Migration data sources and innovation
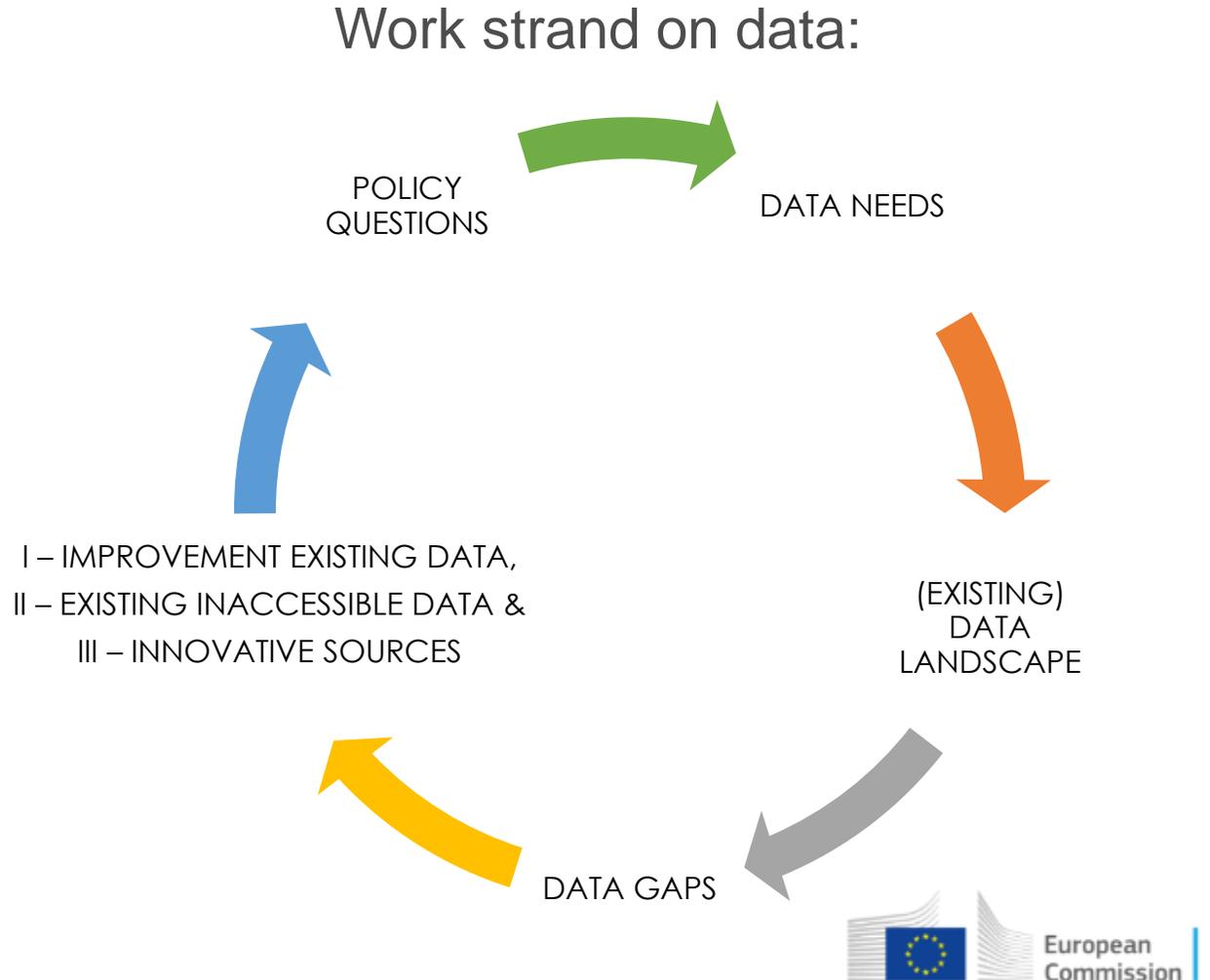
Knowledge Centre on Migration and Demography

Michele Vespe

Joint Research Centre

The Knowledge Centre on Migration and Demography - KCMD

Strategic partnership with a number of Directorate Generals and services of the Commission, the KCMD:

- starts from policy questions

- maps existing knowledge

- addresses knowledge gaps through own research or in partnership with external organizations, and

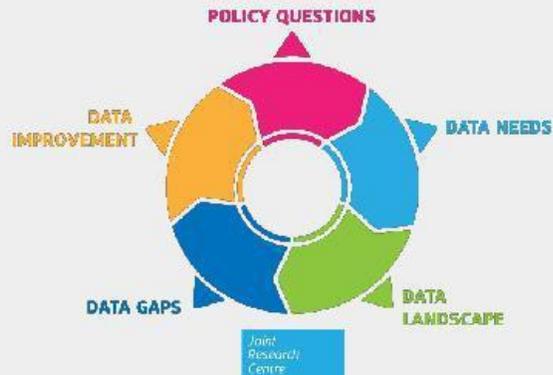- facilitates uptake of findings for EU policy makers and other stakeholders

Work strand on data:

POLICY QUESTIONS

DATA NEEDS

(EXISTING) DATA LANDSCAPE

DATA GAPS

I – IMPROVEMENT EXISTING DATA,
II – EXISTING INACCESSIBLE DATA &
III – INNOVATIVE SOURCES

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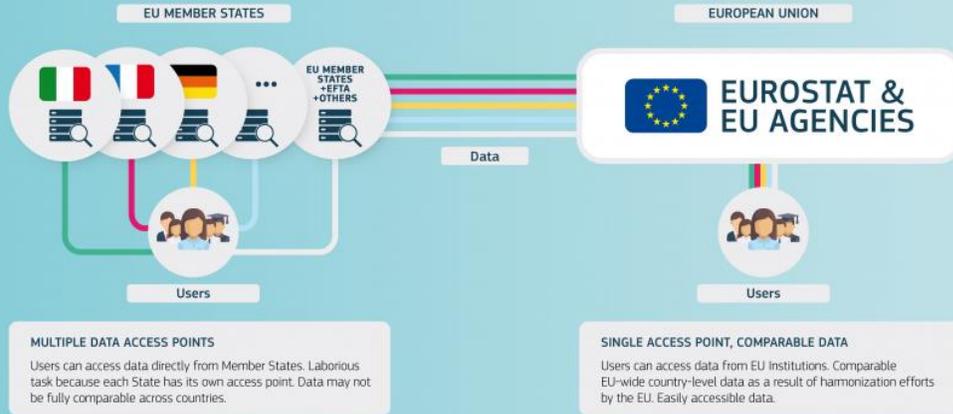
Towards an EU policy on migration data

Adequate data is key for evidence-informed policymaking

This report describes the initiative coordinated by the KCMD that has brought together relevant EU policy officers to discuss the current state of migration data for EU policymaking and to coordinate actions intended to address some of the existing data gaps

The report presents the European migration data landscape and describes some approaches that are being explored to improve data adequacy

MIGRATION DATA IN THE EU

EU Regional Page

A dedicated section on migration in Europe prepared by the European Commission's KCMD released on IOM's Global Migration Data Portal

It brings together an array of data sources to provide evidence on European migration in one place

https://migrationdataportal.org/regional-data-overview/europe

The KCMD Dynamic Data Hub

Through interactive mapping, the Dynamic Data Hub gives direct access to single datasets to visualise and analyse migration, moblity and demographic data

