

Exploit your geodata to enable smart cities and countries

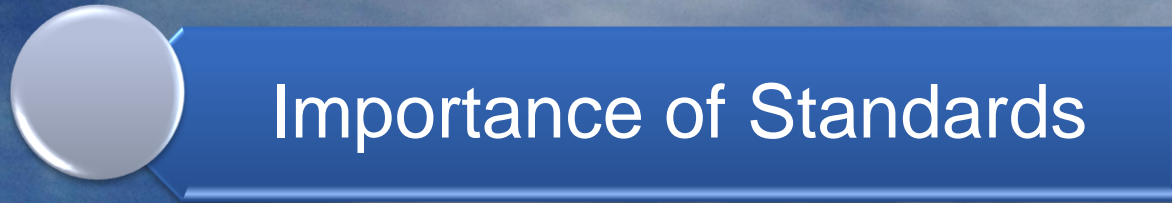


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Importance of Standards



Value - UK examples



Spatial Data Infrastructures



Future Cities



Source: http://www.oddee.com/item_96559.aspx

Interoperability: you know when you do not have it

“We can't share maps on the Web.”

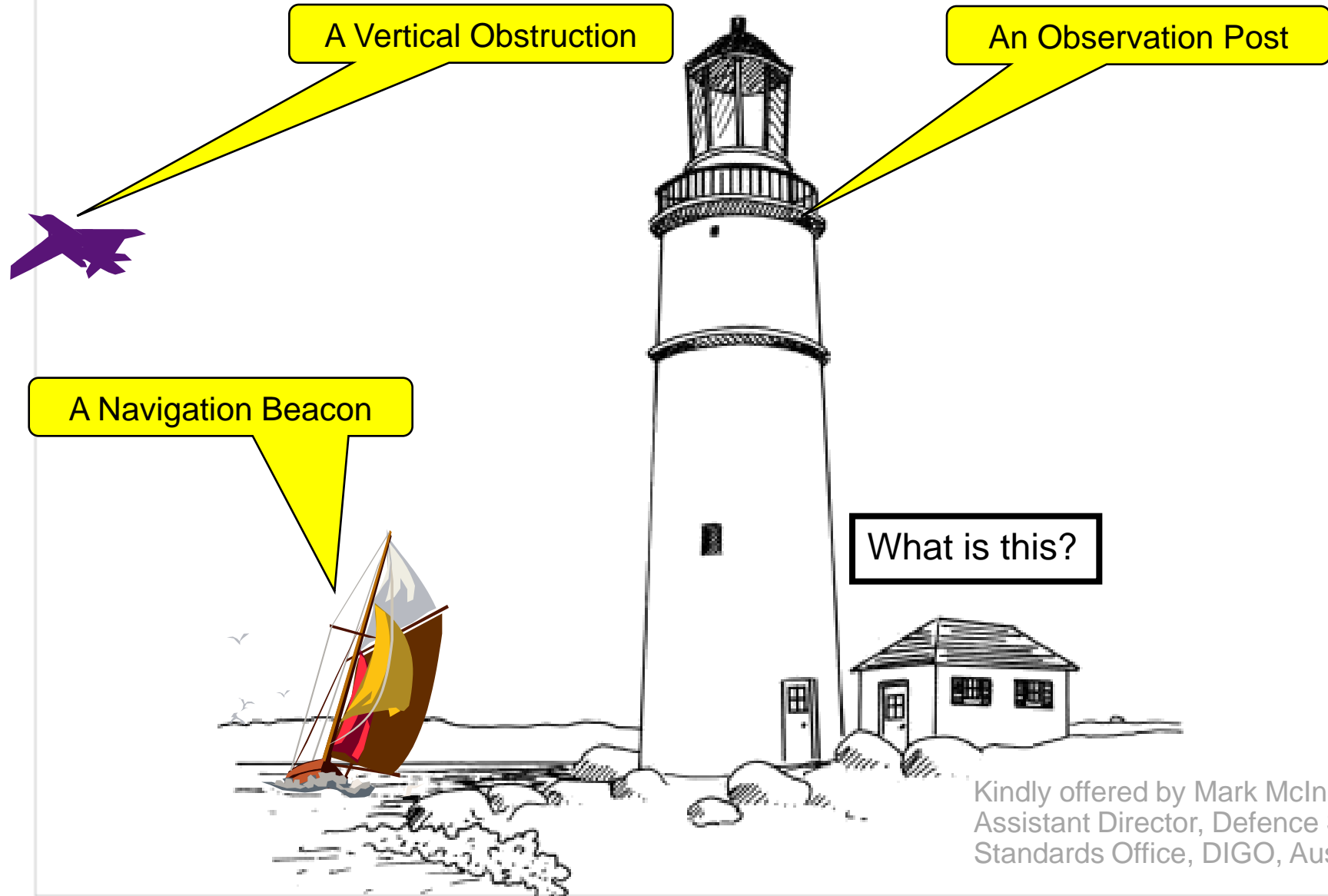
“We can't deliver data to different systems.”

