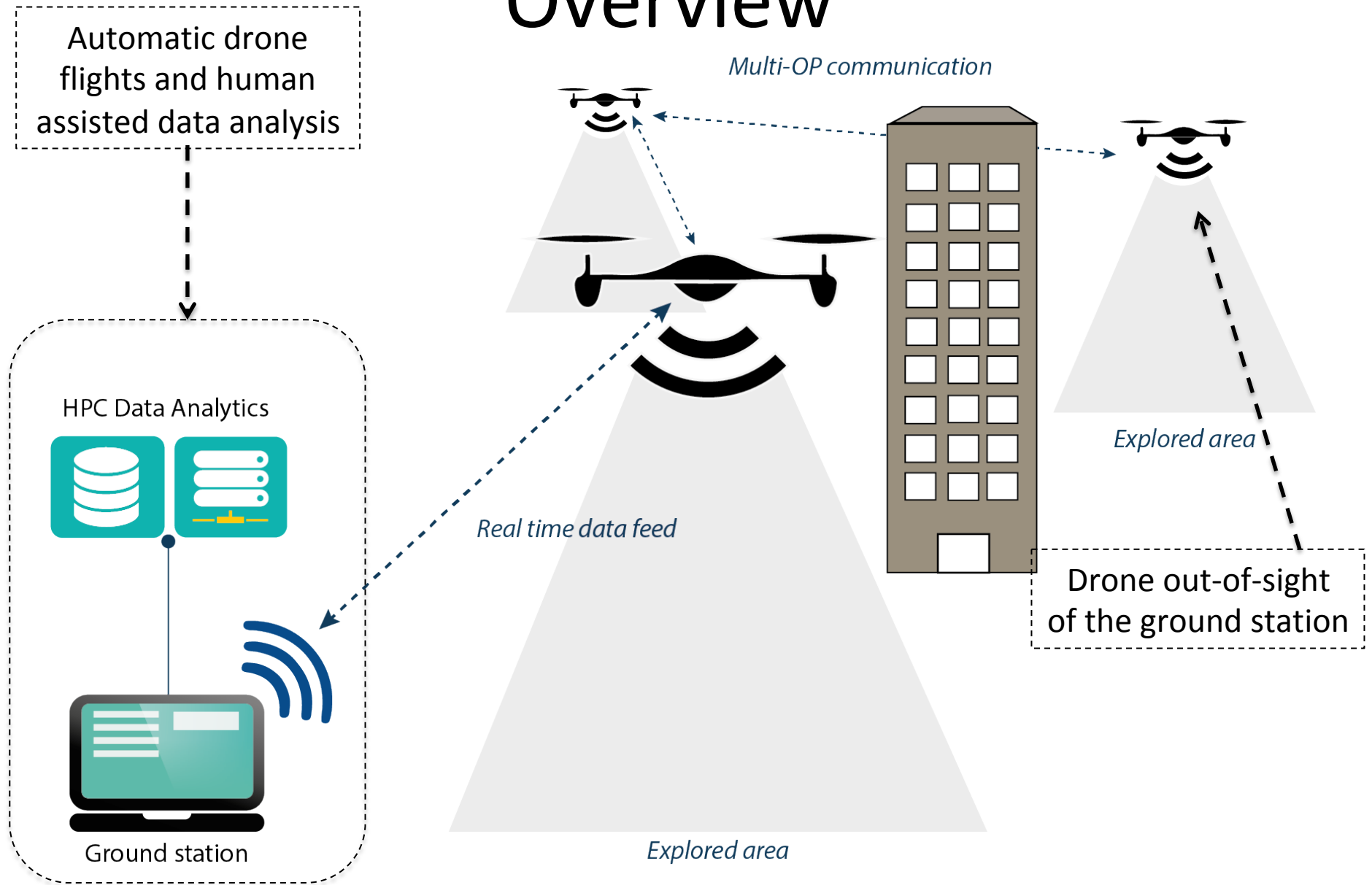




Drone/Rover Platform (AQMO)

