



Next-CSP

High Temperature concentrated solar thermal power plant with particle receiver and direct thermal storage

H2020 European funded project - Grant Agreement number 727762

Deliverable *(D9.1)*

WP9 – WP Exploitation, Communication and Dissemination of results

Deliverable D9.1 Plan for Dissemination and Exploitation of results

Date of Delivery: 22/11/2017

Deliverable Author(s): Marie Prouteau



Next-CSP is a project that has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727762.

Document identifier: Next-CSP-WP9-D9.1

Deliverable leader	EURONOVIA
Deliverable contributors	All partners
Related work package	WP9
Author(s)	Marie Prouteau
Due date of deliverable	31 03 2017
Actual submission date	22 11 2017
Approved by	CNRS
Dissemination level	Public
Website	www.next-csp.eu
Call	H2020-LCE-07-2016
Project number	727762
Instrument	Research & Innovation Actions
Start date of project	01/10/2017
Duration	48 months

Table of content

1. Introduction	5
2. Objectives of the dissemination actions	7
2.1 General objectives of the D&E plan according to the EC goal.....	7
2.2 Specific objectives:	7
3. Methodology	8
3.1 Audience identification	8
3.2 Definition of the message	9
3.3 Selection of the communication channels	10
3.4 Planification and execution of the activities	10
3.5 Evaluation of results with KPIs and impact report	11
4. The targeted audience	12
4.1 Industrial associations related to CSP in general	13
4.2 Other EU associations related to solar heating	13
4.3 National Contact Points	13
4.4 EU SME support organisations	13
4.5 Worldwide stakeholders.....	14
4.6 Other EU funded projects	14
5. The message	16
6. The communication means and media.....	17
6.1. The communication activities	17
6.2. International conferences and journals	19
7. Planification and timing	21
8. Dissemination rules and procedures	22
9. Presentation of the visual identity.....	24
9.1. Logo	24
9.2. Brochure	24
9.3. The project website.....	25
10. Related deliverables to the WP9 D&E.....	26
11. Evaluation of the communication actions	27
11.1. Evaluation report.....	27

11.2. Key Performance Indicators.....	28
12. Exploitation potential for NEXT-CSP	30
12.1. The tools to present and map the exploitable results	30
12.2. Exploitation actions as identified at the start of the project	32
12.3. Achieving the impact.....	34
12.4. Knowledge Management and Protection.....	35
12.5. Open Access policy	36

1.Introduction

The Next-CSP consortium is fully aware that a dissemination and exploitation plan is extremely important to create awareness of the project results and maximize the future potential commercial exploitation. In this sense, it will integrate along the project many activities to enhance the dissemination and exploitation strategy, maximize the expected impact and develop sustainability for the continuation of the project after the EU-funding since this dissemination and exploitation plan will be a key tool to identify investment and business opportunities.

This report is the first PEDR release. It gives an introduction of the dissemination activities after the first year of the project and the ones planned for the subsequent periods and a summary of most promising achievements, exploitable opportunities and identification of target segments for the Next-CSP project. The report it will be up-dated at month 24 and at the end of the project.

For the dissemination of the results and information on the project activities, the plan will contain the following information:

- Definition of the target groups (policy makers, end-users, industries, R&D stakeholders, all relevant to thermal storage, CSP, renewable energies, etc)
- Definition of the message (enhancing the role of renewable energies for industrial processes, demonstrating the positive impact of Next-CSP solutions, showing the development of the project, etc)
- Selection of the communication channels (website, emails, press releases, publications, journal articles, conferences, workshops, etc)
- Planning of the implementation (timing, costs and human resources needed, etc)
- Development of Key Performance Indicators (KPIs) to assess the success of the implementation (number of publications, number of emails received from stakeholders, number of visits on the website, feedback received from audiences at conferences, surveys, etc)

Further to the draft of the dissemination plan, the approval will be enforced by the partners of the project followed by its execution. The project will use the KPIs developed to assess the success of the plan and update it according to the evolution of the project. The coordination of the implementation of the plan will be done by EURONOVIA as WP9 leader, who is well experienced in dissemination actions for European funded projects.

For the exploitation of the results, the plan will contain the following information:

- Target groups identification: lead and end users principally, like those present in the consortium (EDF, SBP, EPPT), manufacturers like COMESSA and WEL or potential future competitors
- Lists of outputs to be exploited (scientific data on the characteristics of the components, prototypes, improved components, etc) and explanation to proceed with their development
- Definition of the exploitation and valorization strategy (improvement of dissemination strategies, market and needs analysis, feasibility studies, research

of funding, standardization). This will also include the implementation of performance indicators to assess the adequate valorization strategy.

- Methods of exploitation (patents, company creation, private public partnerships, etc). This exploitation plan will play an important role in the consortium to raise awareness about exploitation measures and the potential outcomes that it would bring to the consortium. This document will be an evolving document and will be updated periodically during the course of the project.

The objectives of the D&E plan is to coordinate and plan the efforts of the partners to reach the best use of the dissemination materials issued within NEXT-CSP, thus paving the way for effective communication of the project's concept and potential further exploitation of the project results.

