



BONVOYAGE

From Bilbao to Oslo, intermodal mobility solutions, interfaces and applications for people and goods, supported by an innovative communication network

Research and Innovation Action GA 635867

DELIVERABLE D8.1:

COMMUNICATION AND DISSEMINATION REPORT v1

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Internal Reviewer(s):	Silvia Canale (CRAT)

Abstract: This internal report describes dissemination and communication activities carried out in the first year of the project.

Keyword List: Communication, Dissemination

EXECUTIVE SUMMARY

This deliverable D8.1 aims at describing the dissemination and communication activities performed within the first half of the project BONVOYAGE.

The document describes the following main areas:

- Communication channels deployed by BONVOYAGE project addressing different targeted audiences, including collaboration with relevant projects in similar fields;
- Communication activities realised towards different audiences;
- Scientific Dissemination performed so far, including conference participation and publications;
- Standardization activities realised and planning for the second half of the project.

The BONVOYAGE web site represents the main communication channel of the project. Therefore, it is continuously updated with new contents, mainly related to: Research results, Scientific Publications, News about the project progresses and outputs, Tools for involving end users (e.g., the BONVOYAGE Questionnaire I and II). The Web site represents the actual “living report” concerning BONVOYAGE achievements and progresses. Accordingly, the most of contents reported in this Deliverable come from the Web Site.

Next Deliverable reporting Dissemination and Communication Activities is planned as follows:

- D8.2 - Communication & Dissemination Report v2: Delivery date M36.

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Introduction

The main goals of the communication and dissemination plan defined in the Description of the Action (DoA) are:

- To raise awareness on the BONVOYAGE project activities, in order to make the project successful and sustainable in the long-term.
- To inform stakeholders, end-users, target groups organization and general public on the benefits of the BONVOYAGE project as well as the expected results, in order to advise the community on choosing eco-innovative solutions.
- To engage stakeholders, end-users and target group organizations and general public in terms of getting inputs and feedbacks towards the BONVOYAGE project by letting the final end users driving general requirements and technical specifications according to their daily life experiences.
- To promote the BONVOYAGE achievements and results in order to increase visibility and to facilitate the identification of potential synergies with other H2020 projects.

1.1 Explanation of the deliverable

Deliverable 8.1 (D8.1) describes dissemination and communication activities concerning the first half (M1-M18) of BONVOYAGE project including: official project web site; LinkedIn discussion group; Twitter dedicated account; scientific publications; participation of major events in the reference domain of interest; standardization and interaction activities carried out with end-users. In consideration of the strict linkage between technical structure, functionalities and contents of a web site, this deliverable has been issued in a collaborative manner between WP1 and WP8.

VERSION CONTROL TABLE			
VERSION N.	PURPOSE/CHANGES	AUTHOR	DATE
0.1	Updated index, main contents	Maria Bianco	05/10/2016
0.2	Updated index, upgrading of main contents, dissemination plans	Etienne Labyt (CEA), Maria Bianco (CNIT)	16/10/2016
0.3	Internal Review	Silvia Canale (CRAT)	25/10/2016
1.0	Final Document	Maria Bianco (CNIT)	28/10/2016

1.2 Objective and scope

The overall aim of the BONVOYAGE dissemination activities is to warranty a wide reaching impact, and use of project deliverables among identified stakeholders: academic staff, industrial actors in transport/travel area, end-users, national and local institutions, research project managers and coordinators and funding entities. Therefore, research results, news and events are extensively disseminated and promoted within the Open Access and related knowledge communities. Announcements via BONVOYAGE Web Site, LinkedIn discussion group and Twitter, as well as scientific publications, are regularly issued so to ensure that relevant information reach the targeted stakeholders and to promote their active involvement in the project activities according to their roles.

Dissemination and Communication activities

According to the DoA, the measures undertaken in order to maximise the impact of BONVOYAGE are composed of multiple strategic factors:

- Communication activities: Web site and Social Networks on BONVOYAGE project have been created and are running with continuous update (see Chapter 3 - BONVOYAGE Communication activities and Tools).
- Scientific dissemination: key personnel from BONVOYAGE have a demonstrated track record in scientific dissemination. Several dissemination activities have been performed by BONVOYAGE Partners (see Chapter 4 - BONVOYAGE Scientific dissemination).
- Dissemination tours and creation of awareness among user community: personnel involved in BONVOYAGE is committed to disseminate results through academic dissemination tours with invited guest lectures and BONVOYAGE-organized workshops, as well as with “marketing-oriented” presentations at industry events or in bilateral discussions with operators who are the final users of BONVOYAGE’s results.
- Standardization: BONVOYAGE’s approach will be introduced in parallel to both pre-standards organizations (e.g., IRTF) as well as standardization bodies (e.g., CEN, IETF, ISO) thanks to leadership and large footprint that both academic and industrial partners bring to the project (see Chapter 5 - Standardization activities).
- Open source prototypes: BONVOYAGE’s prototypes will be released already having a strong open source commitment; these prototypes will be able not only to be demonstrated but also usable to engage in Proof-of-Concept (PoC), see Chapter 6 - Open source prototypes.

1.3 Individual Dissemination Plans

The overall aim of BONVOYAGE project’s dissemination activities is to warrant a wide reaching impact, uptake and use of project deliverables among identified stakeholders: academic staff, institutions, industrials in transport/travel area, research project managers and funding entities. Therefore, dissemination has been considered from the beginning of the BONVOYAGE project. A guidelines form has been written and provided to all partners in order to help them sharing research results, guiding the research process and keeping the focus on the project’s ultimate goal.

2.1.1. CNIT

CNIT (National Inter-University Consortium for Telecommunications) is a non-profit Consortium, bringing together 37 Italian Universities to foster research activity in the field of telecommunications, and provide facilities and clustering support to the Italian academic ICT research community. CNIT participated in hundreds of research projects, including EU coordinated projects, ERC grants and Italian nation-wide initiatives. It operates a satellite network, three national laboratories (Photonic Networks and Radar & Surveillance Systems, in Pisa, Multimedia Communications, in Naples) and 37 Research Units, one for each participating university. Thanks to this structure Dissemination activities can reach the wider audience at national level and the wider resonance in scientific communities. In addition to scientific expertise, CNIT's team has the capability to organize workshops and conferences (having chaired twice, among the others, INFOCOM, the IEEE Comsoc flagship conference), and is active in the editorial and technical boards of several major journals and conferences, as reported in §4 – Scientific Dissemination.

KNOWLEDGE DISSEMINATION DETAILS

DATE	16.02.2016
RESEARCH PROJECT/TASK	BONVOYAGE – TASK 8.1
RESEARCH PARTNERS	CNIT

DISSEMINATION PLAN

TARGET AUDIENCE(S)	<p>CNIT Dissemination Plan aims at reaching the following main targets:</p> <ul style="list-style-type: none"> - Scientific research communities: by addressing to main Scientific Journals, Conferences and Academic stakeholders, CNIT will produce in collaboration with other partners articles and papers for disseminate research results and main findings. Research communities will be addressed also by establishing and consolidating knowledge exchange among other their relevant research actions and projects focused in the same field. CNIT is actually contributing to the establishment of a permanent collaboration with H2020 ITS Cluster. - Standardization Bodies: CNIT is leading the standardization task in order to interact with standardisation bodies for which the work proposed in BONVOYAGE is relevant. - Open source communities: an important issue for BONVOYAGE is the strong commitment in open source. The BONVOYAGE prototypes will be able not only to be demonstrated but also usable to engage in PoC (Proof-of-Concept). BONVOYAGE commits to openly publish the interfaces and related documentation. - Industry sector stakeholders: relevant target audience for CNIT is represented by industrial stakeholders. First of all CNIT's interest about such audience is related to
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	<p>Exploitation of BONVOYAGE results, secondly because further research fields can be explored and investigated by creating new Projects and Consortia.</p> <ul style="list-style-type: none"> - Students and researchers: CNIT will disseminate project activities and results for improving educational offers for students and researchers for future research activities. - National/European Institutions involved in ITS: BONVOYAGE by developing a platform based on a new communication paradigm (ICT/Information Centric Networking) will offer an advanced solution towards the implementation of EU ITS Strategy based on directive EU 2010/40 and its implementing policy
WHO WILL BENEFIT FROM THIS KNOWLEDGE?	<p>EU Institutions for ITS Strategy deployment</p> <p>Scientific and Industry Stakeholders (i.e. Transport operators)</p> <p>Researchers and Students</p>
OBJECTIVES	<p>Main objective is related to the expansion of the Scientific Community's interest about BONVOYAGE solution in order to:</p> <ul style="list-style-type: none"> - Pave the way to new scientific collaboration and development of new research proposals - Establish new research collaborations with Industrial stakeholder - Liaise and cluster with projects working both on ICT/ICN and on transport related issues.
KPI – SUCCESS MEASUREMENT	<ul style="list-style-type: none"> - Number of attendance to national/international events (conferences, workshop, etc.); - Number of Stakeholders involved by private contact to Coordinator and other partners' representatives. - Number of Papers and Articles published in relevant scientific journals; - Number of internal workshop organised; - Number of web site visitors and contact established through social networks. <p>For the measurement of KPIs, CNIT realised and continuously update a project dissemination Database. Under request of the EU Project Officer CNIT will produce every four month a basic report on Web Site metrics.</p>
DISSEMINATION METHOD(S)	<p>Online tools: CNIT is committed in keeping the project web site regularly updated through NEWS page. Furthermore CNIT manages the project Social Networks aiming at gathering interest in project findings and creating audience for future collaboration and exploitation.</p> <p>Scientific and Professional conferences: by taking action in relevant scientific and professional conferences, CNIT aims at reaching twofold audience, scientific and industrial stakeholders.</p>
RESOURCES AND FUNDING AVAILABLE	<p>Dissemination activities will be based on 7 p/m available for the WP8 plus 2 p/m available from WP1 for the creation and maintenance of the Project Web site.</p>
RESOURCES AND FUNDING NEEDED	<p>No extra resources needed</p>

TIMELINE	Dissemination activities will be carried out throughout the whole project duration. Research results will be disseminated for academic purpose beyond the project termination.
ASSIGNMENT OF TASKS	Work Package 8 (T8.1 and T8.2)

2.1.2. ATOS

KNOWLEDGE DISSEMINATION DETAILS

DATE	11.10.2016
RESEARCH PROJECT/TASK	BONVOYAGE – TASK 8.1
RESEARCH PARTNERS	ATOS

DISSEMINATION PLAN

TARGET AUDIENCE(S)	<p>ATOS dissemination plan targets the following audiences:</p> <ul style="list-style-type: none"> - Internal company audience: Atos has circa 100,000 employees in 72 countries. - Industry sector stakeholders: Atos serves a global client base including industrial stakeholders. - National and EU actors involved in ITS that attend I+D related events
WHO WILL BENEFIT FROM THIS KNOWLEDGE?	<ul style="list-style-type: none"> - ATOS commercial departments (e.g. account managers) that receives internal communications - Public and private transport industry
OBJECTIVES	<ul style="list-style-type: none"> - Raise awareness of the project assets that can be exploited commercially. - Seek collaborations for new research projects.
KPI – SUCCESS MEASUREMENT	<ul style="list-style-type: none"> - Announcement of BONVOYAGE in the public website, which will be kept updated. - Publication in the yearly Atos I+D booklet (printed and online). - Number of presentations in transport or I+D related events.
DISSEMINATION METHOD(S)	<ul style="list-style-type: none"> - Online tools such as twitter (@AtosES account), Atos web site. - Print publication of I+D results which is distributed globally among account managers and clients. - Where possible Atos will mention BONVOYAGE and its objectives/outcomes in presentations at conferences, and will distribute brochures in booths, show a project poster, etc.
RESOURCES AND FUNDING AVAILABLE	3PM as planned in the project

RESOURCES AND FUNDING NEEDED	3PM
TIMELINE	The activities identified will be carried out gradually, updating the information in the social networks and website yearly or as the project milestones are achieved, and participating in the relevant events.
ASSIGNMENT OF TASKS	ATOS

2.1.3. CEA LETI

CEA Leti is a large applied research laboratory which provides the BONVOYAGE project with leading-edge technological expertise on microelectronics, sensors, microsystems, instrumentation, IC and wireless telecommunication systems. Scientific dissemination is an important part of CEA researchers' missions. From BONVOYAGE project beginning, dissemination of our research advances was planned to be done through presentations in high level international conferences and peer reviewed scientific papers as well as special issues. All aspects of dissemination plan of CEA Leti are described in the table below.