“We don't have a common language to speak about our geospatial data or our services.”

“We can't find and pull together data from our automated sensors.”

“We have security issues relating to geospatial data exchange.”

Shared understanding



Kindly offered by Mark McInerney
Assistant Director, Defence Spatial
Standards Office, DIGO, Australia

Knowledge interoperability

Human to Human



Know

Machine to Machine

Learn

Kindly offered by Mark McInerney
Assistant Director, Defence Spatial
Standards Office, DIGO, Australia

Why Open Standards

- Prevents self-interested party from controlling standards
- Lower systems and life cycle costs
- Encourage market competition
- Choose based on functionality desired
- Avoid “lock in” to a proprietary architecture
- Stimulates innovation beyond the standard by companies that seek to differentiate themselves.

Source: Open Standards, Open Source, and Open Innovation: Harnessing the Benefits of Openness, April 2006. Committee For Economic Development. www.ced.org

Without interoperability and standards

- Custom Integration
- High system lifecycle costs
- Difficult to rapidly mobilize new capabilities
- Duplication of effort, missed opportunities to collaborate



But with interoperability . . .



**Save
time**



**Save
lives**



**Save
money**



**Improve
services**



**Make key
business
decisions**



**Discover
new
markets**

Helping you get there

Our work touches millions of lives

International

Consumer

Business

Government





Experience you can rely on

We have been mapping Great Britain since 1791

Our data underpins £100 billion of Great Britain's economy

We help Great Britain generate £400 million in new revenues every year

10,000 mapping updates every day

We are the go-to location solutions provider

Who we are

Our location solutions gets organisations to where they needs to be



Financial



**Health and
Emergency
Services**



**Land
and
Property**



**Other
sectors**



**Energy and
infrastructure**



**National
Government**

What we do

Making sense for the census

1 Challenge

Deliver Great Britain's most accurate address register ever.

2 Solution

Built around OS MasterMap® Address Layer 2 and OS MasterMap Topography Layer.

3 Benefits

A 99% accurate register. The ONS saves £32 million. We create AddressBase®, the new definitive source of addressing.

Thanks a million



1 Challenge

Give a major utilities company the ultimate GIS support.

2 Solution

OS MasterMap Topography Layer and OS MasterMap Address Layer 2.

3 Benefits

99,000 km of sewers and cables managed with pinpoint accuracy (That is enough to criss-cross the earth three times). Savings of at least £1,000,000 per annum.

Better value insurance cover for customers



1 Challenge

Make cutting-edge spatial analytics and geo-visualisation technologies work for underwriters.

2 Solution

Built around OS MasterMap Address Layer 2, OS VectorMap District and OS VectorMap Local.

3 Benefits

Enhanced risk assessment. More customers get exactly the cover they need.

Our maps via apps



Mapping on the go for iOS, Android and desktop applications.

OS MapFinder –mapping on your mobile. Plot a new route, track your progress and share experiences using our popular OS Explorer and OS Landranger maps

570 maps covering the whole of Great Britain, with 1.9m sales per annum.

OS Locate – uses the GPS in your mobile to tell you exactly where you are.

OS Ride – designed for cyclists who want to ride the British stages of the Tour de France.

OS Getamap – OS Landranger and OS Explorer maps and over 380,000 routes direct to your desktop.

Spatial Data Infrastructure: London 2012 Olympics and Paralympics

- High resolution aerial photography (frequent updates)
- Detailed topographic map (updated throughout construction)
 - Olympic park/venues (extra street furniture)
 - Entire city
- Smaller scale maps (synchronised update and publication)
- Routing network (streets and pedestrian)
- Addressing

- Managed data available in 6-weekly snapshots to all government and private companies involved in building Olympic venues during construction phase

