

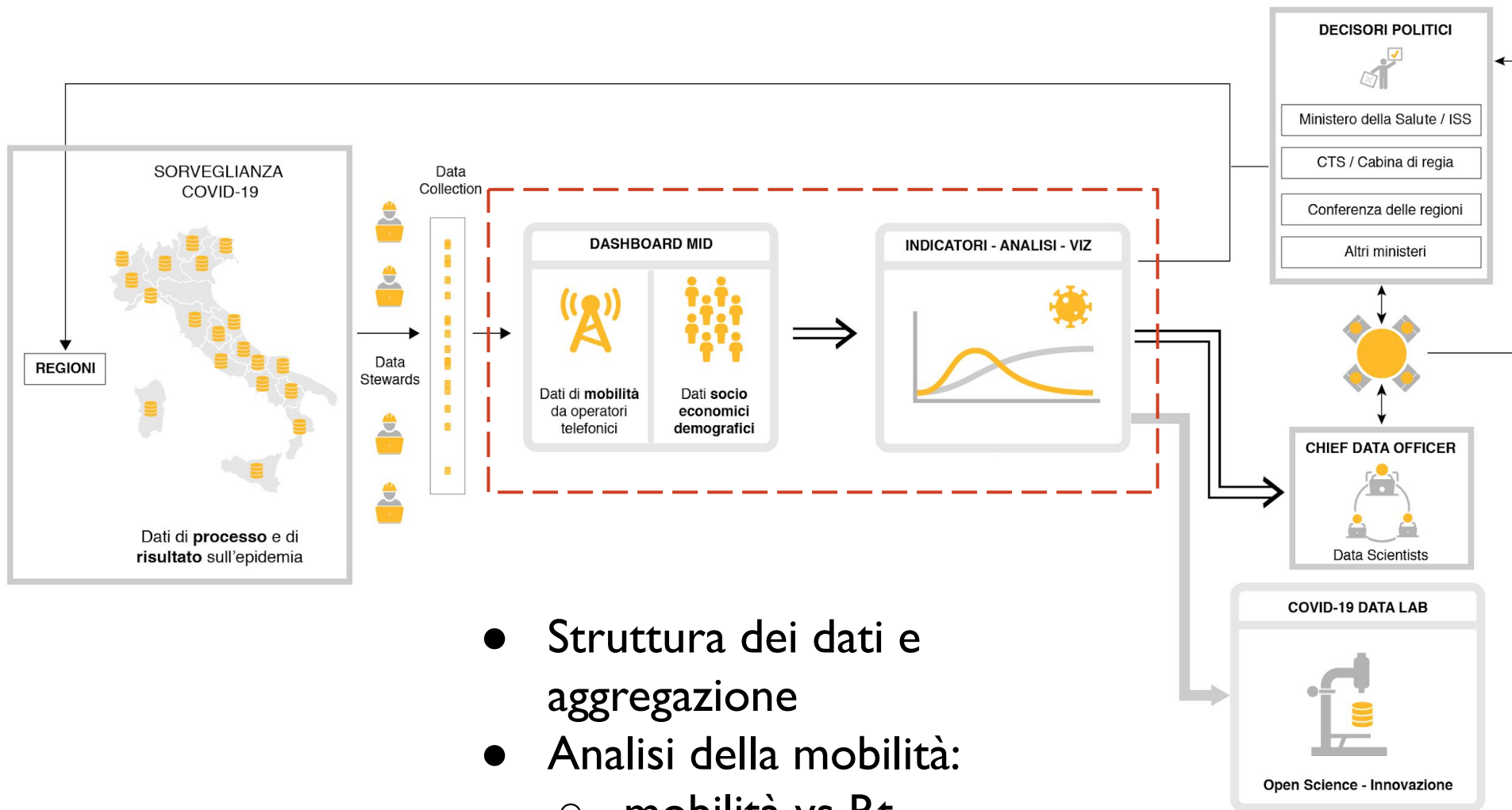
# L'esperienza Big analytics nella task force Covid Big data & AI 2020-21



Consiglio Nazionale  
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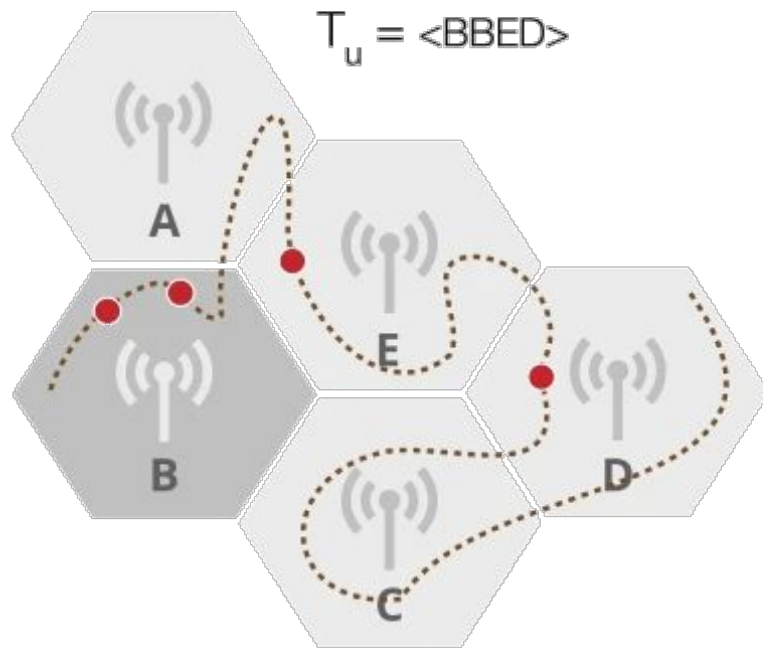
**MINISTRO**  
PER L'INNOVAZIONE TECNOLOGICA  
E LA DIGITALIZZAZIONE



- Struttura dei dati e aggregazione
- Analisi della mobilità:
  - mobilità vs  $R_t$
  - mercati locali del lavoro

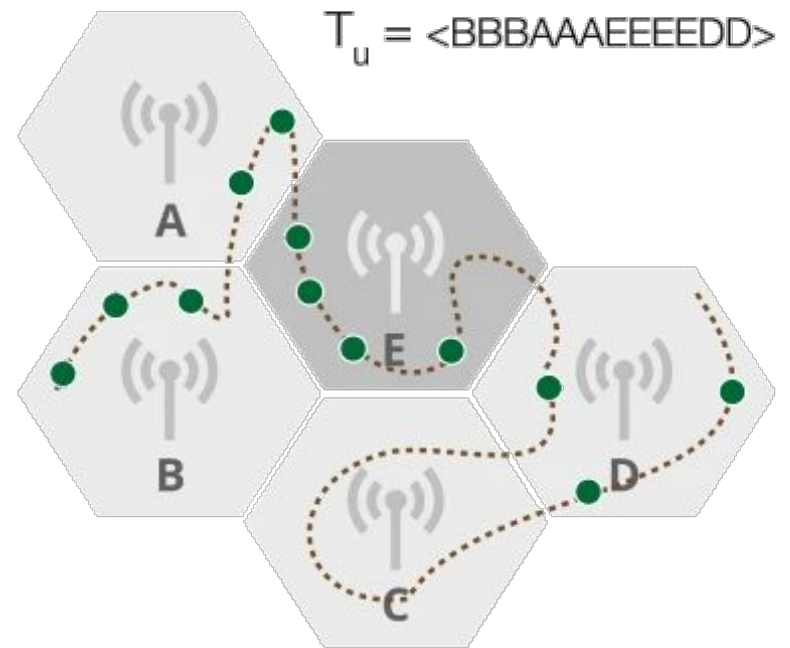
# Dati telefonici (Mobile Phone Records)

