



CAMERA

Coordination and support Action for Mobility in Europe:
Research and Assessment

Looking for evidence in data: Insights gathered on mobility research in Europe

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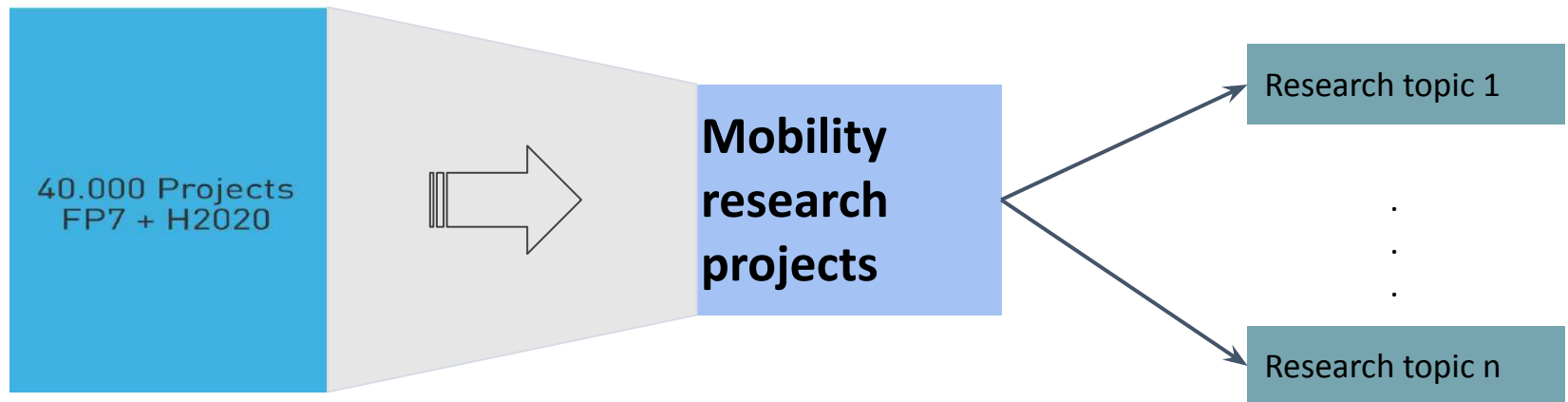
Artificial intelligence as a research assistant?

- Identification of **research themes** in a **large** corpus of unstructured textual information
 - Need to **automatise**
 - Use **AI to create knowledge** on mobility research landscape in EU

40.000 Projects
FP7 + H2020

AI-powered model #1

- Identification of **research themes** in a large corpus of unstructured textual information



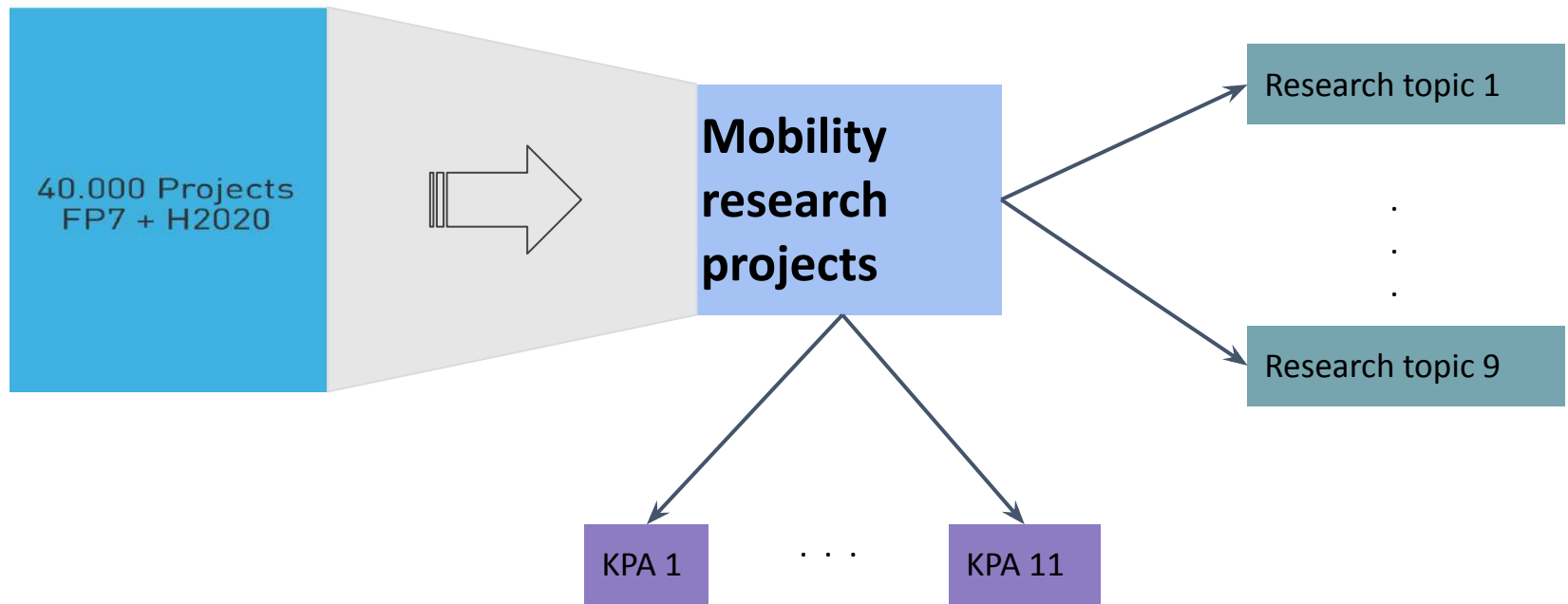


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Most common research topics



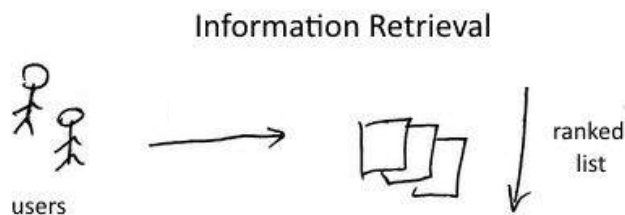
- How do mobility projects align with the objectives defined in KPAs in PF?





