

D1.1 – Project Management Plan (PMP)





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Table of Contents

Execut	tive Su	mmary	8
1. Ir	ntrodu	ction	8
1.1.	Pur	pose of the document	8
1.2.	Sco	pe of the document	9
1.3.	Stru	icture of the document	9
2. P	roject	Summary	10
2.1.	UNC	CHAIN Key Facts	10
2.2.	UNG	CHAIN in brief	10
2.3.	Obj	ectives of the project	10
3. U	INCHAI	N Work Plan	14
3.1.	Wo	rk Plan Summary	14
3.2.	UNC	CHAIN Gantt Chart	14
3.3.	Woi	rk Breakdown Structure (WBS)	16
4. Q	uality	Management	19
4.1.	Mai	nagement Structure	20
4.2.	Dec	ision making and conflict resolution	23
4.3.	Inte	rnal reviewing procedure	23
5. R	isk Ma	nagement	25
5.1.	Defi	initions	26
5	.1.1.	Risk	26
5	.1.2.	Risk Event	26
5	.1.3.	Type of Risk	26
5	.1.4.	Risk Ratings	27
5	.1.5.	Contingency Plan	27
5.2.	Risk	Management organization and responsibilities	27
5.3.	Risk	Management process	28
5.	.3.1.	Risk assessment	29
5	.3.2.	Global Risk indicator (GRI)	31
5	.3.3.	Risk monitoring	32
5	.3.4.	Contingency Plan	33
5.4.	Risk	Table	34
6. Ir	ntellect	ual Property Rights (IPR) Strategy	35

Unchain

6.1.	Overview: Intellectual Property Rights	35
6.2.	Management procedure for IPR issues	35
6.3.	IPR within the UNCHAIN Grant Agreement	36
7. Co	mmunication guidelines	36
7.1.	Mailing lists	36
7.2.	Document repository	38
7.3.	UNCHAIN logo and acronym	39
7.4.	Notification procedures	40
7.4	I.1. Notification to the Project Coordinator	40
7.4	I.2. Bank account, notification of changes	40
7.5.	Participant Contacts	40
8. Me	eetings	41
8.1.	Meetings requests	42
8.1	1.1. Convening meetings	42
8.1	I.2. Notice of a meeting	42
8.1	L.3. Agenda definition	43
8.2.	Meeting schedule	43
8.3.	Minutes of the meeting	44
9. Rej	porting procedure	45
9.1.	Deliverables and documents	45
9.1	L.1. Deliverables numbering and naming	45
9.2.	Six-monthly report	46
9.3.	Project Periodic report	47
9.4.	Presentations, posters, and graphical material	49
9.5.	Document exchange format	49
10. Dis	ssemination	49
11. Co	nclusions	51
12. Ref	ferences	52
Annex I	. Deliverable's peer reviewers	53
Annex I	I. Deliverable review template	55
Annex I	II. Risk Table	59



List of Tables

Table 1 - UNCHAIN Gantt Chart	15
Table 2 - UNCHAIN Work Breakdown structure	16
Table 3 - UNCHAIN Steering Committee (PSC) and Work Package Leaders (WPL)	22
Table 4 – UNCHAIN Mailing distribution lists	37
Table 5 – UNCHAIN participants details	41
Table 6 – UNCHAIN convening meetings	42
Table 7 – UNCHAIN notice of a meeting	43
Table 8 – UNCHAIN agenda definition for a meeting	43
Table 9 – UNCHAIN proposed meeting schedule	44
Table 10 – UNCHAIN Technical six-monthly periodic report template	47
Table 11 – UNCHAIN Financial six-monthly periodic report template	47
Table 12 – UNCHAIN Project Periodic Reports (PPR)	48

List of Figures

Figure 1 - UNCHAIN specific objectives, Work Packages & Results and demo sites	13
Figure 2 – UNCHAIN's PERT diagram	14
Figure 3 – UNCHAIN's management structure	20
Figure 4 – UNCHAIN's internal review procedure	25
Figure 5 – UNCHAIN Risk management process	28
Figure 6 – UNCHAIN Risk assessment matrix	30
Figure 7 – UNCHAIN Repository	39
Figure 8 – UNCHAIN logo	



Acronyms

Acronym	Meaning
BIM	Business and Innovation Manager
СА	Consortium Agreement
СР	Consortium Plenary
DCOM	Dissemination and Communication Manager
DEM	Demonstration activities Manager
DoA	Description of Action
EC	European Commission
GA	Grant Agreement
н	Horizon Europe
ΙΑ	Impact Assessment leader
ICT	Information and Communications Technology
IPR	Intellectual Property Rights
PC	Project Coordinator
PDF	Portable Document Format
PEM	Project Evaluation Manager
РО	Project Officer
РМВ	Project Management Board
PR	Project Periodic Report
PSC	Project Steering Committee
PU	Public Usage
REM	REplication Manager
τι	Task Leader
WP	Work Package
WPL	Work Package Leader



Executive Summary

The Project Management Plan (PMP) sets the foundation for the project cooperation and defines the aspects that must be considered in order to assure an efficient and coherent management of the project. A brief description of the project; its objectives, the scope and work plan; the Quality Assurance and Risk Management Plan; Intellectual Property Rights (IPR) strategy; the contacts of the partners and the coordinator details; guidelines and recommendations regarding the communication activities of UNCHAIN are considered in this document. Moreover, the dissemination and other communication activities as well as the publication procedures to be followed by all partners are included too.

To produce documents and results of high quality, the Quality Assurance Plan describes the roles of the different actors in the project management, meeting schedules and gives guidelines for performing the day-to-day project management activities. Moreover, UNCHAIN will follow an internal reviewing procedure based on the peer review of the deliverables to ensure the documents that will be submitted to the European Commission (EC) portal will have the highest quality.

1. Introduction

1.1. Purpose of the document

This deliverable sets the basis for the project management processes providing a clear route to a successful project implementation. It describes the project scope and how the project will be executed, monitored, and controlled to adhere to the project management schedule.

The Project Management Plan (PMP contains all relevant information to facilitate the execution and control of the different tasks of the project. In addition, it will ensure that the consortium meets all requirements related to the contract with the EC, controlling the timeline of the tasks, assuring the project deliverables are submitted in due time and are of high quality.

The purpose of this document is, therefore, to describe the reporting procedures, communication policies, and the essential information needed to facilitate the cooperation and exchange of information among partners in an efficient and agile way.

Since the PMP in a common deliverable in all the Horizon Europe projects, this document is produced based on other similar deliverables already developed by ETRA and adapted to the UNCHAIN project.



1.2. Scope of the document

Within the Project management and coordination Work Package (WP1), D1.1 is produced as an overall management approach to ensure and guide the partners in all the cooperation processes needed for its proper development.

The document will mainly serve to all the partners providing, at every stage of the project, a clear overview of the different available tools to enable the exchange of information and management of the project.

Neither this deliverable, nor any other document, should contradict the project contract, – and, in particular, the provisions made within the DoA with regards to project schedule and efforts allocated.

1.3. Structure of the document

This document is structured as follows:

- Section 2 provides a summary of the UNCHAIN project, including key facts, scope, and main objectives. This section is aimed to provide the basic information to be used internally when presenting the project within each organisation of the UNCHAIN consortium.
- Section 3 details the work plan structure of UNCHAIN, including a Gantt chart and the work breakdown structure.
- Section 4 provides the Quality Assurance Plan, including the details of the UNCHAIN management structure and the internal reviewing procedure.
- Section 5 deals with risk management, defining the assignment of responsibilities and the risk management procedure.
- Section 6 refers to the IPR Strategy.
- Sections 7 to 10 are specific tools to facilitate the cooperative processes in the project: decision making and conflict resolution procedures, the communication guidelines, the main reporting procedures, and finally a short summary of dissemination tools.
- Section 11 concludes this deliverable.
- Annex I. Deliverable's peer reviewers.
- Annex II. Deliverable review template.
- Annex III. Risk Table



2. Project Summary

2.1. UNCHAIN Key Facts

Call: HORIZON-CL5-2022-D6-02.

Topic: HORIZON-CL5-2022-D6-02-02

Project Title: 'Urban logistics and plaNning: AntiCipating urban freigHt generAtion and demand including dIgitalisation of urbaN freight' (UNCHAIN).

Type of Action: HORIZON Innovation Action.

Project start: 01.05.2023.

Duration: 42 months from 01.05.2023 to 31.10.2026.

Project Coordinator: ETRA INVESTIGACIÓN y DESARROLLO S.A.

Technical Coordinator: UNIVERSITY OF LANCASTER.

Consortium: 17 organizations (+ 1 associated partner) from 8 countries.

2.2. UNCHAIN in brief

UNCHAIN is a project that will boost the cooperation between public authorities and logistics stakeholders. It will create a set of services for optimal and flexible urban logistics operation, management, planning and policymaking, unleashing the potential that technology and digitalisation can bring to the sustainable urban logistics and moving towards climate-neutral and smart cities.

UNCHAIN will implement a standardised and reliable data exchange ecosystem supported by a public-private collaborative framework that will allow the establishment of reliable data sharing agreements, break data silos and make the urban freight data more available and accessible. Driven by the unlocked data, an innovative set of 12 urban logistics services will be implemented to optimise the allocation of urban space, improve the policymaking capacity of local authorities, and optimise network management and logistics operation. With UNCHAIN, public authorities will improve their data collection capabilities and have the right tools to achieve sustainability goals. Meanwhile, for operators, having services aligned with their own and society's objectives will unlock mutually beneficial cooperation schemes, a key factor for long-term collaboration and the establishment of sustainable urban freight transport policies and operations.

2.3. Objectives of the project

The following 6 specific objectives (SO) are defined to deal with the ambitious concept of UNCHAIN:



SO1 – To consolidate the needs of different urban areas and user groups, understand the challenges posed by urban logistics digitalisation, and define foundations of a logistic cooperation framework.

- Objective 1.1: Carry out an advanced diagnosis of local ecosystem, consolidate the city challenges and sustainability targets and refine baselines and KPIs accordingly.
- Objective 1.2: Map, profile and assess current and emerging needs and requirements of all stakeholders involved in and affected by city logistics.
- Objective 1.3: Perform logistics data in-depth landscaping as enabler of urban logistics digitalisation.
- Objective 1.4: Formalise needs into technical, operational, and policy-based requirements to develop user-centric and data-driven logistic cooperation framework and tools.

SO2 - To build a trustworthy DATA-driven collaboration framework between local authorities and logistics stakeholders to unleash the potential of freight data and develop win-win scenarios, services and tools.

- Objective 2.1: Promote new cooperation schemes among cities and logistics stakeholders and define public-private cooperation and data-sharing agreements.
- Objective 2.2: Improve local authority capacity in gathering and managing purposeoriented freight data and set-up the required mechanisms to ensure secure, standardised and interoperable urban logistics data sharing.
- Objective 2.3: Valorise data and information gathered from urban freight by developing a smart logistics services ecosystem for sustainable urban logistics planning, policymaking, management, and operation.
- Objective 2.4: Encourage money savings for logistics providers due to the availability of real-time status network information and the optimization of the routes.
- Objective 2.5: Enable logistics integration in the urban traffic.

SO3 – To develop innovative services to support and enhance authorities' policymaking and urban planning to reach cities' sustainability targets.

- Objective 3.1: Support urban planners to better understand the impact of logistics on the city and develop a comprehensive policy strategy integrating freight into land-use planning.
- Objective 3.2: Enhance authorities policymaking, supporting them in defining initiatives and regulations to access, transit and parking in the city and in LEZ/ZEZ areas.
- Objective 3.3: Empower local authorities through better urban planning to promote and optimize urban consolidation and distribution activities in strategically positioned urban spaces.
- Objective 3.4: Contribute to the definition, upgrading and implementation of cities local SUMPs and SULPs, setting the path towards sustainable urban logistics and climate-neutral and smart cities.
- Objective 3.5: Improve decision making process and measures definition by providing tools to facilitate common lesson drawing and knowledge exchange of best practices and replicable logistics solutions.



SO4 - To empower local authorities with data-driven tools to anticipate urban freight generation and demand and improve space management and logistics operation.

- Objective 4.1: Develop innovative solutions to anticipate urban freight generation and demand and improve space management and logistics operation in response to that.
- Objective 4.2: Facilitate dynamic space re-allocation and flexible management of onstreet/off-street loading and consolidation spaces for the efficient integration of urban freight at local level.
- Objective 4.3: Promote the use of shared transport facilities for goods through smart solutions and demonstrate the convenience of consolidation to deliver the services and the goods.
- Objective 4.4: Improve urban logistics operation through better traffic planning to meet sustainability and safety targets.

SO5- To carry out in Madrid, Florence, Berlin and in follower cities a demonstration of the data driven logistics solutions and services developed on top of the trustworthy data collaboration framework and carry out an extensive data collection.

- Objective 5.1: Carry out large scale demonstration of economically viable and sustainable services and tools to optimise the allocation of urban space, improve the policy-making capacity of local authorities and optimise network management in 3 leading and 4 follower cities.
- Objective 5.2: Develop, deploy and validate innovative and sustainable business models for the digitalisation of urban freight.
- Objective 5.3: Develop an evidence-based monitoring and evaluation framework and carry out a profound assessment of the impact generated against the overall project objectives.
- Objective 5.4: Assessment of the evolution of road safety, traffic congestion and air and noise pollution in the test-site cities.

SO6- To ease and accelerate the upscaling, transferability and broad uptake of replicable results and support authorities in the implementation and definition of sustainable plans.

