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		H2020 project under Grant Agreement 870436		 AN ANGEL COMPANY

Air-breathing Electric Thruster

AETHER




D1.8

Plan for the Exploitation and Dissemination of Results, second issue




Dissemination level		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the of the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

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1 Executive Summary

1.1 Scope of the project

The limiting factor for the duration of space endeavors is often related to the total mass of propellant available on board. If a new propulsion device could use the residual gases available in the upper layers of the atmosphere as propellant, this would enable a vast spectrum of new planetary mission scenarios.

In recent years SITAEEL has produced the world's first prototype of such a device, the "RAM-EP" engine. This innovative electric propulsion (EP) thruster has been successfully tested in an environment representative of VLEO, achieving TRL4.

The **AETHER** project will advance the thruster design towards a flight representative stage, experimentally demonstrating sufficient and reliable net thrust production for the target applications. This will be achieved through the design optimization of the various thruster components, careful selection of materials and proper diagnostics tools, based on system-level design considerations.

Successful completion of the **AETHER** project will advance the electric propulsion portfolio of Europe with the world-first EP air-breathing engine, potentially shifting the paradigm of VLEO, LEO and planetary missions.

1.2 Purpose of the document




This deliverable is the second edition of the *Plan for the Dissemination and Exploitation of Results* of the **AETHER** Project. The following issues shall be further elaborated and updated at M24 and M30 from Project start.

This release includes the updated Project Dissemination and Exploitation strategy and an updated action plan for dissemination and exploitation activities.

The Dissemination plan for the **AETHER** project addresses the strategic vision of the Consortium for what concerns the communication of Project achievements and results, with the main objective to increase the visibility of the **AETHER** project on selected communities and target groups at both European and International level and to further facilitate its expected impact.

The Exploitation Plan is aimed at fostering the impact of the proposed solutions and prepare the transition towards industrial and commercial uptake in order to fully achieve the expected impact. The Exploitation Plan describes the activities to be undertaken (how and by whom) in order to ensure the exploitation beyond the project itself.

This document has been drafted in agreement with the Guidelines for dissemination and exploitation of results of H2020 addressed by the H2020 online manual.




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1.3 Applicability of the document

This plan is applicable to all the Partner Companies and Institutions involved in the **AETHER** Project.

1.4 Acronyms and Abbreviations

Acronym	Description
AD	Applicable Document
RD	Reference Document
SoW	Statement of Work
GA	Grant Agreement
CA	Consortium Agreement
PCT	Project Coordinator Team
PTB	Project Technical Board
KPI	Key Performance Indicator
KER	Key Exploitable Result
IPR	Intellectual Property Rights
IPRM	Intellectual Property Rights Manager
DMP	Data Management Plan
DS	Dataset
RAM-EP	RAM Electric Propulsion
TRL	Technology Readiness Level
SC	Steering Committee
SO	Sub-Objective
N/A	Not Applicable
TBD	To Be Defined

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2 Applicable and Reference Documents

2.1 Applicable Documents




Table 1 - Applicable documents

Ref.	Title	Owner	Release	Date
AD01	Grant Agreement GA870436			
AD02	Consortium Agreement	N/A	3.0	15/10/2019

2.2 Reference Documents

Table 2 - Reference documents

Ref.	Title	Issue/Date
RD01	EXPLOITT, Methodologies for Industrial Exploitation and Take-up, Dossier	30/10/2016
RD02	SIT-AETH-PD-0102 Plan for Dissemination and Exploitation of results First Issue (D1.2)	1.0

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3 Dissemination Plan

3.1 Introduction

Dissemination means sharing research results with potential users-peers in the research field, industry, other commercial players and policymakers, and with general audience.

As per applicable guidelines, in order to be effective, the Project dissemination plan shall:

- Reflect project progress and outputs,
- Identify stakeholders that could make use of results and relevant areas of interest,
- Describe concrete and well-timed measures for dissemination of all key results throughout project lifetime and after project end,
- Use effective channels for all groups of potential users with long-term perspective,
- Facilitate and support each of the impacts aimed at in the work plan.

In compliance with the guidelines, the **AETHER** Dissemination Plan includes the following key elements:

- a. the objectives of dissemination,
- b. the subject(s) of dissemination,
- c. the target audience,
- d. policy and management of dissemination.

3.2 Objectives of Dissemination




In general terms, the final aim of dissemination is to maximize the influence of the project and to promote the exploitation of the project results.

In more detail, the objectives of dissemination are:

- i. To raise public awareness about the project, its expected results and relevant achievement progress within defined target groups using effective communication means and tools;
- ii. To exchange experience with projects and groups working in the field, in order to join efforts, minimize duplication and maximize potential;
- iii. To share the fundamental knowledge, the methodologies and the technologies developed during the project;
- iv. To pave the way for a successful commercial and non-commercial exploitation of the project outcomes.

3.3 Content of dissemination

The following general subjects of dissemination have been identified:




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1. Project meta-information (general scope, coverage, goals and milestones and plans for achievement);
2. Interim and final results (reached objectives and achievements);
3. Techniques and methodologies (in respect of IPR issues);
4. Technologies (in respect of IPR issues);
5. Sustainability/exploitability assessment of results;
6. Innovation aspects.

3.4 Target Audience

One of the key elements of the **AETHER** dissemination strategy is the identification of dissemination target areas and audiences.

<i>Type of audience</i>	<i>Motivations</i>
General audience	General audience is the communication target to whom the information about the achievement of scientific excellence, the contribution to competitiveness and resolution of societal challenges are addressed. Showing how the outcomes of the Project, that are funded through public money, are relevant to our everyday lives, by creating jobs, introducing novel technologies, or making our lives more comfortable and safer is considered a prior objective of dissemination.
Academic and scientific community	This group targets all research communities interested in the Project achievements and results, which can be beneficiary for their own research activities. Scientific contributions of AETHER are particularly interesting for researchers working in the field of space propulsion, electric space propulsion, plasma, diagnostics, aerothermodynamics.
Industrial sector	A major objective of AETHER is to address and trigger the active involvement of industrial and user communities that have an interest in the exploitation of very low orbit satellites. Thus, the industrial target audience is composed of satellite manufacturers, payload manufacturers and Companies willing to exploit VLEO data.
Government bodies and policy makers	This is a wide group encompassing innovation driven local/regional authorities, Space Agencies, Public Administrations at national and international level.
EU projects working in similar domain and clusters	The primary target is composed of the other EPIC projects. Cross-pollination between AETHER and the other Disruptive and Incremental projects would be beneficial for the whole Strategic Research Cluster. Besides EPIC SRC, it is worth mentioning the DISCOVERER project, a FET-Open RIA started in 2017 with the goal of studying the fundamental phenomena of an air-breathing electric propulsion system (H2020 GA number 737183). No member of the AETHER Consortium is in the DISCOVERER Consortium. It is expected to be beneficial for both Projects to share non sensitive data, to enhance the European cooperation and maximize funding exploitation. This would in turn be

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<i>Type of audience</i>	<i>Motivations</i>
	particularly important for the EPIC SRC, since at the moment DISCOVERER is not interacting with the other projects of the Cluster.

