



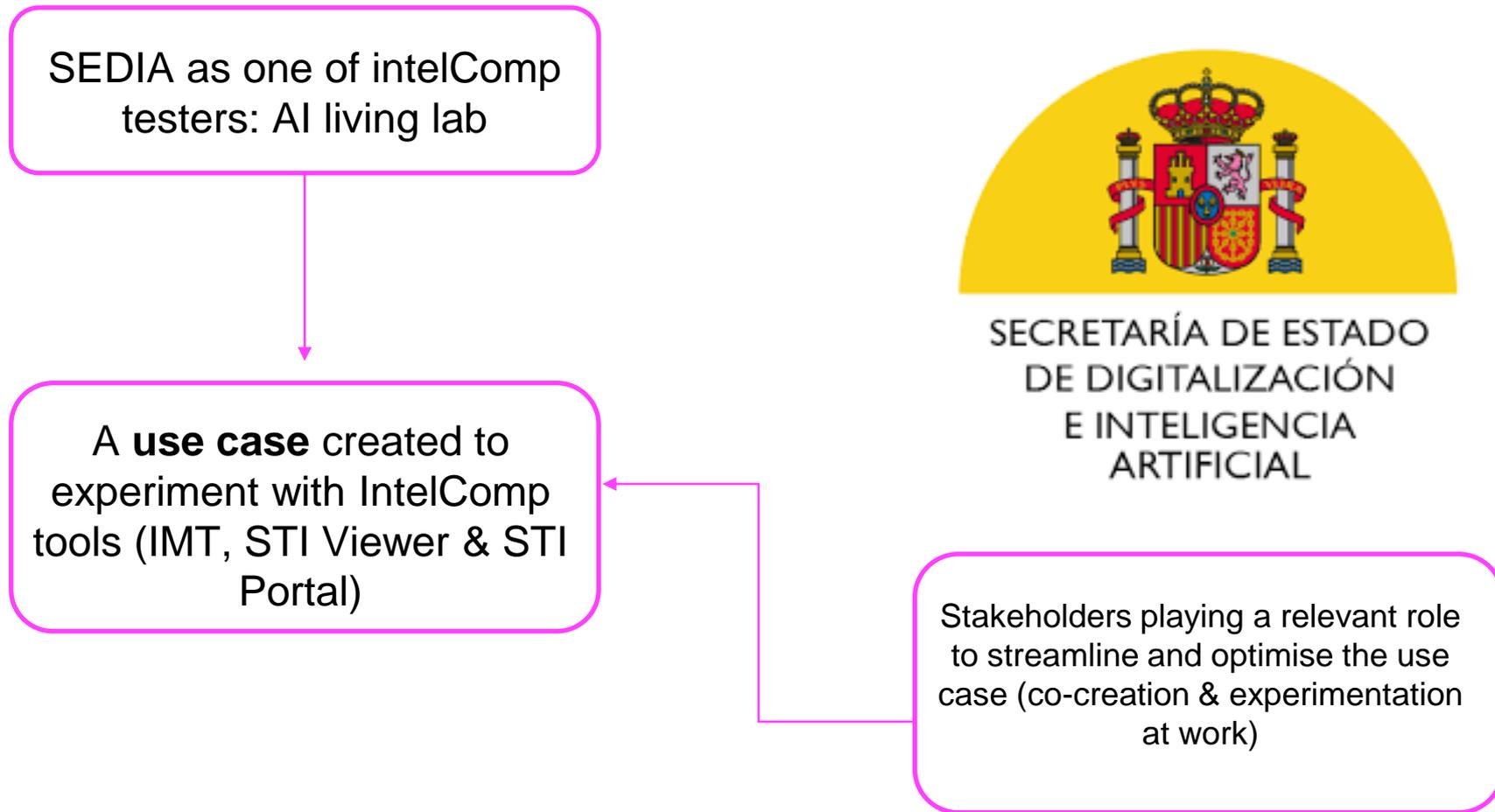
# STI Viewer for the AI use case

Dr. David Gago – Knowsultng // SEDIA

October 27, 2023



# 1. The AI LL use case: overview & goals



SECRETARÍA DE ESTADO  
DE DIGITALIZACIÓN  
E INTELIGENCIA  
ARTIFICIAL

# 1. The AI LL use case: overview & goals

- Primary Goal: Provide a full picture of the Spanish STI-AI ecosystem to optimise policy action.



+ Two (complementary) secondary goals

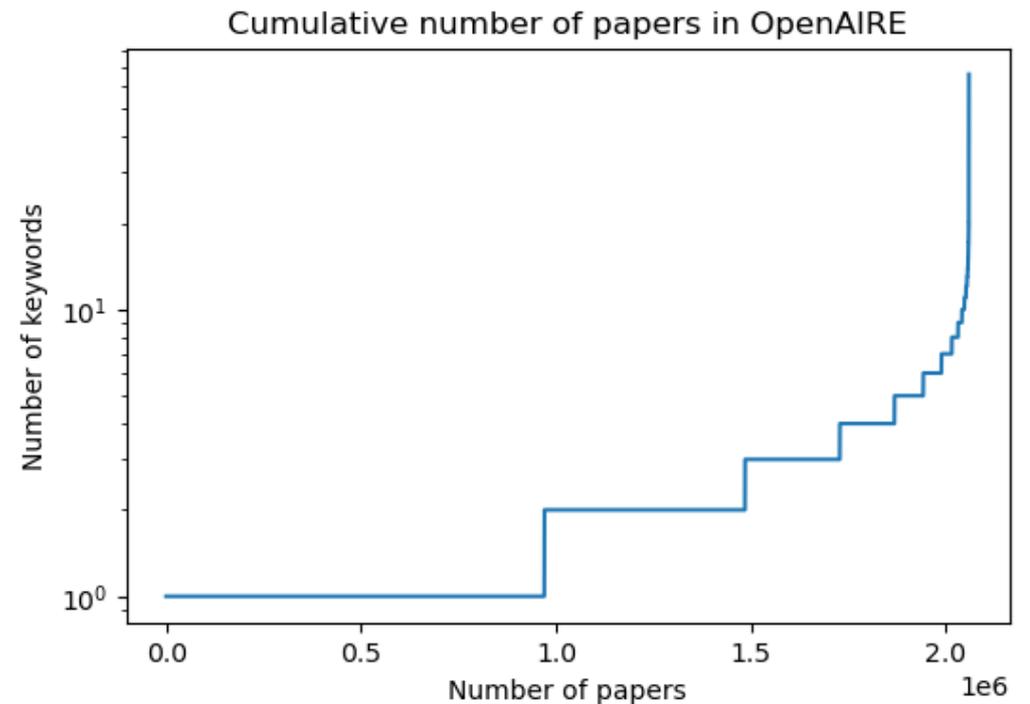
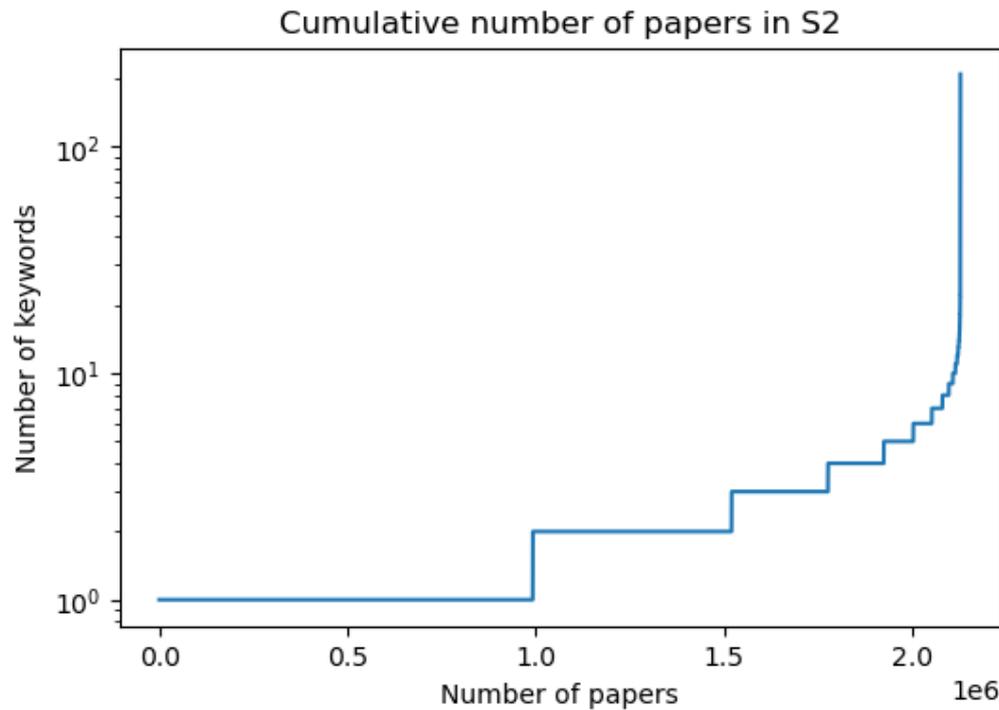
Fully and effectively involve the four components of the “quadruple helix”

