Progress towards Federated Logistics through the Integration of TEN-T into A Global Trade Network

D5.5 Communication and Dissemination Report final version

Document Summary Information

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Lead Beneficiary	Fundación Valenciaport (FVP)		
Responsible Author	Alicia Enríquez (FVP)		
Contributions from	Philippos Philippou (eBOS), John Limaxis (INLE), Teresa de la Cruz (ZLC), Martyna Zielińska (ILIM), Shritu Shrestha (WI), Aristea Zafeiropoulou (KNT), Rob Zuidwijk (RSM)		

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1 According to PLANET's Quality Assurance Process

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Glossary of terms and abbreviations used

Abbreviation / Term	Description
AB	Advisory Board
AI	Artificial Intelligence
BE	Business Exhibitions
C&D	Communication & Dissemination
CBP	Capacity Building Programme
CSA	Coordination and support actions
EU	European Union
GA	Grant Agreement
IAME	International, Association of Maritime Economists
IoT	Internet of Things
IPIC	International Physical Internet Conference
KPI	Key Performance Indicator
LL	Living Lab
M	Month
NetApps	Network Applications

PaaS	Platform as a Service
PE	Partnership Events
PI	Physical Internet
PLANET	Progress towards Federated Logistics through the Integration of TEN-T into A Global Trade Network
PR	Press Release
R&D	Research and Development
RIA	Research and innovation actions
SM	Social Media
T&L	Transport and Logistics
TEN-T	Trans-European Transport Network
UAVs	Unmanned Aerial Vehicles
UC	Use Case
WP	Work Package

1 Executive Summary

This deliverable is the second and final report on the PLANET's Communication and Dissemination plan and activities. The report summarises the actions taken during the entire duration of the project, addressing the objectives of the respective task T5.2 and WP5's goal to develop and implement a Communication and Dissemination plan purposed to enhance project branding and maximise its potential and outreach amongst industry segments and stakeholders.

First of all, the Communication and Dissemination Strategy (hereafter 'the C&D Strategy') is addressed, detailing how the project has approached it and the objectives pursued. Furthermore, additional clarifications and breakdown of the C&D Strategy is provided as well as particular focus on the actions with external outreach is given, as these are responsible for dissemination PLANET's outcomes to the relevant target audience of the project, specifying the target audience and the concrete actions planned during the three years of the project.

In addition, a full report on the C&D actions performed by the project from M1 until M36 takes place. The report is structured according to the different type of C&D activities described in the predecessor document from where this deliverable comes (D5.4 Communication and Dissemination report v1 [1]) delimited according to: a) the access to the information or results of the PLANET Project; b) the type of interaction desired. The levels, as well as the concrete objectives pursued at each level are as follows:

- Internal C&D Actions, aiming at saving and sharing deliverables, meeting minutes, videos, presentations, etc., giving access WPs' progress and an overview of project achievements and results.
- External C&D Actions, focused on the dissemination and exploitation of PLANET objectives and results, adapting the content and activities to the needs of different target groups.
- Interactive C&D Actions, to share information to obtain response/feedback.
- Passive C&D Actions, with the purpose of attracting public to PLANET and take PLANET to the target audience, ensuring public understand the project, as well as the value PLANET offers.

Finally, conclusions and metrics are provided to illustrate that the decisions made during the development of the pre-established C&D Strategy have been based on statistical analysis and metrics and, therefore, that they have been key to correctly quantifying the performance of the C&D tools and to accomplish the targets set through the Key Performance Indicators (KPIs).

By following this structure, the report reveals that the project's website and social media channels (Twitter, LinkedIn, LinkedIn Private Group, YouTube) became powerful tools for C&D of the project. Both used all the C&D materials developed to disseminate the aim, mission, and core objectives/purposes of the project, as well as the evolution and main results achieved in PLANET. In total PLANET published 116 posts and uploaded 340 documents on its website, and more than 247 content pieces were posted on its social media channels. In terms of C&D materials and actions, this deliverable also clearly shows us that major efforts were made in the second and third year of the project and, consequently, very positive numbers were achieved: 6 videos available on PLANET's YouTube channel, 2 of which are the official promotional videos produced; 9 newsletters; 10 factsheets; 1 flyer; 3 Annual Reports; more than 10 scientific and journal publications; participation at 21 events of which 12 were congresses or conferences.; collaboration with other H2020 projects and other activities documented in the current report.

The strategic elements under consideration reflect the scope of the Grant Agreement and vision of the project and its components focus on a structured and well-defined methodology to promote the project's outcomes by using the appropriate tools, defining the audience which findings will reach ensuring the triggering of interest to project outcomes and reinforcing the PLANET branding.

2 Introduction

The purpose of this final version of the deliverable is to report about the C&D activities performed by PLANET partners during the whole project, in line with the requirements of the task T5.2, which aims to **develop and implement the dissemination strategy**, the **communication plan** and the **related activities** to effectively disseminate the projects outputs and maximize their impact.

The objectives of the work under report D5.5 are mainly targeted on clearly explaining the relevant framework developed to effectively disseminate project results and maximise their outreach and impact. This was achieved by adopting the C&D methodology, approach and tools developed and identified in D5.4, such as newsletters, videos, dissemination events, seminars, conferences or white papers. The close monitoring of results and effect of outreach throughout the project lifetime was crucial to the success and effectiveness of the C&D Strategy.

2.1 Mapping PLANET Outputs

Purpose of this section is to map PLANET's Grant Agreement commitments, both within the formal Deliverable and Task description, against the project's respective outputs and work performed.

Table 1: Adherence to PLANET's GA Deliverable & Tasks Descriptions.

PLANET GA Component Title	PLANET GA Component Outline	Respective Document Chapter(s)	Justification
DELIVERABLE			
D5.5:Communications and Dissemination Report final version	*Communications and Dissemination reports containing the dissemination and communication plans and activities, including the project's website and social media channels and liaison activities. Final version of D5.4.*	*All*	*The final version of the deliverable D5.4 sets out and explains the PLANET Communication and Dissemination strategy for the project as well as its individual components in order to successfully disseminate the project's outputs and maximise the project's impact potential.*
TASKS			
T5.2 Dissemination Strategy, Communication Plan and Activities	*PLANET commits to a broad and credible communication and dissemination plan, with a strong bias to prioritising associated activities in ways that emphasise the realisation of the project's commercial ambitions and associated KPIs.*	*Chapter 3, Chapter 4, Chapter 5, Annex I*	*Chapter 3 details the strategy considerations for the dissemination and communication plan. Since the external actions are responsible for the dissemination of PLANET's results/outcomes to the relevant target audience of the project, it focuses mainly on the external strategy, summarising and refining the external strategy, including the tools planned for the project, the actions planned and the target audience.*

			Chapter 4 explains in detail the communication and dissemination actions conducted and Chapter 5 summaries the main KPIs and achievements.
ST5.2.1 The PLANET Project Website and visual identity	*The PLANET Project Website will be created and established before M4 of the project to be used as a tool to disseminate the project's purpose, remit and central objectives as well the main results achieved through both public and through open access deliverables. It will also evidence and link to outputs from scientific publications, conferences, peer review, social media interests, PR and Media related events and be used as a vehicle to broadcast and solicit participation in the planned industry webinars. The PLANET website will be setup and managed by FV who will provide access to all partners and who will encourage broad visibility across a pan-European audience. A visual identity for PLANET will be delivered during M1, including the project's logo, its graphic narratives, elements and templates.*	*Chapter 3*	*Chapter 3 explains in detail the project logo, the visual identity and the templates developed as well as the various tools and channels used together with visuals of the actual material used.*

ST5.2.2 Social media Newsletters, Flyers and Factsheets	*Twitter and LinkedIn will be exploited with the help and support of all partners to emphasise, prioritise and incentivise interest from the broader public, scientific community and industry community, with monthly postings and appropriate volume and frequency to incentivise the target audience. Newsletters, Flyers and Factsheets on the proposed scientific and technological approach as well as on the project achievements will also be developed to amplify EU-wide visibility in both the scientific and industrial communities.*	*Chapter 4*	*An analysis of the various social media channel is provided along with a detailed breakdown of the material (factsheets, newsletters, annual reports, brochure) produced and/or published both on PLANET's website and social media channels and on partners' websites.*
ST5.2.3 Liaison and Events:	*To further amplify the potential of the initiative, the following options will be considered: (i) joint organisation with other relevant EU projects, (ii) co-hosting in the framework of other well-established events, (iii) organisation of a dialogue session with logistics companies. PLANET also commits to tying closely in to the recently funded projects where there is a common objective across both projects in substantiating KPIs and benefits. PLANET will drive other liaison actions towards cooperating also with other related projects and initiatives beyond ALICE, in order to cross fertilise research outcomes, incorporate knowledge in this area and eventually maximise impact.*	*Chapter 4*	*It describes the overall approach reference Liaison and events and details the partnerships established with projects, including H2020 projects, and the events attended or held during the life of the project.*
ST5.2.4 Industry/commercially focused PR, Media and Video	*Industry/commercially focused PR, Media and Video conduits will also be developed targeting a broad range of external actors, and two roll-up posters will be*	*Chapter 4*	*It lays out the various activities and efforts towards addressing the task objectives. More specifically, it describes the project' videos produced and published, the press*

	*carefully designed and created to amplify visibility and the commercial and scientific merits of the project. It is anticipated that 15-20 press releases will be guided during the project's operational execution trajectory, where these are planned to be emphasised principally in years two and three of the project, with initial press releases in year 1 serving the objective of growing a large external audience aware of the project, its goals and principal objectives. Press releases and media efforts within the project will target Local, Regional and National press, Television and Radio outlets, as well as the EC's own Press capabilities that support EC funded projects – e.g. research*eu and the related results supplement etc.*		*releases produced and published on PLANET's website and the news about the project published on media. The chapter also provides some analytics to quantify achievements.*
ST5.2.5 Scientific Outputs will target e-journals as well as high impact, international, peer reviewed publications, conferences, webinars and industry events	*Scientific Outputs will target e-journals as well as high impact, international, peer reviewed publications, conferences, webinars and industry events, prioritising open access principles as encouraged and requested by the EC.* *Likewise, scientific societies, conferences, scientific meetings/trade shows and stands at local national and international meetings in the EU relevant to the project will be identified and targeted.*	*Chapter 4*	*It details the events held and attended as well as the publications made.*

2.2 Deliverable Overview and Report Structure

The document addresses the objectives of task T5.2 Dissemination Strategy, Communication Plan and Activities. The structure of the report is laid out below:

- Chapter 1 provides the Executive Summary.
- Chapter 2 details the PLANET's DoA commitments and Task description and the mapping to the deliverable's output with details on how these are addressed in the report's sections.
- Chapter 3 discusses the Communication and Dissemination Strategy, Objectives and Tools, the elements considered for its design as well as the overall plan agreed to achieve objectives.
- Chapter 4 describes the main C&D actions, both external and internal, that the PLANET Project has performed, specifying the contents covered in each of the activities, as well as the target audience of the actions, and providing statistics and metrics for most of the actions carried out. The main actions in progress have also been included.
- Chapters 5 sets out the results based on the C&D Strategy and the specific Key Performance Indicators (KPIs) defined in the Grant Agreement for a close monitoring and as a measuring exercise to ensure achievement of targets set.
- Chapter 6 concludes on the findings of the report.

3 Communication and Dissemination Objectives and Tools

3.1 Communication and Dissemination Strategy

The C&D Strategy was developed and documented analytically in the predecessor version of the current report (i.e., D5.4). The C&D Strategy was planned considering the overall timeline and maturity of the PLANET Project and the C&D instrument used, identifying four different levels of C&D activities were identified as summarises Figure 1.

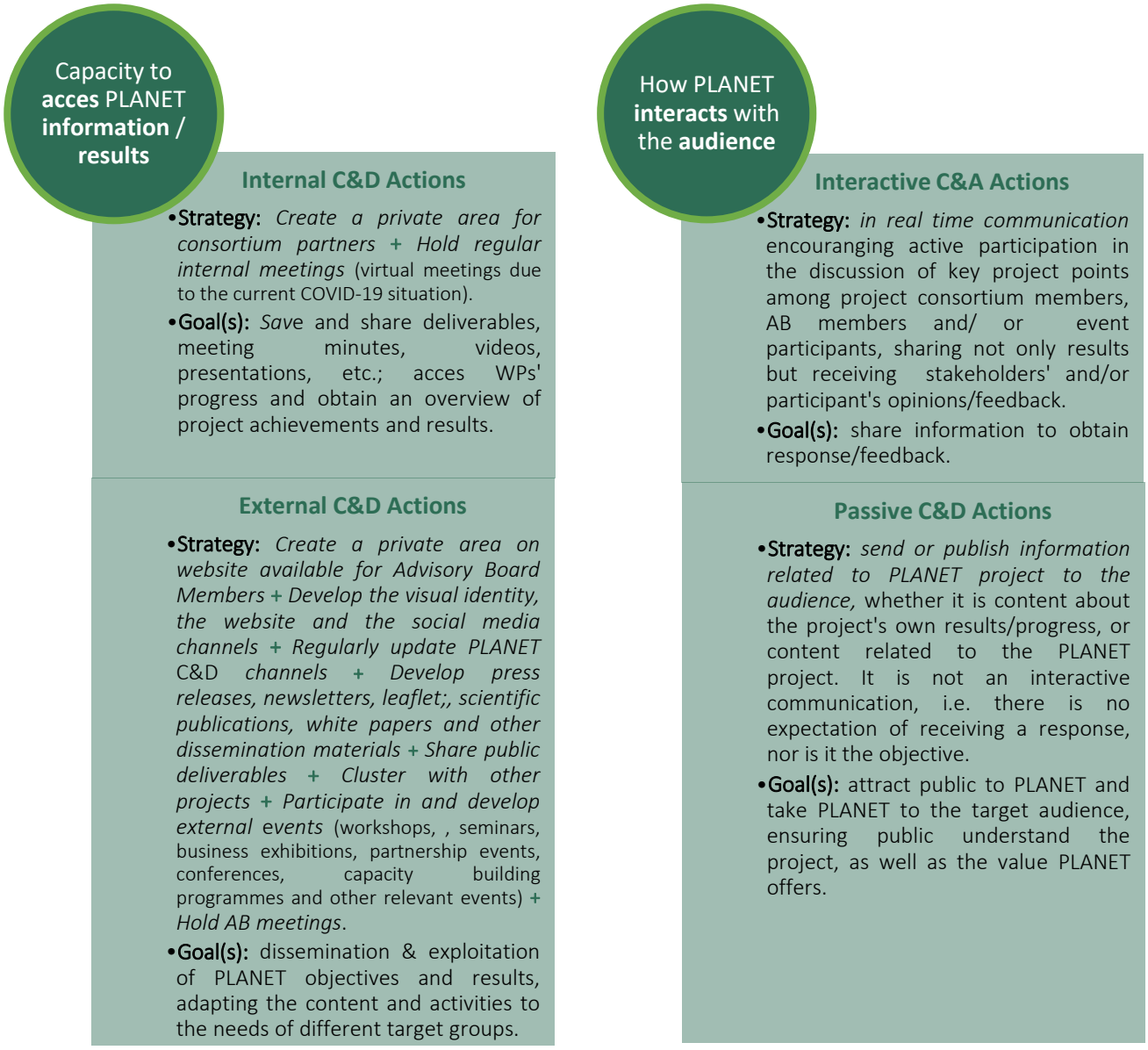


Figure 1. Levels of C&D activities differentiated in PLANET Project.

3.2 External Communication and Dissemination Strategy

3.2.1 Planned Actions and KPIs

Following this C&D approach and considering that external actions are responsible for dissemination PLANET's outcomes to the relevant target audience of the project, three different phases were defined in The External C&D Strategy (see Annex I: PLANET (external) C&D Activity Plan for further information), listing the actions planned during the three years of the project:

- Initial phase (M1-M12): Presenting PLANET Project and objectives to attract attention to the project.
- Intermediate phase (M12-M24): Disseminate PLANET's outputs/results and their value to T&L actors for increas engagement from external stakeholders of the PLANET Project.
- Closing phase (M24-M36): Facilitating the exploitation of the PLANET results.

Furthermore, the target audience were segmented, and hence the way in which the most appropriate channels or tools were chosen for each audience group, by analysing: 1) why that audience is relevant to PLANET; 2) why PLANET 'satisfies' a need in each target group; 3) how the reach of the messages/information published could be maximised for each case. Table 2 specifies the audience groups targeted by PLANET Table 2.

Table 2: Identification of PLANET target audiences and External C&D Tools and Actions.

CATEGORY	RELEVANCE	MAIN TOOLS
END-USER STAKEHOLDERS		
Academic and RTOs in Geo-political, Global Trade Analysis (A)	The results, tools and training materials of the PLANET Project are considered of potential interest to this group.	Scientific publications; white papers; position papers; website; newsletters; videos; social media; brochure; dissemination events; R&D workshops, seminars and conferences; LL workshops; public deliverables
Actors optimising global trade flows (B)	Access to PLANET results, available through open-source platforms, and to training materials promotes the exploitation and commercialisation of PLANET outcomes. It facilitates the adoption/access of PLANET innovation and results in these identified groups, offering them smart transport and logistics solutions.	Scientific publications; white papers; position papers; website; newsletters; videos; social media; dissemination events; capacity building programme; LL workshops; social media; brochure; R&D workshops, seminars and conferences; public deliverables; briefings and open source community
Industrial and SME providers of trade flow modelling and consulting services (C)		
Open-source communities and start-ups (D)		
OTHER STAKEHOLDERS		
RIA and CSA consortia from MG calls and other relevant projects (E)	PLANET will contribute to the interconnection of TEN-T in global trade by promoting PI enabling technologies. However, by joining efforts with other projects covering related issues (particularly MG2.6 and MG1.10), the impact could be greater and mutually beneficial.	Scientific publications; white papers; position papers; website; newsletters; videos; social media; brochure; R&D workshops, seminars and conferences; public deliverables
Private and public funding institutions for R&I in global trade (F)	PLANET results, methodologies and tools (modelling and simulation) have the potential to be exploited in the long term. PLANET is therefore considered to be of interest to these institutions, whose main objective is to	Scientific publications; white papers; videos; position papers; website; newsletters; R&D workshops, seminars and conferences; business exhibitions; brochure; public deliverables

	accelerate the development and adoption of new technologies.	
Policy-makers and Other EU projects / EU-wide initiatives (G)	PLANET will highlight the main policy challenges (economic, technological, social and environmental) identified in the framework of the project and provide recommendations and possible tools to address them.	Workshops; seminars; business exhibitions; brochure; position papers; website; newsletters; videos
Press and Media professionals and General Public (H)	The results and topics addressed by PLANET are considered to be of interest to the general public, as they affect the competitiveness of the EU and cover not only economic, but also social and environmental aspects.	Social media; website; newsletters; videos; press releases; factsheets and success stories; brochure; dissemination events

Therefore, according to the external C&D tools identified and consistently with the External C&D Strategy, the External Tools and Actions planned for the PLANET Project are listed in Table 3 along with the associated communication tool and the targeted audience.

Table 3: External C&D Strategy: Tools, Timeline and Targeted audience

TOOL	TYPE OF ACTION	TIMELINE	MAIN TARGET AUDIENCE
Website	Online presence	By M1, regularly updated	All
Social Media	Social Media presence	By M24, regularly updated	A, B, C, D, H
Videos	Online distribution	M12- M36	All
Press Releases, fact sheets and success stories	Online distribution / publications	M1-M36	H
e-Newsletters	Online distribution	M1-M36	All
Scientific Publications, Whitepapers, Journal Publications, Articles	Online distribution / publications	M12-M36	A, B, C, D, E, F
Public deliverables	Online distribution / publications	M8-M36	A, B, C, D, E, F
Brochure and Annual Reports	Online distribution / Publications	M1-M36	All
Partnership events, attendance in other R&D conferences and business exhibitions	Event	M1-M36	All
Capacity Building Programme (CBP) and LL w/shops	Event	M12-M36	A, B, C, D
KER Factsheets to early stage accelerators and Open Source community	Online distribution / Publications	M7-M36	All, mainly B, C, D
Establish Collaboration with other projects, mainly with H2020 projects	Collaboration	By M36	E

3.2.2 Project Logo and Visual Identity

In order to develop PLANET's C&D activities, the corporate image of the project was defined from the beginning of the project (M1). To this end, it was decided to develop a visual identity – including project's logo and templates- that would represent, as closely as possible, PLANET's vision, capturing one of the main objectives of

the project: to ensure the development of a T&L network - called EGTN - more environmentally, economically and socially sustainable than the current TEN-T network.

This idea is particularly visible in the chosen logo, as well as in the rejected logos (view Figure 2 and Figure 3). On the one hand, the design of the letter 'e' of PLANET (the acronym to Progress towards Federated Logistics through the Integration of TEN-T into A Global Trade Network) forms an image that simulates an interconnected world. On the other hand, the green colours show that the environmental factor will play an important role in the development of the project, as PLANET encompasses:

- The search for and use of environmentally optimised forms of freight transport, promoting the transition towards a low-emission/green/environmentally friendly EGTN network.
- The inclusion of the environmental factor in the analysis of the main European trade routes and transport trends, including environmental parameters related to climate change (melting of Arctic ice, longer periods of drought).

Figure 2. PLANET Logos Proposal.

Figure 3. PLANET Logo.

As both the use of the abovementioned colours and the PLANET logo will allow the project to be easily identifiable, they should be used in all (internal and external) C&D tools and activities.

In addition, all the PLANET C&D materials, publications and deliverables should include the EU funding statement and the EU Commission Disclaimer, as follows:

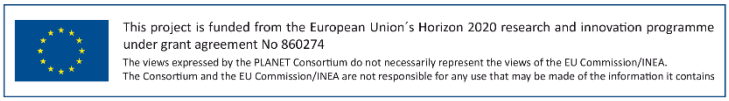


Figure 4. EU Commission Disclaimer.

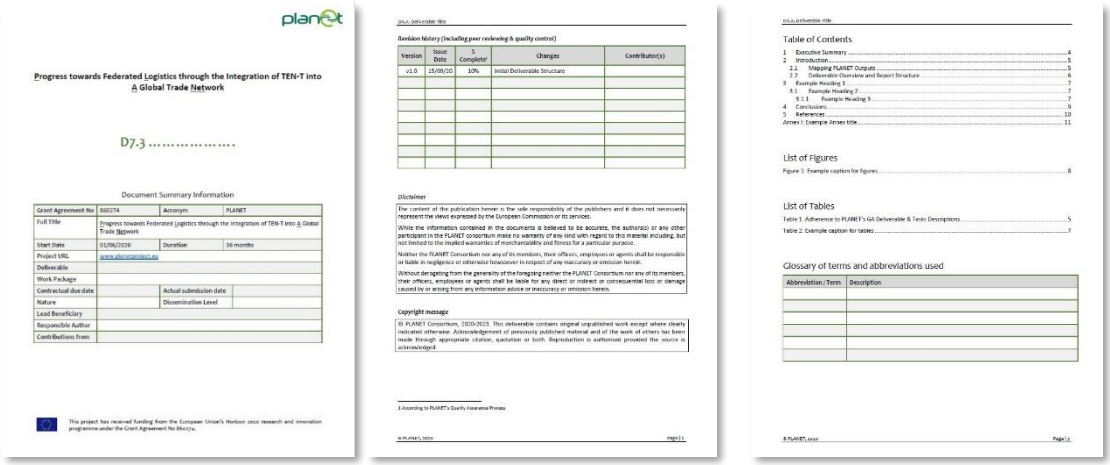
Figure 5. EU Commission Disclaimer for Power Point presentations.

To avoid distortion of PLANET's visual identity and to facilitate C&D Actions, templates have been developed in the following cases:

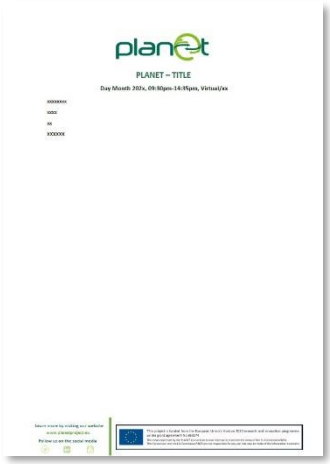
e-Newsletters

PowerPoint presentations

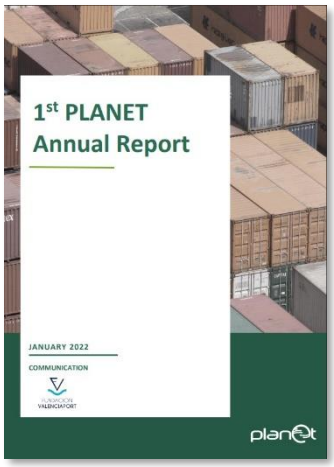
Deliverables



Press Releases



Annual Reports



White Papers

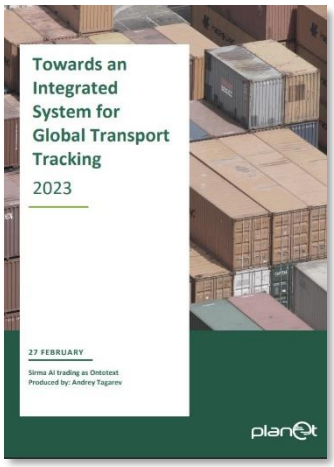


Figure 6. Templates developed.

4 Communication and Dissemination Actions Conducted and Results

4.1 PLANET Interactive C&D Actions

As defined in the C&D Strategy, interactive C&D Actions include:

- Project Meetings: internal project meetings, General Assembly Meetings and Advisory Board Meetings.
- Events Attended: conferences, webinars, forums, workshops, congresses, seminars and other type of events or meetings attended.
- Events organised: internal workshops, conferences, webinars, forums, workshops, congresses, seminars and other type of events or meetings organised.

Additionally, due to a variation in the External C&D Strategy, as mentioned above, PLANET KER Factsheets have been included in the interactive actions.

4.1.1 Project Meetings

In the PLANET project, project meetings were used to exchange ideas or share information. Due to the COVID restrictions, the project started with virtual meetings but later moved to a hybrid format. Meetings with the Advisory Board were always held virtually for a better organisation of them. The set of meetings recorded is included in Table 4 below.

Table 4: PLANET Interactive C&D Actions: Project Meetings.

PLACE	RELATED WP	DATE	EVENT ORGANISER	EXTERNAL C&D STRATEGY PHASE	DISSEMINATION SUBJECT	PARTICIPANT(S)	DETAIL
Kick-of meeting							
Virtual	All	10-jun-20	INLE	Initial Phase	Familiarise with PLANET's vision and objectives, focus areas, management, administrative and financial processes, along with the envisioned dissemination and capacity building approach	All PLANET Partners	Audience: over 70
Internal meetings in WPs							
Virtual	All	M1-M36	WP and task leaders	All Phases	A large number of internal meetings have been held in each WP to meet the objectives and obligations of the project.	All PLANET Partners	Partners involved
1st General Assembly							
Virtual	All	07-oct-20	INLE	Initial Phase	Present progress to this day, ensure every involved actor is fully aligned and clear support requirements are effectively broadcasted to the entire consortium.	All PLANET Partners	Audience: over 70
1st Advisory Board Meting							
Virtual	All	30-sep-21	INLE, ESC	Intermediate Phase	High-level overview of the PLANET project, a discussion of the current state of the position papers, and an initial discussion about the Terms of Reference for the Advisory Board	ESC, INLE, FVP, EUR, EBOS, ZLC, AB Members	Audience: 15, 10 AB Members

2nd General Assembly							
Virtual	All	20-oct-21	INLE, ESC	Intermediate Phase	Show the up-to-date progress made in each Work Package, but also to set the most relevant next steps, objectives and targets to be faced during the second year of the project.	All PLANET Partners	Audience: over 50
2nd Advisory Board Meeting							
Virtual	All	21-oct-21	INLE, ESC	Intermediate Phase	Overview of the project and the EGTN concept, and presentation on the Geo-economics impact of new trade routes for Europe & TEN-T Corridors and nodes and of PLANET's LL2.	PLANET partners & AB Members	Audience: 29
3rd General Assembly							
Hybrid (Valencia and virtual)	All	17/18-may-22	FV, INLE	Closing Phase	Share and advance the technical developments that the project is implementing, resulting in an interactive meeting with several workshops and sessions. These workshops allowed to set the most relevant next steps and challenges to be faced during the last period of the project.	All PLANET Partners	Audience: over 60
4th General Assembly							
Hybrid (Poznań and virtual)	All	04/05-oct-22	PIT, INLE	Closing Phase	Developments of the project and included several interactive sessions built around the upcoming deliverables, resulting in an interactive meeting, identifying gaps and validating findings and setting the most relevant next steps.	All PLANET Partners	Audience: over 60
3rd Advisory Board Meeting							
Virtual	All	29-nov-22	ESC	Closing Phase	Presentation of PLANET´s key achievement: WP1, WP2, WP3 and WP3 achievements.	PLANET partners & AB Members	Audience: over 60
Final General Assembly							
Hybrid (Thessaloniki and virtual)	All	04/05-oct-22	PIT, INLE	Closing Phase	Developments of the project and included several interactive sessions built around the upcoming deliverables, resulting in an interactive meeting, identifying gaps and validating findings and setting the most relevant next steps.	All PLANET Partners	Audience: 58, 13 AB Members
Final Advisory Board Meeting							
Virtual	All	08-mar-23	ESC	Closing Phase	Centered on 2 key aspects of the PLANET project: commercialisation and experimentation. The purpose was to develop ideas & recommendations to improve the project´s business plan and support (possible) future implementation.	PLANET partners & AB Members	Audience: 36

4.1.2 Events Attended

Table 5 summarises all the events attended by PLANET to date (15-may-2023). **PLANET partners attended a total of 21 events**: 3 webinars, 12 Conferences and Congresses, 1 Forum, 2 Plenary Meetings and Meetings; 1 Online Debate; 1 Acceleration Event, and 1 event linked to a university summer school.

