



Satellite and Terrestrial Network for 5G

D1.4

Project Website and Collaborative Platform Description

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List of Acronyms

EC	European Commission
GA	General Assembly
SaT5G	Satellite and Terrestrial Network for 5G
WP	Work Package

Executive Summary

This deliverable provides an overview of the major functionalities of both the collaborative internal project workspace and the project website.

The project workspace is a collaborative platform used internally from the project partners to allow them to communicate, plan and participate in online meetings, edit/share/control the different deliverables to be produced during the project lifetime, etc. It has been created using an online platform called Projectplace.

The SaT5G public website is a platform for dissemination of the project concept and results to external audiences.

1 Introduction

This document provides an overview of both the SaT5G collaborative tool and the public website of the project explaining their major functionalities and characteristics.

Section 2 focuses on the project workspace. This dedicated workspace allows internal communication among members of the consortium, it stores the different documents generated during the project lifetime and it includes a teleconference tool for performing online meetings. This section presents the main features of the workspace.

Section 3 describes the structure and contents of the SaT5G public website that can be accessed at <http://sat5g-project.eu/>. This website includes general information about the project concept, structure and schedule, information regarding the different partners and news related to the project.

Both the internal project workspace and the public website will be continually updated with new content following the project progress.

2 SaT5G Collaborative Platform

This section presents the SaT5G collaborative workspace, which has been set up using an online collaborative platform called Projectplace [1]. Among others, this tool allows project members to communicate between each other, manage the preparation of deliverables, storage all the different documentation, and plan and participate in online meetings.

2.1 *Joining the project workspace*

The Project Manager will send an invite to every member of the project to join the project workspace on Projectplace. Once invited, the project members will receive an email including a link that prompts them to create an account on Projectplace.

Once signed up, the project members will be able to access the SaT5G workspace.

2.2 *Overview of SaT5G Workspace*

Once a user logs into the SaT5G workspace, he/she will see the *Overview* section presented in Figure 2-1. The *Overview* section contains the following information about the project:

- A short description of the project and its logo;
- A section that shows the next project milestone that is due. The project milestones are highlighted in the overall project plan;
- The *Dashboard* section that provides an overview of the overdue activities (if any);
- The project members;
- The *Recent conversations* section that shows the messages that have been exchanged between the project members in reverse chronological order;
- The *Ongoing activities* section that lists the activities that have started according to the project plan;
- The *Scheduled work* section which shows a list of upcoming meetings and events as per the project calendar.

From the top ribbon, project members can select to go to the following pages:

- *Conversations*: here members can view all the conversations going on.
- *Plan*: this includes the project Gantt chart;
- *Boards*: here members can create boards with activities that need to be completed, assign actions to members and mark completed activities;
- *Documents*: this section facilitates the document sharing of the project;
- *Meetings*: this includes the project calendar and marks all the scheduled meetings;
- *Issues*: through this section the members can log issues with Projectplace so that their customer support team can pick them up;
- *Members*: this includes the full list of the workspace members. The administrators can invite new members at any time;
- *Administration*: this includes information about the administrators.

In the following sub-sections some of these features are explored into more detail.

SaT5G - Satellite and Terrestrial Network for 5G

The introduction and global roll out of eMBB service within 5G raises coverage and network dimensioning issues in underserved and unserved areas, especially in low ARPU regions of emerging markets, and on mobile platforms (e.g. vessels and aircraft). Satcom systems are the only economic solution to address these scenarios provided that they are seamlessly integrated into the future 5G architecture and optimum efficiency is achieved via technological synergies between 5G mobile Expand

Milestones

Next milestone

- MS2 Preliminary design review
22 Nov

Means of verification: D2.1 and D2.2 deliverables

Go to plan

Dashboard

- 0 overdue activities
- 0 overdue cards
- 0 unconnected cards

Members

All members

Recent conversations

Comment and type @ to notify other people.

