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Executive Summary

This document presents the second release of the “*Master Dissemination and Communication Plan*” for the European funded project COCOP (deliverable D7.3), including the formulation of the COCOP dissemination strategy, an overview of the dissemination activities carried put during the first half of the project (month 1-21) and the action plan for the second half (month 22-42).

Proper project dissemination and communication is a key in order to ensure the maximum impact of the COCOP project. The main goal of the planned dissemination activities is to increase the visibility of the COCOP project on selected communities and target groups, at both European and International level, in order to promote the implementation and use of the project results (exploitation), always taking into account confidentiality and IPR protection aspects. All partners of the consortium will contribute to the COCOP dissemination, according to their foreseen role and effort and using all available tools and channels.

This deliverable outlines the COCOP dissemination strategy in terms of identification and description of the dissemination key elements:

- the objectives of the dissemination (*why*, mission & vision)
- the subjects of dissemination (*what* will be disseminated)
- the target audience (to *whom* it will be disseminated)
- the timing (*when* the dissemination will take place)
- the dissemination tools and channels (*how* to reach the target audience)
- the responsibilities for dissemination (*who* will perform the dissemination)
- the rules for performing the dissemination activities
- the way to evaluate and assess the impact of the dissemination activities

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1 Introduction

European process industry, which represents 20% of the European manufacturing base, faces a strong need to increase product quality and reduce operating costs and environmental footprint. COCOP aims at contributing to satisfy this need and to strengthen the global position of the European process industry, proposing a plant-wide monitoring and control by using the model-based, predictive, coordinating optimisation concept in integration with plant's automation systems.

A complex plant comprises of continuous and batch unit processes with a dynamic behavior, so a plant-wide monitoring and control is a requirement for achieving economically and environmentally efficient operation. But plant-wide optimization is a huge problem and difficult to solve. The COCOP concept is based on the **decomposition-coordination optimisation** of the plant operations: the overall problem is decomposed into unit-level sub-problems, so that the solutions of sub-problems are coordinated to plant-wide optimal schedule using high-level coordination, enabling real-time optimisation of the plant.

The COCOP solution can be applied to any large industrial production site because it relies on general methods such as modelling of dynamics, data analysis and optimization, but the project will research, demonstrate and validate the concept on two pilot cases (copper and steel manufacturing process) and analyse the transferability to other two sectors: the chemical and water treatment processing.

COCOP project also combines the technological development with a **social innovation process** of co-creation and co-development for improving effectiveness and impact of the innovations, their implementation process and the related organisational and personnel development.

The use of the COCOP solution can provide different:

- *Economical benefits*: increasing the productivity and reducing operation costs due to an optimal performance of the processes that allows reducing the energy consumption, the raw materials use, the number of defects/rejects, etc.
- *Environmental benefits*: increasing the sustainability of the process industry (i.e. reduction of pollution, greenhouse gas emissions and energy/raw materials consumption) as well as being better prepared to meet existing and emerging regulatory mandates in terms of environment, quality or safety aspects.
- *Social benefits*: improving the personnel development and the working conditions of plant operators by developing new process-control tools which support operating work and enable operators to understand the functioning of the whole plant. In addition, the new tools could be used for the operators training in the form of on-the-job-learning.

COCOP can offer therefore: (i) new tools to the process industry to improve its competitiveness and the operators working conditions and competences, (ii) new solutions to the automation systems suppliers to integrate them in their systems and provide a more added-value product and (iii) a methodology for combining technological innovation with a social innovation process of co-creation and co-development that could be applied to any sector.

Dissemination and communication of project results (both within and beyond the project's own community) are key activities in order to ensure the maximum impact of the COCOP project and facilitate the exploitation activities.

This document is organised in the following sections:

- Section 1: introduces the main goals and features of the project
- Section 2: contains the information about the scope and objectives of this deliverable
- Section 3: presents the Dissemination and Communication plan, illustrating the objectives of the dissemination and the main elements of the dissemination strategy (subject, timing, target audience, tools and channels and the dissemination management policy)
- Section 4: presents the activities carried out during the first half of the project (month 1 – month 21)
- Section 5: presents the planned activities for the second half of the project (month 22 –month 42)

2 Scope and objectives of this deliverable

This document is the deliverable D7.3 of the WP7 of the COCOP project and is associated to the *task 7.1. Communication and Dissemination*. The scope of this document is to present the second version of the dissemination and communication plan for the COCOP project, including a description of the dissemination and communication activities performed in the first half of the project and the action plan for the last part of the project. At the end of the project, a survey of the dissemination and communication activities carried out along the whole project lifetime will be elaborated and published (deliverable D7.6 "*Dissemination and communication actions survey*").

This plan represents the strategic vision of the Consortium in terms of dissemination of the COCOP project itself, and of its achievements and outputs as well. The main objective of the planned dissemination activities is to increase the visibility of the COCOP project on selected communities and target groups, at both European and International level, in order to ensure the maximum impact of the project and to promote the exploitation of the project results.

