# COMMUNICATION STRATEGY AND ACTION PLAN

## D5.1



## MARCH 5, 2020

## VERSION 1.2





European Global Navigation Satellite Systems Agency

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## **D5.1 - COMMUNICATION STRATEGY AND ACTION PLAN**

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1.0	27/01/20	Initial version
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## **EXECUTIVE SUMMARY**

This document is the deliverable "D5.1 – Communication Strategy and Action Plan" of the European project "CERTIFIABLE LOCALISATION UNIT WITH GNSS IN THE RAILWAY ENVIRONMENT" (hereinafter also referred to as "CLUG").

Proper project dissemination and communication is key to ensure the maximum impact of CLUG project. The main goal of the planned communication activities is to increase the visibility of CLUG project on selected communities and target groups, from local to European and International levels, in order to promote the implementation and use of project results, always considering confidentiality and IPR protection aspects. All partners of the consortium will contribute to the CLUG dissemination, according to their foreseen role and effort and using all available tools and channels.

This deliverable outlines CLUG communication and dissemination strategy in terms of identification and description of the communication/dissemination key elements:

- the objectives (why, mission & vision);
- the subjects (what);
- the target audience (to whom);
- the timing (when);
- the tools and channels (how);
- the responsibilities for dissemination (who will perform the dissemination);
- the rules for performing the dissemination activities;
- the way to evaluate and assess the impact of the dissemination activities.

It also includes a description of the actions foreseen during the whole duration of the project and a presentation of the ones yet carried out since the beginning of the project (mainly CLUG visual identity, dissemination material, website and social networks).

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## **APPLICABLE DOCUMENTS**

The following documents define the contractual requirements that all project partners are required to comply with:

- Grant Agreement N° 870276
- CLUG Consortium Agreement, CA96\_20001\_V2.4draft\_CO

Each of the above documents was established at the start of the project, and copies were supplied to each partner. Each document could potentially be updated independently of the others during the course of the project following a prescribed process. In the event of any such update, the latest formal issued version shall apply.

In the event of a conflict between this document and any of the contractual documents referenced above, the contractual document(s) shall take precedence.

## REFERENCES

CLUG. «Consortium Agreement.» 2020.

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### Α

AltBOC : Alternive Binary Offset Carrier

## С

- CER : Community of European Railway and Infrastructure Companies, : Community of European Railway and Infrastructure Companies
- CLUG : Certifiable Localisation Unit with GNSS in the railway environment

## D

DFMC : Dual Frequency Multi Constellation

## Ε

EC : European Commission, : European Commission ERA : European Union Agency for Railways, : European Union Agency for Railways

ERTMS : European Railway Traffic Management System

ESA : European Space Agency

ESSP : European Satellite Services Provider

EUG ERTMS User Group

### G

GSA : European GNSS Agency

### I

IMU : Inertial Measurement Unit

### 0

OS NMA : Open Service Navigation Message Authentication

## Q

QoS : Quality of Service

## S

S2R : Shift2Rail SEO : Search Engine Optimization

## Т

TSI : Technical Specifications for Interoperability

### U

UCP : User Consultation Platform UIC : International union of railways

### W

WP : Work Package

## 1 INTRODUCTION

Dissemination activities are a core part of the project. Clear, specific, and measurable objectives are key to the success of any communications strategy.

They will be aligned with major milestones to maximise the impacts of the project and in strong interaction with all the other work packages. They will be defined by the dissemination strategy, which must enable to answer to the key questions about dissemination.

The main objectives of the plan are to:

- Guarantee an effective communication of the project messages and activities at Local, National and EU level,
- Identify appropriate target groups to address the dissemination messages,
- Implement a wide and differentiated set of dissemination tools and events,
- Identify the dissemination KPIs, useful to measure the effectiveness and efficiency of the activities conducted,
- Illustrate how the project will cooperate with other EC-funded projects or related initiatives,
- Define how the dissemination activities will be administrated,
- Assist CLUG partners to implement correctly the communication strategy.

