

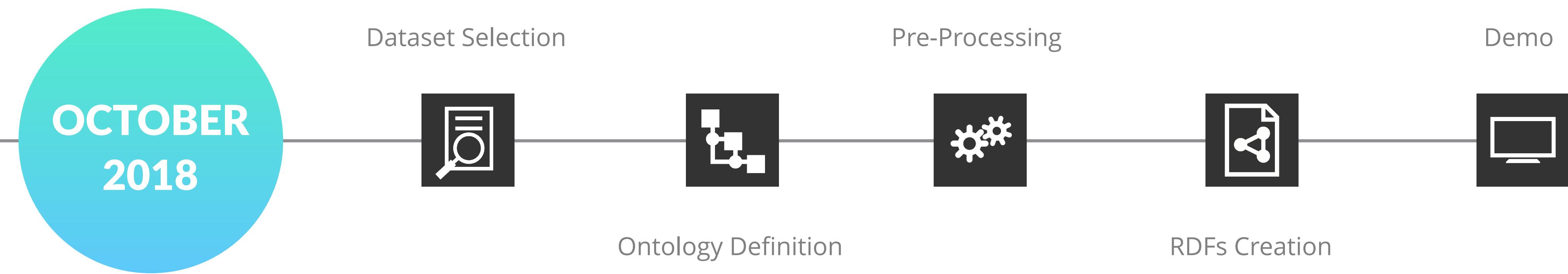
A wide-angle photograph of a city street at dusk or night. In the center background stands the ornate dome of the Metrópolis building, topped with a statue of an angel. The street in the foreground is blurred, showing streaks of light from moving vehicles, creating a sense of motion. The buildings lining the street are classical in style, with many windows and architectural details visible against a darkening sky.

