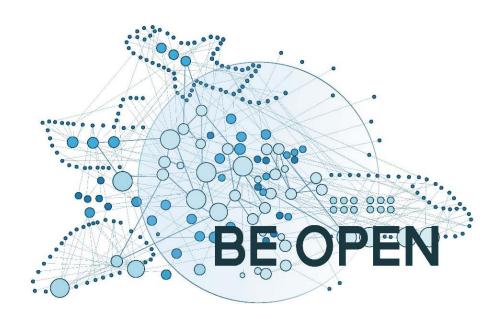




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European forum and oBsErvatory for OPEN science in transport

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D6.6 Report on International Cooperation

D6.6 Report on International Cooperation

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Executive summary

The present deliverable is part of the WP6 "Dissemination and Engagement" [1], T6.1 "Dissemination strategy and tools". It aims to present the cooperation activities of the BE OPEN project with international fora/projects etc.

The BE OPEN project dissemination, exploitation and engagement strategy has defined a number of international collaborative activities aiming at raising awareness and engaging the international community in the topic of Open Science in transport.

To ensure the cooperation with international stakeholders and players, three (3) types of activities have been pursued:

- 1. Informing the international community (stakeholders, fora and experts) about the BE OPEN project, its results, and about the OS concept
- 2. Bringing the international community in relevant projects events and
- 3. Involving international experts to contribute to project developments and to provide feedback at key project milestones.

These activities and outcomes are thoroughly described in the present deliverable. To achieve those activities, the BE OPEN project has capitalised on the privileged contacts of the consortium Partners with international stakeholders in view to bring them to share experiences and exploit successful approaches for operationalising open science principles in transport research. Based on the recommendation of the Consortium Partners, and before undertaking the activities, the first tasks consisted in identifying the relevant international stakeholders and fora and in setting up the project International Advisory Board.

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Table of Contents

E	xecutive s	ımmary	4
T	able of Co	ntents	5
Li	st of Figur	es	6
		s	
		ns	
P		breviations	
1		uction	
2		up the international target group	
		entifying the relevant international stakeholders and fora	9
	2.1.1 Interna	Transportation Research Board (TRB), its Annual meeting (TRB AM) and its itional Coordinating Council (TRB ICC, A0020C)	9
	2.1.2	European Transport Conference (ETC)	10
	2.1.3	Transport Research Arena (TRA)	10
	2.1.4	Sectorial international fora	10
	2.2 Se	etting up the project International Advisory Board	11
3	Interna	ational collaborative activities	11
		forming the international community about the BE OPEN project, its results, and at Science concept	
	3.1.1	Presentations and posters of the project at international events	12
	3.1.2	BE OPEN contribution to UNESCO global discussion on Open Science	18
	3.1.3	Inviting international stakeholders, fora and experts to follow BE OPEN social management	edia 19
	3.1.4 Newsle	Reaching out international Community via English based website and BE OPEN	19
	3.2 Br	inging the international community in relevant project events	20
	3.2.1	First BE OPEN event at ETC 2019 (October 11, 2019)	20
	3.2.2	Second BE OPEN event at TRA 2020 Conference (April 2020, CANCELLED)	21
	3.2.3	Second BE OPEN event at US TRB Annual Meeting (January 21, 2021)	21
	3.2.4	Final BE OPEN event (June 9 th , 2021)	23
		volving international experts to contribute to project developments and to provide at key project milestones	
4	Final re	emarks	25
5	Refere	nces .	25



List of Figures

Figure 1. Mainstreaming International Perspectives, Networking, and Promoting International	
Cooperation and Collaboration Subcommittee meeting at TRB AM 2019	12
Figure 2. Open Science Session at FIRM2019	13
Figure 3. Minute Madness/Poster reception at Open Science Fair 2019	13
Figure 4. ETC 2019 / First BE OPEN event	14
Figure 5. ETC 2019 Exhibition	14
Figure 6. Mobilitet 2020 Exhibition	15
Figure 7. RDA Germany conference Exhibition	16
Figure 8. Virtual stand at EOSC Projects EXPO	17
Figure 9. BE OPEN Twitter follower's map (in percentage)	19
Figure 10. BE OPEN Website consultation per country (total consultation M6-M30)	20
Figure 11. BE OPEN Second event participants - sector representation	22
Figure 12. BE OPEN Second event participants - geographical representation	23
Figure 13. BE OPEN Final event participants - sector representation	24
Figure 14. BE OPEN Final event participants - geographical representation	24

List of Tables

No table of figures entries found.

