

Alpine Field Research Station  
**UMS 3370 CNRS –**  
*Université Grenoble Alpes*



IOT DAYS – 14 Feb 2020

## scientific projects in remote sites

# IOT USE CASES

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# A research station in the Alps Lautaret pass (2100m asl)



## Services and infrastructures



1. A centre for research workshops & seminars



2. Research / education platforms for lab and field activities



3. Chalets for summer & winter accomodation

# 40 projects, 19 laboratories, 10 km around the station

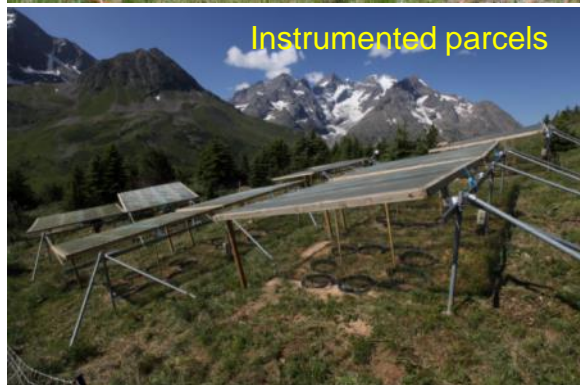
Reference sites



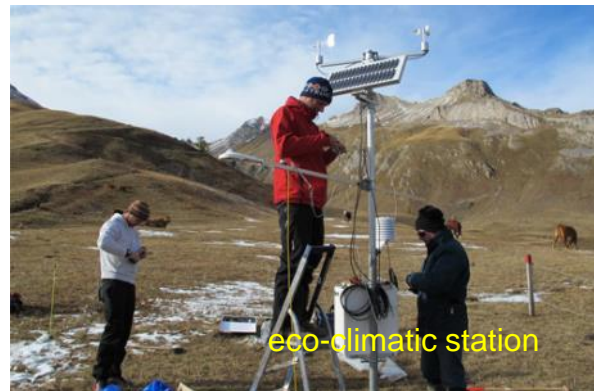
Remote places studies



Instrumented parcels



eco-climatic station



In natura sites studies












Controlled areas



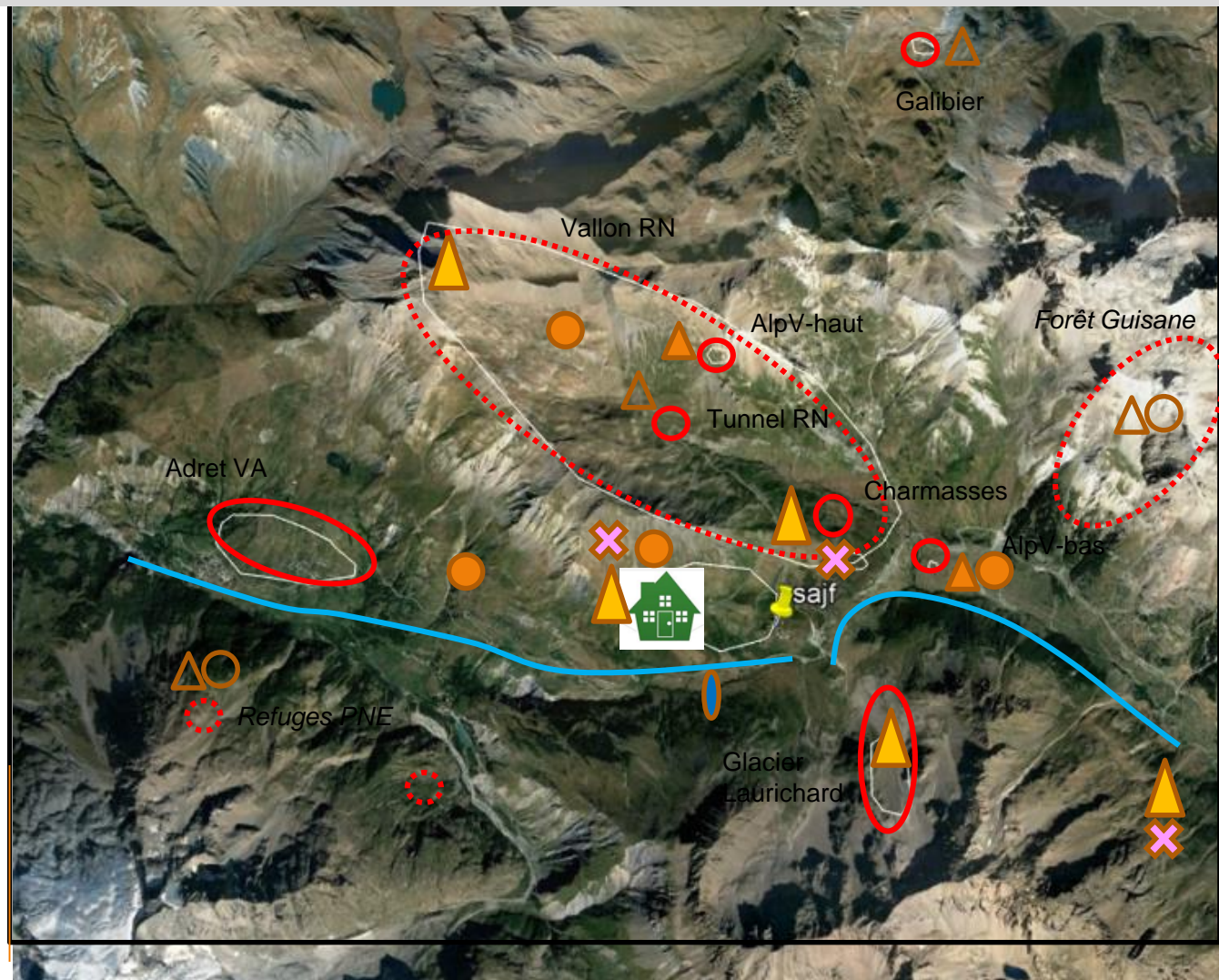
In situ experimentation



## Equipment, sensors spreaded around the Pass

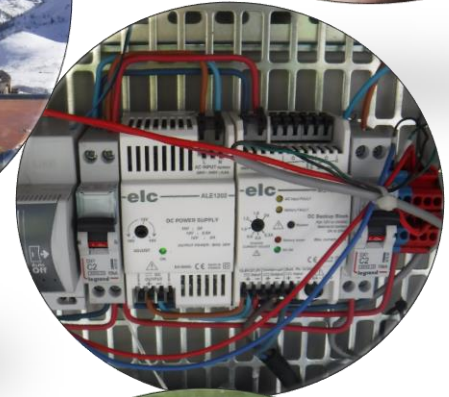
-  Station SAJF
-  St meteo permanente
-  St meteo mobile
-  St hydro permanente
-  Capteurs Temp/Humid. Sol
-  St aérosols atmo
-  Zones d'études en cours
-  Zones d'études à discuter
-  Equipements à discuter

