



Terahertz technology for ultra-broadband and ultra-wideband operation of backhaul and fronthaul links in systems with SDN management of network and radio resources

Information & Communication Technologies (ICT)  
Research and Innovation Action (RIA)  
G.A. no: 871668  
Start Date: 01.11.2019 [M01]  
Duration: 36 Months



*Funded by the Horizon 2020  
Framework Programme of the European Union*

---

## Deliverable D8.2

### Availability of TERAway website, social media accounts and promotion video

---

Lead Beneficiary	ICCS
Contact Person	Prof. Hercules Avramopoulos
Address	9 Iroon Polytehneiou Str., 15780 Athens, GREECE,
Phone	+30 210 772 2076
e-mail	hav@mail.ntua.gr
Date due of deliverable	31.12.2019 [M02]
Actual submission date	31.12.2019
Authors	Maria Massaouti, Costis Christogiannis, Hercules Avramopoulos
Participants	ICCS
Work-package	<b>WP8</b>
Dissemination level	Public
Type	Websites, patents filling, etc.
Version	1.0
Total number of pages	23

## Copyright

This report is © 2019-2022 TERAWAY Consortium partners. All rights reserved. Its duplication is allowed only in the integral form for anyone's personal use for the purposes of research or education.

## Table of Contents

List of abbreviations.....	4
Executive Summary.....	5
Introduction.....	6
1   TERAWAY Website .....	7
1.1   Website Development.....	8
1.1.1    Website design.....	8
1.1.2    Website Statistics.....	18
2   Social Media Accounts.....	19
3   TERAWAY Online Documents Repository .....	21
4   Conclusions .....	22
List of Figures.....	23
List of Tables .....	23

## List of abbreviations

EC	European Commission
ICT	Information and Communication Technology
WPs	Work Packages

## Executive Summary

The present document reports on the design, development and launch of the official website of the TERAWAY project and the establishment of social media pages (LinkedIn and Twitter) that will act as complementary dissemination as well as outreach tools.

The website of TERAWAY is designed to allow world-wide knowledge of the activities and results of the project and includes a public and a private area and the links to social media accounts. The public area includes sections on the project concept, objectives as well as links to material that can be downloaded and viewed online. The private area is restricted to registered users only (partners and reviewers) and includes confidential documents (deliverables and contractual documents) of the project. The actual deliverable is available at [ict-teraway.eu](http://ict-teraway.eu).

The present document also includes a description of an Online Documents repository of the TERAWAY project which was designed and developed at the SharePoint of Microsoft Office 365 aiming to facilitate the exchange of information and documents between the consortium partners.

In the following months, a promotion video will be prepared aiming to provide a concise project overview in a way that is comprehensible to a broad audience. The video will be coordinated by ICCS and will be assigned to a specialized graphics and video design company to ensure a professional, high-quality result. The promotion video is expected to be ready by M12 accordingly to the DoA and will be disseminated through the project website and further channels.

**Keywords:** Project website, Dissemination, TERAWAY social media accounts

## Introduction

TERAWAY is a 3-year Research and Innovation Action project funded by the European Commission through the Horizon 2020 programme under the Photonics Public Private Partnership ([www.photonics21.org](http://www.photonics21.org)). The project was launched in November 1, 2019 and is expected to finish in October 31, 2022.

TERAWAY is a technology intensive project aiming to develop a new generation of THz transceivers modules and by leveraging these modules to enable the operation of disruptive communication systems that can provide coverage and support applications with ultra-high requirement. TERAWAY will develop a common technology base for the generation, emission and detection of wireless signals with selectable symbol rate and bandwidth up to 25.92 GHz within an ultra-wide range of carrier frequencies covering the W-band (92-114.5 GHz), D-band (130-174.8 GHz) and THz band (252-322 GHz).

TERAWAY brings together twelve (12) leading European research centers and companies among which: **three (3) vendors** Telefónica Investigación y Desarrollo (TID, Spain), Intracom S.A. Telecom Solutions (ICOM, Greece) and SIAE Microelettronica S.p.A. (SIAE, Italy); **two industry-oriented research institutes** - Fraunhofer Heinrich-Hertz Institute (FbH-HHI, Germany) and Ferdinand-Braun-Institut Leibniz-Institut fuer Hoechstfrequenztechnik (FBH, Germany); **a company** and **three (3) SMEs and** - LioniX International BV (LXI, Netherlands), Optagon Photonics (Optagon, Greece), PHIX Photonics Assembly (PHIX, Netherlands), Cumucore OY (CMC, Finland) and **three academic organizations** - Universidad Carlos III de Madrid (UC3M, Spain), Aalto University (AALTO, Finland) and the Institute of Communications & Computer Systems of the National technical University of Athens (ICCS, Greece) that coordinates the action.

Through the official website of the project and its social accounts in LinkedIn and Twitter, the project and its scientific results will be promoted to the international scientific and industrial communities as well as to the wider public.

## 1 TERAWAY Website

The development of the TERAWAY website is a task falling into the Work-Package 8 activities of the project related to the dissemination and exploitation of the project results, aiming to make the achievements and benefits known to relevant target-groups, including scientific/technical community, people from industry, to other EU projects and to the general public.

The TERAWAY web site has been created and already hosts all the basic information regarding the project and its partners, in the address <https://ict-teraway.eu>. The structure of the TERAWAY webpage is the following:

❖ **HOME**

❖ **ABOUT**

- Concept
- Objectives
- Work Plan Structure

❖ **CONSORTIUM**

❖ **DISSEMINATION**

- Press releases
- Public Documents
- Publications
- Presentations
- Media gallery

❖ **NEWS/EVENTS**

❖ **CONTACT US**

The site also provides a “Log in” link to the TERAWAY private area secure workspace, as a simple way for having access to the deliverables and contractual documents of the project the partners as well as the reviewers in a password protected area.

The site will be updated regularly by the site administrator who will be able to upload public documents, news and publications, in order to maximize dissemination of the achieved results and increase project awareness.

