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Project: Mapping the World From open data to crowdsourcing and bottom-up society: models, algorithms, and applications

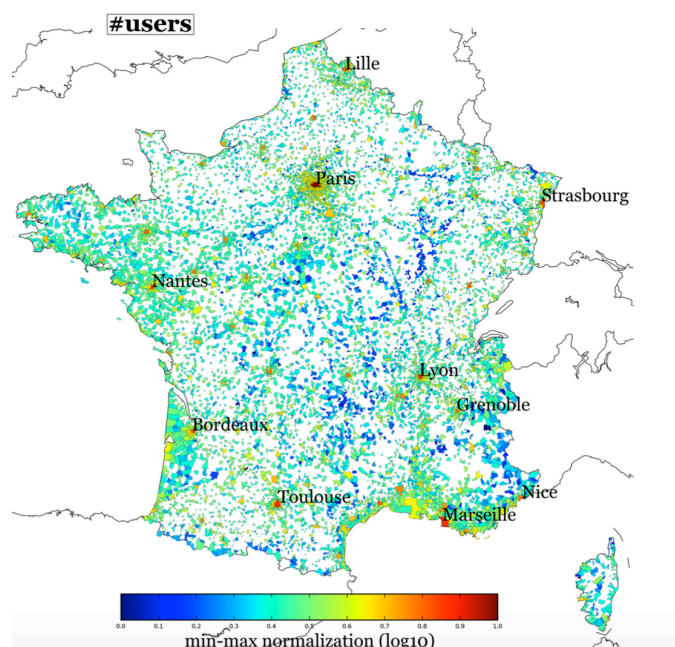## Using mobility data to measure attraction strength of clusters

1) What do we have?

・Anonymised big mobile phone dataset provided for by the French operator Orange

・It consists of CDR data describing 215 millions phone calls performed by 21 million users in France during a period of 45 days (from September 1 to October 14, 2007)

・ Firms create jobs and new firms, attracting labour and capital to its centres.

・ During systematic shocks, like economic crises, it is expected that some clusters will shrink, while others will prove to be resilient.

・Instead of waiting for years for the census data to understand processes that occurred during various stages of economic cycles, we reach to the Big Data.

・Main goal of this research project is to explore how to use mobility data to get further insights in the dynamics of industrial clusters and cities as a whole.

2) Vision for Future

・Develop application for using real time data

・Live prediction and visualisation

・Two projects:

① CIMPLEX - Bringing CItizens, Models and Data together in Participatory, Interactive SociaL EXploratories

②Planetary nervous system - The goal of the Planetary Nervous System is to create an open, public, intelligent software layer on top of the "Internet of Things" as the basic information infrastructure for the emerging digital societies of the 21st century.