

ARENHA

ADVANCED MATERIALS AND REACTORS FOR ENERGY STORAGE THROUGH AMMONIA

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D7.21

ARENHA dissemination activities M18

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

(*) for generating such code please refer to the Quality Management Plan, also to be included in the header of the following pages

(**) indicate the acronym of the partner that prepared the document

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1. EXECUTIVE SUMMARY

1.1. Description of the deliverable content and purpose

Among the task foreseen in the ARENHA project, dissemination and communication activities play a crucial role to spread the scientific knowledge and technological developments to the largest audience. This package of activities will increase visibility of both project and partners, and will guarantee its optimal acknowledgement and future exploitation, as they will address the main European and worldwide forums and platforms on the project's topic.

The aim of this deliverable is to describe the different dissemination and communication activities carried out in the frame of the project ARENHA by Month 18. The dissemination and communication activities are based on the Dissemination and Communication Plan of the ARENHA project (see Deliverables D7.3 and D7.4). According to this plan the activities in the first and second year of the project are focus on:

- The implementation of the external and internal dissemination strategy and communication tools (i.e. public and private website, project communication material...).
- The internal and external disseminations with special focus on communicating with the external audience: i) internal dissemination between the WPs, ii) creating an effective network between all participants, iii) the update of the website. The public deliverable and presentation of international events as well as scientific workshops will be the other highlights of this stage. A key event in this stage will be the scientific workshop organized by ENGIE at M24.

2. Dissemination and communication plan

The dissemination and communication activities are aimed to:

- Widespread the project results among the stakeholders to generate awareness and interest for the proposed solution,
- Obtain valuable feedback on intermediate project results to get a comprehensive validation from stakeholders covering all the addressed market sectors (also linked to exploitation strategy),

The dissemination and communication plan was developed to provide an overview on the dissemination strategy and focuses on the following main themes:

- The main results to be disseminated throughout the project,
- The dissemination channels and instruments to be used,
- The major stakeholders and targets groups to focus on,
- The main dissemination actions for the period,
- The ARENHA scheduled events,
- The templates for the follow up of the dissemination and communication activities.

During this period, the first and second version of the Dissemination and Communication plan have been released. The project encourages the maximum publicity for its activities and the greatest possible involvement of external actors in its discussions. The plan also presents the first results of the Dissemination Activities. The report will be updated along the project (M24 and M48).

Dissemination in this project has been designed to complete the activities performed in all working groups by fulfilling the following purposes:

- Improving the efficiency of the communication between the project members. This is achieved by organizing the three-month teleconferences, six-month meetings, reporting and monitoring the progress of the main important aspects of the mutual projects between the members and circulating the newsletter and updating the website. These have been scheduled in the dissemination plan and will be materialized during this project.
- Improving the efficiency of communication between ARENHA consortium and external research and industrial institutes is another main goal of the project. This is achieved by organizing the workshops, attending the conferences, updating the website and sending selected newsletters to the targeted audiences. These will be achieved during the project.
- Ensuring communication with the public by providing general presentations, newsletters and put them available on the public website. Moreover, the final conference at the end of project will serve this purpose. These will be completed by circulating the newsletters dissemination report at the end of project.

The process of dissemination has started at the first month of the project in April 2020 and has continued by monitoring and reporting the collaboration of ARENHA partners in terms project planning, approval and sharing the results. The dissemination of the project is planned in four stages as follow (Figure 1):

- The first initial 12 month includes the elementary internal dissemination and external communication and will focus mostly on the implementation of the dissemination strategy and communication tools (i.e. public and private website, project communication material).
- The second stage covers the activities in the second year of the project. The main targets in this stage are the internal and external disseminations with special focus on communicating with the external audience: i) internal dissemination between the WPs, ii) creating an effective network between all participants, iii) the update of the website. The public deliverable and presentation of international events as well as scientific workshops will be the other highlights of this stage. A key event in this stage is the scientific workshop organized by ENGIE at M24.

- The advanced stage covers the activity in the third year of the project. Besides the second stage targets, main targets in this stage are focused on training as well as disseminating the results already achieved by the project.
- The Final stage of the dissemination starts on the month 37 and continues until the end of project and the main events in this stage are the final conference and publication of press release and articles, which allow sharing the results of the whole projects with public.

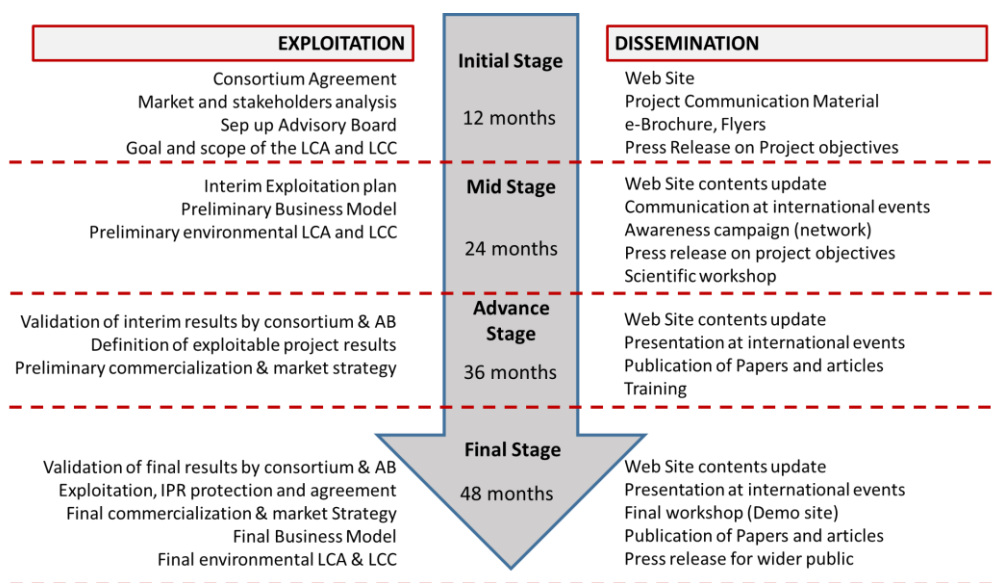


Figure 1. Stage of exploitation and dissemination activities

3. Dissemination and communication tools

Dissemination and communication tools are implemented for the internal (consortium) and external communication of ARENHA. Actions have been undertaken to create awareness of the ARENHA project, its objectives and anticipated results. These actions have been carried on and will continue through the entire project duration. To have a uniform way to communicate internally and externally, templates have been prepared by TECNALIA for deliverables, minutes, internal bimonthly reports and public presentations.

3.1. Branding: graphical templates and branding elements

A set of the branding elements like graphical templates are being created and designed in order to ensure a professional level of communication and presentation of the project. The logo was created in the first month of the project (Figure 2).



Figure 2. ARENHA project logo.

In addition, a first leaflet (Figure 3), poster (Figure 4) and public presentation (Figure 5, also available at the public website) have been drafted and are available for the consortium and will be printed or used when needed.

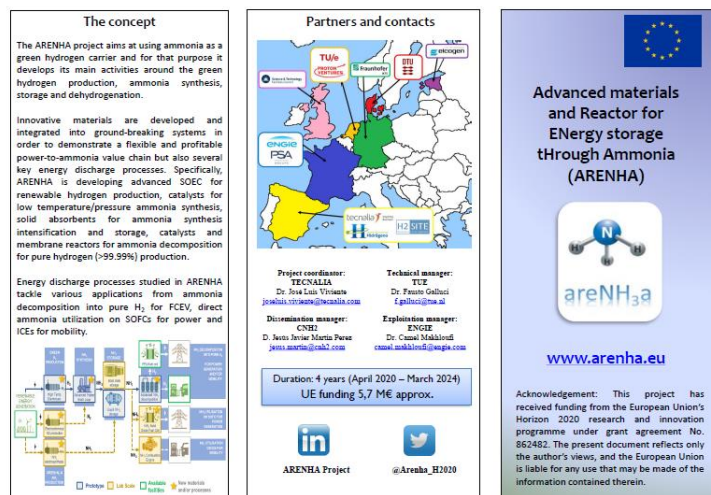


Figure 3. First leaflet.

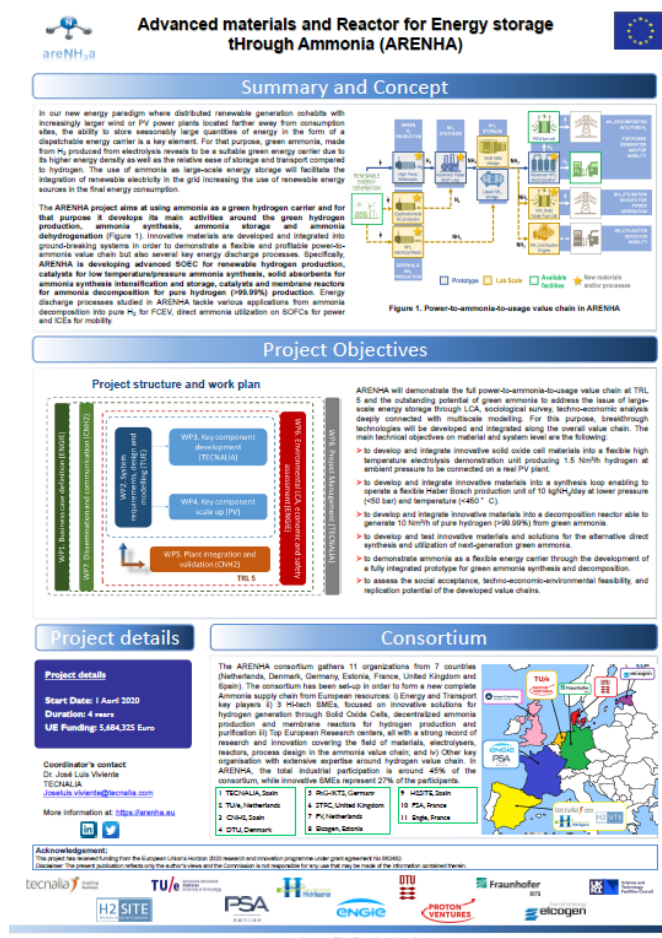


Figure 4. ARENHA poster.



Advanced MEMBranes and membrane assisted procEsses for pre- and post- combustion CO₂ captuRe

MEMBER

<https://member-co2.com/>

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 760944

Duration: 4 years. Starting date: 01 January 2018
Budget: € 9 596 541,50 EU contribution: €7 918 901

Contact: joseluis.viviente@tecnalia.com

16/04/2018 Page 1 *The present publication reflects only the author's views. The Commission is not responsible for any use that may be made of the information contained therein.* 1st Public presentation

Figure 5. Public presentation.

Finally, a short video outlining the concept of the project and the expected benefits from its implementation is available in the ARENHA home public web page and in YouTube:
(<https://www.youtube.com/watch?v=BgZtP3PqOv0&t=13s>).

The following branding elements have already been provided or will be provided in the course of the project: logo, flyers, posters, non-confidential PowerPoint presentations, newsletters, templates.

Table 1. Branding elements of ARENHA.

Dissemination element	Expected use	Target audience	Stage
Project logo and visual identity	Represent ARENHA project	Full public	Developed
Project website	Provide updated information	Full public	Developed and periodically updated
Social media Campaign	Provide updated information, dates, attract interest to the project	Full public	Actively ongoing
YouTube channel	Explain processes, provide technical information	Full public	First video already available
Press and new releases	Provide updated information, dates, attract interest to the project	Full public	Actively ongoing
Project Leaflets	Provide technical information and contact information	Users, Research organizations, Industry	Printing ongoing
Roll-ups	Provide technical information	Users, Research organizations, Industry	Printing ongoing
Posters	Provide technical information	Users, Research organizations, Industry	Printing ongoing

3.2. Public website and social media networks

The ARENHA project activities will be distributed through external website to improve communication. The ARENHA website is considered to be the main communication tool for the project and its outcomes. It has been designed and structured to inform the target audience and stakeholders in a simple yet effective way. The website is already online (<https://arenha.eu/>). The website will be continuously updated with all the publishable information from the project partners. This web site is provided by TECNALIA and managed by TECNALIA and CNH2, and contains all public information about the project, organised in the following main sections: Home, About, Partners, Technology Public Documents, News & Events, Links, Contact Us and Newsletters.



Figure 6. ARENHA Website.

A social media campaign is actively carried out in order to ensure adequate coverage of project activities on the social networks. The project uses LinkedIn, Twitter and YouTube as additional distribution channels of the project results. Therefore, ARENHA project will have a *Twitter profile* “@ARENHA_H2020”, a *LinkedIn profile*, a *LinkedIn group* titled ARENHA Project is also being used and also other accounts from each partner are used to further widespread the ARENHA project. Table 2 shows all publications carried out so far in LinkedIn.

Table 2. LinkedIn publications.

