

# Watchbot Xplorer: Robot Inspector Valdemingómez Technology Park



Capital  
Digital

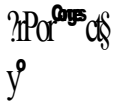


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01.

The Watchbot Xplorer

04.



SPANISH FEDERATION OF  
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PROVINCES

RECI SmartCitJes  
Red Española de  
Ciudades Inteligentes





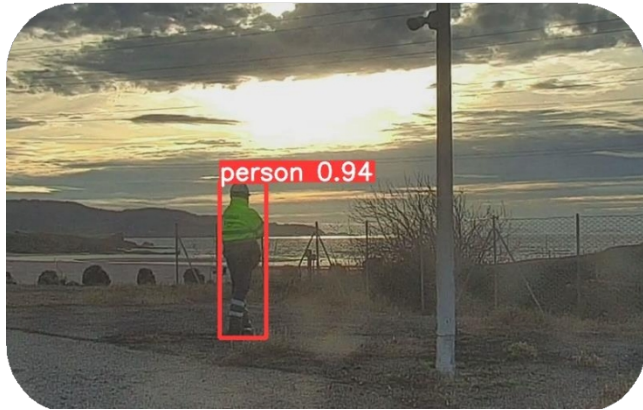
# Challenges in inspection and surveillance



- Low recurrence of data collection.
- **High Operational Costs** for qualified technical personnel
- Hazardous areas for people
- **Repetitive tasks.** Low automation
- High intensity of working hours for staff.



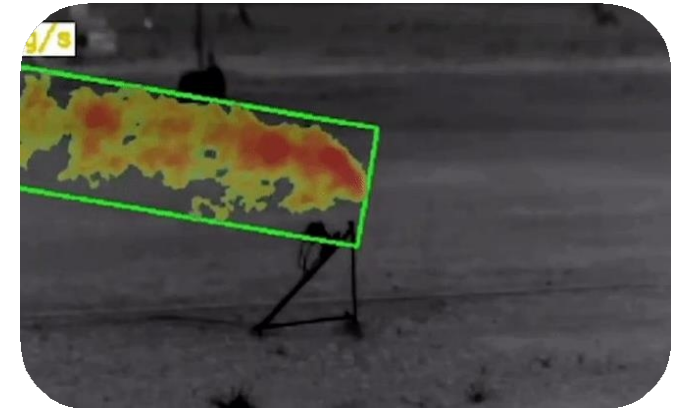
# Examples of the R o b o t i c Surveillance and Inspection Solution



Intruder detection



Thermographic detection



Gas detection



Analog instrument reading



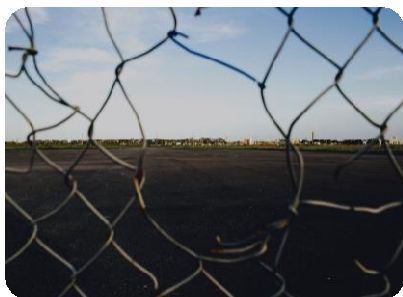
Anomaly detection with AI



# IA GENERATIVE



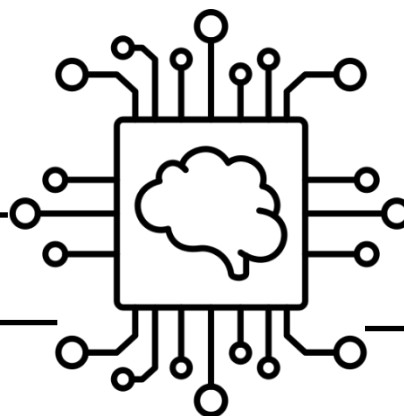
Animal Detection



State of infrastructure



Leak detection



Generative AI for inspection and surveillance tasks

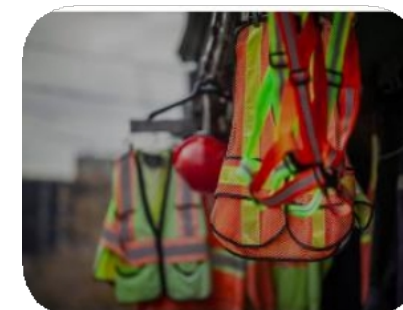
Reading analogue and digital instruments security



