mySense

AI and Big Data for agricultural applications

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GÉANT

utad FCT FCCN

Problem

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Problem

2050

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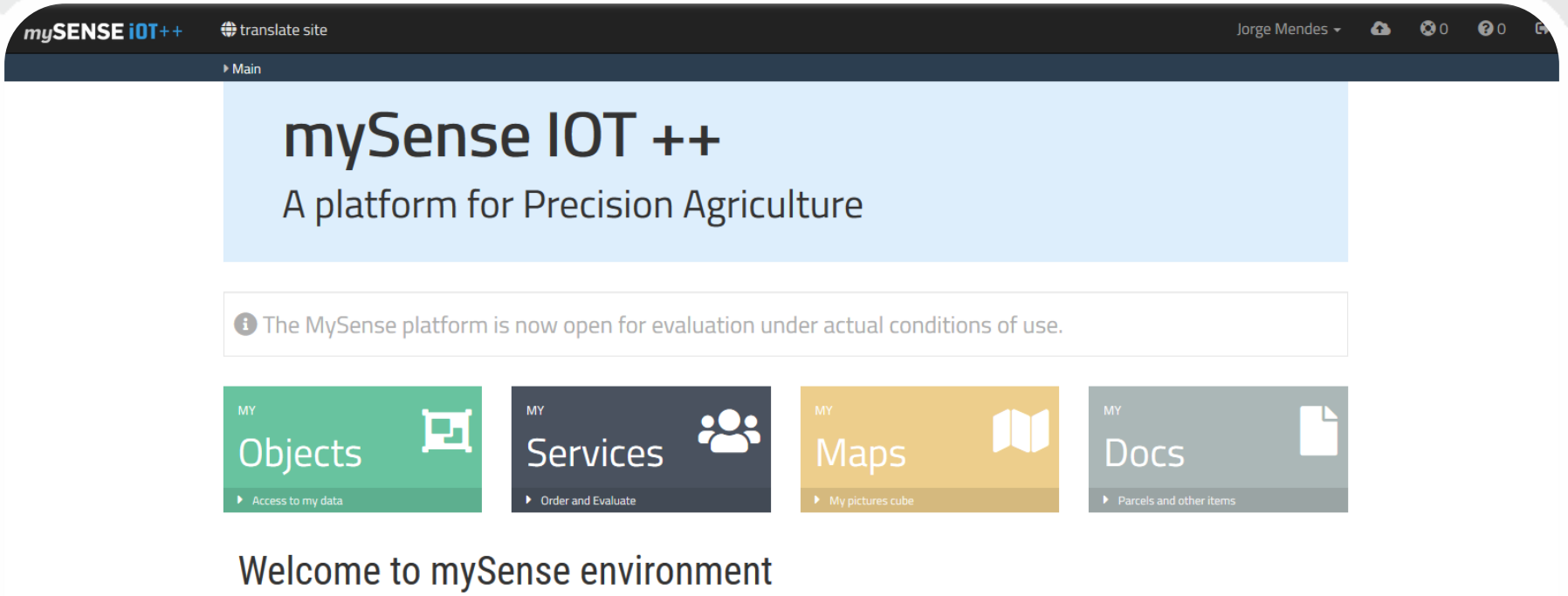
Problem

2050

Key factors

- Intelligent & cooperative system
- Innovate the agriculture
- Real-time crop monitoring
- Irrigation loss reduction
- Predict pests and diseases

Solution



- Support common PA practices
- Through innovative and cooperative solutions
- More sustainable agricultural practices