Information retrieval

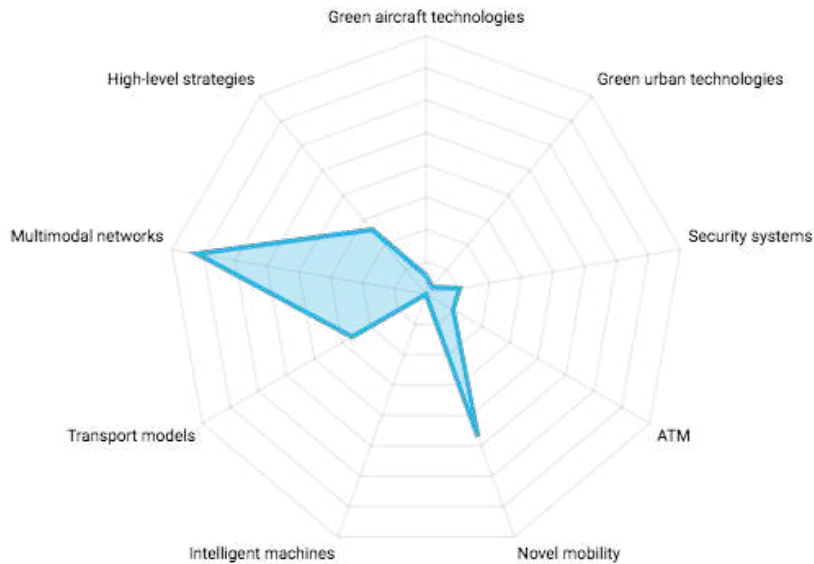
- Searches for **relevant information** within a collection of unstructured (textual) data
- Organises found information → **knowledge**



- ◆ **Probabilistic model** → **approximate matches**, not a solution
- ◆ Returns: **RELEVANT documents** in some order
 - retrieval function based on semantic similarity metrics

