



## Deliverable D 7.2

### Second set of interaction with other projects and dissemination activities and documentation

<b>Project acronym:</b>	FLEX-RAIL
<b>Starting date:</b>	01/12/2018
<b>Duration (in months):</b>	31
<b>Call (part) identifier:</b>	H2020-S2R-OC-IPX-01-2018
<b>Grant agreement no:</b>	826189
<b>Due date of deliverable:</b>	Month 31
<b>Actual submission date:</b>	30-06-2021
<b>Responsible/Author:</b>	Christian Katschnig, IITR
<b>Dissemination level:</b>	PU
<b>Status:</b>	final

Reviewed: (no)



<b>Document history</b>		
<i>Revision</i>	<i>Date</i>	<i>Description</i>
0.1	31/05/2021	First draft, Christian Katschnig
0.2	23/06/2021	Second draft for internal review, Christian Katschnig
1.0	30/06/2021	Final version for submission; Christian Katschnig

<b>Report contributors</b>		
Name	Beneficiary Short Name	Details of contribution
Christian Katschnig	IITR	Author
Ming Chen	TNO	Reviewer
Marco Brambilla	TRT	Reviewer
Tom H. Zunder	NewRail	Reviewer

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No. 826189. The information and views set out in this document are those of the author(s) and do not necessarily reflect the official opinion of Shift2Rail Joint Undertaking. The JU does not guarantee the accuracy of the data included in this article. Neither the JU nor any person acting on the JU’s behalf may be held responsible for the use which may be made of the information contained therein.



## Table of Contents

Executive Summary .....	4
Background .....	5
Objective/Aim .....	6
1.1. Dissemination Activities .....	7
1.1.1. Templates and Logo .....	7
1.1.2. Dissemination Log .....	7
1.1.3. Webinars and other activities with external participation .....	14
1.2. Website and Internet .....	15
1.3. E-newsletters .....	17
1.4. Conferences .....	18
1.5. Final event of the project .....	18
1.6. Publications .....	19



## Executive Summary

The following deliverable presents information regarding the dissemination events that were organised by the FLEX-RAIL project itself, as well as opportunities external to the project that were utilised to inform stakeholders about the project activities and results. These consisted of workshops; conferences, webinars and e-newsletters as well as other miscellaneous.



## Background

The present document constitutes the Deliverable D7.2 “Second set of interaction with other projects and dissemination activities and documentation” in the framework of IPX, which contributes to the achievement of the S2R Master Plan and is part of the MAAP Part A (version 27 October 2017) and its vision, enabling future rail capabilities.

The work package disseminated the outputs from the core of Shift2Rail to the next layer, that of the European Technology Platforms, international research networks, other Joint Undertakings and industry. The group of targets grew from this core, non-exhaustive, list:

