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Optimised Real-time Yard and Network Management

D 7.2 Dissemination, Communication and Exploitation Plan

Leader of this Deliverable: UIC

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Dissemination Level		
PU	Public	X
CO	Confidential, restricted under conditions set out in Model Grant Agreement	
CI	Classified, information as referred to in Commission Decision 2001/844/EC	

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EXECUTIVE SUMMARY

The aim of this document is to provide a dissemination and exploitation strategy for the OptiYard (Optimised Real-time Yard and Network Management) project and to describe the tools that will be used to facilitate the wide-spread of information and knowledge from the results created by the project, among and beyond the members of the consortium (and beyond the life of the project). For the dissemination of OptiYard to be successful, there needs to be a good cooperation between all the Work Packages throughout the life of the project.

In this respect, an overview of the dissemination and exploitation activities to be undertaken during the project's life is going to be provided, followed by a separate and more detailed analysis of each activity.

The OptiYard project is carried out by 13 partners from 8 different EU member states. The partners within the project are a good mix of European member states represented, as well as new accession states. This diversity within the consortium ensures that a diverse set of scenarios is considered and solutions will be adopted or tailored to the needs of the whole of Europe. The organizations within the project, UIC, UIRR and IFSTTAR, also ensure that the input of stakeholders across Europe are considered within the OptiYard project.

This project consortium has achieved a good balance of academic input, expertise from specialist consultants, technology providers and the required input from railway. UIC represents the interests of the railway operators and undertakings worldwide and through their membership can ensure wide end-user input and dissemination for this project to be successful. Given its expertise in leading European rail projects and its position in rail transport, UIC is a good asset to gain time in identifying and addressing the right people and to disseminate results efficiently. Academic partners will also ensure that technical outputs are widely disseminated in journals and peer reviewed literature and each operator and infrastructure manager involved in the project will ensure that the results are disseminated and implemented within their own organizations. Therefore, the consortium in itself will be the primary base for dissemination.

A consultation body will also be made, in order to inform the relevant categories of stakeholders concerned, and to ensure their advice and support throughout the lifetime of the project. Dissemination and exploitation of results is not only crucial to the acceptance and implementation of technologies developed by suppliers and end-users, but more importantly by the Shift2Rail Joint Undertaking, which will carry on the research into a wider scope.

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LIST OF ACRONYMS

CB	Consultation Body
GA	Grant Agreement
IM	Infrastructure Manager
IP	Innovation Programme
IRJ	International Railway Journal
MY	Marshalling Yard
OptiYard	Optimised Real-time Yard and Network Management
RU	Railway Undertaking
S2R JU	Shift2Rail Joint Undertaking
SP	Service Provider
TD	Technology Demonstrator
TRA	Transport Research Arena
UIC	Union Internationale des Chemins de Fer
WP	Work Package

INTRODUCTION

This document has been prepared in order to provide a clear dissemination and exploitation plan for the OptiYard project. To facilitate this, we present materials and strategies for communicating and disseminating OptiYard results to railway stakeholders and the scientific community. Those include:

- the creation of a project identity
- the creation of a public website
- the set-up of a twitter account
- the creation of a project brochure
- the production of two newsletters
- the organization of a mid-term event and a final conference
- the participation to conferences and the publication of results in relevant journals
- and the creation of a consultation body

Moreover, the dissemination and exploitation plan describes how OptiYard will interact with other Shift2Rail (S2R) projects and how the results will be transferred to the S2R Joint Undertaking (JU).

Throughout the project, the Dissemination Work Package (WP7) will drive the dissemination of information, particularly for the purpose of ensuring future exploitation and the collaboration with the other S2R projects. The widespread and targeted dissemination of the project outputs is vital to the acceptance and implementation of the technologies developed and for this reason all the other project partners are going to be involved in the production and publication of material like scientific publications, articles, press releases, newsletters, and project brochure.