This deliverable outlines the COCOP dissemination strategy in terms of identification and description of the dissemination key elements:

- the objectives of the dissemination (mission, vision)
- the subjects of dissemination (what will be disseminated)
- the timing of the dissemination (when dissemination will take place)
- the target audience (to whom it will be disseminated)
- the dissemination tools and channels (how it will be disseminated)
- the responsibilities for dissemination (who will perform the dissemination)
- the rules for performing the dissemination activities
- the way to evaluate and assess the impact of the dissemination activities

3 Dissemination and Communication Plan

3.1 Dissemination goal and strategy

The final goal of the dissemination and communication activities is to promote the COCOP project and spread the COCOP's results to the largest possible concerned audience (at the national, European and international level) in order to encourage the implementation and use of the project results (exploitation), always taking into account the confidentiality and IPR protection aspects.

In more detail, the objectives of the dissemination are:

- To raise public awareness about the project, its expected results and progress within defined target groups
- To disseminate the fundamental knowledge, the methodologies and technologies developed during the project
- To exchange experience with projects and groups working in the field in order to join efforts, minimize duplication and maximize potential
- To pave the way for a successful (commercial and non-commercial) exploitation of the project outcomes

The objective of the dissemination strategy is to identify and organise properly the activities needed to achieve these objectives. The following sections describe the main pillars of the dissemination strategy: (i) subjects (*what* will be disseminated), (ii) target audience (*who* will most benefit from the project results and who would be interested in learning about the project findings), (iii) the timing (*when* dissemination will take place); (iv) tools and channels (*how* to reach the target audience) and (v) dissemination management and policy.

3.2 Subject of Dissemination

The following general subjects of dissemination have been identified up to now:

- COCOP project itself: goals, approach, pilots cases and expected benefits
- The application of the decomposition-coordination optimisation method
- The social innovation methodology applied to the pilot cases
- The techniques and methodologies used for the technical development of the project in all the involved areas (software architecture, simulation, modelling, data analytics, machine learning, monitoring, control, automation, optimization, LCA, ...)
- The achieved results and the validation of the COCOP approach in two pilot cases (steel and cooper)
- The transferability to other sectors such as the chemical and water treatment processing
- The sustainability indicators and Key Performance Indicators in the process industry

3.3 Timing of Dissemination

Dissemination activities are planned in accordance with the stage of development in the project. Although a number of dissemination actions have been implemented during the first half of the project, the most significant dissemination activities will take place as final research results are available. It is also important to take into account that plant owners' investment decision might require extensive time, so timely communication on the project results will ease the successful commercialisation of the results.

The dissemination will follow the AIDA principle: *Awareness* to attract the attention of the target audience, *Interest* of the target audience, *Desire* of the target audience to know more about the project and *Action* to lead the target audience towards get involved in the project and to promote its results to facilitate their exploitation. According to this principle, three phases are considered:

- Initial phase (*awareness*) (month 1 – month 9): focused on increasing the visibility of the project and mobilising stakeholders and multipliers. At this phase, the main activities were related to the implementation of the dissemination tools (website, social networks, visual identity), preparation of dissemination material, general presentations of the COCOP project and launching of the COCOP Special Interest Group.
- Intermediate phase (*Interest/Desire*) (month 9- month 30): focused on informing and engaging to the target stakeholders when preliminary results become available. At this phase, the project results and their future applications will be presented in journals and conferences to specialized audience with the objective of stimulating the interaction with the concerned scientific and industrial community and determining the stakeholders' expectations.
- Final phase (*Action*) (month 30-42): focused on encouraging further exploitation of the COCOP outcomes (transfer to other industries, replicability etc). At this phase, the results of the validation of the COCOP approach at the two pilot cases and the transferability analysis will be presented in journals, conferences and industrial events. One of the main dissemination actions at this phase will be the organization of the COCOP workshop at the end of the project, as it is explained later.

3.4 Target audience

Taking into account the goal of the COCOP project, the target audience for the dissemination activities has been divided in the following groups:

1. *Industrial Community* → raise awareness of and interest in the project results to promote the exploitation and co-operation opportunities.

As explained in the introduction, COCOP aims at strengthening the global position of the European process industry and proposes a plant-wide monitoring and control by using the model-based, predictive, coordinating optimization concept in integration with plant's automation systems. So, from the exploitation side, the target audiences from the industrial community are:

- a. Process industry: European process industry represents 20 per cent of the European manufacturing base (both in turnover and employment). Approximately 450.000 companies generate €1 600 billion in turnover and providing 6.8 million jobs (<http://www.spire2030.eu/spire-vision/spire-roadmap>). Although the dissemination strategy will address the Process Industry in general, it will pay special attention to the sectors directly involved in the project: (i) steel (with more than 500 plants in Europe), (ii) copper (with 40 Outotec Flash smelter plants in the world), (iii) chemical (with more than 3000 chemical production sites in Europe) and (iv) water (with more than 175 large urban wastewater treatment). The message for this audience would be:

“Increased economic competitiveness and reduced environmental impact due to novel plant-wide control. Complex process industry plants can be operated optimally by the operators advised by a coordinating, real-time optimisation system.”

- b. Process automation industry for process industry clients: automation solution suppliers are a large industry with essential offerings to the process industry and upstream manufacturing industry. The European automation industry employs more than 100.000 people and the European industrial process automation market is €10 billion (processit.eu, 2013). The message for this audience would be:

“Plant-wide monitoring and control by an open advisor system.”