# SAFEAIR

We care about your breath

# Roadmap

All the steps we followed

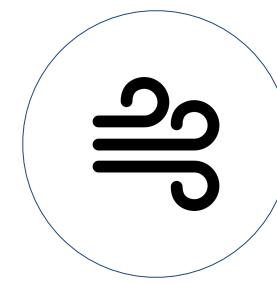


# Madrid Open Data

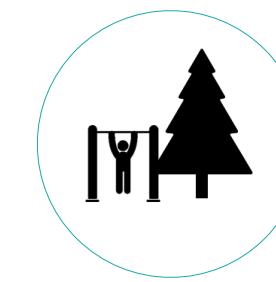
Lifestyle data about Madrid



Dataset Selection



Air Measurements



Elderly Areas



Sport Centers

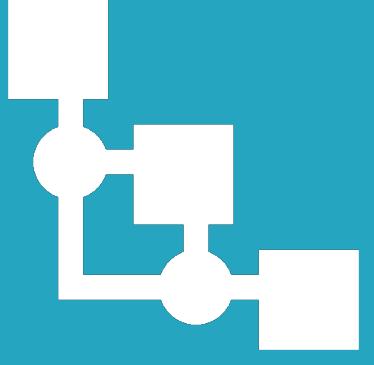


Schools

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



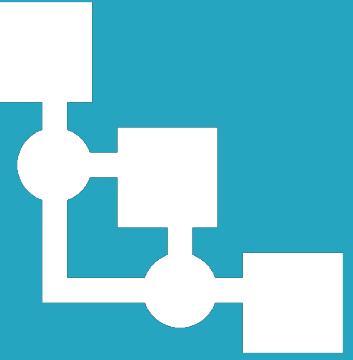
Schools

Location and Informations



Elderly Areas

Location and Informations



## Ontology Definition

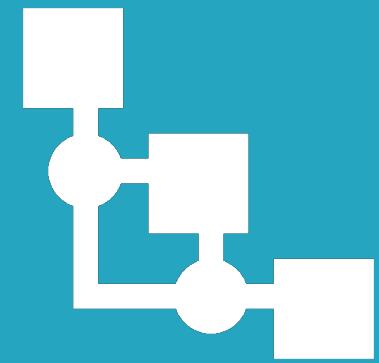
# Ontology

Skeleton of our Linked Data

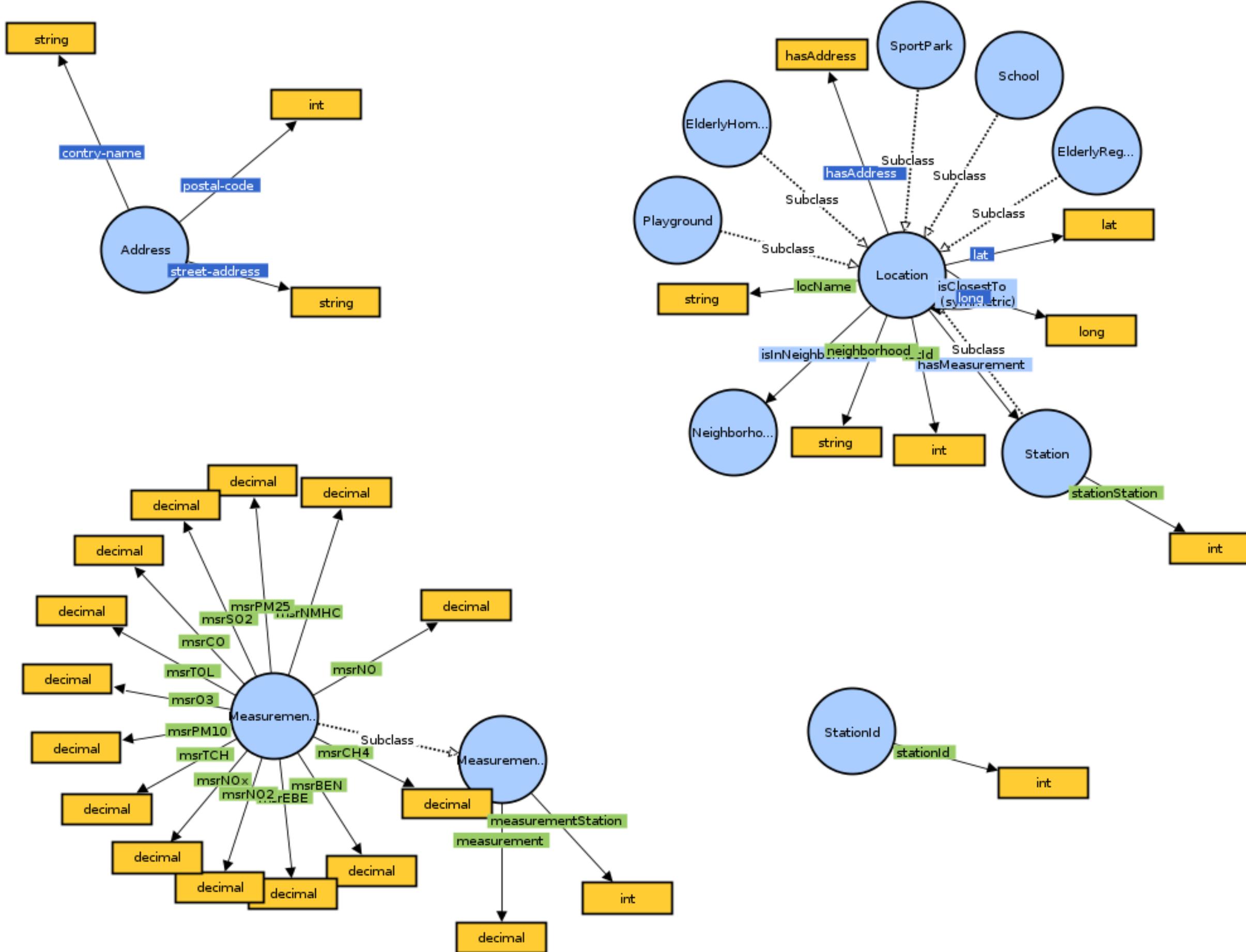
- Ontological terms path:  
- <http://safeair.es/project/ontology/safeair#>
- Individuals path:  
- <http://safeair.es/project/resources/>
- Ontological terms pattern:  
- <http://safeair.es/project/ontology/safeair#>
- Individuals pattern:  
- [http://safeair.es/project/resources/<resource\\_type>/<resource\\_id>](http://safeair.es/project/resources/<resource_type>/<resource_id>)

