D8.6 – First Dissemination and Communication plan

March 2018

WP 8, T 8.2

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sCO$_2$-Flex

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Technical References

Project Acronym	sCO_2-Flex
Project Title	Supercritical CO_2 Cycle for Flexible and Sustainable Support to the Electricity System
Project Coordination	Albannie Cagnac sCO_2-flex Project Coordinator Email: albannie.cagnac-1@edf.fr Tel: +33 (0)1 30 87 86 64
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[1] PU = Public

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)

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Document history

V	Date	Beneficiary	Author
1	29/03/2018	Zabala Innovation Consulting	Gustavo Jacomelli
2	09/04/2018	EDF	Albannie Cagnac
3.1	15/04/2018	Zabala Innovation Consulting	Gustavo Jacomelli
3.2			

Summary

The present document is designed to lay out the communication strategy that will be adopted during sCO_2-FLEX's first year of implementation. The challenge is to grow the projects visibility from scratch by targeting relevant stakeholders involved in fossil fuel industries. To do this the plan shall draw the necessary steps that will be taken to support the achievement of sCO_2-FLEX overall objectives. It will illustrate, among others, the methods conceived to: engage relevant stakeholders, disseminate news stories, highlight challenges to the work performed, ensure that interested parties are up to date on the platforms activities and related events and give audiences a global overview of sCO_2-FLEX technology.

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Introduction

Conventional plants could foster the integration of renewable energy sources (such as wind and solar) by off-setting their intermittent nature providing fluctuating back-up power and helping stabilize the grid. However, these plants are not currently fit to undergo huge power output fluctuations, as requested in future scenarios with increasingly higher shares of renewables.

In this context, sCO_2-Flex consortium addresses such challenge by developing and validating a scalable/modular design of a 25MWe Brayton cycle using supercritical CO_2 that will enable an increase in the operational flexibility (fast load changes, fast start-ups and shut-downs) and in the efficiency of existing and future coal and lignite power plants, thus reducing their environmental impacts, in line with EU targets.

The project, by bringing the sCO_2 cycle to TRL6, will pave the way to future demonstration projects and to a potential commercialization of the technology.

The sCO_2-Flex Dissemination Objectives are:

- To disseminate information about the objectives, the approaches and results to all relevant stakeholders and potential users (boiler/turbomachinery/HX manufacturers, materials developers, engineering companies/integrators, network system operators) across Europe;
- To promote the project so as to make the technology known and recognized;
- To use the networking capacities of the consortium to disseminate the project's progress to the widest possible group of stakeholders named above
- To facilitate collaboration and information exchange between public / indirect beneficiaries, stakeholders / interested parties and consortium members.

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1. Communication Goals

sCO_2-Flex's results can only be properly transferred if the interested stakeholders and potential users understand the potential of the sCO_2 cycle in terms of flexibility, efficiency, cost-effectiveness, and environmental impacts. WP8 includes tasks such as promoting awareness, understanding, and involvement of the stakeholders. As the need for raising knowledge and successfully disseminate results towards relevant stakeholders is directly related to the success of the project, all partners will play a role, relying on their own tools, networks and channels. Dissemination and Communication activities are very much linked, and they must be undertaken in a coordinate way, thus exploiting synergies and avoiding overlap between them. The main objective is to make sure that the results effectively reach all the relevant stakeholders through targeted communication tools.

sCO_2-Flex's Dissemination and Communication objectives are aligned with project impacts that manifest themselves in three dimensions to be communicated to the audience:

PROJECT OBJECTIVES	COMMUNICATION AND DISSEMINATION OBJECTIVES
TECHNICAL Increasing coal power plants' flexibility and efficiency at entire load range	To raise awareness and boost the interest of the industry and research community so that sCO_2 gets widely recognized as a sound and relevant solution.
ECONOMIC Enabling the industrial deployment of the sCO_2 cycle from 2025.	To foster the implementation of demonstration projects, to raise awareness and prepare social acceptance.
ENVIRONMENTAL/SOCIAL Mitigating coal plants' environmental impact and foster its acceptance.	To make the environmental of the projects known and to anticipate possible social acceptance issues.

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2. Audience

The consortium has strong relationships and ties with industry, associations, universities and research centers, enabling extensive dissemination to the target communities.

- Identification of the target audiences that should be reached (WHO).
- Tailoring of the messages towards these target audiences (WHAT).
- Decision on the best communication channels and tools to reach the target audiences (HOW).
- Development of a detailed implementation plan (WHEN).

The following target groups, communication channels and information types required have been identified:

Main Target groups	Industry, regulators, research and academia stakeholders at European, national and regional level (and international)	Policy makers & public bodies	General public at European, national and regional level	Media / Journalist
Detail Target groups	- Plant operators, - Plant manufacturers, suppliers, integrators. - Engineering companies - Network system operators. - EU Associations, platforms, partnerships - Universities and RTDs. - PhD and students.	European Commission. - European Parliament. - Energy regulators. - National decision makers.	- Consumer organisations. - Individual consumers - Environmental organisations, clusters.	- Media specialized in Science and Research. - Associations of Scientific and Environmental Journalism. - Regional Media
Communication channels	- Publications - Project's final conference - Participation and project's presentation in conferences, - Project's website, newsletter and Social Media. - Dissemination material. - External workshops.	- Publications - Project's final conference - Participation and project's presentation in conferences, seminars and symposiums - Project's website, newsletter and Social Media. - Dissemination	- Website, newsletter and Social Media. - Dissemination material - Promotional videos - Project's final conference. - Communication campaign. - Surveys and interviews (social impact)	- Project's website, newsletter and Social Media. - Dissemination material. - Promotional videos. - Project's final conference - Participation and project's presentation in