- ▶ Improved communication based on agreed set of reference data

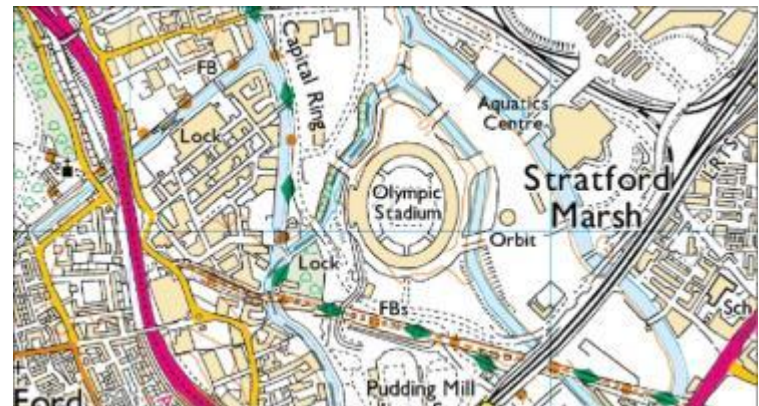


Geographic data to support 3 phases

1. Design and construction

2. Planning and operations (security and transportation)

3. Visitor experience



Olympic Park aerial imagery captured 14 times

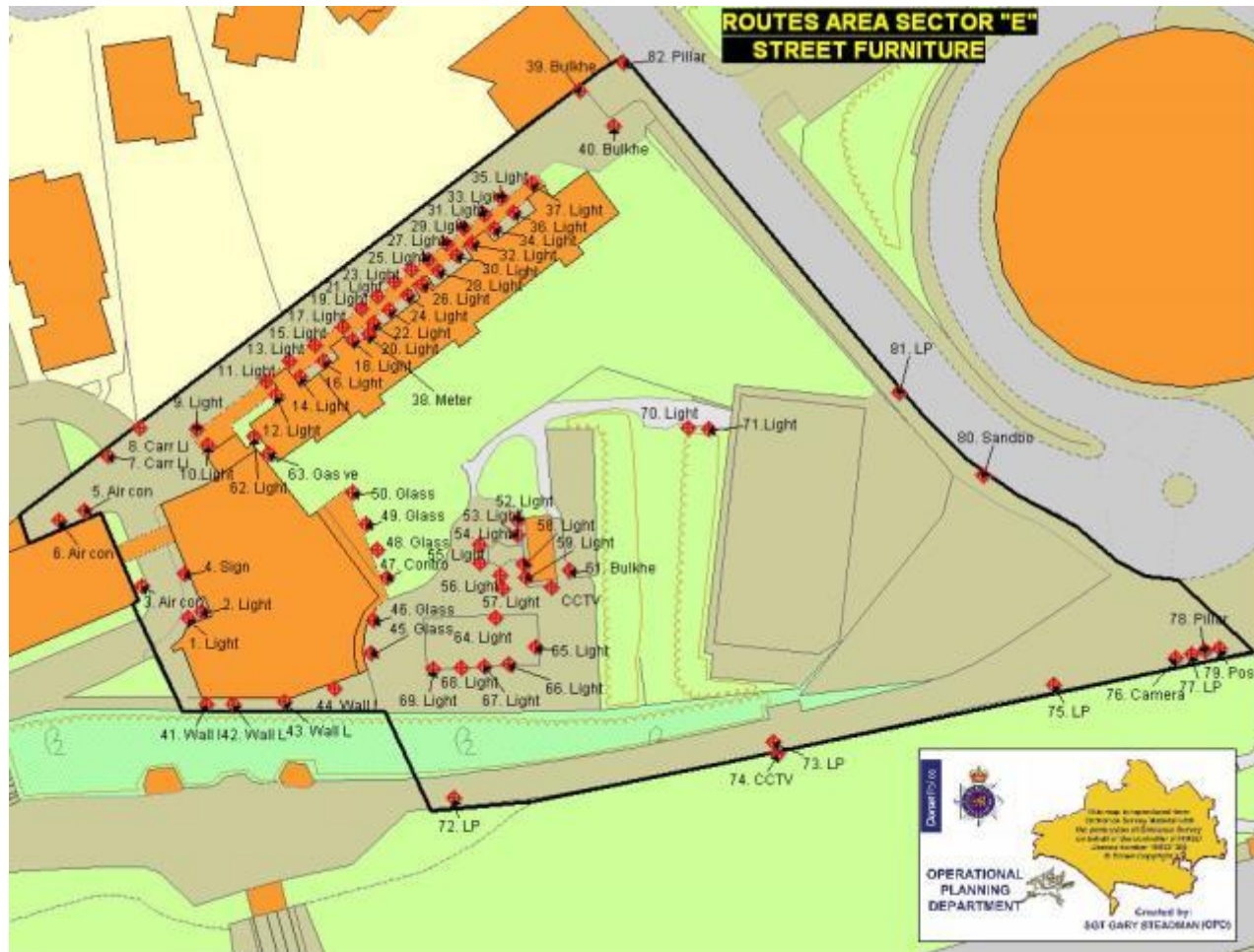


Street furniture collection

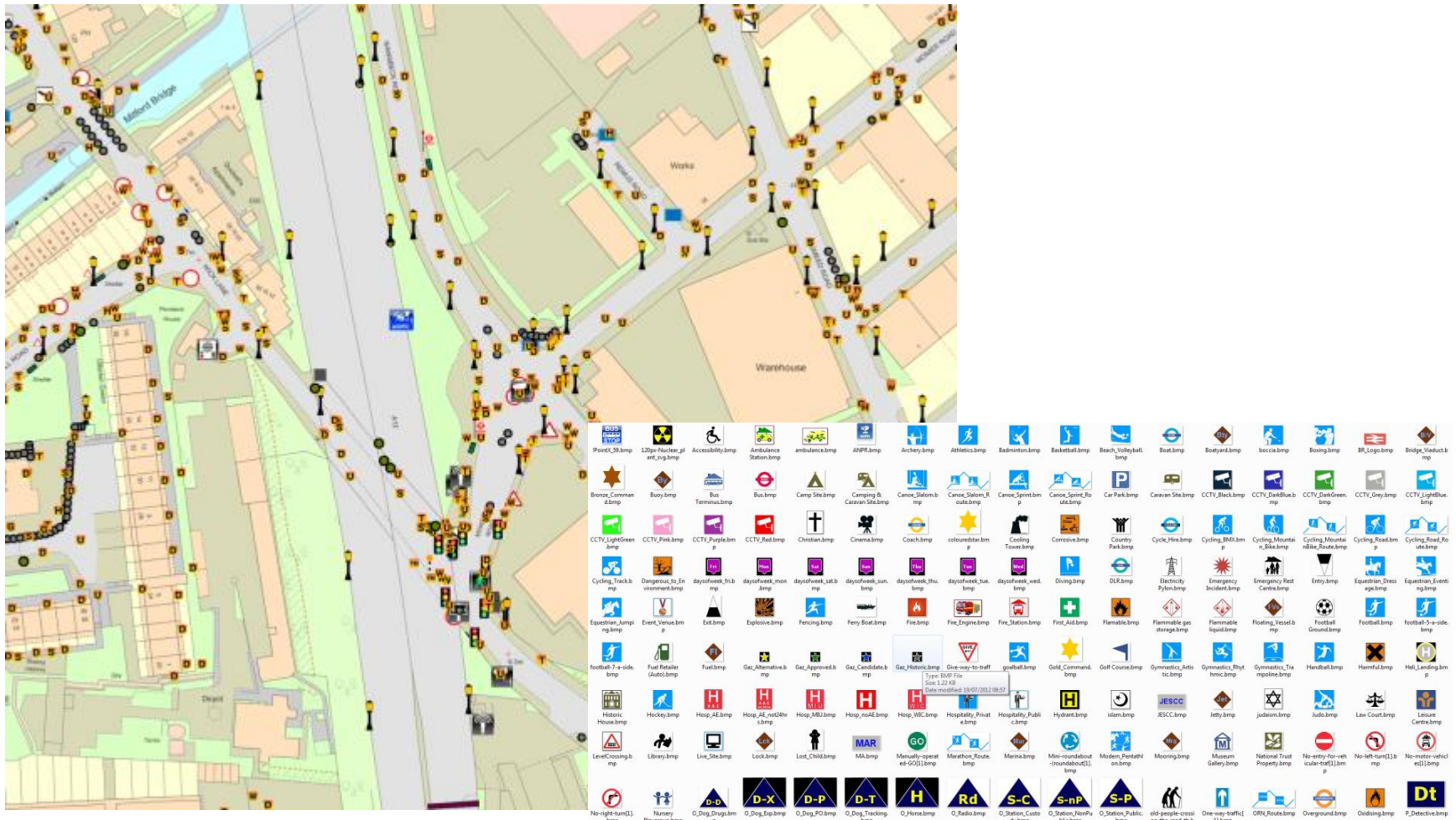
- Collected using high resolution aerial photography and ground survey
- Over 500,000 features were collected and ground verified
- 87 separate feature classes collected
- Supported by the Metropolitan Police in certain areas!