# Ontology

## First Ontology Version

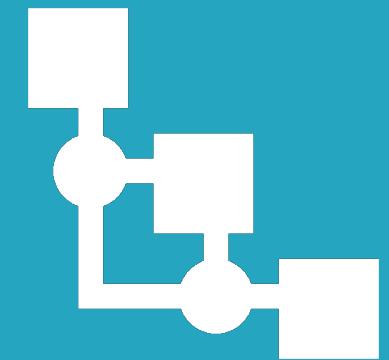


Ontology Definition

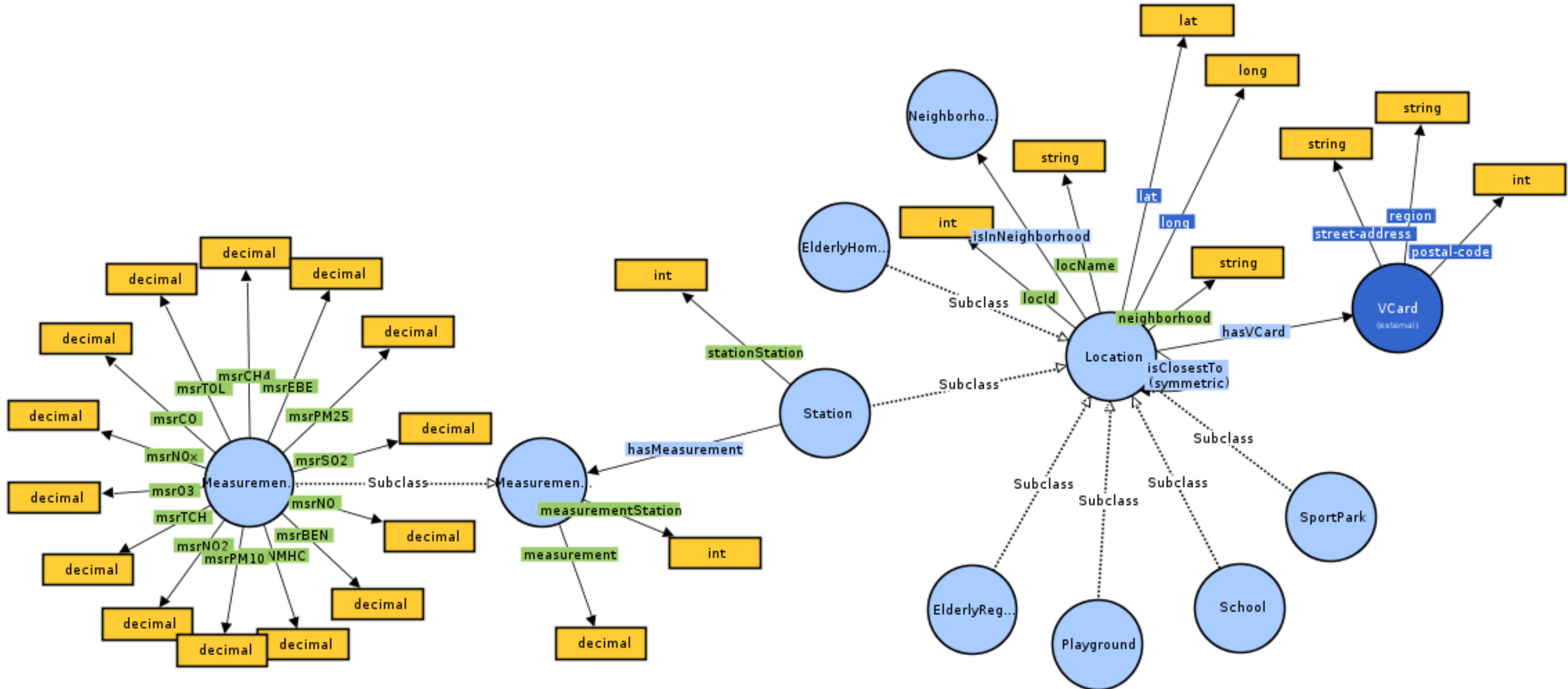


# Ontology

## Second Ontology Version

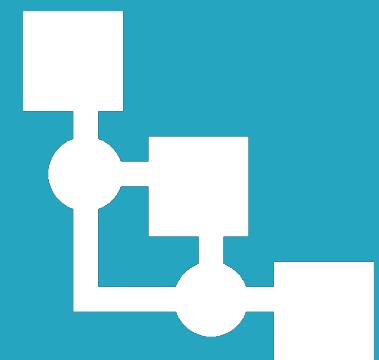


### Ontology Definition

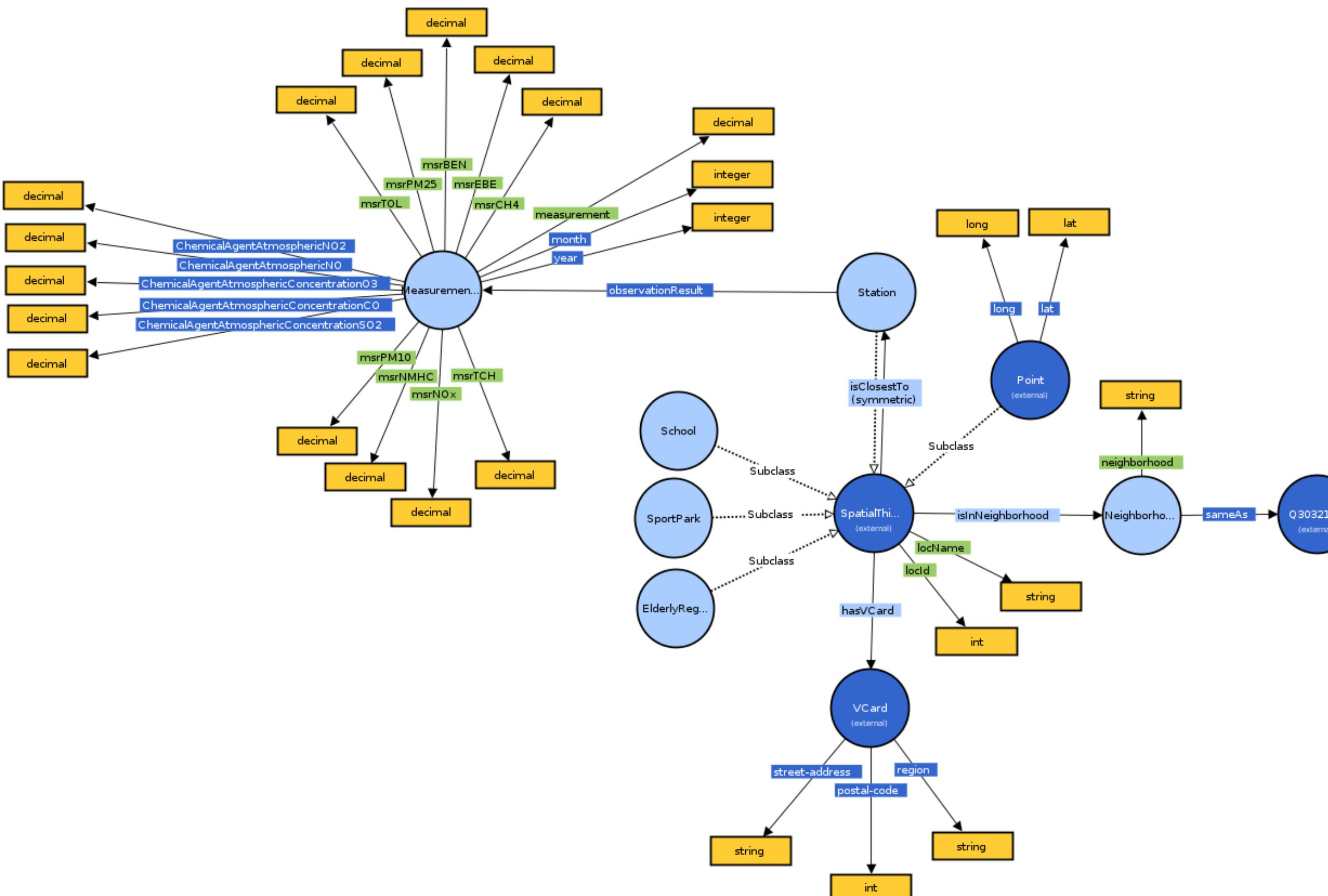


# Ontology

## Current Ontology Version

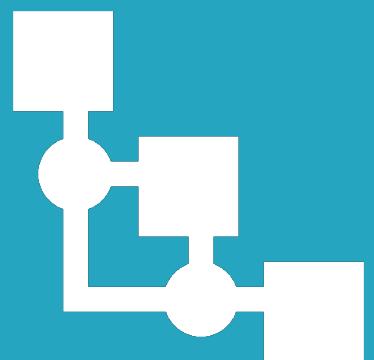


