



Sustainable mobility

**Connected Mobility** 



# **CONNECTED MOBILITY**

### **OUR STRENGTHS**

Tried and tested data science expertise.

A development platform, Planet (Transport environmental analysis platform), set up as a common foundation to develop apps dedicated to the environmental analysis of transport?



A website, Mobicloud, assembling mobility-related web services. Mobility data, algorithms and digital tools relating to air quality and connected mobility are accessible via web services made available to IFPEN's customers and partners.

**Web solutions** – Chalk'it and Taipy Designer – offering a dynamic presentation of services:

- linking of IFPEN algorithms (eco-driving, estimation of vehicle fuel consumption and pollutants, etc.) with external data (weather, road traffic, etc.),
- production of visualization and steering dashboards,

• simulation models.

# CHALK'IT: AN OPEN SOURCE PLATFORM TO CONVERT PYTHON CODE INTO WEB APPLICATIONS

Chalk'it is an open-source software platform developed by IFPEN to facilitate the conversion of Python scripts into web applications. It features a synchronous execution engine and runs in a Web browser thanks to Pyidode technology. Numerous widgets are available (Plotly, Matplotlib, Folium, ECharts, Leaflet, Geoman, Vega, D3, etc.).

#### TAIPY DESIGNER: WYSIWYG GRAPHICAL INTERFACE GENERATOR

TAIPY DESIGNER was jointly developed by IFPEN and AVAIGA (the company marketing the solution). The tool is used to create graphical interfaces by simply dragging and pasting widgets in the final application window. Widgets are connected to the Python variables of the code developed with the Taipy library.

A dedicated subsidiary, DriveQuant, specialized in driving analysis web services, proposes various types of web services associated with connected mobility:

- energy analysis
- eco-driving
- safety
- coaching

These services are primarily aimed at insurance companies, to help them optimize risk management: DriveQant's services make it possible to better assess the driver's behavior in order to reinforce usage analysis and provide data for risk calculation models.

## CONTACT



Gilles Corde
Program manager
gilles.corde@ifpen.fr

Connected Mobility: Our strengths

Link to the web page: