This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No 824323





### European forum and oBsErvatory for OPEN science in transport

#### Webinar on the BEOPEN TOPOS

26/03/2021

**The BEOPEN TOPOS for Organisations** 

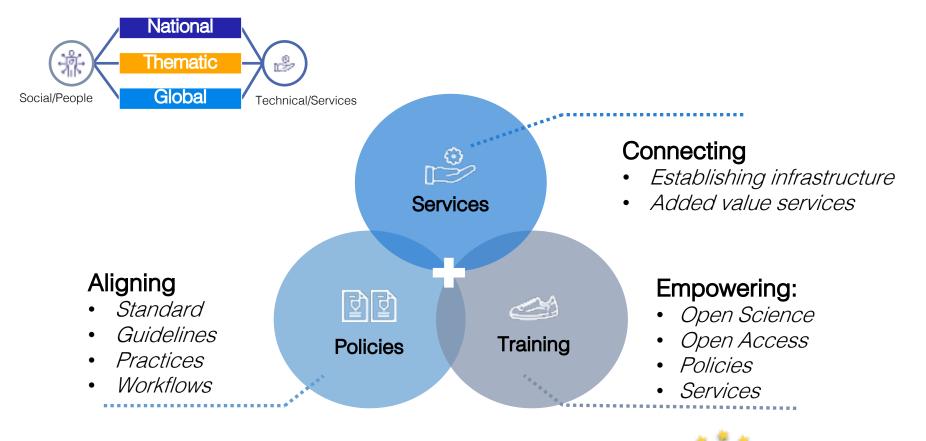
Alessia Bardi, OpenAIRE/CNR-ISTI

Harry Dimitropoulos, OpenAIRE/ATHENA

## Outline

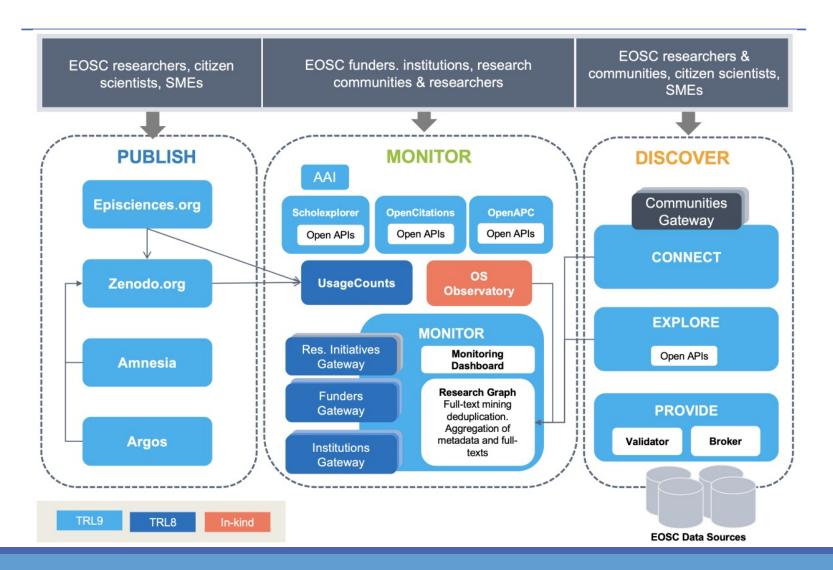
- 1. OpenAIRE and the Resarch Graph
- 2. Methodology for the set up of the TOPOS for organisations
- 3. Functionality of the TOPOS for organisations
- 4. Q&As