Serve as a useful instrument to meet the main Spanish strategic policy guidelines on AI

## 2. STI Viewer: definition of datasets

- Starting point: A list of **266 AI-Keywords** (domain specific & curated by experts) have been used to build two datasets (publications, patents European-projects: dataset 1 (at least 1 AI keyword) & dataset 3 (at least three keywords))

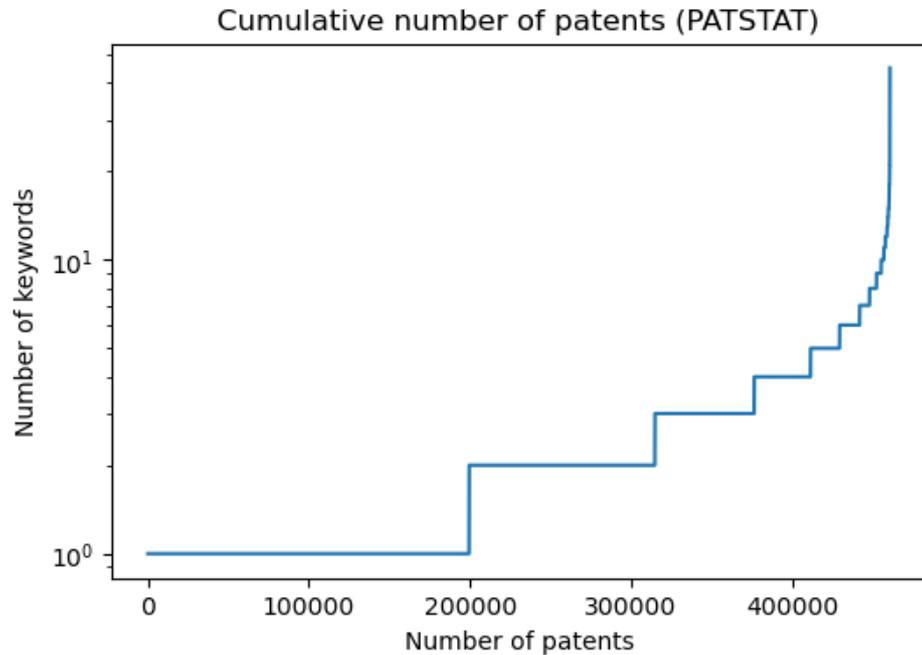
Publications: Semantic Scholar vs OpenAire



Semantic Scholar	Papers with 1+ Kwds	2.128.190
	Papers with 3+ Kwds	608.155
OpenAIRE	Papers with 1+ Kwds	2.058.409
	Papers with 3+ Kwds	574.346

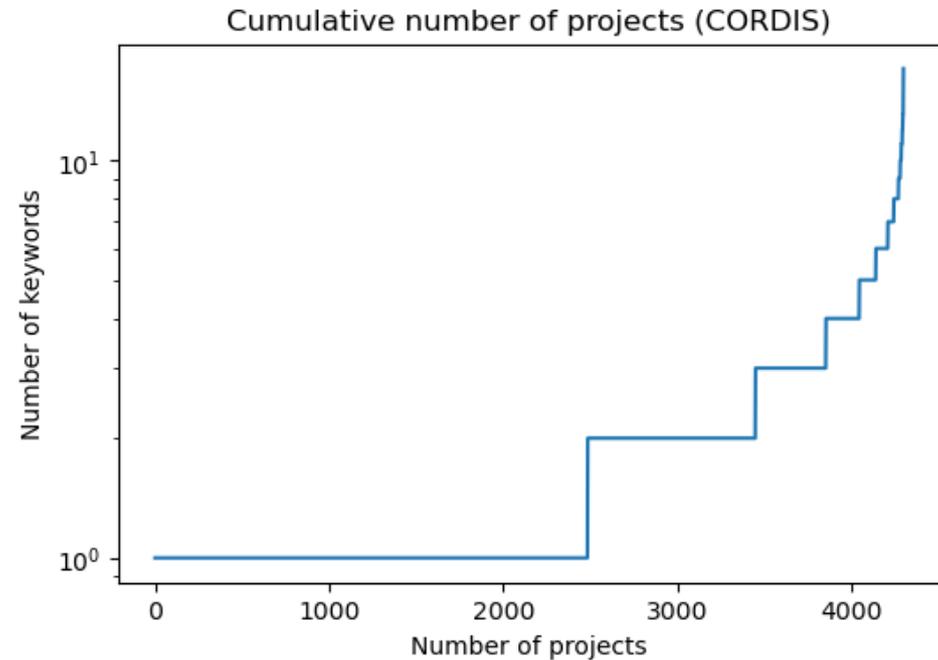
## 2. STI Viewer: definition of datasets

### Patents



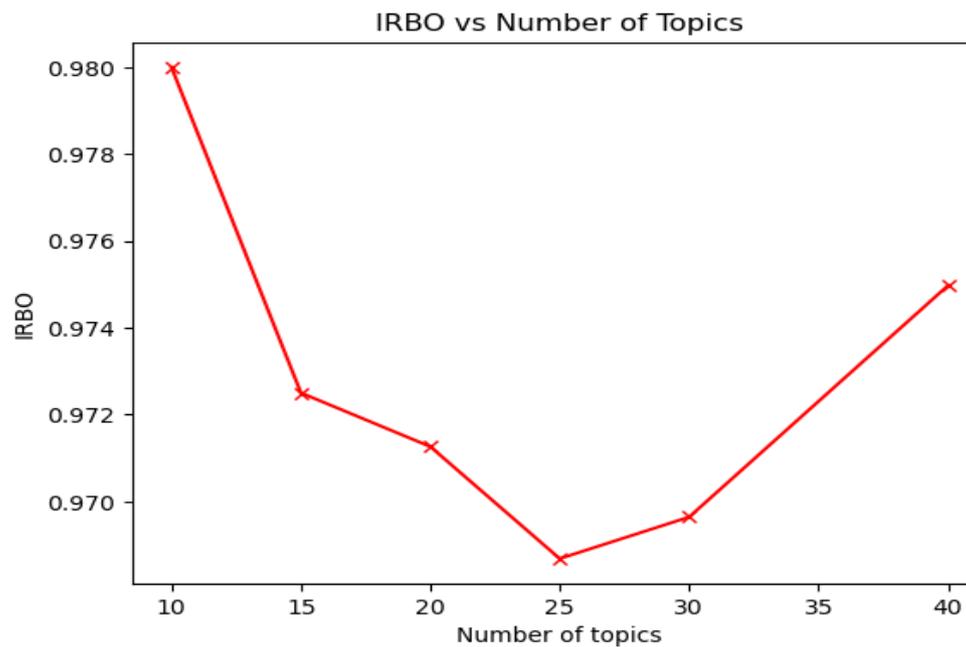
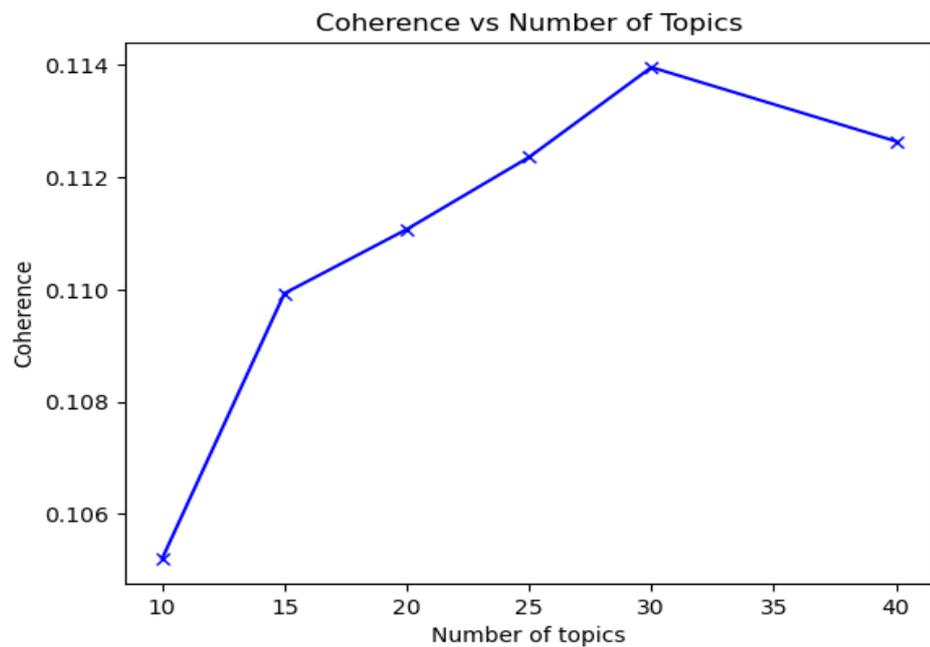
- Patents with 1+ Kwds: 460.820
- Patents with 3+ Kwds: 146.022