BACKGROUND

The primary objective of the OptiYard project is to design decision support tool for yard managers that will help them to optimize processes and manage their yards more efficiently. It will do this in real-time, with interaction with relevant network, to guarantee on-time delivery and operational efficiency, in particular for single wagon transport. Another key objective is to ensure the appropriate dissemination of key concepts, progress and communication strategy within the S2R community and toward the global ecosystem and future users of IP5, the Innovation Programme focusing on Technologies for Sustainable & Attractive European Rail Freight (<https://shift2rail.org/research-development/ip5>). The work areas of the project are briefly described below:

- WP2 - Data Analytics

Data collection, data analytics and data management are the means to achieve a better understanding of the operating processes in the yards and in the rail network, and hence achieve a better utilization of rail assets.

- WP3 – Specification of the OptiYard Simulation Environment

The overall aim of WP3 is to provide a roadmap for the development and implementation of the standards for EU-wide real-time management of the yard and network eco system.

- WP4 - Modelling

This Work Package builds on the inputs of WP2, providing the necessary data to be targeted and the corresponding methods and techniques, and WP3, providing the detailed specifications for the simulation environment and prepares the modelling framework to host the optimization algorithms to be developed in WP5. Its structure follows the two Work Streams identified in the Call, thus addressing both real-time yard and network management.

- WP5 - Process Optimisation

This work-package deals with the real-time optimization of the yard with a link to the network management, to guarantee on-time delivery and operational efficiency in particular in single wagon transport. This optimization will be possible thanks to the introduction of innovations in different contexts.

- WP6 - Business Cases - Feasibility & Simulation Tests

The main objective of this work package is the demonstration of the various solutions that will be designed and developed within WP2 to 5 and to evaluate its (economical) applicability in real environments. The chosen demonstrators covering conventional and combined transport in single-wagon load and block trains will perform feasibility tests of the generic virtual yard/terminal software simulation environment in a production-like test and training environment. In addition, the use cases partners will provide the necessary input (data, business processes) to the various research work packages (directly involved in WP2 to WP5) to design and develop the most suitable virtual ecosystem (models, simulation tool, algorithms, data exchange format). Finally, an impact assessment will be undertaken to provide substantial information in terms of operation, business performance and overall economics for the practical application of the project results.

1. DISSEMINATION PLAN

1.1 OBJECTIVES

External communication will be achieved by creating a project identity and a public website, attending to conferences and relevant events and publishing articles in appropriate journals.

As outlined in the OptiYard description of work, the dissemination objectives are to:

- Establish a dissemination platform to facilitate wide-spread information transfer amongst and beyond the members of the consortium (and beyond the life of the project);
- Set up communication channels with OptiYard and other S2R projects to ensure a permanent link/communication with the relevant S2R activities;
- Ensure that the project outputs reach targeted stakeholders;
- Ensure that appropriate dissemination strategies are applied;
- Set up a Consultation Body that will facilitate the implementation for the project results and cooperation with other relevant S2R activities.

1.2 PROJECT TARGET GROUPS

Fundamental aspect of an effective dissemination strategy is the definition of the target group(s) to which the dissemination/communication activities have to be tailored.

The OptiYard consortium has identified the main stakeholders according to seven categories:

- Infrastructure managers
- Freight operators and RUs
- Service providers
- Scientific community
- Public bodies and organizations
- Freight partnerships
- Shift2Rail

The definition of the key stakeholder categories takes into account the different ways that OptiYard outputs can be used, considering that in Europe there are several different organizational structures concerning the entities involved in marshalling yards.

