

### 1) Presentation of the dataset

We study the dataset “Toilettes publiques”, available on the Paris open data portal and produced by the Paris Municipality. The website indicates that it has been created in November 2019 and published in April 2011. We assume that some database censused public sanitation for eight years, but the current files have been upload in November. It is frequently updated, as the last modifications have been done on December, the 2nd 2019. As the data collection process is not indicated, it is not a participatory process. Therefore, the municipality not having enough workforce<sup>1</sup>, we guess that the data are provided by the three public organisms in charge of the sanitations.

The dataset is very well documented, the data being available in six formats, all operational. The granularity is very fine, containing the geographic coordinates of every facilities. Most of the information are understandable and machine readable, except the opening hours column, which provides either an URL or the information in different formats (24/24 or 6h - 1h).

### 2) The issues of open data about public sanitation

This dataset illustrates the importance of the reusable criterium in open data principles. The Paris open data website fosters the reuse of the datasets and even offers visibility to projects based on their data<sup>2</sup>. It is published over “Open Data Commons Open Database License” (ODbL), which authorizes the sharing and reusing. This dataset has been reused a lot. The main accessible format for the public is mobile application. The open data policy shows its efficiency: in 2013, the app “où faire pipi à Paris” was a private project and delivered less data (around 200 facilities) for 0.83€ and has been download more than 10 000 times<sup>3</sup> ! Nowadays, we found two free apps based on this dataset<sup>4</sup>. For comparison, we downloaded every free apps for android claiming to deliver a map of public toilets in Paris (eight), and it appears that these two were from far the most complete ones.

Moreover, this data set has been published on two other open data portals (open data gouv<sup>5</sup> and RATP<sup>6</sup>), which makes it very easy to find. Through the RATP website, it has been downloaded until 10 times more than through the Parisian website. The RATP even computes a chart analyse of the number of toilets per arrondissements.

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<sup>1</sup> “Le projet mobilise 15% du temps de 3 personnes et récemment un apprenti a rejoint l'équipe.”, <https://opendata.paris.fr/page/faq/>

<sup>2</sup> <https://opendata.paris.fr/pages/les-reutilisations/>

<sup>3</sup> “L'application “Où faire pipi à Paris ?” gratuite à l'occasion de la Journée mondiale des toilettes”, *Le Parisien*, 2013

<sup>4</sup> “Toilettes à Paris”, developed by Magetys and “WC à Paris” developed by wpetit.

<sup>5</sup> <https://www.data.gouv.fr/fr/datasets/sanisettes-ville-de-paris-donnees-geographiques/>

<sup>6</sup> “Sanisettes Ville de Paris - Données géographiques”, <https://datarotp2.opendatasoft.com/>

So, this dataset respects every open data principles. But we will wonder if it can be understood also in an open government dynamics, and thus foster the accountability of public organisms.

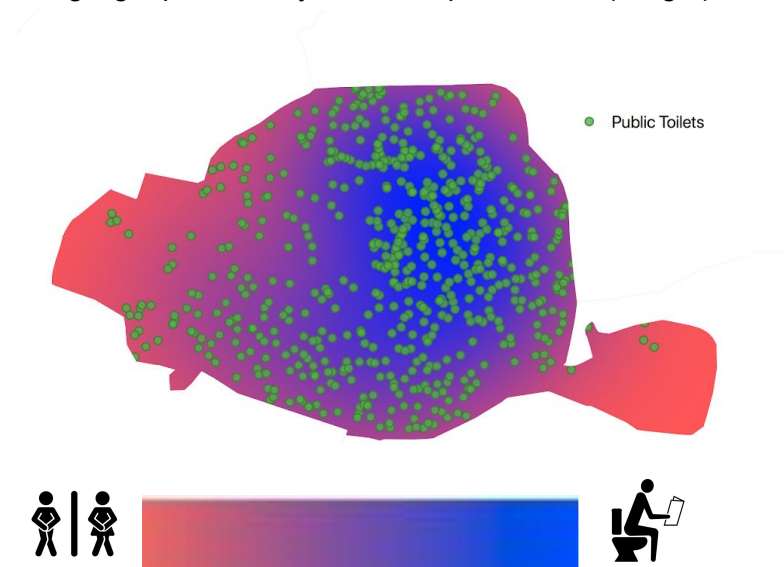
### 3) The public sanitation as a political issue.

The dataset identifies five types of toilets. The most numerous (418) are the 'sanisettes'. They are financed through a PPP with *JCDecaux* and free since 2006. Then the 167 public toilets and 7 permanent toilettes are facilities available in green spaces and are completely financed by the municipality. The 3 lavatories are paid concessions.

We found out doing research that the question of public sanitation is political. It raises debates such as health, environment, gender and economic issues.<sup>7</sup> We thus draw the hypothesis that their territorial distribution over the municipality might be talkative.

### 4) The outcome of the analysis.

We first aimed to assess the spatial repartition of the sanitation. We computed a map to highlight potential dynamics or polarisation (cf fig.1).

