

Exerginc Group

FES-SCZ-CHP-SES-SWF

The BIM 'eSCape' Lifecycle

Our Digital Future - It's Childs Play!

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Digital by Design - The BIM 'eSCape' Lifecycle Infographic -

ExergInc/FuturEnergSystems Digital-Engineering Infographic



Innovation for the future – what about now?

Digital Design & Engineering

How aspirational and inspirational will we be?



Innovation Maturity Curve Methodology

3. Servicing The Built Environment





Britain's future is as a knowledge economy



Regenerating our energy systems our villages, towns and cities – we create the built environment!





Regenerating our energy systems, our villages, towns and cities – we create the built environment





BIM Lifecycle – what's the limit, how aspirational are we?

- Safety, sustainability & learning
- **Design & Engineering- Grid Integration**
- **Sustainability**
- Construction
- Value Creation
- Investment Performance
- Attribute based evidence

Multi-Dimensional DATA (MDA) Creation



- models
- Safety & Logistics model
- Animation renderings
- BIM driven prefabrication
- Laser accurate BIM driven field layouts



faults



Value Creation, Attribute based Knowledge and Evidence



Multi-Dimensional DATA (MDA) Creation





KNOWLEDGE ECONOMY: DATA UNDERPINS EVERYTHING WE DO. DATA INFORMS OUR BUSINESS, OUR CUSTOMERS AND OUR STAKEHOLDERS. WE ARE ABLE TO MAKE INFORMED BUSINESS CRITICAL DECISIONS TIMELY AND WITH CERTAINTY. DATA ARRANGED AS INFORMATION, ANALYSED AS INSIGHT DRIVES THE GROWTH AND DEVELOPMENT OF OUR BUSINESS TO PROVIDE EXEMPLAR SERVICE TO OUR CLIENTS, OUR CUSTOMERS AND OUR STAKEHOLDERS.



Integrated Programme Controls – Key Functions and Benefits

Baseline Control – ability to set the "way" for controlling scope/schedule/cost/risk throughout design development and delivery, via an "automated" and "integrated" Programme Controls framework

- **Change Management** ability to control changes to the baseline and make effective change decisions via access to high quality, real-time baseline information
- **Integrated cost/time performance** ability to measure performance vs baseline via application of a single, consistent framework across Phase One and Phase Two
- **Supplier performance and payments** ability to effectively administer multiple contract forms, including MWCC NEC Option C contracts, via client access to structured cost and time data (e.g. to verify work, to make faster payments and to assess performance against target)
- **Intelligent Client analysis** ability to analyse controls data, drive value for money across contracts, deliver effective assurance and transfer knowledge between Phase One and Phase Two
- **Operations and maintenance** ability to build maintenance and operations data from the outset by integrating asset information and programme controls



Integrated Programme Controls – Key Functions and Benefits

Management Information and Decisions – improved quality reporting and decision-making, performance measurement, visibility of early warnings and appropriate use of contingency

Forecasting – improved coordination of phases and functions, including resources and budgets **Efficiency** – reduced manual workarounds and work flows

- **Performance improvement** use of comparator data sets / progressive benchmarks to support and challenge suppliers
- **Faster payments** reduced payment periods to ensure compliance with NEC.
- **Resilience** improved data management, configuration and security, reduced risk of manual error **Interfaces** visibility of scope / contract interfaces

Scalability – systems are scalable to meet the increasing volumes across design/development lifecycle Accessibility – single source of truth accessible to all owning and interested parties, including suppliers Assurance – high quality, value-adding assurance via "analysis and analytics", as opposed to sample checking for compliance



Some real-life examples that we have designed/developed

/delivered!









11. 4D 11/33kV Subterranean Cable Layout Design & Engineering





12. Site Layout Integration Design & Engineering







It's child's play really!





Powering the Energy Transition for a Sustainable Future

Creating today, Delivering tomorrow.

FuturEnergSystems Ltd part of the ExergInc Group Companies







Exerginc Group

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Power, Energy & Renewables