ETSEIAT
Departament de Projectes d'Enginyeria

CubeSats for the monitoring of space debris
DebrEyes

Deliverable 5
Communication Management

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1   Plan communication management

The purpose of the current Communications Management Plan is to define the communication requirements for the DebrEyes project and to set the communications framework for the DebrEyes project according to the Horizon 2020 proposal, establishing how information will be distributed to the stakeholders, to the project team and to general audience. It is aimed to serve as a guide for communications throughout the life of the project and it will be updated whenever necessary.

The Communications Management Plan of a project should define the following[1]:

- Which information will be communicated—to include its level of detail and format.
- How the information will be communicated—in meetings, email, telephone, web portal, etc.
- When information will be distributed—the frequency of both formal and informal project communications.
- Who is responsible for communicating project information.
- Communication requirements for all project stakeholders.
- Which resources are allocated for communication.
- How any sensitive or confidential information must be communicated and who must authorize those communications.
- How changes in communication or the communication processes are managed.
- The flow of project communications.
- Any constraints, internal or external, which affect project communications.
- Any standard templates, formats, or documents the project must use for communicating.
- An escalation process for resolving any communication-based conflicts or issues.

Summarizing, the identification and definition of the **roles** of all people involved in this project are to be dealt with in this document. This plan also includes a **Communications Matrix** which maps the communication requirements of the DebrEyes project for further clarification. An in-depth **guide for conducting meetings** details both the communications rules and how the meetings will be conducted, ensuring successful meetings. A **project team directory** is included to provide contact information for all stakeholders directly involved in the project.

The Project Manager will take a proactive role in ensuring effective communications on the basis of the requirements documented in the fore mentioned Communications Matrix. That matrix will be used as the guide for what information to communicate, who is to do the communicating, when to communicate it and to whom to communicate. Considerable thought must be given to having a solid communications management approach in order to avoid many of the project management problems that could be encountered.

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[1] Piscopo, Mark. n.d. *Project Management Docs.* Accessed 11 24, 2015. http://www.projectmanagementdocs.com/project-planning-templates/communications-management-plan.html#axzz3scMwU9Pk.

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1.1 Participants roles and responsibilities

In this section, the roles and responsibilities of the project are described with regard to the Communication Plan.

The groups of participants described below have been defined to guarantee a fluid communication for promoting cooperation, participation and coordination between all stakeholders, investors and DebrEyes Team.

1.1.1 Steering Committee

The DebrEyes Steering Committee is composed of the following members or entity representatives:
- DebrEyes' Project Manager
- European Commission
- European Space Agency
- Airbus Defence and Space
- European Investment Bank
- Institut Català de Finances
- Caixa d'Enginyers

The DebrEyes Steering Committee will provide strategic direction, and resolve conflicts or expedite a process that is not resolved at a lower level (Figure 1). The committee is responsible for providing and maintaining the necessary resources needed for the successful completion of the DebrEyes project. Also, the committee will provide leadership, support, and assist in implementing departmental policies as required to support the DebrEyes Project.
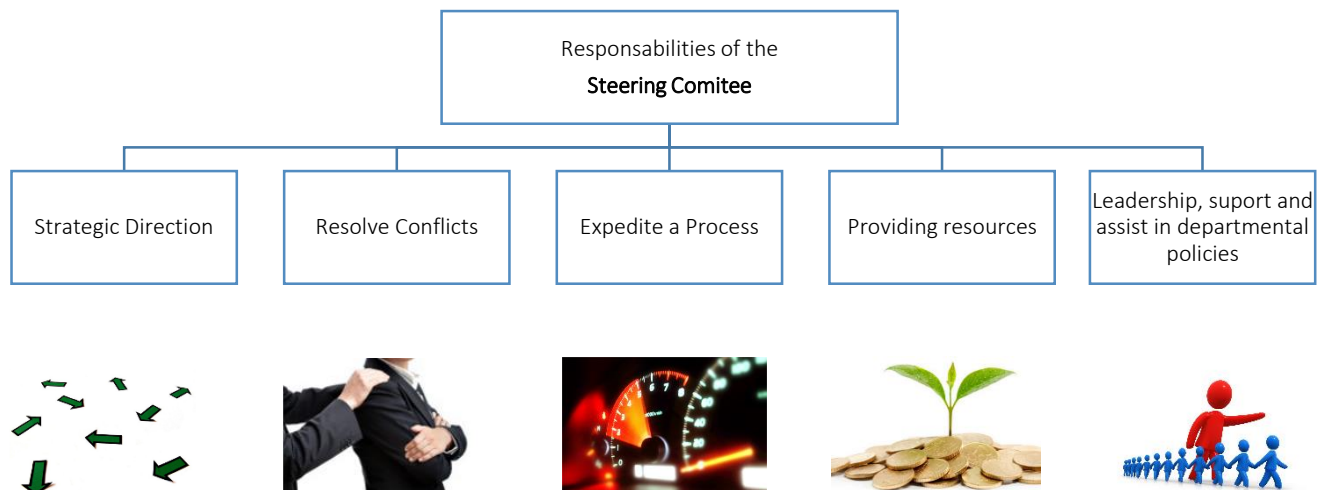