2.Objectives of the dissemination actions

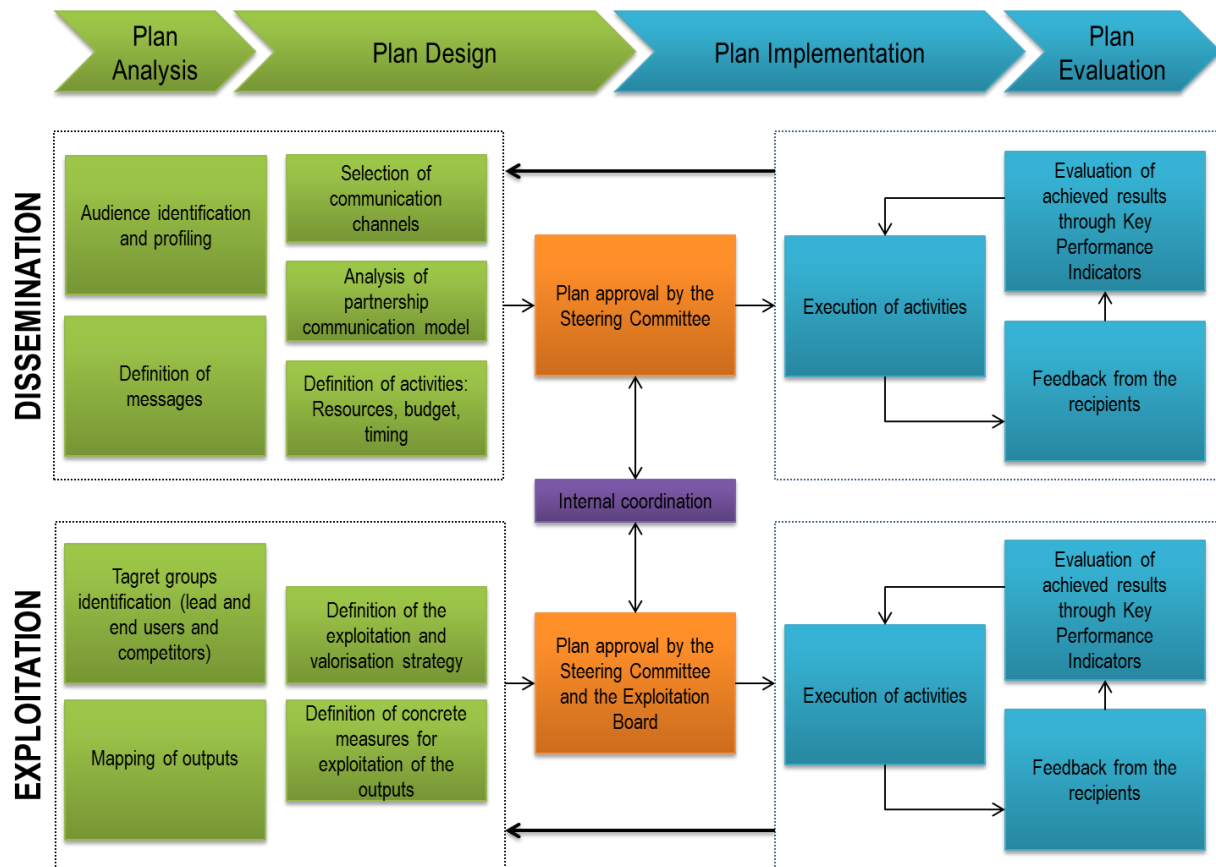
2.1 General objectives of the D&E plan according to the EC goal

- showing how European collaboration has achieved more than would have otherwise been possible, notably in achieving scientific excellence, contributing to competitiveness and solving societal challenges;
- showing how the outcomes are relevant to our everyday lives, by creating jobs, introducing novel technologies, or making our lives more comfortable in other ways;
- making better use of the results, by making sure they are taken up by decision-makers to influence policy-making and by industry and the scientific community to ensure follow-up.

2.2 Specific objectives:

- To ensure high visibility of the project among key stakeholders through the management and use of appropriate communication channels;
- To design specific actions aimed at the scientific community and general public (including business and political stakeholders);
- To engage and ensure collaboration with industry and end-users;
- To ensure that all project partners can identify and understand the information needs of specific target audiences;
- To design and conduct the dissemination and engagement strategy.

3. Methodology



Dissemination and Exploitation stages and tasks

3.1 Audience identification

One of the main steps is to identify the audience to be targeted with the communication activities (policy makers, end-users, industries, R&D stakeholders, all relevant to thermal energy storage and renewable energy, ...).

Mapping closely the audience is essential in choosing the most efficient ways to communicate with. Within the audience, there are groups of interest. These are groups of individuals that have an interest or are going to be affected by the NEXT-CSP project. These groups will have to be classified in regards to their level of interest in regards to the project and their level of power. We can use three levels of classification: primary, secondary and tertiary target groups.

The primary group is the main group within the target audience. The major part of the dissemination actions will be targeted to this group, and where we can expect the impact in terms of potential collaborations and future exploitation to be the highest. Only by mapping the needs and interests of this group, as well as by understanding the most efficient supports and methods to reach it, NEXT-CSP can produce messages to be widespread in the most efficient form.

The secondary group is composed of actors affected by the success of the project, although not identified as primary target group.

The tertiary group consists generally of the general public and other actors not identified as direct targeted groups by the project, though this group can be also affected and influence the primary and secondary group.

Important questions can be asked when defining the audience affected by each of the communication actions.

Is your audience well defined?¹

- Is each target audience a relatively homogenous group of people (not: 'the public at large' or 'all stakeholders')?
- Can the indicated audiences be further specified?

Does it include all relevant target groups?

- Can your audience help you reach your objectives?
 - o Who has an interest in your research?
 - o Who can contribute to your work?
 - o Who would be interested in learning about the project's findings?
 - o Who could or will be affected directly by the outcomes of the research?
 - o Who are not directly involved, but could have influence elsewhere?
- Does the project aim to address both a direct audience and intermediaries to reach more people?
- What about the possibility of audiences at local, regional, national and European level?
- Is the audience external (not restricted to consortium partners)?

3.2 Definition of the message

- Is it news?

Why do we need to know?

What will change? What solutions are you offering?

What makes the issue urgent?

What are the consequences if no action is taken?

Have you tried to stir your audience's imagination and emotions?

How does your work relate to everyday life? Does it link to any broader societal issue?

¹ http://ec.europa.eu/research/participants/data/ref/h2020/other/gm/h2020-guide-comm_en.pdf

Rather than focusing only on the provision of factual information, is your project research positioned within a broader socio-economic and policy context, so that it will be easier to explain the results and their relevance to policymakers and citizens?

- Are you connecting to what your audience wants to know? See through your audience's eyes:

What do they already know about the topic?

What do they think about it?

Do they need information and/or persuasion?

Have you tested your message?

- Are you connecting to your own communication objectives?

3.3 Selection of the communication channels²

- Do they reach the audience?

Are you working at the right level (local, regional, national)?

Are you using dissemination partners and multipliers? Dissemination partners can help amplify and multiply a message. Rather than aiming to build an audience from scratch, the project should indicate which partners to use and how.

- Do they go beyond the obvious?

If input or contributions are needed, are there mechanisms in place to make communication interactive so as to obtain responses?

Are you taking into account the different ways to communicate?

3.4 Planification and execution of the activities

The planification and execution of the activities require a good scheduling closely aligned with key project deliverables. Some activities (e.g. e-mail and press releases) intensify pre and post key deliverables. These time frames should be regarded as indicative.

A tracking process will be implemented in order to check that all activities take place, integrating Key Performance Indicators to measure the impact of these communication activities.

A Gantt chart should be created, as well as an accurate cost planning, resources assessment at each partner and harmonization of the activity planning together with the delivery date of the deliverables.