### EU Projects (CORDIS)

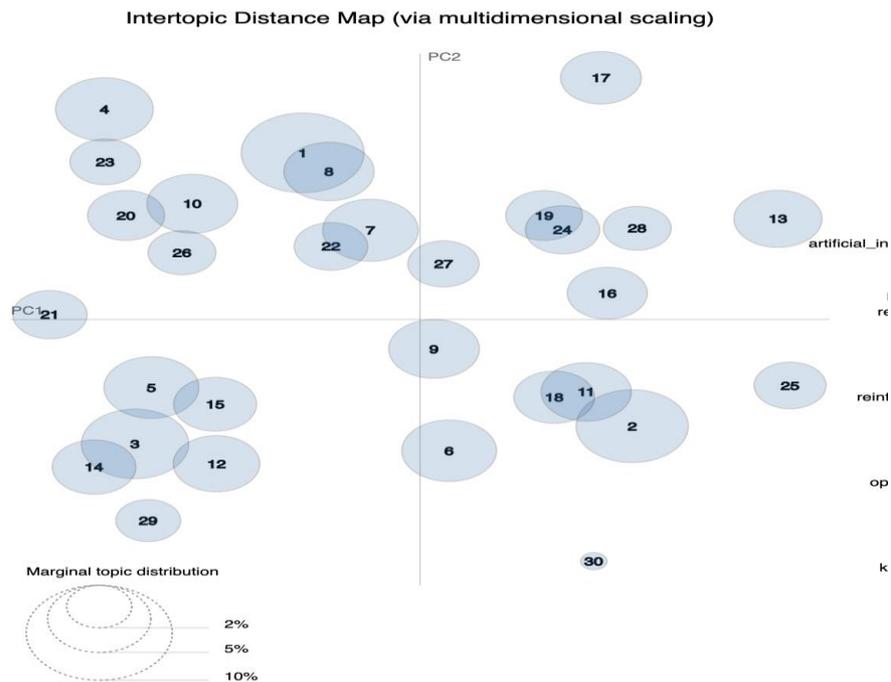


- Projects with 1+ Kwds: 4.301
- Projects with 3+ Kwds: 852

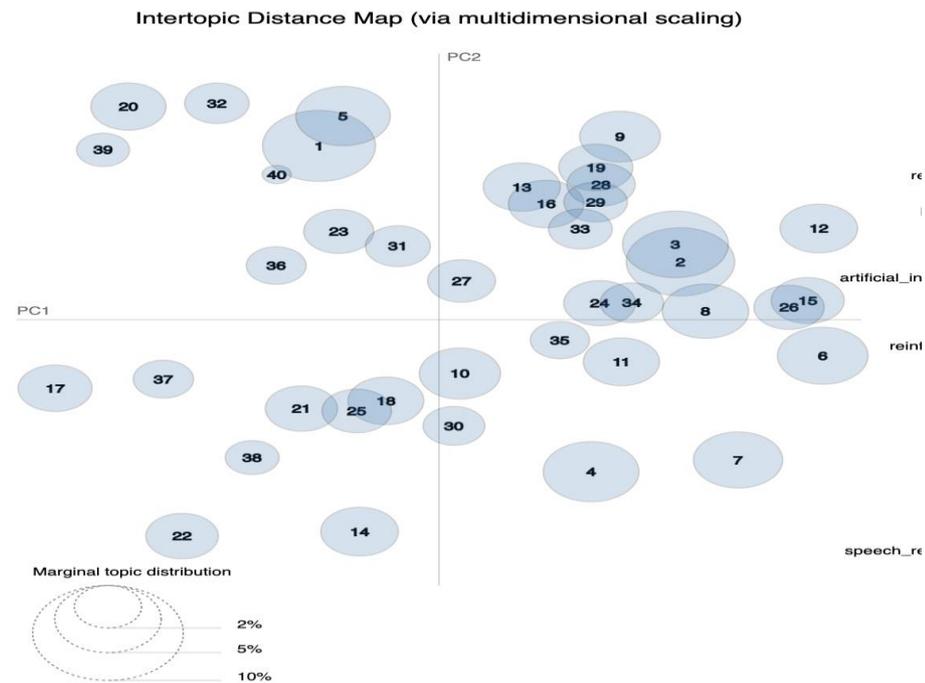
### 3. STI Viewer: Topic modeling



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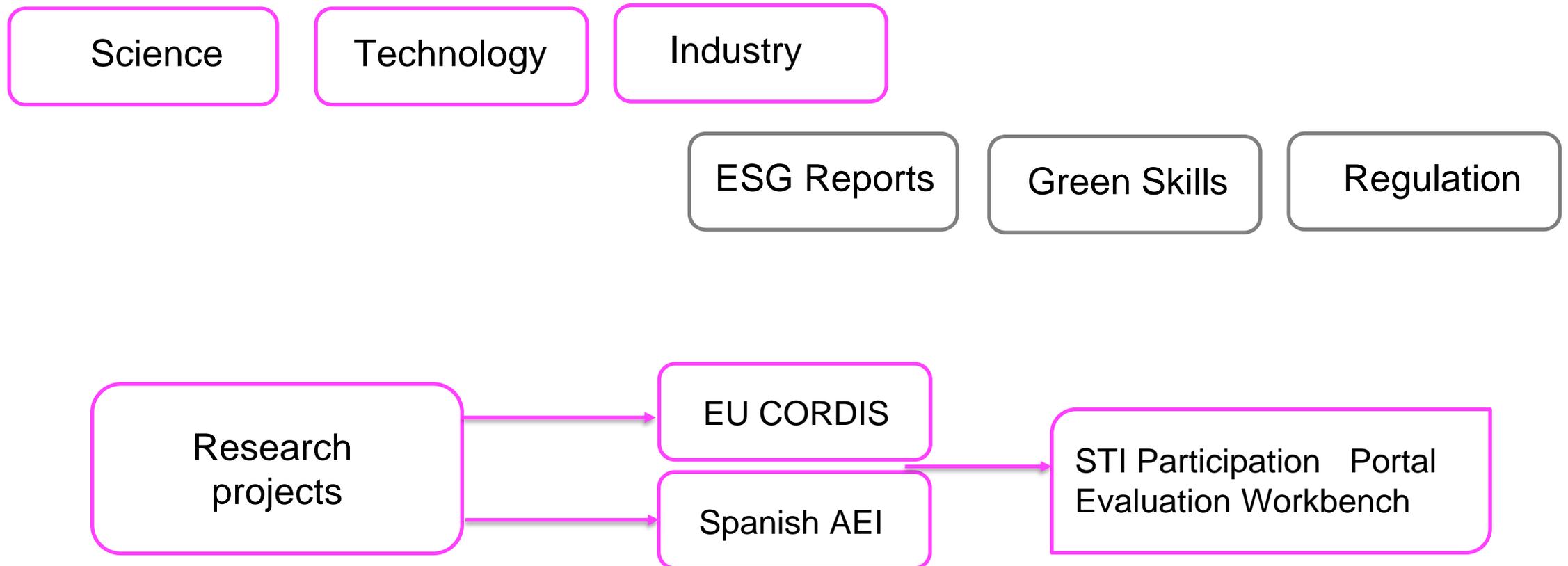