Abbreviations

Abbreviations	
AET	Association for European Transport
ETC	European Transport Conference
ETRA	European Transport Research Alliance
ITF	International Transport Forum
KPI	Key performance indicator
MoU	Memorandum of Understanding
OS	Open Science
RDA	Research Data Alliance
TOPOS	Transport Observatory/fOrum for Promoting Open Science
TRA	Transport Research Arena
TRB	Transportation Research Board
TRB AM	Transportation Research Board Annual Meeting
TRB ICC	Transportation Research Board International Coordinating Council
WCTRs	World Conference of Transport Research Society
WP	Work Package



Partners' abbreviations

Abbreviation	Partner/Third Parties' name
AIT	Austrian Institute of Technology
ARC	Athena Research and Innovation Center In Information, Communication and Knowledge Technologies
вме	Budapest University of Technology and Economics
CDV	Transport Research Centre
CERTH-HIT	Centre for Research and Technology Hellas - Hellenic Institute of Transport
DLR	German Aerospace Center / Deutsches Zentrum für Luft - und Raumfahrt EV
EATEO	European Association of Aviation Training and Education Organizations
ECTRI	European Conference of Transport Research Institutes
EURNEX	EUropean rail Research Network of EXcellence
FEHRL	Forum Européen des Laboratoires Nationaux de Recherche Routière
FIT	FIT Consulting Srl
FTTE	The Faculty of Transport and Traffic Engineering, University of Belgrade
GUT	Gdańsk University of Technology
HUMANIST	HUMANIST VCE
КТ	Konnekt-able Technologies Ltd.
LNEC	Laboratório Nacional de Engenharia Civil
NTUA	National Technical University of Athens
Osborne Clarke	Osborne Clarke Anwaltssozietat
SCIPEDIA	SCIPEDIA S.L.
Strathclyde University	Strathclyde University
тøі	Transportokonomisk Institutt
UITP	Union Internationale des Transports Publics
VDI/VDE	VDI/VDE Innovation + Technik Gmbh
VGTU	Vilnius Gediminas Technical University
WEGEMT	Foundation Wegemt - A European Association of Universities in Marine Technology and Related Sciences

1 Introduction

The present deliverable is part of the WP6 "Dissemination and Engagement" [1], which aims to:

- Disseminate key project outputs to key actors and transport stakeholders;
- Implement and regularly update an appropriate online presence (web-site, social media, EOSC integration) and other relevant dissemination material to ensure continuous outreach of the project outcomes, as well as transfer of knowledge;
- Organise project key events and ensure cooperation with the most important international fora, as well as liaise with related projects and initiatives. Demonstrate the economic viability and lay the foundations for subsequent exploitation;
- Engage publishing companies and set up communication tools/actions;
- Supervise project results and key outcomes through an external Advisory Board, consisting of internationally renowned experts.

The BE OPEN project dissemination, exploitation and engagement strategy has defined a number of international collaborative activities aiming at raising awareness and engaging the international community in the topic of Open Science.

In fact, the active implementation of the dissemination, exploitation and engagement of BE OPEN activities goes hand in hand with the cooperation with several international key actors. To ensure the link with international stakeholders, under Task 6.4 Links to key events [1] the consortium identified the major international fora and actively implemented dissemination and engagement activities in those fora, ensuring the visibility of the project's results and its potential uptake at a global scale.

This report focusses on the international cooperation with stakeholders and fora beyond Europe. The European stakeholders (such as the European Technology Platforms and the European Open Science Cloud) are covered by Deliverable 3.4 Strategy for pan-European diffusion and global links [2].

To ensure the cooperation with international stakeholders and players, 3 types of activities have been pursued:

- 4. 1- Informing the international community (stakeholders, for and experts) about the BE OPEN project, its results, and about the OS concept
- 5. 2- Bringing the international community in relevant projects events and
- 6. 3- Involving international experts to contribute to project developments and to provide feedbacks at key project milestones.

To achieve these activities, the BE OPEN project has capitalised on the privileged contacts of the consortium Partners with international stakeholders in view to bring them to share experiences and exploit successful approaches for operationalising open science principles in transport research. Based on the recommendation of the Consortium Partners, and before undertaking the activities, the first task consisted in identifying the relevant International stakeholders and fora and in setting up the project International Advisory Board.

These activities are thoroughly described in the present deliverable.

2 Setting up the international target group

The following section describes how the international stakeholders and fora were identified and how the project International Advisory Board was set up, as main target groups for international cooperation.

2.1 Identifying the relevant international stakeholders and fora

The BE OPEN project has capitalised on the privileged contacts of its Partners to engage with international stakeholders for sharing experiences and exploiting successful approaches. In this respect, the consortium has identified three major international Conferences as the most relevant fora to reach international community and stakeholders. In addition, the Partners have also used their sectorial international fora to raise awareness and disseminate the project results in their particular sectors.

2.1.1 Transportation Research Board (TRB), its Annual meeting (TRB AM) and its International Coordinating Council (TRB ICC, A0020C)

As part of the United Stated National Academies of Sciences, Engineering, and Medicine, the Transportation Research Board (TRB) is a non-profit organisation that provides leadership in transportation improvements and innovation through trusted, timely, impartial, and evidence-based information exchange, research, and advice regarding all modes of transportation. TRB's mission is divided into three primary roles: research, convene and advise.

TRB supports transportation research by producing publications and online resources. It convenes experts that help to develop solutions to problems and issues facing transportation professionals. TRB also provides advice through its policy studies that tackle complex and often controversial issues, at national level, in the USA. It organises every year its Annual Meeting (TRB AM) in January in Washington, DC and this year (2021) it celebrated its 100th edition.

