



**BRUXELLES DÉVELOPPEMENT URBAIN**

**SERVICE PUBLIC RÉGIONAL DE BRUXELLES**

# BruGIS, a webGIS for Brussels Urban Planning. Past, present and future

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[www.sprb.irisnet.be/developpement-urbain](http://www.sprb.irisnet.be/developpement-urbain)



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- Brussels Urban Development - Client Presentation
- Brussels Regional Informatics Center – Infrastructure and hosting Presentation
- BruGIS Solution
  - Scope, Means and Team
  - Timeline
  - Architecture
  - Uses
  - Future plans

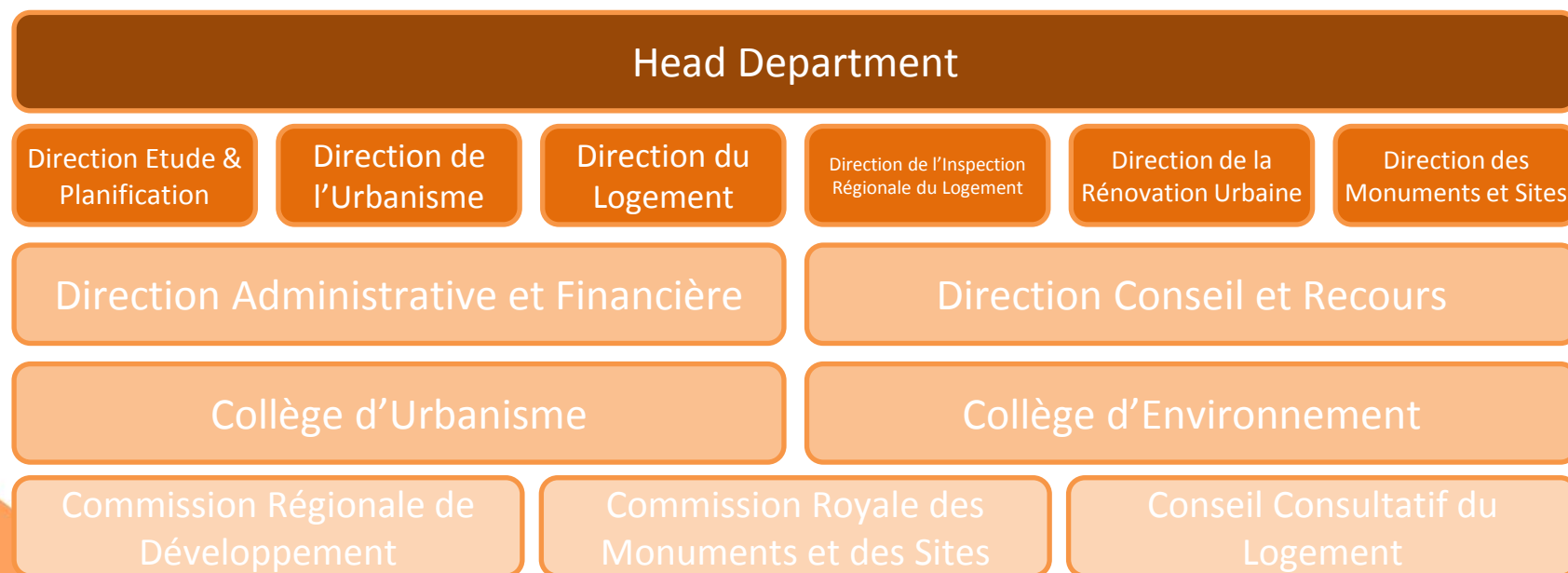
# Brussels Urban Development (Our Client) – Presentation

BUD is a Brussels-Capital Region public administration responsible for the sustainable, balanced and consistent management of urban development based on social, economic and environmental needs.

Its tasks are:

**Planning, Regulations, Housing, Urban renewal, Building stock**

BUD organigram:



# Brussels Regional Informatics Center - Our Infrastructure Provider

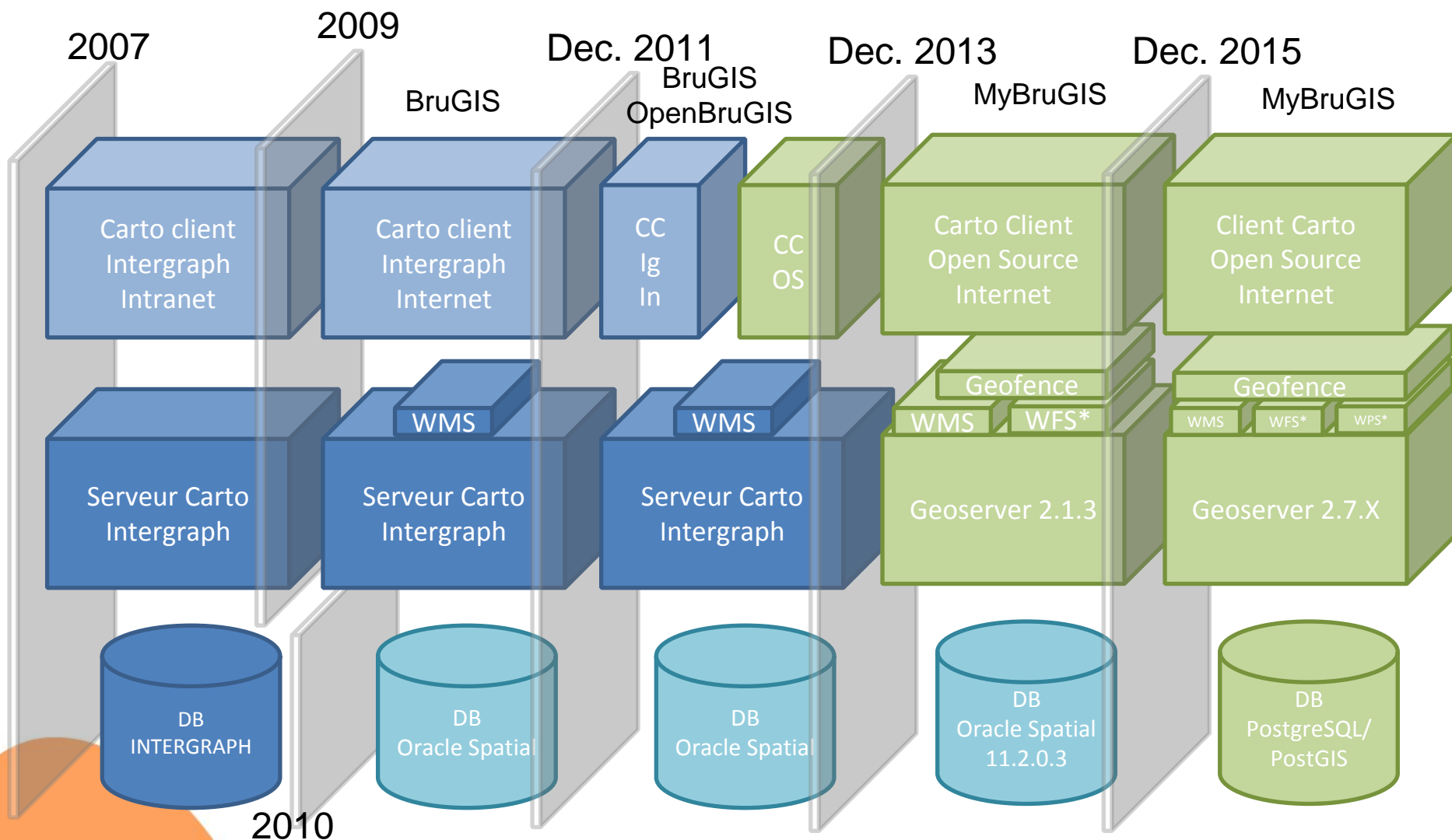
- 3 regional data centers
  - Connected to each other through dark fiber
  - with dense wavelength division multiplexing
  - On which we have traffic IP, traffic fiber channel
  - Practically every server is virtualized (x86 and Risc)
  - Offering cluster and grid of windows servers and redhat Linuxes
  - Offering services and maintenance, installs, backups...
  - Vpn, ftp, reverse proxy...
- 
- All our 14 windows 2008 servers are all hosted by BRIC in their infrastructure
  - OS is maintained by BRIC, all applications (Tomcat, Geoserver, PostGIS...) are maintained by us.
- 
- Provider of Urbis database, basemap and geolocation tools based on Urbis



# BruGIS – Scope, means and team

- Part of Brussels Urban Development/Public Service Organisation for Brussels-Capital Region
- Small team of 1 to 2 persons founded around 2002
- To collect, digest and integrate the different existing data(bases) at BUD into one cartographic platform where all the available data could be visualized, overlayed and interrogated.
- Evolved into a 6 persons (4 BUP + 2 BRIC) team from different disciplines and background
- That maintain and develop the entire solution
- Supported by several external private contractors/consultants (1 to 2 man-day/week)