KNOWLEDGE DISSEMINATION DETAILS

DATE	14 10 10
RESEARCH PROJECT/TASK	BONVOYAGE
RESEARCH PARTNERS	CEA LETI

DISSEMINATION PLAN

TARGET AUDIENCE(S)	Internal and external audiences
WHO WILL BENEFIT FROM THIS KNOWLEDGE	Industrial stakeholders, scientific community, large public
OBJECTIVES	International recognition of CEA advances on applied research and spreading to general public on scientific progress. CEA Leti seeks to communicate on BONVOYAGE project in order to enhance its recognition and outreach excellence in the following scientific and industrial areas: wearables, well-being, environmental impact of transport, transport mode recognition/sensor exploitation and machine learning.
KPI – SUCCESS MEASUREMENT	number of citation, number of articles and proceedings, attendance in events
DISSEMINATION METHOD(S)	<u>To internal audience:</u> meeting, internal communication CEA Leti organized the 3 rd General Assembly of BONVOYAGE project and presented and exchanged with other partners about technical and scientific advances and future outcomes of CEA contribution to BONVOYAGE project

For internal communication, a guide of EU participation of CEA Leti in FP7 and H2020 projects has been written and BONVOYAGE project has been included. This guide will be soon downloadable on CEA LETI website for large scale external communication.

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CEA Leti

EUROPEAN PROJECTS 2015

BONVOYAGE
From BILBAO to OSLO, intermodal mobility solutions and interfaces for people and goods, supported by an innovative communication network

EC PROGRAMME: H2020 MSC-7.2a-2014 - Towards seamless mobility addressing fragmentation in ITS deployment in Europe

Key words: Multimodal transport, Travel information, Planning, Ticketing, Information Centric Networking, Nomadic devices

Project website: <http://bonvoyage2020.eu/>

BONVOYAGE AT A GLANCE
Project Coordinator: ONT (IT)

Duration: 36 months (July 2015 - Apr. 2018)

Partners:
- CEA (FR)
- ONT (IT)
- CNIT (IT)
- SITA (IT)
- SITA (ES)
- SITA (DE)
- SITA (NL)
- SITA (UK)
- SITA (SE)
- SITA (DK)
- SITA (FI)
- SITA (NO)
- SITA (PL)
- SITA (PT)
- SITA (GR)
- SITA (CZ)
- SITA (HU)
- SITA (SK)
- SITA (SI)
- SITA (BG)
- SITA (RO)
- SITA (CY)
- SITA (MT)
- SITA (LU)
- SITA (IE)
- SITA (EL)

Total budget: € 4 m
EC Contribution: € 4 m
Contract number: 633567

MAIN OBJECTIVES
Design, develop and test a platform optimizing multimodal transport door-to-door of passengers and goods.
Integrate travel information, opening and booking services by (i) automatically analyzing non-real-time data from heterogeneous databases (on road, railway and urban transport systems), (ii) exploiting user profiling and (iii) including user feedback.
Support communication between entities through an innovative information-centric communication network that collects and distributes all the data required.

EUROPEAN PROJECTS 2015

LETI AND BONVOYAGE

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Stress level ?

LETI'S CONTRIBUTION

- User Transportation Mode Recognition
- User Stress Level estimation

OUTCOMES
BONVOYAGE will design, develop and test a platform optimizing multimodal door-to-door transport of passengers and goods. The platform integrates travel information, planning and booking services, by automatically analyzing non-real-time data from heterogeneous databases (on road, railway and urban transport systems), real-time measured data (traffic, weather forecasts), user profiles, user feedback.
The platform is supported by an innovative information-centric communication network that collects and distributes all the data required. The highly heterogeneous, distributed and mobile nature of data, coming from data-sensors, sensors, vehicles, goods and people on the move, calls for an innovative networking paradigm. Current networks (e.g. internet) limit themselves to "just" providing communication channels between nodes. Our paradigm, called *Information-Centric Networking*, allows communication among entities identified by names, without the constraint of a specific location.
The request of a "user" (be it a person or a parcel) to travel from source to destination is managed by the platform with several nodes. Metadata Handler collects and elaborates data related to the request and generates a corresponding Context. User Profiler creates a personalized profile, covering requirements including Quality of Experience (comfort and special needs). Multi-Objective Optimizer develops personalized travel instructions, optimal for the Context and User Profile.
The user may give feedback, before accepting the travel itinerary if a trip is not available at request time, the user is notified if it becomes available later on. An Actuator triggers the necessary services.
A Tariff Scheme Designer exploits platform data to define multi-part tariff schemes.

In this project, CEA-Leti will work with 2 kind of sensors: smartphone sensors such as accelerometer, magnetometer, gyroscope, GPS, barometer and wearable sensors such as heart rate, skin conductivity. CEA-Leti has two main contributions: 1) automatically assess the user transportation mode; this will allow to know the user mode share (for e.g. User A never rides a bike, User B never takes a plane...); 2) automatically assess the user stress level; this is a kind of implicit user feedback.
BONVOYAGE will test and demonstrate the platform and communication network in integrated, large-scale, real life application scenarios, incorporated into the normal business operations of our transport operator partners.

PUBLICATIONS

- Quint, C., Pino-Bautista, P., Carrasquero, A., Charbonner, S., Bonnet, E., Vidal, A. (2016). Selection of the most relevant physiological features by clustering analysis. Proceedings of International conference on physiological computing systems (PhysCS), 27-6

To external audiences: scientific peer review, conference, events and fairs

CEA Leti research thanks to BONVOYAGE project has already been disseminated in three international conferences (PhyCS, IEEE SMC and IEEE ITSC, see paragraphs 3.4 and 4.1.2) and in three peer-reviewed papers.

Additionally, work performed in the BONVOYAGE framework will also get added value through patents, another way to disseminate results and advances, more dedicated to industrials.

Other actions have been undertaken to investigate how advances achieved in BONVOYAGE should be used for new projects and funding. CEA Leti actively contributes to the AIOTI (Alliance for Internet of Things Innovation) and in particular in the working group 7, where in the report recommendations, the BONVOYAGE project has been reported as an example illustrating what should be done with wearables in real-life (http://ec.europa.eu/newsroom/dae/document.cfm?action=display&doc_id=11819)

To the same end, CEA Leti exchanged on BONVOYAGE outcomes with participants during the Transport Info Day (<https://www.b2match.eu/h2020transportcall2017-2/participants/359>)

A flyer on CEA activities in the transport area including health and passenger comfort monitoring (stress level), one aspect of research work in BONVOYAGE, has also been edited for large communication to industrials, academic researchers, students and public.

RESOURCES AND AVAILABLE FUNDING	Dissemination activities will be based on 2 m/m available for the Task 8.1.
RESOURCES AND NEEDED FUNDING	
TIMELINE	Dissemination activities will be carried out along the whole project duration.
ASSIGNMENT OF TASKS	Work Package 8 (Task 8.1)

2.1.4. BASQUE COUNTRY PARTNERS (MLC, AZKAR, AYUNTAMIENTO DE BILBAO)

Dissemination plans and activities of Basque Country partners will be coordinate and lead by MLC. MLC-ITS Euskadi is an association integrated by different actors in the logistics and mobility of people and goods (fleet operators, loaders, technological companies, service providers, research institutes, public administrations...) having an active communication channel with them. MLC will present project results and share knowledge among their partners through:

- Website
- Periodic newsletters, social network
- Meetings, conferences, networking activities

MLC has already contacted with different stakeholder related to freight transport in order to inform about expected BONVOYAGE results in this field and engage them in the validation of the platform.

2.1.5. CONSORTIUM FOR RESEARCH IN AUTOMATION AND TELECOMMUNICATION

CRAT (Consortium for Research in Automation and Telecommunication) is a no-profit research consortium including the University of Rome "La Sapienza", Politecnico di Bari, Thales Alenia Space and Space Engineering. BONVOYAGE is totally in charge of the research group of the University of Rome "La Sapienza" coordinated by Prof. Francesco Delli Priscoli. The University of Rome "La Sapienza" is the biggest university of the city and hosts several faculties, which, in turn, are organized in departments including some research groups. The University of Rome "La Sapienza" research group, which will participate to the project, mainly involves people belonging to the Network Control Laboratory and to the Economics of Technology, Industrial Organization and Management (ETIOM) group, both afferent to the Department of Computer, Control and Management Engineering (DIAG) of the Faculty of Engineering. Because of their continuous involvement in research, scientific and teaching activities within the above-mentioned Departments and Faculty, researchers from CRAT contribute to dissemination activities mainly in terms of publications and education. Due to the leadership of WP4, as concerns scientific publications, the main reference journals include: Journal of Transport Economics and Policy, Transportation Research Part E: Logistics and Transportation Review, Control Engineering Practice, European

Journal of Operational Research (EJOR), Transportation Science, IEEE Transactions on Networking, IEEE Transactions on Vehicular Technologies and Computer Networks. For as concerns education, a number of seminars concerning the intelligent functionalities developed in WP4 have been scheduled and (partially already) given in Academic Years 2015-2016, 2016-2017 and 2017-2018 at the University of Rome “La Sapienza” in the framework of the School of Engineering in Computer Science and of the Master of Sciences in Control Engineering.

2.1.6. TRENITALIA

Trenitalia Individual Dissemination Plan is presented in the following tables, highlighting its main aspects related to:

- Target Audience groups of Trenitalia dissemination activities;
- Subjects that will benefit from the dissemination of knowledge arisen within the project;
- Objectives;
- KPI – Success Measurement;
- Dissemination Method(s);
- Resources and Funding Available;
- Resources and Funding Needed;
- Timeline;
- Assignment of Tasks

KNOWLEDGE DISSEMINATION DETAILS

DATE	03/10/2016
RESEARCH PROJECT/TASK	BONVOYAGE
RESEARCH PARTNERS	TRENITALIA (ITALY)

DISSEMINATION PLAN

TARGET AUDIENCE(S)	<p>Trenitalia dissemination activities will be targeted to two types of audience: internal and external audience.</p> <p>The internal audience includes Trenitalia Managers/Directors and is aimed to raise awareness and inform them on BONVOYAGE goals, progress and results. This is a necessary, preliminary activity to undertake dissemination activities towards the external audience: Managers/Directors usually represent Trenitalia institutional/official events (conferences, workshops) and need to have necessary information and knowledge of BONVOYAGE project to present it to the external audience.</p>
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	<p>The external audience includes as “privileged audience” stakeholders active in the passenger transport and the travel industry (e.g. transport operators, travel agencies, other service providers). They may be interested to discover BONVOYAGE project and innovative results because of the (future) possibility to exploit BONVOYAGE results to the advantage of their business.</p> <p>Target audience also includes:</p> <ul style="list-style-type: none"> • Technology providers, that may widen their horizons on latest innovation to the advantage of their products; • Local public administrations involved in transport policy, as they will have an instrument to: foster and implement multi-modal and integrated public transports in their city/region; • Citizens that will benefit from enhanced, smarter and comprehensive mobility services (from journey planning and accurate info-mobility to integrated ticket purchase) as well as a tool to make informed mobility decisions. <p>Future strategy actions will have to be supported by transport operators, travel service providers as well as by national/international/EU institutions that should promote the establishment of necessary commercial agreements that will underlie future BONVOYAGE solutions.</p> <p>BONVOYAGE findings may be exploited by several groups, such as:</p> <ul style="list-style-type: none"> • Research organisations, that may further develop research results; • Local transport policy decision-makers, that may understand how to shape local transport policies in order to: foster realise multi-modal and integrated transport at local level as well as to promote the use of low environmental impact transport modes by citizens. <p>Technology providers may translate research results into working solutions/tools, to be concretely up-taken by transport and travel operators.</p>
<p>WHO WILL BENEFIT FROM THIS KNOWLEDGE</p>	<p>All identified external target audience will benefit from BONVOYAGE knowledge:</p> <ul style="list-style-type: none"> • Transport operators and decision-makers will have an innovative solution/approach to cooperate and undertake joint concrete actions to foster multi-modal, integrated public transports at local level; • Research organisations that may carry out new research activities starting from BONVOYAGE results.
<p>OBJECTIVES</p>	<p>Trenitalia dissemination activities have a double goal:</p> <ul style="list-style-type: none"> • To raise Trenitalia internal awareness of BONVOYAGE results in order to select and track more interesting results that the organisation may exploit internally to improve its products/services; • To raise external stakeholders awareness of BONVOYAGE solution among, involving players from the transport/travel industry (all transport operators and travel service providers) and policy makers to foster and maximise (future) adhesion to BONVOYAGE solution so that it will effectively work (once it will be finalised).