Figure 1. Scheme of the Steering Committee's responsibilities

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1.1.2   Project Manager

The DebrEyes' Project Manager is responsible for communicating status for scope, schedule, and cost, as well as monitoring, controlling, and communicating the risks (Figure 2). The DebrEyes' Project Manager has the responsibility to ensure that all information related to the DebrEyes' project is consistent, correct, accurate, and timely. He/she will also be committed to avoid scope creep.

The DebrEyes' Project Manager will review and approve all information provided to the various stakeholders. The Project Manager will ensure continued user involvement and requirements remain relatively stable throughout the DebrEyes' project.

As the Project Manager is the main link between the Steering Committee and the project itself, he/she will ensure that the relevant information is transmitted between the project team and the Steering Committee.
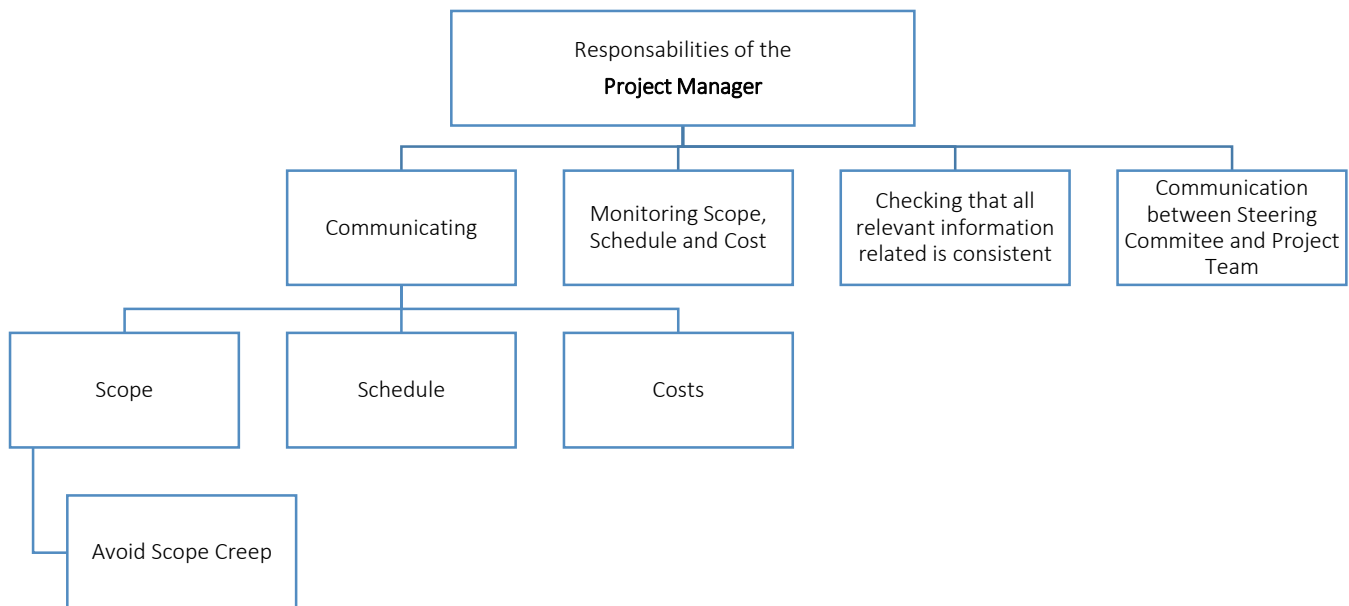

Figure 2. Scheme of the Project Manager's responsibilities

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1.1.3 Advisory Committee

The Advisory Committee will be in charge of introducing external know-how to the project and to have an outer perspective and opinion by having meetings with consultants from Capgemini and Sapienza. It will also assess the Steering Committee in important decisions that may be taken during the project.