# The Open Science Open AIRE Infrastructure for Research in Europe



#### www.openaire.eu

## **OpenAIRE service portfolio**

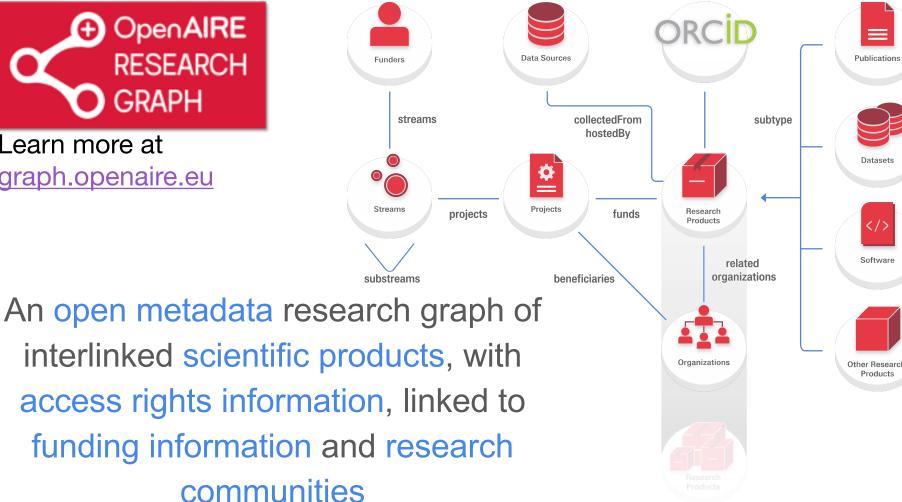




#### HTTPS://GRAPH.OPENAIRE.EU

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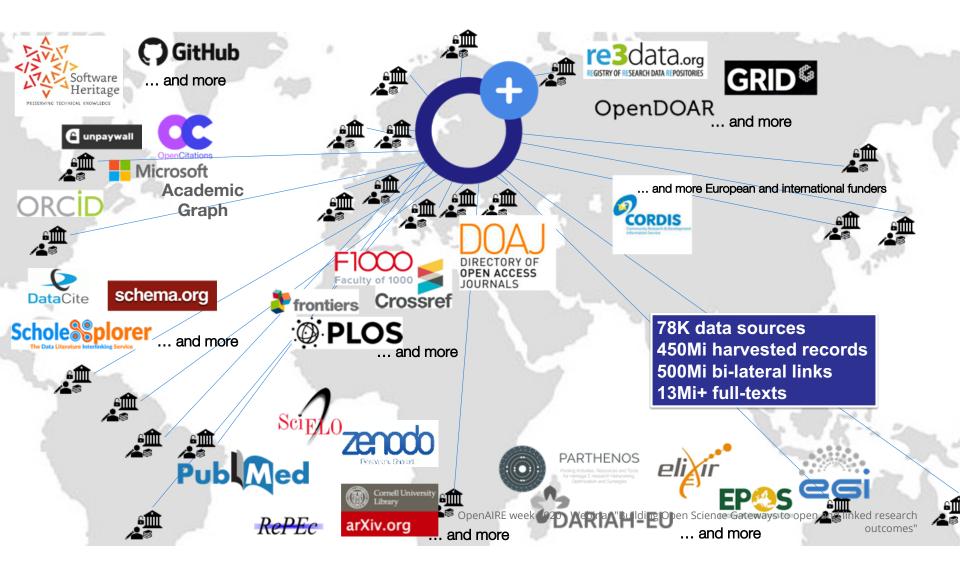




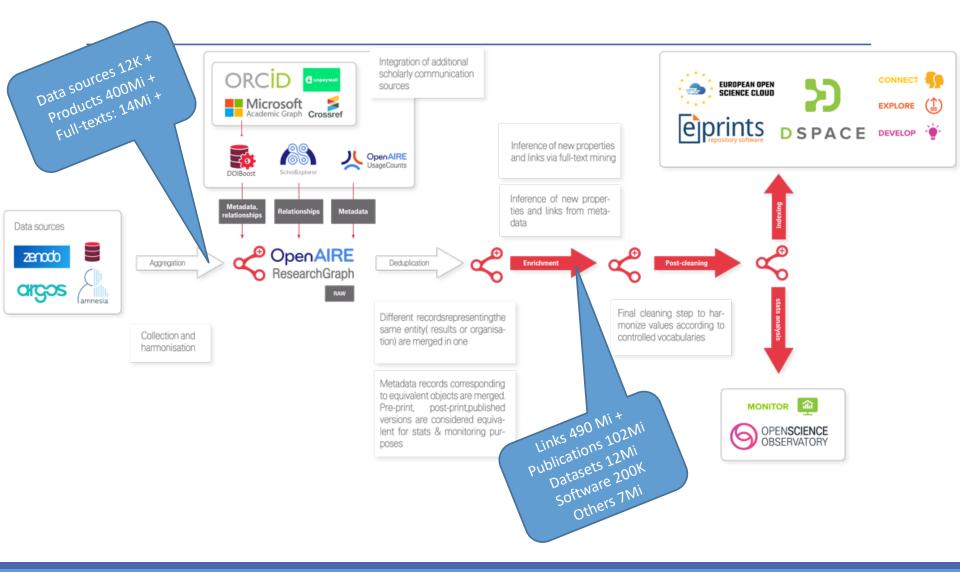
Graph: model for the representation of information

OpenAIRE uses it to represent **objects** in the scholarly communication domain and the **relationships** that exist among them.

Edges of the graph are annotated with a label that specifies the **semantics** of the relationships between two objects, each represented as a node in the graph.