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	- On site visits. - Promotional videos. - Communication - campaign for students.	material. - External workshops. - Promotional videos.		conferences - Press conference and press releases. - Articles and interviews.
Type of information	- Technical, economic, environmental and social analysis - Market potential evaluation.	- Technical, economic and environmental analysis - Market potential evaluation. - Social impact assessment learned - Socio-Economic analysis	- Social and environmental analysis. - Good practices in relationship building with civil society.Releases. - Web.	Technical, economic, social and environmental analysis. - Good practices in relationship building with civil society
Goal	- Foster results' uptake - Foster implementation of demonstration projects from 2020 - Knowledge-transfer -Foster future R&I cooperation. -Raise awareness.	- Demonstrate the ability of fossil plants to fulfil their role in the future electricity system - Demonstrate the relevance for multiple applications of the sCO_2 technology	- Raise awareness on sCO_2 technology and on EU funding. - Understanding of electrical system. - Highlight social, economic, and environmental - benefits.	Make the technology known and recognized and enhance the role of EU funding. - Better understanding of the electrical system. - Highlight economic, environmental and social benefits.
Messages	- Reduction in fuel and water consumption - Increase flexibility and ability to meet future requirements - Increase efficiency at part and minimal load - Reduction of GHG emissions. - Cost-effectiveness and competitiveness	- Energy Union policies -The COP21 agreements - Job creation - Stability and balance of the network -Penetration of renewable energy sources	- The integration of renewable sources - Reduction of GHG emissions, water and fuel needs - Job creation. - Reduce power outages	- The integration of renewable sources. - The competitiveness of fossil plants - The reduction of GHG emissions. - Job creation. - The overall stability of the network and the reduction of power outages

EU (and international) associations, platforms and partnerships will be key dissemination's partners. sCO_2-Flex's partners, members of these bodies, will rely on them to ensure a wide and efficient dissemination of the results: Eurelectric, EPPSA, EERA, ETIP SNET, Euracoal, EU Turbines, ENTSO-E, EU Heating Industry Association, etc.

The clear categorisation of target groups allows undertaking dedicated and targeted dissemination actions. The goal is to disseminate sCO_2-Flex's objective and results among the interested industry sectors and scientist and research community demonstrating the added value, relevance and cost-effectiveness validated during the project.

Each partner shall also use its own dissemination networks to further publicise the project and thus ensure maximum visibility and impact. ZABALA will maintain a schedule of

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dissemination activities at EU, national and regional level that will be undertaken by the consortium. ZABALA's Brussels office will also contribute to reach the goals of the Dissemination and Communication Plan, relying on its network and experience.

sCO_2-Flex Consortium	Dissemination Target
Large Industry: EDF, GE	Great capacities to impact the Energy Sector and complementary industry-sectors including their client networks and commercialization channels. Dissemination efforts will focus on identifying and engaging potential customers interested in exploiting product/services generated as well as extend the internal use of the tool within their organizations. Holistic pan-European impact through the involvement of own dissemination/sales channels
Mid-Caps and SMEs: UJV, FIVES, CSM, CVR, ZABALA	Attract new clients and reinforce the loyalty of customer portfolio thanks to the new competitive advantages acquired in terms of boosting current products/services with new high-tech solutions. Mid-Caps and SMEs make available to sCO_2-FLEX their existing client/supplier networks as well as the involvement of their marketing & communication departments.
RTD/Academia: UDE, USTUTT, POLIMI	Engage the scientific and industrial communities across Europe to raise awareness about the project and contribute to knowledge generation (sCO_2 Alliance). Generate new research lines and training programs aligned with the key pillars of the excellence in science established in H2020. Involvement of research groups and "communication departments at universities" in dissemination activities.

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3. Communication Tool and Actions

- The actions of dissemination and communication have been designed so that the channels, tools and materials are complementary and mutually reinforcing.
- This will be achieved by reaching out to all possible audiences through tailored messages and channels towards each of our target audiences. Face to face communication actions will be combined with digital actions to increase the impact of both.
- To accomplish this communication strategy, professionals and communication resources of ZABALA and the other partners will be actively involved.

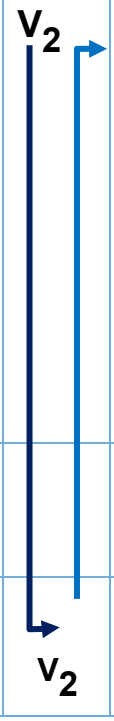
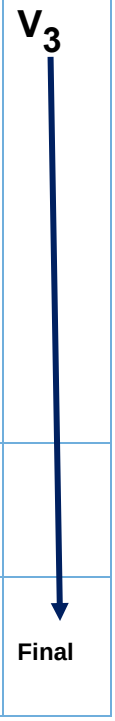
sCO_2-Flex sets up a complete range of activities to maximize the project results' visibility, to:

i) increase the likelihood of demonstration projects in operational environment;

ii) foster market uptake;

iii) ensure a smooth handling of the individual intellectual property rights, paving the way to knowledge transfer.

The table below summarises how the updated versions (Vi) of the dissemination and communication plan and the construction of the results' exploitation plans interact throughout the project.