The Advisory Committee is composed of the following members or entity representative:

- DebrEyes' Project Manager
- Sapienza Consulting representative (External)
- Capgemini Consulting representative (External)
- ESA representative
- Technical Manager
- TU Denmark representative
- TU Delft representative

The roles and responsibilities of the DebrEyes Project Advisory Committee shown in Figure 3 are:
- Introduce external know-how
- Provide leadership and direction.
- Review progress, risks, and issues and recommend resolutions.
- Make recommendations to the project sponsor.
- Assure DebrEyes implementation by educating district and program staff, provide means for training, and support implementation efforts.
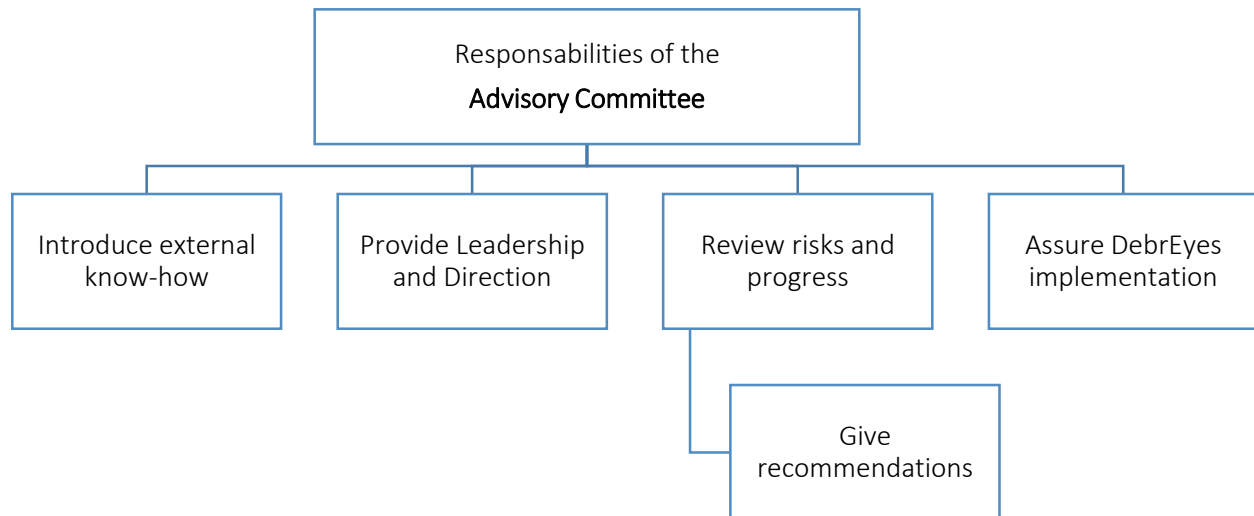

Figure 3. Organization of the Project Advisory Committee

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1.1.4   Business Project Team

The Business Project Team will be in charge of assuring that the decisions taken by the Steering Committee regarding to business issues are carried out. This committee will also be in contact with companies or organizations that could be interested in the objective of our project and to know from first-hand their specific necessities and demands.

The roles and responsibilities of the DebrEyes business project team are:
- Ensure successful implementation of business decisions from the Steering Committee.
- Acquire information and demands from potential customers.
- Define requirements.
- Perform user testing.
- Accept products and solution.

The Business Project Team has the following members or entity representatives:

- DebrEyes' Project Manager
- European Space Agency representative
- Airbus Defence and Space representative
- Technical Manager
- Caixa d'Enginyers representative

1.1.5   Technical Project Team

The DebrEyes technical project team will be responsible for the successful development, documentation, data conversion, implementation, and ongoing operational support of the DebrEyes Project. Its members are all the staff working directly on technical issues.

