A geo-passport for your property?

Seppe Cassettari suggests that applying some joined-up thinking in the conveyancing process could plug existing gaps in data consistency, currency and quality

A friend of mine has a business creating the internal floor plans for estate agents as residential properties come onto the market. With modern laser measuring technology, it is relatively quick to generate a detailed plan for each floor that includes room sizes, location of windows, doors and cupboards together with kitchen and bathroom fittings. It also includes a gross internal floor area. Anyone who has bought or sold a property in the age of the comparison website will know the style and level of detail.

When our neighbours put their house up for sale and the estate agent used my friend to create the floor plan, it set me thinking about the geospatial records for the property - official or otherwise - that exist.

The house was built on the site of an old farm yard in the 1970s and had not been sold since 2004. On-line records of house sales go back to 1995, but the original purchase details for these are not available. The Land Registry polygons, that were once available as an Open dataset but are no longer, show the title plot reasonably well, but several of the surrounding plots are poorly depicted with non-existent sub-divisions and evidence of poor digitizing. The Ordnance Survey MasterMap representation is better but still not perfect. So, we have a consistency issue already.

The house has a swimming pool that pre-dates the 2004 purchase and a conservatory built by the current owners. Neither of these features are depicted on the latest MasterMap database. Also, the garage is shown as a separate building, but is actually linked. Now we have currency and quality issues as well.

There are no roof details or information such as number of floors or any other descriptors that might make the polygons more valuable in MasterMap. And, of course, there is no internal information.

Towards a better geo-record

Maintaining an up-to-date large-scale topographic layer requires considerable time and effort. OS would probably argue that this level of detail and degree of change is outside its current remit. Given that by virtue of putting the property on the market much of this enhanced detail is now public knowledge, perhaps it could be integrated to produce a better geo-record of the property?

This does raise the question of who owns the internal plans - the surveyor, the estate agent or the home owner (either the current or all future owners), but this is surely resolvable, and then the plans could be merged with the base map.

In fact the surveyor should be able to generate internals based on the external footprint and return to OS for standardisation and input into an enhanced buildings/property version of the national topographic map layer.

Joined-up thinking required

A bit of joined-up thinking is required here. By formalising a system of data collection where sharing is an accepted part of the process, we can create a property 'geo-passport'. This would probably be managed by Ordnance Survey or H.M. Land Registry, but with certain responsibilities placed on the property owner and the planning authorities to generate and maintain a consistent geospatial dataset for each property. This geo-passport would reside with the property, and it would be a requirement that it is updated each time the property is sold.

This would move the UK towards a property registration system that is closer to a formal cadastre (albeit without the legal property definition), and include BIM styled information on building quality, history, updates etc. Wouldn't this be an enormous help in focusing resources on 'greening' our housing stock, over a third of which predate the Second World War?

Dr. Seppe Cassettari is a GIS professional, with more than 25 years' experience in developing and applying geospatial technologies in the public, private and educational sectors. He was most recently CEO of The Geoinformation Group (now Verisk's Geomni UK business)