2. *Scientific Community* (universities and research centres) → enlarge the knowledge and facilitate the communication among European researchers in the research field of the COCOP project (industrial process modelling, control and optimization).
3. *“Internal” Community* (COCOP partners) → maximise the dissemination effectiveness.
Ensuring effective internal communication and dissemination among the consortium partners is a key element for two reasons. Firstly, some of the partners are potential users of COCOP project results themselves, and secondly, they represent “influencers” due to their great position on the associated industrial sectors. Particularly COCOP consortium partners comprise important market players in various segments and this constitutes a natural channel for the dissemination of the project and its results to other potential users. Therefore, it is important to communicate information about the project and its results to partners’ managers, consultants and people responsible for their marketing and sales and to encourage them to share this information further to their customers and business partners. Additionally, it is important to present the project to the responsible of the operators training, so they can evaluate the potential of the COCOP system for training activities.
4. *EU projects working to similar domain* → minimize duplication and define synergies and collaboration opportunities. Especially the SPIRE community is of interest here, with projects like ProPAT, Consens, MONSOON, FUDIPO and CoPro.
5. *Standardisation bodies* (ISA, OPC Foundation) → support exploitation by modifying relevant standards, if needed.

6. *Policy makers* → raise awareness of the relevance and economic impact of exploited research results obtained by EU-funding (the European Commission's DG develops policies and actions for the re-industrialisation of Europe and an innovative, modern, and sustainable economy).
7. *Students* → promote the COCOP research field (industrial process modelling, control and optimization).
8. *General public* → let them aware of the positive impacts generated and the relevance of EU funded research for the industry

Dissemination activities must be tailored in such a way to reach the audiences most efficiently through appropriately selected dissemination tools and channels.

3.5 Dissemination tools and channels

This section describes the main tools and channels that will be implemented/used by the COCOP partners for the dissemination of the project and its results. Some of the tools are of general purpose, while other ones are oriented to specific target groups.

3.5.1 COCOP Web page

The COCOP website (www.cocop-spire.eu) will be the main interface for communication to the public. It will contain information on the COCOP objectives, the partnership, the proposed activities and the foreseen/achieved results. It will also allow having access to the dissemination material and will host a blog to facilitate the interaction with interested parties. In order to maximize its visibility, free or affordable methods to increase page ranking on search engines will be used. Links from the homepages of all the partners will also be established to the COCOP site.

3.5.2 Social networks

In order to reach a broad target audience while establishing two-ways communication channels, the presence of the COCOP project in social media will be encouraged, following the recommendations published in the "*social media guide for EU funded R&I projects*¹" released by the European Commission in April 2018.

A Twitter account (<https://twitter.com/CocopSpire>) will be used as an instant dissemination instrument for reaching the general public. In order to reflect the relation of the project with the SPIRE community and the H2020 programme, whenever possible, references to @Spire2030 and @EU_H2020 will be included in the COCOP tweets. On the other hand, a LinkedIn (<https://www.linkedin.com/in/cocop-project-eu-377251138/>) page will be used for reaching stakeholders and industry professionals. Official LinkedIn groups will be joined to raise awareness among automation professionals and Process Industry.

The website will have direct access to these social networks by clicking over the icons situated on a visible part of the website. In this way, it will be easy for every user to participate in this when the website is visited.

¹ http://ec.europa.eu/research/participants/data/ref/h2020/other/grants_manual/amga/soc-med-guide_en.pdf

Finally, YouTube could be used for the publication of videos produced within the course of the project, provided that this does not imply any property right conflict.

3.5.3 Visual Identity and dissemination material

The visual identity (logo and style) of the project will help external audience to easily identify COCOP and contribute to the project visibility by providing a clear identity from the very beginning of the project. Communication and dissemination tools (such as project website, Twitter and LinkedIn page), dissemination material (such as flyers, presentations, posters and videos) and deliverables will apply the visual identity defined for the project.

Different dissemination material will be produced along the project lifetime, such as:

- Project flyers (hardcopy and electronic version) in order to provide our audiences with an attractive and written project overview and summary of the main project objectives and results. The flyers will be able to be distributed in printed form (handed out at conferences or other events) or in electronic version (PDF file). The flyers will be also downloadable from the project website.
- Short Project presentations (electronic version) describing the objectives and the main achieved results for presenting the project in different forums, such as internal presentations inside of the partners, presentations at schools/universities, visits with clients, etc. These presentations will be downloadable from the website and could be uploaded in SlideShare.
- Videos to communicate the project's vision, objectives and results. They will be accessible from the website and could be also uploaded in YouTube.

Finally, the deliverables will also offer a good means for disseminating the performed activities and achieved results. Public deliverables will be accessible for the external community, meanwhile confidential deliverables will be used to spread the knowledge inside the partners' organizations.

3.5.4 Special Interest Group (SIG)

The "COCOP Special Interest Group" will be created to engage stakeholders with the COCOP consortium. The SIG will be an informal group of external stakeholders interested in the project (e.g. possible beneficiaries, end users, etc.). The members of the SIG will have direct access to the public deliverables and will receive information about relevant news, events and results of the project. Participation in this group will be under accepted subscription and will be managed through the website to ease the contact of the interest people/entities.