## **2** SCOPE OF THE PROJECT

## 2.1 THE PURPOSE OF THE PROJECT

According to the ERA document (ERA 2015) on ERTMS Longer Term Perspective, GNSS could prove a game changer for the European railway network by enabling a significant reduction of trackside equipment and by improving localisation performance. The conclusions of the STARS project have confirmed this potential. However, fusion with other sensors will be necessary to mitigate the known impact of local effects on GNSS performance.

Capitalising on the achievements of EC and GSA funded projects, key European railway companies have decided to team together and collaborate through the CLUG project for the proof of concept of a "Certifiable Localisation Unit in the railway environment" with the following characteristics:

- Failsafe on-board multi-sensor localisation unit consisting of a navigation core (IMU, tachometer, etc.) brought in reference using GNSS, track map and a minimal number of reference points;
- > On-board continuous localisation system that provides location, speed and other dynamics of the train;
- > Operational and interoperable across the entire European rail network;
- > Compatible with the current ERTMS TSI or with its future evolutions.

## 2.2 OBJECTIVES OF CLUG PROJECT

The main objectives of CLUG are:

- > to collect and define the mission requirements for train localisation system;
- > to define a novel certifiable localisation architecture and concept using GNSS;
- > to set up the demonstration of the feasibility of a multi sensor approach;
- > to develop the processes and tools for certification of the localisation unit.

### For further details, please refer to the technical annex of the Grant Agreement.

## 2.3 IMPACTS OF THE CLUG PROJECT

The project will lay the foundations for the use of GNSS coupled with other sensors such as IMU and odometer, amongst others to provide a continuous and accurate failsafe train localisation that could be integrated in the future ERTMS solution. This will extend the GNSS usage to safety critical railway applications, high-quality applications comparable to the use of GNSS in aviation. Through these activities, the CLUG project will develop the synergies between two major European Programmes, EGNSS and ERTMS.

The EU H2020 Work Programme identifies expected impacts for projects under the "LC-SPACE- E-GNSS-1-2019-2020: E-GNSS applications fostering green, safe and smart Mobility" topic and the table below summarises how the CLUG project will contribute to each of these impacts.

EXPECTED IMPACTS IDENTIFIED IN THE WORK PROGRAMME		CONTRIBUTION OF CLUG OUTPUTS TO THESE IMPACTS
Foster the E-GNSS market uptake in transport. It should build on specific features and differentiators of Galileo and EGNOS, demonstrating the advantage of their use in smart and green mobility.	0	Foster the adoption of E-GNSS-based SoL services at ground level for train application. Especially, the project will use the performance, the open characteristics (e.g. interfaces, etc.), and the QoS of Galileo and EGNOS to develop optimal architecture with fusion between E-GNSS and other sensors like IMU to reach the final user requirements in terms of accuracy, availability, continuity and integrity; Optimal use of E-GNSS in combination with all other available data.
Contribute to the resource efficient, climate and environmentally friendly transport that will be also safe and seamless for the benefit of all citizens, the economy and society.	0	Develop a failsafe train localisation system suitable across the entire European rail network. It is a major enabler for the rail transport, one of the greenest means of transport. Indeed, a safe and accurate train localisation allows to increase the existing line rate (thanks to new concept like moving blocks), increase the punctuality of the train with a better traffic management and less fragile/vulnerable equipment on the trackside.
Eencourage market take-up, taking into account infrastructure and regulatory requirements, coordination of multiple actors and projects	0	Build a Prototypical Certification with the help of notified body (i.e. Navcert): the CLUG project was built to tackle the challenges of the SoL application from the start of the R&D roadmap and to propose failsafe localisation system usable across all the European railway network.
Commercialise the products and services developed.	0	<ul> <li>Emergence of a Europe- and possibly Worldwide E-GNSS-based train localisation market;</li> <li>Provide technical analysis and justification of the failsafe train localisation system for:</li> <li>✓ Industry who can start finalising products for an identified user base and with reduced certification risks;</li> <li>✓ RUs, IMs and authorities (regional or national) who can start planning the use of localisation systems with a reasonable assumption on their future performances and safety;</li> </ul>

- ✓ Regulation authorities who can start imagining the future qualification and certification process;
- ✓ E-GNSS stakeholders who can imagine future evolution or adaption to foster the impact of E-GNSS in the railway domain.
- Requirements derived from the final user associated to the CLUG project, i.e. three major railways in Europe;
- Architecture of the localisation unit addresses the issue raised by the in 2015 and the conclusion of STARS.

