



PROJECT PROPOSAL

Group 4

EL ABBASSI WIDAD
JIAYI LIN

XIAO LUO
AZIZ NABIL

Domain of interest

Why are you interested in this field/domain?

Today, we live in a world that already start converging towards 5G, this technology that will not only be focused on consumers and personal communication but also companies and will take the Internet of Things to the next level. However, we need to keep in mind that even with this technological advances, there are still certain areas in countries that don't even have the 3G technology coverage, therefore it's a good idea if we start by identifying the mobile network coverage for each technology before jumping to others, this way we will have a clear idea about mobile networks situation in today's world and the measures taken in order to improve the mobile connectivity in the country.

What other examples of data driven project have you found related to this domain (share at least 3)?

The telecommunication industry enable one of the most essential services to humans and organizations: the ability to communicate intra and cross borders.

As example of today's world projects in this field, we have:

- 5g deployment
<https://5g-ppp.eu/projects/>
- IoT Internet of things
<https://european-iot-pilots.eu/>
<https://ec.europa.eu/digital-single-market/en/research-innovation-iot>
- Smart cities
<https://european-iot-pilots.eu/projects/>
<https://ec.europa.eu/digital-single-market/en/news/europe-advancing-5g-new-wave-projects-launched-accelerate-5g-take-vertical-industries>

What data-driven questions do you hope to answer about this domain (share at least 3)?

- Does 2G technology still playing an important role in mobile communication?
- Are there signs of 3G technology will reach a full coverage soon?
- Is the quality of services (sms, calls, streaming, download...) in rural areas is the same as in transportation network (metro, highway, trains...)?
- If I'm going for my holidays to an area X, which provider should I choose? which one of them provide full network coverage there ?
- Is it a good idea to start deployment projects for 5G while we still lack full coverage of the old technologies?

Finding Data

- **Where did you download the data (e.g., a web URL)?**

<https://www.data.gouv.fr/fr/datasets/mon-reseau-mobile/#>

- **How was the data collected or generated? Make sure to explain who collected the data (not necessarily the same people that host the data), and who or what the data is about?**

The data was collected and gerated by ARCEP authority, which is The Regulatory Authority for Electronic Communications, Post and Press Distribution in France.

The dataset identifies/locates the mobile antennas of the four carriers in France and the availability of different technologies (2G, 3G, 4G) on these sites.

- **How many observations (rows) are in your data?**

The dataset contains 69964 Observations.

➤ **How many features (columns) are in the data?**

The dataset contains 10 features.

➤ **What questions (from above) can be answered using the data in this dataset?**

This dataset will allow us to answer some of the questions asked above, but if we link this dataset with others (for example : the two other datasets for QoS according to carriers & QoS in transportation means) we could answer more complex issues.

GitHub repository

https://github.com/elabbassiwiadad/Project_Proposal_GROUP_04