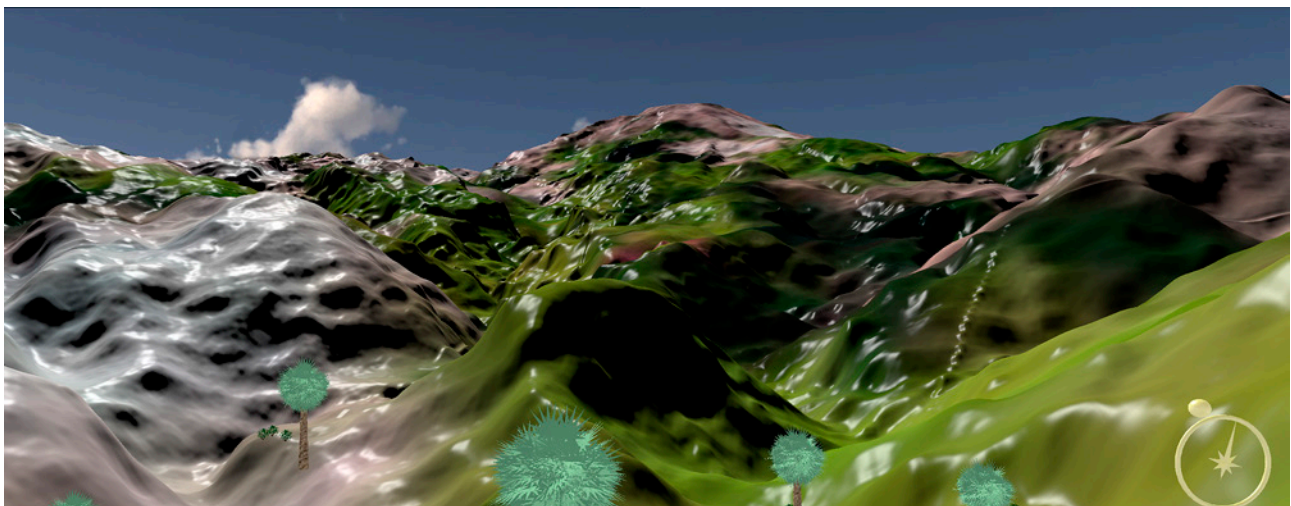
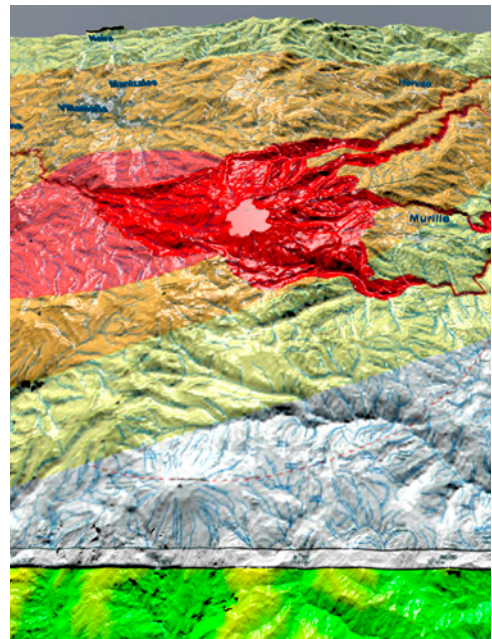