For example, the repartition of the activities regarding infrastructure management and shunting operations can take several different forms. For instance:

Infrastructure Management	Shunting	Case
IM	IM	Wien Zentralverschiebebahnhof
IM	RU/SP	Česká Třebová
RU/SP	RU/SP	Private yards

Trieste Campo Marzio, one of the two case studies of OptiYard, is even more interesting, as the organization changed in the recent years, and part of the infrastructure is owned by the Port Authority:

	National Infrastructure management	Port Infrastructure management	Shunting on National Infrastructure	Shunting on Port Infrastructure
Until 2017	IM (Rete Ferroviaria Italiana)	SP (Adriafer)	IM (Rete Ferroviaria Italiana)	SP (Adriafer)
From 2017	IM (Rete Ferroviaria Italiana)	SP (Adriafer)	SP (Adriafer)	SP (Adriafer)

Freight Operators and Railway Undertakings are involved as their operations can be significantly improved thanks to the better integration between yard and the surrounding Infrastructure, thanks to OptiYard interfaces.

The scientific community will be able to get valuable inputs from OptiYard process analysis, potentially leading to improvements in the design or redevelopment of Marshalling Yards, as well as a clear overview on the global interrelations concerning the yard eco-system.

Public bodies and organizations will be able to perform a deeper technical evaluation by applying OptiYard simulation and optimization process, to target future investments on infrastructural improvements.

Freight Partnerships are transversal organizations that aggregate actors in the Rail Freight industry, and thus impacted by the same aspects concerning the above-mentioned categories.

Target Group	OptiYard tools to be disseminated	Main dissemination actions
Infrastructure managers	OptiYard eco system Optiyard simulation environment Optiyard communication system Optiyard Decision Support System OptiYard KPI Optiyard Cost benefit analysis	Promotional material OptiYard Mid-term and final conference UIC e-news OptiYard website OptiYard and UIC twitter accounts Presentation at UIC and UIRR meetings and at related events
Freight operators and RUs	OptiYard eco system Optiyard communication system Optiyard Decision Support System OptiYard KPI Optiyard Cost benefit analysis	Promotional material OptiYard Mid-term and final conference UIC e-news OptiYard website OptiYard and UIC twitter accounts Presentation at UIC and UIRR meetings and at related events
Service providers	OptiYard eco system Optiyard simulation environment Optiyard communication system Optiyard Decision Support System Optiyard Cost benefit analysis OptiYard KPI	Promotional material OptiYard Mid-term and final conference UIC e-news OptiYard website OptiYard and UIC twitter accounts Presentation at UIC and UIRR meetings and at related events
Scientific community	OptiYard eco system Optiyard simulation environment Optiyard communication system Optiyard Decision Support System	Publication of scientific articles Presentations at international conferences OptiYard Mid-term and final conference
Public bodies and organisations	Optiyard Decision Support System OptiYard KPI Optiyard Cost benefit analysis	OptiYard Mid-term and final conference Collaboration with ERA
Freight partnerships	OptiYard methods for real-time data analytics	Presentation of OptiYard at one of the North East Freight partnerships, UK
Shift2Rail	OptiYard eco system Optiyard simulation environment Optiyard communication system Optiyard Decision Support System OptiYard KPI Optiyard Cost benefit analysis	Work with S2R JU complementary projects Promotional material OptiYard Mid-term and final conference OptiYard website OptiYard and UIC twitter accounts

Dissemination strategy for each target group

1.3 DISSEMINATION MEASURES

1.1.1 Project Identity

A project identity has been created at the beginning of the project including the OptiYard logo, templates for presentations and reports, as well as a project brochure. The project identity will help dissemination activities and ensure a consistent communication of the project concept, objectives and results.

Logo

As a first step, the OptiYard logo has been prepared and approved. It is used for all dissemination actions. The logo has been designed in red and blue (see visual of the logo below), but also in black and in white.



Figure 1: OptiYard Logo

Templates

A cohesive visual identity has been created for use by the OptiYard project partners, e.g. documents, reports, presentations, meeting agenda and other external communications. These templates are available for download on the UIC Cooperation tool <https://extranet.uic.org/index.php?idx=list&id=1313&gr=Y&path=OPTIYARD+documents%2FAdministrative%2FTemplates&tg=fileman> (this deliverable report is, in itself, an example of report template).