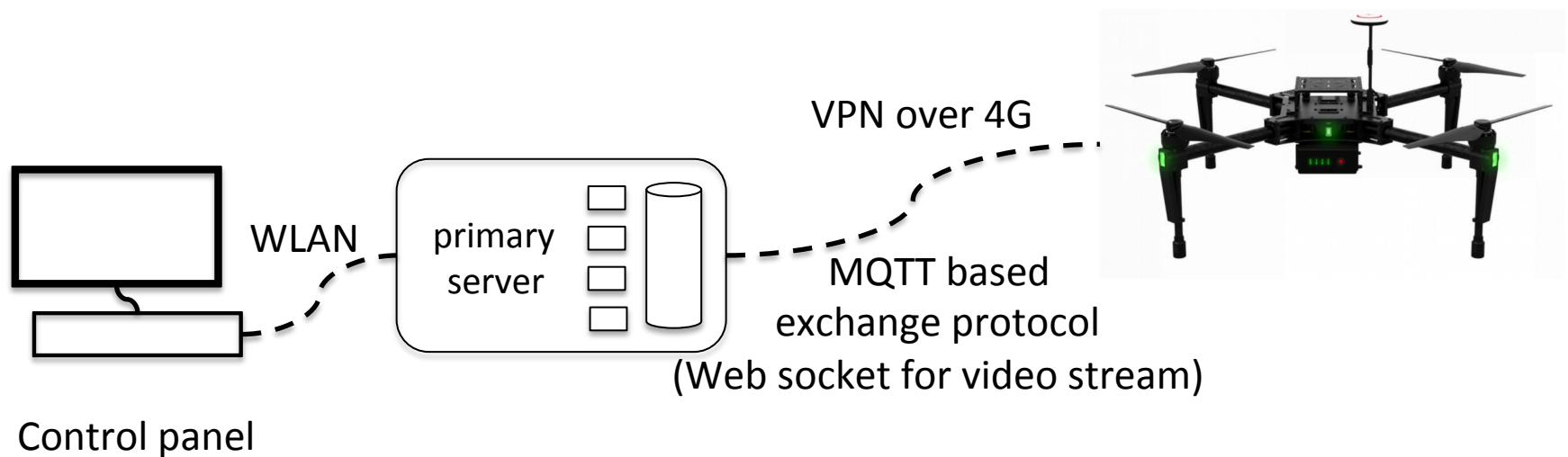
F. Bodin, F. Desmortreux,
L. Morin, O. Martineau