Date	Title	Link	Partner involved
15/10/2021	"Se firmó un acuerdo de desarrollo conjunto para el desarrollo de #hydrogen verde y un proyecto de amoníaco verde en la Zona Libre de Salalah en Omán"	https://www.linkedin.com/posts/lolid_agreement-signed-to-explore-green-ammonia-activity-6854495174295355392-5meP	LinkedIn CNH2
15/10/2021	¡¡Noticia!! El costo del carbono entra en el negocio diario marítimo	https://www.linkedin.com/posts/cnh2-centro-nacional-del-hidr%C3%B3geno-16464211b_carbon-cost-enters-the-maritime-everyday-activity-6851776790071959552-wtqE	LinkedIn CNH2



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30/09/2021	Nuestra compañera Elena Monge Ruiz, de la Unidad de Ingeniería Aplicada, participó el viernes 24 en las jornadas de encuentro estudiantes-egresados de la iniciativa Generación ON hablando sobre su experiencia profesional, en el CNH2 - Centro Nacional del Hidrógeno en el ARENHA Project.	https://www.linkedin.com/feed/update/urn:li:activity:6849268861917818880/	LinkedIn CNH2
22/09/2021	Nota de prensa de ARENHA Project en la Revista Energética, p.16. Link: https://lnkd.in/eVu5tj-3	https://www.linkedin.com/posts/cnh2-centro-nacional-del-hidr%C3%B3geno-16464211b_energ%C3%A9tica21-revista-septiembre-de-2021-activity-684646813572242049-e7Ky	LinkedIn
22/09/2021	News!! Carbon cost enters the maritime everyday business	https://www.linkedin.com/posts/arenha-project-b966621b3_carbon-cost-enters-the-maritime-everyday-activity-6846471089476968448-y58	LinkedIn
15/09/2021	ONLINE WORKSHOP: "NON-BATTERY BASED ENERGY STORAGE" ARENHA will be present at the online workshop on non-battery-based energy storage	https://www.linkedin.com/posts/arenha-project-b966621b3_non-battery-based-energy-storage-activity-6841991254645985280-1jF6	LinkedIn
14/09/2021	ARENHA recommends: At what pressure shall CO2 be transported by ship? An-in-Depth Cost Comparison of 7 and 15 barg Shipping	https://www.linkedin.com/posts/simon-roussanaly-7542b724_ccs-carboncapturetransportstorage-co2shipping-activity-6841686990266613760-YEB3	LinkedIn
01/09/2021	Take a look to the 2nd issue of the ARENHA Project Newsletter! https://lnkd.in/dnAekgFw You can also subscribe to this Newsletter (to receive it periodically in your email) on the ARENHA website. https://lnkd.in/dmkayUZG #arenha_h2020 #ARENHAPROJECT #hydrogen	https://www.linkedin.com/posts/arenha-project-b966621b3_arenhaabr2020-arenhaproject-hydrogen-activity-6838392630846468097-QDu4	LINKEDIN cnh2
02/09/2021	ARENHA Project has released the 2nd newsletter with the main activities carried out during the last period. #Ammonia as a energy carrier! 2nd Newsletter: https://lnkd.in/eSUXvZNh Website: https://arenha.eu/ #hydrogen #membranes	https://www.linkedin.com/posts/membrane-technology-and-process-intensification-tecnalia_arenha-newsletter-issue-2-june-2021pdf-activity-6839174636215840768-Gf7	LINKEDIN (TECNALIA Membrane Technology)
23/06/2021	News!! This revolutionary process will produce green ammonia from renewable energies in refrigerator-sized reactors. Link: https://lnkd.in/d-MVUvr #arenha_h2020 #greenhydrogen	https://www.linkedin.com/posts/arenha-project-b966621b3_este-proceso-fabricar%C3%A1-amon%C3%ADaco-verde-para-activity-6813363445967151107-xHuQ	LINKEDIN cnh2
06/05/2021	News!! World bank looks to hydrogen and ammonia for decarbonizing maritime transport. Link: https://lnkd.in/eNxqA2U #arenha_h2020 #ammonia #descarbonizing #hydrogen #greenhydrogen	https://www.linkedin.com/posts/arenha-project-b966621b3_world-bank-looks-to-hydrogen-and-ammonia-activity-6795954271281037312-oSQX	LINKEDIN cnh2
15/04/2021	News!! Ammonia and hydrogen are key to decarbonising maritime transport, says World Bank report. Link: https://lnkd.in/dxCsrjN #arenha_h2020 #ammonia #hydrogen	https://www.linkedin.com/posts/arenha-project-b966621b3_ammonia-and-hydrogen-are-key-to-decarbonising-activity-6792790667757146112-Dax5	LINKEDIN cnh2