	<p>BONVOYAGE partners may benefit from dissemination activities implemented as internal meeting among BONVOYAGE and other EU project partners (e.g. EuTravel, IT2Rail, Roll2Rail, EARSAT) where:</p> <ul style="list-style-type: none"> • Universities and research organisations may find out other solutions implemented in similar contexts and expand or enhance their research activities; • Technology providers may have the chance to present their products to industrial partners and thus find new business/revenue opportunities; • Industrial partners may integrate new concepts/solutions within their products/services to improve them.
KPI – SUCCESS MEASUREMENT	<ul style="list-style-type: none"> • Number of attendance to national/international transport related events (conferences, workshop, etc.); • Number of internal workshop organised; • Number of meetings organised with local policy makers.
DISSEMINATION METHOD(S)	<ul style="list-style-type: none"> • Online outlets (web sites, blogs, e-mail networks); • Professional conferences; • One-to-one meetings with community members.
RESOURCES AND AVAILABLE FUNDING	Dissemination activities will be based on 0,5 m/m available for the Task 8.1.
RESOURCES AND NEEDED FUNDING	
TIMELINE	Dissemination activities will be carried out throughout the whole project duration.
ASSIGNMENT OF TASKS	Work Package 8 (Task 8.1)

2.1.7. SINTEF

SINTEF is the largest independent research institute in Scandinavia and one of the largest in Europe. SINTEF contributes to several WPs in BONVOYAGE; however, most likely the major scientific innovation will be developed in WP4, where SINTEF is in charge to define a new approach for routing people and freights in Europe. If the outcome will meet the ambitious goals, the research results will certainly be publishable on top sector journals. So, a central point in the dissemination plan is to target major operations research journals, such as Transportation Science and European Journal on Operational Research, submitting 2 papers by the end of the project. Also, SINTEF intends to present the BONVOYAGE project and our research results to relevant international conferences, such as the EURO conference and ALGO-ATMOS conference. SINTEF has already introduced the BONVOYAGE project on two prestigious international meetings, namely the 6th Cargese Workshop on Combinatorial Optimization and the 2016 Dagstuhl Seminar on "Algorithmic Methods for Optimization in Public Transport" (see paragraph 4.1.1).

2.1.8. NPRA

NPRA is responsible for making transport data available for its own basic services and for third party users, like developers and information service providers. NPRA is responsible for the Norwegian implementation of the ITS Directive and the EU delegated acts supplementing this legislation. NPRA is a key stakeholder for the Single Point of Access (SPA) for traffic information. The SPA is a common requirement for all the delegated acts dealing with traffic and travel data availability and information dissemination. A main policy for NPRA is to encourage third party and commercial ITS services. NPRA has the firm intention to exploit the results and experiences gained from the BONVOYAGE project. It is within the agency's policy to take advantage of new knowledge and technology and stimulate innovation within the transport sector.

NPRA has informed about the BONVOYAGE project and its high degree of relevance to on-going development in Norway. NPRA is not a technical partner in BONVOYAGE, but we have important roles as transport authority, as data supplier and also representing end users and the public. We have planned to intensify our dissemination activities for BONVOYAGE as soon as design and modules have reached a level that is possible to demonstrate. We expect that this will be more relevant after the review in November.

We have the opportunity to disseminate the BONVOYAGE project and results both at international and Norwegian events, and in publications. Our information will highlight that this is a project receiving support from the European H2020 programme. We expect that information about BONVOYAGE will generate high interest and that involvement of both professionals and end users may result in valuable feedback to the BONVOYAGE functionality, user interface and exploitation.

BONVOYAGE Communication activities and Tools

1.4 Internal Communication

The large number of partners of the BONVOYAGE Consortium requires a consistent effort in sharing and circulating information among all the partners at various stages of the implementation plan and WPs interaction. For this reason, all the relevant information related to Dissemination and Communication activities shall be communicated to Project Coordinator and WP8 Leader in order to allow them to collect, supervise and coordinate effort among all the activities performed.

A specific folder in BONVOYAGE SVN is available for storing and collecting materials and documentation related to Dissemination activities. The BONVOYAGE SVN is based at the CNIT's premises and its URL is

<https://minerva.netgroup.uniroma2.it/svn/bonvoyage>

1.5 Recording Communication Activities

In order to maximise and optimise effort it is important to keep the Project Dissemination records continuously updated.

BONVOYAGE is equipped with a simple Excel workbook where all the partners can record (by uploading on SVN) the Dissemination and Communication activities carried out.

In order to complete the issue, it is very important to produce evidence of the activities performed by collecting from the Partners:

- Material produced (leaflet, brochures, poster, presentation, etc.);
- Proceedings;
- Pictures;
- Contact details.

The mentioned Excel workbook is drafted in order to collect information about the following Target:

- Exhibition and Fair: information and related material about Events where BONVOYAGE has been presented;
- R&D Expertise: Professionals and Individuals whose expertise could be relevant for BONVOYAGE Activities;
- Industrial Sector: Industrial Stakeholders;
- Related Projects;
- General Public;
- Publication: Scientific and Press release publications.

Images below show the recorded activities performed so far by BONVOYAGE partners. Specific details are described in the paragraphs 4 and 5.

BONVOYAGE - Exhibitions, Fair, Congress, Workshop	Partner Involved/Proposer	Name of the activity	Type of activity	Information Material Distribution	Location	Date	Supporting Documentation (if any, please attach)
UITP Milan 2015 http://www.uitpmilan2015.org/	FLU	Fair Visit	Dissemination	n.a.	Milan	8-9 June 2015	
European Working Group on Transportation	SINTEF	Stakeholder Meeting	Exploitation	n.a.	Delft	14,16 June 2015	
Sixth Cargese Workshop on Combinatorial Optimization	SINTEF	BNV Presentation	Dissemination	n.a.	Corsica	14,18 Sept. 2015	http://www.iasi.cnr
ITS World Congress 2015 Bordeaux	FLU	Fair Visit	Dissemination	n.a.	France	5, 9 Oct 2015	
INEA H2020 ITS and Connected Vehicles Domain Workshop	CNIT	BNV Presentation	Dissemination	n.a.	Brussel	6th November 2015	151106_INEA_H2020
B2 MatchFest Brokerage Event Las Vegas (https://www.b2match.eu/eaec-ces2016)	CNIT	BNV Presentation	Dissemination	n.a.	Las Vegas	January 4-5 / 6 - 9 - 2016	
ICT 2016 SPECIAL Session Information Centric Networking: from research to practice in vehicular and intelligent transportation systems	CNIT	BNV Presentation	Dissemination	n.a.	Tessaloniki Greece	May 16-18, 2016	ICT-2016_SS2-Call_1
CEBIT 2016	FLU	BNV Presentation	Dissemination	n.a.	Hannover, Germany	14 - 18 March 2016	http://www.cebit.de
Dagstuhl Seminar 16171 "Algorithmic methods for optimization in public transport "	SINTEF	Stakeholder Meeting	Dissemination	n.a.	Wadern Germany	24. - 29. April 2016	http://www.dagstuhl.de
ITS World Congress 2016 Glasgow - Workshop: 5G pushing the limits of innovation in Automotive	CNIT	Speech	Dissemination	n.a.	Glasgow UK	6 - 9, June 2016	OpenGeoBase: spatial database

Figure 1 - Exhibition, Fair and Congress

BONVOYAGE - Stakeholder: General Public Dissemination	Partner Involved/Proposer	Name of the activity	Type of Audience	Type of Activity	Location	Date	Supporting Documentation (if any, please attach)
Newspaper "La Repubblica"	TRIT	Article Published	Travellers Community	Communication	Rome	28,09,2016	TRIT future plans.pdf
EU Innovation & Research	All	Article Published		Communication	Brussels	17,10,2016	http://ec.europa.eu/

Figure 2 – General Public Dissemination

BONVOYAGE - Target Stakeholder: Companies/Competitors	Partner Involved/Proposer	Name of the activity	Type of Activity	Type of Company	Location	Date	Supporting Documentation (if any, please attach)
SAP Executive	TRIT - CNIT	Stakeholder Event	Expertise Involvement	Private Company Transports	Rome/Pietrarsa	29,09,2016	TRIT Sap event.pdf

Figure 3 – Industrial Stakeholder

Joint Collaboration with Bonvoyage	Partner Involved/Proposer	Name of the activity	Type of activity	Key Points	Target	Date	Supporting Documentation (if any, please attach)
www.eutraproject.eu	TRENITALIA	EUTRAVEL Strategy Working Group	Project meeting	Technical and Scientific Collaboration	R&D collaboration	26/06/2015	EuTravel Agenda 26.06.2015.docx
H2020 ITS Cluster	CNIT	H2020 Cluster	Conf Call	collaboration among H2020 ITS projects	R&D collaboration	23/07/2015	ITS Cluster
H2020 ITS Cluster ConCall # 4	CNIT	H2020 Cluster	Conf Call	Workshop: Domains for cooperation	R&D collaboration	28/01/2016	ITS Cluster 2
CODECS	CNIT	H2020 ITS & Connected Vehicle Cluster		Communication Synergies	Information Sharing	01/02/2016	http://www.codecs-project.eu/index.php
OPTIMUM				Communication Synergies	Information Sharing		http://www.optimumproject.eu/

Figure 4 – Related Projects

BONVOYAGE - Target Stakeholder: Scientific Community	Partner Involved/ Proposer	Title of the publication	Authors	doi	Type of Publication	Location	Date	Supporting Documentation (if any, please attach)
IRTF- ICNRG	CNIT	ICN based Architecture for IoT - Requirements and Challenges	Y. Zhang, D. Raychadhuri, L. A. Grieco, E. Baccelli, J. Burke, R. Ravindran, and G. Wang, IRTF Internet Draft, draftzhang-iot-icn-challenges-02, Aug 2015.		online	Internet Draft	02, Aug 2015	https://datatracker.ietf.org/doc/draft-zhang-icnrg-icn-requirements/
IRTF- ICNRG	CNIT	Requirements and Challenges for IoT over ICN	Y. Zhang, D. Raychadhuri, L. Grieco, E. Baccelli, J. Burke, R. Ravindran, G. Wang, A. Lindren, B. Ahlgren, O. Schelen		online	Internet Draft	November, 2015	
IEEE Trans. on Circuits and Systems II	CNIT	Diameter Constrained Overlays with Faulty Links: Equilibrium, Stability, and Upper Bounds	L. A. Grieco et al.	10.1109/TCSII.2016.2530880	Journal		Dec 2015	
AI & Society: Journal of Knowledge, Culture and Communication, Springer,	CNIT	Understanding the Social impact of ICN: between myth and reality	G. Piro, S. Signorello, M. R. Palattella, L. A. Grieco, G. J. Boggia, and T. Engel.	10.1007/s00146-016-0649-4	Journal		2016	
SMART CITIES Czech Magazine	FLU	Platformy integrovane mobility: nutnost pro služby mobility zitrka - Integrated Mobility platforms:	Anton Fitzthum, Sales and Business Development, Fluidtime Data Services GmbH		Magazine	http://www.scmagazine.cz/		Article
The 24th Mediterranean Conference on Control and Automation	CRAT	"A Future Internet Oriented User Centric Extended Intelligent Transportation System"	S. Canale, A. Di Giorgio, F. Lisi, M. Panfilii, L. Ricciardi Celsi, V. Suraci, and F. Delli Priscoli.	10.1109/MED.2016.7535967			Athens 21 – 24, 2016	
IEEE INFOCOM, San Francisco, CA	CNIT	Tracker-assisted rate adaptation for MPEG DASH live streaming	A. Detti, B. Ricci, N. Blefari-Melazzi.	10.1109/INFOCOM.2016.7524620			42461	
Organisation (NATO), Science and Technology Organisation, Specialists' Meeting – SET- 222, on "Swarm Centric Solutions for Intelligent Sensor Networks", Rome, Italy, 07-08 June 2016 (invited paper).	CNIT	Information Centric Networking: a model for an improved Internet (and mobile/ad hoc networks)	Nicola Blefari Melazzi			Invited Paper	07-08 June 2016	
IEEE Transactions on Cloud Computing	CNIT	Gazing into the crystal ball: when the Future Internet meets the Mobile Clouds	G Piro, M. Amadeo, G. Boggia, C. Campolo, Grieco L. A., A. Molinaro, and G. Ruggeri	10.1109/TCC.2016.2573307	Journal		2017	
SMC2016 IEEE International Conference on Systems, Man, and Cybernetics,	CEA	A Comparison of Wearable and Stationary Sensors for Stress Detection	Simon Ollander, Christelle Godin, Sylvie Charbonnier, Aurélie Campagne		Conferences	Budapest	October 9-12, 2016	
Proc. of IEEE International Forum on Research and Technologies for Society and Industry Leveraging a better	CNIT	Energy consumption analysis of TSCH-enabled platforms for the Industrial-IoT	P. Boccadoro, M. Barile, G. Piro, and L. A. Grieco		Conferences		Bologna, Italy, Sep., 2016.	
IEEE Globecom 2016, Workshop on Information Centric Networking Solutions for Real World Applications		OpenGeoBase: Information Centric Networking meets Spatial Database applications	Andrea Detti, Nicola Blefari Melazzi, Michele Orru, Riccardo Paolillo, Giulio Rossi	1607.00771v2	Conferences		4-8 December 2016, Washington, DC USA	
The Third International Workshop on The Emerging Future Internet and Network Security (EFINS 2016) in	CNIT	Security Challenges in future NDN-Enabled VANETS	Salvatore Signorello, Maria Rita Palattella, Luigi Alfredo Grieco		Conferences		23 – 26 August 2016, Tianjin, China	
Third International Conference on Physiological Computing Systems – PhyCS 2016	CEA	Feature and Sensor Selection for Detection of Driver Stress	Simon Ollander, Christelle Godin, Sylvie Charbonnier, Aurélie Campagne	10.5220/0005973901150122	Conferences		27th and 28th July 2016, Lisbon, Portugal	
19th International Conference on Intelligent Transportation Systems – IEEE ITSC 2016	CEA	Transportation mode recognition based on smartphone embedded sensors for carbon footprint estimation	Lorintiu Oana, Vassilev Andrea		Conferences	Accepted Paper,	1 – 4 November 2016, Rio de Janeiro, Brazil.	
27th Scientific Meeting Italian Association of Engineering Management – RSA AiIG 2016	CRAT	Revenue sharing mechanisms for airline-High Speed Rail cooperation under congested hubs	Avenali A., Bracaglia V., D'Alfonso T., Reverberi P			Accepted Paper,	13 – 14 October 2016, Bergamo, Italy.	
Transactions on Emerging Telecommunications Technologies (ETT)	CNIT	Link-layer Security in TSCH networks: effect on slot duration	S. Sciancalepore, M. Vucinic, G. Piro, G. Boggia, and T. Watteyne	10.1002/ett.3089	Journal		Jun., 2016	
Forthcoming on Transportation Research Part A: Policy and Practice	CRAT	Air transport and high speed rail competition: environmental implications and mitigation strategies	D'Alfonso T., Jiang C., Bracaglia V.		Journal			http://www.dis.uniroma1.it/~bidis/RePEc/aep/report/2015-15.pdf