https://bluehub.jrc.ec.europa.eu/migration/app/
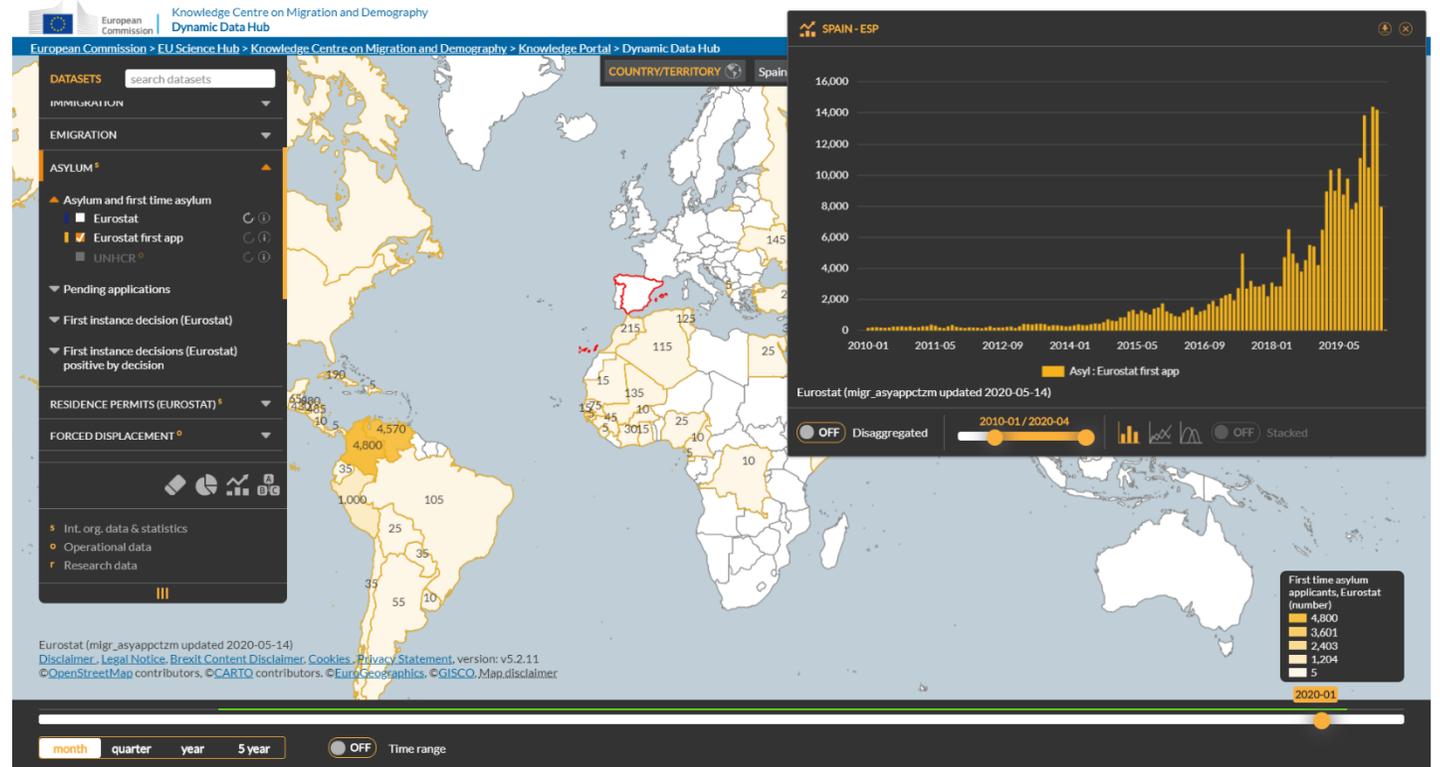
Examples of data innovation for mobility and migration