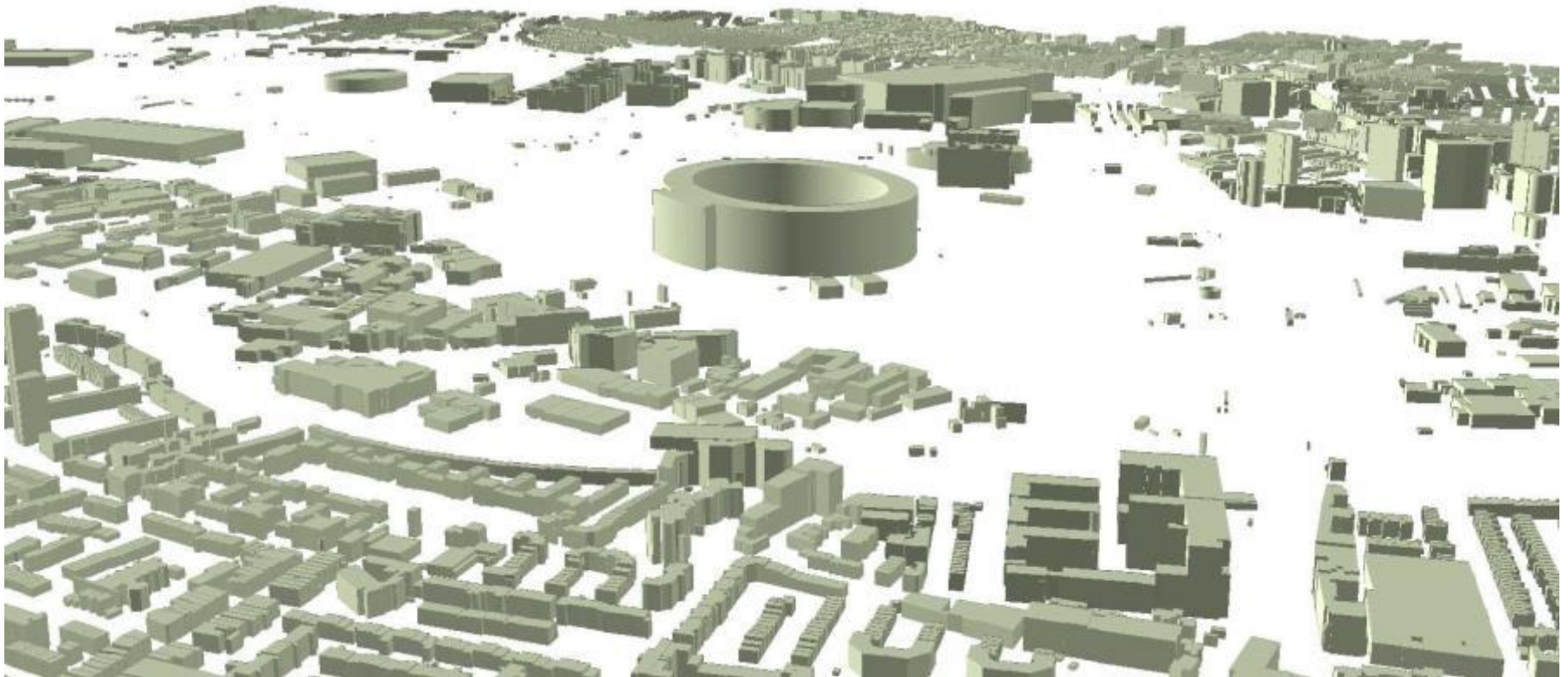
Requirement: Search and secure street furniture