FIGURE 5 – Publications in the reference period (M1-M18)

This Excel workbook will be updated during the whole life span of the project by WP8 and Coordinator Team with the active contribution of all the partners. All partners who engage in any dissemination and communication activities should communicate and share relevant information and materials with WP8 and Coordinator’s Team.

1.6 BONVOYAGE Leaflet

Classical print media (e.g., brochure) has been produced to be freely circulated for project information and promotion at workshops, trade shows, technical fairs, congresses and other public and private events. The BONVOYAGE Leaflet describes in a concise manner the project, its main goals and steps and its partners. Other flyers can be produced on a per-need basis¹.

A Leaflet has been realised by CNIT in electronic version (pdf and ppt files) and has been circulated among Partners in order to allow them to print paper copies on a per need basis. The electronic version of materials is also downloadable from the BONVOYAGE web site in the section “Download”, accessible from the Footer menu of the website and by the SVN project repository, so to guarantee outer and inner dissemination (see below).

From Bilbao to Oslo, intermodal mobility solutions, interfaces and applications for people and goods, supported by an innovative communication network.

Network

The basic functions of an Information Centric Network are to:

- address contents, adopting an addressing scheme based on names (identifiers), which do not include references to their location;
- route a user request, which includes a "destination" content-name, toward the "closest" copy of the content with such a name;
- deliver the content back to the requesting host.

A pivotal feature in BONVOYAGE consists of an Information-Centric Network (ICN) aiming at providing:

1. seamless connectivity across different existing network realms (that may be administered by distinct transport operators or authorities);
2. native support of mobility and security issues;
3. travel-centric primitives for push/pull based services;
4. high efficiency in communication and processing operations;
5. graceful deployability and interoperability with existing and upcoming networking systems (i.e., 5G and beyond).

The highly heterogeneous, distributed and mobile nature of the data of interest, coming from data-centers, sensors, vehicles, goods and people on the move, calls for a network that is able to go beyond current paradigms.

Intelligent Transportation Functionalities

Adaptation Functionalities

Network

users **passengers** **goods** **Transportation means** **sensors**

Real-world trials and network experimentation

The use-case scenarios involve two cities, namely Bilbao and Oslo, and take into consideration both passengers and goods, as well as different means of transport both within and between the cities: private and public vehicles, fully electric vehicles, trains, undergrounds, buses, trucks, electric bicycles, and bicycles.

Bonvoyage

The **BONVOYAGE** project aims at designing, developing and testing a platform optimizing **multimodal** door-to-door transport of passengers and goods. The platform integrates travel information, planning and ticketing services, by automatically analysing non-real-time data from heterogeneous databases; real-time measured data (traffic, weather forecasts); user profiles; user feedback.

Motivation

The platform is supported by an innovative "information-centric" communication network that collects and distributes all the data required. The highly heterogeneous, distributed and mobile nature of data, coming from data-centers, sensors, vehicles, goods and people on the move, calls for an innovative networking paradigm. Current networks limit themselves to "just" providing communication channels between hosts. Our paradigm, called **Internames**, allows communications among entities identified by names, without the constraint of a static binding to a particular location.

Main Areas of Research

- Multi-objectives optimization
- Personalization
- Tariff schemes
- Interoperability
- Internames Communication System
- Security and privacy mechanisms

At a Glance

Bonvoyage

www.bonvoyage2020.eu

Project Coordinator
Prof. Nicola Bieflari Melazzi
University of Rome, Tor Vergata
bieflari@uniroma2.it

Duration:
May 2015 – April 2018

Project funding (EC/total):
4 M€ /

Partners

1. Consorzio Nazionale Interuniversitario per le Telecomunicazioni, (www.cnit.it) Italy
2. ATOS Spain SA, (<http://atos.es>) Spain
3. Akas-Dachser Transportes SA, (www.akas.com) Spain
4. CSA – LTI, (www.lti.com.fr) France
5. City of Bilbao, (www.bilbao.net) Spain
6. Cluster de Movilidad y Logística, MLC ITS Euskadi, (www.mlcuster.com) Spain
7. Consorzio per la Ricerca nell'Automatica e nelle Telecomunicazioni, (<http://infoccm.uniroma3.it/crae>) Italy
8. FluidTime GmbH, (www.fluidtime.com) Austria
9. Norwegian Public Roads Administration, (www.vgvesen.no) Norway
10. Strifelsen SINTEF, (www.sintef.no) Norway
11. Trenitalia Spa, (www.trenitalia.com) Italy

¹ AN AD HOC FLYER HAS BEEN PRODUCED IN OCCASION OF ONE OF THE ACADEMIC DISSEMINATION ACTIVITIES REPORTED IN SECTION 1.12.5.



FIGURE 6 – BONVOYAGE Leaflet

1.6.1 Acknowledgement of EU funding

Any material produced within the BONVOYAGE Dissemination and Communication activities and which is addressed to an external audience shall comply with the terms of GA – Article 29.4 - Information on EU funding – Obligation and right to use the EU emblem. Accomplishing this rule, material shall report in a visible way the following elements:

- the EU emblem, i.e. the European flag²;
- it is mandatory to quote the following sentence in any dissemination material produced: *“This project has received funding from the European Union’s Horizon 2020 research and innovation programme under Grant Agreement No 635867”*.

1.7 BONVOYAGE Poster

This first Poster has been realised in occasion of participation of the partner CEA – LETI to the Third International Conference on Physiological Computing Systems – PhyCS 2016 which was held in Lisbon on 27th and 28th July 2016.

² <http://europa.eu/about-eu/basic-information/symbols/flag/>

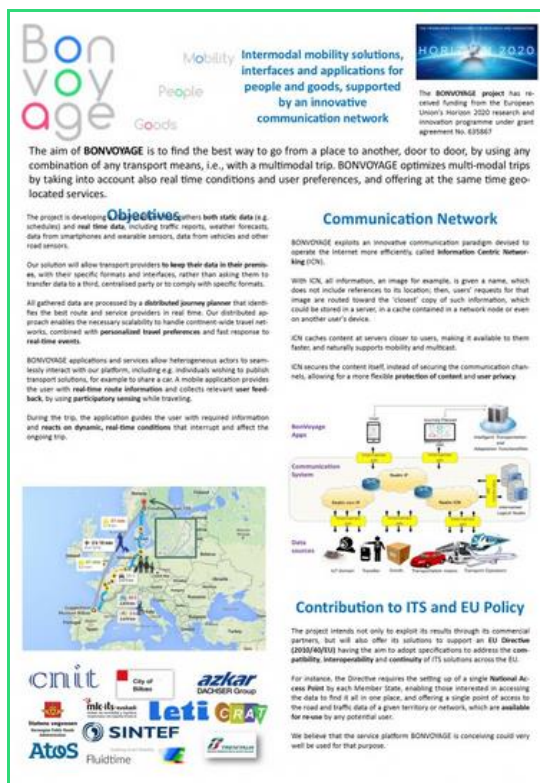


FIGURE 7 – BONVOYAGE Poster

The Poster is available for download on the Web site from “Communication” section.

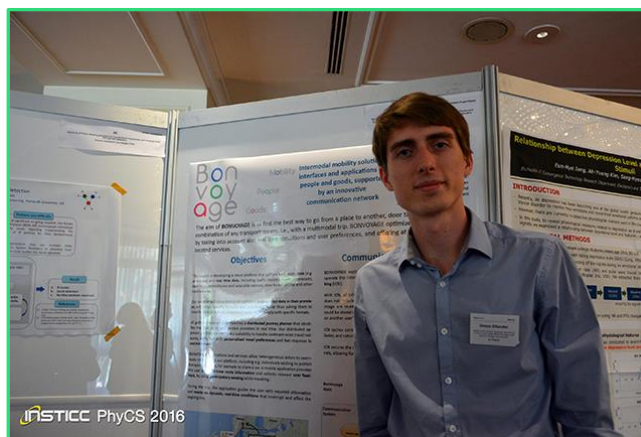


FIGURE 8 – Ollander Simon from CEA LETI presenting the Poster at PhyCS 2016

1.8 BONVOYAGE WEB SITE

A public website for BONVOYAGE project was set up at the beginning of the project and will be available after the end of the project for at least three years. The website is accessible online at

<http://bonvoyage2020.eu/>

The website is regularly updated with project-related activities and announcements. The main Structure of the Web Site has been described in the Deliverable D8.5, delivered in due time at month 6 (October 2015).

At content level, the BONVOYAGE Web Site has been enriched with the description of activities and achievements. Here below we provide a description of the pages which are regularly updated.

- About -> Step by Step - BONVOYAGE Road Map
- About -> Related Projects: In this page related Projects' logos and links have been added. We expect to add more EU projects and initiative to collaborate with in the future
- Results -> Communication -> Download: in this section it is possible to download general communication such as Presentation and Leaflet. Download section is accessible from the Footer menu as well.
- Results -> Dissemination: in this page all the dissemination activities so far have been recorded such as Participation at International Conferences, Fairs and Publications.
- Results -> Standardization: in this page Standardization works and papers are published
- Results -> Deliverables: in this page the complete list of Deliverables has been published. Public deliverable can be downloadable by general public, while confidential deliverables can be downloadable only through a private account via the web site.
- News: this section is the blog of the Web site. The news published in this section is shared through LinkedIn and Twitter Account. To date, 11 News have been published. In the following paragraphs we will describe the communication activities performed through Social Network. Here below we report a screenshot of the NEWS' page.
- Social: contains the direct links to BONVOYAGE Social Networks' accounts: LinkedIn and Twitter. This section is accessible also from the Footer Menu.

