

# AIRSTART

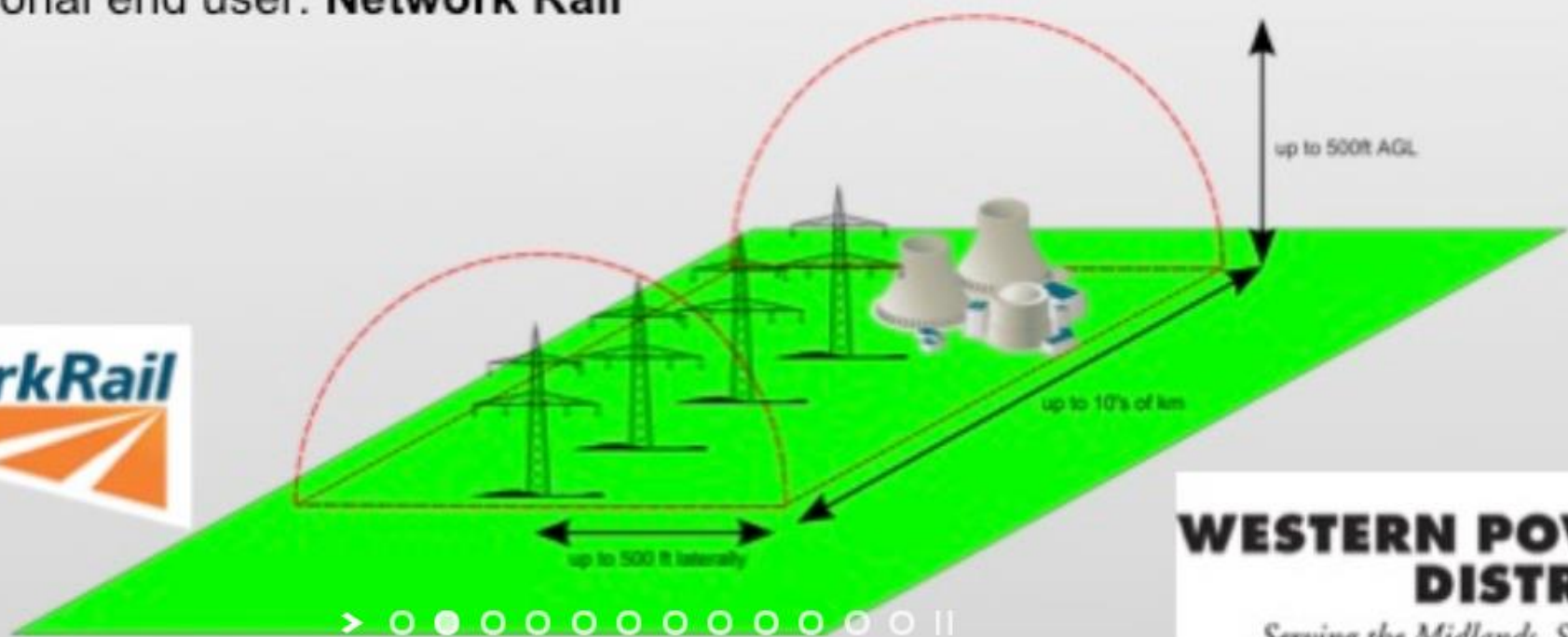


Smart Perception for low level BVLOS



# What does Blue Bear contribute to AIRSTART?

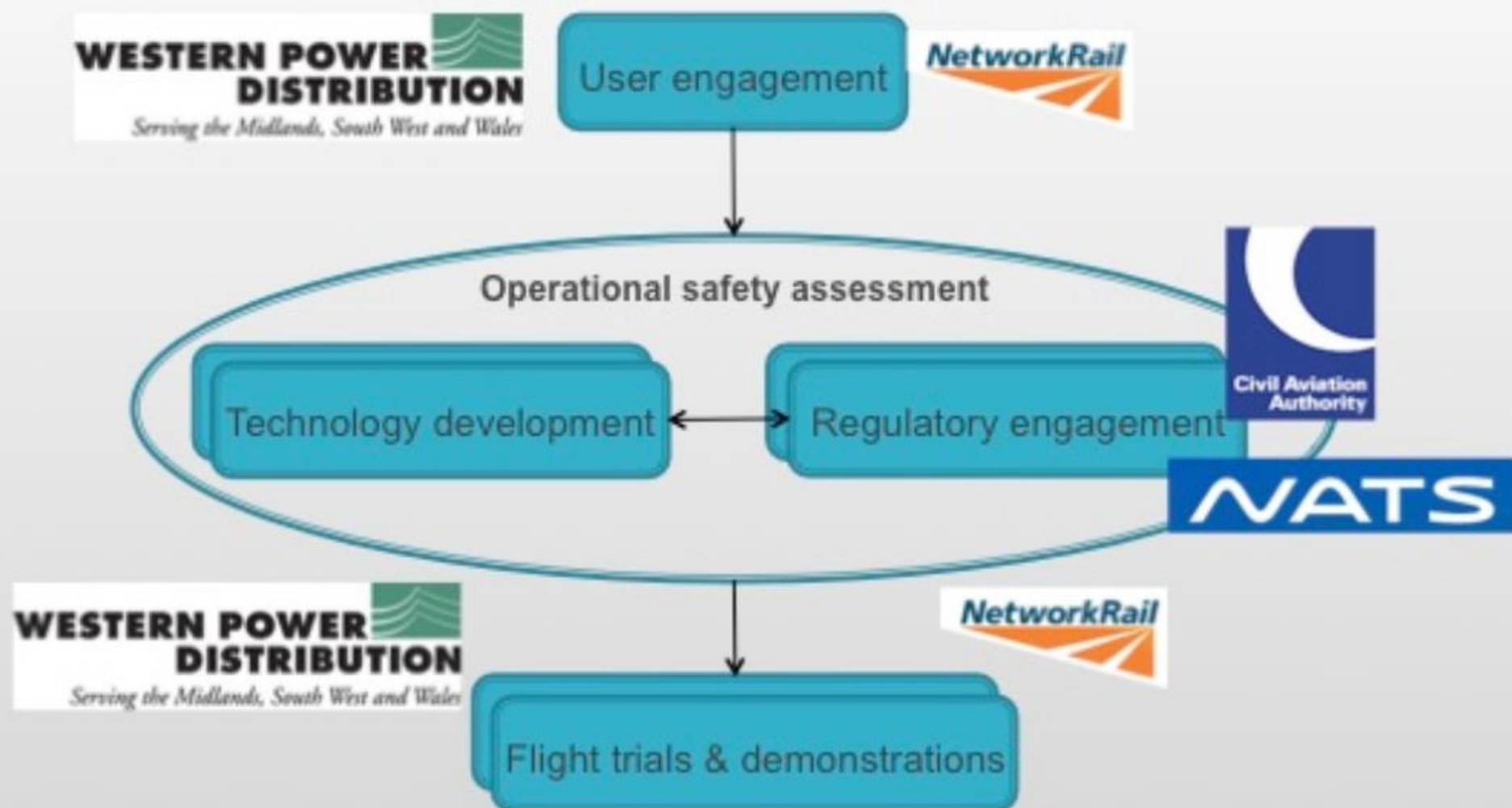
- Overhead power line inspection - BVLOS
- Primary end user: **Western Power Distribution**
- General approach applicable to similar applications, e.g. gas pipeline inspection / rail lines
- Additional end user: **Network Rail**







# What does Blue Bear contribute to AIRSTART?





# Western Power Distribution Problem Space



## Main types of aerial patrols

- **Routine** – This is the 'normal jogging' activity when the helicopters are not being used for urgent tasks shown below.
- **Post-fault** - rapidly determine fault to restore service.
- **Pre-outage** - prior to increasing reliance on a circuit (e.g. removing redundancy) a condition inspection will be conducted to reduce risk of this circuit failing (Thermal analysis, clearances, etc.).
- **Severe weather condition inspection** – after a storm it is common for the infrastructure to be significantly damaged even if still operational, e.g. conductor dropped from top of pole with significantly reduced ground clearance.

# Western Power Distribution Problem Space



## Categories of inspection requirements

- Ground presence required
- Human observation required
- Suitable for automated observation / alert
- Manned helicopter













# Status



- Initial WPD requirements capture complete
- Design & integration underway on both rotary & fixed wing platforms
- Live trials with WPD beginning late Aug 2016 (VLOS)
- BVLOS safety case in progress



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