IDF_06 'Advanced technology to optimize the PT offer in line with users' needs'

Objectives of the measure

- **At measure level:**
  - Understand mobility patterns
  - Enrich the analysis of urban and peri-urban mobility with different types of data
  - Identify possibilities of action adapted to the local realities

- **Contributing to city level objectives of:**
  - Offer all the cities a tool that they can use to have a good level of information about the mobility on their territory and identify needs and actions to meet them
  - Give them the possibility to access some data they do not yet have, or overlapped data in order to increase its value
  - Propose a new resource for city and mobility planning and maintenance of roads
  - The mid/long term outcome could be that the cities take actions in favour of clean mobilities, pacification of car traffic, increase of cycling infrastructures, …

  Note: It is however not possible to determine what the local actions will be or what goal they will achieve

Description of the measure

- **Situation before**:

Versailles Grand Parc is composed by 18 cities. Some problematics and orientations are shared by all, and each city also have specific problematics and challenges to address. The data collected, produced and treated by Versailles Grand Parc is communicated to the cities on an irregular basis.

Some cities request the service of Versailles Grand Parc for studies and analysis based on a specific situation, for a specific purpose or for general knowledge. Not all cities are familiar with the diversity of data we are collecting or generating and treating.

Inside Versailles Grand Parc, data is mostly treated in silo or manually overlapped. The service could be more automatized and serve more teams within the Agglomeration.

- **General description:**

This measure consists into the development of a tool called "Observatory of mobility" (a branded name may be used in the future).

Based on artificial intelligence and big data analysis, it will allow for pre-existing sources of data to be overlapped, such as video-protection network paired with an AI software, air quality stations, traffic data, public transport data, cycling infrastructures, …etc., allowing for a cross-analysis.

This innovative tool will bring all this data together and create added value. It will allow to understand of the current state of mobility habits on the territory, and also to identify possibilities of action adapted to the local realities

Planned themes are Mobility, Air quality, Traffic conditions

The research of correlation between observations in order to draw a better portrait of a situation, a better understanding or a plan of action will be made by overlapping different sources of data.

- **Measure outputs:**

  - Design and develop of the "Observatory of Mobility" dashboard with technical specifications
  - Implement use of dashboard, available for local cities and partners
  - Identification of possible actions based on observatory data

- Although we cannot anticipate the actions that will be taken by the cities following observations they will be allowed to make thanks to the Observatory, we expect outputs to concern mostly pacification and thinning of traffic, increase of cycling facilities, reduced delays of intervention on road damages, improvement of air quality.

- **Supporting activities**:

Regular workshops with a group of mayors, constituting the “smart city commission” will be held in order to gather the orientations, needs, and to present the developments and adjust the progress if needed.

- **Interaction with other city measures: UPPER and non-UPPER measures**

This measure is the base for measure IDF_02 and IDF_03. The consolidated observations and collected data of the Observatory will constitute the “base situation” for tests and simulations within the Digital Twin.

In order for all UPPER partners to benefit the work of IDF/Versailles Grand Parc, the specifications of the dashboard will be built and written so that the Observatory is replicable in other situations and locations, and adaptable to different data providers.

Target groups and/or geographical impact areas

- **Target groups:** The eighteen cities of the Agglomeration Versailles Grand Parc, the mayors and municipal teams + partners of UPPER thanks to the replicability of the tool
- **Geographic implementation area:** Territory of Versailles Grand Parc

Stakeholders

- **Versailles Grand Parc (VGP)**: UPPER project territory of implementation; Project pilot; Collects and treats data from multiple sources

- **Cities of VGP**: End users
- **Red Lab**: Data engineering – UPPER partner, developer of the Observatory
- **Île-de-France Mobilités:** Regional transport authority. Data provider
- **IFPEN**: UPPER partner – Digital Twin, data and expert advisory

U-tools support

This measure will not be actively supported by any IT tool od UPPER toolkit.

Link to other UPPER measures

This measure is similar to UPPER measures implemented in other cities, especially:

- **MAN_03:** Data-driven platform for supporting PT planning and operations based on the concept of Mobility as a Right
- **VAL_03:** To optimise public transport offer based on advanced technology
- **OSL_03:** Develop a roadmap for new mobility alternatives and operating models to reduce the private car ownership
- **BUD_01:** To improve the efficiency and convenience of PT service

Process of implementation of the measure

Stages	Description	Intermediate milestones
Design	Define the tabs, bricks and overall design, and the data usage serving these purposes.	- Workshops and iterative work to fit needs of the cities of Versailles Grand Parc - Building of the specifications
Preparation	Implement the links from data providers to the dashboard, collecting and refine data, making sense of correlation researches between sources of data. - Air quality sensors - Waze alerts and Jams - Cameras with AI capabilities to classify assets - Bikes circulation and cycling routes definitions - Public transports lines and usage - Garbage collector - Weather and forecast - Lights and energy consumptions - …	- Technical acceptance process
Implementation	Develop and continuously improve the observatory adding new capabilities and data sources	Display of refined and overlapped data Beta testing Workshops to guide users

Sub-measures and preliminary indicators

Measure	Sub-measure *(if applicable)*	Impact indicators
IDF_06	N/A	- Number of data sources - Number of widgets - Number of profiles created - Number of monthly users - Satisfaction of the cities (end users) (improvement of the level of information they had access to before)