Since the beginning of the project, two new sections have been updated and added to the original structure. The section "Survey" aims to collect data about passenger's travel behaviour and the levels of quality of transport services as perceived by users. The survey is accessible both from Header Menu and from the Right Bar available on every page. The aim is that of gathering data for further analysis within the BONVOYAGE project. In particular, the so called *intelligent* functionalities developed in the project are completely new and innovative. Therefore, a careful analysis of users' experience and expectations about multimodal transportation means and services was fundamental to drive research and development in this field. On the other side, by involving the largest number of end users directly in the user need identification phase, the BONVOYAGE team took advantage of promoting the survey in order to disseminate the project's scopes and objectives since the very early months of the project. Those changes have been already reported in the deliverable I8.1.

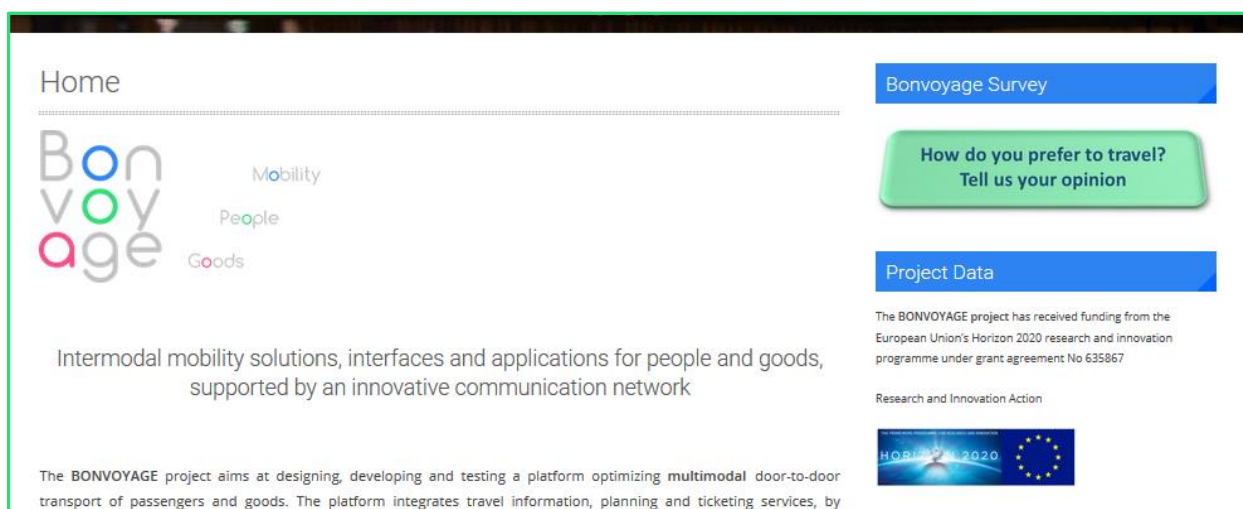


FIGURE 9 – BONVOYAGE Survey access

The very latest changes concern the creation of two brand new sections dedicated to Project review and BONVOYAGE Demos. They are marked in red in Figure 10.

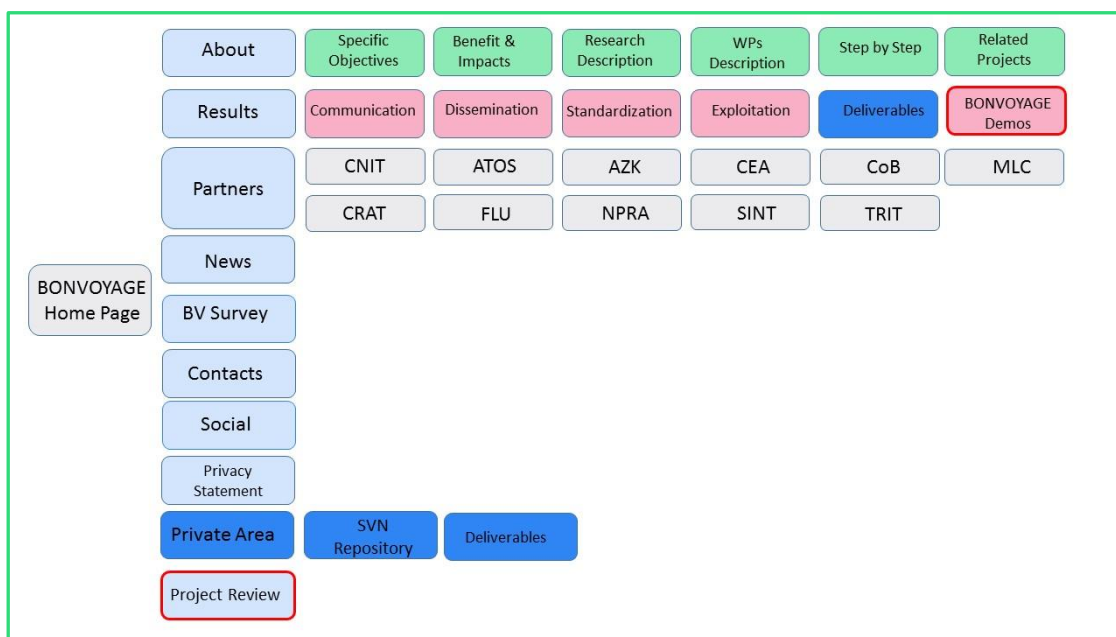


FIGURE 10 – WEB SITE updated Structure

The section “BONVOYAGE Demos” belongs to the main menu “Results” and contains information related to Demos deployed so far. The links at the bottom of the page redirect to:

1. Demo on OpenGeoBase - Travel Centric Services:
<http://bonvoyage2020.eu/travelcentricservices/>
2. Demo on Internames – ICN-IoT experimental testbed:
<http://telematics.poliba.it:9999/>

BONVOYAGE Demos

BONVOYAGE: Intermodal mobility solutions, interfaces and applications for people and goods, supported by an innovative communication network

The BONVOYAGE platform is supported by an innovative communication network that collects and distributes all the data required to optimize a travel. The project focuses on the design, development and test of three main networking issues by:

1. contributing to the design of basic functionality of ICN including interplay with cloud/virtualization concepts, name to location resolution, routing/forwarding table scalability.
2. developing a declination of ICN, which we call Internames. Internames evolves from ICN's host(s)-to-name model to a name-to-name principle in which names identify both source and destination entities, and names are used to identify all entities involved in communication, not only content but also users, devices, network functions and services.
3. developing a decentralized large scale storage system used for building our georeferenced mobile and web applications, which we call OpenGeoBase. OpenGeoBase exploits ICN and Internames to collect and make available georeferenced transport-related data.

A first Demo of OpenGeoBase is available here: [Travel Centric Services](#)

A first Demo of Internames is available here: [ICN-IoT experimental testbed](#)




FIGURE 11– BONVOYAGE Demos' page

The Section “Project Review” has been conceived as a unique repository of all the information related to the EC Project reviews. The first official review will take place in Brussels on 24th of November 2016. This page is protected by a password and it will be available for Partner and EC Reviewers in due time before the Review Date. All contents reported in this page are protected also from indexing.

In this page the consortium will collect all the information related to the Review Meeting such as:

- Venue: Meeting date and Location;
- Contractual Description of Work: official Grant Agreement;
- Agenda of the Review Meeting;
- Presentations: here we will collect all the presentation prepared for the Review Meeting;
- Deliverables: this list will give reviewers the access to all the deliverables submitted at that date, both public and private deliverable.



FIGURE 12 – Project Review page

1.9 BONVOYAGE News

The “NEWS” section counts 14 posts published since the beginning of the project. These posts have been shared on BONVOYAGE Social Networks.



FIGURE 13– News on Conference participation

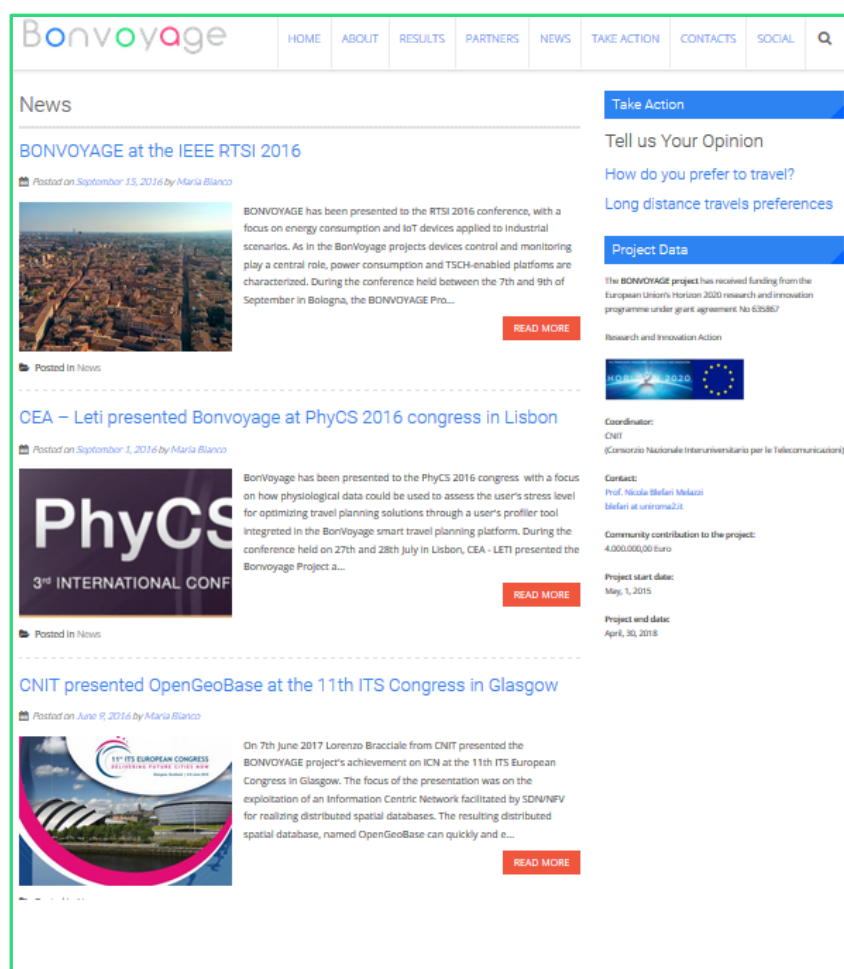


FIGURE 14 – BONVOYAGE NEWS page

1.9.1 Google Analytics overview

We added the Google Analytics tracking code in the template of BONVOYAGE website, enabling the tracking of statistics of the project's website. Key statistics are Figure 15 - Audience General Overview.

According to BONVOYAGE Officer's requests, the Coordinator will issue a web site metrics report every four months, according to the Internal Reporting Periods.

In this Deliverable we will deliver a General Overview about analytic metrics adopted in the period December 2015 – October 2016.

Due to an unforeseen problem related to "Ghost/Referral spam" (https://en.wikipedia.org/wiki/Referer_spam), statistics from the initial setting up of Google Analytics were altered.