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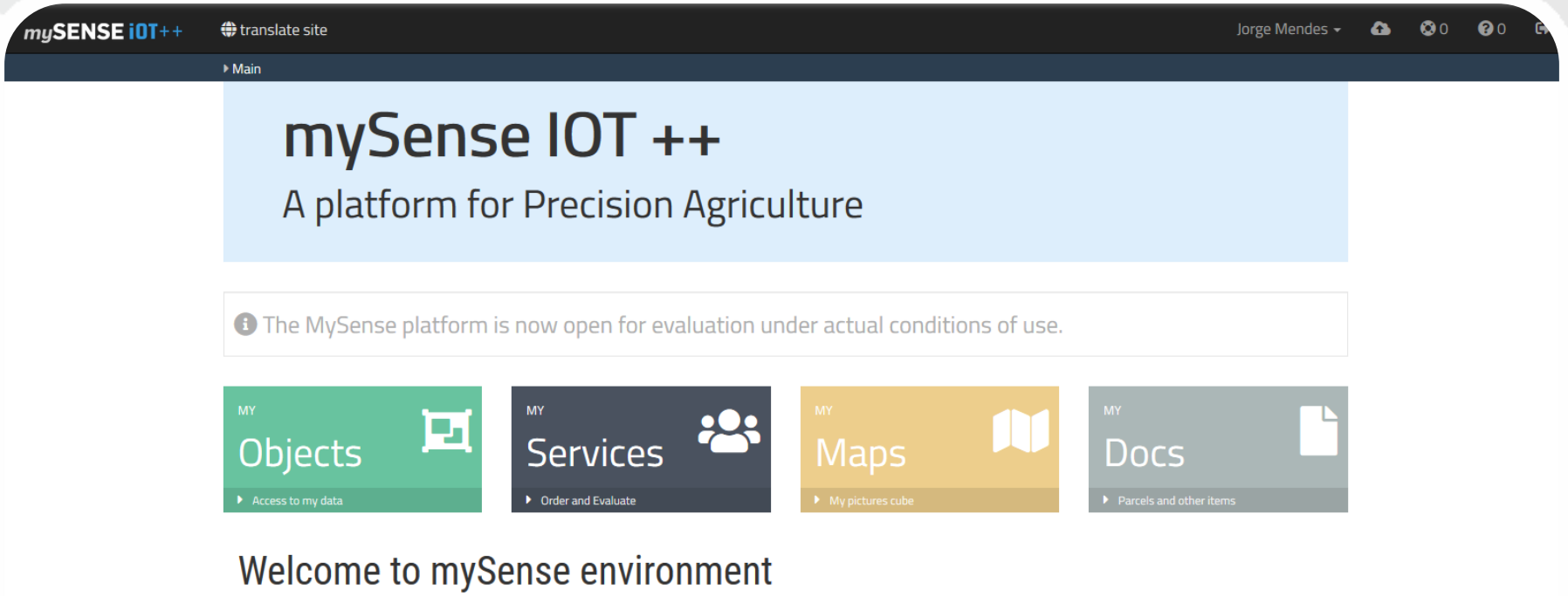
Solution



- Maximize yield and reduce costs
- Preserving natural resources
- Caring for the environment

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Phytopharmaceuticals

Irrigation

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Phytopharmaceuticals

Irrigation

Weather Conditions

Diseases

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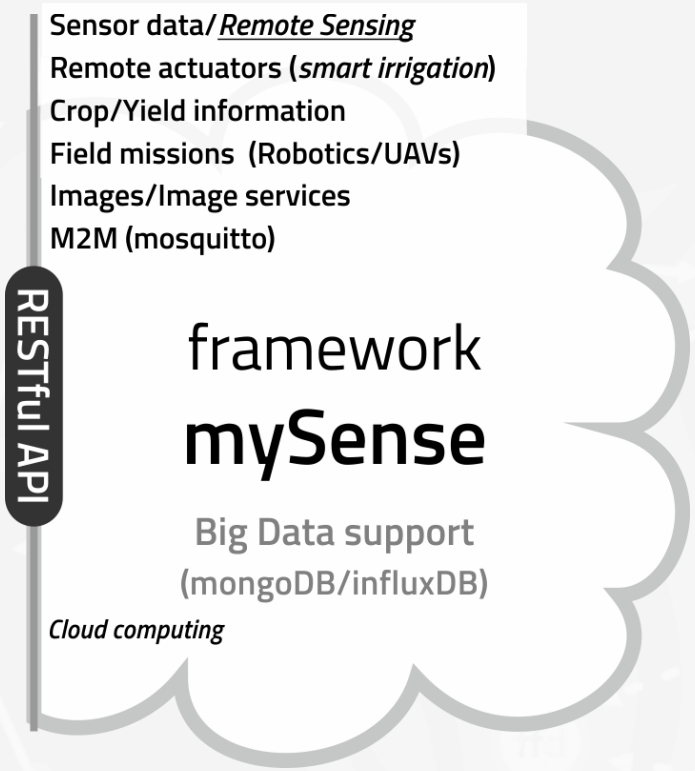
Sensor data/Remote Sensing
Remote actuators (smart irrigation)
Crop/Yield information
Field missions (Robotics/UAVs)
Images/Image services
M2M (mosquitto)
RESTful API
framework
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Big Data support
(mongoDB/influxDB)
Cloud computing