3.5.5 Channels offered by the European Commission and SPIRE

The COCOP consortium will make use of the tools offered by the European Commission and SPIRE in order to maximise the diffusion of the project.

European Commission

The EC offers different tools such as:

- The "*projects and results*" service from CORDIS that provides: (i) "project information" based on the project's grant agreement, (ii) "report summaries" that come from the publishable summaries of periodic and final reports submitted by the project participants and approved

by the project officer and (iii) “Results in Brief” written by CORDIS science editors based on each report summary

- *CORDIS Wire* to publish articles on the CORDIS News and Events service
- *research*eu results magazine* that features highlights from the most exciting EU-funded research and development projects

A.SPIRE

A.SPIRE is the European Association which is committed to manage and implement the SPIRE Public-Private Partnership. It represents innovative process industries, 20% of the total European manufacturing sector, and more than 130 industrial and research process stakeholders from over a dozen countries spread throughout Europe. A.SPIRE’s offers different communication tools/channels for dissemination of project outputs such as:

- A dedicated page on the SPIRE website where information about all SPIRE projects and links to project-dedicated websites are published
- A section of the SPIRE website, SPIRE Newsletter and Twitter account where project related announcements can be published
- Annual projects brochure
- SPIRE event (such as Impact workshop, SPIRE projects’ conference, etc.)

3.5.6 National and European technology platforms and associations

The link of the COCOP partners with a number of relevant national/European platforms and associations, closely related with the COCOP objectives, provide a great chance for disseminating the project activities and increasing the number of reached stakeholders. The Annex I collects information of some of these platforms and associations together with the type of involvement of the partners. An updated list of the platforms and associations where the partners are involved is available in the collaborative tool (Confluence) of the project.

3.5.7 Scientific and trade journals

Scientific publications are an effective way to disseminate high-level project information and to attract the interest of representatives of the various target groups. Similarly, publications in trade journals can attract the attention of potential beneficiaries of the COCOP results. The industrial and academic partners will individually and in collaboration publish and present scientific advances in scientific journals (peer reviewed or not) and trade magazines, taking into account confidentiality and IPR protection aspects.

Table 1 provides some examples of scientific and trade journals where the COCOP partners could submit papers along the project.

3.5.8 National and international conferences

National and international conferences are a good opportunity to share the results with experts in the field and, therefore, to achieve an effective dissemination of the project. Table 2 provides some examples of national and international conferences where the project and its results could be presented.

3.5.9 Exhibitions, trade fairs and workshops

Finally, workshops and large events such as exhibitions and trade fairs will be attended by the partners to disseminate both the techniques developed during the project and the achieved results to the targeted beneficiaries of the COCOP project. Table 3 provides some examples of potential events.

3.5.10 Events organised by COCOP

During the second part of the project, dissemination events coordinated with other SPIRE projects will be encouraged to increase the networking opportunities and the interest and impact of the dissemination activities.

At the end of the project, a final COCOP workshop will be organized to show the achieved results and to give the opportunity to meet potential interested clients (either on public or private field), investors and researchers.

3.5.11 Media and social media coverage

COCOP news in the media (newspapers, magazines, radio, etc) are expected to inform to general public about the project and reflect the impact of EU research and innovation funding on European industry and environment.

3.5.12 Other activities

Presentations of the project at the universities will be carried out, mainly by the academic partners, in order to promote the research fields of the COCOP project.

Direct proactive communication with stakeholders during visits/meetings and internal meetings inside of the partners organizations will help raising awareness of the goal/benefits of the project.

Table 1. Scientific and trade journals

Journal/Magazine Name	Type	Journal/Magazine topics	Indexed (Yes/No)	Other relevant information
Automaatioväylä	Trade	Automation, measurements	No	A Finnish trade journal for automation engineers. The magazine has a circulation of 3200 and has six issues per year.
EMPRESA XXI	Trade	Manufacturing industry. The contents are concentrated in the activity of Basque companies, from investments, research, new technologies, markets, trends, etc, with special dedication to the activity of the Small and Medium Enterprises.	No	The magazine has a circulation of 8.000 copies per issue
SIDENEWS	Trade	Steelmaking	No	It is managed by SIDEREX (the Spanish Association of Steelworks Exporters) whose main goals are to promote Spanish steel exports.
Stahl und eisen	Trade	German association magazine for steel makers, suppliers and manufactures including technical articles	No	Magazine published by German Stahlverlag
Aguasresiduales.info	Trade	Aguasresiduales.info is an information portal and magazine for professionals in the “waste water treatment plants” for Spain, Portugal and Latin America. Published articles are about products, solutions, news & events and R&D projects.	No	The information portal has also a daily newsflash sent to +/-5000 subscribers with a hit rate of 35%.
Transactions on Control Systems Technology	Scientific	Control systems technology	Yes	
Computers in Industry	Scientific	Trends in and options for the use of Information and Communication Technology in industry	Yes	

