



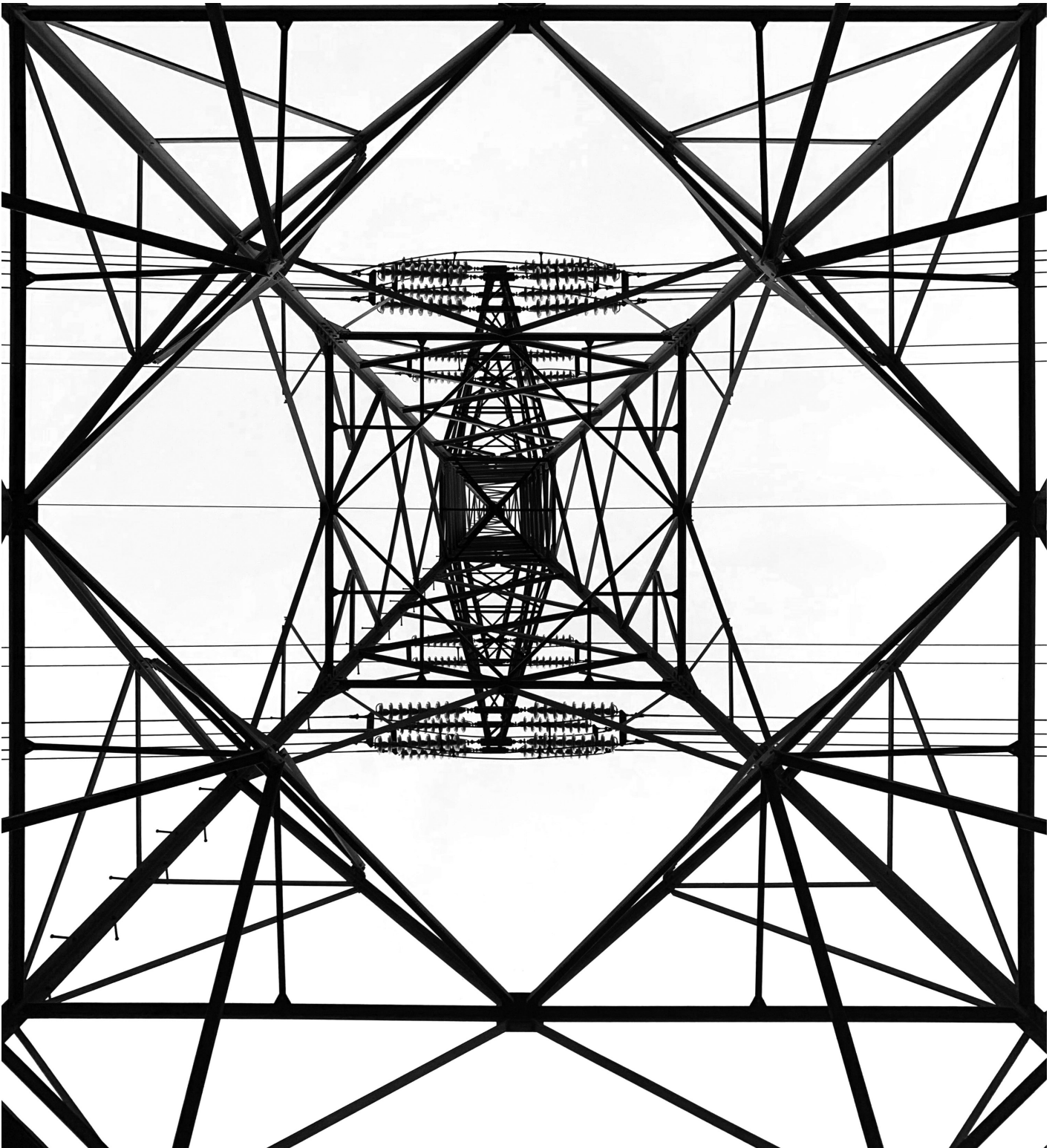
Design feasibility during lockdown

How National Grid enabled remote teams to safely access accurate, up to date 3D site data