20 topics



25 topics

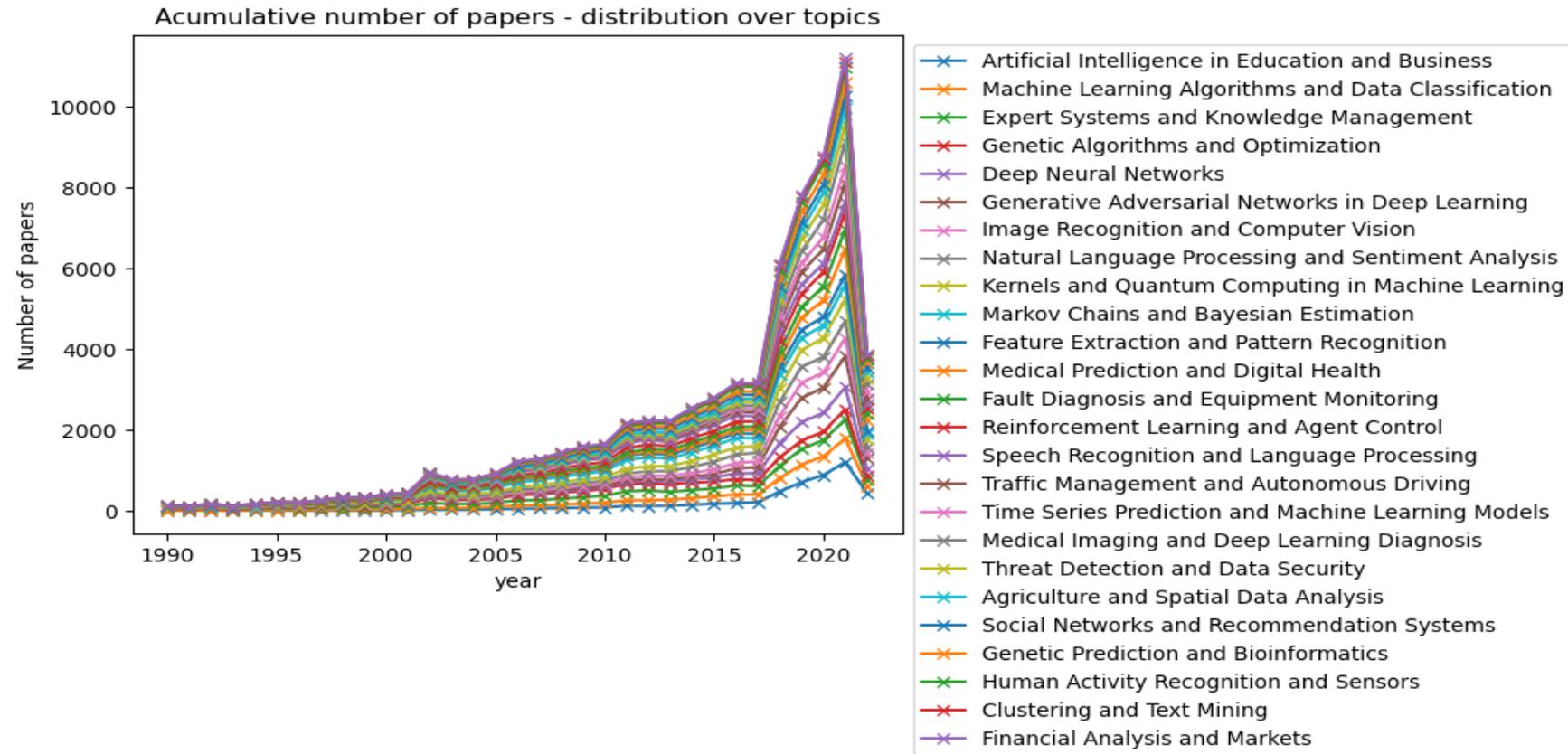
## 4. STI Viewer: Type of information & indicators available



## 4.1. STI Viewer: Science indicators

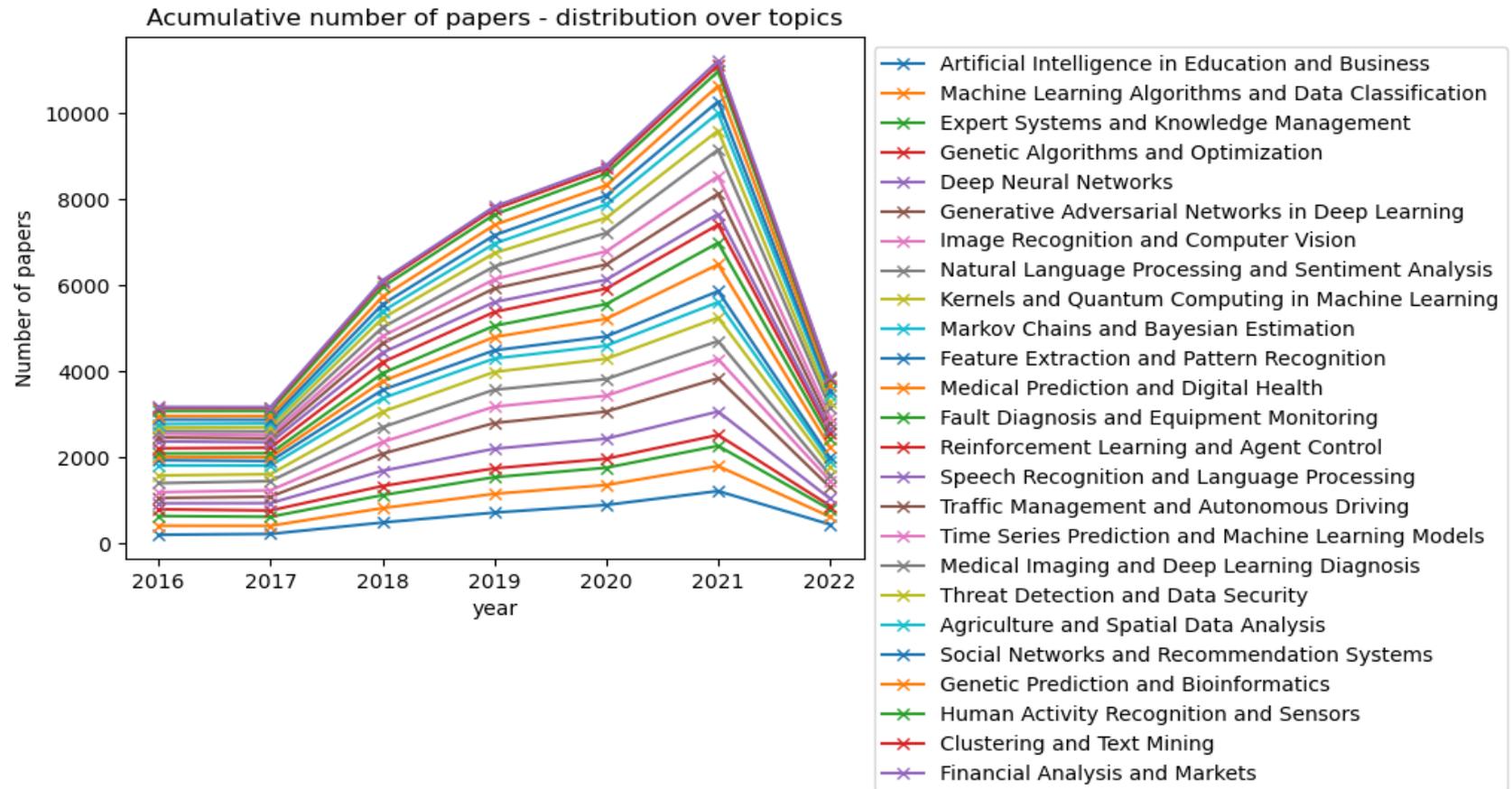
# 4.1. STI Viewer: Some indicators & visualizations