Additionally, PLANET is expected to be attending the International Physical Internet Conference, IPIC, 2023 and the International, Association of Maritime Economists, IAME, 2023 conference, which will take place in June and September 2023, respectively. More information about each event including consortium partner participated, the audience of the event, the material disseminated etc., are presented in the table below.

Table 5: PLANET Interactive C&D Actions: Events Attended.

PLACE	R. WP	DATE	EVENT ORGANISER	EVENT TYPE	EXTERNAL C&D STRATEGY PHASE	DISSEMINATION SUBJECT & DETAILS	PARTICIPANT(S)
Blockchain aplicado al transporte y la logística							
Virtual	All	04-Nov-20	Logistop	Webinar	Initial Phase	PLANET overview. Speakers: Miguel Llop. Audience > 20.	FV
29th Plenary Meeting International Coordinating Council on Trans-Eurasian Transportation							
Hybrid: Moscow and virtual	All	05/06-Nov-20	CCTT	Conference - Plenary meeting	Initial Phase	PLANET, its goals and methodologies (Stakeholder Engagement via events). Hybrid: hall of the CCTT Representative office and virtual. Audience > 20.	PAN
Integration of global supply chains – monitoring of e-commerce shipments on the New Silk Road							
Virtual	WP3	28-jan-21	Polski Instytut Transportu Drogowego	Debate	Initial Phase	Online debate on identifying the needs of global e-commerce supply chains and how to address them as part of the PLANET international research project. Moderator: UIRR President, Ralf-Charley Schultze. The debate was attended by: Maria Komorowska, International Product Manager, Poczta Polska; Marek Wróbel, Process Manager, Poczta Polska; Adam Koliński, Logistics Development Specialist, ŁUKASIEWICZ ILIM; Małgorzata Kirchner, Head of Sales and Commercialization, ŁUKASIEWICZ ILIM.	UIRR, PIT-ILIM
SITCIN Capacity Building Georgia							
Virtual	WP3, WP4	10-mar-21	UNECE Sustainable Transport Division	Meeting	Initial Phase	Presentation of the solutions used in the PLANET project, aiming at raising awareness among potential supply chain stakeholders along the New Silk Road. The PLANET project's basic assumptions and solutions used in LL3 were presented together with the possibilities for standardising information monitoring in the intermodal supply chain (WP4). This event was not promoted online -	PIT-ILIM

						it was dedicated to UNECE partners from Georgia. Session 2: Digital solutions in logistics and supply chain management; Slot: 16:30 – 18:00 (CET: 13:30 – 15:00). Presentation: Intermodal supply chain digitalization - Presentation of solutions for information integration of business partners. Speaker: Adam Kolinski. Audience: 27.	
8th International Physical Internet Conference (IPIC2021) - Session 25							
Virtual	WP1, WP3	16-jun-21	ALICE	Conference	Intermediate Phase	PLANET, its goals and methodologies, as well as first findings and outputs achieved during the first year of the project development. Specific use cases where PI is a key point were showcased. PLANET session: 16/06/21. Speakers: Makis Kouloumbis, Georgia Ayfantopoulou, Malgorzata Kirchner. Audience: 13.	INLE, CERTH, PIT-ILIM
International Summer School 2021: Logistics & Marketing: market innovations							
Virtual	WP3, WP4	05/09-jul-21	Lviv Polytechnic National University	Dissemination event	Intermediate Phase	Presentation of the PLANET project's basic assumptions and solutions used in LL3. Presentation of possibilities for standardising information monitoring in the intermodal supply chain (WP4). Session in day 3 (07-jul-2021); Slot: 10:00-11:20. Presentation: Digitalization of supply chains - theory and practice. Speaker: Adam Kolinski. Audience: 63.	PIT-ILIM
Business Logistics in Modern Management (BLMM2021)							
Osijek, Croatia	WP3	07-08-oct-21	Faculty of Economics in Osijek, University of Josip Juraj Strossmayer in Osijek	Conference	Intermediate Phase	Presentation of the research results of the work carried out within LL3. Presentation of the research methodology and discussion of the potential for the project work to contribute to science, in the field of intermodal supply chain management. Session 2 – EFFICIENCY IN NETWORKS AND LOGISTICS PROCESSES – SUPPLY CHAIN TECHNOLOGY TRENDS; Slot: 12:00-13:30. Paper presented and presentation: Review of intelligent solutions to optimise logistics processes and improve efficiency. Speakers: Adam Kolinski. Audience: 56.	PIT-ILIM
Artificial Intelligence in planning, simulation and forecasting							
Virtual	WP3-LL1	26-oct-21	ALICE	Conference / Webinar	Intermediate Phase	PLANET LL1 and its objectives. PLANET was presented as a project that visualises the applications / implementation of the AI in T&L.	ITA

						Speakers: David Ciprés. Audience: 30.	
European Intermodal Summit 2021 (2nd edition)							
Virtual	WP3-LL2	30-nov-21	UIRR	Conference - Summit	Intermediate Phase	Report on the need for standards and decarbonisation on intercontinental platforms and to present PLANET's role in intermodal standardisation (with a focus on intercontinental transport). Section 3 – Techniques, digitalisaton, standardisation. Speakers: Maurice Jansen. Audience > 100.	EUR
Intermodal transport and logistics – the roles of the government and business to make freight transport more sustainable							
Virtual	WP3, WP4	10-dec-21	UNECE Sustainable Transport Division	Meeting	Intermediate Phase	Presentation of the solutions used in the PLANET project was aimed at raising awareness among potential supply chain stakeholders along the New Silk Road. PLANET project's basic assumptions and solutions used in LL3 were presented. Presentation of possibilities for standardising information monitoring in the intermodal supply chain (WP4). Session 2: Solutions to support increased efficiency in freight transport and logistics; Slot: 16:00 – 17:30 (CET: 11:00 – 12:30). Presentation: Intermodal supply chain digitalization - Presentation of solutions for information integration of business partners. Speakers: Adam Kolinski. Audience: 32.	PIT-ILIM
H2020 Road Transport Research European Conference (H2020RTR21 European Conference)							
Hybrid: Brussels and virtual	All	29-mar-22	2Zero, CCAM, ERTRAC, European Commission	Conference	Intermediate Phase	PLANET presented its new discoveries and achievements, how it tackled hurdles and resolved challenges, and what are the next research steps in different essential areas for road transport. Session 1 – ICT Infrastructure for road transport. Speakers: Kostas Zavitsas and Makis Kouloumbis Audience > 50	VLTN, INLE
Intelligent Transport Systems European Congress 2022 (ITS2022)							
Toulouse, France	WP1	01-jun-22	ERTICO	Congress	Closing Phase	Introduction of the concept of Integrated Green EU-Global T&L Network as proposed by PLANET and illustration of how Transport & Logistics innovations at the micro level impact network performance at the macro level. Also, how in PLANET these concepts will be developed and applied in real-life settings as organised in the Living Labs.	EUR-RSM

						Technical Programme 24 – Innovative logistics; Slot: 09:00 – 10:00; Room 12. Technical Paper presented and presentation: Impact of EGTN T&L innovations at the micro-level on connectivity at the macro level. Speakers: Camill Harter. Audience: over 80.	
ePIcenter 3rd Annual Conference							
Hybrid: virtual and Antwerp	WP3	16-jun-22	ePIcenter	Conference – Liaison activities	Closing Phase	Short presentation on PLANET Project and introduction of the EGTC's contributions to LL2 since there are some synergies between both projects. Session: Smart ports innovations & related EU projects; Slot: 11:30 (10 min). Presentation: Living Lab 2: China-Rotterdam/ USA through rail, the contributions of EGTC Rhine-Alpine. Speakers: Noriko Otsuka. Audience > 30.	EGTC
Acceleration event: The blockchain made easy for SMEs and European value chains							
Tuscany, Italy	All, WP2	20-jun-22	DITECFER and ERCI	Acceleration event	Closing Phase	NGS solution developed in the PLANET project was presented, as well as the EGTN results with special focus on the blockchain interoperability. Was presented at the Topic *The blockchain technology in railways and multimodal logistics: uses cases and challenges.* Presentation: Blockchain-enabled Port: the Experience of the PLANET H2020 project and Blockchain interoperability; Slot: 15.35h. Speakers: Harris Niavis and Claudio Salvadori. Audience > 50 including European Commission, FSI-Italian State Railways, Italian Ministry for Infrastructures and Sustainable Mobility / ENISA TRANSSEC Expert Group, ISO/TC 307, Deutsche Bahn, CHAISE.	NGS, INLE
Porto Maritime Week 2022							
Hybrid: virtual and Porto.	All	27-sep-22	Transportes & Negócios	Conference	Closing Phase	Overview of the PLANET project. Session: Propostas de futuro para os portos nacionais; Slot: 14:30-16:00. Speaker: Jorge d' Almeida. Audience > 9, presidents of the 9 Portuguese Port Communities who will address the future of their respective ports.	CPSI
Business Logistics in Modern Management (BLMM2022)							
Osijek, Croatia	WP3	06-oct-22	Faculty of Economics in Osijek, University of Josip	Conference	Closing Phase	Presentation of the research results of the work carried out within LL3. Presentation of the research methodology and discussion of the potential for the project work to contribute to science, in the field of intermodal supply chain management.	PIT-ILIM

			Juraj Strossmayer in Osijek			Session 2 – SUSTAINABILITY AND REGIONAL SUPPLY CHAINS – SUPPLY CHAIN AND LOGISTICS DIGITALIZATION; Slot: 12:15-14:00. Paper presented and presentation: Data digitalisation in transport processes. Speakers: Marta Walmann and Karolina Kolinska. Paper presented and presentation: Analysis of digitalisation needs improving the supply chain efficiency for new silk road transport corridor. Speakes: Piotr Nowak, Malgorzata Kirchner and Adam Koliński. Audience > 30.	
9th Transport Research Arena Conference (TRA 2022)							
Lisbon, Portugal	All, WP2	14-17-nov-22	Agência Nacional de Inovação	Conference	Closing Phase	PLANET project in-depth and the EGTN platform. In addition, PLANET was at ALICE's booth with two representatives of the PLANET project and a video explaining the relevance, vision and mission of the PLANET project. Podium 1.4.1 – Efficient and Innovative Logistics; Slot: 15/11/22, 15:00-16:30. Paper presented and presentation: A blockchain-based architecture and smart contracts for an interoperable Physical Internet. Speakers: Harris Niavis. Audience > 20.	FV, INLE
European Freight and Logistics Leaders Forum							
London, UK	All	16-17-nov-2022	F&L	Forum	Closing Phase	Give a short introduction of the PLANET and what is about in essence. The overall objective was to identify the priorities of international supply chain and logistics decision-makers and to inform them of the added value of the project. The Session was moderated by 2 professional outside consultants who focused on real business cases. Franco Castagnetti intervened various times opening a window on Planet EGTN, and the project use cases, including the drivers and the KPIs associated. Working group D – Sustainability of Transport and Logistics. Audience > 100 (F&L business leaders).	NEWO
Physical Internet: synergizing efforts via the ALICE liaison program							
Virtual	All	30-nov-22	ALICE	Webinar	Closing Phase	The session was part of the ALICE liaison framework which facilitates knowledge sharing, advances market uptake of innovation, and boosts impact of R&I projects. Projects involved: PLANET, PILL, ePIcenter. PLANET: brief introduction of the PI principles, the PLANET's vision and the	VLTN

						PLANET's solution (EGTN), Living Labs and EGTN generic use cases. The presentation was finalised focusing on two PLANET's tools: the multi-stakeholder multi-criteria perspectives and the synchro-modality – PI Hub Choice Model. Presentation: PI concepts, features and protocols (PLANET project). Speakers: Kostas Zavitsas. Audience > 15.	
Conference Railway Systems and the 3rd Intermodal Forum - PLANET LL3 Workshop							
Wisla, Poland	WP3	02-mar-23	Oltis Poland, and the portal Intermodalnews.eu	Conference	Closing Phase	Session: Innovation and Digitalisation block; Slot: 9:30. Presentation: PLANET project Speakers: Marta Waldmann and Robert Roszko. presented the results and conclusions of the PLANET project and the main assumptions and result of the LL3 in a presentation entitled PLANET project – application of IoT on the New Silk Road. Session: Workshop block; Slot: 17:15-18:30. Workshop A – Center for EU transport projects. Speakers: Marta Waldmann and Robert Roszko. Audience: 92 conference participants attended the PLANET project presentation and workshop.	PIT-ILIM, RS
Observatory logistic | Aplicación de tecnologías 4.0 para la integración digital de las cadenas logístico-portuarias							
Virtual	WP3-LL1	19-apr-23	Logistop	Webinar	Closing Phase	Present three key solutions developed in the LL1: blockchain networks, AI based intelligent algorithm for planning and replanning set schedules for transportation across inland corridor routes, and simulation models for the optimisation of last mile distribution. Presentations: Tecnología Blockchain e interoperabilidad entre redes corporativas para la gestión de datos puerto-hinterland, Optimización del hinterland portuario mediante modelos y algoritmos de IA, and PI node y logística urbana colaborativa. Speakers: Borja Sanz, Jorge Feliu and David Ciprés. Audience: 30.	FV, ITA

As above mentioned, the 9th IPIC Conference due in June 2023, and 2 posters and 3 papers were submitted and accepted on behalf of PLANET. The papers and posters are as follows:

- *The impact of IoT implementation on shipments from Asia to Europe along the New Silk Road on the development of the Physical Internet in the receiving country* (Poster & Paper).
- *Environmental impact assessment of intercontinental transport network with digital twin under PI framework* (Paper).

- *Automating Capacity Pre-Booking at Warehouse Nodes of the Physical Internet* (Poster).
- *An exploration of the potential benefits of Transportation and Logistics innovations in Last-Mile Urban Deliveries: A case study approach* (Paper).

Also, one paper was submitted to the IAME Conference 2023 entitled *Corridor connectivity index: a methodology to assess dynamics of trade routes and impact on existing TEN-T corridors*.

4.1.3 Events Organised

Table 6 summarises the events organised by PLANET, including events organised by PLANET project members to present the project within their organisations but also those events organised by PLANET partners to present the project to an open audience. To sum up, **PLANET held 14 internal workshops and 18 partnership events**, among which 3 were conducted in the form of workshops, 2 as a webinar and 10 as a presentations or meetings.

Table 6: PLANET Interactive C&D Actions: Events Organised.

PLACE	R. WP	DATE	EVENT ORGANISER	EVENT TYPE	EXTERNAL C&D STRATEGY PHASE	DISSEMINATION SUBJECT & DETAILS	PARTICIPANT(S)
European projects session to international students in supply chain management							
ZLC premises	ALL	05-oct-20	ZLC	Partnership event - Presentation	Initial Phase	Create project awareness among international audience. Audience: 13.	ZLC
European projects session to international students in supply chain management							
ZLC premises	ALL	29-oct-20	ZLC	Partnership event - Presentation	Initial Phase	Create project awareness among international audience. Audience: 25.	ZLC
European projects session to international students in supply chain management							
ZLC premises	ALL	02-feb-21	ZLC	Partnership event - Presentation	Initial Phase	Create project awareness among international audience. Audience: 15.	ZLC
PLANET Use case 2 – Railway transportation Webinar							
Virtual	WP3-LL2 - UC2	25-mar-21	UIRR	Partnership event – Webinar	Initial Phase	Discuss with key railway actors on the current bottlenecks on the routes towards China. Moderator: UIRR President, Ralf-Charley Schultze. Audience: N/A.	UIRR
WP1, WP2 & Innovation Management Workshop							
Virtual	ALL	17-jun-21	INLE	Internal workshop	Intermediate Phase	WP and Task Leaders presented their main progress and results achieved so far. The Workshop focus on the products resulting from the work done so far in WP1 and WP2, which were actively discussed, clarifying certain relevant aspects, and proposing improvements and synergies between WP1 and WP2. Finally, in the last part of this Workshop, PLANET's Innovation Management and Intellectual Property was presented. Audience: all WP1 and WP2 PLANET partners.	CERTH, ITA, PAN, UIRR, EUR, IBM, INLE, SIR, VLTN, KNT, EBOS

Eurasian corridors for Combined Transport Webinar: PLANET LL2 - Transcontinental Platform in Combined Transport							
Virtual	WP3-LL2	23-jun-21	UIRR	Partnership event – Webinar	Intermediate Phase	The aim of this first session was to define altogether a possible PLANET pilot proof-of-concept that would support the intercontinental activities of all concerned stakeholders - Living Lab 2. Moderator: Ralf-Charley Schultze – President UIRR.	UIRR, PAN
European projects session to international students in supply chain management							
ZLC premises	ALL	10-sep-21	ZLC	Partnership event - Presentation	Intermediate Phase	Create project awareness among international audience. Audience: 16.	ZLC
ESC Presentation to AUTF and Evofenedex							
Brussels, Belgium	WP1, WP3, WP4, WP5	15-feb-22	ESC	Partnership event - Presentation	Intermediate Phase	Extended overview of the project, the ESC´s participation and expected outcomes. The general goal was to energise members to the value-added of the project and its outcomes. The value resides in approximating shippers/industry to the project. ESC expectation is that some of the technological advances developed by the project raise interest among shippers, that may indeed adopt them as part of their business practices. Speakers: Hélder Pereira. Audience: 5, ESC senior management (ESC members, EVOFENEDEX and AUTF).	ESC
ESC Transport Council (specialised event on transport matters)							
Virtual	WP1, WP4, WP5	15-mar-22	ESC	Partnership event - Presentation	Intermediate Phase	Presentation on EU projects (including PLANET), discussions on the resilience of supply chains and the impact of current security challenges on shippers. Discussions on competition matters and synchromodality. The presentation about PLANET consisted of an extended overview of the project, the ESC´s participation and expected outcomes (presentation of 45 min + brief discussion). The general goal was to energise members to the value-added of the project and its outcomes. ESC expectation is that some of the technological advances developed by the project raise interest among shippers, that may indeed adopt them as part of their business practices. Speakers: Hélder Pereira. Audience: ESC member and invitees, 16 industry representatives + 1 civil society (ESC Transport Council).	ESC
Workshop to explore regional and local impacts on the RALP Corridor of the global transport and logistics flow and implications for last and first mile connections							

Virtual	WP3-LL2-UC3	24-mar-22	EGTC	Partnership event - Workshop	Intermediate Phase	Introduce PLANET project and present and discuss the simulation results from the baseline year 2019 highlighting the Principal Entry Points along the Rhine-Alpine Corridor from Eurasian rail flights from China and maritime. EGTC members participated in this workshop were requested to take workshop's discussions to their own institutions to explore further discussion topics and identify what each organisation can benefit from PLANET project activities. Speakers: Chris Wensink, Noriko Otsuka. Audience: 15.	EGTC, PAN
ESC General Assembly Meeting							
Porto, Portugal	WP1, WP4, WP5	12/13-may-22	ESC	Partnership event - Presentation	Intermediate Phase	Extended overview of the project, the ESC´s participation and expected outcomes. The general goal was to energise members to the value-added of the project and its outcomes. This is particularly relevant regarding automated forecasting, end-to-end document management, federated structures, sensors, etc. It is also true regarding the more "theoretical" outcomes of the project, such as regarding on the future (expected) orientation of existing and upcoming trade routes. The value resides in approximating shippers/industry to the project. Speakers: Hélder Pereira. Audience: 13 industry representatives + 2 civil society + 1 academics.	ESC
LL1 Interactive Session							
Hybrid: virtual and Valencia	WP3	17-may-22	FV, CSSP, DHL, ITA, IBM, VLTN, NGS, INLE, KNT	Internal workshop	Intermediate Phase	Interactive Session (45-60min) to discuss/clarify points coming both from the users as well as the technical team (all involved actors should proactively identify 1-2 topics of interest to be discussed and clarified with the LL users/technology providers).	FV, CSSP, DHL, ITA, IBM, VLTN, NGS, INLE, KNT
LL2 Interactive Session							
Hybrid: virtual and Valencia	WP3	17-may-22	FV, UIRR, PAN, NEWO, EUR-RSM, BlockLab, EGTC	Internal workshop	Intermediate Phase	Interactive Session (45-60min) to discuss/clarify points coming both from the users as well as the technical team (all involved actors should proactively identify 1-2 topics of interest to be discussed and clarified with the LL users/technology providers).	UIRR, PAN, NEWO, EUR-RSM, BlockLab, EGTC
LL3 Interactive Session							
Hybrid: virtual and Valencia	WP3	17-may-22	FV, PIT-ILIM, GS1 Poland, GS1 China, PP, RS	Internal workshop	Intermediate Phase	Interactive Session (45-60min) to discuss/clarify points coming both from the users as well as the technical team (all involved actors should proactively identify 1-2 topics of interest to be discussed and clarified with the LL users/technology providers).	PIT-ILIM, GS1 Poland, GS1 China, PP, RS

WP1 Workshop 1 -Validation of EGTN definition & operationalisation by LLs partners & technology providers							
Hybrid, Valencia	WP1, WP3	18-may-22	FV, CERTH, ZLC	Internal workshop	Intermediate Phase	Interactive Session (90 min) to discuss/clarify points to validate the EGTN profile and attributes, the feasibility of transitioning of LLs ecosystems towards future EGTN operation and which of the EGTN Platform services are useful for supporting the future needs for EGTN planning, operation and governance.	ALL
WP1 Workshop 2 - Proof of PLANET simulation capability in defining EGTN 2030 & 2050							
Hybrid, Valencia	WP1	18-may-22	FV, PAN, CERTH	Internal workshop	Intermediate Phase	Demonstrate impact of Ukraine war on TEN-T freight flows and open discussion on TEN-T resilience achievement and suggestions for new nodal entry points and infrastructure and technology investment to be integrated in EGTN for the 230 and 2050 time (60 min). horizons	ALL
Technical workshop WP2 - Planet goals and methodologies for the PI WP2 services							
Hybrid, Valencia	WP2	18-may-22	FV, IBM	Internal workshop	Intermediate Phase	Review technologies and applications' approaches to be considered to solve the considered problems across tasks within WP2. Review with project partners the characteristics of solutions, how they look like, how they interoperate with other services, how they interact with the user. Under what conditions the service/solutions operate (45-60min).	ALL
Intercontinental Platform Kick-off Workshop							
Frankfurt, Germany	WP3	07-jul-22	UIRR	Partnership event - Workshop	Closing Phase	In the context of PLANET's LL2 on promoting railway transport, UIRR officially launched on 7th July 2022 in Frankfurt its platform on the Eurasian corridors for Combined Transport. The aim of this workshop was to gather the concerns of Combined Transport Operators and to validate the Demonstrator on the exchange of documents. More than 20 participants joined the session representing 70% of the market (of the Silk Road rail business). The session was chaired by Mr. Tufan Khalaji (as IBS representative) and moderated by Dr.Roland Klüber (as UIRR representative). The main conclusions: need of the sector for such a collaborative, need to define the EU rules and to remove some awful operational measures in China for example. Audience > 10.	UIRR, BlockLab
ESC and Evofenedex meeting							
Zoetermeer, Netherlands	WP1, WP4, WP5, WP6	19-jul-22	ESC	Partnership event – Presentation/ Meeting	Closing Phase	Extended overview of the project, the ESC´s participation and expected outcomes. The general goal was to energise members to the value-added of the project and its outcomes.	ESC

						Oral discussion on the ESC´s participation in projects (including PLANET) and how they match EVOFENEDEX´s member´s interests. Speakers: Hélder Pereira. Audience: 7 industry representatives (6 Evofenedex´s officers responsible for different areas and 1 other ESC staff member not involved in PLANET).	
Workshop on the prioritization of technological areas for the facilitation of the PI: "How can we make steps toward the realization of the PI and how should we deploy the enabling technologies?"							
Virtual	ALL	29-jul-22	EUR – RSM	Internal workshop	Closing Phase	The workshop serves the purpose of making a first step toward prioritization innovations in the roadmap toward PI in light of PLANET Task 4.4.3: Prioritization of technological areas for the facilitation of the PI will identify interdependencies between technology areas and prioritise or sequence innovations for the facilitation of the PI. Audience > 15.	ALL
WP4 Workshop: Validate findings Task 4.1, validate how briefing sheets, policy guides and case studies are organised and interlinked for Task 4.2							
Hybrid: virtual and Poznań	WP4	05-oct-22	PIT-ILIM, PAN, WI	Internal workshop	Closing Phase	(1) Validate findings for Task 4.1 [PAN] (2) Validate how briefing sheets, policy guides and case studies are organised and interlinked for Task 4.2 [WI]	ALL
WP4 Workshop (2) focusing on the roadmap toward PI for Task 4.4, and survey on standards in LLs for Task 4.5							
Hybrid: virtual and Poznań	WP4	05-oct-22	PIT-ILIM, RSM, GS1, ZLC	Internal workshop	Closing Phase	(1) survey on standards in LLs for Task 4.5 [Ł-PIT/GS1] (2) roadmap toward PI for Task 4.4 [ZLC /EUR]	ALL
ESC Transport Council (specialised event on transport matters)							
Brussels, Belgium	WP1, WP4, WP5, WP6	22-nov-22	ESC	Partnership event – Presentation/ Meeting	Closing Phase	Presentation on EU projects (including PLANET) and their impact on shippers. Discussions on synchromodality. The presentation about PLANET consisted of an extended overview of the project, the ESC´s participation and expected outcomes. The general goal was to energise members to the value-added of the project and its outcomes. The value resides in approximating shippers/industry to the project. Speaker: Hélder Pereira Audience: over 20 composed of national associations, corporates and other invited persons (ESC members: national associations of shippers or corporates).	ESC
ESC General Assembly Meeting							
Brussels, Belgium	WP1, WP4, WP5, WP6	23-nov-22	ESC	Partnership event – Presentation/ Meeting	Closing Phase	Presentation on the status of all EU projects under the ESC´s responsibility, including PLANET. In the latter case, the focus was on advertising and energising shippers for the upcoming workshops.	ESC

						The value resides in approximating shippers/industry to the project. Speaker: Hélder Pereira. Audience: over 10 (ESC members: national associations of shippers or corporates, restricted to members or associates of the ESC).	
PLANET workshop on impacts of legal & policy initiatives on the transport modes (scenarios)							
Virtual	WP1	25-nov-22	UIRR, CERTH	Partnership event – Workshop	Closing Phase	Validate the relevant work undertaken within the project and to conclude on parameters that can enhance PLANET's strategic simulation model by considering the impacts of forthcoming legal and policy initiatives on future freight flows. More than 15 selected experts covering all transport modes were invited to the workshop and interactive tools were used to facilitate the process of collecting their feedback and comments. The workshop was divided into two main parts, during the first of which the results of the initial analysis were presented and discussed with the experts while in the second part the experts were invited to provide their impact estimation on selected legal and policy actions. Audience: 15.	UIRR, CERTH
Rhine-Alpine Talks #13 From China to the Rhine-Alpine Corridor: Future challenges and the impact of emerging trade routes on the Rhine-Alpine Corridor - 2nd workshop to explore regional and local impacts on the RALP Corridor of the global transport and logistics flow and implications for last and first mile connections							
Virtual	WP3-LL2-UC3	02-dec-22	EGTC	Partnership event - Workshop	Closing Phase	The 2nd workshop invited a broader audience beyond the EGTC members, to discuss simulation results and possible countermeasures from different perspectives of relevant stakeholders. Therefore, the event was organised as part of Rhine-Alpine Talks, a regular online and public event organised by EGTC to showcase their activities and facilitate discussions around pre-selected topics. The key aim of the workshop was to explore future challenges for the RALP Corridor in the face of increasing transport flows and logistics from emerging global trade corridors. Additionally, the workshop aimed to outline a series of actions to address the impact of emerging geo-economic trends on cities and regions located along the RALP Corridor. Speakers: Ivo Hindriks, Noriko Otsuka. Audience: 35 (EGTC members and those invited to attend).	EGTC, PAN
Green EU-Global T&L Network (EGTN) Trial Workshop							
Virtual	WP1, WP2, WP3	04-apr-23	EUR – RSM	Internal workshop	Closing Phase	Understand the concept of integrated Green EU-Global T&L Network (EGTN); Identify and assess different trends of green and smart technologies for influencing the development of EGTN; Understand the concept of scenario	EUR - RSM and PLANET partners

						planning; Apply scenario planning to the EGTN with different scenarios and input. Audience > 10.	
Corridor Connectivity Index (CCI) Trial Workshop							
Virtual	WP1, WP2, WP3	06-apr-23	EUR – RSM	Internal workshop	Closing Phase	Understand the concept of connectivity as described in literature; Understand the various components of the CCI and the reasoning behind developing them; Be able to use the different components of the CCI to determine connectivity in a certain corridor; Apply the results of the CCI on different topics (such as disadvantaged regions). Audience > 10.	EUR - RSM and PLANET partners
Business Analytics toward Physical Internet Trial Workshop							
Virtual	ALL	12-apr-23	EUR - RSM	Internal workshop	Closing Phase	Understand the main principles of the (roadmap towards the) PI; Apply the main principles of the PI in a specific logistics environment; Understand basic principles of predictive and prescriptive business analytics; Analyse the relevance and application of business analytics in the context of services for intelligent PI networks, based on a specific logistics situation. Audience > 10.	EUR - RSM and PLANET partners
Innovative Technologies Trial Workshop							
Virtual	ALL	04-apr-23	EUR - RSM	Internal workshop	Closing Phase	Understand how technology innovations, regulations, T&L innovations and research can contribute to the roadmap toward PI; Analyse how different stakeholders contribute to the roadmap toward PI; Develop roadmap steps by stakeholders toward PI based on technology innovations, regulations, T&L innovations and research; Construct roadmap for specific logistics environments towards PI based on roadmap steps based on feasibility and prioritization. Audience > 10.	EUR - RSM and PLANET partners
PLANET LL1 Workshop							
Virtual.	WP3 – LL1	27-apr-23	FV	Partnership event - Workshop	Closing Phase	This workshop addresses logistic challenges and how new technologies (IoT, AI and blockchain) and concepts (Physical Internet) have been utilised to improve processes, operations and efficiency along the door-to-door transport chains linking the Maritime Silk Road with EU internal corridors. Topics discussed: PLANET introduction and objectives; Business problems and cases for review for LL1; Understand the Physical Internet Concept; PLANET solutions to help resolve the problems; Impact assessment & conclusions.	COSSP, DHL, FV, ITA, NGS, VLTN

						The audience comprised people from transport and logistics companies and associations. Audience: 26, excluding speakers	
PLANET LL2 Workshop							
Virtual.	WP3 – LL2	15-may-23	ESC	Partnership event - Workshop	Closing Phase	This workshop addresses results of LL2 and WP3, how PLANET research (UC1 in LL2) resulted into an actual product with paying clients and how the development of a pilot solution for UC2 in LL2 resulted in a patent application. The audience comprised shippers, trade associations and IT companies. Audience: 19, excluding speakers	Docklab

4.1.4 PLANET KERs Factsheets

PLANET KERs are innovative, interdisciplinary knowledge exchange networks designed to foster collaboration and knowledge-sharing between different sectors. By facilitating the sharing of knowledge and experience obtained during the development of PLANET, KERs have offered an innovative vision for developing new solutions to complex challenges.