- Objective 6.1: Create mechanisms for the transferability and take-up of replicable datadriven solutions to improve space management and reduce the impact of freight transport on the urban fabric.
- Objective 6.2: Define the successful routes of exploitation to enable sustainable, profitable, and wide -scale exploitation of the project results.
- Objective 6.3: Support the transfer of successful solutions and policies to a wider group of cities and stakeholders through the Stakeholders Engagement Group (SEG), between projects funded under this topic and through CIVITAS initiatives.
- Objective 6.4: Deploy a strong capacity building to address governance and management of logistics, also thanks to knowledge exchange with experts and stakeholders addressing together common challenges, while facilitating joint lesson-drawing and learning at European level.
- Objective 6.5: Support cities in the implementation and upgrading of their SUMPs and definition of their SULPs.

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The following Figure 1 summarises the above-mentioned project objectives, linking them with the WPs, results, and demo sites in one picture.

SPECIFIC OBJECTIVES	WORK PACKAGES & RESULTS	DEMO SITES						
501								
To capitalize user needs [] and define foundations of a logistic cooperation framework	Requirements identification, data landscaping and use cases definition	MADRID	BERLIN	FLORENCE	MECHELEN	PRAGUE	RIGA	MADEIRA
0: 1, 2, 10 1: 4	WP3 Data-driven urban logistics cooperation framework	MA	BEI	FLOF	MEC	PR/	R	MAI
To build a trustworthy DATA-driven collaboration framework []	WP4 Urban logistics services marketplace: Urban planning and policymaking							
0: 2, 3 1: 1, 2, 4	KER2 SUMPs and SULPs guidance tool KER3 Freight-efficient land use strategy							
To [] support authorities POLICYMAKING and urban PLANNING to reach cities sustainability targets	KER4 UCC location and integrated planning KIT KER5 On-street loading zones planning tool KER6 Active UVARs and city regulations tools							
0: 1, 2, 3, 4, 5, 8, 10 I: 1, 2, 3, 4	KER7 Knowledge powerhouse for urban logistics Urban logistics services marketplace: Space management and operation							
To empower local authorities [] to improve space MANAGEMENT and	KER8 Dynamic curb side management tool KER9 Dynamic management tool of pick-up/drop-off points						1	
logistics OPERATION O: 3, 6, 7, 8, 9 I: 1, 2, 3	KER10 IT Pop-Up delivery points management tool (KER11) Logistics operator monitoring system and incentives tool		4	-				
SO5	KER12 Congestion forecasting and safe route planning tool							
To demonstrate the data driven logistics services [] and carry out an	KER13 Advanced Management IT Cockpit of Shared Facilities							
extensive data collection O: 3, 8 I: 1, 4	Large scale demonstration in the demo sites, ev assessment	alua	tion	and	l im	pact	t	
506 To accelerate the upscaling, transferability and uptake of replicable results and support the implementation of sustainable plans	WP7 Business innovation and go-to-market strategy WP8 Communication, replication and upscaling							
0: 10, 11 I: 4								2

Figure 1 - UNCHAIN specific objectives, Work Packages & Results and demo sites.

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3. UNCHAIN Work Plan

3.1. Work Plan Summary

The UNCHAIN Work Plan comprises 8 Work Packages (WP). According to Figure 2, two horizontal WPs, and common to all the Horizon Europe projects, ensure that the project activities accomplish with the contract signed with the EC (WP1) and with the communication and dissemination activities of the actions and results (WP8). In addition, three WPs are directly linked to set the cooperation framework and prepare the hub in which the services developed in WP4 and WP5 have to be implemented (WP3). The three remaining WPs are transversal. In them, the requirements and use cases in which the services are tested are clearly defined (WP2) before demonstrating and evaluating in situ their impact in the 7 cities involved (3 living labs: Madrid, Berlin, and Florence and 4 follower cities: Prague, Mechelen, Madeira and Riga) in WP6. Finally, in WP7 the sectorial business analysis based on the market assessment methods and a clear go-to market strategy that includes Business Models and Plans are elaborated.

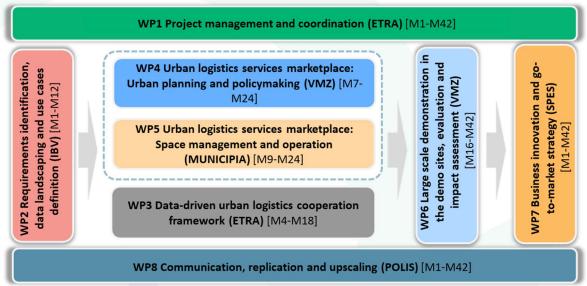


Figure 2 – UNCHAIN's PERT diagram

3.2. UNCHAIN Gantt Chart



Table 1 - UNCHAIN Gantt Chart

	М1	M2	мз	M4	М5	M6	M7	M8	м9	M10	M11	M12	M13	м1	4 M15	м1	6 M1	7 M1	18 MI	19 M2	0 M	21 M2	2 M2	23 M2	4 M	25 M	26 N	27 M	28 M2	9 M30	M31	M32	M33	M34	M35	M36	M37	M38	M39 I	M40 N	V141 P	V142
WP1 Project management and coordination						MS1																																				
T1.1 Administrative, Financial and Strategic management						D1.1																_				_			_		_							\square				
T1.2 Technical management, Quality assurance and IPR															_		_									_					_							\square				
T1.3 Ethics monitoring, Data Management and RRI						D1.2									_		_	D1.	.3										_	_						D1.4		\square			D	D1.5
WP2 Requirements identification, data landscaping and use cases definition									MS2			MS3																														
T2.1 Diagnosis of local framework, SUMP/SULP analysis and logistics ecosystem						D2.1																																				
T2.2 Public and private needs identification in the urban logistics ecosystem									D2.2																																	
T2.3.KPI's identification and in-depth data landscaping																																										
T2.4 Technical, operational and policy-based requirements definition												D2.3																														
T2.5 Use case refinement and usage scenarios definition																																						í I				
WP3 Data-driven urban logistics cooperation framework																		MS	S4																							
T3.1 Collaboration framework for an enhanced urban logistics policymaking															D3.1																											
T3.2 Secure, standardised and interoperable urban logistics data																																										
T3.3 Smart city logistics services marketplace architecture															03.2																											
T3.4 Software integration, open interfaces and lab testing																		D3	.3																							
WP4 Urban logistics services marketplace: Urban planning and policymaking																								MS	5																	
T4.1 Integrating freight into land-use planning																								D4.	1																	
T4.2 UVAR evaluation and management service for an enahnced policymaking																				D4.	2			D4.3	3																	
T4.3 Supporting tools for enhance urban planning																																										
T4.4 Development and upgrade of local SUMPs and SULPs and definition of logistics-related initiatives																								D4.	4																	
WP5 Urban logistics services marketplace: Space management and operation																								MS	5																	
T5.1 Dynamic space management and regulation																				D5.	.1			D5.	4																	
T5.2 Logistics operator monitoring system and rewarding tool																				D5.	.2			D5.	5																	
T5.3 Safe and space-efficient urban freight operation																								05.0																		
T5.4 Optimized management of shared transport facilities																				D5.	.3			D5.0	5															-		
WP6 Large scale demonstration in the demo sites, evaluation and impact assessment		c																						MS	6											MS7						MS9
T6.1 Integration, living labs preparation and deployment																								D6.	1																	
T6.2 Large scale demonstration in the living labs and follower cities																																									9	
T6.3 Cross-site evaluation methodology and plan																											D	5.2														
T6.4 Technical impact assessment																																										
T6.5 Socio-economic and environmental impact assesment			6																																						Ĩ	10.5
WP7 Business innovation and go-to-market strategy																																				MS8						VIS10
T7.1 Market analysis and monitoring																										D7	.2														1	
T7.3 Detailed individual exploitation strategies																																				07.4						07.6
T7.2 Business models and plans																		D7.	.1																							
T7.4 Policy and market recommendations																													D7.	3											1	
WP8 Communication, replication and upscaling																																										MS11
T8.1 Communication and dissemination activities				D8.1		D8.2												D8																		D8.6						D8.8
T8.3 Replication and transferability of results						08.2																														08.6						
T8.2 Cooperation with Stakeholder Engagement Group (SEG)																								D8.4	4																	
T8.4 Cooperation with CIVITAS and similar project and initiatives																																										
T8.5 Contribution to the implementation and upgrade of SULP and SUMPs																								D8.	5																•	D8.9





3.3. Work Breakdown Structure (WBS)

The UNCHAIN WBS is presented in Table 2, specifying the schedule per task, all partners involved, and related deliverables.

WP	Task	Start	End	Leader	Related deliverable(s)
1	T1.1. Administrative, Financial	May 23	Oct 26	ETRA	D1.1Project Management Plan (PMP)
	and Strategic management	[M1]	[M42]		– [M6] [ETRA]
1	T1.2. Technical management,	May 23	Oct 26	ULANC	D1.1Project Management Plan (PMP)
	Quality assurance and IPR.	[M1]	[M42]		– [M6] [ETRA]
1	T1.3. Ethics monitoring, Data Management and RRI	May 23 [M1]	Oct 26 [M42]	ETRA	D1.2 Data Management Plan (DMP) v1 [M6] [ETRA] D1.3 Data Management Plan (DMP) v2 [M18] [ETRA] D1.4 Data Management Plan (DMP) v3 [M36] [ETRA] D1.5 Data Management Plan (DMP) v5 [M42] [ETRA]
2	T2.1 Diagnosis of local framework, SUMP/SULP analysis and logistics ecosystem	May 23 [M1]	Oct 23 [M6]	SPES	D2.1 Local framework and SUMP/SULP analysis [M6] [SPES]
2	T2.2 Public and private needs identification in the urban logistics ecosystem	May 23 [M1]	Jan 24 [M9]	IBV	D2.2 User needs of the main actors in the urban logistics ecosystem [M9] [IBV]
2	T2.3 KPI's identification and in-depth data landscaping	Aug 23 [M4]	Apr 24 [M12]	IBV	D2.3 Technical and legal requirements, KPIs and use cases [M12] [IBV]
2	T2.4 Technical, operational and policy-based requirements definition	Aug 23 [M4]	Apr 24 [M12]	ETRA	D2.3 Technical and legal requirements, KPIs and use cases [M12] [IBV]
2	T2.5 Use case refinement and usage scenarios definition	Oct 23 [M6]	Apr 24 [M12]	IBV	D2.3 Technical and legal requirements, KPIs and use cases [M12] [IBV]
3	T3.1 Collaboration framework for an enhanced urban logistics policymaking	Aug 23 [M4]	Jul 24 [M15]	IBV	D3.1: Urban logistics cooperation framework [M15] [IBV]
3	T3.2 Secure, standardised and interoperable urban logistics data	Oct 23 [M6]	Jul 24 [M15]	ETRA	D3.2 Standardised data exchange ecosystem and smart services marketplace architecture [M15] [ETRA]
3	T3.3 Smart logistics services marketplace architecture	Oct 23 [M6]	Jul 24 [M15]	ETRA	D3.2 Standardised data exchange ecosystem and smart services marketplace architecture [M15] [ETRA]
3	T3.4 Software integration, open interfaces and lab testing	May 24 [M13]	Oct 24 [M18]	MUNI	D3.3 Integration, open interfaces development and lab-testing [M18] [ETRA]

Table 2 - UNCHAIN Work Breakdown structure.









4T4.1 Integrating freight efficiency into land-use planningNov 23 [M7]Apr 25 [M24]IBVD4.1 Freight-Efficient Land Use (FELU) interactive guidebook [M [IBV]4T4.2 UVAR evaluation and management service for an enhanced policymakingJan 24 [M9]Apr 25 [M24]MUNI MUNID4.2 UVAR evaluation and management service for an enhanced policymaking v1 [M2 [MUNI]4T4.3 Supporting tools for enhanced urban planningJan 24 [M9]Apr 25 [M24]VMZD4.4 Smart services for urban mobility, space and logistics pla [M24]4T4.4 Development and upgrade of local SUMPs andNov 23 [M7]Apr 25 [M24]VMZD4.4 Smart services for urban mobility, space and logistics pla [M24]	0]
management service for an enhanced policymaking[M9][M24]management service for an enhanced policymaking v1 [M2 [MUNI] D4.3 UVAR evaluation and management service for an enhanced policymaking v2 [M2 [MUNI]4T4.3 Supporting tools for enhanced urban planningJan 24 [M9]Apr 25 [M24]VMZD4.4 Smart services for urban mobility, space and logistics pla [M24] [VMZ]4T4.4 Development andNov 23Apr 25VMZD4.4 Smart services for urban	4]
enhanced urban planning[M9][M24]mobility, space and logistics pla [M24] [VMZ]4T4.4 Development andNov 23Apr 25VMZD4.4 Smart services for urban	nning
SULPs and definition of [M7] [M24] [M24] logistics-related initiatives [M24] [VMZ]	nning
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6	T6.4 Technical impact assessment	Apr 25 [M24]	Apr 26 [M42]	ULANC	D6.5 Technical, Socio-economic and Environmental Impact Assessment [M42] [ULANC]
6	T6.5 Socio-economic and environmental impact assessment	Apr 25 [M24]	Apr 26 [M42]	ULANC	D6.5 Technical, Socio-economic and Environmental Impact Assessment [M42] [ULANC]
7	T7.1 Market analysis and monitoring	May 23 [M1]	Oct 26 [M42]	SPES	D7.2 Markets analysis and monitoring report v1 [M26] [SPES] D7.5 Markets analysis and monitoring report v2 [M42] [SPES]
7	T7.2 Business models and plans	May 24 [M13]	Oct 26 [M42]	EITUM	D7.1 Business models and exploitation strategies report v1 [M18] [EITUM] D7.4 Business models and exploitation strategies report v2 [M36] [EITUM] D7.6 Business models and exploitation strategies report v2 [M42] [EITUM]
7	T7.3 Detailed individual exploitation strategies	Apr 25 [M24]	Apr 26 [M42]	SPES	D7.1 Business models and exploitation strategies report v1 [M18] [EITUM] D7.4 Business models and exploitation strategies report v2 [M36] [EITUM] D7.6 Business models and exploitation strategies report v2 [M42] [EITUM]
7	T7.4 Policy and market recommendations	May 25 [M25]	Apr 26 [M42]	POLIS	D7.3 Policy, market recommendations and standardisation v1 [M29] [POLIS] D7.7 Policy, market recommendations and standardisation v1 [M42] [POLIS]
8	T8.1 Communication and dissemination activities	May 23 [M1]	Oct 26 [M42]	POLIS	D8.1 UNCHAIN visual identity and website [M4] [POLIS] D8.2 Communication, Dissemination and replication strategy v1 [M6] [POLIS] D8.3 Communication, Dissemination and replication strategy v2 [M18] [POLIS] D8.6 Communication, Dissemination and replication strategy v3 [M36] [POLIS] D8.8 Communication, Dissemination and replication strategy v4 [M42] [POLIS]
8	T8.2 Cooperation with Stakeholder Engagement Group (SEG)	May 23 [M1]	Oct 26 [M42]	POLIS	D8.4 Cooperation with stakeholders, CIVITAS and similar projects and initiatives v1 [M24] [POLIS] D8.7 Cooperation with stakeholders, CIVITAS and similar projects and initiatives v2 [M36] [POLIS]



