



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824269.

This document reflects only the views of the author(s). Neither the Innovation and Networks Executive Agency (INEA) nor the European Commission is in any way responsible for any use that may be made of the information it contains.



Project Acronym: **infra4Dfuture**

Project Title: **Infrastructure for the Future**

Project Number: **824269**

Topic: **MG-2-4-2018 – Coordinating national efforts in modernizing transpo infrastructure and provide innovative mobility services**

Type of Action: **Coordination and Support Action (CSA)**

D4.5 – Generic communication and dissemination package-Nr.4

Version 1.0

Deliverable:	D4.5
Work Package:	WP4- Encouraging innovation and implementation through communication, exploitation and dissemination
Due Date:	30/05/2020(M20)
Submission Date:	25/05/2020
Start Date of Project:	01/10/2018
Duration of Project:	24 Months
Organisation Responsible of Deliverable:	CERTH/HIT
Version:	1.0
Status:	Final
Author name(s):	Maria Tsami (CERTH/HIT)
Reviewer(s):	Mary Panou (CERTH/HIT) Maria Boile (CERTH/HIT) Peter Wilbers (RWS)
Nature:	<input checked="" type="checkbox"/> R – Report <input type="checkbox"/> P – Prototype <input type="checkbox"/> D – Demonstrator <input type="checkbox"/> O - Other
Dissemination level:	<input checked="" type="checkbox"/> PU - Public <input type="checkbox"/> CO - Confidential, only for members of the consortium (including the Commission) <input type="checkbox"/> RE - Restricted to a group specified by the consortium (including the Commission Services)

Contents

Contents	3
List of figures	4
List of tables	4
List of abbreviations	5
1 General overview.....	6
2 COVID-19 disclaimer.....	7
3 Executive summary	8
3.1 Purpose of the document	8
4 Communication tools	9
4.1 infra4Dfuture leaflets	9
4.1.1 The first official leaflet of the infra4Dfuture initiative	9
4.1.2 The second infra4Dfuture leaflet.....	11
4.2 infra4Dfuture poster on “Networks 4D inspiration”	12
4.3 First official video of the infra4Dfuture initiative	15
5 infra4Dfuture online tools.....	17
5.1 infra4Dfuture official website updates.....	17
5.1.1 Home page	17
5.1.2 News page.....	18
5.1.3 Downloads page	19
5.2 infra4Dfuture Social Media accounts updates	20
5.2.1 infra4Dfuture Twitter updates	20
5.2.2 infra4Dfuture LinkedIn updates.....	21
6 infra4Dfuture analytics.....	23
7 Conclusions	27
ANNEXES	28

List of figures

Figure 1 Screenshot of infra4Dfuture leaflet in Turkish language	10
Figure 2 Screenshot of infra4Dfuture second leaflet	11
Figure 3 Screenshot of infra4Dfuture “Networks 4D inspiration” poster	12
Figure 4 Screenshot from the creation of infra4Dfuture video in progress	16
Figure 5 Screenshot from the infra4Dfuture video developed	17
Figure 6 Screenshot of infra4Dfuture website homepage event list	18
Figure 7 Screenshot of infra4Dfuture website News page	19
Figure 8 Screenshot of infra4Dfuture website downloads page	20
Figure 9 Screenshot of infra4Dfuture Twitter account	21
Figure 10 Screenshot of infra4Dfuture LinkedIn group	22
Figure 11 Audience Overview on infra4Dfuture website visits for the reported period.....	23
Figure 12 New and Returning visitors	24
Figure 13 Top 10 languages used by the devices of the website visitors	24
Figure 14 Website visitors demographics charts.....	25
Figure 15 Geolocation of website visitors.....	25
Figure 16 Top 10 Countries of website visits	26
Figure 17 Website traffic overview	26

List of tables

Table 1 Storyboard of the first infra4Dfuture video.....	16
--	----

List of abbreviations

Abbreviation	Definition
BRA	Baltic Road Association
CEDR	Conference of European Directors of Roads
CEF	Connecting Europe Facility
COB	Centrum Ondergronds Bouwen
COVID-19	New Coronavirus
D•A•CH	D — Deutschland (Germany), A — Austria, CH — Confœderatio Helvetica (Switzerland) <i>Cooperation in the common language and economic area of Germany (Deutschland), Austria and Switzerland</i>
GDPR	General Data Protection Regulation
H2020	Horizon 2020 EU Research and Innovation Program
IFA	Innovation Focus Areas
ISPIII	infra4Dfuture Stakeholder Platform for Infrastructure Innovation and Implementation
ISPIM	The International Society for Professional Innovation Management
NETLIPSE	The NETwork for the dissemination of knowledge on the management and organisation of Large Infrastructure ProjectS in Europe
NordFoU	A co-operation between the national road and transport administrations in the Nordic countries (Denmark, the Faroe Islands, Finland, Iceland, Norway and Sweden)
NTIA	National Transport Infrastructure Authorities
TEN-T	Trans-European Transport Network
TRA	Transport Research Arena

1 General overview

infra4Dfuture (i4Df) is a 24-month project under the H2020 topic of MG-2-4-2018-“infrastructure Innovation for the Future”.

i4Df will develop a demand-driven overarching strategy and coordination mechanism for the modernization of transport infrastructure including a shared strategic vision on future infrastructure capabilities and common pathways for innovation development and implementation.

Facing a variety of emerging challenges, such as climate change, resilience, ageing infrastructure, maintenance, digitalisation, automation, energy and electrification, the National Transport Infrastructure Authorities (NTIA) have urgent requirements for infrastructure innovation. In view of the long cycle times in infrastructure management and the rapid mounting pressure from these challenges, there is a need for fast delivery of ready-to-implement, cost-effective innovative solutions matching the requirements of the NTIA that jointly build the TEN-T network.

The i4Df consortium encompasses 20 partners from 17 countries, 19 of them being NTIA, joining forces to develop:

- a strategic coordination mechanism aiming to deliver a concerted cooperation and collaboration across a portfolio of relevant European and national innovation programmes and initiatives;
- a shared strategic vision on future infrastructure capabilities, each capability encompassing a series of focus areas for innovation.

i4Df is based on a sound and coherent consultation and dialogue process with relevant stakeholders. This process will be structured in a sequence of strategic, decision-making conferences and a supporting, tactical sequence of expert workshops and regional events. These should have culminated in the launch of the i4Df cross-modal coordination mechanism at the TRA 2020 in Helsinki on 27–30 April 2020. However, the TRA, like so many other events, was cancelled because of the travel and meeting restrictions from the COVID-19 crisis. The i4Df consortium is now looking for (a) digital alternative(s) before the end of the project's duration, end of September 2020.

2 COVID-19 disclaimer

From February 2020, the unforeseen spread of the pandemic of Coronavirus (COVID-19) has significantly affected the operation and activities of institutions, businesses, governments and countries. Most European cities were locked-down from March till early May and consequently, a vast number of project related events were postponed and many of them were cancelled. Among those were the TRA 2020 conference and also the infra4Dfuture 4th Stakeholder conference/launch event scheduled at the TRA.

infra4Dfuture initiative partners, continued in their majority working remotely, still, due to events cancellations and pandemic conditions, some postponements on deliverables have been agreed with the Commission. In general, the consortium continues with proper management of the initiative's Work Packages and the smooth conduction of all related tasks, without arranged postponements on deliverable dates affecting the overall duration of the project.

Still, in terms of dissemination and communication activities, and specifically current deliverable D4.5: Generic Communication and Dissemination package-Nr4, a number of coronavirus related facts, had an impact on its content. These facts were:

- a) the prohibition of trips in most countries, together with the concern regarding gatherings of a larger number of people for workshops, conferences and meetings, that led to the postponement of the 4th Stakeholder conference;
- b) the postponement of the submission dates on a number of technical deliverables, agreed among consortium partners and the Commission, that lead to consequent delay on finalization of the project's coordination mechanism;
- c) the cancellation of the TRA 2020 event, scheduled for 27-30 April 2020 in Helsinki, Finland, where initiative partners aimed to further disseminate the project and present its first video and a series of relevant dissemination materials that were planned to include: a dedicated to the event poster, a roll up banner and a leaflet, all having as main topic the project's coordination mechanism.

Considering the above and the fact that current WP4 deliverable was not postponed (D4.5 has no deviation from initial planning regarding its deadline) and material production for these events has not been produced, any relevant material that will be used for postponed activities, will be reported in the deliverable D4.12 Final report on Communication and Dissemination Activities.

Although COVID-19 has triggered a number of cancellations and delays in a wide variety of aspects that affect the activities of the initiative, through the united efforts of all partners, infra4Dfuture continues its work towards achieving its goals and objectives.

3 Executive summary

D4.5 (the Generic Communication and Dissemination package Nr. 4), issued by the Hellenic Institute of Transport of the Centre for Research and Technology Hellas (CERTH/HIT), is the 4th consecutive report on the i4Df Dissemination Strategy and the Generic Communication and Dissemination packages, following, respectively, the Deliverables 4.2, 4.3 and 4.4, also developed by CERTH/HIT.

Aimed at disseminating the project and its outcomes in a wide audience of interested parties, a great number of useful tools have been created throughout the timeline of the infra4Dfuture initiative, properly communicating project activities and findings to relevant stakeholders as well as to the general public.

The Generic Communication and Dissemination package Nr. 4 includes dissemination and communication tools and materials, created and used during the last 6 months (December 2019- May 2020), along with dissemination monitoring updates regarding project website and social media accounts. Therefore, this 4th package presents the latest infra4Dfuture leaflet, the infra4Dfuture banner on “networks 4D inspiration”, a draft script of the first project video, as well as the description and analytics of the online infra4Dfuture communication platforms.

3.1 Purpose of the document

The communication and dissemination tools and materials have been thoughtfully developed within the framework of infra4Dfuture project, gradually advancing the generic communication and dissemination package. Communication and dissemination material appear to be the main means of sharing the activities and achievements of infra4Dfuture project to wider audiences. Thus, the targeted and considerate implementation of these tools and materials affects the overall success of the project. This report includes the tools and materials aimed at external communication and dissemination, as well as all the activities that have taken place in the website of infra4Dfuture project and its social media channels.

The first package of communication and dissemination tools has been presented within D4.2 (Generic Communication and Dissemination package-Nr.1), and includes the official templates of the power point presentation, the newsletter, the communication document, as well as a first i4Df leaflet. The second package of communication and dissemination tools has been presented in the context of D4.3 (Generic Communication and Dissemination package-Nr.2), including the first 2 newsletters of the project, the first leaflet, the website, etc. The third package of communication and dissemination tools has been described in D4.4 (Generic Communication and Dissemination package-Nr.3) and includes a number of materials such as the generic deliverable template, infra4Dfuture badge template, save the date letter template, GDPR consent and participant list, 2 posters (generic poster and regarding the fact sheets on capabilities and IFAs) and 2 Roll-up banners (generic and regarding the fact sheets on capabilities and IFAs).

All the updates made in the website as well as the social media channels of the project have been included in previous deliverables on communication and dissemination materials (D4.2, D4.3, D4.4), reflecting the progress and activities of infra4Dfuture project in online network.

This deliverable refers to Task 4.1.

4 Communication tools

Within the infra4Dfuture a number of communication tools have been developed, both for internal and external usage. Internal communication tools include all templates, forms and guiding formats that have been developed and communicated to initiative partners to be used by them in order to secure a unified way for promoting all project actions and material. The internal communication templates have been developed, following the projects' dissemination and communication strategy, clearly communicating the project identity (project official logo and colour-blocking, Grand Agreement Number and relevant information) following formats and positioning of elements in order to ensure attractiveness while presenting in a clear and straight forward way information and contents.

Similarly, under the same dissemination and communication strategy, a number of external communication tools have been developed, to be disseminated to external to the project stakeholders and audiences, providing useful information on the project, its progress, activities and events, achievements and findings.

All internal communication tools have been produced within the 1st year of the project and have been properly presented in the previous Generic Communication and Dissemination packages (Nr 1-2 and 3). This deliverable, presents a list of external tools that have been created and communicated during the project period December 2019- May 2020.

4.1 infra4Dfuture leaflets

Two official leaflets have been developed within the framework of infra4Dfuture. Both leaflets of infra4Dfuture initiative follow a threefold design and include the official colour combination, the logo of infra4Dfuture project, it's website address and Social Media webpages, as well as the logos of all the partners, the Grand Agreement number of the initiative and the essential information on the funding of the project under EU Horizon 2020 Research and Innovation program along with the EU flag.