A simple 2-page factsheet in cooperation with interested PLANET KERs owner (for further information please see section 4.2.5 Factsheets) were produced and then shared with relevant T&L associations and stakeholders with an "investor" profile via email. The aim was to disseminate these innovations and generate opportunities for KER owners, while prior having their consent that the information of the factsheets can be disseminated to the public.

Furthermore, in order to reach a wider and quality audience it was decided to contact stakeholders instead of conducting the briefings. As a result, C&D Team considered that creating factsheets and distributing them to some relevant T&L associations and stakeholders with an "investor" profile (by using the stakeholders with this profile identified in the T5.1. analysis, D5.1 Stakeholder Analysis Report [2], and through an intensive search exercise) was a satisfactory alternative.

In addition, the factsheets of the KERs produced and were also shared with 126 contacts from 90 organisations. This resulted in the Logistop event, in which the Living Lab 1 (LL1) of the project along with the technological developments or solutions linked to it, including KER 3, were presented, leading to the feedback from two companies requesting more information about the solutions developed in the LLs and the KERs.

Finally, in the framework of the collaboration with ALICE, several C&D actions have been planned together with ALICE to promote PLANET's KERs, which will materialise by the end of May:

- Share KERs with stakeholders, running projects and initiatives in ALICE network and liaised projects.
- Publish KERs in ALICE Knowledge Platform.
- Create PLANET page in ALICE web including LL factsheets, annual reports, KERs and videos.
- Distribution of a PLANET dedicated newsletter to ALICE contacts (1,500) + LinkedIn post in ALICE page, including information about KERs.

4.2 PLANET Passive C&D Actions

4.2.1 Website

The PLANET website was created and established in M1 and is the main element of the PLANET Project's visibility among the audience and is available through the following link: https://www.planetproject.eu/. When navigating through the PLANET website, at all times you can see the project logo, the menu, the EU commission Disclaimer, the access to the private area and the icons to access the LinkedIn and Twitter PLANET accounts. The website structure is detailed below.

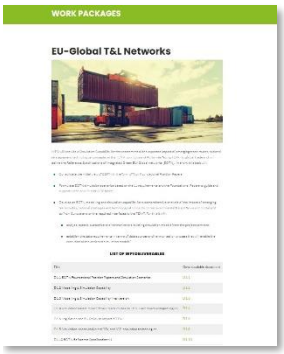
Home

About

Objectives

Demonstrators

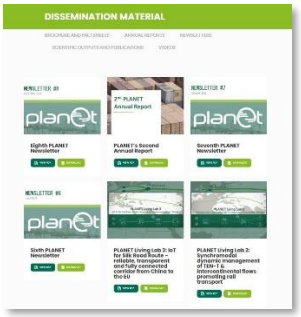
Work Packages



Consortium

News & Events

Dissemination material



PLANET published a large number of posts on the website and has continuously updated it from the previous Communication and Dissemination Report. Focusing on PLANET's web analytics and statistics, the overall data shown that the engagement was very positive, overachieving the pre-set KPI (2,000 unique visitors/year). See Table 7 (data extracted as of 21-apr-2023) for further information.

Up to 18-may-2023, a total of **116 posts published and a total of 340 documents were uploaded**, more than double the number of documents planned to be uploaded by the end of the project (150 updates). The section of the website with the highest number of publications was 'News & Events', reaching a total of 76 posts. Additionally, the Dissemination Material section was also regularly updated, making accessible all the C&D

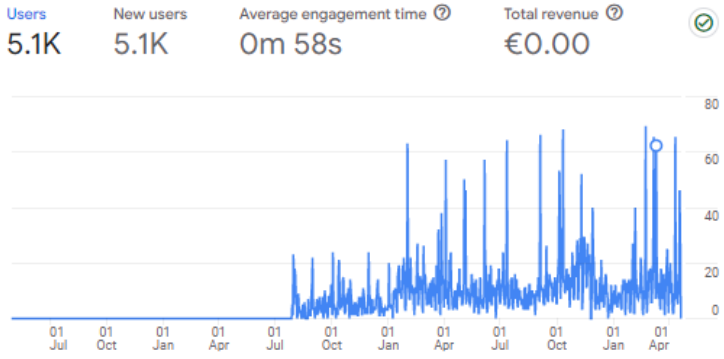
materials developed during the life of the project (up to 18-may-2023): Press Releases, PRs (10), Newsletters (9), Factsheets (15); Videos (2); Annual Reports (3); Brochure (1); White papers (4); Scientific outputs & Publications (8). Finally, in the sections focused on each of the WPs that integrate the project, the public deliverables were published, reaching a total of 34 deliverables.

Following this exercise, the private area of the project website was updated along with the website, making a total of 253 documents available to the AB and Consortium members.

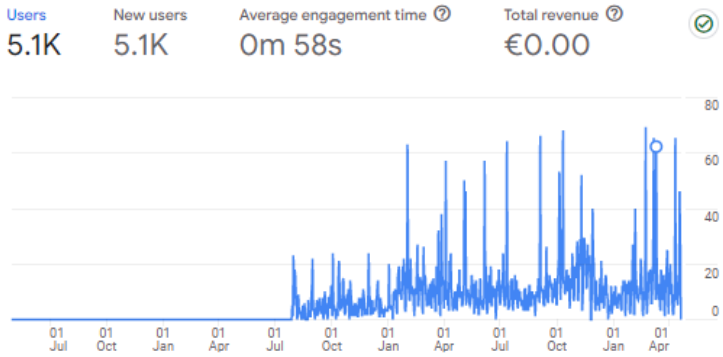
As a result, the most visited sections of the PLANET website up to 21-apr-2023 were the HOME section of the website (6,004 visits), followed by Work Packages (1,142 visits) and News&Events (1101 visits). In terms of number of events, which shows the total number of times and event is triggered, the HOME and Work Packages sections also rank first and third (18,788 and 2,497 respectively), but the third place goes to Dissemination (2,458 events). The analytics for users show different results: HOME section 3,313 users, About section 618 and Consortium section 432 users. On the other hand, 2,949 documents were downloaded from the website (including those uploaded in the private area). By order of number of downloads 5 the sections with the highest number of downloads were: Dissemination section, WP1 EU-Global T&L Networks, WP2 PLANET Cloud-based Open EGTN Infrastructure, WP3 PLANET Living Labs and Newsletters tag.

As a result, up to 21-april-2023 the **PLANET website reached 23,646 visits, with 5,128 unique visitors**. If we look at the data on unique visitors by country, we see that 45.8% is explained by Spain and the United States, which occupy the second (483 unique visitors) and first (1678 unique visitors) positions respectively. Behind them is Netherlands with 280 unique visitors. In terms of interaction time, Spain, Germany and Netherlands are in the top 3, while if we take into account sessions with interaction (i.e., no. of sessions that have lasted more than 10 seconds or have had 1 conversation event, or 2 or more screen or page views), Spain, Greece and Netherlands occupy the top 3 positions.

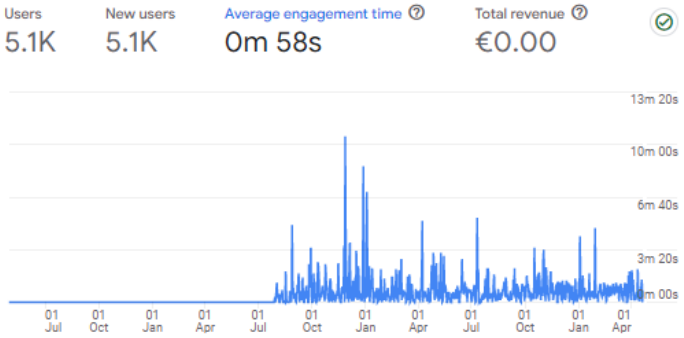
Table 7: PLANET website analytics.

OVERVIEW (01-may-2020 – 21-apr-2023)
USERS (unique visitors) **5,128** **NEW USERS 5,080** **VISITS 23,646** Users over time 

New users over time



Average interaction time by users over time



USERS BY COUNTRY

(01-may-2020 – 21-apr-2023)

Country	Users	New users	Sessions with interaction	Percentage of interactions	Sessions with interaction per user	Average interaction time	Number of events	Files download	Clicks	First visit	Page view	User engagement
United States	1,678	1676	98	5.79%	0.06%	2s	6,330	58	2	1,676	2,012	420
Spain	483	479	1,151	62.38%	2.38%	3m 57s	25,713	1,712	227	479	10,830	9,492
Netherlands	280	275	256	49.81%	0.91%	1m 50s	3,755	255	21	275	1,350	1,064
Italy	242	242	202	53.58%	0.83%	1m 11s	2956	153	29	242	1,057	835
Greece	235	231	270	54.00%	1.15%	1m 08s	4,033	154	52	231	1,502	1,289
Germany	231	226	166	46.11%	0.72%	2m 03s	2,682	143	25	226	884	781
Belgium	164	161	234	5939.00%	1.43%	18s	3,718	149	10	161	1,519	1,294
France	144	144	62	37.58%	0.43%	3s	734	7	0	144	231	142
Canada	134	134	10	8.77%	0.07%	23s	477	0	0	134	149	23
China	131	85	20	14.29%	0.15%		546	4	7	85	170	141
TOTAL				**(average)**	**(average)**	**(average)**		**2,949** **4,7% of the total**	**476** **0.76% of the total**	**5,080** **8.09% of the total**	**23,646** **37.68% of the total**	**18,616** **29,66% of the total**

TOP 10 VISITIS

(01-may-2020 – 21-apr-2023)

	Visits	Users	Event count
Home - PLANET Project	6,004	3,313	18,788
Work Packages Archive - PLANET Project	1,142	339	2,497
News&Events - PLANET Project	1,052	223	2,458
Files Archive - PLANET Project	1,097	143	2,380
Dissemination Archive - PLANET Project	1,101	231	2,317
About - PLANET Project	981	618	2,453
Demonstrators Archive - PLANET Project	758	303	1,613
Objectives - PLANET Project	706	313	1,733
Consortium Archive - PLANET Project	706	432	2,034
EU-Global T&L Networks - PLANET Project	488	148	1,201

TOP 5 DOWNLOADS
(01-may-2020 – 21-apr-2023)

	Downloads	Visits	Users
Dissemination Archive - PLANET Project	1,089	219	256
EU-Global T&L Networks - PLANET Project	488	149	272
PLANET Cloud-based Open EGTN Infrastructure - PLANET Project	415	160	234
PLANET Living Labs - PLANET Project	401	177	195
Newsletters Archives - PLANET Project	298	51	199

4.2.2 Social Media

There have been no delays in the creation of PLANET's SM, as they have been created and started publishing content before M24 (May 2022) and, during the project, they became another powerful communication tool (see Figure 7). The Table 8 shows the main metrics of the different PLANET SM accounts.

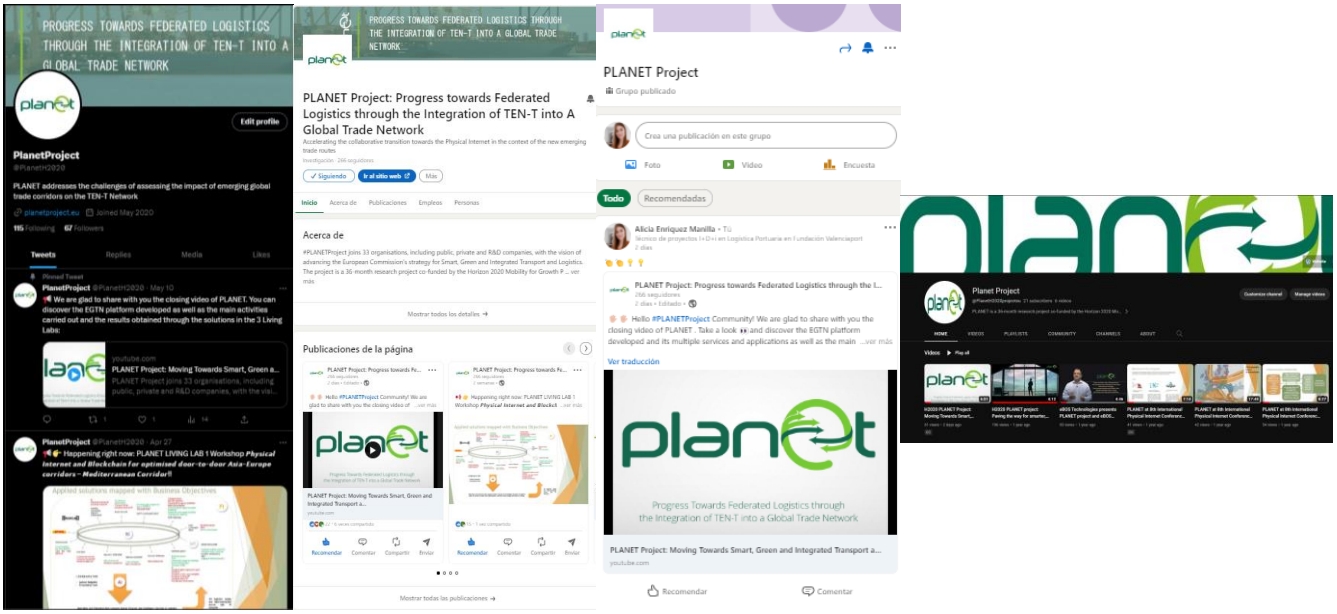


Figure 7. PLANET's Social Media Channels.

Aggregating the results of all PLANET SM accounts, PLANET has reached **466 followers** (268 on LinkedIn, 111 on LinkedIn PG, 67 on Twitter and 20 on YouTube) and has published **247 pieces of content** (87 on LinkedIn, 62 on LinkedIn PG and 98 on Twitter). PLANET's SM had a good reach, achieved good traffic results and were regularly updated by publishing a high number of posts, achieving, as a result, the KPIs of number of followers (>200). The target of number of contents per channel (80 per channel) has not been met for the LinkedIn Private Group, although it should be noted that this review has been carried out as of 17 May 2023. This means that publications will continue to be made on all social media channels until the 36th month, so the KPI number of contents (80 per channel) will be satisfactorily met before the end date of the project.

The data on the number of impressions is also positive, over **25,000 impressions in total**, thus, achieving the KPI (at least 10,000 impressions). Twitter generated 9,999 impressions since its creation to 21-04-2023 and LinkedIn more than 15,000.

For the specific case of LinkedIn data from the followers was extracted to categorise them and observe the audience reached by PLANET through LinkedIn publications. From this data we highlight mainly two points: 1) the 15,85% of the followers are located in Athens area; 2) the distribution of followers by industry shows that the top 10 industries following PLANET (64,53% of the total followers) are industries identified by PLANET as target audience:

- 18.49% of the followers belong to the Information Technology and Services industry,
- 9.06% to the research services, 8,30% to the Logistics and Supply Chain,
- 7.92% to the Higher Education industry,
- 4.91% to the International Trade and Development industry,
- 4.15% to Business consulting,
- 4.15% to Shipping,
- 3.02% to operations consulting,
- 2.64% to Government administration and 1.89% to road transport.

In the case of the YouTube channel, PLANET will publish a second video before the end of the project, therefore it is expected that both the number of views of the videos uploaded to this platform and the number of subscribers increase. This video will include the findings from the Living Labs of the project, as well as the EGTN Platform, which are the core results of the project.

Finally, PLANET also decided to use partners' SM as a C&D tool, encouraging the publication of the PLANET project's content on their own social networks as well as their interaction with the content published on PLANET's SM accounts. A total number of 94 post were published by consortium members.

Table 8: PLANET SM analytics.

Twitter	
An overview	**Key numbers** (last updated: 21st April 2023)
· Name: PlanetH2020. · Creation date: May 2020. · Link: https://twitter.com/PlanetH2020	· Followers*: 67. · No. of visits: 12,774. · No. of impressions: 9,999. · Content pieces*: 85 tweets and 13 retweets. · Reactions per publication: retweets (min 0 - max 4), likes (min 0 - max 7). · PLANET mentions (@PlanetH2020): 42. · Top mentions: @cinea_eu (2 mentions), with 24,100 followers; @EU_RESEARCH (1 mention), with 13.3K followers.

LinkedIn Group	
An overview	**Key numbers** (last updated: 15th May 2023)
· Name: PLANET Project. · Creation date: May 2020. · Link: <https://www.linkedin.com/groups/13876081/>	· Members: 111. · Content pieces: interaction has been registered from PLANET partners but also from outside PLANET: - No. of publications from PLANET partners: 56. - Other publications: 6.
YouTube	
An overview	**Key numbers** (last updated: 15th May 2023)
· Name: Planet Project. · Creation date: July 2021. · Link: https://www.youtube.com/@planetproject3827	· Subscribers: 20. · Content pieces: 6 publications (videos): - 1 video presenting PLANET Project and eBos Role. - 3 videos of the session at IPIC-2021. - 1st PLANET official promotional video - 2nd PLANET official promotional video No. of video views: 38-19 (min-max) → 488 views in total since its creation.
LinkedIn	
An overview	**Key numbers** (last updated: 21st April 2023)
· Name: PLANET Project: Progress towards Federated Logistics through the Integration of TEN-T into A Global Trade Network. · Creation date: July 2021. · Link: https://www.linkedin.com/company/planeth2020/	· Followers*: 268. · No. of impressions: 1,965, 108 - 579 (min - max) · Content pieces*: 87. · Reactions per publication: 4 - 46 (min - max). · No. of clicks on content: 11 - 56 (min - max). · No. of times a publication has been shared: 39. · PLANET mentions (#PLANETProject) > 40.

*Last updated: 17th May 2023.

4.2.3 Newsletters

The **9 newsletters** expected to be published **have been produced and uploaded to the PLANET's website** during the life of the project as summarised in the following table.

Table 9: PLANET Newsletters.

ID	SHORT OUTLINE	PUB. DATE	TARGET AUDIENCE	LINK
Intermediate phase (M12-M24)				
1	First project approach and latest project news and developments as well as upcoming events.	11-jun-21	All	https://www.planetproject.eu/wp-content/uploads/2022/02/1_PLANET-Newsletter.pdf
2	The key drivers of the emerging global corridors and new trade routes' impact on the TEN-T network. It also included information on the latest PLANET events and the main PLANET events that will take place in the near future.	02-aug-21	All	https://www.planetproject.eu/wp-content/uploads/2022/02/2_PLANET_Newsletter.pdf

3	PLANET's 4 Foundational Position Papers for an EGTN, which pave the way for EGTN's initial vision and the simulation scenarios for assessing its potential impacts. It also included a summary of the public deliverables submitted so far and information on the latest and upcoming PLANET events.	13-oct-21	All	https://www.planetproject.eu/wp-content/uploads/2022/02/3_PLANET_Newsletter.pdf
Closing phase (M24-M36)				
4	Definition of the reference specifications for the future PI-oriented EGTN as well as an initial overview of the 3 interactive layers that will constitute it. It also included a summary of the new public deliverables submitted, information on the latest events attended by PLANET and on the article published in the Italian magazine Il Giornale della Logistica.	27-dec-21	All	https://www.planetproject.eu/wp-content/uploads/2022/02/4_PLANET_Newsletter.pdf
5	Presentation of the projects PLANET has started to collaborate with. It also included a summary of the new public deliverables submitted from Newsletter #4 to this latest edition and to give details on the upcoming events.	29-mar-22	All	https://www.planetproject.eu/wp-content/uploads/2022/03/5_PLANET_Newsletter-1.pdf
6	Presentation of the main progress and developments made in project's Living Lab 1 to date. It also included information on the latest events attended by PLANET and news.	30-jun-22	All	https://www.planetproject.eu/wp-content/uploads/2022/06/6_PLANET_Newsletter.pdf
7	Presentation of the main progress and developments made in project's Living Lab 2 to date. It also included information on the latest events attended by PLANET and news.	27-oct-22	All	https://www.planetproject.eu/wp-content/uploads/2022/10/7_PLANET_Newsletter-2.pdf
8	Presentation of the main progress and developments made in project's Living Lab 3 to date. It also included a summary of the new public deliverables submitted and information on the latest events attended and organised by PLANET.	28-dec-22	All	https://www.planetproject.eu/wp-content/uploads/2022/12/8_PLANET_Newsletter.pdf
9	Definition and presentation of the PLANET Open EGTN Platform, explaining its functionalities and innovation, as well as its value to the transport and logistics industry. It also included a summary of the new public deliverables submitted, information on the future and latest events attended by PLANET and new publications made by PLANET partners.	31-mar-23	All	https://www.planetproject.eu/wp-content/uploads/2023/04/9_PLANET_Newsletter.pdf

The newsletters achieved very satisfactory results and were very well received by the audience as show the data presented in Table 10. The best performing newsletter for each case is marked in bold.

Table 10: PLANET Newsletter Metrics.

		#1	#2	#3	#4	#5	#6	#7	#8	#9	TOTAL
WEB*	**Visits****	8	5	1	1	11	22	**40**	28	11	127
	Users***	7	5	1	1	9	16	**23**	17	6	85
	No. of downloads	2	1	0	0	3	4	**20**	10	6	46
LINKEDIN	**Posts**	0	1	1	1	1	1	1	1	1	8
	Clicks	-	17	15	19	22	**34**	9	10	2	128
	Impressions	-	**413**	404	601	349	408	280	281	410	3,1146
	Reactions	-	13	14	17	**20**	15	18	14	19	130

	Shares	-	3	3	1	**7**	3	1	1	1	20
LINKEDIN PG	**Posts**	0	1	1	1	0	1	1	1	1	7
	Reactions	-	5	2	1	-	3	**6**	1	0	18
TWITTER	**Posts**	1	1	1	1	1	1	1	1	1	9
	Link clicks	**6**	0	1	1	2	3	0	0	0	13
	Impressions	168	**451**	218	77	219	121	30	47	101	1,432
	Reactions	2 Likes 1 Retweet	2 Likes 1 Retweet	1 Likes 1 Retweet	0	2 Likes 1 Retweet	**7 Likes 1 Retweet**	1 Likes	0	9 Likes	-

Last updated: 21st April 2023.

*Web: it only includes information related to the News&Events section of the PLANET website. **Visits: counts the number of times a page is viewed. Repeated visits to the same page are counted; ***Users: Total number of active users, users who are currently engaged.

In order to analyse the engagement of the newsletters, to the results related to the website shown in the table above, we should add information related to the private area, accessible both to PLANET's partners and to the PLANET's Advisory Board members, and to the dissemination section of the website. In total terms, in both sections the **number of newsletter downloads amounted to 137**, and **the number of newsletter visits and users to 137 and 27 respectively**.

Therefore, based on all this information and considering the new KPIs set, PLANET successfully met its proposed targets, achieving a total of **264 visits, 112 users** and **183 downloads**.

4.2.4 Press Releases and News

The KPI set for this C&D tool was the publication of at least 10 Press Releases (PRs). In total, **35 PRs were published during the project, 11 on PLANET website and 24 on press and media professionals**. The summary of all PRs can be found in

Table 11, Table 12 and Annex II: PLANET Press Releases and News.

PLANET also use partners' websites as a C&D tool. A total **number of 60 posts/PRs/articles were published** by consortium members. More information can be found in

Table 13.

Table 11: PLANET Press Releases Published on PLANET Website.

ID	SHORT OUTLINE	LINK
Initial phase (M1-M12)		
1	PLANET Kick Off meeting	https://www.planetproject.eu/news-events/2020/09/planet-project-celebrates-kick-off-meeting/
Intermediate phase (M12-M24)		
2	WP1 & WP2 Innovation Management Meeting.	https://www.planetproject.eu/wp-content/uploads/2022/02/PLANET_PR_WP1WP2-and-Innovation-management.pdf
3	1st PLANET Virtual General Assembly meeting.	https://www.planetproject.eu/wp-content/uploads/2022/10/PLANET_PR_Fourth-General-Assembly-Meeting.pdf
4	2nd PLANET Virtual General Assembly meeting.	https://www.planetproject.eu/wp-content/uploads/2022/02/PLANET_PR_Second-General-Assembly-Meeting.pdf

5	2nd PLANET Virtual Advisory Board meeting.	https://www.planetproject.eu/wp-content/uploads/2022/02/PLANET_PR_2nd_AB-meeting.pdf
Closing phase (M24-M36)		
6	Mid-Term Review	https://www.planetproject.eu/wp-content/uploads/2022/02/PLANET_PR_Mid-Term-Review.pdf
7	3rd PLANET General Assembly meeting.	https://www.planetproject.eu/wp-content/uploads/2022/05/PLANET_PR_Third-General-Assembly-Meeting-1.pdf
8	4th PLANET General Assembly meeting.	https://www.planetproject.eu/wp-content/uploads/2022/10/PLANET_PR_Fourth-General-Assembly-Meeting.pdf
9	3rd PLANET Virtual Advisory Board meeting.	https://www.planetproject.eu/wp-content/uploads/2022/10/PLANET_PR_Fourth-General-Assembly-Meeting.pdf
10	Final PLANET General Assembly meeting.	https://www.planetproject.eu/wp-content/uploads/2023/03/PLANET_PR_Final-General-Assembly-Meeting.pdf
11	Final Advisory Board meeting.	https://www.planetproject.eu/wp-content/uploads/2023/03/PLANET_PR_Final_AB-meeting.pdf

Table 12: PLANET Press Releases Published on media.