		Year1	Year2	Year3
Dissemination plan	• Dissemination strategy: objectives and targets • Dissemination activities and channels • Dissemination KPIs to measure dissemination's efficiency • Management of three dissemination activities: Packaging knowledge for an effective take up Reaching the target audience to stimulate interest Preparing the effective exploitation of the project results Dissemination administration (approval, reporting, deliverable)			
Communication activities	• Project website • General communication material & Social media • Scientific publications			
Exploitation plan	• IPR strategy • Exploitation plan for the project results • Business plans for key project results			

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sCO_2-Flex is planning specific tasks to ensure proper exploitation and dissemination. Both activities are very much linked and must be undertaken in a coordinated way, exploiting synergies and avoiding overlaps. To build awareness about sCO_2-Flex, its objectives, methodology, results and commercial and exploitation potential, the partners will be able to rely on a sound and ambitious Exploitation and Dissemination Plan.

3.1 Brand Image

Creation of the logo, corporate design guidelines and templates. A sCO_2-FLEX visual guide has been created (see Annex 1) which as well as templates, includes a detailed illustration of the chosen logos, colors and fonts. They will be applied on project tools and materials as well as on all internal documents of the consortium members and stakeholders to create a cohesive representation of sCO_2-FLEX project. A sample of the logo can be found below:

The sCO_2-FLEX brand is inspired by the turbine of the Byron Cycle. The logo is the verbalisation of the word sCO_2-FLEX, using a fluid typography. The colours refer to the greening ambition of the project.

3.2 Communication materials

The following communication materials will be designed:

Public presentation, factsheet and a logo: The project will have a logo, factsheet and a public presentation. This will help to promote the project across Europe.

Public publishable summary. Every year the consortium will send a publishable summary to the EC and upload it to the project website, presenting the advances of the project.

Leaflet: presenting the project and its results, will be used as materials in different events.

Press releases, articles in magazines, electronic publications and local/national press: publications will be prepared to promote the major events of the project (see section 2.2.1 for further detail).

Posters: To be designed and printed as needed for their use in the different events being attended.

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A leaflet showing the basic features of sCO_2-FLEX and its supporting project objectives, expected results, partnership, pilots, etc. It is aimed at the general audience of the project, but its design and characteristics (specialized publication) have been specially considered stakeholders, with a more technical profile. It will be mainly distributed at the events in which sCO_2-FLEX will be presented and networking activities. It will also be available on the project website to be downloaded.

A PPT Presentation document will be elaborated explaining the project:

- What is sCO_2-Flex.
- Goals.
- Expected results.
- Call to action for stakeholders.

This document will serve partners as a complementary material in their presentations, events, etc. to explain the Project properly. Each partner will be able to adapt and modify it according to their needs.

- A **set of roll-up stands** to support project communication visually at events.
- A **Word template** for generic documents and another template for publications to be printed in-house or digitally.
- A **Power Point template**.

This complementary material will strengthen the visual impact and synthesized information of the project in the different events.

3.3 Digital Marketing Strategy

The website is the Media hub of sCO_2-FLEX as well as the meeting place for all stakeholders interested in the project. Strategies and campaigns developed online and offline will be complementary and will aim to attract visitors to the website. The web development plan hereafter is agreed with the sCO_2-FLEX Communication team (made up of one member from each of the partners) and will include impact measures and indicators. The plan will be reviewed periodically.

The main pillars of the digital strategy will be:

- **SEO** Search engine optimization for improving the visibility of the website in the organic results. Regular, unique relevant new content and an active social media presence will be the cornerstones of consistently high search results for the most relevant and applicable keywords.
- **Content** (news section on the website): The news section will be periodically updated with content related to milestones of the project, publications, participation in events, cases of study, activities related to the project and other associations, etc.
- **Social Networks**.

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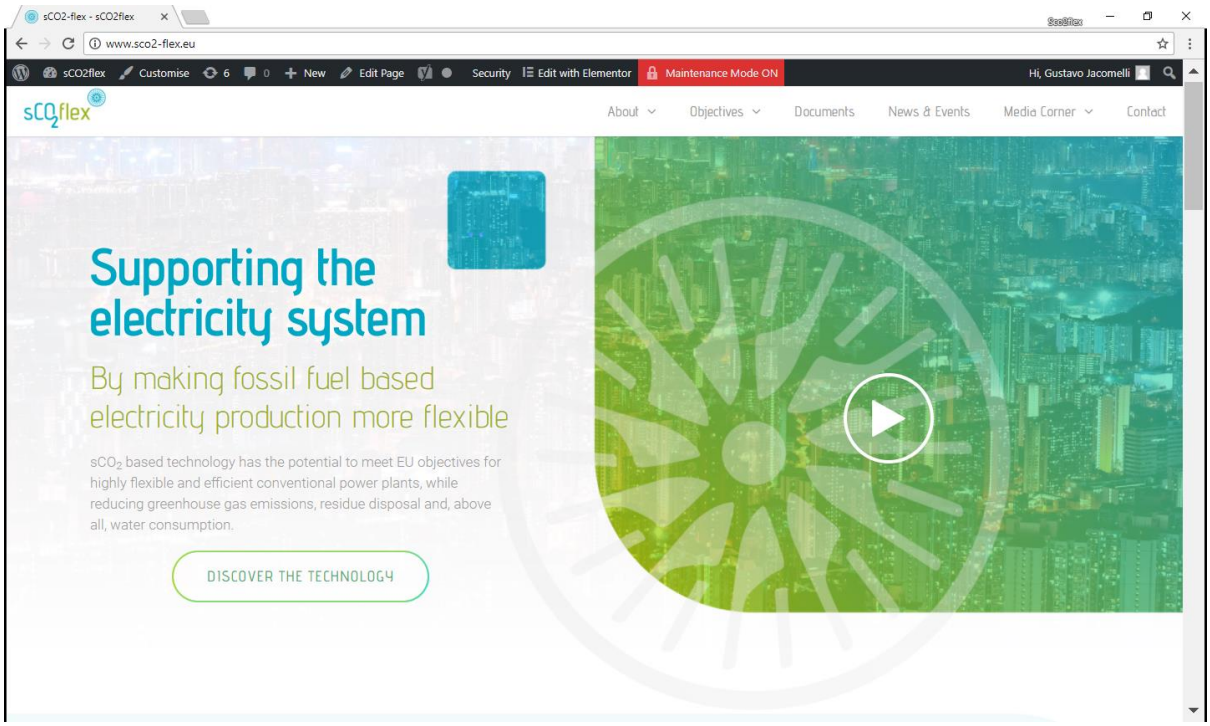
- **Calls to action** for stakeholders.
- **Keywords**: keywords related to the sCO_2-FLEX project will be analyzed, improved and updated. The proposed keywords for the sCO_2-FLEX project are the following:

  - sCO_2-FLEX project
  - Renewable energy
  - Fossil Fuel energy
  - sCO_2 energy
  - Clean Coal
  - …

3.3.1 Website

The website will be the meeting place for all stakeholders interested in the project. ZABALA will create a website with general information about sCO_2-FLEX, demo sites, results achieved, news and events. The website will link to social media channels, newsletter and other interesting projects/initiatives. A preview is available below:



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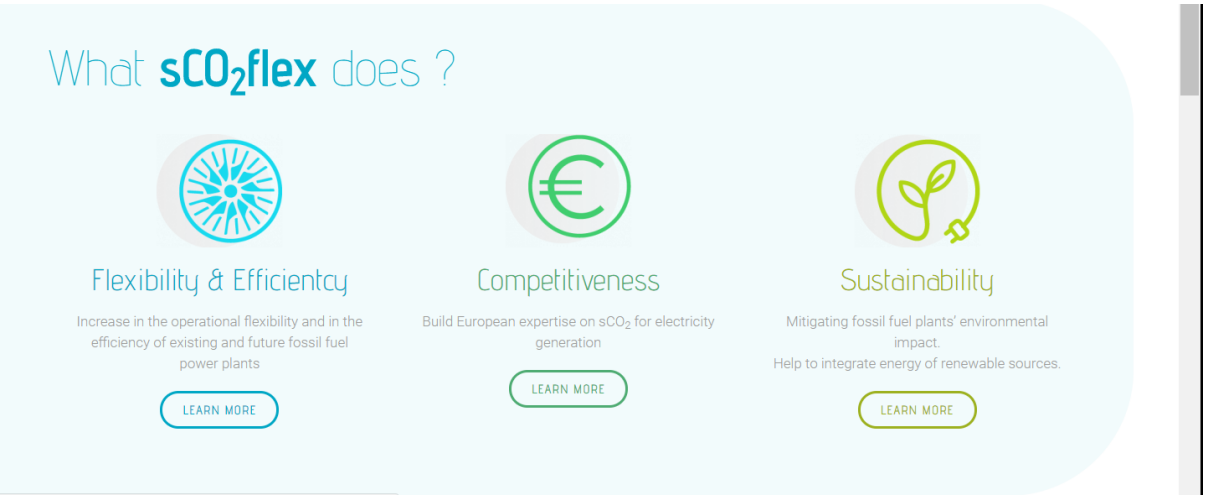

The structure of sCO_2-FLEX website will be like the following:

- About
  - The sCO_2-FLEX project
  - Structure
  - Consortium
  - sCO_2-Flex alliance
- Objectives
  - Technical
  - Economic
  - Environmental
- Documents
  - Deliverables
  - Impact
- News & Events
- Media Corner
  - In the media
  - Newsletter
  - Press Releases
  - Resources (Presentation Templates, Brochure, others)
- Contact
- Links to Social Media channels

Communication of Exploitation-related objectives

The website will also act as the main portal through which to disseminate the outcomes of exploitation activities and objectives:

- To further analyse and build the exploitation plan to foster the results' market uptake;
- To monitor advances by other projects, to maximize the potential of sCO2-Flex

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- To perform a continuous monitoring of the market evolution and competition taking into account direct, indirect but also disruptive solutions that could compete with sCO2-Flex;
- To support both joint and individual commercial exploitation of the project's results by the partners and identify exploitation strategies outside the consortium
- To ensure that the technology developed lives on in a commercial context after the project's completion, in the cross-sectorial end-users community, research & development community, SMEs, and companies involved in power plants operation and components/ materials supply.

Social Impact assessment (T7.3)

At Month 24 ZABALA will create a specific tab under "Documents" in the website to facilitate the dissemination and implementation of the social impact assessment.

3.3.2 Social Media

The creation of a "sCO_2-FLEX community" will increase the visibility and impact of the results attained in the project. In fact, viral marketing strategies linked with the website will be implemented based on Twitter and LinkedIn social media tools. Additionally, videos and multimedia will be developed and shared in Youtube/Vimeo channels, communicating easily accessible project results for attracting the interest of stakeholders and the general public.