Since the beginning of the Project web site, Google Analytics shows the following main data:

- N. of Sessions: 6486
- N. of Users: 4540
- Page Views: 12684
- Pages/Sessions: 1.96
- Average session duration: 1 min 52 sec
- Bounce Rate: 74.10%
- % New Session: 70.00%

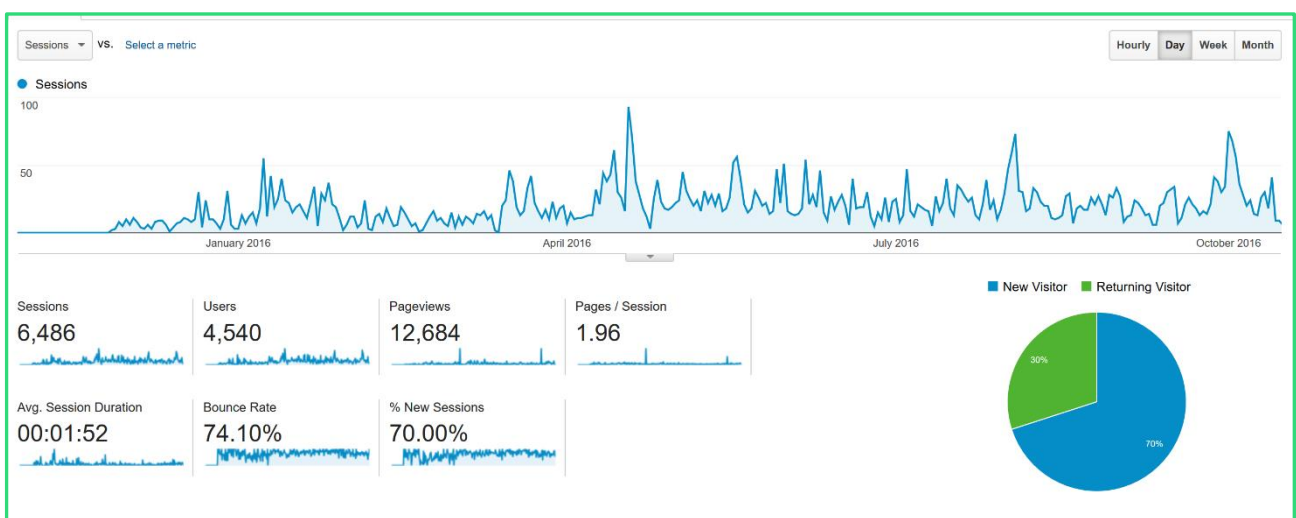


FIGURE 15 - Audience General Overview

From an internal analysis carried out at CNIT, we can state that the Google analytics data shows an alteration percentage about 20% of the real traffic. As we recognised altered metrics a corrective action was taken: a filtering software was set up in order to get a real insight about the web site view and related sessions. By considering this short period (Mid. September 2016 – Mid. October 2016), a considerable number of sessions have been recorded, as follows:

- N. of Sessions: 582
- N. of Users: 393
- Page Views: 1224
- Pages/Sessions: 2.10
- Average session duration: 2 min 50 sec
- Bounce Rate: 65.64%
- % New Session: 65.81%

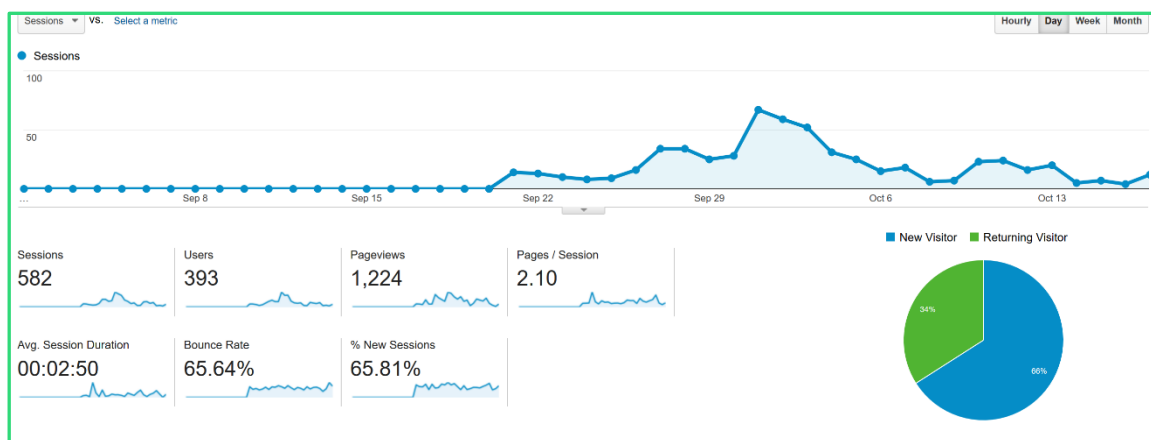


FIGURE 16 – Audience last Month (September – October 2016)

A more detailed analysis is available through the Four Monthly Report on web site analytics delivered with the Internal Periodic Report.

1.10 LinkedIn

A BONVOYAGE Group page has been created on LinkedIn (BONVOYAGE – Intermodal Mobility Solutions) and all the Partners Team individuals have been invited in joining the Group. The LinkedIn group is available at:

<https://www.linkedin.com/groups/8349701>

The group accounts today 55 members, out of them 16 members are interested people not included in the Consortium.

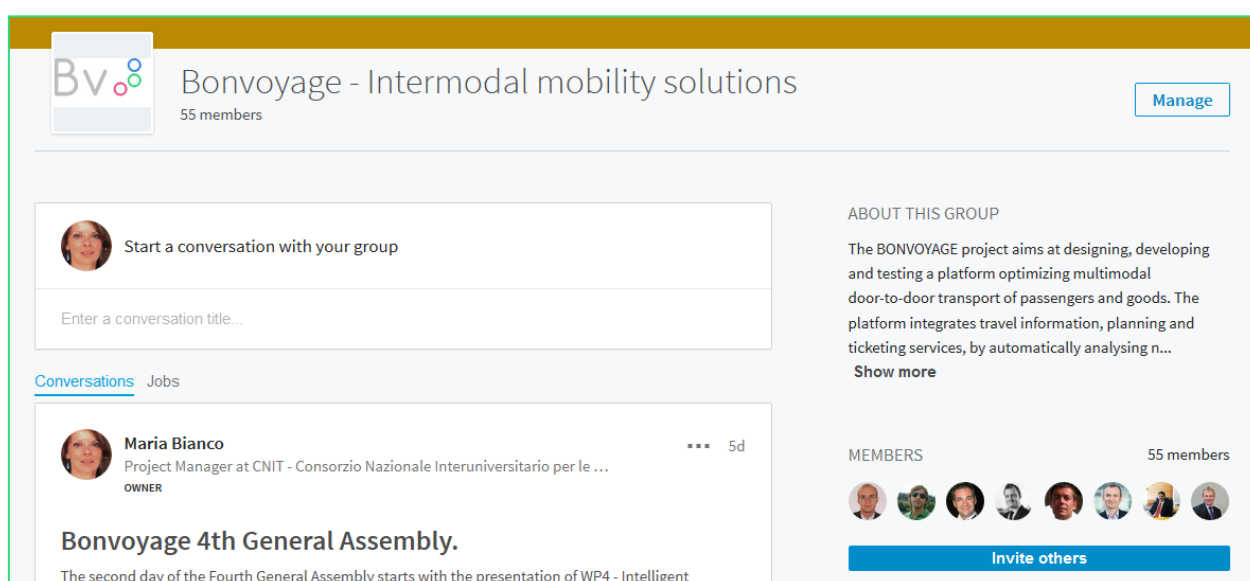


FIGURE 17– LinkedIn Group

On the LinkedIn group have been shared all the News and information published on the BONVOYAGE web site. At the moment 20 discussions were published.

1.11 Twitter

Twitter is the closest network to the concept of buzz. It is the constant posting system that rests on the idea of the short sentences and reactions that show the positive or negative attitudes of users. Messages can link to the BONVOYAGE website, photos, videos, etc. This link provides followers the opportunity to spend more time interacting with BONVOYAGE online. A hashtag is a word or a phrase prefixed by the symbol “#”. BONVOYAGE already exists as a hashtag. In order to gain new followers, the main prospect is to use the hashtag by using the key words and phrases (such as “#innovative multimodal transport”) that are associated to the work done by BONVOYAGE, the domain we are working in and the target groups we’re addressing to, respectively.

The BONVOYAGE account was created in January 2016 and to date it counts 36 followers. Among these followers we can quote the most important such as:

- INEA: The Innovation and Networks Executive Agency is in charge of the project & financial management of EU co-funded programmes
- European Transport Conference: Association for European Transport
- ITS Observatory: A one-stop catalogue on ITS
- ITS Europe – Ertico: a partnership of around 100 companies and institutions involved in the production of Intelligent Transport Systems (ITS).
- Multimodal 2017: Advanced Supply Chain Management and Logistics for Shippers and Cargo Owners
- Freight TAILS: URBACT III Funded project, led by Cross River Partnership, working to reduce the impact of freight in ten cities across Europe.
- ITS Automotive Nord: Mobilitätscluster Deutschlands



FIGURE 18 – Twitter page

BONVOYAGE project tweeted 33 posts and received appreciations and retweets from Inea, ERTICO, ITS Observatory, etc.

In the last month, BONVOYAGE tweets earned an average of 17 impressions per day and n.100 Project Profile visits.

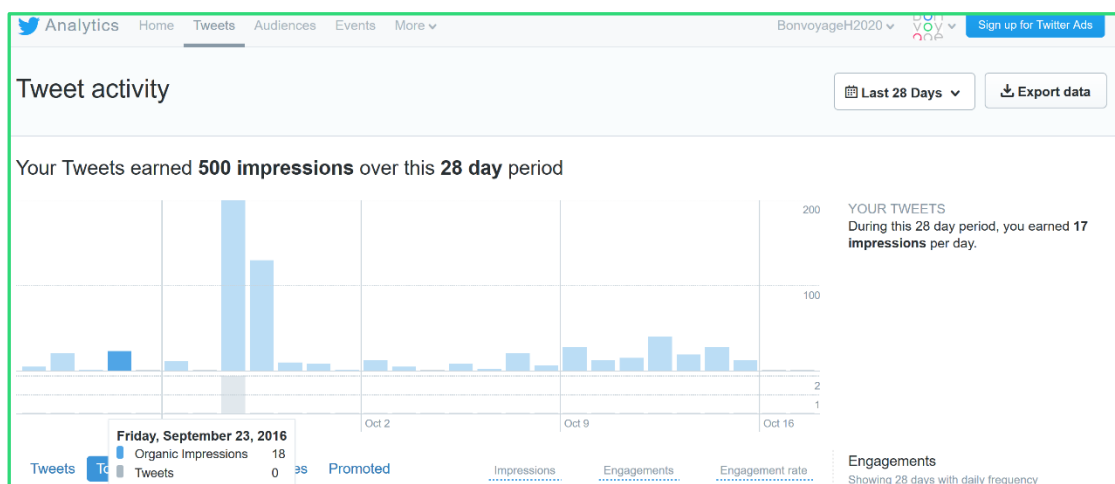


FIGURE 19 – Impressions received in the last Month

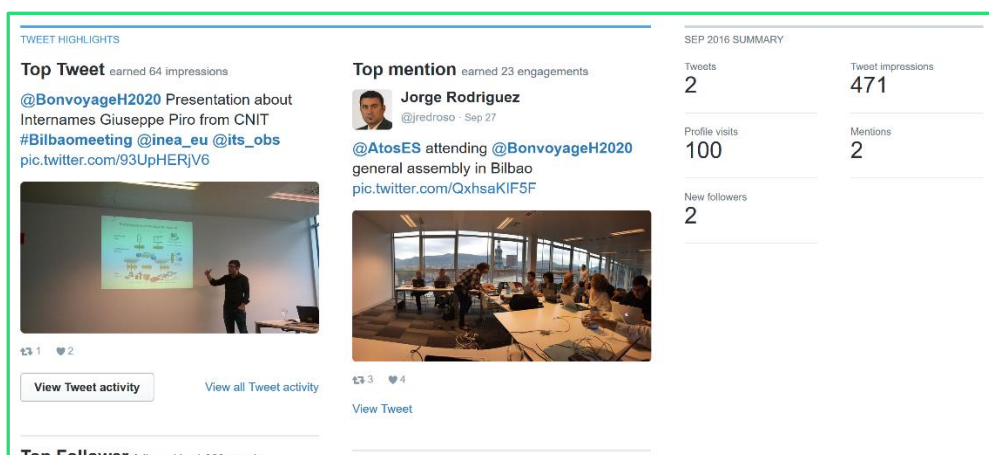


FIGURE 20 – Top Tweet and Profile Visits

1.12 Collaboration with ITS Cluster, Related project and External Collaboration

CNIT participated to the activities of the H2020 ITS Cluster held in Brussels on 6th November 2015 at INEA. The Meeting created synergies with other EU Projects forming the Open Data Work Group of the H2020 ITS Cluster, namely: ITS Observatory, EuTravel and MASAI. The scope of the Open Data WG is to support the sharing of data sources among the project of the H2020 ITS Clusters. The role of the BONVOYAGE project is both to share its data and to offer a common data-sharing platform based on ICN technology.

The collaboration with projects participating to ITS Cluster offered the occasion to exploit communication synergies with the CODECS Project. Since the beginning of the projects' implementation, BONVOYAGE and CODECS shared mutually information and links on the respective Web Sites. A CODECS's newsletter dedicated to BONVOYAGE objectives and results will be published in the forthcoming weeks.

