GEOSPATIAL INSIGHT

Isle of Wight
EV Charging Strategy

FACILITATING THE ISLE OF WIGHT'S E-MOBILTY TRANSITION...

ON BEHALF OF: ISLE of WIGHT COUNCIL

WEST OF ENGLAND Combined Authority

South West NET ZERO HUB

The Electric Vehicle Charging Dilemma...

"CHARGING INFRASTRUCTURE NEEDED TO MEET THIS GROWING DEMAND IS NOT BEING DEPLOYED AT THE PACE OR SCALE REQUIRED"

The utilisation of Electric Vehicles (EV) in the UK has grown rapidly in recent years. There are now over 1.2m million plug-in vehicles (500k pure EV, 700k hybrid) in use on UK roads. This rapid rise is forecast to continue due to;

- **Bans on new petrol and diesel vehicles coming into force in 2030.**
- **The clear environmental benefits of switching to an electrified mode of transport.**
- **The potential financial savings an EV vehicle can deliver against the traditional combustion engine, particularly relevant given the ongoing energy crisis**.

However, the charging infrastructure needed to meet this growing demand is not being deployed at the pace or scale required. The UK is a complex mix of rural and urban, historic and contemporary, residential and commercial, making planning a charging network a challenging proposition.

The UK government is targeting 4 million chargepoints by 2030, with an estimated spend of over £16 billion, but where these chargers will be deployed – and what type – still needs to be determined.

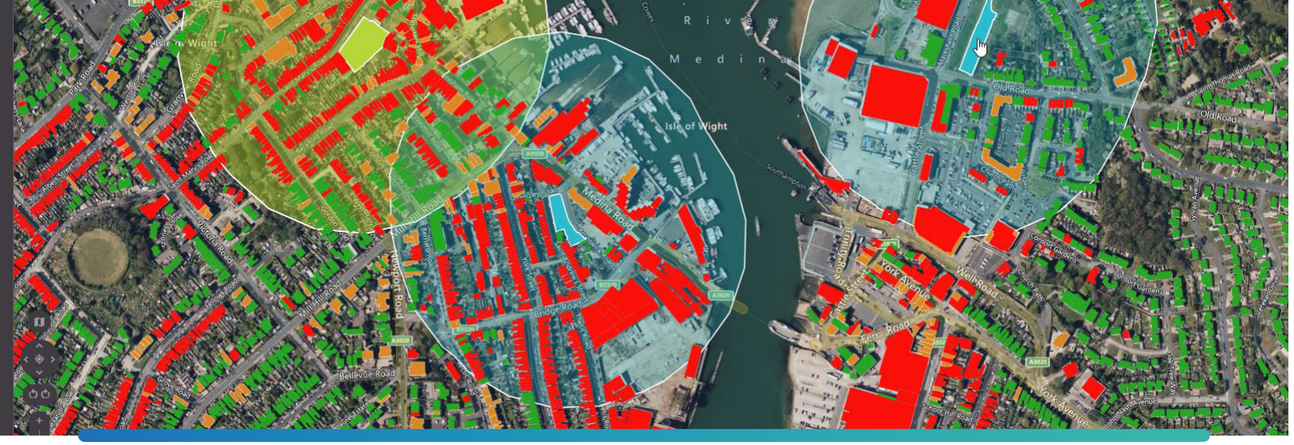
Our Client's Needs...

The Isle of Wight, situated off the coast of Hampshire, is the UK's largest and second most populous island. As part of their Climate Strategy, the Council announced a need to encourage and facilitate the switch from combustion engine vehicles to EV to support the island's wider decarbonisation goals.

The number of vehicles on the island can fluctuate dramatically during the tourist season, with vehicle ferry access from both Southampton and Portsmouth making it a popular holiday destination.

To enable the Council to develop a future-proof strategy for the deployment of EV charging infrastructure on the island, they needed a much better understanding of the current network's status and service area, the current and future residential demand, and the potential for Council owned and operated carparks to be utilised as charging hubs.

This information would enable the Council to additionally apply for a Central Government grant to fund deployment.



Our Solution...

The Isle of Wight Council were previously identifying and assessing potential EV chargepoint installation sites via a combination of field surveys, manual map interpretation and resident requests.

Geospatial Insight proposed a digitalised process that automated the identification of properties with a lack of off-street parking and determination of which of those properties could be served by charge points deployed in Council owned and operated car parks.

Where on-street infrastructure was required, a novel methodology to calculate footway widths and identify potential constraints (bus stops, road junctions, street furniture) was implemented to determine footway sections suitable for a safe and unimpeded installation.

The outputs were delivered via Geospatial Insight's LOCATE platform, enabling the Council to intuitively visualise and interrogate the results without the need to host or manage data or third-party software.