● call      ..... User's trajectory

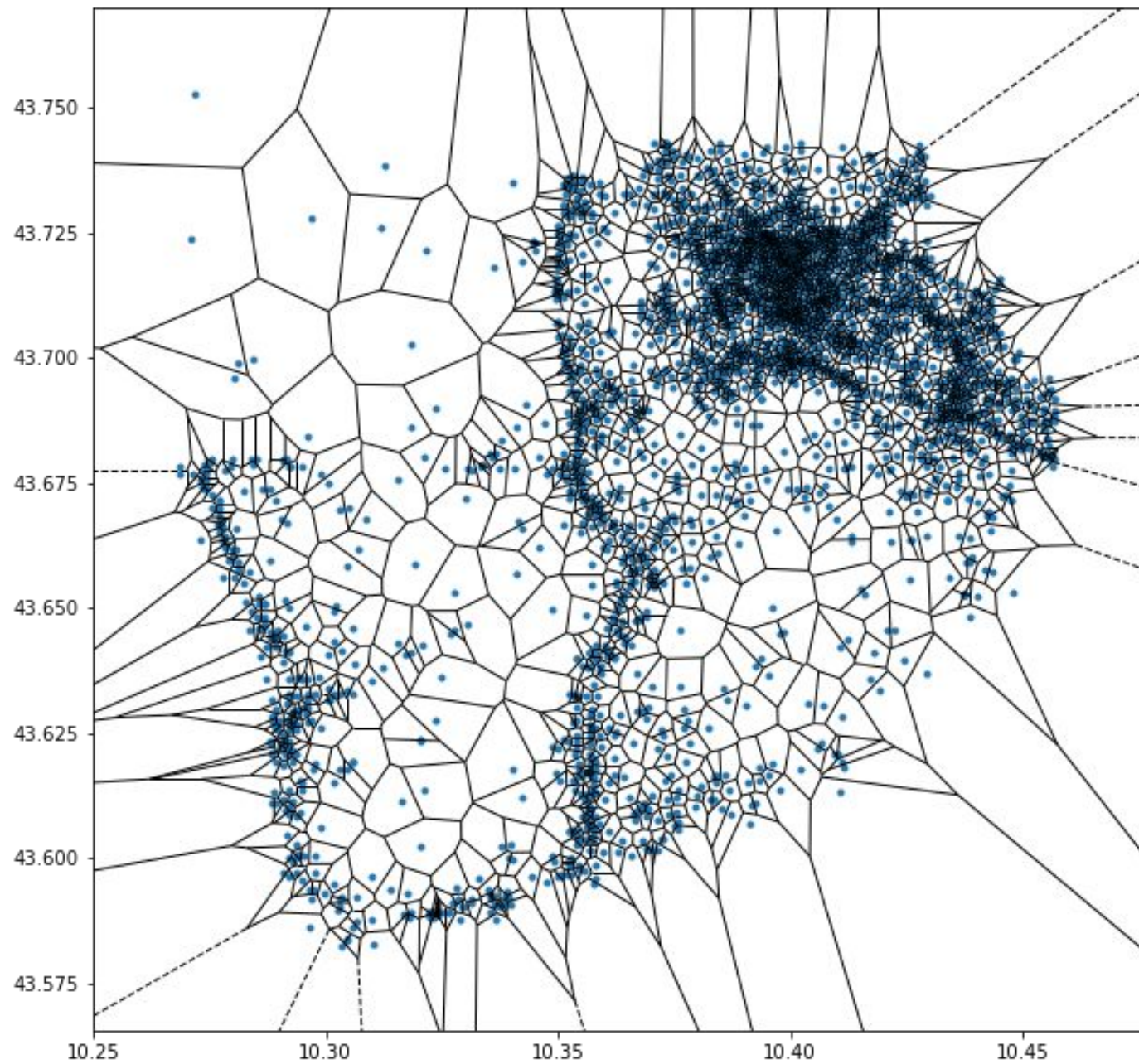


**CDRs**

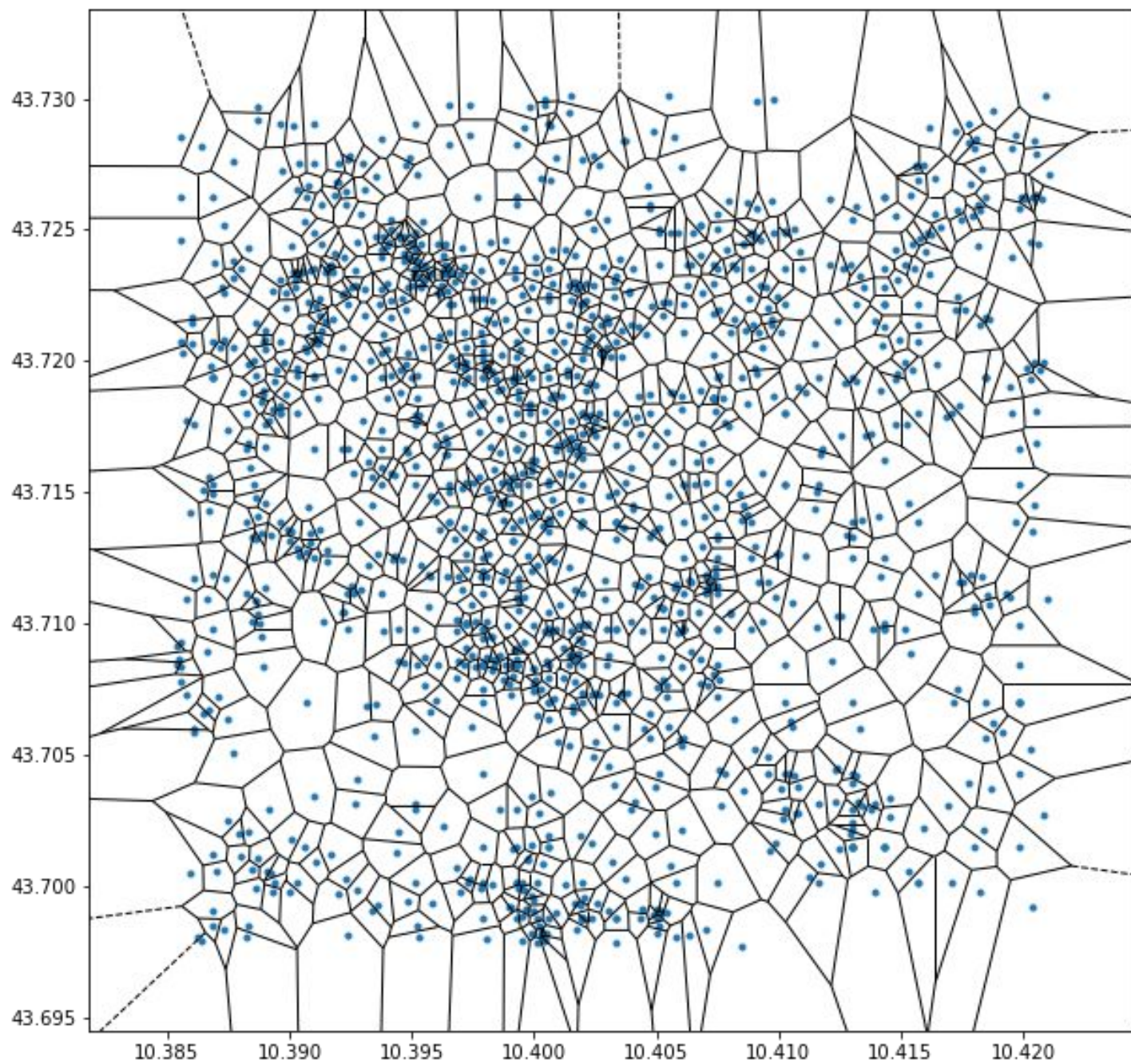
● Download and Upload      ..... User's trajectory

