

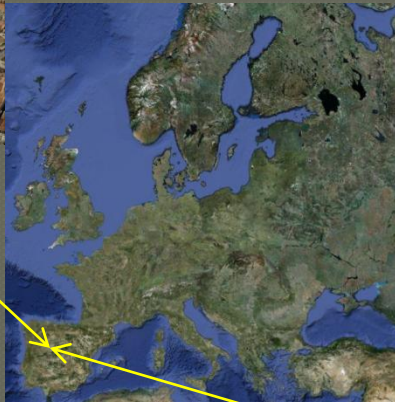
# SMART CITIES

## Utilities and Environment

# VALLADOLID and PALENCIA



Valladolid City



Palencia City



2<sup>nd</sup> Future Internet Usage Areas Workshop  
June 21<sup>st</sup> and 22<sup>nd</sup>, 2010  
Brussels

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Country: Spain  
Region: Castilla y León  
Founded :1072

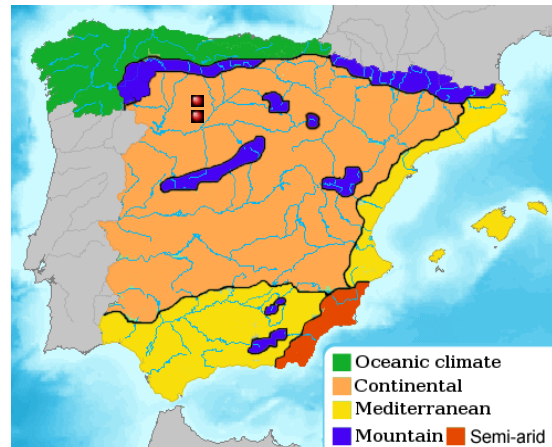
Area:  
- Total 197.91 km<sup>2</sup> (76.4 sq mi)  
Elevation 698 m (2,290 ft)  
Population (2009)  
- Total 317,864  
- Density 1,606.1/km<sup>2</sup> (4,159.8/sq mi)  
Time zone CET (UTC+1)  
- Summer (DST) CEST (UTC+2)  
Climate: Continental  
Official language(s) Spanish  
Website: [www.ava.es](http://www.ava.es)

## Valladolid & Palencia



Country: Spain  
Region: Castilla y León  
Founded :1072

Area:  
- Total 94.71 km<sup>2</sup> (36.6 sq mi)  
Elevation 749 m (2,457 ft)  
Population (2009)  
- Total 82,626  
- Density 872.4/km<sup>2</sup> (2,259.5/sq mi)  
Time zone CET (UTC+1)  
- Summer (DST) CEST (UTC+2)  
Climate: Continental  
Official language(s) Spanish  
Website: [www.aytopalencia.es](http://www.aytopalencia.es)



