



Grant Agreement No: 101096307

Full Title: THz Industrial Mesh Networks in Smart Sensing and Propagation Environments

Start date: 01/01/2023

End date: 31/12/2025

Duration: 36 Months

WP1 – D1.1

Project Website

Document Type	Deliverable
Title	D1.1 – Project Website
Contractual due date	31/01/2023 (M1)
Actual submission date	23/02/2023
Nature	DEC
Dissemination Level	PU
Lead Beneficiary	CNIT
Responsible Author	Flaminia Saratti (CNIT)
Contributions from	Luca Sanguinetti (CNIT)

Revision history

Version	Issue Date	Changes	Contributor(s)
v0.1	22/02/2023	Initial version	Flaminia Saratti (CNIT)
v0.2	22/02/2023	Revised and approved version	Luca Sanguinetti (CNIT)
v1.0	23/02/2023	Final version	Flaminia Saratti (CNIT)

Disclaimer

The content of the publication herein is the sole responsibility of the publishers, and it does not necessarily represent the views expressed by the European Commission or its services.

While the information contained in the documents is believed to be accurate, the authors(s) or any other participant in the TIMES consortium make no warranty of any kind with regard to this material including, but not limited to the implied warranties of merchantability and fitness for a particular purpose.

Neither the TIMES Consortium nor any of its members, their officers, employees or agents shall be responsible or liable in negligence or otherwise howsoever in respect of any inaccuracy or omission herein.

Without derogating from the generality of the foregoing neither the TIMES Consortium nor any of its members, their officers, employees or agents shall be liable for any direct or indirect or consequential loss or damage caused by or arising from any information, advice, inaccuracy, or omission herein.

Copyright message

© TIMES Consortium, 2022-2025. This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation, or both. Reproduction is authorised provided the source is acknowledged.

Table of Contents

1. Introduction.....	5
1.1 Scope	5
1.2 Audience.....	5
1.3 Structure.....	5
2 Current state of work	6
2.1 Complications	6
3 Implementation.....	7
3.1 Project Website structure	7
3.2 Sitemap.....	7
3.2.1 Public area	7
3.2.2 Private area.....	8
3.2.3 Administrative Dashboard.....	8
4 Further actions	9
5 Appendix A.....	10
5.1 Appendix A.1.....	10
5.2 Appendix A.2.....	12

Executive Summary

This document offers a brief overview of the work carried out for the realisation of the Project Website, the status of the work to the present day and the action points for further integrations.

1. Introduction

1.1 Scope

This deliverable provides a summary of the actions undertaken for the realisation of the Project Website.

1.2 Audience

This Report is intended for public use.

1.3 Structure

The rest of the document is structured as follows:

- Section 2 synthetizes the current state of work and the complications encountered in the first phase of the activity.
- Section 3 presents the final proposal to be implemented by a selected web developer.
- Section 4 lists the action points to be undertaken in the short term.

Finally, additional information is provided in the Appendix A.

2 Current state of work

The WP1 Team has activated on January 31, 2023, a webpage dedicated to an overview of the Project TIMES on the official Coordinator website (CNIT). General information about the mission, the objectives and the duration of the project are displayed. The Partners forming the Consortium are listed. Among the information, the project first liaisons and news are already available.

The webpage is available at this [link](https://wilab.cnit.it/times/) (https://wilab.cnit.it/times/).

2.1 Complications

The active webpage at the present day is a temporary one.

As already acknowledged by the European Commission, the WP1 Team encountered a communication issue at the beginning of the activity with the Project Officer assigned. This led to a delay in the project domain purchase due to a lack of information.

While waiting for further instructions, the WP1 Team opted to create a simplified webpage on the Coordinator's website as a temporary solution. The webpage (https://wilab.cnit.it/times/) was published on January 31, 2023.

After a discussion with the European Commission, the Scientific Coordinator, Prof. Luca Sanguinetti, was notified by Bernard Barani and Pavlos Fournogerakis that a new Officer would have been assigned to the Project during the ETSI RESEARCH CONFERENCE in Nice (FR), precisely on February 9, 2023.

The new project Officer, Ms Oana Radu, set a fluent work discussion. The first action points were initialised, such as purchasing the project domain and the security certificates. The domain with which the website will be developed is times6g.eu.

3 Implementation

As mentioned in the previous section, the current webpage is temporary. Nevertheless, the Consortium has already overseen and approved the finalised structure that will be requested to a web developer. The approval took place in the Kick-Off Meeting on January 19, 2023.