## 1.1 Website Development

The key issues that were considered in selecting, structuring and writing content for the TERAWAY website are the following:

- ◆ To present the TERAWAY project's profile to the visitors of the site (members of the scientific community, people from industry, general public).
- ◆ To present the TERAWAY concepts, specific objectives and progress on the research activities of the project. This targets in particular the members of the scientific community and the people from industry and aims at attracting their interest and increasing the visibility of the project.
- ◆ To facilitate efficient information flow and submission of documents to the EC.
- ◆ To disseminate the project activities to the general public through a number of reports, presentations and others that will be available for reading and downloading to external visitors of the website.
- ◆ To maintain a high profile for content.

### 1.1.1 Website design

The TERAWAY webpage is based on a plain and simple design (Figure 1), which is fast loading, browser compatible, mobile compatible, and focuses on the content. All pages provide a header with the TERAWAY logo and additional links to the Horizon 2020, the Photonics21 site, as well as to social networking sites and professional user groups (LinkedIn and Twitter). The site is divided into seven sections, which are accessed via a global selection bar that is located horizontally on the top of each page below the header. Sub-sections have been included under specific sections to ensure rational distribution of the online information and to facilitate browsing. The sub-sections are accessible through drop-down menus from the global selection bar.

The website was created so that content (dynamic and static) can be efficiently maintained. Specifically, articles, menu structure and even styling and formatting can be updated and re-arranged as required, giving the ability to upload new information, re-arrange content and provide a new browsing experience to visitors whenever required.

The project address is <https://ict-teraway.eu/> and hosted on a server leased by ICCS/NTUA. Moreover, the dynamic scripting language used allows for an efficient update of content without the need for complete re-design of the webpage space. ICCS acts as the website administrator and is responsible for authoring, editing and managing content of the website.

#### HOME section

The "Home" section, shown in Figure 1, is designed to provide an overview of the project at a glance. This section serves as the "front page" of the TERAWAY website and special attention has been paid to achieve an appealing yet simple design. Right below the global selection bar a slideshow has been introduced displaying a photo relevant to the project. A slideshow will be updated regularly with photos of the project results and demonstrators. Below this eye-catching graphic, there is also a "learn more" button linked to the TERAWAY "About" page, followed by a quick overview of the project which is provided through the following elements:

- a "Welcome to TERAWAY project" section with some words about the project
- a "Project Facts" section with some details of the project such as the starting date, the duration and the EU contribution.
- a "Dissemination" section.
- a "News" section with the latest news is appeared.



- a “Footer” section, that includes a) quick links of the website contents b) a weblink section including the H2020 framework link, the Photonics21 link and the 5G PPP initiative and c) the links to the social accounts of TERAWAY (see Section 0).



Figure 1. Home page of the TERAWAY website.

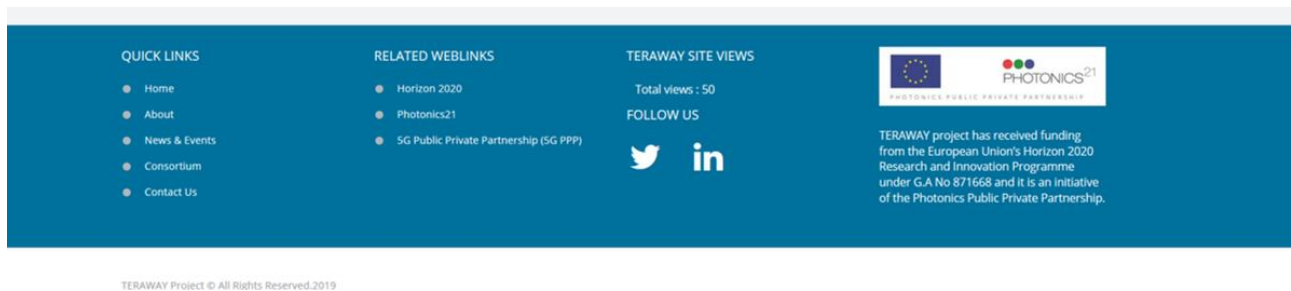


Figure 2. Footer at each page of the Website.

## ABOUT section

The “About” section consists of three subpages, the concept, the work plan structure and the objectives of the project. The concept page provides the visitor information on the general concept of TERAway in a comprehensive language. In the second subpage is presented a schematic overview of the Work Packages (WPs) and their interactions along with the WPs titles and the objectives page enumerates the project objectives as these were formulated in the proposal structure.