# Smart Cities: Utilities and Environment: Valladolid & Palencia

## Actors involved:

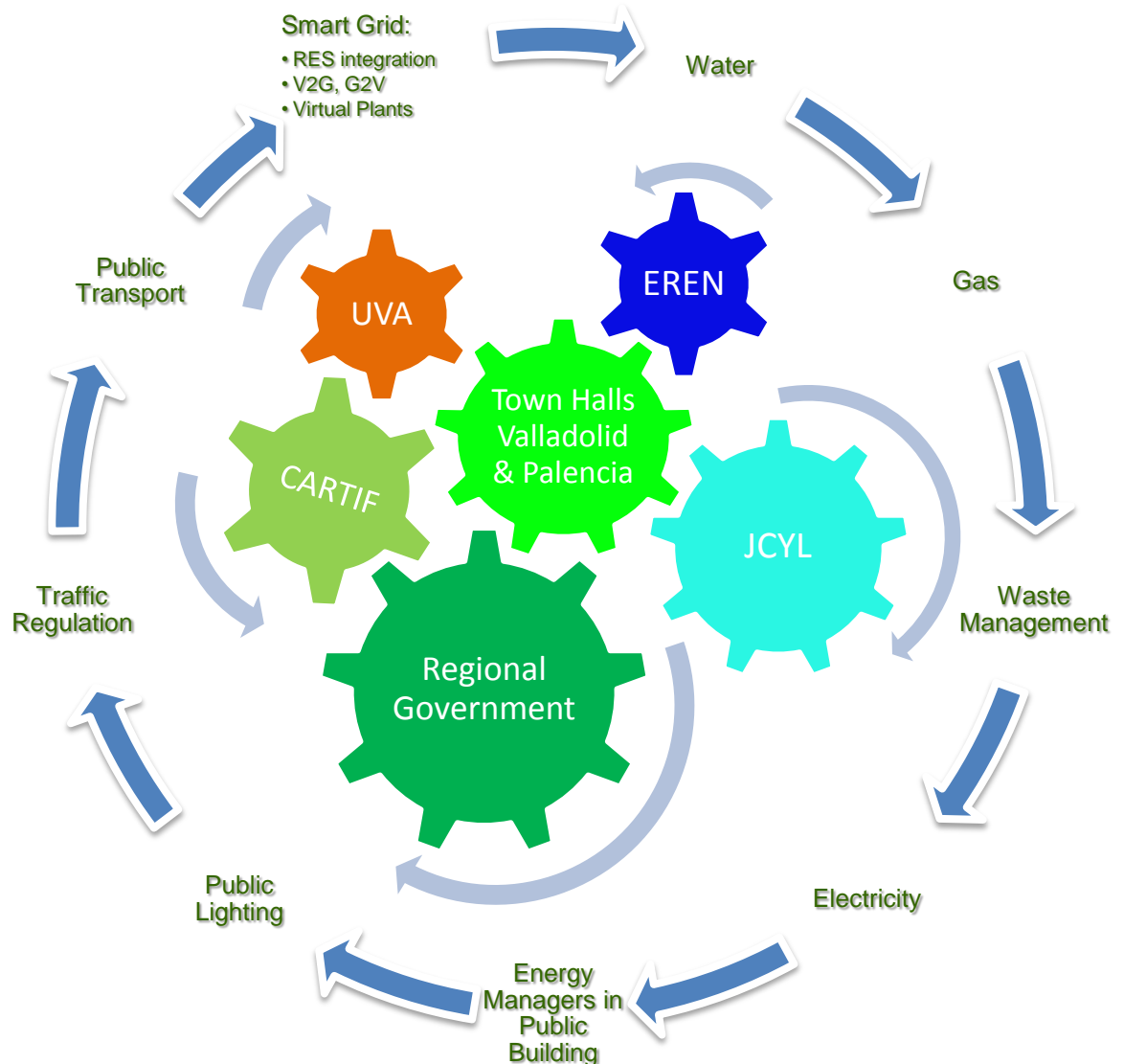
### Public Authorities:

- Town Hall of Valladolid
- Town Hall of Palencia
- Regional Government
- Regional Energy Agency

### Industrial - Service Providers:

- Water, gas, electricity
- IT services.
- Traffic Regulation
- Public Transport
- Public Lighting
- Public Building Managers
- Currently developers of ICT platform in the City.

### Citizens



## **Experimental environment for broad large scale testing of the platform?**

### **Sustainable Cities** for large-scale experimentation with the Future Internet platform

- Energy efficiency in buildings and spaces of public use. (Public Lighting)
- Energy Efficiency and Renewable Energy Integration. (Building and District level).
- Electricity services: (vehicles in the future, virtual plants...)

All actors by means of FI core platform: from service providers to citizens, including public authorities.

## **Innovative Internet functionality and technologies**

- Common enablers: Generic, scalable interfaces; achieving a full interoperability.
- Seamless to any actors
- End to end connectivity (from the sensor networks to the providers will be needed),
- Context awareness.
- Handling huge volume of data.
- Multimodal interface system. Different interfaces and media should be analyzed.
- Broadband connectivity / aggregation points / data gathered.
- Service composition, brokering, execution, indexing, searching and discovery should be provided.

# Thanks for your attention

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**CARTIF Foundation**

<http://www.cartif.es>