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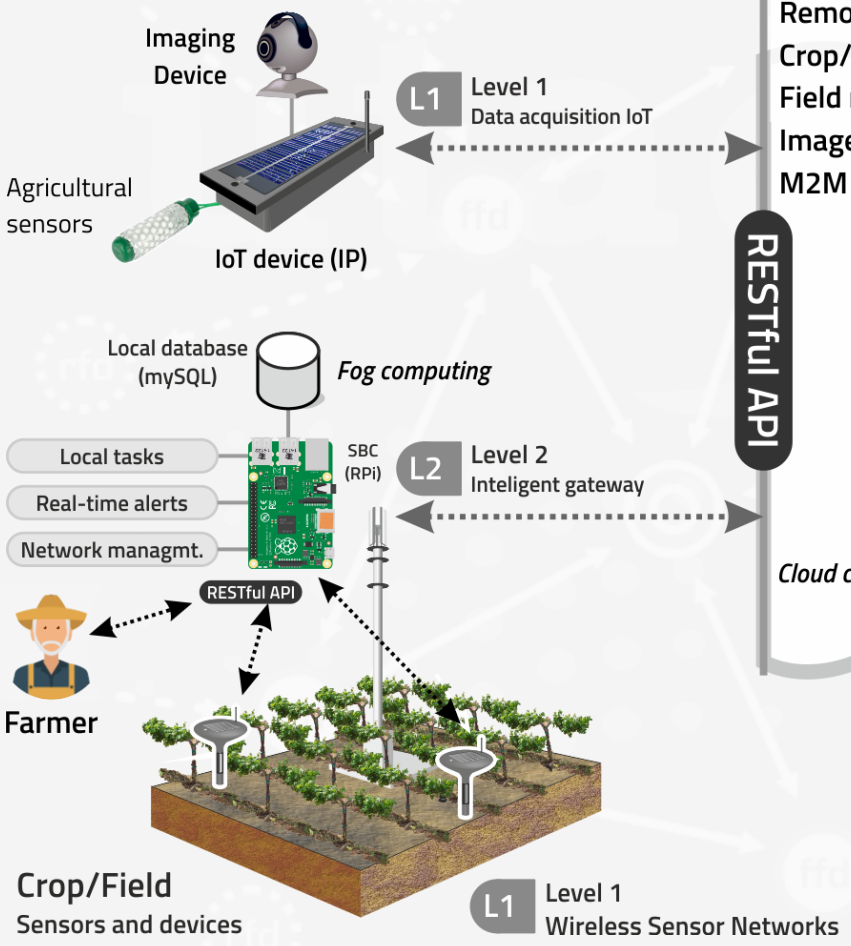

