





Policies and technologies for sustainable mobility and transport decarbonization

Mario Tartaglia

Head of FS Research Centre

9th June 2023



FS Research Centre

Imagine

Measure

at the same time the work shows the drive to measure the impossible, **imagine** the unattainable, plan the uncertainty.

the Belgian artist Jan Fabre's work «The man who **Measures** the clouds» focuses on the mankind's aptitude for measuring reality in the order to describe and understand it

always imagine

reality by modelling it

researchers in mobility always **MEASURE**

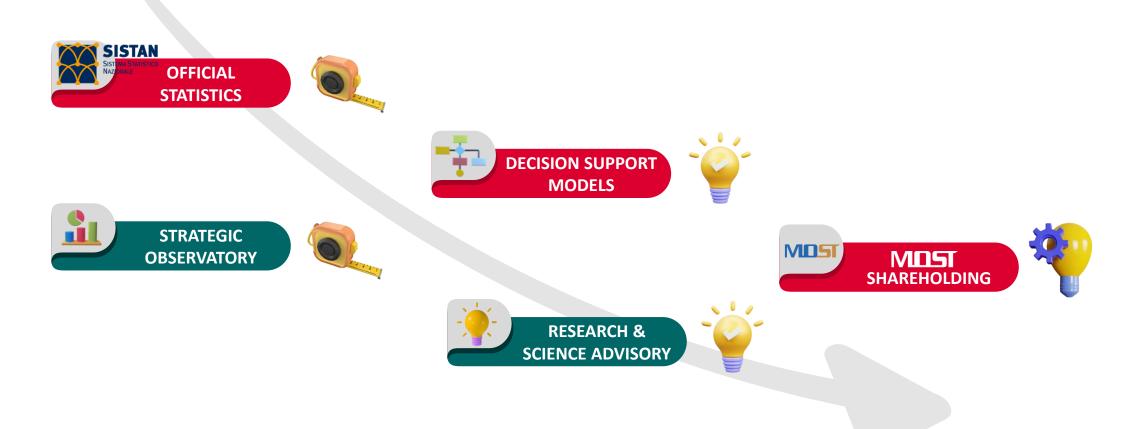
reality using data

But, it's not so easy

.... measure and model people's lives

Anyway, we try!

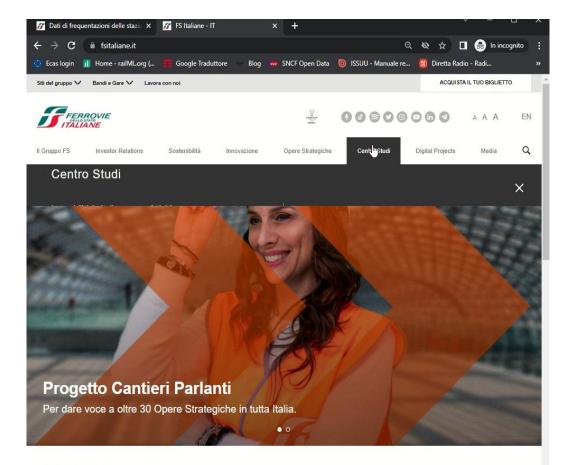
FS Research Centre: the FS Italiane's Group in-house research centre