The first leaflet has been developed by CERTH/HIT (design), in co-operation with the WP leaders (content), and was introduced in D4.3 (Generic communication and dissemination package Nr.2). This English leaflet has recently been translated into the Turkish language and is being presented in the current deliverable. Additionally, the second official project leaflet is being presented. A third and last leaflet is under development.

4.1.1 *The first official leaflet of the infra4Dfuture initiative*

The first official (English) leaflet of infra4Dfuture initiative has recently been translated into the Turkish language. The translation of the leaflet was accomplished by the Turkish partners of the initiative with the aim to attract more interest on the project at a national level. All partners were advised to use translated versions of the external communication and dissemination materials developed upon need. In most cases of countries involved in the initiative, the English version is sufficient and attracts national interest without the need to be translated. Still, Turkish partners proceed on translating the first official leaflet in order to disseminate it properly at a national level. The screenshot of the translated leaflet is presented in Figure 1, while the full version of the leaflet can be found in ANNEX I.

infra4Dfuture paydaş yükümlülükleri

Koordinasyon mekanizması, kamu, endüstri ve araştırma çevrelerinden ilgili paydaşlar arasında yasal bir diyalog oluşturacaktır. Bu diyalogda, talep tarafı, "sorun sahibi" olan inovasyon ve uygulama sorununu kamu atlayıcı yöneticileri ile fon sağlayıcı olan Avrupa ve ulusal arası kamusal program sahiplerinden oluşur. Diyalogdaki tedarik tarafı ise, yenilik öncesi ilgili endüstrilerden ve araştırma sağlayıcılardan oluşur.

Inovasyon ve Uygulama TALEP

KAMUSAL SORUN SAHIPLERİ

INOVASYON PROGRAMI SAHIPLERİ

Inovasyon ve Uygulama TEDARİK

ENDÜSTRİYEL ÖNCÜ TEDARİKÇİLER

ARAŞTIRMA SAĞLAYICILARI

infra4Dfuture çıktıları:

- 2040 yılına kadar uyumlu, öncelikli ulaştırma inovasyon program portföyü; Avrupa ve ülkeler arası inovasyon programlarının geliştirilmesi.
- Kapsamlı bir koordinasyon mekanizması; Talebe dayalı, uygulamaya hazır maliyet etkin inovatif çözümlerin etkili bir şekilde ortaya çıkarılması amacıyla, programların ilgili uyumlu portföyleri içerisinde aktivite geliştirilmesini ve dağıtımına yön vermek için ilgili paydaşlar tarafından desteklenmesi.
- Meslekî yeterlilik oluşturma çerçevesi; inovatif çözümlerin daha geniş alanlara uygulanmasını ve dağıtımını desteklemek için söz konusu çerçeve bazında, eğitim ve öğretim alanından paydaşlarla işbirliği yapılması.
- Stratejik paydaş platformu; 2021-2027 yıllarını kapsayan çok yillik bir dönem boyunca koordinasyon mekanizmasına, kamudan, endüstriden ve araştırma kuruluşlarından ilgili paydaşların dahil edilmesi ve 2040 yılı atlayıcı imkanlar için ortak bir vizyon oluşturulmasına rehberlik etmesi.

i4DF girişimi

- Rijkswaterstaat (Ministerie van Infrastructuur en Waterstaat) -Hollanda
- Väylä - Finlandiya
- Agentschap Wegen en Verkeer -Belçika
- Latvijas Valsts Ceļi - Lityanya
- Vejdirektoratet -Danimarka
- Trafikverket - İsveç
- Statens Vegvesen - Norveç
- BMVI (Bundesministerium für Verkehr und digitale Infrastruktur) -Almanya
- BASz (Bundesanstalt für Straßenwesen) - Almanya
- ANAS S.p.A. - İtalya
- bmvi (Bundesministerium für Verkehr, Innovation und Technologie) -Avusturya
- Ministerio de Fomento - İspanya
- Infraestruturas de Portugal -Portekiz
- Ministerstwo Infrastruktury -Polonya
- Ministerstwo Gospodarki Morakiej i Żegluzi Śródlądowej -Polonya
- CERTH / HIT (Centre for Research and Technology Hellas / Hellenic Institute of Transport) - Yunanistan
- Ministère de la Transition écologique et solidaire - Fransa
- Netivei İsrail - İsrail
- Karayolları Genel Müdürlüğü -Türkiye
- TÜV Rheinland Consulting

Proje Koordinatörleri İletişim Bilgileri:

Peter Wilbers, Rijkswaterstaat
peter.wilbers@rws.nl, +31622907912

Richard van der Elber, Rijkswaterstaat
richard.vanderelber@rws.nl, +31 6 25096927

www.i4df.eu | @i4dfproject | www.linkedin.com/groups/1385794/

infra4Dfuture

Çok modlu ulaştırma altyapılarının gelecekteki inovasyon ve uygulama talepleri için strateji ve koordinasyon mekanizmasının oluşturulması

Bu proje, 834269 sayılı Hibe Anlaşması kapsamında Avrupa Birliği'nin (Auk 2020 araştırma ve inovasyon programı tarafından finanse edilmektedir)

proje fikri

infra4Dfuture projesi fikri

Ulaştırma atlayıcı yöneticileri, faaliyetlerini sürdürmek için maliyet etkin ve kolaylıkla uygulanabilir yenilikçi çözümlere acil ihtiyaç duymaktadır. Faaliyetler, ulaşım ağının işletilmesi için gereken temel fiziksel ve organizasyonel yapılar ve tesisleri içerir. Enerji ve verimliliği yönetimi için tesisler ve yaklaşım yolları ile diğer şebeke bağlantıları buna dahildir.

Karşılama gereken önemli ihtiyaçları büyük ölçüde benzer olan ve geniş ortaklık bilincine sahip, atlayıcı yönetimden sorumlu Avrupa ülkeleri, Türkiye ve İsrail'den on dokuz kurum, talep odaklı atlayıcı inovasyonu ve daha büyük ölçekte uygulamaya yönelik etkin bir koordinasyon mekanizması sağlamak için infra4Dfuture (i4DF) girişiminde güçleri birleştirmiştir. i4DF girişimi, Avrupa Komisyonu tarafından 1 Ekim 2018 - 30 Eylül 2020 (824269 sayılı Hibe Anlaşması) arasında bir Eğitim ve Destek Eylemi (CSA) olarak finanse edilmektedir. Ayrıca, girişim Avrupa Karayolları Yöneticileri Konferansı (CEDR) ve Avrupa Demiryolu Atlayıcı Yöneticileri (EIM) tarafından da desteklenmektedir.



i4DF girişim ortakları, toplam olarak, TEN-T ağının büyük bir kısmını kapsayan ulaştırma altyapısının yönetiminden sorumlu durumdadır. Girişim, CEDR ve EIM'den aldıkları destekle, proje sonuçlarının Avrupa ulaştırma sisteminin neredeyse tümüne etki etmesini beklemektedir. i4DF kapsamında, girişim ortakları, ulaştırma altyapısının ortak sorunlarına karşı güçlerini birleştirmektedir.

yaklaşım & etkinlikler

infra4Dfuture yaklaşımı

Proje süresi boyunca (30 Eylül 2020'ye kadar) farklındaki, bilgilendirme, güven ve onay oluşturmak için, dört adet üst düzey Paydaş Konferansı organize edilecek olup söz konusu dört paydaş grubunda, üst düzey temsilciler, stratejik kapsam ve mekanizmanın işleyişini tartışarak kararlar oluşturacaktır. Üst Düzey Paydaş Konferansları, uzman çalışanlar ve AB bölgesel tanıtım etkinlikleriyle de desteklenecektir.

Nisan 2020'de Helsinki'deki TRA konferansı ile birlikte yapılmış planlanan dördüncü üst düzey Paydaş Konferansında, koordinasyon mekanizmasının oluşturulması sonras, önümüzdeki on yıl için Avrupa ve ülkeler arası ulaştırma inovasyon programları için bir portföy oluşturulmasına odaklanılacaktır.

infra4Dfuture etkinlikleri

- 1. i4DF Paydaş Konferansı** (Brüksel, 11 Aralık 2018)
- 1. i4DF Uzman Çalıştayı** (Bergisch Gladbach, 25-26 Şubat 2019)
- 2. i4DF Paydaş Konferansı** (Brüksel, 21 Mayıs 2019)
- i4DF AB-Bölgesel Destek Etkinlikleri** (yer ve tarihler duyurulacaktır)
- Diğer Bölge Dışı Fırsatlar**
- 3. i4DF Paydaş Konferansı** (Almanya, 12 Aralık 2019)
- 2. i4DF Uzman Çalıştayı** (Malmö ve Kopenhag, 16-17 Mart 2020)
- 4. i4DF Paydaş Konferansı** (TRA2020, Helsinki, Nisan 2020)

kapsam & etkiler

infra4Dfuture kapsamı

i4DF koordinasyon mekanizmasının genel hedefi, ulaştırma sisteminin son kullanıcıları için dikkate değer faydalar sağlayan, etkili, talep odaklı atlayıcı inovasyonu ve uygulamaları sağlamaktır. i4DF koordinasyon mekanizmasının önceliklerinde geliştirilmeleri için özellikle şunlar olacaktır:

- Atlayıcı yöneticilerin (günümüzde) karşılaştığı zorluklara hitap eden, uygulamaya hazır, daha maliyet etkin inovatif çözümler. İnovasyon geliştirilmesi ve uygulanmasında, farklı inovasyon programlarında aynı çalışanların tabiratanması yerine, sonuçların eşleştirilmesine odaklanmaya ve sonraki aşamaların incelenmesine, imkan sağlayacaktır.
- Atlayıcı yöneticileri, son kullanıcıların istek ve ihtiyaçlarına daha hızlı yanıt veren, inovatif çözümlerin, pazara sürüm süresinde kısaltacaktır.
- Kamu atlayıcı yöneticilerinin, uzun vadeli hedeflere ilişkin, ilgili paydaşlar ile uyumlu işbirliği sağlayarak, hedefe yönelik çözümler. Bu yaklaşım, sanayi tedarikçilerinin inovasyon eylemleri ve girişimleri için "pazar bakış açısı" oluşturacaktır.

i4DF koordinasyon mekanizması, inovasyon ve uygulama formlarından maksimum etkiyi sağlayacaktır.

Figure 1 Screenshot of infra4Dfuture leaflet in Turkish language

4.1.2 The second infra4Dfuture leaflet

The second infra4Dfuture leaflet created by CErTH/HIT during this reported period, introduces the project's Capabilities and Innovation Focus Areas (IFAs) towards a Sustainable Multimodal Coordination Mechanism. The screenshot of the second leaflet is presented in Figure 2.