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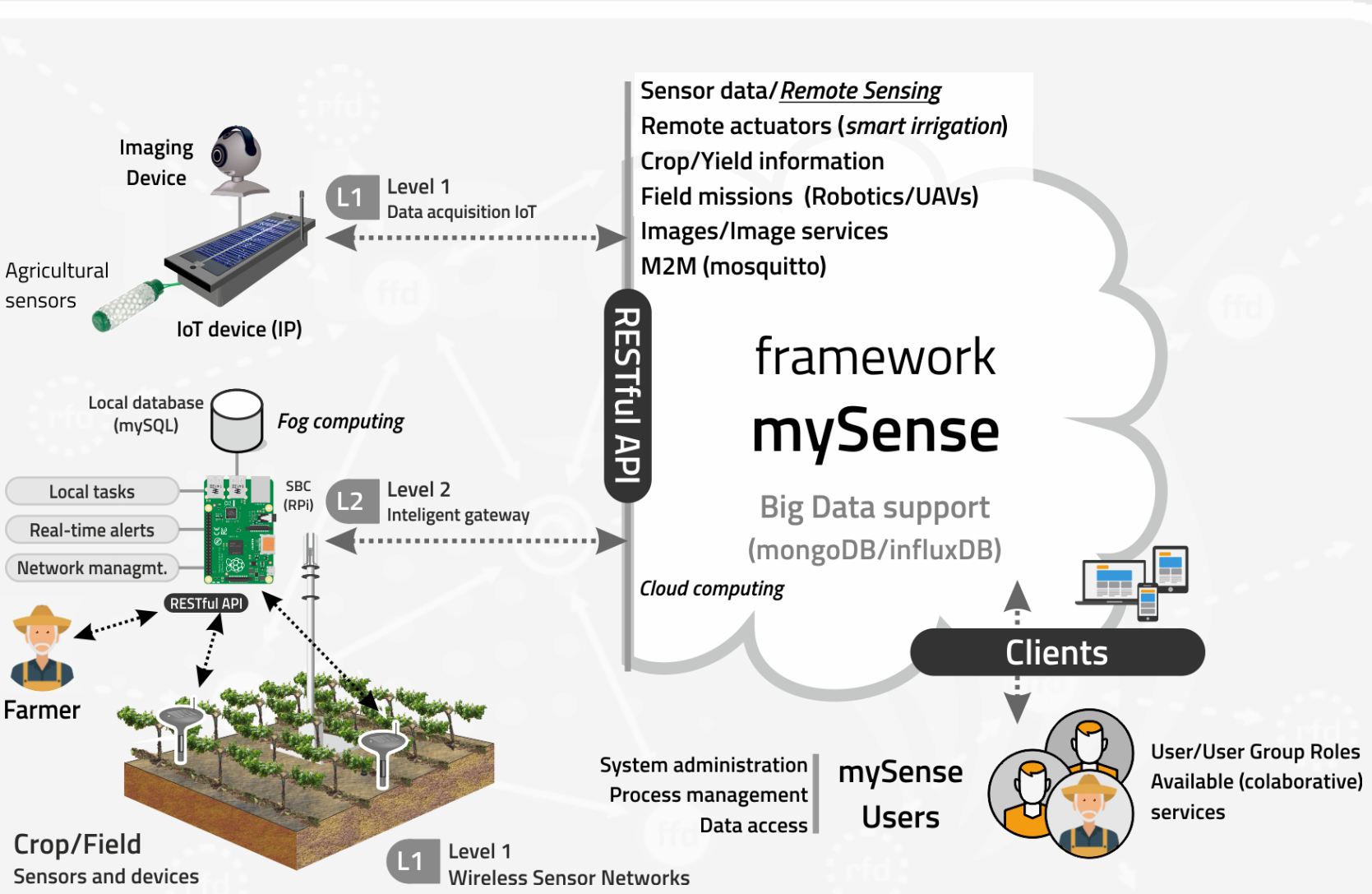