Figure 2: Sample of OptiYard templates

Project flyer

The OptiYard project flyer has been released in month 7. This 12-page flyer printed in format A5 contains the following information:

- A synthetic description of the OptiYard project overview
- The most significant facts and figures
- Its objectives and expected outcomes
- Its relationship within the S2R programme
- The project organization with the list of partners and logos

It uses the same colour palette as the logo created at the beginning of the project. The graphism used for this document will serve again for all future documents produced for OptiYard, such as the newsletters to produce a recognisable identity for the project.

The brochure has been distributed at UIC, amongst the project partners, at TRA 2018 in April and at the UIC Global Rail Freight Conference held in Genoa from 27 – 29 June 2018, as well as at the mid-term conference. It has also been advertised by twitter and it is available for download on the OptiYard website.

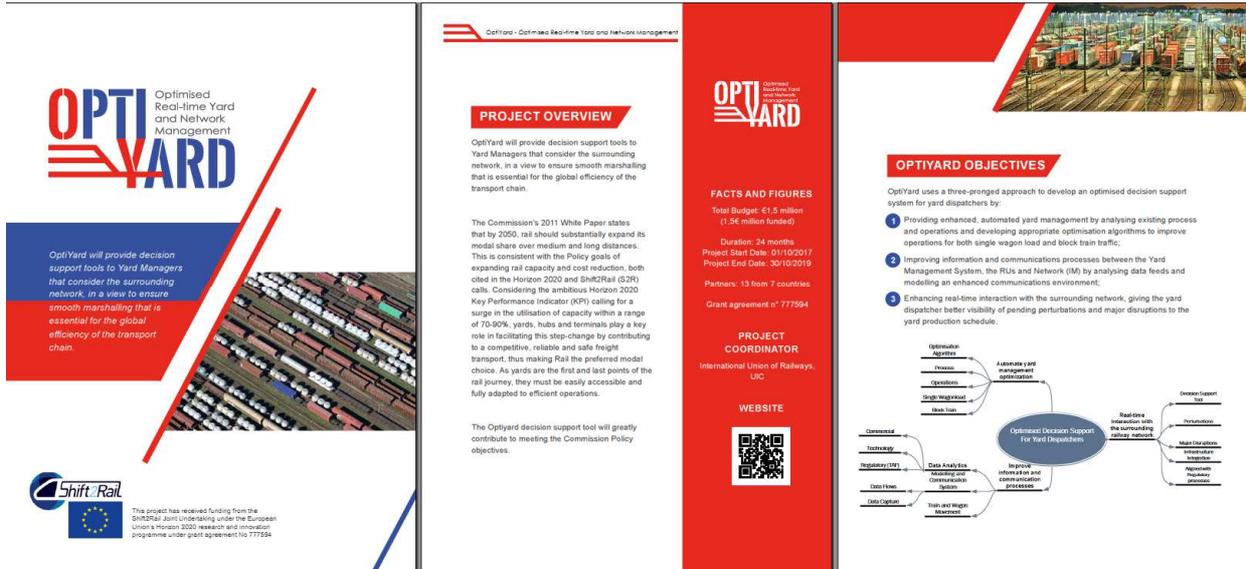


Figure 3: Extract from the OptiYard flyer

1.1.2 Public Website

A dedicated website has been set up at the beginning of the project. The website (www.optiyard.eu) is publicly accessible, with a section where visitors can register their interest. It is divided into two parts: the public portal and the cooperation tool (member's area).

The public portal is open to the public and displays the key project information, partners, results, news/events and links to the partners' websites.

All documents prepared for the project (flyer, newsletters, presentations at mid-term and final conference, etc.), as well as all public deliverables (once they have been approved by the Shift2Rail JU), are published on the website and are available for download.