8	T8.3 Replication and transferability of results	May 23 [M1]	Oct 26 [M42]	EITUM	D8.2 Communication, Dissemination and replication strategy v1 [M6] [POLIS] D8.3 Communication, Dissemination and replication strategy v2 [M18] [POLIS] D8.6 Communication, Dissemination and replication strategy v3 [M36] [POLIS] D8.8 Communication, Dissemination and replication strategy v4 [M42] [POLIS]
8	T8.4 Cooperation with CIVITAS and similar project and initiatives	Sep 23 [M5]	Oct 26 [M42]	POLIS	D8.4 Cooperation with stakeholders, CIVITAS and similar projects and initiatives v1 [M24] [POLIS] D8.7 Cooperation with stakeholders, CIVITAS and similar projects and initiatives v2 [M36] [POLIS]
8	T8.5 Contribution to the implementation and upgrade of SULP and SUMPs	May 23 [M1]	Oct 26 [M42]	SPES	D8.5 SUMP and SULP review and implementation report v1 [M24] [SPES] D8.9 SUMP and SULP review and implementation report v2 [M42] [SPES]

4. Quality Management

The main goal of project management is to provide a focused, lean but effective framework to support the partnership in achieving the scientific, technical, and business objectives of the project. Efficient decision-making processes and swift responsiveness to changing circumstances are required.

The quality of the project management is ensured by a Quality Assurance Plan. This section describes how UNCHAIN will put into operation - from a very pragmatic perspective -, all the previously described principles, taking into consideration the specific strengths and constraints of the consortium. The goal is to define the management structure as well as the principles and procedures that, whilst being as flexible, agile and cost-efficient as possible, leave no room to subjective interpretation.

As a part of a Quality Assurance Plan, the project will apply an internal reviewing procedure to guarantee the quality of its results.

Moreover, a key aspect within the quality management is the project's risk management process. A continuous risk assessment will allow that in case of problems, the required corrective actions are initiated in co-operation with the concerned partners.



4.1. Management Structure

UNCHAIN will be implemented by 18 project partners, being one of them an associated partner from UK: the University of Lancaster. The project's nature puts greater emphasis on decision-making mechanisms. Hence a shallow management hierarchy with transparency in the information flow is proposed to facilitate a team of empowered and motivated individuals to respond to the needs of new product development and commercialisation. The management structure has the following characteristics:

- Goal oriented the project requires a determined management with a strong desire to "get things done".
- Agile to allow adaptation to fast-moving technology dynamics and end-user demands.
- Empowered/productive shallow hierarchy, information transparency and well-defined objectives.

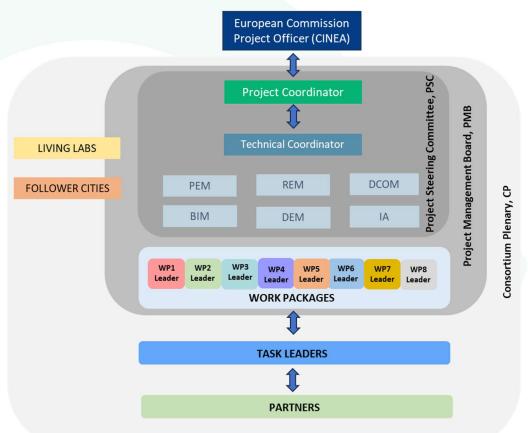


Figure 3 – UNCHAIN's management structure

The work to be done within UNCHAIN, see

Figure 3, is structured into a set WPs (led by WPLs) which are at the same time divided into a set of tasks, led by Task Leaders (TL).



The Project Coordinator (PC) takes responsibility for overall project management. This includes interactions with the EC on contract-related issues as well as chairing regular management meetings, setting administrative and financial tasks -representing the project in the contract negotiation, and in relation to the Commission's Project Officer, representing the consortium in workshops and official meetings, etc.

The PC will count on the support of the Technical Coordinator (TC) on the day-to-day management activities of the project, such as the collection of administrative reports from partners, preparing and updating the consortium agreement between the participants, managing the overall ethical and gender issues, etc.

The PC and PM are supported in several management tasks such as monitoring the project's performance, managing the technical audits, and supervising the preparation of the final deliverables by the Project Steering Committee (PSC) which comprises some additional roles:

- The Project Evaluation Manager (PEM) will coordinate all the evaluation activities in the project.
- The REplication Manager (REM) is the coordinator of all the activities related to replication and take-up, also managing the follower cities and the group of "peer-cities". To do so, knowledge exchange process along the project will be carried out through a set of workshops and on-site peer learning visits. And, as a result of the process, transferability guidelines will be developed, describing the context conditions and chronological steps for replicating the services.
- The Dissemination and Communication Manager (DCOM) is responsible for all dissemination and communication activities and output as well as to lead the activities to define the exploitation plan of UNCHAIN. They will cooperate closely with the REM, and PEM to communicate about meaningful progress and results from the project and Urban Nodes.
- The Business and Innovation Manager (BIM), who is particularly responsible for the exploitation activities and innovation management.
- The Demonstration activities Manager (DEM), who is responsible for the coordination of the demonstration activities of the project.
- Impact Assessment leader (IA), who is responsible for the supervision of the overall impact of the project's outcomes. The IA analyses the impact from the technical perspective but also from the socio-economic and environmental perspective.

Reasons for any deviations from the project plan will be identified by the responsible of the activity (and included in the risk matrix table, as stated in section 5.3) and the necessary corrective actions will be agreed upon the PSC. Any differences between participants will be resolved by the PSC as they arise. Major changes in the project plan, such as reallocation of resources, may be done within the limits of agreements, by the decision of the PSC as put forward by the Technical Coordinator. The PSC will convene once a month virtually using a videocall platform to discuss the progress of the individual WPs, in order to provide a quick and efficient response to the events that will arise during the project. A PSC meeting will always precede Consortium Plenary meetings to prepare for them.



Aside the PSC, the following roles will be part of the UNCHAIN project team and management structure.

- WPLs are responsible for the completion of activities and objectives specified in the WPs of the project plan, as well as for carrying out the respective deliverables with high quality and on time and ensuring no delays in the accomplishment of the tasks. WPLs will coordinate the activities within the WPs.
- Within each work package, the TLs will be the directly responsible for the day-to-day work needed to carry out the tasks related to their specific activity. Their coordination work is not subject to any additional administrative or reporting burden; instead, they will act as team leaders of all the individuals from the different partners involved in a specific task.
- Finally, all the partners are represented in the Consortium Plenary (CP). The CP is the key liaison between all the project partners. In the CP meetings, chaired by the PC, all partners will come together to discuss the overall project's status and planning and elaborate on the project results. The CP meetings shall take place twice a year and, with a plenary session on project progress and in addition workshops on content, topics, where all the partners can exchange ideas and present results.

Role	Responsible				
Project Coordinator (PC)	Elena García (ETRA)				
Technical Coordinator (TC)	Konstantinos Zografos (ULANC)				
Project Evaluation Manager (PEM)	Konstantinos Zografos (ULANC)				
REplication Manager (REM)	Albert Solé (EITUM)				
Dissemination and Communication Manager (DCOM)	Zsofia Jakoi (POLIS)				
Business and Innovation Manager (BIM)	Chiara Tavella (SPES)				
Demonstration activities Manager (DEM)	Jasmin Rychlik (VMZ)				
Impact Assessment leader (IA)	Konstantinos Zografos (ULANC)				
WP1 Leader	Elena García (ETRA)				
WP2 Leader	Juan Giménez (IBV)				
WP3 Leader	Elena García (ETRA)				
WP4 Leader	Jasmin Rychlik (VMZ)				
WP5 Leader	Ylenia Buccitti (MUNI)				
WP6 Leader	Jasmin Rychlik (VMZ)				
WP7 Leader	Chiara Tavella (SPES)				
WP8 Leader	Melina Zarouka (POLIS)				

 Table 3 indicates the main contact person for each role.

 Table 3 - UNCHAIN Steering Committee (PSC) and Work Package Leaders (WPL)



4.2. Decision making and conflict resolution

Decision making and conflict resolution processes have the objective to set the procedures, flows and rules based on two main principles:

- All partners have the same voting rights independently of their economic and technical contribution, and
- Decisions to be taken by each Consortium Body (either CP or PSC) (min. quorum 3/4 of the members) will be taken upon 3/4 of the votes.

Any signs of disagreement between project participants should be solved amicably between those partners involved. If not resolved at that level, and only if it is strictly necessary, a conflict resolution process must be enforced:

- UNCHAIN participants will escalate the issue to higher management levels until it is resolved (to TL, WPL) and consensus to solve the problem is sought at each level.
- Eventually, if still not resolved, the PSC will take care of the issue applying the same rules.

Some specific examples of the decision procedures are as follows:

- Decisions regarding a technical issue of major importance, affecting the input, work content or the project's final outcome are expected to be made by the PSC led by the PC and the TC. In general, all major technical issues and related decisions are announced to all partners, even if the issue is not directly connected to their participation.
- Decision making for important matters within the frame of the GA and the consortium agreement, especially when such decisions may affect the agreements reached in these two contracts, will be addressed by the PSC.
- Decision making in the administrative domain is the responsibility of the PC with the support of the PSC. Individual financial issues are primarily the responsibility of the partner itself.

4.3. Internal reviewing procedure

The internal reviewing procedure is one of the main tools to guarantee the high quality of the results.

Each WPL is responsible for the quality of the results, which will be subject to a peer review by at least two additional experts. The peer review team that must check their quality (not including the periodic progress reports), before the final submission to the EC. ETRA, as PC, will review the progress reports containing resource-reporting information, as the last stage before submission to the EC. Furthermore, Backup WPLs have been nominated in order to ensure quality process enforcement and reduce risks during project implementation.

The coordination team has elaborated a table which defines the partners in charge of the internal review of UNCHAIN deliverables (see Annex I. Deliverable's peer reviewers), ensuring



a balanced workload for all of them not only in terms of the number of reports to be reviewed by each partner but also creating enough space in time to avoid several deliverables to be reviewed by the same partner in a short period of time. Highlight that ULANC as TC and ETRA as PC will review the relevant deliverables when a project milestone is related.

Each partner responsible for a deliverable will provide (or upload in the repository) the proposed table of contents at the beginning of the WP to give an insight to all the involved partners about their contribution in it and as well in the WP. A preliminary full version of the deliverable will be sent to the WPLs as well as to the peer reviewers allocated in the table at least three weeks in advance of the due date. The PC and the TCor will be also informed. It needs to be noted that early draft versions of the deliverable should be periodically circulated in order to confirm that the work progresses as expected, and progress update will be reported during the monthly PSC meetings.

Peer reviewers will review the document and send comments within one week using the track changes mode in the draft version of the document. In case they encounter that the document does not fulfil the requirements for such document, they will notify accordingly the deliverable responsible partners within one week after the request. To do so, a reviewed template was prepared (see Annex II. Deliverable review template) and will have to filled by the reviewers and sent to the responsible of the deliverable.

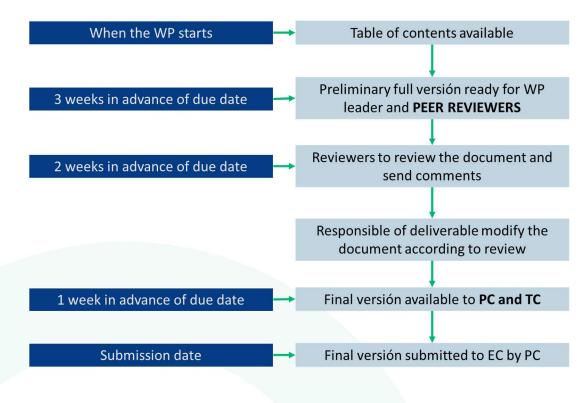
The new version of the document will be again available for the deliverable responsible partner who will modify the document accordingly. Upon confirming with the peer reviewers that their comments have been effectively addressed, the final version will be sent to the PC at least one week before the delivery date.