Visual inspection of installations



Detection of EPIS





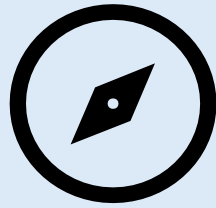
# Features



**Automatic recharging and 8 h of autonomy**



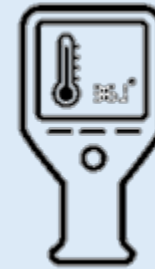
**Operation under adverse weather conditions**  
Temperatures between -30 and 35°C,  
Light rain and dust



**Autonomous navigation with the possibility of teleoperation**



**Indoor/Outdoor or Operation**



**Thermal imaging cameras and OGI**



**Suitable for all types of terrain**



**Platform for management**







# Applications



Plantas de tratamiento de agua



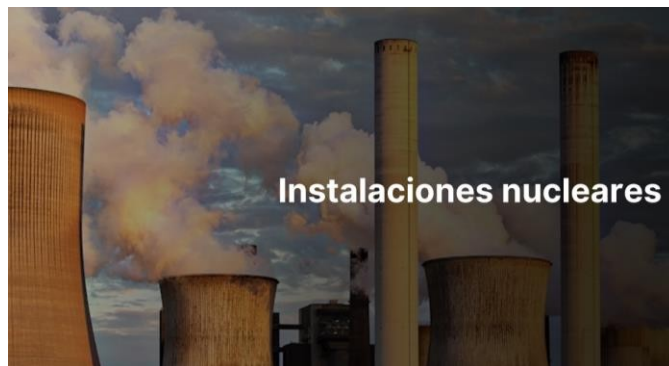