GP Georgia Pozioopoulou commented on: "All members
Please can you let me know this week who will be involved in the WP2.3 task so I can organise the first call
Thanks
Simon #WP2
#WP2.3"
4 Jul 17:00

Simon Watts posted: "All members
Please can you let me know this week who will be involved in the WP2.3 task so I can organise the first call
Thanks
Simon #WP2
#WP2.3"
4 Jul 16:57

Simon Watts commented on: "online!"

All posts

Ongoing activities

Activities	Board	Cards	Due date ↑
3.5) WP3.5 Satellite and 3GPP NextGen Reference Interface	No board	0/0	Due in 354 days
3.4) WP3.4 End-to-end service delivery	No board	0/0	Due in 354 days
3.3) WP3.3 Caching and Multicast architectures	No board	0/0	Due in 354 days
3.2) WP3.2 Backhaul architectures	No board	0/0	Due in 354 days
2.4) WP2.4 Technical requirements for selected scenarios	No board	0/0	Due in 717 days
2.3) WP2.3 Operational requirements for selected scenarios	No board	0/0	Due in 717 days
2.2) WP2.2 Business requirements for selected scenarios	No board	0/0	Due in 717 days
6.3) WP6.3 Dissemination	No board	0/0	Due in 840 days
6.2) WP6.2 Standardisation activities (3GPP/ETSI)	No board	0/0	Due in 840 days
6.1) WP6.1 Satellite and 5G roadmap	No board	0/0	Due in 840 days

Scheduled work

Name	Assignee	Due Date ↑
WP2.3 Coordination meeting	Simon Watts	Due in 5 days
WP2.3 Coordination meeting	Simon Watts	Due in 19 days
WP2.3 Coordination meeting	Simon Watts	Due in 33 days

Figure 2-1: SaT5G workspace Overview

2.3 Plan

The project Gantt chart has been inserted in this section and adapted to reflect the project start date as per the Grant Agreement.

Work packages are colour coded and project milestones have also been included.

Activities that have been completed are shown in light grey font such as WP2.1 and MS1 in the figure below.