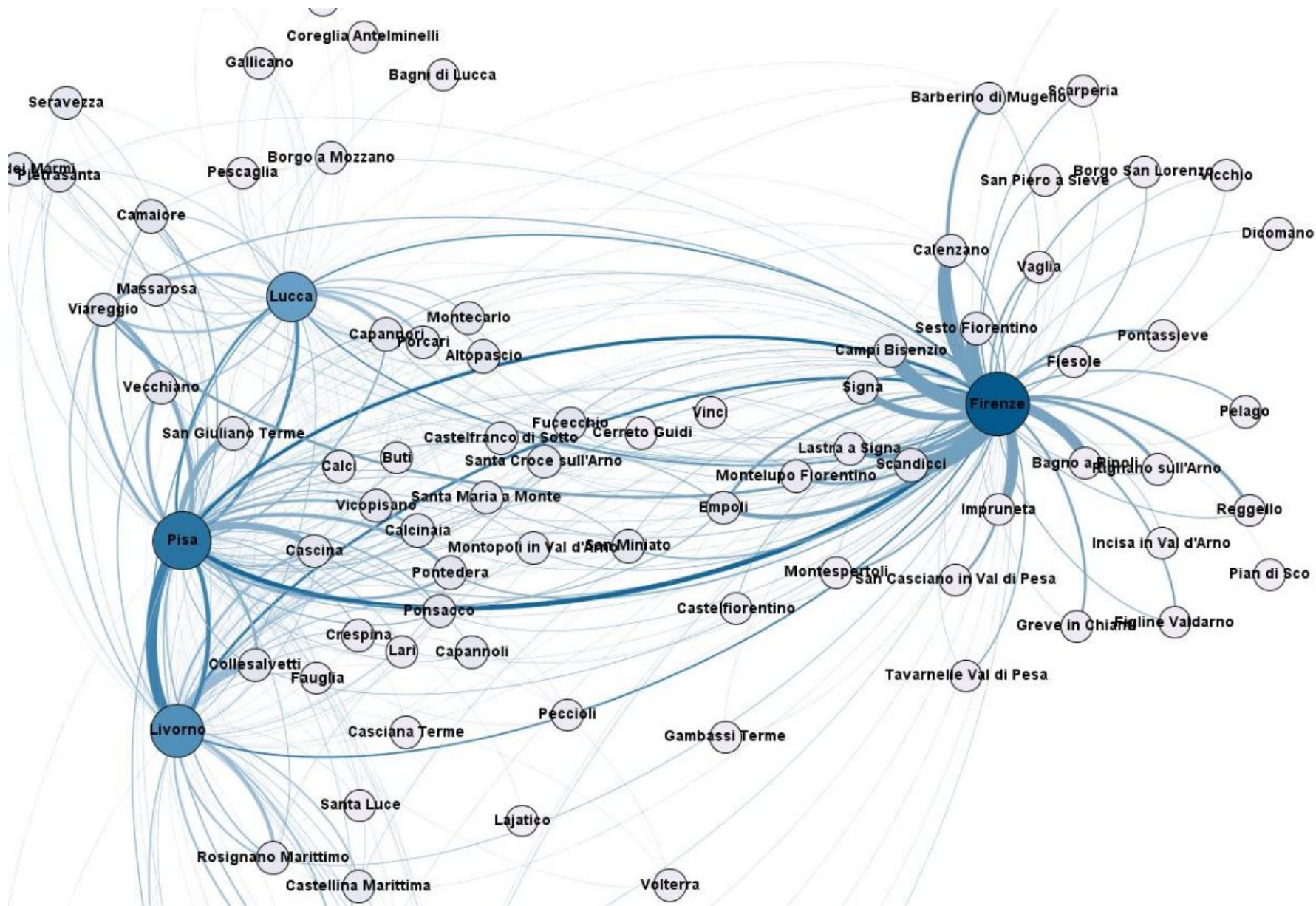


**XDRs**







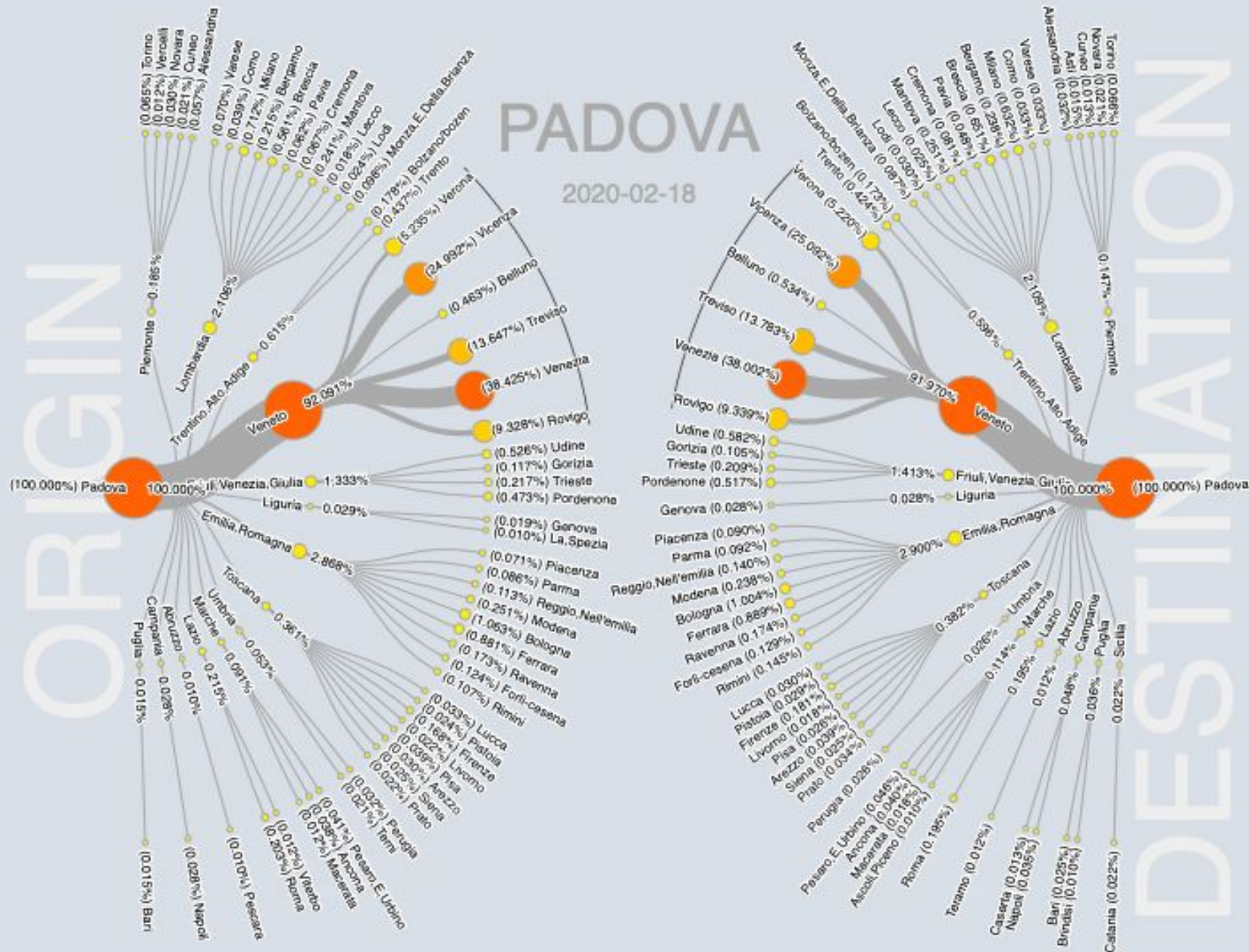




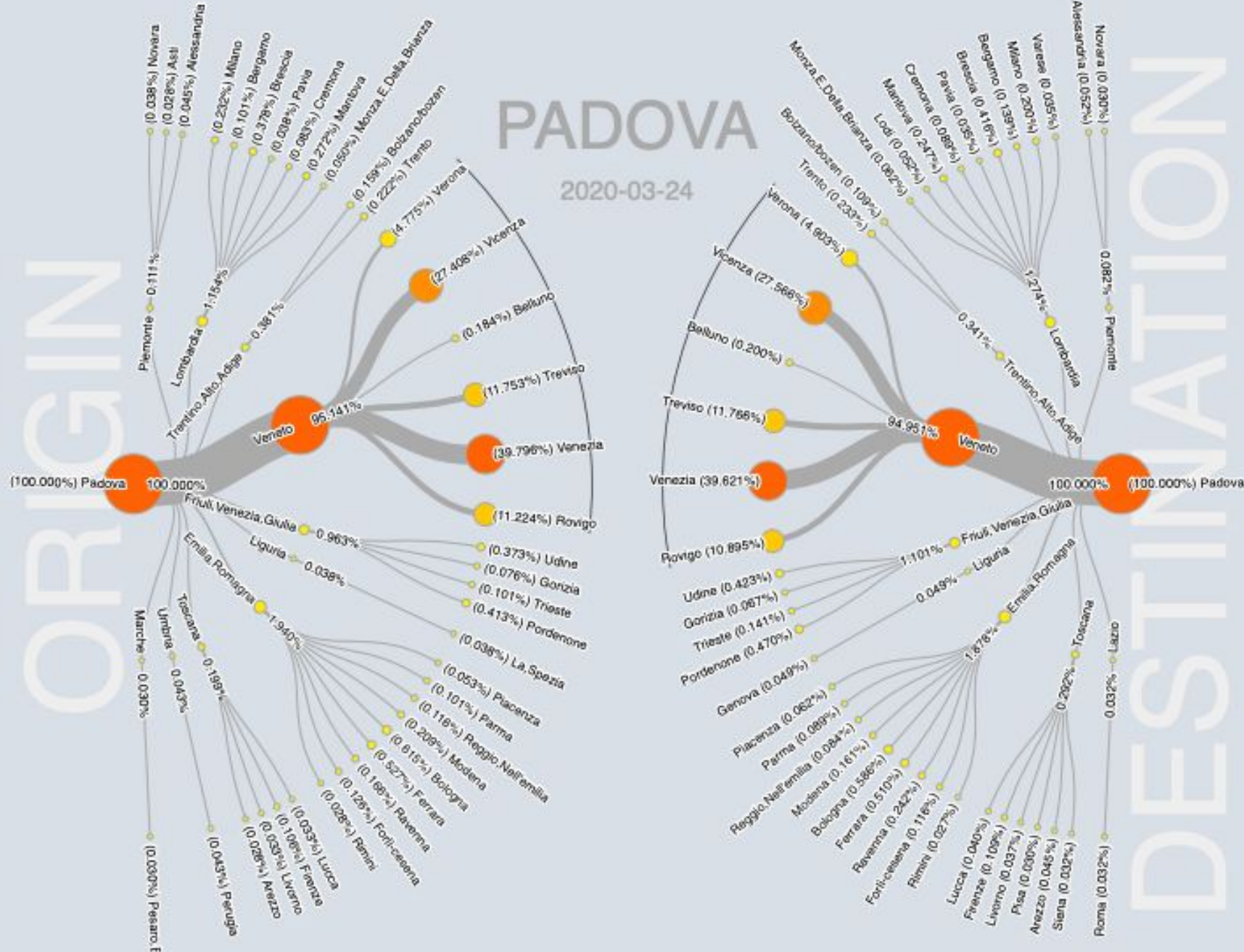
# Come cambiano i flussi durante la fase pandemica?