Instalaciones de gas



Plantas de biogás



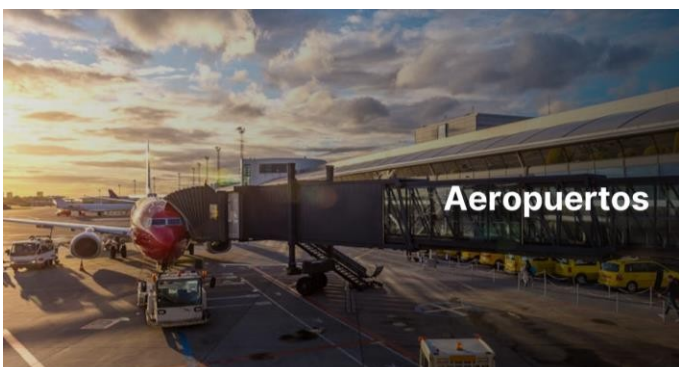
Subestación de energía



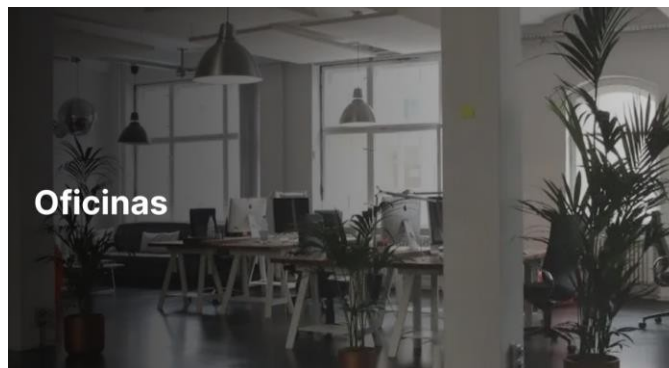
Instalaciones nucleares



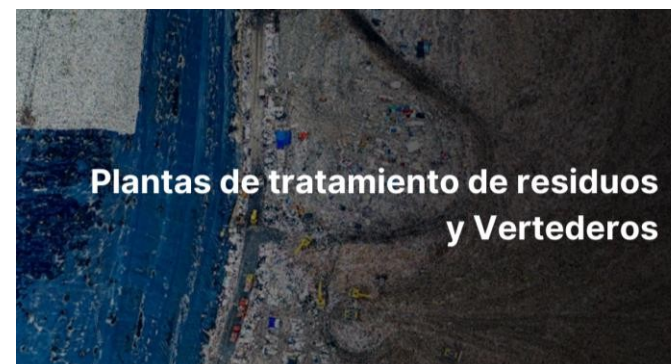
Centros Comerciales



Aeropuertos



Oficinas



Plantas de tratamiento de residuos y Vertederos



# 02.

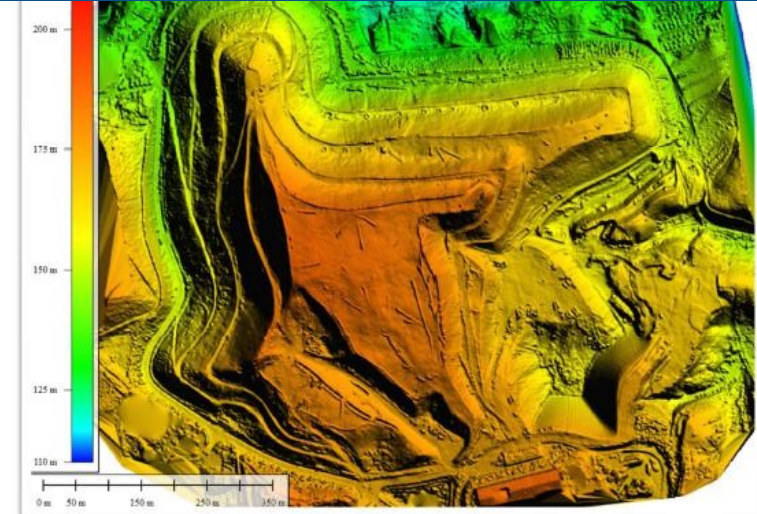
## Use cases at the Valdemingómez Technology Park



### EMISSIONS ANALYSIS

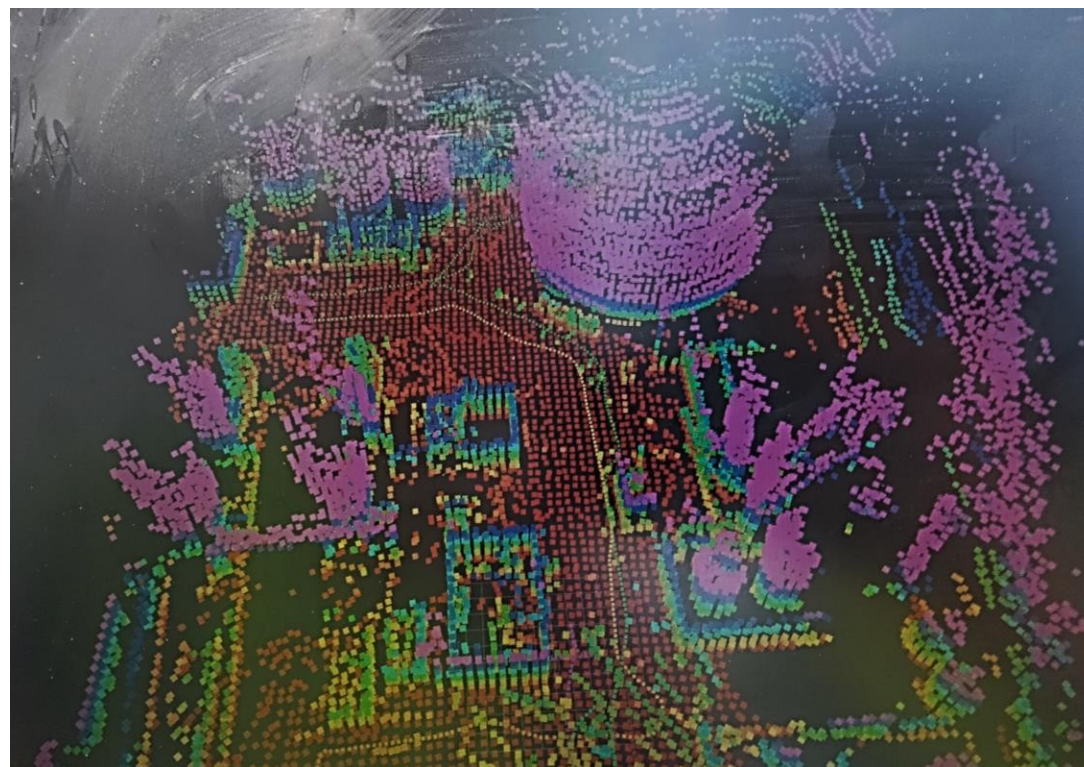


### SLOPE MOVEMENT CONTROL





# Biogas Treatment Plant





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