Table 1 : Main impacts of CLUG project

Moreover, CLUG project will address the uses of different E-GNSS services as expected in the Work programme:

EXPECTED E-GNSS EXPLOITATION IDENTIFIED IN THE WORK PROGRAMME	CONTRIBUTION OF CLUG OUTPUT TO THESE IMPACTS
Multiple-frequencies E1, E5 and E6;	<ul> <li>Evaluation of the future EGNOS V3 services</li> <li>Evaluation of DFMC benefits</li> <li>Measurement campaigns with record of the radiofrequency environment and with DFMC (or DFMC like) receivers.</li> </ul>
Galileo specific signal modulation, e.g. AltBOC	• Evaluation of the performance of different Galileo characteristics and their contributions to the absolute accuracy and the robustness against NLOS.
Galileo Search and Rescue Service	Non-applicable for this maturity level. This subject could be addressed in the RCA or OCORA initiative linked to the global system architecture
Galileo High Accuracy service that will be offered free of charge and Authentication features that will be provided by Galileo, i.e. in the frame of the Open Service authentication (OS NMA)	<ul> <li>Evaluation of the future Galileo services and their contributions to the train localisation systems (WP3)</li> <li>Analyse of potential Critical feature and cybersecurity issues. (WP3).</li> </ul>
Encouraging innovative use of GNSS and fusion with other sensors and positioning technologies, (e.g. Bluetooth beacons, localisation through Wi-Fi base stations, Inertial measurement units, Digital Video Broadcasting etc.)	<ul> <li>Feasibility of failsafe Multi-sensor train localisation unit consisting of a navigation core (Inertial Measurement Unit, Odometer) brought in reference using GNSS, track map and a minimal number of trackside items (WP3 and WP4)</li> <li>Prototyping of fusion and integrity algorithm for failsafe train localisation unit base on real life raw data (WP3).</li> </ul>

Table 2 : Uses of EGNSS programs

Additional impacts are also targeted by the CLUG consortium:

ΙΜΡΑCΤ	CONTRIBUTION OF CLUG OUTPUT TO THESE IMPACTS
Interests to the railway sector	<ul> <li>The development of continuous localisation system will have positive impacts on the reliability, capacity and punctuality of trains and will thus contribute to the improvement of the attractiveness of railway sectors;</li> <li>This system will increase line capacity especially in mixed-traffic situations, facilitating a flexibility for passenger and freight train operations thanks since CLUG is an enabler for many new concepts like moving block, ERTMS L3, etc;</li> <li>CLUG project with a safe punctual and efficient railway system aims at encouraging end-users to use trains.</li> </ul>
Impacts on Standards and Regulation	• The approach of CLUG is to integrate the development of process and tools for certification of localisation units in the work program. Partners of the project are the main contributors to the European standardisation working groups, allowing CLUG project to prepare the adoption of new standards and regulation for localisation of trains.
Impacts on durable development	• The development of certifiable localisation technology using GNSS is expected to make the railway transport system providing more cost effective and ecological alternative for public transport, with many positive impacts on public mobility and regional development.

Table 3 : Additional impacts of CLUG project

## **3 THE COMMUNICATION AND DISSEMINATION PLAN**

## 3.1 GOAL AND STRATEGY

Work Package (WP) 5 will be responsible for the dissemination of CLUG results and will coordinate this task at consortium level. To accomplish this objective, SNCF and DB as WP5 leaders will define the main guidelines for a high impact communication strategy and will work in close collaboration with the rest of the partners.

DB and SNCF will monitor the frequency of the publication of results, workshops organization, news and project evolution in terms of dissemination, leading the overall fulfilment of the objectives and the tasks defined in WP5.