The TRB AM is the largest gathering of transportation researchers and professionals in the world. The Conference attracts every year thousands of participants (12K) from around the world (70% US & 30% international participants). The meeting program covers all transportation modes, with sessions and workshops addressing topics of interest to policy makers, administrators, practitioners, researchers, and representatives of government, industry, and academic institutions. In 2021, due to the COVID19 pandemic, it was held virtually, allowing even more people to attend. TRB Technical Activities are structured around Councils (4) and Committees (200).

Coordinating Councils provide TRB technical activities committees with expertise and advice relative to specific cross-cutting issues, often complex multimodal and multidisciplinary related to type of geographic area, major demographic group or some other overarching constituency within transportation. The Coordinating Council (ICC) concentrates on the evolution of an international perspective international, practices, and research in all facets and services of all modes of transportation. The Council brings together experts from the TRB technical committees and external international organizations to promote within the Technical Activities committee structure important

issues affecting the safe and secure movements of goods and people in the United States and around the globe.

The collaboration with TRB was facilitated by ECTRI, via the longstanding ECTRI-TRB Memorandum of Understanding and co-leadership by ECTRI Secretary General, Caroline Alméras, of the TRB International Coordination Council, which allowed to place the BE OPEN 2nd event in the exclusive TRB programme. This privileged link also granted access to other TRB technical Committees, further expanding the reach out of BE OPEN to transport communities.

2.1.2 European Transport Conference (ETC)

ETC is the annual conference of the Association for European Transport (AET), attracting transport policy makers, practitioners and researchers from all over Europe and beyond. ETC offers in-depth presentations on policy issues, best practices and research findings across the broad spectrum of transport. ETC also provides an opportunity where delegates can enjoy networking opportunities, participate in virtual technical visits, and explore an online exhibition. The collaboration with AET was facilitated by ECTRI, via the historical ECTRI-AET Memorandum of Understanding, granting the dissemination of BE OPEN and its activities within the conference scientific programme and exhibition.

2.1.3 Transport Research Arena (TRA)

TRA is the foremost European transport research event, bringing together transport stakeholders from all over Europe and beyond. The conference covers all transport modes and provides a unique opportunity to hear about mobility trends, learn from achievements in industry as well as share best practices of policies and deployments. The collaboration with TRA was facilitated by ECTRI, FEHRL and EURNEX as Partners of the European Transport Research Alliance, which supports the conference. This privileged link allowed the proposal for a Focus Session and further promotion at exhibition area, via the ECTRI, FEHRL and EURNEX common stand. The conference was later cancelled due to the COVID-19 outbreak and following travel restriction measures.

2.1.4 Sectorial international fora

The BE OPEN consortium includes Partners from all transport modes, that all have their own international fora and events. So, in addition to major Conference, the Partners have also used their sectorial international fora to raise awareness and disseminate the project results in their particular mode and sector. More concretely the project was presented at the following international fora:

- 9th and 10th EASN International Conference,
- FIRM2019,
- Open Science Fair 2019,
- 9th International Congress on Transportation Research, ICTR2019,
- euroCRIS meeting 2020,
- MOBILITET 2020,
- RDA Germany Conference 2020,
- IT-TRANS Conference, 2020
- OpenAIRE Week, 2020
- EOSC Projects EXPO, 2021

- First International Conference on the Stability and Safety of Ships and Ocean Vehicles (STAB&S 2021),
- 2021 World Transport Convention (WTC 2021).

2.2 Setting up the project International Advisory Board

To address the specific challenge and scope 5 of the MG-4-2-2018 topic which is "to identify and engage international partners/stakeholders for mutual learning and sharing of best practices", an International Advisory Board was set up. It directly responds to the Project Objective 5 - Engage a broad range of stakeholders in a participatory process for Open Science uptake.

The International Advisory Board is further described under Task 7.4. "International Advisory Group and Forum" and Section 3.2 "Management structure and procedures" of the Grant Agreement Description of Actions.

The Advisory Board members' role was further defined to provide feedbacks at key project milestones, contribute to main project events with their experiences and assure that the project is progressing along the correct path.

Eight independent and international experts with wide recognition and proven expertise in the fields of transport research, and/or open science, and/or international cooperation were selected to join the AB. They originate from 4 continents: Africa, America, Asia and Europe, and 8 countries, Canada, Chile, Egypt, Japan, Slovakia, Spain, United Kingdom, and USA.

The project deliverable 7.4 presents in detail the work performed to set up the Advisory Board and define its objectives, as well as its Members' composition, role and expected support.

3 International collaborative activities

The main objective of the international cooperation within the fora identified was to exchange and discuss developments on Open Science in the transport domain, and ultimately raise awareness and promote the project outputs, for subsequent exploitation.

To ensure the cooperation with international stakeholders and players, three types of collaborative activities have been pursued:

- 7. Informing the international community (stakeholders, for and experts) about the BE OPEN project, its results, and about the OS concept,
- 8. Bringing the international community in relevant projects events, and
- 9. Involving international experts to contribute to project developments and to provide feedbacks at key project milestones.

Those activities are further presented in the following sections.