Table 3 – Types of audience and reasons for interest in the AETHER Projects

With the overall aim to maximize the dissemination potential of the Project, dissemination activities must be tailored in such a way to effectively reach the target audiences through appropriate dissemination channels and tools, that are selected considering the level of involvement of the target audience in the Project. In Figure 1 the competence/interest matrix for the identified types of audience is shown.

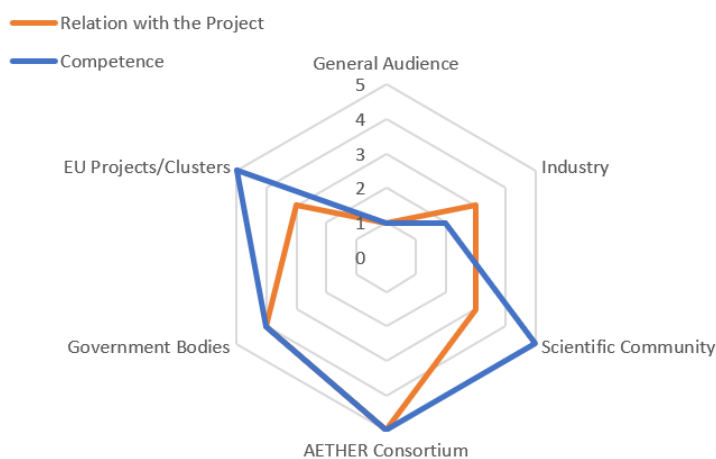





Figure 1 – Audience, matrix of competence Vs. interest in the Project

AETHER partners have interesting and significant links with European and international activities:

- Many of the **AETHER** partners have already participated, and are currently participating in European projects, which are related with the **AETHER** Project. This will form adequate basis for transfer of significant knowledge and technology from former RTD projects by strengthening the exploitation of results.
- Some **AETHER** partners are involved in the activities of European Clusters, industrial interest groups and standardization bodies.
- Finally, many partners have consolidated pre-existing collaborations between each other (research or industrial), even in funded EU projects. This will certainly strengthen the cooperation within **AETHER**, which is requested to successfully achieve Project objectives.

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3.5 Dissemination management

3.5.1 Responsibilities

According to the Article 29.1 of the GA, “Each beneficiary must – as soon as possible – ‘disseminate’ its results by disclosing them to the public by appropriate means (other than those resulting from protecting or exploiting the results), including in scientific publications (in any medium).” Therefore, every possible opportunity will be embraced by individual partners or on collective basis through joint initiatives to make the **AETHER** Project known among specific target audience. All partners of the consortium shall contribute to the dissemination according to their foreseen role and effort and using all available tools: for instance, by participating and giving presentations at conferences, publishing papers, holding press conferences, networking and similar activities. Further, they shall strive to maximize the existing dissemination channels for the purpose of successful future exploitation of Project outputs.

In compliance with the Consortium Agreement, the supervision of dissemination activities resides on the Steering Committee, with support from the Dissemination Manager. The general strategy for project dissemination, exploitation and IPR management is the decision of the Steering Committee.

The Dissemination Manager oversees supporting the Steering Committee in the organization of the dissemination activities by supervising and checking the subjects of dissemination.

In order to manage the communication and the publication of related text/images/videos in whatsoever form (magazines, newspapers, scientific papers for conferences, workshops and seminars, posters, leaflets, videos, posts on social media, interviews etc.) the Consortium refers to the Dissemination Manager, who is the contact point for external communication.




The Dissemination Manager is officially appointed by the Steering Committee. Full name and contacts are mentioned on the Project website and on any document where it appears to be relevant.

The contact details are:

Giovanni Cesaretti, Project Dissemination Manager
giovanni.cesaretti@sitael.com

For any tasks that involve IPR issues, the Dissemination Manager is supported by the IPR Manager. The IPR Manager, appointed at project kick-off, is

Roberta Pizzi, IPR Manager
Roberta.pizzi@sitael.com.

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3.5.2 Dissemination policy and rules

Dissemination activities in the **AETHER** project are deeply wedded with the intellectual property (IP) rights protection, which is clearly stated in EC-GA Articles 23a. IP rights protection measures agreed among the **AETHER** project partners is addressed in the tenth section of the Consortium Agreement.

A common graphic identity has been defined (see 3.5.4) to allow for better visibility and recognition as well as branding of the project. Therefore, all dissemination tools and activities must refer to or include:

- the name of the project;
- the project's website URL (<http://AETHER-h2020.eu>);
- the project logo (see Annex 3);
- acknowledgements to EC public funds.

The official EC logo, with the Horizon 2020 indication, shall be used for any (internal or external) deliverable, report and dissemination tool.

All publications addressing (part of the) work funded by the EC within **AETHER** shall acknowledge their affiliation to the Project and bear recognition of the EC funding.

This is generally accomplished by adding the following sentence in the acknowledgements section:

"This project has received funding from the European Union's Horizon 2020 Research and Innovation Action under grant agreement no. 870436."

All partners are welcome to share their dissemination material with the Project Partners (this can be a paper, a conference presentation or the audio file of an interview for example). Dissemination documents and files not infringing IPR rules will be uploaded by the Dissemination Manager on the public section of the Project's website, sections "**News & Events**" and / or "**Findings & Publications**" upon approval of the Steering Committee.




For monitoring purposes, the dissemination activities are reassessed regularly by the Steering Committee during specific meetings that take place every 6 months. The information gathered during the entire lasting period is analyzed and projected in the following issue of the dissemination and exploitation plan: further analyses will be incorporated in the interim report (M18). This document shall include the dissemination progress of the first 18 months of the project in the form of overview of activities performed in this period. The results of the evaluation will be then projected in the last issue of the dissemination plan (M24) for the upcoming period.

The Final Report to be delivered to the EC at the end of the project will include the final assessment compiled by the Dissemination Manager on the basis of the contributions of all partners.

3.5.3 Dissemination activities timing

The dissemination activities are planned in accordance with the stage of development in the project.

The plan for dissemination activities was initially set for the project according to the following logical schedule:

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1) Initial phase: this includes the establishment of the graphical identity of the project (i.e. project logo, project presentation, project poster, project brochure, press release and templates for project documents and for project presentations, project website) and the analysis of relevant information resources in terms of identification of dissemination opportunities;

2) Intermediate phase: the consortium populates the website, attends selected events and organizes workshops. Preliminary project results are presented to the target audiences;

3) Final phase: this represents the period closely before the end of the project, when consortium partners starts preparation of own utilization and business plans for the industrialization of project outputs. This phase is focused on informing the target audience of the Project exploitable outputs.

The initial phase was expected to extend throughout the first year, the intermediate throughout the second and the final throughout the last semester (ref. Figure 2).

