



AI and Parliaments

The case of the European Parliament Research Service

EPRS

**EUROPEAN
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European Parliament



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Empowering through knowledge

Access to information and research
in the EP

EPRS blog www.eptthinktank.eu



European Parliament

Mandate

Who we are

As the European Parliament's **in-house research service and think tank**, we provide research, analysis and information. Backed by specialist expertise in all EU policy areas, our goal is to **empower Members and their staff through knowledge**.



WHAT WE DO

1. We support **Members** in their individual capacity
2. We support **Committees** in their scrutiny activities
3. We act as a **Think Tank**; everything we publish exists in the public domain

Services

What we can do
for our clients

We provide authoritative and independent research and analysis on EU issues, policies and legislation throughout the whole policy cycle, both proactively and on demand.

AI Tools for DG EPRS - potential

High potential for the following activities:

- translation
- language processing
- input summary
- data analysis
- data collection
- data visualisation
- predictive analysis
- foresight
- readability checks

Gen AI Tools for DG EPRS

Generative AI tools like ChatGPT are very promising for our job, **but there are issues:**

- reliability, inaccurate answers, hallucinations
- data privacy and confidentiality
- output neutrality and bias
- intellectual property and copyright

Monitor Partners Interests Project

Objective

Using innovative technologies to efficiently monitor partners' publications related to EU policies and activities.

Expected outcomes

Better understanding and reporting of trends and perceptions of EU policy in the EU Member States as well as the activity, knowledge and expertise of partners and their perceptions of EU policy.

Obtain relevant information in real time on EU policies, from various levels of government in the EU Member States.

Architecture and main functionalities

1. Cloud development
2. Central EPRS database of organisations
3. Web scraping of organisations' websites
4. Semantic analysis, summaries generation, automatic indexation based on Policy Areas, Eurovoc terms, geographical area
5. Translation

Architecture: usage of AI

- Automatic Policy Area Classification Model trained on EPRS documents (to tag documents with the right Policy Area)
- Automatic EuroVoc Classification Model trained on large corpus of EU documents (to tag documents with the right EuroVoc keyword)
- eTranslation of the European Commission is a machine translation based on AI (for translating all document meta data)
- Usage of AI techniques for other document meta data:
 - Summary, keyword extraction, title extraction all based on common NLP libraries
 - Text extraction based on OCR for image PDF's

How MonPar works?



User Interface

EPRS Monitor Partners

Documents Organisations

tuna

Sort by...

Filter by...

- Country
- Policy Area
- Language
- Level
- Governance type
- Organisation
- Translation (for IT)
- Project Stage (for IT)
 - Prod-Mvp 1216
 - Dev-Mvp 1051
- Document Type

Document title: Commission for the Conservation of Southern Bluefin Tuna

Keywords frequency:

Southern Bluefin Tuna	High
Southern Bluefin Tuna CCSBT	Medium-High
Conservation	Medium
Global SBT Catch	Medium
reported SBT	Medium
detailed Catch inFormati...	Medium
surface fishery	Medium
Global CATCHES	Medium
farm stocking Forms	Low
Extended Scientific Com...	Low

Organisation: Commission for the Conservation of Southern Bluefin Tuna (CCSBT)

Domain: ccsbt.org

Level: Global

Pages: 13

Language: English

Number of files: not applicable

Policy areas (5): Fisheries, EU Democracy, Institutional and Parliamentary Law

Brussels, 21 June 2021 - Squarespace

Keywords

Southern Bluefin Tuna	High
Southern Bluefin Tuna CCSBT	Medium-High
Conservation	Medium
Global SBT Catch	Medium
Joint MEDAC Eastern Bluefin	Medium
reported SBT	Medium
detailed Catch inFormation	Medium
surface fishery	Medium
Global CATCHES	Medium
farm stocking Forms	Low
Extended Scientific Committee	Low
year	Low
SECRETARIAT REVIEW	Low

Policy Areas

Fisheries	Parliamentary Law	Environment
EU Democracy, Institutional and	Development and Humanitarian Aid	Gender Issues, Equality and Diversity