Location:
Didcot, United Kingdom

Energy project:
National Grid

sensat

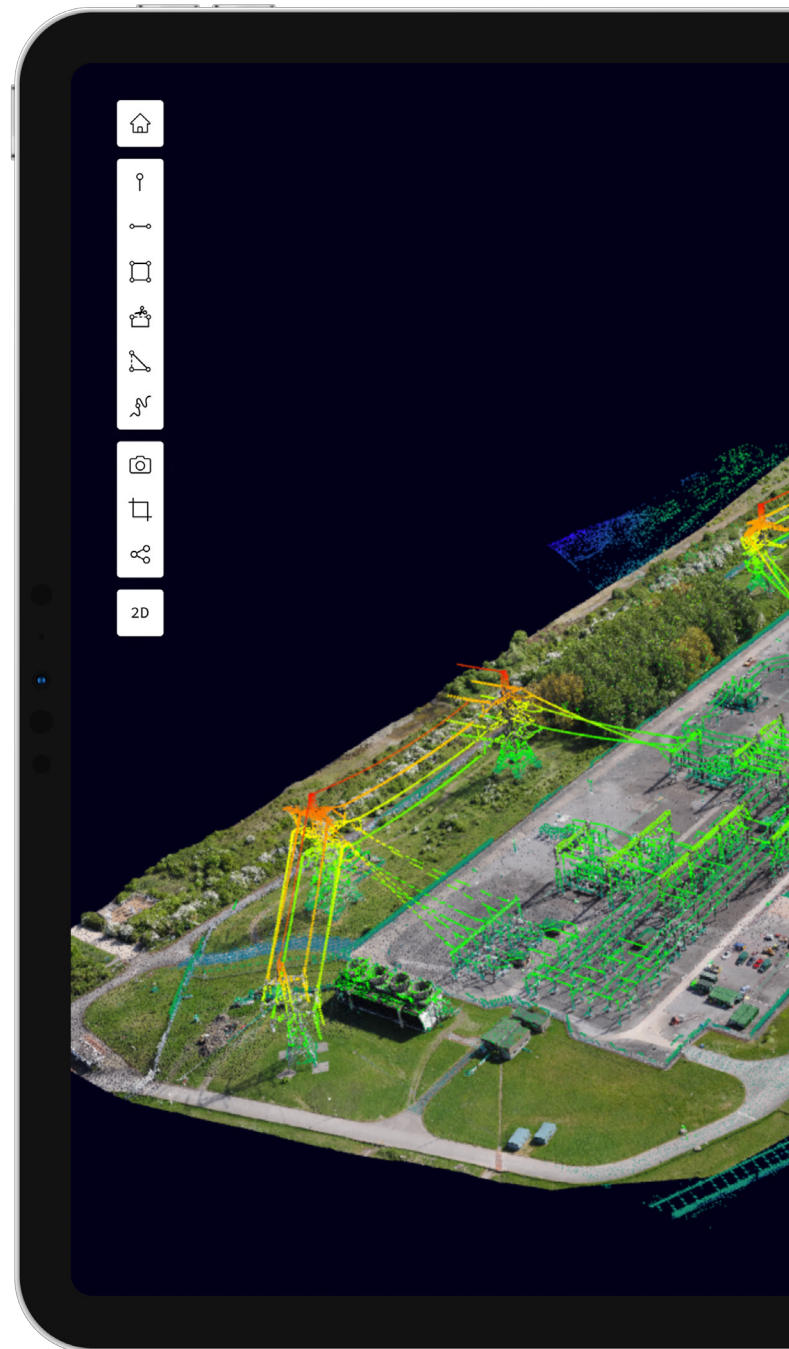


Case study

Project summary

Remote teams working at National Grid required a way of visualising 3D site data from home. To keep the project on track, additional topographic data needed to be captured quickly, and in accordance with social distancing during lockdown. To overcome this challenge, National Grid adopted Sensat's visualisation platform to access site data.

