

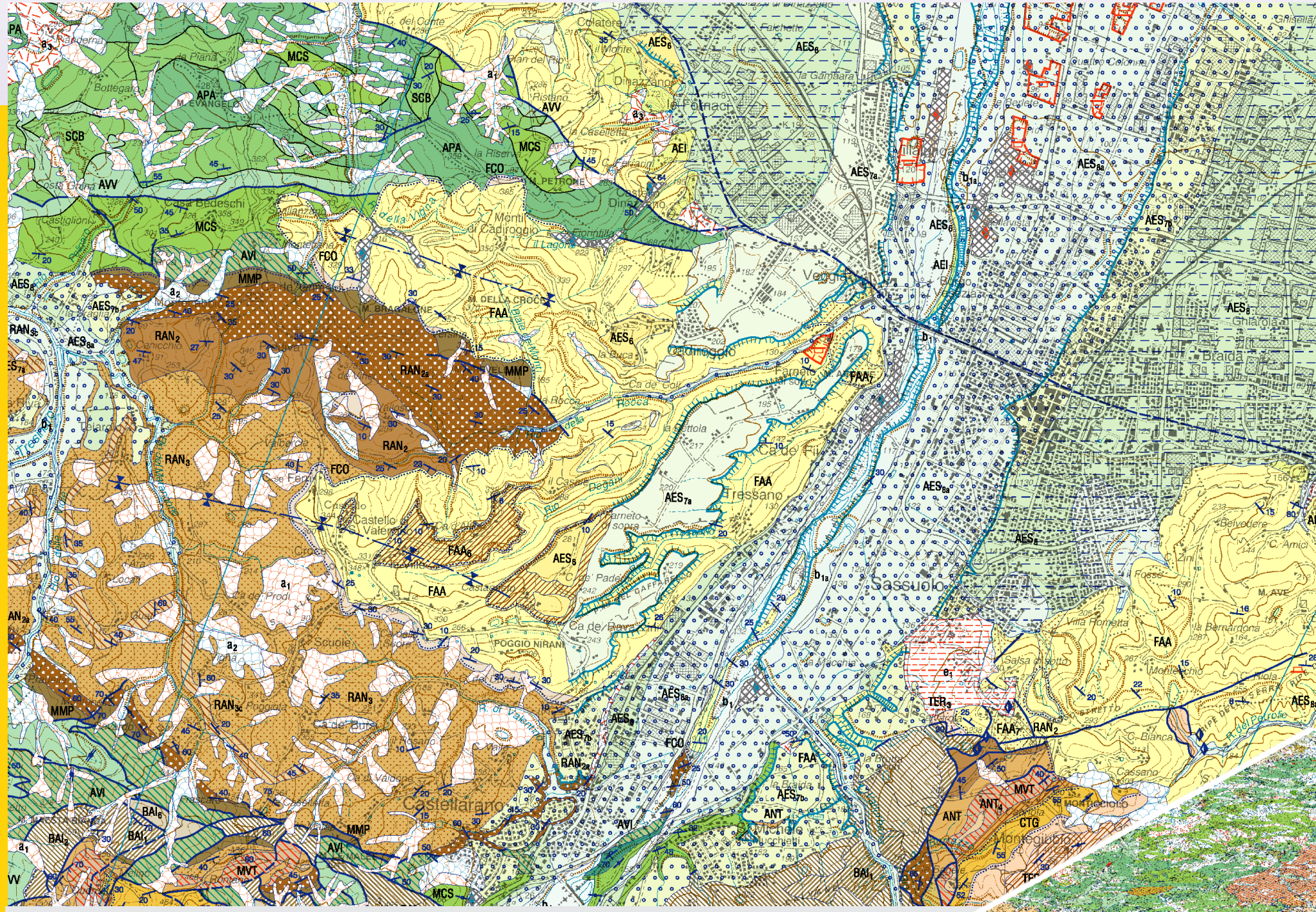


FROM 2D TO 3D

geological data and new tools for dissemination the Emilia-Romagna experience