6

Find out more in our website



IN EVIDENZA



È la bussola che indica la direzione per affrontare le sfide del futuro e

realizzare un ecosistema di mobilità



Source: https://www.fsitaliane.it/

Measure: dealing with data and Big Data



Main mobility data sources

Traditional



Surveys



Travel diaries







Big Data / IOT Data



Mobile Network Data



🤶 Floating car data

GPS (app) data

🞅 Wi-fi field data

Computer vision data



Transportation Industry data



Social Networks Data



Smart card & detectors



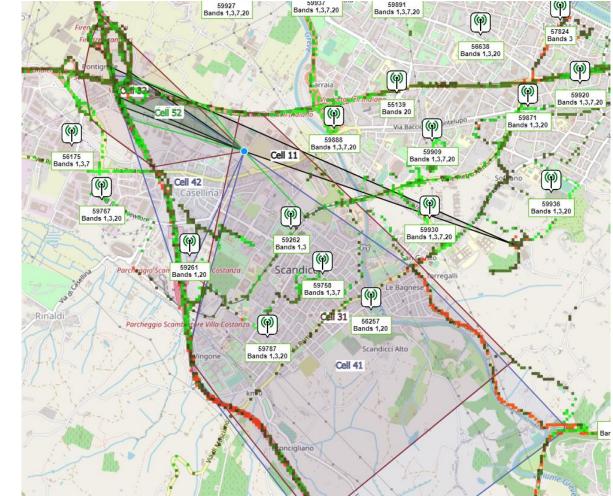
GTFS & supply data

9

Experiencing Mobile Network Data management: highligts

* A not-ready-to-use solution

- * Need for developing an in-depth know-how by means of close interations between data analytics experts, mobile phone operators and transportation scientists
- Tips and improvement needs
 - Develop better algorythms per identifying transport modes
 - Overcome data limitation in *urban areas* due to *spatial low resolution*
 - Be able to manage *live data*





10

Experiencing Mobile Network Data management: opportunities

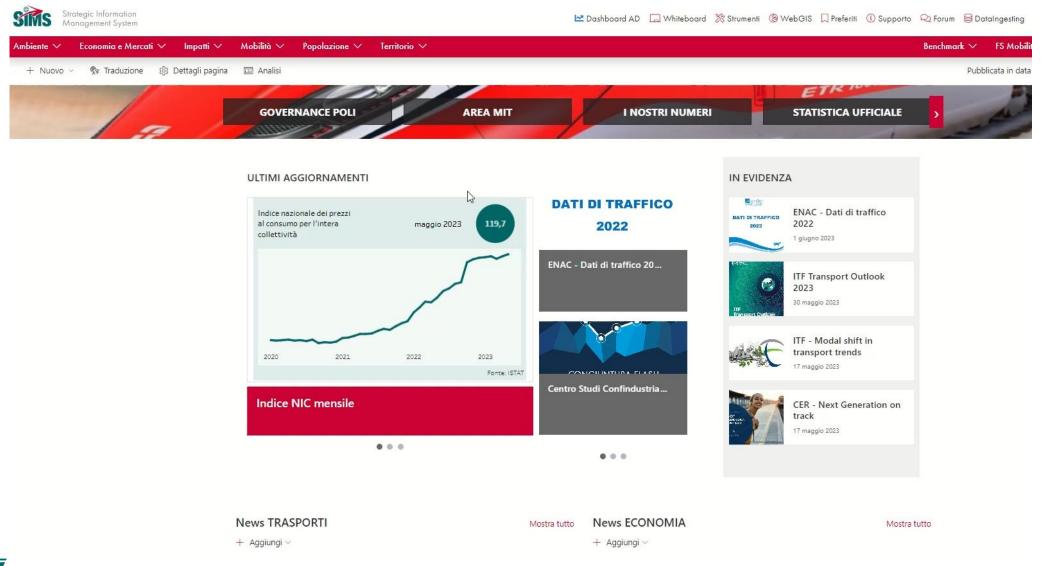
- Data that are cheaper if compared to traditional surveys with equivalent information stock, i.e. without causal information
- Need for setting up guidelines
- Opportunity for easily developing
 data visualization tools for insight
 sharing and dissemination