To multiply the impact on the people involved and enlarge the community reached by this effort, CLUG will develop links with ERA, railways stakeholders (eg. EUG, CER), railway industry (eg. UNISIG) and European Space stakeholders (e.g. GSA, EC, ESA) to engage them in the promotion of CLUG's news and upcoming events.

Hence, a wide and effective strategy for dissemination of results has been planned as one of the strong components of the project and to which all partners are committed to contribute.

CLUG dissemination actions aim at communicating the project's objectives and results to a wide audience by promoting the adoption of project's results and demonstrating its impact, as well as by facilitating the exchange of information and the interaction not only with other related projects and initiatives but also with activities in industry, academia, and society as a whole. This process will be managed in respect with the confidentiality and the rules defined in the CLUG Grant Agreement and the Consortium Agreement.

In order to maximize the impact of communication efforts:

- Activities need to be carried-out in a timely manner;
- Information used must be accurate; •
- Activities should be coordinated closely with the GSA;
- The right audience(s) should be targeted; •
- Messages should interest the target audience(s);
- Activities should be appropriate in terms of resources spent, timing and expected impact.

### **DISSEMINATION POLICY AROUND 6 PILLARS**

**PROJECT IDENTITY** 

Production of logo Use of common templates Leaflet of the project

## **PUBLIC WEBSITE**

Creation of a CLUG website to disseminate and share news, events, public deliverables

> PUBLIC INFORMATION Public document (requirements, technical feasibility, ...) and publication of measurement campaigns

SOCIAL MEDIA

Publication of news and milestone of the project on the professional social media



Search and identify scientifica and

technical opportunities to publish and disseminate some CLUG results (e.g. ION, Innotrans, EGNOS workshop...)



Organisation of external events (e.g. final conference) and participation to workshop (EUG, ERA, UNISIG, ...)

Figure 1 :Pillars of the dissemination and communication policy of the CLUG project

#### 3.2 DISSEMINATION AND EXPLOITATION OF RESULTS

The aim of the CLUG project is to set up and to test an innovative localisation system based on the existing and future European GNSS. Innovative technologies will be explored and resulting concepts of the ongoing activities within CLUG will be shared and exploited across the rail transport sector. The outputs will be used to deliver new technology demonstrators, at pilot scale, and to present them to all the actors of the railway sector.

The preliminary action plan is provided on Annex 1, p24.

#### **Exploitation among the Partners** 3.2.1

The exploitation among the partners is described on the D1.1 "Project Management Plan" (CLUG, D1.1 - Project Management Plan 2020)

#### 3.2.2 **Dissemination among the main stakeholders**

CLUG project will establish a permanent communication link (e.g. workshop, memos, etc.) with the main stakeholders, including:

- UNIFE;
- UNISIG (Industrial consortium which was created to develop the ERTMS technical specifications);

- CER;
- UIC;
- ERTMS Users Group (European Economic Interest Group to help the railways in applying ERTMS/ETCS in a harmonised and interoperable way);
- EC (European Commission);
- GSA (European GNSS Agency);
- ERA (European Agency for Railways);
- ESA (European Space Agency);
- ESSP (EGNOS provider).

This activity is essential to build the future ERTMS Technical Specifications for Interoperability (TSI) with all involved stakeholders.

### 3.2.3 Dissemination among the Shift2Rail Group

A close cooperation will be developed among actors of Innovative Program (IP2) and complementary S2R Open Call Projects linked to Shift2Rail IP2:

- Shift2Rail- TD2.4: Fail-Safe Train Positioning (including satellite technology) and all projects associated to this TD;
- Future X2R5 project

The consortium will benefit from the fact that many members of CLUG consortium (i.e. SNCF, DB Netz, SBB, SIEMENS & CAF) are also members of the Shift2Rail JU and are involved in the relevant WP.