In the case that the deliverable fulfils the required objectives, the PC will submit it to the EC.

Whether the deliverable responsible partner fails to deliver the document, or the document does not fulfil the objectives, the PSC will take the required actions according to the provisions of the consortium agreement and contract.

The process of internal review is summarised in Figure 4.

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5. Risk Management

The consortium's experience in managing complex international projects in conjunction with its technological competence on communication and networking permits to identify the following main areas of possible risks:

- Technical: lack of competence to overcome unexpected difficulties.
- **Financial**: deterioration of the economic situation of a partner, which imposes a stop or an unacceptable reduction of all its activities.
- **Key resources availability**: abandon of the participation to the project of resources with key roles.

Furthermore, the combination of the main risk areas above, which could result in an even greater impact, is considered.

The level of technical risk is substantially reduced by the composition of the UNCHAIN consortium, with a well-assorted set of industry partners, research centres, cities and endusers deeply involved in the development process. UNCHAIN partners have demonstrable consolidated experience as leaders in the technological areas in which each of them contributes to the project. Most of the UNCHAIN partners have been involved in European innovation actions and are experienced in managing and mitigating risks.

In case of financial problems or lack of resources' availability, the corrective measures will include distributing to the remaining partners the activity not fulfilled or to subcontract them



to a third party, or a combination of the two. The corrective measures will be chosen after an evaluation of their impact and relevance on the project. Furthermore, in order to minimise the potential impact of these unlikely situations, each WP leading partner will have a backup leading partner in case the initial WP becomes unavailable (see Annex III. Risk Table).

For the UNCHAIN project, a risk is defined as an event that may or may not occur in the future, which could potentially have an adverse effect on a team's progress and success. A risk has a severity of impact and a probability of occurrence, a formal definition can be found in the next section.

5.1. Definitions

5.1.1. Risk

A risk is a measure of the inability to achieve overall project objectives within defined cost, schedule, and technical (performance and quality) constraints and has two components:

- The probability of failing to achieve a particular outcome, and
- The consequences (impact) of failing to achieve that outcome.

For UNCHAIN, a risk is a measure of the difference between actual performance of a process and the known best practice for performing that process.

A risk can also be the potential that a given threat will exploit vulnerabilities of an asset or group of assets to cause loss of, or damage to, the assets. It is ordinarily measured by a combination of effect and likelihood of occurrence.

5.1.2. Risk Event

Risk events are those events within UNCHAIN that, if they occur, could result in problems in the development of the expected research results, production and assessment of the prototypes, and dissemination of the results. Risk events should be defined to a level such that the risk and causes are understandable and can be accurately assessed in terms of likelihood/probability and the consequence to establish the level of risk.

5.1.3. Type of Risk

It is possible to differentiate between the following different kinds of risk types:

- **Technical risks**: Difficulties in meeting any technical product specification that may have an impact on achieving project requirements.
- **Managerial risks**: Managerial Risks are risks associated with the adequacy of the time estimated and allocated for the achievement of the goals of the project, i.e. the design, development and/or deployment of products, the achievement of research results and the dissemination of project results. Three kinds of risk events exist in the UNCHAIN project:



- Lack of resources' availability.
- Non-realistic or reasonable schedule estimates and objectives.
- Project execution falling short of the schedule objectives because of failure to mitigate technical risks.
- **Financial risks**: Financial risks are associated with the ability of the project to achieve its cost objectives as determined in the DoA. Two risk areas bearing on cost are:
 - The risk that the cost estimates and objectives are not accurate and reasonable.
 - The risk that project execution will not meet the cost objectives, as a result of a failure to mitigate technical risks.
- **Ethical risks**: Ethical risks are associated with the respect and the protection of the privacy of the involved end-users. Two kinds of risk events are defined:
 - Absence of participants consent.
 - Infringement of personal data.

5.1.4. Risk Ratings

A risk rating is the value that is given to a risk event (or the overall project) based on the analysis of the likelihood or probability and impact of the event. For UNCHAIN, risk ratings of low, moderate, or high are assigned based on the following criteria:

- Low risk: Has little or no potential to increase in cost, disruption of schedule, or degradation of performance. Actions within the scope of the planned project and normal management attention should result in controlling acceptable risk.
- **Moderate risk**: May cause some increase in cost, disruption of schedule, or degradation of performance and/or quality. Special action and management attention may be required to control acceptable risk.
- **High risk**: Likely to cause significant increase in cost, disruption of schedule, or degradation of performance and/or quality. Significant additional action and high priority management attention will be required to control acceptable risk. This type of risk may be subject to a report to the Commission.

5.1.5. Contingency Plan

Once identified and assessed, it is essential to trace risks both in their status (risk monitoring) and with respect to necessary activities. A contingency plan should cover the registration and reaction to the change of environmental conditions to avoid risk events. In case of materialisation of risks, the overall contingency plan can be further elaborated including the mitigation actions.

5.2. Risk Management organization and responsibilities

The UNCHAIN TC is the overall risk manager and responsible for:

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- Tracking efforts to reduce high risk to acceptable levels.
- Combining risk briefings, reports, and documents as delivered by WPLs and required for project reviews by the Commission.

The PSC, and in particular the PC, assists the TC with:

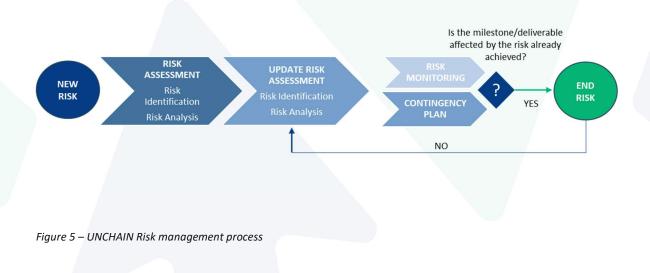
- Briefing the consortium on the status of UNCHAIN risks during CP meetings.
- Facilitating consortium-level risk assessments during PSC meetings.
- Maintaining this section of the Project Handbook Risk Management updated (as a supporting process) for UNCHAIN.
- Provision and maintenance of the risk information form.

The WPLs are responsible for risk assessment within their work packages:

- Risk identification.
- Risk analysis.
- Risk handling.
- Risk information to the TC (in case of moderate or high risk).
- Risk monitoring.
- Briefing the respective WP members on the status of risks.
- Tracking efforts to reduce low and moderate risk to acceptable levels.
- Preparing risk briefings, reports, and documents required for project reviews during PSC meetings.

5.3. Risk Management process

This section describes the UNCHAIN risk management process and provides an overview of the UNCHAIN risk management approach. Figure 5 shows, in general terms, the overall risk management process that will be followed in UNCHAIN. Each of the risk management functions shown in Figure 5 is discussed in the following paragraphs, along with specific procedures for executing them.





5.3.1. Risk assessment

Risk assessment includes the identification of critical risk events or processes, which could have an adverse impact on the project, and the analysis of these events/processes to determine the likelihood of occurrence/process variance and consequences.

Risk assessment is an iterative process. Each risk assessment is a combination of risks identified/analysed in the previous phase and the identification/analysis of risks on current milestones/deliverables according to the DoA.

5.3.1.1. Risk identification process and procedure

Risk identification is the first step in the assessment process. The basic process involves searching through the entire UNCHAIN project plan to determine those critical events that would prevent the project from achieving its objectives.

All identified risks will be documented in Annex III – Risk Table with a statement of the risk and a description of the conditions or situations causing concern and the context of the risk. Risks will be identified by all individuals in the UNCHAIN project, particularly by WPLs.

The basic procedure of identifying risks consists of the following steps:

- Understand the requirements and overall project quality and performance goals. Examine the operational (functional and environmental) conditions under which the values must be achieved by referring or relating to the DoA.
- Identify the processes and activities (tasks) that are needed to produce the results.
- Evaluate each activity/task against sources/areas of risk.

5.3.1.2. Risk indicators

Following indicators are helpful for identifying risks:

- Lack of stability, clarity, or understanding of requirements. Changing or poorly stated requirements may lead to performance, cost, and schedule problems.
- Failure to use best practices virtually assures that the project will experience some risk. The further the deviation from best practices, the higher the risk.
- Insufficient or inadequate resources: People, funds, schedule, and tools are necessary ingredients for successfully implementing a process. If any of them are inadequate, there is a potential risk.
- Test Failure may indicate corrective action is necessary. Some corrective actions may not fit available resources, or the schedule, and (for other reasons as well) may contain risk.
- Negative trends or forecasts are cause for concern (risk) and may require specific actions to turn around.
- Communication is a critical success factor for UNCHAIN. Failure to provide (push) available information actively as well as to demand (pull) required information actively will both introduce considerable risk.



5.3.1.3. Risk analysis process and procedure

Risk analysis is an evaluation of the identified risk events to determine possible outcomes, critical process variance from known best practices, the likelihood of those events occurring, and the consequences (impact) of the outcomes. Once this information has been determined, the risk event may be rated against the project's criteria and an overall assessment of low, moderate, or high may be assigned.

The basic procedure for analysing risk comprises the following steps:

- Gather all identified risks.
- Assignment of likelihood/probability and consequence to each risk event to establish a risk rating.
- Prioritisation of each risk event relative to other risk events.
- Quantitative analysis.

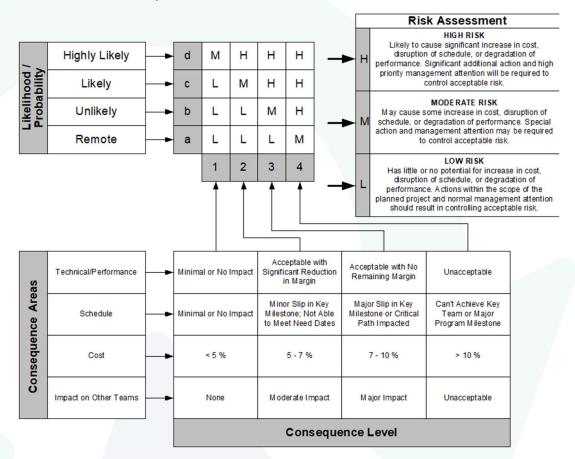


Figure 6 – UNCHAIN Risk assessment matrix.

The following items provide some more details on the most important issues of the risk assessment matrix:

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- **Likelihood/Probability**: For each risk area identified, the likelihood/probability of the risk must be determined. There are four levels (a-d) in the UNCHAIN risk assessment process, with the corresponding criteria of remote, unlikely, likely and highly likely. If there is zero likelihood of an event, there is no risk per our definition.
- **Consequence/Impact**: For each risk area identified, the following question must be answered: Given the event occurs, what is the magnitude of the consequence? There are four levels of consequence (1-4) for this project. Further, there are four areas that we will evaluate when determining consequence: technical performance, schedule, cost, and impact on other teams (work packages). At least one of the four consequence areas need to apply for there to be a risk; if there is no adverse consequence in any of the areas, there is no risk at all.
 - **Technical performance**: this category refers to content and includes all requirements that are not included in the other three metrics of the consequence table.
 - Schedule: this category refers to impacts in the overall time framework of the project. It is important to avoid excluding a consequence level from consideration just because it does not affect the work plan of a specific team/work package – i.e. try to have the whole UNCHAIN consortium in mind.
 - **Cost**: since costs vary significantly within UNCHAIN, the percentage criteria shown in the matrix may not strictly apply at the lower levels of the work breakdown structure. Therefore, the WPLs may set the percentage criteria that best reflect their situation but have to report any deviation from the matrix to the TC.
 - Impact on other teams (work packages): both the consequence of a risk and the mitigation actions associated with reducing the risk may impact another team. This may involve additional coordination or management attention (resources) and may therefore increase the level of risk.

5.3.1.4. Evaluation of Risks

During the risk analysis it is possible that identified scenarios of occurring risk event cause impact to several impact areas. In this case a consequence combination is present, and the worst case of the risk assessment (high risk, moderate risk, low risk) is applicable and influences the required actions as described in the matrix. Of course, all identified consequence areas to a risk event must be recorded, and the consequence area caused the final assessment must be clearly identified.

5.3.1.5. Quantitative analysis

After completion of the risk analysis the quantitative analysis takes place and assigns a rating to each risk (low, medium, high). This finally yields an overview on the risk status over the entire course of the project.

5.3.2. Global Risk indicator (GRI)

The GRI is calculated based on five criteria:

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- Probability (P).
- Technical Performance (TP).
- Schedule (S).
- Cost (C).
- Impact on other teams (I).

The Probability that the risk being analysed will occur is evaluated on a scale from 1 to 4:

- Remote.
- Unlikely.
- Likely.
- Highly Likely.

On the other side, the Consequence or Impact of the risk is assessed considering four subcriteria:

- Technical Performance (TP).
- Schedule (S).
- Cost (C).
- Impact of other teams (I).

Each of the sub-criteria is evaluated also on a scale from 1 (low impact) to 4 (very high impact).

With this assessment, the Global Risk Indicator is calculated according to the following formula:

$$GRI = P * \frac{TP + S + C + I}{16}$$

5.3.3. Risk monitoring

5.3.3.1. Risk monitoring process

Risk monitoring systematically tracks and evaluates the performance of risk-handling actions. It is part of the management board function and responsibility and will not become a separate discipline. Essentially, it compares predicted results of planned actions with the results actually achieved, to determine the status and the need for any change in risk-handling actions.