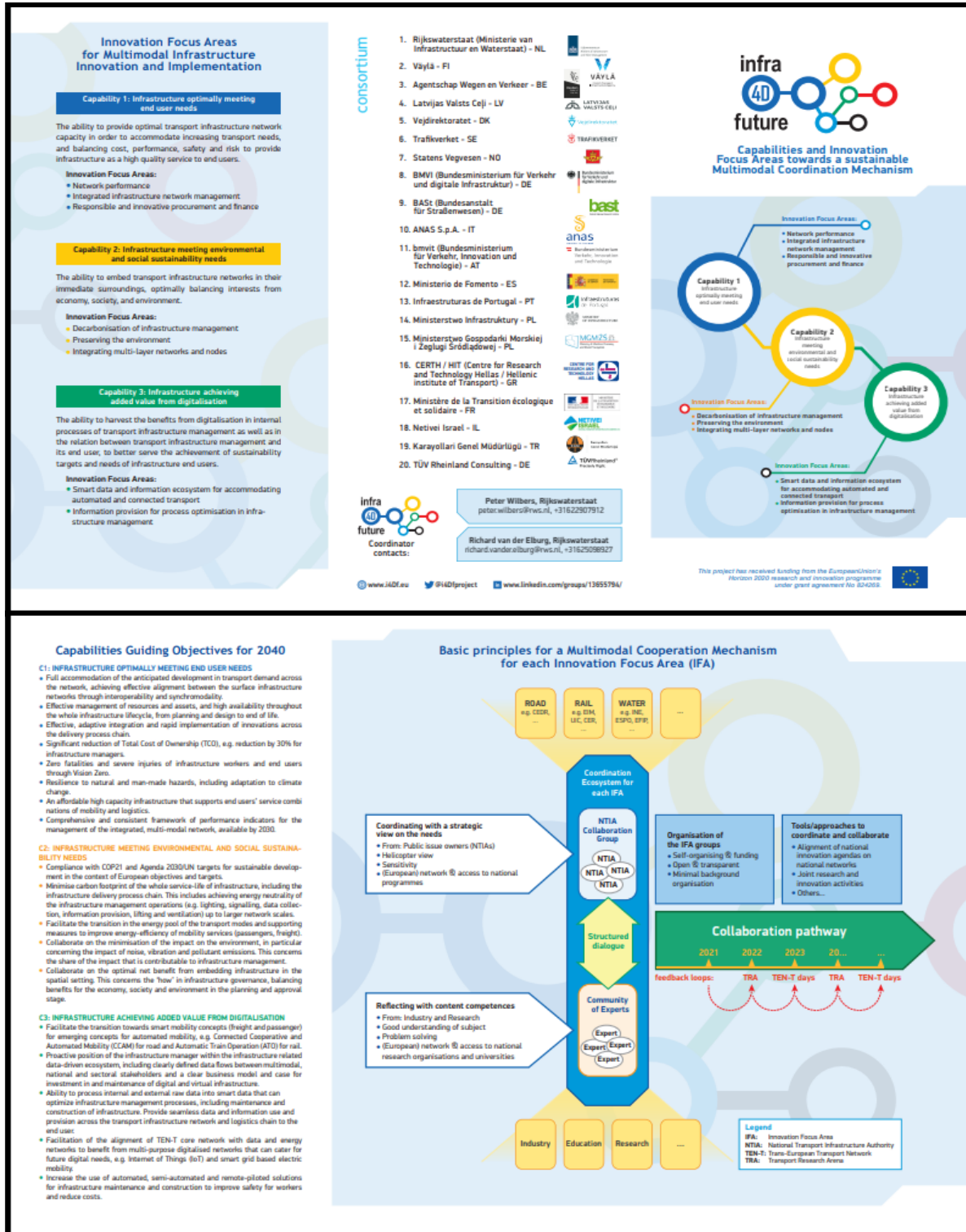


Figure 2 Screenshot of infra4Dfuture second leaflet

The content of the leaflet allows the reader to get acquainted with the three Capabilities and the respective Innovation Focus Areas of the project. The information in the leaflet has

respectively been presented through the roll-up and poster of the project that have been presented in detail in D4.4 (Generic Communication and Dissemination Package Nr.3).

Additional to the Capabilities and IFAs, this second leaflet presents in detail the Guiding Objectives for 2040 per Capability along with the Basic principles for a Cross-modal Cooperation Mechanism for the IFA Coordination ecosystems.

This leaflet has been disseminated in all initiative dissemination channels, while it is available online through the project's official website, following the link: http://www.i4df.eu/images/downloads/i4Df_2nd_Leaflet.pdf. The leaflet is available in ANNEX II.

4.2 infra4Dfuture poster on “Networks 4D inspiration”

A new poster has been produced within the framework of infra4Dfuture initiative by the graphic designer of CERTH/HIT. This poster, entitled “Networks 4D inspiration” has been developed under the aim of knowledge sharing and transfer through the infra4Dfuture ecosystems of IFAs and taking advantage of lessons learnt from existing networks. These networks act as “networks 4D inspiration” to the project, while relevant statements from interviews and initial lessons learned have been captured and highlight their connection to the infra4Dfuture initiative.

A screenshot of the “Networks 4D inspiration” poster is presented in Figure 3, while the poster can be found in ANNEX III.



Figure 3 Screenshot of infra4Dfuture “Networks 4D inspiration” poster

The design of the poster “Networks 4D inspiration” includes the official colour combinations of infra4Dfuture project, the official logo of the initiative, as well as official information regarding the funding of the project from the EU Horizon 2020, the Grant Agreement number, and disclaimer regarding the registered names and trademarks and respective permissions.

The poster depicts the selected quotes and main findings from the experience shared by 8 international cooperation networks, from interviews conducted within the tasks of WP3.

The left part of the poster includes seven main quotes while the right part depicts the initial lessons learnt, highlighting the importance of asking the “why” question to keep up the interest and added value.

In the lower part of the poster, the 8 international networks are introduced through their logos. Those networks are compatible with infra4Dfuture initiative and its vision. The short descriptions of the networks as stated through their official websites are as follows:

ISPIM¹

ISPIM - the International Society for Professional Innovation Management - is a community of members from research, industry, consulting and the public sector, all sharing a passion for innovation management - how to successfully create new products, processes and services from ideas to stimulate economic growth and well-being.

Shift2Rail²

Shift2Rail is the first European rail initiative to seek focused research and innovation (R&I) and market-driven solutions by accelerating the integration of new and advanced technologies into innovative rail product solutions. Shift2Rail promotes the competitiveness of the European rail industry and meets changing EU transport needs. R&I carried out under this Horizon 2020 initiative develops the necessary technology to complete the Single European Railway Area (SERA). Moreover, Shift2Rail has ambitious targets and a robust framework in which to meet them. Specifically, the initiative aims to double the capacity of the European rail system and increase its reliability and service quality by 50%, all while halving life-cycle costs.

NordFoU³

NordFoU is a co-operation between the national Nordic road administrations to initialize, finance and run R&D projects. The vision of NordFoU is to run and develop R&D with respect to innovation, synergy and development of Nordic R&D environments for the benefit of the Nordic road and traffic systems.

NETLIPSE⁴

NETLIPSE is the NETwork for the dissemination of knowledge on the management and organisation of Large Infrastructure ProjectS in Europe. The NETLIPSE network consists of various partner organisations involved in the delivery of large infrastructure projects, who want to develop and exchange knowledge and experiences in managing and organising these

¹ <https://www.ispim-innovation.com/>

² <https://shift2rail.org/>

³ <http://www.nordfou.org/>

⁴ <http://netlipse.eu/>

projects. The groups of partners actively involved in NETLIPSE currently represent approximately twenty-three countries in Europe.

BALTIC ROAD ASSOCIATION⁵

The Baltic Road Association (BRA) was established in 2014 as a non-profit organization in Estonia. Key aim of the BRA is to seek possibilities for mutual co-operation, such as to: conduct joint studies; co-ordinate the work of technical expert groups; organize seminars of mutual interest; organize international road conference every four years; participate, if needed, in the process of harmonization of the legislation in the EU road sector and to co-operate with other relevant international organizations.

COB⁶

The COB is a network organization, a foundation with more than sixty affiliates, all involved in subterranean construction and the use of subterranean space. The network includes consulting engineers, construction companies, public authorities and knowledge institutions. The COB collects, develops and provides access to knowledge about the subterranean use of space. This is done by constantly surveying what issues are current within the network and within Dutch society. The COB then initiates and supervises projects which help to solve the problem which has jointly been identified. The broad composition of working groups means that all relevant aspects of a problem are considered. The knowledge that is acquired belongs to everyone and can be used by everyone. The participants within the COB are not competitors, but work together on a solution. The result is shared across the network, by recording it in publications and presenting it at meetings, within training courses, on the website and in the magazine De Onderbouwing. However, participation itself is already one of the most powerful ways of developing and embedding knowledge.

CEDR - Conference of European Directors of Roads⁷

CEDR is an organization of European national road administrations that promotes Excellence in the Management of Roads". CEDR consolidates its position as the platform for Road Directors and National Road Administrations that facilitates, reliably and effectively benchmarking and sharing of knowledge and best practices, collaborations and sharing of resources in joint projects, professional networking and competence building.

D.A.CH

D•A•CH stands for cooperation in the common language and economic area of Germany (Deutschland), Austria and Switzerland. The aim of this cooperation is to address research questions that are common and comparable in all three countries as well as to foster the national and regional innovation processes. As a result, the following approaches are implemented: a) development of common research questions to enable more focused research and to avoid the duplication of research; b) pooling of resources to optimally address common research questions; c) promotion of the exchange of knowledge and networking among regional researchers; d) aid the dissemination of the results of research into practice.

⁵ <http://www.balticroads.org/>

⁶ <https://www.cob.nl/>

⁷ <https://www.cedr.eu/>

4.3 First official video of the infra4Dfuture initiative

Within the framework of infra4Dfuture project, 2 videos are planned to be developed. Although the first video, according to the Grant Agreement was initially scheduled to be developed at an early stage of the project, introducing the project and its aim and objectives, it was agreed by all partners that it would be better to launch a first video at the TRA 2020 conference, attracting a wide, relevant to the project audience, disseminating matured achievements of the initiative. Before, there was not sufficient substance to produce an attractive and informative video. The second video, following the initial plan, is planned for launch at the end of the project, disseminating and summarizing all project achievements and progress along with the proposed coordination mechanism of the project.

Due to the COVID-19 crisis and the cancellation of the TRA2020 conference, the production and launch of the first video has been postponed. It is under development, undertaken by CERTH/HIT, using project findings, material from interviews, video recordings from the i4Df Stakeholder Conferences and photos taken from events.

The duration of the first project video was agreed to be 3 minutes max. The video should be presentable and informative also without sound when being projected under loud conditions.

Taking into account a number of features discussed, the draft storyboard was developed for the video and it is presented in Table 1 below.

Visual	Audio	Length	Notes
Transition from white to the i4Df logo	Music score at the background	0:03	Intro. Music to be selected from a library of a great variety of scores –free to use, as long as the creator is mentioned in the video’s credits
Brief show of images of infrastructure and/ or various relevant photos	Music’s volume drops. Narration starts	0:20	Narration should include an introduction by the project’s coordinator, followed by information and insights about the project
Conference’s Logo and/ or Poster	Music background	0:03	
Speakers’ footage	Music fades out. Actual speeches from the event, as recorded.	1:20	Main body of the video. Extracts are being chosen to pinpoint current achievements, present next steps and finally document the importance of the project
	Statements taken from people from the event		Could be either live recordings or we could ask them to write something about the project and list it with the author’s name.

Visual	Audio	Length	Notes
Written title on screen (motto) as in audio	“if you want to reach further you need to cooperate” ... accompanied by the sound of applause	0:05	Outro.
TRA logo & website. Partners’ logos, EU logos.	Background music	0.06	Essential ID of the project and the conference
Fade out to i4dF logo	Fade out	0.03	

Table 1 Draft storyboard for the first infra4Dfuture video

Throughout the creation of the video, a great emphasis will be placed on the Capabilities, IFAs and their role in the the coordination mechanism.

A screenshot from the video editing program in progress can be found in Figure 4 and a screenshot from the draft video in Figure 5.

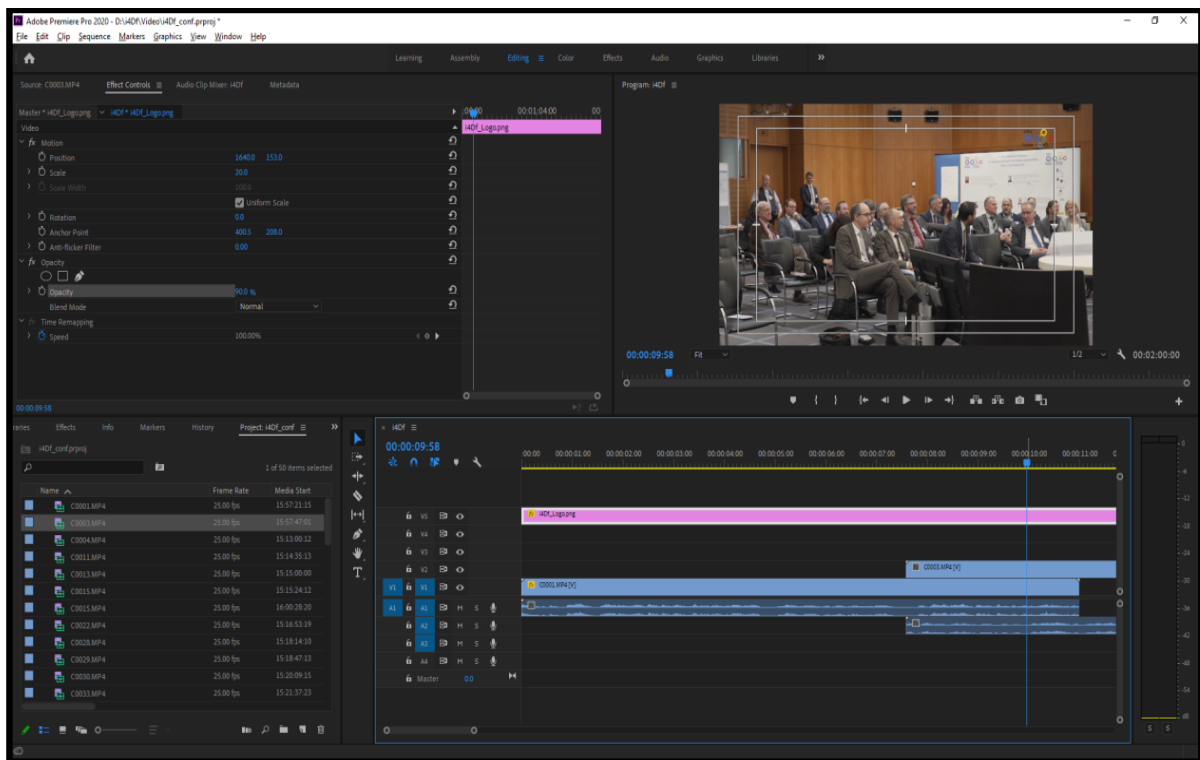


Figure 4 Screenshot from the creation of infra4Dfuture video in progress



Figure 5 Screenshot from the infra4Dfuture video (under development)

The video is currently under development, and after its finalisation, it will be disseminated to all relevant contacts and networks.