² http://ec.europa.eu/research/participants/data/ref/h2020/other/gm/h2020-guide-comm_en.pdf

3.5 Evaluation of results with KPIs and impact report

During the Next-CSP lifecycle, two mechanisms are used to review the progress of the dissemination activities and provide feedback to the project:

1. Key Performance Indicators.
2. Reports regarding the dissemination activities

Key Performance Indicators (KPI's), are a measuring factor for the performance and progress of an activity, message, task, etc. towards its expected impact. Different KPIs are defined regarding more specifically the communication activities.

They will be used to assess the performance of the dissemination activities all along the project duration and reorientate the dissemination plan if necessary when KPIs are not matched and the expected impact not reached.

4.The targeted audience

This will be defined throughout the lifetime of the project in relation to the results and deliverables of the project. This will be defined with the consortium following a questionnaire to send to them related to their network and knowledge of the market.

Academic and research community	This group targets all research communities interested in the Next-CSP project's developments, results and innovation which can be beneficiary for their own research activities. Scientific contributions of Next-CSP are particularly interesting for researchers working in the field of development of particles as heat transfer fluid and storage medium.
Industrial sector, Professional Associations	A major objective of Next-CSP is to address and trigger the active involvement of industrial and user communities. Next-CSP is of relevance for organizations in various industry. That implies the necessity to approach them individually in the dissemination activities. At the end of the project we plan to elaborate the Next-CSP dissemination impact analysis where we will evaluate the responses gained from the different industrial segments. This will bring important information for further exploitation of the project results by particular consortium partners after the end of the project. In addition to the external action, inside the project, there will also be the creation of an innovation advisory board targeted directly at the industry sector. They will provide valuable feedback on the project, introduce challenging requirements to be considered and have a major impact on the project's sustainable development.
International Standardization Bodies (ISB)	ISB should be aware of Next-CSP scope and objectives. In a future potential advanced stage of the project, ISB could be involved and provide consultative advice on pre-standardization procedures which may be carried out when the technology reaches a suitable readiness level.
Government bodies and policy makers	This is a wide group encompassing innovation driven local, regional authorities, representatives and associations, Ministries, parliaments and Public Administrations at national and international level. There are several significant goals that can be promoted for them and especially the promotion of the use of renewable eneries and the possibilities to improve the environmental performance at low risk, with a better performance and by reducingn the LCOE. Thus, the Next-CSP technology will contribute towards expected EC sustainable emission targets.
EU technology Clusters	This group refers to activities addressing external task forces that can be relevant to Next-CSP and which will offer a quite big and reusable knowledge base for disseminating on the project. Relevant European technology clusters been identified, such as the DERBI ClusTer and the Atlansun Cluster on renewable and solar energies in France, the SOLARTYS cluster in Spain on Solar Energy & Energy Efficiency, etc
EU projects working in similar domain	The participation of project partners in other relevant projects offers the opportunity to establish quick links among parties through common participants.

We can already map potential targets related to the project and Euronovia has already a large database of actors present in these audiences as well as the consortium, being leaders in their fields.

4.1 Industrial associations related to CSP in general

- ☐ ESTELA, Deutsches CSP, Protermosolar, Anest, SER, AUSTELA, Sastela, STELAWORLD
- ☐ China National Solar thermal Energy Alliance - China
- ☐ Solar Energy Corporation of India (SECI) - India
- ☐ Solar Energy Industries Association (SEIA) – USA
- ☐ Emirates Solar Industry Association (ESIA) – UAE
- ☐ Saudi Arabia Solar Industry Association (SASIA) – Saudi Arabia

4.2 Other EU associations related to solar heating

- ☐ EASE - The European Association for Storage of Energy – Europe
- ☐ EERA – European Energy Research Alliance – Europe
- ☐ ESTIF - European Solar Thermal Industry Federation – Europe
- ☐ EDS - European Desalination Society – Europe
- ☐ REA - Renewable Energy Association – UK
- ☐ EUREC - The Association Of European Renewable Energy Research Centres

4.3 National Contact Points

- ☐ The Energy team: <http://www.c-energyplus.eu/>
- ☐ The Environment team: <http://www.env-ncp-together.eu/>
- ☐ The NMP (Nanotechnologies Materials and Production) team: <http://www.nmpteam.com/index.html>
- ☐ The Research Infrastructure team: <http://www.euroris-net.eu/>

4.4 EU SME support organisations

- ☐ EBN - European Business & Innovation Centre Network

- ☐ EuroChambers - The Association of European Chambers of Commerce and Industry
- ☐ EEN – Enterprise Europe Network - To find a local partner for the EEN:
<http://een.ec.europa.eu/about/branches>

4.5 Worldwide stakeholders

- ☐ The online Platform for CSP – Brazil
- ☐ The International Solar Energy Society (ISES) – International
- ☐ The International Energy Agency (IEA) – International
- ☐ The International renewable Energy Agency (IRENA) – International
- ☐ SolarPACES – International

The list can be really long but here is just an example of the large database and communication power that the project has seeing his wide network and also at an international level.

4.6 Other EU funded projects

Other European projects recently funded by Horizon 2020 and that are directly linked to CSP technologies (dissemination via their Coordinators could be also useful) and actions will be planned in collaboration with them. This list is non-exhaustive and year after year, after each EU call, the consortium will try to map the newcomers in the CSP technologies.

- ☐ CAPTURE - Competitive Solar Power Towers – CAPTURE
- ☐ CPVMatch - Concentrating Photovoltaic modules using advanced technologies and cells for highest efficiencies (CPV)
- ☐ TRANSREGEN - Portable thermal fluid regeneration system for Solar Thermal Plants
- ☐ SOLARGE45 - Towards a SOLAR energy Efficiency of 45 % (CPV)
- ☐ PreFlexMS - Predictable Flexible Molten Salts Solar Power Plant
- ☐ RAYGEN - A unique innovative utility scale solar energy technology that utilises a field of low cost heliostat collectors to concentrate sunlight onto an ultra-efficient multi-junction photovoltaic cell array (CSP/PV)
- ☐ Heat2Energy - Demonstrating a highly-efficient and cost-effective energy conversion technology for waste heat recovery
- ☐ INPATH-TES - PhD on Innovation Pathways for TES
- Special case of individual fellowships projects (Marie Curie Actions) related to CSP:

- GLASUNTES - Innovative high temperature thermal energy storage concept for CSP plants exceeding 50% efficiency
- PVFIFTY - TOWARDS A 50% EFFICIENT CONCENTRATOR SOLAR CELL AND A 40% EFFICIENT SPACE SOLAR CELL (CPV)

The targeted audience that will be considered are basically present in the categories below:



- Universities and Research Institutes
- Mass media
- Industry
- Members of government and policy makers
- Research funding agencies
- Civil society organisations
- Business company

Prioritization will be implemented in order to define whether the stakeholders identified are part of the primary, secondary or tertiary group.

