

COMMUNICATION AND DISSEMINATION STRATEGY AND PLAN



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Contents

1. Framing.....	4
1.1. Background and context	4
1.2. The communication and dissemination strategy	4
1.3. The communication and dissemination plan	4
1.4. The project and the communication objectives	5
1.5. Expected public output, outcomes and deliverables	6
2. Communication and dissemination strategy	7
2.1. Objectives of the communication and dissemination strategy.....	7
2.2. Target audience identification.....	8
2.2.1. Primary target audiences	9
2.2.2. Secondary target audiences	12
2.3. Audience analysis.....	13
2.4. Key messages	23
2.5. Tools and channels.....	26
3. Communication and dissemination plan.....	28
3.1. Implementation plan and evaluation of the effectiveness.....	28
3.2. Implementation plan timeline	45

List of abbreviations

TNO	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK TNO
AM	ARCELORMITTAL BELGIUM NV
C&D	COMMUNICATION AND DISSEMINATION
CCS	CARBON CAPTURE AND STORAGE
CCU	CARBON CAPTURE AND UTILISATION
CDM	COMMUNICATION AND DISSEMINATION MANAGER
CVE	CO ₂ VALUE EUROPE AISBL
IRR	INTERNAL-RATE-OF- RETURN
JM	JOHNSON MATTHEY PLC
KC	KISUMA CHEMICALS BV
KPIs	KEY PERFORMANCE INDICATORS
NC	NEXTCHEM SPA
POLIMI	POLITECNICO DI MILANO
RU	STICHTING KATHOLIEKE UNIVERSITEIT
SSAB	SSAB EMEA AB
STAC	STAMICARBON B.V.
SWERIM	SWERIM AB

1. Framing

[Months 1-54]

This document presents the communication and dissemination (C&D) strategy and plan that will be implemented during the entire duration of the INITIATE project. It is divided into 2 sections, first the overall **C&D strategy** and second the **C&D plan** including a detailed list of communications activities designed to achieve the INITIATE project's objectives as stated in the Grant Agreement number: 958318. That means, that the C&D strategy and the C&D plan are not two independent pieces of work but they are strictly linked to each other and they both aim to support the consortium in achieving its strategic communications goals.

1.1. Background and context

INITIATE is a Horizon 2020 project funded by the European Commission for 54 months. The project has officially started on the 1st of November 2020. The European Union has awarded 21 M€ to this TNO-led project.

The consortium is composed of eleven partners. It consists of major steel and chemical industrial ,, (Arcelor Mittal, SSAB, Stamicarbon, NextChem), functional material suppliers (Johnson Matthey, Kisuma Chemicals), multidisciplinary research organisations (TNO, Swerim, Politecnico di Milano, Radboud University Nijmegen) and experienced promoters of Carbon Capture and Utilisation (CCU), circularity and industrial symbiosis topics (CO₂ Value Europe).

The overarching objective of the project is to develop sustainable technologies to capture carbon-rich gas from the steel industry and convert it into a valuable feedstock for the chemical sector. The Technology Readiness Level (TRL) 7 technology will combine the continuous production of N₂ + H₂ and CO₂ streams, with the innovative ammonia production as a precursor for urea, a widely used fertilizer.

1.2. The communication and dissemination strategy

The C&D strategy is developed to identify the project stakeholders and to set the strategic communication goals to make sure relevant information, messages and project's updates are relayed to the target audience via the most appropriate channels. The strategy includes a description of the overall objectives; the identification of the primary and secondary target audiences; their detailed analysis, the key messages to be relayed to the different audiences and the best tools and supports to be used.

The strategy then indicates to the consortium how communications can support the project in achieving its general objectives by engaging effectively with key public and private stakeholders to demonstrate the results of INITIATE and its environmental and economic benefits. The heart of any communication activity focusing on the INITIATE's project results will include the role of industrial symbiosis and CCU (Carbon Capture and Utilisation) as contributors to reach climate and environmental targets.

1.3. The communication and dissemination plan

The C&D plan lists the most effective communications activities that are planned to respond to the objectives of the strategy and the different audiences' needs and expectations. That ensures that the consortium and the WP7 leader are given all the necessary tools to engage with their stakeholders by prioritising the communications activities and their timelines, as well as by structuring their budget and the human resources needed. The plan will be implemented during the duration of the project.

The plan includes a detailed list of the communications activities; their links to the general objectives of the INITIATE project and the C&D strategy; the expected outputs; the specific elements to evaluate the effectiveness of the different activities, and the budget and human resources involved.

The C&D plan includes the deliverables D7.1, D7.2, D7.3, D7.4, D7.5 as stated in the WP7. It aims to implement a wide range of communication activities to support the consortium in increasing positive awareness of the INITIATE project among the targeted audiences, as well as boosting the technology deployment and the reliability of the process.

1.4. The project and the communication objectives

The INITIATE project will advance the implementation of circular economy and industrial symbiosis by re-using residual steel gases as a resource for a cross-sectoral, more efficient and less wasteful manufacture of urea, with a significantly reduced carbon footprint. The project will prove reductions in primary energy intensity (-30%); carbon footprint (-95%); primary raw material intensity (-40%); and waste generation (-90%); while achieving a positive business case, measured by an Internal-Rate-of- Return (IRR) of at least 15%.

Project objectives	Communication objectives
Demonstrate operating reliability and technology-based innovations of the INITIATE process in real industrial settings.	Disseminate project outcomes in a tailor-made manner to a broad spectrum of stakeholders, including next-generation professionals, policymakers and a general audience.
Assess and verify energy, economic and environmental advantages of implementing the INITIATE system by a defined set of key performance indicators (KPI's).	Disseminate project outcomes in a tailor-made manner to a broad spectrum of stakeholders, including next-generation professionals and policymakers.
Achieve a bankable design for the first-of-a-kind (FOAK) commercial plant that converts BOFG to AdBlue® grade urea, enabling short term deployment.	Promote the concepts of industrial symbiosis, circular economy, and CCU beyond the project's sphere to enable large-scale replication and future deployment.
Generate a long-term implementation plan for successful long-term deployment of the INITIATE process over the next 30 years (to 2050), from both local and European perspectives, considering potential synergies with local infrastructures and other symbiotic systems.	<p>Promote the concepts of industrial symbiosis, circular economy, and CCU beyond the project's sphere to enable large-scale replication and future deployment.</p> <p>Communicate with public funders, private investors and decision-makers on the advantages of supporting industrial symbiosis activities in the field of CCU and where relevant CCS.</p>
Ensure the effective exploitation and dissemination of the project results to all relevant stakeholders to facilitate successful future deployment.	<p>Ensure broad stakeholder engagement at different levels through the adoption of clear and targeted communication approaches.</p> <p>Collect scientifically based evidence and communicate the strengths and opportunities of industrial symbiosis and CCU to the public and policymakers with an emphasis on the financial</p>

	<p>and regulatory concerns linked to CCU technologies.</p> <p>Communicate the successes, achievements, and potential of the INITIATE process. Promote the contribution of the INITIATE process to achieving climate neutrality and a circular economy in view of 2050.</p>
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1.5. Expected public output, outcomes and deliverables

The project’s results and the technology-based advancements achieved throughout the project will lead to outputs that will be disseminated towards different target audiences as explained in the following sections. These outputs include:

Deliverable	Description	Partner	Output	Month
D5.3	Definition of the base and reference case for KPI’s assessment	POLIMI	Report	12
D5.5	Opportunities to integrate INITIATE with other industrial symbiotic systems	NC	Report	24
D5.6	Life Cycle Assessment (LCA) of urea production from residual steel gases	SKU	Report	51
D5.7	Shared benefits analysis of INITIATE implementation in Europe to 2050	SKU	Report	54
D6.4	Inventory of successful symbiotic relationships	TNO	Report	24
D6.6	Multi-stakeholder decision support for widespread adoption of industrial symbiosis	TNO	Report	54
D7.4	Report on learning resources	SKU	Report	50
D7.5	Report on thematic workshops	CVE	Report	53
D8.3	1st Periodic Report to EU	TNO	Report	20
D8.6	2nd Periodic Report to EU	TNO	Report	38

The consortium will decide which project results are to be disseminated after having analysed their potential for prior intellectual property protection. A preliminary list of expected outcomes to be disseminated is shown below:

- High purity CO₂ (>97%) separation through the SEWGS technology.
- Sorbent and catalyst characterization and validation for industrial implementation.
- Complete commissioning of the pilot plant.
- Continuous ammonia and urea production at TRL 7 and scales of 2.88 and 5 t/d, respectively.
- High fidelity modelling including AI-driven control methods.
- Techno-economic assessment and LCA results.
- Business and commercial implementation plan for a bankable FOAK plant.
- Macro-economic modelling and scenario analysis.
- Multi-stakeholder decision support methodology for the adoption of industrial symbiosis.

2. Communication and dissemination strategy

The C&D strategy is the foundation on which the activities identified in the C&D plan are built. The development of an effective strategy is fundamental for all project partners to have a clear understanding of the overall communication objectives, the most appropriate target audiences, as well as the key messages and the tools that are used to reach them.