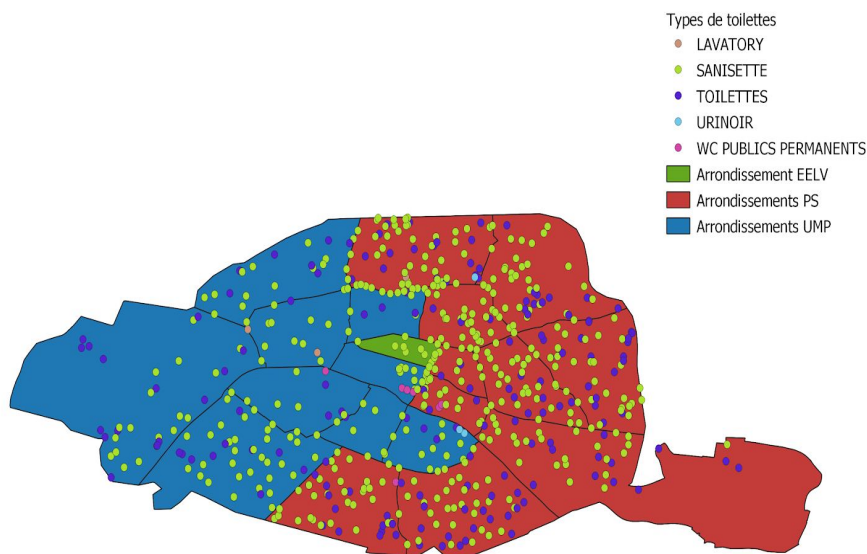


*Fig. 1. Density of public toilets over the Paris territory*

The polarisation of the sanitation at the east is striking. However, according to the municipality, the most used sanitations are located in the touristic areas, naming the west<sup>8</sup>. We thus tried to find an explanatory variable. We illustrated the distribution of types of sanitation over the arrondissements and noticed a correlation with the political party of the

<sup>7</sup> "Toilettes publiques : un enjeu de propreté majeur pour les villes", *Les Echos*, Nov. 2018

<sup>8</sup> "Journée mondiale des toilettes: quelles sont les sanisettes les plus utilisées à Paris?", *France3 régions*, 2013



Politique municipale et service publique d'hygiène

mayor of each

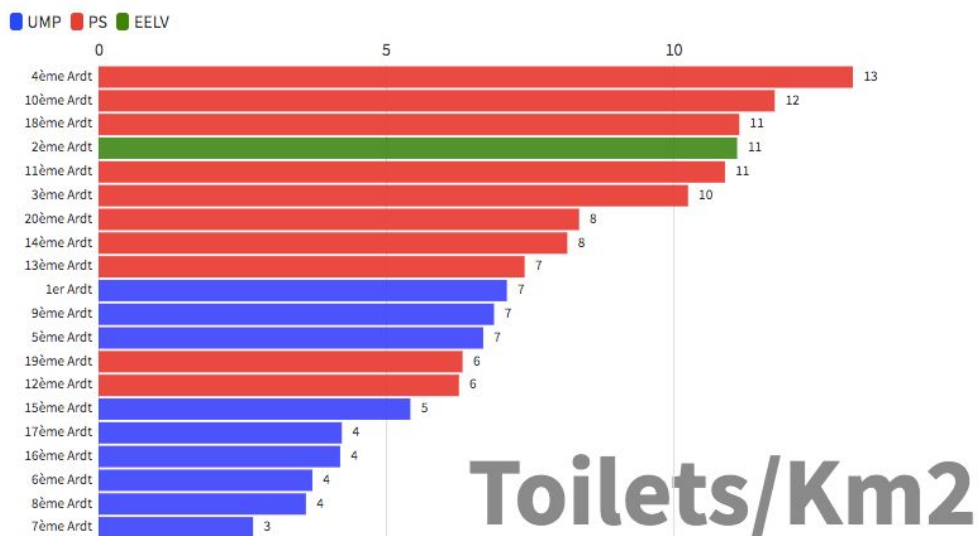
arrondissement (cf fig. 2).

Fig. 2: "politiques municipales et service public d'hygiène. Source du fond de carte: APUR. Source pour les partis politiques: wikipédia

Finally, we produce a chart to assess the number of toilets per square kilometers in every arrondissements, and confirm our observation (cf fig.3)

## Parisian arrondissements

Winner at 2014 municipal elections



Source: open data paris

*Fig. 3 : Classement des arrondissements selon le nombre de toilettes publiques par kilomètres carrés*

#### 4) Conclusion

So, the quality of the dataset and its open license allow the public to access precise and useful information, and to highlight a correlation between the repartition of public toilets and arrondissement mayors' parties. However, as the facilities are managed at a municipal scale, explanations are still to find. For this dataset to take part of a real open-government policy, answers are still needed. Is JCDecaux responsible for the distribution? Are establishment of public toilets the result of negotiations between the municipal and arrondissement councils? Finally, no public contribution is suggested, to update the data or to inform the authorities about the the population's expected places for new facilities.