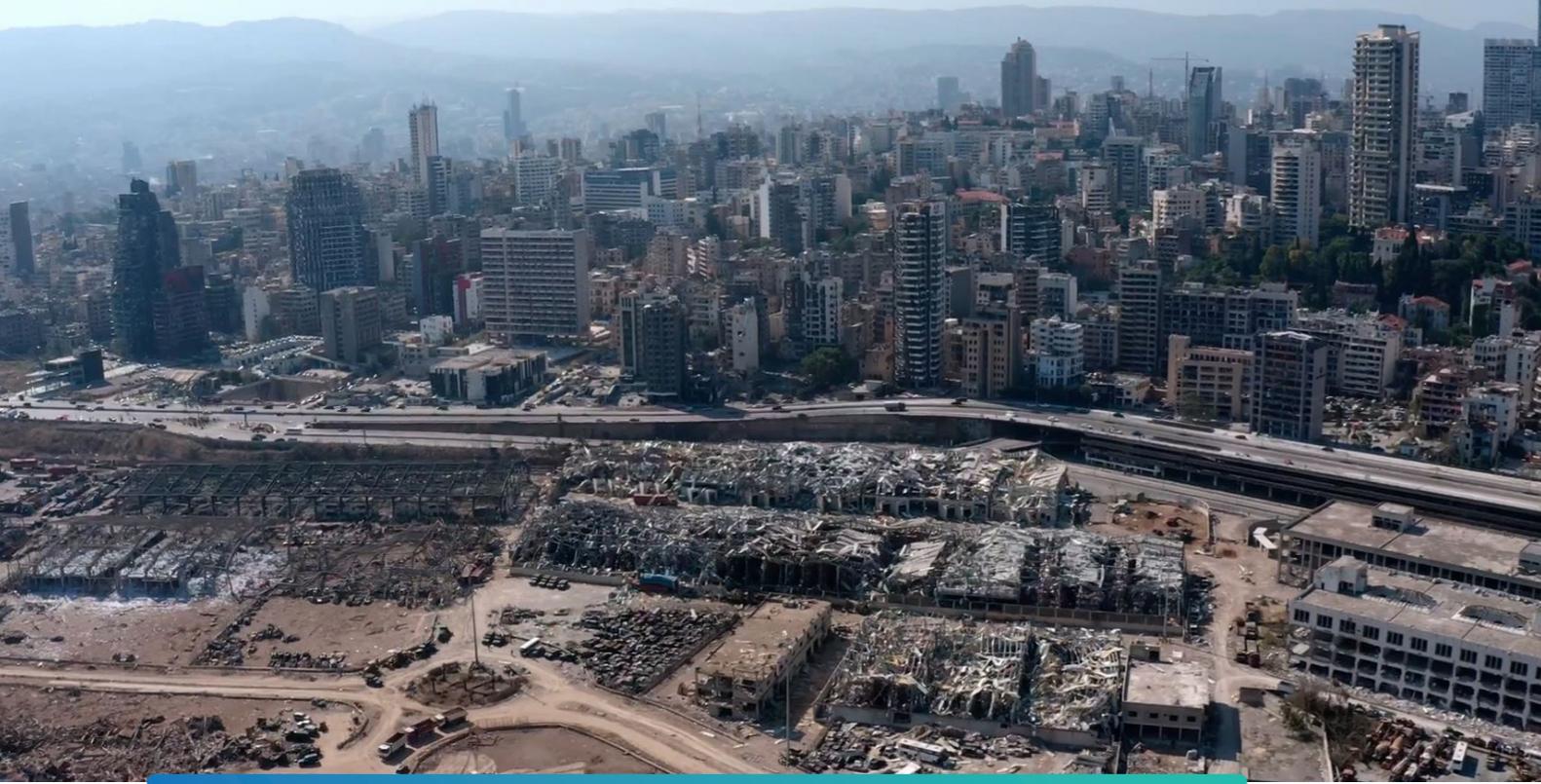


Beirut **Explosion**



RAPID LOSS ESTIMATIONS

IN DEVASTATING CONDITIONS...



Issues & Needs

To assess the scale of potential claims values and losses, insurance businesses needed to quickly know the extent and severity of the event and its impact on the exposures they either cover or manage on behalf of their own customers. Getting accurate data quickly would enable them to carry out a rapid loss assessment, scale the claims response, understand reserving requirements and inform the claims process. They would be able to plan the financial impact and start to make funds available whilst ensuring that the claims process could start as soon as possible.

The explosion has now been classified as one of the largest non-nuclear blasts in history. Essentially, it was a one-off event that could not have predicted in the way that many

CAT events, such as many of those driven by extreme weather, can be. With a team of expert analysts on call 24/7, Geospatial Insight was nonetheless able to start the rapid damage impact assessment process immediately.