#### **OpenAIRE Research Graph the supply chain**



# **Integration with third-party services**



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OpenAIRE Research Graph dumps

The whole Research Graph

COVID-19 related products

Products of communities, infrastructures, and initiatives

Funded products

DOIBoost

Scholexplorer

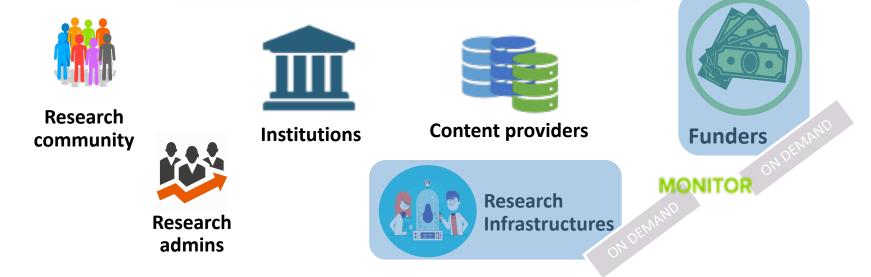
OpenAIRE Researc	ch Graph		
Recent uploads			🏝 New upload
Search OpenAIRE Research Graph		Q	unity
	np of the Scholix links (schema Version 3) exposed by the Open 445+Mi bi-directional links (i.e. 890+Mi directed links) between		OpenAIRE RESEARCH GRAPH
November 9, 2020 (v1) Preter Open Access OpenAIRE Usage Counts. The analy Dimitris Pierrakos, Andreas Czerniak, . Usage metrics for all types of scholarly output	are one of the measures to assess Open Access impact and are enAIRE has a succesful record in providing usage metrics for fo	View This 3 dump The C open e a value foste r a large a rate a s a q data 3	AARE Research Graph Zenodo community serves as container of the so f the OpenARE Research Graph. upenARE Research Graph is one of the largest scholarly record collections worldwide, key in ing Open Science and establishing its ces in the daily research activities. Conceived public and transparent good, populated out of sources trusted by scientists, the Graph aims aind alsovery, monitoring, and assessment

https://zenodo.org/communities/openaire-research-graph

https://develop.openaire.eu

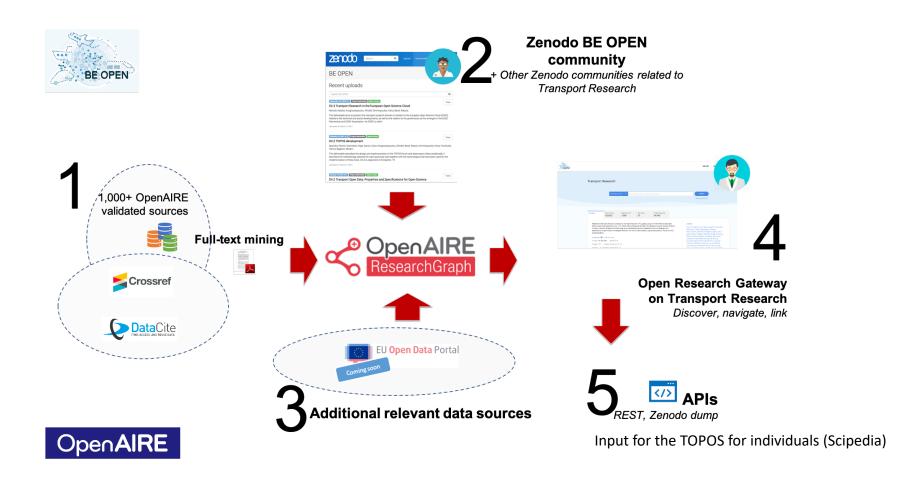


#### **TOPOS OBSERVATORY** FOR ORGANISATIONS



A single entry point for discovering research products available in the OpenAIRE Research Graph relevant to Transport Research, with Open Science services & tools for organisations

## **Sources and methodology**



# How to identify Transport research products among those in the OpenAIRE Research Graph

	Keywords	Glossary for transport statistics 5th edition, co-published by Eurostat, UN and ITF
Gateway curators	Projects	From the 22 funders integrated in OpenAIRE
	Data sources	E.g. thematic repositories, archives and journals
	Zenodo communities	One "main" Zenodo community managed by the BE OPEN consortium + other communities in the field
	Organizations	Organizations in the field: we look for them in the affiliations



Link Cross

Link products in OpenAIRE, Crossref, Datacite, ORCID to the community, also in bulk

#### Propagation

If a community result is supplemented by another research product, then the latter is also added in the community gateway