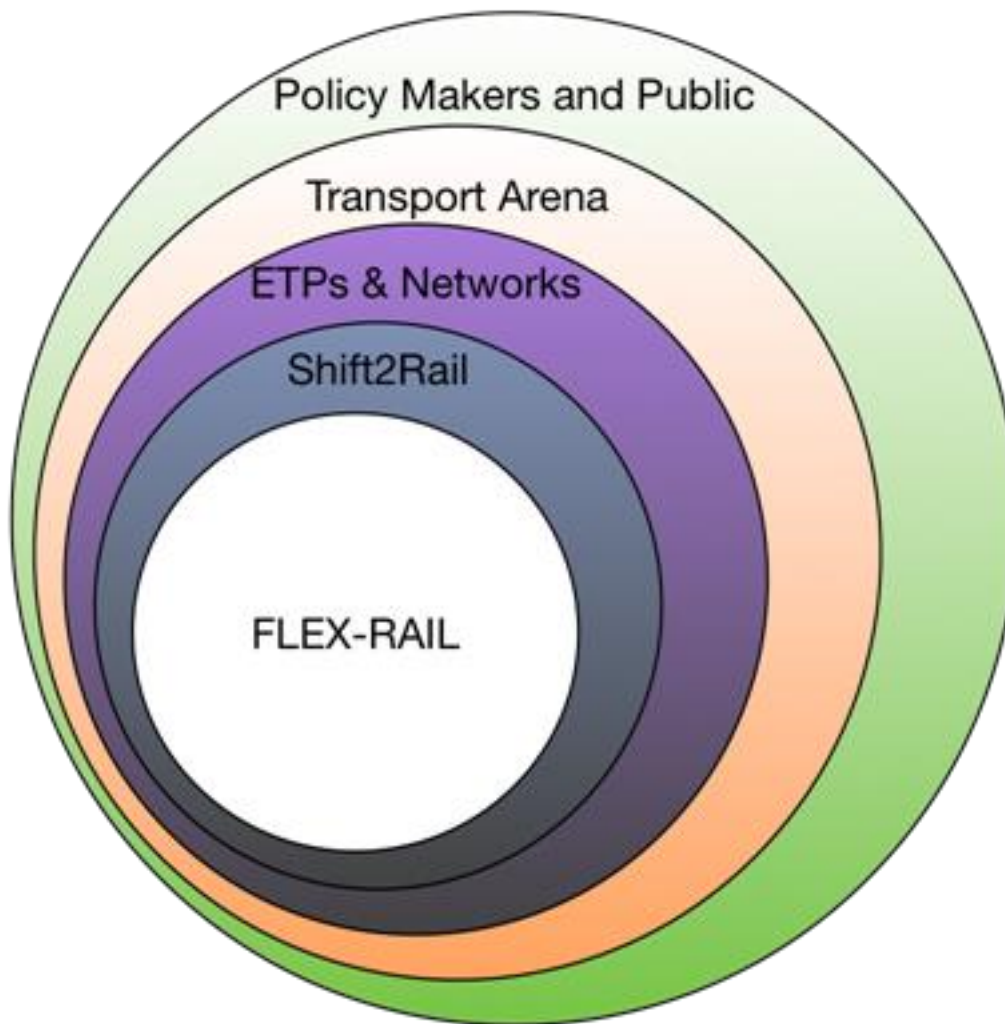
1. ERRAC the European Rail Research and Advisory Council, providing input to Working Group 1- Strategic Programme Group and Working Group
2. ERRAC Projects Group. We made submission to the appropriate ERRAC PAG and plenary meetings.
3. IRRB the International Railway Research Board, to report at a global level the potential identified in the project.
4. ALICE the European Technology Platform for Logistics Innovation, focusing on the freight elements of paradigm shifts, attending the ALICE plenaries and working groups in order to iteratively receive and provide input.
5. ECTRI, the European Conference of Transport Research Institutes, attending and contributing to the working groups on rail, freight, and urban mobility to foster further exploitation of the ideas from the project.

Finally, wider dissemination to the whole of the transport research and innovation community was achieved through the final event workshop which formed part of the online ERRAC plenary of June 30<sup>th</sup> 2021, enabling full access to as wide an audience as possible given the impact of COVID19 on live conferences.

All FLEX-RAIL outputs informed the wider policy development of the EU, specifically in DG-MOVE, but also DG-RESEARCH, especially D6.1. Local action at member state policy maker level was achieved through the Shift2Rail Joint Undertaking dissemination to member state railways, infrastructure manager and regulatory bodies.

## Objective/Aim

This document was prepared to provide information regarding dissemination activities that were organised by the FLEX-RAIL project itself, as well as opportunities external to the project that were utilised to inform stakeholders about the project activities and results. These consisted of workshops; conferences, webinars and e-newsletters.



**Figure 1: Flex-Rail Impact Layers**

## 1.1. Dissemination Activities

### 1.1.1. Templates and Logo

Templates (for presentation, meetings, reporting) and Logos were prepared for the project on time.