Overview

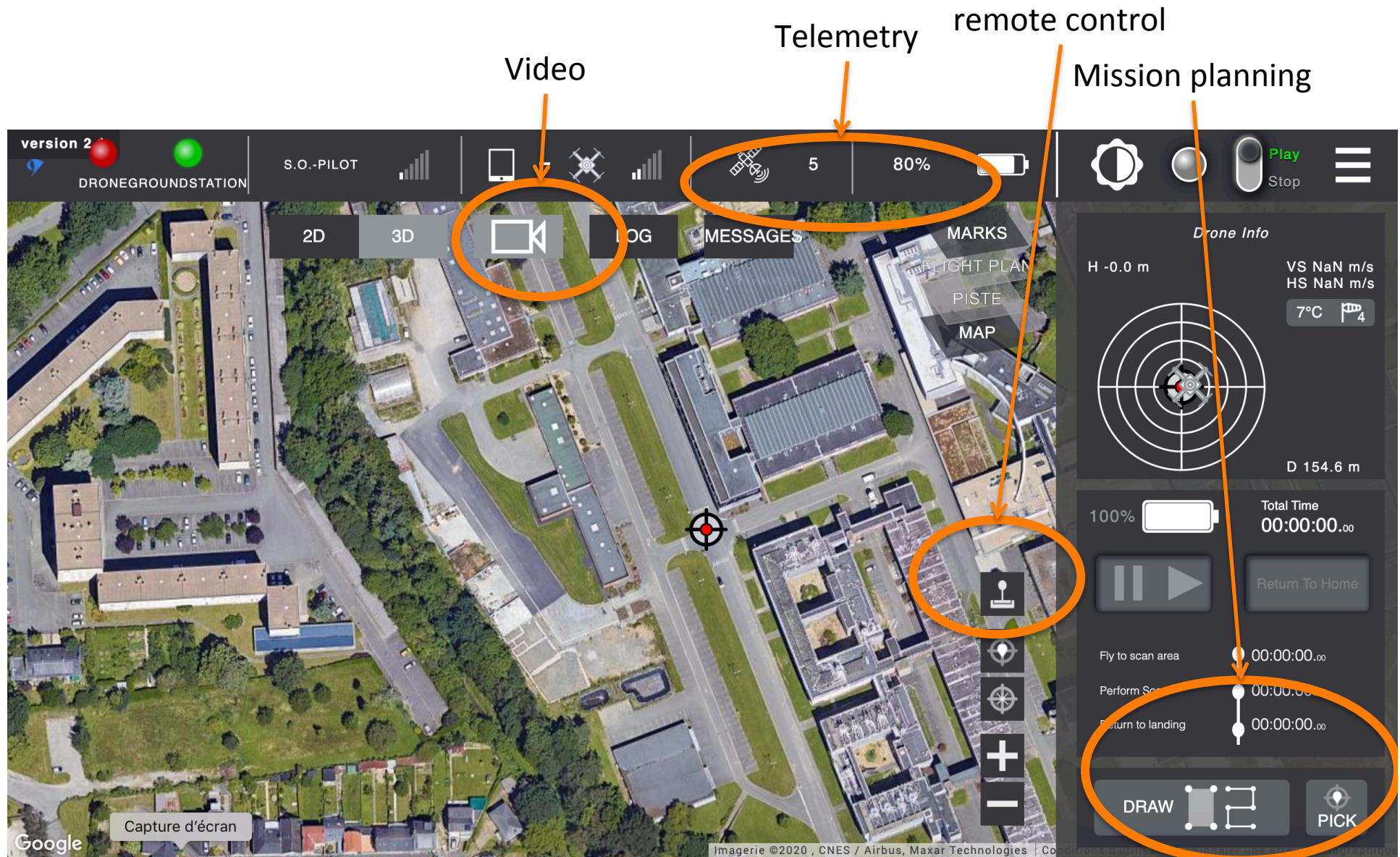


Drone/Rover Platform

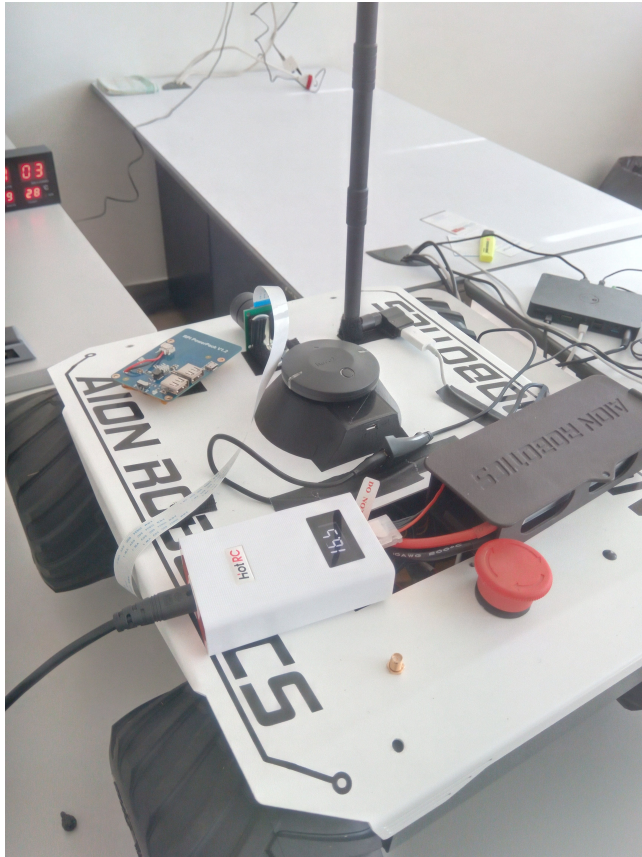
- Platform features
 - Drone and rover mission planning and control
 - Real-time video
 - 4G connectivity
 - SDN federation
- Drone operation capabilities (insurance, etc.)



