



## MONITOR | VERIFY | SAFEGUARD

Intelligent as-built digital twin capture & remote management solutions for energy asset construction

Established in 2013 providing project controls services to the energy industry we now support projects across Power, Infrastructure and Oil & Gas globally from our Aberdeen office.

Specialising in onshore energy to include substations, cable transmission, power generation, grid access and network reinforcement in support of the energy transition.

We support EPC contractors, consultancies, asset owners and developers offering the full suite of project controls solutions for project development and construction delivery phases for assurance and progress verification.

Our MESAdvance™ solution follows extensive technology partner selection and designed to provide next level project intelligence in support of successful project delivery in the construction phase.



### Project Development

Providing a framework of project controls: estimating, planning, cost control and risk management. Supporting major projects in the development lifecycle across feasibility and providing cost/schedule assurance to help clients turn prospects into assets.

### MESAdvance™

Our complete solution for supporting construction delivery utilising drone technology to survey and build digital twins models of sites. Providing a full as-built record within an intelligent platform to give clients advanced project insights into their progress and support claims defence.

### Construction Management

We offer boots on the ground support utilising our all inclusive toolkit such as 4x4 vehicles, measurement tools and drones to verify progress and contractor performance. We have a range of dashboards and clear reporting mechanisms which help clients understand project position.

2013

Year Established

\$bn

Project Values

100+

Drone Flights

6

Key Sectors



**With 3% multi-factor productivity gain potential as estimated by consultancy PwC, a drone programme such as MESAdvance™ can pay for itself and more.**

"Using drones to automate routine tasks will also enhance safety performance, reduce risk, improve quality and free people up to focus on more interesting and value-adding work."

"Virtually eliminating disagreements about project status and providing valuable evidence in case of litigation."

### **PwC: Skies without limits**



We engage with a local charity who provide practical work experience for people with additional support needs to sustainably manufacture our survey ground control points from recycled wood.

*We are site ready with site 4x4 vehicles and pilots HV Rules, CSCS and BORDA trained.*

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### **What is it**

A complete solution that includes data collection, processing and access to an interactive web platform that holds a full as-built record of your site in the form of a digital twin.

The digital twin presented as a 2D map and 3D model demonstrates progress visibly with comparisons against historical datasets.

The interactive platform allows clients to gain advanced insights into their project through tracking and measurement functionality.

### **Why us**

We are construction management consultants - not a drone media business. We use drones as one of our key tools for data acquisition. Integrated with our experience in construction management and on-site experience we understand the key areas our solution can drive value in your project processes.

Closing the gap on unreliable contractor reporting and poor site records in the event of a claim.

### **How we do it**

We acquire all your data onsite through a combination of drones, 360° cameras and GNSS RTK survey control points to ensure accuracy. Ideal for multi acre sites and complex cable corridors. For projects that include buildings and internal areas our 360° cameras are used for walkthrough mapping ensuring total as-built recording.

The data is processed offsite and available within the web platform the next day for clients to view and explore.

### **Project Management**

Supporting Project Managers and PMO functions to remotely understand site progress, re-measure and verify invoice applications through the interactive platform, defend claims with a comprehensive as-built record of site from topsoil strip to operations handover.

For earthworks cut/fill monitor elevation changes week on week to ensure metrics support the project programme to protect the installation critical path.

Utilise the digital twin to save costs through reduced site visits and part of active COVID management.

### **Construction Management**

For boots on ground, utilise to enhance site inductions with a real time 3D walkthrough of work zones and optimise setting to work with visual awareness of safety hazards, environmental exclusion zones and planned SIMOPS.

The 2D map and 3D model compliment site co-ordination meetings, allow sizing and testing of work and laydown areas and QC checking with drawing overlays over the model.

Integrate site captured models into BIM and compare against the baseline design model for clash and progress management.

Reduce reporting to give site managers more time on the park.

### **Investor Assurance**

For investors, project partners and major stakeholders MES Advance™ helps keep an eye on projects to provide independent validation of progress to protect investment and highlight intervention issues.