Early signs of population movements
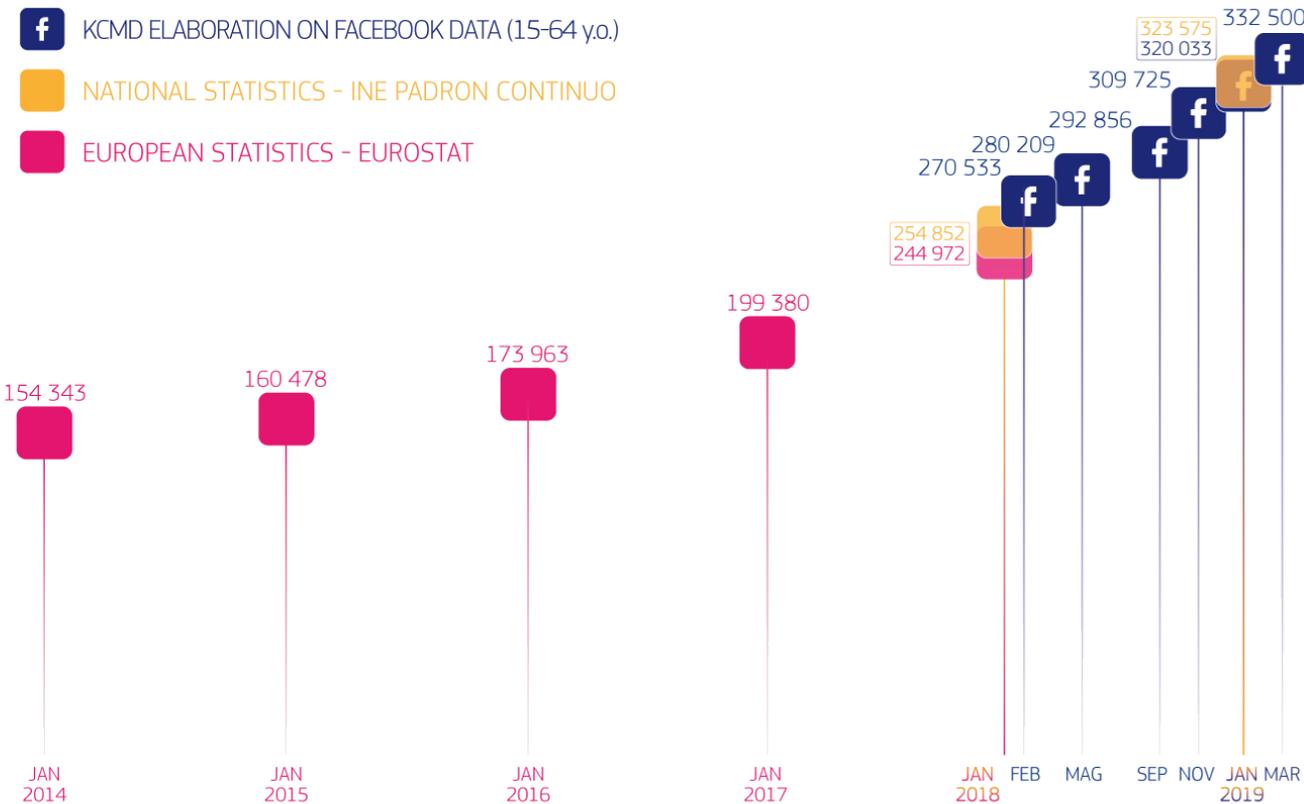
- **Social Media data**

- Air traffic passenger data

- Mobile Positioning Data

- AI project DG HOME

- Computational Social Science for Policy

S. Spyratos, M. Vespe, F. Natale, I. Weber, E. Zagheni and M. Rango, (2019), Quantifying international human mobility patterns using Facebook Network data.

Examples of data innovation for mobility and migration

COVID−19 Crisis Scenarios

- Social Media data

- **Air traffic passenger data**

- Mobile Positioning Data

- AI project DG HOME

- Computational Social Science for Policy

Iacus, S. M., Natale, F., Santamaria, C., Spyratos, S., & Vespe, M. (2020). Estimating and projecting air passenger traffic during the covid-19 coronavirus outbreak and its socio-economic impact. *Safety Science*.

Gabrielli, L., Deutschmann, E., Natale, F., Recchi, E., & Vespe, M. (2019). Dissecting global air traffic data to discern different types and trends of transnational human mobility. EPJ Data Science, 8(1), 1-24.

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Examples of data innovation for mobility and migration

"[…] **mobile network operators** can offer a wealth of data on mobility, social interactions [...] Such data, if pooled and used in anonymised, aggregated format in compliance with EU data protection and privacy rules, could contribute **to improve the quality of modelling and forecasting for the pandemic at EU level**. The Joint Research Centre (JRC) and ECDC can centralise this data collection and modelling work."

