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## 1. Executive Summary

This document is deliverable D7.5 – Plan of the Exploitation and Dissemination of Results (PEDR), Task 7.2 – Dissemination activities, and Task 7.3 Exploitation activities, within Work Package 7 Lead beneficiary [AD1]. The aim of this document is to propose a plan to promote AURORA project, disseminate its results to the widest audience, and to exploit its outcome for the next years to come. This report relies on the AURORA communication plan [RD3], and D2.4 Development roadmap, competitiveness, and costs assessment Report [RD4]. In addition, the AURORA Grant Agreement [AD1] describes the basis for the plan in this document.

The content of this document is centred on the identification of the project results and to describe the activities for maximizing the impact of this project.

The rest of the document is organized as follows:

- 1) Section 2 Introduction describes the purpose of the document and its intended audience.
- 2) Section 3 Related Documentation includes references of technical and management documents, and acronyms applied in this deliverable.
- 3) Sections 4, 5 and 6 Describe the dissemination and exploitation strategy and their activities.
- 4) Section 7 Lists the results of the project and their features for the exploitation and dissemination.
- 5) Section 8 Basic information for monitoring and evaluation of the impact activities.
- 6) Section 9 Conclusion summarizes the main outcomes of this deliverable.

## 2. Introduction

## 2.1. Purpose

The aim of this document is to describe the Plan o the Exploitation and Dissemination of Results (PEDR). The strategy and activities are proportionate to the scale of the project and contains measures for maximize the impact to the audience and stakeholders.

This document is not isolated, while it is related to the following documents available in this Project:

- H2020 Work Programme 2018-2020 Technologies for European Non-Dependence and Competitiveness.
- D2.2 AURORA Innovation Management Report.
- D7.2 AURORA Communication Plan: describes the communication strategy for the AURORA project and the tools and activities to be used for its implementation.
- D2.4 Development roadmap, competitiveness and costs assessment outlines the following steps in the AURORA technological development based on the obtained results, the outcome from the state-of-the art monitoring activities and the prospective possibilities that AURORA might open in the embedded SW industry.

The PEDR (D7.5) is a living document throughout the Project duration, with evolving versions delivery in different Project stages. It is initially drafted in the GA [AD1], with the following objectives:

- Identify the **Project results and products** subject to dissemination and exploitation activities.
- Concrete the **measures to enhance the innovation** capacity and integration of new knowledge.
- Outline a dissemination and exploitation strategy (including protection of the results).
- Define the dissemination tools and channels.
- Identify the exploitation activities.
- Propose **means for monitoring and evaluating the effectiveness** of the planned strategy for dissemination and exploitation.

The content of this document describes the strategy and activities associated to these objectives.

## 2.2. Scope and Intended Audience

The aim of this plan is to describe the strategy and activities for the exploitation and dissemination of the project results. This document is an output from the T7.3 activity included in WP7.

This is a public report, which has been written for the interested stakeholders in the context of this Project. It provides some feedback on the exploitation and dissemination in the AURORA project.

## 3. Related Documentation

The following documents in the latest issue/revision are part of this document.

## 3.1. Applicable documents

Table 1. Applicable documents.

| AD#   | Title   | Reference              | Version/Date |
|-------|---|------------------------|--------------|
| [AD1] | Grant Agreement (GA)-101004291 - AURORA —<br>H2020-SPACE-2018-2020 / H2020-SPACE-2020 | GA number 101004291    | October/20   |
| [AD2] | AURORA Consortium Agreement (CA)  | CA Nº 101004291 AURORA | September/20 |

## 3.2. Reference documents

Table 2. Reference documents.

