

NEWSLETTER #5

March 2022

planet

PROGRESS TOWARDS FEDERATED LOGISTICS
THROUGH THE INTEGRATION OF TEN-T INTO A
GLOBAL TRADE NETWORK

COORDINATION

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COMMUNICATION

FUNDACIÓN
VALENCIAPORT

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Updates on the PLANET's liaison with relevant initiatives and projects

As part of its dissemination activities, PLANET initiated contact with other EU-funded Horizon 2020 projects with similar objectives and common challenges in order to identify potential areas of collaboration, as well as to accelerate and maximise the impact of the projects' results.

During January and February, a first meeting took place with representatives of the [FENIX](#), [VITAL-5G](#), [PILL](#) and [ePcenter](#) projects.

During these meetings, a brief presentation of the projects, their vision and objectives was given with the purpose of enabling participants to identify the potential added value of sharing relevant outputs and reports.

Furthermore, it was agreed that the most effective way to establish collaboration was in the form of co-organised events, shared knowledge and findings in a structured form to make best use of the results for mutual benefits.

As a result, the collaborative activities have materialised in the sharing of public PLANET deliverables with the above-mentioned projects, previous selection of the most relevant / significant outcomes for each of these projects.



PLANET's SHARED DELIVERABLES	PROJECT
D1.1 ; D2.13 ; D2.15	FENIX
D1.1 ; D2.13 ; D2.15	VITAL-5G
D1.1 ; D2.13 ; D2.15	PILL
D1.1 ; D2.13 ; D2.11 ; D2.15	ePcenter

FENIX Project

Description

FENIX Federation network is a secure data sharing framework in the form of a federation, where there is not a centralized entity owning the ecosystem, and where all the participants of the federation have the same rights and obligations and follows the federation governance.

Main FENIX federation governance aspects:

- Rules and regulations for the federation: On-Boarding Process to become Member of the FENIX Federation:
 - Rules, Legal Issues, Certification, Interoperability.
- Rules and regulations for data exchange within the federation:
 - Technical Implementation of the FENIX Connector according to the specification.

Main objectives

- Establish a federated network of transport and logistics actors across Europe, enabling sharing of information and services needed to optimise TEN-T.
- Demonstrate the operational feasibility and benefits through the organised national pilots –focus on testing the achieved interoperability capabilities.
- Set up the EU corridor community building programme and to promote the benefits to the participants in terms of reduced costs and GHG emissions.



FENIX At a Glance

- **Name**
A European FEderated Network of Information eXchange in Logistics
- **Funded under**
2018-EU-TM-0077-S
- **Overall aim**
Develop the European federated architecture for data sharing in the form of digital corridor information systems serving the European logistics community.
- **Duration**
15/04/2019 – 31/03/2022
- **Coordinator**
ERTICO – ITS Europe
- **Partners**
45 beneficiaries, 2 members states and 25 implementation bodies

RELEVANCE

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.

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 can only benefit PLANET's endeavours towards an integrated network of supply chains, sharing the vision of interoperable logistics communities and technology-driven solutions.

VITAL 5G Project

Description

The VITAL-5G project has the vision to advance the offered transport & logistics (T&L) services by engaging significant logistics stakeholders (Sea and River port authorities, road logistics operators, warehouse/hub logistic operators, etc.) as well as innovative SMEs and offering them an open and secure virtualized 5G environment to test, validate and verify their T&L related cutting-edge Network Applications (NetApps).

Main objectives

- Foster the development and sharing of novel vertical-specific and vertical-agnostic NetApps for the T&L sector.
- Deliver a testing and validation experimentation facility that will allow T&L stakeholders to deploy and benchmark the performance of their NetApp.
- Showcase the added value of 5G connectivity for multi-modal logistics services across European roads, seas and river.
- Provide customized and virtualized access to network and T&L infrastructure resources, enabling service provisioning to 3rd parties.
- Enable novel business models development for open, integrated and cooperative services across multiple domains.
- Foster the development and advancement of a T&L centred ecosystem by bringing together key vertical stakeholders with SMEs.



VITAL-5G At a Glance

- **Name**
Vertical Innovations in Transport And Logistics over 5G experimentation facilities
- **Funded under**
H2020-EU 2.1.1
- **Overall aim**
Create an open and secure experimentation facility comprised of an intelligent virtual platform, three distributed European 5G-testbeds and associated vertical infrastructure, to enable the testing and validation of T&L NetApps in real-life conditions, utilizing 5G connectivity
- **Duration**
01/01/2021 – 31/12/2023
- **Coordinator**
WINGS ICT Solution
- **Partners**
16 partners from 6 countries

RELEVANCE

Both projects aim to bring Europe at the forefront of T&L Technology. They have the vision to revolutionize T&L by creating smart and digital solutions based on 5G networks and concepts like IoT, PI and blockchain technology.