- *EU Science: scientific production trends*



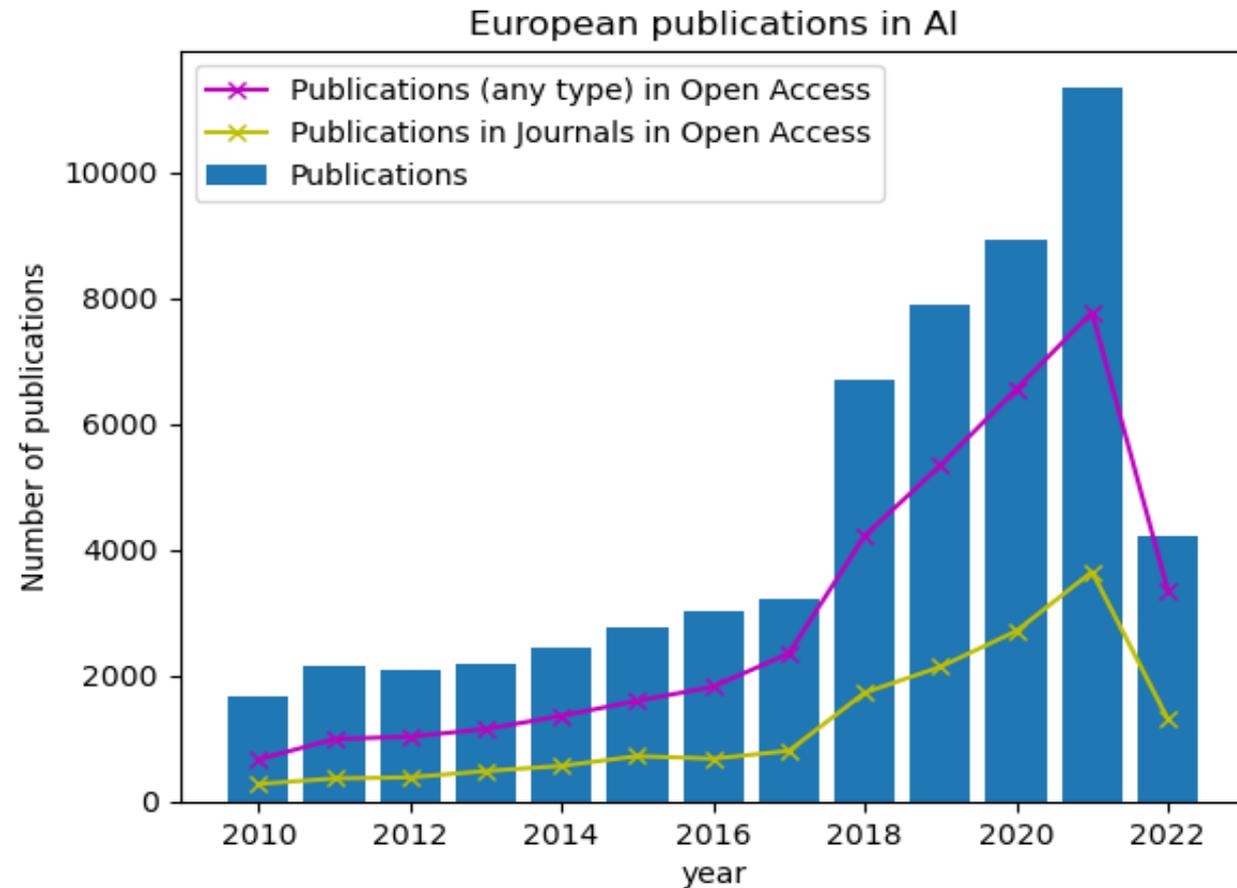
# 4.1. STI Viewer: Some indicators & visualizations

- Science: EU scientific production trends (zooming)