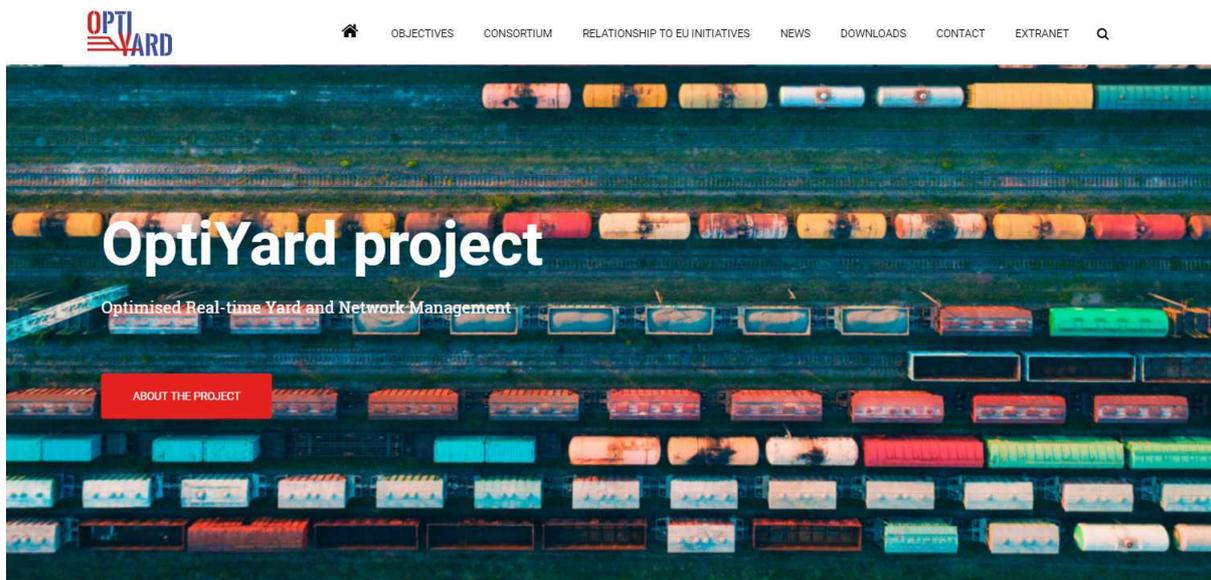


Figure 4: Homepage of OptiYard public website

The main objective of the OptiYard private area, so-called “OptiYard workspace” or “extranet”, is to facilitate communication among the consortium members, with the European Commission representatives but also with the members of the advisory board and the end-users.

The “OptiYard workspace” is created in the UIC collaborative Tool “OVIDENTIA” which is an open source content management and collaborative platform based on a large community of users. This OptiYard Workspace enables users:

- to share and store documents
- to organize meetings
- to manage directories and contacts
- to discuss special issues online

The OptiYard workspace is accessible at <http://extranet.uic.org>. Figure 5 below shows the home page of the workspace with the latest documents and files uploaded.

UIC EXTRANET
Christine HASSOON - Tuesday 23 October 2018 - Capacity4Rail

INTERNATIONAL UNION OF RAILWAYS

Home Logout Workspaces User's menu Administration Guides Search

WORKSPACE : OPTIYARD

Forums Publications Directories Events Documents Home

OPTIYARD's Members news
Submit an article in "OPTIYARD members news"

Latest documents and files updates (last 10 updates)