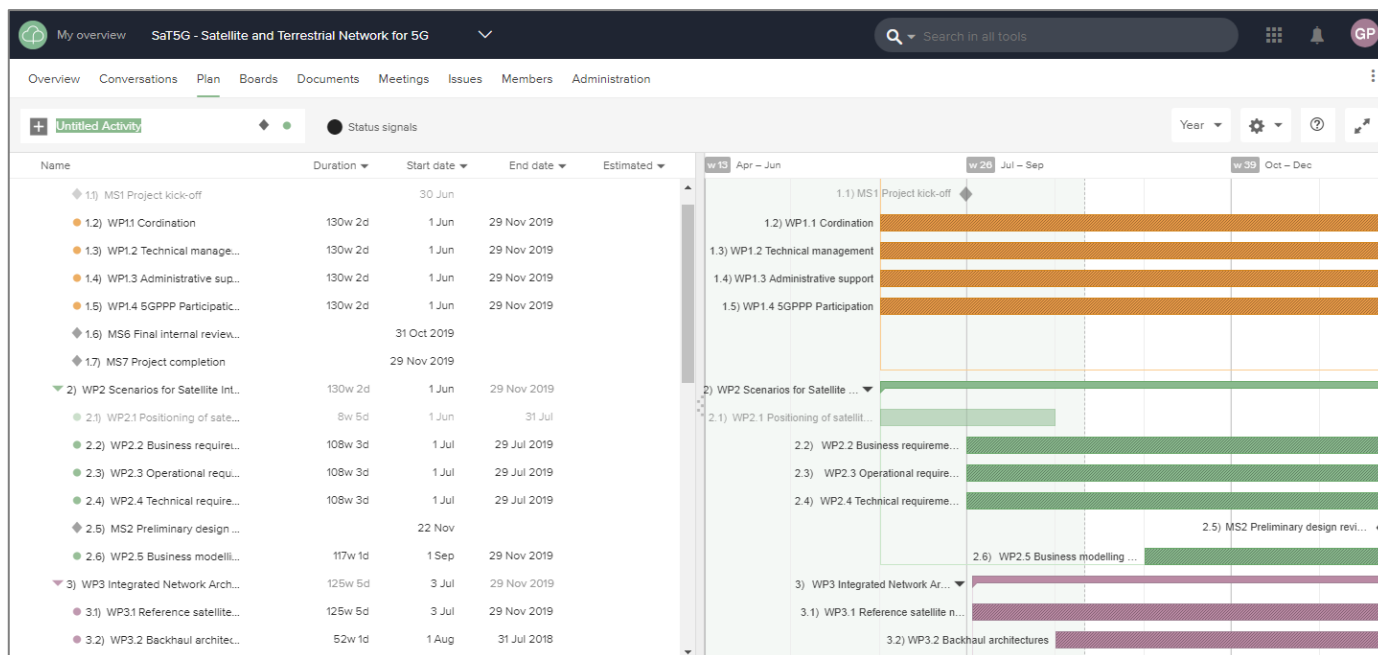


Figure 2-2: SaT5G plan in project workspace

2.4 Conversations

In *Conversations*, members can communicate with each other by informing, discussing or asking questions. All conversations are saved and available to access at any time by all other project members.

A user can, among others, add a post, attach documents, images, links and videos, comment on each other's post etc.

In order to communicate more efficiently, the following recommendations should be considered by the project members:

- In order to ensure that a project member or group receives a notification with your message, use @ followed by the name of the corresponding member or group (after typing the @ and one or two letters you will be offered a list of likely addressees);
- Use # followed by a word to tag a word in a discussion. By tagging words it will be easy to filter and search for relevant information in the *Conversations* section.

Note that in the *Conversations* section, from the filtering option at the top left (Figure 2-3) the members can:

- Display all messages from specific project members; or
- Display all messages with specific tags (such as WP2).