# 4.1. STI Viewer: Some indicators & visualizations

- Science: EU scientific production trends

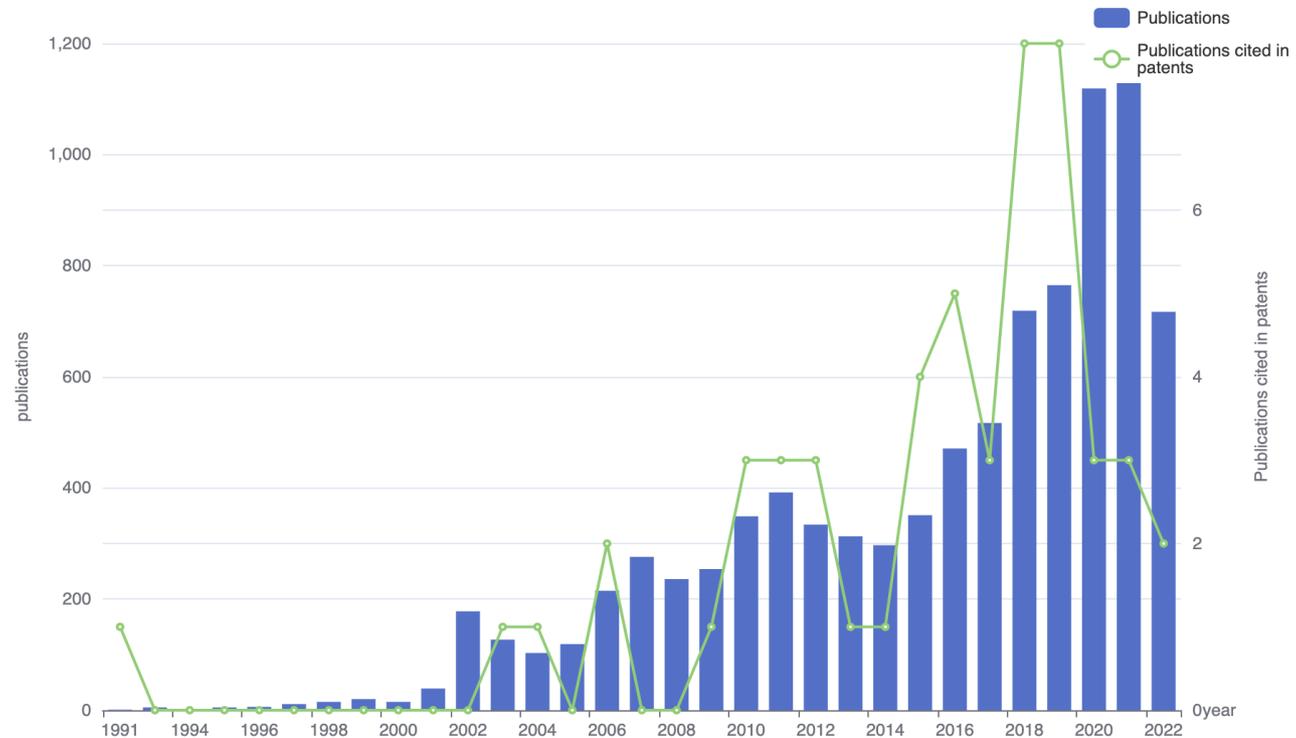


# 4.1. STI Viewer: Some indicators & visualizations

- *Science: Spanish scientific production trends*

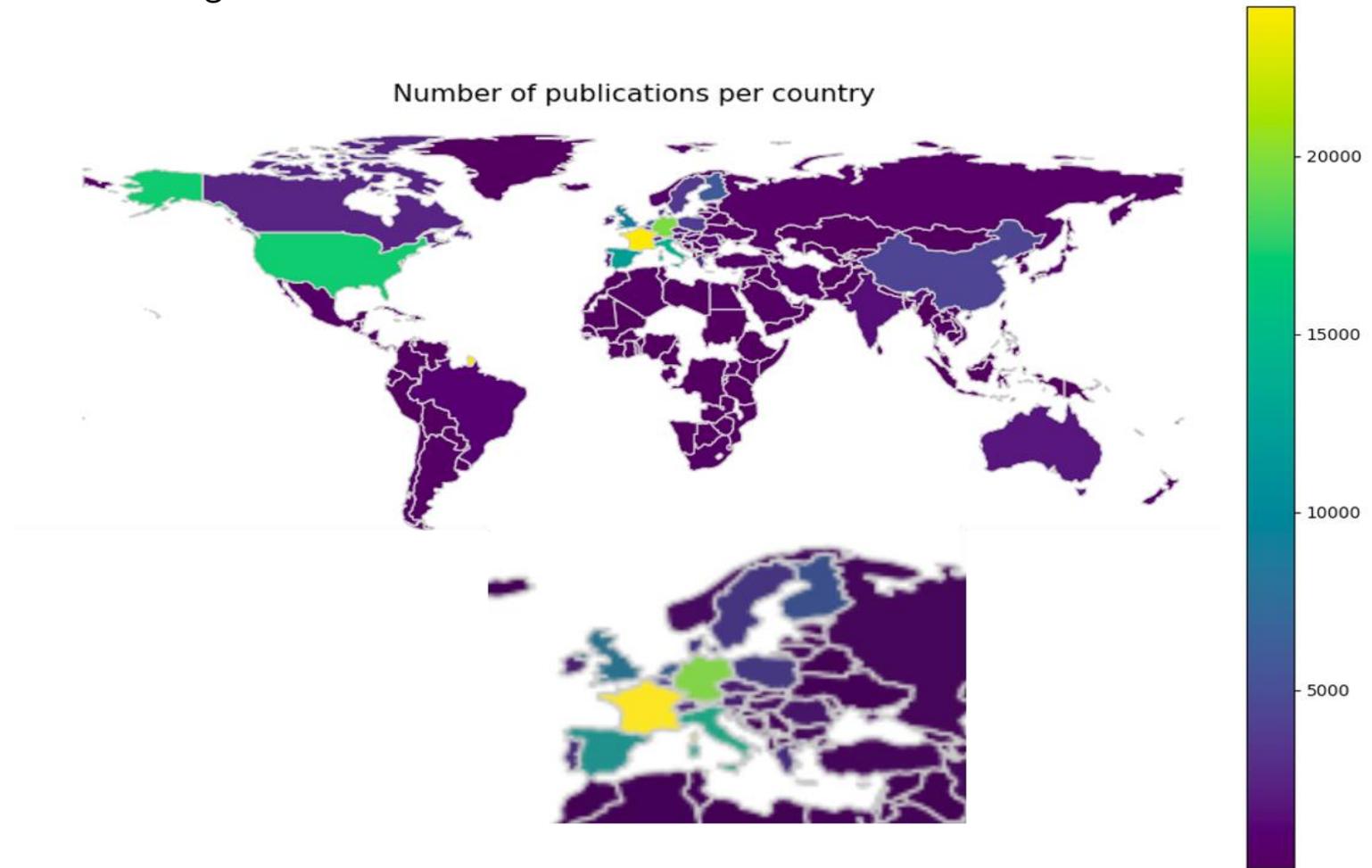
Spanish AI publications

Publications cited in patents



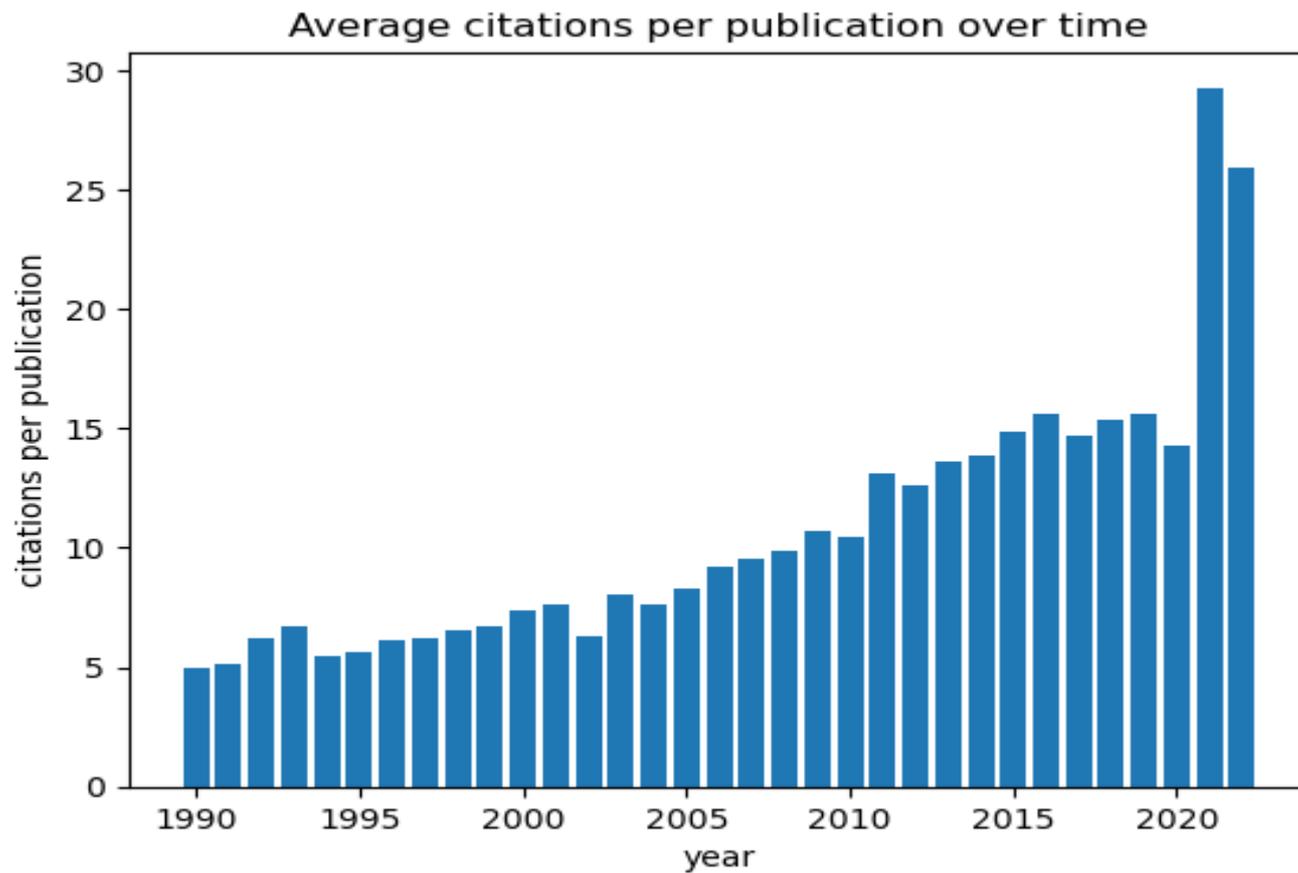
# 4.1. STI Viewer: Some indicators & visualizations

