## **How to use OGC APIs to enhance geospatial data interoperability**

## **Executive summary**

In a world where geospatial information is crucial to address global challenges such as climate change and natural resource management, interoperability and the creation of standards are essential. **Interoperability** facilitates collaboration between organisations, drives innovation and ensures that data are accessible and usable by all. The [**Open Geospatial Consortium** (OGC)](http://www.ogc.org) plays a vital role in this context, **developing** **open standards that ensure compatibility and efficient exchange of geospatial data**.

One of the standards offered by OGC are [a series of APIs](https://ogcapi.ogc.org/#standards) which represent a **significant advance in the management and sharing of geospatial data**. Designed to **facilitate the access and use of geographic data** via the web, these APIs use modern technologies such as REST and JSON, making them **compatible with a wide variety of applications and platforms**. In addition, OGC APIs promote interoperability, scalability and security, facilitating the integration and analysis of real-time geospatial data.

The OGC is currently working with the implementation of the **standards following the concept** of ***Building Blocks*, which are modular components designed to facilitate the creation and management of geospatial data and related services**. These building blocks provide a standard and reusable framework that allows for efficient integration and operation of location data in various applications and systems. Its advantages include interoperability, reusability, efficiency and accuracy in geospatial data management.

In **Spain**, the implementation of API OGCs is progressing successfully in various institutions and sectors. Organisations such as the [National Centre for Geographic Information with the publication of the products of the National Cartographic System](https://www.idee.es/csw-codsi-idee/srv/spa/catalog.search#/metadata/spaignapi_features_scne), the [SDI of Navarre](https://geoportal.navarra.es/es/idena/servicios) and the [SDI of Catalonia](https://inspire-geoportal.ec.europa.eu/srv/api/records/inspire-ogc-api-features?language=all) have already adopted **these standards to improve the management and accessibility of geospatial data**. The integration of spatial information with other types of data, such as statistical data, provides a more complete and useful view for decision making, significantly improving the quality and usefulness of geospatial applications.

In summary, the **new OGC standards and *Building Blocks* offer numerous benefits that improve the efficiency, interoperability and quality of geospatial applications and services**. These benefits extend to developers, organisations and end users, promoting a more integrated and robust geospatial ecosystem. Adopting these standards ensures that solutions are interoperable, reusable and accessible in the long term, benefiting the entire geospatial community.

This is the central theme of the report "**How to use OGC APIs to improve the interoperability of geospatial data",** which explains how OGC APIs work, also approaching the concept of *Building Blocks*, with the aim of enabling the reader to implement their use in their organisation. You can read the full report here.