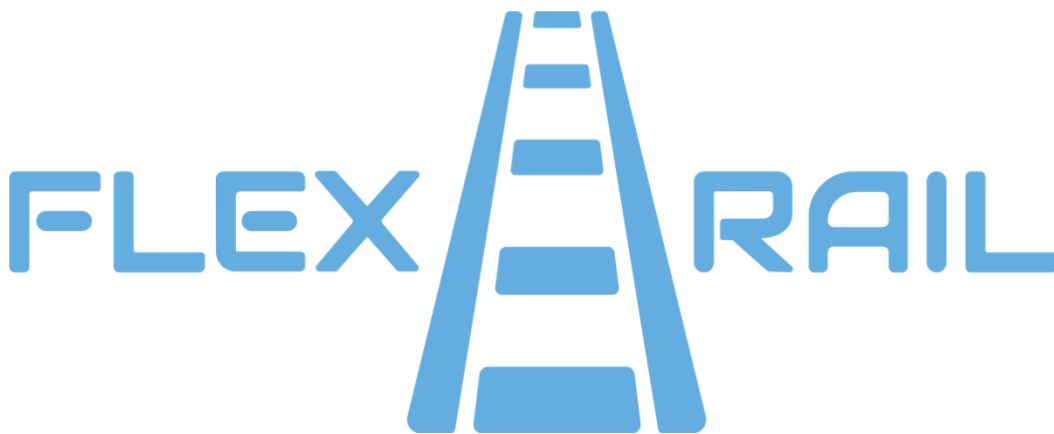


Figure 2: Flex-Rail Logo

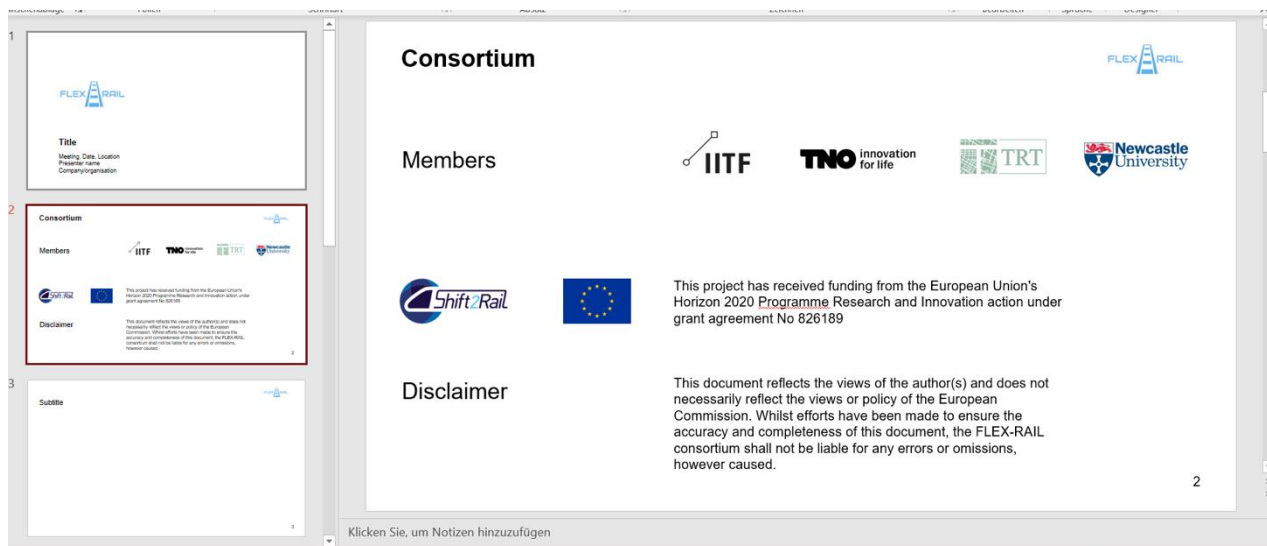


Figure 3: FLEX-RAIL presentation template

### 1.1.2. Dissemination Log

Flex-Rail has been disseminated at events appropriately and well. The key target groups of ERRAC, ALICE, the wider Shift2Rail and ALICE have all been liaised with. The COVID19 pandemic has made it impossible to attend the TRA2020 conference since it did not proceed.



