

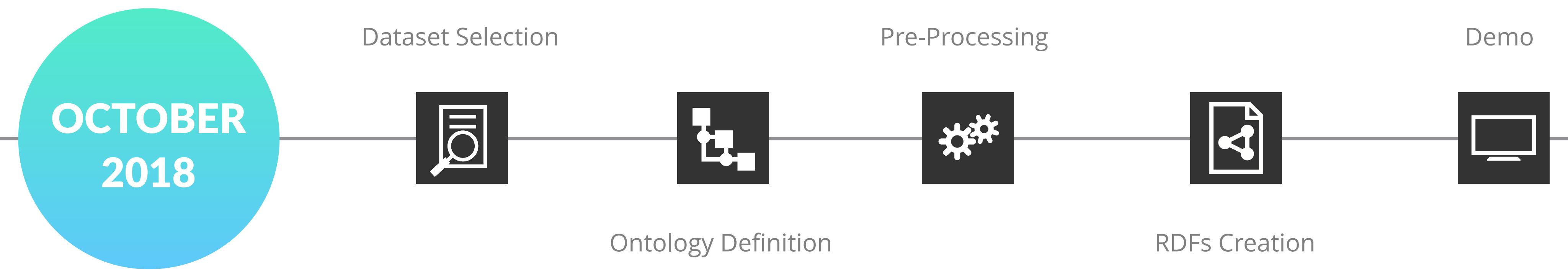
A wide-angle photograph of a city street at dusk or night. In the center background stands the ornate dome of the Metrópolis building, topped with a statue of an angel. The foreground is dominated by a large, circular intersection where light trails from moving vehicles create a dynamic, swirling pattern on the asphalt. The surrounding buildings are classical in style, with many windows and facades. The sky is filled with dramatic, colorful clouds.

SAFEAIR

We care about your breath

Roadmap

All the steps we followed

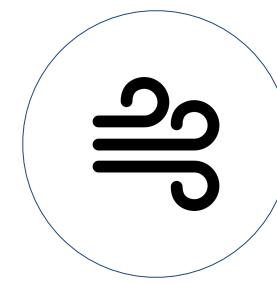


Madrid Open Data

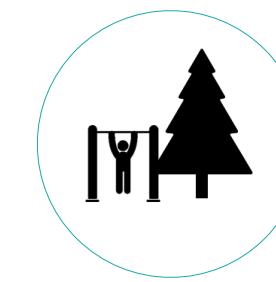
Lifestyle data about Madrid



Dataset Selection



Air Measurements



Elderly Areas



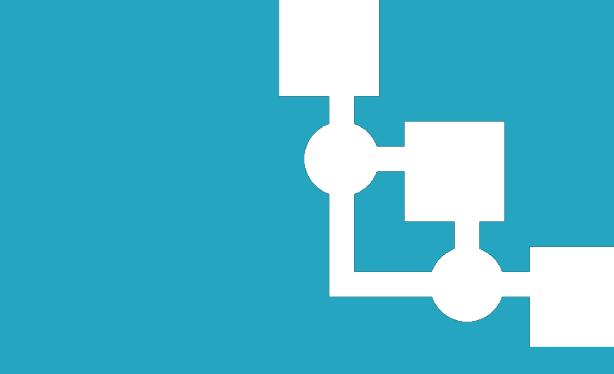
Sport Centers



Schools

License

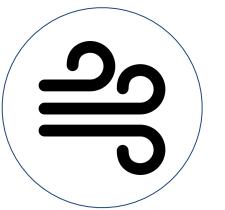
[Open Data Madrid License Link](#)