# PADOVA

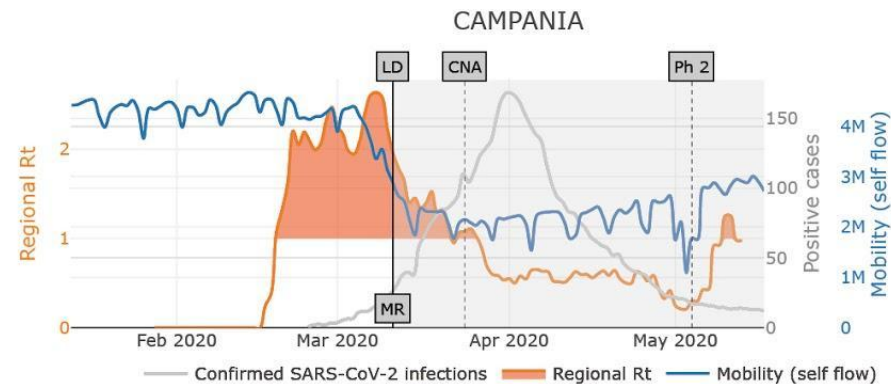
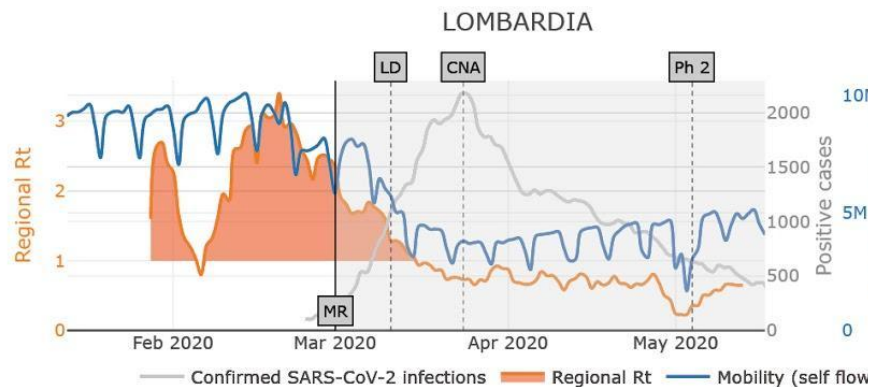
2020-02-18



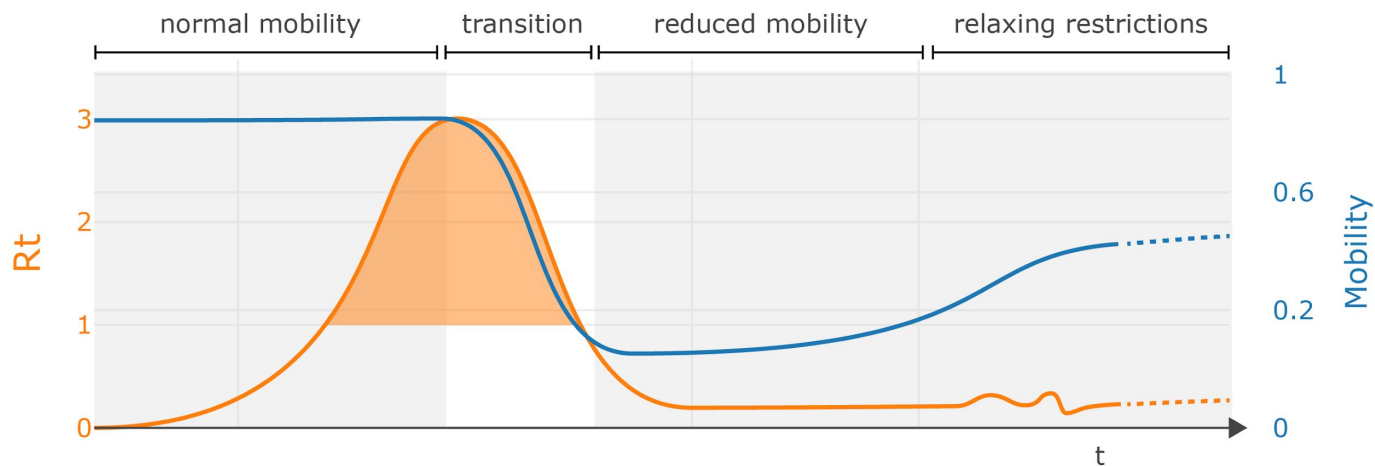




- LD National Lockdown
- MR Mobility Reduction
- CNA Closing of non necessary activities
- Ph 2 Phase two
- SCH Reopening of schools