3.1 Project Website structure

The website will be divided into two main areas: *i)* a public area, accessible by everyone, and *ii)* a private area, accessible only by registered users.

Regarding the public area, the TIMES website home page will present the public information about the project:

- a short description of the project, underlining the objectives and key ideas;
- a short description of the core activities;
- latest news and events about the project activities;
- the outcomes that can be published of the project;
- the list of the partners composing the Consortium and their logos;
- the main contact of the reference people;
- the access to the private area.

Further details about the communication and dissemination activities and the scientific publications will be accessible through the website's "News & Events" and "Outcomes" sections.

The WP1 Team will design the layout and maintain the public website content in collaboration with all partners and under the supervision of WP7 Team.

After logging in, registered users may access the following additional pages and/or contents:

- *Profile*: this section allows users to change their profile information (e.g., password, username, e-mail address, etc.)
- *Deliverables & Relevant Documents* (FTP Repository): it shows the project final deliverables and relevant documents.
- *Events & Meetings Registrations*: a section allowing all partners to register for all events, internal or external meetings or dissemination activities.
- *Calendar*: it displays the list of the scheduled important dates.

Other sections, both in the public and the private areas, can be added, if necessary, following the request of the WP Leaders to the PMT.

3.2 Sitemap

This section is dedicated to presenting the structure of both the public and the private areas of the website.

3.2.1 Public area

- Homepage
- Core Activities
- News & Events
- Outcome
- Partners
- Member's area

3.2.2 Private area

- Member's area ("login" or "register now")
- My Account
 - o Personal information
- Deliverables & Relevant Documents
 - o FTP site as a repository of final documents (no interactivity or possibility to modify the documents – only see or download them)
- List of participants
- List of partners
- Events & Meetings Registration
 - o The list of events. A member can register for the event. The registration will depend on the type of event (further information below in the "Administrative Dashboard" section). Possibility to change/cancel the attendance preferences until the registrations are open.
- Project Calendar
 - o An interactive calendar showing all the events (past – already closed for registration, present – open for registration, and future – still not created in the list of events available for registration) and meetings/events that will not require registration from the members.

All the events on the calendar will have a pop-up window that appears only when the cursor is on top of the event. The pop-up should show the basic info of the event: title, venue, and dates.

In case of events open for registration, the pop-up should include a "sign up now" button.

3.2.3 Administrative Dashboard

The administrative dashboard will be managed by the WP1 Team.

4 Further actions

The WP1 Team has already contacted a web developer for the creation of the website (Differens). The estimated quotation was higher than expected; therefore, the WP1 Team is now in contact with a new web developer (72Pixel) in order to obtain a second offer.

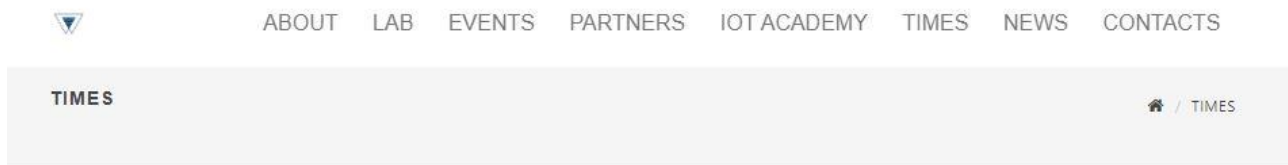
Based on the second quotation for the development of the website, the Consortium will be able to decide between the two web developers to whom to refer.

5 Appendix A

Appendix A shows the above-mentioned website and useful documents.

5.1 Appendix A.1

A screenshot of the temporary website on the Coordinator’s official website is reported below.



TIMES

THz Industrial Mesh Networks in Smart Sensing and Propagation Environments

HORIZON-JU-SNS-2022

Future wireless networks are envisioned to support novel applications that require similar performance as wired networks in terms of data rate (Tbps), ultra-low-latency (well below 1 ms), sensing (e.g., mm-level localization accuracy), and reliability (e.g., 1 in a billion transmission error). The current 5G approaches have a hard time keeping up with such envisioned applications. TIMES addresses this problem by combining novel radio channel propagation measurements and modeling approaches, spectrally efficient and reliable communications at Terahertz (THz) spectrum bands with intelligent mesh networking protocols and smart sensing and shaping of the propagation environment through reconfigurable metasurfaces.

