

Smart Learning Estate – Lasswade High School

Improved asset performance through utilisation data & insights

Overview



A collaboration between Midlothian Council, Lasswade High School and industry partners has derived significant learning and value to the authority and Scotlands wider learning estate. The project set the challenge that by **“Understanding how we use our learning estate will support performance, wellbeing & sustainability”**

The project deployed sensors and enhanced data analytics to understand how Lasswade High School was being used and how the environment performed. It enabled groundbreaking use of sensors and solutions through the industry partner SmartViz.



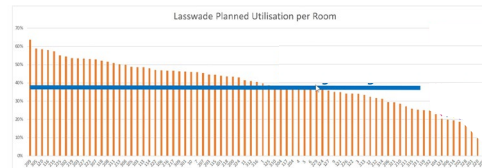
Benefits & ROI



The innovative use of IoT sensors and various digital solutions to provided real time data-driven analysis of space utilisation within the existing school.

- Identification of circ 20% capacity within existing school.
- Identification of capacity within community facilities.
- Utilisation data informing future investment decisions.
- Creation of pupil taskforce for project to support curriculum.
- Support asset and estate strategies to reduce carbon.

“This approach has created a new level of insights and capability to support Midlothian Council manage, maintain and invest in our learning estate” Magnus Inglis Midlothian Council



Project

IoT & data analytics to understand utilisation of Lasswade High School

Project Partners

Lasswade High School
Midlothian Council, SmartViz
Scottish Futures Trust & Censis



“We’re really proud to help shape findings that will support the wellbeing of pupils across Scotland and beyond while improving their learning, optimising space and cutting energy waste.”

Head Teacher, Campbell Hornell



Data



The project considered the data sources from existing and newly deployed IoT sensors. This included timetable data aswell as data from building management systems.



The project enabled the development of the SmartViz platform that seeks to integrate multiple data sets to enable holistic insights into asset performance.

People & Process



The project originated from a CivTech process from 2020 and Scottish Futures Trust continued to support the project through grant funding to scale adoption across the Midlothian estate.

The project also enabled the creation of a pupil taskforce to engage with the new data platform and allow the project to support school curriculum.

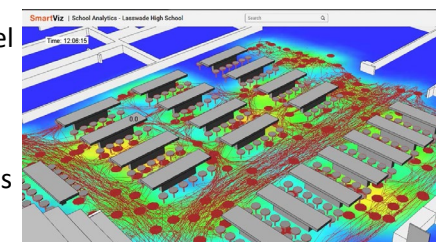
The project sought to test, deploy and validate utilisation data across specified rooms and areas. This analysis was carried out across defined periods of time to look at utilisation during term time, holidays and patterns across the week and days. The analysis could even present the data on hourly intervals to enhance understanding of occupancy and environmental performance.

Technology



The project developed a package of IoT sensors that could measure occupancy and the environment, coupled with SmartViz data and analytics platform to create an easy and engaging way to derive insights and inform multiple stakeholders in how the building is used, managed and invested.

The project explored simple peel and stick sensors through to sophisticated LIDAR scanning sensors to understand people movement in large areas such as the dining halls.



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