5 infra4Dfuture online tools

The infra4Dfuture initiative activities and achievements are constantly disseminated through the official website of the initiative and its Social Media accounts (Twitter and LinkedIn).

5.1 infra4Dfuture official website updates

The official website of infra4Dfuture project can be found through the weblink: <http://www.i4df.eu/>. The development of the website was finalized structurally in May 2019 and from then, it is constantly managed and updated by CERTH/HIT specialists, making sure accurate, updated and complete information is being shared, following the dissemination strategy and ensuring the proper organization of contents and material hosted along with the website attractiveness. New feeds are being hosted in three subpages of the infra4Dfuture website: the Homepage, the News page and the page with the Downloads.

5.1.1 Home page

On the homepage of the infra4Dfuture website, during the reported period the event list has been updated, with 2 event cancellations (see Figure 6):

- infra4Dfuture Pre-Launch Event, that was planned to take place in Malmö-Copenhagen on 16-17 March 2020.
- The 4th infra4Dfuture Stakeholder Conference that was planned to take place within the framework of the TRA 2020 event in Helsinki on April 2020.



Figure 6 Screenshot of infra4Dfuture website Homepage event list

5.1.2 News page

The “News” section of the website can be accessed through the following link: <http://www.i4df.eu/index.php/news>.

The events that have been uploaded to this section during the reported period are:

- Southern Outreach Event [Thessaloniki, Greece, 5-6 November 2019]
- Eastern Outreach Event [Warsaw, Poland, 15 October 2019]
- Mid Term review [Brussels, Belgium, 9 December 2019]
- 3rd Stakeholders Conference [Bonn, Germany, 12 December 2019]

The screenshot of the website News page is available in Figure 7.

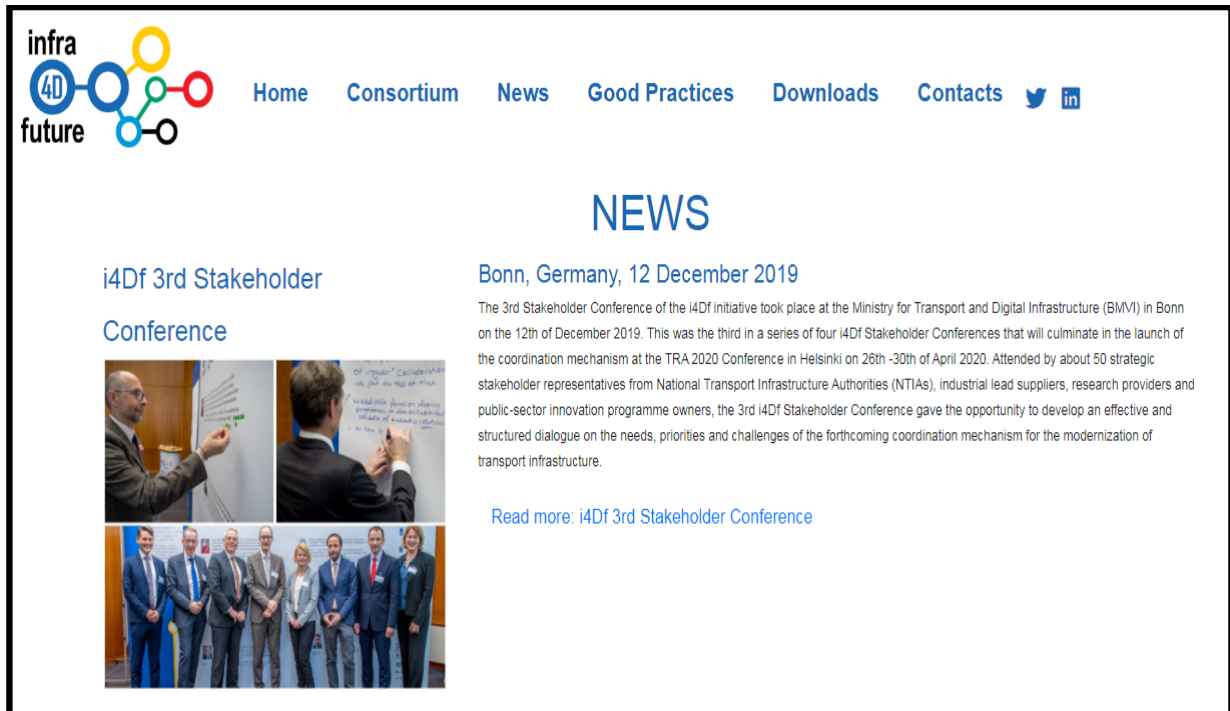


Figure 7 Screenshot of infra4Dfuture website News page

5.1.3 Downloads page

The “Downloads” page of the website can be reached through the following link: <http://www.i4df.eu/index.php/downloads>.

The new materials uploaded in the Downloads section of the website are presented in Figure 8 and include the:

- First infra4Dfuture leaflet translated into Turkish language
- Second infra4Dfuture leaflet
- Deliverable D1.2: Joint vision on transport infrastructure innovation until 2040.

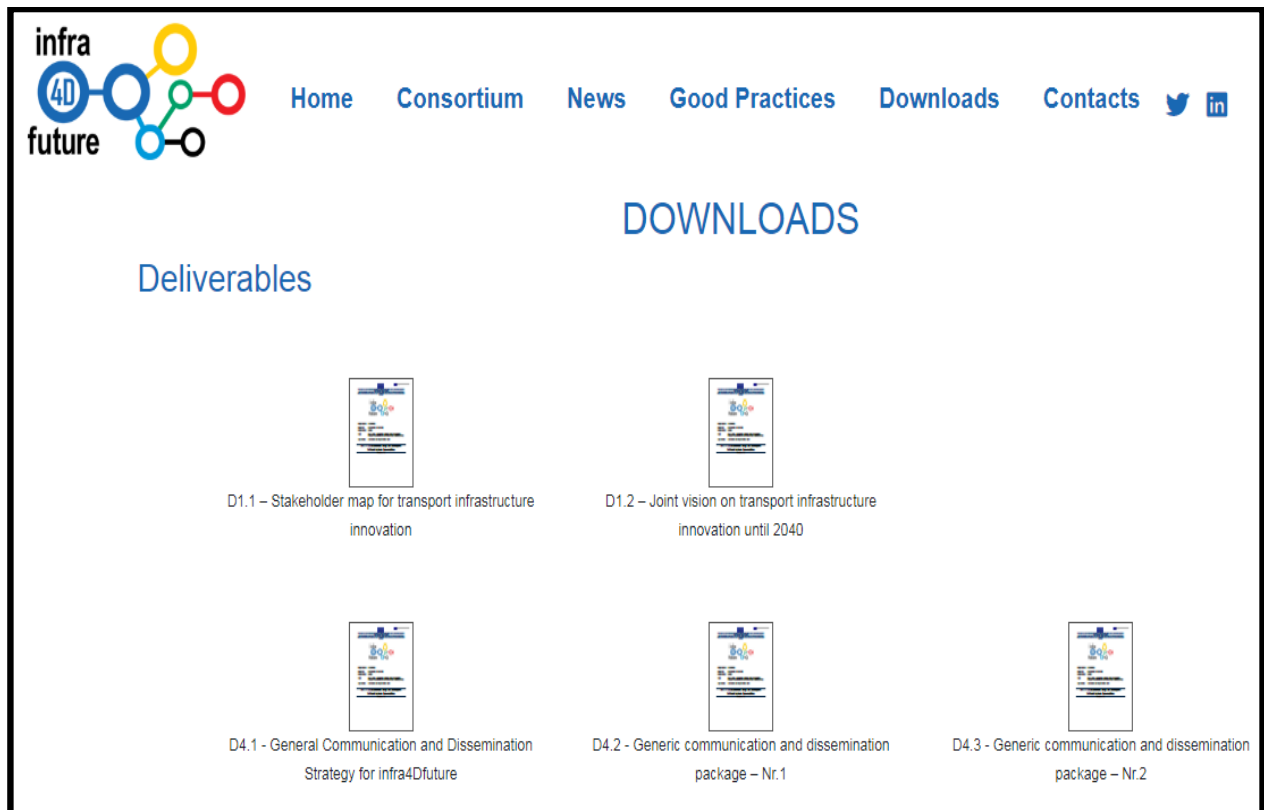


Figure 8 Screenshot of infra4Dfuture website Downloads page

5.2 infra4Dfuture Social Media accounts updates

The social media channels, together with the official website of infra4Dfuture initiative, are important means of online dissemination and communication. The dissemination strategy through social media accounts that is followed by the initiative has been presented in detail in the deliverable D4.1 (General Communication and Dissemination strategy for i4Df). The social media pages of infra4Dfuture initiative are in Twitter and LinkedIn, both aiming at introducing the project to larger audiences and sharing project’s activities and achievements with them. CERTH/HIT manages the social media pages of the initiative, updating the information in a consistent and timely manner, trying to attract more followers and increase interest on the project and its activities.

5.2.1 infra4Dfuture Twitter updates

The twitter account of i4Df project can be accessed through the following link: <https://twitter.com/i4Dfproject>.

It is important to mention that the initial twitter account of the initiative was hacked, and unfortunately all efforts to restore it in order to secure tracking of the relevant data (posts and followers) turned out to be in vain. CERTH/HIT responded immediately, launching a new account and transferring all previously posted information to the new account. Additionally, all previously connected accounts were reconnected to the new one while tracking of previous data was secured, thanks to the constant monitoring of all dissemination and communication activities. The new twitter page managed to gain 59 Followers, while it is following 343 accounts of relevant interest.

A screenshot of the twitter account of i4Df project is presented in Figure 9.