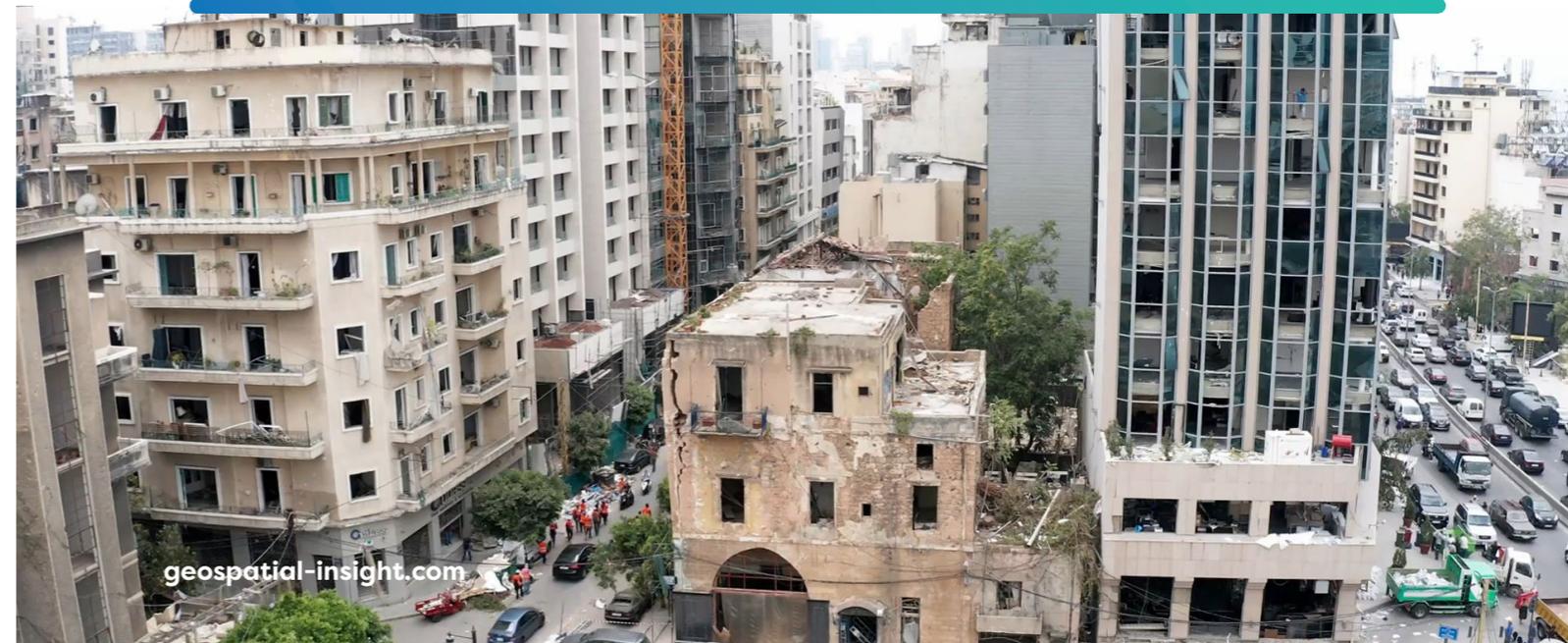
Within 12 hours of the explosion, Geospatial Insight made available an initial portfolio of satellite images captured in the immediate aftermath of the disaster to clients. Although there were airspace restrictions in place above the city for 48 hours after the explosion, Geospatial Insight placed their local drone operator on standby, ready to deploy immediately once the airspace was reopened to collect highly detailed images of the devastation.

The Event...

On August 4th 2020 a colossal explosion took place in Beirut, Lebanon. The explosion was caused by 2,750 tonnes of ammonium nitrates which had been stored unsafely and neglected in a dock-side warehouse and was equivalent to a 3.3 magnitude earthquake. Much of the port and surrounding area was destroyed, leaving behind a 140m crater where the warehouse once stood, and the blast caused significant damage across the city within a 6km radius from its epicentre.

The explosion resulted in over 200 people losing their lives, 6,000 people were injured and at least \$15 billion damage to property. The impact of the blast was felt in the neighbouring countries of Syria and Israel and heard in Cyprus more than 240 km away.