OptiYard_WP1_A_UIC_003_Memberlist_2018-10-09.xlsx - 8481 (Wed 10 Oct 08:48)	
OptiYard Consortium contact list	
OptiYard_Deliverable2.2_V6.pdf - 8964 (Tue 09 Oct 09:52)	
Deliverable 2.2	
OptiYardWP7Presentation_26oct17.pdf - 8481 (Mon 08 Oct 15:36)	
WP7 Presentation-26 Oct 17	
OptiYard_Presentation_WP7_Vienna_17April2018.pdf - 8481 (Mon 08 Oct 15:35)	
WP7 Presentation-17 Apr 18	
OptiYard_WP7_Presentation_SMCMtg_4Oct.pdf - 8481 (Mon 08 Oct 15:33)	
WP7 Presentation-4 Oct 18	
OptiYard-TMC-B-UIC-005-01-TMC_Agenda_18-10-05.docx - 8481 (Mon 08 Oct 15:30)	
Mtg Agenda - 4 Oct 18	
OptiYard-TMC-M-UIC-002-01_Minutes_17-04-2018_CR_CH.docx - 8481 (Mon 08 Oct 15:26)	
Minutes - 17 April 18 Vienna	
OptiYard_WP7_Presentation_SMCMtg_4Oct.pdf - 8481 (Mon 08 Oct 15:24)	
WP7 Presentation-4 Oct 18	
OptiYard-IP5-A-UIC_001_SMC4Oct_SignedList.pdf - 8481 (Mon 08 Oct 15:23)	
Attendance List-4 Oct 18	

Workspace events (5 next events)

Latest thread updates (last 5 updates)

Workspace administrators and contact
Giancarlo DE MARCO TELESE

Figure 5: Homepage of OptiYard workflow tool

Figure 6, below, depicts the file structure currently within the Workflow tool. This will adapt and be amended to suit the project and partner's requirements as delivery occurs.

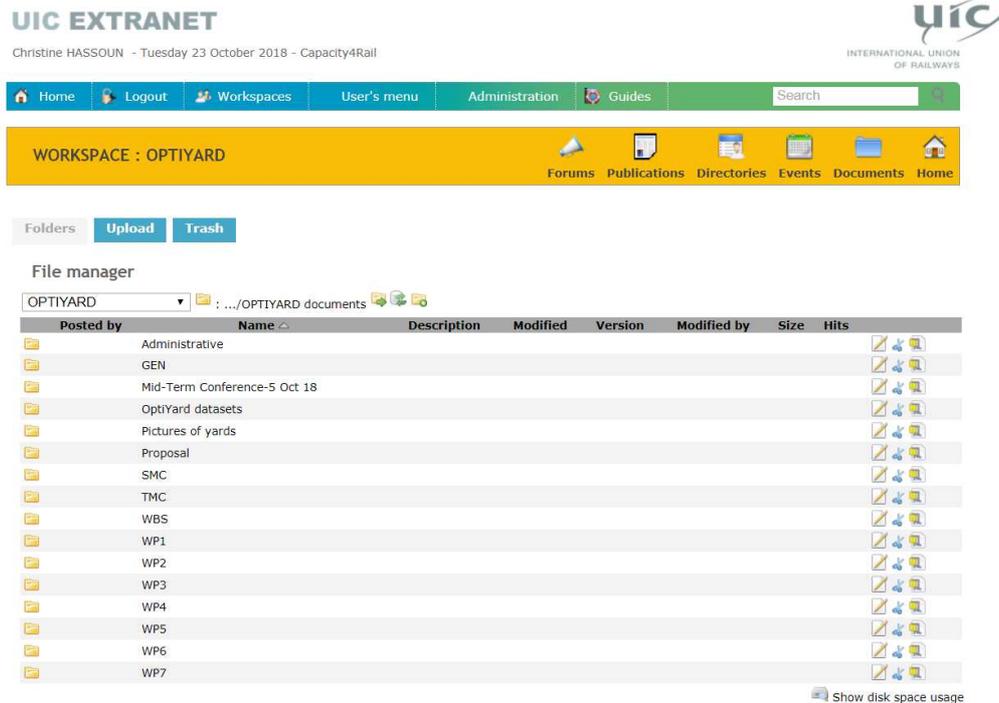


Figure 6: Homepage of OptiYard Workflow tool

1.1.3 Social Media

An OptiYard account (@OptiYard) has been launched at the beginning of the project. It relays messages from OptiYard, the Shift2Rail JU, partners of the project and from actors of the railway sector. The account has now 155 followers and 59 tweets (or retweets) have been made from the launch of the account. It has recently enabled us to fully announce the mid-term conference in Paris and the publication of the presentations on the internet website.