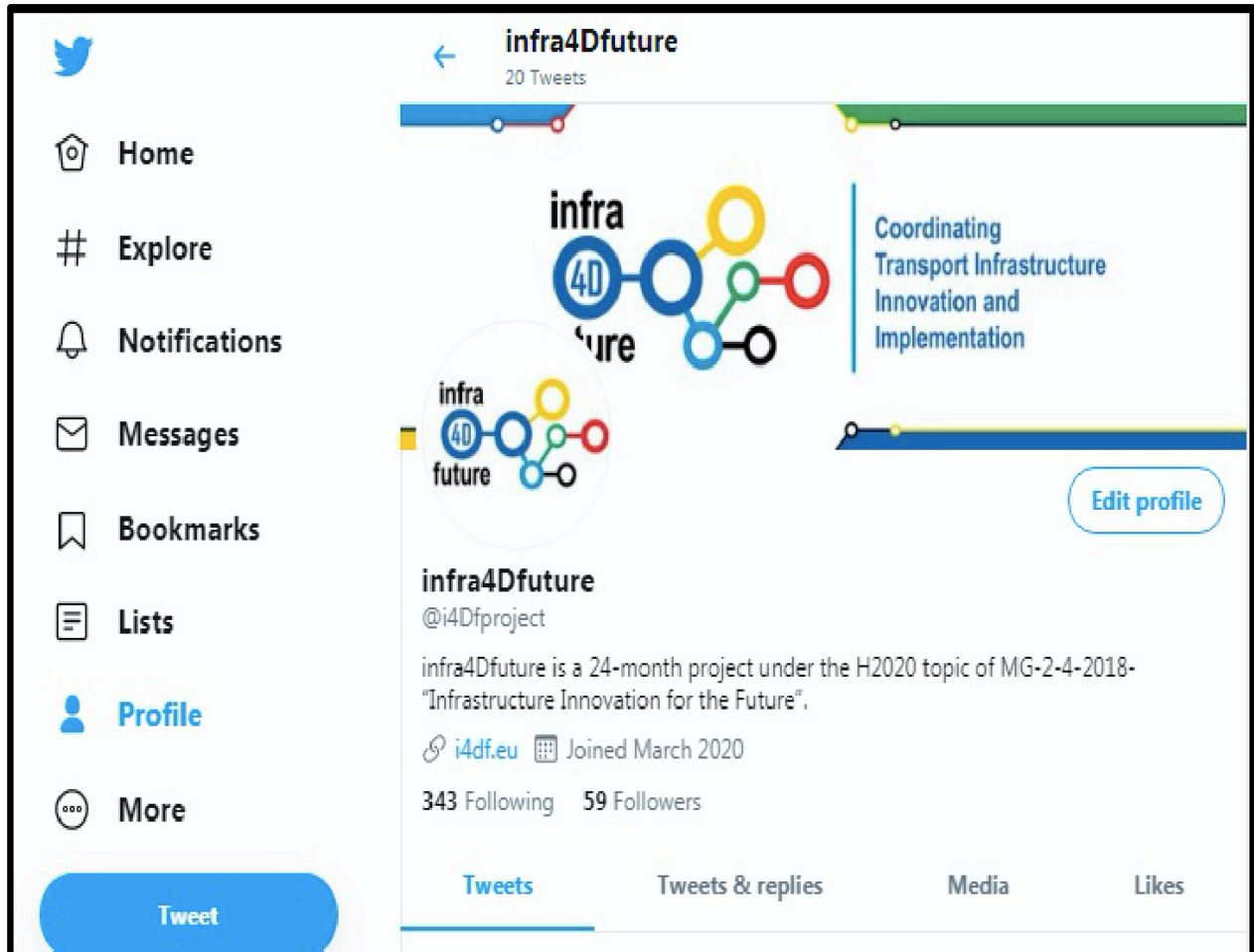


Figure 9 Screenshot of infra4Dfuture Twitter account

5.2.2 *infra4Dfuture LinkedIn updates*

The LinkedIn group of i4Df is available through the following link:
<https://www.linkedin.com/groups/13655794/>.

The screenshot of i4Df LinkedIn group is depicted in Figure 10.

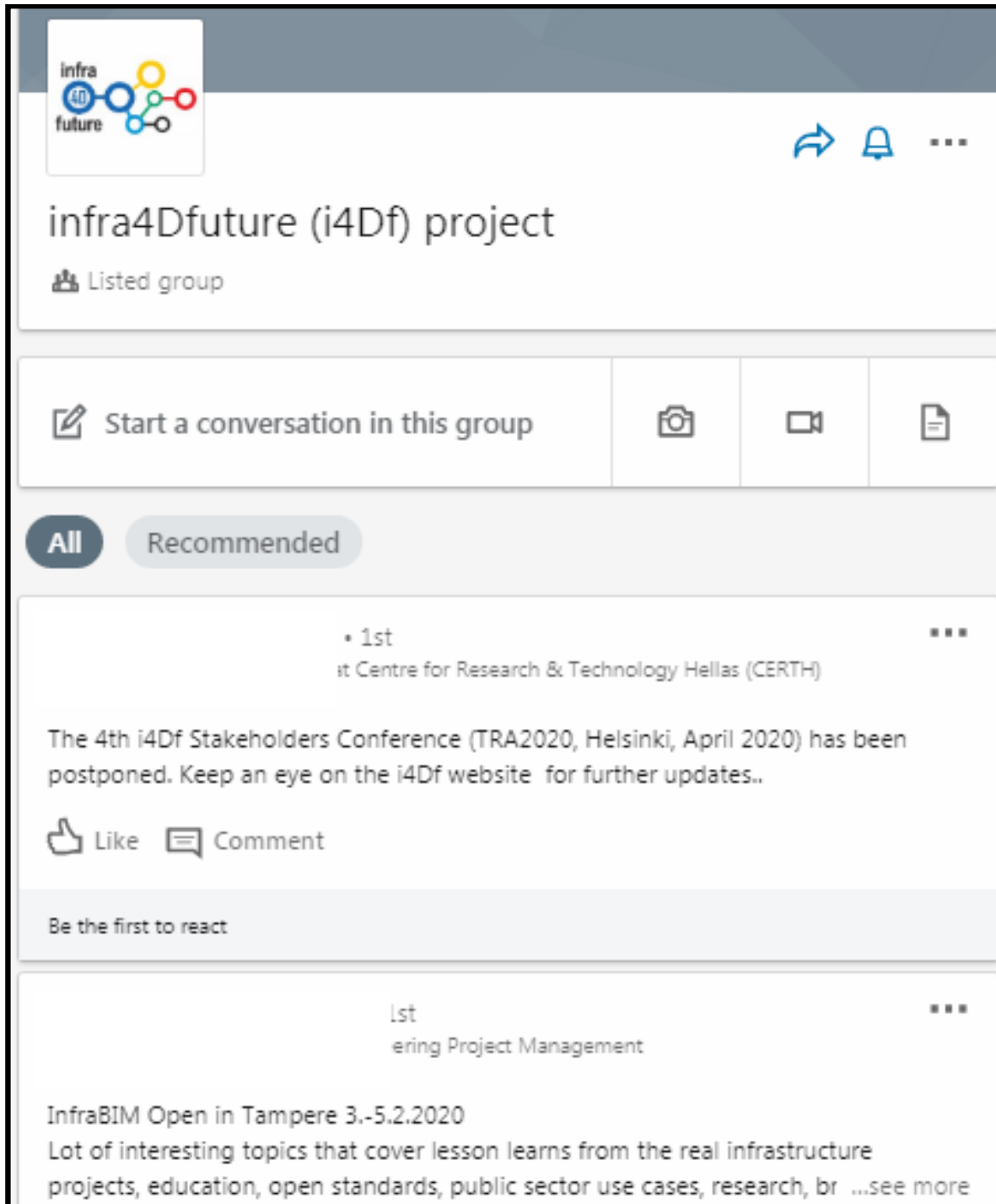


Figure 10 Screenshot of infra4Dfuture LinkedIn group

Currently the LinkedIn group counts 80 members and 27 posts (updates).

6 infra4Dfuture analytics

To ensure initiative attractiveness, be informed of the audience interest and support CERTH/HIT dissemination and communication strategy, the website is being carefully and constantly monitored, following google analytics reports.

As this deliverable reports updates on the last period, google analytics reporting has been followed and presented for the period 1st of December 2019 – 30th of April 2020.

For that period, as presented in Figure 11, 415 users have visited the official website of the initiative, with 380 of them being new users. In total, 663 sessions have been recorded with 1.6 sessions per user. The total number of page views was 1948, recording 2.94 pages per session. The average session duration was 3' and 20" while the bounce rate was 40.12%.

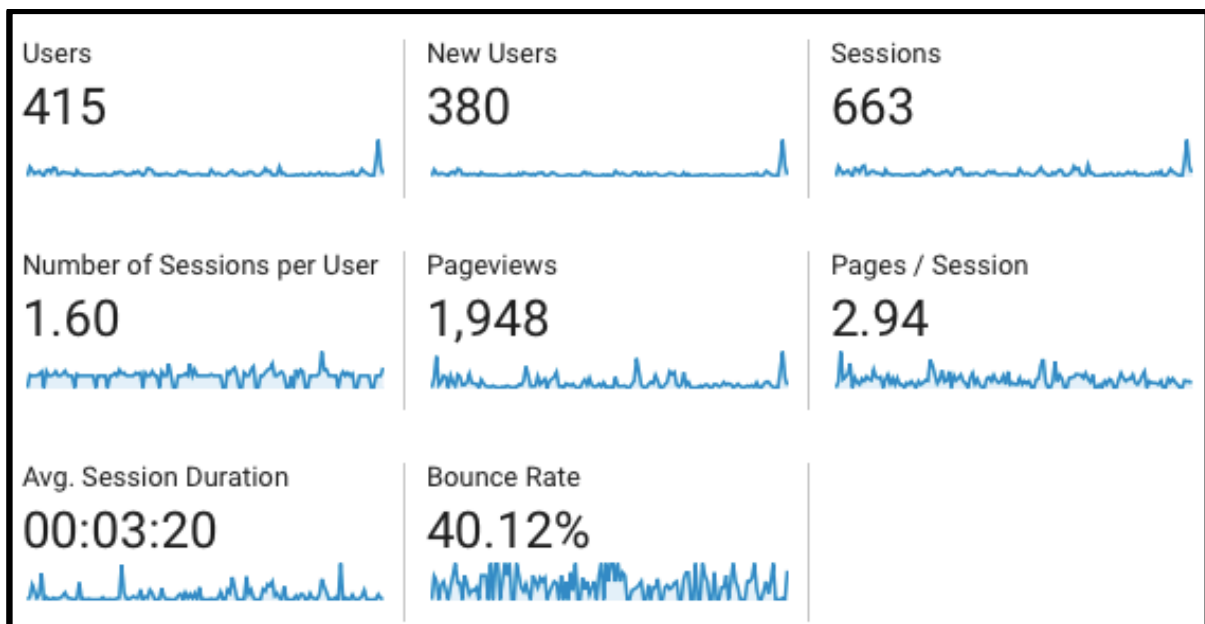


Figure 11 Audience Overview on infra4Dfuture website visits for the reported period

As indicated in Figure 12, 18,6% of website visitors returned to the website to seek more information.



Figure 12 New and Returning visitors

Regarding the top 10 languages used by website visitors, the majority of them (27,88%) used American English and 8,41% British English in their devices. Local languages were used by visitor’s devices as well, as presented in Figure 13.

Language	Users	% Users
1. en-us	116	27.88%
2. en-gb	35	8.41%
3. de	31	7.45%
4. el-gr	27	6.49%
5. de-de	21	5.05%
6. nl-nl	19	4.57%
7. sv-se	17	4.09%
8. fr-fr	12	2.88%
9. it-it	11	2.64%
10. es-es	10	2.40%

Figure 13 Top 10 languages used by the devices of the website visitors

Regarding demographics, statistics were available for an amount of 26-27% of users, indicating higher number of visitors being between 25 and 44 years old and almost equal split between male and female visitors (see Figure 14).

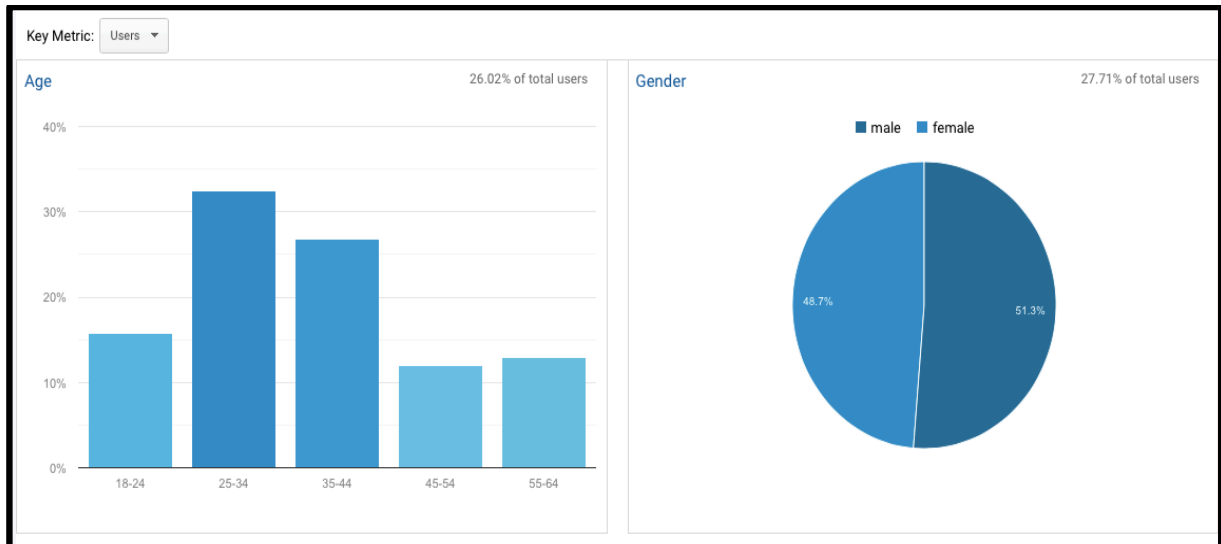


Figure 14 Website visitors demographics charts

Considering geolocation of visitors, the majority of them were from Greece, followed by visitors from the Netherlands, Austria and Germany. Figure 15 presents the geolocation of visits on the global map, while Figure 16 presents the first 10 countries of visits, with detailed analytics for acquisition and behaviour of users.