**Table 1: Dissemination log**

<u>Type of Activities</u>	<u>Planned/Realised</u>	<u>Partners involved</u>	<u>Title</u>	<u>date</u>	<u>Place</u>	<u>Type of audience</u> *	<u>Size of audience</u>	<u>Countries addressed</u>	<u>Stakeholder groups addressed</u>
Presentation FLEX-RAIL project	realised	IITR	FLEX-RAIL  paradigm shifts for railway	10.01.2020	Vienna	1, 2, 3, 4, 5	150	Austria, Germany	policy makers, industry, Rail operation, R&D
Networking and promotion of Flex-Rail	realised	UNEW	TDI Workshop	25.02.2020	Liverpool	1,2,5	100	United Kingdom	policy makers, industry, academia
Networking and presentation of Flex-Rail	realised	UNEW	ERRAC PAG and Plenary	21.03.2019	Brussels	1,2,5	100	Europe	policy makers, industry, Rail operation, R&D
Networking and presentation of Flex-Rail	realised	UNEW, TNO	TER4RAIL Rail Roadmaps World Café Workshop	28.06.2019	London	1, 2, 3, 4, 5	50	Europe	policy makers, industry, Rail operation, R&D
Networking and presentation of Flex-	realised	UNEW	ERRAC PAG and Plenary	29.11.2019	Brussels	1,2,5	100	Europe	policy makers,





Rail									industry, Rail operation, R&D
panel discussion	realised	TNO	7 <sup>th</sup> International Railway Summit, 'Better data for better outcomes: How can operators keep on top of the data flood and maximise its potential?'	21.02.2019	Frankfurt	1, 2, 3, 4, 5	150	Global	policy makers, industry, Rail operation, R&D
presentation at conference	realised	TNO	Future of Transportation World conference , Anticipating the potential rebounds of mobility and logistics innovations'	10+11-12-2019	Vienna	1, 2, 3, 4, 5	100	Global	policy makers, industry, freight operators, R&D
dissemination through social network	realised	TNO, ...	Link to D2.1 communicated and shared on LinkedIn		www		>1000	Global	policy makers, industry, freight operators, R&D
Presentation and discussion	realised	TNO	Multimodal 2020; Modal shift in a changing world, impact disruptive developments and action perspective	25.06.2020	Webinar / Rotterdam	1, 2, 3, 4, 5	500	Netherlands, Belgium	policy makers, industry, Rail operation, R&D



Presentation/discussion on Flex-Rail	realised	TNO	Discussion with Dutch Ministry of Infrastructure and Waterworks	05.03.2020	The Hague	1	6	Netherlands	policy makers
journal and conference paper	realised	TNO, TRT	abstract prepared for ENEF 2020 and special issue of Industry & Innovation on "Innovation and Firms within the New Industrial Paradigm of the Digital Transformation" (accepted but discontinued due to Corona related capacity issues)	nov, dec 2020		1, 2, 3, 4, 5	>1000	EU	policy makers, industry, Rail operation, R&D
Presentation and discussion	realised	TNO	EARPA Foresight group future mobility of people and goods	16.03.2021	online	1, 2, 3, 4, 5	6	EU	researchers
	realised		Input to TNO White Paper 'Succesvolle mobiliteitstransitie met adpatieve reisbegeleiding'; reference to Flex-Rail D4.1	01.12.2020	NL	1, 2, 3, 4, 5	>1000	EU	policy makers, industry, academia



Position paper	realised	TNO	Input to position paper ATO, game changer for the future of rail (in Dutch); published on websites TNO and ProRail	11.01.2021	NL	1, 2, 3, 4, 5	>1000	EU	policy makers, industry, academia
Conference presentation	realised	TNO	Presentation Rail Tech Europe 2021 on ATO	31.03.2021	Rotterdam	1, 2, 3, 4, 5	50	EU	policy makers, industry, academia
Presentation/discussion	realised	TNO	Discussion on competitive position of rail freight transport with ATO stakeholder group at ProRail (ministry, rail operators, infra managers)	28.09.2020	Utrecht	1, 2, 3, 4, 5	7	NL	policy makers, industry
Presentation/discussion	realised	TNO	Discussion on competitive position of rail freight transport with directors general of Dutch Ministry of Infrastructure and Water Management	02.03.2021	The Hague	1, 2, 3, 4, 5	7	NL	Ministry of Infrastructure and Water Management
Presentation/discussion	realised	TNO	Discussion on developments and measures influencing modal-split	20.04.2021	The Hague	1, 2, 3, 4, 5	6	NL	Dutch Top Sector Logistics, policy makers



