

# European forum and oBsErvatory for OPEN science in transport (BEOPEN): TOPOS Observatory for Individuals

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## ABSTRACT

The BE OPEN project has received funding from the Horizon2020 of the European Union and aims to promote Open Science in transport research and assist in regulating and standardizing it (<https://beopen-project.eu/>). The vision of BE OPEN is to create a common understanding on the practical impact of Open Science and to identify and put in place the mechanisms to make it a reality in transport research by the setting up and implementation of the Transport Observatory / fOrum for Promoting Open Science (TOPOS). This paper aims to give an overview as well as to highlight the main potentials of the TOPOS Observatory for individuals.

**Keywords:** Open access, Open science, Transport research, BE OPEN, Horizon 2020, Scipedia

## 1. INTRODUCTION

The TOPOS Observatory aims to showcase the status and progress of open science uptake in transport research, and it comes in two versions: a) the TOPOS Observatory for Organisations and b) TOPOS Observatory for Individuals. The current paper deals with the *TOPOS Observatory for Individuals*, which is a scientific and technical digital platform that aims to provide publishing and open access contents in the field of transport research, being addressed to individual users from the science and technology areas. The *TOPOS Observatory for Individuals* utilizes the capabilities of *Scipedia*, which is an open professional network where professors, students, scientists,

researchers and professionals in science and technology can access and share knowledge, expertise and showcase their work.

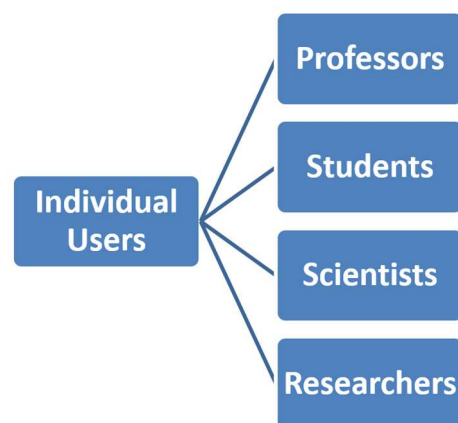


Figure 1 Individual end-users' subcategories

## 2. THE SCIPEDIA PLATFORM

### 2.1 Key futures

*Scipedia* integrates an advanced online publishing and data management platform within a collaborative social network. The platform offers the following main functionalities:

- *Explore*: searches and discovers research products of any type in the field of transport research.
- *Discuss*: adds comments on published documents and datasets.
- *Provide*: provides metadata, content or datasets.
- *Link*: links a research result to its funding project through the project profile curator.

Guest or unregistered users can add *explore*, *search* and *discover* products in the field of transport research. Registered users can have access to more advanced functions: add comments and discuss about the published contents, provide new contents, link a research result to its funding project or view other users' profiles etc.

The platform allows for enriched web formatting tools and provides an online editor to input/edit text, references, links, datasets, videos and the list is not exhaustive. Research results can be imported in Microsoft Word and Latex formats and can also be converted into *enriched web* format, which improves the users' navigation experience with faster browsing and improved performance of search engines.

Different online social network tools such as *'following/follower'* option, *'activity panel'*, dedicated *'discussion forum'* associated with published documents or internal messaging are available. These collaborative tools facilitate the communication between professors, students, scientists, researchers and professionals in science and technology and also provide a framework to share their knowledge and expertise.

All transport research contents available in the platform include metadata, keywords, DOI - if it is available-, document information and license definition. The metadata associated with an entry is available for browser indexing tasks.

Research contents provide revision history with all changes made to the content of a document. Further, documents can be shared in well-known social networks like Facebook, Twitter or LinkedIn. Some other useful utilities are available for platform users such as exporting research content from enriched web format to PDF and EPUB format.