In order for sCO_2-FLEX's social networks to be active and contain information of interest to the public and stakeholders, it is important to take into account certain aspects:

- Use of the hashtag of the project: #sCO_2-FLEXProject.
- Creation of audiovisual material to ZABALA for dissemination in social networks.
- Monitoring sCO_2-FLEX accounts on Twitter and LinkedIn.
- Reporting ZABALA of the communicative milestones in order to support them.
- Participation in the conversation on Twitter and LinkedIn.

Use of social media guidelines for partners will be developed. This guide will have good practices for interacting with sCO_2-FLEX's social media accounts.

3.3.2.1 Twitter

People use Twitter to find out what's going on in the world right now, instantly share information and connect with people and businesses across the globe.

Twitter has hundreds of millions of users sending more than 500 million tweets every day, so it offers a great opportunity for sCO_2-FLEX to reach an international audience of current and potential stakeholders.

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sCO_2-FLEX can use Twitter to establish meaningful connections with an active and relevant audience. These connections can produce beneficial opportunities for the project across the network stakeholders.

3.3.2.2 LinkedIn

LinkedIn is currently the main business network in the world and has more than 150 million users in more than 200 countries and territories.

Stakeholders, which sCO_2-FLEX needs to connect with, are in LinkedIn, so it's appropriate to implement some actions:

Creation of a Company page

sCO_2-FLEX's company page helps LinkedIn members to get to know the project. Company pages are also a great way to showcase experience in the industry.

sCO_2-FLEX's company page is the perfect place to illustrate project results, increase awareness and educate stakeholders about sCO_2-FLEX.

It's a supplement to the website, helps drive traffic to the site and offers a way out to promote the project.

3.3.2.3 YouTube. Promotional videos

With the aim of communicating the complexity and depth of issues in value chains, 2 promotional videos will be produced. The videos will be presented at events and shared across social networks to gain followers, increase visits to the site and thus strengthen the communication strategy. The communication team will define the strategy in years 1 and 3 for videos development.

Presentation video (Year 1)

One video introducing the project profile and general concept at the beginning of the project (technological innovation).

This video will be a piece with a recommended duration of 120", presenting the project profile and general concept.

To make the piece with that format, we propose a piece typology based on a series of photographs that reflect the vision / mission of the project, accompanied by texts on screen, which will show all the necessary concepts that it is wanted to be transmitted from sCO_2-FLEX.

To display the literals on screens, we will use the technique called KINETIC TYPOGRAPHY which consists of animating the text on screen according to the script.

Results video (Year 3)

One video presenting the project results and their application (social innovation).

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This video will be defined close to the end of the project to optimize all the resources Information pills with focused messages (during the whole project)

These video interviews will feature a personalized logo and will convey a fresh and positive message, projecting the values of the project. They will be especially easy to share on social networks.

3.3.3 Newsletters

A biannual newsletter will be shared with newcomers interested in being aware about the achievements/news of the project. This data base will be nourished by a registration form included in the website, an existing contact list of the partners and thanks to the participation/involvement of the consortium with other EU initiatives, events, fairs, workshops, etc.

News will be sourced from the projects website, so that in this way the visits will be increased. In addition, it will be circulated via the European stakeholder associations. Mailings with invitations to relevant workshops and webinars, consultations and other information which cannot wait for the newsletter publication or that cannot appear only in the newsletter will be sent out regularly to the same database used for the newsletter.

Newsletters will be uploaded in the website and an internal calendar will be shared with all project partners for receiving their feedback and the final approval about the content and appearance.

The most relevant European Media will be detected for sCO_2-FLEX, with the aim of sending them communications of the most important milestones.

The partners can contribute with their own contacts to complete the database more efficiently.

The main sectors on which this database will be worked are:

- Technology.
- Economy.
- Energy.
- Industry.
- Research.

Monitoring

Monitoring and analytics will be incorporated on the web and social media in sCO_2-FLEX's digital marketing and communication processes, as a source of essential information for monitoring key indicators.

One of the great benefits of the presence in social networks is that it allows to analyze and measure much better the return of the investment (ROI).

- sCO_2-FLEX monitoring and analytical actions:
  - Set up of specific KPI's for the web and social media

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- Activation of monitoring and measurement tools (Twitter Analytics, Google Analytics…)
- Creating a Web Analytics Dashboard.
- Monthly report of statistics and conclusions.

3.4 Events and networking

The interaction with external stakeholders is one of the central aspects of the sCO_2-FLEX Dissemination Plan.

sCO_2-FLEX will take into account the opinions and comments of external stakeholder community during the life of the project. All partners will be in charge of collecting this information within the development of EU events (conferences, fairs...) through the fulfilment of specific templates collecting key comments received.

The main technological and strategic results will be showed in EU Events organized by EU Research Initiatives and in International Trade Fairs. Thanks to the "multidisciplinary" background of sCO_2-FLEX partners (integrating a university, SMEs and Large Industry), the partners will take the lead of developing workshops focusing on sCO_2-FLEX project content.

Moreover, they will be involved in already existing workshops well-positioned at EU level. In this sense, the organisation of several harmonious cooperation actions (workshops, meetings, etc.) will be developed with new and existing H2020 projects to align positions and share lesson learnt among them.

Finally, the industry partners will participate in trade fairs to establish synergies and start commercializing the results generated. Additionally, the sCO_2-FLEX partners will be involved in events managed by stakeholders and policy makers.

