

Case Study

Company Name

ElectricSands Ltd

Industry

Energy Generation

Delivery Partner(s)

Virtual Engineering Centre

Background

ElectricSands Ltd is an engineering start-up based on the Wirral peninsula. The company seeks to bring to market a novel solution for the generation of clean electricity. The key use case is the recovery of usable energy from gravity flows of solid materials, generated during mining and excavation operations. These sites are commonly powered by generators using fossil fuel, with inherent fuel costs and huge environmental impact.

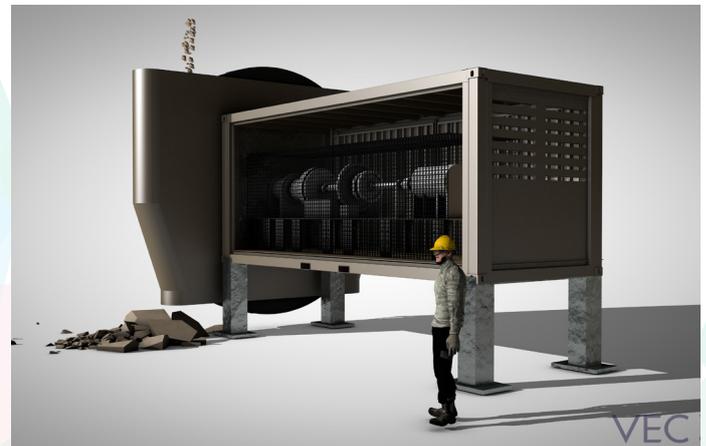
This innovative technology can also be used to supplement existing power infrastructures, including areas where energy can be recovered from flowing material. The proposed apparatus is mobile, so it can be used in remote and isolated areas and is easily transportable between different working environments.

Challenge

Following successful patent applications on their technology, ElectricSands were looking to further develop their concept and needed to ensure an appropriate digital strategy was in place to ensure the business was well prepared for the development, launch and ongoing management of an engaging prototype to product and to future-proof their processes should any external risk arise.

ElectricSands approached LCR4 START through the Virtual Engineering Centre (VEC), to co-create and develop a digital strategy for the business. The VEC assessed ElectricSands' current priorities, assets and capabilities, working collaboratively to produce the strategy, focussing on improved stakeholder

communication, integrating market research and feedback. This included the use of visualisation tools to showcase ElectricSands concept, which could be digitally shared and explored remotely. Feedback received from the virtual demonstrator would then feed into the development process, to keep their customers at the heart of business activity and to support the conversion of interest into sales and investment.



Results

ElectricSands are now better placed to deploy product visualisation into future stakeholder engagement activities, including upcoming trade events and investor presentations.



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Future Vision

Beyond visualisation, ElectricSands will continue to make best use of advanced digital tools within their overall digital strategy. This includes the use of numerical modelling within the design process to de-risk production and increase productivity.

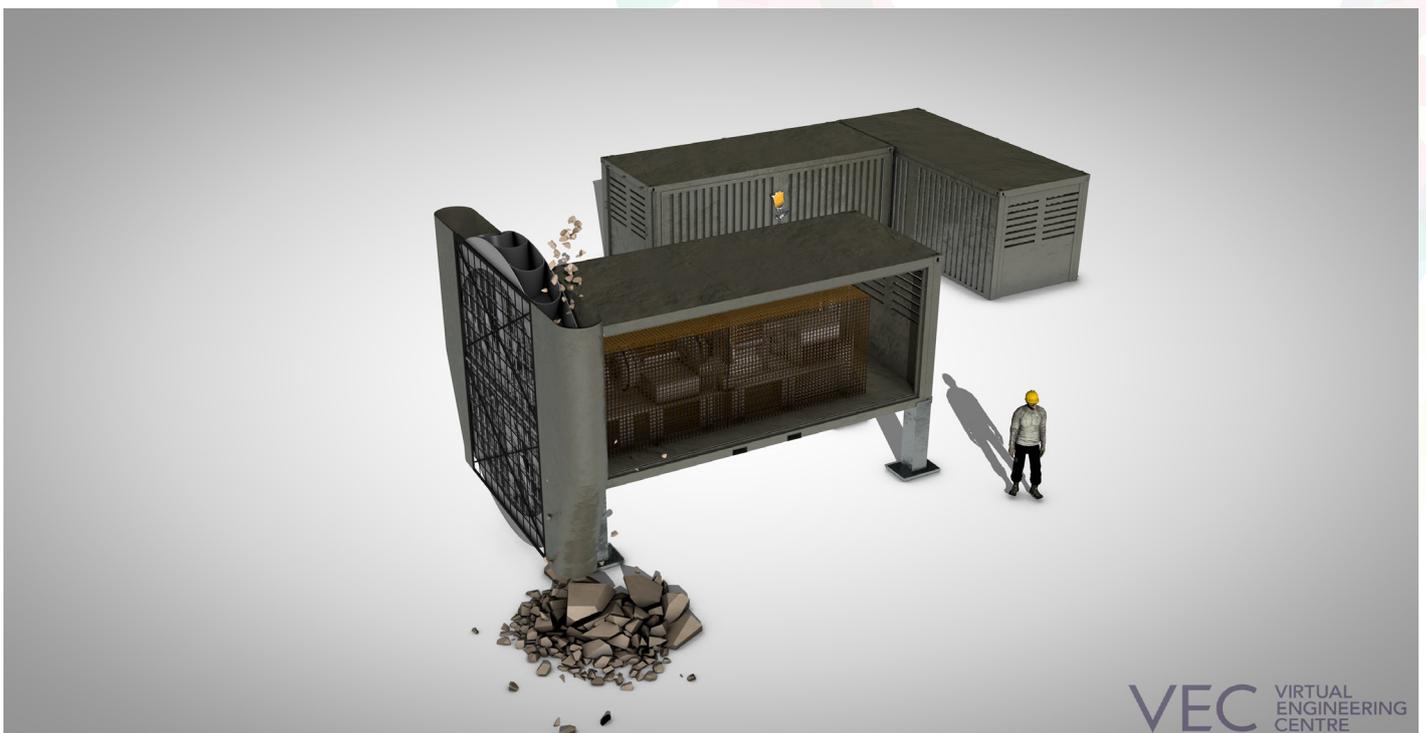
ElectricSands are also considering the adoption of a digital-twin approach into future pilot operations.

 I see the advantage of the online visualisation as the product is all about global reach, allowing the viewer to absorb the information in their own time and sharing it with their organisation. Digital visualisation helps overcome language barriers and is more welcoming and approachable than a technical drawing for many stakeholders.

The COVID-19 pandemic has introduced new restrictions in stakeholder communication, but remote meetings have benefited greatly from access to these online visualisation tools and have enabled ElectricSands to easily present our developed concept.

Gary Watson, Founder, ElectricSands Ltd

* Patented Technology: GB 2572069
* Patent Pending: US 16/930 779; GB 2579691;
WO 2020/178590; WO 2019/175548; CA 3089297;
AU 2019233940

VEC
VIRTUAL
ENGINEERING
CENTRE