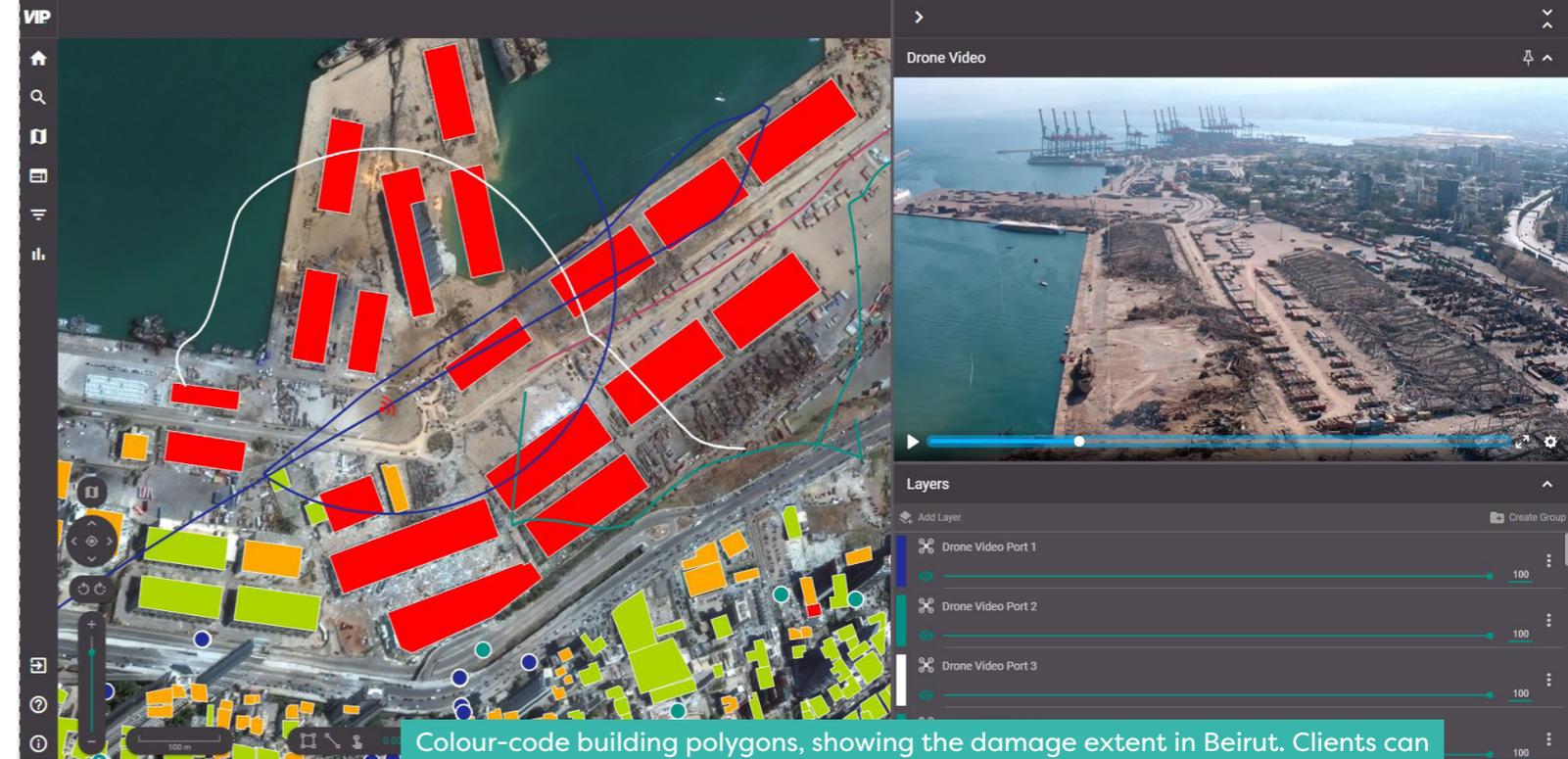
Working on behalf of a number of clients worldwide, the Geospatial Insight catastrophe (CAT) response team started to rapidly gather visual data through a range of techniques to enable a detailed assessment of the damage to the affected area.



