

# Trends of Technology Adoption for Construction Safety in the UK

BCAA-IOSH WSH Conference 2024: Fostering Strong  
WSH Culture through Technology and Innovation in the  
Built Environment



# Introduction



Evolution of technology in construction industry



Adoption of technology in construction industry in UK



Use of technology has lowered incidents in the construction sector



Benefits of investing in technology for construction safety

# Technology used in Construction Industry

Augmented Reality / Virtual Reality

Automation

Wearable Tech with RFID technology

Drones / Unmanned Aerial Vehicles (UAVs)

Artificial Intelligence

LIDAR

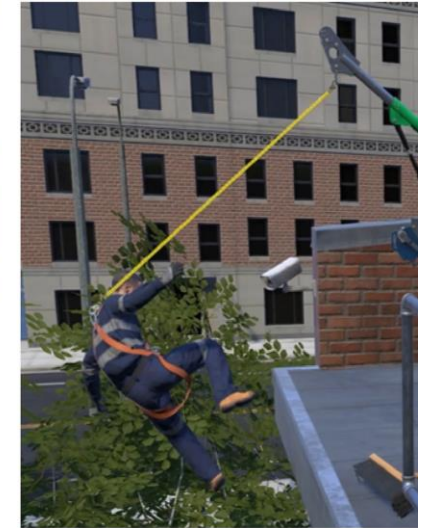
The 'Internet of Things'

Data Analytics

3D Printing

# Augmented Reality / Virtual Reality

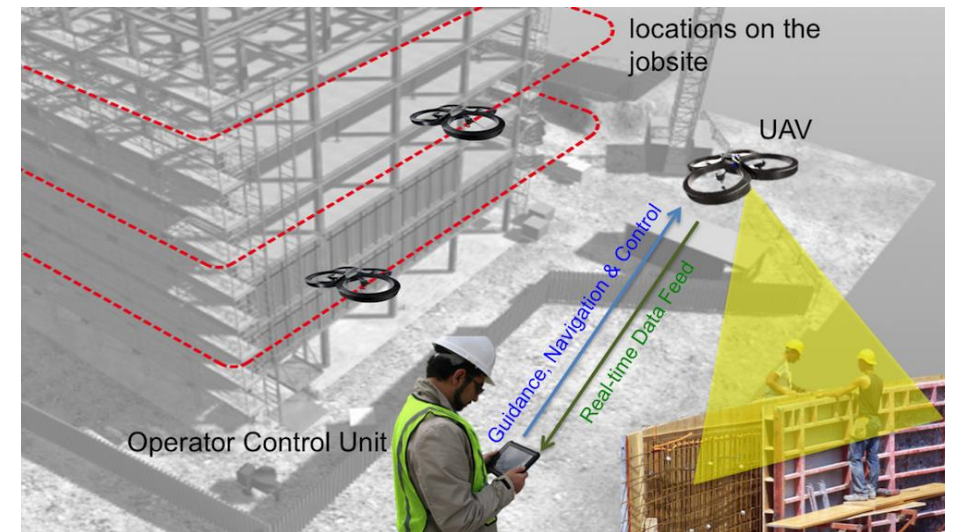
- Used for training and creating simulated environments
- Hazard identification exercises



# Drones / Unmanned Aerial Vehicles (UAVs)

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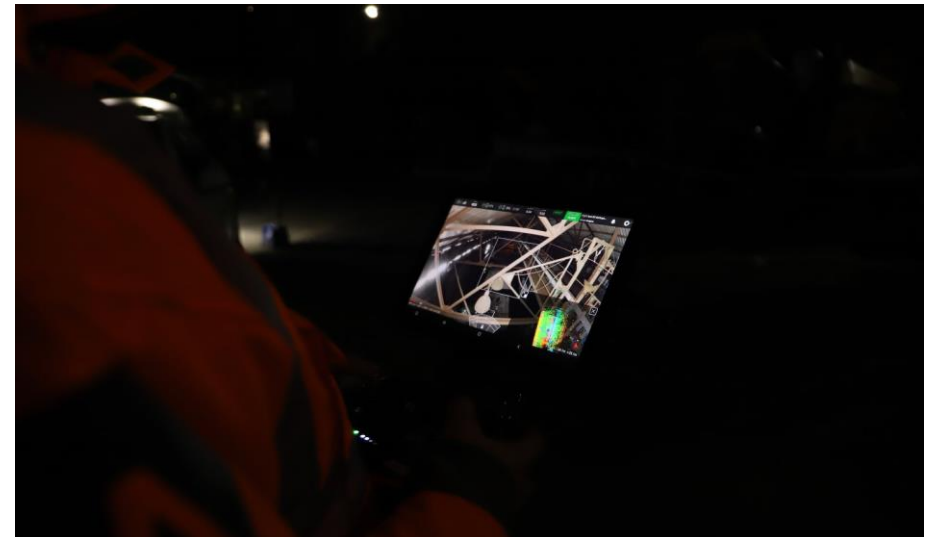
- Use of drones / UAVs have been attributed to hazard identification and safety inspections
- Prevents workers being exposed to hazards by providing real-time video / pictures of inaccessible or hazardous areas.