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CARTOGRAPHY



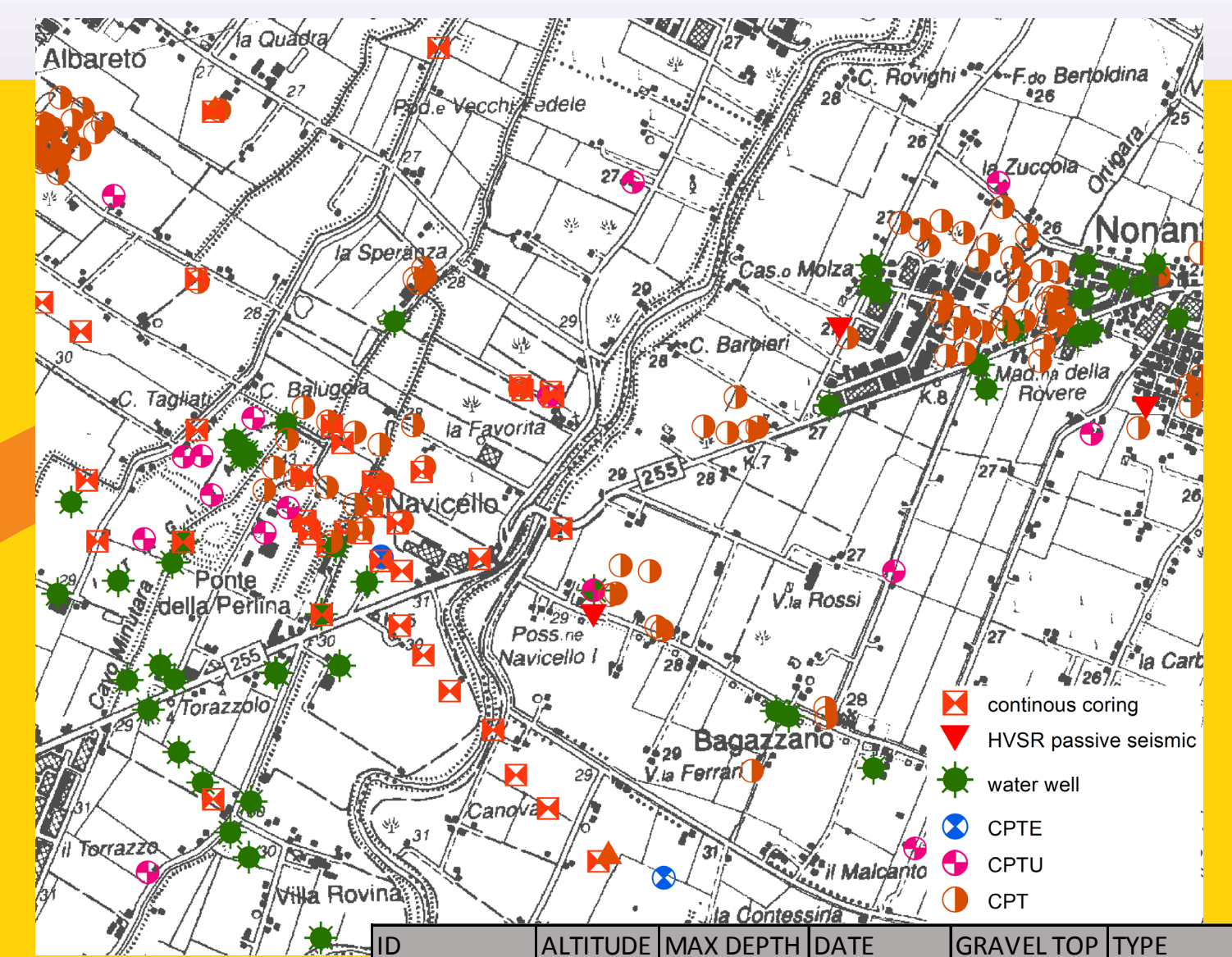