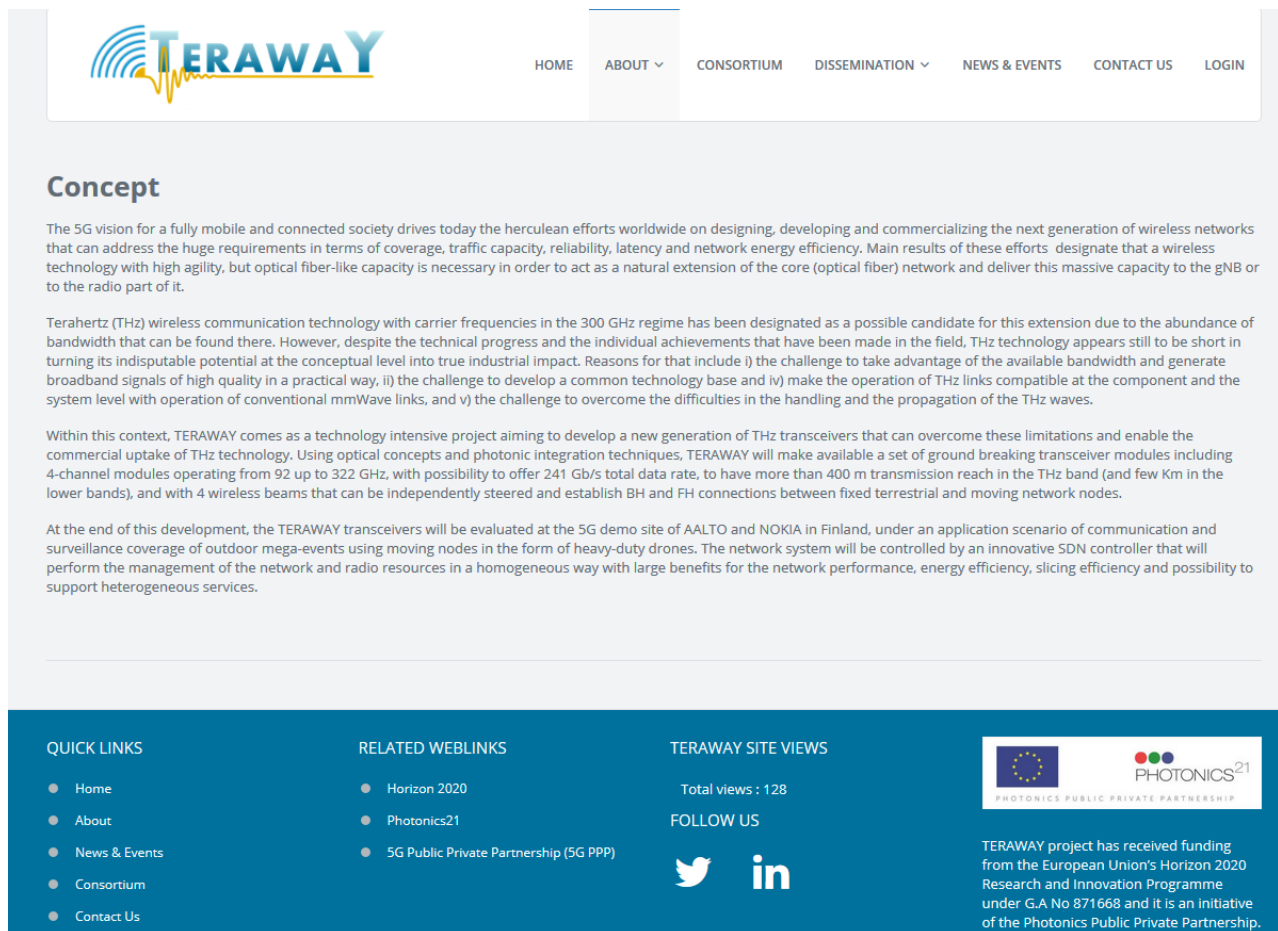


Figure 3. “About” section- Concept page

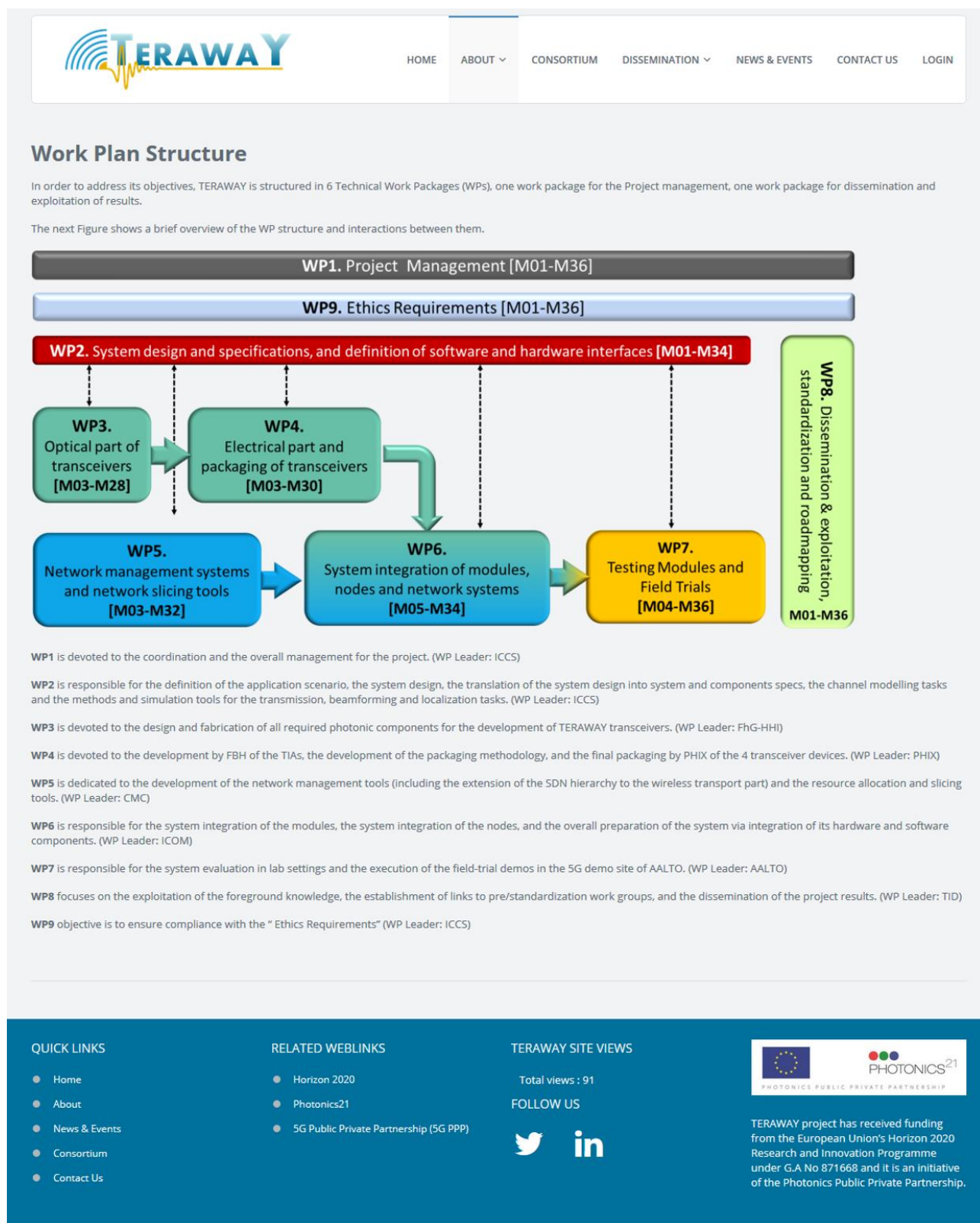


Figure 4. "About" section- Work plan structure page

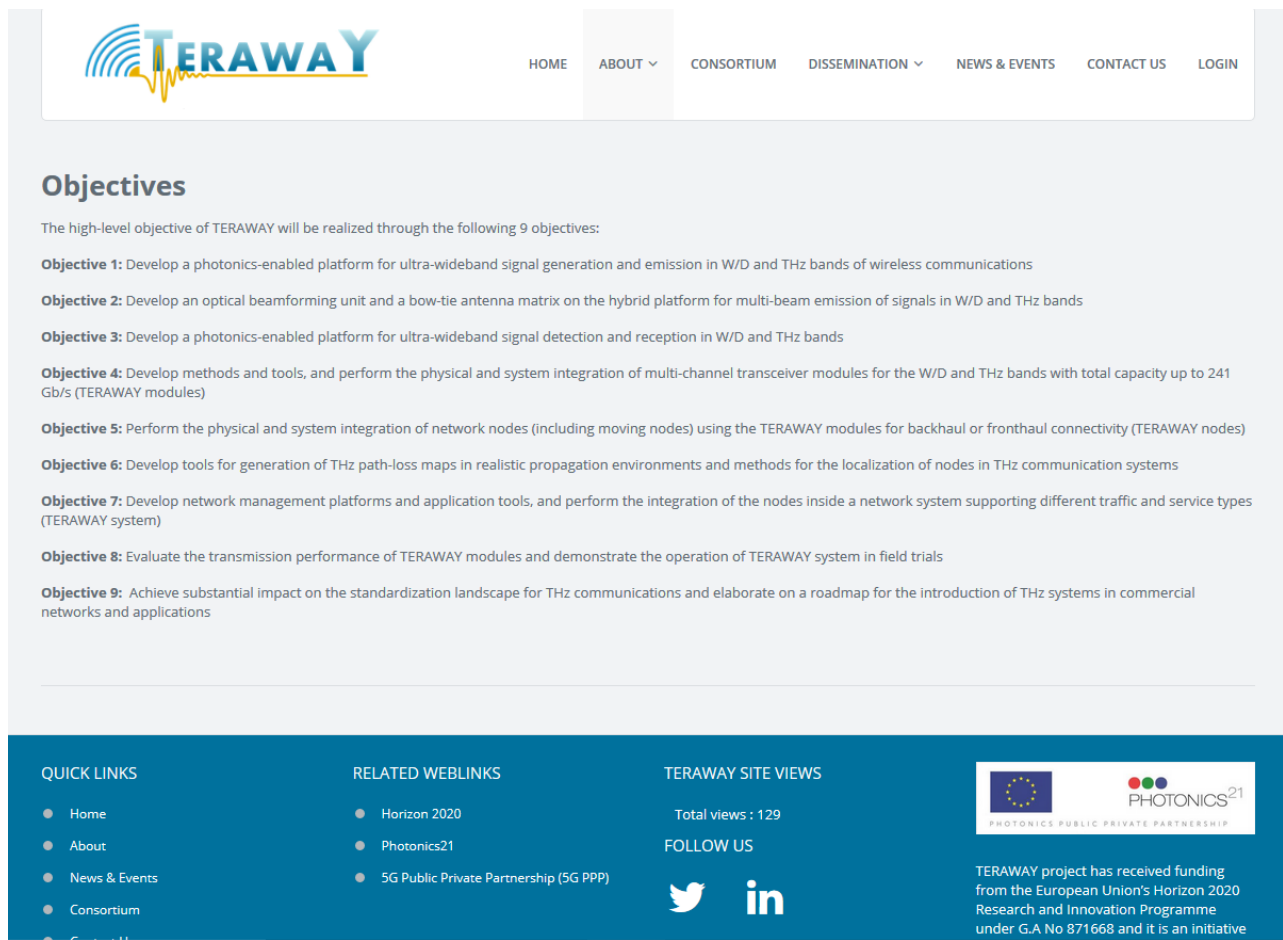


Figure 5. "About" section- Objectives page



CONSORTIUM section

The consortium page provides a map of Europe depicting the home country of every partner, a short text presenting the consortium as a whole and a description for each partner, their role in the project and the contact persons.



Figure 6. TERAWAY Consortium page

## DISSEMINATION section

This section acts as a link to all dissemination and communication activities targeted within TERAWAY. More specifically, the dissemination section collapses in five different sub-sections namely the (i) “Press Releases” where links to the press releases will be reposted, (ii) the “Public Documents” where the documents like the project factsheet and project presentation and the public deliverables will be presented, (iii) the “Publications” page which will include the scientific publications of the partners that will be published within the project, (iv) the “Presentations” which include the conferences/workshops and other dissemination activities of the consortium along with relevant material and finally (v) the media gallery where the promotion video addressing the general public (due for M12), other videos and photos related to the project will be posted.

So far, within the “Press release” sub-section there is the first press release of the project related to the project launch and kick-off meeting and in the “Public Documents” sub-section there are the project factsheet, the project presentation as well as the first public deliverable D8.1 entitled “Project announcement” of the project. All of them are available for download.

