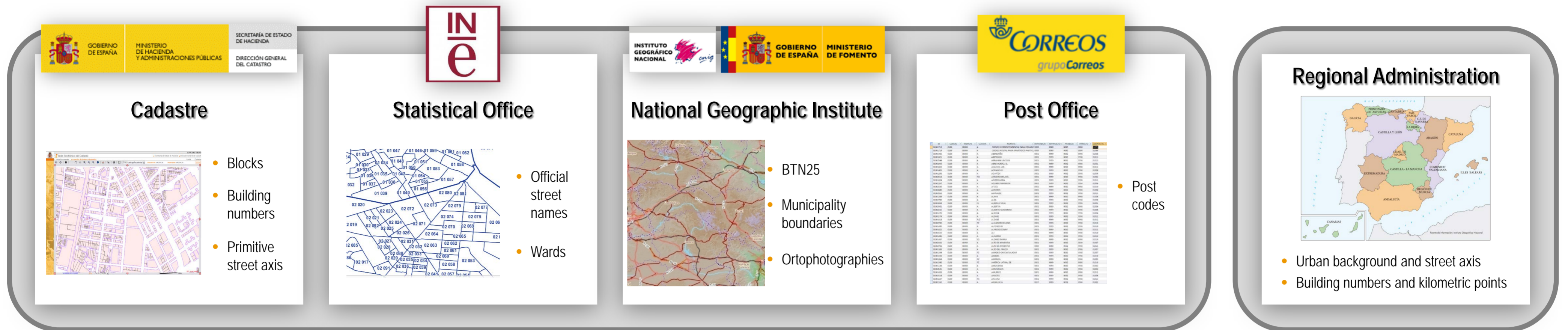


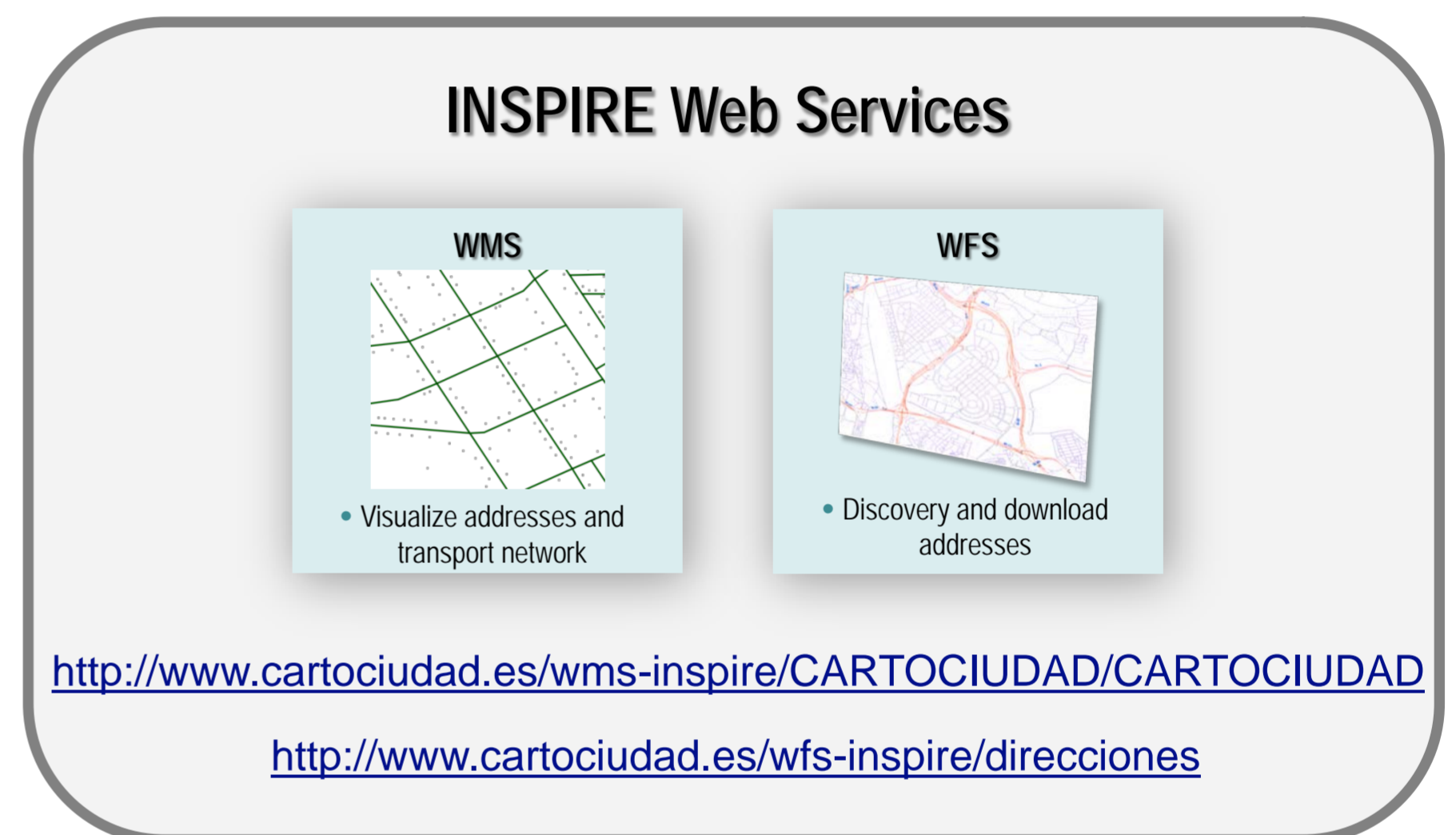
