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Website and dissemination tools

D6.2

ORCHIDE

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Change Records

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1 Introduction

1.1 Scope and purpose

The following document demonstrates the tools developed for dissemination and communication purposes. The website is the main tool developed and intended for dissemination activities, hosting regular progress updates and outputs, while the social media platform are used to spread the project key messages and direct readers to the website for more information.

1.2 Applicable documents

The documents listed below are applicable to this document.

Internal code / DRL	Reference	Issue	Title	Location of record
AD01	HORIZON- CL4-2022- SPACE-01-11	01	ORCHIDE Proposal	

1.3 Reference documents

The reference documents are given below.

Internal code / DRL	Reference	Issue	Title	Location of record
RD1				

1.4 Definitions and Acronyms

Below, the acronyms used in this document:

Acronym	Definition		
CI	Continuous Integration		
CD	Continuous Distribution		
HTML	HyperText Markup Language		
KPI	Key Performance Indicator		



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1.5 Document outline

The deliverable document is split in the following sections:

- Section 1: The current section describing the document structure, purpose and related documents.
- **Section 2**: Explains the purpose the project website serves, explains the site architecture, the content development and publishing pipelines, domain name, analytics gathering capabilities using Google Analytics and website structure.
- Section 3: Displays the project logo and colors used for the digital identity.
- **Section 4**: Expands on the social media presence for the project, showing captures of all the social media profiles.
- Section 5: The document conclusion, recapping the document objectives.



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2 Project website

The project website is a vital dissemination and communication tool. The website will be the go-to page for information about the project. It will contain the latest detailed updates about the project, details about the project, blogposts from the project partners.

2.1 Website content management and hosting

The project website has been built using modern documentation building practices used by programming projects. The website content is created using Markdown files stored on a shared GitLab repository hosted on the UNSTPB instance. Having the code stored in this manner makes it easy for all members to access, edit, and offer feedback to the contributions added, decreasing the friction between content creation and content publication.

The Markdown files are converted to HTML and JavaScript using the Docusaurus¹ solution. Site generation is done once a modification is added to the content, enabling rapid iteration and publication of the content. Continuous Integration/Continuous Deployment tools native to GitLab have been chosen to deploy the site content automatically to the hosting platform, giving all the users the power to make changes without depending on a system administrator to apply the changes to the production environment.

The UNSTPB GitLab instance hosts the website content. It is hosted using The GitLab Pages implementation. Since the GitLab Pages is hosted by one of the partners, this bypasses the issue of hosting cost and permanence for the platform by being integrated into an already existing product.

2.2 Domain name

The https://orchide-project.eu domain name has been registered for the project website. A short and distinctive name has been chosen for the website so it can be easily shared during communication and dissemination actions.

2.3 Analytics and KPIs

A Google Analytics profile has been created to monitor the website engagement and traffic. The analytics dashboards will help measure traffic to the site and aid in the evaluation of KPIs. The KPIs will be monitored regularly and changes in the dissemination and communication plans may occur based on the impact of the activities.

Figure 1: Google Analytics dashboard represents the number of users who have visited the ORCHIDE project website in the last 30 minutes.

¹ Docusaurus - https://docusaurus.io/



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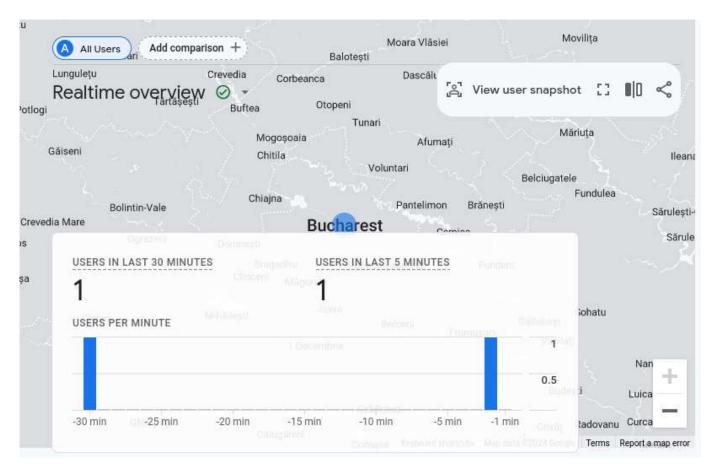


Figure 1: Google Analytics dashboard

2.4 Website content

The website structure is split into areas of concern. Spaces have been created for dissemination activities, press releases, project description and blog posts. The following subsection describes the different pages created and displays their current content.