Mobility-relevant projects in two multidimensional spaces

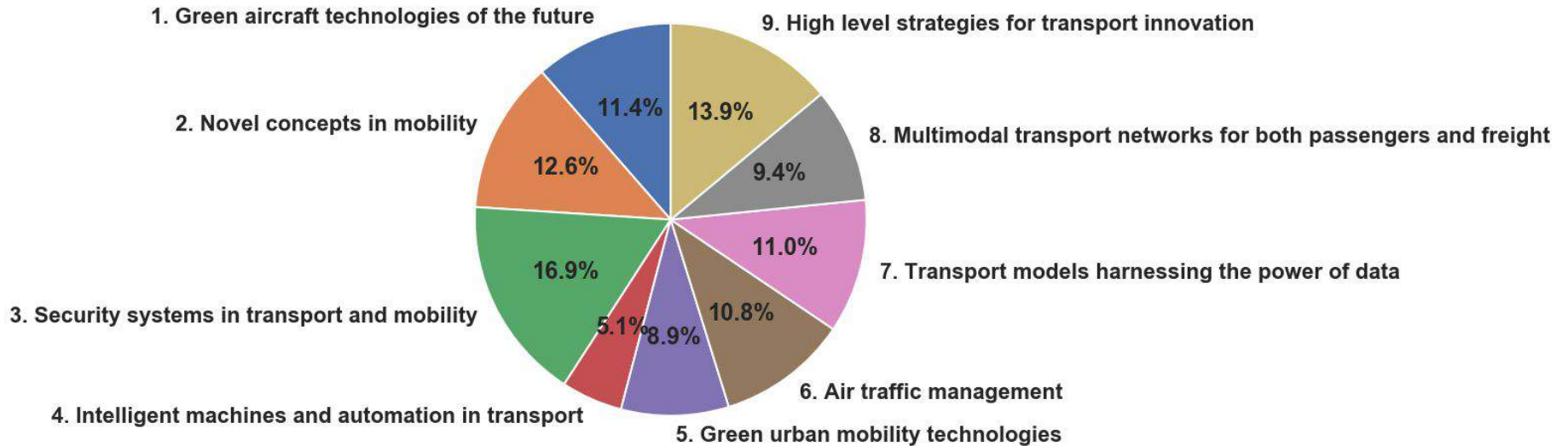
Research topics



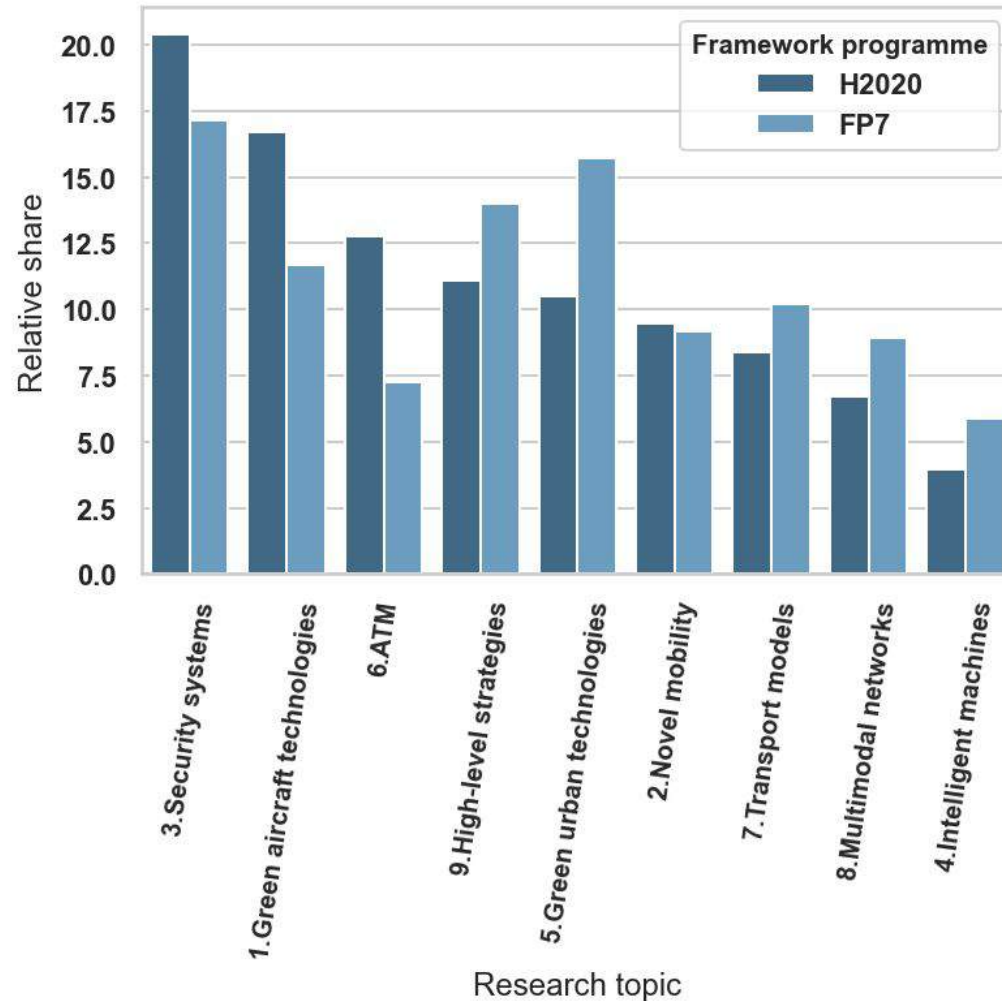
Key Performance Areas (KPA)



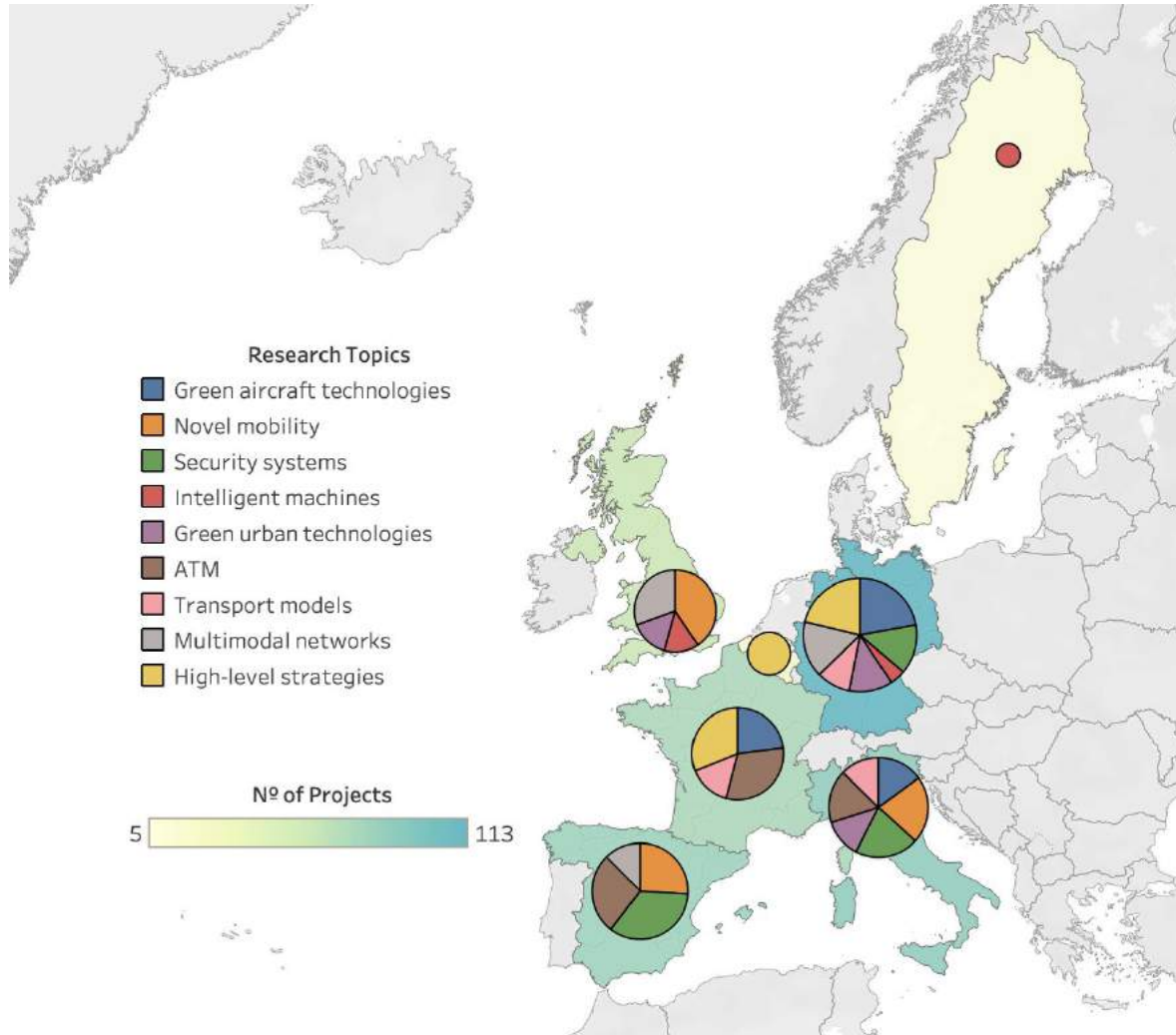
Research topics: representation in the dataset of mobility projects