Ontology Definition

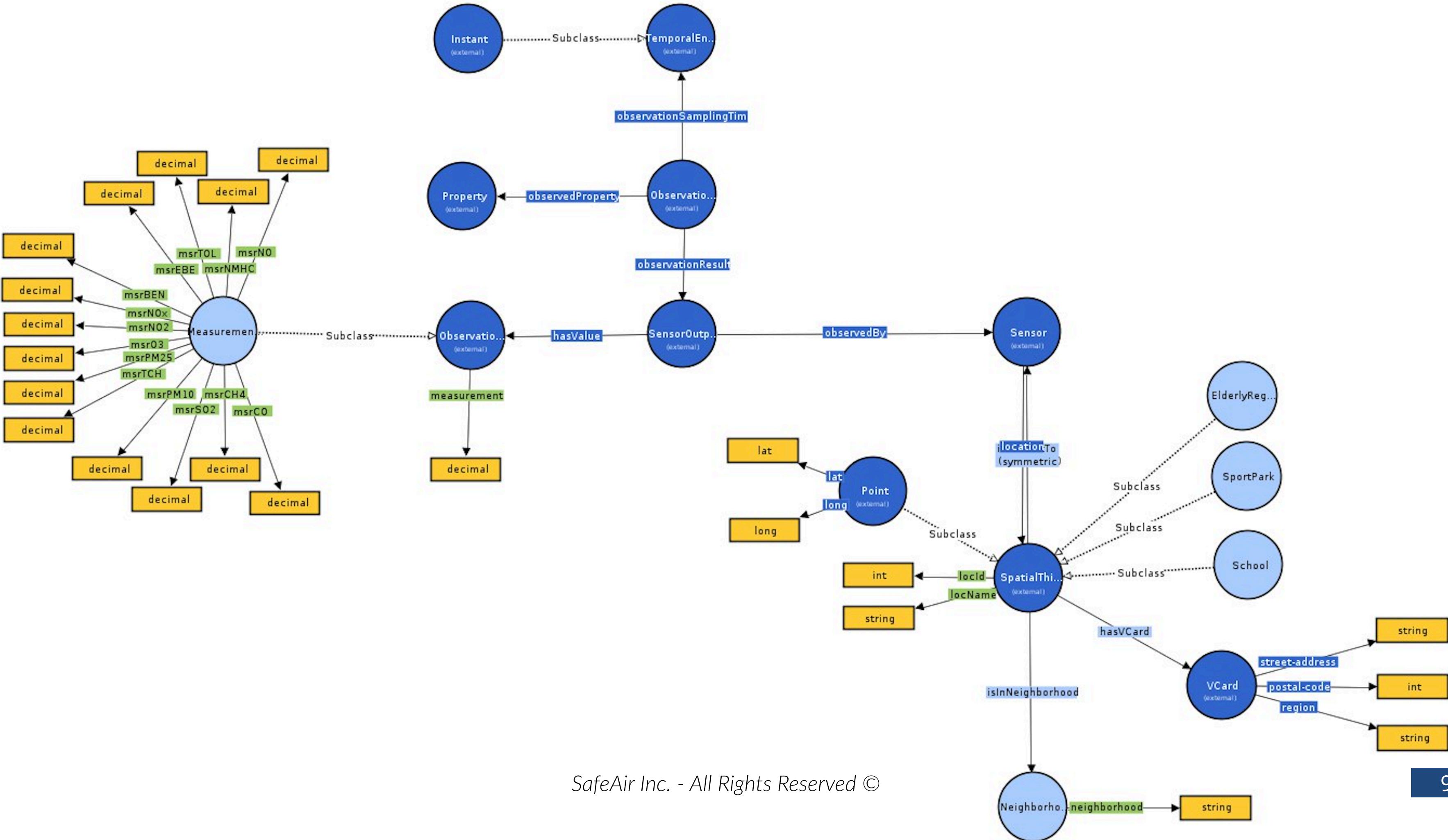


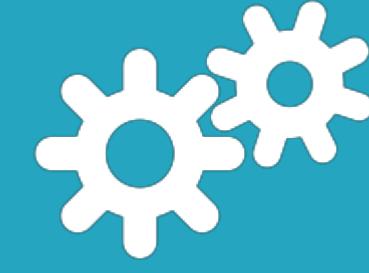
# Ontology

## Future Changes



### Ontology Definition





## Pre-Processing



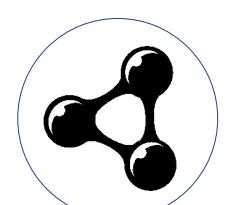
### Removal

Deleting useless features



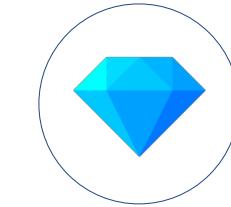
### Aggregation

Reducing granularity of data