5.The message

When focusing on the project results and objectives, here are some messages that could be promoted through the dissemination activities:

- Enhance the role of Renewable Energy to ensure people are aware of the benefits for the environment and society
- Demonstrate the positive impact of NEXT-CSP's solutions in the wide spectrum of CSP technologies
- The importance of involving key users and public authorities at local, regional and national levels in the project in order to guarantee the back-up of the project by key stakeholders
- Promote the study and construction of the pilot to show the European capacities in developing Renewable Energy technologies
- Enhance the life of the citizens in the future

A questionnaire will be sent to each WP leader to identify more specifically which message should be sent to the audience depending on the objectives and the results expected.

The following general subjects of dissemination could be already identified:

1. The Next-CSP project itself (general scope, coverage, goals and milestones and plans to reach them)
2. Interim results (reached objectives and achievements)
3. Techniques and methodologies (with respect of IPR issues)
4. Technologies (with respect of industrial IPR issues)
5. Sustainability assessment results (from LCA)
6. Innovation aspects (in an "open innovation" perspective)

6.The communication means and media

The communication activities that will be part of the dissemination plan will be tailored in order to ensure that important messages are widespread to the adequate targeted audience and that the public at large gets connected with NEXT-CSP. The main purposes of the communication activities of the project have been defined as follow according to the EC requirements:

- To show how European collaboration has achieved more than would have otherwise been possible, notably in achieving scientific excellence, contributing to competitiveness and solving societal challenges;
- To show how the outcomes are relevant to people's everyday lives, by creating jobs, introducing novel technologies, or making people's lives more comfortable in other ways
- To make better use of the results, by making sure they are taken up by decision-makers to influence policy-making and by industry and the scientific community to ensure a follow-up of the development of the technology

6.1.The communication activities

An adequate plan to ensure that the communication activities will meet the objectives above will be included in the Plan for Dissemination and Exploitation of the Results. The Next-CSP dissemination effective strategy will rely strongly on the efforts of single partners in maximizing all occasions (from local to international level) to generate exposure of the project. Activities will range from the simple addition of the website link on partners website, to news postings presenting the advancement of Next-CSP, to conferences where the partner participate and can present the project, ... The first activity of the dissemination plan will be of primary importance to identify the audience and constitute a contact database of the stakeholders with who we will communicate. It has to be noted that for each action, it will be verified that there is no conflict of IPR, hence the setting up of strong monitoring procedures before and after the action (see WP9). The planned activities as described in the following Table 2.4 combines a set of mass media communication (Press releases, website, brochures, ...) and interpersonal communication (workshops, open days, conferences, ...). The Next-CSP partners will also contribute, upon invitation by the INEA, to common information and dissemination activities to increase the visibility and synergies between H2020 supported actions.

The planned activities as described in the following table combines a set of mass media communication (Press releases, website, brochures, ...) and interpersonal communication (workshops, open days, conferences, ...). Once implemented, they will be described in the next update of the D&E plan.

Communication activity	Main objective	Main Targeted audience
Peer-reviewed scientific publications (Open Access) in journals such as: Solar Energy, Applied Energy, International Journal of LCA, Journal of Solar Energy Engineering	Inform and promote about the scientific results of the project Transfer of knowledge <i>NUMBER OF PUBLICATIONS : 8 minimum</i>	The research and academic community related to the use of the solar energy

Participation at conferences (presentation of posters or scientific papers): SolarPACES, CSP today, ASME conferences	Promote the scientific results to interested groups and interact with other related technologies	The research and academic community (and more industry oriented depending on the type of conferences).
Creation of a maquette of the technology	<i>NUMBER OF CONFERENCES to attend: At least 6.</i>	
Three Participations to trade fairs (CSP TODAY Conferences, InterSolar Europe, SolarPACES...)	Promote the results and engage with the industry for the enhancement of the exploitation of the scientific results	Industry and policy makers related to energy intensive industries, the solar energy
One technical workshop to present the project results	Promote and engage the community into more personal interactions with the project	Specific players in the field (academic or non-academic institutions) with a special focus on SMEs who may be interested with such a new technology and manufacturers of the technology
Hosting partner: CNRS	Present and receive feedback on the results.	
One business workshop presenting the economic and environmental assessment	Provide better scientific and technological understanding to non-scientific stakeholders	Policy-makers, industries, investment organisations, environmental sector, all related to Renewable Energy Systems.
Hosting partner: EDF	Present the LCA and risk issues of the technology	The European industrial associations at a EU level like ESTELA but also at a worldwide level.
	Raise funds for the further development of the technology	
One training course	Transfer of knowledge to students through a manual describing the use of the pilot unit	Education
Hosting partner: IMDEA	Attract Master students, PhD students or post-docs to engage into renewable energies	The universities where courses related to the field are taught.
One open infoday	To provide better scientific and technological understanding to non-scientific stakeholders	Public at large but this will be targeted especially to engage with politicians and the press
Hosting partner: CNRS	Make science more accessible to non-specialists	
Technical reports in the form of the deliverables – all public deliverables	Publish online and open access to the scientific results	Public at large, any interested group
Next-CSP public website	Raise awareness, inform, engage, promote the project and the scientific results.	Public at large
Social web-based media (especially	To make science more accessible	Public at large, especially

LinkedIn) and presence on the web (especially Wikipedia)	to a wider public To make renewable energies popular	targeted for a younger public who engages more with social media.
2 Brochure, 8 newsletters, 2 press releases, 2 videos, 5 impact sheets	Inform about the project Promote the project scientific innovative concept	Public at large
Participation of the researchers to events for science popularization, School visits by the PhD students, participation to MOOCs, creation of podcasts on the soundcloud platform	Popularize science by making it attractive Create interest in younger generation to follow science careers	Young pupils as well as students, teachers and the general public

The overall objectives with these communication activities is to promote NEXT-CSP to the international community, key professionals, scientific communities, private sector, policy makers and the general public and assist the market penetration of the developed technologies.

With this in mind, Dissemination and Outreach activities focus on the following points:

- Definition and assessment of NEXT-CSP active and voluntary contribution to social, economic and environmental improvement, emphasizing the societal benefits brought by the project, which will bring added value in terms of sustainability.
- To maximise the social and environmental benefits brought by NEXT-CSP and highlight the organisation's responsibility towards interest groups and stakeholders.
- To foster the role of NEXT-CSP as a facilitator of coordination and collaboration of related interests and stakeholders.