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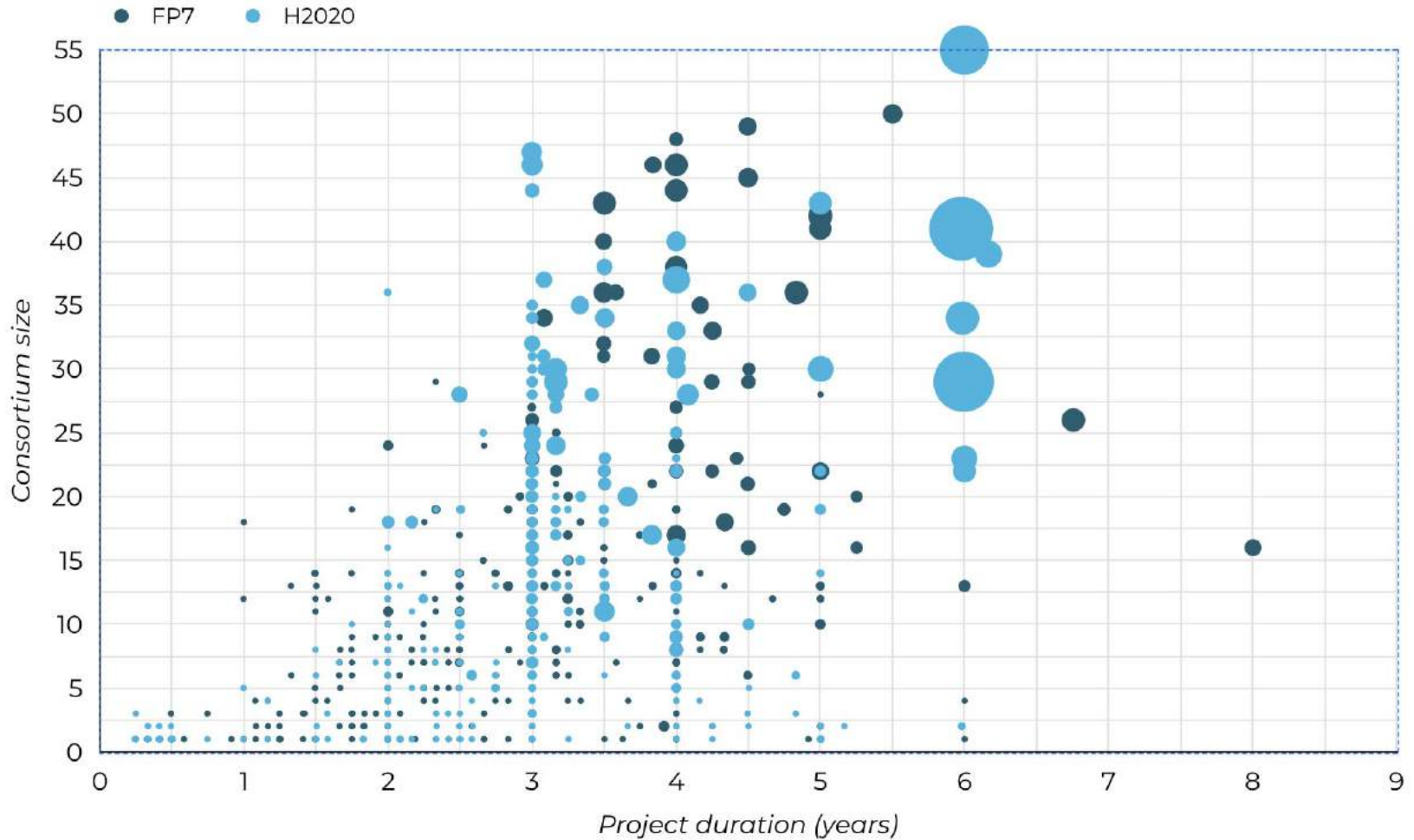