UK National Grid project



A Aviation

E Energy

H Highways

R Rail

RE Real Estate

W Water

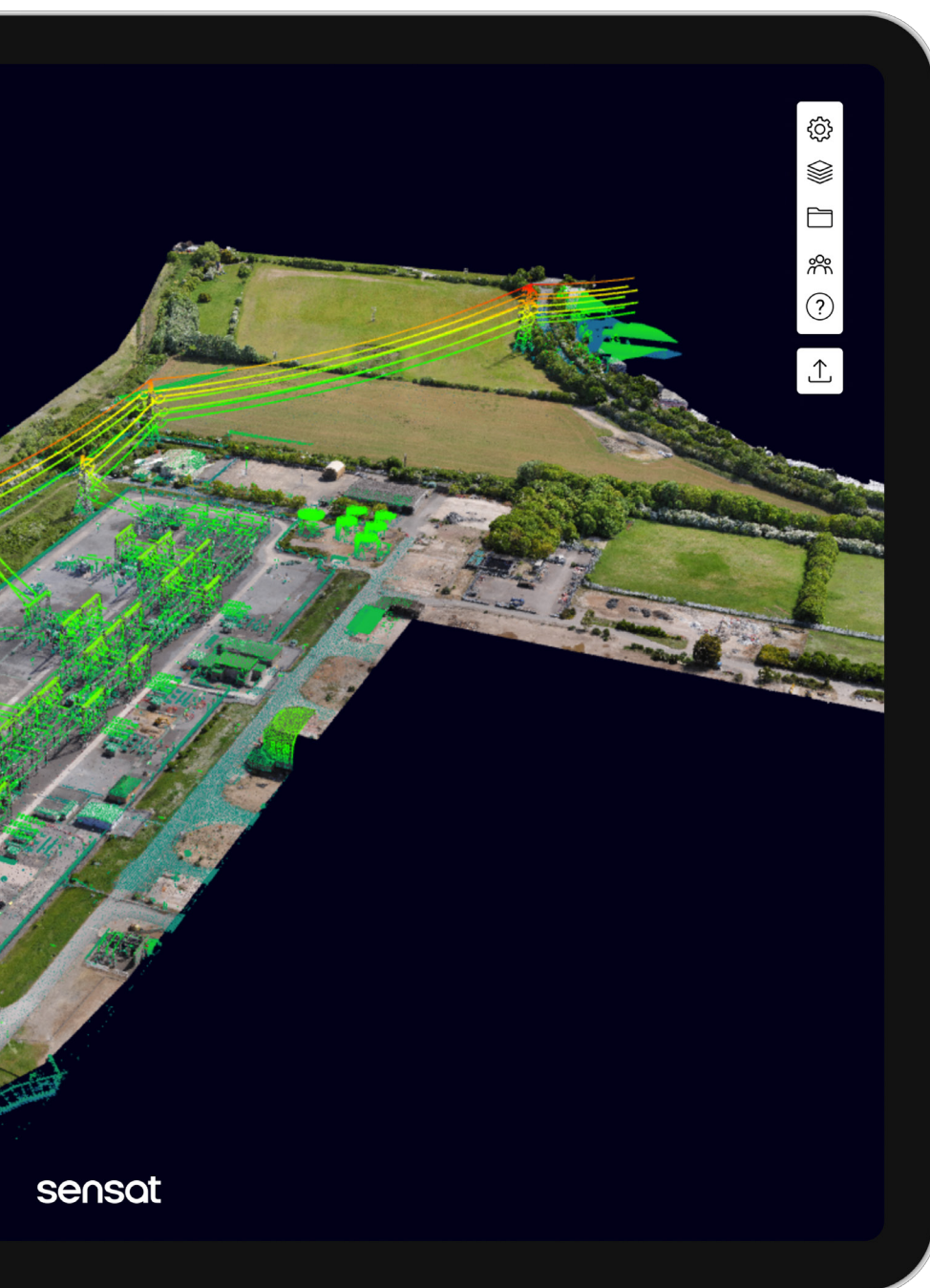


The project

To support National Grid in completing a design feasibility study for a new power cable route during lockdown.

National Grid need a way to visualise 3D data easily and quickly at home.

Siloed and impossible to access site data
Complex 3D data could not be visualised easily from home, and was held on software inaccessible to all teams working on the project. National Grid was looking for a way to carry out engineering grade measurements remotely, and share



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Thanks to Sensat, our teams were able to easily access and visualise an accurate and up to date 3D model of the site, with the addition of overlaying National Grid's existing LiDAR data for its assets, while also being able to collaborate with teams from any device at home, at a time when on site management was restricted. Sensat captured the additional data we needed quickly via drones. This kept our workers safe and off site during a pandemic whilst speeding up the project.

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Ali Khan

Senior Investment Engineer, National Grid

The challenges

accurate data between stakeholders across its internal teams and consultants at engineering group, Jacobs.

Land access issues

It would have taken a ground-based team a number of weeks to secure land access approval and survey the site manually. The data would take further time to process, and access to the outputs would be restricted to certain members of the team. This would limit collaboration, design capabilities and slow down decision making around route options for the new cable.

Above highly accurate 3D digital model displayed within Sensat's visualisation platform