3.1 Informing the international community about the BE OPEN project, its results, and about the Open Science concept

Four types of actions have been undertaken to inform the international Community about the BE OPEN project, its results and enhance the Open Science concept in transport research:

- Presentation (and posters) of the project at major international events
- Contribution to UNESCO global discussion on Open Science
- Inviting international stakeholders and experts to follow BE OPEN social media
- Reaching out the international community via English based website and BE OPEN Newsletters

3.1.1 Presentations and posters of the project at international events

The following section lists all events in which the project was presented either in a session or in the exhibit area.

• Transportation Research Board Annual Meeting 2019, United States

The Transportation Research Board (TRB) 98th Annual Meeting took place in Washington, USA, from January 13-17, 2019.

BE OPEN was presented at the "Mainstreaming International Perspectives, Networking, and Promoting International Cooperation and Collaboration Subcommittee", A0010(1) meeting on January 15th, 2019 by the project coordinator Prof. Maria Boile (CERTH-HIT).

The main purpose of the subcommittee is to facilitate international cooperative work in the transport research field and promote the cooperation and collaboration among transport researchers and related fields. The scope of the Committee's approach is the transportation community around the world.



Figure 1. Mainstreaming International Perspectives, Networking, and Promoting International Cooperation and Collaboration Subcommittee meeting at TRB AM 2019

• 9th EASN International Conference on "Innovation in Aviation & Space"

The 9th EASN International Conference, the largest and most comprehensive gathering of the Association so far, was held in Athens, Greece between the 3rd and 6th of September 2019. Dr. Afroditi Anagnostopoulou, the project technical manager (CERTH-HIT) presented the BE OPEN project on the first day of the conference, disseminating the first project results in one of the sessions dedicated to EU funded research.

FEHRL Infrastructure Research Meeting 2019, Brussels

FEHRL Infrastructure Research Meeting 2019 (FIRM19) took place in Brussels from 26-28 March 2019. A workshop session on the 'Open Science in Transport' was organised on March 28, 2019.

The session looked at what is Open Science, *OpenAIRE*, and the BE OPEN project and how we can efficiently implement Open Science in Transport, and therefore contribute to the expected impacts of the EU policy and Horizon 2020 on Open Science.

The session was moderated by Adewole Adesiyun from Project Partner FEHRL, OpenAire was presented by Natalia Manola from ARC and the BE OPEN project by Caroline Alméras from ECTRI.



Figure 2. Open Science Session at FIRM2019

• Open Science Fair, 2019, Portugal

The 2nd Open Science Fair took place on September 16-18 in Porto and gathered more than 400 participants with different backgrounds and perspectives on the aspects of Open Science.

The BE OPEN was presented by Caroline Alméras, Dissemination and Engagement leader (ECTRI) at the Minute Madness/Poster Reception, which provided a privilege stage for increasing awareness of the BE OPEN aims and contribution to promote, regulate and standardise Open Science in Transport.



Figure 3. Minute Madness/Poster reception at Open Science Fair 2019



European Transport Conference, 2019, Ireland

The 47th European Transport Conference took place in Dublin, Ireland, on October 9-11, 2019. The conference that changes venue every two years appeals to a wide range of transport researchers and practitioners for multi-seminar approach and the networking environment, making ETC unique among transport conferences and premier event of its type.

The first BE OPEN event was included in the ETC 2019 programme as special session open to all conference delegates. The project was also promoted at the 3-day exhibition area via a stand manned by ECTRI.



Figure 4. ETC 2019 / First BE OPEN event



Figure 5. ETC 2019 Exhibition

• 9th International Congress on Transportation Research, 2019, Greece

The 9th International Congress on Transportation Research (ICTR2019) co-organised by BE OPEN Partner-coordinator CERTH-HIT took place on October 24-25, 2019 in Athens. The ICTR has been a major event in the field of transportation research and development for the past 17 years. ICTR participants include the national and international research and academic community, the public and private sector involved in the development and implementation of innovative applications in the field of transport and transport infrastructure.

The BE OPEN project was presented by project Partner George Yannis (NTUA), under the session on Transport Economics.

euroCRIS meeting, 2019, Germany

euroCRIS, founded in 2002, is an international not-for-profit association, that brings together experts on research information in general and research information systems (CRIS) in particular. euroCRIS holds annually Strategic Membership Meetings, under specific topics open externally.

On November 18-20, 2019, euroCRIS invited BE OPEN to its Strategic Membership Meeting, taking place in Münster under the theme "Exploring technical challenges to achieve a more effective system interoperability in research information management". Kristel Palts from the project Partner DLR, presented the BE OPEN project on the second day of the event - November 20, 2019 - under the session devoted to "subject based research information management systems".

MOBILITET 2020, Norway

The MOBILITET 2020 took place in Oslo, on February 4-5, 2020. The conference gathers scientists, politicians, key figures from the government and business community - both Norwegian and international players.

Anja Fleten Nielsen and Andreas Kokkvoll Tveit from the project Partner TØI represented the BE OPEN consortium at Mobilitet 2020.



Figure 6. Mobilitet 2020 Exhibition

RDA Germany Conference, 2020, Germany

The RDA Germany Conference 2020, the annual meeting of the German RDA community, was jointly organized by the RDA in Germany National Node and the Helmholtz Association. It took place from 25 to 27 February, 2020 at the GeoForschungsZentrum Potsdam (GFZ, Telegrafenberg).

Kristel Palts from project Partner DLR represented the BE OPEN project at the conference.