5 km

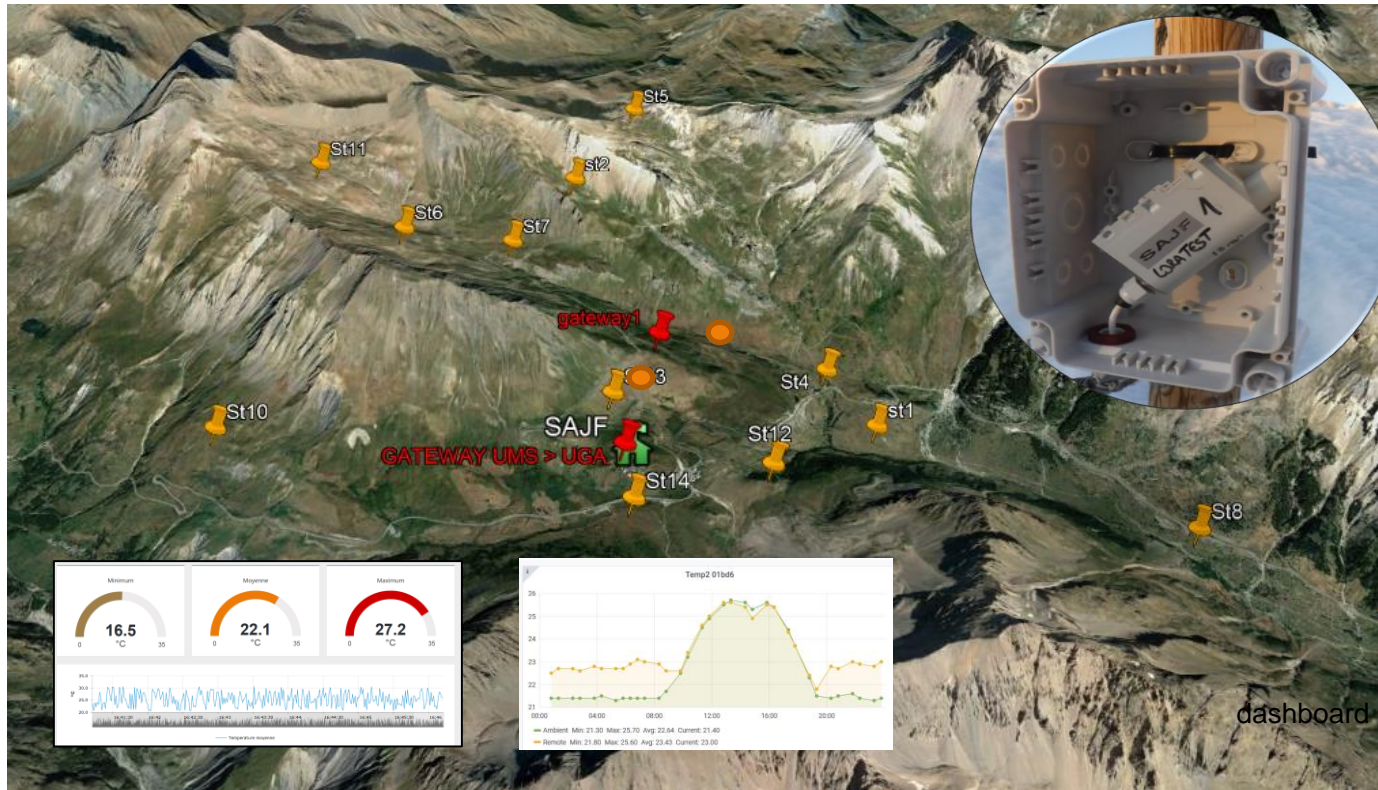


5 km

# Remote equipment and sensors needs being monitored



# IOTs = EYES for science – critical moments. hydrology, avalanches,... tourism !



**LORACOL** : setting up a network of connected sensors, lowcost and autonomy management

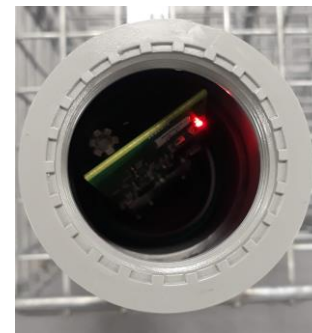