ID	SHORT OUTLINE	Media	LINK
Initial phase (M1-M12)			
1	PLANET, its goals, partners and methodologies.	Diariodelpuerto.com	N/A
2	PLANET, its goals and partners.	Empresaexterior	El nuevo proyecto europeo PLANET aumentará la visibilidad end-to-end de las cadenas de suministro mundiales | empresaexterior | Noticias del comercio exterior y negocio internacional. España
3	PLANET and its goals.	EL MERCANTIL	N/A
4	PLANET, its goals, partners and methodologies.	Marine Insight	New EU Project PLANET To Increase End-To-End Visibility Of Global Supply Chains (marineinsight.com)
5	PLANET, its goals, partners and methodologies.	Port Technology	EU project seeks to increase end-to-end visibility of global supply chains - Port Technology International
6	PLANET, its goals, partners and methodologies.	Veintepies	Veintepies: El proyecto europeo PLANET aumentará la visibilidad end-to-end de las cadenas de suministro
7	PLANET, its goals, partners and methodologies.	Cadenadesuministro	El proyecto Planet mejorará la visibilidad de las cadenas de suministro (cadenadesuministro.es)
8	PLANET, its goals, partners and methodologies.	Diario el canal	La Fundación Valenciaport participa en un proyecto para la visibilidad end-to-end de las cadenas de suministro - El Canal Marítimo y Logístico (diarioelcanal.com)
9	PLANET, its goals, partners and methodologies.	SPANISHPORTS	El nuevo proyecto europeo PLANET aumentará la visibilidad end-to-end de las cadenas de suministro mundiales (spanishports.es)
10	PLANET, its goals, partners and methodologies.	LOGISTYKA	N/A
11	PLANET, its goals, partners and methodologies.	HERALDO	Proyecto europeo Planet: Un transporte y una logística inteligentes, ecológicos e integrados (heraldo.es)

12	PLANET, its goals, partners and methodologies.	Diariodelpuerto.com	El Proyecto PLANET echa andar a la búsqueda de una logística inteligente - Diario del Puerto
13	PLANET, its goals, partners and methodologies. CPLS's role.	oinstalador	Comunidade Portuária e Logística de Sines integra projeto europeu de inovação e sustentabilidade nos transportes - O Instalador - Informação profissional do setor das instalações em Portugal
14	PLANET, its goals, partners and methodologies.	WOZ-TRANS LOGISTICS	Projekt doskonalący operacje logistyczne Sieci Badawczej Łukasiewicz - WOZ-TRANS Logistics
15	PLANET, its goals, partners and methodologies.	Diario el canal	Infoport y la Fundación Valenciaport cooperan para mejorar la eficiencia de escala de buques - El Canal Marítimo y Logístico (diarioelcanal.com)
16	PLANET Kick Off meeting.	elperiodic.com	El proyecto PLANET celebra su reunión de arranque (elperiodic.com)
17	PLANET Kick Off meeting.	portSEurope	PLANET Project Celebrates Kick Off Meeting - PortSEurope
18	PLANET Kick Off meeting.	SPANISHPORTS	El proyecto PLANET celebra su reunión de arranque (spanishports.es)
19	PLANET Kick Off meeting.	Veintepies.com	N/A
20	PLANET Kick Off meeting.	International Transport Journal (ITJ)	Planet project celebrates kick-off meeting: ITJ | Transport Journal
21	PLANET, its goals, partners and methodologies.	SUPPLY CHAIN MAGAZINE	CPLS integra projecto europeu PLANET para a inovação nos transportes - Supply Chain Magazine
Intermediate phase (M12-M24)			
22	PLANET, its goals and methodologies.	Diario del Puerto - Suplemento Quién es Quién	N/A
Closing phase (M24-M36)			
23	PLANET and ALICE together at TRA	ALICE	Advancing the European Commission's strategy for Smart, Green and Integrated Transport and Logistics. PLANET & ALICE together at TRA, 14th-17th November, Lisbon – ALICE Alliance for Logistics Innovation through Collaboration in Europe (etp-logistics.eu)
24	PLANET, its goals and LLs	Mobility Lab	Redirecting (google.com)

Table 13: PLANET Press Releases, articles and news published by partners.

ID	SHORT OUTLINE	Partner	LINK
Initial phase (M1-M12)			
1	PLANET, its goals and methodologies. Poczta Polska's role.	PP	Projekty Współfinansowane z Funduszy Europejskich (poczta-polska.pl)
2	PLANET, its goals and methodologies.	PNO	https://www.innovationplace.eu/news/h2020-planet-progress-towards-federated-logistics-through-the-integration-of-ten-t-into-a-global-trade-network
3	PLANET, its challenges, results and benefits.	ILIM	https://ilim.lukasiewicz.gov.pl/projekty/progress-towards-federated-logistics-through-the-integration-of-ten-t-into-a-global-trade-network-planet/
4	PLANET, its goals and challenges. UIRR's role.	UIRR	http://www.uirr.com/de/projects/ongoing/item/27.html

5	PLANET, its goals and methodologies.	FVP	https://www.fundacion.valenciaport.com/proyecto/planet-progress-towards-federated-logistics-through-the-integration-of-ten-t-into-a-global-trade-network/
6	PLANET, its goals and methodologies.	WI	https://wupperinst.org/en/p/wi/p/s/pd/914
7	PLANET, its goals and methodologies.	VLTN	https://vltn.be/en/projects/planet
8	PLANET, its goals and methodologies, and EBOS's role.	EBOS	https://www.ebostechnologies.co.uk/planet-project
9	PLANET, its goals and methodologies, and ESC's role.	ESC	https://europeanshippers.eu/projects/planet/
10	PLANET, its goals and methodologies. Ontotext's role.	SIR	https://www.ontotext.com/knowledgehub/current/planet/
11	PLANET, its goals, partners and methodologies	ZLC	https://www.zlc.edu.es/es/investigacion/proyectos/progreso-hacia-la-logistica-federada-a-traves-de-la-integracion-de-la-red-ten-t-en-una-red-de-comercio-global/
12	PLANET, its goals, partners and methodologies	ZLC	https://www.zlc.edu.es/research/projects/progress-towards-federated-logistics-through-the-integration-of-ten-t-into-a-global-trade-network/
13	PLANET, its goals, partners and methodologies.	ITA	https://www.itainnova.es/blog/proyectos-financiacion-publica/planet/
14	PLANET, its vision and methodologies	EGTC	https://www.egtc-rhine-alpine.eu/projects/planet-progress-towards-federated-logistics-through-the-integration-of-ten-t-into-a-global-trade-network/
15	PLANET, its goals, partners and methodologies	FVP	https://www.fundacion.valenciaport.com/noticias-eventos/2020/06/el-nuevo-proyecto-europeo-planet-aumentara-la-visibilidad-end-to-end-de-las-cadenas-de-suministro-mundiales/
16	PLANET, its goals, partners and methodologies	INLE	http://inlecom.eu/2020/06/01/new-h2020-project-planet-launched-june-2020/
17	Kick off meeting	EBOS	https://www.ebostechnologies.eu/progressing-today-towards-the-global-trade-and-logistics-networks-of-tomorrow-the-h2020-planet-project-kicks-off
18	Kick off meeting	FVP	https://www.fundacion.valenciaport.com/noticias-eventos/2020/06/el-proyecto-planet-celebra-su-reunion-de-arranque/
19	Kick off meeting	INLE	https://inlecom.eu/group/2020/06/18/planet-project-celebrates-kick-off-meeting/
20	PLANET, its goals and demonstrators.	PP	N/A
21	PLANET, its goals, partners and methodologies	CPLS	https://www.cpls.pt/en/programa-r%C3%A1dio/2018/cpls-joins-the-new-h2020-project-planet-launched-june-2020/
22	PLANET, its goals and demonstrators.	CPLS	https://www.cpls.pt/comunicação/notícias/comunidade-portuária-e-logística-de-sines-integra-projeto-europeu-de-inovação-nos-transportes/
23	Kick off meeting	FVP	https://www.planetproject.eu/news-events/2020/09/planet-project-celebrates-kick-off-meeting/
24	1st General Assembly meeting	INLE	https://inlecom.eu/group/2020/10/08/planet-1st-general-assembly/

25	PLANET, its goals and methodologies. ZLC's role.	ZLC	https://www.zlc.edu.es/es/noticias/en-que-planeta-estamos/
26	PLANET, its goals and methodologies. ZLC's role.	ZLC	https://www.zlc.edu.es/news/what-planet-are-we-on/
27	PLANET, LL2 and Poczta Polska's role.	PP	N/A
28	Integration of global supply chains – monitoring of e-commerce shipments on the New Silk Road (Event)	PP	https://media.poczta-polska.pl/pr/639471/projekt-planet-poczta-polska-na-debacie-polskiego-instytutu-transportu-drogowego
Intermediate phase (M12-M24)			
29	PLANET Newsletter #1	PNO	https://www.innovationplace.eu/news/planet-newsletter-1-now-available
30	PLANET Newsletter #1	NEWO	http://www.newopera.org/publications-newsletters/send/1-root/54-planet-newsletter-1
31	PLANET WP1 & WP2, Innovation Management Meeting	EBOS	https://www.ebos.com.cy/ebos-participates-in-the-planet-virtual-meeting-dedicated-to-the-eu-global-transport-and-logistics-networks-and-innovation-management
32	IPIC2021 - Session 25	INLE	https://inlecom.eu/2021/07/07/planet-ipic/
33	PLANET Newsletter #2	NEWO	http://www.newopera.org/publications-newsletters/send/2-publications-newsletters/55-planet-newsletter-2
34	PLANET Newsletter #2	CSSP	https://world.lines.coscoshipping.com/spain/es/news/companynews/33/1
35	2nd Virtual General Assembly meeting	INLE	https://inlecom.eu/group/2021/07/08/planet-at-8th-international-physical-internet-conference-ipic/
36	PLANET Newsletter #2	NEWO	http://www.newopera.org/publications-newsletters/send/2-publications-newsletters/55-planet-newsletter-2
37	PLANET Newsletter #3	CSSP	https://world.lines.coscoshipping.com/spain/es/news/companynews/36/1
38	PLANET Newsletter #4	NEWO	https://www.newopera.org/publications-newsletters/send/2-publications-newsletters/58-planet-newsletter4-1
39	PLANET LLs	ESC	https://europeanshippers.eu/planets-living-labs-to-analyse-global-trade-infrastructure-issues-and-ten-t/
40	PLANET Road Map	ZLC	https://www.zlc.edu.es/news/drawing-a-roadmap-for-the-logistics-technologies-of-the-future/
41	PLANET Newsletter #5	NEWO	https://www.newopera.org/publications-newsletters/send/2-publications-newsletters/59-5-planet-newsletter
42	PLANET's liaison with other EU projects	ESC	https://europeanshippers.eu/planets-liaison-with-other-eu-funded-initiatives-and-projects/
Closing phase (M24-M36)			
43	PLANET at ePIcenter Annual Meeting	EGTC	https://www.egtc-rhine-alpine.eu/rhine-alpine-news/rhine-alpine-news-21-06-2022/
44	PLANET Newsletter #6	NEWO	https://www.newopera.org/publications-newsletters/send/2-publications-newsletters/60-6-planet-newsletter
45	Hyperloop for E-commerce	HARDT	https://docs.hardt.global/studies/hyperloop-for-e-commerce

46	4th General Assembly meeting	CLN	https://www.linkedin.com/feed/update/urn:li:activity:6983747750962061315
47	PLANET Newsletter #7	NEWO	https://www.newopera.org/publications-newsletters/send/2-publications-newsletters/62-7-planet-newsletter-2-1
48	Report PLANET Advisory Board meeting, incl. press release	ESC	https://europeanshippers.eu/trade-and-logistics-key-takeaways-from-the-planet-advisory-board/
49	PLANET Newsletters (1-7)	CSSP	https://world.lines.coscoshipping.com/spain/en/news/companynews/3/1
50	ESC Newsletter with info about Advisory Board meeting	ESC	https://mailchi.mp/europeanshippers.eu/esc-newsletter-14456972
51	PLANET Newsletter #8	NEWO	https://www.newopera.org/publications-newsletters/send/2-publications-newsletters/63-8-planet-newsletter
52	PLANET and work related to the resilience attribute of EGTN	CERTH	https://www.imet.gr/index.php/el/news-el-2/1097-planet-news-el
53	PLANET Newsletters: #8 included	CSSP	https://world.lines.coscoshipping.com/spain/en/news/companynews/3/1
54	3rd Advisory Board Meeting	CSSP	https://world.lines.coscoshipping.com/spain/en/news/companynews/5/1
55	LL1 Factsheet	CSSP	https://world.lines.coscoshipping.com/spain/en/news/companynews/4/1
56	Report Final PLANET Advisory Board meeting, incl. press release	ESC	https://europeanshippers.eu/planet-final-advisory-board-meeting/
57	PLANET LL1 Workshop	CSSP	https://world.lines.coscoshipping.com/spain/en/news/companynews/7/1
58	PLANET LL1 Workshop	CSSP	https://world.lines.coscoshipping.com/spain/es/news/companynews/41/1
59	PLANET LL1 Workshop	DHL	https://www.dhl.com/es-es/home/press/press-archive/2023/dhl-miembro-del-consorcio-del-proyecto-planet-financiado-por-la-ue-promueve-la-participacion-en-el-living-lab-1-planet-el-proximo-27-de-abril.html
60	The PLANET project completed	EGTC	https://www.egtc-rhine-alpine.eu/rhine-alpine-news/rhine-alpine-news-15-05-2023/

4.2.5 Factsheets

The **project developed and published 15 factsheets**, reaching the set KPI (10 factsheets). As shown in Table 14, PLANET used these C&D materials to explain the objectives and results pursued and achieved by the project.

Table 14: PLANET Factsheets.

ID	SHORT OUTLINE	PUB. DATE	TARGET AUDIENCE	LINK
Intermediate phase (M12-M24)				
1	Description of WP5 Partners and contributions made up to December. It was also included a summary of the deliverables linked to WP5 submitted up to date.	17-dec-21	All, in particular H	https://www.planetproject.eu/wp-content/uploads/2022/04/WP5_PLANET-FACTSHEETS.pdf

2	Description of WP4 Partners and contributions made up to January.	31-jan-22	All, in particular H	https://www.planetproject.eu/wp-content/uploads/2022/04/WP4_PLANET-SM-FACTSHEETS.pdf
3	Description of WP3 Partners and contributions made up to December. It was also included a summary of the deliverables linked to WP3 submitted up to February.	9-feb-22	All, in particular H	https://www.planetproject.eu/wp-content/uploads/2022/04/WP3_PLANET-SM-FACTSHEETS.pdf
4	Description of WP2 Partners and contributions made up to December. It was also included a summary of the deliverables linked to WP2 submitted up to February.	17-feb-22	All, in particular H	https://www.planetproject.eu/wp-content/uploads/2022/04/WP2_PLANET-SM-FACTSHEETS.pdf
5	Description in more detail WP1 Partners, explaining their relevance for the project and their role within the project, as well as their main contributions made so far. At the end of the document, we introduce the deliverables linked to WP1 submitted up to February.	23-feb-22	All, in particular H	https://www.planetproject.eu/wp-content/uploads/2022/04/WP1_PLANET-SM-FACTSHEETS.pdf
6	PLANET Project Factsheet	25-feb-22	All, in particular H	https://www.planetproject.eu/wp-content/uploads/2023/02/PLANET_SM-Factsheet_FV-1.pdf
Closing phase (M24-M36)				
7	Description in more detail LL1: short LL1 description, Objectives & Business benefits of the technologies implemented in LL1, Overview of use cases 1 and 2, as well as their overall activities and an in-depth 'AS IS' – 'TO BE' comparison.	8-jun-22	All, in particular H	https://www.planetproject.eu/wp-content/uploads/2022/06/LL1_PLANET_SM-FACTSHEET_FV.pdf
8	Description in more detail LL2. Contents: short LL2 description, Objectives & Business benefits of the technologies implemented in LL2, Overview of use cases 1, 2 and 3, as well as their overall activities and an in-depth 'AS IS' – 'TO BE' comparison.	17-jun-22	All, in particular H	https://www.planetproject.eu/wp-content/uploads/2022/06/LL2_PLANET-SM-FACTSHEET_FV.pdf
9	Description in more detail LL3. Contents: short LL3 description, Objectives & Business benefits of the technologies implemented in LL3, Overview of use cases 1 and 2, as well as their overall activities and an in-depth 'AS IS' – 'TO BE' comparison.	24-jun-22	All, in particular H	https://www.planetproject.eu/wp-content/uploads/2022/06/LL3_PLANET-SM-FACTSHEET_FV.pdf
10	In-depth presentation of the EGTN Platform, including a description of its functional requirements and layers, services and value to the transport and logistics industry.	18-apr-23	All, in particular H	https://www.planetproject.eu/wp-content/uploads/2023/04/PLANET_SM-Factsheet_EGTN.pdf
11	PLANET KER2 Hyperloop.	21-apr-23	All, in particular B, C, D	https://www.planetproject.eu/wp-content/uploads/2023/04/PLANET-KERs-KER2-Hyperloop.pdf
12	PLANET KER3 Intelligent Decision Support Algorithm for JIT rail shuttle service.	21-apr-23	All, in particular B, C, D	https://www.planetproject.eu/wp-content/uploads/2023/04/PLANET-KERs-KER3-Intelligent-Decision-Support-Algorithm-for-JIT-rail-shuttle-service.pdf
13	PLANET KER4 Track & Trace Monitoring Services.	21-apr-23	All, in particular B, C, D	https://www.planetproject.eu/wp-content/uploads/2023/04/PLANET-KERs-KER4-Track-Trace-Monitoring-Services.pdf

14	KER6 New distributed ledger technology for smart contract blockchain interoperability.	21-apr-23	All, in particular B, C, D	https://www.planetproject.eu/wp-content/uploads/2023/04/PLANET-KERs-KER6-New-distributed-ledger-technology-for-smart-contract-blockchain-interop.pdf
15	PLANET KER9 Smart and Collaborative Platform.	21-apr-23	All, in particular B, C, D	https://www.planetproject.eu/wp-content/uploads/2023/04/PLANET-KERs-KER9-Smart-and-Collaborative-Platform.pdf

A total of 6 were published in the intermediate phase, 1 dedicated to present the project and 5 to describing in more detail each WP. In particular, the partners of every WP were identified and presented, indicating their relevance for the project and their role within the project, as well as their main contributions made so far. In some cases, it was also possible to include at the end of the document a description of the submitted deliverables linked to the WP.

During the closing phase, the 4 remaining cards were published and 5 additional ones to replace the briefings originally planned (see section 0

PLANET KERs Factsheets for mor information). Of these 9 factsheets, 3 focused on providing a detailed explanation of each of the LLs, offering a description of the LLs, as well as an overview of use cases and their overall activities and an in-depth 'AS IS' – 'TO BE' comparison, 1 addressed the PLANET EGTN Platform and, as above mentioned, 5 gave an explanation of 5 PLANET KERs.

4.2.6 Videos

In the course of the project, **6 videos were published on the YouTube channel**, 3 linked to PLANET's participation in the IPIC2021 event, 1 produced by eBos project partner and **2 produced by PLANET**, which are the PLANET Project's official promotional videos (see Table 15).

Table 15: PLANET Videos Published on YouTube channel.

ID	TOPIC	PUB. DATE	TARGET AUDIENCE	LINK
Intermediate phase (M12-M24)				
1	IPIC2021 - Session 25 - Presentation 1: PLANET Overview.	14-jul-21	All	https://www.youtube.com/watch?v=jazoWatIIro
2	IPIC2021 - Session 25 -Presentation 3: PLANET Use Case.	15-jul-21	All	https://www.youtube.com/watch?v=mqw-88ZK7QU
3	IPIC2021 - Session 25 - Presentation 3: Planning EGTN.	15-jul-21	All	https://www.youtube.com/watch?v=afEVEhmfGIU
4	eBOS Technologies presents PLANET project and eBOS Role	13-sept-21	All	https://youtu.be/BRfBDW6G14c
5	1st PLANET official promotional video	18-jan-22	All	https://www.youtube.com/watch?reload=9&v=4kmnWo7m01M
Closing phase (M24-M36)				
6	2nd PLANET official promotional video	10-may-22	All	https://www.youtube.com/watch?v=DexntHFZvA4&t=17s

The number of views on PLANET's YouTube channel amounts to 488 (15-may-23) while also Table 16 presents videos views achieved from PLANET's social media and web, thus these views must be added to the total number of video views.

Table 16: PLANET Videos Metrics on PLANET SM and website.

		IPIC VIDEOS	eBos VIDEO	1st PLANET official promotional video	2nd PLANET official promotional video***	TOTAL
WEB	Visits*	44	84	258	25	411
	Users**	18	33	118	12	181
LINKEDIN	Posts	0	1	1	1	3
	Clicks	-	15	33	7	55
	Impressions	-	302	1,698	110	2,110
	Reactions	-	11	24	22	57
	Shares	-	3	2	6	11
LINKEDIN PG	Posts	1	1	1	1	4
	Impressions	138	124	110	27	399
	Reactions	8	2	1	0	11
TWITTER	Posts	1	1	1	1	4
	Link clicks	-	2	4	0	6
	Impressions	597	193	385	15	1,190
	Reactions	2 Retweets	1 Like, 1 Retweet	7 Likes, 1 Retweet	1 Like, 1 Retweet	-

Last updated: 21st April 2023. *Visits: counts the number of times a page is viewed. Repeated visits to the same page are counted; **Users: Total number of active users, users who are currently engaged; ***Last updated: 15th May 2023.

4.2.7 Public Deliverables

As far as public documents are concerned, the following files (see Table 17) were uploaded to the PLANET website and are available for downloading (from private area or via open access).

Table 17: PLANET Public Deliverables uploaded on PLANET Website.

DELIVERABLE	WORK PACKAGE (WP)
D6.1a. Project Management Handbook – Management Plan	WP6
D 5.1. Stakeholder Analysis Report	WP5
D6.3 Initial Data management plan	WP6
D1.2. Modelling & Simulation Capability	WP1
D1.1. EGTN Foundational Position Papers and Simulation Scenarios	WP1
D1.4. Simulation based impact of new trade routes on the TEN-T and disadvantaged regions	WP1
D1.6. Legislation and EU policy to impact ECTN	WP1
D1.8. Simulation-based analysis of T&L and ICT innovation technologies	WP1

D2.1. Open EGTN Platform Architecture v1	WP2
D1.10. EGTN Reference Specification v1	WP1
D2.7 EGTN Transport Data and Knowledge Models v1	WP2
D3.7 EGTN Generic Use Case v.1	WP3
D2.9 EGTN Support Services based on Big Data analytics models	WP2
D2.11 Multi-Actor Multi-Criteria Analysis DSS v1	WP2
D2.13 Intelligent PI Nodes and PI Network services v1	WP2
D2.15 Integration and Interoperability of proprietary Blockchain Systems for Seamless Global Trade Workflows v1	WP2
D2.17 EGTN smart contracts and associated PI motivated workflows in the context of SLA management v1	WP2
D5.2 Observations and Recommendations of the Advisory Board v1	WP5
D5.4 Communication and Dissemination Report v1	WP5
D3.1 LL1 Specifications and baseline measurements	WP3
D3.3 LL2 Specifications and baseline measurements	WP3
D3.5 LL3 Specifications and baseline measurements	WP3
D1.3 Modelling & Simulation Capability final version	WP1
D2.8 EGTN Transport Data and Knowledge Models final version	WP2
D2.12 Multi-Actor Multi-Criteria Analysis final version	WP2
D2.14 Intelligent PI Nodes and PI Network services final version	WP2
D2.16 Integration and Interoperability of proprietary Blockchain Systems for Seamless Global Trade Workflows final version	WP2
D2.18 EGTN smart contracts and associated PI motivated workflows in the context of SLA management final version	WP2
D4.1 Recommendations for TEN-T interfacing to Global Trade Routes	WP4
D4.2 Policy guide, Briefing sheets and case study on freight transport for policymakers in emerging economies	WP4
D2.2 Open EGTN Platform Architecture final version	WP2
D1.5 Simulation based impact of new trade routes on the TEN-T and disadvantaged regions final version	WP1
D1.7 Legislation and EU policy to impact EGTN final version	WP1
D1.9 Simulation-based analysis of T&L and ICT innovation technologies final version	WP1

The **public deliverables received a total of 1,517 visits, had 527 active users** and **was downloaded 822 times** (see Table 18), showing a significant improvement compared to the results of the first version of this deliverable. The work done on social media and PLANET's website to publicise the public deliverables was key to this success.

Table 18: PLANET Public Deliverables metrics.

	VISITS*	USERS**	No. OF DOWLOADS***	No. OF PUBLIC DELIVERABLES
WP1	359	101	260	10
WP2	360	118	265	13
WP3	236	100	163	4
WP4	120	68	32	2
WP5	134	54	60	3
WP6	110	71	42	2
Private area	*198*	*15*	*0*	*34*
TOTAL	***1,517***	***527***	***822***	***34***

Last updated: 21st April 2023.*Visits: counts the number of times a page is viewed. Repeated visits to the same page are counted; **Users: Total number of active users, users who are currently engaged; ***Data on the number of downloads per document is not available, only per WP.

Although the KPI of this activity focus on the number of downloads per deliverable (>50/file, >1,000 total), the other metrics abovementioned are very relevant since it is possible to read the documents without downloading them. Therefore, despite the fact that the target of reaching 50 downloads per document was not reached in all cases, **an average of 44 visits** and **24 downloads per deliverable has been achieved**. Together, **the total number of visits and downloads reaches a total of 2,339** (68 downloads&visits/deliverable). For a disaggregated overview by WP see table above.

4.2.8 Brochure and Annual Reports

PLANET was committed to produce **1 brochure and 3 reports per year, and to reach at least 500 recipients**. The work carried out during the project's lifetime has made it **possible to achieve both objectives**. See Table 19 and Table 20 for more information.

Table 19: PLANET Brochure and Annual Reports.

ID	TOPIC	PUB. DATE	TARGET AUDIENCE	LINK
Intermediate phase (M12-M24)				
1	Brochure	28-jan-22	All	https://www.planetproject.eu/wp-content/uploads/2022/02/PLANET-Project-Brochure_FV.pdf
2	1st Annual Report	25-feb-22	All	https://www.planetproject.eu/wp-content/uploads/2022/12/PLANET_-1ST-Annual-Report.pdf
Closing phase (M24-M36)				
3	2nd Annual Report	16-dec-22	All	https://www.planetproject.eu/wp-content/uploads/2022/12/PLANET_-2ND-Annual-Report-2.pdf
4	3rd Annual Report	15-may-23	All	https://www.planetproject.eu/wp-content/uploads/2023/05/PLANET_-3RD-Annual-Report.pdf

The PLANET brochure was developed and published during the intermediate phase of the project, providing PLANET's target audience with an overview of the project, as well as a summary of the main objectives and results of the project.

Additionally, PLANET must produce and publish 3 Annual Reports (one report for each of the phases identified in the External C&D Strategy). Each of the reports will report on the achievements in each of the phases identified in the communication and dissemination strategy, facilitating the monitoring of the project and ensuring the dissemination of project's results and the engagement of project's stakeholders. PLANET published the 3 Annual Reports, summarising the main achievements accomplished by its consortium members over the course of the project and providing a recap of the deliverables submitted and milestones met, as well as the most significant D&D achievements.

In order to analyse the engagement of these C&D materials, to the results related to the website shown in the Table 20, we should add information related to the private area, accessible both to PLANET's partners and to the PLANET's Advisory Board members, and to the dissemination section of the website. In total terms, in both sections the **downloads amounted to 160**, and the **number of visits and users to 233 and 72 respectively**.

As a result, **these materials received a total of 447 visits, had 155 active users** and **were downloaded 302 times thus,** the **KPI for the number of recipients (>500)** set was **satisfactorily achieved**.

Table 20: PLANET Brochure and Annual Reports Metrics on PLANET SM and website.

		1st Annual Report	Brochure	2nd Annual Report	TOTAL
WEB	Visits*	2	373	23	447
	Users**	1	124	12	155
	Downloads	0	265	8	302
LINKEDIN	Posts	0	1	2	3
	Clicks	-	19	21	40
	Impressions	-	392	525	917
	Reactions	-	17	29	46
	Shares	-	1	3	4
LINKEDIN PG	Posts	0	0	1	1
	Reactions	-	-	4	4
TWITTER	Posts	0	1	1	2
	Link clicks	-	0	0	0
	Impressions	-	59	17	76
	Reactions	-	0	1 Like, 1 Retweet	-

Last updated: 21st April 2023.