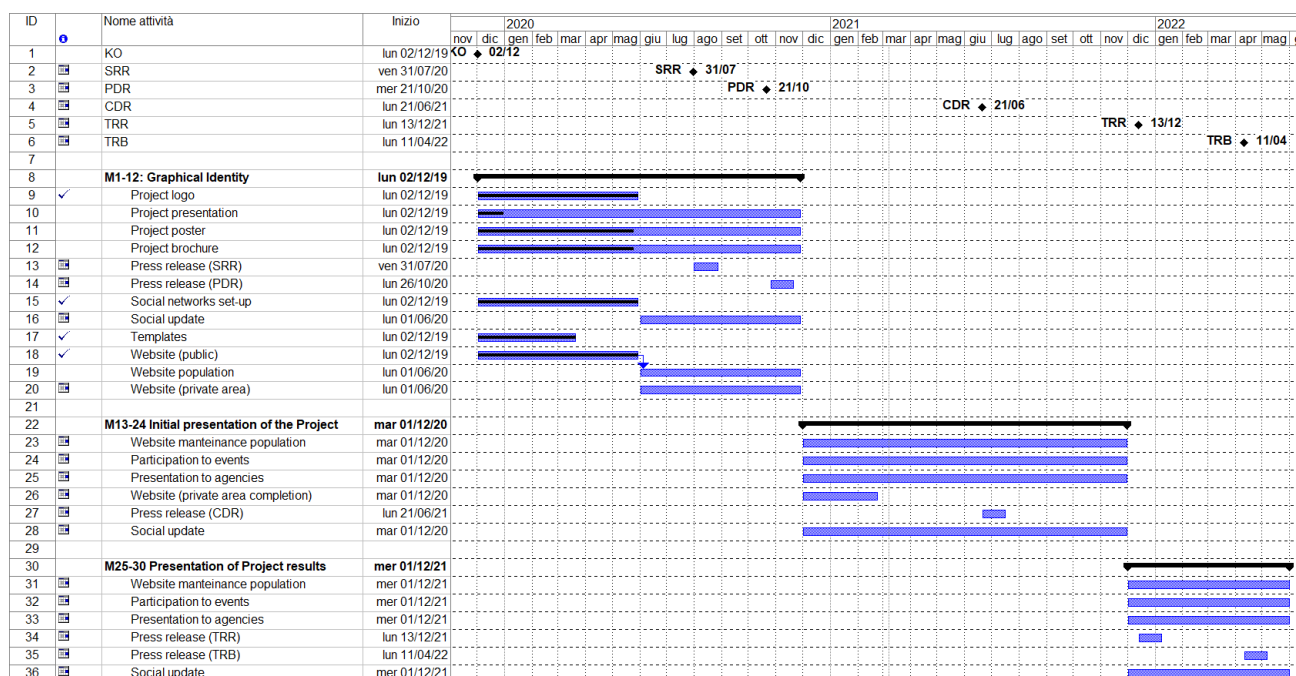


Figure 2 – AETHER dissemination plan schedule, M6

After one year from Project start, some delay is affecting the schedule, as presented in Figure 3.

The experienced delays are not considered critical for dissemination: in fact although dissemination activities are expected to take place throughout the whole project, the most significant ones will take place as final research results are available and the project can assess the next development phase.

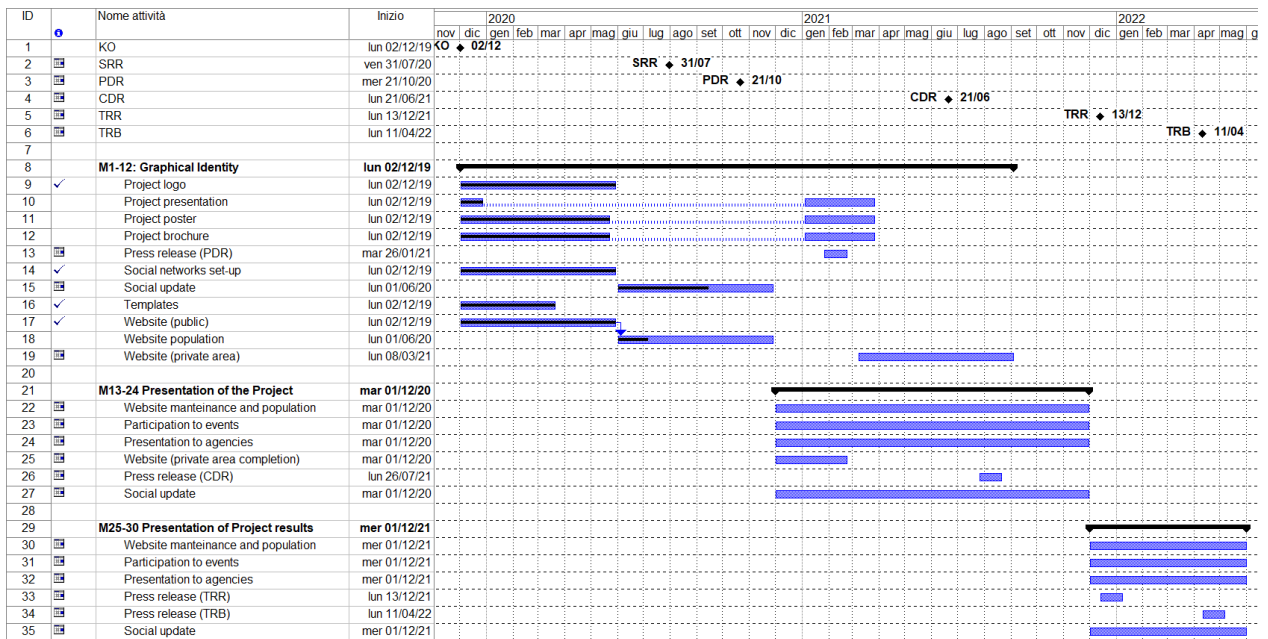


Figure 3 – AETHER dissemination plan schedule, M12

3.5.4 Dissemination tools

Graphic identity logo

The logo includes the name of the project. The logo aims at reproducing the sketch of an air-breathing device. The logo will be used for any (internal or external) deliverable, report and dissemination tool. Logo guidelines are presented in Annex 3.






Figure 4 – AETHER official Logo

Project Leaflet

Based on the Project website graphic layout, a set of coordinated materials for dissemination is under finalization: such material is of support for national and international workshops, conferences and events.

The main objective of the project leaflet is to provide the Project audience with an attractive and written project overview, including a summary of the main project objectives and characteristics. Complementarily with the dissemination effort, the Project leaflet will be published on the project website. The leaflet includes the goals of the project and the main expected outcome. The text is

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designed for both specific technical and general audience. Furthermore, it includes the website address and provides basic information on the **AETHER** Consortium. All partners' logos are also displayed.

Project Poster and roll-up

The main purpose of the poster is to catch the audience attention. The poster focuses on the visual aspects. The content of the poster is clear and straightforward, in order to be easily understandable by the target audience. The Project poster shows the Project's logo. Complementarily with the dissemination effort, the Project poster will be published on the project website. The poster illustrates Project objectives and includes basic information on the project and on the Consortium, including all partners' logos. It is possible to download it from the Project website. The **AETHER** project poster is published and distributed during national and international workshops, conferences and events. Due to the current restrictions caused by the pandemic, that do not allow the physical participation in workshops and events, the preparation of posters and roll-ups is postponed.