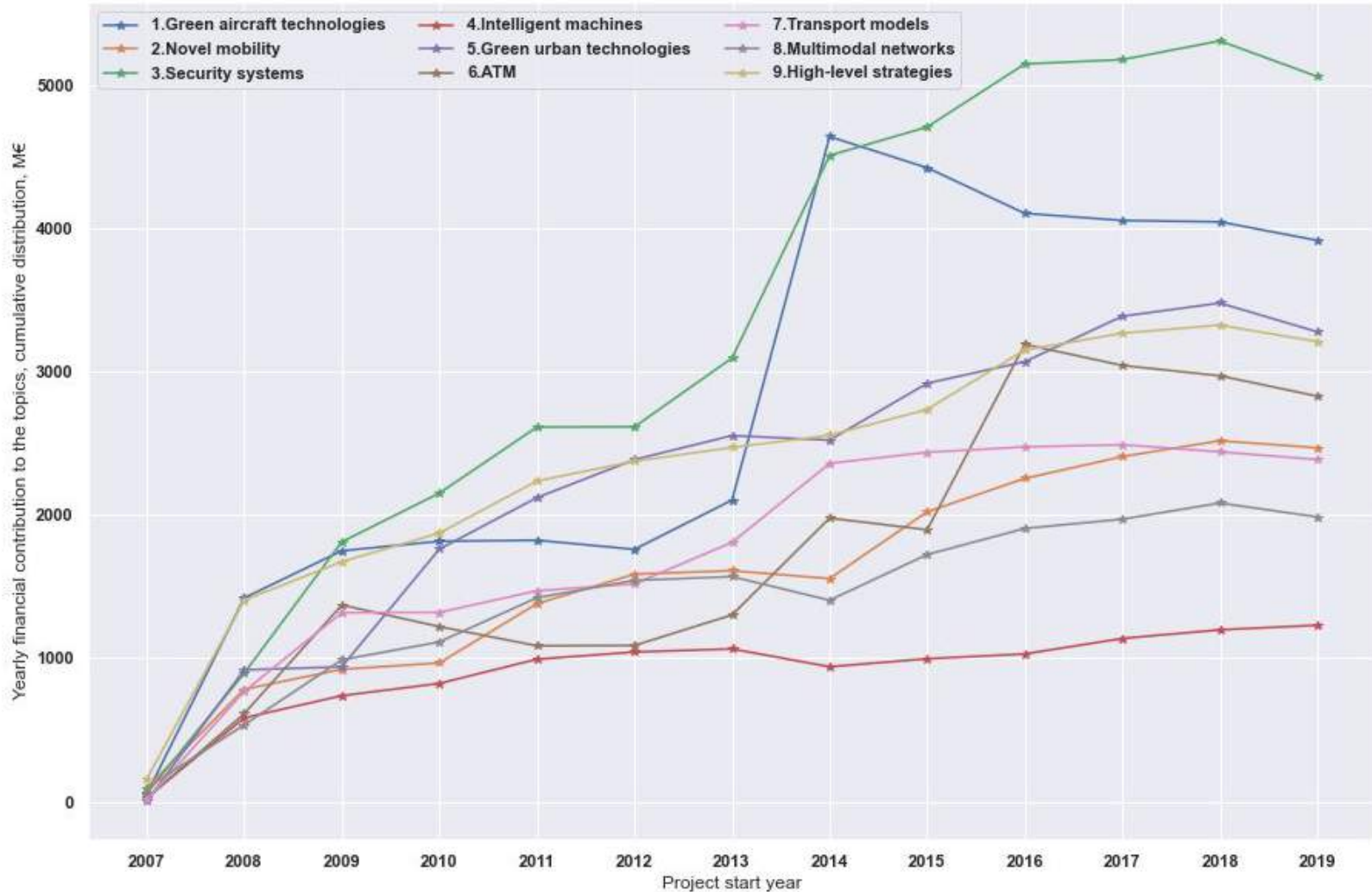
Geographical distribution

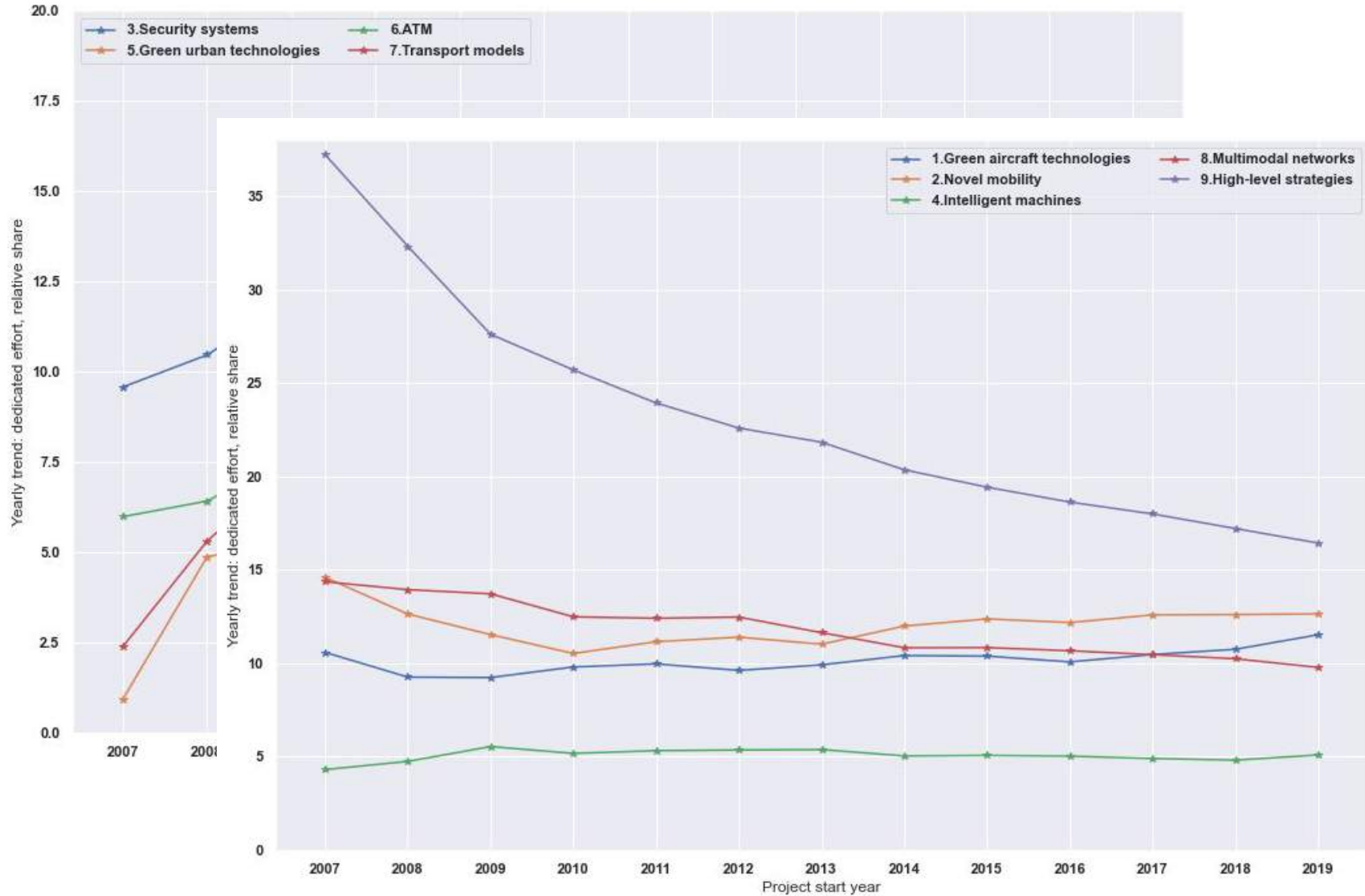




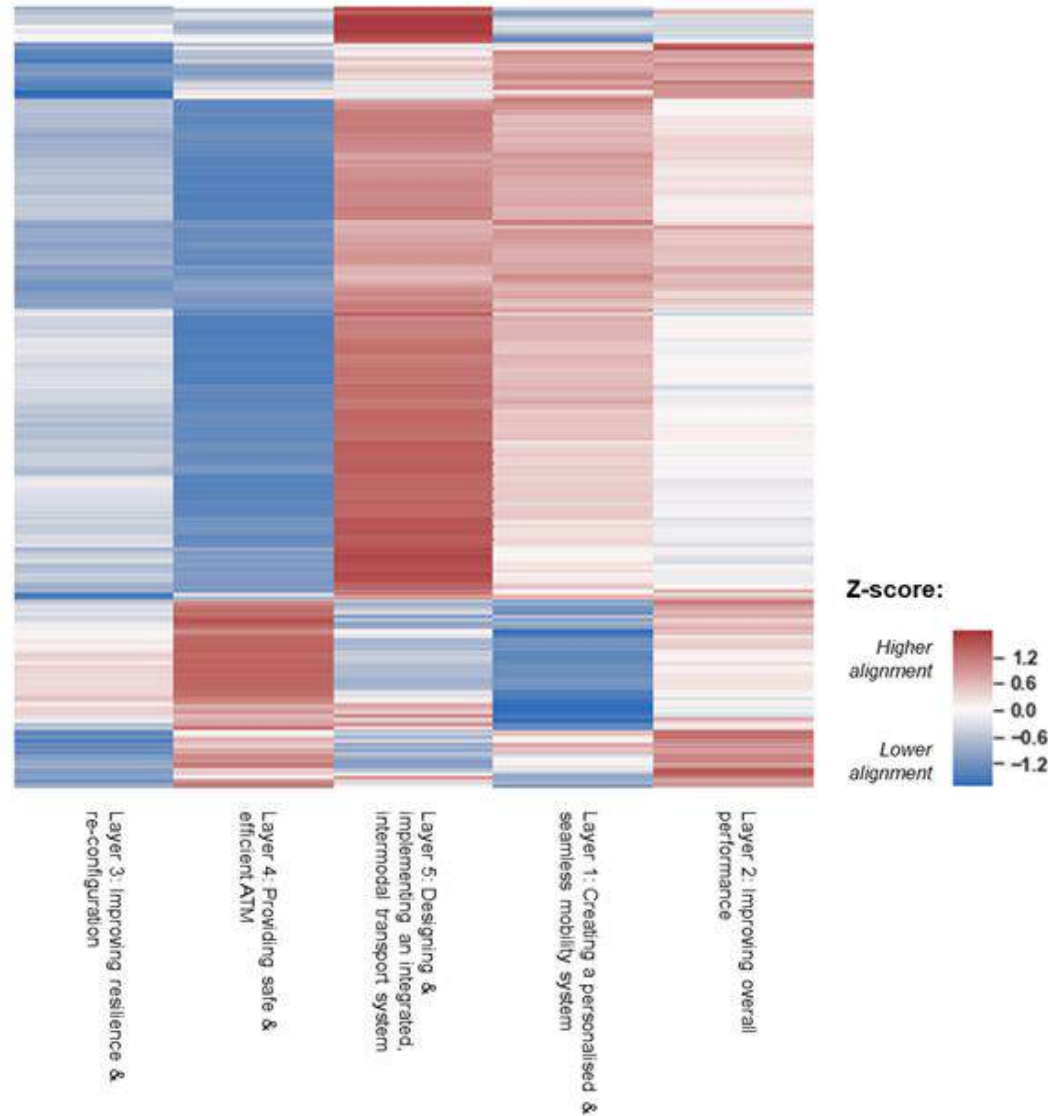