2.4.1 Website header

The header is a permanent element which is a quick access point for moving between the different site sections. It contains the project logo and name together with links to the following sections:

- **Project**: A short description of the project goals.
- Consortium: A list of the project consortium made up of Thales Alenia Space, Tarides Thales Romania, KP Labs and UNSTPB.
- Publications: The area where the project outputs such as published articles or public deliverables are listed.
- **Latest news**: The blog section of the website where regular updates are uploaded by the partners. Milestones, deliverable, news and interesting project developments are uploaded to this page.



Figure 2: ORCHIDE website top bar



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Website footer 2.4.2

The website footer is found on all ORCHIDE webpages. It contains links to all the social media platforms used for ORCHIDE communication and dissemination activities.

As required by the Grant Agreement, the funding message is posted on the website. The EU template was used to highlight that part of the project funding was received from the European Union.



Figure 3: ORCHIDE website footer

2.4.3 Landing page

The landing page is the greeting page when a person accesses the site. It displays the project name together with the two main project objectives.

ORCHIDE Orchestration of Reliable Computing on Heterogeneous Infrastructures Deployed at the Edge



Edge Orchestration

The ORCHIDE project will define and develop a Unikernel based solution allowing safe and secure deployment and orchestration within Earth Observation satellites.





MEO Missions

The ORCHIDE solution will enable scalable adaptable missions for Meteo Environment Ocean (MEO) & Observation/Reconnaissance missions.

Figure 4: ORCHIDE website landing page



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2.4.4 Consortium page

The consortium webpage stores a brief description for consortium partner. This page will be used for communication purposes, to have an easy reference page for the partners logos and history.

Consortium

THALES ALENIA SPACE

skills, expertise, and cultures, Thales Alenia Space delivers cost-effective solutions for telecommunications, navigation, Earth observation, environmental management, exploration, science, and orbital infrastructures. Governments and private industry alike count on Thales Alenia Space to design satellite-based systems that provide anytime, anywhere connections and positioning, monitor our planet, enhance management of its resources, and explore our Solar System and beyond. Thales Alenia Space sees space as a new horizon, helping build a better, more sustainable life on Earth. A joint venture between Thales (67%) and Leonardo (33%), Thales Alenia Space also teams up with Telespazio to form the parent companies' Space Alliance, which offers a complete range of services. Thales Alenia Space posted consolidated revenues of

approximately €2.2 billion in 2023 and has around 8,600 employees in

10 countries with 17 sites in Europe and a plant in the US.

Drawing on over 40 years of experience and a unique combination of

THALES ALENIA SPACE

THALES ROMANIA

KP LABS

TARIDES

UNIVERSITY POLITEHNICA OF BUCHAREST



THALES ROMANIA



Thales has been present in Romania for more than 20 years. Over the years, our company has grown and diversified its portfolio of activities, and today we are a central hub for software development and engineering, serving customers in all our major markets: Defence & Security, Aerospace, Space, and Digital Identity & Security. With our local experts, Thales has unparalleled capability to design and deploy equipment, systems and services to meet the most complex requirements.

KP LABS



KP Labs is an innovative New Space company based in Poland. In 2016, a group of engineers and scientists associated with the Silesian University of Technology in Gliwice decided to turn their passion into reality and start a company that would combine science with business. Our company is a team of new technology enthusiasts who do not think that the sky is the limit.

Figure 5: ORCHIDE website consortium page

2.4.5 Project description page

The project description page aims to highlight the innovations proposed by the ORCHIDE project. It acts as a short summary of the project objectives and the areas which will be leveraged to bring forward the innovations.