### 3.2.4 Dissemination among the standardisation and regulatory bodies,

Through meetings participation and workshops, the consortium will also communicate with standardisation and regulatory bodies, such as ISO/IEC/CEN/CENELEC/ETSI and ERA, to guarantee these important actors are kept informed of developments that CLUG will bring. Especially, in the context of the review and update of the technical specifications of Interoperability (TSI) of the ERTMS before 2022, the consortium will participate to this process to foster the implementation of the results of CLUG into the ERTMS.

### 3.2.5 Dissemination among industrial partners and public

The consortium will also disseminate information about the project's objectives, activities and results to a wide variety of stakeholders throughout the rail sector. Beyond the partners within the consortium and those involved in research activities, the dissemination will be organised within large framework that includes RU, IM, Urban Operators, system integrators and sub-system suppliers. The project CLUG will contribute to the attractiveness of railway sector by promoting the use of rail by citizen and businesses.

The following table presents the strategy of dissemination for each partner:

Partners	Motivation	Action(s)
SNCF, DB Netz, SBB, CAF, SIEMENS	Approach the rail and other sectors, client networks and networks of SMEs to identify and engage potential customers for the deployment	Participation to the Localisation Working Group of the EUG Participation to the ERA Working group for the future ERTMS standards

		Internal communication to present the project to the "railway men and women".
SNCF, DB Netz, SBB	Approach the public for the attractiveness of the railway sector	<ul><li>Publication of article to explain the reason and purpose of CLUG project.</li><li>Use of our social media account to explain this project</li></ul>
Airbus DS, FDC, Naventik	Engage the scientific and industrial communities across the enlarged Europe to raise awareness on the project	Publication of scientific articles
SNCF, DB Netz, SBB	Approach suppliers and complementary industry to identify and engage potential stakeholders	Participation to Shift2rail and ERA platform

Table 4 : preliminary dissemination approach

### 3.2.6 Dissemination of research

CLUG proposes a desirable blend of industry and academic expertise. As well as dissemination towards stakeholders through the channels described above, CLUG envisages publication of algorithms, methodologies, test results and validation of the solution feasibility through the two standard academic channels. Firstly, publications would be made at European and International conferences, including the Institute of Navigation (ION) annual conferences, ESA's NAVITEC, the World Congress on Railway Research, IEEE PLANS, ICIRT and the European Navigation Conference (ENC). Secondly, the publication of journal papers for peer review are planned in high impact journals such as Reliability Engineering and System Safety, NAVIGATION, GPS Solutions, The Journal of Navigation, Inside GNSS and IEEE Transactions on Intelligent Transportation Systems.

### 3.2.7 Dissemination of the raw data of the measurement campaigns

Due to its intended use, CLUG data (raw data and ground truth) cannot only be stored in the project itself. But specific data (specified by the consortium team in the Data Management Plan (D1.4)) will be shared with and made available to those academics, railways, scientist, industries engaged in and contributing to the activities of developing a train localisation. For instance, the CLUG project could deliver some data to cooperation project like KITTI to maximise the impact of the activities on the academic and research world. The Data Management Plan (D1.4) will detail the rules for these data sharing which include the different tasks and level of access/sharing needed. An overall concept for the CLUG data management policy is also be included in the Consortium Agreement.

## **4** TIMING OF COMMUNICATION/DISSEMINATION

Communication and dissemination activities are planned in accordance with the stage of development in the project. Although a number of communication actions will take place during the first half of the project, the most significant dissemination activities will take place as final research results are available. The dissemination will follow the AIDA model: Awareness to attract the attention of the target audience, Interest of the target audience,

Desire of the target audience to know more about the project, and Action to lead the target audience towards and promote its results to facilitate their exploitation. According to this principle, three phases are considered:

**Initial phase (Awareness) (month 1 – month 12):** focused on increasing the visibility of the project and mobilising stakeholders. At this phase, the main activities will be related to the implementation of the communication/dissemination tools (website, social networks, visual identity), preparation of dissemination material, general presentations of the CLUG project, the distribution of publishable abstracts and progress resumes. Moreover, first communication about the WP2 results concerning the mission definition and requirement of a train localisation unit will be organized.