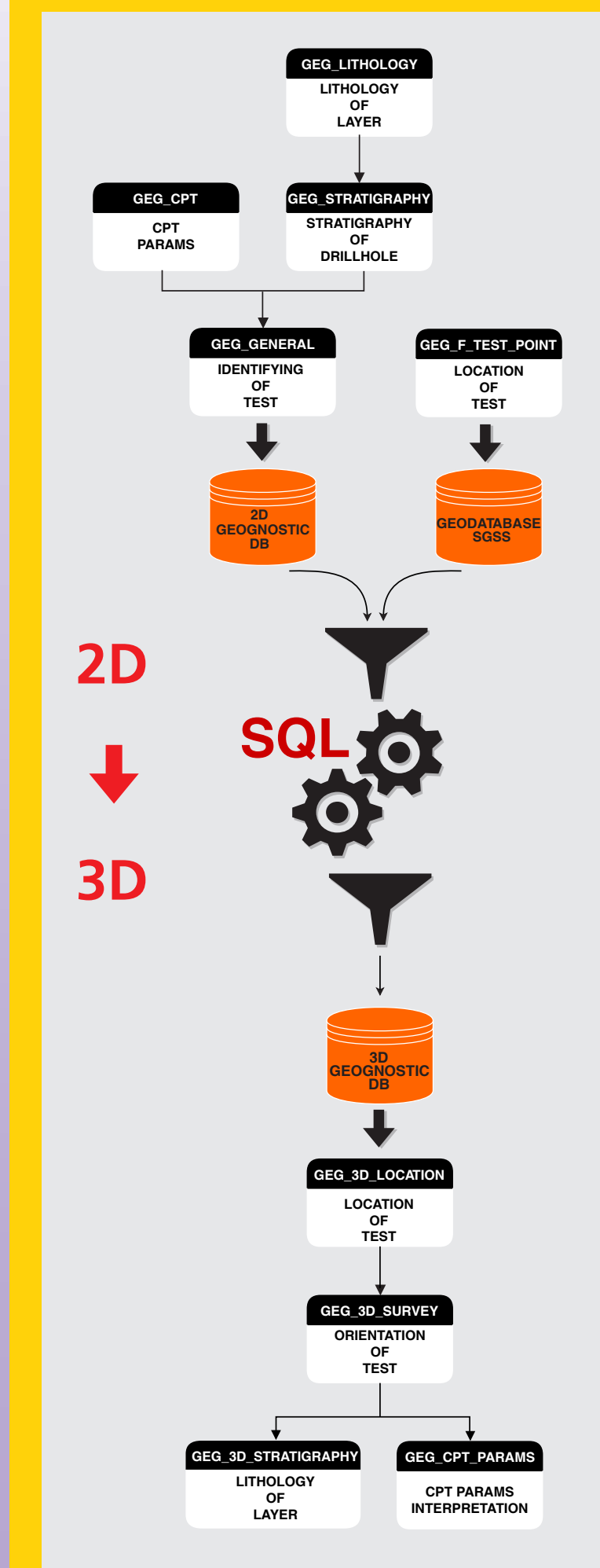
Example of geological map of the Apenninic margin in Emilia-Romagna Region

Geological maps of outcrops in the regional territory were produced in the last 30 years and made available through web-gis

<https://url.emr.it/hs132m1c>



DATABASE

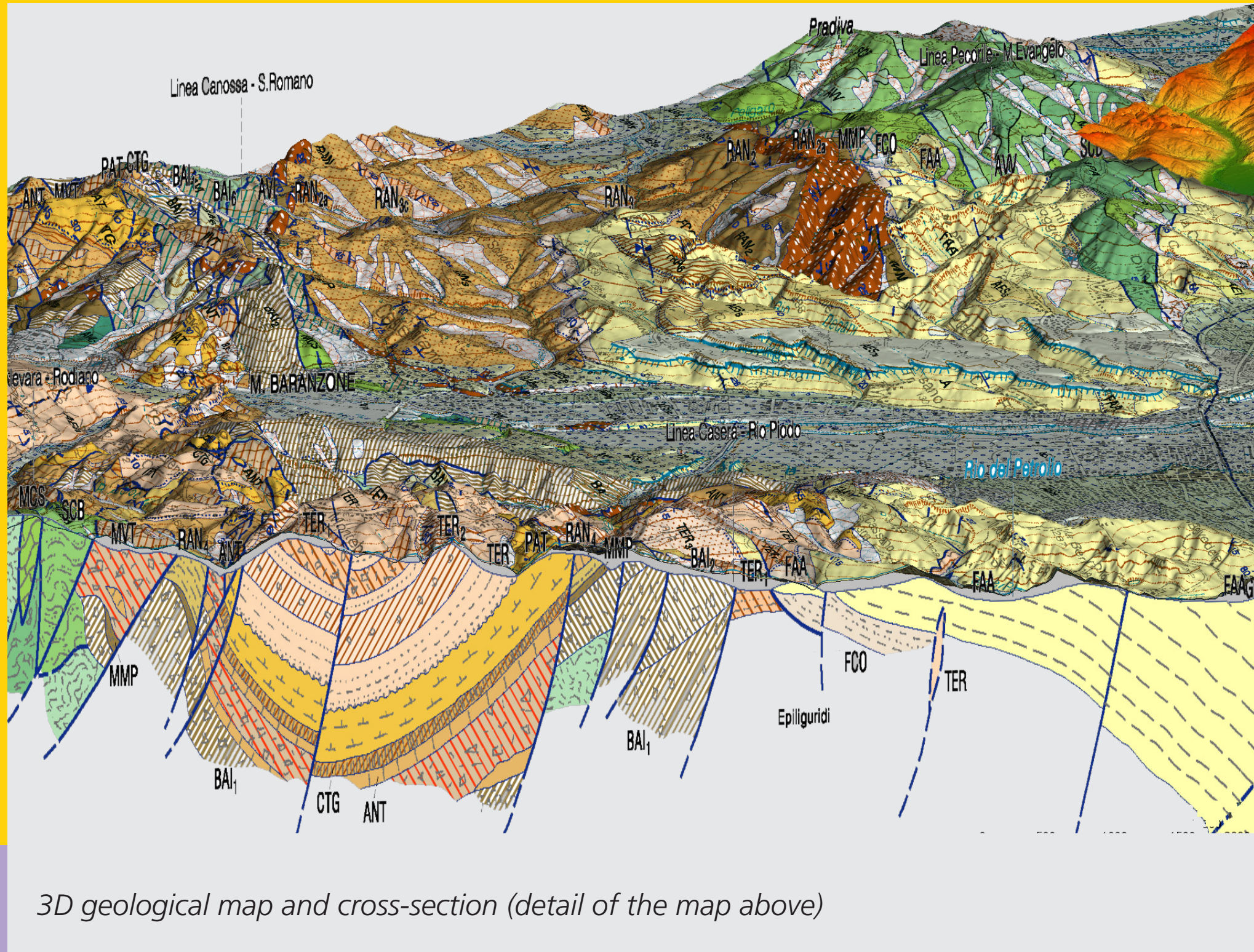


Geognostic DB collecting drillholes and geophysical tests, was created in order to provide detailed information on the subsoil and was published on another web-gis

ID	ALTITUDE	MAX DEPTH	DATE	GRAVEL TOP	TYPE
202090P647A	29.9	278.5	01/12/1988	198	water well
201120P678	31.1	105	<Null>	102	water well
201120P634	28.2	208	01/01/1972	101	water well
201120P652	45.1	100	29/11/1984	88	water well
202090P647B	29.9	251.55	01/05/1987	70	water well
201120P666	27.6	78	<Null>	62	water well
201120P461	29.5	60	26/09/2000	35.9	continuous coring
201120P433	27.5	60	15/04/1992	34.7	continuous coring
201120P639	28.8	237	01/01/1963	32	water well
201120P613	29.9	40	01/01/1971	28.3	water well
201120P435	27.7	30	21/02/1992	28.1	continuous coring
201120P681	26.3	40	<Null>	28	water well
201120U219	37.6	29.25	06/03/1992	27.2	CPTU