To ensure that significant risks are effectively monitored, risk-handling actions will be reflected in the risk table and analysed at each CP meeting. Identifying these risk-handling actions and events in the context of the work breakdown structure establishes a linkage between them and specific work packages, making it easier to determine the impact of actions on cost, schedule, and performance.



5.3.3.2. Risk monitoring procedure

Each member of the consortium is responsible for monitoring and reporting the effectiveness of the handling actions for the risks assigned.

Risks rated as "high" will be reported to the TC, who will handle and track them until the risk is considered "medium" or "low" and recommended for "close out".

Risks rated as "moderate" will be reported to WLs, who will also track them until the risk is considered Low and recommended for "close out". However, the risk will be handled within the work package under the responsibility of the work package leader.

Risks rated as "low" are tracked within the work package and monitored continuously to ensure they stay low.

The risk management process is continuous. Information obtained from the monitoring process is fed back for reassessment and evaluations of handling actions to improve the process itself in co-operation with the risk manager and the quality manager.

5.3.4. Contingency Plan

5.3.4.1. Risk handling process

After the project's risks have been identified and assessed, the approach to handle each significant risk must be developed. There are essentially four techniques or options for handling risks:

- Avoidance: application of tasks in order to avoid the risk event.
- **Control**: watch the environmental conditions for influences on an already assessed risk.
- **Transfer**: application of tasks to set a risk to a lower level.
- Assumption: base a decision for handling plans on the assumption the risk event happens.

For all identified risks, the various handling techniques should be evaluated in terms of feasibility, expected effectiveness, cost and schedule implications, the effect on the system's technical quality/performance and the most suitable technique selected.

The results of the evaluation and selection will be included and documented in the risk table. This documentation will include:

- What must be done.
- The level of effort and materials required.
- The estimated cost to implement the plan.
- A proposed schedule showing the proposed start date.
- The time phasing of significant risk reduction activities.
- The completion date.
- Their relationship to significant Project activities/milestones.
- Recommended metrics for tracking the action.



- A list of all assumptions.
- The person responsible for implementing and tracking the selected option (usually the responsible work package leader).

5.3.4.2. Risk handling procedure

The respective work package leader or (in case of high risk) the TC is responsible for evaluating the risk handling options that are best fitted to the project's circumstances. Once approved, these are included in the work packages or project's strategy or management plans, as appropriate.

For each selected handling option, the responsible project team member will develop specific tasks that, when implemented, will handle the risk. The task descriptions should explain what must be done, the level of effort, and identify necessary resources. The team member should also provide a proposed schedule to accomplish the actions including the start date, the time phasing of significant risk reduction activities, the completion date, their relationship to significant project activities/milestones and a cost estimate. The description of the handling options should list all assumptions used in the development of the handling tasks.

5.4. Risk Table

The main tool to keep track of the different identified risks is the Risk Table (Annex III. Risk Table). It contains all the fields to correctly assess, monitor and mitigate a risk.

The table is structured considering the WPs in UNCHAIN to create a direct connection between the risks and the responsible of its control. It could be the case that the risk manager – or WP leader – is not the same as the risk responsible – partner that should provide an action plan and mitigate the problem.

The risk table provides an easy way to quantify the severity of the problem. It implements the risk assessment matrix described above and a global risk indicator that considers the assessment of the four consequence areas as a whole.

In this way, the partner identifying a risk, only has to indicate the probability of the risk (HL=Highly Likely=4; L=Likely=3; U=Unlikely=2; R=Remote=1) and the impact in each of the consequence areas (1 Minimum, 4 Maximum). The table is capable of translating the assessment into the three categories (high risk, moderate risk, low risk) and calculate the global indicator as an average of the different areas (0 Minimum, 4 Maximum).

As explained before, a low global indicator may still imply a high risk, since the worst case should be always considered. A high risk in a single area will imply a low global indicator; however, it requires the maximum priority and attention. The global indicator serves to prioritise and order risks with the same qualification but affecting more than one area (See Annex III. Risk Table).

Hunchain

6. Intellectual Property Rights (IPR) Strategy

This section provides the IPR strategy for the UNCHAIN project. First, an overview of the different intellectual property rights will be provided. Following to which, the relevant articles within the UNCHAIN GA, Part A and B, will be illustrated. Finally, the main findings of Section 8 and 9 of the UNCHAIN CA are summarized.

6.1. Overview: Intellectual Property Rights

There are several legal options, which can be used to protect the results created within UNCHAIN.

The legal possibilities can arise out of International Frameworks, European Law or the national laws applicable to the beneficiaries' activities.

Intellectual property may be (for example) protected by patents, copyright or trademark.

Patents are defined as "an exclusive right granted for an invention, which is a product or a process that provides, in general, a new way of doing something, or offers a new technical solution to a problem. To get a patent, technical information about the invention must be disclosed to the public in a patent application." (World Intellectual Property Organization, 2023)

Copyright is a "legal term used to describe the rights that creators have over their literary and artistic works". Works covered by copyright range from books, music, paintings, sculpture, and films, to computer programs, databases, advertisements, maps, and technical drawings. (World Intellectual Property Organization, 2023)

Trademark is a "sign capable of distinguishing the goods or services of one enterprise from those of other enterprises. Trademarks are protected by intellectual property rights." (World Intellectual Property Organization, 2023)

An overview of the relevant EU legislation and international frameworks referring to the topic of copyrights can be found online at the following URL:

https://ec.europa.eu/digital-single-market/en/eu-copyright-legislation

https://www.wipo.int/portal/en/index.html

6.2. Management procedure for IPR issues

The project partners are responsible for implementing the articles on IPR matters, which are outlined above. It is recommended, that the consortium partners protect the technical products and other output of UNCHAIN in a manner most suitable for the results.



6.3. IPR within the UNCHAIN Grant Agreement

The UNCHAIN GA sets out relevant guidelines referring to the topic of Intellectual Property.

- In Part A of the GA, Art. 16 "intellectual property rights (IPR) background and results —access rights and rights of use" deal with the topic of Intellectual Property within the UNCHAIN project.
- In Part B of the GA sub-section 2.2.2 also refers to the "Intellectual property management". Additionally, it states that the management of knowledge and intellectual property and other aspects of innovation in UNCHAIN are allocated to specific activities within WP1 - T1.2, guaranteeing that intellectual property is secured in the interest of project partners.

IPR within the UNCHAIN Consortium Agreement (CA): The UNCHAIN Consortium Agreement also addresses the topic of Intellectual Property Rights within the UNCHAIN project. The relevant articles can be found in Section 9: Access Rights.

7. Communication guidelines

Communication will normally take place via e-mail, online tool (TEAMs, Skype, WebEX, GoToMeeting) or telephone. This section contains a set of best practices to be followed in order to make the communication process more fluent.

7.1. Mailing lists

UNCHAIN will use mailing lists whenever possible, with the objective to facilitate a smooth and easy internal communication (see Table 4). Each WPL is responsible for the management and animation of its WP. All partners should avoid email exchanges involving just part of the WP members so that all partners can keep integrated records of the activity in each WP and the whole project.

The mailing lists are being created with the contacts involved in the specific WPs (as requested by the partners), though it can be updated as needed at any time.



Table 4 – UNCHAIN Mailing distribution lists

Mailing group	Purpose	
unchainall@polisnetwork.eu	Relevant information to all the consortium partners and general purposes	
adminunchain@polisnetwork.eu	Administrative and financial contact list, containing all administrative contacts for all partners.	
unchainpmb@polisnetwork.eu	Management issues related to Project Management Board	
wpleadersunchain@polisnetwork.eu	WP Leaders related activities	
wp1unchain@polisnetwork.eu	WP1 related activities	
Wp2unchain@polisnetwork.eu	WP2 related activities	
Wp3unchain@polisnetwork.eu	WP3 related activities	
Wp4unchain@polisnetwork.eu	WP4 related activities	
Wp5unchain@polisnetwork.eu	WP5 related activities	
Wp6unchain@polisnetwork.eu	WP6 related activities	
Wp7unchain@polisnetwork.eu	WP7 related activities	
Wp8unchain@polisnetwork.eu	WP8 related activities	

Some basic rules have to be followed for internal communication:

- Only relevant information (strictly related to the UNCHAIN project) is sent to the appropriate project participants, using the relevant mailing list.
- To include the tag [UNCHAIN] always in the Subject of the e-mails.
- To not use the @all group in case the topic is related to a certain WP discussion.
- Each mail must contain one topic only. The topic must be clearly expressed in the subject field.
- If it is not practical to separate multiple topics, then the different topics in the e-mail must be separated by clear heading. In this case, if the mail is long (more than can be seen on a screen) then it should start with a list of contained topics at the beginning.
- Communication of relevance to a particular group (such as comments and votes) will be given as group replies so as to give all group members the opportunity to receive a clear view of every partner's opinion, in an effort to speed up and harmonise the agreement process.
- The e-mails will be answered within two days maximum after the reception of the original mail. If no answer can be provided, a simple acknowledgment of reception will be enough.
- Deadline for definitive reply. In the case of no response to a message within fifteen (15) calendar days, message will be considered as read, and response will be considered as positive.

Unchain

- e-Mail messages sent in response to a message should quote the relevant parts of the initial message, in such a way that the receiver can easily and clearly understand what the initial message was about (what issues were raised) and what the added comments are.
- Documents of project-wide relevance are stored the project repository. They are not generally and necessarily distributed by e-mail to the whole project membership. Project participants are notified by e-mail and invited to consult the documents on the website.

The list of e-mail addresses and groups is available in the document repository in an excel sheet that will be permanently update. In case someone would like to be added/deleted/modified in any contact list, it will have to be done following this procedure:

- One people within the interested company will send an e-mail to POLIS to inform on the modification requested by putting in copy ETRA and ULANC as the coordination team.
- POLIS partners will change the contact lists distribution accordingly.
- ETRA will include the modification in the mailing list in Alfresco since it has to be always updated and accessible to all the consortia.

7.2. Document repository

A document repository has been set up in order to facilitate the exchange of information. The tool selected has been Alfresco (<u>https://tecbox.etra-id.com/share/page/site/UnchainProject/dashboard</u>). The platform is built on an open-source core with open APIs and open standards support for easy integration and extension and long-term flexibility.

Each partner in the consortium has been granted with a user password to access and modify the repository. The current structure includes a folder per WP, where all the information produced by the consortium or relevant to the project can be uploaded. Moreover, a specific folder to hold any relevant information to the contract (GA, CA) has been created (see Figure 7).

The structure can and will be updated as the project evolves aiming to organize the information in the most efficient way.



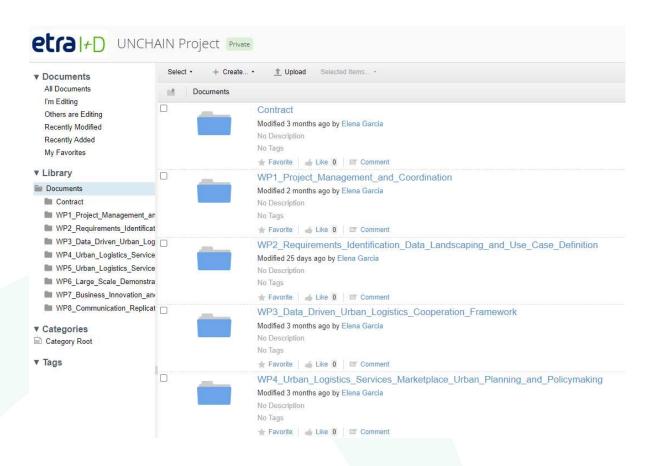


Figure 7 – UNCHAIN Repository

7.3. UNCHAIN logo and acronym

A specific project logo has been developed for the project identity. The logo will be included in all project promotional materials as factsheets, website, etc. The adopted logo is presented on Figure 8.



Figure 8 – UNCHAIN logo

To use only the logo that can be downloaded from the document repository Alfresco and do not copy them from any other place. Reproduction quality needs to be ensured.

It is advised that the UNCHAIN logo appears in all UNCHAIN related documents. Any material co-funded with the project budget needs to make explicit reference to it and if possible, make use of the UNCHAIN logo.



The Acronym of the project, UNCHAIN, is the main representative mark and must be written always in the same way. When possible, it has to be used with the above-mentioned logo, respecting the font and colours.

7.4. Notification procedures

7.4.1. Notification to the Project Coordinator

As a general procedure any notification sent to the PC should be in two signed copies according to the following procedure:

- The person signing the document should be accordingly empowered to do it.
- Always sign the document by the authorised person: administrative and/or technical representative, according to the nature of the notification.
- In case they are not available, find an alternate authorised person empowered to sign the document. In that case, additionally send to the project coordinator two copies of a letter explaining the person is authorised and the empowerment by which they are authorised.
- Send a copy in advance.
- Paper copies should follow by express courier and a notification by e-mail to the project coordinator the day it was sent.
- In case any problem arises, the project coordinator should be contacted to solve the eventual situation.

7.4.2. Bank account, notification of changes

In case a partner's bank account changes, the project coordinator should be notified within 2 weeks in advance of any payment.

The bank stamp and the signature of the bank representative are generally required. However, with an attached copy of a recent bank statement, the stamp of the bank and the signature of the bank's representative are not required. The signature of the accountholder and the date are ALWAYS mandatory.

7.5. Participant Contacts

Due to the nature of the information in the following sections, the contents hereafter have been flagged as 'confidential'.

Table 5 shows the participants details of each of the beneficiary and the associated partner.