11

L'esperienza sui Mobile Network Data: strumenti interattivi





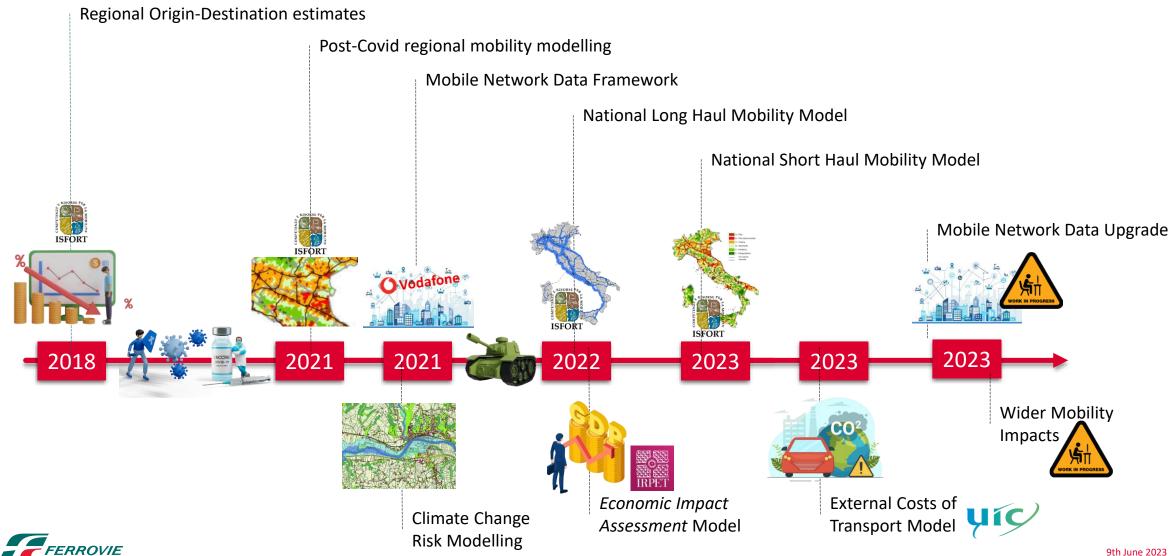
ß

Imagine: mathematical modelling



FS Research Centre

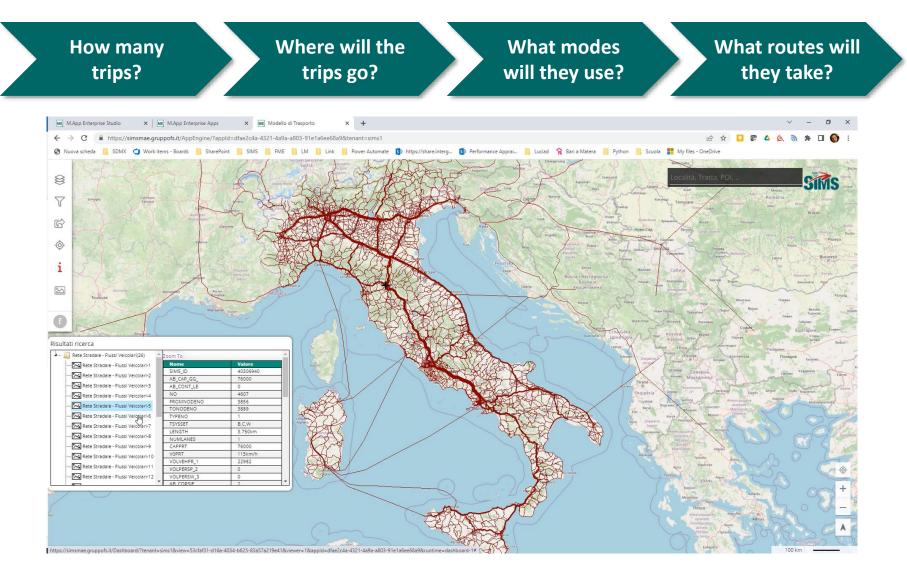
Some models developed by FS Research Centre





Source: FS Research Centre

And now we've got a national mobility model for Italy!







Thanks for your attention

Questions?

m.tartaglia@fsitaliane.it