Type and localization of tests and tabled basic information of Geognostic DB

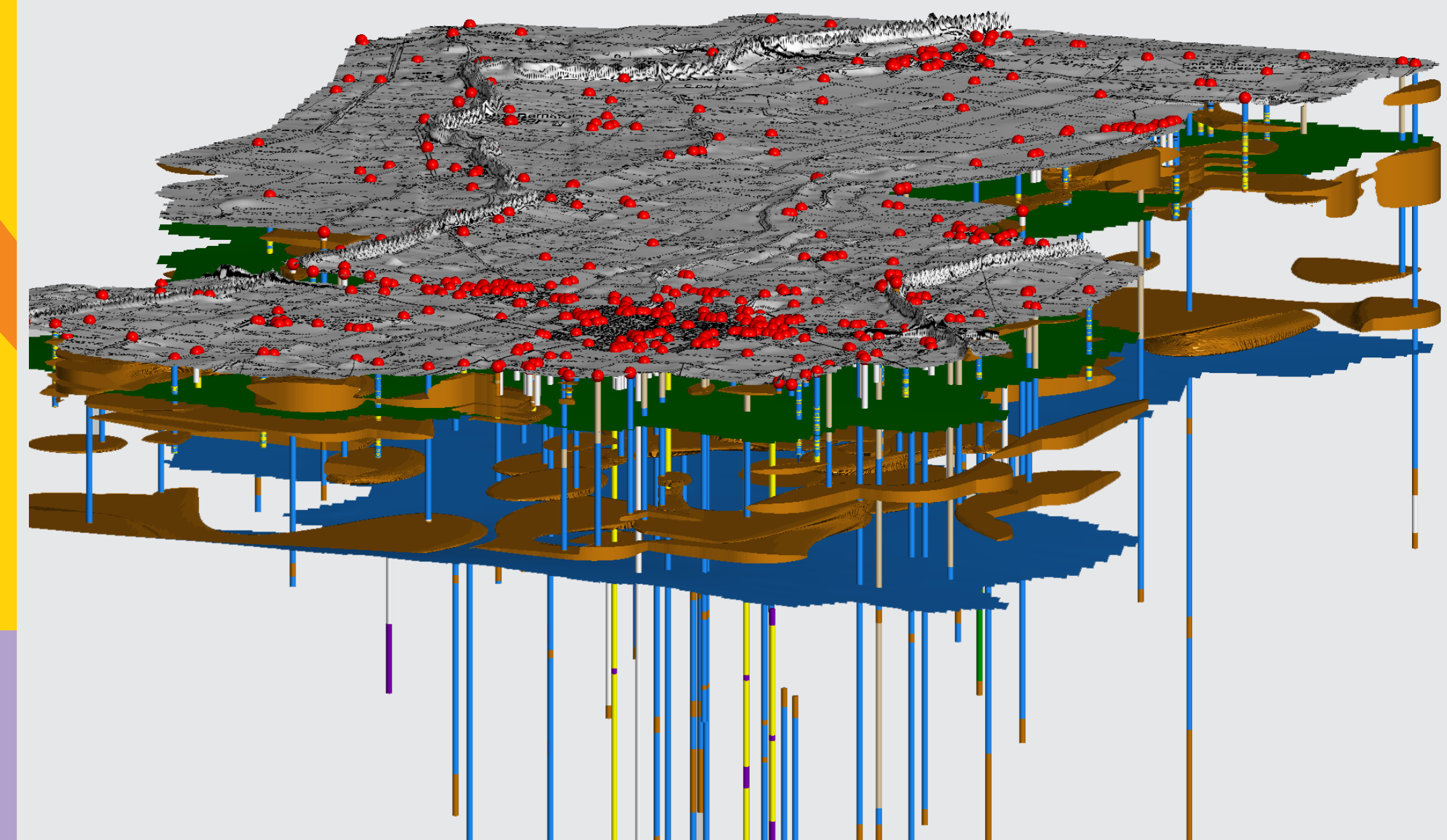
<https://url.emr.it/cc422o2w>



3D geological map and cross-section (detail of the map above)