Street furniture common symbology created and shared

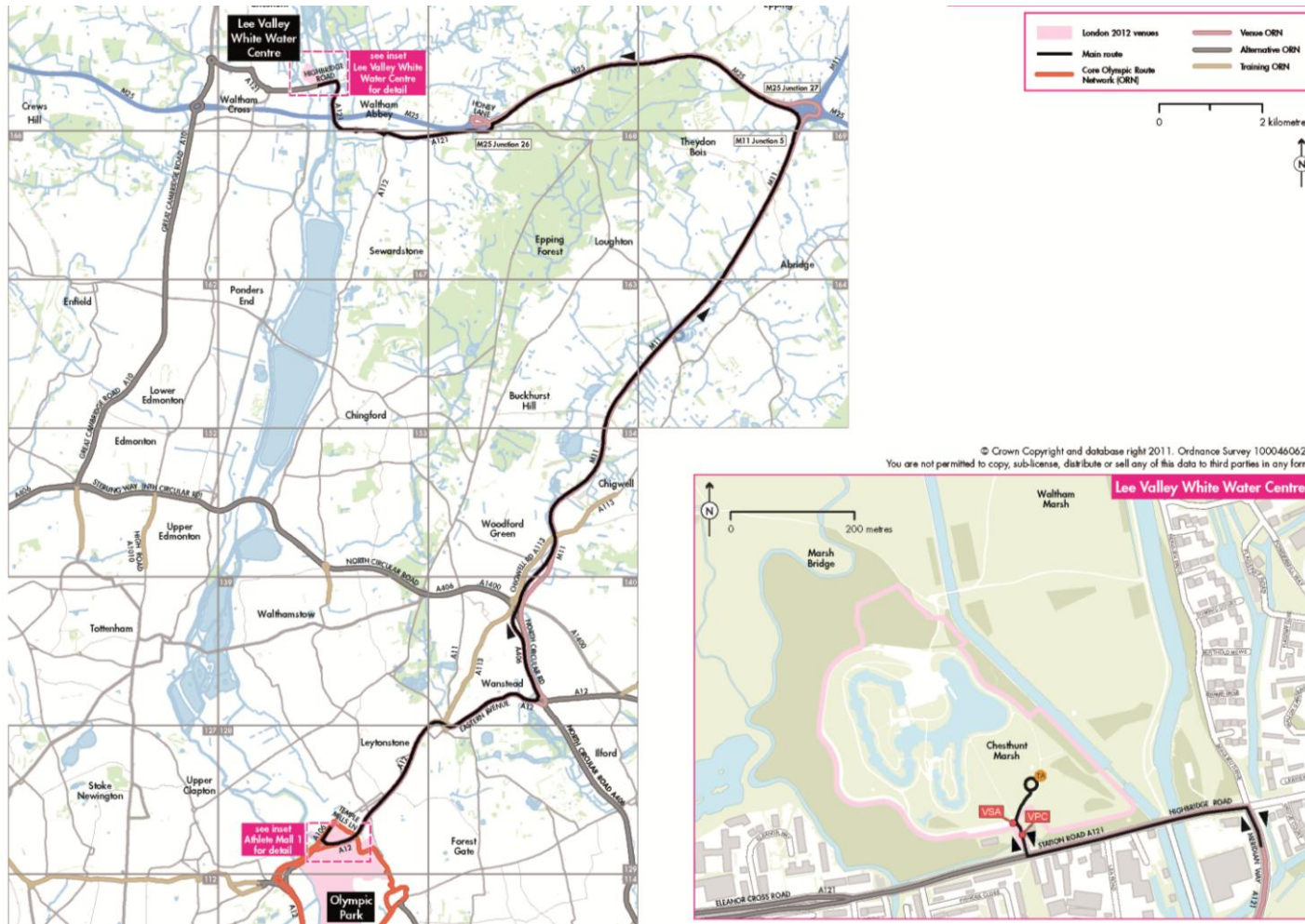


Enabling the third dimension

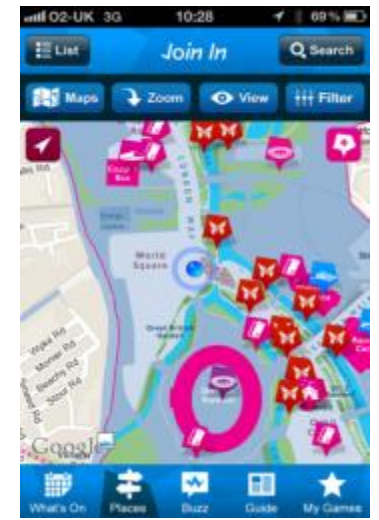


Building Heights were automatically generated using in-house developed software processing a combination of OS MasterMap Topography Layer and High Resolution Imagery

Analytics and design: Transport planning and routing



Product creation: Signage, wayfinding and spectator information



Resilience [rɪ'zɪlɪəns]