Correlational analysis

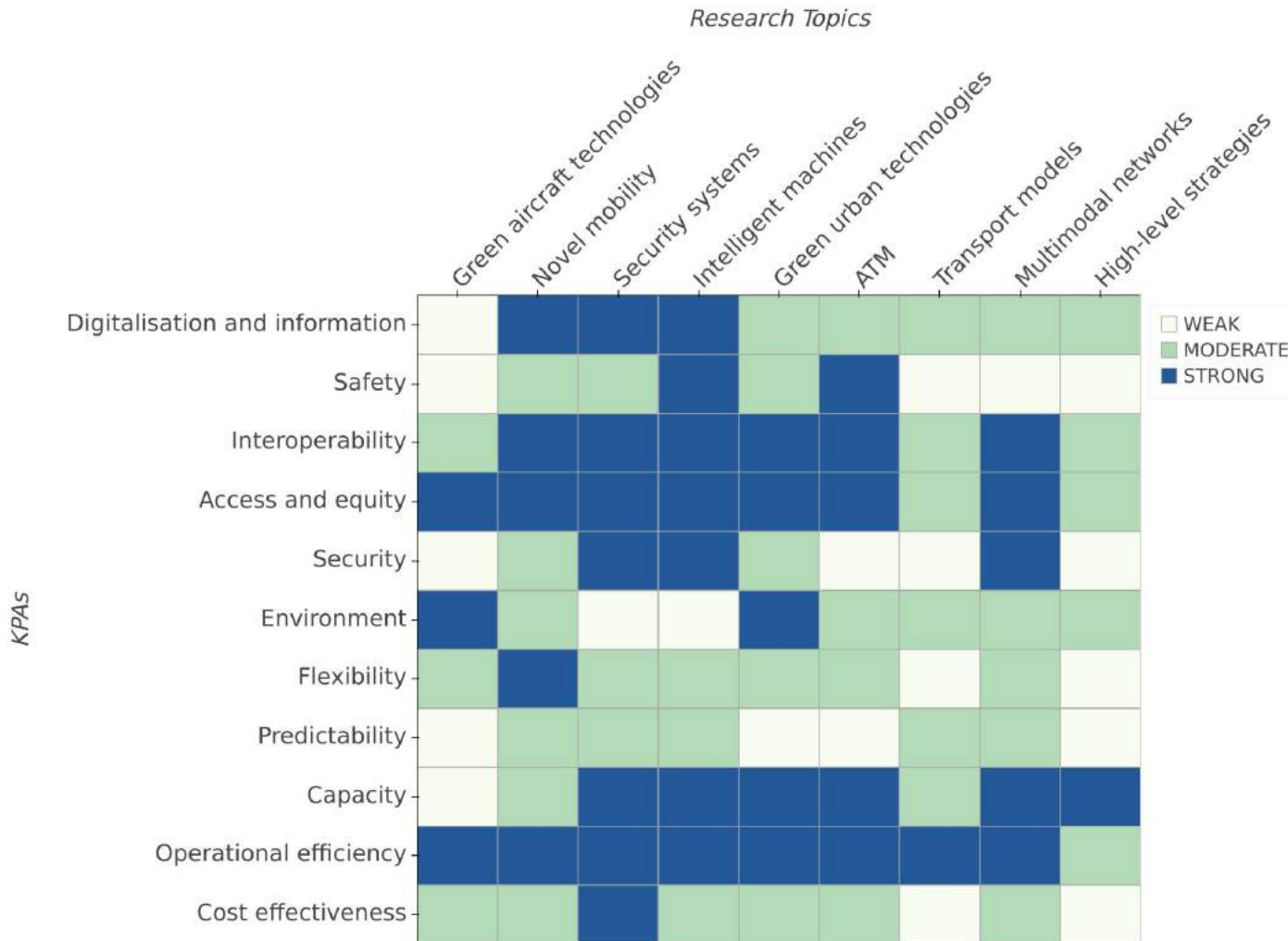






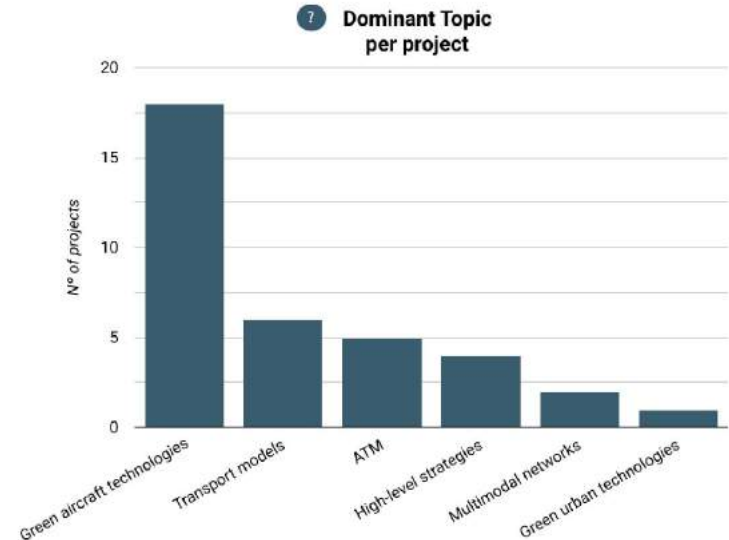