*Visits: counts the number of times a page is viewed. Repeated visits to the same page are counted; **Users: Total number of active users, users who are currently engaged.

4.2.9 Publications: articles, papers and white papers

PLANET invested considerable effort in identifying journals to publish in and conferences to submit papers that could be published and presented to the T&L industry and established an action plan to undertake the appropriate steps with the consortium partners. The search criteria focused mainly on the impact that a

publication on this channel could have for PLANET (followers and subscribers) and on the subject specialisation of the channel (topics covered, sectors dealt with, format used, etc.). However, other points have been taken into account, such as: the cost associated with the publication, whether peer reviewing is required before publishing and whether there is a publication deadline.

The target was to achieve a total of 10 publications (2 white papers) during the months M12-M36, which was successfully achieved.

In total **10 articles and scientific publications, 3 posters and 1 chapter book were produced and accepted to be published (7 of the articles and scientific publications have already been published)**. All the scientific outputs published are available on the PLANET website and on Zenodo portal here: https://zenodo.org/communities/h2020planetproject/?page=1&size=20.).

Annex III: PLANET Articles and Papers summarises the results obtained with regards to the publication of articles, papers, chapter books and posters in period M1-M36, detailing the articles and papers submitted and their status, the authors and if they are associated with participation in any event.

As mentioned in Chapter 4.1.2 and as illustrated Annex III, the 9th IPIC Conference due in June 2023, and 2 posters and 3 papers were submitted and accepted on behalf of PLANET. The papers are as follows:

- *The impact of IoT implementation on shipments from Asia to Europe along the New Silk Road on the development of the Physical Internet in the receiving country* (Poster & Paper).
- *Environmental impact assessment of intercontinental transport network with digital twin under PI framework* (Paper).
- *Automating Capacity Pre-Booking at Warehouse Nodes of the Physical Internet* (Poster).
- *An exploration of the potential benefits of Transportation and Logistics innovations in Last-Mile Urban Deliveries: A case study approach* (Paper).

Also, one paper was submitted to the IAME Conference 2023 entitled *Corridor connectivity index: a methodology to assess dynamics of trade routes and impact on existing TEN-T corridors* (status: waiting for approval).

Table 21 brings together information on published articles and papers and those accepted but pending to be published. As this table shows, the closing phase of the project contains most of the publications, while only 2 publications were part of the intermediate phase. Also, most of them were published in the proceedings of conferences and covered a significant part of the technical work and solutions developed in the project.

Table 21: PLANET Articles, Papers and Posters.

ID	PAPER / ARTICLE / POSTER TITLE	SHORT DESCRIPTION	LINK
Intermediate phase (M12-M24)			
1	Review of intelligent solutions to optimise logistics processes and improve efficiency (PAPER)	In this paper, the authors focused on conducting a review of available modern and intelligent solutions that not only optimize logistics processes but also improve the competitive position of enterprises in supply chains. The review was conducted both in the research aspect, by verifying knowledge on the subject in the scientific literature available on the Web of Science and Scopus databases (based on sciencedirect.com), but also in the practical aspect, by analysing trends in the use of particular solutions in business practice.	http://blmm-conference.com/wp-content/uploads/BLMM2021_Conference_Proceedings.pdf

2	Innovazione logistica e nuove relazioni di traffico intercontinentale (ARTICLE)	The article is structured with two sections: (1) a short section dealing with EU research topics, the introduction of PLANET and PLANET LLs (Silvio Beccia, New Opera); (2) a second section with short testimonies from PLANET's partners on the vision of PLANET, the main themes and the consortium; the new routes and the EU network; the role of rail/intermodal transport for sustainable freight mobility; the potential benefits for disadvantaged regions.	https://es.calameo.com/read/001957923a17565aa7708
Intermediate phase (M12-M24)			
3	Physical internet points the way to a smarter future (ARTICLE)	The article explains the work of PLANET in helping transport and logistics companies work in a smarter and greener way. The interview conducted focused on Living Labs, Physical Internet and simulation models.	https://issuu.com/euresearcher/docs/digital_magazine_eur31_final/56
4	Impact of EGTN T&L innovations at the micro-level on connectivity at the macro level (PAPER)	The paper addresses some of the work done in PLANET, with a focus on the work in T1.4. It introduces and illustrates Integrated Green EU-Global Transport & Logistics Networks as being brought forward by the PLANET project. With adaptive routing as sample innovative transport concept that uses advanced technologies, the paper explains how performance enhancement can be attained at the micro level. It then explains how this logistics concept has an impact at the macro level, both in a positive and in a negative way.	https://2022.itseuropeancongress.com/congress-proceedings/
5	Data digitalisation in transport processes (PAPER)	The digitalisation of logistics processes is accelerating and technology and innovation are entering every part of the supply chain. In the logistics market, there is a need for electronic data and document exchange, reducing errors and increasing the reliability of exchanged information. It causes, that from the level of state administration, authorities, branch organizations and finally carriers themselves, the need of data digitalization and transfer of transport documents in a standardized digital form comes up. In this article, special attention will be given to the digitalization of data transmitted in the road transport process. An analysis will be made of data digitalization at the level of national and international transport in Poland, where in recent years dynamic changes have taken place to standardize and legalize the circulation of electronic transport documents in road transport.	http://blmm-conference.com/wp-content/uploads/BLMM2022_Conference_Proceedings.pdf
6	Analysis of digitalisation needs improving the supply chain efficiency for New Silk Road transport corridor (ARTICLE)	The authors focused on conducting a review of digitalisation solutions that improve the efficiency in supply chains. The review was conducted both in the research aspect, by verifying knowledge on the subject in the scientific literature available on the Web of Science and Scopus databases, but also in the practical aspect, by analysing needs and trends in the use of supply chain digitalisation in business practice. The research aspect was based on the application of the CANVAS model for the identification of business needs in the supply chain digitalisation aspect and on surveys for importance degree analysis for the identified needs in business practice. The research carried out in this area is the result of cooperation between Lukasiewicz Research Network – Poznan Institute of Technology and Poznan School of Logistics. The research was conducted in 2021 and the first half of 2022 among Polish logistic companies.	https://doi.org/10.17818/EMIP/2022/2.7.

7	A blockchain-based architecture and smart contracts for an interoperable Physical Internet (PAPER)	The PLANET project proposes an open-source architectural blueprint to empower organisations to build and implement T&L design tools, collaborative logistics and new eCommerce models underpinned by data-driven supply chain insights. It also formalises a set of guidelines to facilitate the realisation of an EU–Global T&L Network (EGTN) Platform. This paper describes the Blockchain and Data Aggregator components of the EGTN architecture which are employed together to enable interoperability between backend Blockchain systems hosted by different T&L stakeholders. It introduces a framework, which aims at unifying multiple proprietary Blockchain systems, offering an opportunity to empower stakeholders across the entire supply chain to collaborate and exchange information seamlessly.	-
8	Dynamic collaboration for late last mile delivery rounds (CHAPTER BOOK)	In last mile delivery logistics, the high uncertainty of the urban environment that arises from road traffic, limited parking availability, and handover uncertainty, are found to cause significant delays and inefficiencies to last mile operators and cities. To address this challenge, a parcel reshuffling algorithm is proposed, that aligns with the principles of the Physical Internet and can be deployed as a collaborative tool. A platform receives delivery status updates, from one or more operators, that are analysed to identify collaboration options between vans or operators. The algorithm is applied in a case study, in central Madrid, Spain utilizing a dataset provided by EU funded research project PLANET partner, CItylogin.	-
9	Environmental impact assessment of intercontinental transport network with digital twin under PI framework (PAPER)	The paper evaluates the environmental impact of different innovation the Planet project with a virtual model of intercontinental network of Living Lab 1, using the Physical Internet.	-
10	The impact of IoT implementation on shipments from Asia to Europe along the New Silk Road on the development of the Physical Internet in the receiving country (PAPER)	The purpose of this paper is to assess the impact of the implementation of LPWSN sensors on shipments transported by rail from China to Europe along the New Silk Road, on the possibility of expanding the Physical Internet in the target area. The deployment implies standardizing the transmitted information along the entire supply chain (for e.g., implementing GS1 standards) and linking it to a platform using Artificial Intelligence for the purpose of optimizing logistics processes.	-
11	The impact of IoT implementation on shipments from Asia to Europe along the New Silk Road on the development of the Physical Internet in the receiving country (POSTER)	The purpose of this paper is to assess the impact of the implementation of LPWSN sensors on shipments transported by rail from China to Europe along the New Silk Road, on the possibility of expanding the Physical Internet in the target area. The deployment implies standardizing the transmitted information along the entire supply chain (for e.g., implementing GS1 standards) and linking it to a platform using Artificial Intelligence for the purpose of optimizing logistics processes.	-
12	Automating Capacity Pre-Booking at Warehouse Nodes of the Physical Internet (POSTER)	The poster presents the Automated Capacity Pre-Booking (ACPB) algorithm, which is a novel Decision Support System (DSS) that automatically determines optimized capacity that requires to be pre-booked for outbound shipments for a specific warehouse and route. The service has been developed as part of the EU funded research project PLANET, and aims to disrupt current practice in warehouse and terminal outbound capacity booking, aligning with the principles of the Physical Internet and utilizing advanced analytics.	-

13	An exploration of the potential benefits of Transportation and Logistics innovations in Last-Mile Urban Deliveries: A case study approach (PAPER)	NA	-
14	Door-to-door più efficace? è possible (ARTICLE)	This article focuses on the three Living Labs by referring to the extensive project documentation to go deeper into the different research topics. It also synthesises the main achievements in terms of KPIs in each of the Living Labs, showing that the results obtained are clearly in line with the objectives set at the beginning of the project.	https://www.calameo.com/read/001957923 2ba1666a7961

Table 22 lists the details of the **white papers produced and published so far, 4**, all delivered in the project closing phase.

The 1st white paper – Towards an Integrated System for Global Transport Tracking – presents a conceptual solution for tracking and tracing transportation on a global scale. The approach focuses on defining data flows and formats based on the latest versions of GS1 standards. Importantly, this means that so long as each system conforms to the guidelines, a global solution can be comprised of any number of separate systems that are rolled out over time and the systems can choose which parts of their data to share and with whom. The white paper will thus inevitably focus on some of the technical details because these shared details are crucial to avoid the need for a centralised system that stores and controls all the private data. In short, the proposed solution focuses on defining shared data formats and flows which allows the system to function as a flexible collection of individual systems that keep control of their hardware, software and collected data.

The 2nd white paper – AI Based Freight Volume Forecasting – looks at analysing and describing the relevance in using AI based forecasting models to predict freight volume and their usage in the transport and logistic domain towards the development of Physical Internet. Also, the paper highlights the more immediate applicability of the AI based forecasting models across different use cases within the PLANET project in predicting containers as a standalone forecast demand service. In the context of Brexit and the need to boost the efficiency and effectiveness of the Eurasian rail link, the digitization of supply chains has become even more important, as it can help companies mitigate the challenges posed by these two issues. The two issues have been at the centre stage of Living Lab 2 – Synchromodal dynamic management of TEN-T & intercontinental flows promoting rail transport within the PLANET Project. The 3rd white paper – Decentralised management of logistics documentation – looks at describing the opportunities of blockchain technology in the supply chain management. To this end, the paper explains the purpose, value and architecture of the multimodal document management platform developed within the scope of LL2, that exploits the unique proposition of blockchain technology to replace paper-based operations with fully digitalised and automated operations for international trade and logistics.

The 3rd white paper – PLANET Position Document for the TEN-T Revision – share the findings and knowledge produced in PLANET in relation to the future TEN-T evolution principles in order to reach the characteristics of the EU Global Transport & Logistics network (EGTN) as defined by PLANET and contribute to the sustainable development of the EU economy and of the transport and logistics sector. Thus, this document aims at contributing to the planning and the development of the future TEN-T in the context of the ongoing process of the TEN-T regulation revision to which PLANET participated in the public consultation.

Table 22: PLANET White papers.

ID	WHITE PAPER TITLE	AUTHOR(S)	LEAD COMPANY	STATUS	PUB. DATE	LINK
Closing phase (M24-M36)						

1	Towards an Integrated System for Global Transport Tracking	Andrey Tagarev	SIR	Published on PLANET website	27-feb-23	https://www.planetproject.eu/wp-content/uploads/2023/03/PLANET_WHITE-PAPER_System-For-Global-Transportation-Tracking.pdf
2	I Based Freight Volume Forecasting	Moises Sanchez	IBM	Published on PLANET website	28-mar-23	https://www.planetproject.eu/wp-content/uploads/2023/03/PLANET_WHITE-PAPER_AI-Based-Freight-Volume-Forecasting..pdf
3	Decentralised management of logistics documentation	Aljosja Beije, Wout Frijters, Eric Feyen	Docklab, UIRR	Published on PLANET website	12-apr-23	https://www.planetproject.eu/wp-content/uploads/2023/04/PLANET_WHITE-PAPER_Decentralised-management-of-logistics-documentation-3.pdf
4	PLANET white paper for the TEN-T Revision	Georgia Ayfantopoulou, Orestis Tsolakis, Maurice Jansen, Rob Zuidwijk, Arnaud Burgess, Ivo Hindriks and Chris Wensink.	CERTH, EUR-RSM, PAN	Published on PLANET website	18-may-23	https://www.planetproject.eu/wp-content/uploads/2023/05/PLANET_WHITE-PAPER_PLANET-TEN-T-Revision.pdf

4.3 Advisory Board

The Advisory Board (AB) is an independent group of external advisors from academia, business and public administration. More specifically, it consists of 24 external members, located all over the world, from the USA to China, with scientific and business experience in global Trade & Logistics networks, thus embracing a wide range of knowledge and expertise in PLANET's areas of interest. Also, during the project's lifetime efforts were made to include new members and, in these efforts, a representative from Dutch Customs Authorities was included to PLANET's AB.

The AB remains an important entity which apart from supporting the consortium with scientific advice from a wide range of expertise from the industry it also steers through the socio-economic developments as well as legal and technological trends to reinforce even further the C&D endeavour and relevance for innovation and act indirectly as an impact maximation factor. A team with proven relevant expertise was carefully selected and approached to support and guide developments with valuable insights of industry needs.

The main objective of the Advisory Board is to offer advice and support on most relevant factors may influence the innovation management of PLANET, providing comments and recommendations to the project consortium.

A total of 4 meetings were held with the AB have been held (see Table 23), resulting, with the main objective of improving the project's results, in interesting discussions and exchanges of perspectives, opinions and knowledge.

Table 23: Advisory Board meetings.

TITLE	PLACE	DATE	EVENT ORGANISER	SUBJECT	PARTICIPANT(S)
1st Advisory Board Meeting	Virtual	30-sep-20	INLE, ESC	High-level overview of the PLANET project, a discussion of the current state of the position papers, and an initial discussion about the Terms of Reference for the Advisory Board.	ESC, INLE, FVP, EBOs, ZLC + AB members (Audience: 15, 10 AB Members)
2nd Advisory Board Meeting	Virtual	21-oct-21	INLE, ESC	Show the up-to-date progress made in each Work Package, but also to set the most relevant next steps, objectives and targets to be faced during the second year of the project.	All PLANET partners + AB members (Audience: 29)
3rd Advisory Board Meeting	Virtual	29-nov-22	ESC	Presentation of PLANET´s key achievement: WP1, WP2, WP3 and WP3 achievements.	All PLANET partners + AB members (Audience: 58)
Final Advisory Board Meeting	Virtual	08-mar-23	ESC	Centered on 2 key aspects of the PLANET project: commercialisation and experimentation. The purpose was to develop ideas & recommendations to improve the project´s business plan and support (possible) future implementation.	All PLANET partners + AB members (Audience: 36, 13 AB Members)

The first AB Meeting took place on the 30th of September 2021 and was attended by 10 participants. The meeting featured an introduction round with a brief introduction of the AB members, a high-level overview of the PLANET project, a discussion of the current state of the position papers, and an initial discussion about the Terms of Reference for the AB. All position papers were sent to all participants ahead of the meeting.

The discussion included the following points:

- The situation in the US:
  - Lack of harmonisation of ports in US and Europe.
  - Ports need to be embedded in the emerging supply chains.
  - Lack of sustainability and resilience aspects.
  - No visibility of data

- Data availability and standardised data formats. Many different formats coming from different transport sources (OPP);
- Stressing the importance of the long-term way of thinking;
- Visibility of processes as added value of Industry 4.0 technologies;
- How can the models developed by PLANET and its parameters be updated frequently?
- The models make predictions for many years after the end of the PLANET project. Related to the question of keeping the predictions updated, is there an intention to maintain the project outputs after it ends?
- Can PLANET make a recommendation to the EC to keep the PLANET models alive beyond the project's end date?
- How can PLANET manage the short-term approach of the living labs with a more long-term approach?

On the 21st of October 2021 the second virtual meeting with PLANET's AB) took place, moderated by INLE. While the first AB meeting was the initial contact of PLANET's Advisory Board members with the project, focusing on

providing them an overview of PLANET project objectives, concepts, demonstrators and methodologies, and on generating discussion around the four position papers, the second meeting addressed more specific topics and issues of particular interest to the project. The virtual event started with an overview of the project and the Integrated Green EU-Global T&L Network (EGTN) concept and continued with a presentation about the Geo-economics impact of new trade routes for Europe & TEN-T Corridors and nodes, working around three key questions of this part of PLANET's research:

- What is the relationship between geo-economics and new trade routes?
- What are the dynamics of these trade routes?
- How can we measure and monitor the impact on existing TEN-T corridors?

The second part of the event included a presentation of PLANET's 2nd Living Lab (LL) (China–Rotterdam/USA) business scenarios and key achievements and concluded with PLANET's EGTN Platform Predictive and Optimization Analytics which include forecasting services for Transport & Logistics actors and the smart contracts architecture.

Finally, after each presentation, interactive discussion sessions took place between PLANET's AB and PLANET's consortium members. The main purpose of them was to obtain feedback and recommendations from AB, and therefore during their presentations the speakers also concentrated their efforts on stimulating discussion on a number of key issues for the PLANET project. In particular, these key-issues included the following points:

- Applying standards to data exchanged at corridor nodes;
- Identification of potential non-technical barriers that could be a major obstacle to the implementation of the EGTN platform;
- Which issues carry more weight (practical vs. infrastructure level);
- Are such complex models necessary or are simpler tools sufficient to answer the questions formulated by PLANET?
- Application of the Corridor Connectivity Index to all corridors worldwide;
- Objectives and results: realistic or ambitious?

On the 29th of November 2022, the third PLANET project's AB convened under the moderation of the ESC. This session concentrated on looking at PLANET´s achievements to date. The virtual event, attended by nearly 60 participants, began with an introductory note by the ESC´s Secretary General Godfried Smit, highlighting PLANET´s strengths:

- PLANET brings the work of science, government and business together, in supporting global trade;
- PLANET moulds the shape of the future TEN-T into their digital form;
- It addresses major societal challenges, namely sustainability, competitiveness and the digital transformation;
- PLANET develops the necessary infrastructure for synchro-modal management of transport and logistics;
- It demonstrates its technological capacities in real life situations, via its Living Labs, whilst guaranteeing innovations "keep the project alive beyond its existence".

The event proceeded with a presentation (per work package) of PLANET´s key achievements:

- Modelling international trade with a particular eye on the impact of the Ukrainian crisis;
- Understanding the impact of technology on the TEN-T. How will the digital TEN-T look in the future?
- Developing key technologies: integration of PI services in a single platform; secure tracking; load and route optimisation; warehouse optimisation and collaboration; automated decision-making
- Aggregating the capacities of a vast multitude of partners under the European Global Transport Network (EGTN).

Some of the key takeaways of the November 2022 meeting:

- Data is at the heart of all technological developments;
- Interoperability of cutting-edge technology (artificial intelligence, blockchain smart contracts, etc.) is as important as the technology itself. API´s are thus, the "true disruptors";
- Digitalisation must go hand-in-hand with commercial viability, which may require collaboration among competing partners, in an #antitrust environment;
- Federated logistics requires seamless automated data exchange within a wider European data space;
- The integration of tech into the TEN-T fundamentally changes the TEN-T as we know them today, towards digitalised networks;
- Current trade routes and commercial operations must be planned in a dynamic environment marked by externalities such as conflict or climate change.

Finally, on the 8th of March 2023, the Final Advisory Board Meeting of the PLANET project took place as the closing event to the final consortium meeting of PLANET and under the moderation of the ESC. The March 2023 Advisory Board discussions centred on 2 key aspects of the PLANET project: commercialisation and experimentation. The purpose was to develop ideas & recommendations to improve the project´s business plan and support (possible) future implementation by fine-tuning the workings and modus operandi of the Living Labs (LLs). In this sense, the Advisory Board generated a solid set of ideas & recommendations and established a clear direction for maximizing the impact and reach of final results.

The meeting, attended by nearly 40 participants, began with an introductory note by the ESC thanking the participants and highlighting:

- The international nature of the Advisory Board, composed of members from Europe, the USA, China, Colombia and Malaysia.
- The AB´s added value to the project as a platform to foster discussions on the evolution of the project, on the practical use of the innovations being developed and on their possible integration in the market, despite the low TRL of some of the innovations.
- The focus of the meeting: commercialisation and experimentation via the different LLs.

Then, the event proceeded with a presentation of selected sections (commercialisation and experimentation) of the PLANET project:

- Commercialisation and business plan development based on input and feedbacks for the design of PLANET technologies and a viable business solutions.
- LL1 – Physical Internet and blockchain for optimised door-to-door Asia-Europe corridors – Mediterranean Corridor. LL1´s key objective is to evaluate how novel technologies and concepts such as Blockchain, Artificial Intelligence, Internet of Things, Machine Learning or Physical Internet can enhance the efficiency of the processes and operations performed along the door-to-door (D2D) transport and logistics in the link between the Maritime Silk Road and EU internal corridors.
- LL2 – Synchromodal dynamic management of TEN-T & intercontinental flows promoting rail transport. LL2´s focus on the synchromodal management of TEN-T and intercontinental rail freight flows, utilising the Port of Rotterdam as the principal smart EGTN node centring rail focused transport chains. It focuses on intercontinental rail freight between China and the EU, but also on linking China and Russia through Rotterdam to/from USA and the UK (shortsea and ocean freight).
- LL3 – IoT for Silk Road Route – reliable, transparent and fully connected corridor from China to the EU. LL3's focus on streamlining logistic processes in flows from China to Europe along the Silk Road by implementing Internet of Things (IoT) technologies (based on the Electronic Product Code Information

Services, EPCIS, platform) and GS1 standards that facilitate transmission of data between the partners involved in the e-commerce operations.

Some of the key takeaways of the March 2023 Advisory Board meeting:

- Data and knowledge exchange between different actors in the value chain, in a competitive and cooperative manner, are at the heart of the technological developments explored;
- PLANET´s KERs must be well defined and directly connectable to the innovations;
- Some of PLANET´s great innovations already have real life applications. One of the examples is PLANET´s solution to reduce bureaucracy in commercial transactions with non-EU countries, extremely valuable to automate such exchanges and allow for cross-referencing;
- New technological evolutions must be finely tuned to their usability. For example, blockchain technology is better used for registering key documents;
- In the near future, automated data exchanges between governments and businesses will involve automated data pull models not requiring further intermediaries. This idea is supported by relevant literature and recent experimentation in other EU projects.

4.4 PLANET Liaison Actions

The PLANET project was committed in cooperating with related projects and initiatives undertaken by ALICE platform and beyond with the aim to accelerate and maximise the impact of its outputs. This comes in the means of co-hosting events, communication sessions with associations and Logistics actors and incorporate or share findings, knowledge and outputs in a structured form to make best use of the results for mutual benefits and to enhance even more the project impact.

To this end, C&D team analysed and reviewed a number of related projects and also made research to identify and interact with project's including customs authorities[2], in an effort to successfully connect to other bodies and initiatives to further reinforce the overall effort. Below is a summary of the projects and initiatives PLANET collaborated with.

- **ALICE ETP.**

The ALICE ETP platform (https://www.etp-logistics.eu/about-alice/) supports, assists and advises the European Commission in the implementation of the EU Program for research: Horizon 2020 and Horizon Europe in the area of Logistics. Collaboration between Logistics operators, strategy design and knowledge transfer from funded research activities remain at the top of ALICE agenda.

PLANET Project is supported by ALICE through its Research and Innovation Projects and Initiatives Liaison Programme. As shows Figure 8 and Figure 9, PLANET is one of the running projects liaised with ALICE and is available on the ALICE Knowledge Platform. In addition, in the framework of the collaboration with ALICE, several communication and dissemination actions have been planned together with ALICE to promote PLANET's achievements, KERs, LLs results and dissemination materials, which will materialise by the end of May:

- Share/Link PLANET main public deliverables (final versions), KERs and communication materials with stakeholders, running projects and initiatives in ALICE network and liaised projects.
- Create a summary report of PLANET project.
- Publish main results, KERs, Leaflets and dissemination materials in ALICE Knowledge Platform.

2 The identified projects are as follows: Core (https://cordis.europa.eu/project/id/603993), Cassandra (https://cordis.europa.eu/project/id/261795), INTEGRITY (https://cordis.europa.eu/project/id/218588), GEDAC (https://www.dinalog.nl/project/e-certificates-in-international-agro-and-food-chains-government-digitization-to-enhance-agro-food-chains-gedac/).

- Create PLANET page in ALICE web including LL factsheets, Annual Reports, KERs and videos.

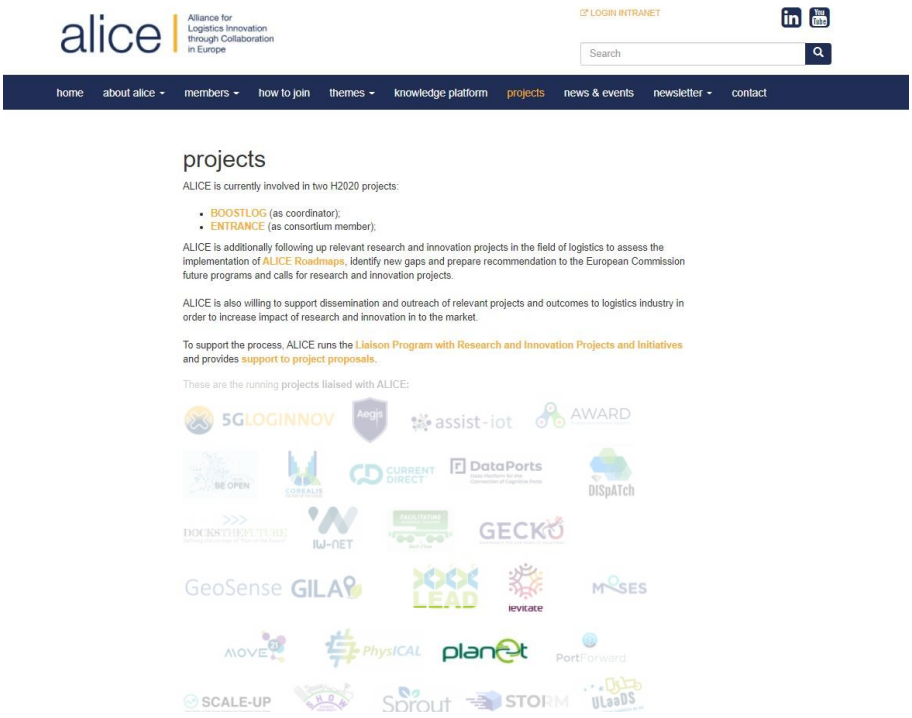


Figure 8. PLANET is a liaised project with ALICE.

