



SFT Outcomes 2021/22

Demonstrating progress with impact

PRIMARY OUTCOME



SECONDARY OUTCOMES



Using technology to support a building's performance

There are over 5,000 schools and early learning facilities across Scotland providing education for over 700,000 young people.

Ensuring these school buildings perform at their peak can bring much wider benefits to our society such as reduced carbon emissions, improved wellbeing of those using them, reduced running costs and ultimately improved learning outcomes.

By improving the public sector's understanding of how space within schools and public buildings is used will help ensure better informed decisions are made on how the public sector plans, invests in, and utilises the buildings to best effect.

To help do so, our Infrastructure Technology and Learning Estate Teams together with Midlothian Council engaged with CivTech (an annual challenge that seeks to overcome problems facing Scotland's public sector through the innovative use of technology) and sponsored one of the 12 categories in the CivTech Programme.

Our challenge was "How can tech help us understand how our school buildings are used, and help support asset performance, wellbeing and sustainability?" with a particular focus on:

- Wellbeing - understanding the flow of pupils within a school, this can then mitigate overcrowded areas, reduce noise and disruptions
- Community Access - if we have a detailed understanding of usage, we can maximise access for community, such as to sports pitches or swimming pools

- Carbon - improved understanding of occupancy can improve our approach in how we heat and light our schools to reduce carbon
- Investment - to understand how people engage and use a school building can better inform the design of future schools

The collaborative CivTech process led to the successful appointment of technology partner Smartviz who successfully developed a project for the Lasswade Centre that combined the deployment of sensors and a data analytics platform to provide new insight into how the building was used.

The project has led to a phase two commercial agreement to further develop and continue to work with partners to deliver the benefits of this new insight and capability.

SFT's teams were pivotal to the creation of the challenge and brought together partners to enable collective leadership in the challenge.

Through the application of innovative technology and sensors, new insight and capability has been created to understand how school buildings are used to support improved decisions in how they are designed, maintained and operated.

Magnus Inglis from Midlothian Council, said: "We have found the CivTech process a valuable experience that has broken new ground for Midlothian Council in relation to digital twin approaches for asset management and operation.



**TECHNOLOGY-ENABLED
CONSTRUCTION, ASSET
MANAGEMENT AND USAGE
OPTIMISATION**



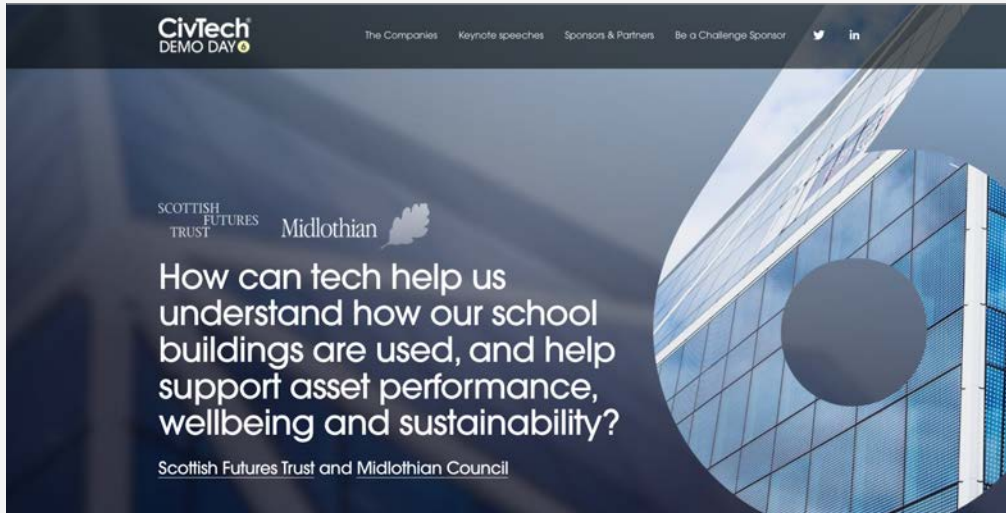
NET
ZERO



SUSTAINABLE
PLACES



INCLUSIVE
GROWTH



Challenge 7
SmartViz
CivTech Demo Day

“SFT has been integral to the creation of and success in delivering the challenge: through introducing the Council to the CivTech programme; developing the challenge; bringing the partners together to create the innovative solution; supporting and providing expertise.”

Shrikant Sharma from Smartviz, said: “The Civtech challenge has provided SmartViz the opportunity to launch and accelerate the business, while also adapting our digital twin product with a focus on educational buildings.

“SFT has played a central role in developing the collective leadership amongst our partners, and their deep insights on the learning estate and digital twining have been invaluable to the success of the project.”

Partners

- CivTech
- Censis
- Midlothian Council
- Buro Happold
- SmartViz