2nd PLANET Annual Report

DECEMBER 2022

COMMUNICATION

FUNDACIÓN VALENCIAPORT

planet

2nd PLANET Annual Report

December 2022

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under grant agreement No 860274

Contents

Report Scope

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2nd PLANET Annual Report

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About the PLANET project

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PLANET's vision

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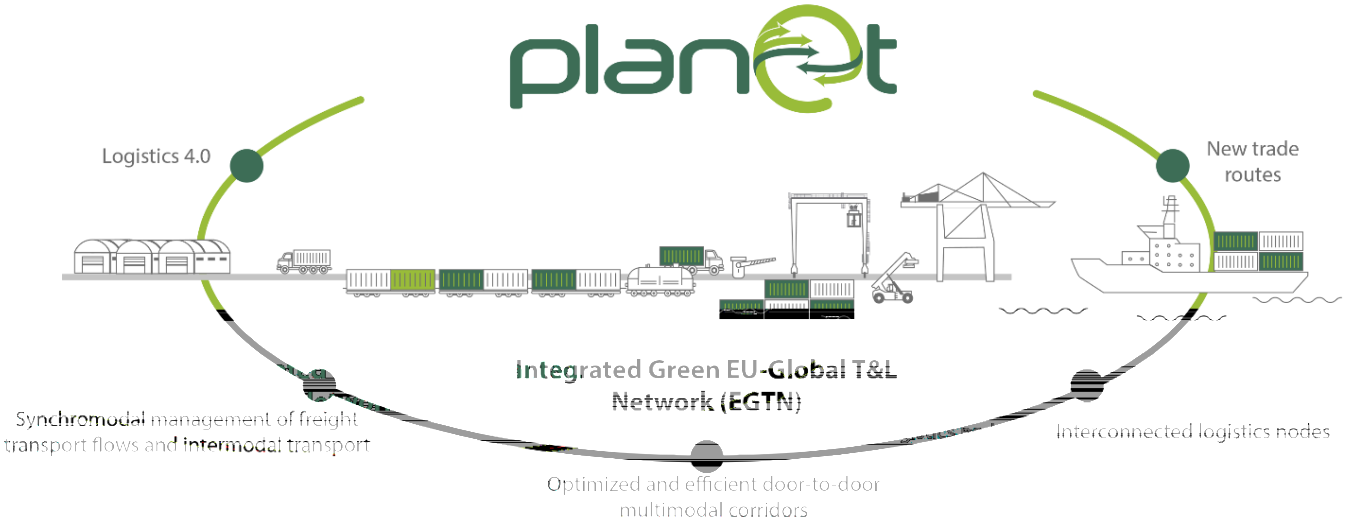

E E **EGTN**
E (1) make use of physical and digital infrastructures (2) operational excellence ; (3) geo-economic context; (4) disruptive) transport & logistics (T&) concepts and technologies

E assess the impact of these emerging global trade corridors on the TEN-T network ensure the integration of the European network into the global T&L network**.**
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PLANET's Living Labs

(**LL1:** PI and Blockchain for optimised door-to-door Asia-Europe corridors – Mediterranean Corridor; **LL2:** Synchromodal dynamic management of TEN-T & intercontinental flows promoting rail

iable, transparent and fully connected corridor from

Physical Internet

ngs (IoT) Blockchain E

rope-America Corridor

LL3 New Eurasian Land Bridge Economic Corridor

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Main Hub **otterdam**

Main Hub **Malaszewicze**

-door Asia-Europe corridors - Mediterranean Corridor.