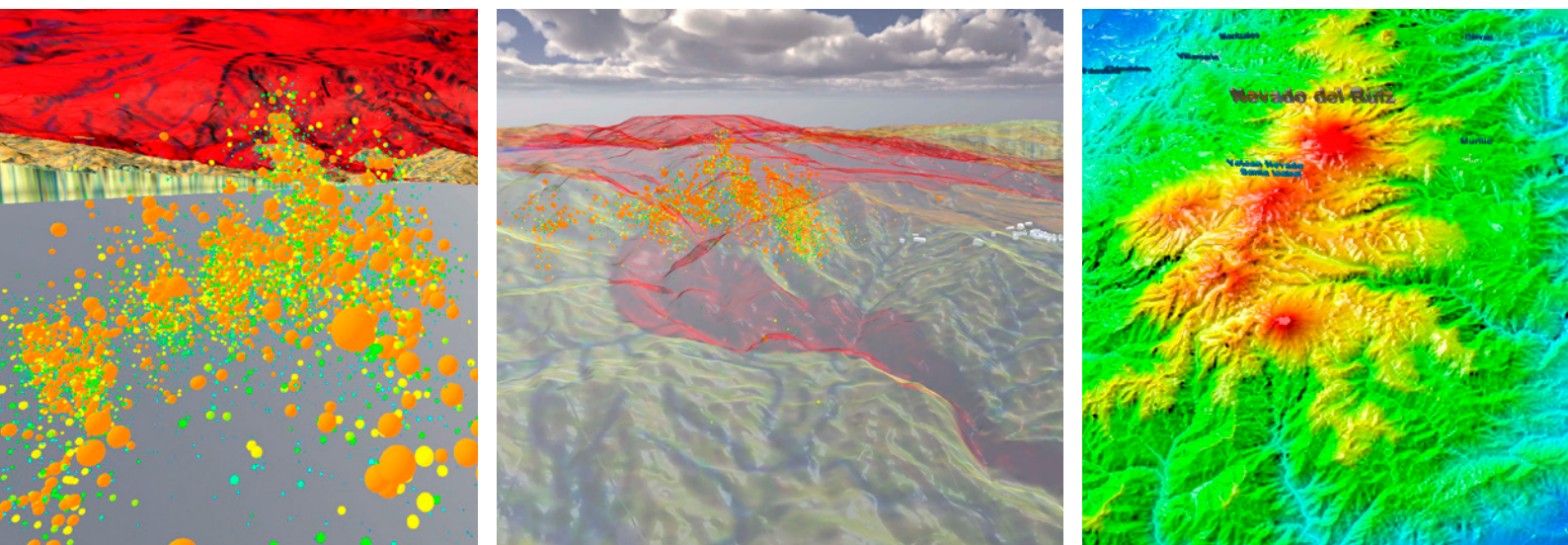
GeoVisionary enables the integration of large volumes of disparate data into 3D visualisations which allows the user to communicate more effectively and in the case transmit a greater understanding of the volcano hazards for people living in the area of Nevado del Ruiz.

Nevado del Ruiz volcano with a summit elevation of 5321 m above sea level is an active stratovolcano located in the northern sector of the Andes, in central Colombia between Caldas and Tolima boundaries.

A relatively small eruption in 1985 caused a devastating mud flow (lahars) that killed almost 25 000 people in the town of Armero. It is thirty years now since one of the worst volcanic disasters in history.

Funded by NERC, STREVA (Strengthening Resilience in Volcanic Areas) is a collaborative project that aims to reduce the negative consequences of volcanic activity on communities and their assets.





The challenge

- The development of new visualisation methodology of both the surface and subsurface using GeoVisionary to improve response to volcanic hazards and how these can be communicated to aid decision making in affected communities.
- Investigation of how lahar modelling output and ash fall forecasting are visualised in 3D using GeoVisionary.
- Benefits of GV3 and further information
- Communicating science to the public and educating children in schools to understand the scale, topography and environment in which they live.
- 3D visualization of Earthquake data in different periods, hazard maps, monitoring network.

Further information

<http://www.bgs.ac.uk/research/environmentalModelling/3dVisualisation.html>

<http://www.geovisionary.com/>

<http://streva.ac.uk/>

Skills and data used

- ArcGIS, Modelling, Spatial Analysis, Geology, Volcanology, 3D Visualization.
- 12.5 m DTM (OVSM), Volcano Hazard Map Nevado del Ruiz 2015 (OVSM), Aerial photo, Earthquake data (location, depth and magnitude data from 2012 to 2015) (OVSM).

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**British
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NATURAL ENVIRONMENT RESEARCH COUNCIL

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