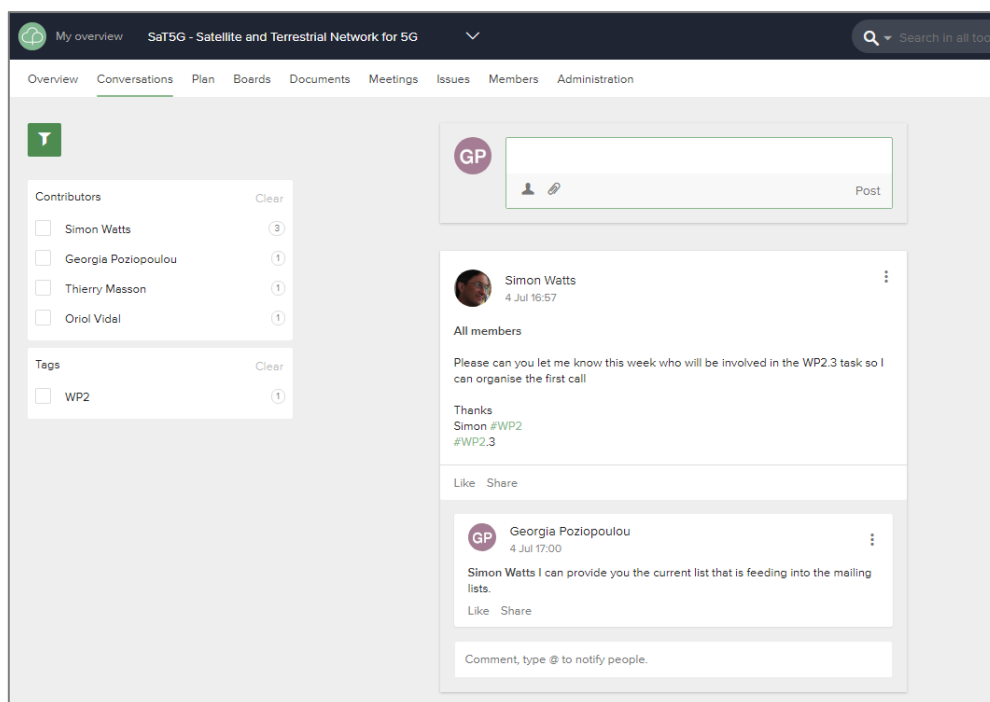


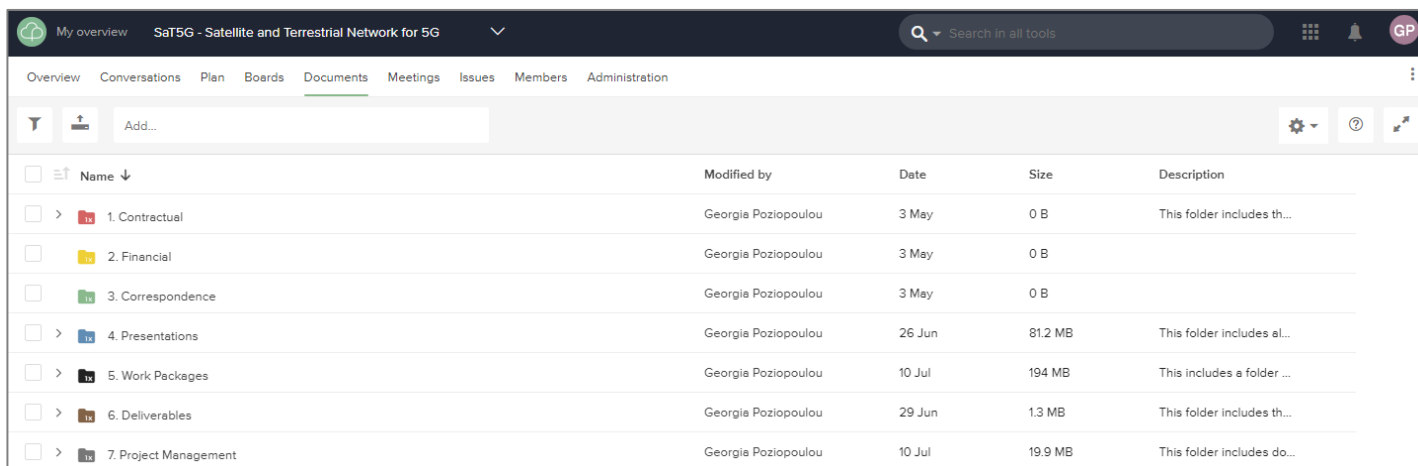
Figure 2-3: SaT5G Conversations in project workspace

2.5 Document Management

The *Documents* section allows the storage of all documentation generated during the project lifetime. All partners that have been invited to the project workspace have full access to all the documents saved here, although access rules can be set up if needed.

The following folder structure has been prepared:

- **1. Contractual:** This folder includes the fully executed version of the Consortium and Grant Agreement. Any further changes to contractual documents will be saved here.
- **2. Financial:** This folder will include all budget related information including partner payment information.
- **3. Correspondence:** This folder contains the contact details of all project members as well as important communication from the European Commission (EC).
- **4. Presentations:** This folder stores all project presentations that have been used internally and externally in General Assembly (GA) meetings, conferences and other dissemination activities. For each event a separate folder is created in which the presentation and other related material from the event (such as photos) are saved.
- **5. Work Packages:** This includes a folder for every work package (WP) where all the working versions of deliverables, internal documents, background/supporting material and WP action registers are saved. The WP folder structure and organisation is a responsibility of the WP leader. Task leaders may also create subfolders within their task (e.g. ...Background data).
- **6. Deliverables:** Stores all SaT5G deliverables submitted to the EC.
- **7. Project Management:** This folder contains various project management documents such as the SaT5G document templates for deliverables, internal reports, presentations etc., meeting agendas and minutes of meetings, the SaT5G action register, risk register and internal report register.