Presentation	realised	IITR	FLEX-RAIL: service design thinking on a future rail sector	21.05.2021	online	2	20	Aut	industry
Presentation/discussion	realised	TNO	Presentation for team Digital Societies and Industrial Innovation of TNO unit Strategic Assessment and Policy on Paradigm shifts and disruptive innovation assessment	25.05.2021	online	1, 2, 3, 4, 5	15	NL	academia
Presentation/discussion	realised	TNO	Presentation for team Sustainable Urban Mobility & Safety of TNO unit Traffic & Transport on The flexrail methodology with focus on the behavioural model and modal innovatin impact model	31.05.2021	online	1, 2, 3, 4, 5	15	NL	academia
Presentation/discussion	realised	TNO	Presentation for team Sustainable Urban Mobility & Safety of TNO unit Traffic & Transport on Flex-Rail results with focus on the passenger rail market segments.	01.06.2021	online	1, 2, 3, 4, 5	15	NL	academia



academic paper	realised	UNEW (all)	“Recommendations for a Transition to Railway 4.0 for Europe”	30.06.2021	www	1, 2, 3, 4, 5	>1000	EU	academia
final conference	realised	all	FLEX-RAIL: final event (online)	30.06.2021	online	1, 2, 3, 4, 5	50-100	Europe	policy makers, industry, academia
Conference paper	planned	TNO	Conference paper EARPA FORM Forum	July/August 2021	www	1, 2, 3, 4, 5	>1000	EU	policy makers, industry, academia
exploitation	planned	TNO	application of Rail innovation impact model on real corridor NL-DE in a project for Dutch Ministry and ProRail in cooperation with relevant operational stakeholders.	expected start 1-9-2021	NL	1, 2, 3, 4, 5	50-100	NL, DE	policy makers, industry, academia
Value Engineering plenary	planned	IITR	FLEX-RAIL: service design thinking on a future rail sector	Nov. 2021	Graz	1, 2	50-100	Aut, Ger, Hun	policy makers, industry, academia
Conference presentation	planned	TNO	presentation EARPA FORM Forum	9+10 Nov 2021	Brussels	1, 2, 3, 4, 5	500	EU	policy makers, industry, academia



\* Type of audience

1: Scientific

Community

(higher  
education,  
Research)

2: Industry

3: Civil society

4: General

public

5: Policy

makers

6: Medias

7: Investors

8: Customers

9: Other

### 1.1.3. Webinars and other activities with external participation

Beside the mentioned dissemination activities in chapter 1.1.2, project FLEX-RAIL organized online participation from project externals with:

1. Idea challenge platform “Neurovasion” in WP4
2. Webinars for business modelling in WP5
3. Structured interviews for research on governance for WP5

Ad 1:

One approach of project FLEX-RAIL to get new (maybe disruptive) ideas for innovations in technology and services for future rail scenarios was the implementation of a crowdsourcing process for rail via the crowdsourcing platform NEUROVATION.

In the open innovation process a total of 56 active users were attracted to take part in the open innovation process.

61 ideas were submitted in the idea challenges and improvement pipeline, frequently liked and commended, as a basis for working packages 4 and 5 of project FLEX-RAIL.

Details can be found in D4.1 of project FLEX-RAIL

Ad 2

6 webinars were held in February 2021 via software “Miro” to present current results on business modelling, giving some input in working on business models with the methodology of “business model canvas” and collecting additional input from externals in interactive sessions on different business model perspectives.

Details can be found in D5.1 of project FLEX-RAIL.

### Ad 3

Structured interviews were sent to several rail organisation around the EU to accumulate the outcomes from project FLEX-RAIL with ongoing and future activities in these organisations leading to an overall picture of governance in future rail innovations.

Details can be found in D5.1 of project FLEX-RAIL.

Overall, it has to be said that all project and dissemination activities seeking for the participation of external experts and/or organizations required a huge effort in acquiring this participation. One reason for sure is the sensitive topic of research on paradigm shifts for railways, the other reason might be the incomparable situation in the EU because of the pandemic.