Project Website




Project websites are one of the main communication tools of projects funded under the EU H2020 Programme. To ensure maximum visibility to the **AETHER** objectives and expected results, a project website has been set up, registered in the "eu" domain and with an URL as intuitive as possible, to increase its hit rate: www.AETHER-h2020.eu

Taking into account the guidelines and best practice recommendations available from the EU for Project Websites, the design of the website builds upon the following criteria:

- i. visual communication: use of colors and/or photos, easy to browse, short verbal information, links included to relevant websites, publications, and other items of interest for the Project;
- ii. verbal communication: user-friendly communication, short verbal messages, simple phrasing, no jargon in order to attract the widest possible audience;
- iii. visibility: maximum use of free or affordable methods to increase page ranking on search engines, webmaster tools provided by search engines to check indexing status, good cross-linking with external thematic websites, keywords available among the webpage metadata;
- iv. regular update of contents: the website is maintained by the Partner accountable for the website and the update will be regularly done by the Webmaster upon inputs of the Consortium;
- v. monitoring tools: counter of visitors or other statistical tools to be used to measure the access frequency.

The public section of the **AETHER** website:

- provides a brief project summary highlighting the objectives, the contents and the structure of the Project including the composition of the Consortium (complete);
- provides a short profile of each of the Partners and a link to their websites (complete);
- provides access to the project public deliverables and abstracts of all confidential/restricted deliverables (ongoing);
- provides copies or links of publications presented at external conferences in various formats (pdf, MSWord, etc.), if no copyright is infringed;

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- features a section with the breaking news related to the project, that includes also a reference to forthcoming on-topic events.

The home page of the website shortly introduces the **AETHER** project and gives the important relevant information. The EU funding is duly acknowledged, also by the inclusion of the relevant logos (i.e. EU, H2020), and claiming that " **AETHER** has received funding from the European Union's Horizon 2020 - Research and Innovation Programme, Under grant agreement no. 870436".

The Homepage contains links to all the following subpages (at least):

- **The Project:** the challenge being addressed, the project objectives, an outline of the methodology, and the expected results and impacts are described on this page by placing the project in a broader scientific and societal context to help the outside world perceive its relevance.
- **The Team (Consortium):** a brief description of the project partners, their logos and the links to the respective websites.
- **News&Events:** this section provides a calendar that presents future and past events. It provides dates and a contact point, especially if an event is of public nature, lists conferences and special sessions during which the project will be presented, and considers web streaming of events or the upload of eventual conference videos.
- **Findings&Publications:** relevant publications, and public reports will be made available to the broad audience in this section.
- **Useful Links:** web links to the Commission's relevant pages, to the National Space Agencies, to other Space related websites (as for example Space News), to the EPIC SRC and to other project, clusters and relevant initiatives.
- **Private Area:** the part of the web site accessible to team members only.
- **Contacts:** this section enables people to easily get in touch with relevant contact people of the project Consortium.

A set of links on the Project Homepage allows for direct access to the social media (Twitter, Facebook, LinkedIn, Youtube – see the [Social media](#) section).




Sitael oversees the graphical layout of the website, of the infrastructure implementation, and of the population and maintenance of the webpages. Detailed reports on website visits will be regularly produced and included in the interim and final reports to the Commission (M18, M30) and discussed in the framework of relevant Progress Meetings and Final review.

Website Private area

From the relevant link on the Project website homepage, according to the website design it will be possible to access the Project collaborative platform used for internal communication and project management. The collaborative website is totally private and username and password are necessary to access it (under construction).

The platform is expected to support the following activities:

- Project progress updates

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- Resources and Costs controlling and reporting
- Report management and preparation
- Deliverable monitoring and management
- Document management
- Project Calendar management
- Contacts management, electronic mailing (to individuals or mailing lists) and messaging.

The private area of the Website is currently under construction.

Social Media

In order to reach a broad target audience while establishing two-ways communication channels, the presence of the **AETHER** project in social media will be among the key actions for dissemination activities.

- A Facebook page (www.facebook.com) and a Twitter account (www.twitter.com) will be created for reaching the general audience;
- A LinkedIn group (<http://www.linkedin.com>) will be created for reaching stakeholders and industry professionals;

Social media will be directly accessible from the website homepage.

Press release

The official Press Release is a formal announcement to the international or specialistic/technical press in order to present a short overview of the **AETHER** project to the public.




Press releases will be published at strategic times when major achievements have been made. They will include e.g. information on the specific event or milestone/achievement, interviews with experts. All press releases will be archived on the Project website.

The primary contact for press releases is the Dissemination and Exploitation Manager.

3.5.5 Dissemination Activities

Target Publications

All Project partners will contribute to maximize the use of all the existing dissemination channels, in particular by means of high-quality papers addressing the Project technical achievements. Individually or jointly, they will disseminate scientific and technological advances through subject-specific papers for journals and for the proceedings of oral and poster contributions to topical international and European conferences. Scientific publications are an effective way to disseminate high level project information and to attract the interest of representatives of the various target groups. With the aim to strengthen this dissemination channel, copy or links to project publications will be archived and accessible through the **AETHER** website.

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The journals and magazines selected among those relevant for the communication strategy of the project are listed in Table 5.

Project deliverables will be published and accessible through the Project webpage for dissemination reasons. In particular open access to public deliverables will be granted by the Consortium: after final approval, such deliverables will be also published on CORDIS <https://cordis.europa.eu/projects/en>. Open access to abstracts and metadata will be granted for restricted/confidential Project deliverables through the Project webpage.

Target conferences and events

Industrial partners will regularly participate in conferences, workshops, fairs and showcases where the technical achievements and future perspectives can be presented to Project stakeholders in the form of oral presentations, posters, videos or mock-ups. A list of major events is included in Table 6, that will be updated in the next issue of this plan.

The goal of the participation in such events is to disseminate not only the results achieved by the Project, but also the methodologies developed in the framework of the Project, innovative technologies, as well as exploitability perspectives for the developing Partners and for potential end-users.




Meetings with governmental bodies and agencies

At governmental level, specific meetings will be organized by the Partners with the Institutions of the Countries involved in the Project, with the aim of spreading results at decision-making level and to raise awareness on the **AETHER** roadmap.

National Governmental Institution	Country	Involved AETHER partner
ASI (Italian Space Agency), CNR (National Research Council)	Italy	SITAEL
BELSPO (Belgian Federal Science Policy Office)	Belgium	IVKDF
DLR (German Space Agency)	Germany	TransMIT, Astos
UKSA (UK Space Agency)	UK	Surrey
Hellenic Space Center	Greece	DEDALOS
FFG (Austria Research Promotion Agency, includes Austrian Space Agency)	Austria	RHP Technology




Table 4 – Main national governmental Institutions that will be involved

Interactions with ESA and possibly non-European Space Agencies will be planned and scheduled within the SC.