Ontology Definition

Ontology

Thinking to our Ontology



Air Quality

All the measurements



Stations

Locations and Informations



Sport Centers

Location and Informations



Schools

Location and Informations

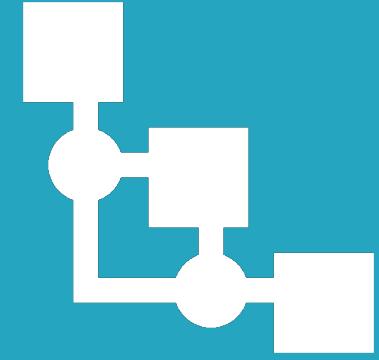


Elderly Areas

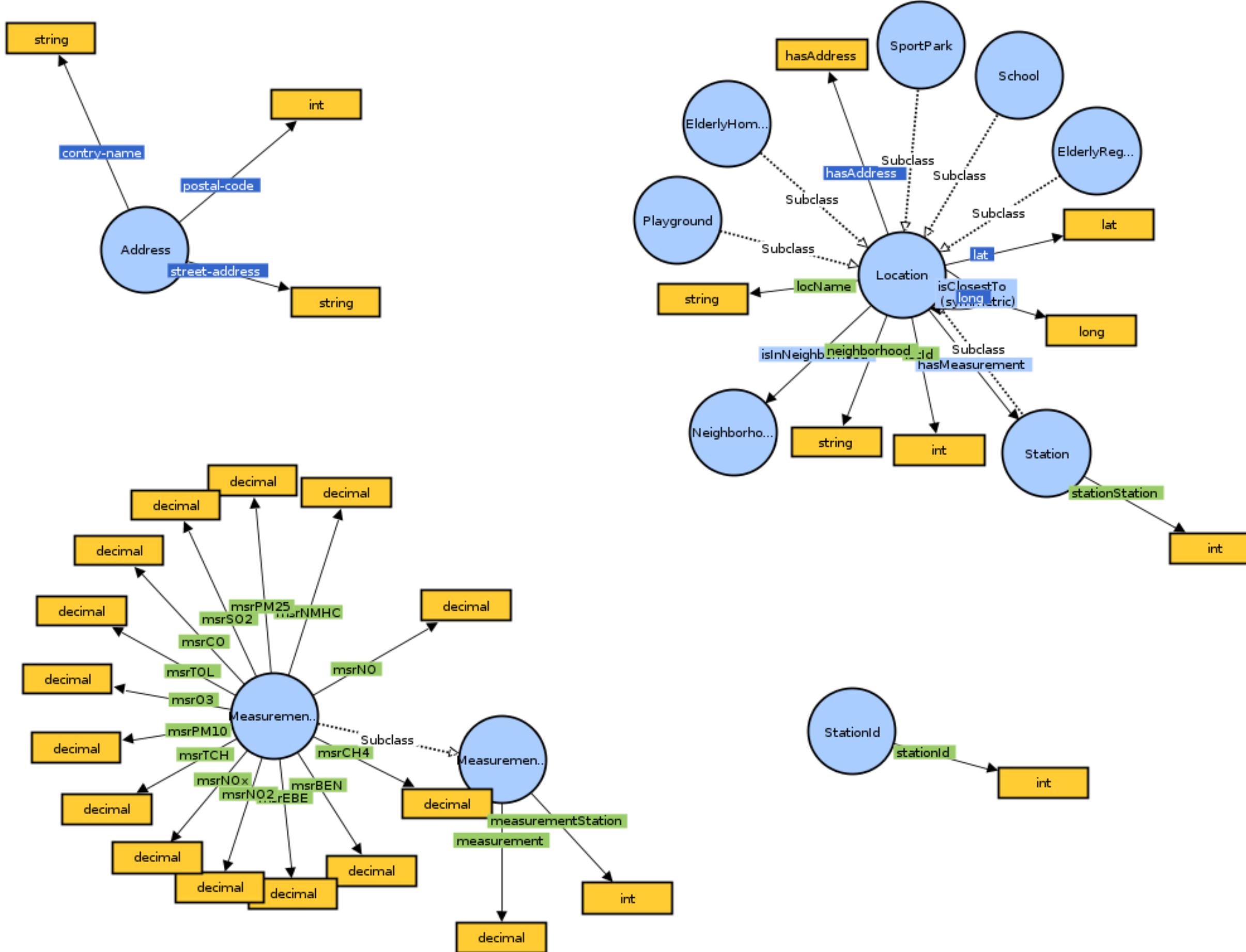
Location and Informations

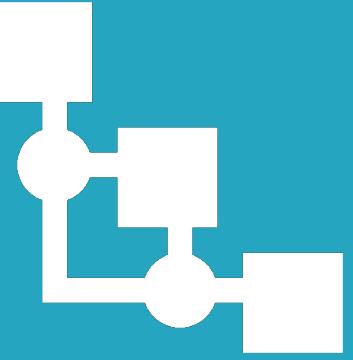
Ontology

Skeleton of our Linked Data



Ontology Definition