Preliminary list of events with partner attendance:

PARTNER	PLACE	DATE	AUDIENCE	DESCRIPTION
EDF	Paris	2018	Industrial and Academic	Seminar on sCO_2-Power cycles
GE	Florence	2019-2020	International customers & industry leaders	Presentations at technical conferences, international product fairs. In particular, GE O&G Annual Customer Meeting https://www.geoilandgas.com/annual-meeting
FIVES	Paris	2018-2019	200-1000 (e.g. Heat transfer specialists)	Many (>15) international customer visits, tradeshow, technical conferences.
CSM	Rome	2019-2020	Inter customers & Academic	Presentation at technical conferences and international customer visits
UDE	Duisburg	M3	sCO_2-Flex consortium	Workshop on sCO_2 turbomachine: to bring partners to a harmonized level at the beginning of the project.

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PARTNER	PLACE	DATE	AUDIENCE	DESCRIPTION
USTUTT	Stuttgart (or others)	M2	sCO_2-Flex's consortium and EEAB (50)	Workshop/ Workshop on sCO_2 heat transfer phenomena: to bring all participants to a harmonized level at the beginning of the project
USTUTT	To be defined	M18	Scientists (100)	Seminar / Seminar on sCO_2-Power cycles: To advertise scientific sCO_2-results to other scientists
USTUTT + UDE	To be defined	M24	M.Sc and Doctorate students (50)	Workshop/ International sCO_2 Workshop special dedicated to foster the networking of students on a scientific level on sCO_2 cycles.
CVR	Prague	2018	100 (students + researchers)	Workshop/ Popularization of sCO_2 technology, increase of interest of students and young researchers.
UJV	Prague	2019	50 (students + researchers)	Seminars/Seminar on sCO_2-Power cycles increase of interest of students and young researchers -
POLIMI	Milan	M18	sCO_2-Flex consortium	Workshop on part load operation to define with all the other partners and on the basic strategies investigated
POLIMI	Milan	2019	300 students	Seminar on sCO_2 cycles for MS and PhD students
ZABALA	Brussels	Q1 2020	Over 100	Final event (including 1 press conference)

Participation in other events

- The sCO_2-cycle symposia in the US and Europe are highly-relevant platforms for disseminating the results. The 2nd Symposium is going to take place in Germany beginning of 2018 organized by USTUTT, UDE, within the frame of sCO_2-HeRo. The 3rd symposium (2020) will be organised by the partners of sCO_2-Flex.
- The ASME Turbo Expo is the platform for turbomachine experts. Several sessions are focussing on sCO_2. GE O&G is part of the technical committee and usually participates with papers.
- ISA Power Industry Division Symposium, VGB Congress "Power Plants"
- EPPSAs Technology Evening , EURELECTRIC Annual Convention & Conference, EPRI Summer Seminar
- The Energy & Materials Research Conference
- Gastech conference: global gas and LNG event: 25000 attendees, 600 exhibitors, 70+ countries.
- Gas Processor association (Europe, USA and EMEA): Promoting technical and operational excellence throughout the Gas Industry
- The Clean Coal Technologies International Conference supported by the IEA, expected in 2017 and 2019

Networking with other projects and initiatives

ZABALA leads the H2020-funded INTENSYS4EU project aiming at supporting the work carried out by the European Technology and Innovation Platform Smart Networks for Energy

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Transition (ETIP SNET). ZABALA will make the link between sCO_2-Flex and the relevant associations involved in the Intensys4EU consortium: EU Network of Transmission System Operators for Electricity (ENTSO-E), EDSO for Smart Grids, EU Association for Storage of Energy (EASE), EU Energy Research Alliance (EERA). These associations bring together the main players in the energy sector (more than 300 companies, organizations, research centres and universities) related to Energy and Smart Grids. Synergies with stakeholders will be considered and developed with sCO_2-Flex.

Through the **Common Dissemination Booster** offered by the **European Commission** sCO_2-Flex will join forces with related projects such as PUMP-HEAT and TURBO-REFLEX to receive additional training on how to increase visibility and raise awareness of these specific projects.

Specific communication campaigns

Task 7.3 includes a tailored communication campaign to enable and improve social acceptances and trust in news energy technologies. Through this plan both local communities and civil society in general will be targeted. This campaign will include **surveys and interviews** to compile relevant information for the proposed study.

External Expert Advisory Board (EEAB)

As part of the person to person dissemination activities, the project will set up an EEAB that will gather different parties (More detail about institutions involved is given in Section 3.2). The Board will accommodate any interested stakeholder, including entities with different profiles, and bring together end users.

Partners must provide a report of each event they attend and act proactively in the interaction with stakeholders to obtain feedback on sCO_2-FLEX through networking and distribution of communication materials (brochures

sCO_2-FLEX Final event & European sCO_2 Alliance

A public showcase highlighting key outcomes will take place at the end of the project. It will consist of a series of demos accessible to potential end-users. Around 100 people expected.

The development of the project includes also includes the creation of a European sCO_2 Alliance which will:

- Support the 2nd sCO_2-conference (2018) in Essen
- Organize the 3rd sCO_2-conference (2020)
- Bring national and European stakeholders together
- Demonstrate the research, innovation and deployment capabilities of the consortium and invite industrial stakeholders, e.g. small enterprises, power plant operators, etc.
- Set-up a counter-part on the US sCO_2-symposium

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3.5 Work with Media (Relations and actions aimed at the Media)

Journalistic articles will be actively promoted on the News area of the website and Social Media (with all its interactive material), as well as through other dissemination channels such as magazines. Publications and presentations in particular with a view to raise awareness on the added value of sCO_2-Flex are also foreseen.