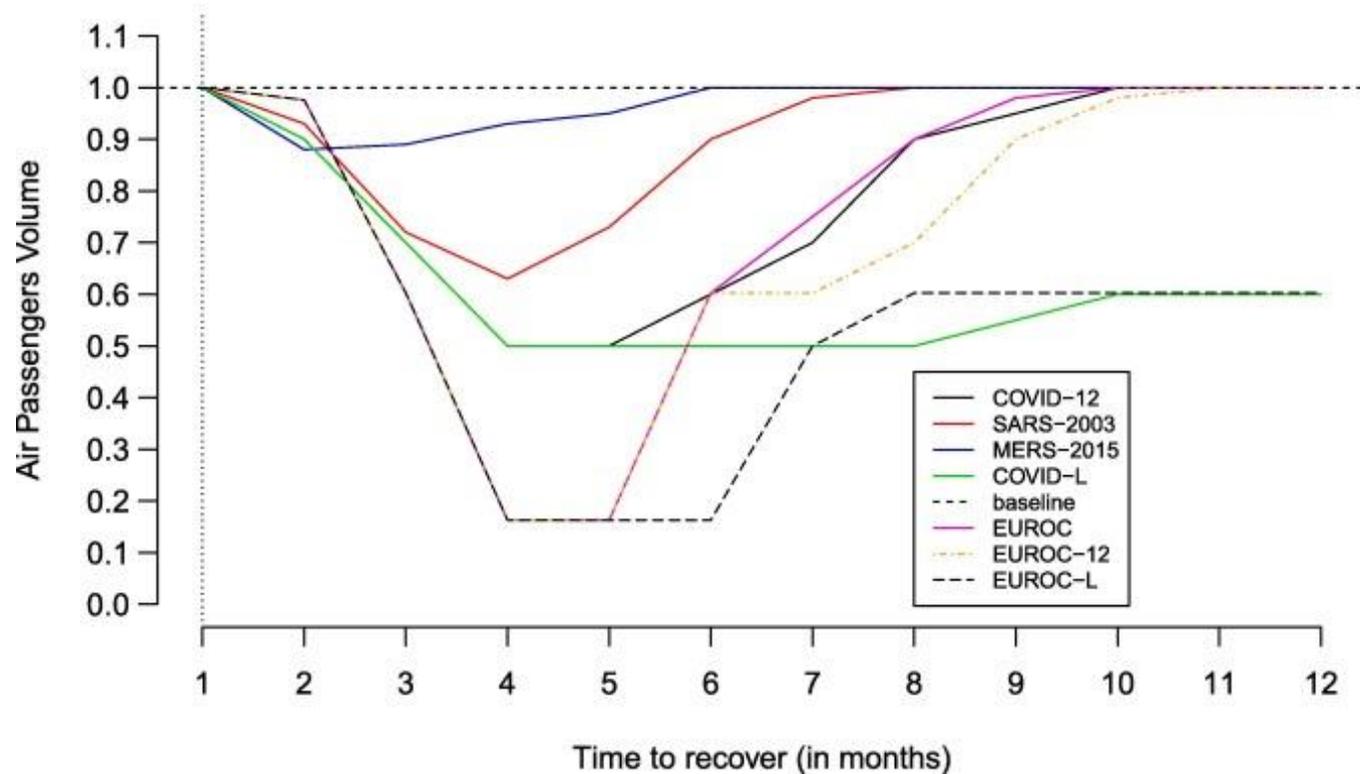*Joint European Roadmap towards lifting COVID-19 containment measures*

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Examples of data innovation for mobility and migration

Feasibility study on a forecasting and early warning tool for migration based on Artificial Intelligence technology

To forecast emerging circumstances, both in the EU and in third countries, which may generate migratory movements potentially affecting the EU

Gathering data from different sources

Complementary to the systems developed by EU JHA Agencies and allowing its integration with them

- Social Media data

- Air traffic passenger data

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Examples of data innovation for mobility and migration

"Micro-" vs "nano-data" to model collective behaviours difficult to capture by official statistics

Mostly held by private companies, such data can **transform the whole policy cycle**

Innovative approaches to demography, employment, mobility, politics, democracy, etc.

Potential in **tackling societal challenges** (e.g. emergency response, security, gender gaps…)

<u>Goal:</u> to build capacity in accessing non-traditional data through key partnerships and in coordination with Commission services

- Social Media data

- Air traffic passenger data

- Mobile Positioning Data

- AI project DG HOME

- **Computational Social Science for Policy**

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Thank you

Subscribe to our **newsletter**: kcmd@ec.europa.eu

Visit our **website**: https://ec.europa.eu/knowledge4policy/migration-demography

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