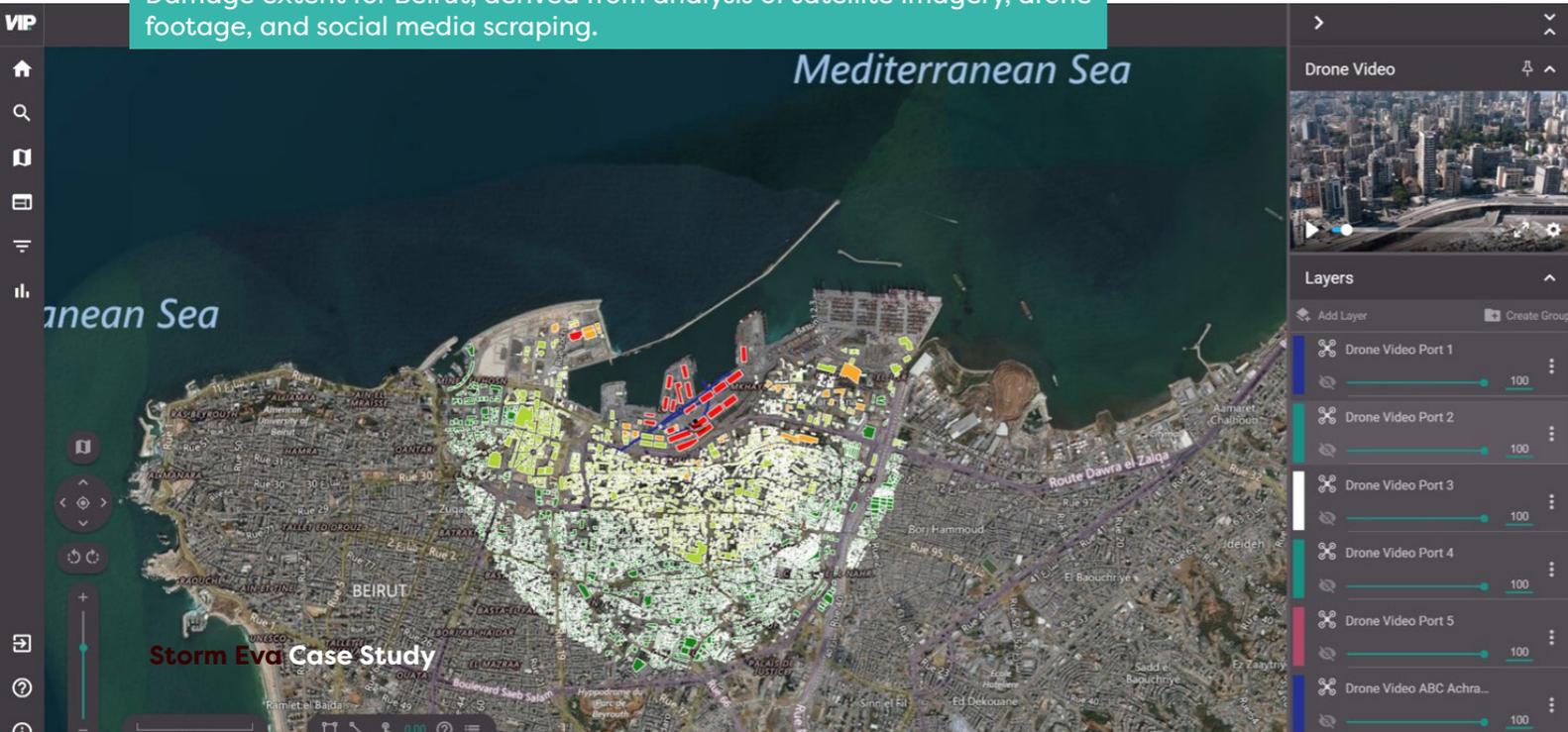
Our Solution

As airspace reopened, Geospatial Insight immediately notified their local drone operator partner who rapidly deployed to capture detailed video footage of the key affected areas of the city between the 6th and 8th of August, which added to the growing body of data being used by our analysts to assess the scale and extent of the damage to all property within a 2 km radius of the blast epicentre.

Utilising a multi-source approach, gathering the best available satellite images as well as a range of open-source data from news and social media, Geospatial Insight were able to promptly establish a highly accurate representation of damage extent, showing the true state of the devastation caused in the city.



Damage extent for Beirut, derived from analysis of satellite imagery, drone footage, and social media scraping.



Results & Perspective

Geospatial Insight generated and delivered a detailed picture of residential and commercial property damage across the city to clients. An initial damage assessment, derived from satellite and social media sources, was delivered within 24 hours of the explosion and a full analysis within 48 hours of the airspace reopening. Using Geospatial Insight's powerful and intuitive online platform, VIP, clients were able to visualise, share and interact with both the source data and damage analytics within an interactive geospatial database.

geospatial-insight.com

About Geospatial Insight

Geospatial Insight is a leading provider of independent research derived from the analysis of satellite, aerial and drone imagery. We apply additional, sophisticated data sources and advanced technologies, including machine learning, to produce evidence-based alternative data that enables our clients to make better business decisions.

Visual Intelligence for Insurance

Geospatial Insight is leveraging innovations in drone, satellite and aerial imagery and combining with big data capabilities to revolutionise the Insurance sector.

We enhance traditional insurance data collection and assessment methods by providing a new source of actionable information that is backed by visual evidence. This Visual Intelligence provides insurers, loss adjusters and brokers with improved capabilities to monitor, analyse and respond to risk.