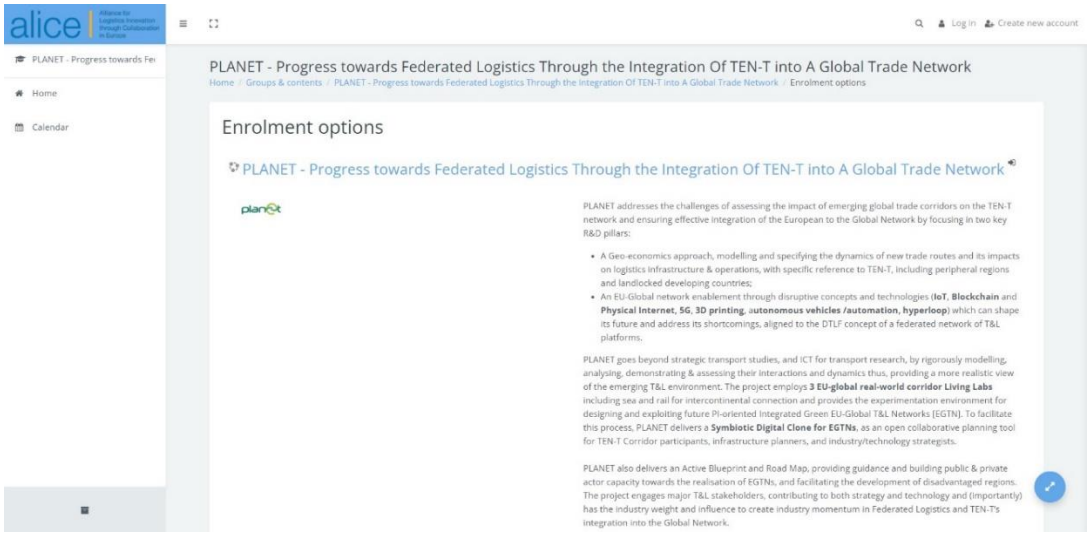


Figure 9. PLANET is on ALICE Knowledge Platform.

PLANET engaged with ALICE working groups and participated at:

- The 8th International Physical Internet Conference (IPIC2021) held on 16 June 2021 with a presentation at Session 25 (INLE; CERTH-HIT; and PIT-ILIM Poznan) of PLANET's vision, objectives and first findings and results obtained during the first year of the project's development (see Figure 10). Specific use cases where PI is a key point were also showcased.

- The webinar Artificial Intelligence in planning, simulation and forecasting held on 26 of October 2021 with a short presentation of the LL1 and its objectives (ITTA), showcasing the applications of AI in T&L (Figure 11).
- PLANET was at ALICE TRA 2022's booth with two representatives of the PLANET project (FVP; INLE) and a video explaining the relevance, vision and mission of the PLANET project (see Figure 12).
- The webinar Physical Internet: synergizing efforts via the ALICE liaison program held on 30 November 2022 with a presentation given by VLTN (see Figure 13). He started with an introduction of the PI principles, the PLANET's vision and the PLANET's solution (EGTN), the LLs, EGTN generic use cases, and finalised focusing on two PLANET's tools: the multi-stakeholder multi-criteria perspectives and the synchro-modality – PI Hub Choice Model. The session was part of the ALICE liaison framework which facilitates knowledge sharing, advances market uptake of innovation, and boosts impact of R&I projects. Projects involved: PLANET, PILL, ePIcenter.

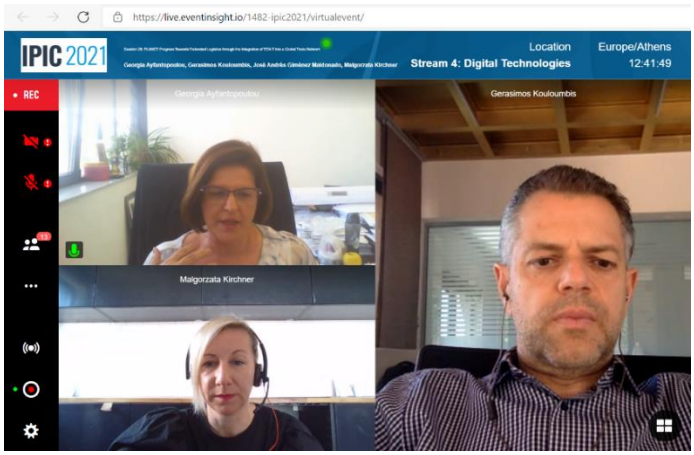


Figure 10. PLANET at IPIC 2021.

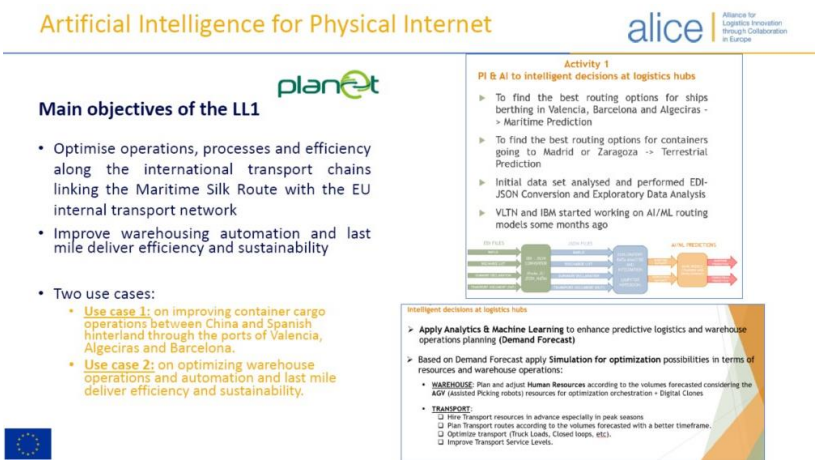


Figure 11. PLANET at the ALIC's Artificial Intelligence in planning, simulation and forecasting webinar.

Figure 12. PLANET at ALICE TRA 2022's booth.

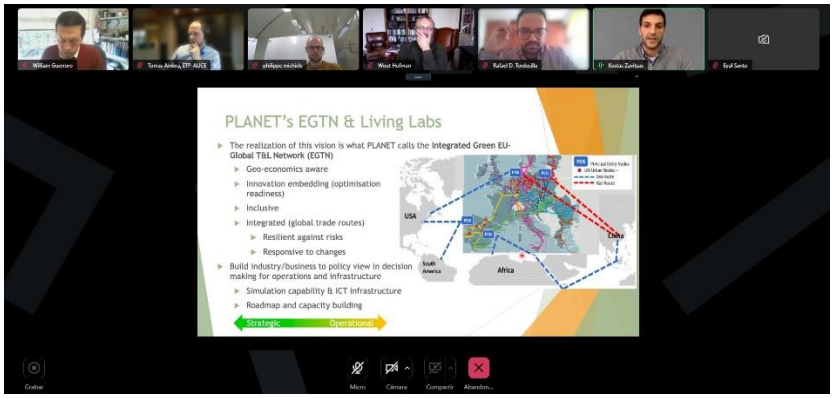


Figure 13. PLANET at the ALICE's Physical Internet webinar.

- **United Nations Economic Commission for Europe Sustainable Transport Division.**

United Nations Economic Commission for Europe Sustainable Transport Division works to promote sustainable transport which is safe, clean and competitive, through the development of freight and personal mobility by inland transport modes, by improving traffic safety, environmental performance, energy efficiency, inland transport security and efficient service provision in the transport sector [3].

PLANET project was presented at two different events of UNECE Sustainable Transport Division to provide a presentation of PLANET project's basic assumptions and solutions used in LL3, aiming at raising awareness among potential supply chain stakeholders along the New Silk Road. At both events, Adam Kolinski (PIT-ILIM) gave a presentation entitled *Intermodal supply chain digitalization - Presentation of solutions for information integration of business partners*. The events were as follows:

- SITCIN Capacity Building Georgia (10-mar-21). Session 2 Digital solutions in logistics and supply chain management.
- Intermodal transport and logistics – the roles of the government and business to make freight transport more sustainable. Session 2: Solutions to support increased efficiency in freight transport and logistics.

- **ICONET Project.**

This project was funded from the European Union's Horizon 2020 research and innovation programme under grant agreement No 769119 (topic: H2020-MG-2017-Two-Stages). With the PI gaining momentum as a new important contributor to the future of Supply Chain Logistics with technological, infrastructural and business innovations, the ICONET project lasted for 30 months and was completed in February of 2021. ICONET represents the vision of the next generation warehouses and distribution centres integrated to PI corridors and networks inspired by the digital internet's structure, technology and philosophy.

The findings from the ICONET project have served as the foundation of NGS's contribution to PLANET. The first input derives from ICONET D1.6, which includes stakeholder analysis, business and technical requirements, as well as the on-premises architecture, which enables automatic encapsulation detection and its generalisation on the cloud. The architecture foresees an open environment, in which different IoT service providers cooperate at different layers enabling decentralised "logical consolidation" operations that represent fully the physical encapsulation of goods, containers and means. This encompasses the foundation on which the pervasive architecture as a service has been designed and built (D2.3 of PLANET).

PLANET followed up the results reached from the ICONET project regarding the implementation of PI since PLANET see PI as a cornerstone to realise the EGTN environment toward Smart, Green and Integrated T&L Network. Also, The integrated PI data structure and network representation developed as part of the ICONET project have been considered in designing the EGTN connectivity and external data sources integration.

Starting from the findings of the ICONET project, PLANET continues the path toward the realisation of an architecture that allows the direct monitoring of the goods, not only of containers or assets. The association of ICONET PI Services (networking, routing, encapsulation and shipping) workflows to specific use cases, has enabled the identification of appropriate tools and services for analysing and addressing the development of modernised transport functionality, based on digitization, collaboration both at terminals, and transport stages, and seamless multimodal integration.

In addition to the above, in terms of dissemination and knowledge sharing, PLANET and ICONET worked together with ALICE and the national PILL project on the development of the webinar *Physical Internet: synergizing efforts via the ALICE liaison program*, holding several meetings for this purpose. The webinar took place on 30 November 2022 and the objectives were:

- Introduce physical internet architectures and their applicability via use cases.
- Discuss how synergies can be leveraged across projects.
- What data/information would have to be shared, and how could messaging, semantic technology (i.e Web3.0) and other approaches help.
- How could projects facilitate algorithm "borrowing" for routing and hub processes.
- Explore what communication standards could be utilised in current and future endeavors.

- **FENIX Project.**

FENIX stands for "A European FEderated Network of Information eXchange in Logistics" and is an action 2018-EU-TM-0077-S under the Grant Agreement number INEA/CEF/TRAN/M2018/1793401. FENIX was funded by the Connecting Europe Facility funding instrument for Transport with a project duration of 36 months and started on 01 April 2019 and was in the closing phase when contact was initiated.

The FENIX project aims at a federated ecosystem of interconnected logistics actors and platforms by providing an appropriate digital framework to perform collaborative planning, efficient and sustainable operations and execution monitoring in various corridor scenarios and context, optimising the TEN-T network and serving the entire European T&L community.

The FENIX concept is built on cloud-based technology that will motivate increased horizontal collaboration, optimised routing and dynamic re-routing of freight through plug-and-play solutions for supply chain planning and operations. The end goal is a set of integrated services that exploit real-time Big Data streams for real time awareness and visibility, delivered from the cloud as a service. These services will be based on accurate, reliable and timely information flows and events notifications based on standards and public-private governance.

This project is relevant for PLANET as it intends to improve the efficiency of European transport and logistics by providing an appropriate digital framework to perform collaborative planning, efficient and sustainable operations and execution monitoring in various corridor scenarios and context, optimising the TEN-T network and serving the entire European transport and logistics community.

Optimising processes, reducing logistics costs and improving efficiency through the use of technology, data exchange and open collaboration are key points. Therefore, these elements and findings benefit PLANET's endeavours towards an integrated network of supply chains, sharing the vision of interoperable logistics communities and technology-driven solutions.

As a result, FENIX and PLANET held a meeting on 3 February 2022 to exchange knowledge and ideas. PLANET also shared four deliverables with the partners of this project in order to facilitate this exchange of information and to facilitate that PLANET's results could be used by FENIX.

In the context of the PLANET project, a set of services and interfaces within processes were identified that are expected to play a key role for the PI development and shift towards the PI paradigm. This was achieved through the project pilot testing along the TEN-T which was undertaken for the development of the EGTN open Cloud-based platform. This selection of services and interfaces have been used as a focus point during the final stage of the FENIX project, along corridors in the cross-border pilots. The assessment of the FENIX pilot testing will facilitate the work of PLANET for defining the PI prioritised corridors of the EGTN.

Finally, committing to improve the dissemination of FENIX results, another aim of the collaboration actions with other projects, PLANET included information on this project in its fifth newsletter (29-Mar-22) and promoted this collaboration on its social networks.

- **VITAL-5G Project.**

This project started on 1 January 2021 and was funded from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101016567 (topic: ICT-41-2020), with a project duration of 36 months. The strategic objective of VITAL-5G (Vertical Innovations in Transport And Logistics over 5G experimentation facilities) is to create an open, virtualised and flexible experimentation facility comprised of an intelligent virtual platform, three distributed European 5G-testbeds and associated vertical infrastructure, to enable the testing and validation of transport and logistics Network Applications (NetApps) in real-life conditions, utilizing 5G connectivity. VITAL-5G will release a flexible platform adapted to serve the specific needs of the T&L sector focused on the creation, deployment, management and validation of NetApps.

Both projects aim to bring Europe at the forefront of T&L Technology, they have the vision to revolutionise transport and logistics by creating smart and digital solutions based on 5G networks and concepts like IoT, PI and blockchain technology. As a result, VITAL-5G and PLANET held a meeting on 17 January 2022 to exchange knowledge and ideas. In addition, both projects shared the deliverables they considered relevant for the development of their projects, in total PLANET provided 3 (D1.1; D2.13; D2.15) and VITAL-5G 2 (D2.1 Initial NetApps blueprints and Open Repository design; D1.2 System Specifications and Architecture).

The EGTN Platform and the VITAL-5G Platform share a lot of similarities, one of them being the types of actors which are similar in both cases, of course analogous to the different technological domain. The EGTN Platform actors can be categorised as data analysts/developers, service providers and end-users/experimenters which are the same types of users as in the VITAL-5G Platform. This entails that the services and functionalities offered by both platforms are similar. More specifically, the VITAL-5G approach of offering a secure and flexible environment to developers to design, develop, test and deploy their services greatly influenced the PLANET's

Platform design. The necessary interfaces and tools were integrated in the EGTN Platform to enable data analysts to develop their code and their analytics services based on real data and consequently integrate them in the platform.

Finally, the design of the EGTN Platform were inspired by the privacy and security principles of the architecture of the VITAL-5G Platform since both need to offer a secure and isolated access to private resources based on user profiles, while guaranteeing transparency of public resources. Towards this end, the EGTN Platform acts as an enabler of interoperability between T&L communities without storing any confidential data, while increasing the visibility across the supply chain by sharing all the necessary pointers to data hosted by the connected communities.

Also, thanks to this deliverable exchange, through PLANET deliverable D2.14 the partners of VITAL-5G part of the three use cases of VITAL-5G and in charge of developing components and Network Applications for the platform, were able to extract information that helped in the further development of Network Applications that targeted distributed sensor data ingestion, fusion and postprocessing, Internet of Thing management platform, remote vessel monitoring, assisted vessel navigation and navigation speed optimiser by analysing the methodology presented used for the development of the PI Hub Choice Model and its mathematical formulation. Also, by taking input from the data integration and harmonisation approach and taking it into a generalised concept, they were able to rethink their development of the Network Applications and the AI-based diagnostic component, and by seeing the business value added to e-commerce growth as described in Section 5 of the deliverable, they were able to shift part of their thinking of our business plan and market value and consider some new focal points in updating their own business value proposition and unlock new stakeholders that could use their platform as 3rd-party experimenters.

PLANET Deliverable D2.16 was also of considerable help to the VITAL-5G project. By understanding the inner working of the EGTN platform and how using the real-time data ingestion pipeline developed, which can aggregate data from a plethora of data sources such as IoT sensors and traffic data, and how this increases the business value of all related sectors, we were able to draw inspiration on how to direct our efforts in attracting 3rd-party experimenters to their platform and how to better market to them. Additionally, the idea of upgrading the platform to include a tool capable of analysing T&L and ICT innovations that position emerging technologies (e.g., Blockchain) on their Human Machine Interface (VITAL-5G Web GUI) led them to modernise their approach and help with the patentability of new ideas and contributions to new standards where their stakeholders can share infrastructure and data and, in this way, overcome the obstacles presented with such challenges in a non-secure environment. Finally, the VITAL-5G platform is designed to be open for access to a large range of stakeholders ranging from academia to industry and even amateur experimenters. As explained before, this creates the need of enhanced security features to be implemented to the platform itself and especially to vulnerable endpoints (most notably the access module – based on KeyCloak). Blockchain systems are one of the top candidates concerning anonymization of data, distribution of ledgers and fast processing of transactions which is something vital when dealing with confidential data from logistics companies and ports as well as preventing unauthorised access from amateur experimenters to malicious intents as part of industrial espionage. D2.16 has helped greatly with seeing how a Blockchain system can be deployed and how this might be adapted to the VITAL-5G platform and enhance its marketability as PaaS (Platform as a Service).

Finally, it is worth mentioning that the two projects maintained continuous communication. As a result, in addition to the abovementioned, they carried out several joint dissemination actions:

- PLANET included information on this project in its fifth newsletter (29-Mar-2022) and promoted this collaboration on its social networks (see Figure 14).
- VITAL-5G also promoted this collaboration on its social networks.
- PLANET (Kostas Zavitsas, VLTN) participated in the following VITAL-5G Webinar: *5G NetApps for Transport & Logistic: Services, concepts and practical examples* (05-apr-22) in an effort to incorporate possible findings or outputs in PLANET Project, specially with the 5G technologies promising to transform

network connectivity, streamline operations with higher capacities and ultimately upgraded mobile network offering revolutionary potential capable to transform network and data interconnection.

- VITAL-5G participated in the 4th PLANET GA Meeting (05-oct-22) (see Figure 15). Title of VITAL-5G presentation: E3rd party experimentation in the context of the VITAL-5G project. A brief summary: The project demonstrated VITAL-5G's concept, testbeds and the assets that will be offered to 3rd-party experimenters. Then, VITAL-5G discussed in detail what services will be offered to 3rd-party experimenters and how they can access the platform's resources.

Figure 14. PLANET's newsletter n°5.

Figure 15. VITAL 5G at PLANET's 4th General Assembly meeting.

- **PILL Project.**

The project Physical Internet Living Lab ("PILL") was funded by Flanders Innovation & Entrepreneurship (VLAIO) and started on 1 January 2021. With a project duration of 36 months, the overall aim is to make logistical processes more efficient, reliable, flexible and sustainable, using the Physical Internet. The project will build a prototype of the IT system which will allow the ports to be a part of the PI. The intention is to develop a system, based on digital documents and existing platforms, that organises seamless transport by proposing the most optimal route in overlapping transport networks, regardless of the transport type. The diverse input and standards will be translated into a virtual system. The 'brain' of that system is a so-called digital twin powered by agent-based models.

In both PLANET and PILL projects, the PI concept is at the core of their developments as a new way of transporting goods towards more ecological, economical and sustainable logistics operations. Research work on PI in both projects has led to cross-fertilise efforts to further mature and reinforce the novel concept by materializing the PI offerings.

In PILL routing is performed upon a user request to deliver some products through the network. The request is associated to specific parameters or constraints such as the departure point, pick-up time, destination point and latest drop-off time. The information are processes upon receipt of a request, with the routing algorithm identifying viable routes, and ranking them in terms of desirability. Then a repetitive loop is initiated of assessing available capacity for the desirable route and if necessary, searching for alternatives. This fundamental component of allocating cargo where available capacity is available lead to the development of the smart contract capability of EGTN that is automates and π-Node operations. The smart contracting functionality in EGTN utilises three underlying services:

- The predictive modelling service is applied on every π-Node and analyses every destination that can be reached from that node. It utilises historical data and produces estimated outbound trade flow demand for each OD pair. The output is expressed as a 2-week rolling horizon of the average prediction and its confidence intervals.
- The smart capacity booking service is then applied to convert the 14-day rolling horizon prediction to conclusive action. The service maintains information on the outbound capacity reservation cost and cancellation fees and determines the optimal capacity to book in advance. More specifically the decisions concerns 10-day advance reservations, 3-day advance alterations (reservations or cancellations) and final alterations for implementation.
- The smart contracts service implements the decisions of the smart capacity booking service in a blockchain so that all stakeholders are in agreement.

The EGTN smart contracting capability builds on PILL routing service work and requirements. By automating the repetitive process both from the user and the π-Node perspective, routing decisions can be delivered instantly with limited brokerage requirements and no loss of value or functionality. Furthermore, the EGTN solution by incorporating a stochastic model address some of the uncertainty in the operation of the transport and logistics infrastructure.

The two projects have met twice to exchange knowledge (17-jan-22 and 03-feb-23) and on a third occasion to organise the webinar on 30 November 2022 together with ALICE and ICONET mentioned above (see ICONET project section for further information). In addition, both projects shared the deliverables they considered relevant for the development of their projects, in total PLANET provided 3 (D1.1; D2.13; D2.15) and PILL 1 (D1.6.1 Midway Report).

As a result of these meetings and the exchange of deliverables, PILL has shown interest in the port calling model, as for PILL, barges are too flexible to be planned as scheduled movers. It would be a possible solution to include the optimisation module for the barge operators, so they become predictable in the model.

Also, although the cargo inside containers is not within their scope, it would still be an interesting next step to take, thus the urban delivery model and PI hub operations management (warehouse) model remain relevant to them in the longer term. Similar to the urban delivery, they also wish to consider the congestion and expected travelling time. PILL will run a Proof of Concept this year at the Port of Antwerp, where they will test the functions of the PILL platform. They were also interested in the congestion problem on the ring road of Antwerp. So they would have some experience to learn from PLANET regarding how the travelling time data are collected, predicted and used at the intracity and intercity level.

For the warehouse model, they had a use case on an idea similar to the cargo-carrier pairing, because it is also useful for the container yard owners to know the next movers to pick up containers, so they can do the yard planning accordingly. Hence, they would also like to hear some updates after completion of the PLANET project on this model and how the automation is realised.

Finally, in addition to co-organising a joint event with this project -webinar mentioned above and co-organised with ALICE, ICONET and ePIcenter-, in order to improve the dissemination of PILL results PLANET included information on this project in its fifth newsletter (29-Mar-2022) and promoted this collaboration in its social networks (see Figure 14).

- **SOFIE Project.**

The SOFIE project (Secure Open Federation for Internet Everywhere) was funded from the European Union's Horizon 2020 research and innovation programme under grant agreement No 779984 (topic: IoT-03-2017) and ended in December 2020. This project aims to develop a blockchain driven federated platform for enabling information exchange of different IoTs and data silos. The goal is to enable creation of business platforms, based on existing IoT platforms and distributed ledgers, without needing to negotiate with any gatekeepers. The wide applicability of the approach is tested through four pilots (Italy, Finland, Greece and Estonia).

For the purposes of the EGTN platform the SOFIE Interledger component was the ideal candidate to support the requirements, as these were set out by the PLANET partners, and at the same time to fit the specification of the EGTN platform.

As a result, PLANET WP2 partners involved in T2.5 (EGTN Distributed Ledgers and Smart Contracts) were in regular contact with the engineers of the SOFIE Interledger component to identify possible extensions to the code base to better support the T&L use case. It adopts the Hybrid Connectors approach that provides an abstraction layer to underlying Blockchain systems. Furthermore, it supports integration with several Blockchain systems, such as Hyperledger Fabric and Ethereum - which are the most popular Blockchain systems used in the T&L domain - but also provides integrations with several other Blockchain systems. Finally, it features an extensible plugin-based architecture. The solution offered by the EGTN platform offers a distributed and community-driven approach that ensures data integrity and immutability across the supply chain, automated and safe contract execution, and reduction of overheads and time delays. In this manner, the value of Blockchain interoperability and smart contracts to the PI paradigm are showcased through the application of the solution in real-life use cases. It is expected that the deployment of the infrastructure in the demo sites of PLANET will bring out further insights and inform the architectural blueprint.

- **ePIcenter Project.**

ePIcenter stands for "Enhanced Physical Internet-Compatible Earth-frieNdly freight Transportation answER" and was funded from the European Union's Horizon 2020 research and innovation programme under grant agreement No 861584 (topic: MG-2-9-2019). The project started on 1 June 2020 and ends on 30 November 2023 and aims to develop and test AI driven logistic software solutions, new transport technologies and supporting methodologies to increase the efficiency of global supply chains and reduce their environmental impact. The project will create an interoperable cloud-based ecosystem of user-friendly extensible Artificial Intelligence-based logistics software solutions and supporting methodologies that will enable all players in global trade and international authorities to co-operate with ports, logistics companies and shippers, and to react in an agile way to volatile political and market changes and to major climate shifts impacting traditional freight routes.

The projects met on 21 February 2022 and shared several relevant deliverables for the development of their projects, in total PLANET provided 4 (D1.1; D2.13; D2.15, D2.11) and ePicenter 2 (D1.3. Arctic & New Trade Routes Challenges; D5.4_International Cooperation including Disadvantaged Regions Initial Findings).

The findings of ePIcentre on Arctic navigation, as set out in ePIcentre D1.3, narrowly confirm PLANET's findings as set out in PLANET D1.2. One of the vital considerations regarding potential trans-Arctic navigation, identified by both projects, is economic rather than environmental in the primary sense: land infrastructure, major seaports and centres of economic activity are scarce in the region, thus forbidding the business case for corresponding ocean connections. The findings by ePIcentre helped to corroborate the PLANET findings as well as approach during the second half of the project.

Also, the approach taken by ePIcentre pertaining to disadvantaged regions, set out in D5.4, was predominantly stakeholder based, and thereby complementary to the more model based approach taken by PLANET. Nevertheless, both studies largely arrive at similar conclusions, namely, that disadvantaged regions are in principle positioned to significantly benefit from global regionalization, i.e., the gradual process of re- and nearshoring of labor-intensive economic activities.

PLANET's foundational Position Papers (PP) were also of interest for ePIcenter (D1.1). On PP1, PLANET provides the methodological background to define the Corridor Connectivity Index (CCI), index which was recognised by Epicenter's partners as potentially applicable to the project. PP2 presents an overall introduction and broad analysis of the impacts of new trade routes on the TEN-T. The paper briefly explains which scenarios will be used to measure those, an important link with ePIcenter's work. PP3 presents a diagnostic model developed within PLANET, being linked with the railway network and intermodal units between Russia and China. Some elements of this model can be replicated in ePIcenter's WP2 and the China use case. In turn, PP4 provides a closer link and applicability with PLANET's LLs on elements of the PI. Also, ePIcenter's partners identified an important transferability element on simulation scenarios. Important questions are raised for the context of each PP and linking with illustrative scenarios, thus these perspectives can be drawn to ePIcenter's as a way to create relevant link with the use cases. Nonetheless, for this analysis to be useful in ePIcenter, it is important to adapt the KPIs presented in PLANET's D.1.1 deliverable through the CCI.

On the other hand, ePIcenter was also interested in seeing further results in the area of Blockchain Interoperability as they saw the potential application in certain examples given, such as the integration between different road transport document (example given between Valencia and Rotterdam). Thus, even if they are not currently looking into this level of integration within the ePIcenter, it could be an interesting and required component of future developments.

Finally, it is worth mentioning that the two projects maintained continuous communication. As a result, in addition to the abovementioned, they carried out several joint dissemination actions, a summary of which is given below.

- ePIcenter was presented during the workshop to explore regional and local impacts on the RALP Corridor of the global transport and logistics flow and implications for last and first mile connections organised by EGTC (24-mar-22). Karen Van Brussel (Port of Antwerp) gave an introduction of ePIcenter, sister project of PLANET.
- PLANET included information on this project in its fifth newsletter (29-Mar-2022) and promoted this collaboration on its social networks (see Figure 14).
- PLANET participated in the 3rd Annual ePIcenter Conference (16-jun-22) (see Figure 16). Noriko Otsuka (EGTC) introduced PLANET's vision, the EGTN (EU-Global Trade & Logistics Networks) concept and the LLs. Title of the presentation: Living Lab 2: China-Rotterdam/ USA through rail and the contributions of Rhine-Alpine Corridor EGTC.
- ePIcenter participated in the 4th PLANET GA Meeting (05-oct-22). Title of the presentation: Enabling resilient, efficient and greener supply chains; speaker: Julian Stephens (MJC). This presentation briefly summarised the overall scope of the ePIcenter project and discuss in a bit more detail some of the aspects relating to Synchromodality and the PI (see Figure 17).
- Joint webinar: *Physical Internet: synergizing efforts via the ALICE liaison program* (30-nov-22) (see Figure 14). The webinar was co-organised with ALICE, ICONET and PILL (see ICONET project section for further information).