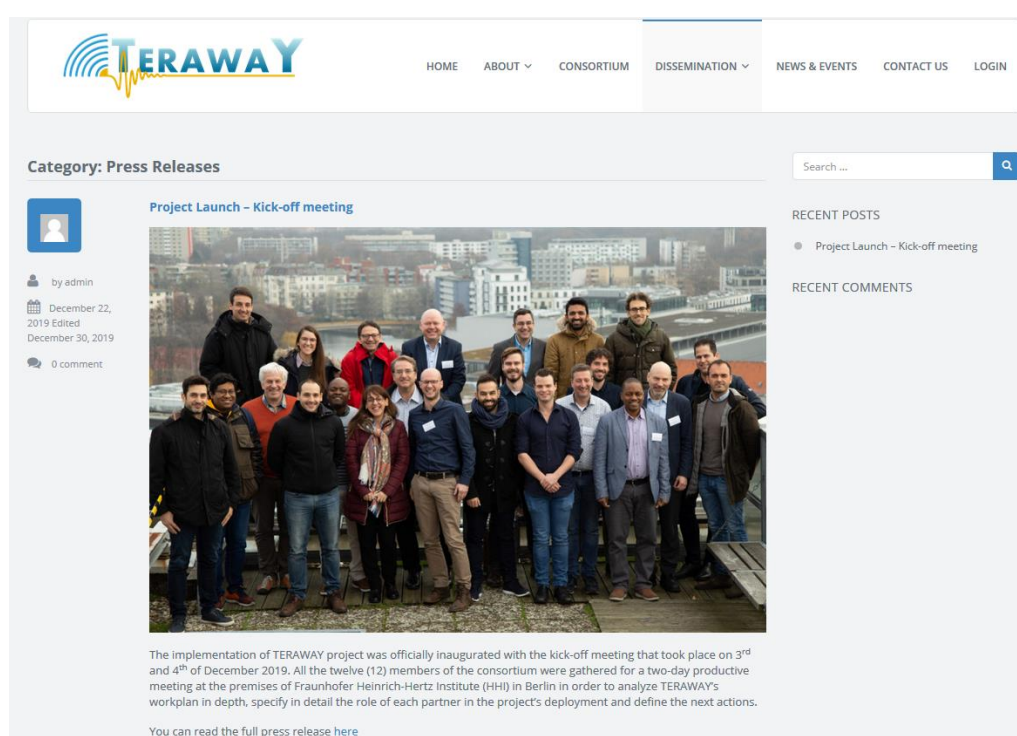


Figure 7. “Dissemination” section - Press releases page



[HOME](#)
[ABOUT](#)
[CONSORTIUM](#)
[DISSEMINATION](#)
[NEWS & EVENTS](#)
[CONTACT US](#)
[LOGIN](#)

## Project Factsheet



Terahertz technology for ultra-broadband and ultra-wideband operation of backhaul and fronthaul links in systems with SDN management of network and radio resources

**TERAWAY Factsheet**

**Call identifier:** H2020-ICT-2019-2  
**Contract No.:** 871668  
**Timeline:** 1 November 2019 – 31 October 2022  
**Overall budget:** € 5 999 498.88  
**EC contribution:** € 5 999 498.75

**Contact:**  
 Institute of Communications & Computer Systems  
 Photonics Communication Research Lab  
 Prof. H. Avramopoulos  
 Dr. Maria Mazaraki  
 Christos Tsoukos

**Project website:** <http://ict-teraway.eu/>  
**Consortium:** 12 Partners (6 EU countries)



**Motivation**

The 5G vision for a fully mobile and connected society drives today the European efforts worldwide on designing, developing and commercializing the next generation of wireless networks that can address the huge requirements in terms of coverage, traffic capacity, reliability, latency and network energy efficiency. Main results of these efforts designate that a wireless technology with high agility, but optical fiber-like capacity is necessary in order to act as a natural extension of the core (optical fiber) network and deliver this massive capacity to the gNB or to the radio part of it.

Terahertz (THz) wireless communication technology with carrier frequencies in the 300 GHz regime has been designated as a possible candidate for this extension due to the abundance of bandwidth that can be found there. However, despite the technical progress and the individual achievements that have been made in the field, THz technology appears still to be short in turning its indisputable potential at the conceptual level into true industrial impact. Reasons for that include i) the challenge to take advantage of the available bandwidth and generate broadband signals of high quality in a practical way, ii) the challenge to develop a common technology base and iii) make the operation of THz links compatible at the component and the system level with operation of conventional microwave links and iv) the challenge to overcome the difficulties in the handling and the propagation of the THz waves.

TERAWAY project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under G.A. No 871668 and it is an initiative of the Photonics Public Private Partnership.

## Project Presentation



Terahertz technology for ultra-broadband and ultra-wideband operation of backhaul and fronthaul links in systems with SDN management of network and radio resources

**Topic:** 5G Long Term Evolution  
**Type:** RIA  
**Call:** H2020-ICT-2019-2  
**Contract No.:** 871668  
**Start date:** 1 November 2019  
**Duration:** 36 Months  
**EC contribution:** € 5 999 498.75




Sponsored by the Horizon 2020 Research and Innovation Programme of the European Union under the Photonics Public Private Partnership

Del. #	Title	Date
D8.1	PROJECT ANNOUNCEMENT	13.12.2019


Figure 8. “Dissemination” section – Public Documents

## NEWS/EVENTS section



[HOME](#)
[ABOUT](#)
[CONSORTIUM](#)
[DISSEMINATION](#)
[NEWS & EVENTS](#)
[CONTACT US](#)
[LOGIN](#)

### Category: News & Events



**Project Launch – Kick-off meeting**

The implementation of TERAWAY project was officially inaugurated with the kick-off meeting that took place on 3rd and 4th of December 2019. All the twelve (12) members of the consortium were gathered for a two-day productive meeting at the premises of Fraunhofer Heinrich-Hertz Institute (HHI) in Berlin in order to analyze TERAWAY's workplan in depth. [...]

by admin  
 December 22, 2019 Edited  
 December 30, 2019

0 comments

[Read More...](#)

RECENT POSTS

- Project Launch – Kick-off meeting

RECENT COMMENTS

**QUICK LINKS**

- Home
- About
- News & Events
- Consortium
- Contact Us



**RELATED WEBLINKS**



- Horizon 2020
- Photonics21
- 5G Public Private Partnership (5G PPP)

**TERAWAY SITE VIEWS**

Total Views : 96

**FOLLOW US**

TERAWAY project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under G.A. No 871668 and it is an initiative of the Photonics Public Private Partnership.

The news page presents latest news on the TERAWAY project such as the realization of meetings, participation in conferences booths etc.

Figure 9. TERAWAY News/Events page.

## CONTACT US section

The contact us page provides a contact form which the visitor can fill in and send to the Coordination team (and administrator of the website) a message

Figure 10. TERAway Contact us page

## LOG IN section

The Private domain (“Log in” section) of the TERAway web page is restricted to registered users only. Once a user is authenticated through the login dialogue box (available on all sections of the website), an additional page appears on the global selection bar and the confidential content is accessible. Different groups of users (user “classes”) have been defined with different privileges and variable levels of confidentiality. Three user classes have been created:

**Administrator.** The website administrator has access to all the documents on the private area and can add, edit and delete content. Only ICCS/NTUA has an administrator account.