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Type of publication	Name	Reference	Additional information
Technical/Scientific journals	Journal of Propulsion and Power	https://arc.aiaa.org/loi/jpp	
	Acta Astronautica	https://www.journals.elsevier.com/acta-astronautica	
	Journal of Physics D: Applied Physics	https://iopscience.iop.org/journal/0022-3727	
	IEEE Transactions on Plasma Science	https://ieeexplore.ieee.org/xpl/	
	Journal of Applied Physics	https://aip.scitation.org/journal/jap	
	Plasma Sources Science Technologies	https://iopscience.iop.org/journal/0963-0252	
	Physics of Plasmas	https://aip.scitation.org/journal/php	
	Vacuum	https://www.journals.elsevier.com/vacuum	
	CEAS Space Journal	https://www.springer.com/journal/12567	
General audience magazines and journals	ResearchEU	https://cordis.europa.eu/research-eu/en	

Table 5 -Target journals and magazines for the dissemination activities of AETHER




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Type of event	Name and date	Location	Additional information
Conferences	7 th Space Propulsion Conference, 17-19 Feb 2021	Virtual Conference	https://spacepropulsion2020.com/
	37 th International Electric Propulsion Conference, 20-24 June 2021	Boston, MA, USA	Postponed to Summer 2022
	32nd International Symposium on Rarefied Gas Dynamics, July 5th-9th, 2021	Seoul, South Korea,	http://www.rgd32.org/
	74th Annual Gaseous Electronics Conference, 2021	TBD	https://www.aps.org/units/gec/
	AIAA Propulsion and Energy Forum, 9–11 August 2021	Denver, CO, USA	
	72nd International Astronautical Congress, 25-29 October 2021	Dubai, United Arab Emirates	https://www.iafastro.org/events/iac/iac-2021/
	Space Propulsion Conference, 8 th edition, 2022	TBD	TBD
	European Space Power Conference - ESPC 2022	TBD	TBD
	International Conference on High-Speed Vehicle Science & Technology 2022	TBD	TBD
Workshops, Expo	EPIC Workshop, next edition TBD	Cologne, DE	
	DISCOVERER Workshop on VLEO Missions and Technologies	Manchester (UK); virtual workshop	https://discoverer.space/news-and-events/1st-international-symposium-on-very-low-earth-orbit-missions-and-technologies/
	5 th Hessian Innovation Congress – October/November 2021 – date to be published	Hesse, Germany	https://hik.technologieland-hessen.de/hik2020
	Spacetechempo Bremen, October/November 2021 – date to be published	Bremen, Germany	http://www.spacetechempo.eu/
	Fiera del Levante, September 2021	Bari, Italy	

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Type of event	Name and date	Location	Additional information
	Space Week, Expo Dubai, October 2021 TBC	Dubai	

Table 6 -Target Conferences for the dissemination activities of AETHER

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Radio/television broadcasting




The increasing interest of the community for space related activities, also fostered by the recent sounding events that have involved manned space missions, provides further means for disseminating information about space Projects, in particular for the general audience target. Industrial partners will grab any opportunity to distribute, as possible, educational videos and interviews to promote the achievements of the Project, with special emphasis on the impact that the successful completion of the Project and follow-on might have on everyday lives, by creating jobs, introducing novel technologies, or making people's lives more comfortable and safe.

3.5.6 Evaluation

In order to assess the impact and effectiveness of the dissemination measures planned and set for the Project for each target audience, quantitative indicators and associated metrics are needed and shall be set-up. For the purposes of evaluation, the following table provides the target destination audience to be monitored for assessing the effect of each dissemination tool/activity described in the previous sections.

Dissemination tools/activities	Target audience				
	Scientific Community	Industry	Gov.bodies and Agencies	EU Projects and Clusters	General Audience
Logo	✓	✓	✓	✓	✓
Leaflets, posters, other dissemination material	✓	✓	✓	✓	✓
Website	✓	✓	✓	✓	✓
Social media	✗	✓	✗	✓	✓
Press releases	✓	✓	✓	✓	✓
Scientific publications	✓	✓	✓	✓	✗
General audience publications (e.g. CORDIS, magazines)	✗	✓	✗	✓	✓
Participation in target events	✓	✓	✓	✓	✗
Meetings with Governmental Institutions	✗	✗	✓	✗	✗
Broadcasting	✗	✓	✗	✓	✓

Table 7 – Dissemination tools and activities planned for the AETHER Project Vs. target audience.

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As reported in Table 8, a few indicators have been selected to evaluate the Project dissemination performance. Such indicators will be periodically measured and assessed by similarity with the lesson learned from other Project participated by Partners. A possible fallback plan will be identified and proposed by the steering committee, as necessary.

Dissemination tools/activities	Performance indicators
Logo	N/A
Leaflets, posters, other dissemination material	Number of leaflets distributed
Website	Number of visits/month Average duration of visits (min) Average number of downloads/month/publications Number of links from external websites
Social media	Number of members
Scientific publications (thematic journals)	Number of submitted papers
General audience publications (e.g. CORDIS, magazines)	Number of submitted articles
Participation in target events	Number of conferences attended Number of poster presentations Number of oral presentations Number of fairs attended Number of guests in Partner/Project stand
Meetings with Gov. bodies	Number of meetings/year/Partner

Table 8 – Performance indicators for the effectiveness assessment of AETHER dissemination tools/activities

It is worth mentioning that, due to the restrictive measures aimed at containing the spreading of the Covid-19 infection, free movement of people has been discouraged/impeded for the last year. This has had and will have a significant impact on dissemination, in particular for what concerns the participation of Project Partners in meetings and events as well as relevant distribution of dissemination material.

The project dissemination effectiveness will be internally evaluated using the questionnaire provided in Annex 1. It will allow the Steering Committee to check the quality of the project's dissemination plan and policy and to propose further/different actions to improve the dissemination. This questionnaire will be submitted to all the Partners in preparation of the Project deliverables D1.13 - *Plan for the exploitation and dissemination of results, third issue*; D1.21 - *Plan for the exploitation and dissemination of results, final issue*.

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4 Exploitation Plan

4.1 Introduction

As per the official definition by the European Commission (<http://ec.europa.eu>), exploitation is “the utilization of results in further research activities other than those covered by the action concerned, or in developing, creating and marketing a product or process, or in creating and providing a service, or in standardization activities”, where results are “any tangible or intangible output of the action, such as data, knowledge and information whatever their form or nature, whether or not they can be protected”.

Hence, according to the definition, exploitable results are the outputs generated during the project, which can create impact during and/or after the funding because they are:

- reusable and exploitable entities (inventions, products, services), or
- elements (knowledge, technology, processes, networks) that have potential to contribute for further work, research or innovations.

According to the Grant Agreement (art. 28), up to four years after end of the Project, each Partner must take measures aiming to ensure exploitation- either by the project partners or by other stakeholders- of Project results by:

- (a) using them in further research activities, other than those planned for the Project;
- (b) developing, creating or marketing products or processes;
- (c) creating and providing a service, or
- (d) using them in standardisation activities.

The Exploitation Plan for **AETHER** is expected to ease enhancing the impact of the proposed solutions and prepare the transition towards industrial and commercial uptake in order to fully achieve the expected impact.

The Exploitation Plan describes the activities to be undertaken (how and by whom) for **AETHER** in order to ensure the exploitation beyond the Project itself.

4.2 Exploitation strategy

The exploitation strategy will reflect and will be built-up based on:

- Value chain analysis, performed by each Partner owner of the result, aimed at analyzing how the Company can add value to its core activities and create a competitive advantage by exploiting the result;
- Market analysis, to investigate about market trends, potential users, exploitation chains, competition.

Table 9 summarizes the strategy for the assessment of result exploitation.

