

Asbesto 2.0

Map of the boundary
conditions

PROVINCIA DI PISA



Public school building



School building with possible asbestos
on the roof



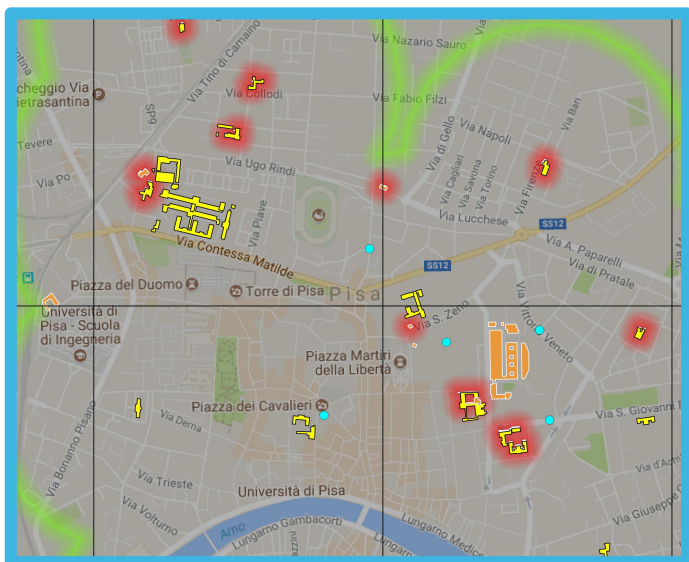
Private school building



1km buffer area



500m buffer area



Places with asbestos

- Unclaimed
- Partially reclaimed
- Reclaimed
- Absent data

Name of project: Asbesto 2.0 - Pilot Phase 1 and 2

Years: 2017-2018

Location: Italy

Clients: ANCITEL (for phase 1) and ANCI (phase 2)

Main project features:

In the Asbesto 2.0 project a new method has been developed for cataloguing information on the presence of asbestos cement materials on the school building of three pilot areas: Province of Alessandria, Province of Avellino and Province of Pisa.

The project has led to the definition of a fast, low cost and reproducible methodology for precision geolocation for school buildings in pilot areas and for identification (based on object based image analysis) and classification, on the school roof, of asbestos materials with the following criteria: use of cartographic, satellite and aerial data sufficiently updated, free of charge or available at the public administration; replicable model at regional scale of investigation; possibility to integrate results within the “GeoPortale Nazionale” to ensure its complete usability and containment of costs and times.

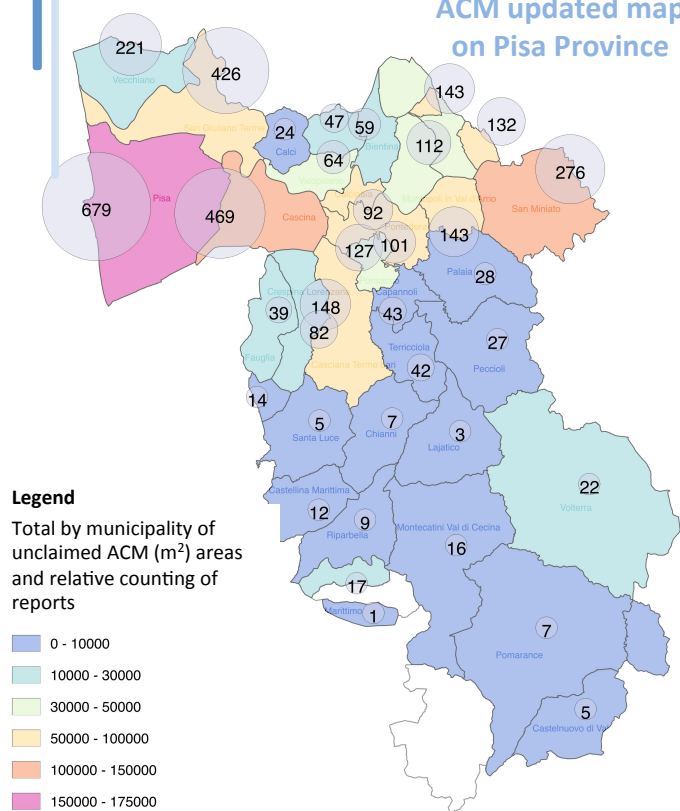
The first part of the project consists of the precision geolocation of school buildings in pilot areas, implementation of Asbesto 2.0 GeoDB and the “GeoPortale Nazionale” update. The main deliverables of this part of the project are: Asbesto 2.0 GeoDB (with a detailed information of position, type, of each school building) and a comparative analysis and update of historical information on school buildings (MIUR database).

we see the world for you



Asbesto 2.0

ACM updated map on Pisa Province



-  Unclaimed
-  Partially reclaimed
-  Reclaimed
-  Absent data
-  School buildings
-  Verified data
-  To be verified data

The second part of Asbesto 2.0 project consists of the following main “Activity areas”: (i) Area 1: supply of high resolution satellite archive images equipped with a multispectral sensor with a native spatial resolution of not more than 50 cm in the panchromatic and 2 meters in the multispectral (Worldview-2); (ii) Area 2: processing of the very high resolution multispectral satellite image set (object of the supply) for the realization of up-to-date maps on roofing in Asbestos-containing Material (ACM) of educational institutions on pilot areas (iii) Area 3: implementation of comparative photo-interpretation and OBIA (Object based Image Analysis) services on school buildings and on buffers.

The main deliverables of this part of the project are: (a) high resolution satellite WorldView-2 archive Ortho-rectified, atmospherically corrected and pansharpened; (b) historical maps on roofing in Asbestos-containing Material (ACM) of educational institutions on pilot areas; (c) up-to-date maps on roofing in Asbestos-containing Material (ACM) of educational institutions on pilot areas; (d) cartographic wrapping of data and statistics on data; (e) delivery of an abacus of the cases.

At the end of the project the maps produced were validated by means of images (on test areas) detected by drone. The whole ASBESTO 2.0 procedure was validated by a commission led by CNR IMAA and composed of experts from UNIMIB, UNIMORE and INGV.