| RD#   | Title  | Reference         |
|-------|--|-------------------|
| [RD1] | H2020 Work Programme 2018-2020 -<br>Technologies for European Non-<br>Dependence and Competitiveness | SPACE-10-TEC-2020 |
| [RD2] | D2.2 AURORA Innovation Management<br>Report  | AUR-UPM-RP-0004   |
| [RD3] | D7.2 AURORA Communication Plan   | AUR-UPM-PL-0006   |
| [RD4] | D2.4 Development roadmap, competitiveness and costs assessment                                       | AUR-SAE-RP-005    |
| [RD5] | D7.3 Peer-reviewed, conference and workshops publications Papers and posters Technical Note          | AUR-SAE-TN-0002   |
| [RD6] | D7.4 Communication material Technical<br>Note  | AUR-SAE-TN-0004   |
| [RD7] | D6.3 Technology Readiness Assessment<br>Report   | AUR-UPM-RP-0015   |

# 3.3. Acronyms

Table 3. Acronyms.

| Acronym | Description  |  |
|---------|--|--|
| AD      | Applicable Document                                    |  |
| ADCSS   | Workshop on Avionics, Data, Control and Software (ESA) |  |
| AOCS    | Attitude and Orbit Control Systems                     |  |
| CDC     | Communication & Dissemination Coordinator              |  |

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| Acronym | Description   |
|---------|---|
| cFS     | NASA core Flight System                                 |
| CI/CD   | Continuous Integration and Continuous Delivery          |
| COTS    | Commercial Off the Shelf                                |
| EBd     | Executive Board   |
| EC      | European Commission                                     |
| ESA     | European Space Agency                                   |
| ESTEC   | European Space Research and Technology Centre           |
| FSW     | Flight SW   |
| GA      | Grant Agreement   |
| GNC     | Guidance, Navigation and Control systems                |
| IEM     | Innovation and Exploitation Manager                     |
| IP      | Intellectual Property                                   |
| IPR     | Intellectual Property Rights                            |
| JRC     | Joint Research Center                                   |
| KPI     | Key Performance Indicator                               |
| MBSE    | Model-Based Software Engineering                        |
| N/A     | Non-Applicable or Non-Available                         |
| OA      | Open Access   |
| PEDR    | Plan for the Exploitation, and Dissemination of Results |
| PM      | Project Manager   |
| PSA     | Programme Support Activity                              |
| RD      | Reference Document                                      |
| REA     | Research Executive Agency (European Commission)         |
| SAVOIR  | Space AVionics Open Interface aRchitecture              |
| SW      | Software  |
| WP      | Work Package  |

## 4. Dissemination and Exploitation Strategy

AURORA Consortium agrees on the importance of achieving the highest possible impact of their activities to support and strengthen the benefits the AURORA technologies would introduce in the Space sector. Therefore, the Project Team is committed to work together to ensure the awareness on the Project and its achievements, but also target key stakeholders having a relevant role in the different application fields addressed in the Project.

The AURORA Grant Agreement (GA) [AD1] sketched the strategy for dissemination and exploitation, where the following concepts are defined:

- **Plan**. Identify targets, messages, tools and channels. Build an adequate and effective exploitation and dissemination plan to ensure the best impact of project results.
- **Design**. Produce dissemination tools, based on the design a comprehensive set of communication material (including the Project logo) to ensure an easy identification of the Project and a major exposure.
  - According to the plan and design strategy, D7.2 [RD3] included a description of the communication channels and tools.
- Raise awareness, distribute and represent. Use the dissemination channels (both internal and external). Organise Project events and participate in workshops, conferences and international/EC meetings.
  - The raise awareness, distribute and represent are ongoing. The activities associated to dissemination and exploitation activities is being performed, according to the evolution and mature of the results. In addition, there are a task for monitoring and evaluate the activities perform, in order to improve the activities and the overall impact of the Project.
- Sustain and exploit. Ensure a persistent and long-lasting visibility (and eventual applicability) of the Project activities and outcomes.

In GA [AD1] some means are proposed for the long-term impact beyond the life of the Project. In addition, it is planned to develop a Business Plan for the exploitation of results.

The following figure describes the Information flow for dissemination and exploitation activities impact evaluation and reporting.