Press conferences: To publicise results of sCO_2-Flex, one event for journalists specialised in Science, Environment, Energy and Climate Change will be organised, following the Final Event. To do this, press contacts of consortium members will be used and the Science and Environmental Journalist Associations will be invited to participate.

Press releases: Coinciding with the major project milestones press releases will be elaborated in English (and translated) and sent to general and specialised Media at the EU, national and regional level. To do this, mass and digital media databases will be elaborated building on the partners' existing databases.

Events, workshops and meetings: Dissemination and knowledge-sharing events will be targeted to involve stakeholders and enhance their awareness, interest, foster cooperation, etc.

The press releases will be reviewed by the Communication Team of the project. Once approved, they will be coordinated by ZABALA and the other Communication Departments of the sCO_2-FLEX partners.

Several actions are foreseen:

- Data Base of journalists.
- The following process is proposed to generate impacts in the Media at European, national and regional level:
    - Drafting and monitoring of the content of the press release in English.
    - Translation into other languages. (if needed and according to target audience)
    - Sending to contacts included in Media database.
    - Partners will also contribute by sending press releases to their media contacts.
    - Adaptation of content to create a story on the project website.
    - Collaboration with European Associations of Science Journalism is envisaged, the communication team should agree the best way to approach them, and if judged relevant.
- Press releases. Calendar coinciding with the project milestones and most relevant events, energy days, etc.

3.5.1 Publications and Articles

sCO_2-Flex's results will be published by dedicated journals and magazines in the field of energy, materials, etc. In addition, high level articles produced by the partners will be

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promoted through joint presentations and publications. Articles will be distributed at the EU and regional levels and translated if needed.

PUBLICATIONS AND ARTICLES		
WHO	**WHAT**	**WHERE**
EDF	At least 2 research review articles, conference contributions.	ENERGY journal. Conference (textbook), sCO_2 Power Cycles Symposium (US and Europe)
UJV	At least one article and contributions.	ASME Turbo Expo Conference (Europe, USA, Asia). CCS Capture, Transport & Storage, 2017 & 2019 (Norway). Inter. Conference on Coal Science and Technology (ICCS&T).
GE	At least 2 articles/papers	Relevant journals/conferences.
USTUTT	At least 3 scientific publications (e.g. articles or conference contributions)	Journal of Supercritical Fluids. Contributions to symposia like sCO_2 Power Cycles Symposium or EU Seminar on sCO_2 Power Systems. A Ph.D. student will work on the project and publish his thesis about sCO_2-condensation analysis.
POLIMI	At least 3 scientific articles At least 3 conference contributions presented in oral or poster session PhD thesis focused on the topic and eventually published in open access.	Peer reviewed journals about modelling of energy systems and dynamic simulation (Energy, Applied Energy, ASME Int. J. of Gas Turbine and Power). International congresses (ASME Turbo Expo, IEEE Conference on Decision and Control and European Control Conference,, sCO_2 Power Cycles Symposium, Solar Paces).
CSM	At least 2 articles	Relevant conferences.
UDE	At least 6 research articles	Journal of Fluid Engineering, Journal of Gas Turbine and Engineering Power, Journal of Turbomachinery. ASME Turbo Expo Conference (Europe, USA, Asia). EU Seminar on Supercritical CO_2 Power Systems (2nd) and Supercritical CO_2 Power Cycle Symposium, USA.
CVR	At least 2 research articles and 2 conference contributions.	Journal of Fluid Engineering, Journal of Gas Turbine and Engineering Power, Journal of Turbomachinery ASME Turbo Expo Conference (Europe, USA, Asia). EU Seminar on sCO_2 Power Systems (2nd) and sCO_2 Power Cycle Symposium, USA.
FIVES	At least 2 conference contribution and 1 technical article.	Heat transfer community (HTRI, Greth, or HTFS) customer conferences (Total, Technip…) tradeshow (Gastech, GPA…) Specialized press (LNG industry, GasWorld…).

Despite sCO_2-FLEX project being an Innovation Action, it is expected to develop a significant amount of research results which will be disseminated to different key scientific communities. Thus, academia partners will dedicate strong efforts in publishing scientific

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papers under the framework of global recognized scientific conferences and journals that count with high impact index.

IPR

sCO_2-Flex sets up a range of activities to increase the likelihood of market uptake while ensuring a smooth handling of individual IPR. IPR protection and strategy activities ensure that partners are free to benefit from their complementarities and to fully exploit their market position. Hence, the project will consider patenting.

Internal knowledge management will be facilitated through a web-based secure professional collaborative space for information and document sharing (private section on the project website), so each partner will have a section where key documents can be uploaded with the obtained research data in order to provide:

- Access and use free of charge to all data and information considered public
- Restricted access and/or use to all data and information considered private

Open Access

The publications resulting from project implementation will be referred to as “green” open access. The publications will follow one of the two main routes towards open access by self-archiving the published article or the final peer-reviewed manuscript by the researcher or by a representative, in an online repository before, after or alongside its publication process. Some partners already support open access for maximising the visibility of peer reviewed scientific publications (i.e. UJV, POLIMI, CSM, UDE, USTUTT, CVR). The RTD partners of sCO_2-Flex have had an institutional mandate for deposit of full text of research articles and conference papers into our open access repository, Opus, since 2011. Support for self-archiving and for open access publishing is provided by the Library, which aims to explain routes to open access, to monitor and advocate uptake and to provide training to researchers on best practices for improved impact and dissemination of research results. Universities repository is fully OAIPMH and OpenAIRE compliant. Researchers will comply with the 'Guidelines on Open Access to Scientific Publications and Research Data in H2020', ensuring open access to machine readable electronic copies of appropriate versions, available within an acceptable embargo period.