Figure 7. RDA Germany conference Exhibition

Transport Research Conference 2020, Finland

The Transport Research Arena TRA 2020 Conference scheduled to take place in Helsinki from 26 to 30 April 2020 was cancelled due to the COVID-19 pandemic. Several activities of dissemination were prepared and planned to take place at the event, namely the second project event (special focus session under the main programme) and the promotion of the project at the Research Village Associations stand, hold by the BE OPEN Partners ECTRI, FEHRL and EURNEX. The BE OPEN poster "Evaluation of current European open science initiatives in transport research" submitted by project coordinator Prof. Maria Boile, was also accepted and included in the Proceedings of the conference.

• IT-TRANS Conference, 2020 Germany, then online

IT-TRANS is organised every two years by the project Partner UITP and Karlsruher Messe- und Kongress GmbH. IT-TRANS is aimed at players in the public transport sector, and in particular at decision-makers from transportation companies and representatives of the private sector, government and professional associations. More than 260 international companies and service providers present their latest products at the exhibition. The IT-Trans 2020, was planned to take place in Karlsruhe, Germany from 3 to 5 March 2020.

The BE OPEN coordinator together with the Dissemination and Engagement leader have submitted a poster presenting the project and its expected impacts that was accepted for the E-poster sessions.

Due to the pandemic situation IT-TRANS 2020 was postponed to December 1-3 and finally took place exclusively digital. Part of the programme including the E-poster sessions was abandoned.

• 10th EASN International Conference, 2020, online

The 10th EASN International Conference on "Innovation in Aviation & Space to the Satisfaction of the European Citizens", took place between the 2nd and 4th of September 2020. Due to the COVID pandemic, it was the first time in the history of the EASN Conference series that the event was held virtually. The conference was attended by more than 350 participants from 37 countries worldwide, resulting as the second largest event of the EASN Association. The event included 9 Keynote Speeches

given by distinguished personalities of the European Aviation & Space Community and more than 320 technical presentations distributed in 47 sessions. It is also Important to underline that 48 Horizon 2020 projects have disseminated their latest research results as well as the future trends on the respective technological field.

Dr. Afroditi Anagnostopoulou, the project technical manager (CERTH-HIT) presented the BE OPEN project at the "Roundtable discussion & presentation on the implementation of Open Science in Aviation" on Day 3 of the conference.

• OpenAIRE Week, 2020, online

The OpenAIRE Week is a global event and an opportunity for the academic and research community to know more about OpenAIRE at the European and global stage. The event took place virtually from October 12-16, 2020, offering a series of external webinars.

Alessia Bardi, from the project Partner ARC, presented the TOPOS gateway, at the session "Building Open Science Gateways to open and linked research outcomes", on October 16.

• EOSC Projects EXPO, 2020 online

Organised as part of the Realising the European Open Science Cloud joint event by the EOSC-hub, FREYA and SSHOC projects, the EOSC Projects EXPO held from 16-19 November 2020 is the first virtual exhibition showcasing initiatives and projects of the European Open Science Cloud. The exhibition gathered all the EOSC players together for four days of knowledge exchange, the creation of potential synergies, and networking.

ECTRI, the Dissemination and Engagement leader manned the virtual stand, where BE OPEN showcased its mid-term progresses and results and upcoming activities.



Figure 8. Virtual stand at EOSC Projects EXPO

US Transportation Research Board Annual Meeting 2021, online

The TRB 100th Annual Meeting (TRB AM 2021), originally scheduled to take place in Washington, D.C., USA January 24-28, 2021 was conducted as a virtual event throughout January 2021. The month-long virtual event, with the highest participation ever recorded, covered all transportation modes and

topics of interest to policy makers, administrators, practitioners, researchers, and representatives of government, industry, and academic institutions.

The second BEOPEN event took place online on January 21, 2021 under the theme of "Open Science in Transport: Challenges and Opportunities in a COVID-19 Era". More information is provided in the next section 3.2.3.

To broaden the visibility of BE OPEN at the event, the project was also disseminated at the TRB Virtual Exhibition via the ECTRI booth. The virtual stand was online from mid-January to mid-March, 2021 and visited by more than 250 conference attendees.

STAB&S 2021 online

STAB&S 2021, the 1st International Conference on the Stability and Safety of Ships and Ocean Vehicles, was organized online by MSRC/NAOME at the project third party University of Strathclyde in Scotland on 6-11 June 2021.

BE OPEN and TOPOS Observatory for Individuals were presented at Session 7 by Ioannis Ergas, from the project Partner WEGEMT.

• 2021 World Transport Convention (WTC 2021)

The WTC2021 was hosted by China Association for Science and Technology (CAST), Ministry of Transport (MOT) and Chinese Academy of Engineering (CAE), organized by China Highway & Transportation Society (CHTS), and with the support of other sponsoring organizations and was held in Beijing on 15th- 19th of June 2021. WTC2021 serves as a platform for researchers, scholars, practitioners, government officials from around the globe to present their work, share their experience, discuss cutting-edge technology, and explore solutions to the common challenges the transportation industry faces today.