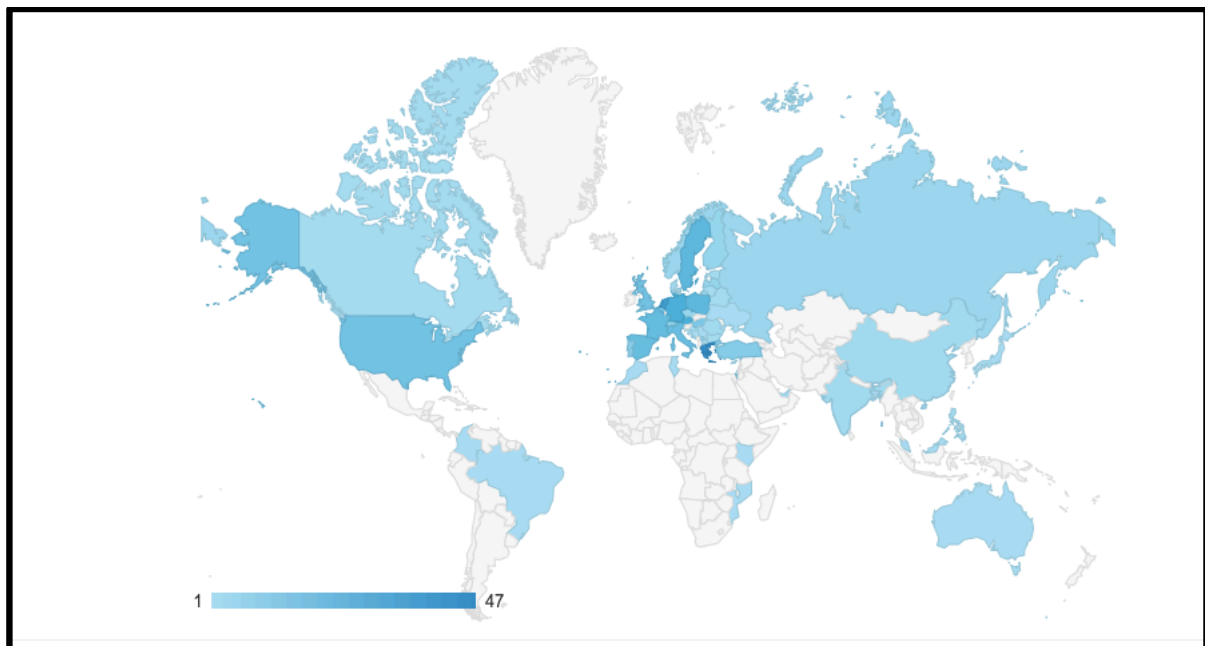


Figure 15 Geolocation of website visitors











Country ?	Acquisition			Behavior		
	Users ? ↓	New Users ?	Sessions ?	Bounce Rate ?	Pages / Session ?	Avg. Session Duration ?
	415 % of Total: 100.00% (415)	380 % of Total: 100.00% (380)	663 % of Total: 100.00% (663)	40.12% Avg for View: 40.12% (0.00%)	2.94 Avg for View: 2.94 (0.00%)	00:03:20 Avg for View: 00:03:20 (0.00%)
1.  Greece	47 (11.27%)	41 (10.79%)	154 (23.23%)	40.91%	3.69	00:06:56
2.  Netherlands	34 (8.15%)	32 (8.42%)	45 (6.79%)	51.11%	2.02	00:00:59
3.  Austria	28 (6.71%)	26 (6.84%)	54 (8.14%)	40.74%	2.52	00:00:35
4.  Germany	27 (6.47%)	25 (6.58%)	28 (4.22%)	28.57%	2.46	00:03:37
5.  Poland	22 (5.28%)	20 (5.26%)	37 (5.58%)	21.62%	2.86	00:01:37
6.  Sweden	22 (5.28%)	19 (5.00%)	30 (4.52%)	43.33%	3.10	00:01:31
7.  France	20 (4.80%)	20 (5.26%)	22 (3.32%)	31.82%	1.68	00:01:36
8.  Spain	19 (4.56%)	19 (5.00%)	21 (3.17%)	19.05%	2.10	00:03:38
9.  Italy	18 (4.32%)	15 (3.95%)	23 (3.47%)	17.39%	3.48	00:02:58
10.  United Kingdom	16 (3.84%)	16 (4.21%)	17 (2.56%)	29.41%	2.00	00:01:40

Figure 16 Top 10 Countries of website visits

Traffic comes from 4 discrete ways to the website:

- Organic searches, using search engines to visit the official website;
- Direct traffic, indicating the visits where visitors know and type directly the URL of the website;
- Referral traffic, traffic that comes from other sites that have placed the website link on their websites; and
- Social traffic, coming from social media websites like twitter, LinkedIN etc.

As presented in Figure 17, organic searches had the higher split of website traffic, counting 44,29% of website visits, followed by direct typing of the website URL (33,57% of traffic), referral traffic (20,24%) and a small split of social traffic (1,90%).

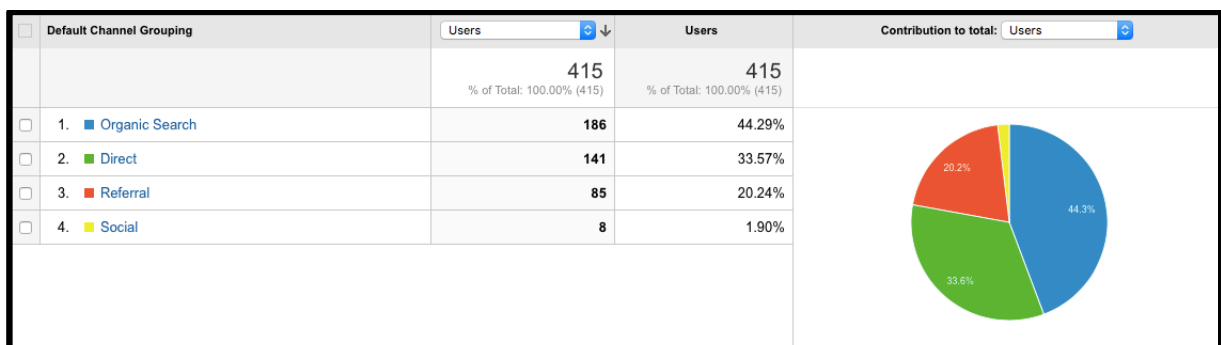


Figure 17 Website traffic overview

7 Conclusions

The Deliverable 4.5 “Generic Communication and Dissemination package – Nr.4” produced within Work Package 4, presents the fourth version of the tools (e.g. social media accounts) and material (e.g. leaflets, video etc.) produced for communication, dissemination and outreach activities.

This package consists of a number of tools that are available for intra and extra consortium partners, aimed at spreading the project and its activities to the broader research and business community, academia and the general public. The fourth package describes the new tools and materials that have been created within the framework of i4Df project, during the reported period (December 2019- May 2020), as well as any updates that have taken place after the previous relevant report (D4.4. Generic Communication and Dissemination package - Nr. 3).

All the tools and materials created and developed for i4Df project and described in Generic Communication and Dissemination reports are aimed to be used in all the events, workshops and other activities within the framework of i4Df project. Any new communication and dissemination material that will be produced from M20 till M24 (end of the project) will be reported in D4.12: Final report on Communication and Dissemination Activities.

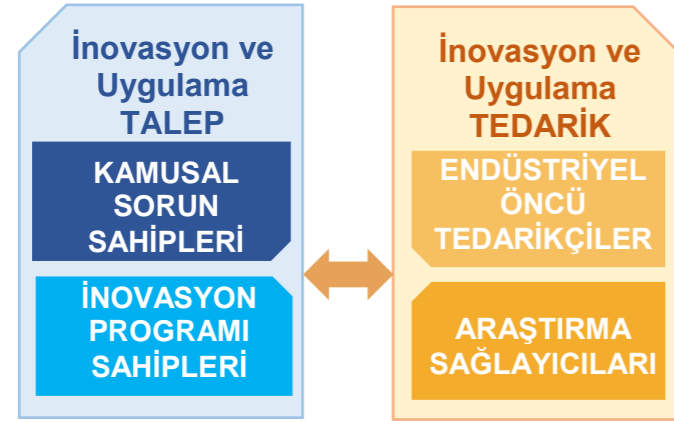


ANNEXES

ANNEX I: The first leaflet of infra4Dfuture in Turkish language

infra4Dfuture paydaş yükümlülükleri

Koordinasyon mekanizması, kamu, endüstri ve araştırma çevrelerinden ilgili paydaşlar arasında yapısal bir diyalog oluşturacaktır. Bu diyalogda, **talep** tarafı, "sorun sahibi" olan inovasyon ve uygulama sorumlusu kamu altyapı yöneticileri ile fon sağlayıcı olan Avrupa ve uluslararası kamusal program sahiplerinden oluşur. Diyalogdaki **tedarik** tarafı ise, yenilikte öncü ilgili endüstrilerden ve araştırma sağlayıcılardan oluşur.



infra4Dfuture çıktıları:

- **2040 yılına kadar uyumlu, öncelikli ulaştırma inovasyon program portföyü;** Avrupa ve ülkeler arası inovasyon programlarının geliştirilmesi.
- **Kapsamlı bir koordinasyon mekanizması;** Talebe dayalı, uygulamaya hazır maliyet etkin inovatif çözümlerin etkili bir şekilde ortaya çıkarılması amacıyla, programların ilgili uyumlu portföyleri içerisinde aktiviteler geliştirilmesini ve dağılımına yön vermek için ilgili paydaşlar tarafından desteklenmesi.
- **Mesleki yeterlilik oluşturma çerçevesi;** İnovatif çözümlerin daha geniş alanlara uygulanmasını ve dağılmasını desteklemek için. söz konusu çerçeve bazında, eğitim ve öğretim alanından paydaşlarla işbirliği yapılması.
- **Stratejik paydaş platformu;** 2021-2027 yıllarını kapsayan çok yıllık bir dönem boyunca koordinasyon mekanizmasına, kamudan, endüstriden ve araştırma kuruluşlarından ilgili paydaşların dahil edilmesi ve 2040 yılı altyapı imkanları için ortak bir vizyon oluşturulmasına rehberlik etmesi.