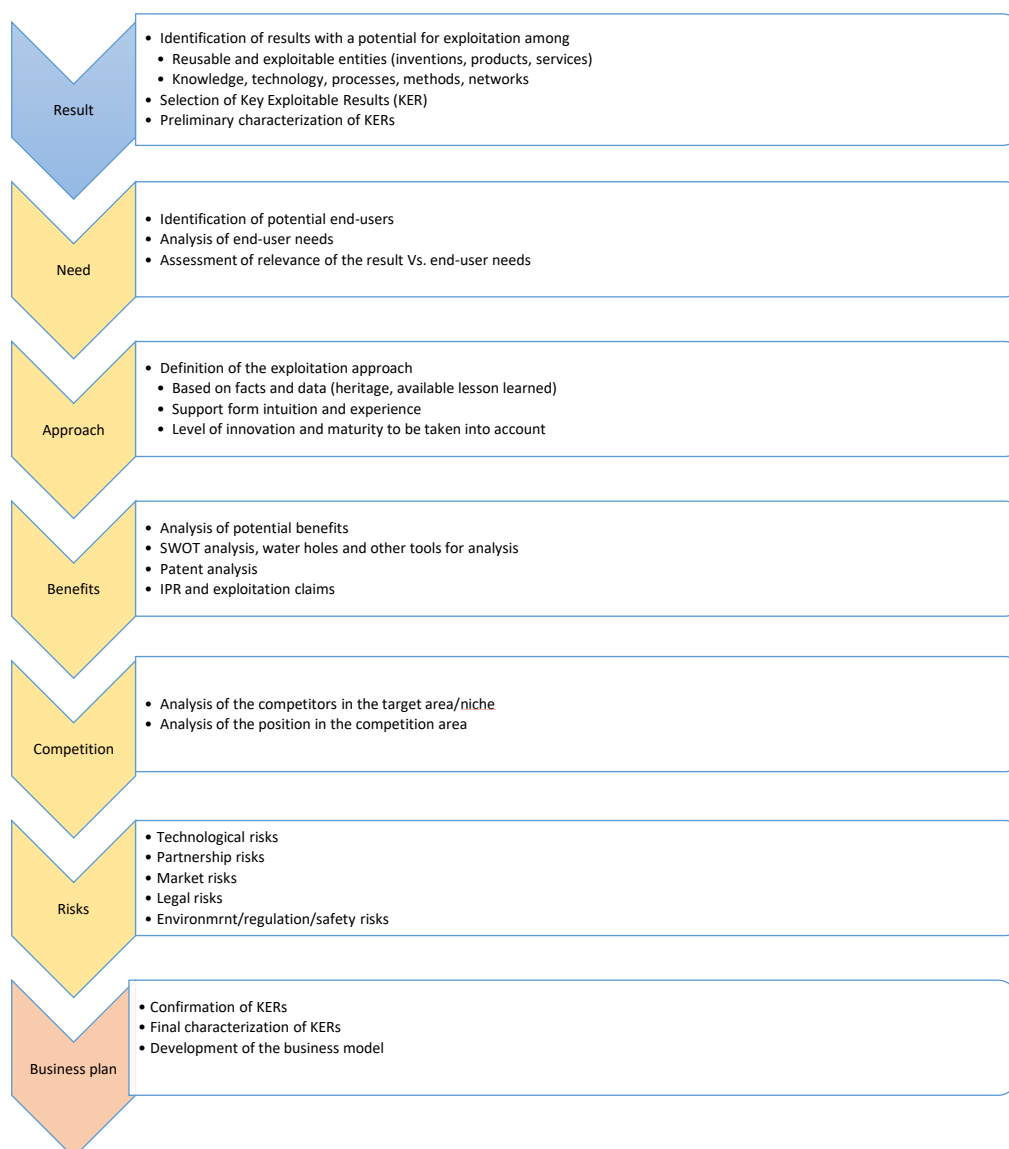





Table 9 – Strategy for Project result exploitability

1. The first stage of the strategy is the technology assessment. In this stage, the exploitable results of the project and their potential to be commercialized in the market are identified. A preliminary characterization of the exploitable results are made, considering potential customers, added value and the preliminary costs estimation.
2. The ground analysis is the second phase. KERs are analysed for what concerns market potential, benefits, competitors, IPR assessment, risks.
3. The final phase includes (i) a revision of the preliminarily selected and characterized KERs, in the light of the outcome from the ground analysis and (ii) the preparation of the business plan,

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whose objective is to develop a preliminary business model of the most interesting Key Exploitable Results.

With reference to Table 9, it is worth clarifying that not all Project results having a potential exploitability are equally relevant. Once a result is judged interesting, which means effective, feasible and unique for meeting the identified needs of potential end-users, a relevance analysis is needed: in fact, from the point of view of exploitation, “interesting” is not good enough. The analysis of relevance has the objective to discriminate between interesting results and relevant results, that are those ones that, besides effective, feasible and unique, are value-adding and affordable from the economical/financial point of view and in terms of specific risk profile. The relevance analysis is of particular importance, for each result owner, in the decision whether exploiting directly the result or transferring the exploitation action to third parties, within or outside the Consortium.

The exploitation activities for **AETHER** will be governed by the governance reference actors that are defined in the next sections.

4.3 Exploitation timing

Exploitation activities are planned in accordance with the stage of development in the project.




1) Initial phase (month 0-12): technology identification. Each Partner (i) identifies results with a potential for exploitation among reusable entities (inventions, products, services) and other items (knowledge, technology, processes, networks) that have potential to contribute for further work, research or innovations; (ii) preliminarily selects any Exploitable Results and (iii) characterizes them by means of the relevant KER Info Sheet (ref. Annex 2). The description of the technology identification phase is addressed in D1.8 - *Plan for the exploitation and dissemination of results, second issue* (M12).

2) Intermediate phase (month 13-24): ground analysis. For each selected KER each Partner is expected to perform an in-depth analysis to (i) identify potential users and needs and perform the relevance assessment based on a value-chain analysis; (ii) identify a possible exploitation approach, taking into account the level of maturity of the exploitable result; (iii) analyze relevant benefits (including patents, IPR claims, licensing) also related to (iv) the characteristics of competitions in the reference market; (v) perform the associated risk analysis. The description of the ground analysis phase is addressed in D1.13 - *Plan for the exploitation and dissemination of results, third issue* (M24).

3) Final phase (month 25-30): business plan. Each Partner shall revise and confirm the selection and characterization of KERs and prepare relevant business plan, as applicable. The description of the final phase is addressed in D1.21 - *Plan for the exploitation and dissemination of results, final issue* (M30).

4.4 Exploitation governance

The Exploitation Manager is responsible for the coordination of exploitation activities of the Project's results. The Exploitation Manager is a representative of the Project Task 1 owner and is officially appointed by the Steering Committee.

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The Exploitation Manager shall:

- a. Coordinate Project exploitation activities, as applicable;
- b. Collect proposal from the Partners and propose IPR and exploitation strategies and associated updates to the SC;
- c. Support Project Partners to discuss patentable/exploitable results in the SC and to identify the necessary actions to protect or commercially exploit Project results;
- d. Contribute to proper exploitation of the results by supporting industrial Partners to prepare adequate business plans for the potential industrialization of products and processes;
- e. Monitor the use of resources for exploitation issues;
- f. Guarantee that IPR issues are respected, in compliance with the applicable clauses of the Grant and Consortium Agreements
- g. Assure that appropriate communication is settled between the market analysis and the exploitation tasks, in order to drive the exploitation actions.