#### Full-text mining

Links to projects Affiliations Document classification

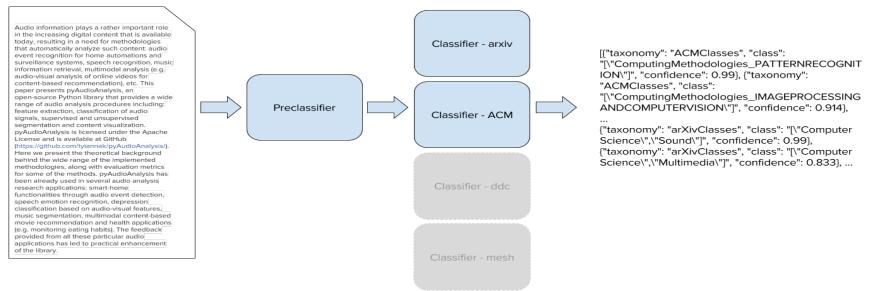
**OpenAIRE** 



# **OpenAIRE's Document Classification**

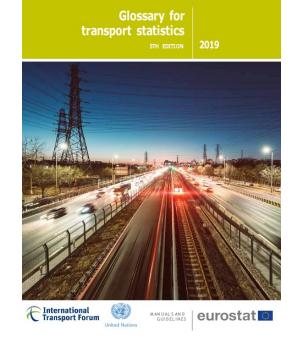
Mines the full-text of publications to perform content-based classification using giving taxonomies

- arXiv
- MeSH (Medical Subject Headings)
- ACM
- DDC (Dewey Decimal Classification)

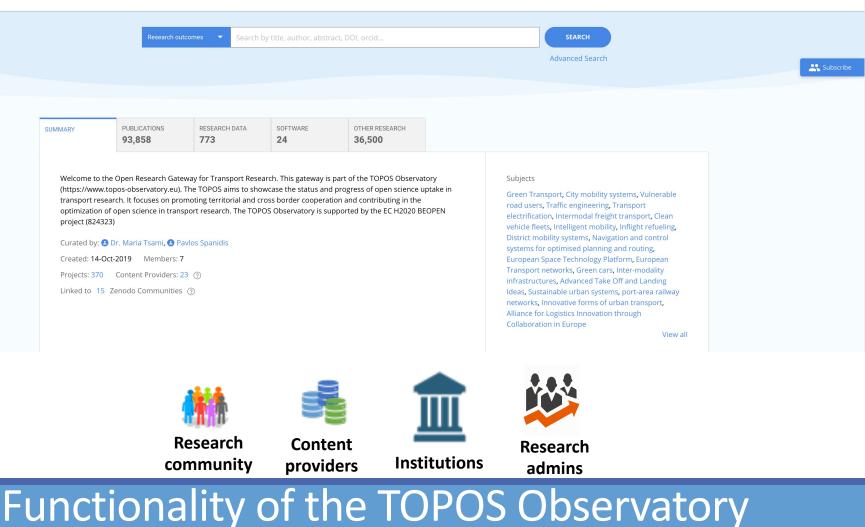


# **Transport Classifier**

- Taxonomy based on the latest (5<sup>th</sup>) edition of the "Glossary for Transport Statistics
  - A. Railway Transport
  - B. Road Transport
  - C. Inland Waterway Transport
  - D. Pipeline Transport
  - E. Maritime Transport
  - F. Air Transport
  - G. Intermodal Freight Transport
  - H. Energy Consumption
  - I. Environmental Impact of Transport
  - J. Passenger Mobility
- No annotated/labelled large corpus of publications in transport research for training the classifier.
- Seed the classifier with publications and metadata from the Be Open Research Gateway.







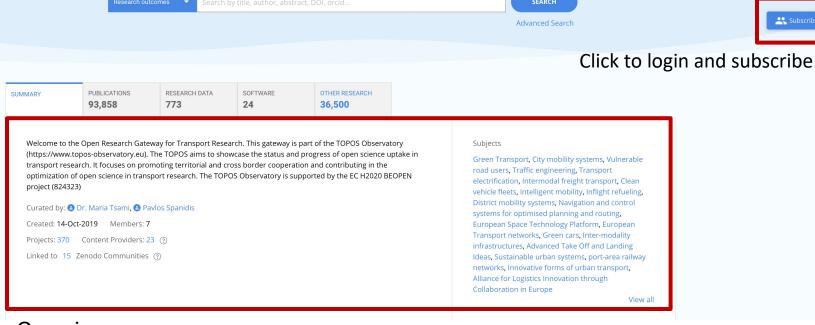
# for organisations

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**Overview** Curators Configuration details