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26/02/2021	<p>ARENHA Project, #Ammonia, #Catalyst, #Hydrogen, #Energy</p> <p>Ammonia is a very important molecule. Its role is even becoming more important as it can also be used as energy carrier and fuel.</p> <p>We open a special issue dealing with ammonia synthesis and utilization.</p>	<p>https://www.linkedin.com/posts/cnh2-centro-nacional-del-hidr%C3%B3geno-16464211b_energy-ammonia-catalysts-activity-6773371548402294784-5eXE</p>	LINKEDIN cnh2
11/01/2021	<p>ARENHA has released a video showing the research activities carried out in the frame of the project. Visit our website..</p> <p>https://arenha.eu</p> <p>https://lnkd.in/dJrxw5v and enjoy the video!</p>	<p>https://www.linkedin.com/posts/arenha-project-b966621b3_home-activity-6737381835354980352-UlID</p>	LINKEDIN cnh2
02/12/2020	<p>ARENHA project has released a video showing the research activities carried out in the frame of the project: Ammonia as energy carrier! Video: https://lnkd.in/dJrxw5v Project website: https://arenha.eu #ammonia #membranes #research</p>	<p>https://www.linkedin.com/posts/membrane-technology-and-process-intensification-tecnalia_arenha-project-advanced-materials-and-reactors-activity-6739503270823284736-qkRS</p>	LINKEDIN (TECNALIA Membrane Technology)
14/10/2020	<p>ARENHA Project's website is ready: https://arenha.eu/</p> <p>ARENHA project aims to global impact seeking to develop, integrate and demonstrate key material solutions enabling the use of ammonia for flexible, safe and profitable storage and utilization of energy under the form of green ammonia. Nowadays using the ammonia as an innovative profitable storage and utilization of energy is being a closer reality. It is coordinated by TECNALIA Research & Innovation and involves a consortium of 11 partners from academia, research centers, SMEs and large companies. It gathers the whole expertise to demonstrate the flexible and profitable power-to-ammonia-to-usage value chain based on the development of innovative materials and systems. Eindhoven University of Technology CNH2 - National Hydrogen Center DTU - Technical University of Denmark Fraunhofer IKTS STFC Proton Ventures Elcogen H2SITE On-site H2 recovery & generation Groupe PSA ENGIE Viviente José Luis</p>	<p>https://www.linkedin.com/posts/membrane-technology-and-process-intensification-tecnalia_home-activity-6722061360634617856-YNo4</p>	LINKEDIN (TECNALIA Membrane Technology)
05/10/2020	<p>We are very happy to announce our strategic alliance with the Spanish National Hydrogen center CNH2 - Centro Nacional del Hidrogeno for boosting the development and implementation of #Hydrogen as energy vector. We are already working together in two EU projects (ARENHA Project and Macbeth), and we see much more opportunities of collaboration in the field of hydrogen. https://lnkd.in/e-EB4Ai TECNALIA Research & Innovation</p>	<p>https://www.linkedin.com/posts/membrane-technology-and-process-intensification-tecnalia_hidraeigeno-tecnologiaedas-activity-6719146846482165760-1KR1</p>	LINKEDIN (TECNALIA Membrane Technology)
31/08/2020	<p>Due to the current situation and our responsibility to limit the spread of COVID-19, the kick-off meeting was celebrated online with success on May 5th. It was the first-time consortium was in contact all together.</p> <p>Besides presenting the groups, the consortium made a review of the long-term goal of the project and discussed on the short-term specific activities to be carried out in the next months. Further information on the project can be found at the following link: https://arenha.eu. #arenha_h2020 #H2020</p>	<p>https://www.linkedin.com/posts/arenha-project-b966621b3_arenhaabr2020-h2020-activity-6711890602490920960--Csn</p>	LINKEDIN cnh2
30/08/2020	<p>ARENHA project aims to global impact seeking to develop, integrate and demonstrate key material solutions enabling the use of ammonia for flexible, safe and profitable storage and utilization of energy under the form of green ammonia.</p>	<p>https://www.linkedin.com/posts/arenha-project-b966621b3_home-activity-6706456199241441280-cZFu</p>	LINKEDIN cnh2

In addition, news on the ARENHA project has been distributed in other LinkedIn groups in which the partners are involved (i.e. TECNALIA Membrane Technology (>11,000 contacts)).