The Exploitation Manager is officially appointed by the Steering Committee. Full name and contacts are mentioned on the Project website and on any document where it appears to be relevant.

The contact details are:

Giovanni Cesaretti, Project Exploitation Manager
 giovanni.cesaretti@sitael.com

For any tasks that involve IPR issues, the Exploitation Manager is supported by the IPR Manager, appointed at project kick-off.

The role and relevant responsibilities of the Steering Committee are defined in the Project Consortium Agreement.




The External Expert Advisory Board (EEAB) is appointed and steered by the Steering Committee. The EEAB shall assist and facilitate the decisions made by the SC. The EEAB is composed by representatives from industry sector, including large system integrators and government agencies: for this reasons, their perspective is of particular interest for what concerns exploitation decisions.

4.5 IPR management

The management of IPR is strictly ruled by the Consortium Agreement (AD2) which addresses all provisions related to the management of IPR including ownership, protection and publication of knowledge, access rights to knowledge and pre-existing know-how as well as issues of confidentiality, liability and dispute settlement.

In the Consortium Agreement the Partners have identified their claimed background knowledge with specific limitation for the exploitation.

The Consortium Agreement and the Project data Management Plan regulate the ownership of results.

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The knowledge acquired in the course of the project shall be considered as the property of the contractor generating it, and in this sense the originator is entitled to use and to license such right without any financial compensation to the other contributors. If the features of a joint invention are such that it is not possible to separate them, the contributors could agree that they may jointly apply to obtain and/or maintain the relevant rights and shall make effort to reach appropriate agreements in order to do so.

The Consortium Agreement also regulates the transfer of results ownership (Section 8.3 of the CA).

Each Signatory Party may transfer ownership of its own Foreground following the procedures of the Grant Agreement Article 30.

Particular attention will be paid to joint ownership of results with a potential for exploitation.

Joint ownership refers to a situation in which two or more Partners have proprietary shares of an asset or have jointly generated a result, whereas respective share of work is not easily ascertainable. According to the EC guidelines, in collaborative projects an owner is any Partner that provides active contribution to the results.

Hence, any dataset/result/asset that

- is indivisible by nature and
- results from a joint effort of several partners whose respective active contribution cannot be ascertained

will be considered for co-ownership.

Specific rights to exploit and specific rights to use co-owned results will be discussed in the framework of the Steering Committee in order to define the conditions for a restricted/unrestricted use of the jointly owned IP, as well as possible approach to compensation.




4.6 IPR Background

Ref. Attachment 1 of AD2.

4.7 IPR Foreground

To be completed by the release of the D1.21 - *Plan for the exploitation and dissemination of results, final issue* (M30).

It has to be anticipated here, however, that Sitael is preparing the patent application for the RAM-EP concept based on his own background. As soon as the patent will be presented, a copy will be attached to the relevant issue of this deliverable.

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5 Exploitable results: KER identification

The process leading to the identification and characterization of results with a potential for exploitation takes inspiration from the EXPLOITT Dossier (RD01), providing a methodology and relevant guidelines for stakeholders to ease industrial exploitation and take-up of the results generated in European projects. The process is still incomplete for AETHER, infact the part already performed has involved a limited number of Partners to set the method up. The process will be completed for the whole Consortium before proceeding with ground analysis and technology evaluation (ref. section 4.3 above).

According to RD01, at this first stage, the exploitable results of the project and their potential to be commercialized in the market are identified and characterized, considering potential customers, possible added value and preliminary costs estimation. Given these points, the selected technologies are prioritized based on specific figures of merit and relevant weights. The objective of prioritization is to facilitate the selection of the most interesting and feasible exploitable results for turning into exploitable products or services. These selected exploitable results will be the project's Key Exploitable Results (KER).

The identification of exploitable result identification is made from any results of the Project among:




- Methodologies and know-how
- Design results
- Products and services
- Inventions, demonstrators
- Algorithms, models and S/W

Since not all interesting Project results (already achieved or to be achieved in the future Project phases) have necessarily the potential to generate a benefit (relevance), the identification of exploitable results is critical but not an easy task. Brainstorming and "brainwriting" (ref. RD01) have been applied to collect the opinions of a number of identified stakeholders inside the Companies that have participated in the benchmark stage and inside the team: the responsibility to focus the internal discussion (analysis), collect the different opinions and considerations and draft the relevant outcome (synthesis) was on the exploitation manager.

Once the exploitable results had been preliminarily identified, the next step was their characterization. For each exploitable result, a specific characterization sheet (Ref. Annex 2) was completed, as far as possible. Collection and analysis of characterization measurements was of the exploitation manager.

The next step is the prioritization of identified and characterized exploitable results. The outcome of the prioritization process is an ordered list of exploitable results. Its aim is to facilitate the selection of a limited number of exploitable results (Project Key Exploitable Results, KER), that will be subject to further in-depth evaluation.

Prioritization is based on the identification of a selected number of drivers that, in the team member opinion, shall be weighted in a specific figure of merit, namely the weighted average of the drivers.

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The selected drivers considered for this preliminary activity are the following:

- Degree of innovation (DOI): this driver relates to the (expected) technical advancement of the result with respect to the state-of-the-art.
- Innovation readiness (IR): innovation readiness relates to the technical maturity expected at the end of the Project. It includes the assessment of the development phase of the innovation (e.g. conceptualization, experimentation, etc. also taking into account the foreseen roadmap) and of the possible commercialization, to bring the innovation to the market.
- Innovation Management (IM): this criterion addresses the issue of commitment/capacity of the Partners or the whole Consortium to bring an innovation to the market and to execute the necessary steps to transform a novel technology or research results into a marketable product. These steps may include, for example, clarifying the related ownership and IPR issues, preparing a business plan or market study, securing capital investment from public and/or private sources, or engaging an end-user.
- Benefit potential (BP): refers to the perspective condition of generating profit or benefit.
- Market potential, demand side (MPD): this criterion relates to the demand side of an innovation, that is the prospective size of the market for a product and the chances of its successful commercialisation. Its aim is to assess how the product satisfies a market sector and to indicate how large is the potential customer base.
- Market potential, supply side (MPS): as regards the supply side, this criterion aims to assess whether there are potential barriers, e.g. regulatory frameworks or existing IPR issues, which could weaken the commercial exploitation of an innovation.
- Market ease of penetration (MEP): it concerns the quantification of how impacting is (for example on already existing approach to production and manufacturing processes) the innovation. A dramatic change of approach or paradigm can result in a barrier to the penetration of an innovation.

Each criterion was associated to a weight factor (0-1). Once established criteria and weights, each exploitable result was rated from 0 (low) to 10 (high) according to the proposed criteria. After rating, a score was calculated for each exploitable result by applying a weighted average.