Table 5 – UNCHAIN participants details

N.	Organisation name	Short name	Country
1	ETRA INVESTIGACIÓN Y DESARROLLO S.A.	ETRA	Spain
2	AYUNTAMIENTO DE MADRID	MAD	Spain
3	EMPRESA MUNICIPAL DE TRANSPORTES DE MADRID SA	EMT	Spain
4	SENATE DEPARTMENT FOR THE ENVIRONMENT, URBAN MOBILITY, CONSUMER PROTECTION AND CLIMATE ACTION (Berlin)	SenUMVK	Germany
5	VMZ BERLIN BETREIBERGESELLSCHAFT MBH	VMZ	Germany
6	COMUNE DI FIRENZE	FLO	Italy
7	MUNICIPIA SPA	MUNI	Italy
8	SPES CONSULTING SRL	SPES	Italy
9	PROMOTION OF OPERATIONAL LINKS WITH INTEGRATED SERVICES, ASSOCIATION INTERNATIONALE	POLIS	Belgium
10	EIT KIC URBAN MOBILITY SL	EITUM	Spain
11	INSTITUTO DE BIOMECÁMICA DE VALENCIA	IBV	Spain
12	DHL EXPRESS SPAIN SL	DHL	Spain
13	STAD MECHELEN	MEC	Belgium
14	HLAVNI MESTO PRAHA	PRAG	Czech Republic
15	UNITED PARCEL SERVICE ITALIA S.R.L.	UPS	Italy
16	CAMARA MUNICIPAL DO FUNCHAL (Madeira)	FUNC	Portugal
17	RIGA CITY COUNCIL	RIG	Latvia
18	UNIVERSITY OF LANCASTER	ULANC	UK

The contact details of the coordinator team are:

- Project Coordinator: Elena García, ETRA
- Technical Coordinator: Konstantinos Zografos, UNIVERSITY of LANCASTER

8. Meetings

In order to coordinate and manage the various activities of the UNCHAIN project, meetings will be held at a regular time basis. The PC, helped by the TC, will be in charge of setting up a calendar of meetings schedule that may include dedicated WP meetings. In case any urgent



issue arises during the project development, extraordinary project meetings may be planned to solve them.

Face-to-face consortium meetings will be organised by the project partners in rotation every 6 months and at least one representative per partner must attend.

When specific decisions must be taken in the short term, extraordinary meetings may be held by audio-conferencing, including management aspects that may have as consequence the request of an amendment to the GA; in this case, the voting shall be held via e-mail.

In terms of attendance, and for all UNCHAIN Project Steering Committee (PSC) meetings, the presence of the PC (chair), TC, PEM, REM, DCOM) BIM, DEM and IAL is required. All WP Leaders (or any representatives of their respective companies) are also invited to attend.

8.1. Meetings requests

Meetings are invited by the corresponding chair: the WPL for a WP workshop or meeting and the PC for a PSC meeting and for the CP meetings.

The host of the meeting will provide logistics and accommodation information to the participants in case on an in-person meeting. In the case of meetings in a dedicated location in Brussels, the PC will be in charge of organising the meeting.

8.1.1. Convening meetings

The chairperson of a consortium body shall convene meetings of that consortium body (see Table 6).

Туре	Ordinary meeting	Extraordinary meeting	
Consortium Plenary	At least once a year	At any time upon written request of the Project Steering Committee or 1/3 of the Members of the Consortium Plenary	
Project Steering CommitteeOnce a month (online)		At any time upon written request of any Member of the Project Steering Committee	

Table 6 – UNCHAIN convening meetings

8.1.2. Notice of a meeting

The chairperson of a consortium body shall give notice in writing of a meeting to each member of that consortium body as soon as possible and no later than the minimum number of days preceding the meeting as indicated in Table 7.



Table 7 – UNCHAIN notice of a meeting

Туре	Ordinary meeting	Extraordinary meeting	
Consortium Plenary	45 calendar days	15 calendar days	
Project Steering Committee	14 calendar days	7 calendar days	

8.1.3. Agenda definition

The chairperson of a consortium body shall prepare and send each member of that consortium body a written (original) agenda no later than the minimum number of days preceding the meeting as indicated in Table 8**¡Error! No se encuentra el origen de la referencia.**

Туре	Ordinary meeting	Extraordinary meeting
Consortium Plenary	21 calendar days. Partners may add items to the agenda until 14 calendar days before the meeting	10 calendar days. Partners may add items to the agenda until 7 calendar days before the meeting
Project Steering Committee	7 calendar days. Partners may add items to the agenda until 2 calendar days before the meeting	7 calendar days. Partners may add items to the agenda until 2 calendar days before the meeting

8.2. Meeting schedule

Considering the project work plan and the budget constraints for meeting purposes, a preliminary schedule for the meetings during the entire lifetime of the project has been created. This plan will be updated according to the project development.

For practical reasons, the Table 9 schedule only identifies the most convenient month to host each meeting, the exact dates and venue will be decided by the PSC considering availability of partners, rooms and progress of activities.



Table 9 – UNCHAIN proposed meeting schedule

Year	Meeting	Timeline	Location
2023	Kick-off meeting	May 23 (M1)	Brussels
2023	Consortium Plenary	Sep 23 (M5)	Florence
2024	Consortium Plenary	Apr 24 (M12)	Madrid
2024	Project review	Oct 24 (M18)	ТВС
2025	Consortium Plenary	April 25 (M24)	Berlin
2025	Project review	Oct 25 (M30)	ТВС
2026	Consortium Plenary	April 26 (M36)	ТВС
2026	Project review	Oct 26 (M42)	ТВС

8.3. Minutes of the meeting

Minutes must be recorded for every official project meeting. A rapporteur is appointed at the start of the meeting. Meeting minutes will be taken in turn in the following manner:

- CP and PSC: minutes are recorded by the chairperson of the meeting, supported by at least one designed member of a Consortium partner. These meetings will be recorded and the video shared on the document repository.
- Other meetings: minutes are recorded by the member organisation hosting the meeting.

A copy of the minutes will be archived in the project repository.

The chairperson of a Consortium Body shall produce written minutes of each meeting which shall be the formal record of all decisions taken. They shall send the draft minutes to all members within 15 calendar days of the meeting.

The minutes shall be considered as accepted if, within 15 calendar days from sending, no member has sent an objection in writing to the chairperson.

The chairperson will circulate the final version of the minutes to all the partners that were called to the meeting and to the PC.

The minutes must at least contain:

- The meeting attendance list.
- The approved meeting agenda, including date and venue.
- Decisions taken, including motivations as far as possible.
- An action list containing for each action a short description, a responsible and a time schedule (if an action was given to a person not attending the meeting, a person for contacting that person needs to be given).
- A list of agreed upcoming events.
- If appropriate, a list of related documents (appendices).



9. Reporting procedure

9.1. Deliverables and documents

Deliverables will normally fall within the work to be done in the WPs, and as such, each WPL will be responsible for the quality of results described in deliverables which will be subject to a peer review by at least two experts, according to the procedure described in Section 4.3. The Consortium has elaborated a table to allocate the responsibilities for the peer-to-peer review of each deliverable, trying to ensure that all partners participate in this process in a balanced way (see Annex I. Deliverable's peer reviewers for the table of the peer-reviewers for each deliverable that will have to be produced in the UNCHAIN project). In addition, to provide the feedback to the responsible of the deliverables, a template for the review process was elaborated (Annex II. Deliverable review template).

The templates for the deliverables are available at the project repository and in D8.1. Visual identity and website. The document shall contain all the logos and it was formatted according to this handbook recommendations. Moreover, all the deliverables should have a specific section to clearly state the gender, ethics and data related issues to clearly specify this information in case it was applicable to the document.

Once the project coordinator has submitted the deliverable to the EC, the final documents will be also uploaded in the repository document library. Once the document is approved by the EC, in the case of a public deliverable, the document will be made available in the UNCHAIN public web site. At least the PC will keep an additional copy for backup and security reasons.

9.1.1. Deliverables numbering and naming

The deliverables are classified according to the following types:

- R: Document, Report.
- DEM: Demonstrator, pilot, prototype.
- DEC : Websites, patent filling, videos, etc.
- OTHER: Other.
- ETHICS: Ethics requirement.
- ORDP: Open Research Data Pilot.
- DATA: data sets, microdata, etc.

With respect to the confidentiality of deliverables and other documents, including presentations, the following levels of security are considered in UNCHAIN:

- PU: Public.
- SEN: Sensitive.
- EU classified (EUCI) under Decision 2015/444:
 - RESTREINT-UE/EU-RESTRICTED (R-UE/EU-R),



- CONFIDENTIEL-UE/EU-CONFIDENTIAL (C-UE/EU-C),
- SECRET-UE/EU-SECRET (S-UE/EU-S)

In order to facilitate the common browsing and storage in different platforms, no spaces nor dots or special characters will be used in the document names, and instead, the underscore character "_" will be used.

All the documents will be named and numbered according to the following rules, in order to facilitate the quick identification and indexing:

<dateYYYYMMDD>-<orgshortname>-UNCHAIN-D<dnum>-<docshortname>-<security>_v<ver>.pdf

All documents' names start with the delivery date of the document, followed by the acronym of the organisation responsible for the document and the word "UNCHAIN", in order to facilitate the identification with other projects documents, and to raise the awareness or the project within a number of people that will download the documents from the public website.

Versions 0_X will indicate that the document is still a draft not approved by the internal reviewers. The official document to be sent to the EC will be numbered as v1_0. Further revisions or new issues of a deliverable will make use of the following format: v1_X, vY_X.

For example, deliverable D1.1 Project Management Plan (PMP), being ETRA the responsible organisation, security level public, delivered for example on 31st October 2023, would be named in the following way:

20231031-ETRA-UNCHAIN- D1_1-Project_Management_Plan_(PMP)_PU_v1_0.docx

In order to facilitate the work and localisation of the documents, all documents will be posted in the repository as soon as possible.

9.2. Six-monthly report

As part of an internal monitoring activity, every six months the coordinator will ask the partners to complete two documents to gather the (possibly estimated) basic information on the resources spent per partner and the work performed.

For the Technical Report, Table 10 needs to be filled. Meanwhile, for the Financial Report, the information within Table 11.



Table 10 – UNCHAIN Technical six-monthly periodic report template

	РМ	Please describe how your person months have been used within each WP. Mention the Tasks you have been involved in during the period. Include contribution to deliverables and detail progress status (Not started, On-going, Finished)
WP1		
WP2		
WP3		
WP4		
WP5		
WP6		
WP7		
WP8		

Table 11 – UNCHAIN Financial six-monthly periodic report template

	Personal Other Direct Costs Spending Travel Equipment Other Goods and services Subcontracting	Other Direct Costs					
WP		Subcontracting	Indirect Spending	Total Spending			
WP1							
WP2							
WP3							
WP4							
WP5							
WP6							
WP7							
WP8							
	-€	-€	-€	-€	-€	-€	-€

The six-monthly report shall be available no later than 3 weeks after the end of the period. The project coordinator will analyse the reports, taking the required actions in case of need.

9.3. Project Periodic report

Table 12 shows the three reporting periods defined in the GA of the UNCHAIN work plan:



Table 12 – UNCHAIN Project Periodic Reports (PPR)

Periodic Report	Project Timing	Month/ Year
PR1	M1-M18	May 2023 – Oct 2024
PR2	M19-M30	Nov 2024- Oct 2025
PR3	M31-M42	Nov 2025- Oct 2026

In order to provide timely project reporting to the EC, as well as efficient and accurate financial data, the cost statements will be aggregated by each partner in the Project Periodic Report (PPR), which will be completed within the next 60 days from the end of period.

The Project Periodic Report will follow the template provided by the EC for the Horizon Europe Programme. It contains the periodic technical and financial reports.

The periodic technical report consists of two parts:

- Part A of the periodic technical report contains the cover page, a publishable summary and the answers to the questionnaire covering issues related to the project implementation and the economic and social impact, notably in the context of the Horizon Europe key performance indicators and the Horizon Europe monitoring requirements. Part A is generated by the IT system.
- Part B of the periodic technical report is the narrative part that includes explanations of the work carried out by the beneficiaries during the reporting period. Part B needs to be uploaded as a PDF document and will contain the following sections:
 - Explanation of the work carried out by the beneficiaries and Overview of the progress.
 - Follow-up of recommendations and comments from previous review(s) (if applicable).
 - Open science.
 - Deviations from Annex 1 and Annex 2 -DoA (if applicable).

The periodic financial report consists of:

- Individual financial statements.
- Consolidated financial statement (generated by the IT system).
- Explanation of the use of resources and the information on subcontracting and in-kind contributions provided by third parties from each beneficiary for the reporting period concerned.

The Project Periodic Report must be consistent with the six-monthly reports provided both at technical and administrative levels.

ETRA, as coordinator of the project, will forward the Progress Periodic Report to the EC.



9.4. Presentations, posters, and graphical material

Any presentation related to the project work in progress or results will be created from the corporative presentation template available at the repository.

In addition to the available template, the consortium is preparing several alternative materials to help disseminate and present the project results in a coherent and effective way.

- General presentation: compiled to provide a quick look at the project objectives and contents. This set of slides will be updated periodically with the new results as the project advances.
- Brochure: prepared to promote and enhance the visibility of the project.
- Roll-up: presenting the project at conferences and poster sessions.