Table 3 below shows all twitter publication during this period.

Table 3. Twitter publications.

<i>Date</i>	<i>Next</i>	<i>Link</i>	<i>Partner</i>
22/09/2021	Tweets: Nota de prensa de ARENHA Project en la Revista Energética, p.16. Link: https://lnkd.in/eVu5tj-3	https://twitter.com/cnh2_es/status/1440702754133975047?s=20	CNH2
31/09/2021	Tweet: See new Tweets Conversation ARENHA Project @Arenha_H2020 Take a look to the 2nd issue of the @Arenha_H2020 Newsletter!	https://twitter.com/Arenha_H2020/status/1432627233810755585?s=20	CNH2
30/08/2021	News! Ammonia: the missing link in the energy transition? Plans for ammonia exports are taking shape around the world, as companies compete to secure the most attractive opportunities to fuel future zero carbon aspirations. https://energyvoice.com/renewables-energy-transition/341719/ammonia-hydrogen-power-shipping/... #ARENHA_h2020 #ARENHAPROJECT	https://twitter.com/Arenha_H2020/status/1432231403052220418?s=20	CNH2
23/06/2021	News!! This revolutionary process will produce green ammonia from renewable energies in refrigerator-sized reactors. Link: ... https://forocochoselectricos.com.cdn.ampproject.org/c/s/forocochoselectricos.com/2021/06/revolucionario-proceso-amoniaco-verde-energia-renovable.html/amp... #arenha_h2020 #greenhydrogen	https://twitter.com/Arenha_H2020/status/1407601877974405121?s=20	CNH2
06/05/2021	News!! World bank looks to hydrogen and ammonia for decarbonizing maritime transport. Link: https://hydrogenfuelnews.com/decarbonizing-maritime-transport/8544587/ #arenha_h2020 #ammonia #descarbonizing #hydrogen #greenhydrogen	https://twitter.com/Arenha_H2020/status/1390188788329107458?s=20	CNH2
27/04/2021	News!! Ammonia and hydrogen are key to decarbonising maritime transport, says World Bank report. Link: https://h2-view.com/story/ammonia-and-hydrogen-are-key-to-decarbonising-maritime-transport-says-world-bank-report/ #arenha_h2020 #ammonia #hydrogen	https://twitter.com/Arenha_H2020/status/1387025407371878402?s=20	CNH2
30/03/2021	Rombo azul grandeLast week we held a call with to explore future collaborations with @Arenha_H2020, #Prometh2 and @NextAec under the framework of materials for non-battery-based #EnergyStorage.	https://twitter.com/recycalyse/status/1376807358282743809?s=20	Recycalyse project

05/03/2021	Ammonia is a very important molecule. Its role is even becoming more important as it can also be used as energy carrier and fuel. You can find a special issue dealing with ammonia synthesis and utilization in link: https://mdpi.com/journal/catalysts/special_issues/Ammonia_catal... #energy #ammonia #catalysts #hydrogen	https://twitter.com/Arenha_H2020/status/1367743010667167751?s=20	CNH2
16/09/2020	The kick-off meeting was celebrated online with success on May 5th. It was the first-time consortium was in contact all together. Further information on the project can be found at the following link: https://arenha.eu . #ARENHA_2020 #H2020	https://twitter.com/Arenha_H2020/status/1306125328792813568?s=20	CNH2
01/09/2020	Arenha_H2020 aims to global impact seeking to develop, integrate and demonstrate key material solutions enabling the use of ammonia for flexible, safe and profitable storage and utilization of energy under the form of green ammonia. https://arenha.eu . #ARENHA_H2020 #H2020	https://twitter.com/Arenha_H2020/status/1300691744095375361?s=20	CNH2
28/07/2020	arenha_h2020 now on Twitter. Follow us for up-to-date information on ARENHA (Advanced materials and Reactors for Energy storage through Ammonia) Project. For more information: https://arenha.eu #ARENHA_H2020 #H2020	https://twitter.com/Arenha_H2020/status/1288086229012054017?s=20	CNH2

The main results from all LinkedIn and Twitter publications are shown below.

Table 4. Social media impact.

Social Media	N° Posts	Impressions	Engagement
Linkedin	12	9931	171
Twitter	11	2232	62

3.3. Publications, conferences and newsletters

Apart from social media, ARENHA project will develop periodic publications and newsletters in its own website as the project objectives are been reached. These press and news releases will be held every six months from the beginning of the project.