Control Panel

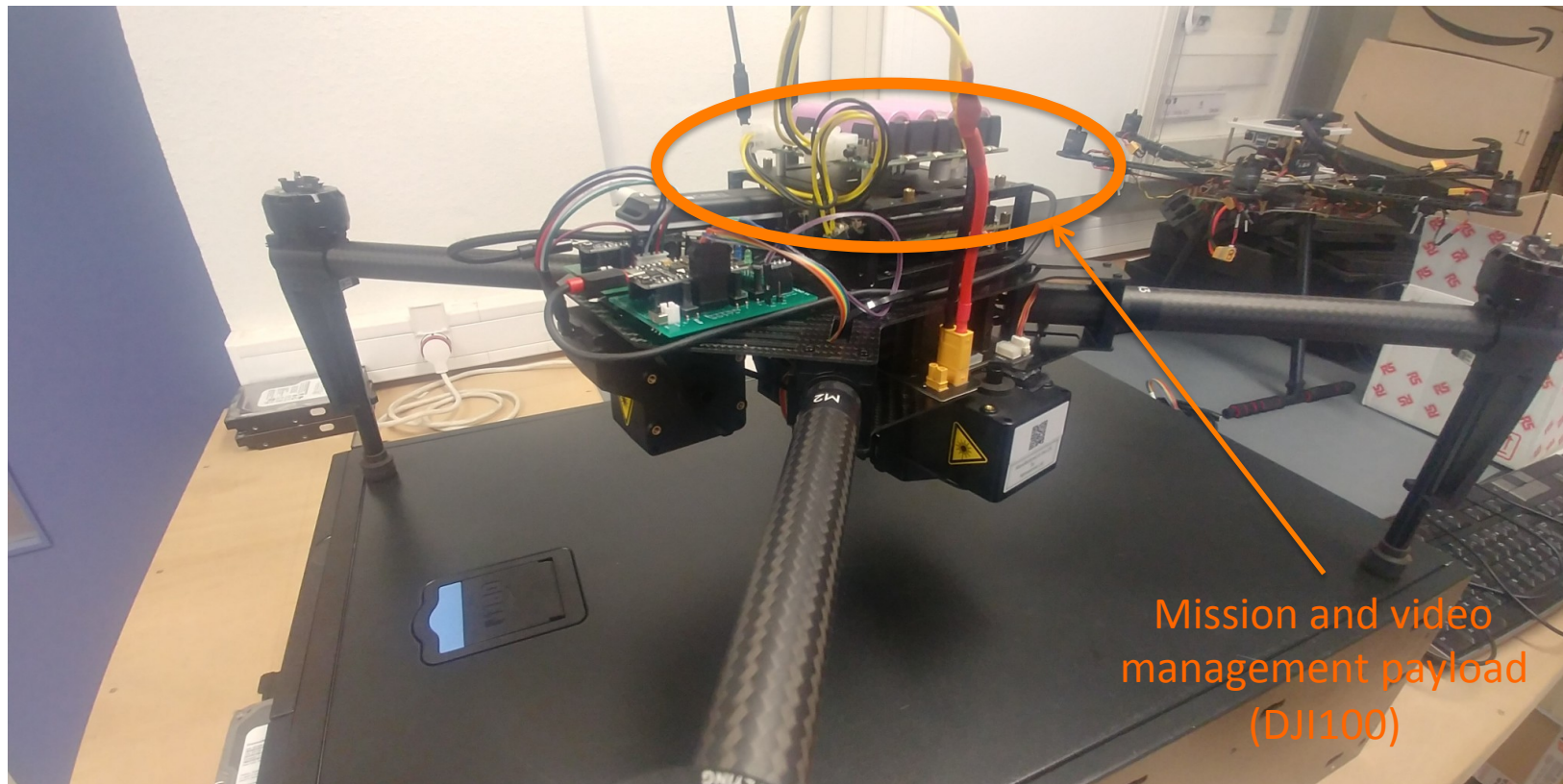


Rover AION Robotics



- Ardupilot based / pixhawk <https://youtu.be/44rHE3YYY7I>
- <https://www.aionrobotics.com/r1>

DJI Matrice 100 / 600



Drones flights at the UR1/Monterfil airfield

<https://www.youtube.com/watch?v=aw7LSVJ44gl&list=PLo1jnXYZR9JcTWYroL4sBz3ttC1ADD4Dr>

Next technical steps

- Fixing annoying issue
 - Interferences between GPS and USB3 (video feed)
- New capabilities
 - Anti-collision detection to deal with unexpected obstacles and GPS inaccuracies

Experiments

- Current
 - Using 5G for remote control and data link with Nokia (Lannion, FR)
 - Emergency first assessment with MyAngel (<https://www.myangel.com/>)
- Next
 - Test multi-drones mission planning with communication routing