This strategy is aimed at identifying the most relevant stakeholders and key messages to promote the results of the INITIATE process and its environmental and economic benefits. This process passes through a detailed analysis of the audience's knowledge, potential impact and motivation to make sure the project's updates are relayed to the stakeholders through the right channels

The C&D strategy is structured as follows:

- The objectives of the C&D strategy
- Primary and secondary audience segmentation
- Detailed audience analysis to better design the messages that need to be conveyed
- Recognition of the key messages to be relayed to the different audiences
- Identification of the best tools and channels to be used

That ensures the development of a completed C&D plan to make sure that different stakeholders receive the right messages to understand the INITIATE technology and change their perception towards industrial symbiosis and CCU.

The following strategy is based on the current knowledge and has leeway to be modified depending on the project and consortium's needs.

2.1. Objectives of the communication and dissemination strategy

The objectives of the communication and dissemination strategy as stated in Grant Agreement number: 958318 are important in the efficacy and success of the overall strategy.

Therefore, the objectives of the strategy are:

- Disseminate the project's outcomes to a broad spectrum of stakeholders to maximise the impact of those outcomes.
- Communicate the project's progress in a clear way depending on the audience and thereby ensure broad stakeholder engagement at different levels.
- Contribute to the development of potential partnership and exchanges to support successful future deployment of the INITIATE process.
- Promote the concepts of industrial symbiosis and CCU beyond the project's sphere to enable large scale replication and deployment.
- Foster discussion on carbon circularity and carbon neutrality in the light of the EU's climate targets

- Raise awareness about the importance of industrial symbiosis, and CCU in global efforts to mitigate climate change.
- Increase shared understanding among key stakeholders about the actions needed to progress industrial symbiosis, CCU and CCS where relevant.
- Contribute to secure increased funding at the national and European level on industrial symbiosis and CCU technologies.

2.2. Target audience identification

INITIATE aims to reach a diverse target audience interested in the concepts of industrial symbiosis, carbon circularity, and carbon neutrality. The INITIATE process and the concept of carbon circularity can then be promoted among different audiences, including industrial actors, EU and national public authorities, researchers and international non-governmental organizations.

The audience can impact the INITIATE project by:

- Boosting the deployment of the INITIATE technology.
- Impacting the EU and national regulatory frameworks to support industrial symbiosis and CCU.
- Contributing to creating public and technology acceptance.

The consortium is then able to identify and split the diverse target audience into primary and secondary audience according to their interest and influence on the project.

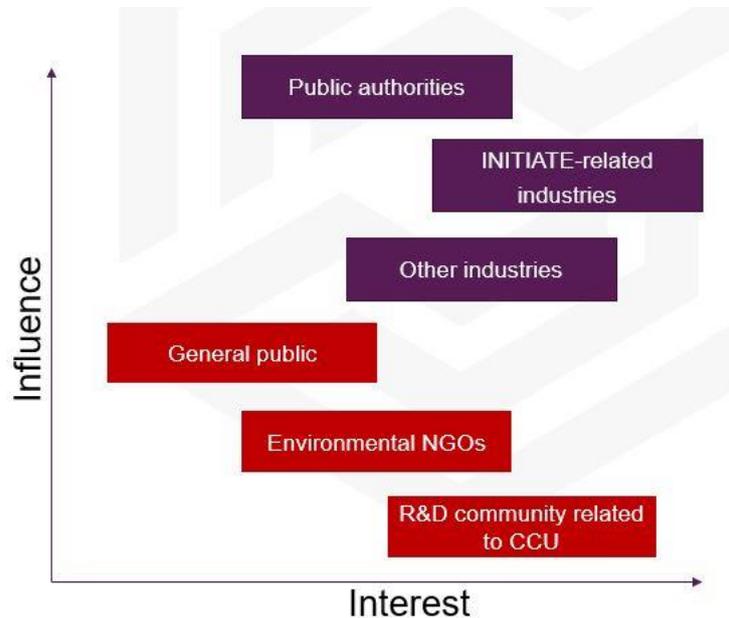


Figure 1 Audience analysis.

While some types of audiences are already evident as targets of the dissemination strategy, others may emerge during the project. The following segmentation is then based on current knowledge and is open to future updates and modifications.

2.2.1. Primary target audiences

The **primary target audiences** are public authorities (EU, national, local scale), INITIATE-related industries (iron and steel industries/ammonia and urea industries), and other industries (renewable energy, hydrogen and nitrogen/industrial clusters / end-users). The following definition of the primary target audience looks at the factors prompting certain industries and institutions to be interested in industrial symbiosis and CCU, their expectations about those technologies and the key information they might wish to receive from the consortium.

PUBLIC AUTHORITIES (EU, NATIONAL, LOCAL SCALE)
Why are they a target audience?
<ul style="list-style-type: none"> • Public authorities need reliable technology-based innovations with a decreased carbon footprint to achieve the EU climate strategies and targets. • Public authorities need innovative technologies able to boost the efficient use of resources and create new business models to make the EU and national's economy sustainable as per the EU Green Deal. • EU and national authorities are responsible for developing the regulatory framework to reach climate targets and thus potentially allowing the deployment of CCU technologies and industrial symbiosis. • EU and national authorities can foster the deployment of the INITIATE process by providing financial support to mature projects and attracting business investors.
What are their expectations?
<ul style="list-style-type: none"> • Science-based evidence and information on the reliability and profitability of innovative solutions to achieve climate targets and move towards a circular economy. • Information and proposals on the potential regulatory, policy and market incentives that would be required to support the upscaling of the INITIATE process. • Verified facts, figures and numbers demonstrating the energy and emissions reduction and climate/environmental benefit(s) obtained by the INITIATE process and symbiosis. • Detailed information on the major R&I's challenges and priorities.
What is the key message/information to share?
<ul style="list-style-type: none"> • CCU is among the most promising solutions to contribute to the global climate targets, support circularity and ensure economic growth. • Through industrial symbiosis and CCU, the European Union and national states can position themselves as global leaders in reducing greenhouse gas emissions and creating a circular economy.

INITIATE-RELATED INDUSTRIES (Iron and steel industries / Ammonia and Urea industries)
Why are they a target audience?
<ul style="list-style-type: none"> • To ensure European competitiveness in the iron and steel industries, these sectors need reliable low-emission technologies that contribute to decarbonise their production and allow the cost of carbon capture to be supported by industrial symbiosis. • The iron and steel industries can contribute to the deployment of industrial symbiosis by replicating the new INITIATE process. • The ammonia and urea industries need reliable and profitable technologies able to provide alternative carbon feedstock and decrease their carbon footprint. • Cross-sectoral collaboration is a crucial factor in promoting the deployment of industrial symbiosis and CCU technologies.
What are their expectations?
<ul style="list-style-type: none"> • Science-based evidence and information on innovative technical solutions to reduce greenhouse gas emissions, move away from fossil resources and exploit more efficient forms of energy storage. • Information on the environmental and economic benefits of industrial symbiosis and CCU. • Information on the costs and technical feasibility of industrial symbiosis, CCU and CCS where necessary versus other alternatives. • Up-to-date information on EU and national public opportunities for industrial symbiosis and CCU and the evolution of their allocation mechanisms. • Information on the development of EU and national regulations or policies to regulate industrial symbiosis and CCU.
What is the key message/information to share?
<ul style="list-style-type: none"> • The INITIATE process is a reliable technology-based innovation able to support industrial actors to reduce their carbon footprint, become more circular and decrease their impact on the environment. • The INITIATE process supports industries in their decarbonisation strategies. • The INITIATE process represents a new business model, providing relevant economic and environmental advantages. • The INITIATE process contributes to ensuring European competitiveness in the iron, steel, ammonia and urea industries.

OTHER INDUSTRIES (RENEWABLE ENERGY / HYDROGEN / NITROGEN PROVIDERS / INDUSTRIAL CLUSTERS / PRODUCT END-USERS)

Why are they a target audience?

- End-users are potential up-takers of the INITIATE production (ammonia and urea) such as fertilisers sector, Ad Blue Market, fuel refineries, shipping industry.
- Other industries such as renewable energy and hydrogen providers, industrial clusters, end-users (can maximise the impact of INITIATE technologies).
- Renewable energy, hydrogen and nitrogen providers are interested in selling renewable energy to businesses deploying the INITIATE technology in the areas that they are licensed to sell in.
- Industrial clusters can bring industrial symbiosis and CCU to realisation by replicating the new technology to boost the decarbonisation of their sectors and create new business models.

What are their expectations?

- Science-based evidence and information on innovative technical solutions to reduce greenhouse gas emissions and their impact on the environment in keeping viable business models.
- Information on the benefits of industrial symbiosis and CCU.
- Liaise with potential partners to develop new projects.
- Receiving feedback on the regulatory needs/incentives required for industrial symbiosis and CCU.

What is the key message/information to share?

- The INITIATE process is a reliable technology-based innovation able to support industrial actors to reduce their greenhouse gas emissions and move away from fossil resources.
- The INITIATE process represents a new business model, providing relevant economic and environmental benefits.
- Industrial symbiosis plays a pivotal role in the EU and national efforts to mitigate climate change.

2.2.2. Secondary target audiences

The secondary target audiences are the R&D community related to CCU, the general public and environmental NGOs. The following definition of the secondary target audience looks at the factors prompting the CCU related R&D community, sectors of the general public and certain NGOs to be interested in industrial symbiosis and CCU, their expectations about those technologies and the key information they might wish to receive from the consortium.