Journal/Magazine Name	Type	Journal/Magazine topics	Indexed (Yes/No)	Other relevant information
DYNA Magazine	Scientific	Industrial innovation, engineering and management	Yes	
International Journal of Technology Transfer and Commercialisation	Scientific	Knowledge/technology transfer processes, strategies, implementation	Yes	
International Journal of Applied Mathematics and Computer Science	Scientific	Artificial intelligence (including neural networks and decision support systems), modelling & simulation and optimisation	Yes	
Simulation Modelling Practice and Theory	Scientific	Theoretical aspects of modelling and simulation; methodology and application of modelling and simulation in any area; distributed and real-time simulation; tools for high performance computing simulation, including dedicated architectures	Yes	
Journal of Cleaner Production	Scientific	Cleaner production and technical processes; Sustainable Development and Sustainability; Sustainable Consumption, Environmental and sustainability assessment	Yes	
Computers & Chemical Engineering	Scientific	Modelling, numerical analysis and simulation; Mathematical programming (optimization); Process dynamics, control and monitoring; Plant operations, integration, planning/scheduling and supply chain; Enterprise-wide management and technology-driven policy making;	Yes	

Table 2. National and international conferences

Conference Name	Scope	Conference topics	Type of audience	Organiser
DYCOPS - IFAC Symposium on Dynamics and Control of Process Systems	International	Process optimization & plant-wide control; Model-based control; Performance/process monitoring; Process planning/scheduling & control	Researchers and practitioners	IFAC
NPCW – Nordic Process Control Workshop	International	Process Control	Researchers and practitioners	Nordic Working Group on Process Control
HICSS- Hawaii International Conference on System Sciences	International	Information systems	Researchers and practitioners	Shidler College of Business, Hawaii, USA
INCOM - IFAC Symposium on Information Control Problems in Manufacturing	International	Industrial informatics	Researchers and practitioners	IFAC
INDIN - International Conference on Industrial Informatics	International	Industrial informatics	Researchers and practitioners	IEEE
IECON - Conference of the IEEE Industrial Electronics Society	International	Industrial electronics	Researchers and practitioners	The IEEE Industrial Electronics Society
ECCE - European Conference on Cognitive Ergonomics	International	Human-technology interaction; cognitive engineering	Researchers and practitioners	European Association of Cognitive Ergonomics
KMIS - International Conference on Knowledge Management & Information Sharing	International	Knowledge management	Researchers and practitioners	INSTICC
ESCAPE - European Symposium on Computer Aided Process Engineering	International	Process engineering; Modelling; Optimization; Computers	Researchers and practitioners in the field of CAPE (Computer Aided Process Engineering)	EFCE; TU Graz; TU Wien
EUROSIM Congress	International	Simulation and modelling	Researchers and practitioners	Federation of European Simulation Societies
ECML-PKDD - European Conference on Machine Learning	International	Machine Learning, data analytics and Data Mining	Researchers and practitioners	
IFAC-MMM - Symposium on Automation in Mining, Mineral and Metal Processing	International	Process modeling; Control & optimization; Advanced process control; Data mining and statistical analyses; Artificial intelligence, machine learning systems	Professionals, researchers and experts	IFAC, Technical committee 6.2 Mining, Mineral and Metal Processing

Conference Name	Scope	Conference topics	Type of audience	Organiser
International Copper Conference	International	Mineral Processing; Sustainable Development; Process Control	Copper industry	MetSoc et al
World Copper Conference	International		Copper industry	
ESTAD – European Steel technology and application days	International	Steelmaking, Rolling, Environmental and energy	Researchers/practitioners from equipment suppliers, plant manufacturers & steelmakers	ASMET, AIM, A3M, Steel Institute VDEh and Jernkontoret
European Continuous Casting Conference	International	Steelmaking (Continuous Casting)	Steelmakers and researchers	ASMET
MS&T - Materials Science and Technology	International	Materials Science	Material researchers and industries	AIST, ASM, TMS
COM - Conference of Metallurgists	International	Mineral Processing, Materials Manufacturing	Researchers and practitioners	MetSoc
SETAC - LCA Symposium	International	Life Cycle Assessment	Researchers, practitioners, policymakers and experts	SETAC

Table 3. Events (Workshops, Fairs and exhibitions)

Fair/workshop Name	Scope	Event topics	Audience profile	Web	Organiser
Hannover Messe	International	Industrial automation; IT; Industrial supply; Energy;	Researchers and practitioners	http://www.hannovermesse.de/	Deutsche Messe
METEC – International metallurgical trade fair	International	Metallurgy; Steelmaking	Researchers and practitioners	http://www.metec-tradefair.com/	
STAHL - International annual meeting of steel makers and suppliers	International	Steelmaking	Professionals, researchers and experts	http://www.stahl-online.de/	Steel Institute VDEh
SMAgua - International fair on water in Zaragoza	International	Environment - Water Treatment	Engineering and exploitation companies.	https://www.feriazaragoza.es/smagua-2019	Feria de Zaragoza
iWater – Salón internacional del ciclo integral del agua	International	Environment - Water Treatment	Engineering and exploitation companies.	http://www.iwaterbarcelona.com	

3.6 Dissemination management

There is a special section in the collaborative tool of the project (Confluence) that was created for the management of the dissemination activities (planning, monitoring, evaluation, storing dissemination material, etc.) as is shown in Figure 1.