The screenshot shows a web interface for 'SaT5G - Satellite and Terrestrial Network for 5G'. The top navigation bar includes 'My overview', 'SaT5G - Satellite and Terrestrial Network for 5G', a search bar, and user profile 'GP'. Below the navigation bar, there are tabs for 'Overview', 'Conversations', 'Plan', 'Boards', 'Documents', 'Meetings', 'Issues', 'Members', and 'Administration'. The 'Documents' tab is active, displaying a table of document folders.

<input type="checkbox"/>	Name ↓	Modified by	Date	Size	Description
<input type="checkbox"/>	> 1. Contractual	Georgia Poziopoulou	3 May	0 B	This folder includes th...
<input type="checkbox"/>	2. Financial	Georgia Poziopoulou	3 May	0 B	
<input type="checkbox"/>	3. Correspondence	Georgia Poziopoulou	3 May	0 B	
<input type="checkbox"/>	> 4. Presentations	Georgia Poziopoulou	26 Jun	81.2 MB	This folder includes a l...
<input type="checkbox"/>	> 5. Work Packages	Georgia Poziopoulou	10 Jul	194 MB	This includes a folder ...
<input type="checkbox"/>	> 6. Deliverables	Georgia Poziopoulou	29 Jun	1.3 MB	This folder includes th...
<input type="checkbox"/>	> 7. Project Management	Georgia Poziopoulou	10 Jul	19.9 MB	This folder includes do...

Figure 2-4: Document structure in the SaT5G workspace

The project workspace provides the capability of managing different versions of a document which is under preparation. When a contributor or the editor is going to update a document the following procedure shall be carried out:

- First, the document must be open and locked in the workspace;
- The document is edited, applying all changes in change tracking mode;
- The document is uploaded to the workspace;
- The document is unlocked again in the workspace.

If a user is sure that nobody is going to modify a document at the same time, he/she can also download the last version, incorporate his/her changes and then upload the new version by clicking on the “*New Version*” tab of the corresponding document.

In order to work with documents it is better to download the Documents Manager Plug-in available at: <https://www.projectplace.com/features/document-management-add-on/>.

2.6 Planning a Meeting

Through the workspace, a project member can suggest different dates and times in order to know which date suits most of the intended participants before setting up a meeting.

To use this capability the user should:

- Go to the *Meetings* section
- Click on the *Find a Meeting Time* tab
- Complete the meeting information including all the invitees.
- Select a set of candidate times.
- Click on *Send*

Then, all invitees will receive an email to select which times suits them best. The organizer can see the invitees' preferences at any time by clicking on the corresponding meeting details available at the *Meetings* section. This is similar to third party websites such as www.doodle.com.

It is also possible to immediately select a meeting time by clicking on “Book meeting” as shown in the figure below.

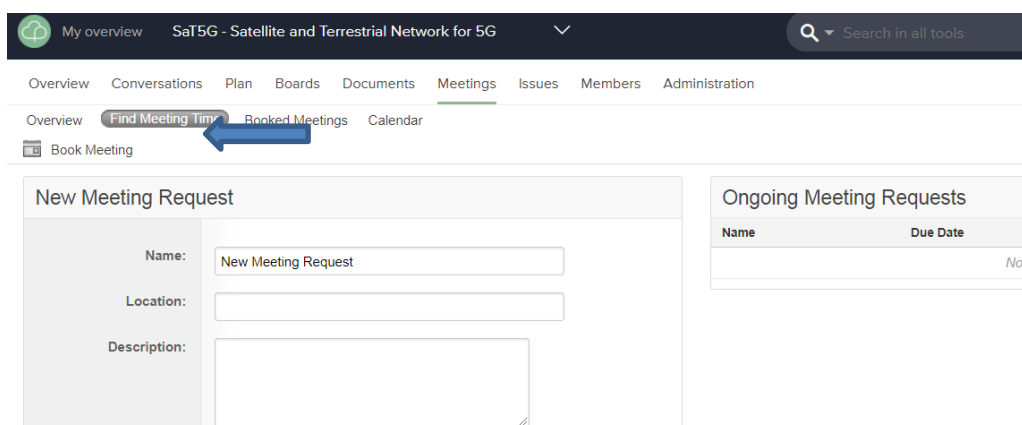


Figure 2-5: Jumping straight to book meeting

Some project meetings are going to be online. This feature of the workspace allows people in different locations to participate in a teleconference. It includes the possibility of sharing the desktop; communicate with audio and video, chat, share files, etc. The person responsible for the meeting should go to the “*Online Meeting*” tab in the top bar and then select “*Start Online Meeting*”.