R&D COMMUNITY RELATED TO CCU
Why are they a target audience?
<ul style="list-style-type: none"> • The R&D community related to CCU develops, analysis the impact (e.g. with LCA/TEA analysis) and validate crucial technology for industrial symbiosis, CCU (e.g. catalysts, sorbents) that have great potential but are still under research and not yet validated at an operational scale. • Research prioritisation is needed to accelerate the development of CCU technologies. • The R&D community related to CCU is involved in the education of a skilled workforce to be used in the implementation of industrial symbiosis and CCU.
What are their expectations?
<ul style="list-style-type: none"> • Information and INITIATE success stories to learn how to reproduce the INITIATE concept and adapt it to their industrial settings. • The role of the R&D community related to CCU to be further recognised and included in the EU funding programmes.
What is the key message/information to share?
<ul style="list-style-type: none"> • Industrial actors are keen on early collaboration to bring low TRL technologies to a high degree of completion. • Analyses of the socio-economic and environmental impact of technologies are crucial to allow for large scale deployment.

GENERAL PUBLIC
Why are they a target audience?
<ul style="list-style-type: none"> • Public awareness and acceptance of CCU technology are instrumental in allowing the large-scale deployment of such technologies. • High public perceptions of the risk posed by climate change and support for urgent policies and measures to reduce greenhouse gas emissions. • The general public represents the potential consumer of the final CCU products, so their support is crucial to create a CCU market.
What are their expectations?
<ul style="list-style-type: none"> • Understand the solutions at all scales and investigate their potential to mitigate climate change.
What is the key message/information to share?
<ul style="list-style-type: none"> • Industrial symbiosis plays a pivotal role in reducing greenhouse gas emissions. • Individuals can engage in local and political advocacy around industrial symbiosis and CCU. • By buying CCU products, individuals have the power to foster the transition towards a more sustainable economy.

ENVIRONMENTAL NGOs
Why are they a target audience?
<ul style="list-style-type: none"> • Environmental NGOs can influence the EU and national authorities to develop the regulatory framework for industrial symbiosis and CCU. • Environmental NGOs act as a positive advocate to improve public acceptance.
What are their expectations?
<ul style="list-style-type: none"> • Information and science-based data on innovative technologies contributing to reaching climate targets and environmental benefits. • Transparency in environmental communication.
What is the key message/information to share?
<ul style="list-style-type: none"> • Need for the inclusion of industrial symbiosis and CCU in the general climate mitigation discussion. • An environmental assessment of INITIATE technology is performed to ensure a positive impact on the climate, the environment and society. • The INITIATE process is crucial to achieving climate neutrality and a circular economy.

2.3. Audience analysis

The preliminary audience analysis indicated below is developed to identify and have a clear overview of the priority and most influencing audiences for the INITIATE project. This supports the WP7 leader and the consortium to better design the messages that need to be conveyed based on those stakeholders whose actions and behaviour can impact the deployment and social and regulatory aspects of industrial symbiosis and CCU.

The INITIATE audience analysis looks at:

- The audience knowledge related to the subject
- The audience attitude towards the subject
- The barriers that prevent the specific audience to deploy industrial symbiosis and CCU technologies or impact their social and regulatory aspects
- The stakeholders and or external factors the specific audience is influenced by
- The motivations which drive the audience to deploy industrial symbiosis and CCU technologies or impact their social and regulatory aspects
- Audience knowledge related to the INITIATE project

As a result, the audience analysis does not only determine and describe the primary and secondary audiences for the INITIATE project but supports the following development of key messages that lead to the achievement of the communication and dissemination strategy's goals.

PRIMARY AUDIENCES	Knowledge on the subject	Attitude towards the subject	Barriers	Acceptance and Regulatory aspects	Influenced by	Motivation
PUBLIC AUTHORITIES (EU, NATIONAL, LOCAL SCALE)	<p>Moderate understanding at the EU level. EU policymakers need to be supported in developing the regulatory framework for industrial symbiosis, CCU and CCS.</p> <p>The knowledge levels of national and local authorities vary depending on the geographical area and the presence of national actors or initiatives in place.</p>	<p>A generally positive attitude can be increased by providing science-based evidence and information on innovative solutions to achieve climate targets and create circular solutions.</p>	<p>Industrial symbiosis and CCU may not be high on the EU and national climate strategy agendas due to a lack of knowledge/understanding and the competition from other solutions.</p> <p>Fragmentation of responsibilities among EU and national policymakers.</p> <p>Difficulty to identify specialists and/or experts in the field to take part in the discussions.</p> <p>The complexity and high granularity of CCU projects.</p>	<p>Major direct impact on regulatory frameworks and market incentives.</p> <p>Major direct impact on public acceptance.</p>	<p>Multi-stakeholder influence.</p> <p>For national and regional authorities: Public pressure on climate action; policy development at EU level; industrial actors.</p> <p>For EU authorities: Public pressure on climate action; environmental NGOs; industrial actors; national and regional authorities.</p>	<p>Making the EU's economy sustainable by boosting the efficient use of resources and creating new business models in the light of EU climate targets.</p>

PRIMARY AUDIENCES	Knowledge on the subject	Attitude towards the subject	Barriers	Acceptance and Regulatory aspects	Influenced by	Motivation
INITIATE-RELATED INDUSTRIES (IRON AND STEEL INDUSTRIES)	There is a generally good understanding of industrial symbiosis and CCU technologies.	Positive towards achieving net-zero emissions through rapid actions.	<p>Limited knowledge/ misconception and/or low interest in industrial symbiosis CCU and CCS in certain geographical areas.</p> <p>Opinion differs on the creation of new business models thanks to CCU versus other solutions.</p>	<p>Technology acceptance of steel, ammonia, urea and power industry appears fundamental to advocate towards EU and national policymakers on regulatory frameworks and public funding for CCU.</p> <p>Relevant indirect impact on public acceptance.</p>	<p>EU and national policies, EU regulatory frameworks and availability of public funding for CCU and industrial symbiosis.</p> <p>Public pressure on climate action.</p>	<p>In need of technology-based innovations that contribute to decrease the carbon footprint of their products and ensure European competitiveness in the iron and steel industries.</p> <p>In need of profitable new business models able to respond to the rising strategic competition of the extra-EU iron and steel sectors.</p>

PRIMARY AUDIENCES	Knowledge on the subject	Attitude towards the subject	Barriers	Acceptance and Regulatory aspects	Influenced by	Motivation
INITIATE-RELATED INDUSTRIES (UREA AND AMMONIA INDUSTRIES)	There is a generally good understanding of industrial symbiosis and CCU technologies.	Positive towards achieving net-zero emissions through rapid actions.	<p>Limited knowledge, misconception and/or low interest in CCU and industrial symbiosis in certain geographical areas.</p> <p>Opinion differs on the creation of new business models thanks to CCU versus other solutions.</p> <p>Competition with other potential types of feedstock for urea production.</p>	<p>Technology acceptance of steel, ammonia, urea and power industry appears fundamental to advocate towards EU and national policymakers on regulatory frameworks and public funding for CCU.</p> <p>Relevant indirect impact on public acceptance.</p>	<p>EU and national policies, EU regulatory frameworks and availability of public funding for CCU and industrial symbiosis.</p> <p>Public pressure on climate action.</p>	In need of reliable and profitable technologies able to provide alternative carbon feedstock to decrease the carbon footprint of their production.

PRIMARY AUDIENCES	Knowledge on the subject	Attitude towards the subject	Barriers	Acceptance and Regulatory aspects	Influenced by	Motivation
OTHER INDUSTRIES (RENEWABLE ENERGY / HYDROGEN / NITROGEN PROVIDERS)	Limited knowledge of the benefits of industrial symbiosis and CCU, as well as EU and national public funding in support of those technologies.	Very Positive attitude towards selling renewable energy, hydrogen and nitrogen to businesses deploying the INITIATE technology in the areas that they are licensed to sell in.	Moderate knowledge and understanding of industrial symbiosis and CCU and their potential impact in terms of profitability.	<p>Technology acceptance of the renewable energy and hydrogen providers can influence EU and national policymakers to recognise the key role of CCU as a vector to move away from fossil fuel resources to a CO₂ circular economy.</p> <p>Relevant indirect impact on public acceptance.</p>	EU and national policies, EU regulatory frameworks and availability of public funding for industrial symbiosis and CCU.	Expanding their market into the businesses deploying the INITIATE technology.

PRIMARY AUDIENCES	Knowledge on the subject	Attitude towards the subject	Barriers	Acceptance and Regulatory aspects	Influenced by	Motivation
OTHER INDUSTRIES (INDUSTRIAL CLUSTERS)	Limited knowledge of the benefits of industrial symbiosis and CCU, as well as EU and national public funding in support of those technologies.	Moderately positive about the creation of new business models thanks to CCU.	Lack of understanding on the benefits of industrial symbiosis, CCU and their potential impact in terms of environmental protection and profitability.	Technology acceptance of industry clusters appears fundamental to advocate towards EU and national policymakers on regulatory frameworks and public funding for industrial symbiosis and CCU. Moderate indirect impact on public acceptance.	EU and national policies, EU regulatory frameworks and availability of public funding for industrial symbiosis and CCU. Public pressure on climate action.	Replicating the new technology to boost the decarbonisation of their sectors and create new business models. Secure employment in the EU within their sectors.