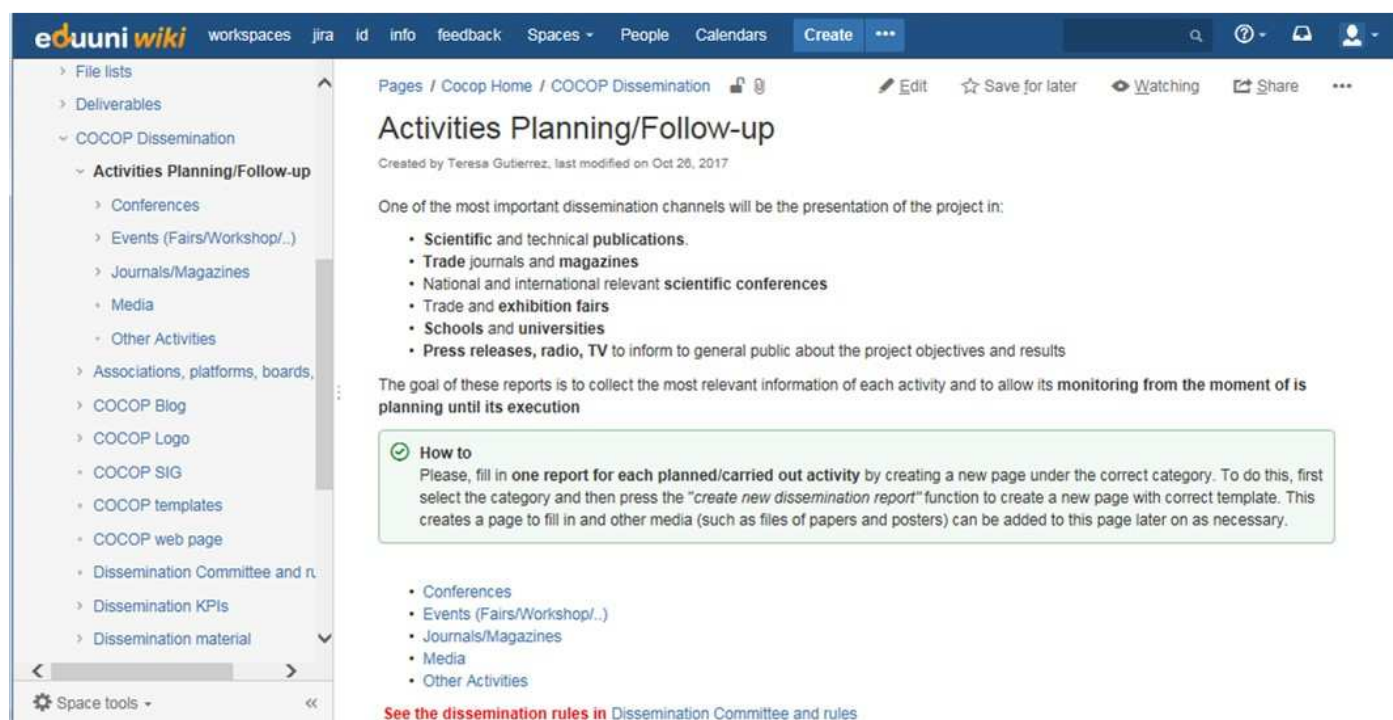


Figure 1. Section for the dissemination management in the collaborative tool (Confluence)

3.6.1 Distribution of responsibilities

According to the Article 29.1 of the Grant Agreement *“each beneficiary must — as soon as possible — ‘disseminate’ its results by disclosing them to the public by appropriate means (other than those resulting from protecting or exploiting the results), including in scientific publications (in any medium)”*. Therefore, every possible opportunity will be embraced, by individual partners or on collective basis through joint appearance by more than one partner, to make COCOP project known among technicians and general public as well.

TECNALIA will act as Dissemination and Communication Manager of the project coordinating and supervising all the dissemination activities. On the other hand, all partners of the consortium will contribute to the COCOP dissemination according to their foreseen role and effort and using all available tools and channels (for instance by participating and giving presentations at conferences and workshops, publishing papers, networking, attending to fairs and showcases where technical achievements and prototypes can be shown to stakeholders, etc.) for the purpose of the project results adoption and successful future commercialization of COCOP outputs.

In addition, a “Dissemination Committee” has been created for the approval of the publications of the project. This Committee is formed by one person of each partner.

3.6.2 Dissemination policy and rules

Dissemination activities in COCOP project are deeply joined with the intellectual property rights protection and confidentiality aspects that are clearly stated in the articles 23a and 36 of the grant agreement respectively and adjusted in the Consortium Agreement. It is important to find out a good equilibrium among the interests of academia and industry partners. Usually, the academia partners tend to publish all information they have at disposal, which is caused by academia common motivation systems, while the industrial partners' decision whether, when and where to publish can depend on commercial considerations.