Innovation
management report
D2.2

PEDR

Definition (M4) and
evaluation (M12& M24) of
dissemination and
exploitation KPIs

Publications
D7.3

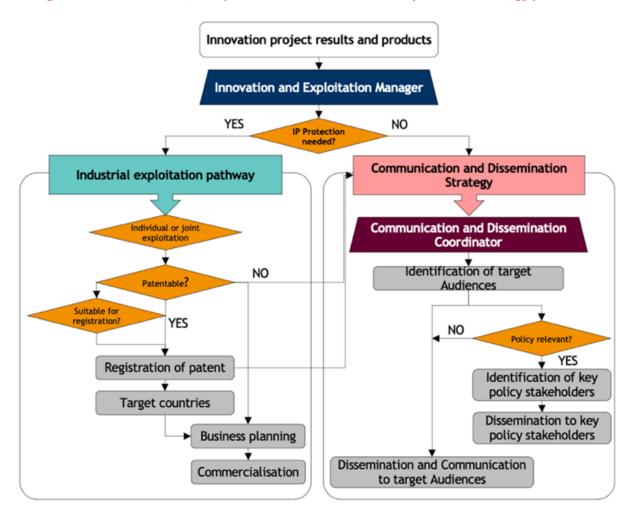
Figure 1. Information flow for activities impact evaluation

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The following Figure 2 provides basic rules to associate the characteristics of an outcome, in order to select the relevant activities for the impact. The following sections provides some outlines on the activities to be performed for each of the main types of outcomes: dissemination and exploitation.

Figure 2. AURORA results and products dissemination and exploitation strategy flowchart



#### 5. Dissemination activities

Dissemination and exploitation activities are to be targeted to the following **audiences** (potential users of the Project results and products) with specific **messages** to be transmitted:

- The **Scientific community**. Certain elements of the Project, allowing for public dissemination, will be shared with the scientific community outside AURORA Consortium. The messages here are more scientific and performance results oriented, through articles, conference presentations, case studies, etc.
- The **private sector and potential users**. Persons and institutions who will benefit from the outcomes of the Project such as potential users (private or public), other supply/service chain actors, investors, financiers, etc. Technology developers, including key players in projects dealing with similar or complementary technologies development.
- Policy makers. Sector associations (e.g., SME4Space, Eurospace), standardisation groups as well as "opinion makers" such as teachers, researchers, publishers, etc., can act as catalysts for the dissemination process. Some of the persons within this audience have currently joined the AURORA Advisory Board:
  - o Mr Cesar SANCHEZ professor at the IMDEA Software Institute (software.imdea.org).
  - o Mr Maxime PERROTIN ESA Software Engineer is leading the TASTE Steering Committee.
  - o Mr Piotr GAWKOWSKI professor assistant at Warsaw University of Technology.
- We are keeping them informed on the Project progresses through their participation in project review meetings.
- Public institutional bodies, such as European and national authorities and Space agencies.
- Internal audience, i.e., the members of the consortium at all levels.

Table 4 is adapted in [RD3], where the target audiences of the project and their intended roles in communication, dissemination, and exploitation activities are shown.

Scientific Private Policy Internal **Public bodies** Role community companies makers audience Enhance AURORA visibility  $\checkmark$  $\checkmark$  $\checkmark$ Identify priorities and needs of √  $\checkmark$  $\sqrt{}$  $\sqrt{}$ end users Provide feedback on project  $\checkmark$ /  $\sqrt{}$  $\sqrt{}$ development  $\checkmark$ Create market opportunities / Support on-board software  $\sqrt{}$  $\sqrt{}$  $\sqrt{}$  $\sqrt{}$ development Promote benefits of the  $\sqrt{}$ AURORA tool suite Maximise cost-effectiveness of  $\checkmark$ project activities  $\checkmark$  $\sqrt{}$  $\sqrt{}$ Foster collaboration  $\checkmark$  $\sqrt{}$ 

Table 4. Target audiences and their expected roles

The Project Consortium has developed a three-level strategy:

- 1. online and interactive tools and channels,
- 2. non electronic tools and channels, and
- 3. physical interactive tools and channels.