PRIMARY AUDIENCES	Knowledge on the subject	Attitude towards the subject	Barriers	Acceptance and Regulatory aspects	Influenced by	Motivation
OTHER INDUSTRIES (END-USERS)	Very limited knowledge of the CCU production, as well as EU and national public funding in support of those technologies.	Positive about the creation of new business models based on industrial symbiosis and CCU.	Moderate knowledge and understanding of industrial symbiosis and CCU and their potential impact in terms of environmental protection and profitability.	Technology acceptance and utilisation of end-users appears fundamental to advocate towards EU and national policymakers on regulatory frameworks and public funding for CCU-based products. Relevant indirect impact on public acceptance.	EU and national policies, EU regulatory frameworks and availability of public funding for industrial symbiosis and CCU. Public pressure on climate action.	Using CCU-based ammonia and urea to boost the decarbonisation of their sectors and create new business models. Secure employment in the EU within their sectors.

SECONDARY AUDIENCES	Knowledge on the subject	Attitude towards the subject	Barriers	Acceptance and Regulatory aspects	Influenced by	Motivation
R&D COMMUNITY RELATED TO CCU	Good understanding of industrial symbiosis, CCU and CCS technologies.	<p>Opinion differs on the benefits and reliability of industrial symbiosis and CCU technologies.</p> <p>A generally positive attitude can be fostered by providing science-based evidence and information on the impact of CCU on the climate and the economy.</p>	High-competitiveness between the different CCU technologies.	<p>Technology acceptance of the R&D community related to CCU appears fundamental to foster funding available for research projects on industrial symbiosis and CCU.</p> <p>Relevant indirect impact on public acceptance.</p>	<p>EU and national policies, EU regulatory frameworks and availability of public funding for CCU.</p> <p>Public pressure on climate action.</p> <p>Technology acceptance of the R&D community related to CCU and academics.</p>	<p>In need to take meaningful and visible steps to lead climate action.</p> <p>Contribution to the quantification of environmental and social impacts of new technologies.</p>

SECONDARY AUDIENCES	Knowledge on the subject	Attitude towards the subject	Barriers	Acceptance and Regulatory aspects	Influenced by	Motivation
Environmental NGOs	<p>There is a generally very limited understanding of industrial symbiosis and CCU technologies. This might vary according to the type of NGO.</p>	<p>Opinion differs on the benefits of CCU technologies.</p> <p>There is a certain confusion between CCU, CCS and CCUS.</p> <p>Environmental impact of the concept has to be proven.</p>	<p>Limited knowledge of the environmental and economic advantages of a large-scale deployment of CCU technologies.</p> <p>Limited understanding on the differences between CCU, CCS and CCUS.</p>	<p>Environmental NGOs acceptance appears crucial to advocate towards EU and national policymakers on regulatory frameworks and public funding for CCU.</p> <p>Relevant direct impact on public acceptance.</p>	<p>EU and national policies and EU regulatory frameworks on industrial symbiosis and CCU.</p> <p>General discussion on the potential solutions to mitigate climate change.</p> <p>Public pressure on climate action.</p>	<p>A key solution to mitigating climate change and its advert impact on future generations.</p>

SECONDARY AUDIENCES	Knowledge on the subject	Attitude towards the subject	Barriers	Acceptance and Regulatory aspects	Influenced by	Motivation
GENERAL PUBLIC	Very limited knowledge of industrial symbiosis and CCU.	<p>Sceptic about CCS technologies. The potential confusion between CCS and CCU could extend scepticism to CCU.</p> <p>Potential scepticism about consuming products made out of CO₂ thanks to CCU technologies.</p>	<p>Limited knowledge of industrial symbiosis and CCU.</p> <p>Difficulty in understanding science-based evidence and scientific data results.</p> <p>Fear/reluctance towards new technologies.</p>	Public acceptance appears fundamental to advocate towards EU and national authorities on regulatory frameworks and public funding for CCU.	<p>Public and media pressure on climate action.</p> <p>General discussion on the potential solutions to mitigate climate change.</p>	A key solution to mitigating climate change and its advert impact on future generations.

2.4. Key messages

The key messages in this C&D strategy are based on the principles of clarity, credibility, consistency, honesty, completeness and are disseminated mainly among the primary target audiences. They are pivotal elements not only to enhance relationships with the target audiences but also to implement potential public relation campaigns and high-level events over the next years.

They represent the core messages expressed with words, as well as other signs and symbols, the consortium wishes to be heard and remembered by its primary target audiences.

The list of key messages shown below is not exhaustive but it includes the major directions the communications activities will be based on.

The key messages will emphasise the following indicative points (not listed by order of priority):

PRIMARY AUDIENCES	Message 1	Message 2	Message 3	Message 4	Message 5
PUBLIC AUTHORITIES (EU, NATIONAL, LOCAL SCALE)	CCU is among the most promising solutions to help achieve climate targets, create new and more circular business models and secure jobs.	Industrial symbiosis and CCU are an opportunity for the EU to become a global leader in reducing greenhouse gas emissions.	Policymakers have the potential to build a global leadership position on CCU technologies and expertise.	National and EU support is essential to achieve industrial symbiosis and CCU deployment.	Industrial players are ready to deploy CCU technologies but they require support from EU and national authorities.
INITIATE-RELATED INDUSTRIES (IRON AND STEEL INDUSTRIES)	The INITIATE process ensures European competitiveness and job security. It responds to the rising competition of the extra-EU iron and steel sectors.	The INITIATE process reduces industries' carbon footprint and their impact on the environment and society.	The INITIATE process allows the cost of carbon capture to be supported by industrial symbiosis.	The growing EU commitment towards CCU creates promising framework conditions for the INITIATE process deployment.	The INITIATE process represents a valid rapid action to achieve net-zero emissions that can be strengthened by deploying CCS in parallel.
INITIATE-RELATED INDUSTRIES (AMMONIA AND UREA INDUSTRIES)	The INITIATE process provides alternative carbon feedstock to decrease the carbon footprint of ammonia and urea production.	The INITIATE process reduces industries' carbon footprint and their impact on the environment and society.	The INITIATE process is good for both the economy and the environment.	Scientific and technological-based evidence proves that INITIATE is a reliable innovation ready to be deployed.	Industrial symbiosis and CCU play a pivotal role in the EU and national efforts to mitigate climate change and create a circular economy.

OTHER INDUSTRIES (RENEWABLE ENERGY / HYDROGEN / NITROGEN PROVIDERS)	The INITIATE process is a potential business opportunity for the renewable energy, hydrogen and nitrogen sectors.	The INITIATE process represents a news business model, providing relevant economic and environmental advantages.	The capture and conversion of CO ₂ into valuable products require the use of important renewable energy sources and it is a vector to move away from fossil fuel resources.	The growing EU commitment towards CCU can contribute to creating a promising framework and market conditions for renewable energy and hydrogen deployment.	Renewable energy and hydrogen providers can push for the EU and national governments to ensure stronger financial and political support for the deployment of industrial symbiosis and CCU technologies.
OTHER INDUSTRIES (INDUSTRIAL CLUSTERS)	The INITIATE process reduces industries' carbon footprint and their impact on the environment and society and supports the creation of a circular economy.	Economic and environmental advantages for industry clusters will result from the deployment of the INITIATE process.	The European industry has the potential to build a global leadership position on industrial symbiosis and CCU technologies and expertise.	The EU commitment towards CCU is getting stronger. This creates jobs opportunities and favourable framework conditions for the deployment of industrial symbiosis.	Together, the industrial actors can push for the EU and national governments to ensure stronger financial and political support for the deployment of industrial symbiosis and CCU.
OTHER INDUSTRIES (END-USERS)	The INITIATE process can produce profitable and net-zero urea and ammonia and support the creation of a circular economy.	The INITIATE technology represents a drop-in solution for the production of low carbon ammonia and urea.	The INITIATE process reduces ammonia and urea's carbon footprint and their impact on the environment and society.	The EU commitment towards CCU is getting stronger. This creates jobs opportunities and favourable framework conditions for the deployment of industrial symbiosis.	Together, the end-users can push for the EU and national governments to ensure stronger financial and political support for the deployment of industrial symbiosis and CCU technologies.

SECONDARY AUDIENCES	Message 1	Message 2	Message 3	Message 4	Message 5
R&D COMMUNITY RELATED TO CCU	The INITIATE project's successful achievements and impact on the environment and the society.	Economic and environmental advantages for end-users will result from the deployment of the INITIATE process.	Industrial actors are ready to bring low TRL technologies to a high degree of completion.	The R&D community could contribute to developing complementary CO ₂ utilisation pathways and analyse the impact of such technologies	Industrial symbiosis and CCU must be included in the climate mitigation discussion.
GENERAL PUBLIC	The INITIATE process reduces greenhouse gas emissions, support the creation of a circular economy and contributes to mitigating climate change.	Industrial symbiosis can secure jobs or create new local job opportunities.	Individuals can also engage in local and political advocacy around industrial symbiosis and CCU.	The general public has the power to push for the EU and national governments to ensure stronger support for the deployment of CCU technologies.	Buying CO ₂ – based products is safe and contributes to reducing the consumers' carbon footprint and their impact on the environment.
ENVIRONMENTAL NGOs	The INITIATE process reduces industries' carbon footprint and their impact on the environment and society based on life-cycle analysis.	Industrial symbiosis and CCU are among the most promising solutions to support the creation of a circular economy and help to achieve climate targets.	Industrial symbiosis and CCU must be included in the global climate mitigation discussion, because these concepts are beneficial for the climate, for employment and the health of people.	Industrial symbiosis and CCU are valuable solutions to move away from fossil resources and to become more resilient in term of resources.	Industrial symbiosis and CCU are a valuable response to the increasing public pressure on climate action.

