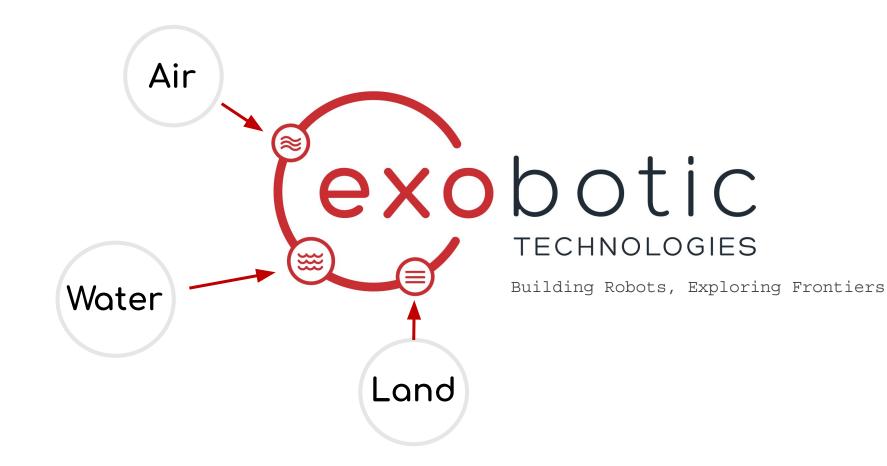


### **Driving Drones Webinar**

Autonome outdoor robots voor uitdagende toepassingen

Tim Waegeman

https://www.exobotic.be - info@exobotic.be



# Air $\approx$ exobotic **TECHNOLOGIES** \*\*\* Building Robots, Exploring Frontiers Water Land

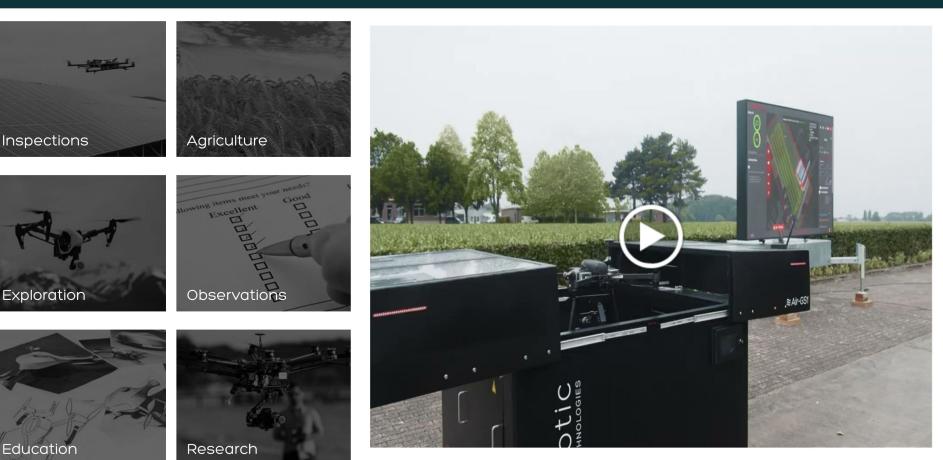


#### Drones or Unmanned Aerial Vehicles





### Applications



#### Drones or Unmanned Aerial Vehicles



- Movement is uniform and independent of its application
- Does rarely apply application specific forces on its environment
- The application, navigation and control rellies fully on perception



#### Unmanned Ground Vehicles



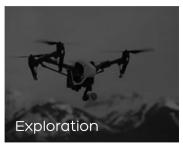


### Applications

















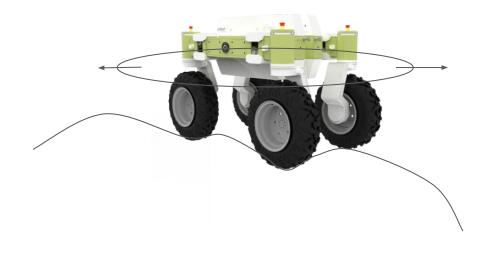
### Land Use Case: Weed Mitigation







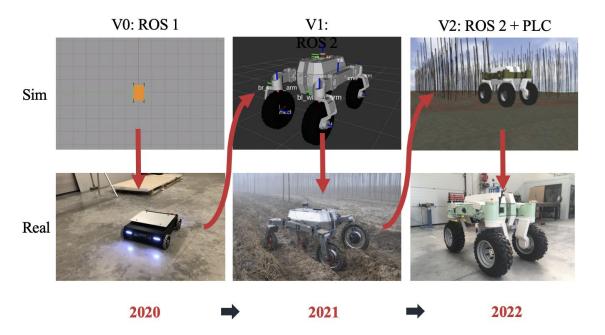
#### Unmanned Ground Vehicles



- Movement is not uniform and could depend of its application
- Does apply application specific forces on its environment
- The application, navigation and control relies on perception, task and total dynamics



#### Unmanned Ground Vehicles



- Limitations of simulation
- Real world validation is needed
- Robot needs to adapt to environment and not the other way around

## Land Movement dynamics testing





### Land Use Case: Tree monitoring





Closing the gap between user and product offering

Robot Service X euro/ha



End users

Services