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- **LL3** **IoT for Silk Road Route – reliable, transparent, and fully connected corridor from China to the EU.**

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Active Blueprint and Road Map

guidance and building public & private actor capacity towards the realisation of EGTNs facilitating the development of disadvantaged regions

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Deliverables and Milestones

Deliverables

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No.	Deliverable Name	Lead Beneficiary	Dissemination Level	Due Date	Deliverable Description
	EGTN Foundational Position Papers and Simulation Scenarios				
	E				
					E
D2.3	EGTN IoT infrastructure v1				E E E E E

D2.5	EGTN Connectivity infrastructure v1				E E
	E				E E E
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	E				E E
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D2.19	Unified HMIs implementation and technical documentation v1				E
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D6.2b	Project Quality Handbook and annual quality reviews (b)				

Milestones

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No.	Milestone Title	WP Number	Lead Beneficiary	Due Date	Means of Verification
MS4					
MS5					

MS4 E

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MS5

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Achievements

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WP1 EU-Global T&L Networks

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PLANET's Position Papers

Geo-economic developments impacting global corridors for trade New trade routes' impact on TEN-T Corridors and nodes Interconnection issues of railway transport-corridors to/from Europe ***(PP4)*** *Transition towards the Physical Internet paradigm*

Corridor Connectivity Index (CCI) E

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E E *EGTN Foundational Position Papers and Simulation Scenarios*

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TENT-T focused modelling and simulation

Simulation based impact of new trade routes on TEN T and disadvantaged region v1 E E

results from the baseline analysis for the three most relevant new trade routes
E
E methodology and infrastructure analysis required for carrying out the simulation

Legislation and EU policy to impact EGTN

policy and legislative initiatives expected to have an impact on the EGTN development E initial assessment of the type of these expected impacts E

E E

key barriers for the implementation of the identified policy & legislative initiatives

E E " *Legislation and EU Policy to impact EGTN v1*

Development and validation of the first prototype of PLANET's Integrated Modelling Capability

definition of the PLANET integrated modelling capability

E

first prototype pipeline E LL1 use case
E

E E *Simulation-based analysis of T&L and ICT innovation technologies v1*

E

Definition of EGTN layers, components and strategic vision

initial overview of the three interactive layers composing the EGTN E E
E E
simulation exercises E E

E E

- Initial definition of the minimum required technological functionalities

- Initial definition of the appropriate governance model

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defining the Physical infrastructure of the EGTN E

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EGTN Reference Specification v1

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WP2 PLANET Cloud-based Open EGTN Infrastructure

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Specification, design and deployment of the cloud-based open EGTN Infrastructure architecture

Open EGTN Platform Architecture v1,

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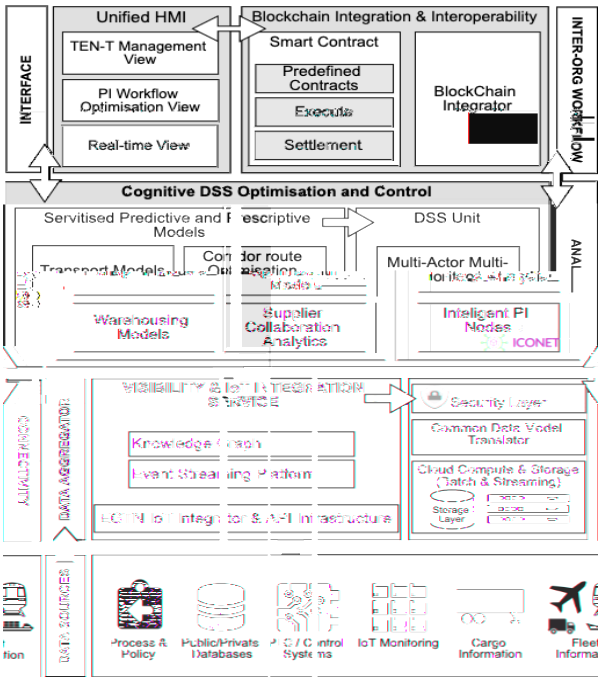

PLANET EGTN platform High-Level Architecture

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integration of some of the datasets E E blockchain and the PI Hub Choice services

IoT and connectivity infrastructure components of EGTN

EGTN IoT infrastructure v1, EGTN Connectivity Infrastructure v1 *EGTN Transport Data and Knowledge Models v1* E