2.5. Tools and channels

There is a variety of channels to convey this C&D plan's key messages to different audiences and the decision of choosing one instead of the other depends on the message itself, the audience and the desired outcome of the activity.

The INITIATE consortium favours in principle targeted communication activities to reach out to the primary audience. That is believed to be able to directly accelerate progress on the project's goals.

The project partners are all involved in the communication and dissemination activities and act as multipliers. It is of critical importance that the input and contributions are interactive between the consortium and the WP7 leader.

PRIMARY AUDIENCES	Channel 1	Channel 2	Channel 3	Channel 4	Channel 5	Channel 6
PUBLIC AUTHORITIES (EU, NATIONAL, LOCAL SCALE)	Conferences, thematic workshops, symposia gathering primary and secondary target audiences.	Face-to-face meetings with key EU and national policymakers and public authorities.	Report on project's results	Press releases	Press & media.	Social Media and website.
INITIATE-RELATED INDUSTRIES (IRON AND STEEL INDUSTRIES / AMMONIA AND UREA INDUSTRIES)	Conferences, thematic workshops, symposia gathering primary and secondary target audiences.	Small meetings between project partners and industrial actors, which may include visits to the project premises.	Press releases.	Learning resources.	Website, newsletter and social media.	Network of project partners and External Advisory Board.
OTHER INDUSTRIES (RENEWABLE ENERGY / HYDROGEN / NITROGEN PROVIDERS / INDUSTRIAL CLUSTERS / PRODUCT END-USERS)	Conferences, thematic workshops, symposia gathering primary and secondary target audiences.	Small meetings between project partners and industrial actors, which may include visits to the project premises.	Press releases.	Learning resources.	Social media and website.	Newsletter.

SECONDARY AUDIENCES	Channel 1	Channel 2	Channel 3	Channel 4	Channel 5	Channel 6
R&D COMMUNITY RELATED TO CCU	Conferences, thematic workshops, symposia gathering primary and secondary target audiences.	Report on project's results.	Press releases.	Press & media.	Social Media and Website.	Visits and learning resources.
GENERAL PUBLIC	Website.	Social Media.	Press & media.	Visits	Learning resources.	
ENVIRONMENTAL NGOs	Conferences, thematic workshops, symposia gathering primary and secondary target audiences.	Face-to-face meetings between project partners and non-governmental organisations.	Press releases.	Press & media.	Website and Social media.	Newsletter.

3. Communication and dissemination plan

3.1. Implementation plan and evaluation of the effectiveness

The implementation plan describes the communications and dissemination activities included in the WP7 that will be implemented throughout the project by the WP7 leader and the consortium. The plan defines the approach to provide the primary and secondary audiences identified in the C&D strategy with science-based evidence and information on the INITIATE process. That is fundamental to ensure that effective communication activities can help the audiences become engaged and impact the deployment and regulatory aspects of industrial symbiosis and CCU.

The INITIATE implementation plan looks at:

- Timeframe and location of the activity.
- The links to the INITIATE project's priorities and objectives.
- A detailed description of the activity and its objectives.
- The expected results and impact of the activity.
- Key Performance Indicators (KPIs) to understand whether the objectives of the activity have been achieved.

The activities described in the implementation plan include the deliverables D7.1, D7.2, D7.3, D7.4, D7.5 as stated in the WP7.

The WP7 is divided into 3 tasks that for practical reasons are named Communication and Dissemination planning, Communication and Dissemination implementation, Development of learning resources for educating.

Task 7.1 Communication and Dissemination Plan

Deliverable D7.1 A C&D Plan will be developed to promote the concepts of industrial symbiosis; to raise awareness about the opportunities linked to carbon capture and utilisation; to communicate the project's progress and maximise the impact of the project's outcome through different dissemination activities.

Deliverable D7.2 The C&D Plan will be updated in month 30 to meet the additional needs and interests of the project's partners and the audience. A midterm report on the realised communications and dissemination activities will be included in the updated plan.

Task 7.2 Communication and Dissemination Implementation

Deliverable D7.3

- A **website** dedicated to the INITIATE project and industrial symbiosis will be designed, implemented and constantly updated with relevant news, resources and public project's outcomes.
- **Visual identity**: different versions of the project's logos and templates for reports and presentations will be developed and sent to the consortium.
- The most appropriate **social media** accounts (LinkedIn) will be opened.

D7.5: A report on thematic workshops of relevance to INITIATE will be realised. These may include:

- Knowledge exchange and collaboration on common challenges with other EU-funded projects on the topic (first version planned for M24).
- Non-technological aspects like business plan feasibility, regulatory framework barriers, funding opportunities for replication at EU and national level (planned for M45).
- A final conference for the wide dissemination of the project's outcomes to a broad audience.

Task 7.3 Development of learning resources for educating

Deliverable D7.4 A report on learning resources at the university level will be developed to better monitor the implementation of the activities. The following activities will be included in the report:

- **Summer schools:** Year 3: At the SWERIM premises, on technical developments and a site visit; Year 4: At the Radboud premises, on lifecycle assessment and macroeconomic modelling of industrial processes.
- **Guest lectures** integrated into the existing curricula at POLIMI and RU. (WP7).
- **A MOOC** collecting the information from the guest lectures hosted at RU and POLIMI's servers.
- **Yearly visits** to the SWERIM site for young professionals and PhD students.
- **MSc level internship** per semester offered from every R&D partner of INITIATE.

The targeted communication activities described below are developed and implemented by the Communication and Dissemination Manager (CDM) leading the WP7 and the whole consortium.

The CDM is regularly in direct contact with all project partners and collects relevant information for the communication and dissemination activities of each partner and logs activities (e.g. articles, conference participation, meetings, etc.). The CDM also coordinates the C&D activities that are of collective nature (e.g. thematic workshops), and monitors the implementation of the C&D plan and advises the project management team for any necessary adaptations.

The effectiveness of the INITIATE C&D activities is regularly monitored and reported thanks to the development of quantifiable KPIs that allow the WP7 leader and the consortium to assess the achievement of the implementation plan's objectives.

Activity related to deliverable D7.1 Communication and Dissemination Plan			
Name of the activity	Timeframe (mm/yy - mm/yy)		Location of the activity
Development of the C&D plan	Start 03/2020	End 05/2021	Brussels, BE
Target audience			
<ul style="list-style-type: none"> • INITIATE-related industries • Public authorities • Other industries • R&D community related to CCU • General public • Environmental NGOs 			
Link to the INITIATE project's priorities and grant agreement's objectives			
<ul style="list-style-type: none"> • Disseminate the project's outcomes in a tailor-made manner to a broad spectrum of stakeholders (including next-generation professionals) and thereby maximise the impact of those outcomes. • Communicate the project's progress (results and other activities) in a clear way depending on the audience and thereby ensure broad stakeholder engagement at different levels. • Promote the concepts of industrial symbiosis and CCU beyond the project's sphere to enable large scale replication and deployment. 			
Description and objectives			
<p>The WP7 leader develops a C&D plan to set the framework for the expected C&D activities carried on from the 1st of November 2020 until April 2025 by the consortium.</p> <p>As described in WP7, due to the close nature of C&D, both plans are developed simultaneously and include the deliverables D7.1, D7.2, D7.3, D7.4 and D7.5.</p> <p>The C&D Plan contributes to disseminating the project's results and the technology-based innovations of the INITIATE process to all relevant stakeholders. The plan also ensures Carbon Capture and Utilisation remains a priority both at the EU and national levels and contributes to generating public support for decarbonisation policy.</p>			
Expected outputs and results/impact			
<ul style="list-style-type: none"> • The WP7 leader develops a Communication and Dissemination Plan to set the direction so that all communication activities work in harmony to best disseminate the project's results and contributes to generating public support for decarbonisation policy. 			
Evaluation of the effectiveness (Key Performance Indicators)			
<ul style="list-style-type: none"> • A C&D Plan is developed by the WP7 leader and approved by the consortium by month 7 of the project. 			
Lead staff			
Antonio La Mantia (CVE)			
Other staff, project partners or third parties involved			
Célia Sapart (CVE) Lara Tottolo (CVE) Anastasios Perimenis (CVE) Consortium			

Activity related to Deliverable D7.2 Update of the Communication and Dissemination Plan			
Name of the activity	Timeframe (mm/yy - mm/yy)		Location of the activity
Updating C&D plan	Start 02/2023	End 04/2023	Brussels, BE
Target audience			
<ul style="list-style-type: none"> • INITIATE-related industries • Public authorities • Other industries • R&D community related to CCU • General public • Environmental NGOs 			
Link to the INITIATE project's priorities and grant agreement's objectives			
<ul style="list-style-type: none"> • Disseminate the project's outcomes in a tailor-made manner to a broad spectrum of stakeholders (including next-generation professionals) and thereby maximise the impact of those outcomes. • Communicate the project's progress (results and other activities) in a clear way depending on the audience and thereby ensure broad stakeholder engagement at different levels. • Promote the concepts of industrial symbiosis and CCU beyond the project's sphere to enable large scale replication and deployment. 			
Description and objectives			
<p>The WP7 leader updates the existing C&D plan to optimal serve the renewed needs and interests of all parties of the consortium.</p> <p>The WP7 leader develops a midterm evaluation report to monitor and summarise the work done in terms of C&D activities. The report describes the C&D activities carried out during the first half of the project, which means between M1 and M30.</p>			
Expected outputs and results/impact			
<ul style="list-style-type: none"> • The WP7 leader updates the existing communication and dissemination plan with input from all partners. • The WP7 leader develops a midterm evaluation report to describe the C&D activities carried out during the first half of the project. 			
Evaluation of the effectiveness (Key Performance Indicators)			
<ul style="list-style-type: none"> • The C&D Plan is updated by the WP7 leader and approved by the consortium by month 30 of the project. • A midterm evaluation report is developed by the WP7 leader and shared with the consortium on month 28 of the project. 			
Lead staff			
Antonio La Mantia (CVE)			
Other staff, project partners or third parties involved			
Célia Sapart (CVE) Lara Tottolo (CVE) Anastasios Perimenis (CVE) Consortium			