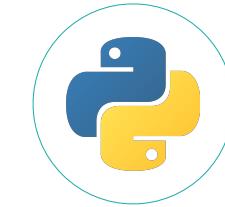


### Linking

Linking our data to already defined resource



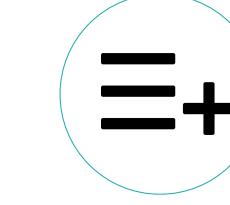
## OpenRefine



## Python

## TOOLS

## CLEANING METHODOLOGIES



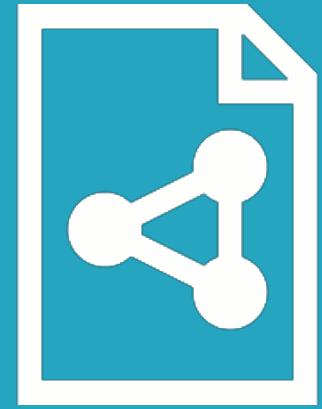
### Generation

Creating new datasets from those available



### Correction

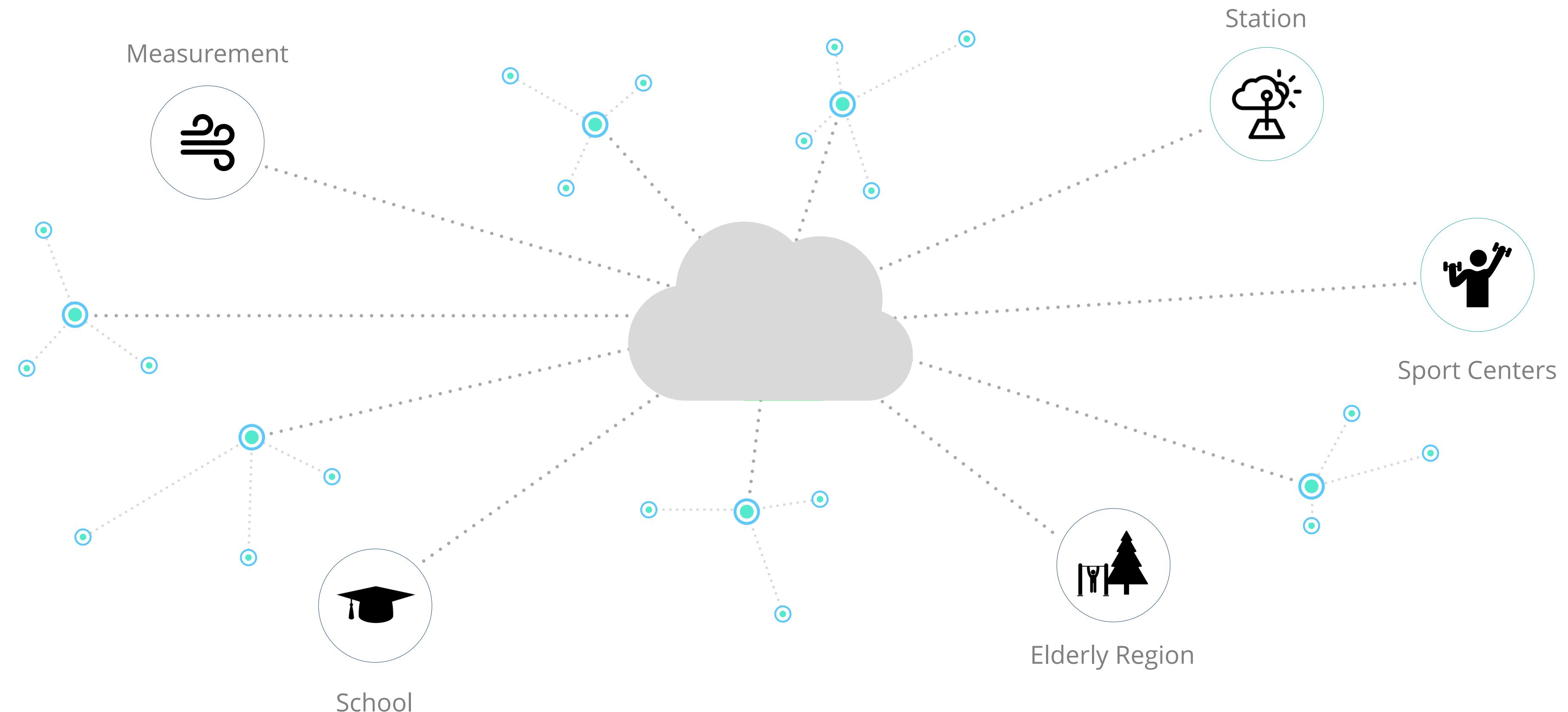
Detection of wrong information



RDFs Creation

# A world of RDFs

They are ready to be queried



# Let's try our Demo



Demo

The screenshot shows the homepage of the SafeAir website. The header features the word "SAFEAIR" in white on a dark blue background. To the right are navigation links: "ABOUT", "SAFETY VALUES", "DATA SOURCES", and "TEAM". The main title "OPEN LINKED BIG DATA PROJECT" is displayed in large, bold, white capital letters. Below it is a subtitle: "Using Open Linked Big Data to investigate Air Quality for high-risk population groups around Madrid." A "FIND OUT MORE" button is located at the bottom right of the main content area. The background of the page is a photograph of a blue sky with wispy white clouds.

