELCO solutions, from innovation, product management to customer deployments, support and maintenance.
The primary focus of the partnership was to design and deploy cutting edge technological solutions and services, in a fastest way at affordable price

ACHIEVEMENTS

INNOVATION LABS - BEST PRODUCT

From 140 solutions, iOla was nominated "Best product" on Innovation Labs (juried by 20 people representing Orange, Carrefour, Minister of Telecommunication etc).

From hundred of European IOT applications, iOla Agritel was selected to join the 12 Nb-IOT solutions of Deutsche Telecom network roll-out program for 8 European countries: Austria, Croatia, Germany,Greece, Hungary, Poland,.

Lumbara planned to be deployed in a Smart City pilot, managed by Orange. The solution is based on LoraWAN radio technology and iOla pilot is focusing on green areas management (plant needs, stress, water, pollution, reducing emissions) .

Solution for agriculture, vineyards and greenhouses. The solution is introducing a virtual engineer that monitor & analyze data from sensors predicting & taking actions around crops and production.

MILESTONES

- Implementing a solution for mesh peer-to-peer communication (5G ready) that enables interconnecting IOT devices and/or smartphones over various IOT radio techs(Lora/LoraWAN,Wifi,BLE, SigFox, Lte-M, Nb-IOT).
- Pushing our vision to the next level – IOT network by handling data from various sensors, routing to gateways and cloud processing. iOla was also registered as trademark over 4 continents and 130 countries.
- Deployment in Luxembourg, Romania, Kazahstan, Germany, Bulgaria.

SOLUTIONS

Lumbara AgTech	Digital Agriculture 4.0
Lumbara GreenCity	SmartCity green areas care
Lumbara Facility	Facility management

BACKGROUND 2017

UNIVERSITIES PARTNERSHIP

Partnership with Banat university of agricultural sciences and veterinary medicine, with the purpose to create precision agriculture solutions.

MARKETS

Luxembourg
Romania

BRANDS

Lumbara
BIoT
Alergotel

The TEAM

Founders

Cătălin CHIȚU (45)

CEO

After a successful career from Engineering to Product Manager, nominated also as (Alcatel Lucent) *Bell Labs DMTS* , Catalin decided to use his innovation knowledge to design & produce new cutting-edge products & services

Ion Popa (27)

CTO

With years of embedded experience, Ion is mastering the hardware intelligence, and transmission of remote devices installed kilometers away in harsh environment

Senior Development Team

Gianina Rus (37)

Integration and testing

Strong experience in assembly and process, she is responsible with building , testing our products

Ciprian Rus (39)

Delivery operations

After dozens of customer facing, running various projects around the world, dealing with people and mentalities, he will anchor his knowledge side for efficient delivery

Raluca Romanitan (37)

Marketing and Sales consultant

Strong experience on branding, marketing campaigns and sales channels aggregation, she is the masterchief of our product image

Daniel Glodeș (44)

Senior computer vision consultant

Glo is mastering the computer vision algorithms, train and implemented them on the devices

Dan Regep (47)

Big data, analytics &AI consultant

Software engineering and architecture for big data processing streams, machine learning, training the intelligence

BIOT

we care about your health

Innovation Norway