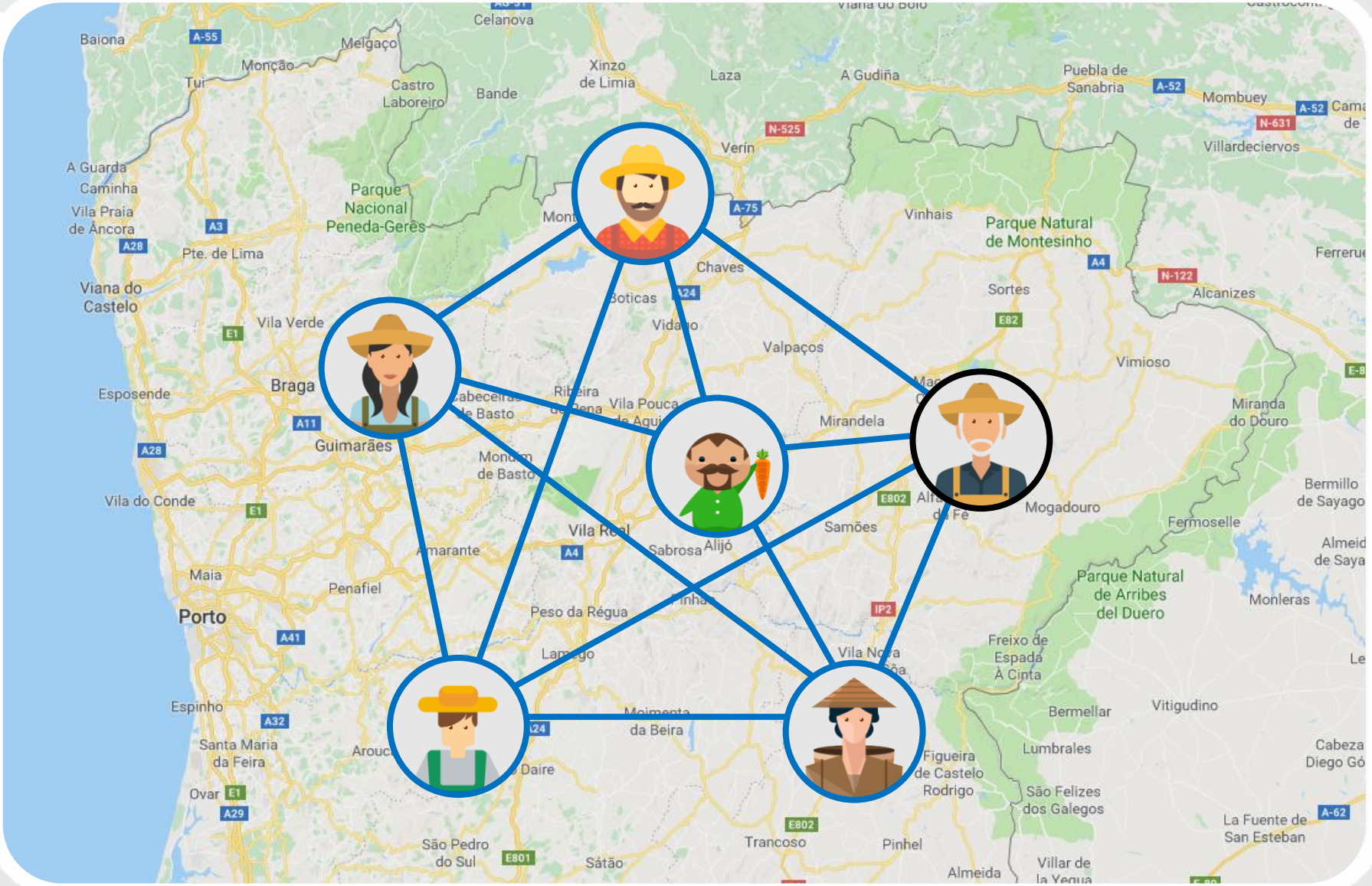
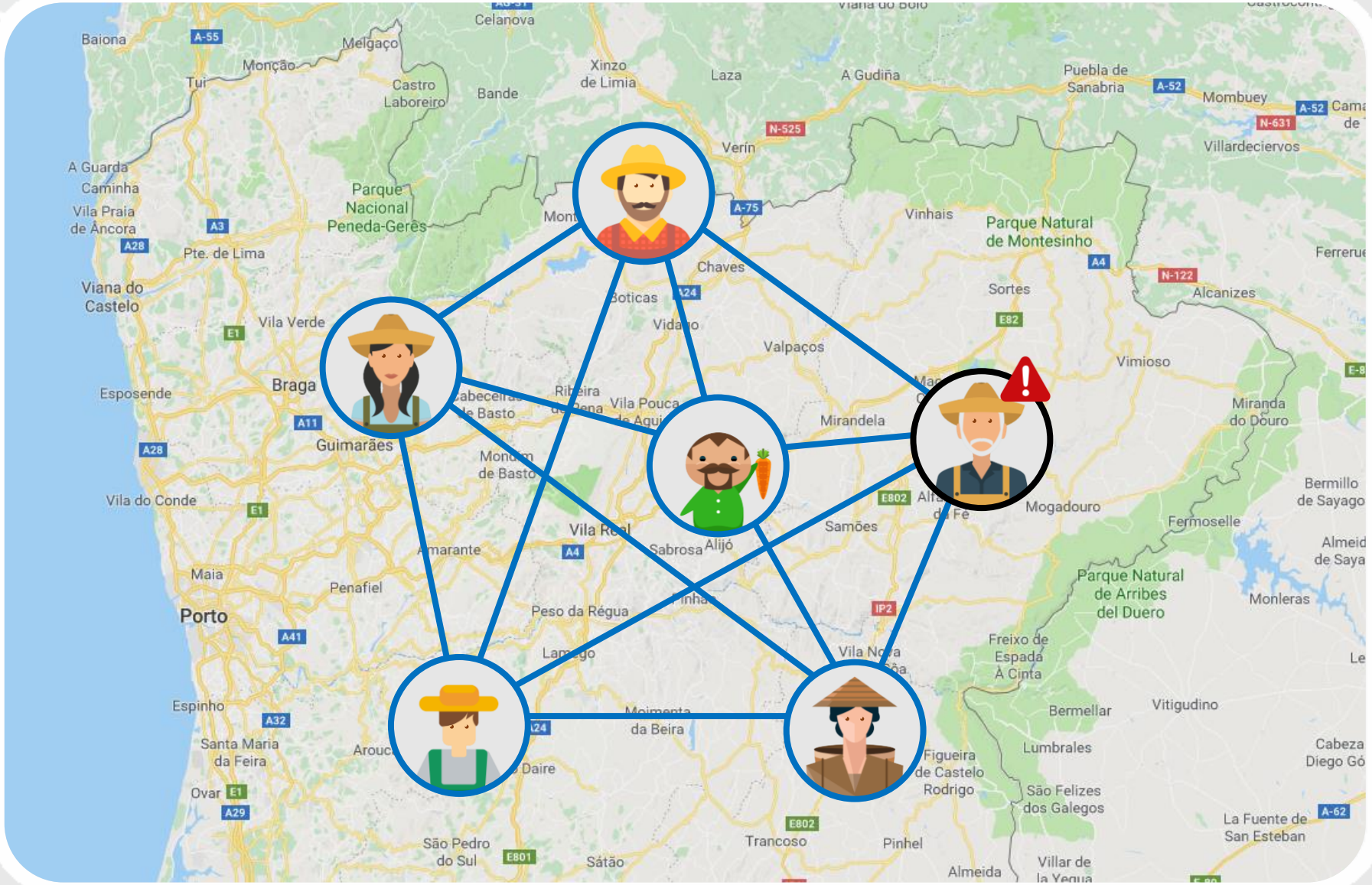