- *Science: EU scientific production origins*

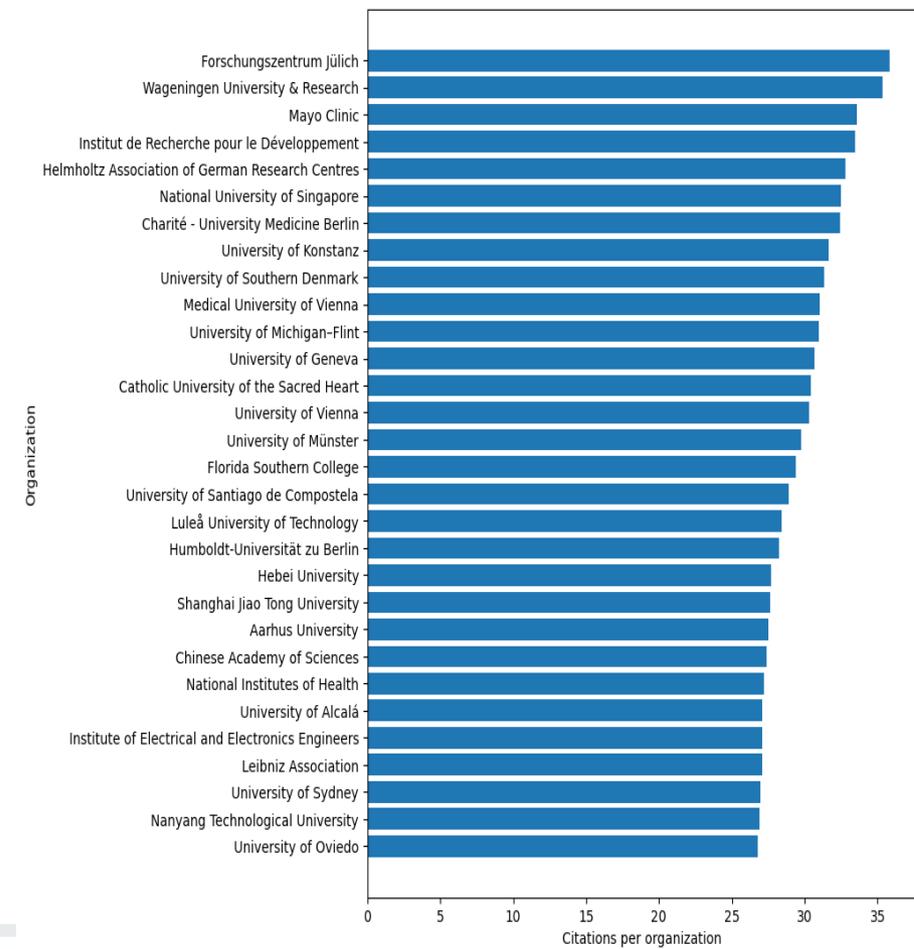


# 4.1. STI Viewer: Some indicators & visualizations

- Science: EU scientific impact trends



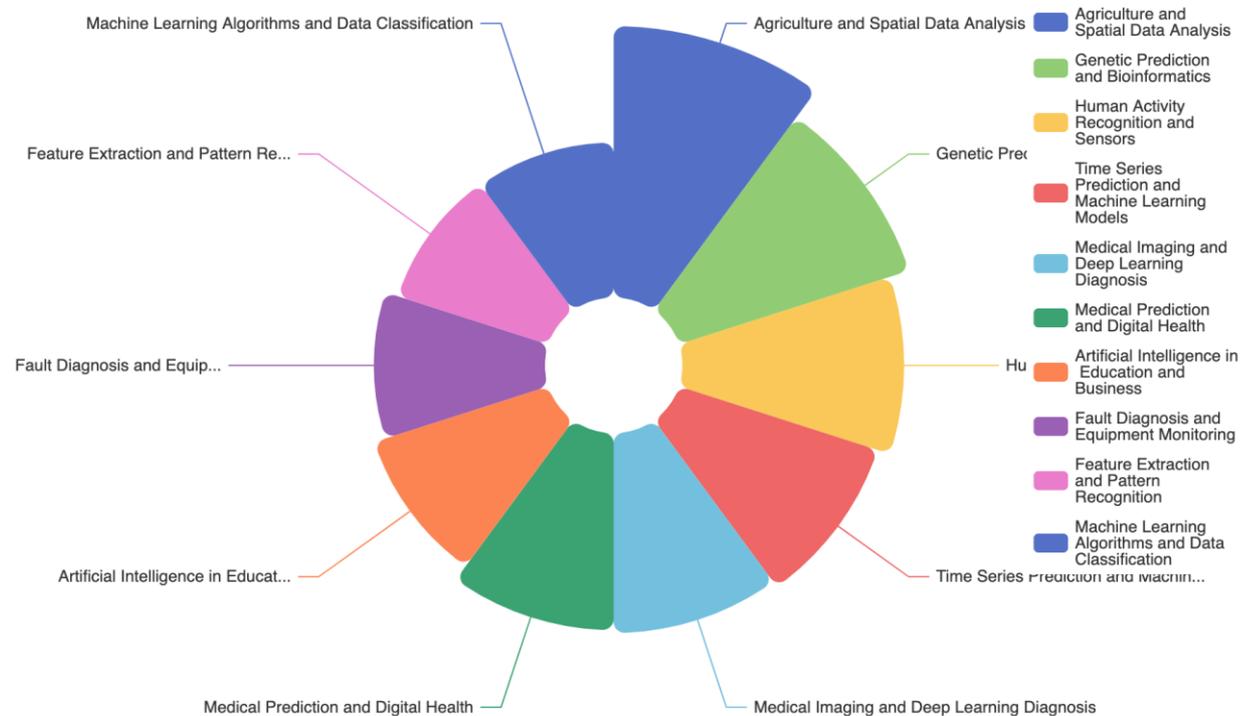
Top 100 organizations in terms of the average number of citations per publication in AI



# 4.1. STI Viewer: Some indicators & visualizations

- *Science: Spanish scientific impact trends*

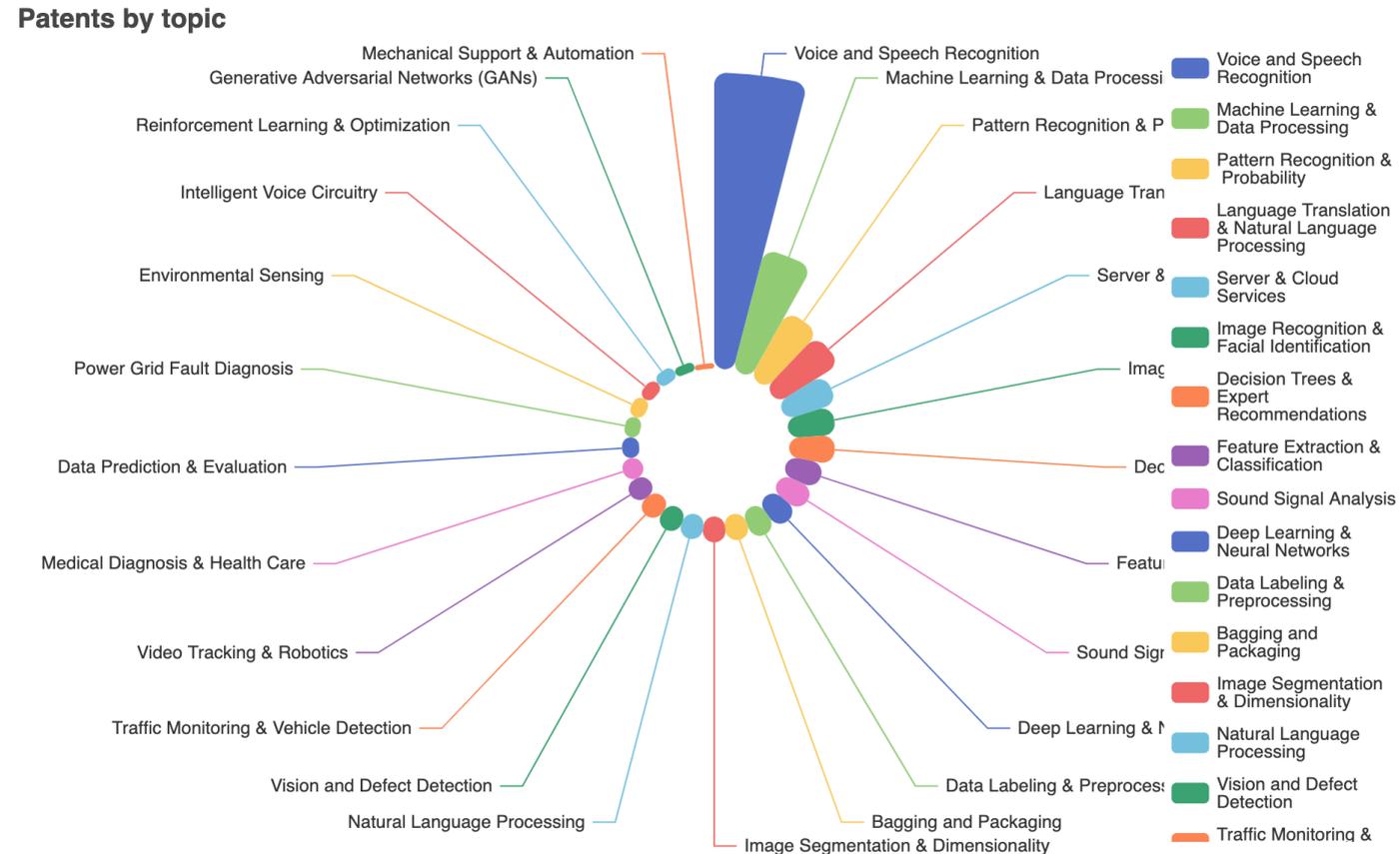
Citations per publication by topic in AI