Eurovoc Classifiers

catch quota	sea fish
authorised catch	fishing statistics

User Interface: results

Document Analysis | Organisation Analysis

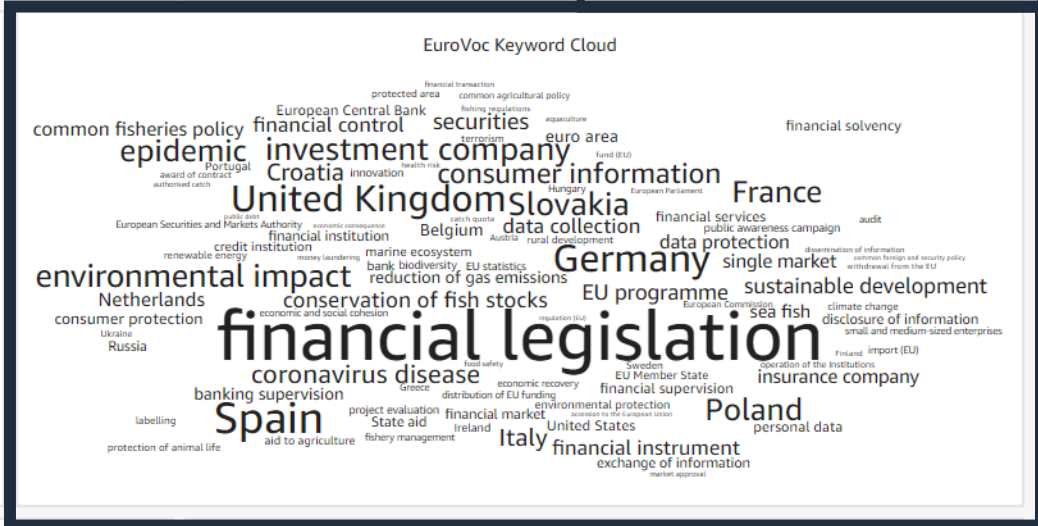
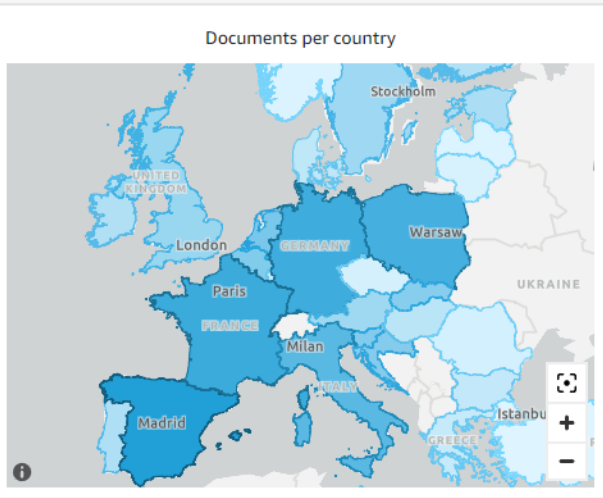
Monitor Partners Document Analysis

Select Country: All | Select Region: All | Select Organisation: All | Select Policy Area: All | Select EuroVoc Keyword: All

Documents: 143,084

Organisations: 276

Countries: 33



Select EuroVoc Keyword

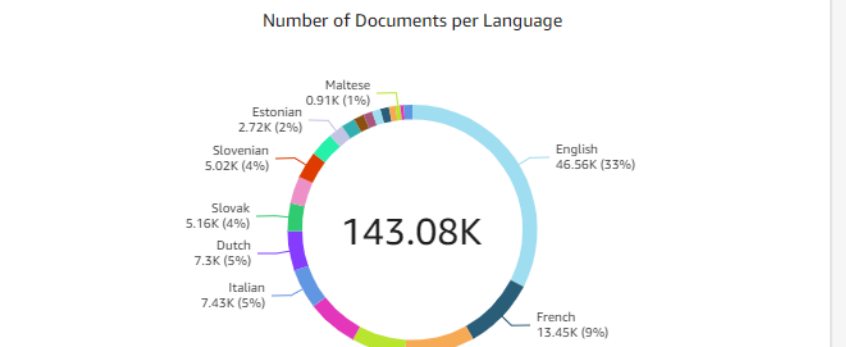
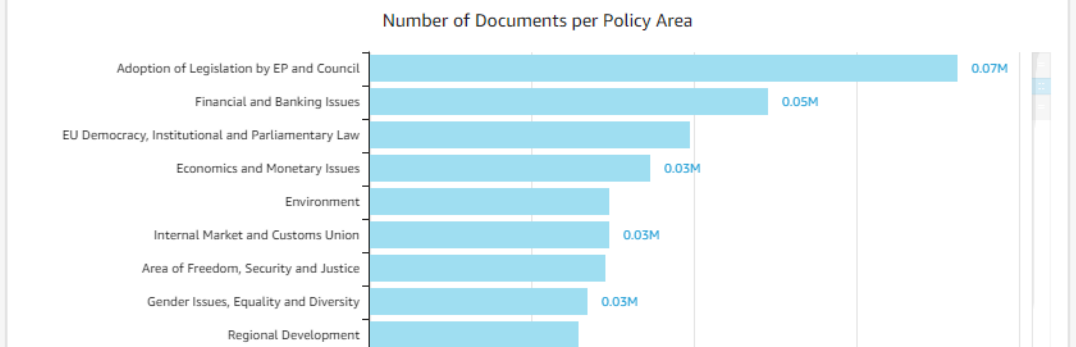
All

forest

- Select all results
- European forestry policy
- afforestation
- agroforestry
- deforestation
- forest
- forest conservation
- forestry development
- forestry economics
- forestry legislation
- forestry policy

1 - 12

SEARCH



Benefits

- enables analysts to collect **multilingual information**
- **time of search** for relevant documents reduced from hours to **minutes**
- easy and instant filter of hundreds of thousands of documents based on relevant keywords

Involvement of the Business

1. EPRS Database of organisations

- Who provides organisations
- Correct encoding of metadata

2. Compliance

- Each website (domain) needs to be checked for disclaimers. Some organisations do not allow webscraping for (parts of) their website.
- Once disclaimer checked (or positive reply from the organisation), webscraping can start (e.g. once a week)

3. Results validation

- Verify and validate the keywords classification, quality of generated titles and summaries

Status and future steps

- Status: currently running a pilot on a Minimum Viable Product to validate usage on real EPRS products
- Future steps: scale up to 1000 organisations (currently only 300) and extend usage to more EPRS colleagues
- Challenges
 - technical: need for expertise on cloud and AI
 - functional: need for data analysts on business side, resistance to embrace this type of technology
- Expected benefits:
 - time: instant access to a collection of documents pre-filtered
 - capacity: access to hundreds of thousands of documents in 25 languages
 - quality: research activity enriched by the access to many more relevant and up to date documents

Conclusions

AI tools for automatic document classification, translation and summarisation can be very effective but:

- do not underestimate the technical challenge
- ensure to have the resources to train and validate the system
- prepare to scale up



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