Imaging Device
Agricultural sensors
IoT device (IP)
L1
Level 1
Data acquisition IoT
Sensor data/Remote Sensing
Remote actuators (smart irrigation)
Crop/Yield information
Field missions (Robotics/UAVs)
Images/Image services
M2M (mosquitto)
RESTful API
framework
mySense
Big Data support
(mongoDB/influxDB)
Cloud computing
Local database
(mySQL)
Fog computing
Local tasks
Real-time alerts
Network managmt.
SBC
(RPi)
L2
Level 2
Inteligent gateway
RESTful API
Farmer
Clients
System administration
Process management
Data access
mySense
Users
User/User Group Roles
Available (colaborative)
services
Crop/Field
Sensors and devices
L1
Level 1
Wireless Sensor Networks

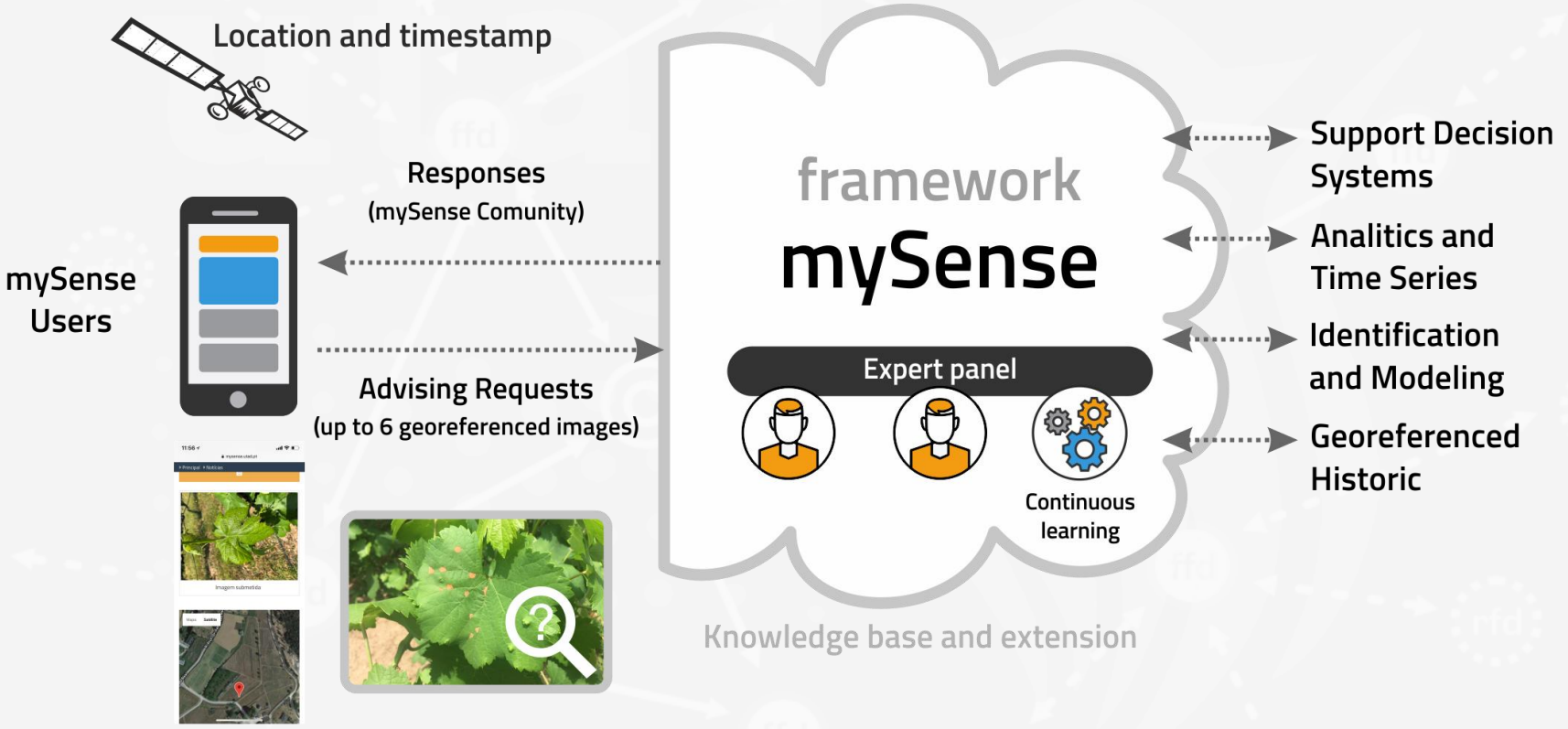
Warnings service



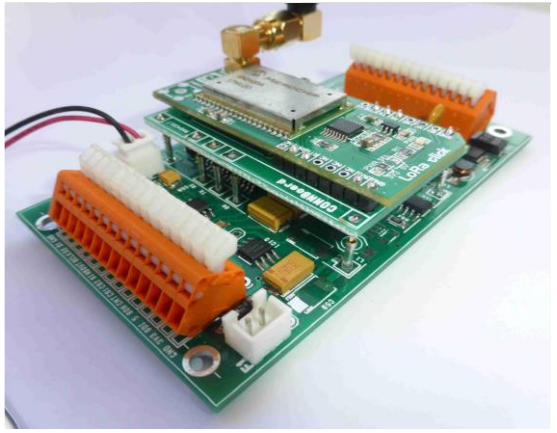
Warnings service



Remote technical assistance



Academic, Research & Development projects



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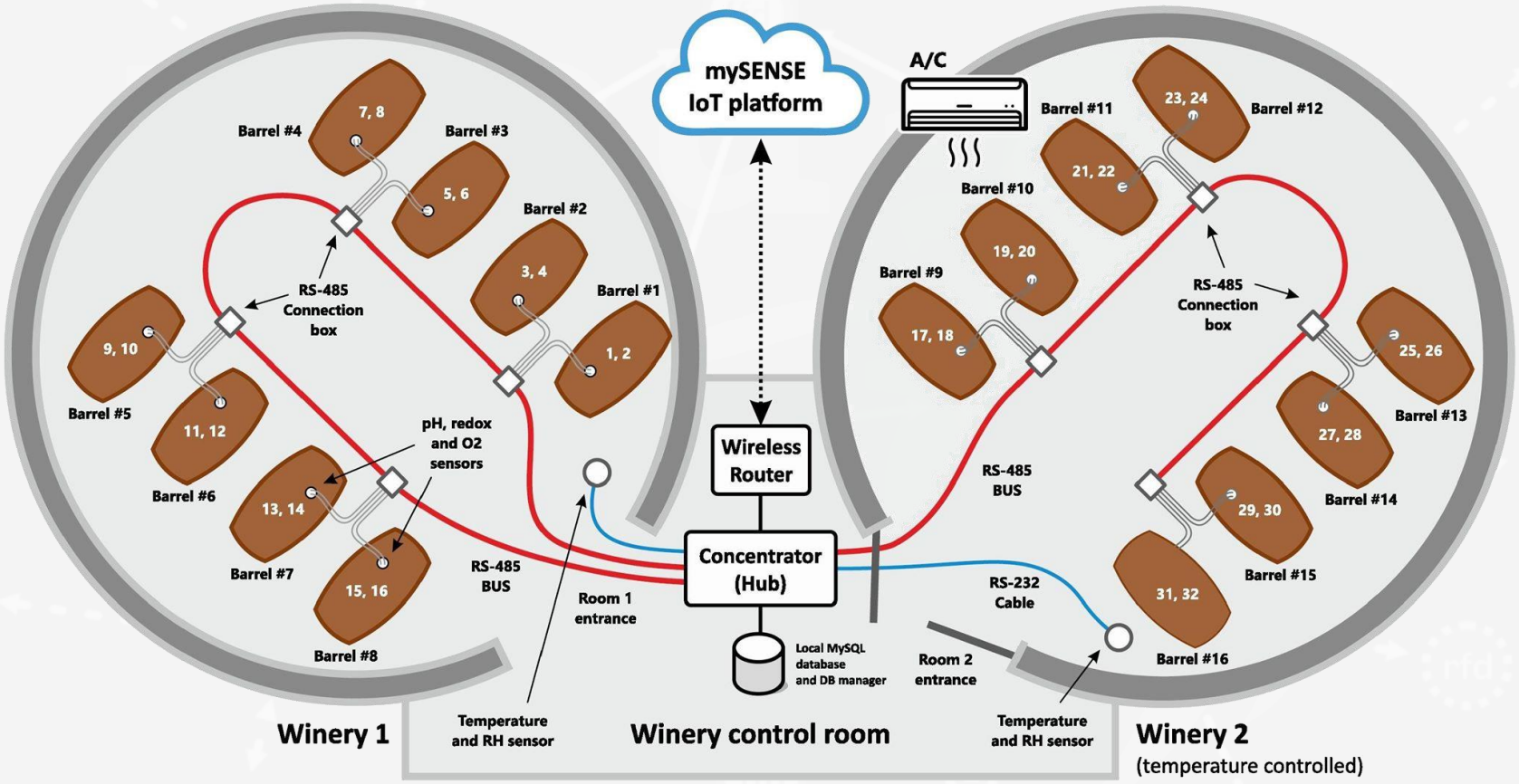
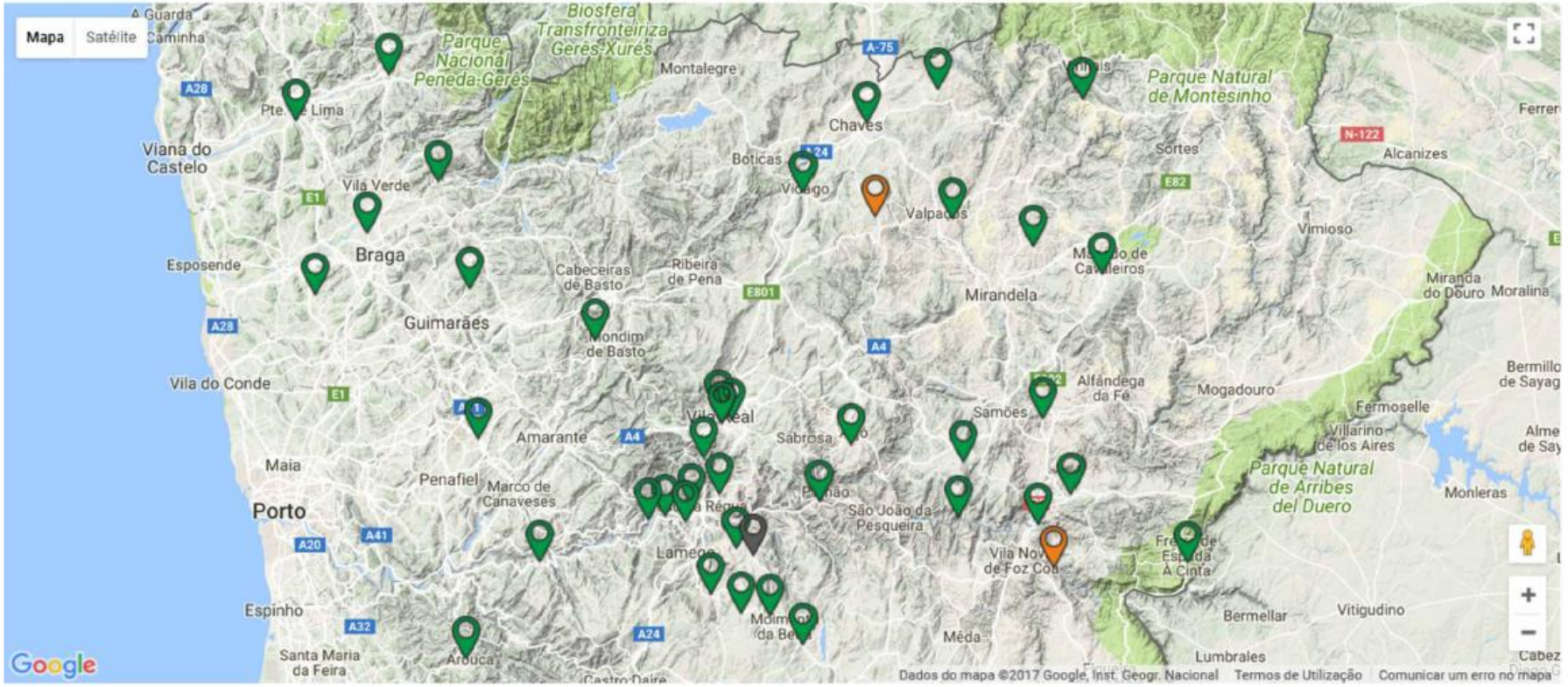
Wine aging process monitoring during 2 years



Data volume acquired by 40 metereological stations

This mySENSE Objects Group has **46** Objects



Object Name	Location	Object UID	Last access	Diff	Actions
Alijó	Alijó	JHwx4gbQ3jWQlmD2	2017-09-06 17:07:27	00:41:35	
Amares	Amares	R07QcAfdF591BFte	2017-09-06 17:01:15	00:47:47	

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Correlate data using machine learning

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