9.5. Document exchange format

All the text documents exchanged within the project must observe the following rules:

- Format *.docx/doc (Word or equivalent) or *.pdf.
- Track of changes activated (in case of word file).
- After the final document has passed the peer review, the project coordinator submitting the document to the EC will generate the PDF file, properly secured.
- It is recommended not to send attachments by e-mail but rather place them on the project repository. Then, the person who has uploaded the document will notify it within the appropriate WP group, announcing the location where the document can be retrieved.
- The presentations will use the *.pptx/ppt format (or equivalent) according to the template available at the repository.
- All the documents to be forwarded outside the Consortium, including the presentations and the final deliverables, will use PDF format.
- The six-monthly reports, which are part of internal reporting, have specific templates.
- The deliverables, interim milestone brief reports and documents must follow the format and styles indicated in the template available in the corresponding section of UNCHAIN repository.
- These templates can evolve according to the project needs.

10. Dissemination

This section provides the basic procedures and information regarding the publication procedure in UNCHAIN. The details about the dissemination and communication plan, target groups, and means of communication defined so far can be found in D8.2. Communication, Dissemination and replication strategy v1. Further updates of this document will be produced with due dates M18, M36 and M42.



In order to coordinate the participation of partners in dissemination activities and conferences (both in Europe and outside Europe) and properly notify the EC of any event, the following criteria apply for the consideration for such activities.

It is essential that adequate time for considering the publication or participation in an event is given. Therefore, the notification should be circulated as soon as possible and no less than 45 days in advance of the event. The notification may be submitted to the PC, TC and the Dissemination and Communication Manager via email. The concerned partner must update the dissemination tracker accordingly. The dissemination tracker will be made available on the document repository. It is advised to upload relevant Call for Papers (CFPs) as soon as possible in the repository in a year-month-day event format (where the first part indicates the deadline for papers submission).

The application may include, if possible, a copy of the conference program together with a rationale describing the conference and explaining the proposed role of UNCHAIN - i.e. networking, presentation of results, poster session, etc.

Although it is preferred that common publications arise as a result of cooperation among the partners, any partner in the consortium can publish their own results without previous permission; it only needs to notify the Dissemination and Communication Manager at least 7 days in advanced and fulfil the EC requirements hereafter identified. It is also requested to tag UNCHAIN official social media channels in case it is published on such channels. This guarantees a coordinated approach and maximum outreach.

Unless the EC requests otherwise, any notice or publication by the partners about the project, including at a conference or seminar, must specify that the project has received research funding from CIVITAS and the European Union emblem, when displayed in association with a logo, the European emblem should be given appropriate prominence. A pre-print or an abstract of the paper should be sent to the PC with the application.

Any notice or publication by the partners, in whatever form and on or by whatever medium, must specify that it reflects only the author's view and that the consortium is not liable for any use that may be made of the information contained therein.

If a result is shared by several partners, the publication needs the approval of all the partners involved. The notification submitted to the PC will have to be circulated to all the partners involved. If there is no response, approval is granted.

Participants may provide to the Coordinator and the DCOM, a copy of the concise written report produced for the project within two weeks of the event.

The attendee may provide, where possible, a copy of the Conference proceedings or a suitable extract to the PC.

The provisions of the contract and the Consortium Agreement should be taken into account in the dissemination of the results of the project.

A quote like the following one should be included in any dissemination document produced by a partner: ". This project has received funding from the European Union's Horizon Europe research and innovation programme under Grant Agreement No. 101103812. The UK



participant in Horizon Europe Project UNCHAIN, is supported by UKRI grant number 10078841 Lancaster University".

The cost and frequency of the conference attendance should always be minimised and kept in proportion to the size and resources of the Project.

Conferences out of EU territory require previous approval of the EC.

11. Conclusions

This PMP offers a synthetic and high-value guide for all partners involved in UNCHAIN to facilitate and assure that all actions and activities within the project are coherent and well-coordinated, while a proper level of flexibility is maintained to allow an agile development and coordination of the actions.

The document aims at maximising the impact of UNCHAIN, optimising the coordination of efforts made by all partners, and providing tools and recommendations to improve the dissemination and communication impacts of the actions made by the partners.



12. References

World Intellectual Property Organization. (4 de August de 2023). Obtenido de https://www.wipo.int/portal/en/index.html



Annex I. Deliverable's peer reviewers

Deliverable	Leader	Backup	Peer reviewers
D1.1	ETRA	ULANC	POLIS & ULANC
D1.2	ETRA	ULANC	POLIS & ULANC
D1.3	ETRA	ULANC	POLIS & ULANC
D1.4	ETRA	ULANC	POLIS & ULANC
D1.5	ETRA	ULANC	POLIS & ULANC
D2.1	SPES	IBV	VMZ & SenUMVK
D2.2	IBV	SPES	DHL & MEC
D2.3	IBV	SPES	ETRA & FLO
D3.1	IBV	ETRA	MAD & UPS
D3.2	ETRA	IBV	VMZ & MUNI
D3.3.	ETRA	IBV	PRAG & ULANC
D4.1	IBV	VMZ	SPES & IBV
D4.2	MUNI	VMZ	VMZ & RIG
D4.3	MUNI	VMZ	ETRA & DHL
D4.4	VMZ	MUNI	FLO & UPS
D5.1	MUNI	ETRA	MAD & PRAG
D5.2	MUNI	ETRA	FLO & FUNC
D5.3	ETRA	MUNI	EMT & SeUMVK
D5.4	MUNI	ETRA	MAD & MEC
D5.5	MUNI	ETRA	ETRA &VMZ
D5.6	ETRA	MUNI	MUNI & IBV
D6.1	VMZ	ULANC	ETRA & MUNI
D6.2	ULANC	VMZ	POLIS & FUNC
D6.3	VMZ	ULANC	EMT & SeUMVK
D6.4	VMZ	ULANC	PRAG & RIG
D6.5	ULANC	VMZ	EITUM & IBV
D7.1	EITUM	SPES	VMZ & MUNI
D7.2	SPES	POLIS	ETRA & IBV
D7.3	POLIS	EITUM	SPES & DHL
D7.4	EITUM	SPES	VMZ & RIG
D7.5	SPES	POLIS	POLIS & ULANC
D7.6	EITUM	SPES	MUNI & PRAG
D7.7	POLIS	EITUM	EMT & UPS
D8.1	POLIS	ETRA	ETRA & ULANC
D8.2	POLIS	ETRA	MAD & IBV
D8.3	POLIS	ETRA	EMT & DHL
D8.4	POLIS	ETRA	SenUMVK & MEC
D8.5	SPES	ETRA	VMZ & PRAG
D8.6	POLIS	ETRA	FLO & UPS
D8.7	POLIS	ETRA	MUNI & FUNC
D8.8	POLIS	ETRA	SPES & RIG
D8.9	SPES	ETRA	POLIS & EITUM





Annex II. Deliverable review template





Deliverable xx "Deliverable Title"

Peer Review Template

Project Full Title:	Urban logistics and plaNning: AntiCipating urban freigHt generAtion and demand including digitalisation of urbaN freight					
Call Identifier:	HORIZON-CL5-2022-D6-02					
Type of Action:	HORIZON-IA					
Start Date:	01 May 2023					
Duration:	42 months					
Project Number:	101103812					

This project has received funding from the European Union's Horizon Europe research and inhovation programme under grant agreement No. 101103812. The UK gurticipant in Horizon Europe Project Giban lagistics and plathning: AntiCipating urban freight generAtion and demand including dightalisation of whath freight (UNCHAIN), is supported by UNIH grant number 10078842 Lancaster University

[UNCHAIN] D1.1 – Project Management Plan (PMP)

1



Project No	101103812	Project Acronym	UNCHAIN
Deliverable or Output		Classification	
Νο		Classification	
Deliverable or Output			
Title			
Version			
Reviewer		Date	

1. Are the	objectives of the deliverable clearly stated? Please comment.								
YES/NO	Instructions: If the objective(s) of the deliverable is (are) not explicitly stated in the form "The objective(s) of this deliverable is (are) to "Then the answer to this criterion should be NO. A suggestion should be made by the reviewer to the authors of the deliverable to include an explicit statement to describe the objectives of the deliverable.								
	objectives of the deliverable in accordance with the Grant Agreement (GA) ments and the requirements imposed from previous deliverables? Please nt.								
YES/NO	Instructions: If the deliverable does not make direct reference to the objective(s) that it should fulfil according to the GA and/or the input that it should provide to subsequent project deliverable(s), then the answer to this criterion should be NO. A suggestion should be made by the reviewer to the authors of the deliverable to explicitly associate the deliverable objective(s) with the corresponding objective(s) of the GA and/or the expected input required by subsequent project deliverable(s), indicating that reference to the GA and/or the corresponding deliverable should be cited in the deliverable and that the associated reference(s) should be listed in the references section of the deliverable.								
3. Are the	deliverable objectives met? Please comment.								
YES/NO	Instructions: The reviewer should assess if the stated objective(s) in criterion # 1 has(ve) been satisfactorily address. If the answer to this criterion is NO, the issues that are not adequately addressed should be pointed to the authors in order to be satisfactorily described.								
4. Does the deliverable include a clear methodology and structure for addressing t problem(s) and objective(s) under consideration? If yes, please assess the qualit of the methodology used. Please comment.									
YES/NO	Instructions: The deliverable should include a section to describe the methodology used to address the problem(s), objective(s), output, service, etc. under consideration. A justification of the choice of methodology should be provided to support its suitability to address the objective(s), problem(s) under consideration. If the answer to this criterion is NO, the reviewer								

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	should ask the authors to provide a justification for the selected methodology explaining its suitability and to provide a description of the methodology used. The justification and description of the methodology should also include (when applicable/as needed) appropriate citation of references. These references should be also provided in the list of references of the deliverable. The structure of the deliverable should be also <u>explicitly</u> described. If not, the reviewer should ask the authors to provide a clear <u>explicit</u> description of the structure of the deliverable.
5. Is the m	nethodology and the analysis appropriately implemented? Please comment.
YES/NO	Instructions: The reviewer should provide an assessment if the methodology and the associated analysis (described in criterion # 4 above) have been appropriately (correctly implemented). If the answer to this criterion is NO, the reviewer should indicate the aspects of the methodology and the analysis that have not been appropriately implemented. The authors should take on board the identified implementation issues in producing the revised version of the deliverable.
6. Does th	e analysis support the results reported? Please comment.
YES/NO	Instructions: The reviewer should check and provide an assessment if the reported results are supported by the analysis performed. If the answer to this criterion is NO, the reviewer should bring to the attention of the authors the identified discrepancies and the authors should take remedial actions to address the identified issues.
	results and conclusions of the analysis performed in the deliverable ed clearly?
YES/NO	Instructions: The reviewer should assess if the results and conclusions are presented clearly in the deliverable. For instance, are tables, graphs, photos etc. used (as needed/where applicable) to convey a clear message of the deliverable's output? Are the statements made in the conclusions clearly articulated? If the answer to this criterion is NO, then the reviewer should suggest to the authors to make appropriate adjustments to the way the deliverable results and conclusions are presented. The authors should take remedial actions to address the concerns raised by the reviewer.
8. Is the st	ructure of the deliverable in accordance with the project guidelines?
YES/NO	Instructions: The reviewer should check the conformity of the structure of the deliverable with the corresponding project guidelines. Identified discrepancies should be brought to the attention of the authors for taking remedial actions.
9. Does th issues?	e deliverable include a section about the gender, ethics and data related
YES/NO	Instructions: The reviewer should check the existence of the specific section to indicate the gender, ethics and data related issues to accomplish with the template



	10. Is the presentation and writing (syntax, grammar, appropriate use of technical jargon, typographical errors) of the deliverable appropriate?								
YES /NO	Instructions: The reviewer should provide an overall assessment of the writing quality and style of the deliverable. If the answer to this question is NO, then the authors should take remedial actions to improve the presentation and writing quality of the deliverable. Please note, that <u>it is</u> not the reviewer's responsibility to edit the deliverable to improve its writing quality and presentation style.								

Evaluation Result:

Please select the appropriate result (delete the non-applicable options):

- **A** Accepted, no changes are needed. The deliverable is ready for submission.
- MR-Minor Revision. Minor editorial changes are required. No need for reviewing again the deliverable. However, the authors should indicate how and where each comment made in the template and the deliverable has been addressed. The review template with the replies of the authors highlighted in yellow should be send to the reviewer(s). If the reviewer(s) is(are) not convinced by the provided answers they might ask the authors to resubmit the deliverable where the changes made will be indicated with track changes and yellow highlighting.
- RMRR: Rejected Major Revision and Resubmission needed. The deliverable should be resubmitted for a new review after addressing the recommendations made by the reviewer(s). The review template with the replies of the authors should be send to the reviewer(s) along with the revised version of the deliverable. Track changes and yellow highlighting should be used to indicate where the changes have been made.