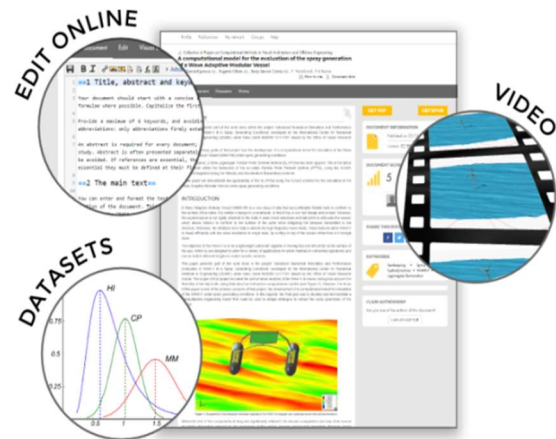


Figure 2 Scipedia: Online collaborative edition features

## 3. TOPOS OBSERVATORY FOR INDIVIDUALS OPEN PORTAL

The Open Portal (Figure 3) has a customized design and a dedicated institutional URL (<https://www.scipedia.com/institution/beopen-project.eu>). The home page provides an overview of the BeOpen project and key pertinent information. The links to the transport research repositories that contain the documentation are also available from the *home* page. The Open Portal is managed by a curator. The curator has the permissions to modify both design and contents of the *TOPOS Observatory for Individuals* Open Portal. Moreover, the Open Portal curator can associate new repositories to the *TOPOS Observatory for Individuals*.



Figure 3 TOPOS Observatory for Individuals Open Portal

### 3.1 Analytics

The *TOPOS Observatory for Individuals* has analytical information about views of the contents of transport research, number of total publications and total citations to the TOPOS Observatory publications (the total citations are obtained from Web of Science Core Collection).

Analytical information about views of the contents is shown in different formats, giving an overview of the impact of the publications:

- Views by country
- Views by month
- Data evolution
- Total reputation score of members
- Total publications
- Total views of members publications
- Total citations to the members publications

### 3.2 Research repositories

A research repository is a thematic collection of any type of technical and scientific document (such as thesis, dissertations, state-of-the-art review papers, datasets, historical papers or research reports, parts of books, articles, conference objects). Collections give the opportunity to researchers and scientists to freely publish and facilitate open access to their research activities' results. It is also a good

opportunity for scholars and research communities to increase their visibility and global impact.

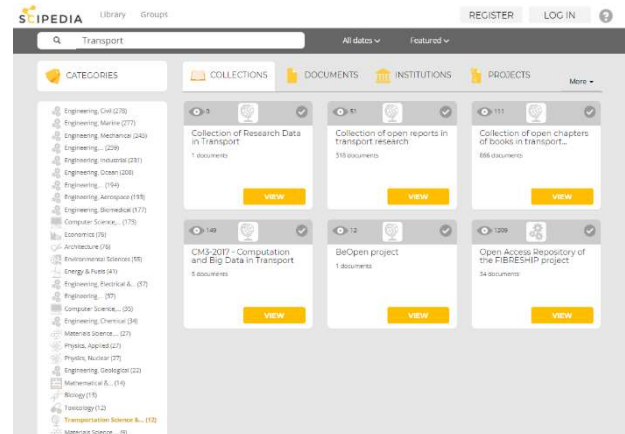


Figure 4 Search Engine

These research repositories have the following advantages:

- Provide immediate access to content in multiple ways
- Use full-text search engine (Solr)
- Any text search is performed in milliseconds through all the content, including title, abstract, full text, references, authors, categories and any additional fields defined.
- Content is indexed by categories (scientific fields), keywords, authors and publications.
- Use additional filtering utilities (such as dates, featured, most viewed, etc.)

Transport research contents for the *TOPOS Observatory for Individuals* have been harvested from the official dump of the *OpenAIRE Research Graph* for research communities in JSON format on Zenodo (<https://doi.org/10.5281/zenodo.3974604>).

## 4. CONCLUSIONS

The *TOPOS Observatory for Individuals* offers an innovative Open Science framework

for students, researchers and professionals who seek for the following:

- Search and discover research products of any type in the field of transport research.
- Online collaborative tools to improve contents and to insert supplementary material such as video, datasets, models and more.
- Share results and work at any stage of the research cycle.
- Build an active community of contributors.
- Work collaboratively in research reports and open discussion forums.
- Create a profile for their open science project.

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## **6. REFERENCES**

BE OPEN Grant Agreement (824323 —H2020-MG-2018-2019-2020/H2020-MG-2018-SingleStage-INEA)