**Intermediate phase (Interest/Desire) (month 12 – month 18):** focused on disseminating available initial data and evidences on scientific advances and technological results. Each partner will contribute at specific levels according to their expertise and business activities focused on informing and engaging the target stakeholders when preliminary results become available. The project results and their future applications will be presented in journals and conferences to specialized audience with the objective of stimulating the interaction with the concerned scientific and industrial community and determining the expectations of the stakeholders. The results of the WP3 and the organisation of the measurement campaign of the WP4 will be used.

**Final phase (Action) (month 18 - 24):** focused on encouraging further exploitation of the CLUG outcomes specially to feed the ERA process to update the ERTMS standard. At this phase, the results of the validation of the CLUG approach at technical feasibility and the transferability analysis will be presented in journals, conferences and industrial events.

## **5 COMMUNICATION TOOLS**

The communication and dissemination activities of CLUG will be led by DB Netz with the support of SNCF, with dedicated communication officer from the communication department.

## 5.1 PROJECT IDENTITY

A project identity including templates for presentations and reports and the CLUG logo have been developed. The project identity will help the dissemination activities and ensure a consistent communication of the project concept, objectives and results.



#### Figure 2 : CLUG project identity

## 5.2 PUBLIC WEBSITE

A dedicated website will be set up at the beginning of the project. The website will be a user-friendly platform that collects relevant information about the project. It will be created and updated carefully in order to improve the visibility for search engines (i.e. considering the Search Engine Optimization (SEO)). The website will be openly available and offer the visitors the possibility to subscribe to the project newsletter by including their email address.

This portal will be open to the public and will display the key project information, partners, results, news/events and links to the partners' institutions. All the public deliverables will be published on the website and will be available for download. The webpage will also list all related projects and also offers links to the GSA website as well as to the websites of the EC.

The first version of the public website will be available in M6 due at T0+4 (end of March 2020).

### 5.3 BROCHURE

Two project brochures will be produced and distributed during the attended events such as InnoTrans 2020 in September 2020. The first one will be delivered at the beginning of the project and the main objective of this publication is to provide the wide audience with some preliminary information on the goals of the project, the structure and main planned activities of the project along with the members of the CLUG consortium. The first brochure will anticipate the newsletters and will have a more generic content as the activities will have just started. The second one will be produced at the end of the project to highlight the main outputs of the project and their potential impacts.

### 5.4 EVENTS

The CLUG consortium will organise one main public event at the end of the project, the Final Conference. CLUG final conference aims to present and discuss the results of the project in a round table with all the stakeholders. This conference will be 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 and impact.

The major objectives of such event are:

- □ To enable other stakeholders not being directly involved in the project to be briefed on results at important project milestones.
- To stablish an interactive and dynamic round table where all the stakeholders of railway and space sector could actively participate validating the project results, proposing solution for unresolved problems or detected difficulties and giving guidance for future work.
- □ To discuss the potential for the implementation of the proposed solutions on the basis of the project results, especially on the ERTMS.
- To highlight the importance and relevance of the results throughout the presentation of on-going and future initiatives, activities and developments that are leveraging on or will benefit from the project results or are linked to it.

Apart from the Final Conference, CLUG partners plan to promote the project results during events, conferences or exhibitions. the following table shows an extract of the preliminary list of the targeted events (cf. paragraph 7 for a detailed list):

Events	Date / location	What
ION GNSS +	September 21-25, 2020 Saint Louis, USA	Articles
Innotrans 2020	October 2020 Berlin, GER	Presentation of the project
	_	_
European Space Week and Galileo User Consultation Platform	December 2020	Conference Participation to the UCP
European Space Week and Galileo User Consultation Platform ION GNSS +	December 2020 September 2021 Saint Louis, USA	Conference Participation to the UCP Articles

Table 5 : extract from the preliminary action plan for communication and dissemination

As more events opportunities will arise as the project progresses, the list of events will be further updated and reviewed on a regular basis.