## 4.2. STI Viewer: Technology indicators

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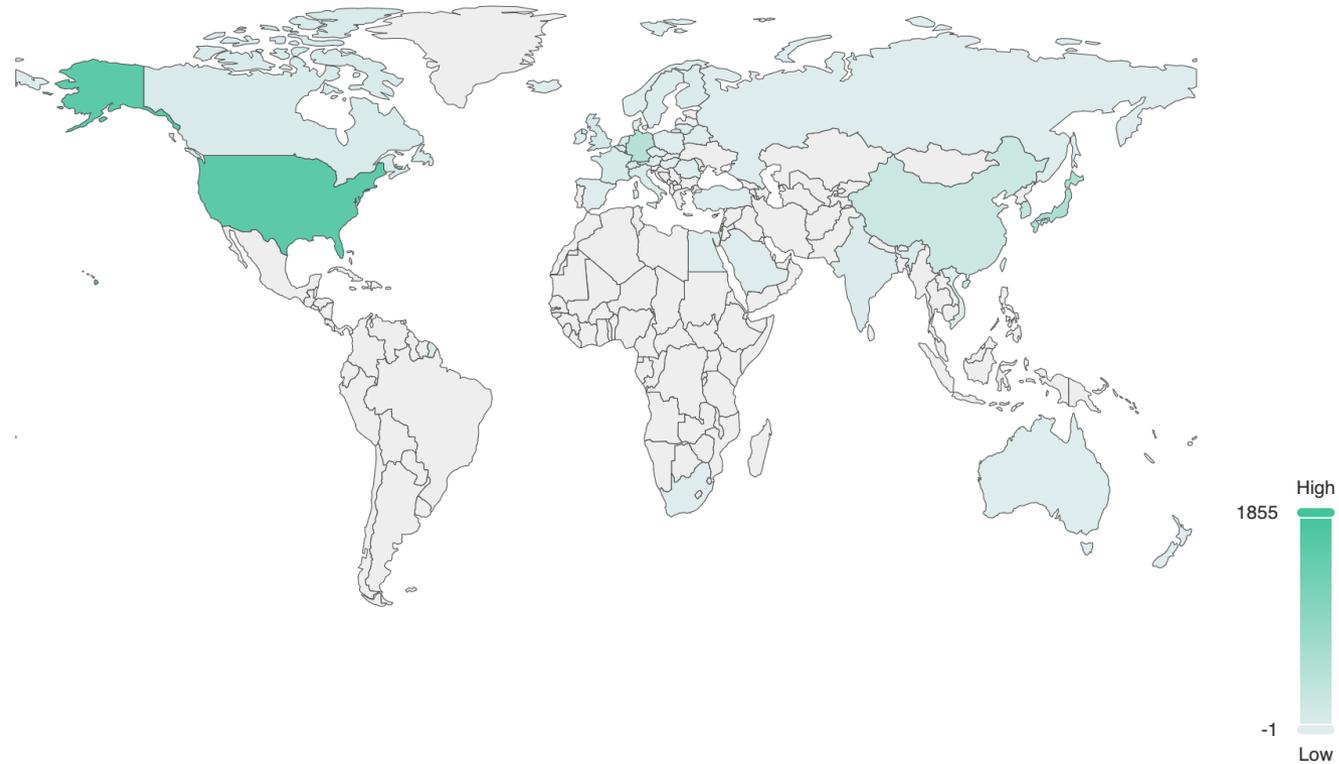
- Technology: EU technological production characteristics



## 4.2. STI Viewer: Some indicators & visualizations

- *Technology: EU technological production characteristics*

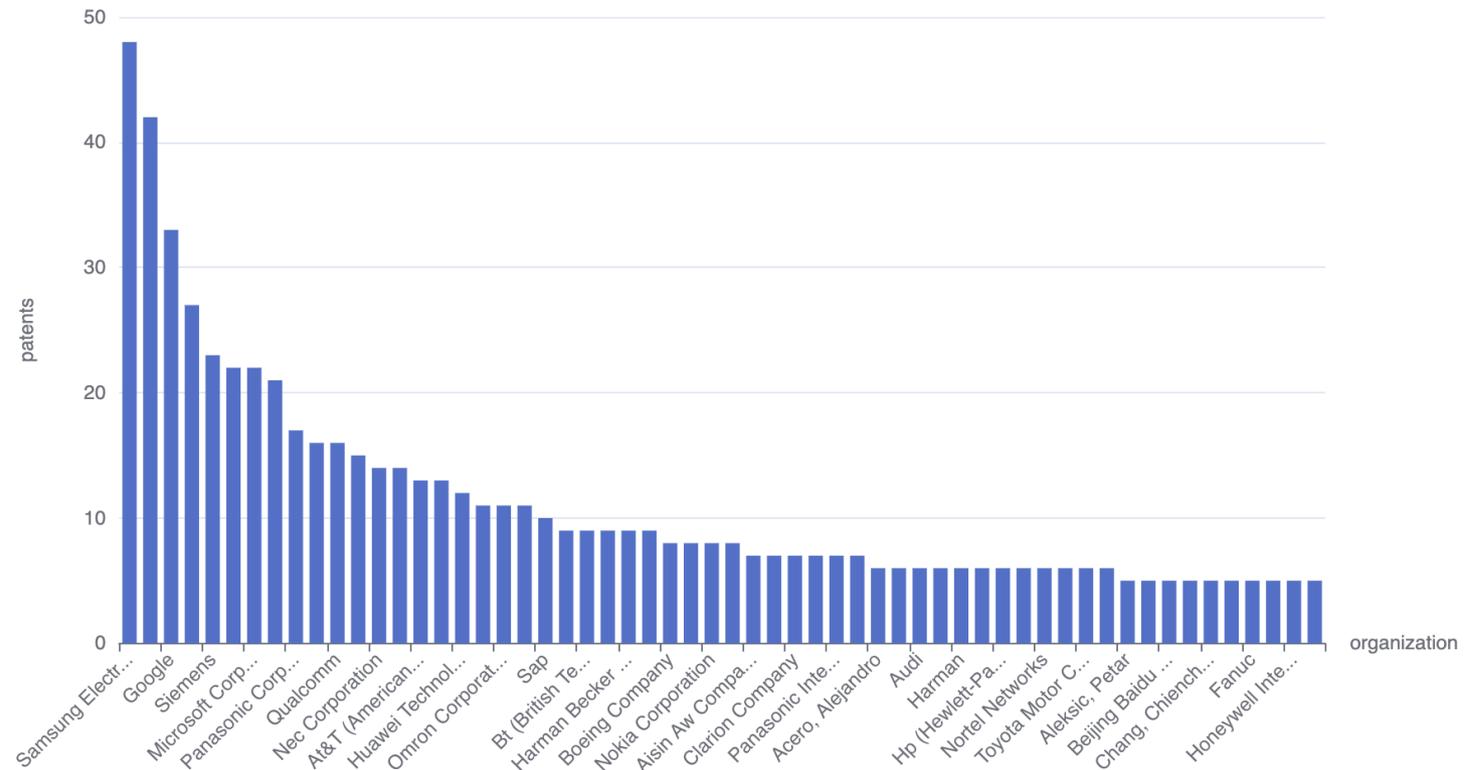
Patents by country



## 4.2. STI Viewer: Some indicators & visualizations

- Technology: EU technological production characteristics

Patents by Organization (top 100)





Thank you very much!

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