**Dissemination tools** refer to all material supports used to present the content of the project to an external audience, and to be developed as a communication material. **Dissemination channels** refer to all media through

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which the Project results are conveyed and relayed to the target audiences. Some of the dissemination tools and channels are also used for communication purposes. The targeted **tools and channels** presented are: Graphic identity, project website, social media, poster and papers, brochures, and fact sheets, press release, videos, and technical papers and presentations on Conferences and similar.

The relevant channels are described with more detail in the following table.

Table 5. AURORA Dissemination tools and channels

| Channel                                    | Scientific<br>community | Private<br>sector | Policy<br>makers | Public<br>bodies | Internal<br>audience |
|--|-------------------------|-------------------|------------------|------------------|----------------------|
| Project website                            | X                       | X                 | X                | X                | Χ                    |
| Open repositories                          | X                       | X                 |                  |                  |                      |
| High impact peer reviewed journals         | X                       | X                 |                  |                  |                      |
| Social media (twitter, Facebook, LinkedIn) | X                       | X                 | X                | X                | X                    |
| Events (please refer to the list below)    | X                       | Χ                 | X                | X                | Χ                    |

Communication channels specifically targeted at scientists and engineers include project presentations at conferences, workshops, and similar events.

Some of the technical events that have been identified as suitable to this purpose are:

Table 6. Technical Events

| Technical Events   |
|--|
| ADCSS — Workshop on Avionics, Data, Control and Software (ESA)                                     |
| AEiC — International Conference on Reliable Software Technologies (Ada-Europe)                     |
| CESCIT — IFAC Conference on Embedded Systems, Computational Intelligence and Telematics in Control |
| DASIA — Conference on Data Systems In Aerospace (Eurospace)  |
| ERTS — European Congress on Embedded Real-Time Systems (3AS & SEE)                                 |
| INDIN — IEEE International Conference on Industrial Informatics                                    |
| MBSE — Workshop on Model Based Space Systems and Software Engineering (ESA)                        |
| SSSIF — Spanish Small Satellites International Forum   |
| SmallSat — International Small Satellite Conference  |

Dissemination of the results of the project among the scientific and engineering communities are primarily carried out by means of peer reviewed articles published in high-impact journals and conferences. Some of the journals that may be targeted include:

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#### Table 7. Target Journals

| Target Journals                  |  |  |  |
|----------------------------------|--|--|--|
| Acta Astronautica                |  |  |  |
| Aerospace Science and Technology |  |  |  |
| Ada User                         |  |  |  |
| Journal of Systems and Software  |  |  |  |

Finally, to quantify if the dissemination strategy has helped in enhancing the Project impact, it is important to build an evaluation component into all major dissemination activities to monitor the quality and to see if they have achieved their aims by Key Performance Indicators (KPIs). The AURORA communication plan [RD3] has developed a summary of the key performance indicators for dissemination (Table 8).

Table 8. KPIs for target groups

| Category                                | Target group   | Materials                                | Channels   | Objective  | KPI                                      |
|---|--|--|--|--|--|
| Scientific community                    | Universities,<br>research<br>centres                       | Reports,<br>presentations                | Conferences,<br>workshops,<br>articles             | Increase the visibility of the new technology                                    | Number of scientists reached             |
| Integrators,<br>satellite primes        | Private<br>companies,<br>space agencies                    | Targeted information about the toolsuite | Site visits, videos, commercial shows, data sheets | Raise<br>awareness on<br>the new<br>capabilities                                 | Number of integrators reached engagement |
| Public<br>authorities,<br>policy makers | Regional,<br>national,<br>European<br>authorities          | Summary<br>reports,<br>roadmaps          | Presentations,<br>dedicated<br>meetings            | Influence over<br>the R&D<br>priorities  | Number of policy makers reached          |
| Associations                            | Eurospace<br>SME4SPACE<br>SAVOIR                           | Main outcomes,<br>roadmaps<br>factsheets | Press release,<br>website,<br>publications         | Gain visibility<br>among key<br>players  | Number of associations reached           |
| General public                          | People<br>interested in<br>space systems<br>or on-board SW | Presentations                            | Website, social<br>media                           | Increase social<br>awareness<br>about on-board<br>SW for in space<br>application | Activity logs                            |