## 1.2. Website and Internet

UNEW setup a website for the project, allowing ease of access to all public deliverables using Wordpress and appropriate plugins.

<https://flex-rail.org/>

Additional domains have been deployed for research output and inputs.

<https://flex-rail.neurovation.net/login>

<http://flexrail.org/>

The Flex-rail website supports the publicity for the project and is also the primary route for research and dissemination. It is early days and the volumes have been steadily growing. A Twitter account has been set up [[https://twitter.com/flex\\_rail](https://twitter.com/flex_rail)] and this has been used, along with appropriate LinkedIn forums, have been used to disseminate the project, and (at this stage) build awareness.

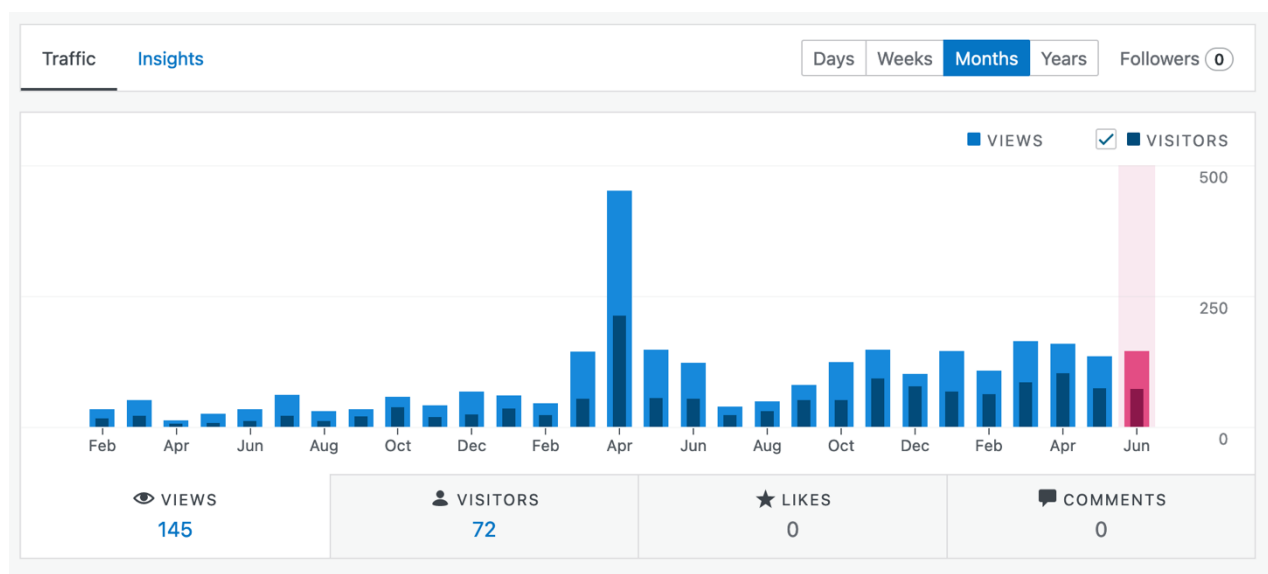


Figure 4: traffic stats - visitors webpage FLEX-RAIL.org as of 24th June 2021

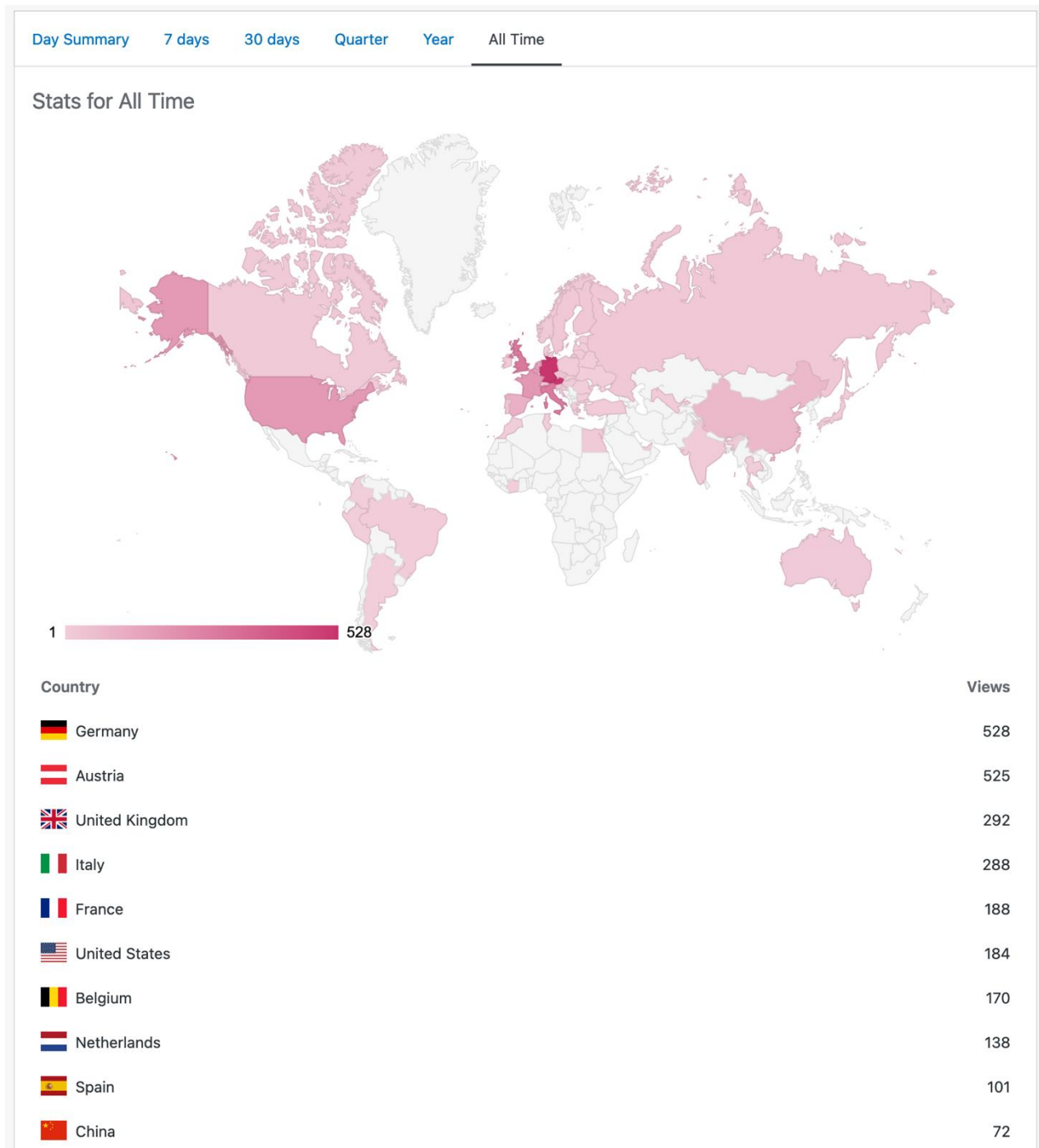
Day Summary   7 days   30 days   Quarter   Year   All Time

### Stats for All Time

Link	Clicks
<a href="https://flex-rail.neurovation.net/login">flex-rail.neurovation.net/login</a>	200