the capacity to recover quickly from difficulties



PREPARING FOR EMERGENCIES
WHAT YOU NEED TO KNOW

ResilienceDirect



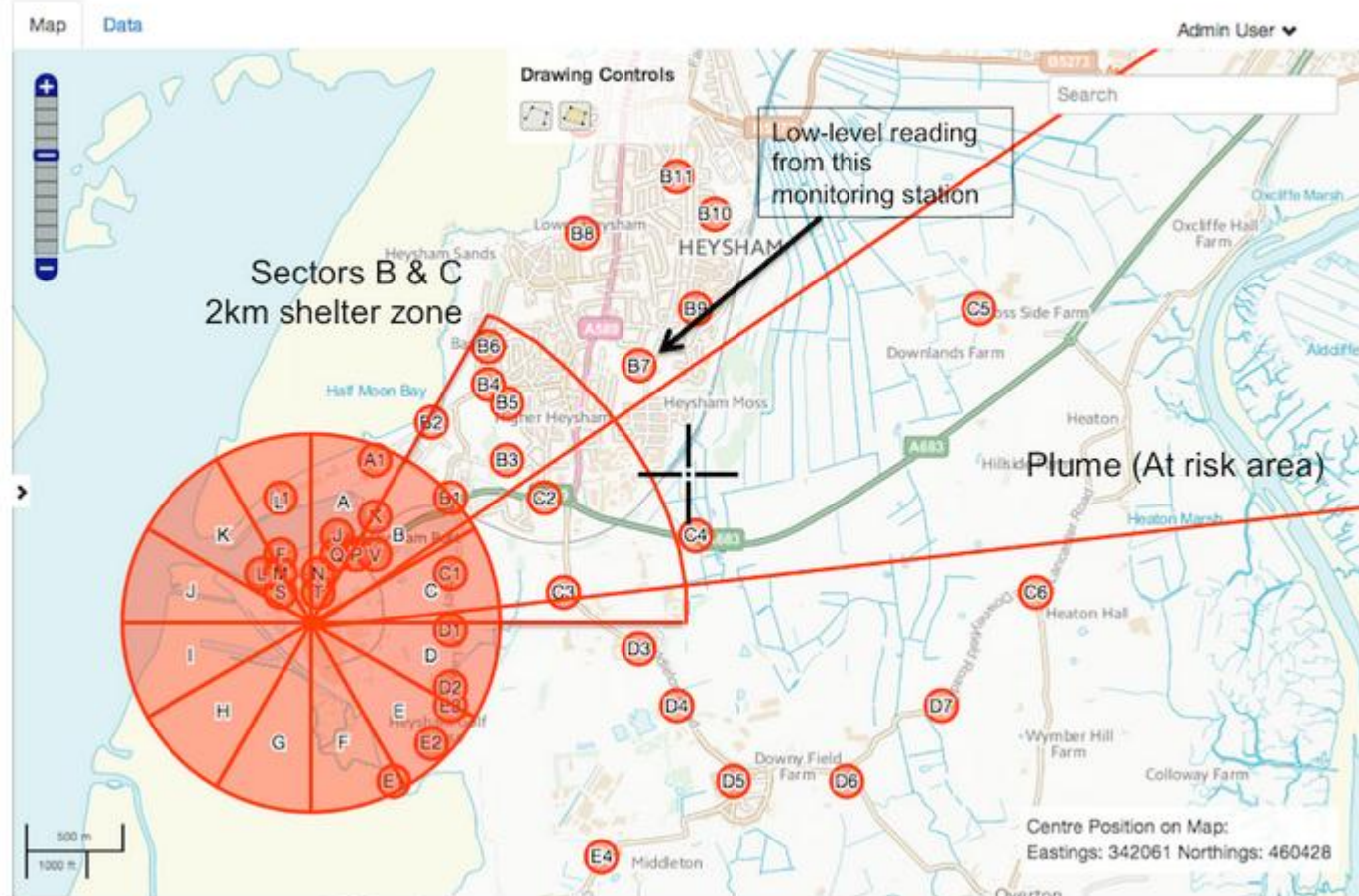
- Maintain a shared repository of information to support Integrated Emergency Management within and between organisations.
- Coordinate planning, response and recovery activities.
- Maintain a shared repository of information to support Integrated Emergency Management within and between organisations.
- Help attain common situational awareness through gathering, assessing, validating, collating and disseminating information within and between organisations.



Cabinet Office



Department for
Communities and
Local Government



Emergency simulation at Heysham

What is a smart city?