1. Rijkswaterstaat (Ministerie van Infrastructuur en Waterstaat) -Hollanda
2. Väylä - Finlandiya
3. Agentschap Wegen en Verkeer -Belçika
4. Latvijas Valsts Ceļi - Litvanya
5. Vejdirektoratet -Danimarka
6. Trafikverket - İsveç
7. Statens Vegvesen - Norveç
8. BMVI (Bundesministerium für Verkehr und digitale Infrastruktur) -Almanya
9. BAST (Bundesanstalt für Straßenwesen) -Almanya
10. ANAS S.p.A. -İtalya
11. bmvit (Bundesministerium für Verkehr, Innovation und Technologie) -Avusturya
12. Ministerio de Fomento -İspanya
13. Infraestruturas de Portugal -Portekiz
14. Ministerstwo Infrastruktury -Polonya
15. Ministerstwo Gospodarki Morskiej i Żeglugi Śródlądowej -Polonya
16. CERTH / HIT (Centre for Research and Technology Hellas / Hellenic institute of Transport) -Yunanistan
17. Ministère de la Transition écologique et solidaire -Fransa
18. Netivei Israel -İsrail
19. Karayollari Genel Müdürlüğü -Türkiye
20. TÜV Rheinland Consulting

infra
4D
future
Proje Koordinatörleri
İletişim Bilgileri:

Peter Wilbers, Rijkswaterstaat
peter.wilbers@rws.nl, +31622907912

Richard van der Elburg, Rijkswaterstaat
richard.vander.elburg@rws.nl, +31 6 25098927

www.i4df.eu @i4dfproject www.linkedin.com/groups/13655794/

infra
4D
future



Çok modlu ulaştırma altyapılarının gelecekteki inovasyon ve uygulama talepleri için strateji ve koordinasyon mekanizmasının oluşturulması

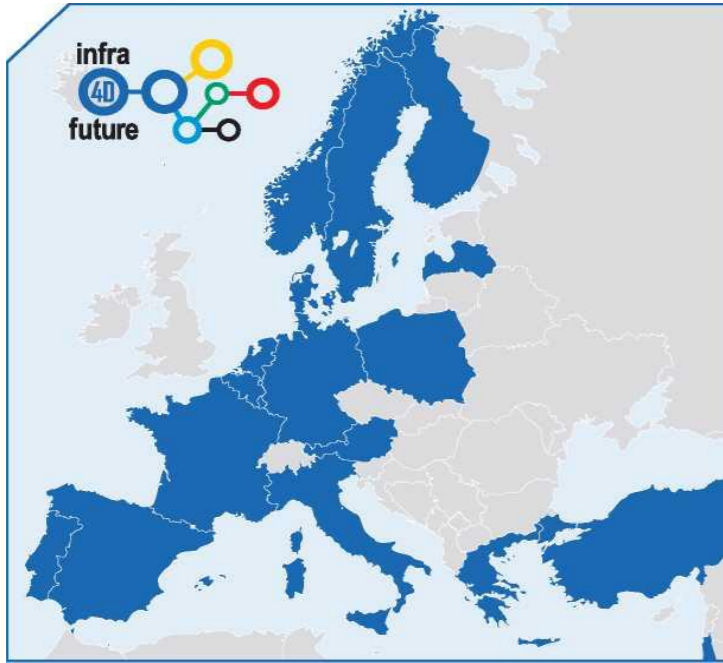
Bu proje, 824269 sayılı hibe anlaşması kapsamında Avrupa Birliğinin Ufuk 2020 araştırma ve inovasyon programı tarafından finanse edilmektedir.



infra4Dfuture projesi fikri

Ulaştırma altyapısı yöneticileri, faaliyetlerini sürdürmek için maliyet etkin ve kolaylıkla uygulanabilir yenilikçi çözümlere acil ihtiyaç duymaktadır. Faaliyetler, ulaşım ağının işletilmesi için gereken temel fiziksel ve organizasyonel yapılar ve tesisleri içerir. Enerji ve veri/bilgi yönetimi için tesisler ve yaklaşım yolları ile diğer şebeke bağlantıları buna dahildir.

Karşılanması gereken önemli ihtiyaçları büyük ölçüde benzer olan ve geniş ortaklık bilincine sahip, altyapı yönetiminden sorumlu Avrupa ülkeleri, Türkiye ve İsrail'den on dokuz kurum, talep odaklı altyapı inovasyonu ve daha büyük ağılara kadar uygulamaya yönelik etkin bir koordinasyon mekanizması sağlamak için infra4Dfuture (i4Df) girişiminde güçleri birleştirmiştir. i4Df girişimi, Avrupa Komisyonu tarafından 1 Ekim 2018 - 30 Eylül 2020 (824269 sayılı Hibe Anlaşması) arasında bir Eşgüdüm ve Destek Eylemi (CSA) olarak finanse edilmektedir. Ayrıca, girişim Avrupa Karayolları Yöneticileri Konferansı (CEDR) ve Avrupa Demiryolu Altyapı Yöneticileri (EIM) tarafından da desteklenmektedir.



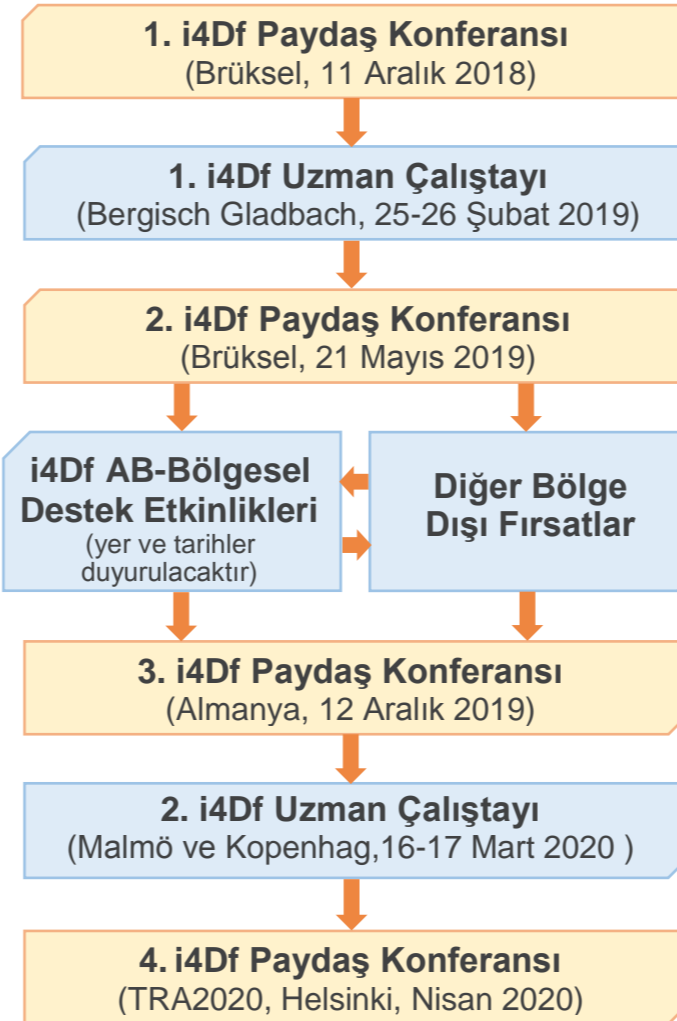
i4Df girişim ortakları, toplam olarak, TEN-T ağının büyük bir kısmını kapsayan ulaşım altyapısının yönetiminden sorumlu durumdadır. Girişim, CEDR ve EIM'den aldıkları destekle, proje sonuçlarının Avrupa ulaşım sisteminin neredeyse tümüne etki etmesini beklemektedir. i4Df kapsamında, girişim ortakları, ulaşım altyapısının ortak sorunlarına karşı güçlerini birleştirmektedir.

infra4Dfuture yaklaşımı

Proje süresi boyunca (30 Eylül 2020'ye kadar) farkındalık, bilgilendirme, güven ve onay oluşturmak için, dört adet üst düzey Paydaş Konferansı organize edilecek olup söz konusu dört paydaş grubunda, üst düzey temsilciler, stratejik kapsam ve mekanizmanın işleyişini tartışarak kararlar oluşturacaktır. Üst Düzey Paydaş Konferansları, uzman çalıştayları ve AB bölgesel tanıtım etkinlikleriyle de desteklenecektir.

Nisan 2020'de Helsinki'deki TRA konferansı ile birlikte yapılması planlanan dördüncü üst düzey Paydaş Konferansında, koordinasyon mekanizmasının onaylanması sonrası, önümüzdeki on yıl için Avrupa ve ülkeler arası ulaşım inovasyon programları için bir portföy oluşturmasına odaklanılacaktır

infra4Dfuture etkinlikleri



infra4Dfuture kapsamı

i4Df koordinasyon mekanizması, 2040 yılına kadar, altyapı yönetiminin güncel imkanları ve ilgili kılavuz hedefler konusunda ortak bir vizyondan, etkili, talebe dayalı inovasyon ve uygulamalar yürütecektir.



infra4Dfuture etkileri

i4Df koordinasyon mekanizmasının genel hedefi, ulaşım sisteminin son kullanıcısı için dikkate değer faydalar sağlayan, etkili, talep odaklı altyapı inovasyonu ve uygulamasını sağlamaktır. i4Df koordinasyon mekanizmasının önceliklendirme çalışmalarının etkisi özellikle şunlar olacaktır

- Altyapı yöneticilerinin (günümüzde) karşılaştığı zorluklara hitap eden, uygulamaya hazır, daha maliyet etkin inovatif çözümler. İnovasyon geliştirilmesi ve uygulanmasında, farklı inovasyon programlarında, aynı çalışmaların tekrarlanması yerine, sonuçların eşleştirilmesine odaklanmaya ve sonraki aşamaların incelenmesine, imkan sağlayacaktır.
- Altyapı yöneticileri, son kullanıcılarının istek ve ihtiyaçlarına daha hızlı yanıt veren, inovatif çözümlerin, pazara sürüm süresinde kısaltacaktır.
- Kamu altyapı yöneticilerinin, uzun vadeli hedeflere ilişkin, ilgili paydaşlar ile uyumlu işbirliği sağlayarak, hedefe yönelik çözümleri. Bu yaklaşım, sanayi tedarikçilerinin inovasyon eylemleri ve girişimleri için "pazar bakış açısı" oluşturacaktır.

i4Df koordinasyon mekanizması, inovasyon ve uygulama fonlarından maksimum etkiyi sağlayacaktır.

ANNEX II: infra4Dfuture second leaflet

Innovation Focus Areas for Multimodal Infrastructure Innovation and Implementation

Capability 1: Infrastructure optimally meeting end user needs

The ability to provide optimal transport infrastructure network capacity in order to accommodate increasing transport needs, and balancing cost, performance, safety and risk to provide infrastructure as a high quality service to end users.

Innovation Focus Areas:

- Network performance
- Integrated infrastructure network management
- Responsible and innovative procurement and finance

Capability 2: Infrastructure meeting environmental and social sustainability needs

The ability to embed transport infrastructure networks in their immediate surroundings, optimally balancing interests from economy, society, and environment.

Innovation Focus Areas:

- Decarbonisation of infrastructure management
- Preserving the environment
- Integrating multi-layer networks and nodes

Capability 3: Infrastructure achieving added value from digitalisation

The ability to harvest the benefits from digitalisation in internal processes of transport infrastructure management as well as in the relation between transport infrastructure management and its end user, to better serve the achievement of sustainability targets and needs of infrastructure end users.

Innovation Focus Areas:

- Smart data and information ecosystem for accommodating automated and connected transport
- Information provision for process optimisation in infrastructure management

consortium



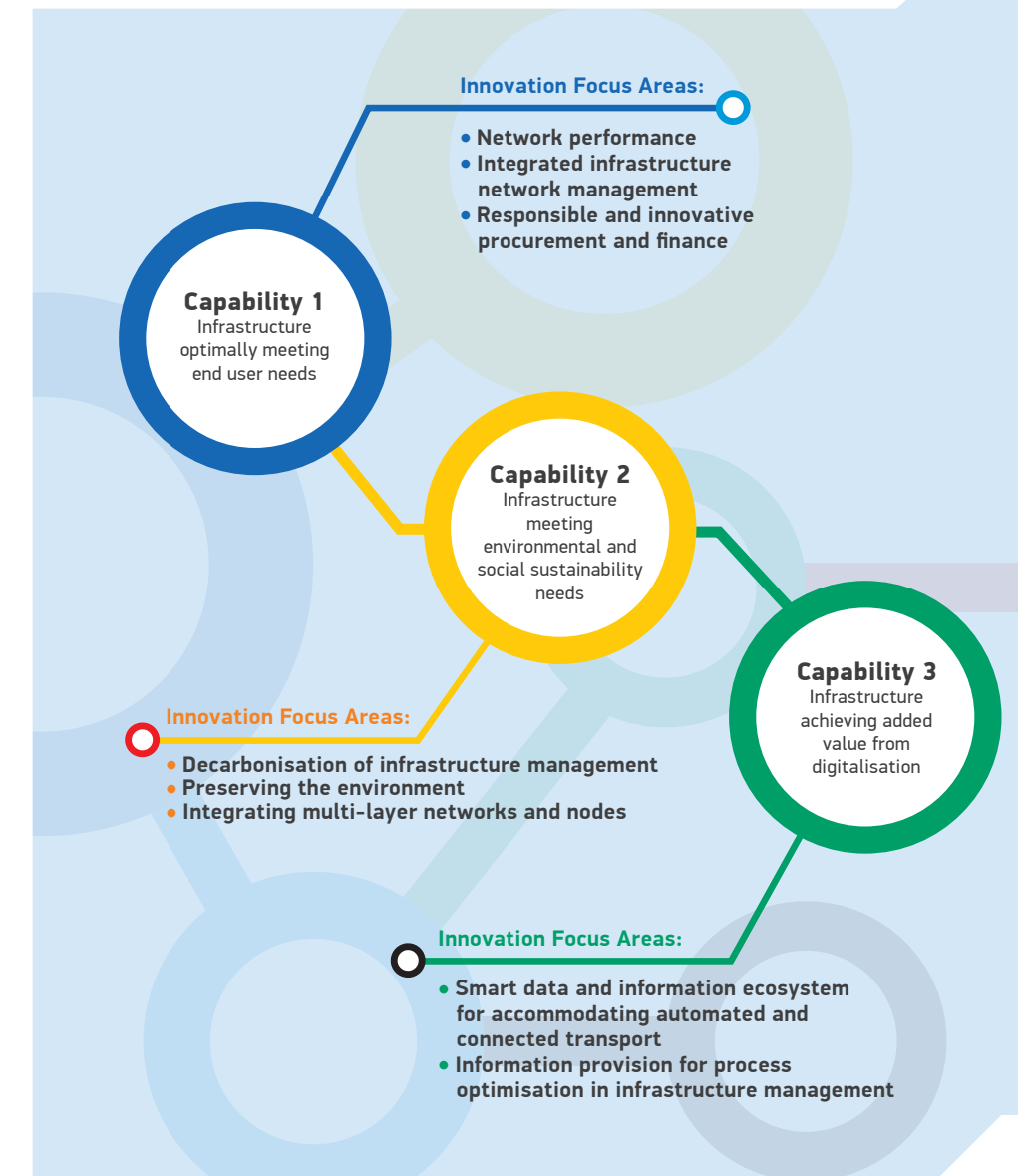
Peter Wilbers, Rijkswaterstaat
peter.wilbers@rws.nl, +31622907912