Activity related to deliverable D7.3 INITIATE Website and visual identity			
Name of the activity	Timeframe (mm/yy - mm/yy)		Location of the activity
Website design, management, development and monitoring	Start 01/2021	End 04/2025	Brussels, BE
Target audience			
<ul style="list-style-type: none"> • INITIATE-related industries • Public authorities • Other industries • R&D community related to CCU • General public • Environmental NGOs 			
Link to the INITIATE project's priorities and grant agreement's objectives			
<ul style="list-style-type: none"> • Ensure the effective exploitation and dissemination of the project results to all relevant stakeholders to facilitate successful future deployment. 			
Description and objectives			
<p>The INITIATE consortium develops the project's website and visual identity, including different variations of the project logo and templates in close cooperation with the designated communication agency and all project partners.</p> <p>The INITIATE website is designed to create a showcase of key information and updates on the project and make them available and accessible to different stakeholders. The website also intends to simplify and optimise the content updates and website management during the subsequent development phase.</p> <p>The INITIATE consortium updates its website to keep project partners and stakeholders engaged and updated on the project's results and major European development in the field of industrial symbiosis. The INITIATE consortium designs and develops its website's resources sections to strengthen the project partners and stakeholders' knowledge of the INITIATE process. The INITIATE consortium, along with external experts, works on website optimization (SEO) and link building to increase the INITIATE website visibility in search engine results pages (SERPS) and to be better linked to its stakeholders' websites.</p>			
Expected outputs and results/impact			
<ul style="list-style-type: none"> • The WP7 team with input from the consortium develops a user-friendly website for the project on month 8. • The WP7 team develops a project website that includes five headings and seven subsections. The headings are: about the project; news; events; resources and contacts. The subsections are INITIATE project; project partners; news on initiate; news on partners; publications; deliverables; videos. • The WP7 team publishes on the INITIATE website news about the project, its development, and major updates on industrial symbiosis at the European and national level. • The WP7 team implements the INITIATE project's homepage with facts, figures, videos and infographics from the project's partners and relevant stakeholders. 			
Evaluation of the effectiveness (Key Performance Indicators)			
<ul style="list-style-type: none"> • The average number of total visitors is 1200 for the first year and 2400+ for the following years. • The number of pages a user visit per session is 1.2 for the first year and 1.4 for the following years. • The bounce rate is 55% for the first year and 70% for the following years. • Engaging INITIATE's target audience through unique and more effective contents and resources is projected to produce a 3% yearly increase in viewers' flow. An additional 2% can be accomplished by driving traffic to the website using paid advertising and SEO. 			

- At least 1 piece of news about INITIATE, its partners' activities, and industrial symbiosis development are published on the INITIATE website every two weeks.
- At least 1 fact, figure, infographic or video is added to the INITIATE's website every month.

Lead staff

Antonio La Mantia (CVE)

Other staff, project partners or third parties involved

Célia Sapart (CVE)

Lara Tottolo (CVE)

Morris&Chapman (Communications Agency)

Consortium

Activity related to deliverable D7.3 INITIATE Website and visual identity			
Name of the activity	Timeframe (mm/yy - mm/yy)		Location of the activity
Visual identity design	Start 01/2021	End 06/2021	Brussels, BE
Target audience			
<ul style="list-style-type: none"> • INITIATE-related industries • Public authorities • Other industries • R&D community related to CCU • General public • Environmental NGOs 			
Link to the INITIATE project's priorities and grant agreement's objectives			
<ul style="list-style-type: none"> • Ensure the effective exploitation and dissemination of the project results to all relevant stakeholders to facilitate successful future deployment. • Demonstrate operating reliability and technology-based innovations of the INITIATE process in real industrial settings. 			
Description and objectives			
The INITIATE logo and templates are designed to support and give a visual identity to the INITIATE process by contributing to differentiate it from similar projects and conveying its core objectives.			
Expected outputs and results/impact			
<ul style="list-style-type: none"> • The WP7 team with input from the consortium develops different logo variations of the project by month 8. The variations include a colour version; a black version; a white version and a visual element version. • The WP7 team develops different templates for reports, general presentations and public conferences by month 8. The templates include three-word files for project reports, press releases, and meeting minutes; a PowerPoint file for general presentations; two poster versions (portrait and landscape) for scientific conferences. 			
Evaluation of the effectiveness (Key Performance Indicators)			
<ul style="list-style-type: none"> • The consortium approves the project's logo and templates and uses them broadly. 			
Lead staff			
Antonio La Mantia (CVE)			
Other staff, project partners or third parties involved			
Célia Sapart (CVE) Lara Tottolo (CVE) Project leaders Morris&Chapman (Communications Agency) Consortium			

Activity related to deliverable D7.3 INITIATE Website and visual identity			
Name of the activity	Timeframe (mm/yy - mm/yy)		Location of the activity
Social media management and development	Start 06/2021	End 04/2025	Brussels, BE
Target audience			
<ul style="list-style-type: none"> • INITIATE-related industries • Public authorities • Other industries • R&D community related to CCU • General public • Environmental NGOs 			
Link to the INITIATE project's priorities and grant agreement's objectives			
<ul style="list-style-type: none"> • Ensure the effective exploitation and dissemination of the project results to all relevant stakeholders to facilitate successful future deployment. • Demonstrate operating reliability and technology-based innovations of the INITIATE process in real industrial settings. 			
Description and objectives			
<p>The WP7 team sets up a LinkedIn account to contribute to showcasing the project's outcomes and the economic and environmental advantages of the INITIATE system. The new social media channel allow experts and stakeholders to engage with the consortium about the concepts of industrial symbiosis and CO₂ recycling.</p> <p>The new channels generate inbound traffic to the INITIATE website.</p>			
Expected outputs and results/impact			
<ul style="list-style-type: none"> • The WP7 team sets up a project's LinkedIn account. • The WP7 team publishes on the INITIATE LinkedIn channel news about the project, its development, and the major updates on industrial symbiosis at the European and national level. • WP7 team launches monthly social media initiatives focused on specific challenges, results and opportunities linked to the project. 			
Evaluation of the effectiveness (Key Performance Indicators)			
<ul style="list-style-type: none"> • A LinkedIn account is set up by month 8 of the project. • The number of followers increases by at least 5% every year. • The amount of Impressions and Unique impressions increases by at least 3% every year. • The LinkedIn page has an average engagement rate of 3% every year. • At least 1 piece of news about INITIATE, its partners' activities, and industrial symbiosis' major developments is published on the INITIATE LinkedIn channel every two weeks. • At least 1 social media initiative focusing on specific challenges, results and opportunities linked to the project and CO₂ recycling is published every month on the INITIATE LinkedIn channel. The social media initiative includes interviews, infographics, podcasts and short explainer videos. 			
Lead staff			
Antonio La Mantia (CVE)			
Other staff, project partners or third parties involved			
Célia Sapart (CVE) Lara Tottolo (CVE) Consortium			

Activity related to deliverable D7.3 INITIATE Website and visual identity			
Name of the activity	Timeframe (mm/yy - mm/yy)		Location of the activity
INITIATE newsletter	Start 09/2021	End 04/2025	Brussels, BE
Target audience			
<ul style="list-style-type: none"> • INITIATE-related industries • Other industries • Environmental NGOs 			
Link to the INITIATE project's priorities and grant agreement's objectives			
<ul style="list-style-type: none"> • Ensure the effective exploitation and dissemination of the project results to all relevant stakeholders to facilitate successful future deployment. • Demonstrate operating reliability and technology-based innovations of the INITIATE process in real industrial settings. 			
Description and objectives			
The WP7 team, along with the consortium, publishes a semester newsletter for project partners, policymakers and stakeholders with project updates, information on the latest European environment policy, funding opportunities and short opinion pieces.			
Expected outputs and results/impact			
<ul style="list-style-type: none"> • The WP7 team releases a semester newsletter for project partners, policymakers and stakeholders which includes project updates, interviews with prominent industrial actors, funding opportunities and information on the latest European environment policy. • Videos, GIFs, and infographics are added to the quarterly newsletter to increase the open rate and CTR by 5%. 			
Evaluation of the effectiveness (Key Performance Indicators)			
<ul style="list-style-type: none"> • A semester newsletter in English is released twice per year. • The WP7 leader engages a wide audience through at least a 20% open rate and 3% CTR. 			
Lead staff			
Antonio La Mantia (CVE)			
Other staff, project partners or third parties involved			
Célia Sapart (CVE) Lara Tottolo (CVE) Project leaders (TNO) Consortium			