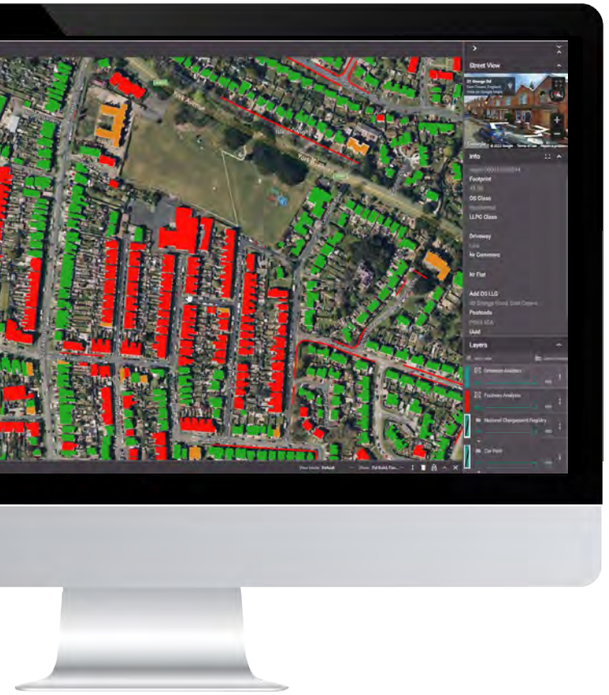
The Results...

Geospatial Insight's analysis focused on the 10 largest conurbations on the island: Newport, Ryde, Cowes, Sandown, Shanklin, Freshwater, East Cowes, Ventnor, Bembridge and Wootton.

A total of 46,430 properties were assessed, of which 8,892 (17%) were identified as having no access to off-street parking. This percentage varied from as high as 30% in East Cowes to just 5% in Wootton. The average percentage of properties per town without off-street parking was 19%.

Of the 8,892 properties without off-street parking, 3,591 (8% of all properties) were within 200m of a Council owned or operated car park, 200m being the Council's estimated maximum walking distance for a user if the car park became a charging hub. This percentage was as high as 16% of all properties in Ventnor, and as low as <1% Bembridge. The average percentage of properties per town within 200m of a car park was 8%.

Next Steps...



The Council will be collating results from the data as a core input into a funding bid to the Government's 'Local Electric Vehicle Infrastructure Fund' (LEVI), which will contribute to the capital costs of physical chargepoint deployment.

Isle of Wight Council and Geospatial Insight are currently assessing the potential to extend the study to include the full island, enabling the Council to consider rural properties and residents in future planning.

Isle of Wight Council have been utilising Geospatial Insight's LOCATE platform, to determine the most beneficial locations to deploy charging infrastructure in Council owned and operated car parks and for on-street locations.

Once sites have been identified, the Council will rank and prioritise them based on the current and future demand, calculated from the intelligence provided on availability or lack of off-street parking.

GSI for eMobility...

Geospatial Insight are working with Electric Vehicle Charge Point (EVCP) stakeholders across both the Public and Private sectors.

Our location-based intelligence, deployed via the LOCATE platform, is enabling decision makers to identify and validate potential installation sites directly from the desktop, meaning less time on-site and accelerated data gathering leading to a more rapid spread of chargers in the most economically and environmentally beneficial locations.

Our solutions have directly contributed to successful bids for LEVI funding, by Local Authorities including East Lothian Council, one of the UK's exemplar councils for EV strategy.

Additionally, the LOCATE platform and integrated intelligence have facilitated installation of multiple charging technologies, including; traditional on-street bollards in Scotland, cable gullies and retractable bollards in Oxfordshire, and off-street hubs in Greater Manchester.

> "A MORE RAPID SPREAD OF CHARGERS IN THE MOST ECONOMICALLY AND ENVIRONMENTALLY BENEFICIAL LOCATIONS"

GEOSPATIAL INSIGHT

About Geospatial Insight

Geospatial Insight is Europe's leading provider of independent research and alternative data derived from the analysis of satellite imagery and other aerial sources, combining this intelligence with a range of other data sources to provide in-depth market insight and business analytics to clients in the corporate, financial and insurance sectors.

Established in 2012 and head quartered in the UK, Geospatial Insight provides these unique intelligence services to clients around the world.

About Sustainability

With many stakeholders having pledged to meet carbon net zero by 2050, or even as soon as 2028 in some instances, an important step to achieving this is the widescale adoption of low carbon technologies and energy efficiency measures, but stakeholders across the globe are being held back by a lack of relevant, affordable, and verifiable data.

Geospatial Insight is tackling this issue by delivering actionable climate risk and mitigation intelligence sourced from remotely sensed imagery and location-based data to support streamlining and simplifying the process of seeking out decarbonisation and offsetting opportunities.

From facilitating project aggregation to accelerating deployment, the intelligence created by Geospatial Insight assists with Renewable and Sustainable Energy Solutions, Sustainable Urban Mobility, and Emissions Detection and Monitoring.

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