E initial version of the EGTN Connectivity Infrastructure services completion of the specifications of the EPCIS 2.0 inition of multiple IoT service operators and standardised access

EGTN platform was expanded E E

E E

Forecasting, optimisation and multi-actor multicriteria analysis

EGTN Support Services based on Big Data analytics Models E

definition of interconnection services between data input/output

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implementation of pallet and container service pipeline modelling has been completed E

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Multi-Actor Multi-Criteria Analysis DSS v1 *Intelligent PI Nodes and PI Network services v1* implementation of MAMCA methodology development of the TEN-T network and its integration to global corridors

Implementation of solutions DSS and Intelligent PI nodes in different use cases

E

Blockchain EGTN distributed ledgers and Smart Contracts

Integration and Interoperability of proprietary Blockchain Systems for Seamless Global Trade Workflows v1 *EGTN smart contracts and associated PI motivated workflows in the context of SLA management v1*

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development of the blockchain front

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test the interoperability of smart contracts in the EGTN E

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Unified interface to EGTN Data and support Services

Unified HMIs implementation and technical documentation v1

initial prototype of the HMI has been developed and put online E

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outputs of the EGTN services deployed have been collected and the initial APIs design

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WP3 PLANET Living Labs

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EGTN generic Use Case is under development

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EGTN Generic use case v1

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WP4 Steering innovation and building capacity towards EGTN

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E determine the topics, structure, and format of the briefing sheets E

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PI-facilitating technology Roadmaps for EGTN

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Recommendations for PLANET standardisation

WP5 Dissemination Commercialisation Policy recommendations

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Observations and Recommendations of the Advisory Board v1

A review of Communication and Dissemination actions conducted

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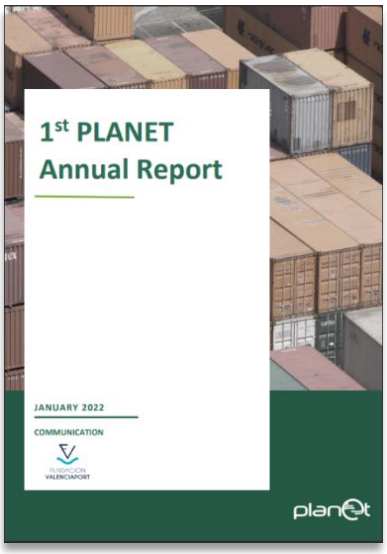
H2020 PLANET project: Paving the way for smarter, more integrated transport and logistics

OPEN VIDEO

PLANET's brochure



PLANET's First Annual Report

C&D Material	Dissemination subject
Newsletter #1	E E E
Newsletter #2	E E E E E
Newsletter #3	E E E
Newsletter #4	E E E E *Il Giornale della Logistica*
Newsletter #5	E E E E E
Factsheet #1	E E E E E E E
Factsheet #2	E
Factsheet #3	E E E E E E
Factsheet #4	E E E E E
Factsheet #5	E E E E

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Deliverable Name	Place	Date	Dissemination subject
8th International Physical Internet Conference (IPIC2021)			E E
International Summer School 2021: Logistics & Marketing: market innovations			*Digitalization of supply chains – theory and practice* E E
BLMM2021 - Business Logistics in Modern Management Conference			*Review of intelligent solutions to optimise logistics processes and improve efficiency* E E E E
Webinar Artificial Intelligence in planning, simulation and forecasting			*Demand forecasting and intelligent planning based on AI* E
European Intermodal Summit (2nd edition)			E E E
Intermodal transport and logistics: the roles of the government and business to make freight transport more sustainable			*Intermodal supply chain digitalization – Presentation of solutions for information integration of business partners* E E E
H2020RTR21 European Conference			*ICT infrastructure for road transport session* E

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Review of intelligent solutions to optimise logistics processes and improve efficiency E

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Authors and main contributions

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Contact

planeteuproject@gmail.com

https://www.planetproject.eu/

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