Annex III. Risk Table

	Nº Risk	Task	WP/T leader or Risk Manager	Risk description	Type of Risk	Risk resp	Milestone or deliverabl e affected	Risk Assessment	Global Risk Indicator	Contingency Plan
WP1	WP1- 1	T1.1, T1.2, T1,3	ETRA/ ULANC	World crisis (Ukrainian war/ energetic crisis) have an impact on the UNCHAIN development, tests, and/or evaluation due to a lack of face- to-face meetings	Technical	ETRA/ ULANC	D1.1, D1.2, D1,3, D1,4, D1,5 MS1	LOW	0,5	The technical partners are skilled in remote work if it was necessary to avoid unnecessary contacts. Likewise, living labs have specific partners in the cities that will ensure the online events to properly reach the objective projects.
	WP1- 2	T1.1, T1.2, T1,3	ETRA/ ULANC	Deterioration of the economic situation of a partner	Managerial	All	All	LOW	0,1875	All partners have a solid economic situation. However, the corrective measures would be the distribution to the remaining partners of the activity not fulfilled or to subcontract to a 3rd party or a combination of both.
	WP1- 3	T1.1, T1.2, T1,3	ETRA/ ULANC	Missing skills in the consortium when facing innovation and business challenges	Managerial	All	All	MODERATE	1,5	The consortium is composed by experienced partners with complementary competences and access to required knowledge and resources. But in any case, partners who identify lack of knowledge can embed expert as a worker to fulfil the needs in their task on the project. Other possibility can be to search within the consortium a better partner for develop the relevant task





	WP1- 4	T1.1, T1.2, T1,3	ETRA/ ULANC	Conflicts due to lack of understanding between partners	Managerial	All	All	LOW	0,5625	Before the start of the project, the partners will sign a Consortium Agreement that will establish how to solve this kind of issues.
	WP1- 5	T1.1, T1.2, T1,3	ETRA/ ULANC	Energy restrictions override dissemination activities such as conference presentations or workshops	Managerial	All	All	LOW	0,5	Some of these activities will be done virtually as the first option, and some others will be postponed. Also, the consortium will be encouraged to use efficient modes of transport such as the train, when possible.
	WP1- 6	T1.1, T1.2, T1,3	ETRA/ ULANC	Energy saving restrictions affects the organization of project meetings and visit to the pilot sites.	Managerial	All	All	LOW	0,5	These meetings will be organized virtually, and the visits to the pilot sites will take place when the energetic crisis allows it.
	WP1- 7	T1.1, T1.2, T1,3	ETRA/ ULANC	Lack of cooperation of the project partners due to IPR issues	Ethical	All	All	LOW	0,75	The need of data sharing and IPR issues have been discussed among the partners in the proposal phase. Data sharing requirements will be defined in WP2 and data sharing conditions will be implemented in the data sharing agreements of T3.1. IPR and access right clauses will be included in the CA to be signed before the project starts, to avoid future disputes
	WP1- 8	T1.1, T1.2, T1,3	ETRA/ ULANC	Insufficient protection of personal data managed during the project demonstrations.	Ethical	All	All	LOW	0,5625	Specific procedures are defined in the DMP to collect, storage, protect, retain and destruct sensitive and confidential personal information from participants of the project demonstrations.
WP2	WP2- 1	T2.2, T2,4, T2,5	IBV/ETRA	Living labs and follower cities deployment constraints and poor quality of data to validate the results.	Technical	Cities Logistic operators	D2.2, D2.3 MS2, MS3	MODERATE	1,25	Cities participating as Living labs and followers count with the commitment and support of public authorities that are already monitoring and storing useful data that can be used as alternative in



									case the planned data needs become unavailable due to unexpected events. Additionally, UCs are defined per living labs facilitating the mitigation measures from the very beginning.
WP2- 2	T2.2, T2,4, T2,5	IBV/ETRA	Difficulties on the replication work because of the differences in the cities' ecosystem and logistic services	Technical	Cities Logistic operators	D2.2, D2.3 MS2, MS3	MODERATE	0,9375	UNCHAIN aims to solve the problems related with the heterogeneity of the data and cities way of operating by implementing a standardised and reliable data exchange ecosystem. The 11 EU cities participating, and the logistic operators represent a good example of the logistical functioning of European cities.
WP2- 3	T2,4, T2,5	ETRA/IBV	Insufficient details or wrong selection of use cases and requirements that lead to underestimate the performance to be achieved	Technical	Cities Logistic operators	D2.3 MS3	MODERATE	1	All the project partners will be involved from the beginning in the iterative process of the definition and selection of the use cases and requirements. Common meetings and workshops will be organized to build a common view. Additionally, even from the proposal preparation phase the use cases are selected very carefully considering the real needs of the cities in the projects and the EU countries.
WP2- 4	T2.4	ETRA	New urban logistics business models emerge during the project and after the market revision and UCs definition	Financial	ETRA	D2.3 MS3	MODERATE	1,125	UNCHAIN services will be as flexible as possible making possible the adaptation or incorporation of new features at any stage of the project. A constant revision of the more relevant business models will be carried out by the experts on the consortium



WP3	WP3- 1	T3,1	IBV/ETRA	Living labs and follower cities deployment constraints and poor quality of data to validate the results.	Technical	Cities Logistic operators	D3.1 MS4	MODERATE	1,25	Cities participating as Living labs and followers count with the commitment and support of public authorities that are already monitoring and storing useful data that can be used as alternative in case the planned data needs become unavailable due to unexpected events. Additionally, UCs are defined per living labs facilitating the mitigation measures from the very beginning.
	WP3- 2	T3.2	ETRA	Underestimation of the resources for the development of ICT components.	Technical	ETRA	D3.2, D3.3 MS4	LOW	0,25	Iterative development methodology with prioritized functionalities and regular monitoring of the work will take place in any stage of the project
	WP3- 3	T3.2, T3.4	ETRA/ MUNI	Failure during the system integration for demonstration purpose.	Technical	ETRA/ MUNI	D3.2, D3.3 MS4	MODERATE	1,5	The implication of all partners in the definition of requirements in WP2, during the technical development and during the integration. Constant monitorization of the work done by the technical partners and the coordinator and information exchange with the demo sites.
	WP3- 4	T3.2, T3.4	ETRA/ MUNI	Underestimation or resources not well balanced for the design and development of the solutions.	Technical	ETRA/ MUNI	D3.2, D3.3 MS4	MODERATE	1,5	Technical partners and its role in the development of each solution is well defined and agreed. Moreover, the technology providers have large experience on supporting cities and logistic operators, both in the development and deployment of smart city solutions. The project has incorporated the end-users from the beginning to guarantee a smooth design covering all their



										needs and facilitating an agile development.
	WP3- 5	Т3.2, Т3.4	ETRA/ MUNI	Technology investments will become obsolete.	Financial	ETRA/ MUNI	D3.2, D3.3 MS4	LOW	0,5625	Specific plans for effectively mitigating obsolescence risk will be performed for each UNCHAIN impacted outcome.
WP4	WP4- 1	T4.1, T4.2, T4.3, T4.4	VMZ	Underestimation of the resources for the development of ICT components.	Technical	VMZ	D4.1, D4.2, D4.3, D4.4 MS5	LOW	0,25	Iterative development methodology with prioritized functionalities and regular monitoring of the work will take place in any stage of the project
	WP4- 2	T4.1, T4.2, T4.3, T4.4	VMZ	Technical barriers in the use of equipment or integration of UNCHAIN tools with existing systems.	Technical	VMZ	D4.1, D4.2, D4.3, D4.4 MS5	LOW	0,625	The consortium has long experience in demonstration sites and is familiar with most of the equipment that will be used in UNCHAIN. In addition to the partners expertise with the equipment used specific training and professionals will be reached to integrate the equipment.
	WP4- 3	T4.1, T4.2, T4.3, T4.4	VMZ	Failure during the system integration for demonstration purpose.	Technical	VMZ	D4.1, D4.2, D4.3, D4.4 MS5	MODERATE	1,5	The implication of all partners in the definition of requirements in WP2, during the technical development and during the integration. Constant monitorization of the work done by the technical partners and the coordinator and information exchange with the demo sites.
	WP4- 4	T4.1, T4.2, T4.3, T4.4	VMZ	Underestimation or resources not well balanced for the design and development of the solutions.	Technical	VMZ	D4.1, D4.2, D4.3, D4.4 MS5	MODERATE	1,5	Technical partners and its role in the development of each solution is well defined and agreed. Moreover, the technology providers have large experience on supporting cities and logistic operators, both in the development and deployment of smart city solutions. The project



										has incorporated the end-users from the beginning to guarantee a smooth design covering all their needs and facilitating an agile development.
	WP4- 5	T4.1, T4.2, T4.3, T4.4	VMZ	Technology investments will become obsolete.	Financial	VMZ	D4.1, D4.2, D4.3, D4.4 MS5	LOW	0,5625	Specific plans for effectively mitigating obsolescence risk will be performed for each UNCHAIN impacted outcome.
WP5	WP5- 1	T5.1, T5.2, T5.3, T5.4	MUNI	Underestimation of the resources for the development of ICT components.	Technical	MUNI	D5.1, D5.2, D5.3, D5.4, D5.5, D5.6, MS5	LOW	0,25	Iterative development methodology with prioritized functionalities and regular monitoring of the work will take place in any stage of the project
	WP5- 2	T5.1, T5.2, T5.3, T5.4	MUNI	Technical barriers in the use of equipment or integration of UNCHAIN tools with existing systems.	Technical	MUNI	D5.1, D5.2, D5.3, D5.4, D5.5, D5.6, MS5	LOW	0,625	The consortium has long experience in demonstration sites and is familiar with most of the equipment that will be used in UNCHAIN. In addition to the partners expertise with the equipment used specific training and professionals will be reached to integrate the equipment.
	WP5- 3	T5.1, T5.2, T5.3, T5.4	MUNI	Failure during the system integration for demonstration purpose.	Technical	MUNI	D5.1, D5.2, D5.3, D5.4, D5.5, D5.6, MS5	MODERATE	1,5	The implication of all partners in the definition of requirements in WP2, during the technical development and during the integration. Constant monitorization of the work done by the technical partners and the coordinator and information exchange with the demo sites.
	WP5- 4	T5.1, T5.2, T5.3, T5.4	MUNI	Underestimation or resources not well balanced for the design and development of the solutions.	Technical	MUNI	D5.1, D5.2, D5.3, D5.4,	MODERATE	1,5	Technical partners and its role in the development of each solution is well defined and agreed. Moreover, the technology



							D5.5, D5.6, MS5			providers have large experience on supporting cities and logistic operators, both in the development and deployment of smart city solutions. The project has incorporated the end-users from the beginning to guarantee a smooth design covering all their needs and facilitating an agile development.
	WP5- 5	T5.1, T5.2, T5.3, T5.4	MUNI	Technology investments will become obsolete.	Financial	MUNI	D5.1, D5.2, D5.3, D5.4, D5.5, D5.6, MS5	LOW	0,5625	Specific plans for effectively mitigating obsolescence risk will be performed for each UNCHAIN impacted outcome.
WP6	WP6- 1	T6.1, T6.2	IBV/ETRA	Living labs face internal resistance to implement the scenarios.	Technical	Cities Logistic operators	D6.1, D6.2 MS6, MS9	LOW	0,5625	Early involvement of the local technical staff of the different pilots/living labs and periodic meetings to ensure the project scenarios implementation. Early Identification of the critical points in each Use Case (UC) per living lab.
	WP6- 2	T6.1, T6.2	IBV/ETRA	Living labs and follower cities deployment constraints and poor quality of data to validate the results.	Technical	Cities Logistic operators	D6.1, D6.2 MS6, MS9	MODERATE	1,25	Cities participating as Living labs and followers count with the commitment and support of public authorities that are already monitoring and storing useful data that can be used as alternative in case the planned data needs become unavailable due to unexpected events. Additionally, UCs are defined per living labs facilitating the mitigation measures from the very beginning.
	WP6- 3	&6.3, T6.4	ULANC	Insufficient or corrupted raw measurement data collected	Technical	ULANC	D6.2, D6.5 MS9	LOW	0,5	The integration of UNCHAIN services in a marketplace for cities



				from demonstrations to be used for the evaluation process						allows to track and extract data used for the calculation of KPIs and the evaluation process. Furthermore, the participation of municipalities (local authorities) in the project guarantees access rights to other city data that may be needed for the evaluation.
	WP6- 4	T6.2	VMZ	Difficulties on the replication work because of the differences in the cities' ecosystem and logistic services	Technical	Cities Logistic operators	D6.3, D6.4 MS6, MS9	MODERATE	0,9375	UNCHAIN aims to solve the problems related with the heterogeneity of the data and cities way of operating by implementing a standardised and reliable data exchange ecosystem. The 11 EU cities participating, and the logistic operators represent a good example of the logistical functioning of European cities.
	WP6- 5	T6.2	VMZ	Insufficient details or wrong selection of use cases and requirements that lead to underestimate the performance to be achieved	Technical	Cities Logistic operators	D6.3, D6.4 MS6, MS9	MODERATE	1	All the project partners will be involved from the beginning in the iterative process of the definition and selection of the use cases and requirements. Common meetings and workshops will be organized to build a common view. Additionally, even from the proposal preparation phase the use cases are selected very carefully considering the real needs of the cities in the projects and the EU countries.
WP7	WP7- 1	T7.1	SPES	Difficulties on the replication work because of the differences in the cities' ecosystem and logistic services	Technical	Cities Logistic operators	D7.2, D7.5, MS8	MODERATE	0,9375	UNCHAIN aims to solve the problems related with the heterogeneity of the data and cities way of operating by implementing a standardised and reliable data exchange ecosystem. The 11 EU cities participating, and



										the logistic operators represent a good example of the logistical functioning of European cities.
	WP7- 2	Τ7.3	SPES	Unsuccessful exploitation strategy in terms of attracting the relevant stakeholders	Managerial	SPES	D7.1, D7.4, D7.6 MS10	MODERATE	0,75	A detailed analysis of the market and the products developed will be done during the project to detect gaps in the market to be covered by the project
WP8	WP8- 1	T8.2	POLIS	Low involvement of the Stakeholder Engagement Group	Technical	POLIS	D8.4, D8.7	LOW	0,5	Plan of the strategy to be followed from the beginning of the project.







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