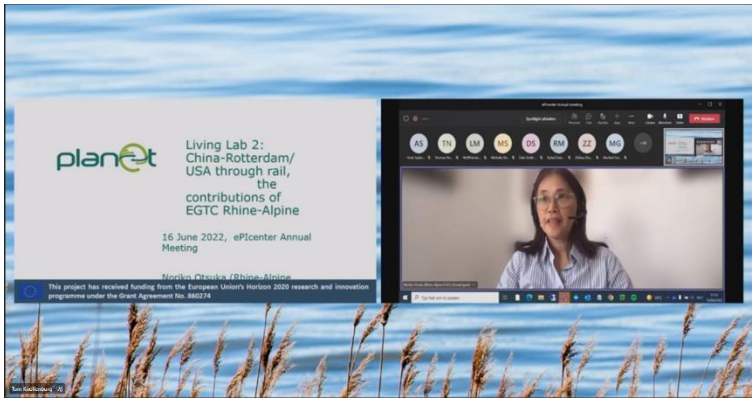


Figure 16. PLANET at ePIcenter's 3rd Annual Conference.

Figure 17. ePIcenter at PLANET's 4th General Assembly meeting.

- **LEAD Project.**

LEAD stands for "Low-Emission Adaptive last mile logistics supporting 'on Demand economy' through digital twins" and was funded from the European Union's Horizon 2020 research and innovation programme under grant agreement No 861598 (topic: MG-1-10-2019). The project started on 1 June 2020 and ends on 31 Mayr 2023 aiming at designing digital twins of urban logistics to support experimentation and decision making in public–private urban settings. Specifically, the project's long-term goal is to develop an open PI-inspired framework for smart city logistics. LEAD will create Digital Twins of urban logistics networks in six cities, to support experimentation and decision making with on-demand logistics operations in a public-private urban setting. Scenarios will incorporate opportunities for shared, connected and low-emission logistics operations by considering four innovation drivers: Sustainability - Zero Emission Logistics, the Sharing Economy, Technology Advancements and the emerging PI paradigm.

A collaboration between PLANET and LEAD initiated with the aim of investigating synergies between the two projects' as well as exchanging key results and knowledge. More specific, on 20 September 2022 a workshop between research scientists from both projects took place.

The agenda of the workshop included a brief introduction to each project objectives and it was followed by a discussion about their use cases and the respective technologies utilised in the LLs. In more detail, PLANET's EGTN platform and its respective services were introduced to LEAD partners. PLANET's EGTN platform aims to increase the visibility and collaboration among transport and logistics and along the whole supply chain using disruptive technologies such as blockchain and AI-warehouse forecasting models etc., while LEAD develop a simulation-based impact assessment environment and a Digital Twin Model, focusing on integrated city logistics systems.

Key conclusions were that the two projects have a lot in common, especially regarding their business perspective and their use cases, as they are focused on the transport and logistics domain, and they develop a digital representation of logistics chains enabling stakeholders to collaborate and increase their efficiency. Finally, PLANET could get inspiration from the routing optimisation algorithms developed in LEAD and incorporate the feedback in the PLANET's PI route optimisation service taking into consideration additional parameters/constraints. In addition, another point of interest for PLANET project could be the results and feedback of use cases in LEAD especially that of CityLogin, regarding the implementation of consolidation centers to manage parcels in the last mile and enable faster delivery, as CityLogin participates with UCs in both projects. Finally, LEAD could consider the option and benefits blockchain technologies to increase transparency, visibility, and trust among stakeholders inspired by PLANET's demonstration of this technology to UCs in urban logistics environment through smart contracts.

- **IW-NET Project.**

IW-NET stands for "Innovation driven Collaborative European Inland Waterways Transport Network" and was funded from the European Union's Horizon 2020 research and innovation programme under grant agreement No 861377 (topic: MG-2-6-2019). The project started on 1 May 2020 and ends on 30 April 2023.

The IW-NET project aims to develop multimodal optimisation process across the EU Transport System addressing infrastructure bottlenecks, insufficient IT integration along the supply-chain and slow adoption of technologies such alternative fuels, automation, IoT, etc. Furthermore, the main common ground between project's was that they utilise and developed solutions based on blockchain technology for smart contracts, synchromodality routing or modality decisions as well as combine and test blockchain and IoT technologies.

For this reason, a technical workshop was organised between the relevant research teams of PLANET and the IW-Net projects working on those subjects towards identifying common practices, exchanging ideas and results and aligning in terms of use cases. During workshop started with a brief introduction of the projects, describing objectives, activities towards objectives and results up to now. An open discussion followed, related to the use cases of each project and identifying common aspects, since both projects are in the Transport & Logistics domain. Finally, a session related to the technologies used and the solutions provided by each project resulted in knowledge sharing and analysis of possibilities for future synergies.

More specifically, the PLANET's EGTN platform aims to increase the visibility and collaboration among T&L stakeholders along the entire supply chain using disruptive technologies and designing PI-services. Similarly, IW-Net uses blockchain, smart contracts, Machine Learning algorithms at the edge and model-driven development analytics to decrease GHG emissions and optimise processes in European Inland Waterways. The first common approach identified was that both projects store similar data on the blockchain based on the GS1 standard, i.e. Transport Instructions (Tis), Transport Status Notifications (TSNs) and IoT events from sensors monitoring logistics assets (e.g. pallets) based on the EPCIS standard. In addition, the architecture of the blockchain component in both projects follows a similar approach, since it is based on the same technological framework (Hyperledger Fabric) and features high-level APIs to enable integration with other components. Finally, another conclusion was that PLANET project could get inspired by the Big Data Analytics component of the IW-NET architecture for the analysis of the data stored in the EGTN Platform. Moreover, as PLANET gets into the evaluation phase of the EGTN Platform in the LLs, INLE's representatives got insights about the execution of the demonstrations in each use case and the analysis of the results from the business perspective that is already happening in the IW-Net.

On the other hand, the architectural approach for integrating IoT measurements with the blockchain component that was developed in PLANET could be beneficial for the implementation of the Blockchain Connector in the context of T1.2.3 of IW-NET. The readings from the sensors deployed in the field will serve as an extra step of logistics events verification that will increase the accountability of the stakeholders' claims.

- **TRAILS Project.**

The PLANET results, in particular the TrackOne solution developed by NGS, have also been used in a pilot test of the Transnational Intermodal Links towards Sustainability (TRAILS) project. The TRAILS project (POCTEFA programme), coordinated by CIMALSA, aims to encourage a modal shift from road freight to rail along the Mediterranean corridor and involves the development of the Multimodal Logistics Strategy with rail as the backbone to achieve sustainable transport.

This aim was also pursued by the pilot test carried out at the end of 2021, when a total of 11,000 bottles of cava were sent from Sant Sadurní d'Anoia (Barcelona) to Alsheim (Germany). This experiment evaluated the possibility of implementing the train of wine, providing added value data and information regarding the shipment of precious and perishable goods as wine. More specifically, a container full of cava was traced, tracked and monitored during it shipment. In this scenario, the PLANET components were exploited to implement the latter monitoring services to evaluate the integrity and the storage condition of the bottle of wine transported.

This first shipment was also supported and promoted by two specialised clusters: one in the multimodal mobility sector (In-Move by Railgrup) and the other in the wine sector (Innovi). Both coordinated efforts to provide technical and technological support to this project, which they extended internationally through the Italian mobility and railway cluster DITECFE.

4.5 Additional PLANET Workflows that add to Dissemination

This section includes a brief description of the work developed in those WPs/Tasks that have contributed to/whose main objective has been to share the possibilities of the project after its completion and its exploitable outputs.

4.5.1 Briefing EGTN reports for public authorities and Guide on the inclusion of disadvantaged regions into the international trading system (T4.2/D4.2)

The D4.2 Briefing reports for public authorities and guide on the inclusion of disadvantaged regions into the international trading system, is a collection of a policy guide, briefing sheets and case studies related to PI. These documents **aim to raise the awareness of government authorities** (both local and national) **in disadvantaged regions and emerging economies through examples from the PLANET project and the EU**. By doing so, the envisaged impact is that future trade with the EU will be technologically more attractive.

The policy guide provides an overview of the freight innovations in the PLANET project. It suggests a methodological approach for decision-makers at national and local levels. The guide also provides policy recommendations to facilitate the adoption of concepts such as Physical Internet, synchromodality and blockchain technologies. A 4-step process is recommended in the policy guide for decision-makers to include the relevant stakeholders for developing freight sector measures.

Developments of the PLANET project in WP1 through WP3 led to creation of 7 briefing sheets on Physical Internet and Blockchain, Enablers of PI, Technologies in Logistics, Reducing emissions from Logistics, Implementing IoT and Blockchain, Synchromodality and Hyperconnected logistics. Each briefing sheet introduces the topic and cites examples. The briefing sheets provide information on the specific topic with policy suggestions relevant to the topic. The briefing sheets aim to introduce the policymakers in emerging economies to the innovative aspects of logistics developments in the EU in the areas of Physical Internet and Blockchain and facilitating knowledge transfer.

Finally, 3 case studies have been developed on PI, logistics and operations Management and smart contracting in synchromodal transport. The case studies were developed using the case study method, a proven method to increase awareness using real-life examples and in a conversational tone depicting a hypothetical situation that the policymakers can relate to. Each case study has questions posed for the reader to evoke their response.

The individual elements, viz. briefing sheets, case studies and the policy guide, can be consulted separately depending on the extent of interest in the topic. For example, a policymaker interested in the PI will refer to the respective briefing sheet to get an initial idea of the topic. The policymaker would refer to a case study on the PI to get a practical implementation. For an overall picture of interrelations, the policy guide serves the purpose and suggests a process that can be easily implemented in practice.

In terms of dissemination, in addition to the project dissemination in WP5, the individual briefing sheets, the case studies, and the policy guide will be available in the open library and the learning courses developed under task 4.3 of WP4.

4.5.2 Open Source Libraries, Transferability Framework and Capacity Building Programme (T4.3/D4.3)

T4.3 provides the means for capacity building for the various stakeholders and includes the development of open source libraries. Thus, scientific dissemination is supported by the release of core elements of the Open Source Libraries, Transferability Framework and Capacity Building Programme (CBP), aimed at enhancing the skills of the participants and promoting the adoption of the PLANET Innovation by potential end-user stakeholders.

In this section, we present the concrete methodology towards the **design and development of** the relevant **online courses to encourage the spread of knowledge developed throughout the PLANET project.** These learning courses can be used to **interact with a variety of audiences, including public and business stakeholders but also students that represent a new generation of decision makers**.

The work conducted in this task included a classification of the potential users of all project outputs (developed in WP1, WP2 and WP3), an assessment of the potential of these outputs in collaboration with each WP leader and respective task leaders, and an online survey that validated the outputs and specified the learning material requirements per classified user group.

Based on these learning material requirements surveyed in Task 4.3.1, **four learning courses were identified for development**:

1. **Integrated Green EU-Global T&L Network (EGTN)**
2. **Corridor Connectivity Index (CCI)**
3. **Business Analytics Towards Physical Internet (BA towards PI)**
4. **Innovative Technologies: Roadmap towards Physical Internet (Roadmap towards PI).**

These were developed based on the project process and outcomes and piloted with project participants in four separate workshops. Finally, an open-source solution was selected as the platform for the Electronic Visualisation Library. The developed courses were uploaded on the EVL, thereby creating four online courses in an online environment. For further information and a more detailed reflection on the workshops please see D.4.3 Electronic Visualisation Library of outputs from WP1-WP2 and WP3.

The criteria that were taken into account for the focus and setup of the learning courses were that they should be in line with interests of the target audiences; that the content would be readily available from the project, although it would possibly require some conversion into learning materials; and that the open source library should be able to support the courses.

For each of the learning courses, a course manual that caters a variety of setups is provided. The manual comprises a two-hour workshop setup that have been piloted with project consortium members as well as instructions/suggestions for more extensive learning course setups. Learning materials and suggested preparatory readings accompany each manual. All four learning courses have been developed in a modular way, so that potential overlaps among courses can be covered well using a common module, e.g., in the case of the PI concept:

- Learning Course 1 aims at making participants familiar with EGTN by identifying and assessing different trends that can influence its development. Furthermore, after attending this course, the participants

should have obtained a good understanding of the concepts diagnostic models and scenario planning and they should also be able to apply scenario planning to the EGTN in the context of emerging routes.

- Learning Course 2 seeks to provide an understanding of the concept of hinterland connectivity as described in the literature and to make participants familiar with the various components of the CCI and the reasoning behind their development. After completing the course, participants should be able to use the different components of the CCI to determine connectivity in a certain corridor along the TEN-T Network and also to apply the results of the CCI on different topics, such as disadvantaged regions.
- Learning Course 3 has as a main objective to help participants obtain a robust understanding of the main principles of PI and the concepts of predictive and prescriptive BA. The course also aims at explaining how the main principles of PI can be applied to a specific logistics environment and analyzing the relevance and application of BA in this context. Moreover, the participants should be able to reflect on the general applicability of BA to create efficient logistics towards PI.
- Learning Course 4 aims at assisting the participants understand how technology innovations, regulations, T&L innovations and research can contribute to the roadmap toward PI. After the course the participants should be able to analyze how different stakeholders contribute to the roadmap toward PI, as well as develop and discuss roadmap steps and different PI adoption scenarios and the role of stakeholders in them, based on feasibility and prioritization.

As mentioned above, in order to test and validate the learning courses setup, 4 pilot online workshops with consortium partners were planned and took place in April 2023, along with two CCI learning courses attended by Erasmus University students (in the context of a course on Port Operations and Data Analytics), with a total number of 70 attendees. In both cases, the participants received some days prior to each workshop an e-mail with a short description of it (learning objectives, structure and agenda), as well as some suggested pre-reading materials. Zoom was used for the plenary and discussions and in the case of Workshops 3 & 4, the Miro board was also used for interactive sessions. Some of these courses will be repeated, as EUR-RSM will organise a webinar with more than 30 students on the basis of these learning courses.

Finally, an open-source solution was selected as the platform for the developed courses, namely the **Electronic Visualisation Library (EVL**), which can be found in https://openedx.inlecomsystems.com. The developed courses (the course manuals and associated learning materials) were uploaded on the EVL, thereby offering 4 online courses in an online environment that offers features for interaction and collaboration among participants. Figure 18 displays the list of offered courses on the EVL. The courses are offered to the prospective participants upon successful registration to the EVL platform.

In addition to the EVL, all open source software components developed throughout the project were uploaded to a library of open source components: the **PLANET GitLab repository** (https://gitlab.com/planet-h2020).

The **purpose of the EVL is to encourage knowledge sharing to any interested party outside the realm of the PLANET project**, but also to stim**ulate interactions between course participants through the possibilities for interaction that an online collaborative environment offers.**

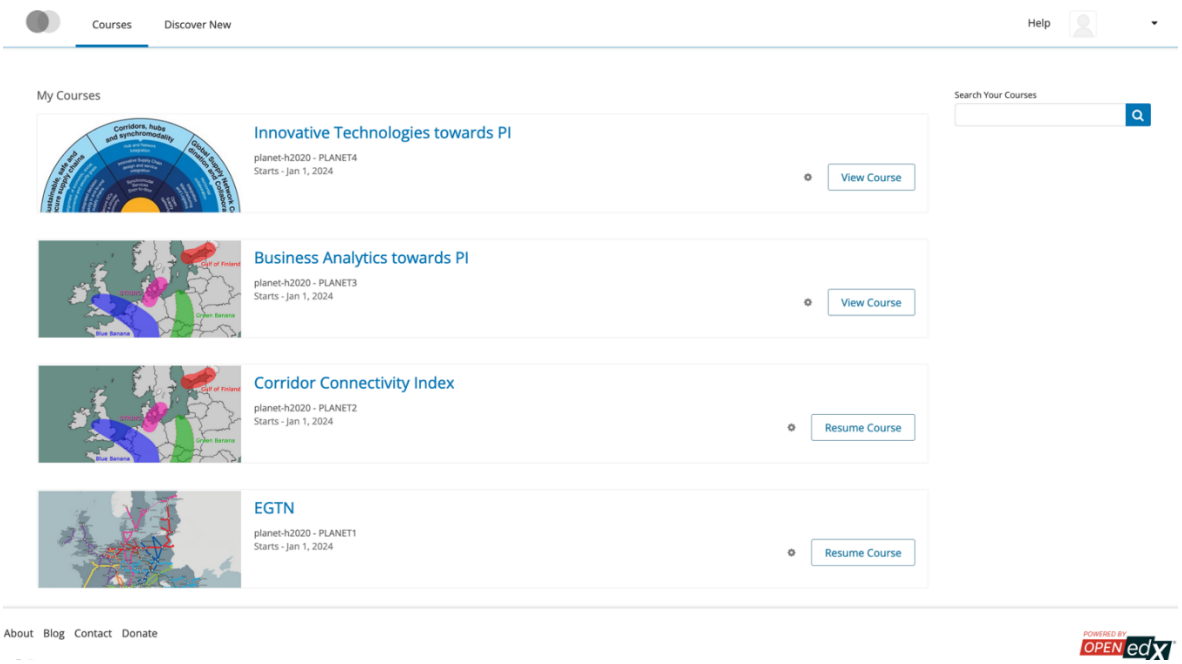


Figure 18. Dashboard of a user enrolled in all PLANET courses.

4.5.3 PI-facilitation technology Roadmaps for EGTN (T4.4/D4.4)

The D4.4 PI-facilitating technology Roadmaps for EGTN, delivers **PI-facilitating technology roadmaps towards an Integrated Green EU-Global T&L Network.**

The technologies considered are blockchain, AI/ML, Hyperloop, AVs, Unmanned Aerial Vehicles "UAVs", Intelligent Modular Load Units "iMLUs", 5G, EGNOS, and 3D printing.

The methodology followed was based on a mix of desk research, individual technical expertise of project partners, services and solutions developed and/or tested in PLANET, outputs from related projects and workshops execution, being the starting point of this document is the ALICE Physical Internet Roadmap, presented in the Figure 19.

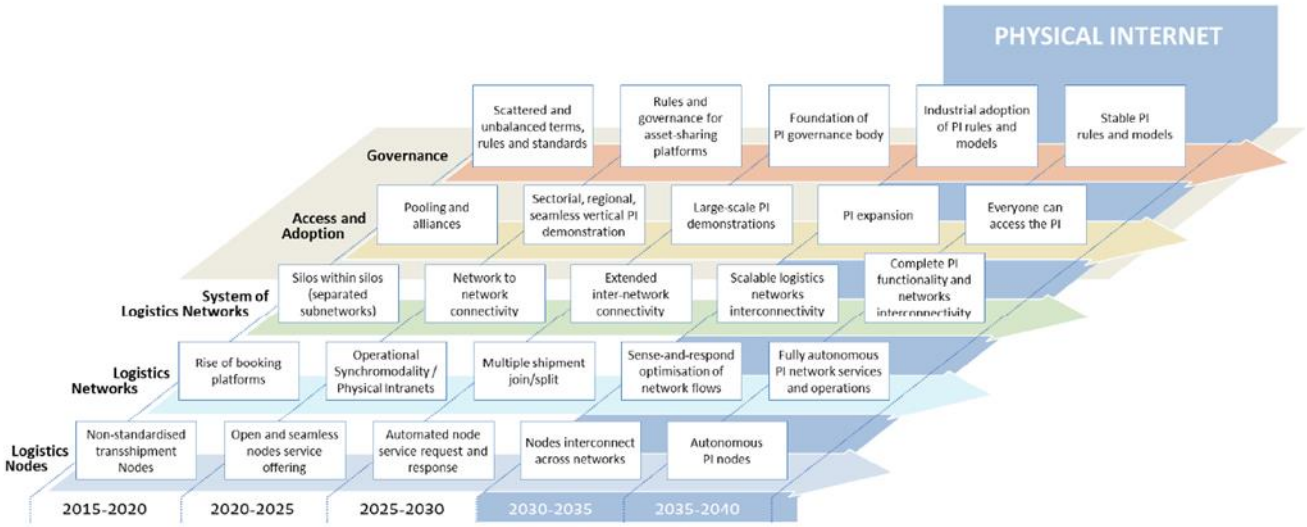


Figure 19. The Physical Internet Roadmap (SENSE D2.3).

PLANET technology roadmaps are complementary to the ALICE roadmap as it focuses on how the different technologies identified as enablers of the PI need to develop to facilitate this concept in different timeframes: current state and maturity levels, 2022-2030, 2030-2050 and beyond 2050 (when it applies). The prioritization exercise was carried out identifying the interdependencies among the different technologies considered.

Beyond purely technological/business issu**es, PLANET roadmaps also take into account the aspects in the legislation and EU policy that potentially could impact EGTN technological layer**.

Finally, the **document examines how to facilitate the incorporation of PLANET results in the ETP's roadmaps** such as ERRAC for Rail and WATERBORNE for Sea and Inland Waterways. Synergies among strategies could deliver benefits and accelerate time to market according to the PLANET roadmap. The methodology is based on the analysis of official ERRAC and WATERBORNE documents and synoptic comparison with PLANET for selected and most relevant aspects.

4.5.4 Recommendations for PLANET standardisation (T4.5/D4.5)

Main objective of T4.5 was to **provide recommendations that can be inferred from ongoing/anticipated EGTN design and deployment in the various LLs** with a focus on standardisation of smart contracts in supply chains.

The work was divided into three stages:

- "Standardization preparation", which covers issues such as the territorial scope of research, and the investigated logistics processes. In October 2022, a survey was carried out in Poznan during the General Assembly. The conducted research allowed for the collection of information related to the use of identification and communication standards in individual Living Labs and their Business Cases. This chapter also identifies the stakeholders that may be interested in the report's results and contains Outputs data from other projects within PLANET.
- "Standardization Strategy", which highlights the difference between the terms "standards" and "standardization." Standardization is the process of developing, defining, and establishing standards, while standards are the result of this process. In the context of the PLANET project, standards are essential, and the project aims to identify existing standards that could be useful. However, the lack of adoption of data standards and awareness of existing standards hinders the seamless flow of data along supply chains and diminishes efficiency gains. This chapter provides information on GS1 and non-GS1 standards. It presents an analysis of the opportunities and benefits arising from using smart contract in the supply chain and associated technologies, particularly blockchain. It identifies and analyses existing standards for smart contract, with particular focus on solutions dedicated to the flows of goods in international supply chains. The analysis includes implementations and problems encountered.
- "Recommendations for PLANET standardization", which discusses the preparation and recommendation of standards for transport and logistics processes including the use of smart contract and blockchain. It highlights the lack of use of identification and communication standards in Living Labs, which can hinder the seamless flow of data in the supply chain. The recommendation is based on the use of GS1 standards, which cover all identification and communication needs. GS1 standards provide a common language to identify and share product data, ensuring accuracy and accessibility. This chapter also touches on the European Union regulations which indicate which GS1 standards should or must be used, for example EU Medical Devices Regulation (2017/745), EU Tobacco Products Directive (2014/40/EU), and EU Falsified Medicines Directive (2011/62/EU).

Concluding, standards are indispensable for linking the physical world with the digital world. The real world can only be connected with the digital world if it can automatically identify the information along the value chain which can then be exchanged digitally. The standards to be used relate primarily to the identification of objects (Identify), the capture of data (Capture) and the exchange of data (Share) for objects along the supply chain. By means of these enabling technological standards, various business processes such as traceability can also be standardised.

The GS1 standards for identification, data carriers, electronic communication and process design create the conditions for transparency at all stages of the value chain. These standards enable the automation of processes through a uniform and unambiguous language. Only through the global uniqueness of objects with uniform semantics can the automatic recording of objects and the exchange of information be made available to participants in both horizontally and vertically integrated value chains. However, this can only work if organizations speak a common language, 'The language of uniform standards'.

5 Communication and Dissemination KPIs: final results

This section synthetises the KPIs used in each C&D tool and their quantitative targets throughout the project and includes the achievements in terms of KPIs and number of outputs at M36. The main task behind the C&D activities was to effectively disseminate PLANET results to a wide range of stakeholders (target audiences identified in section 3.2 External Communication and Dissemination Strategy) who are interested in or concerned by the issues covered by PLANET, and by PLANET applications.

In this point it should be noted that in comparison with the table presented in the first PLANET communication and dissemination report (D5.4), two changes have been introduced in this table, thus adapting the External C&D Strategy of the project. On the one hand, the 3 briefings to early stage accelerators and Open Source community have been replaced by the production of factsheets of the PLANET's Key Exploitable Results (KERs) and their subsequent dissemination to more than 80 key organisations or relevant stakeholders/end-users (for more information see Section 4.1.4 PLANET KERs Factsheets). As a result, the targets and KPIs have been modified to be consistent with this new dissemination action: the number of outputs (factsheets) was increased from 3 to 5, the KPI participants > 50 was replaced by dissemination > 50, mainly early stage accelerators and Open Source community, and the KPI > 5 cooperation was linked to the number of KER owners committed to disseminating their KER. Furthermore, as far as concerns the newsletters, it was finally decided to dispense with subscriptions in order to facilitate access to the newsletters, in the particular case of the website, the KPI number of subscribers > 500 initially set was replaced by metrics on the number of visits > 200, users > 100 and downloads > 100.

Finally, in order to be able to assess the level of effectiveness of each action developed and to adopt the relevant changes to achieve the project objectives and deliver the message/outcome to the previously identified target groups, quantitative metrics were used. This tool allowed the PLANET C&D Team measuring the progress, impact and success of all activities involving C&D as illustrated at Table 24.

Table 24: Evaluation of PLANET KPIs at M35.

C&D TOOL	TYPE	TIMELINE	NO. OUTPUTS		KPIs	
			Targeted	Achievement	Targeted	Achievement
Website	Online presence	Ready by M1, regularly updated	1	1	SEO metrics: 2,000 unique visitors Documents: 50 updates/year	- Website available in M1 - Unique visitors: 5,128 (visits: 23,646) - Documents: 340 - Posts: 116
Social Media (4 channels)	Social media	Ready by M24, regularly updated	4	4	Followers: > 300 Content pieces: > 80 per channel Impressions: > 10,000	- All SM channels created before M24 - Followers/subscribers: 466 in total (LinkedIn: 268; LinkedIn PG: 111; Twitter: 67; YouTube: 20) - Content pieces: 247 in total (LinkedIn: 87; LinkedIn PG: 62; Twitter: 98) - Impressions: > 25,000 (Twitter: 10,000; LinkedIn: > 15,000)
Videos	Online distribution	M12, M24, M36	2/+	6, 2 produced by PLANET	Views: 1,000 views in M12, up to 3,000 by M36	- No. of videos: 6, 2 produced by PLANET. All videos published in the 2nd year of the project - Views: 1,094, 622 on YouTube channels + 411 on PLANET's website + 55 on LinkedIn + 6 on Twitter
Press Releases, Factsheets & success stories	Online distribution / publications	M1-M36	10; 3	95; 10	No. of PRs: 6 No. of factsheets: 10	- No. of PRs on PLANET' website: 11 - No. of PRS on media: 24 - No. of PRs and news on partners' websites: 60 - No. of Factsheets: 10

Newsletters	Online distribution	M1-M36	9	9	No. of newsletters: 9 Visits: > 200 Users: > 100 Downloads: > 100	- No. of newsletters: 9 - No. of visits: 264 - No. of users: 112 - No. of downloads: 183
Partnership events, Attendance in other R&D conferences, Business exhibitions	Events	M1-M36	9	53	No. of PEs: 9 No. of other events attended: 12-16 No. of BEs: 12-15	- No. of PEs: 18 - No. of internal workshops: 14 - No. of events attended: 21 (3 webinars, 12 Conferences and Congresses, 1 Forum, 2 Plenary Meetings and Meetings; 1 Online Debate; 1 Acceleration Event, and 1 event linked to a university summer school)
Scientific publications, whitepapers, Journal publications, Articles	Online distribution / publications	M12-M36	6+	11 published	No. of publications: > 10, white papers: 2 Total reach: > 5,000 total readership	No. of white papers: 4 No. of Conference proceedings: 3 accepted and published (4 more accepted and pending to be published and 1 waiting for approval) No. of posters: 2 accepted No. of Journal publications: 3 published No. of Scientific article publications: 1 published (1 chapter book accepted and pending to be published) Total reach: > 5,000 total readership
Capacity Building programme and LL w/shops	Events	M12-M36	1; 3	1; 3	No. of participants in CBP: > 25 No. of participants in LL w/shops: > 80 Total contacts: > 00	No. of participants in CBP: 70 No. of participants in LL w/shops: 137 in total Total contacts: >169 in total
KER Factsheets to early stage accelerators and Open Source community	Online distribution	M7-M36	5	5	Dissemination > 50, mainly early stage accelerators and Open Source community Resulting cooperation: > 5 (KER owners)	Dissemination: 126 contacts, 90 organisations + ALICE relevant contacts Resulting cooperation: 5 KERs. LL1 and KER3 were presented at Logistop (Spain) and contact received from ALICE and another private organisation
Public deliverables	Publications	M8-M36	> 20	34	No. of downloads: > 50/file, > 1,000 total	- No. of public deliverables: 34 - No. of downloads: 822 (on average 24 downloads/file) - No. of visits: 1,517 (on average 44 visits/file)
Brochure and annual report	Publications	M1-M36	4	4	No. of recipients: > 500	No. of recipients: > 500 (447 visits, 155 active users and 302 downloads)
Collaboration with H2020 projects	Collaboration	By M36	3	6 (+ 5)	No. of collaborations: 3	No. of collaborations: 11 (6 H2020 projects)

6 Conclusions

The C&D activities in PLANET have been many and varied throughout the execution of the project, following a continuous evaluation and evolution since the beginning of the project in order to achieve a successful dissemination of the project results.