**Avril 2020** : prototypes  
MARMOTCONNECT project  
SENSORCONNECT project  
ALTIGATEWAY project

## Case study : connected marmots traps

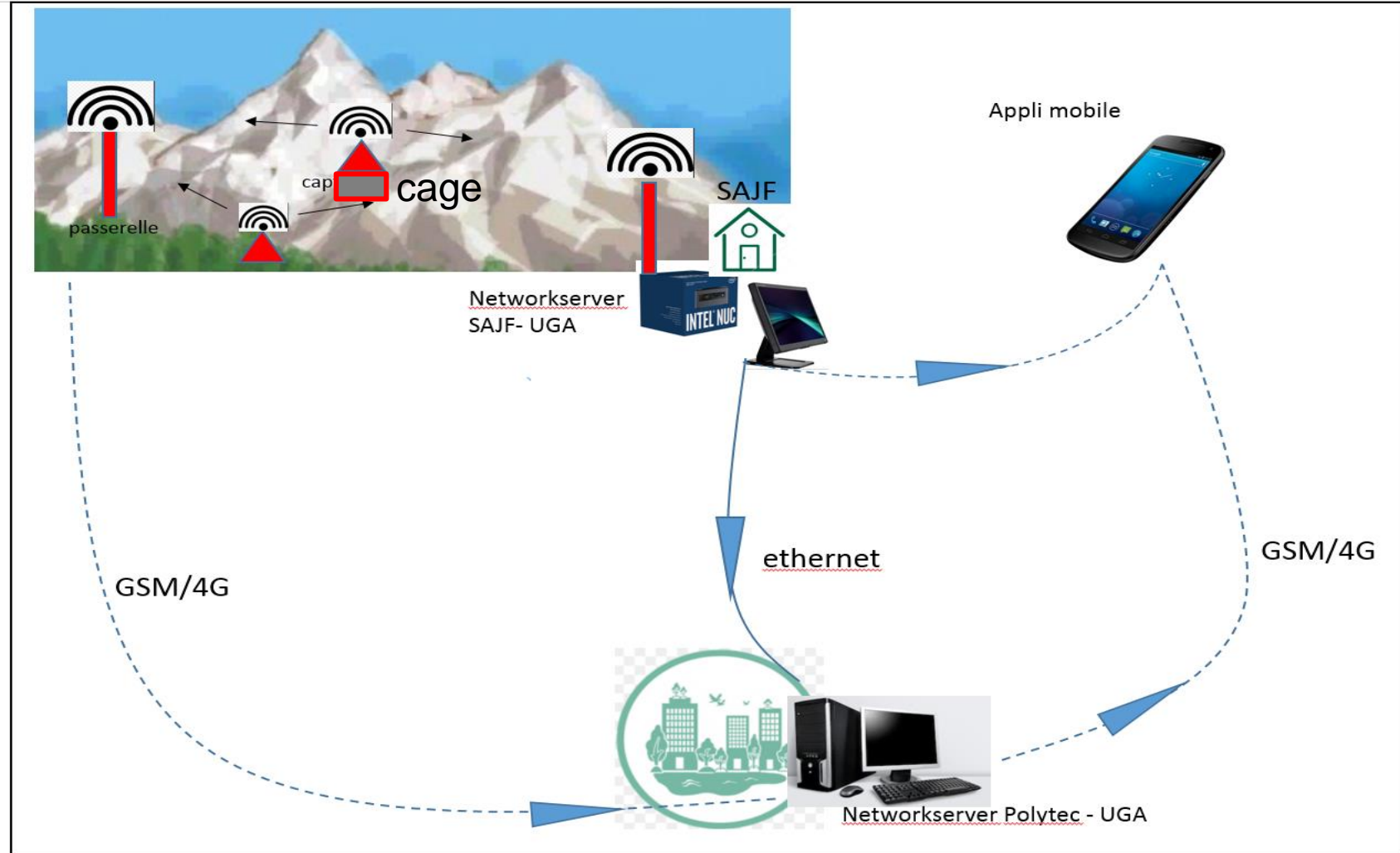




## Case study : connected marmots traps



# How it works ?



# MERCI !



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