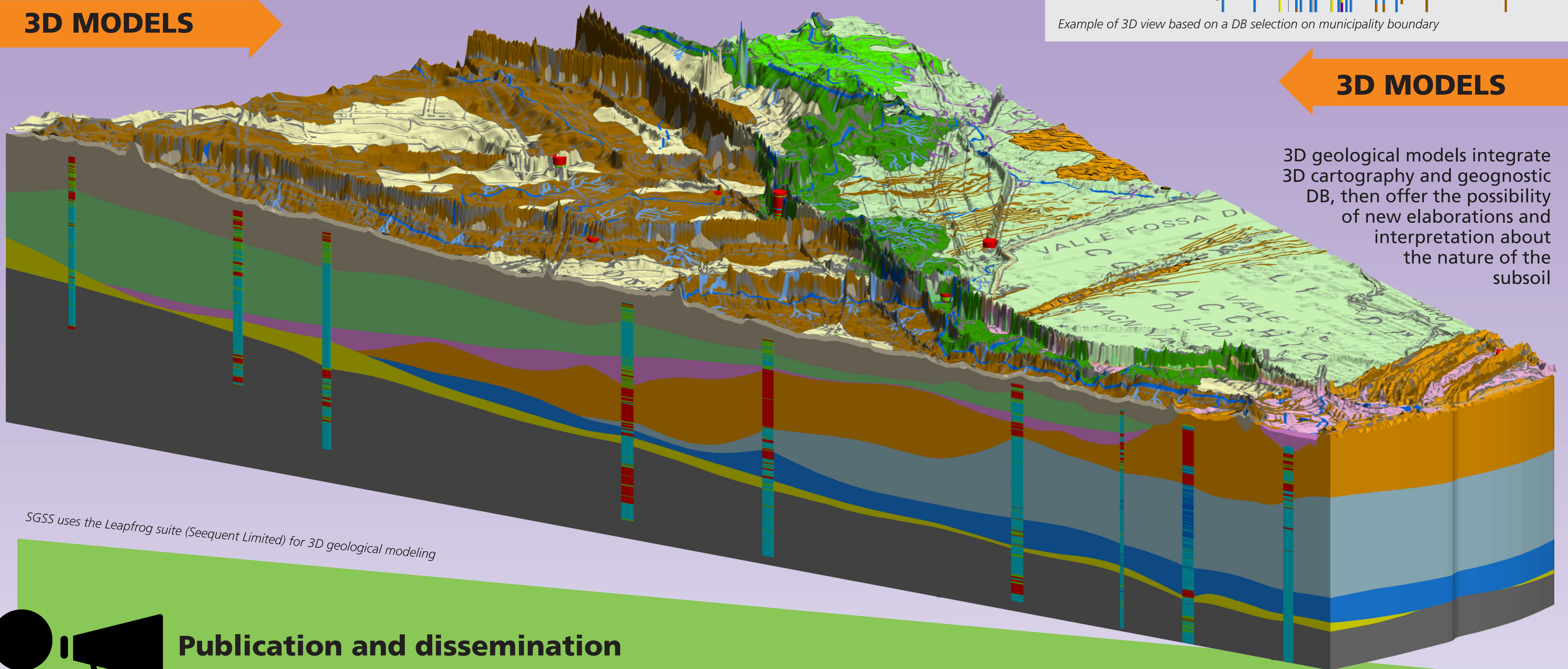
2D maps are draped on Digital Terrain Model and cross sections are spatially placed by using the 3d modelling software

Visualization of the geognostic DB, stratigraphic surfaces and lithologic bodies. Information about location, depth and lithologies of drillholes is direct and intuitive



Example of 3D view based on a DB selection on municipality boundary

3D MODELS



SGSS uses the Leapfrog suite (Seequent Limited) for 3D geological modeling

3D MODELS

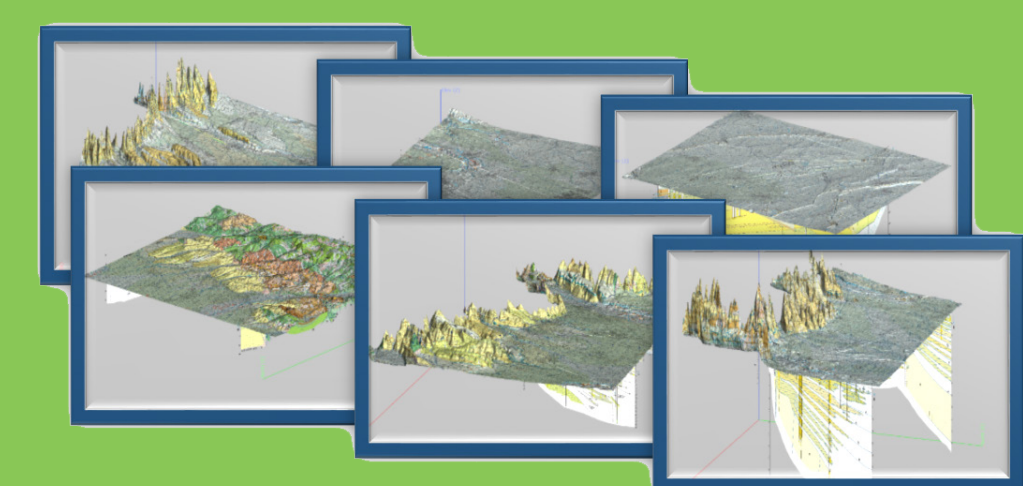
3D geological models integrate 3D cartography and geognostic DB, then offer the possibility of new elaborations and interpretation about the nature of the subsoil