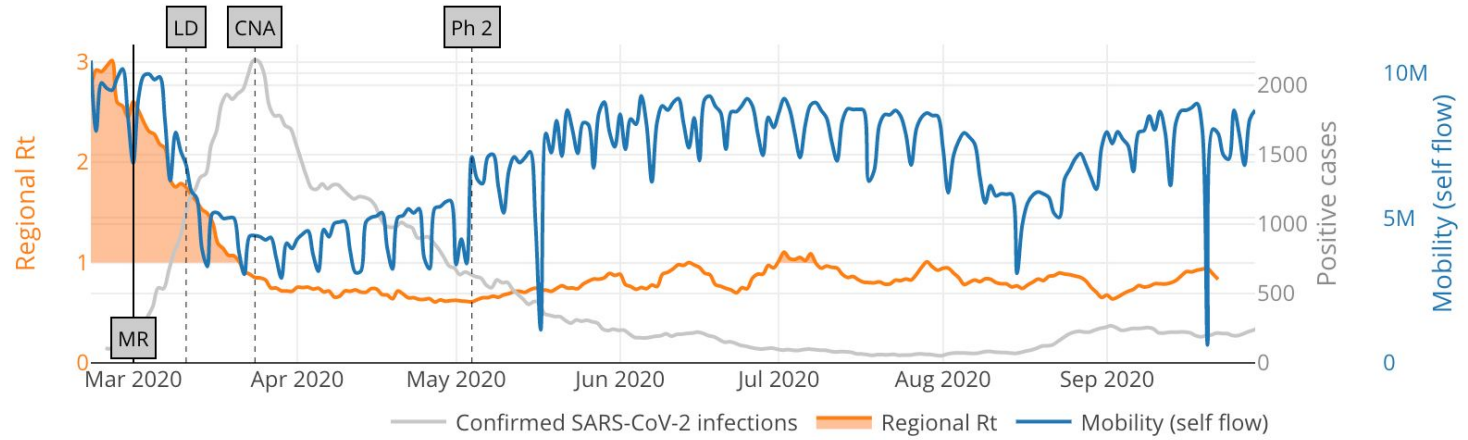
## The epi-mob pattern



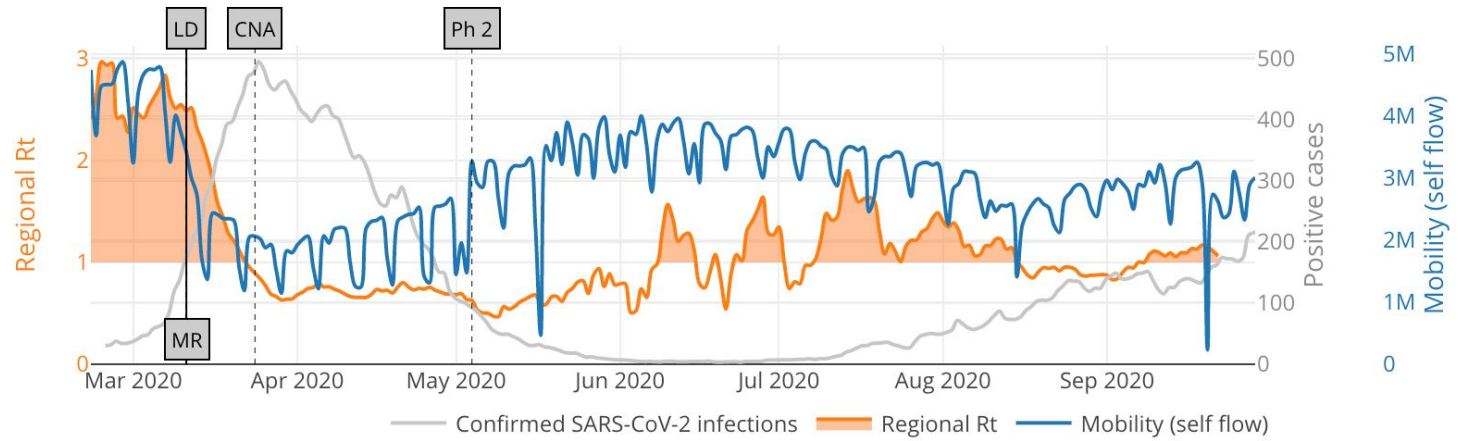
[arXiv:2006.03141](https://arxiv.org/abs/2006.03141) P. Cintia et al.,

The relationship between human mobility and viral transmissibility during the COVID-19 epidemics in Italy. June 2020

