

# Raising the standard

Frédéric Houbie sets out the win-win scenario for those creating and applying Open Standards-based geospatial solutions

Geospatial applications have now been around for 40 years or more. When they were first developed, the geospatial domain was a specific science. Today, geodata is commonplace; it has become a conventional part of any data structure simply because so much of today's data has a location component.

People are not creating location data for their own use, but to share with others across organisations, countries or even globally. However, with producers and consumers of data operating in so many different locations and specialisms, they are unlikely to use the same model, storage medium or technology. Hence the need for consistent and open access to a heterogeneous data environment. An agreed contract between parties is the key solution, but to be widely exploited, that contract has to be easily accessible. This is the objective of Open Standards.

## Setting the trend

Nowadays, we are no longer exchanging data sets of 1,000 features, but rather data with hundreds of thousands of dynamic features with position and characteristics that change over time. We are not only working with historical data which are, by definition, static, but with (near) real-time data that we want to connect, visualise, analyse and use in decision support applications. So to be widely accepted, implemented, and used, Open Standards have to set the trend and be ready for the present and future.

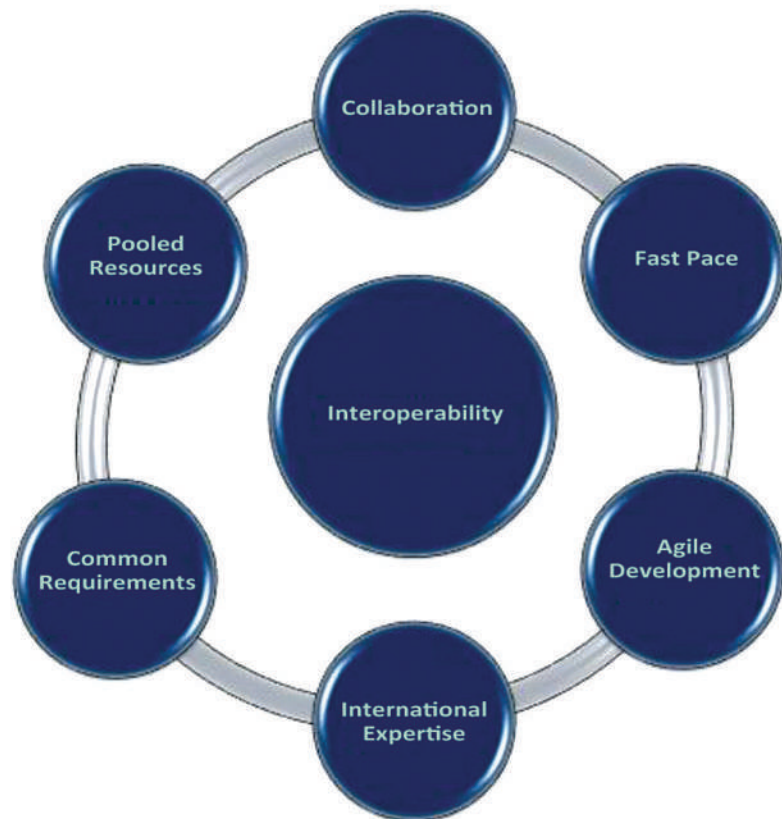
There are several bodies that set standards for specific domains. Probably the best-known is the ISO (International Organisation for Standardisation). We all use web browsers to view online information and email applications to communicate. These are based on open standards published by IETF or W3C consortiums.

When we talk about geospatial standards, the OGC (Open Geospatial Consortium – [www.opengeospatial.org](http://www.opengeospatial.org)) is the body committed to creating them for the global geospatial community. Although some OGC members compete commercially, they have been working together for more than two decades to facilitate geospatial interoperability.

## Win-win scenario

Everyone stands to win from standards and interoperability. Customers benefit in not being tied to a single vendor. As such, they can adopt solutions that best meet their needs in the full knowledge that their data will be interoperable across a variety of applications.

Software vendors also greatly benefit from open standards. It may be hard for some to understand why competing vendors choose to work together for this purpose, but such work performed



By using these ingredients for success, and by applying proven, repeatable policies and procedures, the OGC has successfully conducted more than 80 international testbed and pilot initiatives since 1999. Source: OGC

within standardisation bodies is targeted mostly at understanding the requirements of different domains – such as earth observation, maritime or weather – and specifying the interfaces of services or the data model used to interact between components.

The contributing organisations retain their proprietary product knowledge, and the interoperability layer of the product is the cherry on the cake. The fact that customers can easily interchange architecture is an advantage when building modern, flexible and well packaged solutions.

There are, of course, challenges in implementing open standards. They do not always fulfil all requirements, either because the latter are specific or evolve over time. But standards should be seen as a minimum agreed contract between parties, not an “all or nothing” concept. The quest to improve standards is ongoing .... one reason why those such as Luciad have been heavily involved in OGC work for more than a decade, both from both a technical and strategic standpoint, to help customers have the choice of architecture that's right for them.

**Frédéric Houbie is Senior Product Manager at OGC member Luciad ([www.luciad.com](http://www.luciad.com)) and a recent appointee to the OGC Planning Committee**