Publication and dissemination

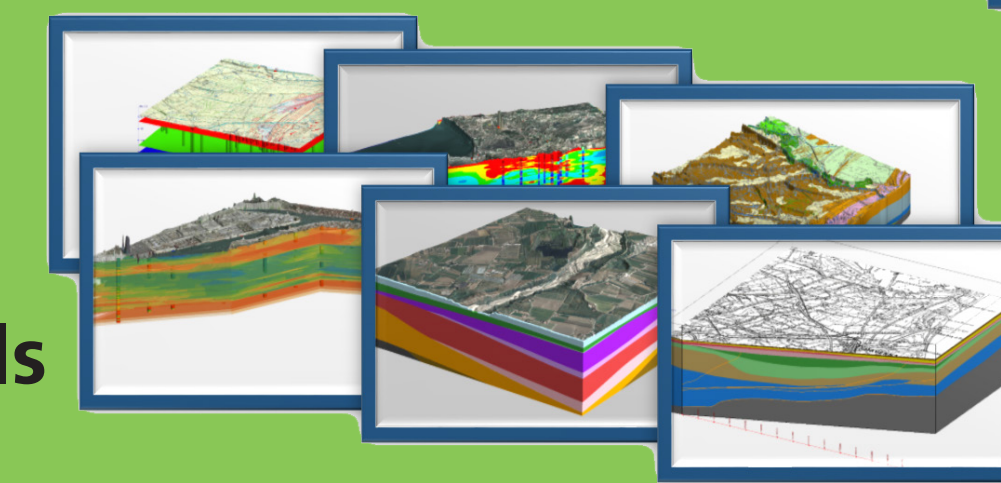
Web pages on the 3D topic are under construction. It will be possible to find a description of the SGSS activity on the 3D modeling and a open catalog that will be made available the 3D projects through 3D viewer, videos and images