- Allows inspections to be carried out without exposing workers to hazards or causing public disruption.



- Allows for 3D Mapping highlighting access points, bottlenecks & safest route in case of emergency.



# Wearable Tech with RFID Technology

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## Proximity Detection System

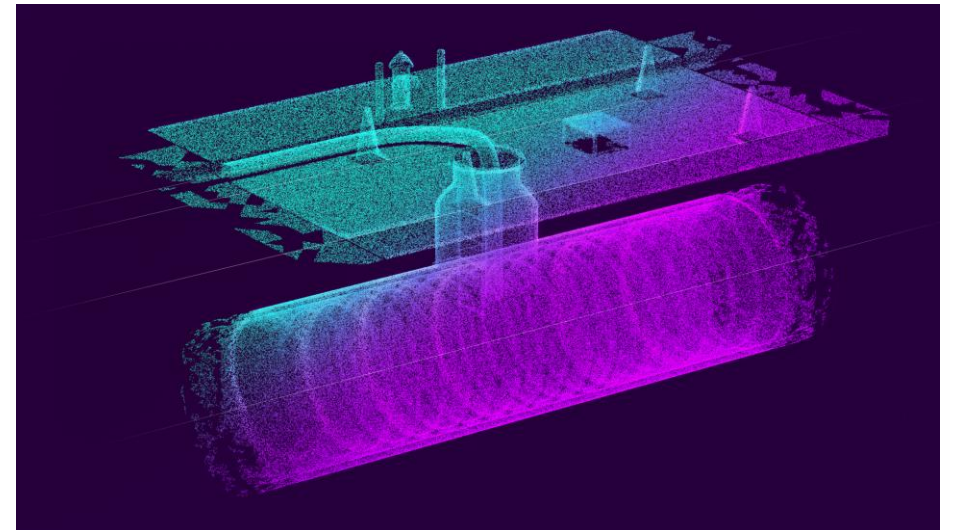
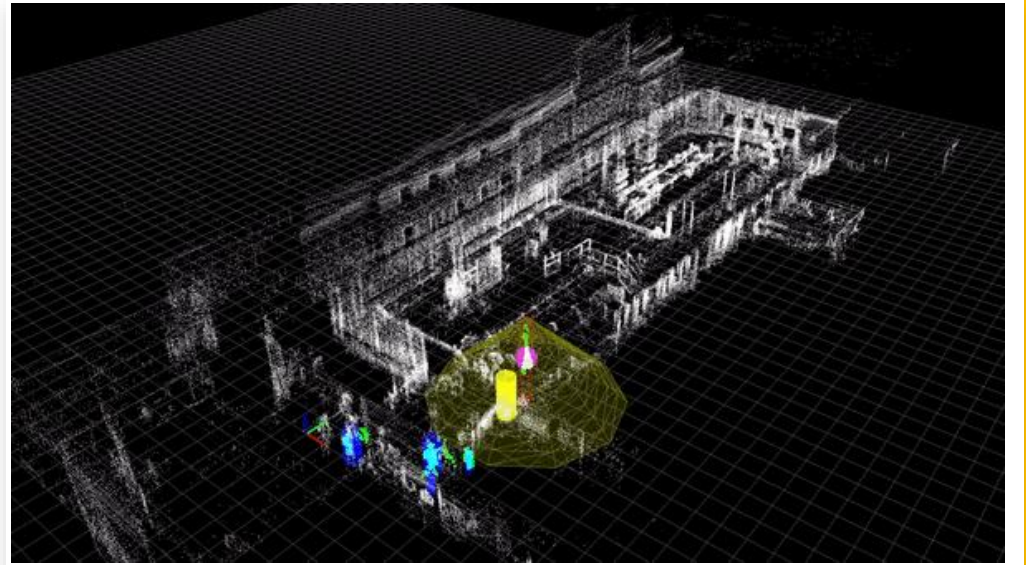
- Utilizes infrared waves to detect people and vehicles in the vicinity of an enabled vehicle and sounds an alarm for an impending hazard.



# Light Detection & Ranging (LIDAR)

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- Used for BIM, Scan for As-Built, Site Planning & Utility Analysis
- Application during construction and maintenance of built construction





# Challenges of Integrating Technology



Education &  
Reskilling



Data Access



Impact on Jobs



Technology  
Integration



Cost – Benefit  
Ratio