**Project partner.** This user class has access to all project documents sorted in the following categories:

- Deliverables
- Contractual documents

All TERAway partners have been registered with this user class.

**Project reviewers.** A separate area has been generated particularly for the project officer and the panel of experts to facilitate submission of project deliverables. The respective data are placed in the page “Reviewer Area”.



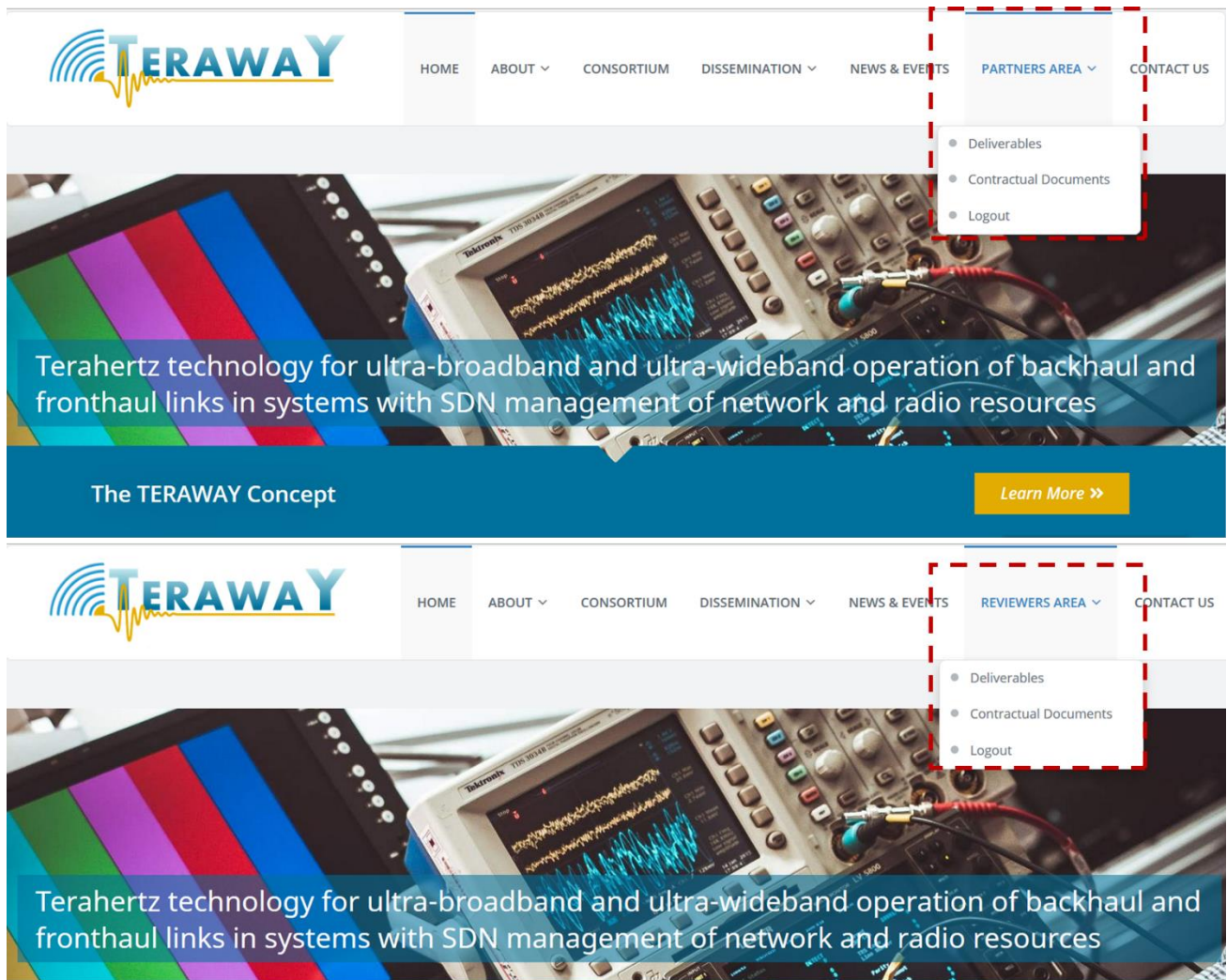


Figure 11. The Private areas pages upon login of the registered users.

### 1.1.2 Website Statistics

The project website visitor statistics will be collected using a statistics tool (Google Analytics). The tool provides visitor information, geographical information, page view numbers, entry/exit pages, average browsing times and many more parameters that can help analyse the impact of the website in due course of the project.

More importantly, the tool provides accurate visitor information by filtering out bots, crawling engines and administrator activity. The statistics tool is managed by ICCS and the (confidential) data collected will be distributed in consortium meetings for discussing the impact of the website.