Research outcomes Search by title, author, abstract, DOI, orcid...
SEARCH
Advanced Search
One tab per type of

SUMMARY	93,858	773	24	36,500

Welcome to the Open Research Gateway for Transport Research. This gateway is part of the TOPOS Observatory (https://www.topos-observatory.eu). The TOPOS aims to showcase the status and progress of open science uptake in transport research. It focuses on promoting territorial and cross border cooperation and contributing in the optimization of open science in transport research. The TOPOS Observatory is supported by the EC H2020 BEOPEN project (824323)

Curated by: 😫 Dr. Maria Tsami, 😫 Pavlos Spanidis

Created: 14-Oct-2019 Members: 7

Projects: 370 Content Providers: 23 (?)

Linked to 15 Zenodo Communities (?)

Subjects

research product

Green Transport, City mobility systems, Vulnerable road users, Traffic engineering, Transport electrification, Intermodal freight transport, Clean vehicle fleets, Intelligent mobility, Inflight refueling, District mobility systems, Navigation and control systems for optimised planning and routing, European Space Technology Platform, European Transport networks, Green cars, Inter-modality infrastructures, Advanced Take Off and Landing Ideas, Sustainable urban systems, port-area railway networks, Innovative forms of urban transport, Alliance for Logistics Innovation through Collaboration in Europe

View all



	Research	outcomes	Search by title	, author, abstract, DOI, orcid		SEARCH	
	Projects					Advanced Search	
	Content p	providers					
MARY	PUBLICATIONS 93,858	RESEARCH DATA	SOFTWARE 24	OTHER RESEARCH <b>36,500</b>			J
(https://www transport re	w.topos-observatory.eu). esearch. It focuses on pro n of open science in trans	The TOPOS aims to sho pmoting territorial and c	owcase the status and ross border cooperat	part of the TOPOS Observatory d progress of open science uptake in ion and contributing in the pported by the EC H2020 BEOPEN	Subjects Green Transport, City mobility systems, Vulnerable road users, Traffic engineering, Transport electrification, Intermodal freight transport, Clean vehicle fleets, Intelligent mobility, Inflight refueling, District mobility systems, Navigation and control systems for optimised planning and routing,		
project (824	: 😬 Dr. Maria Tsami, 😫 P	avlos Spanidis					
project (824 Curated by: Created: 14	• Or. Maria Tsami, O P. • Oct-2019 Members: 7 0 Content Providers: 2	7			European Space Technology Platform, European Transport networks, Green cars, Inter-modality infrastructures, Advanced Take Off and Landing		

Quick search on all types of research outcomes, projects and content providers

	Research outcomes Projects Content providers	Search by title, author, abstract, DOI, orcid SEARCH Advanced Search	
Advanced search in	Research outcomes		Quick search
FIELD TO SEARCH	TERM		
All fields	be ke	eywords and 💌	$\bigcirc$
Title	pe ke	eywords	$\bigcirc$
Author		ADD RULE	Ŧ
Author ORCID		SEARCH	
Description Subject			

Advanced search on research outcomes: specify criteria un specific fields, also in combination