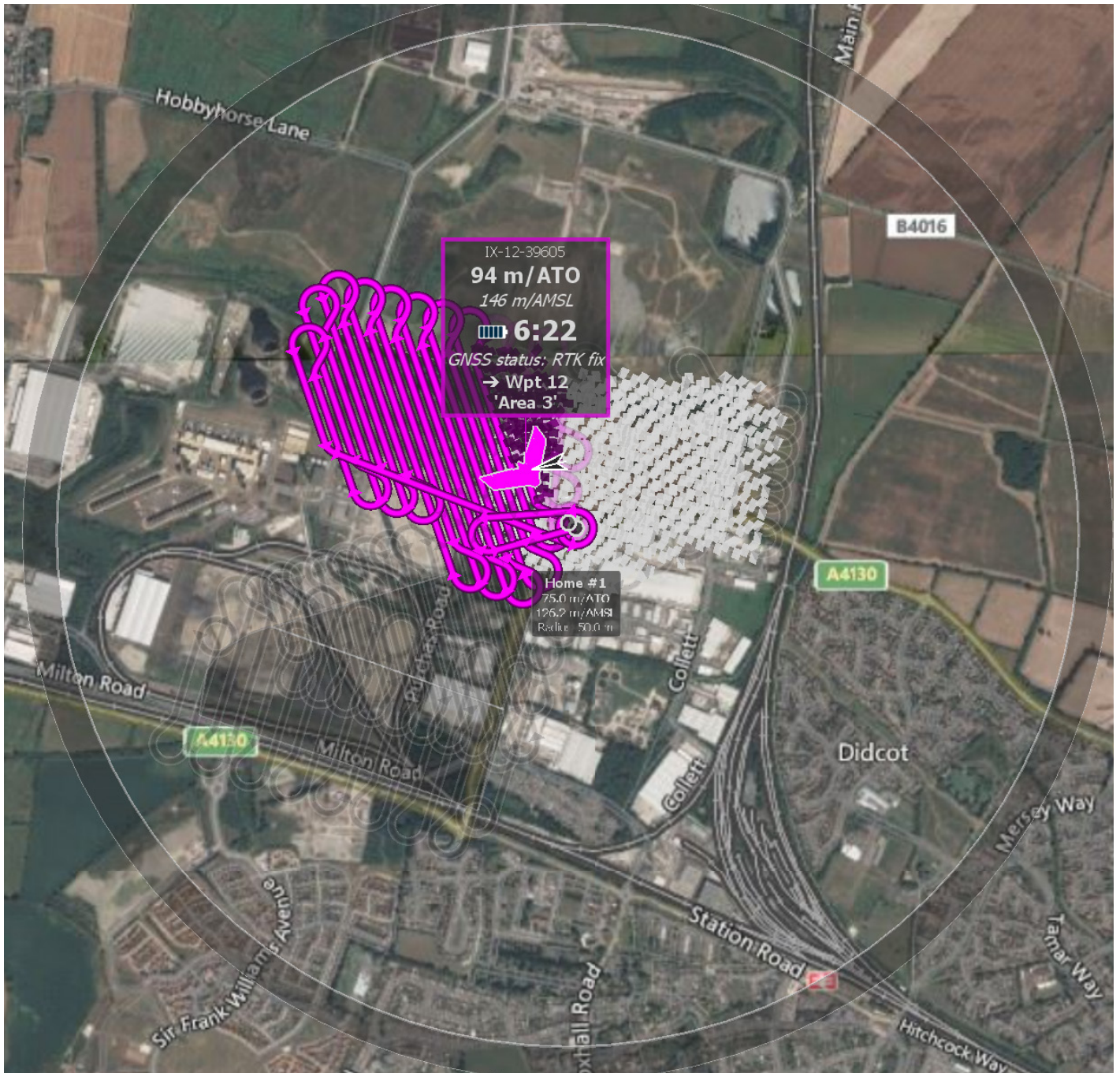
The solution

3D visualisation software

Sensat offered its cloud-based, visualisation platform for free to those in the AEC industry as part of its response to the COVID-19 pandemic. Through this initiative over 20 users from National Grid, and consultants at Jacobs, used Sensat's visualisation platform as a way to access accurate, up to date 3D data remotely from any device via a web based application.

A powerful tool for design and consultation

National Grid has combined drone photogrammetry with pre-existing lidar data in Sensat's visualisation platform to build context and create a better understanding of the site. The team are conducting clash detection on designs in their real-world environment, spot measurements, and can access accurate information relating to the site from any device to help information flow across disciplines and stakeholders.



Conclusion

Through Sensat, remote teams at National Grid are now accessing an accurate and up-to-date 3D model, rich with context from drone survey data, LiDAR, and CAD. This provided National Grid with the visibility and insight they needed to keep track of the project progressing without compromising worker safety. ■

Explore Sensat's visualisation platform 

Problem	Solution
Siloed project information which was difficult to access from home	Sensat's visalisation platform, allows multiple stakeholders across National Grid and Jacobs to easily visualise, interact with, and share 3D datasets anywhere, on any device
It is difficult to validate designs in their real-world environment	Through Sensat's Visualisation Platform, you can visually combine dynamic project information in their real-world environment, including CAD, BIM, and LiDAR

Case study

Project stats*

Size of the area:	1km ²
Data points:	1,095,355,308
Images:	2,657

***What are these outputs?**
Check out our [data suite](#) for more info.

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