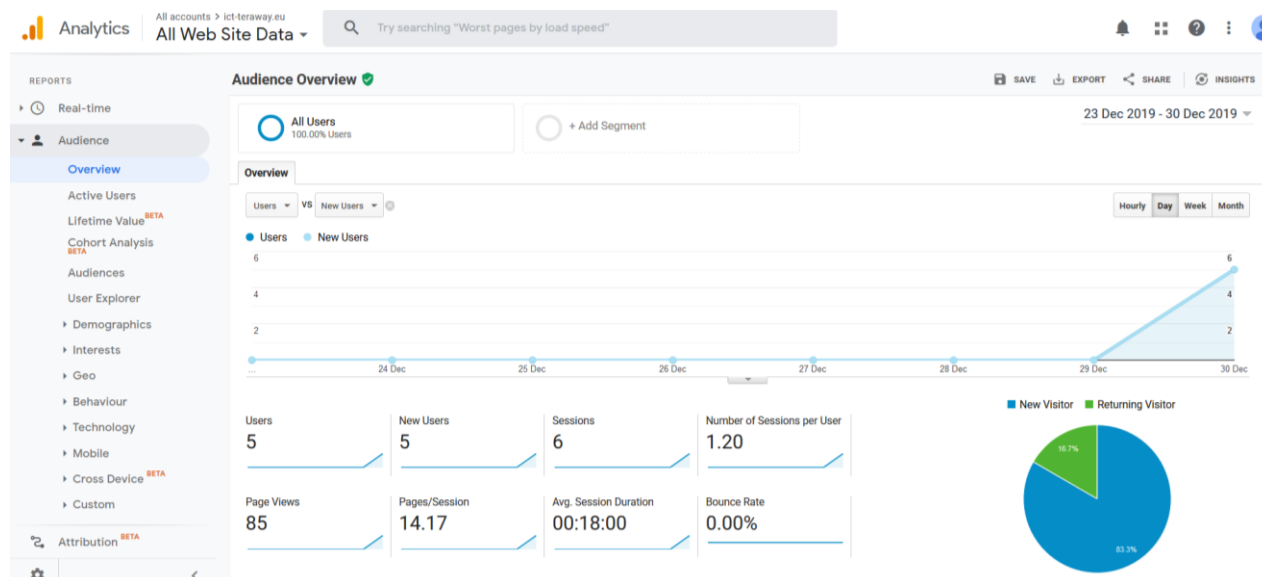


Figure 12. Google Analytics Tool for traffic statistics extraction

## 2 Social Media Accounts

TERAWAY has established social networking accounts (Twitter and LinkedIn), serving as additional dissemination tools. ICCS has created and will manage the following:

1. **Twitter** (see Figure 13): The projects' twitter account can be found at the following address:

[https://twitter.com/@TERAWAY\\_EU](https://twitter.com/@TERAWAY_EU)



Figure 13. TERAWAY twitter account (@TERAWAY\_EU)

2. **LinkedIn account** (see Figure 14): The projects' LinkedIn account can be found at the following address:

<https://www.linkedin.com/in/teraway-project-a2a10019a/>

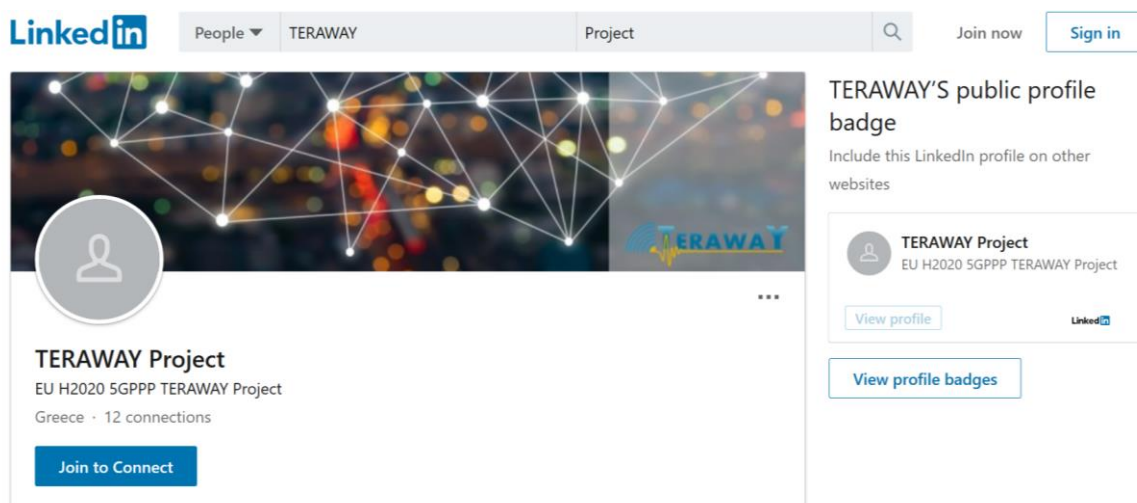


Figure 14. LinkedIn home page of the TERAWAY project.

3. **Youtube** (Figure 15): The Official Video Channel on Youtube of TERAWAY is located at:

[https://www.youtube.com/channel/UCjSYpa3zuR7fLKjFk\\_bTWqA?view\\_as=subscriber](https://www.youtube.com/channel/UCjSYpa3zuR7fLKjFk_bTWqA?view_as=subscriber)

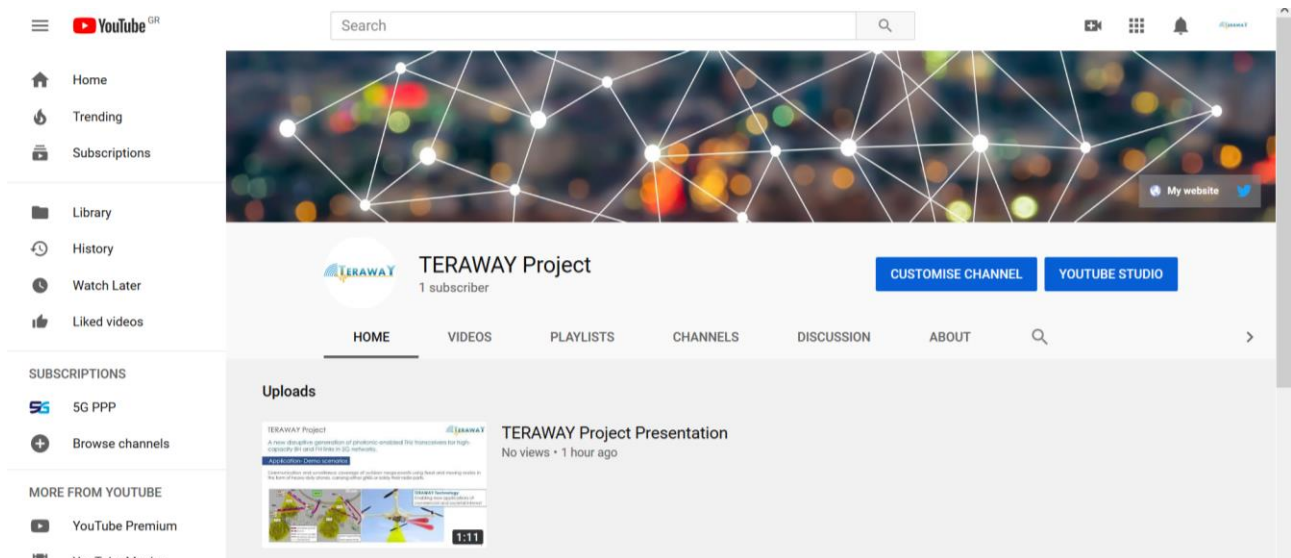


Figure 15. TERAWAY YouTube Channel home page

### 3 TERAWAY Online Documents Repository

To enforce the efficient administrative and technical management of the project, a Repository for the TERAWAY documents has been created in the very beginning of the project by the Coordination Team (CT) at the SharePoint database-Office 365.