While the fundamental technologies developed will be applicable to different beyond-5G scenarios, TIMES will focus on an industrial setting, since many of the envisioned applications in this complex scenario (e.g., cooperative robots, predictive maintenance, real-time closed-loop control) require concurrent high performance, reliability, and sensing capabilities. To tackle the challenge, TIMES extends the state-of-the-art on three fronts: 1) Propagation channel measurements and characterization in THz bands, including measurement and modeling of meta-surfaces and electromagnetic leakage in complex scenarios; 2) Developing technological enablers for reliable THz communications (e.g., smart beam management, ultra-massive MIMO, THz-tailored PHY and MAC design, meta-surfaces, and new mesh-based architecture); and 3) Implementation of a THz mesh network prototype, including design and fabrication of both active (transceivers) and passive (meta-surface) nodes, to validate selected technological enablers developed in TIMES.

PARTNERS

1. CNIT: Consorzio Nazionale Interuniversitario per le Telecomunicazioni, Italy (Coordinator)
2. TUBS: Technische Universität Braunschweig, Germany
3. CNRS: Centre national de la recherche scientifique, France
4. USTUTT: University of Stuttgart, Germany
5. FRAUNHOFER: Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung, Germany
6. HWDU: HUAWEI TECHNOLOGIES Deutschland GmbH, Germany
7. ANT: Anteral SL, Spain
8. BIREX: Big Data Innovation & Research Excellence, Italy
9. TNOR: Telenor ASA, Norway
10. AETNA: AETNA Group SPA, Italy

Duration

1/01/2023 – 31/12/2025 (36 Months)

Liaisons

SNS call page: <https://smart-networks.europa.eu/>

SNS Call STREAM B page: <https://smart-networks.europa.eu/stream-b-research-for-revolutionary-technology-advancement-towards-6g/>

News

The project will be presented at ETSI Research Conference that will take place on the 6th to 8th of February 2023 in ETSI Headquarters, Sophia Antipolis, France: <https://www.etsi.org/events/2130-etsi-research-conference>

Contacts

Danila Ferretti - [danila.ferretti \[at\] unibo.it](mailto:danila.ferretti@unibo.it)

Luca Sanguinetti - [luca.sanguinetti \[at\] unipi.it](mailto:luca.sanguinetti@unipi.it)

Flaminia Saratti - [flaminia.saratti \[at\] unibo.it](mailto:flaminia.saratti@unibo.it)

5.2 Appendix A.2

The first quotation received from Differens Web Developer is attached to this document.

Dear DEI, University of Bologna | CNIT

February 15, 2023

Subject: Commercial offer for the creation of the TIMES project site and administrative area

Dear Flaminia,

as per your request, we will formulate the commercial offer for the activities in question, detailed below.

We make ourselves available right now for further information and clarifications and we confirm our availability starting immediately.

In thanking you for having consulted us, I wish you good work.

Best regards,

Andrea Rosini



1. Object of the offer

- Creation of a website as described below
- Development of a management platform as described below

2. Website design (Front end)

Website map:

- Home page
- Core Activities
- News & Events
- Outcomes
- Partners
- contacts
- Member's area with access via login after registration structured as follows:
 - My Account (management of personal information by the user)
 - Deliverables & Relevant Documents
 - FTP repository of documents with permission limited to view and download (no edit)
 - List of participants
 - List of partners
 - Registration for Events & Meetings: list of events with registration that can be modified until registration opens.
 - Interactive calendar of events

Technical specifications:

English language

Website designed in wp and builder, fully responsive, hosted on hosting provided by you or, alternatively, suggested by Differens, but owned by you, https, security compliant with wordfence plug-in.

Security compliance: the website will be equipped with a wordfence plugin, server security is the responsibility of the hosting service.

We strongly recommend that you provide a security certificate (https) which Differens will implement.

Gdpr compliancy:

- Privacy and cookie policy provided by you, or alternatively implemented by Differens through third-party apps (iubenda) under the conditions set out below as for the cookie banner.
- Third-party cookie banner provided by Differens for the first year from online publication, at the end of the first year, the Client may opt for the transfer to its own ownership or maintenance by Differens at a monthly cost of 19.00 Euros

3. Development of the administrative platform (member's area back-end)

Features as per your documentation.