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Project Description

Orchestration Unikernels

The **ORCHIDE** (**O**rchestration of **Re**liable **C**omputing on **H**eterogeneous **I**nfrastructures **D**eployed at the **E**dge) project aims to allow a safe and secure deployment and orchestration of image processing applications within Earth Observation Satellites, regardless of the hardware processing resources and of the hosting software execution platform.

Payloads for Earth Observation missions have become more complex, requiring on-board processing. The solutions currently allowing deployment and orchestration of applications at the edge rely on standard technologies used in the cloud computing area, but there is a need to adapt them for edge computing contexts, such as space systems.

The ORCHIDE project develops a generic framework for orchestration, leveraging Unikernel solutions to provide easier acces to space with a simple application that can be updated or modified during the lifetime of the satellite.

Orchestration

The project aims to use existing orchestration systems, adapting them for usage on lightweight, remote systems, which can even lose connection to the central machines. It will also integrate these solutions with existing Unikernel solutions, which have been identified as a key technology, due to the intrinsic characteristics, such as isolation through virtualisation, lightweight software payloads and security.

Unikernels

Unikernels are an emerging technology for building lightweight and secure applications tailored to the specific requirements of the deployment environment. The build on the foundation of virtualisation technology, which allows multiple operating systems to run on the same hardware without any overhead, but take this technology one step forward by combining application code with operating systems code into a single, self-contained unit that is optimised for performance, security, and resource efficiency.

Unikernels achieve this by stripping down the operating system to only the necessary components required by the application, resulting in smaller and more efficient applications that are tailored to specific

Unikerneles are particularly useful for satellite applications, where resource efficiency and security are paramount.

Figure 6: ORHCIDE website project description page

2.4.6 Publications pages

Two pages have been created where the project outputs will be stored publicly. To offer transparency through the project implementation and to drive views to the site, the published scientific papers will be hosted on the project website.



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The project deliverables will also be hosted on the site to help other projects in their planning and dissemination, the ORCHIDE deliverables not marked as Sensitive will be published on the website in the deliverables section. Figure 7: ORCHIDE website deliverables page displays the deliverables page used for hosting the currently available deliverables on the website.

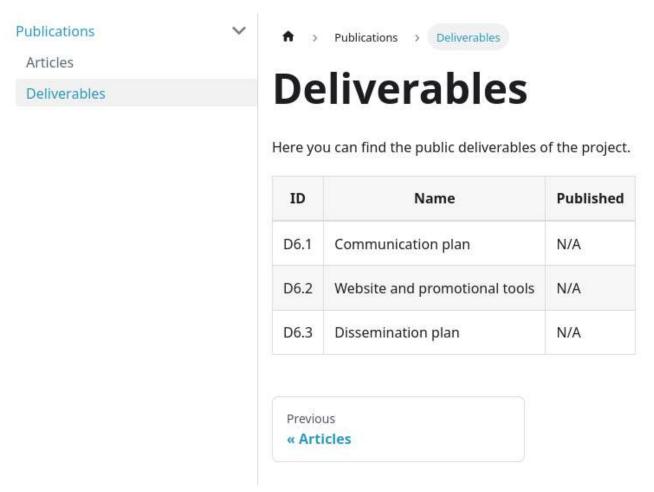


Figure 7: ORCHIDE website deliverables page

2.4.7 Blog area

A blog area has been integrated into the website to add a constantly updating area which interested parties can search for the project's progress.

The blog area will host event announcements, deliverable publishing, dissemination actions such as publishing milestone review results and iterative progress updates from the implementation teams when checkpoints have been achieved or interesting developments have happened.

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Recent posts

ORCHIDE Kickoff meeting

ORCHIDE Kickoff meeting

December 14, 2023 · One min read



During the 5th and 6th of December 2023 we held our kickoff meeting for the ORCHIDE Project at the Thales Alenia Space site located in Toulouse.

All of the parties in the project consortium participated in two days of discussions and knowledge sharing. Together we planned the next steps towards the development of the project.

It was a packed event which laid the groundwork for the project. Each partner presented their zone of expertise, and what value they will add to the project. Management activities have been planed, epics and stories have been charted and designs have been made for the ORCHIDED solution.