A poster presentation of the BE OPEN project entitled "Open Science in Transport Research: the BE OPEN Project" was given by Afroditi Anagnostopoulou and Maria Boile from CERTH/HIT.

3.1.2 BE OPEN contribution to UNESCO global discussion on Open Science

UNESCO, as the United Nations Agency with a mandate for Science, was tasked with the development of an international standard-setting instrument on Open Science in the form of a <u>UNESCO</u> <u>Recommendation on Open Science</u>. During the two years of consultation to support an open debate on Open Science awareness, understanding and policy development, UNESCO launched during the first semester of 2020, an electronic consultation on the elements of the Recommendation. ECTRI has replied on behalf of the BE OPEN project, providing feedback on the definition of the shared values and principles for Open Science, and identification of concrete measures on Open Access and Open Data. With this contribution BE OPEN supported the development of a coherent global vision of Open Science and a shared set of overarching principles and shared values.

3.1.3 Inviting international stakeholders, fora and experts to follow BE OPEN social media

European forum and oBsErvatory

The BE OPEN social media were the privileged places to build a community around the culture of open science in transport research and to reach a stronger engagement. Throughout the project duration the Twitter profile and LinkedIn group were regularly updating to reflect the status of the project and actively involve all related stakeholders. This was done via invitation to join the BE OPEN social media accounts, at events, via direct email, newsletter. And also, by tagging relevant profiles and adding relevant hashtags to their posts.

Finally the projects' events, as milestones of the project, were used as catapult for followers growth and audience engagement via live tweeting on the key outputs of three events. At the end of the project, BE OPEN counts with approximately 15% of Twitter followers and members of the LinkedIn group from outside Europe.

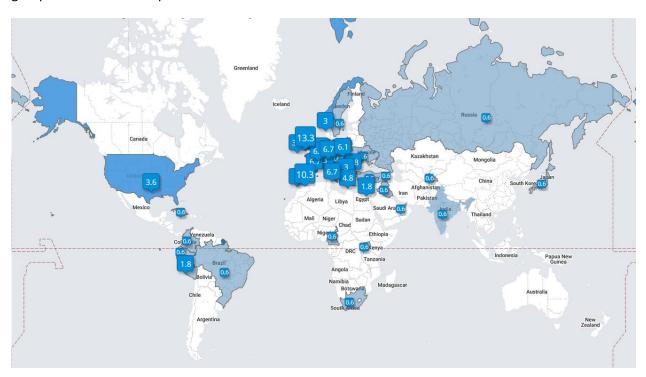


Figure 9. BE OPEN Twitter follower's map (in percentage)

3.1.4 Reaching out international Community via English based website and BE OPEN Newsletters

The project website as the central element of the project's dissemination strategy was updated throughout the project duration to incorporate the outcomes and outputs of the project, as well as key information on policy developments, events and publications relevant to the project.

The number of visitors of the website were constant throughout the project duration, increasing around key milestones of the project. The geographical origin of the viewers followed the same trend, with an increased geographical distribution around the second and final project events.

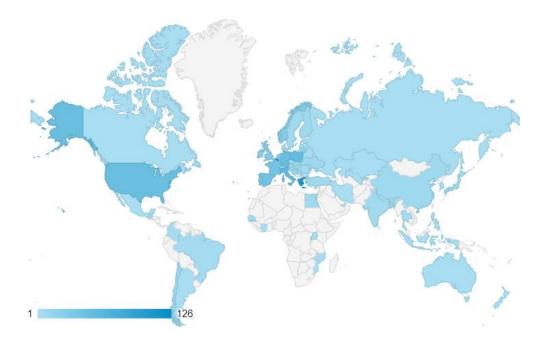


Figure 10. BE OPEN Website consultation per country (total consultation M6-M30)

The external project newsletter worked in parallel with the website to reach a larger audience, on a regular basis. The purpose was to engage readers, build relationships, and maintain top-of-mind awareness. The mailing list basis was the BE OPEN consortium, the Advisory Board and the ECTRI mailing list (following the GDPR rules). The receivers list grew up organically (from 332 to 637 recipients), via registration on the BE OPEN website, on the LinkedIn Group and/or to the BE OPEN events.

Eight newsletters were sent during the project containing projects developments and results, invitations to project events, editorials from Partners and Advisory Board members and other content related to topics of interest to the recipients. Newsletters are archived on the BE OPEN website.

3.2 Bringing the international community in relevant project events

International stakeholders' engagement was planned to be achieved through the involvement of the international community in three projects events during the lifetime of the project.

3.2.1 First BE OPEN event at ETC 2019 (October 11, 2019)

The first project event was held at the 47th European Transport Conference (ETC 2019), in Dublin, Ireland on October 11, 2019. The main goal was to engage European and international transport stakeholders into the discussion around Open Science in Transport, and more particularly around the terminology for Open Science understanding and around the needs of the different modes of transport regarding Open Science.

The event gathered 25 participants, from which 17 were external (researchers, publishing houses, international associations, public authorities, and the European Commission).