## LOMBARDIA

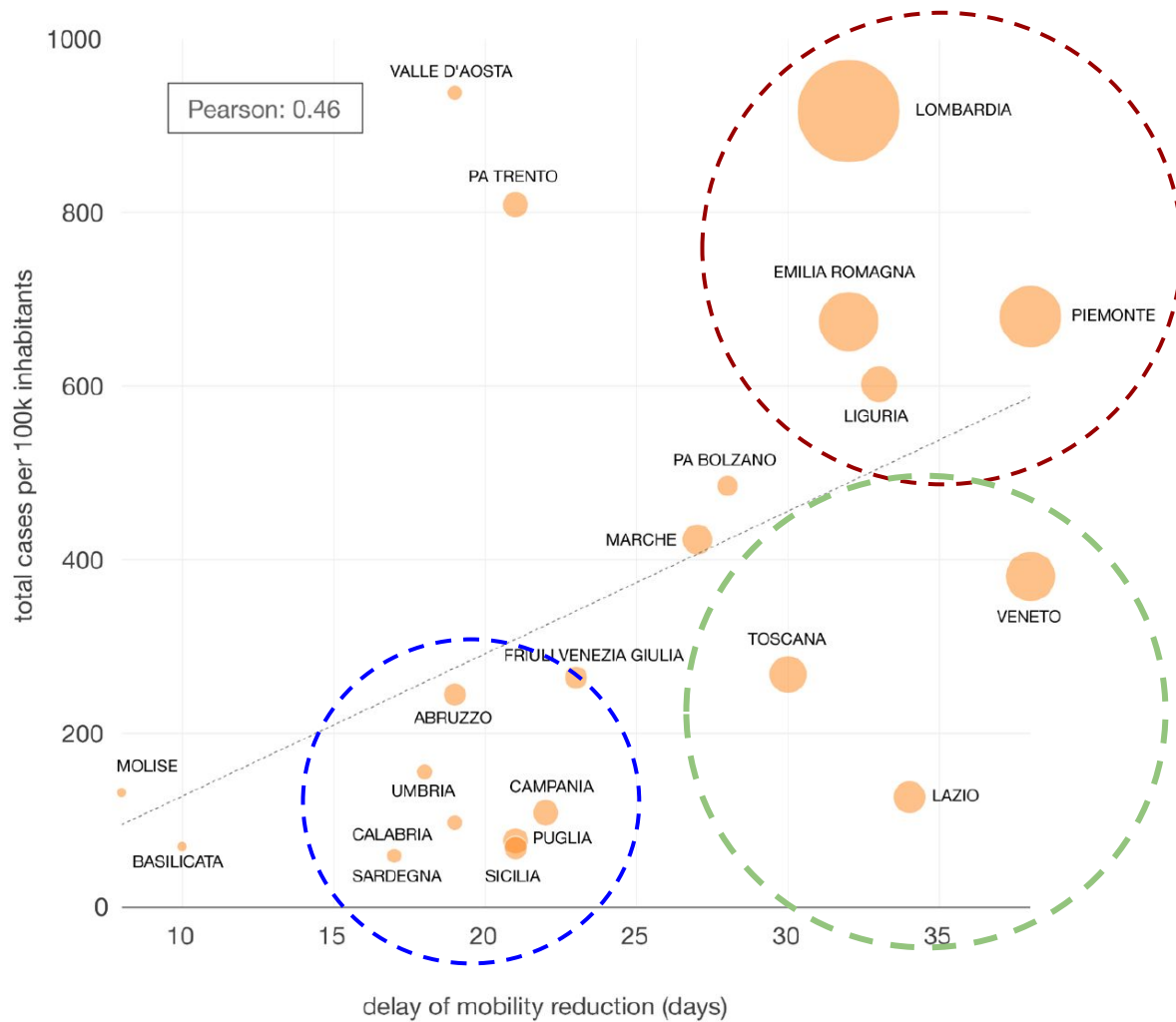


## VENETO

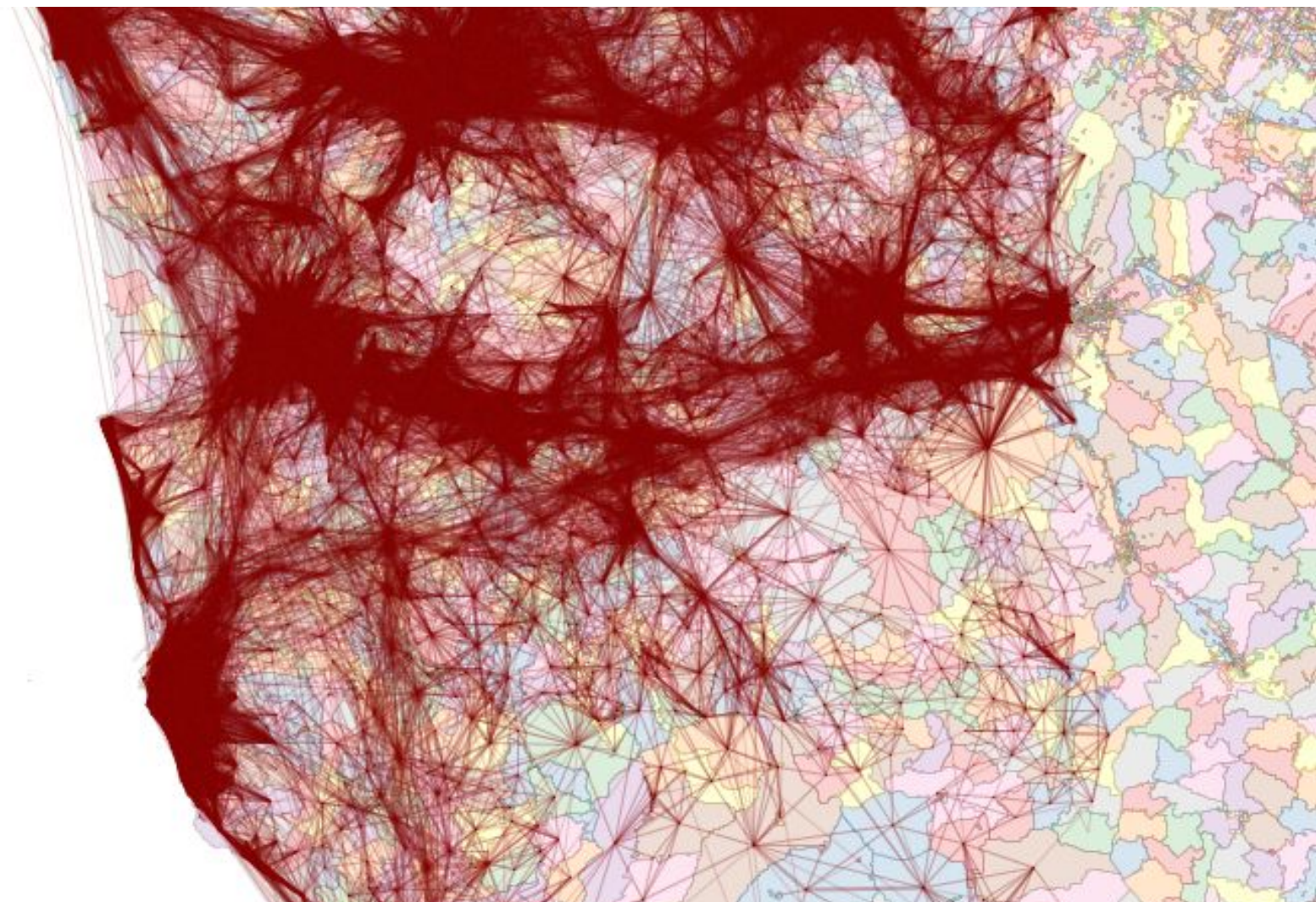




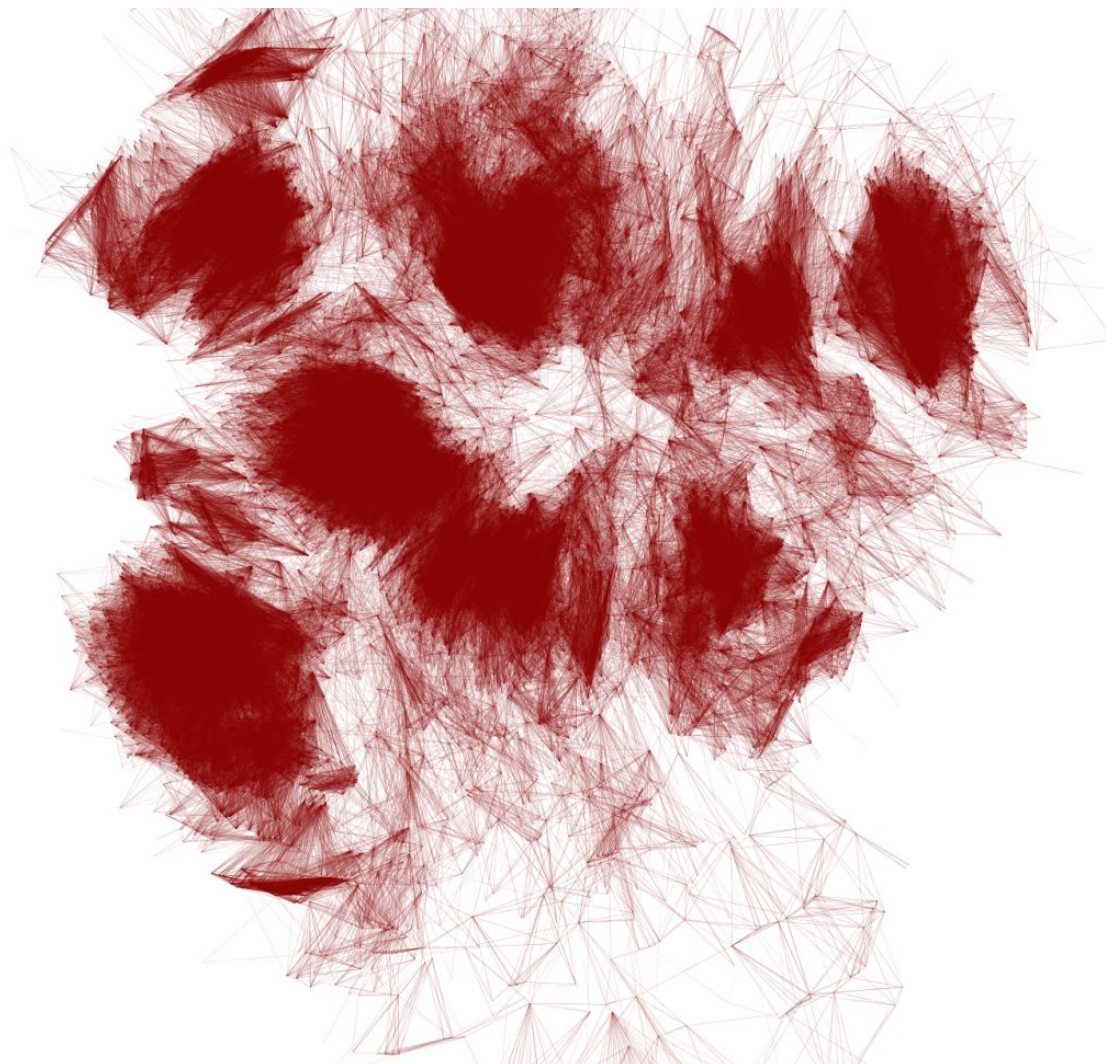
# Ritardo nelle limitazioni alla mobilità vs numero di casi confermati infections