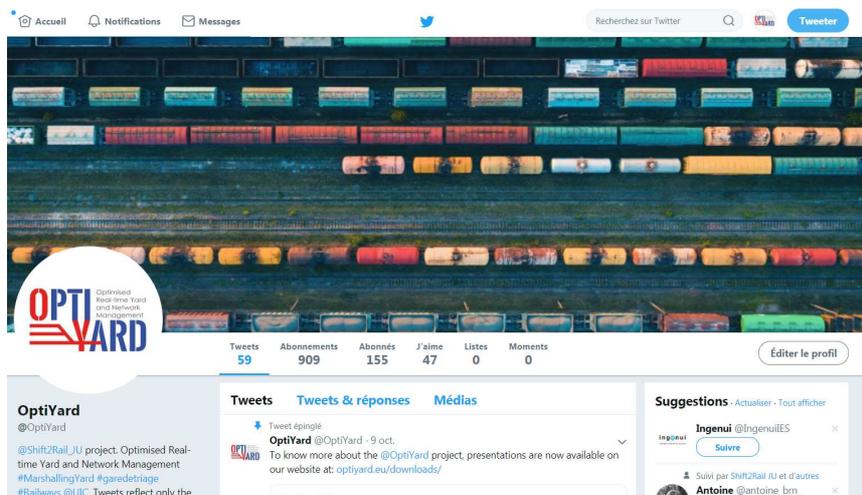


Figure 7: Homepage of OptiYard twitter account

1.1.4 Newsletters

The project will produce two newsletters. The first newsletter will be released in month 14 and the second newsletter towards the end of the project in month 24. The newsletters will provide up-to-date information on the status and achievements of the project. The newsletters will be circulated via e-mailing lists, via twitter and in a printed version that complements the project flyer.

In order to ensure that the widest audience possible is reached, each partner will use its own mailing list. The newsletters will also be uploaded on the project webpage and printed copies will be distributed at events and workshops.

Additionally, the consortium partners will use their network to widely disseminate the results of the project. Partners such as UIC, NEW OPERA and IFSTTAR provide a unique opportunity to reach the target stakeholders. Universities and Research bodies will also play a key role in disseminating the results in academic journals and conferences.

1.1.5 Dissemination events & participation in conferences

The OptiYard consortium will organize two main public events. The mid-term conference was organized at UIC in Paris on 5th October 2018. This event offered the opportunity to present the first results and gain a wider visibility. The final conference will be organized at the end of the project (in September 2019). The Final Conference will be used to present the project results.

Both events are open to anyone interested in participating. To ensure maximum audience, invitations will be sent to the key actors in the field. The location will be chosen to ensure maximum participation.

The final conference will provide a platform to discuss the achieved results of the project. Solutions for the identified problems and challenges will be presented based on the OptiYard project results and the harmonization of needs, requirements and demands facing the Shift2rail IP5 expectations will be discussed.

Apart from the mid-term event and final conference, some other conferences and public events have been and will be targeted where OptiYard can be presented and communicated to a wide audience.

OptiYard has already been presented during high-level EU events, such as:

- TRA 2018 (Vienna, April 2018)
- The Global Rail Freight conference (Genoa, Italy, June 2018)
- The European Conference on Operational Research (Valence, Spain, July 2018)
- The 4th International Conference on Railway Technology -Railways 2018- (Sitges, Spain, September 2018)
- InnoTrans 2018 (Berlin, Germany, September 2018)

The dissemination partners especially, will be active in the promotion and dissemination, by joining these and other major events and conferences and presenting results and achievements of the project.