## 5.5 PRESENTATIONS & PUBLICATIONS

Project results are planned to be published through articles mainly in specialized press, scientific journals and in relevant national and international conferences and workshops. CLUG will actively look-out for high profile academic and industrial events that are within the domain of interest of the project such as European Railway Review; International Railway Journal; Railway Gazette International; EURailMag, European Navigation Conference, ION GNSS and ITSC. As more presentations and publications opportunities will arise as the project progresses, the list of them will be further updated and reviewed on a regular basis.

The internal process for the publication reviewing is detailed on (CLUG, D1.1 - Project Management Plan 2020).

Selected publications should be uploaded to some professional and acknowledged data network repository, such as the ResearchGate full - access open scientific platform. Every such publication will specifically contain a CLUG

tag. Moreover, further special interest groups and communities may be identified during the project, as work evolves.

All publications in connection with knowledge developed during the CLUG project shall be reviewed by the dissemination and exploitation task leaders at least one month before its submission. They will verify that the information contained in the publications does not affect IPR protection, confidentiality, or the commercial interests of the partners.

### 5.6 NEWS

Overall, the consortium commits to issuing news releases on all important milestones and events (typically 2 - 3 per year) and to use social media and Twitter and LinkedIn for which WP5.4 partners have a dedicated staff with state-of-the-art expertise and tools. CLUG news will also be made available to project partners for translation and national distribution. Additionally, some of the news should be published in magazines reaching the larger scientific community. All news should describe the goals and achievements of the project in simple, jargon-free language and whenever possible highlight the benefits to all European Citizen.

## 5.7 SOCIAL NETWORKS

In order to reach a broad target audience while establishing two - ways communication channels, the presence of the CLUG project in social media will be encouraged. The twitter and Linkedin accounts of all partners will be used to maximize the impact in a short term.

The social media platforms that the Commission and its agencies use will be employed to expand project audience. This will be accomplished by adding #H2020 and tagging @EU\_H2020 to CLUG tweets. Additionally, in order to reflect the relation of the project with the SPIRE community, references to @EU\_GNSS will be included whenever possible. On the other hand, a LinkedIn (https://www.linkedin.com/company/icareplast/) page will be used for reaching stakeholders and industry professionals. Official LinkedIn groups will be joined to raise awareness among the different project topics professionals and industry.

LinkedIn Groups
European GNSS Agency
<u>SNCF</u>
Airbus Defence and Space
CAF (Construcciones y Auxiliar de Ferrocarriles)
DB
ENAC
FDC
<u>NavCert GmbH</u>

### NAVENTIK GmbH

### SBB CFF FFS

**Siemens** 

## 5.8 EUROPEAN COMMISSION AND GSA COMMUNICATION TOOLS/PLATFORMS

In order to spread further the project information outreach, CLUG partners will make use of the tools offered by the European Commission:

- CORDIS' "projects and results" service: It provides: (i) "project information" based on the project's grant agreement, (ii) "report summaries" that come from the publishable summaries of periodic and final reports submitted by the project participants and approved by the project officer and (iii) "results in brief" written by CORDIS science editors based on each report summary,
- □ CORDIS Wire, to publish articles on the CORDIS News and Events service,
- research\*eu results magazine, that features highlights from the most exciting EUfunded research and development projects;
- □ GSA Website : in coordination with the project officer, CLUG project will proposed publications on the GSA portal.

## 6 DISSEMINATION MANAGEMENT

## 6.1 DISTRIBUTION OF RESPONSIBILITIES

According to the Grant Agreement (Article 29.1) "Unless it goes against their legitimate interests, each beneficiary must - as soon as possible - 'disseminate' its results by disclosing them to the public by appropriate means (other than those resulting from protecting or exploiting the results), including in scientific publications (in any medium)". Therefore, all possible opportunities must be tackled by individual partners or on collective basis, through joint appearance by more than one partner, to spread the CLUG project among technicians and general public.

DB and SNCF will act as Communication and Dissemination Manager of the project, coordinating and supervising all the dissemination activities. On the other hand, all partners of the consortium will contribute to the dissemination tasks, according to their role and using all available tools and channels (for instance participating and giving presentations at conferences, workshops, publishing papers, networking, attending to fairs and showcases where technical achievements and prototypes can be shown to stakeholders, etc.).