<a href="https://flexrail.org">flexrail.org</a>	123
<a href="https://projects.shift2rail.org/s2r_ipX_n.aspx?p=FLEX-RAIL">projects.shift2rail.org/s2r_ipX_n.aspx?p=FLEX-RAIL</a>	64
<a href="https://itf.at">itf.at</a>	62
<a href="https://shift2rail.org">shift2rail.org</a>	58
<a href="https://www.ncl.ac.uk">www.ncl.ac.uk</a>	48
<a href="https://trt.serverlet.com/flexRail/">trt.serverlet.com/flexRail/</a>	38
<a href="https://tno.nl">tno.nl</a>	29
<a href="https://trt.it">trt.it</a>	25
<a href="https://i2.wp.com/flex-rail.org/wp-content/uploads/2019/02/full-banner.png">i2.wp.com/flex-rail.org/wp-content/uploads/2019/02/full-banner.png</a>	13
<a href="#">Twitter</a>	6
<a href="#">deliverable%20d2.1%20review%20of%20trends%2C%20transport%20sector%20innovations%20and%20blue-sky%20proj</a>	4
<a href="https://i1.wp.com/flex-rail.org/wp-content/uploads/2019/02/partners.png?w=1006">i1.wp.com/flex-rail.org/wp-content/uploads/2019/02/partners.png?w=1006</a>	3
<a href="https://strategyzer.com">strategyzer.com</a>	1
<a href="https://ter4rail.eu">ter4rail.eu</a>	1