Development activities:

- Platform installation and configuration
- User and role management
- Registration and validation Members
- Members management
- Events & Meetings Registration:
- Management of News, Events, Meetings, Projects
- Document repository
- Integration with a calendar
- Dashboard Admins
- Dashboard Members
- Various forms and Notifications
- Front-end creation with dynamic management of: News & Events, Meetings, Outcome, Partners
- Deployment of Project
- Production times:

FRONT END: 15 working days from the approval of the offer and supply of all materials by the Customer

BACK END: 30 working days from the approval of the offer and supply of all materials by the Customer

4. Commercial Offer

Our best offer: €6,200.00 + VAT

Invoicing and payment methods: bank transfer 30 days at the end of the current month from invoice date.

For confirmation, _____

The Client

Differens Srl



-GENERAL CONDITIONS

1. Confidentiality:

Differens Srl, aware of the professional responsibility created by the relationship with the Customer, undertakes on behalf of its staff not to provide third parties with any news concerning the activities covered by this offer or information it may possess. The above obligations will remain in force for the entire duration of the assignment and for the six months following the end of the same.

2. Treatment of personal data:

DIFFERENS s.r.l., during the data processing which it becomes aware of in the performance of the Services provided and expressly indicated by the Customer, as personal data pursuant to European Reg. 2016/679, it undertakes to observe and to have its employees, employees of the subsidiaries and subsidiaries, as well as any subcontractors, the provisions of the European Regulation 2016/679 and subsequent amendments. Personal data must be delivered to DIFFERENS s.r.l. by drawing up a specific delivery note, which includes the Customer's declaration confirming the fulfillment of any obligations on the part of the Data Controller relating to the data to be processed (e.g. Notification to the Guarantor and relative authorization) and the successful sending of the information to the concerned, with large indemnity to DIFFERENS s.r.l. in relation to these obligations.

3. Force Majeure:

DIFFERENS srl, will not be responsible for non-performance or delay in performance due to unforeseeable circumstances or force majeure such as, indicatively: bans, restrictions or orders from public authorities, war or its consequences, riots, strikes, natural disasters, and so on.

4. Limits of liability:

Without prejudice to the application of the mandatory provisions of the law, the maximum limit of liability of DIFFERENS s.r.l., for damages of any kind resulting from any failure to fulfill the obligations assumed in the context of this offer, or in any case connected to the use of the Product/Service object of the offer itself, will be equal to the amount actually paid by the Customer in the month preceding the date, by way of consideration. DIFFERENS s.r.l. will not be responsible in any case for the Customer's lost earnings or for any claim made by third parties against the Customer. Any complaint relating to any defects or malfunctions of the Product/Service covered by this offer must be sent to DIFFERENS s.r.l., in writing, under penalty of forfeiture, no later than eight working days from the date on which the problem occurs.

5. Warranty:

Without prejudice to any mandatory limits established by law, DIFFERENS s.r.l. undertakes to intervene as soon as possible in the event of any malfunctions due to non-compliance of the Software or service created with respect to the technical specifications for a maximum period of twelve months from the date of delivery of the Product/Service to the Customer. Beyond this period DIFFERENS s.r.l. assumes only the burden of carrying out the intervention in a reasonable time according to the complexity of the intervention itself.

6. Penalties:

Any penalties that may be agreed between the parties for delayed delivery or for other reasons may not cumulatively exceed 10% of the fees paid by the Customer for the activities in question and envisaged in the ambit of this agreement.

7. Industrial and/or intellectual property:

In order to perform the services provided for by this contract, DIFFERENS s.r.l. will use its own Know-How and professional skills to various extents on which the Customer will not have and will not obtain any industrial or intellectual property right or use for any reason. DIFFERENS s.r.l. will have the rights to freely reuse for any purpose it deems necessary, any knowledge or experience, including programming tools, skills and techniques obtained or resulting from the execution of this contract, as well as retain a copy of the software and related documentation for internal use or for demonstration purposes, with the exclusion of the right to allow its use to third parties. It is expressly agreed between the parties that DIFFERENS s.r.l. remains totally free to perform professional services similar to those covered by this contract in favor of any third party even if the latter were a competitor of the Customer to whom this contract is directed.

8. Copyright:

The copyright on the Website or software or digital service and on each part of it created by the Supplier, including images and graphic creations, belongs exclusively to the Supplier. With the payment of the entire sum due as consideration for the execution of the work DIFFERENS srl according to the provisions of this contract, the Supplier grants the Customer the full rights of economic use on the aforementioned materials.