We are very excited to start building our solution and we will keep you informed through our blog!

Tags: kickoff orchide management

Figure 8: ORCHIDE project blog area

3 Project logo and digital identity

A project logo has been designed for the ORCHIDE project. It represents an orchid flower with five petals, one for each consortium partner. The flower represents the blossoming of a new idea and the bringing forward of potential. Designs have been created for both light and backgrounds.





Figure 9: ORCHIDE logo on light and dark background

A simplified logo, without the project name, has been used as an avatar for the social media platforms.

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Erreur! Source du renvoi introuvable. details the colours used for creating the project logo.

CMYK RGB C 61 R 105	CMYK RGB	CMYK RGB C 95 R 27	CMYK RGB C 100 R 18
M 22 Y 20 B 185 K 3	M 0 G 150 Y 15 B 193 K 6	M 90 G 42 Y 0 B 111 K 30	M 96 G 21 Y 44 B 59 K 54
#69A3B9 BLUE GREY	#0096C1 TURQUOISE	#1B3A6F NAVY BLUE	#121037 DARK INDIGO

Figure 10: ORCHIDE logo colors

4 Social media presence

Social media accounts have been created according to D6.1 Communication Plan and D6.3 Dissemination plan. The accounts bare the name of ORCHIDE, or ORCHIDE Project, depending on the name availability. Accounts have been created on Twitter, LinkedIn, YouTube and Facebook.

Table 1: ORCHIDE social media accounts enumerates the social media pages which have been created for the ORCHIDE project.

Social media site	ORCHIDE account link
Twitter	https://twitter.com/orchide_project/
LinkedIn	https://www.linkedin.com/company/103224251/
Facebook	https://www.facebook.com/people/Orchide/61560206669605/
YouTube	https://www.youtube.com/channel/UCw7bj4MbeFKRzgqq3MCJY4A

Table 1: ORCHIDE social media accounts



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4.1 Twitter account

Twitter, also named X, is a major communication platform used for direct and short messages between users. The target user base are users and developers in the technology field. By reaching out through Twitter, we can capture the attention of potential users and enthusiasts. The communication strategy for Twitter is to create small posts which highlight new achievements and events which will link to the project website for interested users.

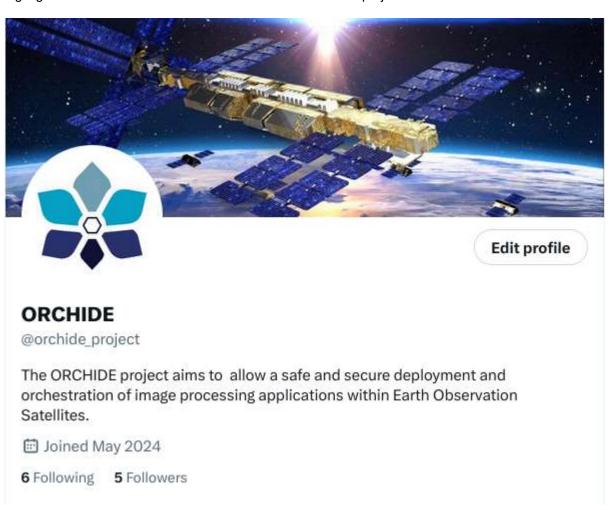


Figure 11: ORCHIDE Twitter page

4.2 LinkedIn page

LinkedIn is a social media platform used for professionals sharing job experiences or looking for work opportunities. It has gained popularity through employer and project-related articles which highlight work experience and innovation. Communication on LinkedIn will be focused on articles. The articles will be posted in full, not forcing users to leave the LinkedIn website but direct readers to the project website for more information. Partners will follow the LinkedIn page and share the posts so they can gain a first readership.