PLANET work on the PI concept and services as well as the Blockchain technology will be further examined and considered by VITAL-5G in an effort to incorporate possible findings or outputs in appropriate segments of VITAL-5G like the use cases set-up and requirements.

PILL Project

Description

PILL project will build the first IT prototype of the PI for nodes. The intention is to develop a system, based on digital documents and existing platforms, that organizes 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.

Main objectives

- Increase the efficiency and effectiveness of node processes by utilizing assets and spare capacities in order to accommodate transport demand and facilitate the complex physical reality of logistics. In this regard, optimization of human resources, equipment, infrastructure etc. will be taken into account.
- Create transparent real-time services to be used by companies operating within nodes connectable to long-distance flows by rail, road or inland waterways.
- Devise collaborative and proactive strategies for companies enabling them to use their assets to the maximum.
- Digital Twins to create a symbiosis between the virtual risk-free environment and the real physical system.



PILL At a Glance

- **Name**
Physical Internet Living Lab
- **Funded under**
The project is funded by Flanders Innovation & Entrepreneurship (VLAIO)
- **Overall aim**
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 Physical Internet
- **Duration**
01/01/2021 – 31/12/2023
- **Coordinators**
Imec, VUB-MOBI, VIL
- **Partners**
21 companies and organizations

RELEVANCE

Physical Internet remains at the core of PILL, and indeed PLANET project, as a new way of transporting goods towards more ecological, economical and sustainable logistics operations.

Research work on PI in both projects will cross-fertilize efforts to further mature and reinforce the novel concept by materializing the PI offerings.

ePcenter Project

Description

ePcenter will create an interoperable cloud-based ecosystem of user-friendly extensible AI-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.

This flexibility and agility has never been more important than presently. Furthermore, ePcenter will help develop a deeper understanding of the potential impact and benefits of new technologies such as Hyperloop, Autonomous Electric Vehicles and modular containers, while developing technologies which take a step towards the Physical Internet paradigm.

Main objectives

- Demonstrate technological solutions to digitize the supply chain and create end-to-end visibility and select and implement the appropriate standards and governance rules to offer stakeholders security and control over their own data.
- Develop AI algorithms and logistics optimisation and simulation software that enable the end-to-end optimisation of logistics processes to increase the efficiency of supply chains and reduce their environmental impact.



ePcenter At a Glance

- **Name**
Enhanced Physical Internet-
Compatible Earth-frieNdly
freight Transportation ansWER
- **Funded under**
H2020-EU 3.4
- **Overall aim**
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
- **Duration**
01/06/2020 – 30/11/2023
- **Coordinator**
HAVENBEDRIJF ANTWERPEN
- **Partners**
36 partners

RELEVANCE

Physical Internet as well as work on the TEN-T evolution promises challenging developments and an acceleration towards a collaborative framework of T&L entities.

Technologies like hyperloop, automated vehicles and Artificial Intelligence as well as study of global freight flows remain also at the target of PLANET aiming at eco-friendly optimised and transparent global supply chains.

News: latest deliverables submitted and PLANET promotional video

These are the new public deliverables you can find in our [website](#):

DELIVERABLE	WORK PACKAGE (WP)
D3.1 LL1 Specification and Baseline measurements	WP3
D3.3 LL2 Specification and Baseline measurements	WP3
D3.5 LL3 Specification and Baseline measurements	WP3



H2020 PLANET project: Paving the way for smarter, more integrated transport and logistics



Upcoming events

This conference aims to gather selected H2020 funded projects on road transport areas to give the attendees an overall picture of the achievements of EU funded R&I and identify the next steps needed to reach the overall EU transport policy objectives.

PLANET will present its new discoveries and achievements, how the project tackled hurdles and resolved challenges, and what are the next research steps in different essential areas.

You can find more information about the event [here!](#)

Follow us on:

#H2020RTR21

29th and 30th March 2022

EUROPEAN CONFERENCE
Results from road transport research in
H2020 projects

PLANET Project [DAY 1] 29th March 2022, 11.20 – 12.35

BluePoint Brussels – 80 Bd A.Reyers – 1030 Brussels

Co-organised by

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

PLANET F2F Workshops	
May 17-18, 2022, Hybrid (Valencia & Virtual)	
First Day: May 17 th	Second Day: May 18 th
<p>3 Sequential LL Workshops, led by ZLC – Lls and technical solutions</p> <p>EGTN Platform Presentation, led by IBM – Consolidated view of the EGTN Platform</p>	<p>WP1-focused validation Workshop for the EGTN Definition and operationalization, led by CERTH</p> <p>Two parallel sessions:</p> <p>(a) Business Model Design Workshop, led by PNO – 2-3 Key Exploitable Results</p> <p>(b) EGTN Services Technical Workshop, led by IBM with key technical actors – To formalize the functionality and user interface of the EGTN Service</p>



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