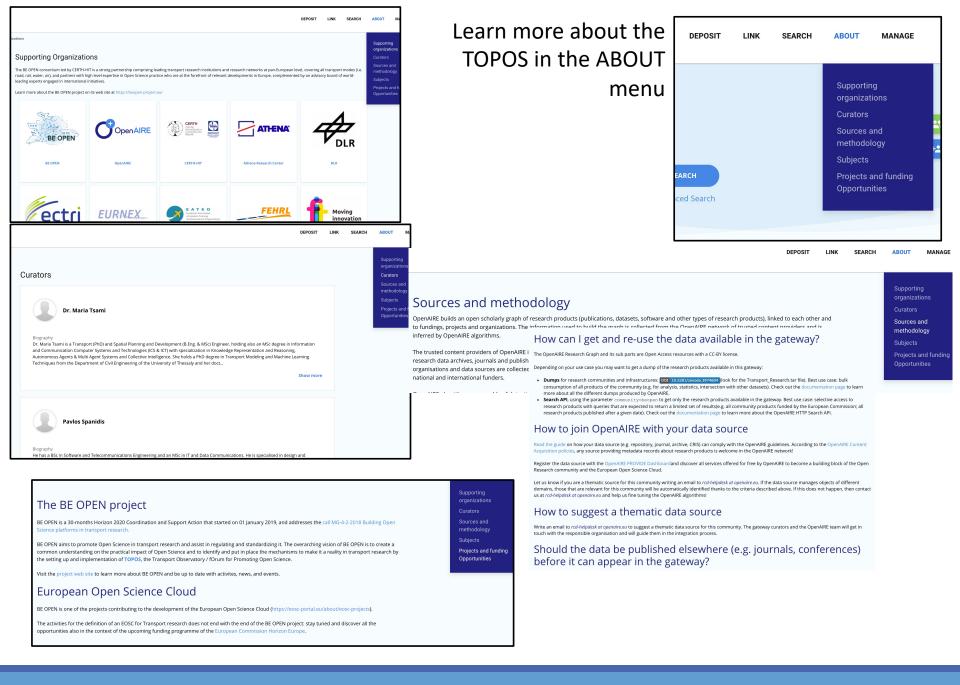


		DEPOSIT LINK	SEARCH ABOUT SIGN IN 🔍
	Research outcomes Search by title, author, abstract, DOI, orcid	SEARCH Advanced Search	Subscribe
SUMMARY		DEPC	DSIT LINK SEARCH ABOUT
(https://w transport optimizat project (8	Deposit or publish your research n Open Access	ן	
Projects:			
Linked to	<ul> <li>Find the appropriate repository or journal</li> <li>Find the appropriate repository to deposit your research products of any type (publication, data, software, other) or to include in your data management plan. Search and browse for OpenAIRE compliant repositories registered in OpenDOAR and re3data.</li> <li>Looking for Open Access journals? Find those that suit your community among the journals registered in the Directory of Open Access Journals (DOAJ). To know more, read the OpenAIRE Open Access primer (https://www.openaire.eu/oa-basics)</li> </ul>	Search by title, country, organization, subject, type	SEARCH Browse all

Find repositories, journals, or Zenodo communities where you can publish/deposit your research outcome

ADD LINKING SOURCES		LINKS BASKET
Start searching Research Outcomes and add	them to the Basket to Link	SOURCES (0)
transport	× SEARCH	Research results to link
OPENAIRE (1,225,846) CROSSREF (451,161)	DATACITE (91,058) ORCID (0)	Upload a DOI's CSV file (i)
Year range	1,225,846 RESEARCH OUTCOMES, 1 2 3 4 5 >	No Sources added yet. Start adding sources from the left panel. Or upload a DOI's CSV file.
e.g. 1800 - e.g. 2031	PAGE 1 OF 245,170	
Result type (4)	European Transport / Trasporti Europei         Publisher EUT Edizioni Università di Trieste         Published in 2008	
publication (1,135,276) other (64,751) dataset (25,121)	publication Statistične informacije: 22, Transport: 22, Transport: Rapid reports: Publisher Statistični urad Republike	
Software (698) Funder (22)	Slovenije	CONTINUE TO - LINK TO > Entities to link with the sources
European Commission (19,297) National Institutes of (12,311) National Science Founda (10,179) Natural Sciences and Eng (3,837)	publication DATAR sur le Transport: Transport voyageurs, comparaison internationale Authors Paola Villani Published in 2003	
Research Council UK (3,235) Wellcome Trust (3,163) + View all	publication Review on the comparison of external costs of intermodal transport	

Create links between research products, links to projects, or add missing products in the TOPOS: you need to login and subscribe