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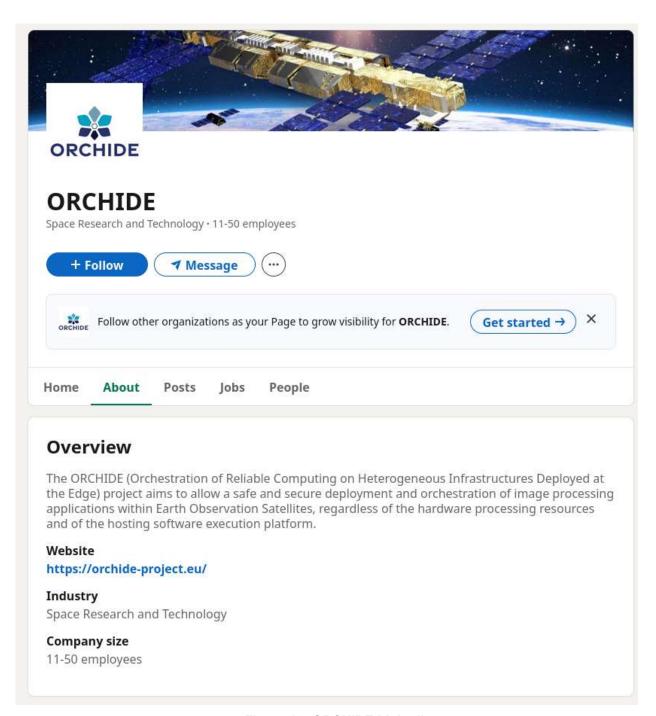


Figure 12: ORCHIDE LinkedIn page

4.3 Facebook page

Facebook as a social media platform is used more by the general public than specialists in the field. Communication on Facebook will be managed the same way as Twitter, directing readers towards the website, without posting long messages. Facebook can be used to reach a wider audience and raise awareness of the project.

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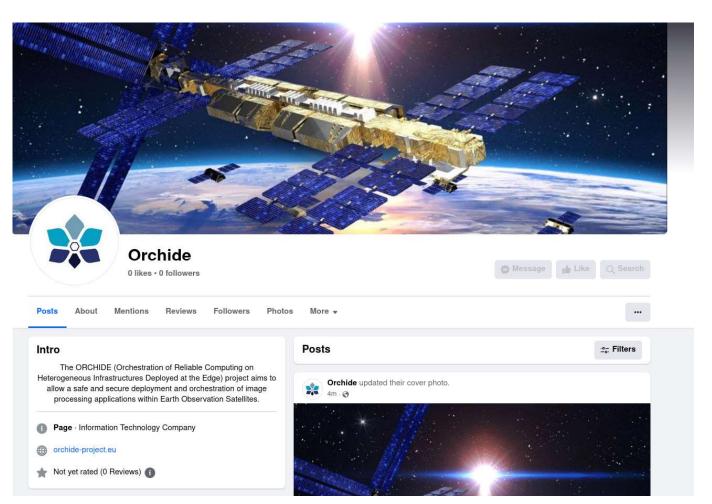


Figure 13: ORCHIDE Facebook page



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4.4 YouTube

YouTube is a social media platform oriented towards video content. Relevant video content, such as media outputs, demonstrations and tutorials will be hosted on YouTube.

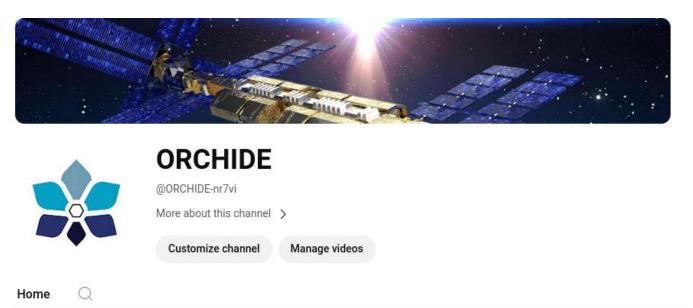


Figure 14: ORCHIDE YouTube channel

5 Conclusion

The following promotional tools have been established for the ORCHIDE project:

- ORCHIDE project website containing a project description, blog section, consortium description
- Google Analytics integration to monitor the project website interactions with the public
- Social media pages for communication and dissemination activities

The project website has been created with ease of use for content developers in mind, giving every partner the tools needed to integrate content on the website. The website will be used as one of the key communication and dissemination medium.

The social media platform and website content creation will be done by the consortium, with posting responsibilities being shared among the partners depending on the types of posts.



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