With regard to scientific publications related to foreground published, an abstract of the publication must be provided to the Commission at the latest 2 months following publication. Furthermore, an electronic copy of the published version or the final manuscript accepted for publication shall also be provided to the Commission at the same time for the purpose set out in Article II.12(2) if this does not infringe any rights of third parties.

The Parties will cooperate to allow the timely submission, examination, publication and defence of any dissertation or thesis for a degree which includes their Foreground or Background. The concerned partners receive access rights to the project results under reasonable conditions. For using them in research and teaching without any commercial character the respective project partners receive access rights on royalty free basis.

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Regarding ownership of the foreground, it is agreed that it will be the property of the beneficiary carrying out the work generating it. When beneficiaries have jointly carried out work generating foreground and when their respective share of the work cannot be ascertained, they will have joint ownership of such foreground. They will establish an agreement regarding the allocation and terms of exercising the joint ownership, including definition of the conditions (compensation to other joint owner(s), time plans etc.) for granting licences to third parties. Conditions of the transfer of ownership of the own foreground to 3rd parties must be predefined in Consortium Agreement ensuring that the rights of the other Partners will not be affected by it.

4. Coordination with sectorial associations, related projects and EC

There are four diverse policy flagships in EU: 2030 Climate-Energy Package, R&I pillars of Energy Union, Energy Summer Package and Set-Plan & Integrated Roadmap. In this sense, several partners of sCO_2-FLEX are involved in roundtables and meetings with EC and key stakeholders to define a common strategy for achieving a fully integrated energy system in Europe, where Flexible Fossil Fuel Energy will play a significant role.

In order to follow-up the main agreements achieved at EU and National level, the partners of sCO_2-FLEX will carry out a continuous observatory throughout the life of the project.

Thanks to the presence of several partners of sCO_2-FLEX in key “energy initiatives” and “policy advisory committees”, they will establish significant bonds with on-running initiatives/policy makers being continuous involved with the evolution of (flexible) Fossil Fuel Energy sector in the near future.

Common Dissemination Booster

sCO_2-FLEX aims to jointly apply for the European Commission’s Common Dissemination Booster with related projects such as “PUMP-HEAT” and “TURBO-REFLEX”.

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5. KPI´s and monitoring

These will be some of the main indicators we are going to monitor in order to measure the Return of the Investment (ROI) in communications. It´s not usual to introduce this concept in European Projects communication plans, so these KPI acquisition resources will be discussed with the partners.

01	02	03	04
Impact in Media (on and offline)	**Web analytics**	**Social media analytics**	**Event assistance**

Dissemination Performance Indicators

Indicator / Level of performance	Over	Expected	Low
Future exploitation– Products ready to be launched	>3	1	<0
Nº Project's website number of visits	>1000	[700-1000]	<700
Nº external links to the project's website	>11	[8-11]	<8
Nº contacts or followers within the social network profiles	>1000	[500-1000]	<500
Influence– Nº publications in external media (articles, Internet, TV, radio...)	>10	[5-10]	<5
Influence– Presentations done in conferences, fairs, etc.	>12	[10-12]	<10

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6. Communication team

ZABALA is the responsible for the dissemination and communication strategy with the support of its office in Brussels. The actions and processes will be coordinated with the rest of the members of the consortium through the Communication team conformed by one member for each partner.

7. Horizon2020 request

All beneficiaries of the project are committed to mention that all documentation and material produced under the programme has been made through the co-financing of European Union.

It is compulsory to communicate about EU funding by using the following statement: This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement 764690 and include, next to it, the EU emblem in the communication material. Also, a disclaimer excluding the Agency responsibility has to be included when disseminating the results of the project: The dissemination of results herein reflects only the author's view and the European Commission is not responsible for any use that may be made of the information it contains.

For more information, please refer to article 29 of the Grant Agreement, which includes these and other considerations regarding the dissemination of the project and the Open Access, Regarding communication actions it must be considered the article 38:

"The beneficiaries must promote the action and its results, by providing targeted information to multiple audiences (including the media and the public) in a strategic and effective manner. Before engaging in a communication activity expected to have a major media impact, the beneficiaries must inform the Agency (see Article 52)".

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8. Planning

	2018												2019												2020											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Communication materials																																				
Creation of logo																																				
Corporate Design Guidelines																																				
Templates																																				
Initial dissemination material																																				
Updated dissemination material																																				
Final dissemination material																																				
Social Media																																				
Twitter & Linkedin go live																																				
Community management																																				
Videos																																				
Video 1																																				
Video 2																																				
Infographics																																				
Website																																				
Goes live																																				
News Updates																																				
Events & Networking																																				
SCO2-FLEX related events																																				
Work with Media																																				
Press release kick-off																																				
Press release milestone 1: Kick-off meeting of the EU sCO2 Alliance																																				
PR Final Event - results																																				
Check for other Press worthy milestones																																				
Media Database																																				
Newsletter																																				
Newsletter template																																				
Delivery																																				
KPI's and monitoring																																				
KPI's definition																																				
Clippings																																				

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