6.2. International conferences and journals

International conferences and journals will be used for the communication activities:

- International conferences (examples) :
 - ☐ SolarPACES Conferences
 - ☐ CSP today conferences
 - ☐ CSP Focus Conferences
 - ☐ ASME Energy Sustainability conferences
 - ☐ IRES International Renewable Energy Storage Conference and Exhibition
- Journals and magazines
 - ☐ ASME Journal of Solar Energy Engineering (JSEE) – International
 - ☐ ELSEVIER Solar Energy – International
 - ☐ FuturEnergy – International

☐ Sun and Wind Energy – International

7. Planification and timing

Although a number of dissemination activities will take place during the first 24 months of the project, the most significant dissemination activities will take place as final research results will be available and the project will go to the next development phase.

The dissemination activities are to be performed according to the following logical schedule:

- 1) Initial awareness phase (month 0-18): this especially includes establishment of the project website, analysis of relevant information resources in terms of identification of dissemination opportunities and creation of basic dissemination tools including graphical identity of the project (i.e. project logo, templates for project documents and for project presentations).
- 2) Targeted dissemination phase (month 6-36): the consortium will enrich the website, publish a project brochure, issue the first press release and attend selected events. Preliminary project results will be presented to the target audiences.
- 3) Pre-launch phase (month 36-48): this represents the period closely before the end of the project when Next-CSP consortium partners will start preparation of own utilization and business plans for the next-phase of next-csp project outputs. This phase will be focused on informing the target audience for the exploitation. Important communication themes in this phase will also be the references gained from the realization of Next-CSP lab-scale pilot.

8. Dissemination rules and procedures

Dissemination activities in the Next-CSP project are deeply embedded with the intellectual property (IP) rights protection which is clearly stated in EC-GA Articles 23a. Practical application of IP rights protection agreed among Next-CSP project partners is adjusted in the Consortium Agreement (CA).

The main aspects of IP rights protection are the following:

- Common agreement on publication of other partners' confidential information or any other information subjected to their IP rights.
- Setting up the dissemination rules and procedures to avoid any potential breach of any partner's IP rights, especially rules and procedures for Next-CSP project results publications.
- Understanding the difference between the interests of academia and industry partners of the Next-CSP project. The academia partners tend to publish all information they have at disposal which is caused by academia common motivation systems while the industrial partners' decision whether, when and where to publish depends on commercial considerations.

The basic regulation of the dissemination activities in the CA states that:

- Dissemination activities including but not restricted to publications and presentations shall be governed by the procedure of Article 29.1 of the GA subject to the following provisions.

“A beneficiary that intends to disseminate its results must give advance notice to the other beneficiaries of — unless agreed otherwise — at least 45 days, together with sufficient information on the results it will disseminate. Any other beneficiary may object within — unless agreed otherwise — 30 days of receiving notification, if it can show that its legitimate interests in relation to the results or background would be significantly harmed. In such cases, the dissemination may not take place unless appropriate steps are taken to safeguard these legitimate interests.”
- For the avoidance of doubt, no Signatory Party shall have the right to publish or allow the publishing of any data which includes Foreground, Background or Confidential Information of another Signatory Party, even if such data is amalgamated with the Signatory Party's Foreground, or other information, document or material without the other Signatory Party's prior written approval.
- Where publications relate to jointly-developed results, each Signatory Party involved must be asked for its consent to publish and such consent not to be unreasonably withheld, delayed or conditioned.
- All draft articles must be sent to the coordinator and the communication manager before publication or production for reporting and archiving purposes. This will allow checking if they fulfil the dissemination requirements or whether they conflict with other existing papers. Moreover the Coordinator and communication manager will decide whether it is appropriate to make the document accessible on the Project website.

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

- The name of the project: Next-CSP
- The project's website URL (<http://www.next-csp.eu/>)
- The Next-CSP project logo
- Acknowledgements to EC public funds. The official EC logo, with the Horizon 2020 indication below, will be used for any (internal or external) deliverable, report and dissemination tool. All publications based on work funded by EC within the activities of the Next-CSP project should acknowledge their affiliation to Next-CSP and bear recognition of the EC funding. This is generally accomplished by adding the following sentence in the acknowledgements section:

“ Next-CSP is a project that has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727762.”

9. Presentation of the visual identity

9.1. Logo



9.2. Templates

The powerpoint template to be used by all partners whenever the project has to be presented.



9.3. Brochure

The project brochure will be a multi-page document that contains information on the project. A second brochure will be edited at the end of the project and will be distributed during the training sessions more specifically and to the conferences. Each partner will receive some printed versions to distribute. Moreover, an electronic format of the brochure will be available in the Website. The brochure should be ready for January 2018.

The main objective of the project brochure is to provide our audiences with an attractive and written project overview and a summary of the main project objectives and characteristics, since this will be done one year after the start of the project this will enable to include already some preliminary results. The text is designed taking into account not only experts, but also interested non-specialists.

A second version of the leaflet will be implemented at the end of the project. This version will contain an updated content, with an overview of the results, and a new layout for making it more attractive.

9.4. The project website

The website (www.next-csp.eu) is of crucial importance in order to enhance the visibility of NEXT-CSP as it will serve as the main communication tool for the wide dissemination of the project deliverables and outcomes. This portal provides content to the scientific communities, policy makers, professionals, academic and researchers, market actors and general public. The website includes information on the project scope, objectives and activities, partners and information on the dissemination activities and documents.

The design of the website builds upon the following criteria and taking into account suggestions given in the EU Project Websites – Best Practice Guidelines (EC, 2010):

- i. visual communication: use of colours and/or photos, web pages are easy to browse, information is kept short and links are included to websites, publications, and so on.
- ii. verbal communication: the website uses simple phrasing, no jargon is used in order to attract the widest possible audience, e-devices are user friendly.
- 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 between the different pages of your site and other sites, add keywords to the web page metadata; use frequently used keyword search phrases both in the metadata and in the contents pages.
- iv. regular update of contents: the website is maintained by the communication manager and the update will be regularly done by the Webmaster upon inputs of the partners.
- v. monitoring tools: the website will include a counter of visitors or other statistical tools that will be used to measure the number of visits.



On the Next-CSP website homepage, there is a link allowing to access the intranet collaborative website used for partnership internal communication and project management of internal documents. The collaborative website is totally private and a password is mandatory to gain access to it.