9. Mutual guarantees: _

The Customer assumes full responsibility for the accuracy and truthfulness of the data communicated to the Supplier and ensures that all the information provided, such as texts, graphics, data, images, sounds, are in his legitimate availability, and do not violate any right copyright, trademark, patent or other right of any third party under statute, contract or custom. The Customer will hold the Supplier harmless for any claim for indemnity and/or compensation claimed by third parties as a result of the publication of the aforementioned materials. The Customer is also required to inquire about the current legislation on Privacy and IT Law in order to provide all the legal and contractual data to be included on the website according to Italian law. The Supplier is not liable for failure to enter the aforementioned data. The Supplier ensures that all information not coming from the Customer used for the creation of the Site is in its legitimate availability, and does not violate any copyright, trademark, patent or other right of third parties deriving from law, contract or custom. The Supplier will hold the Customer harmless for any claim for indemnity and/or compensation claimed by third parties as a result of the publication of the aforementioned materials.

10. Staff distraction:

For the entire duration of this contract and for the two years following its expiry, termination or withdrawal, the Customer cannot establish any form of collaboration with the DIFFERENS s.r.l. staff, which has been employed in the activity inherent in this contract, whether employed or not, without the prior written authorization of DIFFERENS s.r.l. In the event of violation of the provisions of the previous paragraph, the hiring party shall pay the other a penalty equal to twelve (12) months of the salary paid by the latter to the employee before hiring in violation of the provisions of this clause, except for compensation for greater damage.

11. Payments _:

With the exception of what is expressly indicated in the Financial requests paragraph, the payments envisaged in the context of this offer are understood to be within 30 days of the invoice date by bank transfer with a fixed value date for the beneficiary. In the event that the expiry day corresponds to a public holiday or a Monday, the payment can be made on the first working day before. Any delays in the execution of these payments by the Customer will give rise, without the need for prior formal notice, to the application of interest equal to the EURIBOR in force from time to time, increased by five percentage points. This interest will be calculated on the basis of the days of delay. In case of non-payment of development will be suspended until payment of the missing amounts. It is understood that the ownership and rights to use the platform remain the property of the supplier until full payment of the sums provided for in this contract. Payments cannot under any circumstances be withheld or delayed for reasons of dispute relating to the Services provided by DIFFERENS s.r.l.

12. Tax charges:

Tax charges, unless otherwise specified, are not included in the price and are charged to the customer.

13. Express termination clause:

In the event of non-fulfilment by the Customer, even with respect to only one of the obligations referred to in the articles Treatment of personal data, Distraction of personnel, Payments, DIFFERENS s.r.l. may declare this contract terminated pursuant to and by effect of art. 1456 of the Civil Code, without prejudice to the right to remuneration for all services already performed and to compensation for damages.

14. Exclusive competent court:

For any controversy relating to the validity, interpretation, execution and eventual termination of the contract arising from the acceptance of this offer, the Court of Ancona will have exclusive jurisdiction.

15. Validity of the offer:

This offer is valid for 30 calendar days. Expired this date DIFFERENS s.r.l. reserves the right to confirm the terms of the offer or to modify them.

For confirmation _
THE CUSTOMER

Differens Srl



INFORMATION ON THE PROCESSING OF PERSONAL DATA in application of articles 13 and 14 of the "REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 April 2016 concerning the protection of individuals with regard to the processing of personal data, as well as the free movement of such data and repealing Directive 95/46/EC (General Data Protection Regulation)"

Contact details

The data controller is Differens Srl, with legal and operational headquarters in via Caduti del Lavoro, 4, 60131 – Ancona, telephone number [+39] 071 2901273, VAT number 02359160427, email addresses info@differens.it and certified email differens@pec.it

How we use personal data and what condition makes the processing lawful How long we keep your data
The Data Controller processes personal identification data, in particular, name, surname, tax code, p. vat, email, address, telephone number - hereinafter, "personal data" or even "data".

Personal data is processed without express consent for the following service purposes:

- conclude the contracts for the services of the Owner;
- fulfill the pre-contractual, contractual and tax obligations deriving from existing relationships;
- fulfill the obligations established by law, by a regulation, by the discipline of intellectual property, by community legislation or by an order of the Authority;
- exercise the rights of the Owner, for example the right of defense in court.
- purposes deriving from the legitimate interest of the Data Controller (art. 6(1) GDPR), also for self-promotion to its customers through automated contact methods (e.g. sms, e-mail and mes