#	Exploitable Result	Criteria and weights							Total
		Innovation			Benefit	Market			
		DOI	IR	IM	BP	MPD	MPS	MEP	
	Weight	0,1	0,1	0,1	0,4	0,1	0,1	0,1	1,0
1	RAM-EP Engine	8	5	6	6	7	5	6	6.1
2	Test set-up	4	8	6	3	4	8	7	4.9
3	Performance model	5	7	7	5	5	8	8	6.0

Table 10 – Weights for prioritization of exploitable results (for example, preliminary analysis performed to set the method up)

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6 Ground analysis for KERs

The ground analysis process foreseen for the selected KER will be described in D1.13 - *Plan for the exploitation and dissemination of results, third issue* (M24).

7 Business plan




The process foreseen for the preparation of possible business plans associated with KERs will be described in D1.21 - *Plan for the exploitation and dissemination of results, final issue* (M30)

END OF DOCUMENT

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Annex 1 – Questionnaire for dissemination evaluation

To be defined.

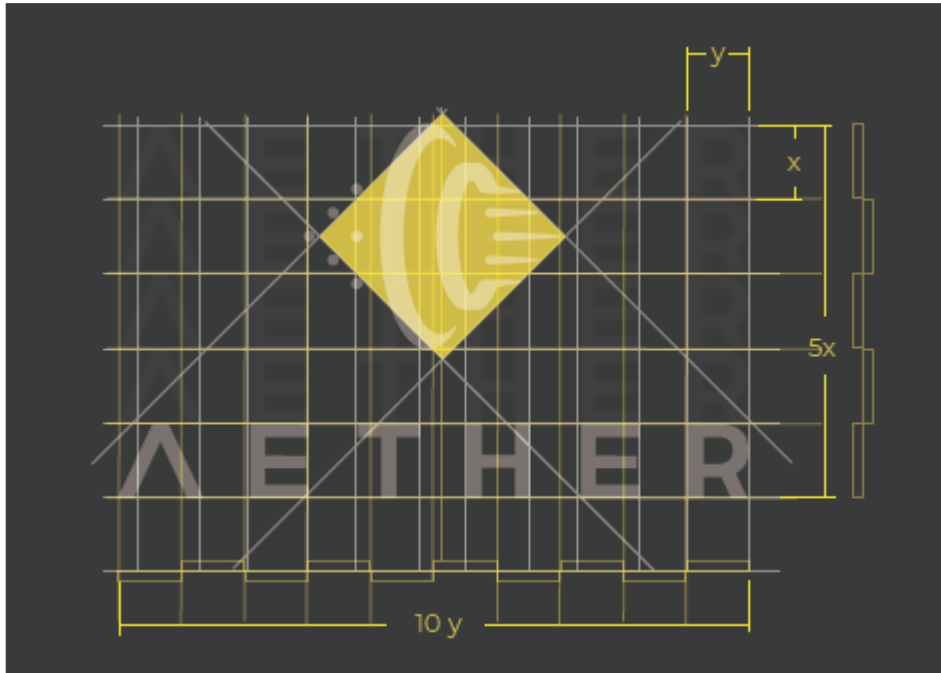
	D1.8	Ref.: SIT-AETH-PD-0108 Issue: 1.0 Date: 10/01/2021	 AN ANGEL COMPANY
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Annex 2 – KER Identification and characterization

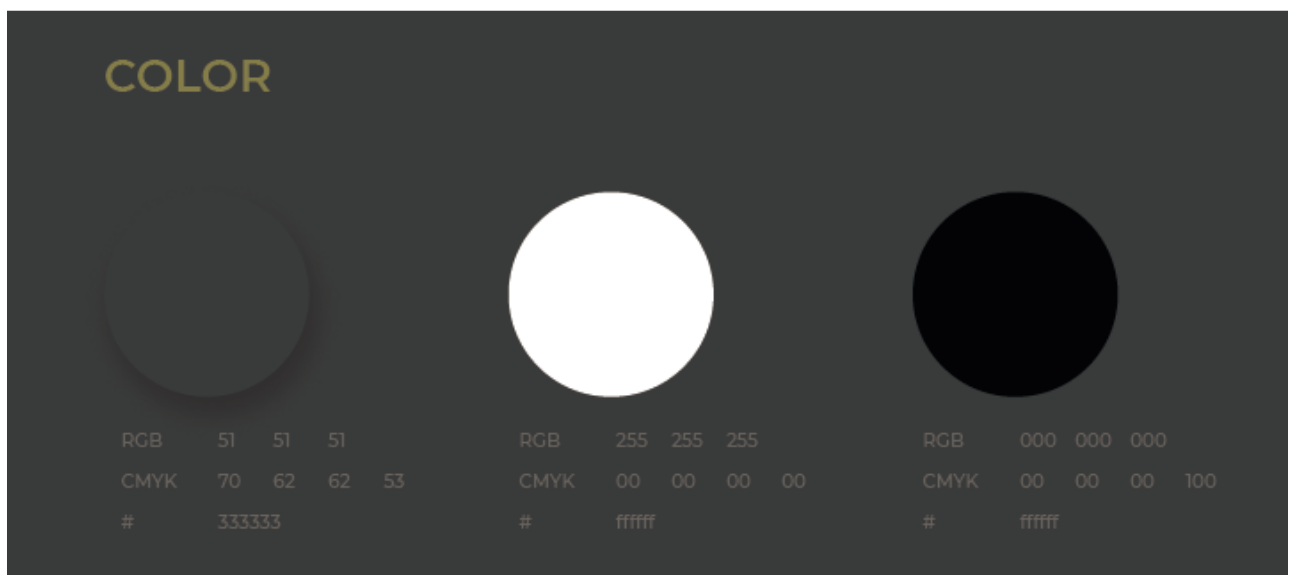
Exploitable Result n. # - Partner: XXX	
Brief Description	
Innovativeness introduced with respect to already existing products/services	
Competitive advantage	
Product/Service market size	
Market trends	
Product/Service positioning	
Legal requirements (authorization, norms, standards)	
Ethical requirements	
Competitors	
Potential customers	
Cost of implementation	
Time to market	
ROM product/service price	
Adequateness of Consortium	
External entities to be involved	
IPR, background	
IPR, foreground	
Share of contribution among Partners	
Financing source	




Annex 3 – AETHER project logo

Logo guidelines:

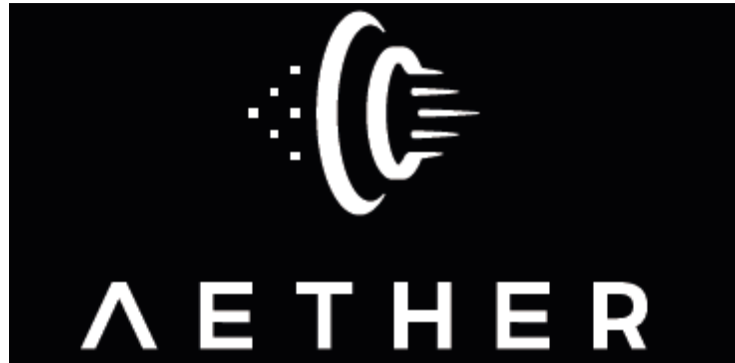


Color palette:



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Logo examples



Black-White



Gray-gray



White-gray