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## 6. Exploitation activities

The "Figure 2. AURORA results and products dissemination and exploitation strategy flowchart" shows a flowchart for the identification Project results for the exploitation. According to this, a result should be required for IP Protection. Then, it should be checked whether patentable or for registration. The final activities were expected for associating a business planning and, finally, commercialization. In this project, it is planned to provide a **Business Plan** to insert the Tool suite into the European Flight SW frame, highlighting the impacts and the outcomes that AURORA Project has brought to the target Space market. Business Plan (D2.5) on the impacts and the outcomes that AURORA Project has brought to the target market.

In the following section, the Project results for dissemination and exploitation are listed. In addition, each result is characterized with the most relevant information for their impact. In order to detail the exploitation activities for the Project results, it is required to consider the following aspects, in order to characterize them:

#### Exploitation interests and routes:

- Joint Exploitation Plan: AURORA is generating new collaboration schemes among the Partners to ensure exploitation and that it is expected these partnerships will last after the Project conclusion to jointly exploit some of the generated results. The foreseen channel for the AURORA joint exploitation will be (most of all) through the industrial Partners of the Consortium.
- o Individual exploitation plans. The extended scope of AURORA developments brings also various potential exploitation paths for each of the individual Partners, considering each party profile and current commercial operations and strategy.
- Tools and channels for the exploitation:

Communication channels have been identified with detail in the D7.2 [RD3]. In addition, this document includes a set of tools for diffusing the AURORA technology. Then, it is required to select the channels and tools required for each of the project results. There are tools more oriented towards technological outcomes, such as, demonstrators, specification of components interface, guidelines for using components integrated on existing toolset, etc.

The exploitation activities are taken to ensure long-term impact beyond the life of the Project so that its results are sustained. This plan includes the development, integration and testing of different elements with different departing and target TRLs. The AURORA tool suite itself has achieved a TRL7 [RD7], so future exploitation (up to TRL9) will require:

#### • To undertake future actions beyond AURORA project:

- o Additional investments will be needed in the future. Synergies with other funding programmes should be identified in order to improve development cost-benefit and avoid duplications.
- o More extensive applications will be required to gain the confidence of final Users and succeed in the introduction of the AURORA tool-suite in the satellites' on-board software market.
- o Validate the AURORA tool-suite to serve a wider number of applications. This would maximise the penetration potential of the AURORA Project and allow specific applications to benefit from the developments resulting from it.

#### • To effectively link dissemination and exploitation of Project results:

- Success of the dissemination actions explained in Table 8 is critical to ensure the target audiences are receptive to the results achieved in AURORA.
- o Include all the actors in the value chain in the loop for dissemination activities. Involving potential customers as well as market analysts, risk experts and consultants from the different Partners in the Consortium will guarantee that AURORA considers their needs, risks and opportunities right at the start of the requirements definition phase. These inputs will ensure that AURORA is developed for market application and will become a cost efficient and reliable element for in-Space propulsion.