The basic regulation of the dissemination activities in the consortium agreement states that:

During the Project and for a period of 1 year after the end of the Project, the dissemination of own Results by one or several parties including but not restricted to publications and presentations, shall be governed by the procedure of Article 29.1 of the Grant Agreement subject to the following provisions:

- Prior notice of any planned publication shall be given to the other Parties at least 45 calendar days before the publication.*
- Any objection to the planned publication shall be made in accordance with the Grant Agreement in writing to the Coordinator and to the Party or Parties proposing the dissemination within 30 calendar days after receipt of the notice. If no objection is made within the time limit stated above, the publication is permitted.*

An objection is justified if:

- (a) the protection of the objecting Party's Results or Background would be adversely affected*
- (b) the objecting Party's legitimate academic or commercial interests in relation to the Results or Background would be significantly harmed.*

The objection has to include a precise request for necessary modifications.

If an objection has been raised the involved Parties shall discuss how to overcome the justified grounds for the objection on a timely basis (for example by amendment to the planned publication and/or by protecting information before publication) and the objecting Party shall not unreasonably continue the opposition if appropriate measures are taken following the discussion.

The objecting Party can request a publication delay of not more than 90 calendar days from the time it raises such an objection. After 90 calendar days the publication is permitted, provided that Confidential Information of the objecting Party has been removed from the Publication as indicated by the objecting Party.

A Party shall not include in any dissemination activity another Party's Results or Background without obtaining the owning Party's prior written approval, unless they are already published.

The project partners will follow the open access principle, according to the article 29.2 of the grant agreement. They will publish their results based on the green model (http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hioa-pilot-guide_en.pdf) and use their organisation's existing institutional repositories to offer free online access to scientific journal articles and reports to increase the visibility and availability of COCOP output. Both the Project Coordinator (Tampere University of Technology) and the Dissemination manager (TECNALIA) have own repositories following the 'green' open access model. According to the Grant Agreement:

the bibliographic metadata must be in a standard format and must include all of the following:

- *the terms “European Union (EU)” and “Horizon 2020”;*
- *the name of the action, acronym and grant number;*
- *the publication date, and length of embargo period if applicable, and*
- *a persistent identifier.*

According to the article 29.4 of the Grant Agreement, unless the Commission requests or agrees otherwise or unless it is impossible, it is necessary to include the European emblem and the following statement of financial support in all the dissemination documents and applications for protection of results:

“This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 723661”.



When displayed together with another logo, the EU emblem must have appropriate prominence.

According to the article 29.5, any dissemination of results must include the following Disclaimer excluding Commission responsibility:

“This [insert type of activity] reflects only the author’s views and the Commission is not responsible for any use that may be made of the information contained therein”

Finally, in addition to the acknowledgement to the EU, all the dissemination material will include:

- the acronym of the project: COCOP
- the logo of the project, if feasible
- the project’s website URL (www.cocop-spire.eu)

3.6.3 Dissemination activities planning and follow-up

As described in the previous sections, a key element for the dissemination of the project results is their presentation in: scientific and technical publications, trade journals and magazines, national and international relevant scientific conferences, workshops, exhibitions, fairs and the media (Press releases, radio, TV, etc).

For the planning and follow-up of these activities, a section in the collaborative tool of the project has been designed in order to create and store the “Dissemination reports” of each activity (see Figure 1). The goal of these reports is to collect the most relevant information of each activity and to allow its monitoring from the moment of its planning until its execution. In this way, the partners will start filling the report as soon as they decide to perform an activity, and then, when the activity is finished, they will finish the report.

Five different types of reports have been defined depending on the type of activity: (i) paper on a journal/magazine, (ii) presentation in a conference, (iii) participation in an event (fair, workshop, etc), (iv) presence in the media (press, TV, etc) and (v) any other type of activity. The templates for each one of the reports, in some cases showing a filled report as example, are included in the Annex II, but mainly they include:

- general information about the event (name, type, scope, audience, etc)
- information about the action (title, topic, authors, etc)
- feedback gathered by the respective partners from the target audience (if applicable) and eventually gained contacts for further dissemination purposes

3.6.4 Evaluation and assessment

The evaluation of the COCOP dissemination activities and the assessment of their impact will be carried out through different means. On the one hand, the partners have set up several Key Performance Indicators (KPI) together with associated metrics (see Table 4).

Table 4. Key Performance Indicators and metrics for the evaluation of the dissemination activities

ID	Indicator	Metrics
KPI1	Awareness through the website and social media	Number of visits on the project website
		Number of posts on the blog of the website
		Number of members of the COCOP debate group in LinkedIn
		Number of contributions to LinkedIn/Twitter
		Number of presentations uploaded to the Website/SlideShare
		Number of videos uploaded to Website/Youtube
KPI2	Awareness of the Scientific Community interest	Number of papers in scientific journals
		Number of presentations in scientific conferences/workshops
KPI3	Awareness of the industrial Community interest	Number of papers in trade journals
		Number of participations at events with industry (fairs, exhibitions, workshops, etc)
		Number of Interest expressions from industry to receive more information + industrial members of the Special Interest Group (SIG)
KPI4	Coordination with other research projects	Number of participations in joint forums with other national/international projects
KPI5	COCOP final workshop	Number of people attending the final COCOP workshop

A numerical target for each one of the metrics has been defined. The target values for the first half of the project were defined in the first release of the Dissemination and Communication plan (D7.2), and their fulfilment is analysed in section 4 (Table 10). The target values for the whole project have been defined in section 5 (Table 14). The targets are estimated taking into account the individual partner's input and considering a minimum threshold to have proper dissemination. It is foreseen that the number of dissemination actions (papers, conferences, workshops, fairs,...) will increase as the project progresses and results are achieved. If needed, new KPIs/metrics could be defined along the project.