The repository serves as a point of reference for exchange of information and documents between the consortium partners. It is restricted to registered users only. Once a user is authenticated, the confidential content is accessible. Through the repository (<https://pcrl.sharepoint.com/sites/Teraway>), the members of the consortium have access to the contractual documents of the project as well as to all working documents (deliverables, meeting meetings, actions, etc.) which results in a complete and effective collaboration of the members of the consortium. In this repository are also included News and events related to the TERAWAY project so as the partners to be always informed on forthcoming conferences, workshops, etc.

In the Figure 16 below is shown the Home page of the Documents repository.

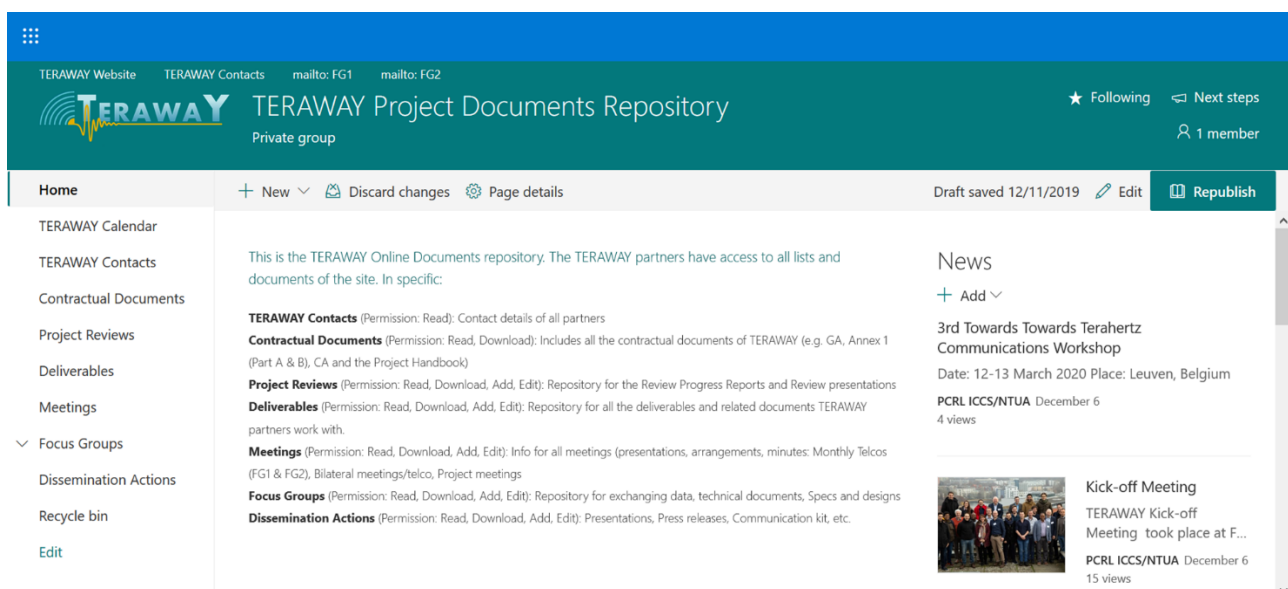


Figure 16. TERAWAY Project Documents Repository - Home page at the SharePoint-Office 365.

The lists and documents that the partners have access through the Documents Repository are the following:

<b>TERAWAY Contacts</b> (Permission: Read):	Contact details of all partners
<b>Contractual Documents</b> (Permission: Read, Download):	Includes all the contractual documents of TERAWAY (e.g. GA, Annex 1 (Part A & B), CA and the Project Handbook)
<b>TERAWAY Project Reviews</b> (Permission: Read, Download, Add, Edit):	Repository for the Review progress reports and review presentations
<b>Deliverables</b> (Permission: Read, Download, Add, Edit):	Repository for all the deliverables and related documents, the TERAWAY partners work with
<b>Meetings</b> (Permission: Read, Download, Add, Edit):	Info for all Meetings (presentations, arrangements, Minutes): Monthly Telcos (FG1 & FG2), Bilateral meetings/telco, Project meetings
<b>Focus Groups</b> (Permission: Read, Download, Add, Edit):	Repository for exchanging data, technical documents etc.
<b>Dissemination Actions</b> (Permission: Read, Download, Edit, Add):	Presentations, Press releases, communication kit etc.)



## 4 Conclusions

The website of the project and the social media accounts have been prepared and set up. The website and the accounts have been populated with relevant material and all the latest info. A structure of the website and detailed information on each webpage has been also documented. The website, the social media accounts and the TERAway Documents repository at the SharePoint are being administrated and moderated by ICCS. The website will be updated periodically with all the latest news and relevant newsletters will be sent to the mailing lists.

## List of Figures

Figure 1. Home page of the TERAWAY website.....	9
Figure 2. Footer at each page of the Website. ....	10
Figure 3. “About” section- Concept page.....	10
Figure 4. “About” section- Work plan structure page .....	11
Figure 5. “About” section- Objectives page .....	12
Figure 6. TERAWAY Consortium page .....	13
Figure 7. “Dissemination” section - Press releases page.....	14
Figure 8. “Dissemination” section – Public Documents .....	15
Figure 9. TERAWAY News/Events page. ....	15
Figure 10. TERAWAY Contact us page .....	16
Figure 11. The Private areas pages upon login of the registered users. ....	17
Figure 12. Google Analytics Tool for traffic statistics extraction .....	18
Figure 13. TERAWAY twitter account (@TERAWAY_EU).....	19
Figure 14. LinkedIn home page of the TERAWAY project. ....	19
Figure 15. TERAWAY YouTube Channel home page.....	20
Figure 16. TERAWAY Project Documents Repository - Home page at the SharePoint-Office 365. ....	21

## List of Tables

No table of figures entries found.