Ontology Definition

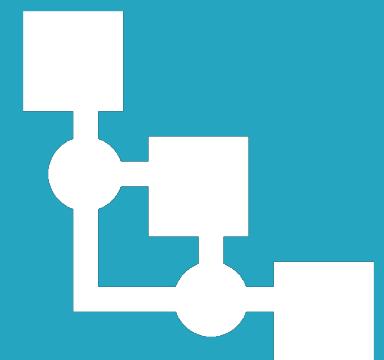
Ontology

Skeleton of our Linked Data

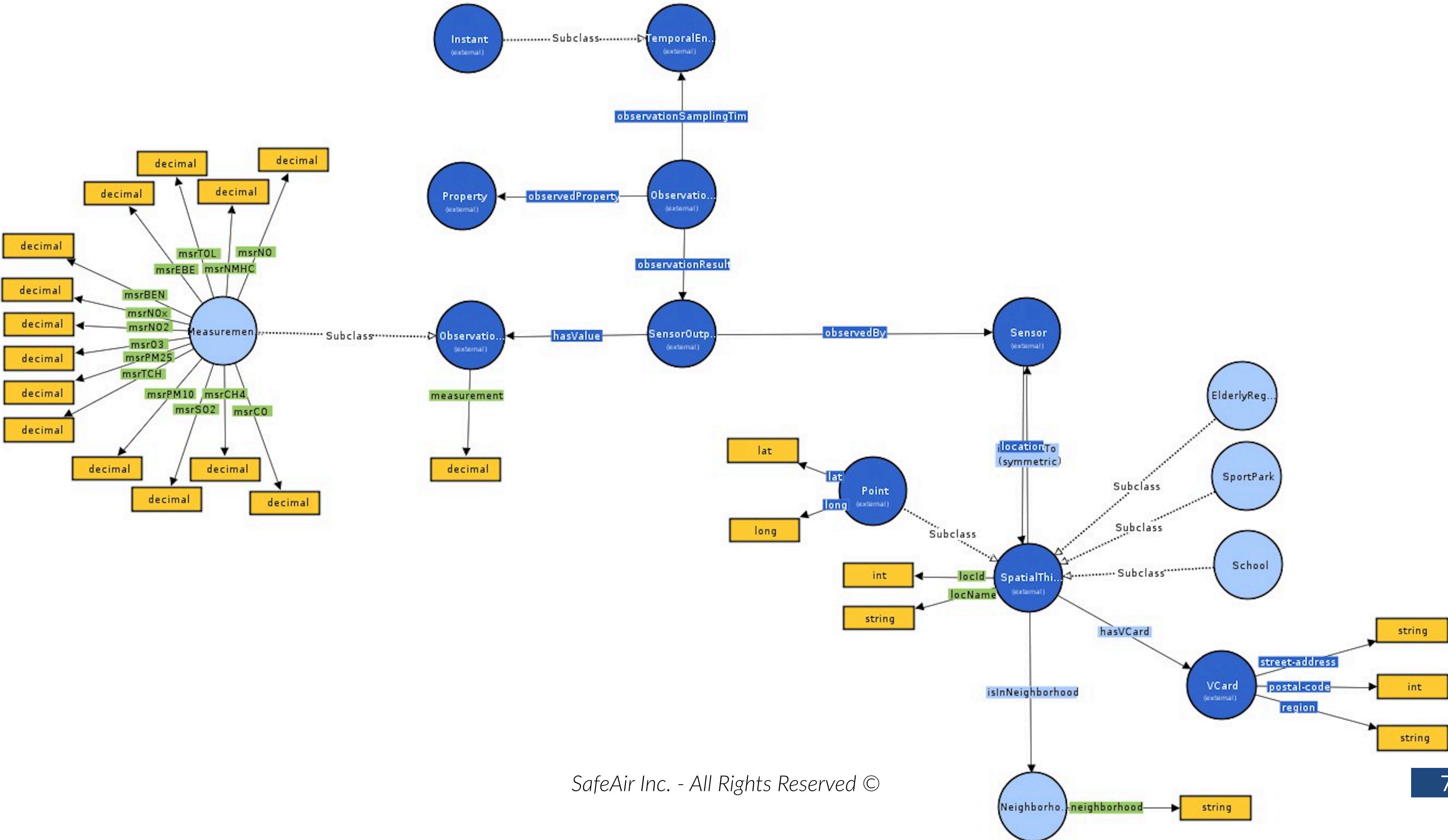
- Ontological terms path:
- <http://safeair.es/project/ontology/safeair#>
- Individuals path:
- <http://safeair.es/project/resources/>
- Ontological terms pattern:
- <http://safeair.es/project/ontology/safeair#>
- Individuals pattern:
- http://safeair.es/project/resources/<resource_type>/<resource_name>