10. Related deliverables to the WP9 D&E

D9.1: Plan for dissemination and exploitation of results [M6]

The aim of the Plan for dissemination and exploitation of results is to describe how the knowledge generated will be disseminated and taken through to application. The Plan, established at month 6 taking into account the structure presented in section 2.2 of Part B, will be updated at the end of each reporting period and for the final report.

D9.2: Report on dissemination and communication activities [M24]

This report aims at assessing all the dissemination and communication activities implemented by all the partners during the two first year of the project. It will detail how each activity has been implemented (purpose & expected impact, recipient, content, media, timing ...).

D9.3: Final report on the project exploitation initiatives and related impacts on innovation [M46]

The aim of this final report is to detail the project exploitation initiatives and to evaluate their related impacts on innovation.

D9.4 : Final report on dissemination and communication activities [M48]

This report aims at assessing all the dissemination and communication activities implemented by all the partners during the life course of the project. It will detail how each activity has been implemented (purpose & expected impact, recipient, content, media, timing ...).

The high number of industries in the project implies automatically a higher protection of the results published in the deliverables, hence a high number of confidential deliverables in the R&D work packages. However, each deliverable will contain a publishable summary detailing the main results of the activity in order to be able to still have an efficient dissemination activity and reinforce the impact of the project. When a deliverable is submitted to the European Commission, the leading partner of the deliverable will have to submit to the coordinator also a publishable summary of the deliverable which will be published on the website.

11. Evaluation of the communication actions

11.1. Evaluation report

The dissemination impact reports will be used to ensure that the communication activities are delivered according to the objectives of the project in terms of communication.

Each partner implementing a communication activity will be asked to fill in a communication report describing each action after it has been implemented. An evaluation of the impact of the communication action has to be reported to monitor the success of the activities. For each communication action, the leader of the action will have to report the impact of the action to the communication manager. Depending on these reports, and if the impact has not been reached as expected, the dissemination plan will be updated if necessary. These main questions below should be answered in the impact dissemination reports.

WHY? Purpose & expected impact

TO WHOM? Recipient of communication

WHAT? Content of communication

HOW? Media of communication

WHEN? Timing and frequency of communication

BY WHOM? Responsibility of communication

The communication manager Euronovia will be in charge of listing and tracking all the communication activities of the partners.

As an example, this table below will be used to map the Next-CSP partners' attendance and participation to events. The same kind of table will be implemented to analyse the impact and results of each dissemination and communication activities.

Before the event	
Name of event	
Date	
Location	
Event organizer	
Event website	
Description of the event (objective, target audience, , etc.)	
(Draft) Agenda (external link, or in annex)	
Next-CSP partner(s) attending the event: name, entity, role (speaker,	

participant), etc.	
Communication / dissemination material needed (type of material and estimated quantities).	
After the event	
Brief description of activities, conclusions, next steps, recommendations, etc.	
Estimated number of participants, if possible.	
List of annexes	Annex 1:
E.g.: agenda, participants list, power point presentations, conclusion, pictures, etc.	Annex 2:
Other	

11.2. Key Performance Indicators

Key Performance Indicators (KPI's) are a measuring factor for the performance and progress of an activity, message, task, etc. towards its expected impact. Different KPIs are defined regarding more specifically the communication activities.

They will be used to assess the performance of the dissemination activities all along the project duration and reorientate the dissemination plan if necessary when KPIs are not matched and the expected impact not reached.

Presentation of the KPIs chosen for the evaluation of the communication activities:

☐ The NEXT-CSP WEB-SITE:

- Number of visits in the NEXT-CSP Website (traffic)
- Activity & site path reports.
- Traffic from web pages which link to the NEXT-CSP website.
- Traffic of the channelling of visitors reaching the site via search engines.
- Countries of website's visitors

The abovementioned information is currently monitored through the Google Analytics application. A report on the results will be available, which could be adjusted to the future need of monitoring.

☐ EVENTS

- Number of events were NEXT-CSP is presented
- Feedback obtained from audience

Questionnaire data information gathered at the events organised by NEXT-CSP (workshops and exhibition booths):

- Participant profile (policy makers, scientific and research, academy, industry, general audience)
- Field of work (public/private), (academy, research, enterprise)

☐ SOCIAL MEDIA

- Responses to publications.
- Number of contacts in LinkedIn group account.
- % increase of comments
- Number of inquiries received

☐ E-MAIL

- Feedback from contacts.
- Number of e-mails received from Stakeholders
- Number of inquiries received

☐ PUBLICATIONS

- Responses to publications
- Citation of NEXT-CSP Scientific Publications.
- Number of Non-scientific Publications disseminated

☐ Leaflet/posters/project presentation/public project reports

- Number of leaflet/posters distributed/presented
- Number of project presentations

☐ Media appearance

- Number and type of media appearance: to monitor the number of impacts in which the project has appeared/been mentioned in any media (i.e. publications, article, new, interview, workshop, etc).

12. Exploitation potential for NEXT-CSP

12.1. The tools to present and map the exploitable results

One easy tool to use at the beginning of a project to list the exploitation results is the use of a simple table like below presenting the main information on the results. Concrete measures for dissemination and exploitation have already been identified by the consortium as presented in the table below. An update of the exploitation plan will be done during the course of the project to ensure the adequacy of the plan with the results of the project. During the project, the items below will be delivered for future direct exploitation and for promoting the technology:

Type of results to be exploited commercially or non-commercially	Lead user, target group	Exploitation	Dissemination to ensure the exploitation
Creation of scientific data: Particle-in-tube solar receivers, fluid flow and heat transfer in upward moving bubbling fluidized beds, counter flow fluidized bed heat exchangers, heat storage with particles, powder technology, innovative power block design, design of CSP plants based on particle technology, LCA of such plants.	Basic and applied Researchers, Engineers, Developers	Publication through websites, open databases, supports for lectures and courses at European level, patents...	Dissemination in open access, lectures, licences on patents
Construction of a Demonstration prototype	Design Engineers, companies	Further commercialisation of the technology, creation of patent and know-how, IP	Dissemination in Industrial Conferences, participation to trade fairs
Report/deliverable on: modeling of 2-phase flow hydrodynamics and heat transfer, experimental results in the same field, innovative power blocks, CSP design and performance prediction, environmental analysis, experimental results on the pilot testing at the multi-MW scale	Basic/applied researchers	Through the publication of scientific papers	Participation to Scientific conferences to present the publications
Technico-Economic assessment to prove the reliability of the technology at large scale	Investment sector (private or public agencies)	Funding of the future research and development	Business workshops organised during the project with business stakeholders