This requires a small app to host the desktop session, subsequent meetings also download a small file that contains the specific meeting ID and times.

This person will get then a session number for the meeting which should communicate to all other participants either via e-mail, via message or by sending a notification/update with the meeting invitation.

If everyone can use VoIP then this can be selected by the host, otherwise everyone should use a phone to dial in as the system does not bridge between phone and VoIP. There are different telephone numbers per country with local rates, these numbers are always the same and are available in the online meeting platform under the tab called “*Telephone Conference*”. Some of these telephone numbers are the following:

- United Kingdom +44-(0)-330-6060-525
- Belgium +32-4-244-10-80
- France +33-(0)-7-5550-0367
- Germany +49-69-120-065-0762
- Netherlands +31-(0)-20-322-3040

For joining an online session, the user should have received a session number from the member who created the online meeting. For the telephone conference, the user should call to his/her country's number and introduce the session number as well.

The member who created the online session can control it, changing for example from which participant is the desktop shared.

Figure 2-6 below illustrates the screen that appears when joining an online meeting detailing its main features.

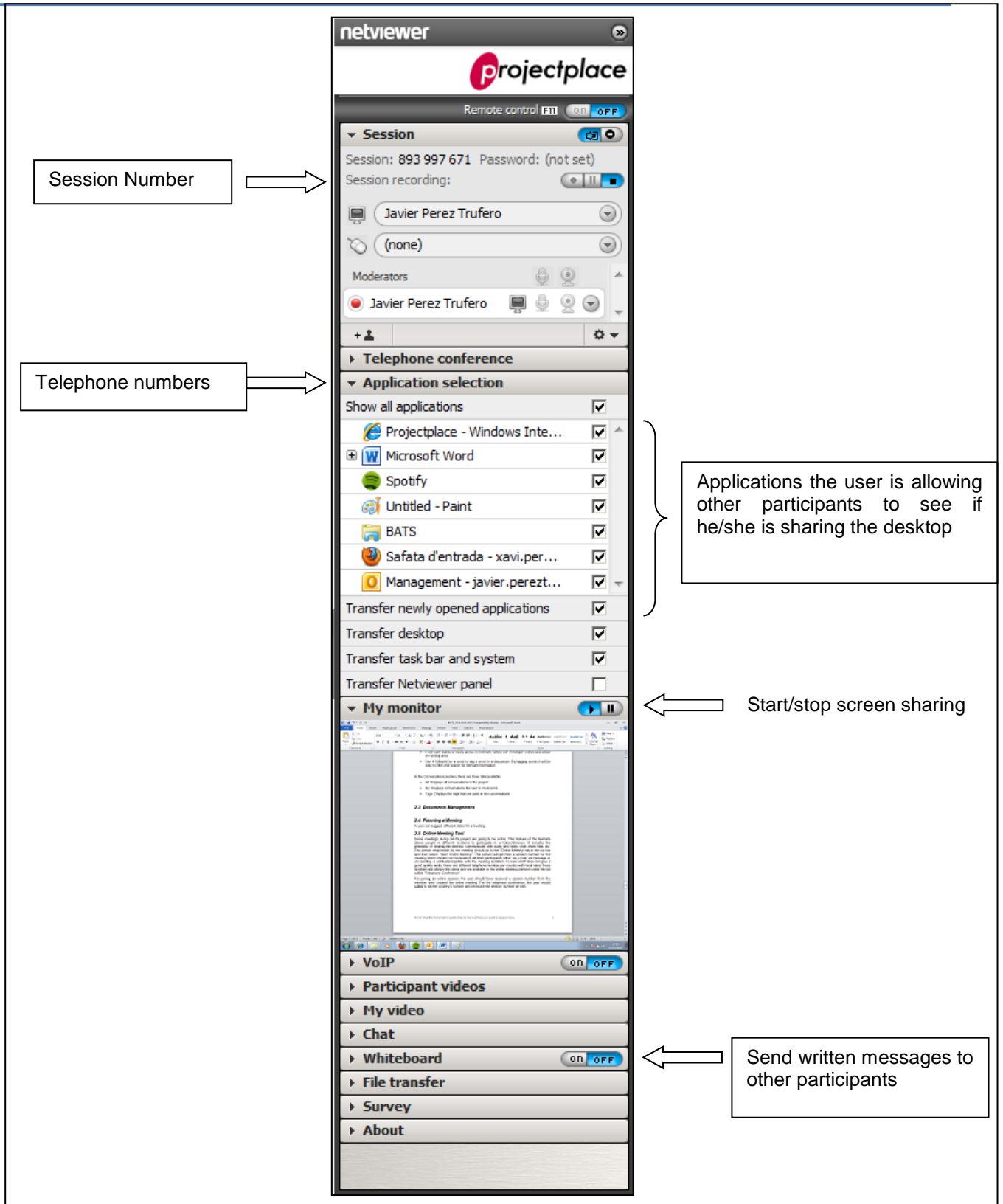


Figure 2-6: Online meeting tool

3 SaT5G Website

This section describes the main structure of the SaT5G public website, which is accessible at <http://sat5g-project.eu/>.

Figure 3-1 shows a screenshot of the website's home page concept. The home page presents the summary of the project along with a *Twitter feed* and *Useful links* section. The project Twitter account is currently being set up and will be displayed at the right hand side as shown in the figure below. The *Useful links* section will be updated with additional links as the project progresses such as the 5GIC website, the project LinkedIn group etc.



Figure 3-1: SaT5G website home page concept

The visitors can navigate to other pages of the website from the *Top Menu*. The structure of the website is described below:

- **About:** In this section the visitors can find detailed information about the project. This information has been classified in different categories:
 - *SaT5G ID-Card:* A screenshot of this page is presented in Figure 3-2. The ID-Card presents some basic information about the project such as the project acronym, title, programme, call and topic information, type of action, grant agreement number, duration, start date and information for the Project Manager and Technical Manager.
 - *Concept:* This section presents the technical challenges that the project is aiming to overcome as well as the 6 research pillars and 3 verticals that the project focuses on.

- **Objectives:** As shown in Figure 3-3, the 6 project objectives are presented in this section.
- **Project Plan:** The WP structure and inter-work package relationships are presented in this section.

Acronym	SaT5G
Title	Satellite and Terrestrial Network for 5G
Programme	H2020
Call	H2020-ICT-2016-2
Topic	ICT-7-2017 5G PPP Research and Validation of critical technologies and systems
Type of Action	Research and Innovation Action (RIA)
Grant Agreement No.	761413
Duration	30 months
Start date	June 2017
Project Manager	Georgia Pozlopoulou - Avanti Communications
Technical Manager	Nicolas Chuberre - Thales Alenia Space France

- SaT5G ID-Card
- Concept
- Objectives
- Project Plan

Figure 3-2: SaT5G ID-Card page concept

Objectives

The project vision is to develop a cost effective "plug and play" satcom solution for 5G to enable telcos and network vendors to accelerate 5G deployment across all geographies and at the same time create new and growing market opportunities for satcom industry stakeholders.

The six principal project objectives are:

- 1 Leverage relevant on going 5G and satellite research activities to assess and define solutions integrating satellite into the 5G network architecture;
- 2 Develop the commercial value propositions for satellite based network solutions for 5G;
- 3 Define and develop key technical enablers for the identified research challenges;
- 4 Validate key technical enablers in a lab test environment;
- 5 Demonstrate selected features and use cases;
- 6 Contribute to the standardisation at 3rd Generation Partnership Project (3GPP) and European Telecommunications Standards Institute (ETSI) of the features enabling the integration of satcom solutions in 5G.