### Research community

MONITOR

Uptake of Open Science publishing practices in the community



# DEPOSIT ANYTHING

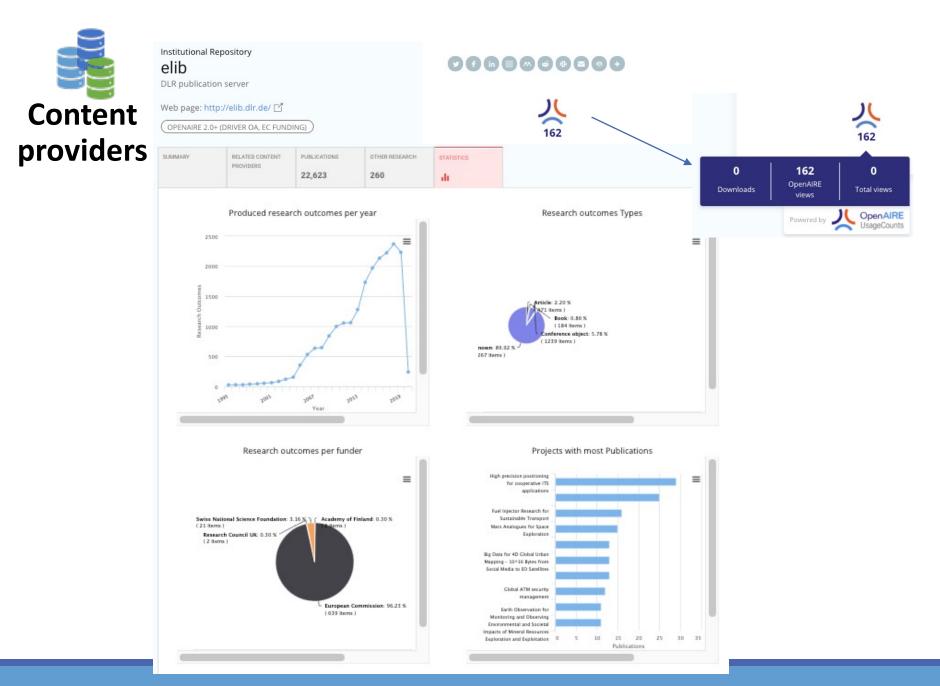
CONNECT

# EXPLORE

Search for all research products of your community Link related research products and contribute for a complete record of research of your community

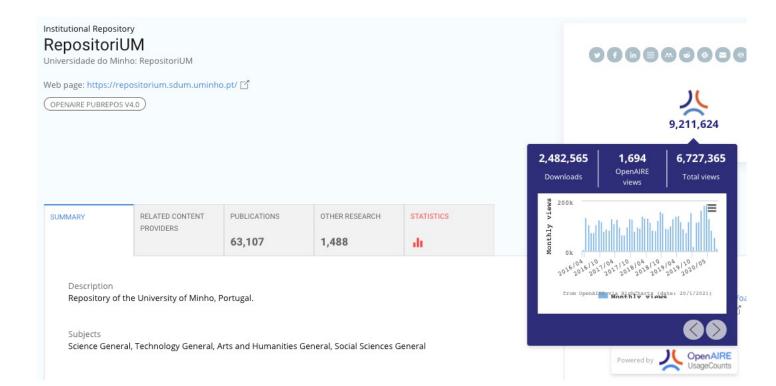
# DEVELOP

Use OpenAIRE API and content to build domain-specific services



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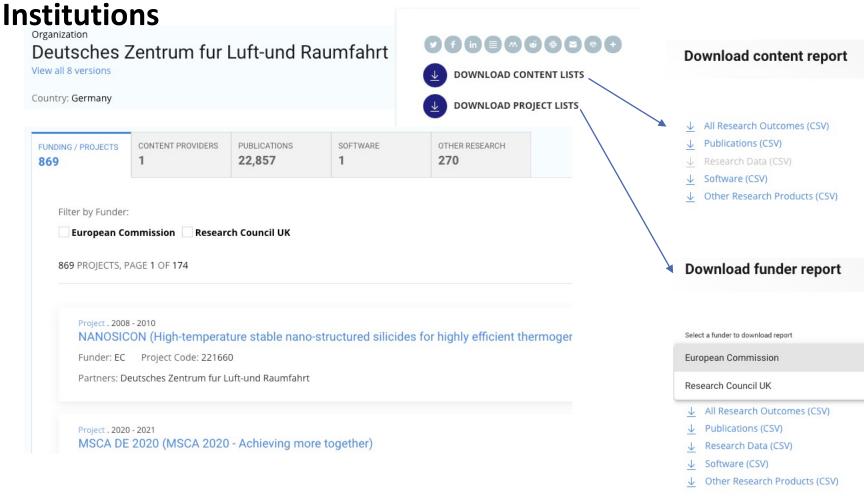




OpenAIRE PROVIDE For more services for content providers: https://provide.openaire.eu

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Integration with the SyGMA portal (continuos reporting of publications and open data)



#### Share results Select content type to share All research outcomes <script type="text/javascript"> document.write('<div id="oa\_widget"></div>'); document.write('<script type="text/javascript" src="https://www.opend Project . 2017 - 2020 . Closed </script> AUTOPILOT LINK THIS PROJECT TO ... AUTOmated driving Progressed by Interr COPY Project metrics are derived from aggregating individual DEPOSIT YOUR RESEARCH research results metrics. EUROPEAN COMMISSION 921 3 3,607 SHARE RESULTS Funder: European Commission Project code: 731993 Call for proposal: H2020-IOT-2016 OpenAIRE Downloads Total views views Funded under: H2020 | IA Overall Budget: 26,555,500 EUR Funder Contribution: 19,925,000 EUR DOWNLOAD REPORT Status: Closed $\equiv$ Download report Start Date End Date 01 Jan 2017 29 Feb 2020 Select content type report to downloa All research outcomes Detailed project information (CORDIS) → .53 Download EC report (HTML) Download EC report (CSV) from OpenAIRE via Eightharts (date: 20/1/2021) PUBLICATIONS RESEARCH DATA UTHER RESEARCH STATISTICS SOFTWARE SUMMARY 24 64 0 0 di.