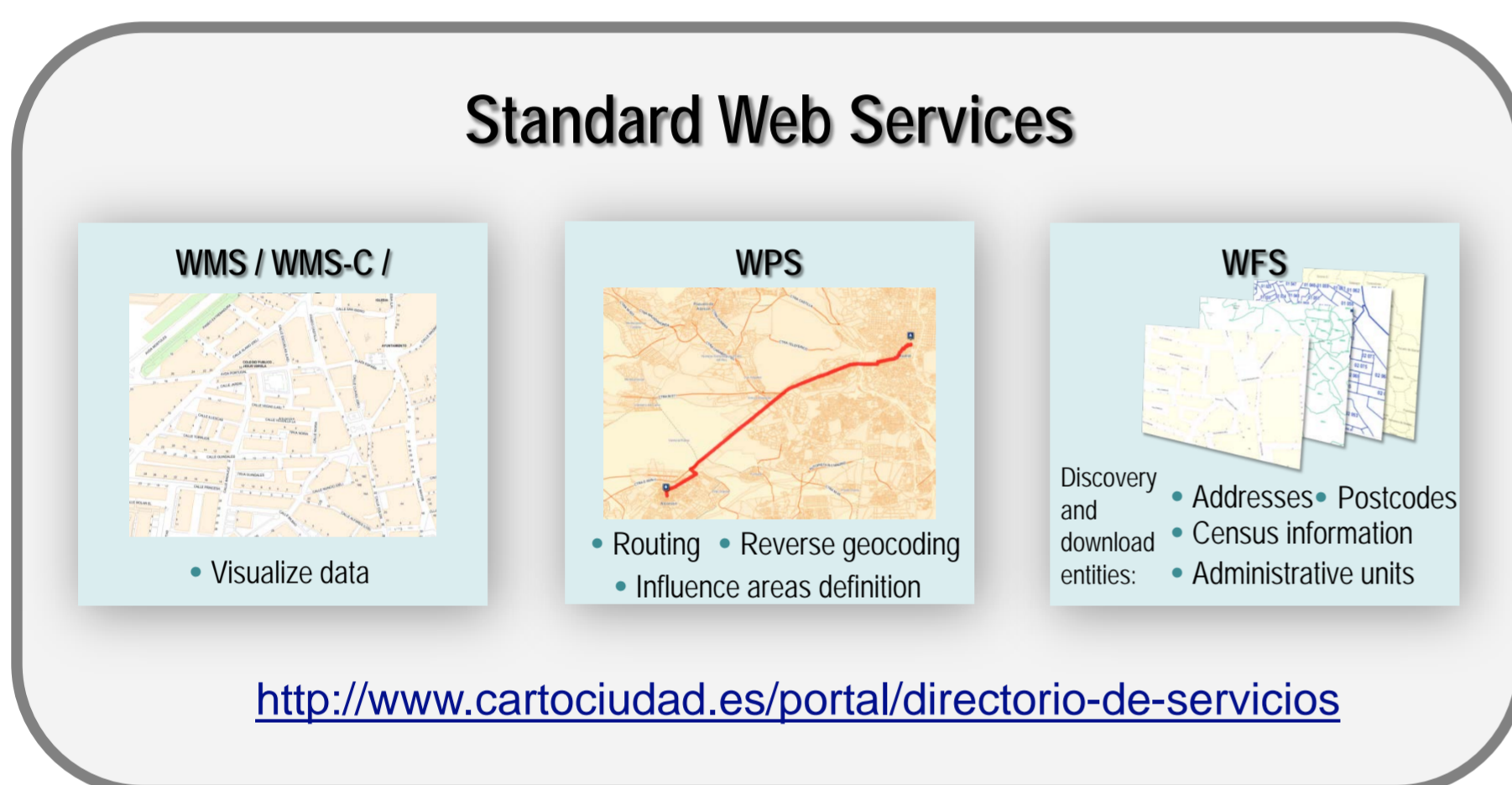
# The CartoCiudad gamble on Open Source and value-added services