The technical team will also be responsible for developing, providing, and conducting training to the state for the DebrEyes Project. The DebrEyes technical project team will deliver a system that meets all the functional requirements of the contract. The DebrEyes technical project team shall deliver the system per the schedule that will be described in the state approved in the DebrEyes Project Management Plan. The DebrEyes technical project lead will oversee the other technical personnel working on the solution, including any contractors and sub-contractors. The DebrEyes technical project lead is responsible to report any issues impacting the project, provide recommendations to resolve issues, and assist the project manager in successful implementation of the DebrEyes Project.

The DebrEyes technical project lead will report directly to the DebrEyes project manager and provide all project information to them. The DebrEyes technical project lead will be responsible for collecting and gathering all DebrEyes Project related information from the subcontractors under their current contract.

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1.1.6 Outsourcing companies

It is formed by the external collaborators of the DebrEyes project, which are DeTrazos and Gutmar. Regular communication between the outsourcing companies and the corresponding head department will be held.

The Statements of Work give the guidelines to perform the work to meet the requirements.

The roles and responsibilities of the and towards the outsourcing companies are:
- Inform and secure commitment from this group to support and participate in DebrEyes project.
- To participate in the DebrEyes project with the appropriate resources, program management, and policies to support their participation.
- Develop communications messages, materials and activities that respond to the needs of the DebrEyes project.
- Evaluate the Project Communications plan by measuring customer satisfaction.

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1.1.7 Summary

All the organization mentioned above is summarized in the following schematic.
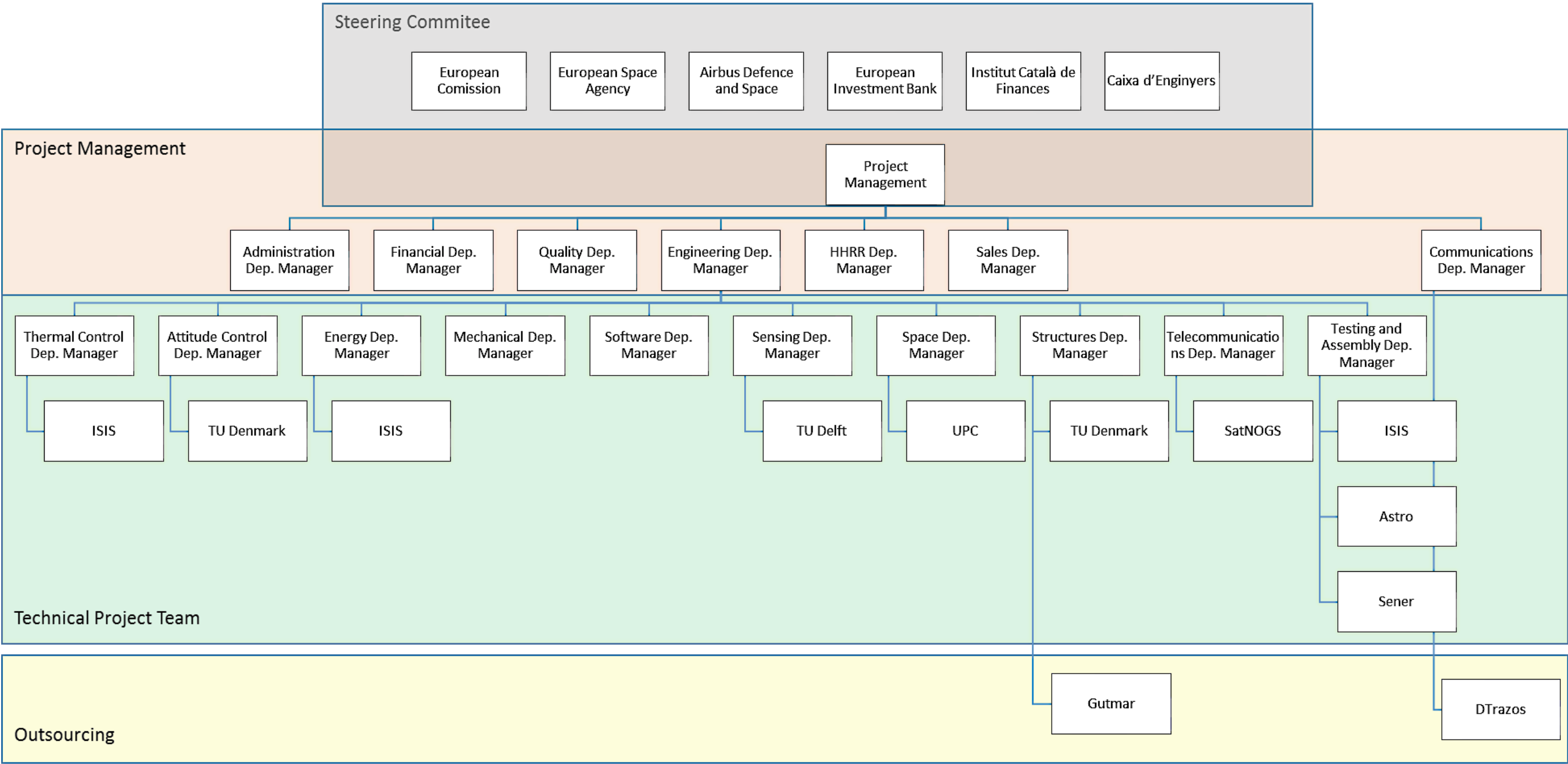
Figure 4. Scheme of the whole of the organization