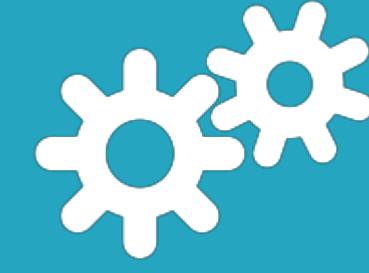
Ontology

Future Changes

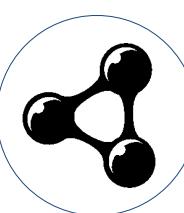


Ontology Definition





Pre-Processing



Linking

Linking our data to already defined resource



Aggregation

Reducing granularity of data



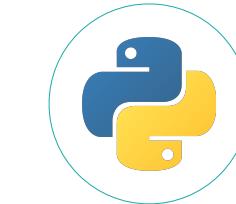
Removal

Deleting useless features



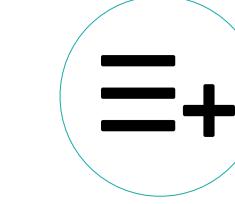
OpenRefine

TOOLS



Python

CLEANING METHODOLOGIES



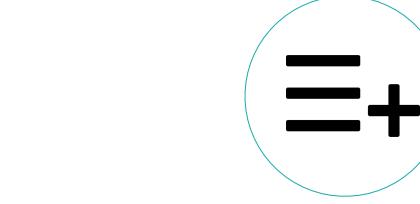
Generation

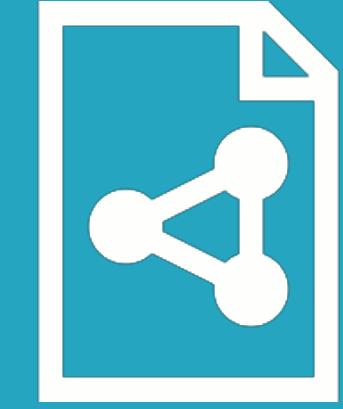
Creating new datasets from those available



