

Bridging the skills gap to inspire the geospatial experts of the future

Scotland's Spatial Information Service (SIS), part of the National Improvement Service for local government in Scotland, is working with the private, public, professional and educational sectors to inspire young people to embrace opportunities in geospatial information.

Challenge

From satnavs to smartphones, location data underpins almost all our everyday activities making geospatial research a valuable industry which is used to inform many billions of pounds of global investment.

Whilst the sector offers endless career prospects, it is hampered by a low profile, particularly among secondary school pupils, and subsequently a shortage in skills and workforce.

Solution

The Spatial Information Service (SIS) is responsible for bringing together local authority spatial data to provide standardised and consistent national datasets.

SIS is working in partnership with West Lothian Council, geospatial software provider ESRI UK, and the Developing Young Workforce to inspire more young people to embrace career opportunities in geospatial information. SIS worked with West Lothian Council to develop and deliver pupil work placements focused on Science, Technology, Engineering and Maths (STEM) activities and incorporating geospatial data analysis, coding in Python and data research.

As part of this, teachers and pupils in West Lothian were given access to ESRI UK's ArcGIS educational training programme and a trial teacher placement was organised to demonstrate how SIS could accommodate future schemes within its activities.

By leveraging its position as a useful learning environment for GIS, research, analysis and coding, SIS is helping to bridge the skills gap whilst also raising awareness of the sector among 15 and 16 year olds.

Benefits

Hands-on introduction to in-demand fundamental geospatial skills at secondary school level

Whilst it is typically a component of university undergraduate geography study, or a more specialised postgraduate subject, feedback from participating pupils indicates a significant latent interest and ability in geospatial science at an earlier stage in education.

Providing hands-on experience for 15 and 16 year olds, as well as their teachers, could encourage greater take up of study or careers in the sector, which in turn will help meet the wide demand for fundamental geospatial skills.



Supports the Developing The Young Workforce Initiative through a partnership approach

Developing The Young Workforce initiative is a seven year programme which runs until 2021. It offers flexibility to work with educators and employers and focuses on workplace skills, particularly in areas of future demand and STEM.

The SIS placement experience has been overwhelmingly positive due to its partnership with West Lothian, which has an excellent pupil placement scheme with central co-ordination, school-level support and an administrative structure supported by Gateway Shared Services, and ESRI, which has a track record of supporting education by facilitating access to ArcGIS Online and its geo-mentor scheme that brings together geography teachers and geospatial professionals.

SIS delivers similar services to local authority spatial data teams in Scotland. By combining their complementary activities and expertise, the partners have a model for other Councils, education providers, businesses and professional associations.

Widens the understanding of geospatial as a cross-sector skill to help sustain a skilled workforce

By demonstrating the breadth of opportunities in many STEM careers, such as environmental, data and space science, architecture, engineering and programming, geospatial can be positioned as a desirable, in-demand and highly-employable skill. This will help to meet the gap in profile, skills and workforce in this particular area.



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