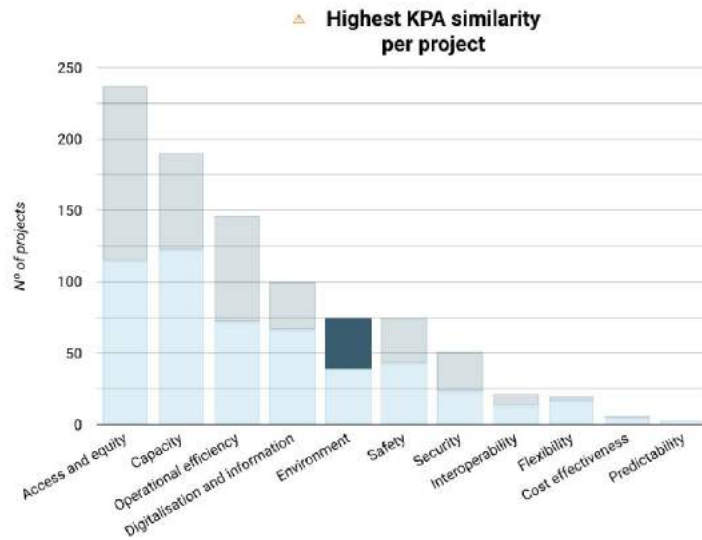
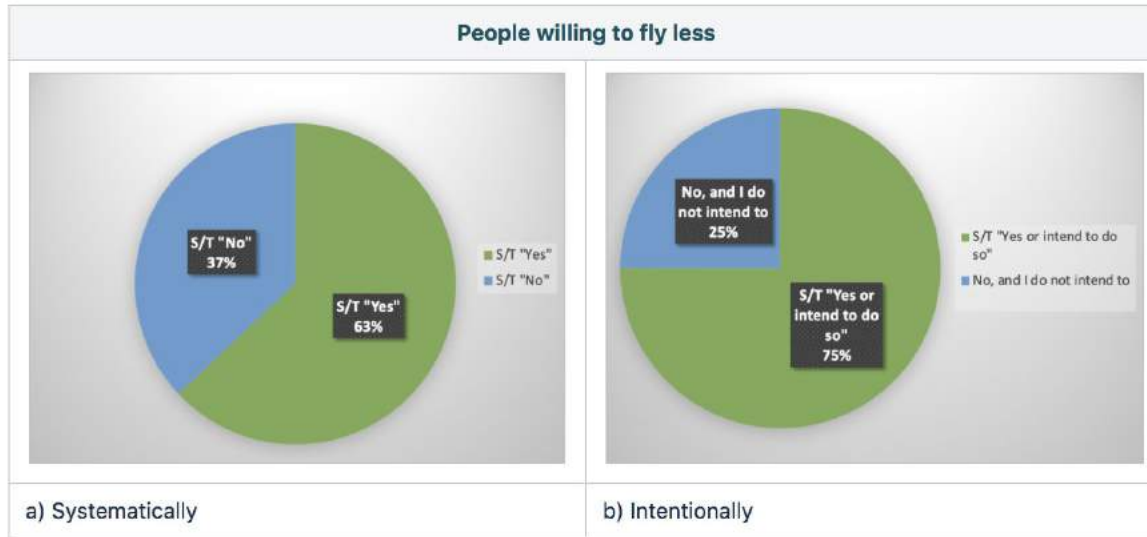
Understanding mobility research landscape: **Mobility layers**