Creation of new services on: on-site control of heliostat performances, heliostat aiming strategy software, design of particle heat exchangers, high temperature particle handling and storage, high temperature solid processing technologies	Phd students, post-doctoral researchers	Creation of start-ups	Support to the young researchers in the creation of start-ups
Report on cost analysis and positioning of the technology into the energy mix system	EU and national Policy makers	Participation and support to EU policies	Dissemination to policy makers through EU networks and EU associations
An LCA model for the Next-CSP technology to present the negligible impact on environment.	The standardization sector and the environmental and societal sector	Inputs provided to standardization and to environmental associations	Participation to standardization activities

To complement this table, a questionnaire will be sent to the partner to better identify the exploitable results and the relevant targeted users. The format presented below will be used. This will be done on an annual way starting after

Title of the exploitable result	Provide below a short description
Description of the Result	
Innovativeness introduced compared to already existing Products/Services	
Unique Selling Point	
Product/Service Market Size	
Market Trends/Public Acceptance	
Product/Service Positioning	
Legal or normative or ethical requirements (need for authorisations, compliance to standards, norms, etc.)	
Competitors/Incumbents	
Early Adopters - First Customers	
Cost of implementation - bringing product/service to the "market" (before Exploitation)	
Time to market	

Foreseen Product/Service Price	
Adequateness of Consortium Staff	
External Experts/Partners to be involved	
Status of IPR: Background (type and partner owner)	
Status of IPR: Foreground (type and partner owner)	
Status of IPR: use the results from the Exploitation Form	
Partner/s involved expectations	
Sources of financing foreseen after the end of the project	

12.2. Exploitation actions as identified at the start of the project

A continuous activity throughout the project will be to identify selected target groups of end users and other key stakeholders (including, when appropriate, institutional ones and also potential future competitors) whose specific needs and interests will be analyzed and taken into account to shape the final impact of the project. These target groups will be widened to non-EU areas, thanks to the presence of two Moroccan partners.

For the exploitation of the results, the plan will contain the following information:

- Target groups identification: lead and end users principally, like those present in the consortium (CEMEX, New Lime Development, Office Cherifien des Phosphates), manufacturers like COMESSA or potential future competitors
- Lists of outputs to be exploited (scientific data on the characteristics of the components, prototypes, improved components, etc) and explanation to proceed with their development
- Definition of the exploitation and valorization strategy (improvement of dissemination strategies, market and needs analysis, feasibility studies, research of funding, standardization). This will also include the implementation of performance indicators to assess the adequate valorization strategy.
- Methods of exploitation (patents, company creation, private public partnerships, etc).

This exploitation plan will play an important role in the consortium to raise awareness about exploitation measures and the need to promote the outcomes of the project for further development. This document will be an evolving document and will be updated periodically during the course of the project. In particular, a continuous activity throughout the project will be to identify selected target groups of end users and other key stakeholders (including, when appropriate, institutional ones and also potential future competitors) whose specific needs and interests will be analysed. To ensure the exploitation activities, the actions below will be implemented:

- Four events will be organized to push forward the dissemination actions and target relevant stakeholders for exploitation (see WP9 description). These events are relevant for all users and especially the policy makers that will draft the next renewable energy roadmaps relevant to the technology developed in the consortium.
 - One technical workshop to present the pilot unit – Targeted groups: the academic and non-academic organizations with specific players in the field
 - An open public day will be organized to promote renewable energies, disseminate the technological results and also present potential strategies for a market uptake – Targeted groups: Public at large
 - One business workshop to present the business case related to the further improvement of the TRL leading then to the market uptake of the technology – Targeted groups: The investment sector, the commercial sector, the policy makers
 - A one-day training event on the pilot unit will be also planned, intended for university students, PhD students and the education sector. Targeted group: Educational and training sector. Depending on its success, this action could be repeated another time.
- An internal event on exploitation and IPR issues will be organized for the partners of the project. This will be done in collaboration with the IPR Helpdesk from the European Commission who provides training for EU funded projects.
- Recruitment of at least 5 PhD students and 2 post-doctoral positions who are especially relevant candidates for the creation of innovative start-ups. Targeted group for the exploitation: The investment sector.
- A mobility scheme will be set up for the PhD students in order to foster transfer of knowledge between young scientists and among the different partners. It will be considered to implement a one-month mobility scheme at another partner's academic institution or industry per PhD student during the project. This should increase the development of novel ideas between the PhD students and enable a better transfer of knowledge between the partners. A special focus will be put on training them for innovation creation during their PhD. Targeted group: The training sector
- The creation of patents is envisaged to guarantee the good protection of the project results and ensure a good exploitation management.
- Collaborations with other national, EU and international collaborative projects like the EU SAMT project whose results might be useful for the LCA.
- **An innovation board will be created as part of the WP9 to ensure the management of innovation within the consortium and guarantee that all measures are taken to maximize the dissemination and potential exploitation of the results during the project.** This board will include key institutional stakeholders in the target areas such as government or regional government officials and will be used as a tool to anticipate, identify and solve related issues for the business case such as public acceptance, local regulations, set up of adequate and fair incentive schemes. The industry partners will be automatically included in this board as well as other end users that could be interested in this technology. The industrial association ESTELA (the European Solar Thermal Electricity Association) and the CSP industry SENER have already provided their support to the project.

Beyond the project, the partners have already thought on a way to materialize the exploitation of the results specifically oriented towards commercialization channels mainly but also knowledge transfer channels:

- Future internal research at the partners' institutions will be carried out to ensure the sustainability of the technology development. The results will be used as background for future collaborative innovation project to reach a TRL 7/8. This should take place potentially through new EU fundings. Targeted groups: The research community
- New products or processes will be developed and could be exploited by the SMEs of the consortium. Targeted groups: The SME sector
- Potential spin-offs or start-ups supported by the consortium and created potentially by the PhD students. A clear emphasis will be put on that activity to boost the training of the PhD students on this aspect and the creation of start-ups. Targeted groups: The PhD students
- Further funding in the form of PPP, H2020 funding for innovation (especially the SMES instrument), public procurement, venture capitals, private investors, banks, business angels will be sought for, to ensure the further development of the technology.
- The possibility for providing inputs to European standards in the manufacturing sector will be also deepened on these aspects : (1) On-site solar flux measurements in solar tower (WP2), (2) calculation of the solar fraction in hybrid solar power plant (WP6 et 7) and LCA of CSP (WP8) Targeted groups: The manufacturer sector and standardization sector

12.3. Achieving the impact

In order to enable as much as possible market oriented solutions and to ensure a high market penetration, the current consortia encompass the entire industrial value chain of the applied technologies: EDF, EPPT, SBP, COMESSA, WEL. In addition, all academic and engineering partners are leaders in their field. This ensures a high commitment and strong potential for achieving the expected impact.