#### Description

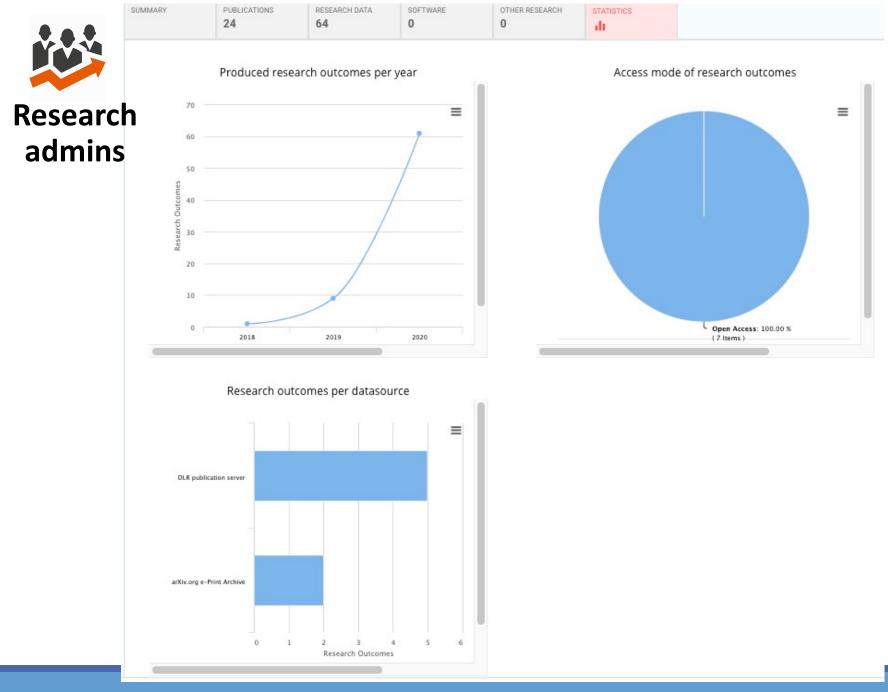
Automated driving is expected to increase safety, provide more comfort and create many new business opportunities for mobility services. The market size is expected to grow gradually reaching 50% of the market in 2035. The IoT is about enabling connections between objects or "things"; it's about connecting anything, anytime, anyplace, using any service over any network. There is little doubt that these vehicles will be part of the IoT revolution. Indeed, connectivity and IoT have the capacity for disruptive impacts on highly and fully automated driving along all value chains towards a global vision of Smart Anything Everywhere. In order to stay competitive, the ...

Read more

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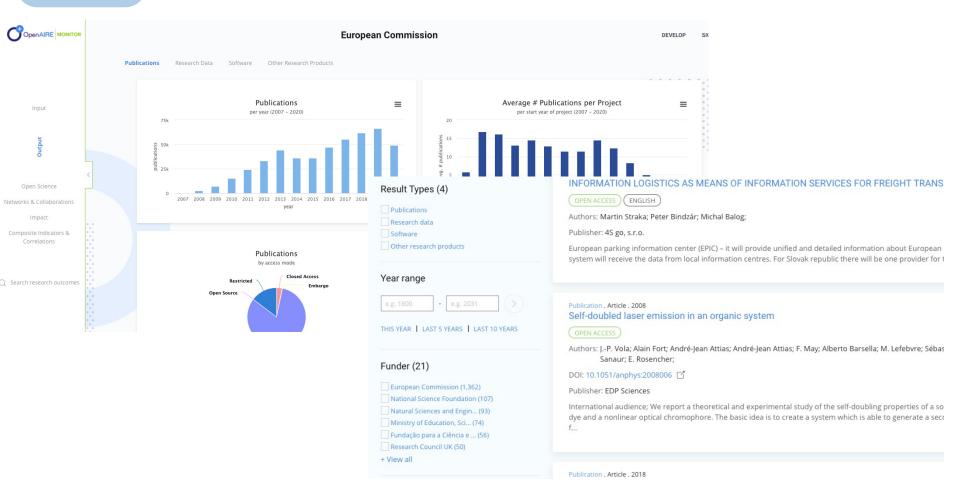
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#### https://monitor.openaire.eu



# Any questions?

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#### RCD-HELPDESK@OPENAIRE.EU

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