Mobility
People
Goods

Intermodal mobility solutions, interfaces and applications for people and goods, supported by an innovative communication network

Project coordinator: Prof. Nicola Blefari Melazzi, CNIT, Univ. Rome "Tor Vergata", Italy, blefari@uniroma2.it

www.bonvoyage2020.eu

At a glance

The aim of BONVOYAGE is twofold: for the end-users, to **provide the best information to go from a place to another, before and during the travel**, door to door, by using any combination of any transport means, both for people and goods, taking into account real-time conditions and user preferences; for the EU and ITS community, to **provide a federated architecture able to cluster planning services and data sources**, exploiting the functionality of an innovative information-centric network.

Fig.1 describes the BONVOYAGE architecture. We have *Clients* that use a multimodal journey planning application supported by an *Application Server*. The Application Server uses a federated architecture formed by: a set of *Planning Services*, i.e. route resolvers, *Data Sources*, and *National Access Points*. Both data and services refer to a given geographical area (e.g. a country) and given transport modes (e.g., car+bus, plain+train, car sharing, etc...). Planning Services and Data Sources are discovered through a *Discovery Service* offered by the National Access Points.

Innovation to the ITS community and EU

The European Community is acknowledging the difficulties arising from a strictly centralized solution to the problem of continent-wide future-proof ITSs. The Directive 2010/40/EU establishes a legal framework for developing specifications to make ITS interoperable across borders: its priority actions (b), (c) and (e) require the setting up of a single National Access Point (NAP) and its associated "discovery/search and browse" functionality, by each Member State. BONVOYAGE provides a federated architecture enabling the integration of data sources and planning services, **matching the EU directive**. Thus, BONVOYAGE constitutes a **global platform for the ITS community** where orchestration of data and planners makes possible to easily setup novel multimodal journey planning applications (Fig. 1). BONVOYAGE implements the federated architecture in its key components: a discovery service, some focused planning services and novel data sources.

Through the **discovery service** authorized users can publish georeferenced information related to their data or planners to make them discoverable, and they can retrieve all information available in an area, which is needed to plan an optimal multimodal trip. Information retrieval can be carried out also in deferred way, subscribing interest on events that occur in given areas, e.g. a new planner or source of information is made available or traffic conditions change. The discovery service is based on a novel spatial database, named OpenGeoBase, which exploits Internames, an Information Centric Network (ICN). In our vision the National Access Points become the access points of OpenGeoBase. Each country can autonomously manage its own OpenGeoBase servers while being part of a global federated system.

BONVOYAGE offers a **set of planning services** exposing a common interface. The project provides three specialized planners: a multimodal planner able to route people based on real-time conditions, where the plan is continuously updated with new estimates, delays and other incidences; a planner specialized for car sharing and another planner specialized for goods.

BONVOYAGE also deals with novel forms of **data sources based on wearable sensors**, which measure real-time behaviour of a traveller to assess her stress level or her mode of transport (driving, walking, cycling, etc...).

Clearly the BONVOYAGE architecture can federate a variety of novel planning services and data sources including the ones developed by other European projects.

Innovation to the end-user

Nowadays, the number of multimodal journey planning applications is still very limited, albeit their undeniable usefulness. Two issues that limit the development of such applications are: the complexity of multimodal planning algorithms and the practical difficulties of retrieving massive ITS data. The BONVOYAGE federated architecture enables developers to easily overcome these impairments, simply orchestrating data or planning services provided by others, so **fostering the diffusion multimodal journey planning applications**.

In addition, BONVOYAGE provides its own **multimodal journey planner applications for people and goods**, which exploits the federated architecture and takes into account specific, **user-profile-based travel preferences** in order to drive multiobjective optimization algorithms, **which communicates with the user both before and during travel**. For instance, before the travel starts a user can be notified if some segment of the planned trip must be changed due to a temporarily cancelled bus stop. Similarly, real-time events are taken into account and notified during the trip. The application exploits a User Profiler Tool whose key difference with state-of-the-art solutions consists in the **automatic learning of user preferences from the user behaviour**. Moreover, crowd-sourced data coming from users is used to optimize travel planning. It comes from two main sources: sensors embedded in the smartphone, wearable sensors (connected watch, wristband, jacket, etc.). This information can be included in the user profile and used by the application to preferentially propose the transport modes with lower stress level, which improves user's well-being during her travels.

Figure 1 – BONVOYAGE at a glance

FIGURE 21 – Codecs Newsletter about BONVOYAGE

Interesting synergies have been established between BONVOYAGE and EuTravel Projects thanks to TRENITALIA. EuTravel project (coordinated by Inlecom) aims at contributing towards the realisation of a sustainable and open single European market for mobility services. The similarity and consequently the exploitable synergies between BONVOYAGE and Euttravel have been pointed out

in the Working Group meeting held in Rome on 26th June 2015. Thanks to the involvement of Trenitalia in both projects, the related research teams will design common use-cases scenarios to be tested in both solutions. Several meetings saw synergies deployed, such as:

1. [BONVOYAGE – EuTravel joint meeting](#) – Rome, IT, June 25, 2015

The Conference was aimed to analyse and discuss about possible links and synergies among BONVOYAGE and EuTravel projects, where Trenitalia is an active partner. Other partner organisations from BONVOYAGE (CNIT) and EuTravel (INLECOM, eBOS) took part in the meeting.

2. [EuTravel project meeting](#) – Athens, Greece, February 9 - 10, 2016

The Conference represents a periodic technical meeting of EuTravel project, where Trenitalia is involved as partner. The meeting Agenda included a dedicated slot to discuss possible liaisons with other EU funded projects. BONVOYAGE was presented as suitable liaison project to find synergies with.

A collaboration action has been undertaken, thanks to the intermediation of NPRA, with the working group (<http://www.urbanits.eu/>) aiming at prioritizing Standards for mobility “The CEN TC278 Pre-study for Urban ITS and the European Commission implementing Decision”. The BONVOYAGE Consortium submitted input on the new CEN standardisation mandate to the Commission.

BONVOYAGE Scientific dissemination

1.12.1 Talks

1. [European Working Group on Transportation](#)

The main target of the EWGT is providing a forum to share information and experiences of research activities, encouraging joint research and the development both of theoretical methods and applications. Primary field of interest concerns OR methods, mathematical models and computation algorithms to solve and support the solution of problems faced by public administrations, city authorities, public transport companies, service providers, logistic operators and so on. Leonardo Lamorgese from SINTEF attended the annual meeting of the Working Group.

2. [Sixth Cargese Workshop on Combinatorial Optimization](#)

The 2015 conference was entitled “Fast Algorithms”, namely algorithms capable to find, deterministic or with high probability, optimal or approximated solutions to some optimization problems on large networks. Due to the very nature of BONVOYAGE, this conference was the perfect context to present the project which aims at solving complicated routing problems on a gigantic network (Europe level), in real time. Carlo Mannino from SINTEF presented BONVOYAGE in the “Open Problem” session.

3. [ITS World Congress 2015 Bordeaux](#)

The ITS World Congress is an annual international conference focused on Intelligent Transport Systems. Each year, the World Congress is hosted in one of three regions; Europe, Asia-Pacific and the Americas. The regional ITS associations, ERTICO – ITS Europe, ITS Asia-Pacific and ITS America, each host the World Congress when it falls in their respective region every three years. The ITS World Congress 2015 was held in Bordeaux and Michael Kieslinger from FLUIDTIME presented the BONVOYAGE Project.

4. [Dagstuhl Seminar 16171 “Algorithmic Methods for Optimization in Public Transport”](#) – Wadern, Germany, 24 – 29 April, 2016,

The Dagstuhl Seminar brings together researchers from algorithm engineering, operations research, and combinatorial, stochastic and robust optimization. Because participation is only by direct invitation from the program committee, the selection of attendees is very careful, and many leading scholars in transport optimization attended the seminar. This makes the seminar a perfect arena to introduce new ideas or projects. The 16171 seminar covered topics related to the planning of public transport systems, and to their real-time operational management. The seminar focused on handling large amounts of data, as well

as on the application of quantitative models and algorithmic methods for solving the relevant problems in these areas. Carlo Mannino from SINTEF attended the workshop and presented in informal talks the BONVOYAGE project to the other attendees

5. [ITS European Congress 2016](#) – Glasgow, UK, June 6 – 9, 2016

The Congress theme was “Delivering Future Cities Now” co-organized by ERTICO and 5GPPP in Glasgow; CNIT presented the BONVOYAGE project in the frame of the Workshop “5G pushing the limits of innovation in Automotive” focused on Automated Driving. This workshop aimed at providing an insight into the 5G concept, explaining what 5G is about and addressing the specific needs of the automotive sector and what benefit are expected from the 5G networks. Lorenzo Bracciale from CNIT gave the presentation.

9. [InnoTrans](#) – Berlin, DE, September 20 - 23, 2016

Trenitalia participation in the conference was aimed to present and discuss themes related to state-of-the-art and innovative features and functionalities of the journey planning tools, with specific focus on multi-modal mobility, through the cooperation among several types of transport operators, increase of customer mobility experience and so on. Therefore, in the Conference also BONVOYAGE Project was presented as an example of innovative project in the field and as one of the innovation initiatives that Trenitalia is carrying out at European level. The Head of Information Systems Department of Trenitalia participated to the meeting.

1.12.2 International Conferences

BONVOYAGE partners performed, since the beginning of the project implementation, the following activities in disseminating BONVOYAGE information. Information and news about Dissemination activities are reported and up-to-date on the BONVOYAGE web site’s page: DISSEMINATION.

1. [MatchFest at CES](#) – Las Vegas NV, January 4 – 5, 2016

Prof. Nicola Blefari Melazzi from CNIT presented the OpenGeoBase platform under development in BONVOYAGE. CES is a Business-to-Business Matchmaking event which organises speed meetings between “Born Global” start-ups and international SMEs and potential strategic partners and investors from US and global market as well.

2. [MED’ 16](#) – The 24th Mediterranean Conference on Control and Automation, Athens 21 – 24, 2016

Lorenzo Ricciardi Celsi from CRAT presented the scientific contribution “A Future Internet Oriented User Centric Extended Intelligent Transportation System” by *S. Canale, A. Di Giorgio, F. Lisi, M. Panfili, L. Ricciardi Celsi, V. Suraci, and F. Delli Priscoli*.

3. [IEEE INFOCOM](#), San Francisco, CA, April 2016

A. Detti, B. Ricci, N. Blefari Melazzi. "Tracker-assisted rate adaptation for MPEG DASH live streaming"

4. North Atlantic Treaty Organisation (NATO), [Science and Technology Organisation](#), Specialists' Meeting – SET- 222, on "Swarm Centric Solutions for Intelligent Sensor Networks", Rome, Italy, 07-08 June 2016 (invited paper).

Nicola Blefari Melazzi "Information Centric Networking: a model for an improved Internet (and mobile/ad hoc networks)"

5. [SMC2016 IEEE](#) International Conference on Systems, Man, and Cybernetics, October 9-12, 2016

Simon Ollander, Christelle Godin, Sylvie Charbonnier and Aurélie Campagne "A Comparison of Wearable and Stationary Sensors for Stress Detection"

6. [PhyCS 2016](#) – 3rd International Conference on Physiological Computing Systems, July 2016

Simon Ollander, Christelle Godin, Sylvie Charbonnier and Aurélie Campagne "Feature and Sensor Selection for Detection of Driver Stress"

7. Proc. of IEEE International Forum on Research and Technologies for Society and Industry Leveraging a better tomorrow (RTSI), Bologna, Italy, Sep., 2016

P. Boccadoro, M. Barile, G. Piro, and L. A. Grieco "Energy consumption analysis of TSCH-enabled platforms for the Industrial-IoT"

8. IEEE Globecom 2016, Workshop on Information Centric Networking Solutions for Real World Applications, 4-8 December 2016, Washington, DC USA

Andrea Detti, Nicola Blefari Melazzi, Michele Orru, Riccardo Paolillo, Giulio Rossi: "OpenGeo-Base: Information Centric Networking meets Spatial Database applications".

9. The Third International Workshop on The Emerging Future Internet and Network Security (EFINS 2016) in conjunction with Trustcom 2016, 23 – 26 August 2016, Tianjin, China.

Salvatore Signorello, Maria Rita Palattella, Luigi Alfredo Grieco: "Security Challenges in future NDN-Enabled VANETs".

10. Third International Conference on Physiological Computing Systems – PhyCS 2016, 27th and 28th July 2016, Lisbon, Portugal

Simon Ollander, Christelle Godin, Sylvie Charbonnier, Aurélie Campagne: "Feature and Sensor Selection for Detection of Driver Stress". DOI 10.5220/0005973901150122

11. 19th International Conference on Intelligent Transportation Systems – IEEE ITSC 2016, Accepted Paper, 1 – 4 November 2016, Rio de Janeiro, Brazil.