The dissemination activities will help strongly to reinforce active international collaborations. Through the support of one of the biggest CSP industry plus ESTELA the CSP industrial association (support to dissemination activities), this will ensure that strategic feedbacks on the technology are received and that dialogue between the consortium and the users is reinforced to bring coherence and strategy in the future development of this new innovative technology.

The policy makers will be also targeted at local, regional, national and European level. This will help to strengthen politic engagement into the draft of policy agendas supporting the use of solar energy. Supporting the policy makers in their understanding of the technology and of the economic and environmental gain will be of primary importance to be able to influence their decisions and secure their engagement. A workshop will be dedicated to that.

At an international level, this project will strengthen the European leadership for the development of such a system and the creation of new production opportunities for them. Measures to target the industry have been secured in the project (trade fairs, business workshop, technology workshop, the Innovation Advisory Board, the inclusion of industrial

association as support partners, etc). Such an innovative project will contribute to secure the leadership of European industries on this sector.

Information campaigns will also considerably improve the attractiveness for the use of renewable energies by raising awareness and public acceptance on the benefits of changing the energy system with a better integration of renewable energies. This will be a key focus in the WP9 on dissemination.

Moreover, to achieve the creation of innovation, it is important to add that the recruitment of PhD Students and post-doc positions will enable to create employment, stimulate entrepreneurship and provide European high-qualified experts to reinforce the European excellence in terms of scientific expertise.

12.4. Knowledge Management and Protection

As part of the project, a Consortium Agreement has been signed to address all relevant issues related to IPRs and the results generated during the project (access rights to background and foreground necessary for the execution of the Project, rules for dissemination and use of own knowledge etc). The Consortium Agreement (CA) complements the rules of the Grant Agreement. In the Consortium Agreement, information on the following items has been inserted:

- Which knowledge the consortium will exchange?
- Under which conditions?
- Who will be the owner of the results?
- What happens in cases of joint ownership?
- Who (and how) will exploit the results?
- Who (and how) will disseminate the results?
- How is the consortium protecting confidential information?

In general, IPR will be the property of those partners which have contributed to get the knowledge. The degree of ownership will depend on the degree of contribution to the IPR. This general rule will be included in the Consortium Agreement and will apply as long as it does not violate national legislation, specific agreements for scientific publication, and specific agreements among partners regarding ownership of IPR. Partners, that have jointly carried out work generating foreground and where their respective share of work cannot be ascertained, shall have joint ownership of that foreground and may establish appropriate joint ownership agreements or license agreements.

This task is taken really seriously by the consortium since this is what can guarantee the future of the project. CNRS, that has finalized the draft of the CA, has specific in-house personnel, specialized on IPRs in EU-project, to accompany the consortium on all matters related to the establishment of the CA and the protection and exploitation of assets including patent searches needed throughout the project (with the free patent research website Espacenet but if needed, support from experts from the national patent office's PATLIB).

Further to the draft of the CA, CNRS and its adequate department supported also by EURONOVIA will take an active role in providing advice and recommendations to the project partners. If relevant, for any registration of IPR in regards to the results generated during the project, CNRS (or in case, an entrusted external IP attorney), will be responsible for filling the registration.

During the course of the project, an innovation advisory board will be created to deal with all matters related to the valorization of the results. In order to protect the confidential information, a non-disclosure agreement will be signed with the members of this IAB and which terms shall be not less restrictive than those stipulated in the Consortium Agreement. This shall apply 30 days after their nomination or before any confidential information will be exchanged. The definition of the confidential information will be agreed among the GA members.

In regards to the rules for dissemination activities, as already presented above, any beneficiary will have the possibility to object to dissemination unless otherwise agreed within 45 days of receiving notification, if it can show that it would suffer significant harm (in relation to background or results). In this case, the results may not be disseminated unless appropriate steps are taken to safeguard the interests at stake.

☐ At partner level

There will be a review of the results created periodically at partner level. Questionnaires will be sent to all partners to assess the knowledge created and their opinions on the potential exploitation plan to adopt and how to protect the knowledge. Management procedures will be implemented with the partners to avoid any problems in regards to IPR. Further to the start of the project, CNRS as coordinator will make sure that all partners are aware of the IPR policy in the CA (presentation at the Kick-off meeting) and that the partners support the Code of Practice concerning the management of IPR as stated by a recommendation from the European Commission (i.e. to better convert knowledge into socio-economic benefits, to more effectively exploit publicly-funded research results with a view to translating them into new products and services, ...). As already mentioned, a special IPR workshop will be organized in collaboration with the IPR Helpdesk from the European Commission.

12.5. Open Access policy

The access policy that will be implemented will give priority to the “Green” model with the requirement to fix the embargo to 6 months after the first date of publication, as required by the EC. However, when not applicable, the publication policy of the consortium will be to pay the fees to make the scientific publications free of access. The costs related to paying the “Gold” open access have been integrated to the budget of the project. All publications will be stored in an online repository, either institution-based or subject based repositories. For subject-base repositories, the website Registry of Open Access Repositories (<http://roar.eprints.org/>) will be used to target the best online repositories depending on the publications. Also, the platform Sherpa/Romeo (<http://www.sherpa.ac.uk/romeo/index.php>) will be used to have a summary of permissions that are normally given as part of each publisher's copyright transfer agreement. EURO will provide support on this matter. Another planned possibility for the open access repository is the specific Open Access pilot repository initiated by the European Commission in OpenAIRE (<https://www.openaire.eu/>).

It is important to mention that since the 9th of October 2016, a dedicated law is in force in France, the coordinator's country, related to the publication in open access of scientific papers funded by public money (by at least 50%). The law makes it now possible to provide an open access for free and electronically to all publicly funded papers (involving a French author) maximum 6 months after the first date of publication, and this, whatever contract is signed between the author and the editor. In this sense, this will make it easier to guarantee the publication in open access of most of the project papers according to the EC rules and this at no cost.

Further to this and whenever necessary, the addendum to publication agreement (http://ec.europa.eu/research/participants/data/ref/fp7/89989/model-amendment-to-publishing-agreement_en.doc), provided by the European Commission will be used. This is an instrument that, if accepted by the editor, modifies the publisher's agreement and allows the researcher to keep key rights to his/her articles. EURO will be in charge of supporting the researchers for these administrative issues related to the communication with the publishers.