# BruGIS - Timeline



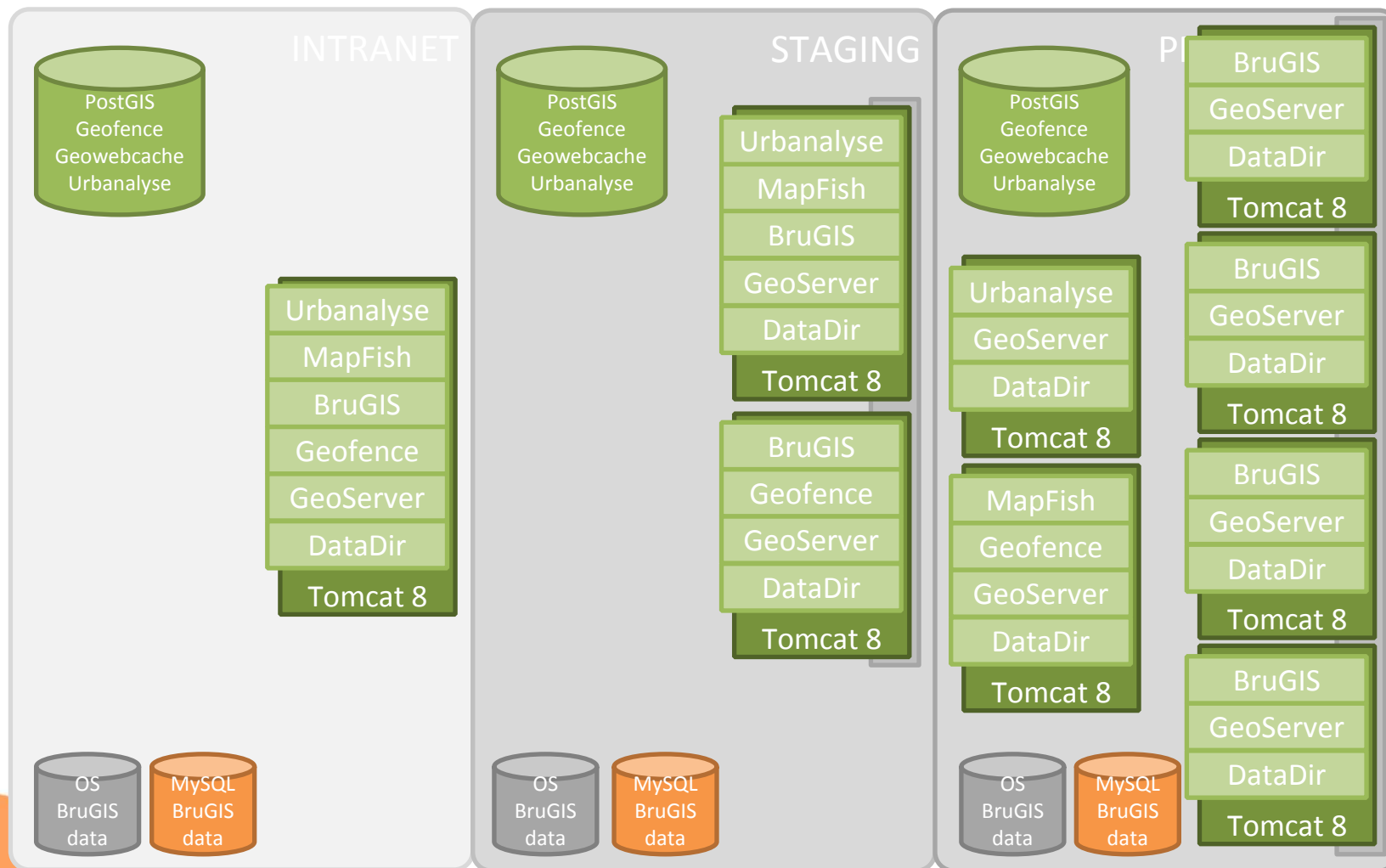
2010



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# BruGIS - Architecture

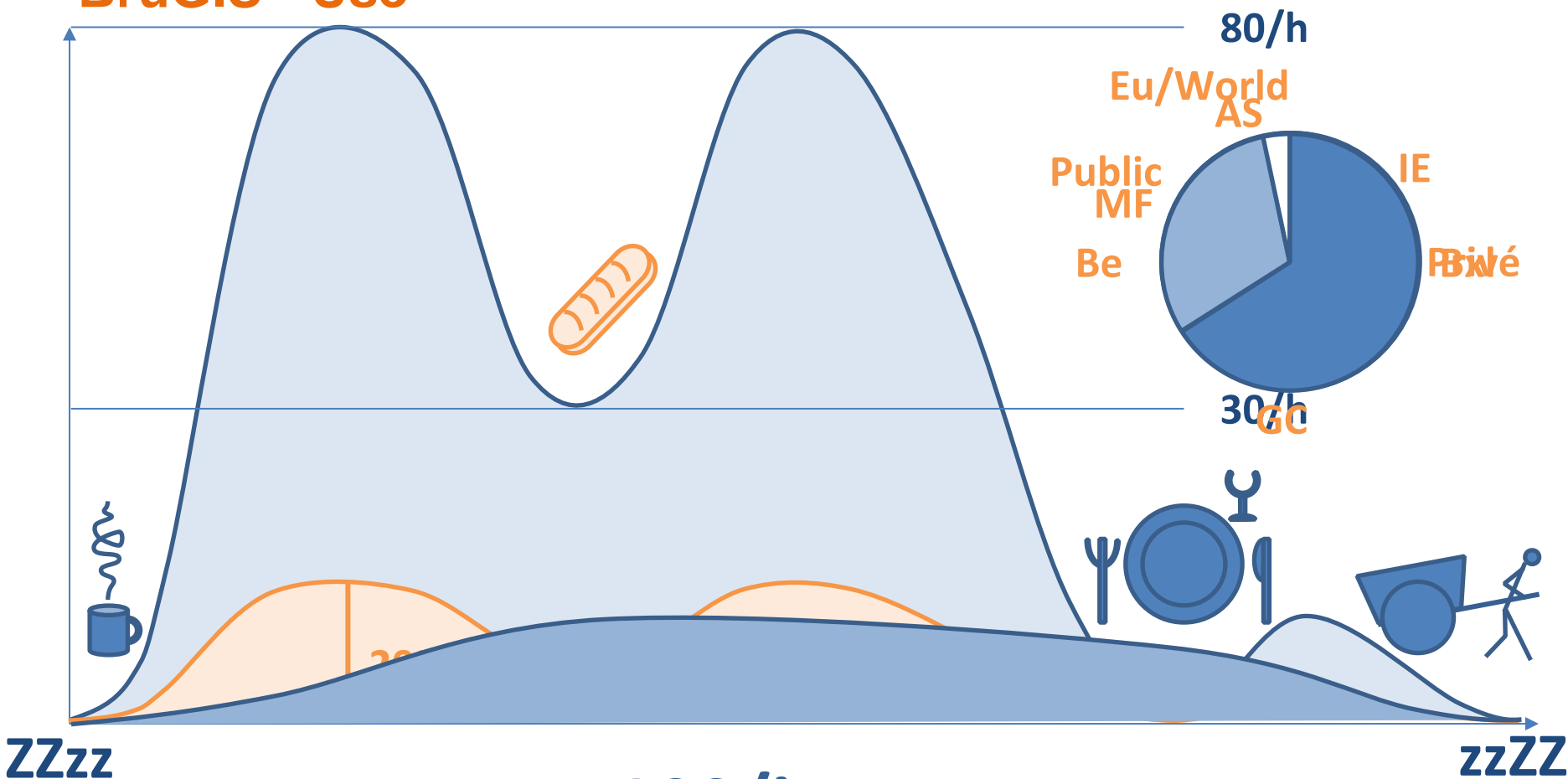


# BruGIS – Techs and libs

- 4 Production Servers running Tomcat 8 with
  - Geoserver 2.7.2 with session replication, local data\_dir
  - MyBruGIS client built on GeoExplorer/gxp with added Uxs
- 1 Production Server running Tomcat 8 with
  - Geoserver, MyBruGIS for INSPIRE compliant WSs
- 2 Dedicated Production Server running Tomcat 8 with
  - GeoFence
  - Mapfish Print
  - Urbananalysis WS
- 1 dedicated Production Server running PostGreSQL/PostGIS for
  - GeowebCache DBs,
  - Geofence DB,
  - Urbananalysis WS administration DB,
  - Future Data DB
- 4 Staging servers, 2 Development servers



# BruGIS - Use



~100/j on we

500~600/j

10.000~12.000/m

170.000/a



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# BruGIS – Future plans

- Migration from Oracle Spatial DB to PostgreSQL/PostGIS DB
- Development of a responsive design client using Angular JS/ Backbone, Leaflet/OpenLayers 3...
- Development of other WS
- Integration of aerial oblique images
- Integration of 3D data and viewer
- ...



# Code Release - GitHub



<https://github.com/Brugis-SPRB/BruGIS>



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Thank you for your attention

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