Deep dive #1: Environment

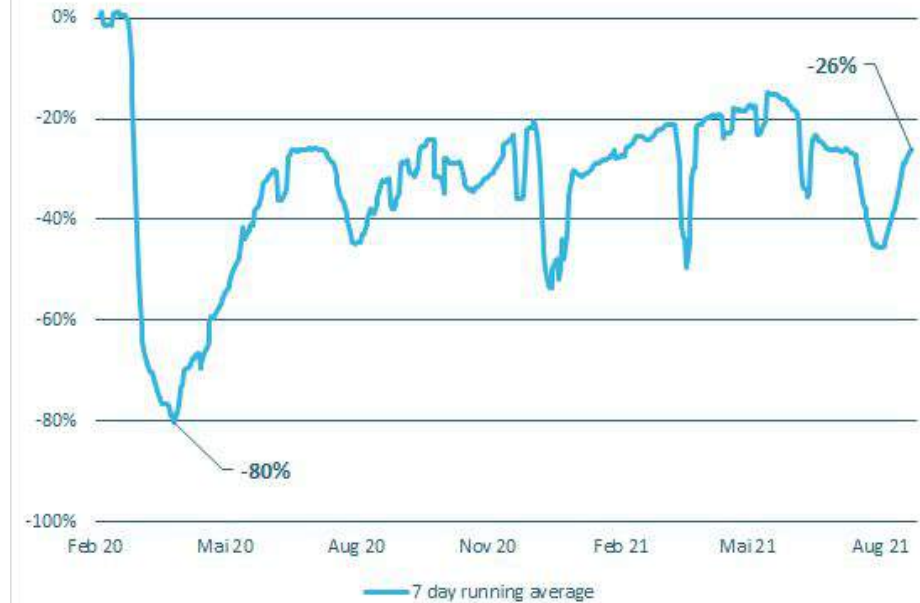


Deep dive #2: Digital transformation

London (Greater Area)

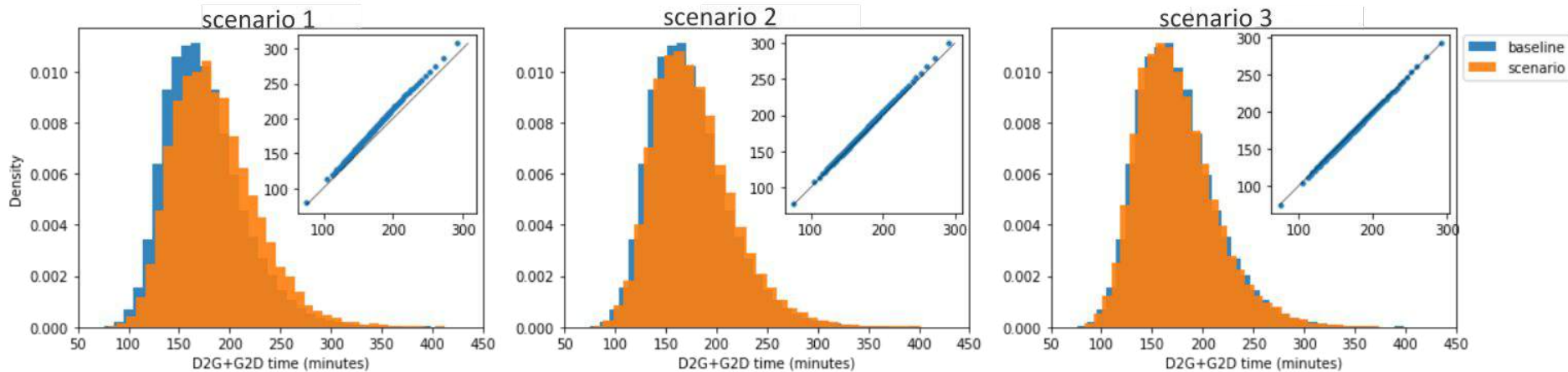


Barcelona (City)



Source: Google LLC "Google COVID-19 Community Mobility Reports"

Scenarios	Traffic Level	Parameters modified D2K/K2D	Parameters modified K2G	Parameters modified G2K
Scenario 1	12% of 2019	Airport access time via public/private transport (↓)	Immigration, buffer time (↑)	Immigration time (↑)
Scenario 2	45% of 2019	Same as Scenario 1		
Scenario 3	95% of 2019	Same as 2019		



Distributions of D2G+G2D times in the baseline (blue) and in the scenarios (orange). Insets: QQ-plot comparing the baseline and the scenario distributions.



Coffee break

Thank you for your attention. Now it's time for a coffee break!