## 7. Project Results and Products

The aim of this section is to Identify the Project results and products subject to dissemination and exploitation activities. Initial project outcomes for the exploitation and dissemination are:

- **European tool suite** for the process of development and validation of a critical Auto-coded Flight software product in the Space domain:
  - Leaflet
  - Demonstration of Autocoding technology
  - Toolset
- Support for the certified tool-suite: Autocoded Flight Software Lifecycle.
  - Guidelines
  - o Validation of the approach
- Interoperability capability through standard specification of component interface API:
  - o Documentation
  - o Source code: Templates or interfaces
- Demonstrate Viability assessment
  - Documentation
  - o Video

From this initial list of project result, the Key Exploitation Result (KER) have been identified, as described in the following sections, including their associated dissemination/exploitation actions.

## 7.1. Key Exploitation Results

According to the H2020 test a KER is an identified main interesting result which has been selected and prioritised due to its high potential to be exploited downstream the value chain of a product, process or solution, or act as an important input to policy, further research or education.

The assessment of the value chain of the result is performed considering the added value of result with respect to Individual Business objectives, as illustrated in the following diagram.

Impact validation of scientific research

Business Plan

Research

Business Plan

Research

Business Plan

Network and dependencies analysis value proposition canvas

Figure 3. Assessment of added value of Project results

Each result can be described as the following table. The columns are selected basing in the proposal:

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- Res #: Identification of each result, for tracing in this document.
- Result: Describe of the outcome of this project.
- Category: Dissemination or Exploitation. Inspired on the figure 2.2 in the proposal.
- Partners: Results are exploitered or dissemination jointly or by individual partners.
- Comment: Summary of the result.

Table 9. Identification of AURORA Key Exploitation Results

| Res#  | Result   | Category      | Partners | Comment   |
|-------|--|---------------|----------|---|
| KER#1 | Integrate in AADL<br>automatically the code<br>generated by QGEN from<br>a Simulink model  | Dissemination | UPM      | <ul> <li>WP5 outcomes:</li> <li>Component-based interfaces (CBI) standardization.</li> <li>TASTE/QGEN/CBI integration.</li> </ul>   |
| KER#2 | New version of<br>SpaceCreator<br>development tools with<br>the new extension for<br>modelling   | Dissemination | UPM      | <ul> <li>WP5 outcomes:</li> <li>Component-based interfaces (CBI) standardization.</li> <li>TASTE/QGEN/CBI integration.</li> </ul>   |
| KER#3 | Autocoding SW Development Lifecycle (processes, methodology and tools) for automatically generated code from MATLAB/Simulink models with the aim to optimise and automate, wherever possible, all stages of the process to enhance efficiency whilst ensuring the required quality level | Exploitation  | All      | <ul> <li>WP3&amp;WP4&amp;WP6 outcomes:</li> <li>Tool suite for the process a software product.</li> <li>AOCS/GNS Code Generator (QGEN).</li> <li>Demonstrator visibility assessment.</li> </ul> |
| KER#4 | Software architecture and interfaces for functional components interoperability  | Exploitation  | All      | <ul> <li>WP5 outcomes:</li> <li>Component-based interfaces (CBI) standardization.</li> <li>TASTE/QGEN/CBI integration.</li> </ul>   |
| KER#5 | Innovative MBSE<br>techniques  | Exploitation  | All      | <ul> <li>WP5&amp;WP6 outcomes:</li> <li>Component-based interfaces (CBI) standardization.</li> <li>TASTE/QGEN/CBI integration.</li> <li>Demonstrator visibility assessment.</li> </ul>          |

The definition of the exploitation and dissemination steps for a KER are described as the following sections.

## 7.2. Dissemination and Exploitation actions

The aim of this section is to describe the exploitation and dissemination steps for the KERs identified in Table 9. Each result requires the following information:

- Involved partners.
- Audience adapted to the result (Table 8).



- Role for result (Table 4).
- Dissemination tools and channels (Table 5).