All project partners will exploit their own press offices and contacts in order to ensure a publicity of the project outcomes. The group leaders are responsible for establishing media contacts and partnerships, especially in the role of newsmaker for interested journalists. Dissemination of the project via press and media occurs using of press releases, events, announcement in the journals and professional groups in the social media.

3.3.1. Scientific publications

The following peer reviewed articles has been already published by the consortium:

1. Jaysree Pan, Heine Anton Hansen, Tejs Vegge. Vanadium oxynitrides as stable catalysts for electrochemical reduction of nitrogen to ammonia: the role of oxygen. J. Mater. Chem. A, 2020, 8, 24098- 24107.
<https://doi.org/10.1039/D0TA08313E>.
2. Christine Mounaïm-Rousselle, Pierre Brequigny, S Houillé, C Dumand. Potential of Ammonia as future Zero-Carbon fuel for future mobility: Working operating limits for Spark-Ignition engines. SIA POWERTRAIN & ENERGY 2020, Nov 2020, Online, France. (hal-03188481).
3. V. Cechetto, L. D Felice, A. Arratibel Plazaola, F. Gallucci. Ammonia inhibition on H₂ produced via ammonia decomposition in a catalytic membrane reactor. Fuel Processing Technology 216 (2021) 106772.
<https://doi.org/10.1016/j.fuproc.2021.106772>

In addition, six other articles has been submitted to different journals

3.3.2. Conferences and workshops

Participation in conferences and other events will be a significant part of the dissemination project. The objective of these events is to present ARENHA project activities to public including research organisations, potential users, industry and other stakeholders. During this period ARENHA project has been presented at the following conferences and workshops:

1. C. Mounaïm-Rousselle, P. Brequigny, S. Houillé, C. Dumand. Potential of Ammonia as future Zero-Carbon fuel for future mobility: Working operating limits for Spark-Ignition engines. International Congress on Energy and Powertrains (Rouen, France, November 2020). Oral presentation.
<https://www.sia.fr/evenements/193-sia-powertrain-energy-rouen-2020>
2. Valentina Cechetto, Luca Di Felice, Jose Medrano, Camel Makhloufi, Jon Zuniga, Fausto Gallucci. Ammonia inhibition on H₂ produced via ammonia decomposition in a catalytic membrane reactor. World Online Conference on Sustainable technologies. March 17th-19th, 2021. Oral presentation.
<https://wocst.org/index.php>.
3. Camel Makhloufi. Utilising Liquid Ammonia for Cost-effective storage and distribution of large Quantities of Renewable Energy. 14th Energy World Forum. May 19th, 2021. Oral presentation.
<https://energystorageforum.com/session/utility-utilising-liquid-ammonia-for-cost-effective-storage-and-distribution-of-large-quantities-of-renewable-energy#>.
4. F. Kukka,b, S. Pylypkob, E. Lusta, and G. Nurka. Influence of active layer thickness of Reversible solid oxide cells on the electrochemical performance of water electrolysis. SOFC XVII conference. July 18th-23th, 2021. Oral presentation. <https://www.electrochem.org/sofc-xvii/>.
5. Christine Mounaim-Rousselle. Ammonia as zero-carbon fuel for Internal Combustion Engine: where are we today? 15th International Conference on Engines and Vehicles. September 12th-16th, 2021. Keynote Lecture. <https://www.sae-na.it/>.
6. José Luis Viviente. Advanced materials and Reactors for Energy storage tHrough Ammonia (ARENHA). Online workshop: NON-BATTERY BASED ENERGY STORAGE: Four sustainable European solutions. September 15th, 2021. Oral presentation. <https://recycalyse.eu/recycalyse-joint-workshop/>.
7. Zañcat Sahin, Valentina Cechetto, Luca Di Felice, Fausto Gallucci, H₂ Production through Ammonia Decomposition in a Catalytic Membrane Reactor: A computational and experimental study, 12th International Conference on Hydrogen Production (ICH2P-2021 – On-line conference). September 19th-23rd, 2021. Oral presentation.

<https://www.innomem.eu/event/12th-edition-of-the-international-conference-on-hydrogen-production-ich2p-2021/>

In addition, around six abstracts have been submitted or will be submitted to other conferences / workshops.

3.3.3. Newsletters

Three newsletters have been released along the period. They can be downloaded from the public website: <https://arenha.eu/content/newsletters-0>.