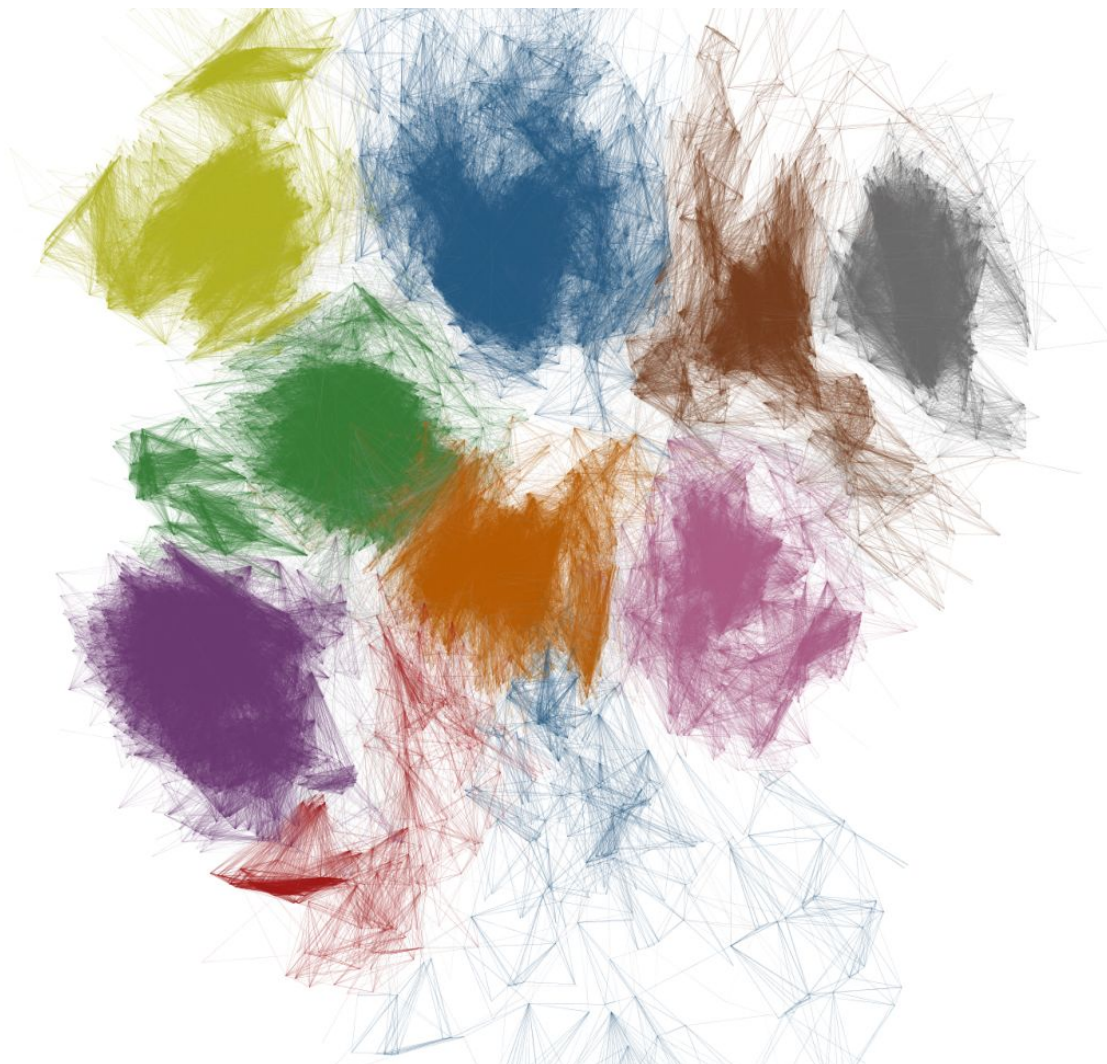


# Come cambia la mobilità locale durante la fase pandemica?





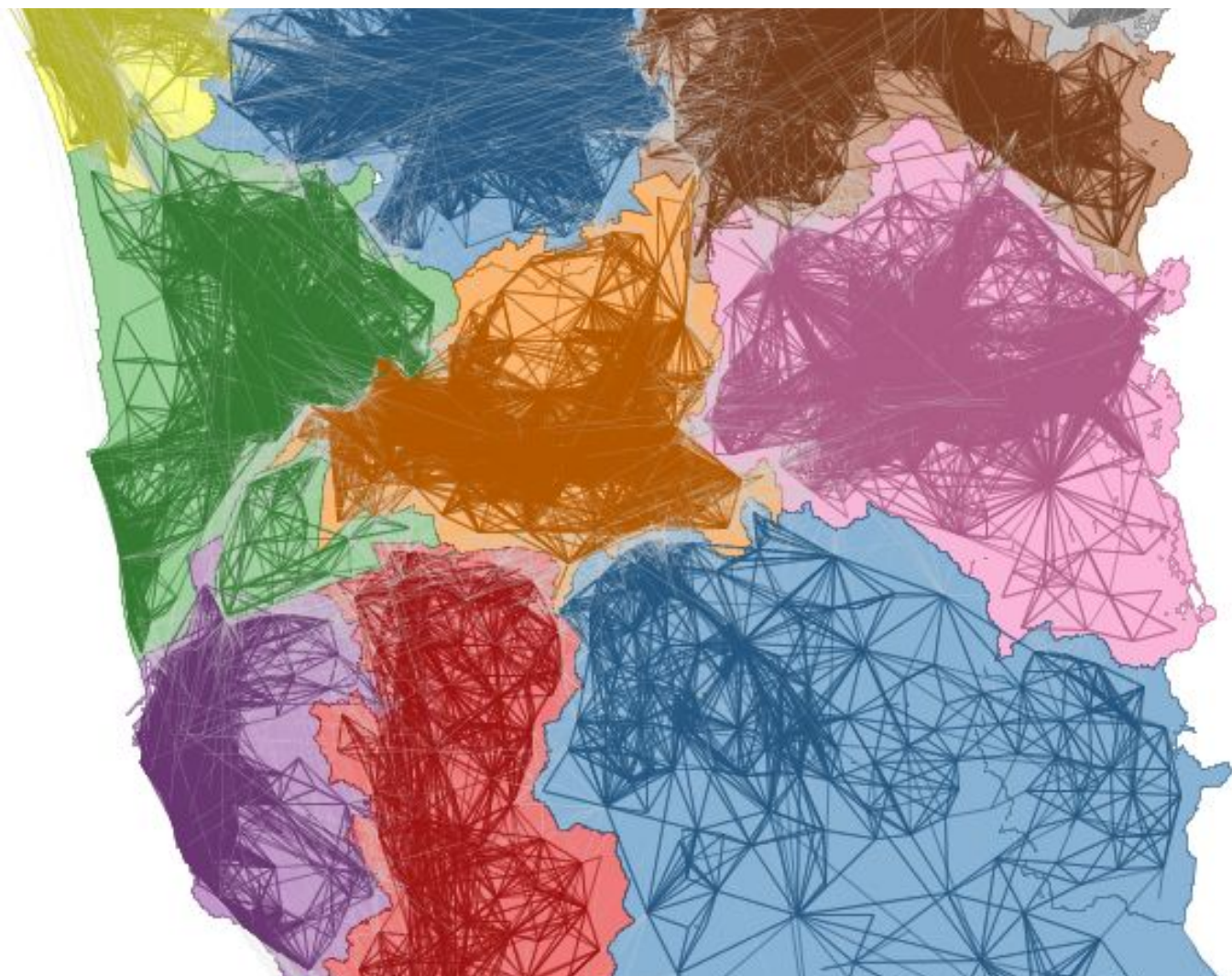


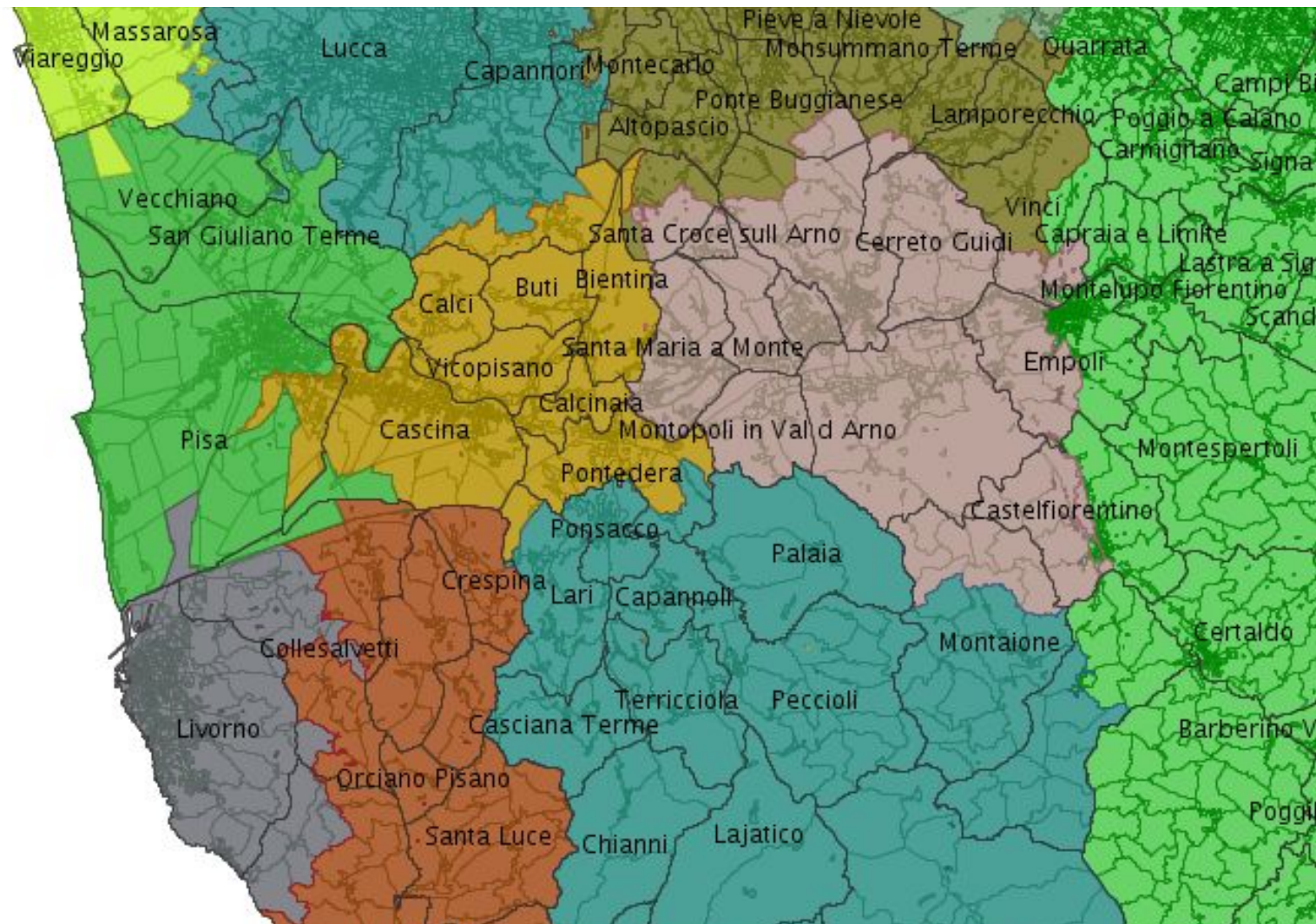




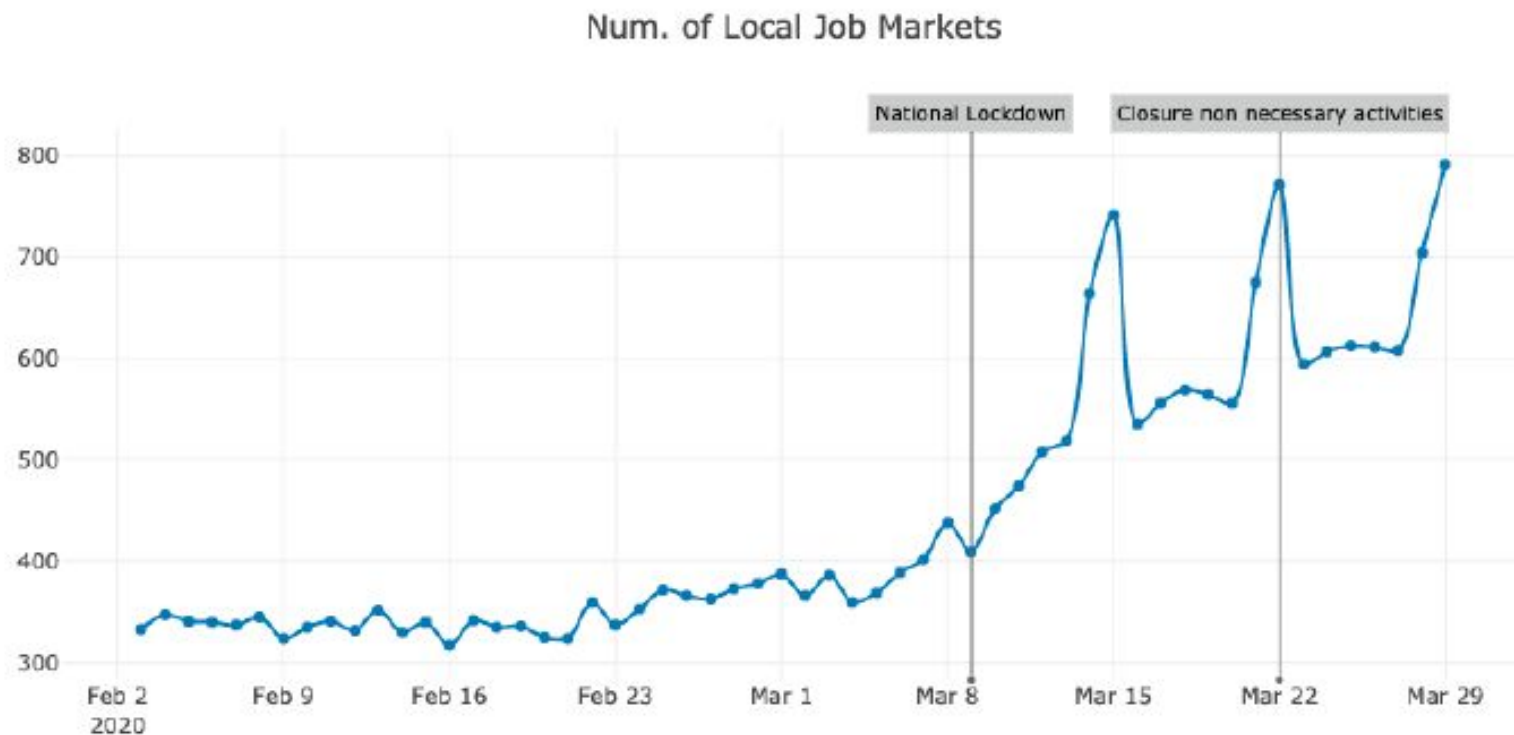












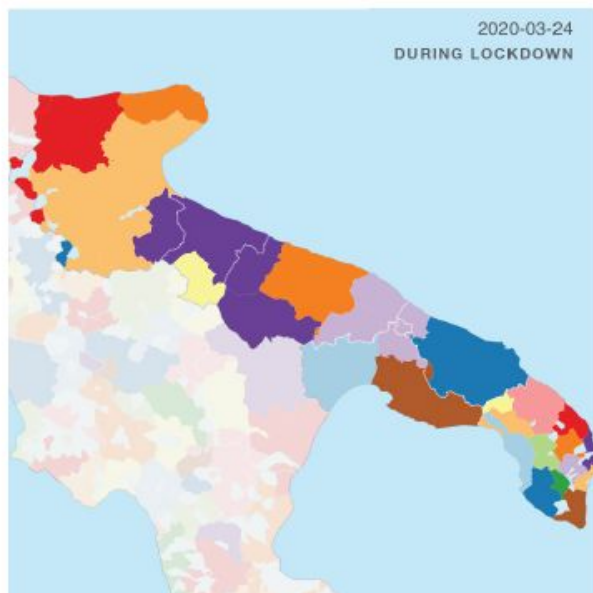
**FIGURE 8 - NUMBER OF LOCAL JOB MARKETS IN TIME**

Evolution in time of the number of Local Job Markets (communities) in Italy, according to the Infom-ap algorithm. Grey vertical lines indicate Sundays. Note that, after the beginning of the national lockdown (March 9th), there is a striking increase of the LJMs. Moreover, there is a slight increase of the communities after the closure of non-necessary activities (March 22nd).



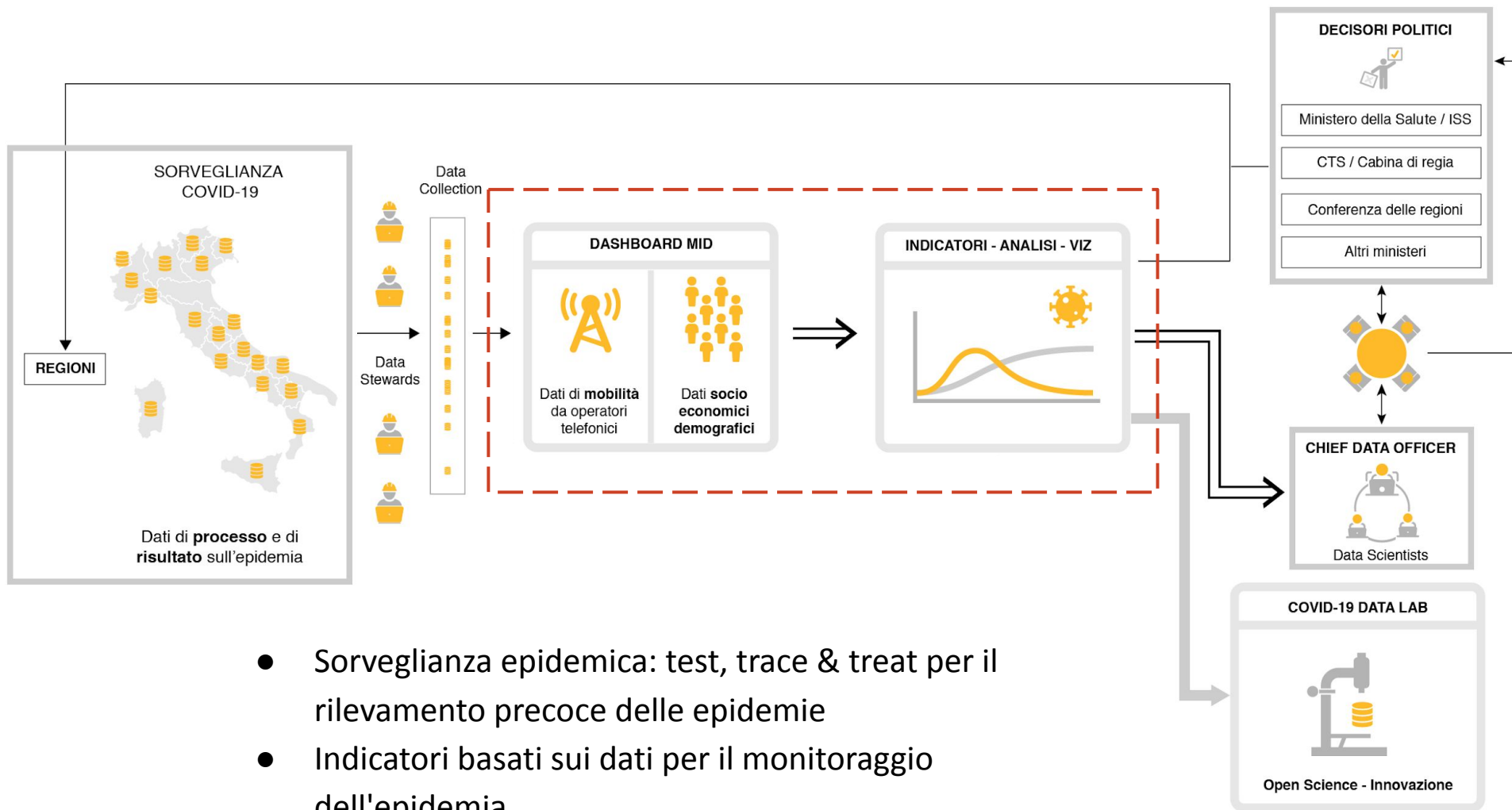


Figure 9 shows the local job markets we found in Puglia (a region on the south-east of the country) before the lockdown (up) and during the lockdown (down). Note the fragmentation of the territory during the lockdown, especially for the easternmost and the westernmost parts of the region.



#### **FIGURE 9 - LOCAL JOB MARKETS IN PUGLIA.**

Local job markets in Puglia (a region in the south-east of the country) before the lockdown (left) and during the lockdown (right).



- Sorveglianza epidemica: test, trace & treat per il rilevamento precoce delle epidemie
- Indicatori basati sui dati per il monitoraggio dell'epidemia
- Aprire i dati sulla salute per l'Intelligenza Artificiale
- Sistema informativo sanitario centrato sui pazienti

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