1.1.6 Publications & Papers/journals

Regular information shall be published through the usual channels of the different associations involved in the project. Project results are also planned to be published through articles mainly in specialized press and scientific journals, such as:

- Railway Gazette
- IRJ
- RTR European Rail Technology Review
- European Railway Review
- Rail Technology Magazine
- Passenger Magazines

Furthermore, academic partners will ensure that technical outputs are widely disseminated in journals and peer reviewed literature.

1.1.7 Consultation body

The main purpose of the Consultation Body of OptiYard is to inform the relevant categories of stakeholders concerned, and to ensure their advice and support throughout the lifetime of the project.

The Consultation Body has been set up during the project and it is made up of rail freight experts. The meetings will be organized depending on the project progress and the urgency of the topics to be discussed.

1.4 ORGANIZATION

The leader of the Dissemination, Communication and Results Exploitation work package (WP7) is UIC.

The Dissemination Manager is responsible for:

- Producing dissemination material
- Organizing the mid-term event and the final conference
- Keeping track and reporting back to the coordinator on the project dissemination activities
- Ensuring proper use of public dissemination materials with respect to partners' IPR's
- Ensuring consistency of project image and published contents
- Making sure of optimum use of the project dissemination resources

Partners are expected to contribute by:

- Identifying and informing the consortium about dissemination opportunities (e.g. events, publications, etc.)
- Promoting the project results in their own organization with press releases and web pages
- Submitting technical papers and presenting the project results at relevant external conferences according with the project quality plan
- Ensuring liaison with appropriated standardization bodies
- Suggesting stakeholders to be invited to the related conferences to promote the project

All dissemination actions need to be reported to the dissemination manager (UIC).

2. EXPLOITATION PLAN

2.1 OBJECTIVES

OptiYard is setting the foundations for developments that will be continued within Shift2Rail's IP5: "Technologies for Sustainable & Attractive European Rail Freight". Therefore, the exploitation of the project's results will have to be ensured towards S2R IP5.

The objectives for the exploitation of results are the following:

- To ensure a good transfer of results between OptiYard and Shift2Rail.
- To ensure that OptiYard results will be forwarded to the relevant regulation and standardization bodies competent for the various transport sectors if needed.

For the abovementioned reasons, OptiYard is fully committed to finalizing and signing the Collaboration Agreement with the CFM IP5 project FR8HUB.

2.2 EXPLOITATION MEASURES

To ensure the good transfer of results between OptiYard and Shift2Rail, the OptiYard project will follow the following steps:

- Develop and sign Collaboration Agreements with FR8HUB, along with any other future Shift2Rail IP5 CFM project;
- Ensure a smooth transfer of OptiYard results to the corresponding CFM project FR8HUB, as well as with any other future Shift2Rail IP5 CFM project, through the organization of technical workshops on specific subjects identified, whenever needed. These direct technical interactions could be organized at WP level, to facilitate the knowledge transfer for the purpose of the Shift2Rail activities. These will be managed on a case-by-case basis;
- Regular interaction with the S2R JU, through the IP5 Steering Committees, where possible issues can be resolved between all the project coordinators.

All this exchange of information will enable the OptiYard project to provide feedback to the relevant stakeholders in Shift2Rail, but also to collect suggestions that could be relevant for the on-going activities of the project.

3. CONCLUSION

This document provides plans in the areas of dissemination and exploitation. It presents a comprehensive dissemination strategy for the OptiYard project and describes the materials and strategies that have and will be used for external communication, along with the engagement and uptake of the results by relevant stakeholders.

A series of dissemination events have been planned, but it is anticipated that more dissemination opportunities will arise as the project progresses. Therefore, the OptiYard consortium will use this plan as an initial strategy which will be further updated and reviewed on a regular basis. Dissemination activities will be discussed at WP level and will be coordinated generally via WP7.

Routes to exploitation have been identified and the specific cooperation with the Shift2Rail Joint Undertaking and the relevant IP5 CFM projects will be a key activity to ensure both success of OptiYard and Shift2Rail.