Lorintiu Oana, Vassilev Andrea: "Transportation mode recognition based on smartphone embedded sensors for carbon footprint estimation".

12. 27th Scientific Meeting Italian Association of Engineering Management – RSA AiG 2016, Accepted Paper, 13 – 14 October 2016, Bergamo, Italy.

Tiziana D'Alfonso from CRAT presented the scientific contribution *Avenali A., Bracaglia V., D'Alfonso T., Reverberi P.: "Revenue sharing mechanisms for airline-High Speed Rail cooperation under congested hubs".*

1.12.3 Journals

The following journal papers have been published in this first year of the project.

1. "Diameter Constrained Overlays with Faulty Links: Equilibrium, Stability, and Upper Bounds"

L. A. Grieco et al.

IEEE Trans. on Circuits and Systems II, December 2015

2. "Understanding the Social impact of ICN: between myth and reality"

G. Piro, S. Signorello, M. R. Palattella, L. A. Grieco, G. J. Boggia, and T. Engel.

AI & Society: Journal of Knowledge, Culture and Communication, Springer, 2016

3. "Gazing into the crystal ball: when the Future Internet meets the Mobile Clouds"

G Piro, M. Amadeo, G. Boggia, C. Campolo, Grieco L. A., A. Molinaro, and G. Ruggeri.

IEEE Transactions on Cloud Computing, 2016.

4. "Link-layer Security in TSCH networks: effect on slot duration"

S. Sciancalepore, M. Vucinic, G. Piro, G. Boggia, and T. Watteyne

Transactions on Emerging Telecommunications Technologies (ETT), Jun., 2016

5. "Air transport and high speed rail competition: environmental implications and mitigation strategies "

D'Alfonso T., Jiang C., Bracaglia V.

Forthcoming on Transportation Research Part A: Policy and Practice

1.12.4 Fairs and public events

1. [INTERNATIONAL ASSOCIATION OF PUBLIC TRANSPORT](#) – UITP MILAN 2015

The BONVOYAGE Partner FLUIDTIME attended the International symposium and gave a presentation about BONVOYAGE objectives and scope. The biennial UITP World Congress and Exhibition offers participants a unique opportunity to discover the public transport market developments and learn from industry leaders.

2. [INEA H2020 ITS CLUSTER WORKSHOP](#) – BRUSSELS BELGIUM, NOVEMBER 6, 2015

The Meeting created synergies with other EU Projects forming the Open Data Work Group of the H2020 ITS Cluster, namely: ITS Observatory, EuTravel and MASAI. The scope of the Open Data WG is to support the sharing of data sources among the project of the H2020 ITS Clusters. The role of the BONVOYAGE project is both to share its data and to offer a common data-sharing platform based on ICN technology. Andrea Detti from CNIT attended the meeting and gave a presentation.

3. [CEBIT GLOBAL CONFERENCE 2016](#) – HANNOVER, GERMANY, MARCH 14 – 18, 2016

CeBIT is the largest and most internationally represented computer expo. The trade fair is held each year on the Hanover fairground, the world's largest fairground, in Hanover, Germany. It is considered a barometer of current trends and a measure of the state of the art in information technology.

Roman Pickl from FLUIDTIME presented the BONVOYAGE project. Special Dissemination has been performed on BONVOYAGE Twitter channel.



FIGURE 22– Picture of the Web site exhibition at CeBIT by FLUIDTIME



FIGURE 23 – FLUIDTIME’s Booth at CeBIT

4. THIRD INTERNATIONAL CONFERENCE ON PHYSIOLOGICAL COMPUTING SYSTEMS – PHYCS 2016, JULY 28 – 29, 2016

PhyCS is the annual meeting of the physiological interaction and computing community, and serves as the main international forum for engineers, computer scientists and health professionals, interested in outstanding research and development that bridges the gap between physiological

data handling and human-computer interaction. This meeting includes a specific place to European projects including research on this topic. CEA Leti presented BONVOYAGE Project, thanks to its research on user stress level assessment and its use in traveller profiling, optimization of travel solution and real time on trip assistance. CEA Leti also exposed the Project Poster as described in paragraph 3.4. A dedicated News has been published via the BONVOYAGE web site.

1.12.5 Education and Academic dissemination activities

In occasion of the Open Day at DIAG (9th March 2016, Department of Computer, Control, and Management Engineering “Antonio Ruberti” at Sapienza University of Rome), CRAT team presented the BONVOYAGE project by illustrating the aims of the project as well as a short demo about personalization for trip planning services. The title of the presentation was “Personalization of multimodal travel planning services”. The event achieved success and interest from students approaching the academic and research offers. A flyer of BONVOYAGE has been distributed among all young participants and a considerable number of them have been selected for filling in the BONVOYAGE Questionnaire by the “Survey” section of the official project web site (see section 1.8).



FIGURE 24 – BONVOYAGE presentation at OPEN DIAG by CRAT

Furthermore, several teaching activities have been performed at the University of Rome "La Sapienza", mainly in the framework of the School of Engineering in Computer Science and of the Master of Sciences in Control Engineering, concerning the Future Internet (FI) paradigm so as it has been implemented in the BONVOYAGE architecture, the user profiling based service personalization, the control based models and algorithms for trip management and the multi part tariff scheme design. In particular, to date, 9 students have been performing their theses (either in

the framework of specific courses or of their final degree work) on the BONVOYAGE architectural and user profiling aspects.

1.12.6 Interaction with End Users

General Public and End Users have been involved at this early stage of the project implementation through the survey launched on the BONVOYAGE’s web site on 16th March 2016, namely the BONVOYAGE Questionnaire managed by a software platform provided by CRAT. The survey aims to analyse the travel behaviour, whether short or long distance, and the levels of quality of transport services as perceived by users. The ultimate purposes of the analysis are purely scientific and will guide the BONVOYAGE Consortium in the development of new technologies to improve the multimodal transportation services. The on-line questionnaire is available to date in Italian and English Languages; in the next steps the questionnaire will be translated in Spanish language.

A number of 352 questionnaires have been completed by M17 (September 2016). Further information about the BONVOYAGE Questionnaire can be found in deliverable D4.1 due at M18 (October 2016), see Appendix B.

1.12.7 Other Publication for General Public

Anton Fitzthum from FLUIDTIME published an article on BONVOYAGE Project on the Magazine “Smart Cities - Speciál 2016 – Chytrá mobilita” issued in Czech language in January 2016. The Article title is: “Integrated Mobility platforms: indispensable for tomorrow’s mobility services”. Here below we report the images of the article.



FIGURE 25 – Image of the Magazine’s article by FLUIDTIME

Standardization activities

1.12.8 Contribution to Standardization

BONVOYAGE's approach will be introduced in parallel to both pre-standards organizations (e.g., IRTF) as well as standardization bodies (e.g., CEN, IETF, ISO) thanks to leadership and large footprint that both academic and industrial partners bring to the project.

The BONVOYAGE project has been presented by CNIT at the interim meeting of the ICN Research Group (ICNRG) during the last IETF 93 meeting, held in Prague by Prof. Alfredo Grieco from CNIT. The target of the presentation was to illustrate the potential of the project as a framework to define vertical use cases on top of ICN communication technologies. The key concepts related to the Internames technology in BONVOYAGE have been also included in ad hoc standardization documents (IRTF Drafts) focussing on open challenges and middleware ICN-IoT architectures.

1.12.9 Articles in qualified publications

The Internet Research Task Force (IRTF) focuses on longer term research issues related to the internet while the parallel organization, the Internet Engineering Task Force (IETF) focuses on the shorter term issues of engineering and standards making. The ICNRG's main objective is to couple ongoing ICN research in the above areas with solutions that are relevant for evolving the Internet at large. In this first year members of the BONVOYAGE Consortium produced three contributions in this area:

1. **"ICN based Architecture for IoT – Requirements and Challenges"**
Y. Zhang, D. Raychadhuri, L. A. Grieco, E. Baccelli, J. Burke, R. Ravindran, and G. Wang.
IRTF- ICNRG, IRTF Internet Draft, draftzhang-iot-icn-challenges-02, Aug 2015.
2. **"Requirements and Challenges for IoT over ICN"**
Y. Zhang, D. Raychadhuri, L. Grieco, E. Baccelli, J. Burke, R. Ravindran, G. Wang, A. Lindren, B. Ahlgren, O. Schelen
IRTF-ICNRG, IRTF Internet Draft, draft-zhang-icnrg-icniot-requirements-00, Nov 2015.
3. **RFC 7933: Adaptive Video Streaming over Information-Centric Networking (ICN)**
C. Westphal, Ed., S. Lederer, D. Posch, C. Timmerer, A. Azgin, W. Liu, C. Mueller, A. Detti, D. Corujo, J. Wang, M. Montpetit, N. Murray.
Internet Research Task Force (IRTF), August 2016.

1.12.10 Standardization Plan

The Standardization Plan proposed in the Description of the Action has been updated by BONVOYAGE Consortium by introducing a new Standard which Partners are interested in working on, i.e. TPEG for traffic and travel related information.

Standards Body	Specific Group Targeted	Details of Contribution
CEN/TC 278	CEN/TC 278/WG 2, Freight, Logistics and Commercial Vehicle Operations	- Contributions to standards for efficient movement of freight
CEN/TC 278	CEN/TC 278/WG 3, Public transport (PT)	- Extensions to interoperable fare management system - Road vehicle scheduling and control systems
CEN/TC 278	Road traffic data (RTD)	- Extensions to DATEX II
CEN/TC 278/WG 16	Cooperative ITS	- Contribution to standards for the exchange of information
CEN	IFOPT	- Point of Interest Model (moving point of interest):
CEN	SIRI	- Real-time information about public transport services and vehicles including car-sharing
UK DpT. of Trans.	JourneyWeb	- Multimodal and intermodal journeys
IRTF	ICNRG	- Internames networking functionality - Extensions to ICN-IoT drafts, to Baseline scenario draft, to Methodology draft - Pub/Sub functionality
IETF	Hypertext Transfer Protocol, Uniform Resource Names, Revised, Extensions for Scalable DNS Service Discovery, Locator/ID Separation Protocol, Domain Name System Operations	- Internames networking functionality - Naming - Name resolution - Location/identifier split - Industrial IoT systems
ISO/IEC	TPEG	- Data-centric security/privacy solutions - Content-oriented access control, Content-oriented quality of service differentiation

The partners interested in working on standards and contributing in their development are:

-
- CNIT: the CNIT Research Unit from POLIBA is strongly committed in contributing in IRTF and IETF. Articles in scientific journals have been issued, as described in the previous paragraph, and several articles are under preparation and publication.
 - SINTEF: SINTEF intends to participate to the DATEX II forum and contribute to the standard. Indeed, one weakness of the current standard is the lack of information which can be easily exploited by routing algorithm. SINTEF intends to contribute to these aspects by proposing suitable extensions to the standard.

Open source prototypes

To date no prototype is available yet. In the very next months (by November 2016) a number of individual (not integrated yet) running demos will be delivered to show specific services and functionalities developed in the reference period M1-M18. All the information and further development will be reported here.

Conclusions

This report aims at describing the BONVOYAGE communication and dissemination activities performed in the first half of the project (until M18, October 2016). The BONVOYAGE project dissemination strategy has been thought to be adaptive in order to maximize the impact of research results and deliverables and to transfer them to stakeholders and end-users in the most suitable way. The web site seeks to dynamically inform any interested stakeholders about the advancements in the project. A regularly-updated content will be achieved by creating news and events through all partners. Other social interactive media have been employed, such as LinkedIn group and Twitter account, in order to communicate to a large public. Moreover active interaction with end-users has been established through dedicated questionnaires in order to get more information about their transport habits and travel preferences and, from another side, to sound out about their quality of experience with current public and private travel services. This active involvement enables to collect end-users feedback on their expectations and to ensure that BONVOYAGE project's developments are best matched to them. Our dissemination efforts will be pursued in order to warranty that research advances and BONVOYAGE outcome will largely benefit to:

- Users by enabling a dynamic and personalized scheduling of transportation and travels;
- Transport systems by building demand/response systems for a better utilization of transport units, lower costs and better margins, more efficient resources management, and optimize market opportunities;
- The society with a more responsive and better use of transport system yielding to less partially filled transport units, less congestion, lower carbon emissions, less environmental impact and lower energy consumption.