#### KER#1 Integrate in AADL automatically the code generated by QGEN from a Simulink model.

- **Involved partners: UPM**
- Audience adapted to the result:

Scientific community, Private sector and potential users

- Role for dissemination:
  - Enhance AURORA visibility
  - Support on-board sw development
  - o Promote benefits of tool suite
- Dissemination tools and channels:
  - Project website
  - o Open repositories
    - Open Science repositories: Zenodo, Eciencia (Consorcio Madroño), UPM (<a href="http://oa.upm.es/">http://oa.upm.es/</a>)
    - European Space Software Repository (https://essr.esa.int/register)
  - o Impact reviewed journals (Table 7).

#### KER#2 New version of SpaceCreator development tools with the new extension for modelling

- Involved partners: UPM
- Audience adapted to the result:

Scientific community, Private sector and potential users

- Role for dissemination:
  - o Enhance AURORA visibility.
  - o Support on-board sw development
  - o Promote benefits of tool suite
  - o Use in education: e.g., Master on Spatial Systems (MUSE, UPM)
- Dissemination tools and channels:
  - Project website
  - Open repositories
    - Open Science repositories: Zenodo, Eciencia (Consorcio Madroño), UPM (http://oa.upm.es/)
    - European Space Software Repository (https://essr.esa.int/register)
- Impact reviewed journals (Table 7).

#### KER#3 Autocoding SW Development Lifecycle

- Involved partners: All
- Audience adapted to the result:

Private sector, Policy makers, Public bodies and Internal audience (Business Development Area), Private sector and potential users

Role for dissemination:

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- Create market opportunities
- Support on-board sw development
- o Maximise cost-effectiveness of Project activities
- o Foster collaboration
- o Increasing funded R&D participation (NEW)
- Dissemination tools and channels:
  - o Site visits, videos, commercial shows, data sheets
  - o Presentations, dedicated meetings

#### KER#4 Software architecture and interfaces for functional components interoperability

- Involved partners: All
- Audience adapted to the result:

Private sector, Policy makers, Public bodies and Internal audience (Business Development Area), Private sector and potential users

- Role for dissemination:
  - o Support on-board sw development
  - o Foster collaboration: Increasing funded R&D participation
- Dissemination tools and channels:
  - o Site visits, videos, commercial shows, data sheets
  - o Presentations, dedicated meetings

#### KER#5 Innovative MBSE techniques

- Involved partners: All
- Audience adapted to the result:

Private sector, Policy makers, Public bodies and Internal audience (Business Development Area), Private sector and potential users

- Role for dissemination:
  - Support on-board sw development
  - o Foster collaboration: Increasing funded R&D participation
- Dissemination tools and channels:
  - o Site visits, videos, commercial shows, data sheets
  - o Presentations, dedicated meetings



## 8. Monitoring and evaluation

The PEDR is monitored and evaluated along the Project duration to review what messages are spread and who is seeing them, whether those messages are being understood and remembered, and whether the AURORA results are being considered for its future implementation by end Users and other stakeholders. This information helps in planning subsequent phases of the dissemination and exploitation strategy, ensure that the marketing strategy is effectively reaching the target audiences and they are acting on the messages they receive.

The communication activities are coordinated by the Communication & Dissemination Coordinator (CDC), who works in close contact with the Executive Board (EBd). The CDC coordinates and monitors all the communication activities, including those allocated to external organisations. To this purpose, he requires information from all partners whenever necessary, and will interact with all communication agents in order to ensure that timely and accurate information about the project is conveyed through the appropriate channels. This is supported and assisted in close cooperation with the Innovation and Exploitation Manager (IEM), the Project Manager (PM) and the Work Package Leaders (WPLs) in order to get an overall view on the exploitation and dissemination possibilities of the project results.

The following diagram illustrates the Executive Board constitution.