3.2.2 Second BE OPEN event at TRA 2020 Conference (April 2020, CANCELLED)

The Second BE OPEN event was scheduled to take place at the Transport Research Arena 2020 (TRA2020) in Helsinki in April 2020. Proposal for a special focus session on "Open Science in Transport – Challenges and Way forward" was submitted by ECTRI and approved by TRA Programme Committee. The format of the session featured several keynote speeches from Open Science and transport experts and from the European Commission, followed by an open interactive discussion on the state-of-theart, barriers, needs and opportunities for implementation of Open Science in Transport (WP1 & WP2 results).

The TRA Conference as the largest event entirely dedicated to European Research and Technology on transport and mobility was offering a major opportunity to discuss Open Science in Transport and to engage a vast variety of European and international experts into the Open Science topic.

Unfortunately, due to COVID-19 outbreak, the TRA 2020 conference was cancelled and all planned BE OPEN dissemination activities also called off i.e., the special focus session and the BE OPEN results promotion at the Research Village Associations stand, hold by the BE OPEN Partners ECTRI, FEHRL and EURNEX as well as a poster presentation about the evaluation of current European open science initiatives in transport research. The Second BE OPEN event was therefore re-scheduled few months later in the context of the US TRB Annual Meeting.

3.2.3 Second BE OPEN event at US TRB Annual Meeting (January 21, 2021)

The second BEOPEN event was rescheduled at the 100th Transportation Research Board Annual Meeting (TRB AM 2021) as a Workshop under the theme of "Open Science in Transport: Challenges and Opportunities in a COVID-19 Era". It took place online on January 21, 2021.

Being the world largest transport research conference, TRB AM was offering a unique opportunity for BE OPEN to reach out to a broad international community to discuss Open Science, particularly in the context of COVID-19 as the dissemination of scientific knowledge/results and access to data have turned so crucial in the time of a pandemic.

The BE OPEN 2nd event was sponsored by the TRB International Coordinating Council – TRB ICC (A0020C) as its main workshop and included in the main TRB programme. Thanks to this support, the Council has supported the BE OPEN consortium in developing the Workshop programme reaching out major international stakeholders for speaking at the Workshop and disseminating the event through the mailing list of members and friends of the Council (400 international contacts) and other relevant TRB Technical Committees closely linked to open science.

The Workshop programme counted with an incredible line up of international speakers and presiding officers, across sectors (researchers, policymakers, cities, public transport operators, librarians, and publishers), across disciplines (open science or transportation specialists), but more importantly across continents with high-level speakers from major organizations in America, Europe and Africa (US TRB, US Department of Transportation, International Transport Forum from OECD, World Conference on Transport Research Society WCTRs).

In the first part of the Workshop ("Setting the Scene"), Leighton Christiansen, Data Curator, National Transportation Library, Bureau of Transportation Statistics, at United States Department of Transportation, presented on the "US Open Science policy, perspectives and transportation".

The second part dedicated to provide examples of open science in transport, moderated by Kathleen Shearer, Executive Director, Confederation of Open Access Repositories (COAR) Research Associate, CARL Strategic Consultant, ARL, Canada; Philippe Crist, Advisor, Innovation and Foresight at OECD, International Transport Forum made a speech on "Open data: key challenges for transport data collection and management". In that same session, Robin Lovelace, from ITS Leeds and World Conference on Transport Research Society presented his work on "Open access Transport models — from collaborative code to citizen science". Lastly, Mark Henry Rubarenzya, Head - Research and Development, Directorate of Network Planning and Engineering, Uganda National Roads Authority, provided his views on open innovation in road and transport research, with case studies in Sub-Saharan Africa.

The last part of the event "Panel discussion: Open Science: What is further needed? Future steps", brought 4 American speakers from different sectors to the discussion: Rosie Cann, Senior Publisher, Humanities & Social Science Journals, SAGE Publishing, Stephanie Dock, Research Program Administrator at US District Department of Transportation, Chair TRB City Transportation Issues Coordinating Council, Prof. Lily Elefteriadou, Director, University of Florida Transportation Institute, USA and Kendra Levine, Library Director, UC Berkeley, USA.

In terms of attendance, over 90 participants joined the workshop from 17 countries. The sector more represented was the Academia followed by Government/public authority, Private sector and Research organisations. The recording of the session was available for the meeting delegates for a period of two months after the event.

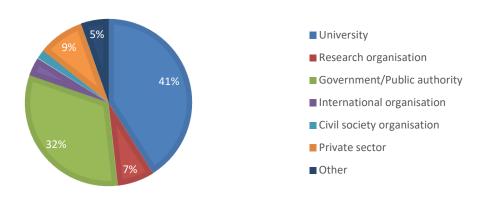


Figure 111. BE OPEN Second event participants - sector representation

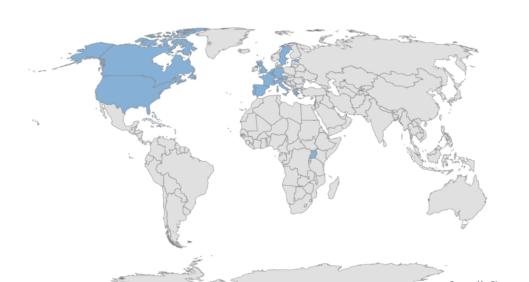


Figure 12. BE OPEN Second event participants - geographical representation

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To broaden the visibility of BE OPEN at TRB Annual Meeting, the project was also disseminated at the TRB Virtual Exhibition via the ECTRI booth. The virtual stand was online from mid-January to mid-March, 2021 and visited by more than 250 conference attendees.

