

# About the Open Source Patent Analytics Project

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# About the Project

1. This project provides practical guidance and resources in the use of open source tools for patent analysis.
2. Patent information is a valuable source of technical data on trends in scientific research and development and is increasingly used to inform policy debates and decisions.
3. Millions of patent records are available online through patent databases such as EPO espacenet, Patent Scope and Patent Lens and Free Patents Online.
4. The questions this project seeks to address are:
  - ▶ How to obtain patent data in a form that is useful for different types of analysis?
  - ▶ How to tidy, analyse, visualize and share patent data using open source or free software?
  - ▶ How to promote confidence that the results of analysis are transparent and robust for informed decision-making?

# Topics

The project is divided into seven main topics but we will see how it develops:

1. Approaching Patent Data
2. Obtaining Patent Data
3. Tidying Patent Data
4. Analysing Patent Data
5. Visualising Patent Data
6. Sharing Patent Data
7. Tools and Resources

Each of these topics will be accompanied by documentation, videos, code and resources to assist with patent analysis. The project home page and repository is hosted on Github which includes links to the Open Source Patent Analytics YouTube channel of video walkthroughs on software and common tasks. We have created a set of patent datasets that are accessible on the project's Google Drive and on the Github repository.

# Tools

We will mainly focus on:

- ▶ Using free databases and APIs to retrieve patent data [Open Patent Services](<http://www.epo.org/searching/free/ops.html>).
- ▶ Using tools such as Open Office Calc and Google Refine/Open Refine] for basic data cleaning.
- ▶ Using R in RStudio for tidying, analysing and visualizing patent data.
- ▶ Using Python to retrieve patent data.
- ▶ Using Google Charts, Tableau Public and Shiny Apps to create interactive dashboards
- ▶ Using Gephi to visualize networks (inventors, applicants, IPCs)
- ▶ Using mapping tools such as Google Maps or Open Street Map

Please submit suggestions for other free tools that you think will be useful