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1.2   Communication process

How the information is transmitted is oftentimes more important than what it is being transmitted. This "how" must take into consideration who the receiver is in order to personalize the information to increase their grade of interest. At the same time, this communication process must be selective enough to give the proper pieces of information, assuring the necessary grade of confidentiality.

Thus, DebrEyes will have three different information levels inside one single website using an intranet. On a first level, the open public will have access to informative publications about the project which will have as the main goal attracting public attention to the process and increase expectation. Then, people involved in the project and people having direct interests in it, such as stakeholders, will have access to second level information, containing project status and information about aspects they might have to be informed about. Finally, the deepest level is the one where people working on the project will be able to find every detail about DebrEyes in the form of a database. Responsible personnel from DebrEyes will control and monitor which information is available at each level.

Information must flow as smoothly as possible with a view to improving project development. Hence, meetings and discussions – with different levels of relevance – will be held periodically. Meetings and conferences shall be scheduled so as to not interfere with the regular agendas of the different members, whose availability will be checked by means of an intranet service.

Depending on the level of significance of the information to be transmitted, three different types of communication processes are identified:
- Informal communications
- Formal communications
- External communications

1.2.1   Informal

Informal communications consist of e-mail, conversations, or phone calls and serve to supplement and enhance formal communications. Due to the varied types and ad-hoc nature of informal communications, they are not discussed in this plan.

The so-called least relevant information is classified as informal and its transmission is crucial to ensure a fluent workaday communication.

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1.2.2   Formal

The DebrEyes Project will engage in various types of formal communication. The general types and their purpose are described below as 2Status Meetings" and "Status Reports".

1.2.2.1   Status Meetings

There are five basic types of status meetings for the DebrEyes Project:

1. Pre-scheduled meetings. These will be the Kick-off Meeting, the Midterm Review Meeting and the Final Meeting;
2. Status meetings internal to the DebrEyes business team to discuss assignments, activities, and to share information;
3. Status meetings and reports between the DebrEyes business team, and the technical project team;
4. Advisory Committee meetings with the project stakeholders, and project manager to review progress, risks, and issues.
   The scope change meetings and the quarter technical meetings are included in this category.
5. Status meetings and reports between the DebrEyes project manager and the steering committee.
6. Status meetings and reports to stakeholders, such as oversight agencies.

1.2.2.2   Status Reports

A variety of status reports will be produced during the project. The status reports will be produced on regular intervals to provide stakeholders project information on the status and progress of the DebrEyes project. At a minimum the reports will contain:

- Project status on major activities
- Project schedule
- Budget and cost tracking
- Status of issues and risks
- Health status
- Status of action items, if applicable.
- Future or planned activities

The intent of the status reports is to inform stakeholders of the project's progress and keep them actively involved in the project. The information provided will contain enough detail to allow stakeholders to make informed decisions and maintain oversight of the project.

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1.2.3   External Communication

This kind of communication is focused on keeping the people in the industry aware of the project and the company and on getting the general public to know the project and make them feel attracted to it. Usually space projects stay away from people and this is a situation that is conscientiously wanted to be avoided in the DebrEyes project. Hence, DebrEyes faces two directions of its external communications:

1.2.3.1   General public

To keep the general public attracted to the project, DebrEyes will perform several things:
- Design a website and keep it updated.
- Be present and active at the different social networks.
- Perform a "KNOW DEBREYES DAY" when interested people will be able to enter our facilities and see different production points and models.