Catalog content

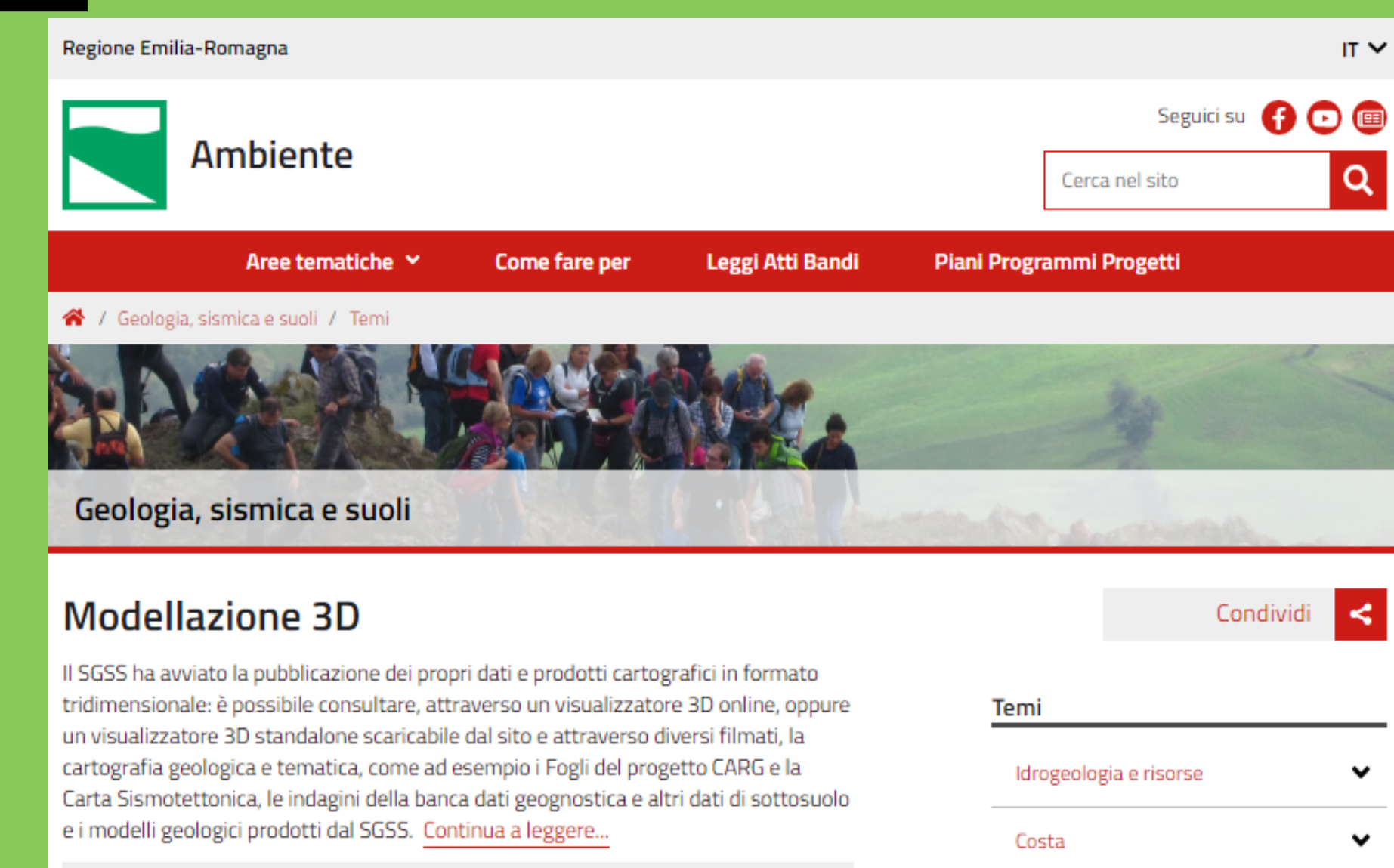
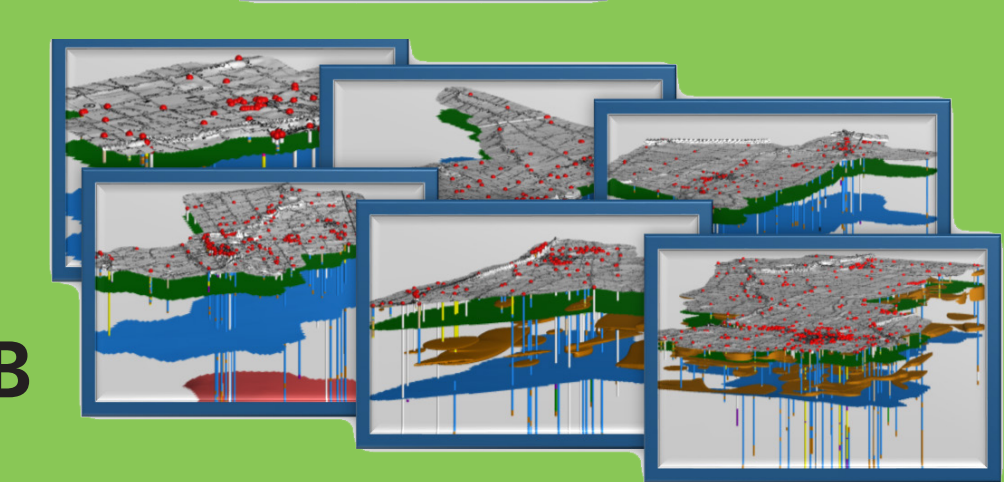
3D cartography



3D models



3D geognostic DB



Prototype of web pages on 3D topic