*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.*

# Let's try our Demo

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.*

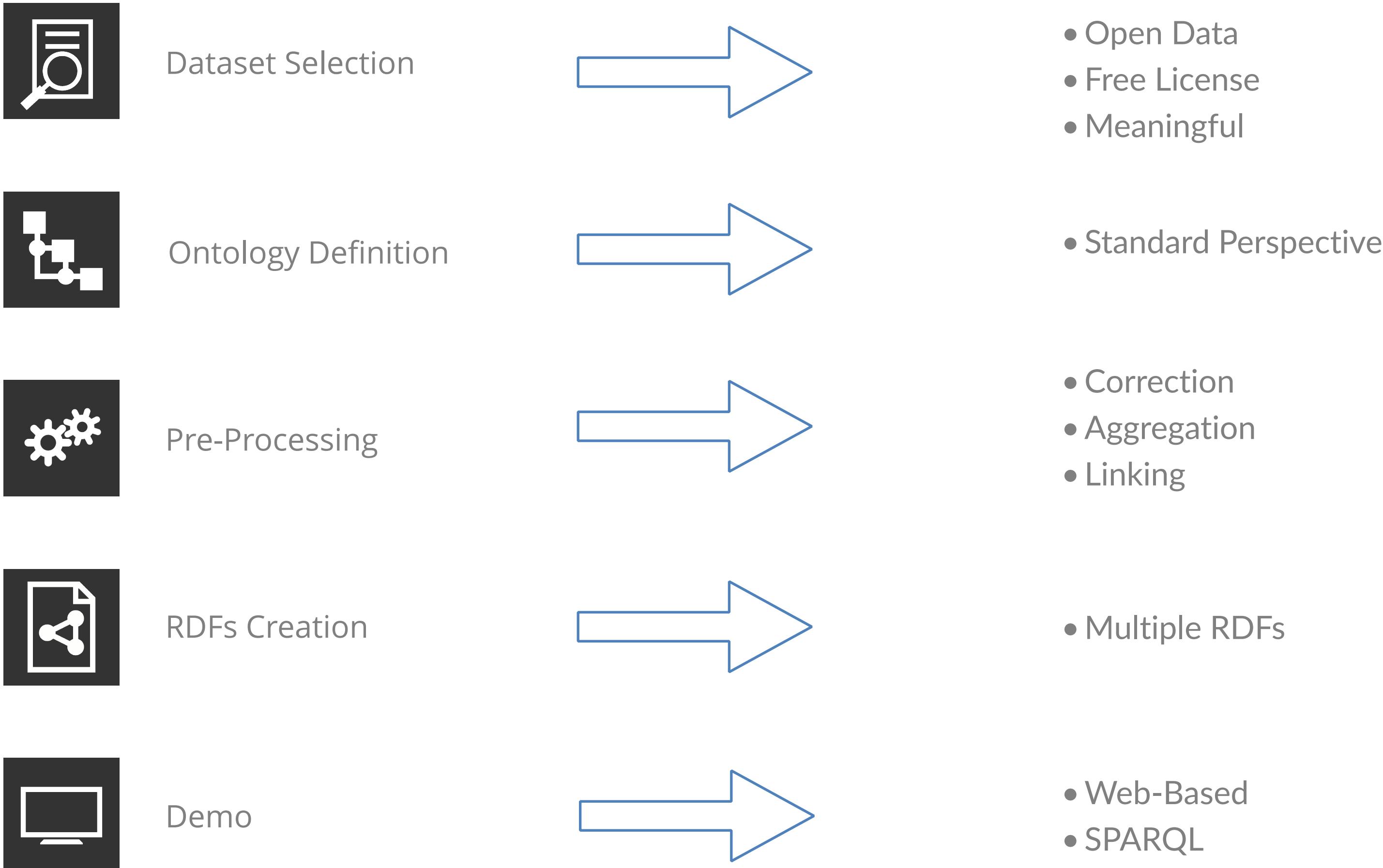


Performance



# We care about our process

Recap of phases quality





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

- The power of Linked Data
- The relevance of Open Data
- From data to user experience
- Growing context



POLITÉCNICA



**SAFEAIR MADRID**

#WeAreSafeair