1.2.3.2   Aerospace Sector

This is a direction of paramount importance for DebrEyes because its potentiation will be the first step to make this SME grow in the industry and achieve future contracts and projects. DebrEyes must spread its name amongst the aerospace industry and this may be accomplished through different ways:
- Periodically publish articles in specialized magazines and websites.
- Have stands at the sector meetings, fairs and congresses.
- Attract students to work for DebrEyes as scholarship holders so universities, and not only companies, will be interested in DebrEyes as well.

To coordinate and wisely choose the actions DebrEyes ought to perform at each time, periodic marketing meetings will be hold between the Project Manager, the project's marketing responsible and DebrEyes marketing providers.

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2   Communication management plan matrix

According to the quality standards defined in previous deliverables, a communication matrix has been defined, as shown in Table 2. In the table all type of meetings that will be held are explained, considering:

- **Type** of Communication.
- **Objective** of Communication.
- **Medium**, according to the legend shown in Table 1.
- **Frequency** at which the meetings will take place.
- **Audience** who will assist to the meeting.
- **Owner**, or responsible of the meeting.
- **Deliverable** which need to be prepared before and after the meeting.

The **format** for all meetings will be a soft copy archived on DebrEyes Communication SharePoint site (intranet) and project website.

Table 1: Medium legend

Face to face

Email

Conference call

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Table 2: Communication management plan matrix

Communication Type	Objective of Communication	Medium	Frequency	Audience	Owner	Deliverable
Kick-off Meeting	Introduce the project team and the project. Review project objectives and management approach.		Once, at the beginning of the project	- Project Sponsor - Project Team - Stakeholders	Project Manager	- Agenda - Meeting Minutes
Project Team Meetings	Review status of the project with the team.		Weekly	- Project Team	Project Manager	- Agenda - Meeting Minutes - Project Schedule
Technical Design Meetings	Discuss and develop technical design solutions for the project.		As needed	- Project Technical Staff	Technical Leader	- Agenda - Meeting Minutes
Monthly Project Status Meetings	Report on the status of the project to management.		Monthly	- Project Management Office (PMO)	Project Manager	- Slide updates - Project Schedule
Project Status Reports	Report the status of the project including activities, progress, costs and issues.		Monthly	- Project Sponsor - Project Team - Stakeholders - Project Management Office (PMO)	Project Manager	- Project Status Report - Project Schedule
Midterm Review Meeting	Report the status of the project including costs, achievements and issues until this moment, and also an assessment of the scope fulfilled.		Once, in the middle of the project duration	- Project Sponsor - Project Team - Stakeholders	Project Manager	- Agenda - Meeting Minutes - Midterm Report
Final Meeting	Report on the final project including final costs, achievements and assessment of the project's development.		Once, at the end of the project	- Project Sponsor - Project Team - Stakeholders	Project Manager	- Agenda - Meeting Minutes - Final Report
Validation Meetings	Description of the validation process for each component and an assessment after the tests.		Twice, at the beginning and at the end of the validation period	- Managers of each Technical Department	Astro- und Feinwerktechnik Adlershof GmbH (Stakeholder)	- Agenda - Meeting Minutes - Certifications
Financial Meetings	Assessment of the money spent until the moment.		Every Quarter, unless otherwise required	- Managers of each Technical Department - Project Management Office (PMO)	Financial Manager	- Agenda - Meeting Minutes - Financial Status Report
Scope Change Meetings	Evaluation of required scope changes in the project.		As needed	- Managers of each Technical Department - Project Management Office (PMO) - EC (Stakeholder)	Project Manager	- Agenda - Meeting Minutes - Reviews
Regular Technical Dept. Meetings	Assessment of the progress of the department tasks.		Every 2 weeks	- Department	Department Manager	- Agenda - Meeting Minutes - Reviews
Quarter Technical Dept. Meetings	Assessment of the progress of the department tasks.		Every quarter	- Department - Project Management Office (PMO) - Involved Stakeholders	Department Manager	- Agenda - Meeting Minutes - Reviews
Marketing Meetings	Assessment of the website and promotional materials of the project.		Monthly	- Project Management Office (PMO) - Marketing responsible - Provider	Marketing	- Agenda - Meeting Minutes - Reviews