On one side, the Communication part has achieved very good results, exceeding the expected KPIs. PLANET's website as well as the channels of the project have achieved the creation of a PLANET flow of information through which all of them are intimately connected and closely connected to the project's target audience, as shown by the analytics presented.

These channels have been fed by the numerous communication materials developed but also by the numerous articles and papers produced by PLANET partners, as well as by their participation in and organisation of events. As a result, many different communication and dissemination initiatives have been performed, among which workshops, brochure and video creation, press releases, articles, newsletters, factsheets, annual reports, white papers and annual reports can be highlighted. The amount of reporting material is extensive and all resources are easily identifiable and findable via the main channels, mainly PLANET's website, the most used and successful channel.

On another note, Scientific Dissemination (scientific publications, conferences, congresses, etc.) experienced a slow start in the first months of the project as expected. From Intermediate Phase onwards (and specially on the second half of this phase), the number of scientific articles and attendance at R&D events and Business Exhibitions increased significantly. In addition, these publications and events have also been accompanied by short articles on the PLANET website and major contributions to the open source community thanks to the publication of the first ones on PLANET's account at Zenodo platform.

In terms of events attended by PLANET throughout the project, the threshold/target values expected at the start of the project have been exceeded. PLANET has been represented and presented in several relevant events (face to face or online workshops, webinars, plenary meetings, forums and conference).

Finally, as part of the overall strategy and in line with the GA's guidelines, the team has also identified relevant EU and regional funded projects and knowledge hubs that have the prospect to consume PLANET's outputs and further maximise its impact, along with introduce developments in associated concepts and technologies that can be incorporated into PLANET. And, moreover, PLANET has achieved to reach a relevant open source initiative, ALICE ETP, becoming member and disseminating its through this platform and website.

7 References

[1] PLANET (2021). Communication and Dissemination Report v1. Retrieved from https://www.planetproject.eu/wp-content/uploads/2022/02/PLANET-D5.4-Communication-and-Dissemination-Report-v1.1.pdf

[2] PLANET (2021). Stakeholder Analysis Report. Retrieved from https://www.planetproject.eu/wp-content/uploads/2021/07/PLANET-D5.1-Stakeholder-Analysis.pdf

[3] UNECE (2023). *Transport*. Retrieved from https://unece.org/transport

Annex I: PLANET (external) C&D Activity Plan

PHASE	C&D ACIVITY TYPE	PLANNED C&D Actions
Initial phase (M1-M12) Presenting PLANET Project and objectives to attract attention to the project	Online and social media presence	*Passive communication* actions: - Develop a strong and consistent visual identity. - Launch the official webpage of PLANET Project. - Create PLANET's Social Media accounts (channels).
	Reach general public through online distribution	*Passive communication* through PLANET webpage, as well as social media channels with simple messages to increase the visibility of the PLANET Project. The contents will showcase and highlight: 1) T&L concepts and topics in the framework of the PLANET Project to raise awareness about topics covered by PLANET Project; 2) Internal PLANET Project meetings / events to share results and progress made.
	Reach general public through partnership events and relevant events	*Passive communication* through evens focusses on explaining PLANET to provide a clear view of the project, its goals and results expected.
	Reach specialised audience through relevant events	*Interactive communication* through events to identify how the PLANET Project could be a key tool to address current and future needs in the T&L sector and to create awareness of the project.
Intermediate phase (M12-M24) Disseminate PLANET's outputs/results and their value to increase engagement from external stakeholders of the PLANET Project	Reach specialised audience through online distribution	*Passive communication* through scientific publications/articles and white papers in relevant (e-)journals to disseminate PLANET knowledge.
	Reach general public through online distribution	*Passive communication* through Social Media accounts and webpage using three types of communication materials: e-Newsletters, videos and short presentations (PLANET, consortium and LLs). *Passive communication* through Social Media accounts with simple messages to increase the visibility of the PLANET Project. Content will be linked to: events and meetings, dissemination materials (press releases, e-Newsletters, videos and fact sheets) and PLANET related topics.
	Reach specialised audience through external relevant events	Participation in key external events (R&D events and conferences) to disseminate available initial outputs and to create interest from an active community of potential end-users (*passive communication*)
	Reach specialised audience through PLANET events	Organise different types of events to present key findings of PLANET and enable time for discussion results with targeted audience, as well as to get feedback on possible improvements or relevant areas to be taken into account in the project (*interactive communication*).
	Reach general and specialised audience through online distribution	*Passive communication* through PLANET webpage publishing public deliverables to show the work performed and the results obtained.
Closing phase (M24-M36) Facilitating the exploitation of the PLANET results	Reach specialised audience through online distribution	*Passive communication* through scientific publications/articles and white papers in relevant (e-)journals, giving priority to high impact, international publications to disseminate PLANET knowledge. *Passive communication* through Social Media accounts and webpage using three types of communication materials: e-Newsletters, videos and fact sheets, mainly focus on LLs
	Reach specialised audience through external relevant events	Participation in key external events (R&D events and conferences, and industrial events) to disseminate the PLANET Project results, as well as to encourage the exploitation of its outcomes (*passive communication*)

Annex II: PLANET Press Releases and News

→ PLANET Press Releases published on PLANET's website.

ID	SHORT OUTLINE	PUB. DATE	AVAILABLE TO DOWNLOAD	TARGET AUDIENCE	LINK
Initial phase (M1-M12)					
1	PLANET Kick Off meeting.	04-sept-20	No	All, in particular H	https://www.planetproject.eu/news-events/2020/09/planet-project-celebrates-kick-off-meeting/
Intermediate phase (M12-M24)					
2	WP1 & WP2 Innovation Management Meeting.	10-sept-21	Yes	All, in particular H	https://www.planetproject.eu/wp-content/uploads/2022/02/PLANET_PR_WP1WP2-and-Innovation-management.pdf
3	1st PLANET Virtual General Assembly meeting.	10-sept-21	Yes	All, in particular H	https://www.planetproject.eu/wp-content/uploads/2022/10/PLANET_PR_Fourth-General-Assembly-Meeting.pdf
4	2nd PLANET Virtual General Assembly meeting.	26-oct-21	Yes	All, in particular H	https://www.planetproject.eu/wp-content/uploads/2022/02/PLANET_PR_Second-General-Assembly-Meeting.pdf
5	2nd PLANET Virtual Advisory Board meeting.	08-nov-21	Yes	All, in particular H	https://www.planetproject.eu/wp-content/uploads/2022/02/PLANET_PR_2nd_AB-meeting.pdf
6	Mid-Term Review	21-jan-22	Yes	All, in particular H	https://www.planetproject.eu/wp-content/uploads/2022/02/PLANET_PR_Mid-Term-Review.pdf
Closing phase (M24-M36)					
7	3rd PLANET General Assembly meeting.	18-may-22	Yes	All, in particular H	https://www.planetproject.eu/wp-content/uploads/2022/05/PLANET_PR_Third-General-Assembly-Meeting-1.pdf
8	4th PLANET General Assembly meeting.	06-oct-22	Yes	All, in particular H	https://www.planetproject.eu/wp-content/uploads/2022/10/PLANET_PR_Fourth-General-Assembly-Meeting.pdf
9	3rd PLANET Virtual Advisory Board meeting.	05-dec-22	Yes	All, in particular H	https://www.planetproject.eu/wp-content/uploads/2022/10/PLANET_PR_Fourth-General-Assembly-Meeting.pdf
10	Final PLANET General Assembly meeting.	08-mar-23	Yes	All, in particular H	https://www.planetproject.eu/wp-content/uploads/2023/03/PLANET_PR_Final-General-Assembly-Meeting.pdf
11	Final Advisory Board meeting.	13-mar-23	Yes	All, in particular H	https://www.planetproject.eu/wp-content/uploads/2023/03/PLANET_PR_Final_AB-meeting.pdf

→ PLANET Press Releases published on media.

ID	SHORT OUTLINE	PUB. DATE	Media	LINK
Initial phase (M1-M12)				
1	PLANET, its goals, partners and methodologies.	01-jun-20	Diariodelpuerto.com	N/A
2	PLANET, its goals and partners.	01-jun-20	Empresaexterior	El nuevo proyecto europeo PLANET aumentará la visibilidad end-to-end de las cadenas de suministro mundiales | empresaexterior |Noticias del comercio exterior y negocio internacional. España
3	PLANET and its goals.	01-jun-20	EL MERCANTIL	N/A
4	PLANET, its goals, partners and methodologies.	01-jun-20	Marine Insight	New EU Project PLANET To Increase End-To-End Visibility Of Global Supply Chains (marineinsight.com)
5	PLANET, its goals, partners and methodologies.	01-jun-20	Port Technology	EU project seeks to increase end-to-end visibility of global supply chains - Port Technology International
6	PLANET, its goals, partners and methodologies.	02-jun-20	Veintepies	Veintepies: El proyecto europeo PLANET aumentará la visibilidad end-to-end de las cadenas de suministro
7	PLANET, its goals, partners and methodologies.	02-jun-20	Cadenadesuministro	El proyecto Planet mejorará la visibilidad de las cadenas de suministro (cadenadesuministro.es)
8	PLANET, its goals, partners and methodologies.	02-jun-20	Diario el canal	La Fundación Valenciaport participa en un proyecto para la visibilidad end-to-end de las cadenas de suministro - El Canal Marítimo y Logístico (diarioelcanal.com)
9	PLANET, its goals, partners and methodologies.	02-jun-20	SPANISHPORTS	El nuevo proyecto europeo PLANET aumentará la visibilidad end-to-end de las cadenas de suministro mundiales (spanishports.es)
10	PLANET, its goals, partners and methodologies.	10-jun-20	LOGISTYKA	N/A
11	PLANET, its goals, partners and methodologies.	16-jun-20	HERALDO	Proyecto europeo Planet: Un transporte y una logística inteligentes, ecológicos e integrados (heraldo.es)
12	PLANET, its goals, partners and methodologies.	16-jun-20	Diariodelpuerto.com	El Proyecto PLANET echa andar a la búsqueda de una logística inteligente - Diario del Puerto
13	PLANET, its goals, partners and methodologies.CPLS's role.	17-jun-20	oinstalador	Comunidade Portuária e Logística de Sines integra projeto europeu de inovação e sustentabilidade nos transportes - O Instalador - Informação profissional do setor das instalações em Portugal
14	PLANET, its goals, partners and methodologies.	17-jun-20	WOZ-TRANS LOGISTICS	Projekt doskonalący operacje logistyczne Sieci Badawczej Łukasiewicz - WOZ-TRANS Logistics

15	PLANET, its goals, partners and methodologies.	18-jun-20	Diario el canal	Infoport y la Fundación Valenciaport cooperan para mejorar la eficiencia de escala de buques - El Canal Marítimo y Logístico (diarioelcanal.com)
16	PLANET Kick Off meeting.	18-jun-20	elperiodic.com	El proyecto PLANET celebra su reunión de arranque (elperiodic.com)
17	PLANET Kick Off meeting.	18-jun-20	portSEurope	PLANET Project Celebrates Kick Off Meeting - PortSEurope
18	PLANET Kick Off meeting.	18-jun-20	SPANISHPORTS	El proyecto PLANET celebra su reunión de arranque (spanishports.es)
19	PLANET Kick Off meeting.	19-jun-20	Veintepies.com	N/A
20	PLANET Kick Off meeting.	22-jun-20	International Transport Journal (ITJ)	Planet project celebrates kick-off meeting: ITJ | Transport Journal
21	PLANET, its goals, partners and methodologies.	22-jun-20	SUPPLY CHAIN MAGAZINE	CPLS integra projecto europeu PLANET para a inovação nos transportes - Supply Chain Magazine
Intermediate phase (M12-M24)				
22	PLANET, its goals and methodologies.	10-sep-21	Diario del Puerto - Suplemento Quién es Quién	N/A
Closing phase (M24-M36)				
23	PLANET and ALICE together at TRA	27-oct-22	ALICE	Advancing the European Commission's strategy for Smart, Green and Integrated Transport and Logistics. PLANET & ALICE together at TRA, 14th-17th November, Lisbon – ALICE Alliance for Logistics Innovation through Collaboration in Europe (etp-logistics.eu)
24	PLANET, its goals and LLs	03-mar-23	Mobility Lab	Redirecting (google.com)

→ PLANET Press Releases, articles and news published by partners.

ID	SHORT OUTLINE	PUB. DATE	Partner	LINK
Initial phase (M1-M12)				
1	PLANET, its goals and methodologies. Poczta Polska's role.	Apr-20	PP	Projekty Współfinansowane z Funduszy Europejskich (poczta-polska.pl)
2	PLANET, its goals and methodologies.	29-apr-20	PNO	https://www.innovationplace.eu/news/h2020-planet-progress-towards-federated-logistics-through-the-integration-of-ten-t-into-a-global-trade-network
3	PLANET, its challenges, results and benefits.	May-20	ILIM	https://ilim.lukasiewicz.gov.pl/projekty/progress-towards-federated-logistics-through-the-integration-of-ten-t-into-a-global-trade-network-planet/
4	PLANET, its goals and challenges. UIRR's role.	May-20	UIRR	http://www.uirr.com/de/projects/ongoing/item/27.html

5	PLANET, its goals and methodologies.	May-20	FVP	https://www.fundacion.valenciaport.com/proyecto/planet-progress-towards-federated-logistics-through-the-integration-of-ten-t-into-a-global-trade-network/
6	PLANET, its goals and methodologies.	May-20	WI	https://wupperinst.org/en/p/wi/p/s/pd/914
7	PLANET, its goals and methodologies.	May-20	VLTN	https://vltn.be/en/projects/planet
8	PLANET, its goals and methodologies, and EBOS's role.	May-20	EBOS	https://www.ebostechnologies.co.uk/planet-project
9	PLANET, its goals and methodologies, and ESC's role.	May-20	ESC	https://europeanshippers.eu/projects/planet/
10	PLANET, its goals and methodologies. Ontotext's role.	May-20	SIR	https://www.ontotext.com/knowledgehub/current/planet/
11	PLANET, its goals, partners and methodologies	May-20	ZLC	https://www.zlc.edu.es/es/investigacion/proyectos/progreso-hacia-la-logistica-federada-a-traves-de-la-integracion-de-la-red-ten-t-en-una-red-de-comercio-global/
12	PLANET, its goals, partners and methodologies	May-20	ZLC	https://www.zlc.edu.es/research/projects/progress-towards-federated-logistics-through-the-integration-of-ten-t-into-a-global-trade-network/
13	PLANET, its goals, partners and methodologies.	May-20	ITA	https://www.itainnova.es/blog/proyectos-financiacion-publica/planet/
14	PLANET, its vision and methodologies	May-20	EGTC	https://www.egtc-rhine-alpine.eu/projects/planet-progress-towards-federated-logistics-through-the-integration-of-ten-t-into-a-global-trade-network/
15	PLANET, its goals, partners and methodologies	Jun-20	FVP	https://www.fundacion.valenciaport.com/noticias-eventos/2020/06/el-nuevo-proyecto-europeo-planet-aumentara-la-visibilidad-end-to-end-de-las-cadenas-de-suministro-mundiales/
16	PLANET, its goals, partners and methodologies	01-jun-20	INLE	http://inlecom.eu/2020/06/01/new-h2020-project-planet-launched-june-2020/
17	Kick off meeting	17-jun-20	EBOS	https://www.ebostechnologies.eu/progressing-today-towards-the-global-trade-and-logistics-networks-of-tomorrow-the-h2020-planet-project-kicks-off
18	Kick off meeting	18-jun-20	FVP	https://www.fundacion.valenciaport.com/noticias-eventos/2020/06/el-proyecto-planet-celebra-su-reunion-de-arranque/
19	Kick off meeting	18-jun-20	INLE	https://inlecom.eu/group/2020/06/18/planet-project-celebrates-kick-off-meeting/
20	PLANET, its goals and demonstrators.	19-jun-20	PP	N/A
21	PLANET, its goals, partners and methodologies	04-aug-20	CPLS	https://www.cpls.pt/en/programa-r%C3%A1dio/2018/cpls-joins-the-new-h2020-project-planet-launched-june-2020/

22	PLANET, its goals and demonstrators.	04-aug-20	CPLS	https://www.cpls.pt/comunicação/notícias/comunidade-portuária-e-logística-de-sines-integra-projeto-europeu-de-inovação-nos-transportes/
23	Kick off meeting	04-sept-20	FVP	https://www.planetproject.eu/news-events/2020/09/planet-project-celebrates-kick-off-meeting/
24	1st General Assembly meeting	10-oct-20	INLE	https://inlecom.eu/group/2020/10/08/planet-1st-general-assembly/
25	PLANET, its goals and methodologies. ZLC's role.	01-nov-20	ZLC	https://www.zlc.edu.es/es/noticias/en-que-planeta-estamos/
26	PLANET, its goals and methodologies. ZLC's role.	01-nov-20	ZLC	https://www.zlc.edu.es/news/what-planet-are-we-on/
27	PLANET, LL2 and Poczta Polska's role.	13-jan-21	PP	N/A
28	Integration of global supply chains – monitoring of e-commerce shipments on the New Silk Road (Event)	01-feb-21	PP	https://media.poczta-polska.pl/pr/639471/projekt-planet-poczta-polska-na-debacie-polskiego-instytutu-transportu-drogowego
Intermediate phase (M12-M24)				
29	PLANET Newsletter #1	15-jun-21	PNO	https://www.innovationplace.eu/news/planet-newsletter-1-now-available
30	PLANET Newsletter #1	16-jun-21	NEWO	http://www.newopera.org/publications-newsletters/send/1-root/54-planet-newsletter-1
31	PLANET WP1 & WP2, Innovation Management Meeting	18-jun-21	EBOS	https://www.ebos.com.cy/ebos-participates-in-the-planet-virtual-meeting-dedicated-to-the-eu-global-transport-and-logistics-networks-and-innovation-management
32	IPIC2021 - Session 25	09-jul-21	INLE	https://inlecom.eu/2021/07/07/planet-ipic/
33	PLANET Newsletter #2	02-aug-21	NEWO	http://www.newopera.org/publications-newsletters/send/2-publications-newsletters/55-planet-newsletter-2
34	PLANET Newsletter #2	07-sep-21	CSSP	https://world.lines.coscoshipping.com/spain/es/news/companynews/33/1
35	2nd Virtual General Assembly meeting	08-jul-21	INLE	https://inlecom.eu/group/2021/07/08/planet-at-8th-international-physical-internet-conference-ipic/
36	PLANET Newsletter #2	02-aug-21	NEWO	http://www.newopera.org/publications-newsletters/send/2-publications-newsletters/55-planet-newsletter-2
37	PLANET Newsletter #3	15-nov-21	CSSP	https://world.lines.coscoshipping.com/spain/es/news/companynews/36/1
38	PLANET Newsletter #4	07-jan-21	NEWO	https://www.newopera.org/publications-newsletters/send/2-publications-newsletters/58-planet-newsletter4-1
39	PLANET LLs	07-mar-22	ESC	https://europeanshippers.eu/planets-living-labs-to-analyse-global-trade-infrastructure-issues-and-ten-t/
40	PLANET Road Map	18-mar-22	ZLC	https://www.zlc.edu.es/news/drawing-a-roadmap-for-the-logistics-technologies-of-the-future/

41	PLANET Newsletter #5	31-mar-22	NEWO	https://www.newopera.org/publications-newsletters/send/2-publications-newsletters/59-5-planet-newsletter
42	PLANET's liaison with other EU projects	07-apr-22	ESC	https://europeanshippers.eu/planets-liaison-with-other-eu-funded-initiatives-and-projects/
Closing phase (M24-M36)				
43	PLANET at ePIcenter Annual Meeting	21-jun-22	EGTC	https://www.egtc-rhine-alpine.eu/rhine-alpine-news/rhine-alpine-news-21-06-2022/
44	PLANET Newsletter #6	30-jun-22	NEWO	https://www.newopera.org/publications-newsletters/send/2-publications-newsletters/60-6-planet-newsletter
45	Hyperloop for E-commerce	28-jul-22	HARDT	https://docs.hardt.global/studies/hyperloop-for-e-commerce
46	4th General Assembly meeting	06-oct-22	CLN	https://www.linkedin.com/feed/update/urn:li:activity:6983747750962061315
47	PLANET Newsletter #7	30-oct-22	NEWO	https://www.newopera.org/publications-newsletters/send/2-publications-newsletters/62-7-planet-newsletter-2-1
48	Report PLANET Advisory Board meeting, incl. press release	15-dec-22	ESC	https://europeanshippers.eu/trade-and-logistics-key-takeaways-from-the-planet-advisory-board/
49	PLANET Newsletters (1-7)	19-dec-22	CSSP	https://world.lines.coscoshipping.com/spain/en/news/companynews/3/1
50	ESC Newsletter with info about Advisory Board meeting	23-dec-22	ESC	https://mailchi.mp/europeanshippers.eu/esc-newsletter-14456972
51	PLANET Newsletter #8	11-jan-23	NEWO	https://www.newopera.org/publications-newsletters/send/2-publications-newsletters/63-8-planet-newsletter
52	PLANET and work related to the resilience attribute of EGTN	23-jan-23	CERTH	https://www.imet.gr/index.php/el/news-el-2/1097-planet-news-el
53	PLANET Newsletters: #8 included	02-feb-23	CSSP	https://world.lines.coscoshipping.com/spain/en/news/companynews/3/1
54	3rd Advisory Board Meeting	02-feb-23	CSSP	https://world.lines.coscoshipping.com/spain/en/news/companynews/5/1
55	LL1 Factsheet	02-feb-23	CSSP	https://world.lines.coscoshipping.com/spain/en/news/companynews/4/1
56	Report Final PLANET Advisory Board meeting, incl. press release	30-mar-23	ESC	https://europeanshippers.eu/planet-final-advisory-board-meeting/
57	PLANET LL1 Workshop	04-abr-23	CSSP	https://world.lines.coscoshipping.com/spain/en/news/companynews/7/1
58	PLANET LL1 Workshop	04-abr-23	CSSP	https://world.lines.coscoshipping.com/spain/es/news/companynews/41/1
59	PLANET LL1 Workshop	17-abr-23	DHL	https://www.dhl.com/es-es/home/press/press-archive/2023/dhl-miembro-del-consorcio-del-proyecto-planet-

				financiado-por-la-ue-promueve-la-participacion-en-el-living-lab-1-planet-el-proximo-27-de-abril.html
60	The PLANET project completed	15-may-23	EGTC	https://www.egtc-rhine-alpine.eu/rhine-alpine-news/rhine-alpine-news-15-05-2023/

Annex III: PLANET Articles and Papers

ID	PAPER / ARTICLE TITLE	EVENT Associated	AUTHOR(S)	LEAD COMPANY	TYPE OF PUB.	STATUS	PUB./SUB. DATE	LINK
Intermediate phase (M12-M24)								
1	Review of intelligent solutions to optimise logistics processes and improve efficiency (PAPER)	BLMM 2021	Adam Kolinski, Piotr Nowak, Marta Cudzilo	PIT-ILIM	Conference proceedings	Accepted and published	Publication date: Oct-21	http://blmm-conference.com/wp-content/uploads/BLMM2021_Conference_Proceedings.pdf
2	Innovazione logistica e nuove relazioni di traffico intercontinentale (ARTICLE)	NO	Silvio Beccia, Gerasimos Kouloumbis, Chris Wensink, Ralf-Charley Schultze, Franco Castagnetti	NEWO, INLE, UIRR, PAN	Journal publication - Il Giornale della Logistica	Accepted and published	Publication date: Oct-21	https://es.calameo.com/read/001957923a17565aa7708
Closing phase (M24-M36)								
3	Physical internet points the way to a smarter future (ARTICLE)	NO	Kostas Zavitsas	VLTN	Journal publication - EU Research	Accepted and published	Publication date: Jul-22	https://issuu.com/euresearcher/docs/digital_magazine_eur31_final/56
4	Impact of EGTN T&L innovations at the micro-level on connectivity at the macro level (PAPER)	ITS 2022	Rob Zuidwijk, Camill Harter, Maurice Jansen, Alberto Giudici	EUR-RSM	Conference proceedings	Accepted and published	Publication date: Jun-22	https://2022.itseuropeancongress.com/congress-proceedings/
5	Data digitalisation in transport processes (PAPER)	BLMM 2022	Marta Waldman, Karolina Kolinska	PIT-ILIM	Conference proceedings	Accepted and published	Publication date: Sept-22	http://blmm-conference.com/wp-content/uploads/BLMM2022_Conference_Proceedings.pdf
6	Analysis of digitalisation needs improving the supply chain efficiency for New Silk Road transport corridor (ARTICLE)	BLMM 2022	Adam Kolinski, Marta Cudzilo	PIT-ILIM	Scientific journal - Economic Thought and Practice	Accepted and published	Publication date: Oct-22	https://doi.org/10.17818/EMIP/2022/2.7.
7	A blockchain-based architecture and smart contracts for an interoperable Physical Internet (PAPER)	TRA 2022	Harris Niavis, Aristea M. Zafeiropoulou	INLE, KNT	Conference proceedings	Accepted and pending to be published	Submission date: May-22	-
8	Impact of Physical Internet and on-the-fly reallocation on last mile	ITS 2023	David Cipres, Jose Luis Lopez, Lavanya	ITA, RSM-EUR, VLTN	-	Rejected	Submission date: Jan-23	-

	parcel delivery performance: A case study approach (PAPER)		Meherishi, Camill Harter, Kostas Zavitsas					
9	Dynamic collaboration for late last mile delivery rounds (CHAPTER BOOK)	NO	Kostas Zavitsas, Gerasimos Kouloumbis	VLTN, INLE	Chapter Book - Supply Chain and Disruptive Technologies	Accepted and pending to be published	Submission date: Feb-23	-
10	Modeling and simulation of processes compliant with the BPMN 2.0 standard as a tool to assess the impact of LPWSN implementation in the supply chain along the New Silk Road (ARTICLE)	NO	Witold Statkiewic, Adam Kolinski, Michal Grabia	PIT-ILIM	Scientific Journal – Sensors	Rejected, working on publishing the article in another journal	Submission date: Mar-23	-
11	Environmental impact assessment of intercontinental transport network with digital twin under PI framework (PAPER)	IPIC 2023	David Cipres, Jose Luis Lopez, M.Teresa de la Cruz	ITA, ZLC	TBC	Accepted	Submission date: Mar-23	-
12	The impact of IoT implementation on shipments from Asia to Europe along the New Silk Road on the development of the Physical Internet in the receiving country (PAPER)	IPIC 2023	Witold Statkiewicz, Martyna Zielińska, Lavanya Meherishi	PIT-ILIM, RSM-EUR	TBC	Accepted	Submission date: Mar-23	-
13	The impact of IoT implementation on shipments from Asia to Europe along the New Silk Road on the development of the Physical Internet in the receiving country (POSTER)	IPIC 2023	Witold Statkiewicz, Martyna Zielińska, Lavanya Meherishi	PIT-ILIM, RSM-EUR	TBC	Accepted	Submission date: Mar-23	-
14	Automating Capacity Pre-Booking at Warehouse Nodes of the Physical Internet (POSTER)	IPIC 2023	Kostas Zavitsas, Makis Kouloumpis, Juan Manuel Sen	VLTN, INLE, DHL	TBC	Accepted	Submission date: Mar-23	-
15	An exploration of the potential benefits of Transportation and Logistics innovations in Last-Mile Urban Deliveries: A case study approach (PAPER)	IPIC 2023	Kostas Zavitsas, David Ciprés, Lavanya Meherishi, Camill Harter	VLTN, ITA, RSM-EUR	TBC	Accepted	Submission date: Mar-23	-

16	Corridor connectivity index: a methodology to assess dynamics of trade routes and impact on existing TEN-T corridors	IAME 2023	Maurice Jansen, Hannah Mosmans	EUR-RSM	TBC	Paper submitted, waiting for approval	Submission date: Mar-23	-
17	Door-to-door più efficace? è possibile	NO	Silvio Beccia	NEWO	Journal publication - Il Giornale della Logistica	Accepted and published	Apr-23	https://www.calameo.com/read/0019579232ba1666a7961