Richard van der Elburg, Rijkswaterstaat
richard.vander.elburg@rws.nl, +31625098927

1. Rijkswaterstaat (Ministerie van Infrastructuur en Waterstaat) - NL
2. Vaylä - FI
3. Agentschap Wegen en Verkeer - BE
4. Latvijas Valsts Ceļi - LV
5. Vejdirektoratet - DK
6. Trafikverket - SE
7. Statens Vegvesen - NO
8. BMVI (Bundesministerium für Verkehr und digitale Infrastruktur) - DE
9. BAST (Bundesanstalt für Straßenwesen) - DE
10. ANAS S.p.A. - IT
11. bmvit (Bundesministerium für Verkehr, Innovation und Technologie) - AT
12. Ministerio de Fomento - ES
13. Infraestruturas de Portugal - PT
14. Ministerstwo Infrastruktury - PL
15. Ministerstwo Gospodarki Morskiej i Żeglugi Śródlądowej - PL
16. CERTH / HIT (Centre for Research and Technology Hellas / Hellenic institute of Transport) - GR
17. Ministère de la Transition écologique et solidaire - FR
18. Netivei Israel - IL
19. Karayolları Genel Müdürlüğü - TR
20. TÜV Rheinland Consulting - DE



Capabilities and Innovation Focus Areas towards a sustainable Multimodal Coordination Mechanism



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824269.



Capabilities Guiding Objectives for 2040

C1: INFRASTRUCTURE OPTIMALLY MEETING END USER NEEDS

- Full accommodation of the anticipated development in transport demand across the network, achieving effective alignment between the surface infrastructure networks through interoperability and synchronicity.
- Effective management of resources and assets, and high availability throughout the whole infrastructure lifecycle, from planning and design to end of life.
- Effective, adaptive integration and rapid implementation of innovations across the delivery process chain.
- Significant reduction of Total Cost of Ownership (TCO), e.g. reduction by 30% for infrastructure managers.
- Zero fatalities and severe injuries of infrastructure workers and end users through Vision Zero.
- Resilience to natural and man-made hazards, including adaptation to climate change.
- An affordable high capacity infrastructure that supports end users' service combinations of mobility and logistics.
- Comprehensive and consistent framework of performance indicators for the management of the integrated, multi-modal network, available by 2030.

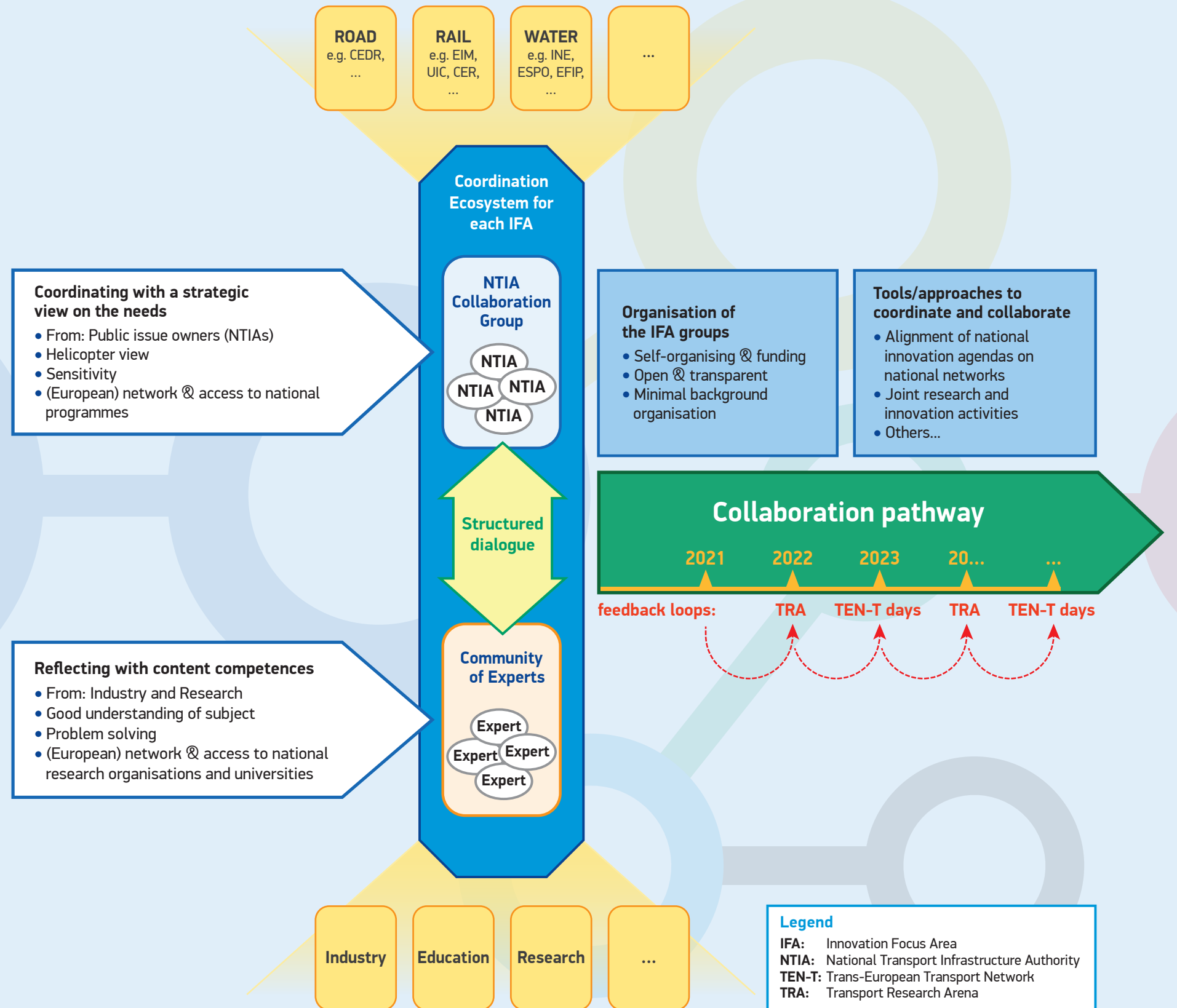
C2: INFRASTRUCTURE MEETING ENVIRONMENTAL AND SOCIAL SUSTAINABILITY NEEDS

- Compliance with COP21 and Agenda 2030/UN targets for sustainable development in the context of European objectives and targets.
- Minimise carbon footprint of the whole service-life of infrastructure, including the infrastructure delivery process chain. This includes achieving energy neutrality of the infrastructure management operations (e.g. lighting, signalling, data collection, information provision, lifting and ventilation) up to larger network scales.
- Facilitate the transition in the energy pool of the transport modes and supporting measures to improve energy-efficiency of mobility services (passengers, freight).
- Collaborate on the minimisation of the impact on the environment, in particular concerning the impact of noise, vibration and pollutant emissions. This concerns the share of the impact that is contributable to infrastructure management.
- Collaborate on the optimal net benefit from embedding infrastructure in the spatial setting. This concerns the 'how' in infrastructure governance, balancing benefits for the economy, society and environment in the planning and approval stage.

C3: INFRASTRUCTURE ACHIEVING ADDED VALUE FROM DIGITALISATION

- Facilitate the transition towards smart mobility concepts (freight and passenger) for emerging concepts for automated mobility, e.g. Connected Cooperative and Automated Mobility (CCAM) for road and Automatic Train Operation (ATO) for rail.
- Proactive position of the infrastructure manager within the infrastructure related data-driven ecosystem, including clearly defined data flows between multimodal, national and sectoral stakeholders and a clear business model and case for investment in and maintenance of digital and virtual infrastructure.
- Ability to process internal and external raw data into smart data that can optimize infrastructure management processes, including maintenance and construction of infrastructure. Provide seamless data and information use and provision across the transport infrastructure network and logistics chain to the end user.
- Facilitation of the alignment of TEN-T core network with data and energy networks to benefit from multi-purpose digitalised networks that can cater for future digital needs, e.g. Internet of Things (IoT) and smart grid based electric mobility.
- Increase the use of automated, semi-automated and remote-piloted solutions for infrastructure maintenance and construction to improve safety for workers and reduce costs.

Basic principles for a Multimodal Cooperation Mechanism for each Innovation Focus Area (IFA)



ANNEX III: infra4Dfuture poster on “*Networks 4D inspiration*”

networks 4D inspiration



light, flexible, transparent and open structures for effective and efficient knowledge sharing and transfer

ecosystems of Innovation Focus Areas will learn from the existing networks

8 international cooperation networks shared their experiences in detailed interviews.
Selected quotes and main findings so far.

Quotes from the interviews

*...it's like a peer review... **colleagues** who can help **answer** your questions...*

*we call it knowledge network
so its all about open access*

*network meetings is
an important **communication** tool*

*we share stories of **innovations***

*we create arena for **open** discussions*

*the network acts on the principle that
all participants are **equal***

*participation itself is already one of the most **powerful**
ways of developing and embedding knowledge*

Initial lessons learned

*create clear **governance** structure,
with well-planned economy*

*enable possibilities for continuous **learning***

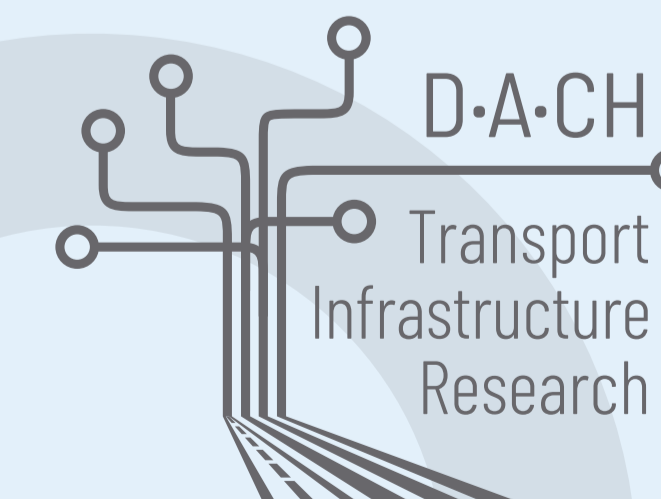
*create **open** and **informal** atmosphere
for knowledge creation and **capture***

*find the **optimal** size of the network, not growing too big*

***manage** the network, it needs dedicated and
enthusiastic people to push and pull*

ask constantly "**why**" to keep up interest and added value:

- *why this topic attracts such a high interest?*
- *why is there a need for a common exchange of knowledge?*
- *why should we take part in this development process of knowledge development and exchange?*
- *why should we go for exactly this model of knowledge exchange?*



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824269.

All network names, trademarks and registered trademarks are property of their respective owners and used with permission.

All quotes are taken from the network interviews by the project staff and are made anonymous.