3.3.4. Technical reports

- Deliverable D2.2: Industrial requirements (<https://arenha.eu/content/reports>)
- Deliverable D7.21: ARENHA dissemination activities M18 (this document).

3.4. Workshops, training course and guided visits

Due to COVID-19, no guided visits in the CNH2 facilities were performed up to M18. Initiation of these activities are expected in the next Period as well as the training courses on the ARENHA software tools developed in WP2.

The first ARENHA workshop will take place in April 2022 in Paris. It is currently being scheduled and the agenda defined. Meanwhile, an online workshop on “Non-battery-based energy storage” was held on September 15th (2021). The workshop was organised by the four European project: RECYCALYSE, PROMETH2, Next AEC and ARENHA, granted under the same topic.

3.5. Progress made in the main communication strategy

The main results achieved so far regarding the progress made in the main communication strategy and measurable objectives is shown below.

Table 5. Progress of the measurable objectives during this period.

Dissemination tools		Expect impact (whole project)		Achieved Impact
Online Communication	Project Website	Monthly visits	300	(*)
		Duration of visits	3 min	(*)
		Downloads per month	20	(*)
		Total subscrip. Of stakeholders	100	(*)
		References from other webpages	5	1
Social Media	Partners website	References from partners websites	17	2
		Post/messages/tweets	500	20
	LinkedIn, Twitter, YouTube	Visits to posts	>50	12129
		Videos	2	1
		Total videos visualisations	>500	502
Media	Newsletters	Publications	6	3
	News/Press releases	Publications	10	3
	Journal articles	Journalistic articles	10	3
	Leaflet	Copies	4000	

Targeted events	Attendance to events: Exhibitions, conferences & networking events	Attended conferences with presentations/posters	12	7
		Oral communication at congresses & events	2	7
		Attended industrial events / fairs	8	-
		Events for the general public	4	-
		Flyers distributed	4000	-
	Organized Workshops, Webinars & Training	Workshops	2	N/A
		Registrations	>30	N/A
		Webinars / training	1	N/A

(*) During 2020 Google changed the Google Analytics service. Depending on the configuration some information was lost from the google account of those old codes. We are trying to recover the analytic info for the website and realized about the problem. However, considering the video visualisation we expect a high number of visits.

Finally, detailed information regarding public events and all communication tools used is shown below.

Table 6. Detailed information about communication channels during period M18.

Specify the total funding amount used for Dissemination and Communication activities linked to the project	Total Funding Amount	Number
Specify the number of Dissemination and Communication activities linked to the project for each of the following categories	Organisation of a Conference	0
	Organisation of a Workshop	0
	Press release	3
	Non-scientific and non-peer-reviewed publication (popularised publication)	0
	Exhibition	0
	Flyer	1
	Training	0
	Social Media	23 publications
	Website	1
	Communication Campaign (e.g. Radio, TV)	0
	Participation to a Conference	6
	Participation to a Workshop	1
	Participation to an Event other than a Conference or a Workshop	0
	Video/Film	1
	Brokerage Event	0
	Pitch Event	0
	Trade Fair	0
Specify the estimated number of persons reached, in the context of all dissemination and communication activities, in each of the following categories	Participation in activities organized jointly with other H2020 projects	1
	Other	0
	Scientific Community (Higher Education, Research)	600*
	Industry	30*
	Civil Society	**
	General Public	**
	Policy Makers	1
	Media	12357***
	Investors	0
	Customers	0
	Other	0

*Estimated 100 persons per congress/workshop and 5% from industry

** Taken into account the number of visits to the ARENHA webpage

*** Estimated through the sum of all the LinkedIn and Twitter Publications

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4. Internal communication tool

The internal dissemination has a special significance for the progress of the project and coordinates the science and communication activities between ARENHA partners. Meetings and conferences will be an integral part of the internal communication strategy and the consortium will meet, at a minimum, every three months. Efforts will be made to reduce travel costs without compromising the integrity of the communication strategy. Additional phone conferences and net meetings will be called if and when necessary, as a suitable way to reduce travel costs and to exchange information about the progress within single tasks. There will be a project Kick-off meeting, six monthly WP meetings (every two months by telecom and monthly brief reports), six monthly Project Technical Committee meetings (every 3 months by telecom) and General Assembly twice a year.

In addition, common project presentation and protocols will be defined for internal use. Internal mailing lists for the consortium, the different bodies and for each WP will be created to facilitate the communication between the partners. And finally, a confidential private data management forum website has been created to provide direct communication and continual information exchange between the partners.