Activity related to deliverable D7.3 INITIATE Website and visual identity			
Name of the activity	Timeframe (mm/yy - mm/yy)		Location of the activity
Press and media	Start 11/2020	End 04/2025	Brussels, BE Europe
Target audience			
<ul style="list-style-type: none"> • INITIATE-related industries • Public authorities • Other industries • R&D community related to CCU • General public • Environmental NGOs 			
Link to the INITIATE project's priorities and grant agreement's objectives			
<ul style="list-style-type: none"> • Disseminate the project's outcomes in a tailor-made manner to a broad spectrum of stakeholders (including next-generation professionals) and thereby maximise the impact of those outcomes. • Communicate the project's progress (results and other activities) in a clear way depending on the audience and thereby ensure broad stakeholder engagement at different levels. • Promote the concepts of industrial symbiosis and CCU beyond the project's sphere to enable large scale replication and deployment. 			
Description and objectives			
The INITIATE consortium ensures targeted dissemination of the project's outcomes and major progress among EU, national and scientific media to raise the visibility of the INITIATE process and CO ₂ recycling.			
Expected outputs and results/impact			
<ul style="list-style-type: none"> • The WP7 team with input from the consortium develops a network of EU and national reporters specialised in environment, energy transition and agriculture. • The WP7 team develops a press timeline, including the major press initiatives that will be implemented throughout the year. • The WP7 team disseminates press releases on major INITIATE events and public outcomes and progress among EU and national media. 			
Evaluation of the effectiveness (Key Performance Indicators)			
<ul style="list-style-type: none"> • At least two press releases on major INITIATE events and public outcomes and progress are disseminated every year among EU and national media by the WP7 team and the project partners' communications departments. • At least one press release on major INITIATE events and public outcomes or one interview to a project partner is picked up every year by at least 1 EU press and media organ, and 3 national press and media organs. 			
Lead staff			
Antonio La Mantia (CVE)			
Other staff, project partners or third parties involved			
Célia Sapart (CVE) Lara Tottolo (CVE) Consortium's communications departments			

Related to deliverable D7.4 Report on learning resources			
Name of the activity	Timeframe (mm/yy - mm/yy)		Location of the activity
Summer schools	Start 07/2023 07/2024	End 07/2023 07/2024	Lulea, SE Nijmegen, NL
Target audience			
<ul style="list-style-type: none"> R&D community related to CCU 			
Link to the INITIATE project's priorities and grant agreement's objectives			
<ul style="list-style-type: none"> Disseminate the project's outcomes in a tailor-made manner to a broad spectrum of stakeholders (including next-generation professionals) and thereby maximise the impact of those outcomes. Ensure the effective exploitation and dissemination of the project results to all relevant stakeholders to facilitate successful future deployment. 			
Description and objectives			
<p>The two Summer Schools are organised in year 3 at the SWERIM premises and year 4 at Radboud University. The two learning opportunities offer young professional, PhD students, project partners and researchers the chance to deepen their knowledge on the INITIATE process' technical developments and the lifecycle assessment and macroeconomic modelling of industrial symbiosis processes. During the Summer Schools, participants have the opportunity to learn from and exchange with each other, in terms of how industrial symbiosis processes are planned and implemented, as well as how they can reduce industries' impact on climate change and society.</p>			
Expected outputs and results/impact			
<ul style="list-style-type: none"> A Summer School is organised in year 3 at the SWERIM premises in Lulea (SE). The learning opportunity focuses on the INITIATE process' technical developments and includes several site visits. A Summer School is organised in year 4 at the Radboud University premises in Nijmegen, NL. The learning opportunity focuses on the lifecycle assessment and macroeconomic modelling of industrial symbiosis processes. Young professionals and PhD students are allowed to deepen their knowledge on how industrial symbiosis processes are planned and implemented, as well as how they can reduce industries' greenhouse gas emissions and their impact on the planet. Young professionals and PhD students are given the opportunity to meet EU actors (MEPs, European Commission officials) to learn more about how the European Union has strongly engaged to take the global lead in mitigating climate change. 			
Evaluation of the effectiveness (Key Performance Indicators)			
<ul style="list-style-type: none"> The summer schools are attended by at least 20 participants coming from research centres and universities. At least 75% of the Summer Schools' participants declare in the final evaluation form that the knowledge gained during the two learning opportunities will be used or will be useful in their work and or research project. 			
Lead staff			
Antonio La Mantia (CVE)			
Other staff, project partners or third parties involved			
Célia Sapart (CVE) Lara Tottolo (CVE) Consortium			

Related to deliverable D7.4 Report on learning resources			
Name of the activity	Timeframe (mm/yy - mm/yy)		Location of the activity
Guest lectures	Start 09/2023	End 02/2025	Milan, IT Nijmegen, NL
Target audience			
<ul style="list-style-type: none"> R&D community related to CCU 			
Link to the INITIATE project's priorities and grant agreement's objectives			
<ul style="list-style-type: none"> Disseminate the project's outcomes in a tailor-made manner to a broad spectrum of stakeholders (including next-generation professionals) and thereby maximise the impact of those outcomes. Ensure the effective exploitation and dissemination of the project results to all relevant stakeholders to facilitate successful future deployment. 			
Description and objectives			
<p>MSc students are offered a range of guest lectures by professors, researchers and experienced people involved in the INITIATE project. Some indicative examples, the exact content of which will be developed at the second half of the project, are:</p> <ul style="list-style-type: none"> Application of plant engineering & construction principles at demonstration scale (WP2). Industrial symbiosis in the energy-intensive industries – A case study (WP4). LCA and macroeconomic modelling of industrial processes (WP5). Developing a business plan for innovative industrial processes – A case study (WP6). <p>Engaging professors, researchers and experienced people involved in the INITIATE project allows MSc students to gain practical knowledge on industrial symbiosis and CCU to broaden their academic horizon.</p> <p>The information from the guest lectures are collected in Massive Open Online Courses (MOOCs) are organised for students, researchers and young professionals to learn new skills related to the INITIATE process and the concept of industrial symbiosis.</p>			
Expected outputs and results/impact			
<ul style="list-style-type: none"> At least four guest lectures integrated into the existing curricula at POLIMI and RU are organised for MSc students. A final summary of each guest lecture is written and shared with the WP7 leader. The final reports are made available to all project partners and stakeholders in the SharePoint and website. At least 1 MOOCs are developed by the end of the project. 			
Evaluation of the effectiveness (Key Performance Indicators)			
<ul style="list-style-type: none"> The number of attendees, their engagement and their cross-sectoral and geographical distribution across Europe. An evaluation form will be sent to all attendees. 			
Lead staff			
POLIMI RU			
Other staff, project partners or third parties involved			
Antonio La Mantia (CVE) Célia Sapart (CVE) Lara Tottolo (CVE)			

Related to deliverable D7.4 Report on learning resources			
Name of the activity	Timeframe (mm/yy - mm/yy)		Location of the activity
Yearly visits	Start 02/2022	End 02/2025	Lulea, SE Europe
Target audience			
<ul style="list-style-type: none"> • R&D community related to CCU • General public • Environmental NGOs 			
Link to the INITIATE project's priorities and grant agreement's objectives			
<ul style="list-style-type: none"> • Disseminate the project's outcomes in a tailor-made manner to a broad spectrum of stakeholders (including next-generation professionals) and thereby maximise the impact of those outcomes. • Ensure the effective exploitation and dissemination of the project results to all relevant stakeholders to facilitate successful future deployment. 			
Description and objectives			
<p>The consortium organises yearly visits to the SWERIM site for young professionals and PhD students interested in deepening their knowledge on the INITIATE project and industrial symbiosis, as well as in expanding their professional network. During the visits, young professionals and PhD students have the opportunity to learn from and exchange with the Chair of the Exploitation Team (CET), in terms of how the project is planned and implemented in an industrial site.</p> <p>Complementary to the yearly visits to the SWERIM demo unit, the project partners organise open door days to bring research and innovation closer to local authorities, environmental NGOs and the general public to foster social and public acceptance.</p>			
Expected outputs and results/impact			
<ul style="list-style-type: none"> • Yearly visits to the SWERIM site are organised for young professionals and PhD students from the moment that the facility is installed. • At least 2 open door days are organised for local authorities, environmental NGOs and the general public. • A final report of each visit and open door day is written and shared with the WP7 leader. • The final reports are made available to all project partners and stakeholders in the SharePoint and website. 			
Evaluation of the effectiveness (Key Performance Indicators)			
<ul style="list-style-type: none"> • At least 75% of the participants to the visits to the SWERIM site declare in the final evaluation form that the knowledge gained will be used or will be useful in their work and or research project. • At least 75% of the participants to the open doors days declare in the final evaluation form that the knowledge gained helped them to better understand the concept of industrial symbiosis and CCU, as well as their benefits for the economy and the environment. 			
Lead staff			
SWERIM Consortium			
Other staff, project partners or third parties involved			
Antonio La Mantia (CVE) Consortium			