CartoCiudad is a seamless cartographic database all over Spain where all road network is topologically structured and connected. This database, built from data managed by public organizations, is the result of harmonization and integration of official digital cartography and information produced by the main stakeholders of Geographical Information in Spain.



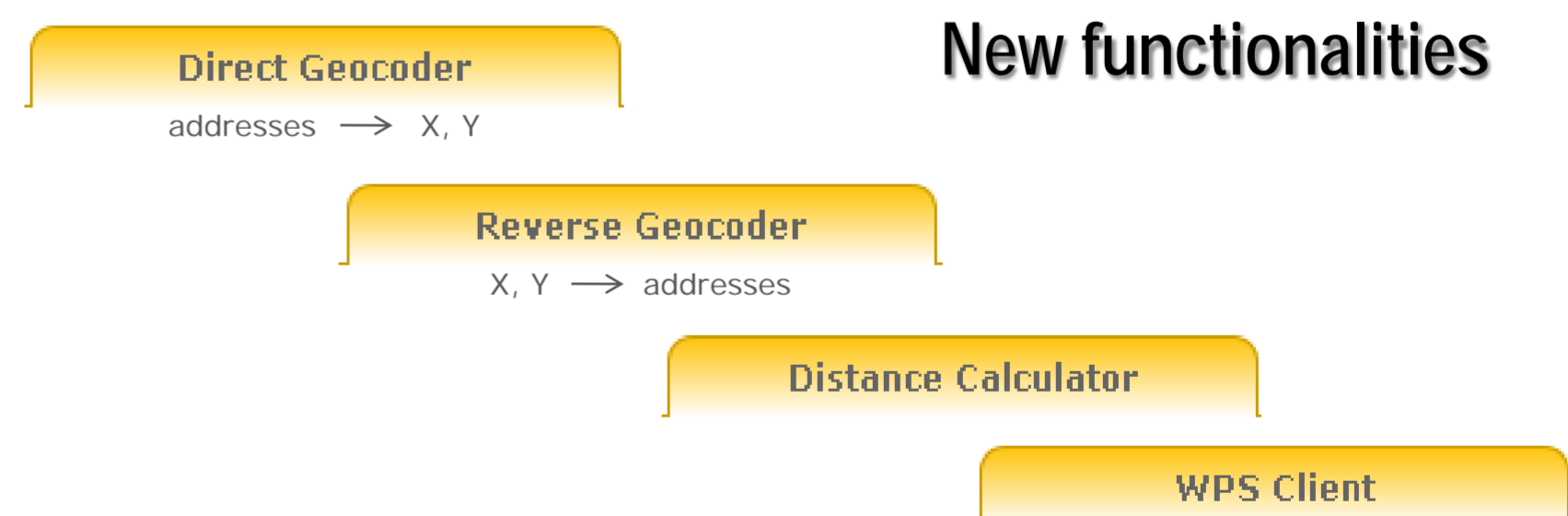
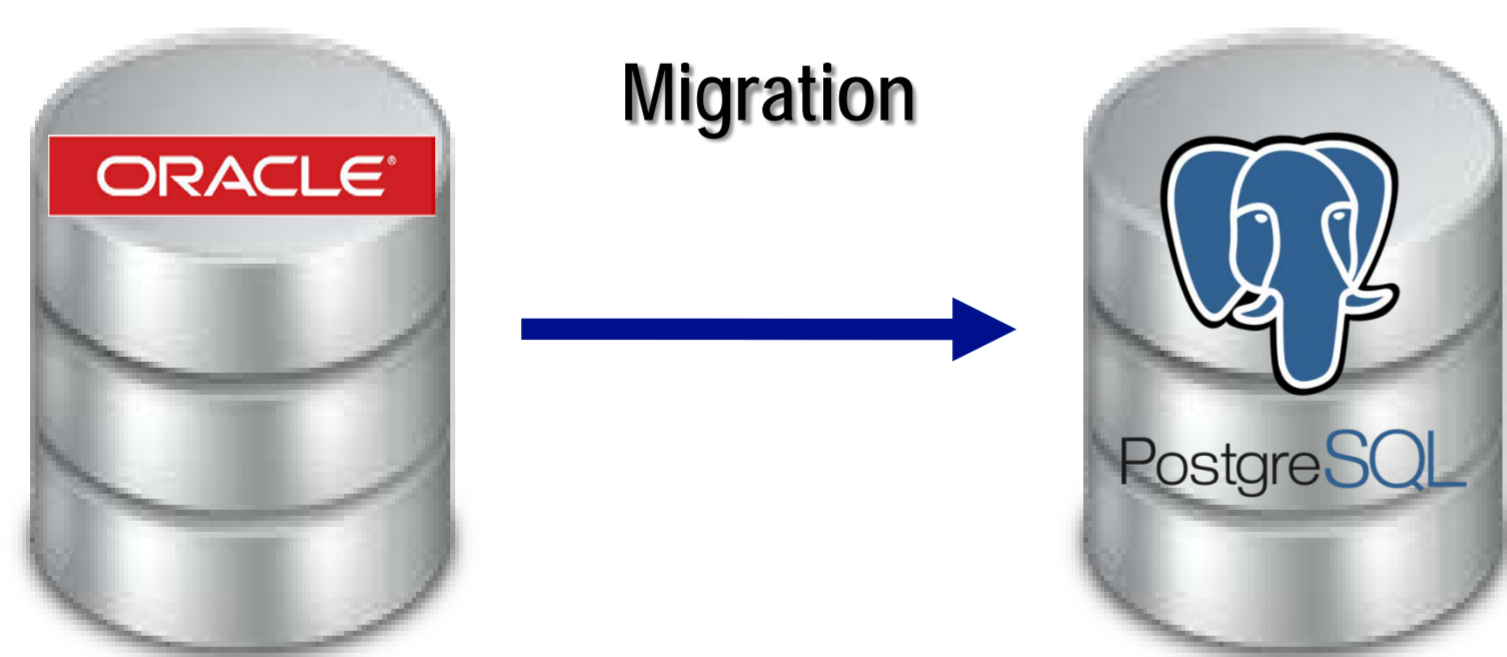
CartoCiudad data are published on the geoportal [www.cartociudad.es](http://www.cartociudad.es) where it is possible to visualize data, locate features and calculate geoprocessing since data are handled through standard web services conform to OGC specifications. This kind of infrastructure allows users to implement cascading services and so to develop new value-added services.

Recently a new Web Feature Service has been developed according to version 2.0.0 of the Open Geospatial Consortium (OGC) standard and complying the INSPIRE Data Specification on Addresses.



Currently CartoCiudad database is being migrated to an open source environment: Database Management System PostgreSQL – PostGis.

Web services can be invoked by means of HTTP GET/POST requests. In addition, new functionalities demanded by end-users are available on the project site [www.cartociudad.es/portal](http://www.cartociudad.es/portal): individual or massive direct and reverse geocoding, distance calculation along the road network and WPS functionalities.



## Best Practice: AppTobaccoManagement



A Best Practice of development of new value-added services customized according to end-user requirements is AppTobaccoManagement: application for the fulfillment of the regulation on the purchase-sale of tobacco. It bases on the location of the tobacco delivery establishments and the relative distances to the tobacco points of sale. It uses CartoCiudad services as support to manage the location, insertions and deletions of its points of interest. The main functionalities are the following:

- Point location
- Point insertion/deletion
- Candidate point of interest
- Served population