### 6.2 DISSEMINATION POLICY AND RULES

All publications in connection with knowledge developed during the CLUG project shall be reviewed by the dissemination and exploitation task leaders at least one month before its submission. They will verify that the information contained in the publications does not affect IPR protection, confidentiality, or the commercial interests of the partners.

The process is described on (CLUG, D1.1 - Project Management Plan 2020)

## 7 PRELIMINARY ACTION PLAN

## 7.1 TARGETED EVENTS

Target Community	Conference Title	Timeline Dates		Place
GNSS	European Navigation Conference (ENC)	May 2020	11-14/05/2020	Dresden, Germany
<u>Rail</u>	The Fifth International Conference on Railway Technology: Research, Development and Maintenance	September 2020	7-10/09/2020	Palma, Mallorca, Spain
GNSS	ION-GNSS+ 2020	September 2020	21-25/09/2020	St. Louis, Missouri, USA
<u>Rail</u> /Transport	InnoTrans	September 2020	22-25/09/2020	Berlin, Germany
<u>GNSS</u> /Rail	GSA User Consultation Platform	December 2020	TBD	TBD
GNSS/Copernicus/ Govsatcom/SST	European Space Week	December 2020	TBD	TBD
<u>GNSS</u>	ESA's NAVITEC	December 2020	07-11/12/2020	Noordwijk The Netherlands
<u>GNSS</u>	IEEE PLANS IEEE/Institute of Navigation (ION) Positioning, Location and Navigation Symposium (PLANS) 2021	April 2021 (TBC)	TBD	TBD
GNSS	European Navigation Conference (ENC)	May 2021 (TBC)	TBD	TBD
<u>Rail</u>	The Sixth International Conference on Railway Technology: Research, Development and Maintenance	September 2021 (TBC)	TBD	TBD
GNSS	ION-GNSS+ 2021	September 2021	20-24/09/2021	St. Louis, Missouri, USA

Target Community	Conference Title	Timeline	Dates	Place
<u>GNSS</u> /Rail	GSA User Consultation Platform	2021 (TBC)	ТВС	ТВС
GNSS	EGNOS conference	2021		
<u>GNSS</u> /Rail	ESA's NAVITEC	December 2021	TBD	Noordwijk The Netherlands
Rail	13 <sup>th</sup> World Congress on Railway Research	_	"might be held in 2021 (Not Final)"	Location is not final

## 7.2 ACTION ITEMS

#	Date	Owner	Action	Target
	15/01/20	SNCF	Organisation of the Kick-off meeting in Prague	GSA and Consortium
	15/01/20	All	Article on the Social Media to announce the beginning of the CLUG project	Railway and GNSS stakeholder
	5/02/20	DB	Article on social media about the workshop concerning the architecture and the interface	Railway and GNSS stakeholder
	26 & 27/02/20	SNCF	Article on social media about the workshop concerning the architecture and the interface	Public, Railway and GNSS stakeholder
	05/2020	All	Preliminary definition of the executive summary for ION GNSS+	GNSS community
	08/2020	SNCF, DB, SBB, SMO	Communication about the first measurement campaign	Public, European stakeholder
	09/2020	SNCF	Participation to ION GNSS +	GNSS community
	10/2020	DB	Participation to Innotrans 2020	Railway stakeholders
	12/2020	SNCF	Participation and conference at the European Space week	Public, Space stakeholders
	12/2020	DB, SNCF, SBB	Communication about the results of the WP2	EC, ERA, GSA, Railway stakeholders, GNSS community
	06/2021	ADS	Communication about the results of the WP4	EC, ERA, GSA, Railway stakeholders, GNSS community

#	Date	Owner	Action	Target
	09/2021	SNCF	Participation to ION GNSS +	GNSS community
	10/2021	SNCF, ADS	Participation to the EGNOS User forum	EC, GSA, ESA, ESSP, GNSS community
	11/2021	SNCF	Organisation of the final event of the CLUG project	EC, ERA, GSA, Railway stakeholders, GNSS community