Title : High resolution satellite imagery, a shared and collective data source for some applications in France

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The department of IGN located in Toulouse is recognized for its expertise in the geometric and photogrammetric processing of images from various EO sensors, among these the French satellites Pleiades and SPOT6/7 that are operated by Airbus Defence and Space. Under the umbrella of CNES, the French Space agency, and thanks to the endeavours of several national public bodies, a national infrastructure called DINAMIS has been set up in order to ease the access to Pleiades and SPOT imagery by public authorities and research labs, providing them with end to end facilities: collect user needs, translate these into satellite tasking operations, qualify and process the images, disseminate in due time GIS ready-for-use products.

Since 2013 a substantial archive has been gathered over the French territory from monoscopic or stereoscopic observations; all products are endowed with INSPIRE metadata and made geometrically consistent with other national geoinformation layers; they can be used for free by public authorities throughout the web services of the national Geoportal.

Even though aerial photography offers a more detailed and precise appraisal of landscapes, satellite data allows improving the overall topicality of observations, an opportunity to timely detect and capture changes occurring in fast evolving areas. IGN has been using Pleiades stereo imagery to update its topographic database.

While the size of image pixels diminishes, 2D image classification techniques face more and more difficulties to automatically separate individual objects in an urban environment. CEREMA has implemented the use of a 3D layer derived from Pleiades data over several towns in order to improve the reliability of statistical indicators derived from the cross checking of soil sealing, social, economic and transportation data.