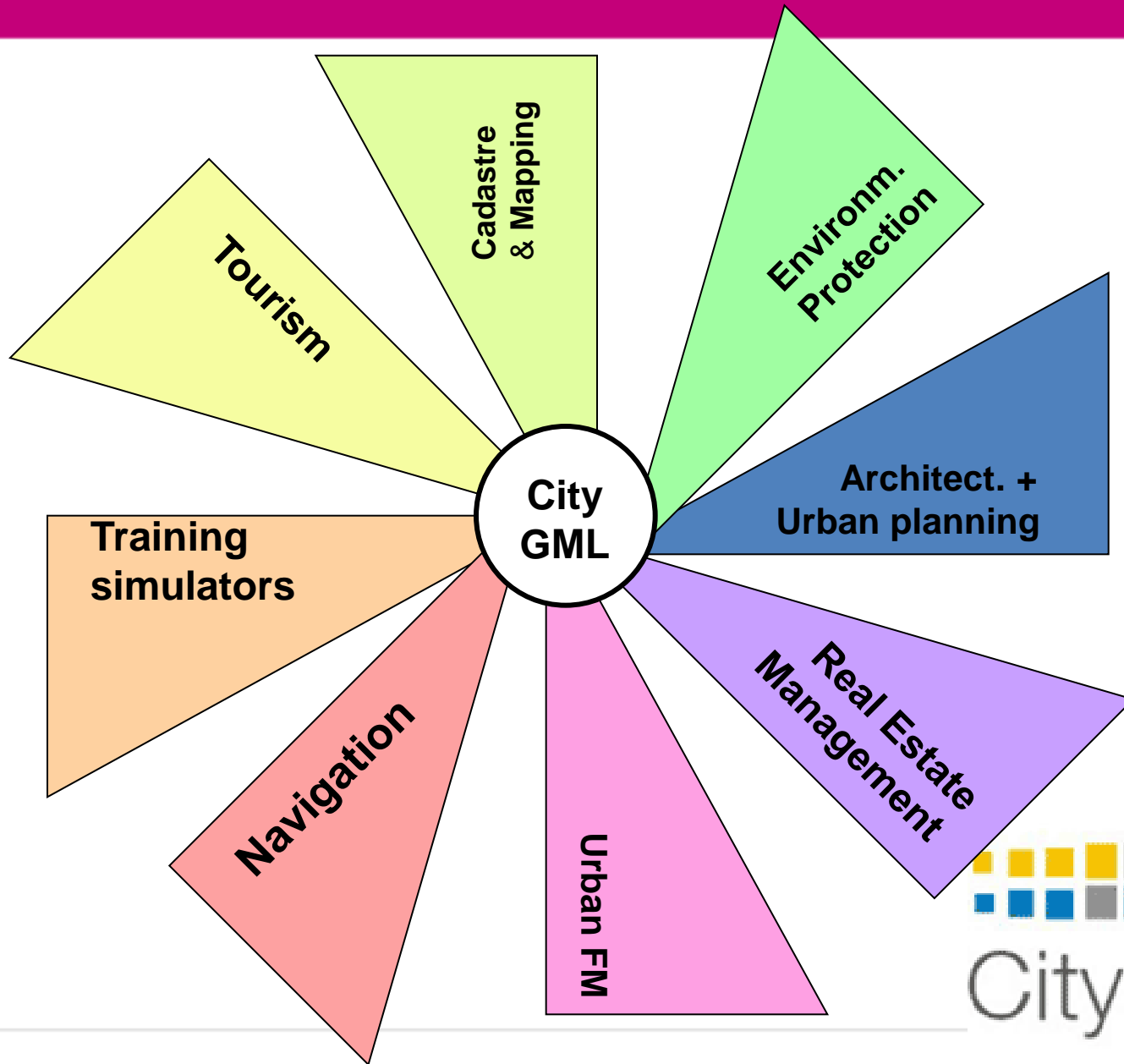


- Ubiquitous availability
and exchange of information
- Technology to make life better, safer and more sustainable
- Public, private and voluntary sector together with citizens

Needed: A data integration platform



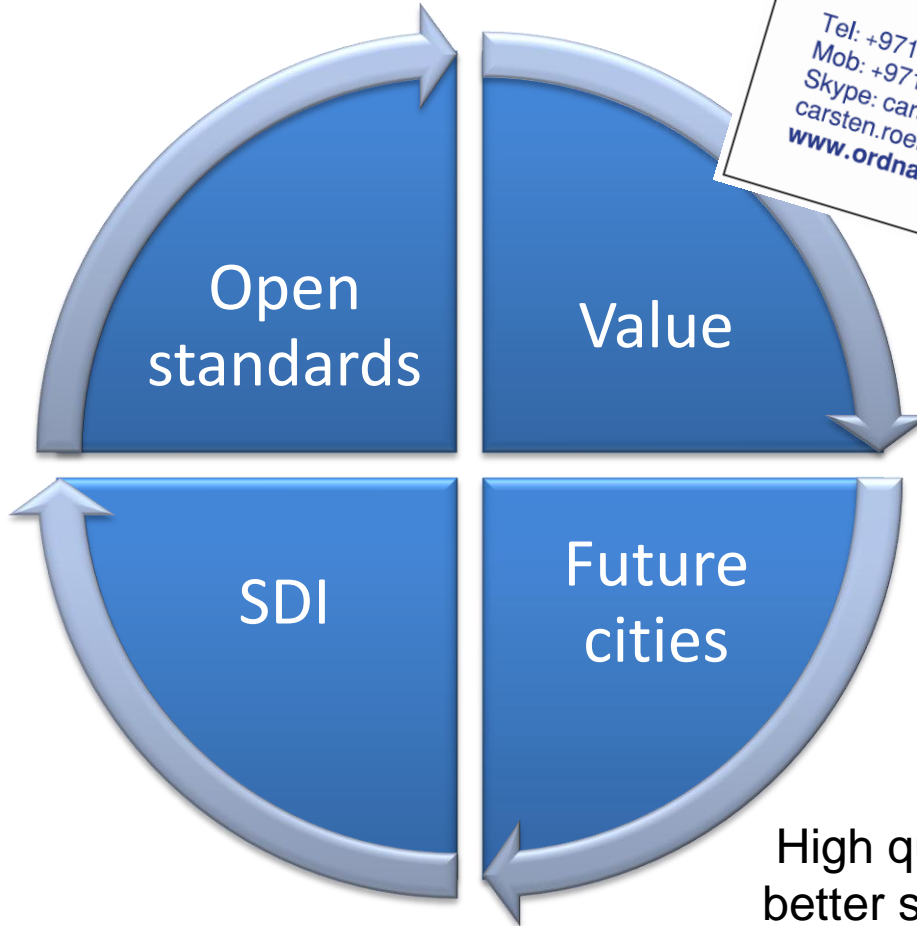
CityGML: A data integration platform



CityGML—Future Cities platform



Conclusion



High quality geographic data creates better services and economic benefits

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Ordnance Survey International
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DUBAI
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