Correction

Detection of wrong information

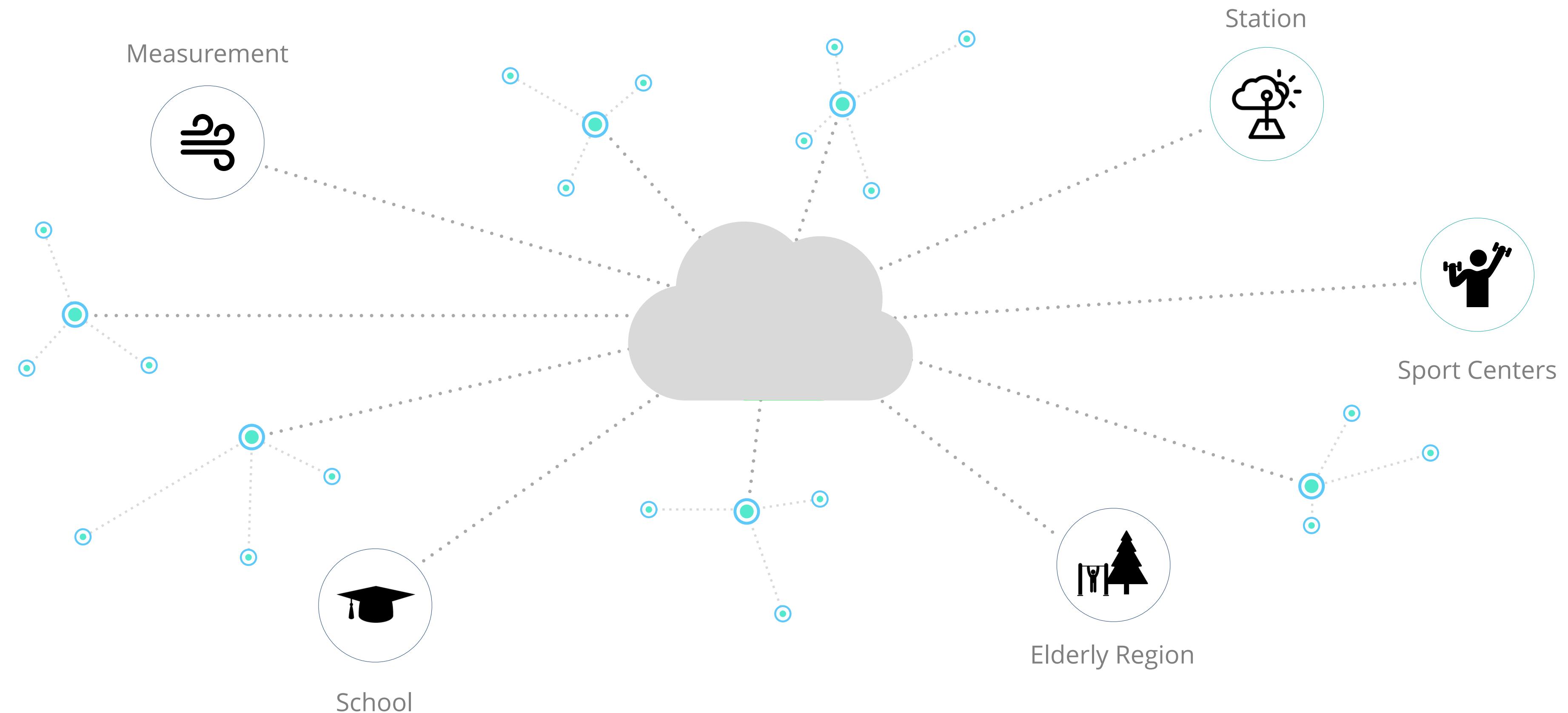




RDFs Creation

A world of RDFs

They are ready to be queried





Demo

Try our Demo

It is online!

The screenshot shows the homepage of the Safeair website. At the top, there is a dark blue header bar with the word "SAFEAIR" in white. Below the header, the main content area has a background image of a blue sky with wispy white clouds. In the center of this background, the text "OPEN LINKED BIG DATA PROJECT" is displayed in large, bold, white capital letters. Below this title, a smaller line of text reads: "Using Open Linked Big Data to investigate Air Quality for high-risk population groups around Madrid." At the bottom of the page, there is a teal-colored button with the white text "FIND OUT MORE".

*Safeair and the Safeair logo are trademarks of Safeair Inc., registered in Europe and other countries.
www.safeair.es and the demo offered are service marks of Safeair Inc.*

All Rights Reserved ©

Try our Demo

It is online!

We use SPARQL to retrieve our information!



Demo



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www.safeair.es and the demo offered are service marks of Safeair Inc.*

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Performance

We care about our process

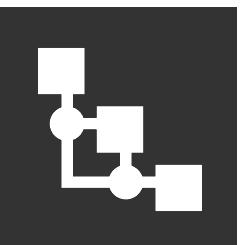
Recap of phases quality



Dataset Selection



- Open Data
- Free License
- Meaningful



Ontology Definition



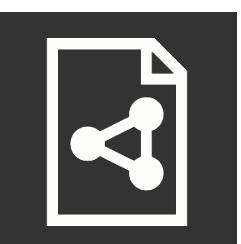
- Standard Perspective



Pre-Processing



- Correction
- Aggregation
- Linking



RDFs Creation



- Multiple RDFs



Demo



- Web-Based
- SPARQL



Team

Our Team



BOY RAAIJMAKERS

Data Scientist



GIOELE BIGINI

Data Scientist

You have just listened to us!

About Open Linked Big Data

Our thoughts

That's all Folks!

Conclusions

- Doing more for our project in the future
- Interesting how data can be provided
- Growing context



POLITÉCNICA



SAFEAIR MADRID

#WeAreSafeair