Useful links

- Horizon 2020
- Avanti Communications

Figure 3-3: SaT5G Objectives page concept

- **Partners:** This section identifies the 16 partners participating in the SaT5G consortium. When the user clicks on the logo of each partner, he/she is redirected to the partner's official website.

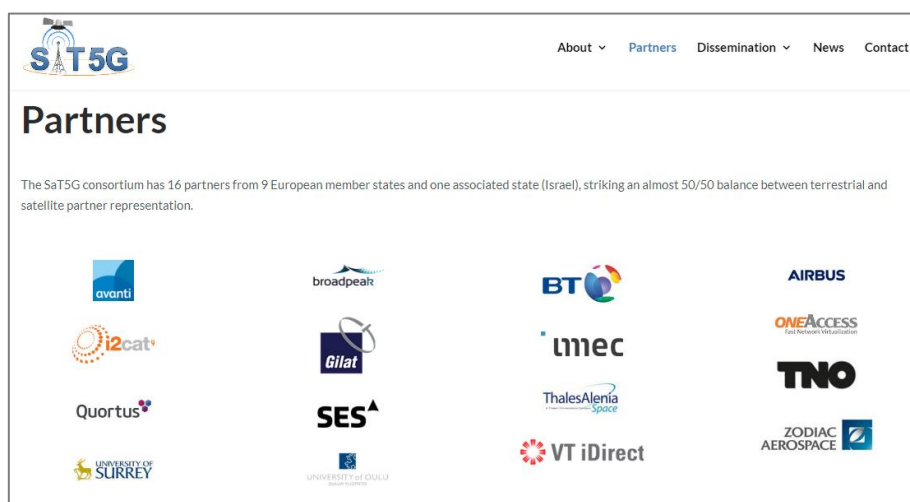


Figure 3-4: SaT5G Partners page concept

- **Dissemination:** This section distinguishes between three different types of dissemination material:
 - *Public Deliverables:* In this section the visitor can find the list of public project deliverables as shown in Figure 3-5. As public deliverables are approved they will be available in this section for download.
 - *Standardisation:* This section will include links to contributions that the project has provided in various standardisation bodies as per the D6.2 Standardisation Action Plan.
 - *Publications and Conferences:* The visitor will be able to find a list of presentations that the project has used in conferences as well as publications that are available for access along with links where available.

Deliverable number	Deliverable name	Delivery date
D2.2	Business, Operational and Technical Requirements for Satellite eMBB	July 2019
D2.3	Business Modelling and Techno-economic Analysis of Satellite eMBB	November 2019
D3.1	Integrated SaT5G General Network Architecture	November 2019
D3.2	Integrated SaT5G Detail Network Architecture	July 2018
D3.3	Integral End-to-End Service Delivery Architecture	July 2018
D3.4	Satellite and 3GPP NextGen Reference Interface	July 2018
D4.1	Virtualisation of Satcom Components – Analysis, Design and Proof of Concepts	August 2019
D4.2	Integrated Network Management – Analysis, Design and Proof of Concepts	August 2019

Figure 3-5: SaT5G Public Deliverables page concept

- News: This section has a list of all news related to the project. Information is presented as blog posts. By clicking to the “*Read more*” button located below each news description, visitors can access a dedicated article with the full text and related photographs.
- Contact: In this section, a visitor interested in knowing more about the project is encouraged to get in touch by sending an email to info@sat5g-project.eu. This is a mailing list that includes various project partners that will filter the emails received and respond appropriately.

4 Conclusions

This document provided an overview of the SaT5G workspace and public website. The functionalities and contents of both platforms have been described. Specifically, for the project workspace, some guidance on how to use different features has also been provided. Both platforms will be updated continuously during the project lifetime.

5 References

[1] "Projectplace," [Online]. Available: <http://www.projectplace.com>.