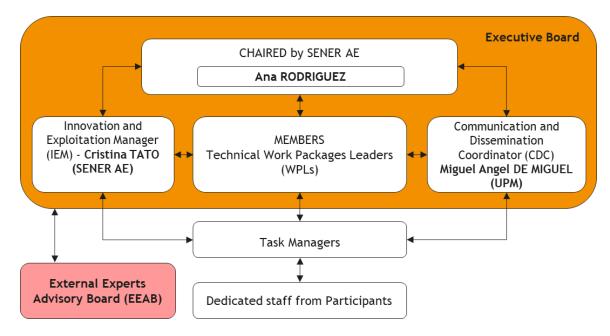


Figure 4. Executive Board constitution

The advisory board provides their expert points of view and advise on key issues treated in the Project with the objective to increase the dissemination and exploitation opportunities of the project activities

The Key Performance Indicators listed in Table 8 will be evaluated in order to assess the progress of the communication activities.

## 9. Conclusion

This document describes the D7.5 Plan of the Exploitation and Dissemination of Results (PEDR). This is a live document, that has been updated as the project results and activities have evolved.

The aim of this document is to define a plan for the impact of the Project results. It deals with the strategy of the exploitation and dissemination of the outcomes. It is based on the GA [AD1], D2.4 [RD4] and D7.5 [RD3]. The strategy deals with a general description and the activities for the dissemination and exploitation of the results.

One important result of this document is the identification of the Project results, as well as their main features for their impact. Each result is described with the following aspects:

- Leader: Responsible for managing the result.
- Result: Summary of the outcome of this project.
- Category: Dissemination or Exploitation.
- Tools: entities to be disseminated or exploited.
- Communication Channels.
- Partners: Results are exploited or disseminated for joint or individual partners.
- Comment: Non default communication channel or tool.

The following table describes the implementation of the exploitation and dissemination actions.

#### Table 10. KER Actions

| Res#  | Result   | Category      | Partners | Actions  |
|-------|--|---------------|----------|--|
| KER#1 | Integrate in AADL<br>automatically the code<br>generated by QGEN from<br>a Simulink model  | Dissemination | UPM      | <ul> <li>Related published articles are provided in [RD5]:</li> <li>Integration of modelling languages for the development of space domain software applications.</li> <li>Extension of the Modeling Tool Suite for Development of Embedded Systems for the Space Domain</li> </ul>  |
| KER#2 | New version of<br>SpaceCreator<br>development tools with<br>the new extension for<br>modelling   | Dissemination | UPM      | <ul> <li>Related published articles are provided in [RD5]:</li> <li>Requirements Gathering, Toolchain         Creation and Platform Testing for a MBSE         code generation</li> <li>Design, development, and implementation         of a cFS, RTEMS, and LEON3 platform</li> <li>Requirements for a Component-Based         Modelling Language for Space Missions</li> </ul>   |
| KER#3 | Autocoding SW Development Lifecycle (processes, methodology and tools) for automatically generated code from MATLAB/Simulink models with the aim to optimise and automate, wherever possible, all stages of the process to enhance efficiency whilst ensuring the required quality level | Exploitation  | All      | <ul> <li>Related articles are provided in [RD5]:</li> <li>A Quantitative Analysis of an Automatic Code Generation Tool for Space Software Applications</li> <li>Toolchain for cFS embedded systems for microsatellites</li> <li>Videos and commercial material are described in [RD6].</li> <li>Related activities:</li> <li>Internal training at SENER AE about the Autocoding Lifecycle.</li> <li>Autocoding Methodology in Commercial projects (SENER AE): AFTS autogenerated code from Simulink models.</li> </ul> |



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| Res # | Result  | Category     | Partners | Actions  |
|-------|---|--------------|----------|--|
| KER#4 | Software architecture and interfaces for functional components interoperability | Exploitation | All      | Videos and commercial material are described [RD6].<br>Related activities in on-going Horizon Europe projects:   |
| KER#5 | Innovative MBSE<br>techniques   | Exploitation | All      | <ul> <li>ORU-BOAS GA Project 101082078:<br/>supporting the Architecture solution.</li> <li>SAFEST (Smart Avionics for Flight<br/>termination systems) Project N°<br/>101082662: supporting the Architecture<br/>solution and development methodology.</li> </ul> |