**Figure 5: clicks on links on flex-rail.org as of 24<sup>th</sup> June 2021**





**Figure 6: regions of visits on flex-rail.org as of 24<sup>th</sup> June 2021**

### 1.3. E-newsletters

In total 3 e-newsletters have been issued on the project, two by IITR directly, and one as part of a broader mobility newsletter, see Figure 7 below.



## Einladung zum Shift2Rail Innovationsprojekt Flex-Rail

Im Namen des **FLEX-RAIL-Projekts**, möchten wir Sie einladen am offenen Innovationsprozess des Projekts teilzunehmen. Insbesondere wird das Flex-Rail-Projekt technologische Konzepte formulieren, die sich mit Arbeitsabläufen und ihrer Verbindung befassen: Konzepte autonomer Schienenfahrzeuge, disruptive Technologien für Automatisierung und Wartungskonzepte sowie Eisenbahn 4.0. Unter folgendem Link können Sie der Community beitreten und auch erfahren welche Ideen bereits veröffentlicht worden sind:

<https://flex-rail.org>



### Figure 7: e-newsletter extract

#### 1.4. Conferences

Project FLEX-RAIL did not attend a physical conference due to the pandemic situation preventing the planned events to be cancelled.

#### 1.5. Final event of the project

Project FLEX-RAIL delivered an online final event on the 30<sup>th</sup> of June 2021. This date was chosen to correlate to the ERRAC mid-year Plenary as the final event of project FLEX-RAIL was promoted there as well to raise the number of participants.

The final event was structured as follows:

1. An overview of the Flex-Rail project work;
  - Thomas H Zunder, Newcastle University;
2. The work of the TER4RAIL sister project to Flex-Rail;
  - Armando Carillo, EURNEX;
3. The IMPACT-2 model for Shift2Rail;
  - Ida Kristoffersson, VTI;
4. The modelling results of the Flex-Rail project;
  - Ming Chen TNO and Marco Brambilla TRT;
5. The recommendations of the Flex-Rail project for Governance, Research and Innovation;
  - Thomas H Zunder, Newcastle University.

It has to be pointed out, that there was a very cooperative relationship between Ter4Rail and IMPACT-2 during the final event preparation as well as over the whole project duration. At least these open-minded discussions on changes in railways is needed in future research (activities) as a mayor key success factor.

In total >70 people were registered for the final event.



## 1.6. Publications

At the end point of project FLEX-RAIL an open access gold standard peer reviewed academic paper on a key aspect of the research:

“Recommendations for a Transition to Railway 4.0 for Europe”, submitted to *Transportation* (<https://www.springer.com/journal/11116/aims-and-scope>).

The journal *Transportation*, first published 1972, focuses on issues of relevance to the formulation of policy, the preparation and evaluation of plans, and the day-to-day operational management of transport systems. It concerns itself with the policies and systems themselves, as well as with their impacts on and relationships with other aspects of the social, economic and physical environment.

Although the transportation needs of cities and nations around the world differ in detail, there is much benefit to be derived by sharing research findings and practical experience. *Transportation* lends itself to information exchange by publishing carefully selected papers which advance the international fund of knowledge. *Transportation* is relevant to all parts of the world: industrialized, newly industrialized or developing. Its mission is simply to help improve the transportation of people and goods by bringing an improved understanding of the subject to the theorists, practitioners and policy makers who study it.

Officially cited as: *Transportation*

Improves the transportation of people and goods by bringing an improved understanding of the subject to theorists, practitioners and policy makers

Relevant to all parts of the world: industrialized, newly industrialized or developing

Publishes carefully selected papers which advance the international fund of knowledge was made.