

Delivering Interactive WOMS Utilising VR, AR & MR

Glen Peek



Dŵr Cymru Welsh Water

A lot of work in every drop

- 3 ½ million customers, 1.4 million homes & businesses
- Over 800 million litres of water supplied daily from 98 treatment works ~26,500 km of mains
- 838 sewage treatment works ~30,000km of sewers
- 1 million visitors with 70,000 school children
- 4500 km coastline and 105,000 acres of land #
- 4th largest company in Wales, with 3500 colleagues
- Investing £1.2 million a day





The Challenge

Complex Operational Information

Show some innovation

LEAN Working

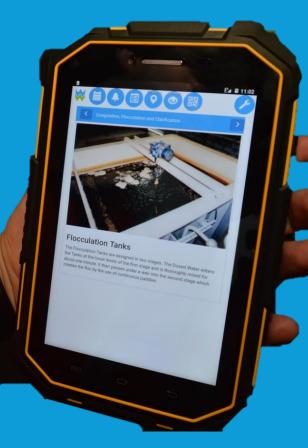


Award Winning Innovation









Welcome to the IWOM

- Critical safety information
- Induction Videos & emergency schematics
- VR 3D rendered model of the asset
- NFC / QR data collection & submission
- LEAN process
- Visual display of operating choices AR overlay of plant & process information
- Automated forms, procedures & data recording
- POI mapping GPS guidance

VR BIM drivers 3D Point Cloud Scans Six meter 360° design pod Output to CAD / NavisWorks





Hardware - Cedar CT7G

- Easy to use
- Lightweight
- Robust
- IP68
- Reliable
- Secure
- Intuitive in use
- Long battery life
- Price point





HMT1

IP 68 7 inch tablet GPS & Gyroscopes Full-Shift Battery Wi-Fi & Bluetooth Voice Controlled 16MP Camera WorkfloPlus



1020



Vuzix Blade

Internal Battery 8MP Camera Voice Controlled Colour See-thru display Dual Haptic feedback Noise cancelling Touchpad Android OS Micro SD



Meet the twins







Why - VR, AR & MR?

- Increases efficiency
- ROI- Achieved within one scheme
- Drives consistency and accuracy
- Accelerates & streamlines processes
- Tracks maintenance & reduces errors
- Validates tasks and enhances diagnostics
- Non-specialised operators can perform complex activities
- Records, forms, reports and receipts are generated automatically

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Thank you. Any Questions?