3.2.4 Final BE OPEN event (June 9th, 2021)

The BE OPEN final event, which took place online on June 9, 2021, benefited from the large worldwide community built during the previous project events and activities.

Under the theme of "Making Open Science the new normal for transport research", the final event programme was designed to include an international perspective on the topic and reinforce the international collaboration links.

In Part I of the event, Takahiko Uchimura (BE OPEN Advisory Board member and Senior Vice President, ITS Japan), gave a presentation on ITS Japan perspectives on Open Science. In Part III, the panel discussion, Wouter Schallier (BE OPEN Advisory Board member and Chief Librarian at ECLAC/Chile, United Nations) and Angelina Wagner (Journal Development Manager, Springer, New York) represented from an international viewpoint, the librarian and publishing houses sectors, respectively.

In terms of participation, the live event gathered interest from over 100 experts from more than 40 different countries across the 5 continents. The sector more represented was the Academia followed by Government/public authority, Private sector and Research organisations. The recording and presentations were made available to all registrants, which accounted more than 250 individuals.

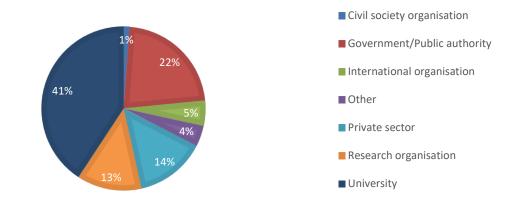


Figure 13. BE OPEN Final event participants - sector representation

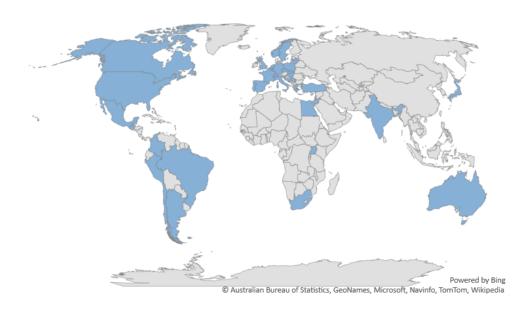


Figure 14. BE OPEN Final event participants - geographical representation.

3.3 Involving international experts to contribute to project developments and to provide feedback at key project milestones

With a wide recognition and proven expertise in the fields of transport research, open science, and/or international cooperation the involvement of the Advisory Board has helped BE OPEN to capture the international aspect of Open Science in research and innovation and brought many insights on how open science may benefit the transport sector beyond Europe. The AB members are presented below, by alphabetic order.

- Paul Ayris, Pro-vice-Provost, UCL, and Chair of LERU INFO and OP, United Kingdom
- Prof. Alsnosy Balbaa, Vice President of the Arab Academy for Science, Technology and Maritime Transport, Egypt
- Prof. Lily Elefteriadou, Director, University of Florida Transportation Institute, USA



European forum and oBsErvatory for OPEN science in transport

- Prof Tatiana Kovacikova, Member of EC Expert Group on Open Science Transport Research Cloud, Head of the Department of International Research Projects – ERAdiate+, University of Zilina, Slovakia
- Dr. Eva Méndez Rodriguez, Deputy Vice-Rector for Scientific Policy Open Science, Universidad Carlos III, Madrid, Spain
- Wouter Schallier, Chief Librarian at ECLAC, United Nations
- Kathleen Shearer, Executive Director, Confederation of Open Access Repositories (COAR)
 Research Associate, CARL Strategic Consultant, ARL, Canada
- Takahiko Uchimura, Senior Vice President, ITS Japan

The main contribution of the AB members could be summarized to (i) commenting and providing feedback to the key project deliverables and (ii) participating as moderators, speakers or panellists in the second and final event of the BE OPEN project, bringing their views and insights to the discussion.

The tasks and activities of the Advisory Board are thoroughly described in the Deliverable 7.4 [4].

These activities helped to foster mutual learning and share best practices for operationalizing Open Science principles in transport research at a global basis.

4 Final remarks

The international cooperation strategy led by the BE OPEN consortium has shown to be very fruitful and set the basis for exchanging best practices, information and experience of Open Science in transport research. Supported by the strong presence in social media, a well-documented website, regular newsletters, and Partners with privileged contacts, the followed international cooperation strategy managed to achieve international awareness of BE OPEN project and international audience for BE OPEN events as well as international stakeholders across all transport sectors and areas.

Future steps encompass several actions to sustain the visibility of the main project outcomes and enhance potential uptake as well as to explore opportunities that continue the discussion of open science in transport research using upcoming conferences such as ETC2021, TRA 2022, TRB 2022, etc.

5 References

- [1] BE OPEN Grant Agreement (824323 H2020-MG-2018-2019-2020/H2020-MG-2018-SingleStage-INEA)
- [2] BE OPEN Deliverable 3.4 Strategy for pan-European diffusion and global links
- [3] BE OPEN Deliverable 6.2 Dissemination Strategy
- [4] BE OPEN Deliverable 7.4 International Advisory Group actions report (Confidential)