Related to deliverable D7.4 Report on learning resources			
Name of the activity	Timeframe (mm/yy - mm/yy)		Location of the activity
Scientific publications	Start 09/2021	End 04/2025	
Target audience			
<ul style="list-style-type: none"> INITIATE-related industries Public authorities Other industries R&D community related to CCU 			
Link to the INITIATE project's priorities and grant agreement's objectives			
<ul style="list-style-type: none"> Disseminate the project's outcomes to the scientific community and then, with the help of the communication team, to a broad spectrum of stakeholders (including next-generation professionals) and thereby maximise the impact of those outcomes. Ensure the effective exploitation and dissemination of the project results to all relevant stakeholders to facilitate successful future deployment. 			
Description and objectives			
Disseminate and publish the INITIATE results in peer-reviewed international scientific journals. The open-access principles (combination of gold and green) will be followed for all scientific publications. Any pertinent data that is not IP-protected will be deposited as FAIR data in open access repositories.			
Expected outputs and results/impact			
<ul style="list-style-type: none"> All INITIATE outcomes will be disseminated among the most relevant audience and published in the most relevant journals. The WP7 leader along with the consortium will ensure the promotion of these articles to a broad audience. 			
Evaluation of the effectiveness (Key Performance Indicators)			
<ul style="list-style-type: none"> At least 5 articles will be published in international peer-reviewed journals with at least 1 paper published in a high-impact factor journal(> 4). 			
Lead staff			
Antonio La Mantia (CVE) (for the outreach part) Consortium (for the scientific publications)			
Other staff, project partners or third parties involved			
Célia Sapart (CVE) Lara Tottolo (CVE)			

Related to deliverable D7.4 Report on learning resources			
Name of the activity	Timeframe (mm/yy - mm/yy)		Location of the activity
MSc level internship	Start 09/2021	End 02/2025	Europe
Target audience			
<ul style="list-style-type: none"> R&D community related to CCU 			
Link to the INITIATE project's priorities and grant agreement's objectives			
<ul style="list-style-type: none"> Disseminate the project's outcomes in a tailor-made manner to a broad spectrum of stakeholders (including next-generation professionals) and thereby maximise the impact of those outcomes. Communicate the project's progress (results and other activities) in a clear way depending on the audience and thereby ensure broad stakeholder engagement at different levels. Ensure the effective exploitation and dissemination of the project results to all relevant stakeholders to facilitate successful future deployment. 			
Description and objectives			
<p>Each R&D partner of INITIATE offers MSc students at least one internship per semester. These internships aim at giving MSc students the chance to explore an industry developing industrial symbiosis process and get acquainted with the INITIATE project, thereby broadening their academic horizon. The internship lasts six months and can be divided up into 2 phases: the field phase and the writing phase. During the field phase, the interns explore the work field of the R&D partner and apply the knowledge acquired during their study in practice. During the writing phase, the interns write a final report in close cooperation with the supervisors which can then be presented to other students or external stakeholders during tailored-made events.</p>			
Expected outputs and results/impact			
<ul style="list-style-type: none"> MSc level internships are offered by every R&D partner of INITIATE. The MSc level internship is divided into 2 phases: the field phase and the writing phase. The interns participating in the MSc level internship write a final report in close cooperation with the supervisors, which can be presented during tailored-made events. The final reports are made available to all project partners and stakeholders in the SharePoint and website by the WP7 team. 			
Evaluation of the effectiveness (Key Performance Indicators)			
<ul style="list-style-type: none"> At least one MSc level internship per semester is offered by every R&D partner of INITIATE. The number of internships organised and the quality of the final reports will be evaluated. 			
Lead staff			
POLIMI RU TNO SWERIM			
Other staff, project partners or third parties involved			
Antonio La Mantia (CVE) Consortium			

Activity related to deliverable D7.5 Report on thematic workshops			
Name of the activity	Timeframe (mm/yy - mm/yy)		Location of the activity
Thematic workshops	Start 09/2021	End 04/2025	Online - EU
Target audience			
<ul style="list-style-type: none"> • INITIATE-related industries • Public authorities • Other industries • R&D community related to CCU • Environmental NGOs 			
Link to the INITIATE project's priorities and grant agreement's objectives			
<ul style="list-style-type: none"> • Demonstrate operating reliability and technology-based innovations of the INITIATE process in real industrial settings. • Ensure the effective exploitation and dissemination of the project results to all relevant stakeholders to facilitate successful future deployment. 			
Description and objectives			
<p>The WP7 team organises thematic workshops of relevance to INITIATE during the entire duration of the project. The workshops see the participation of project partners and stakeholders interested in deepening their knowledge on specific project's outcomes or INITIATE process innovations. The thematic workshops are an opportunity for the project partners to reinforce their capacity in their working areas, as well as their cooperation with national and European stakeholders. Examples of topics are: Knowledge exchange and collaboration on common challenges with other EU-funded projects on the topic; Life-cycle analysis; non-technological aspects like business plan feasibility, regulatory framework barriers, funding opportunities for replication at EU and national level.</p>			
Expected outputs and results/impact			
<ul style="list-style-type: none"> • The WP7 leader organises at least 2 workshops of relevance to INITIATE for project partners, stakeholders and policymakers throughout the entire duration of the project. • The workshops are held online or they are live-streamed to allow participants who not able to attend the meetings in-person to participate in all INITIATE events. • All public workshops are recorded and uploaded to the INITIATE website and shared on the INITIATE social media channel. • The WP7 leader will acquire clear and affirmative consent according to the European GDPR. • The workshops participants are sent a final evaluation form following each meeting. 			
Evaluation of the effectiveness (Key Performance Indicators)			
<ul style="list-style-type: none"> • The number of attendees will depend on the type of workshop. • The live-streamed workshops ensure an attendee engagement of at least 30%. • At least 30% of each workshops' participants declare in the final evaluation form that the knowledge gained during the workshop will be used or will be useful in their work. 			
Lead staff			
Antonio La Mantia (CVE)			
Other staff, project partners or third parties involved			
Célia Sapart (CVE) Lara Tottolo (CVE) Consortium			

Related to Deliverable D7.5 Report on thematic workshops			
Name of the activity	Timeframe (mm/yy - mm/yy)		Location of the activity
Final Conference	Start 10/2024	End 04/2025	TBC
Target audience			
<ul style="list-style-type: none"> • INITIATE-related industries • Public authorities • Other industries • R&D community related to CCU • General public • Environmental NGOs 			
Link to the INITIATE project's priorities and grant agreement's objectives			
<ul style="list-style-type: none"> • Ensure the effective exploitation and dissemination of the project results to all relevant stakeholders to facilitate successful future deployment. 			
Description and objectives			
<p>After the project, a final conference is organised at one of the project partners' premises and it is live-streamed. The conference ensures wide dissemination of the most important results of the project among EU and national policymakers and stakeholders. The organisation of this seminal event also represents an important milestone in the development of partnership and exchanges to support successful future deployment.</p>			
Expected outputs and results/impact			
<ul style="list-style-type: none"> • The WP7 team organises a final conference along with the consortium to disseminate the most important results of the project to a variety of stakeholders and policymakers. • A <i>final conference working group</i> is established on month 48. The working group includes representatives from CVE (WP7 leader), TNO (project leader), and the project partner hosting the event on its premises. The working group meets online and in person ahead of the final conference every two weeks to summarise the current state of the art. • The <i>final conference working group</i> is responsible for the practical organisation of the event, the meeting agenda, the speaking invitations, the meeting invitation, the promotional materials, and the press and media activities. The conference invitation is disseminated among project partners, stakeholders and EU and national policymakers on month 51. • A press release is released among EU and national media ahead of the conference. • The final conference is live-streamed and the recording is uploaded to the INITIATE website and shared on the INITIATE LinkedIn channel. 			
Evaluation of the effectiveness (Key Performance Indicators)			
<ul style="list-style-type: none"> • The final conference attrition rate is lower than 20%. • The live-streamed final conference ensures an attendee engagement of at least 30%. • The KPI concerning the participants' affiliation will be defined at a later stage. • At least 30% of the respondents declare in the final evaluation form that the knowledge gained during the final conference will be used or will be useful in their work. • The press release is picked up by at least 1 EU media, 3 scientific media and 5 national media. 			
Lead staff			
Antonio La Mantia (CVE)			
Other staff, project partners or third parties involved			
Célia Sapart (CVE) Lara Tottolo (CVE) Consortium			

3.2. Implementation plan timeline

The implementation plan timeline aims to offer the WP7 leader and the consortium a chronological overview of the described communications and dissemination activities to be implemented throughout the project.

Activity	Timeframe	Location	Deliverable
Press and media	11/2020-04/2025	Brussels Europe	D7.3
Visual identity design	01/2021 – 06/2021	Brussels	D7.3
Website design, management and development.	01/2021-04/2025	Brussels	D7.3
Communication and Dissemination Plan	03/2021-07/2021	Brussels	D7.1
INITIATE newsletter	06/2021-04/2025	Brussels	D7.3
Social media management and development	06/2021-04/2025	Brussels	D7.3
Thematic workshops	09/2021-04/2025	Online	D7.5
Yearly visits	02/2022-02/2025	Lulea, SE Europe	D7.5
MSc level internship	09/2021-02/2025	Europe	D7.5
Updated Communication and Dissemination Plan	03/2023-06/2023	Brussels	D7.2
Summer schools	07/2023-07/2023 07/2024-07/2024	Lulea, SE Nijmegen, NL	D7.5
Guest lectures	09/2023- 02/2025	Milan, IT Nijmegen, NL	D7.5
Final Conference	10/2024-04/2025	TBC	D7.5