A section of the collaborative tool of the project collects the table of the KPIs and the target values, together with the real and planned values. During the WP7 meetings and/or the Project progress meetings organised every 6 months, the real and planned values of the KPIs will be analysed, and, if needed, contingency plans could be defined in case the threshold is not reached. Finally, at the end of the project, the deliverable "D7.6. *Dissemination and communication actions survey*" will analyse all the activities performed and collect the final performance of the KPIs.

On the other hand, an internal evaluation of the project dissemination effectiveness will be carried out by the partners at the middle of the project, by means of a questionnaire, in order to detect the potential weaknesses and propose further actions to improve the dissemination plan.

Finally, all events organised by the consortium will be evaluated afterwards by questionnaires to participants. These evaluations will be used as input to improve the next events.

4 Work done during the first 21 months

This section describes the main dissemination and communication activities carried out during the first period of the project (from month 1 to month 21).

4.1 Design of the COCOP logo and visual identity

The COCOP logo (Figure 2.a) was designed by a professional marketing company at the beginning of the project and is inserted in all the deliverables, reports and dissemination material/tools. The logo includes the name of the project. Figure 2.b shows the project style defined for COCOP presentations.

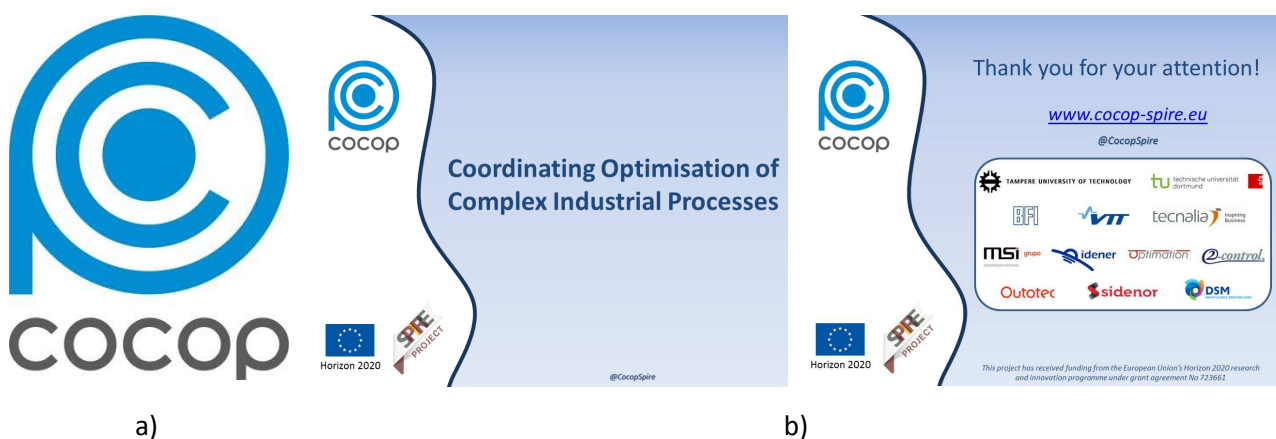


Figure 2. a) COCOP logo; b) COCOP project style

4.2 Implementation and update of the COCOP Web page

The COCOP website www.cocop-spire.eu is available from the month 3 of the project and it was described in the deliverable D7.1. *Project website*. The webpage provides links to the H2020 and SPIRE webpages and to the COCOP Twitter account and LinkedIn page.

Oriented to the dissemination, the website provides essential information related to the project and the partners through different sections (see **¡Error! No se encuentra el origen de la referencia.!**):

- *Home* → provide an overview of the project
- *Project details* → provide a description of project objectives, pilot cases and work packages
- *Consortium* → present the involved partners
- *Documents* → present a short summary of all the released deliverables and provide access to public documents of the project (public deliverables, open access papers, etc.) and dissemination material (flyers, presentations and videos)
- *News* → provide general information (both internal and external) related to the project
- *Events* → provide information about events organised/attended by the consortium (meetings and dissemination events)
- *Special Interest Group* → manage the subscription of the interested people/organisations for the SIG

cocop
Coordinating Optimisation of COmplex Industrial Processes

> Home
> Project details
> Consortium
> Documents
> News
> Events
> Special Interest Group
> Blog
> Contact Us

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 723661

COCOP is a European project under the Horizon 2020 framework and the SPIRE initiative

The need: process industry faces a strong need to increase product quality and reduce operating costs and environmental footprint. A complex plant comprises continuous and/or batch unit processes. The plant's complexity stems from its dynamic properties, so a plant-wide monitoring and control is a requirement for achieving economically and environmentally efficient operation.

The vision: complex process industry plants will be optimally run by the operators with the guidance of a coordinating, real-time optimisation system.

The objective: to enable plant-wide monitoring and control by using the model-based, predictive, coordinating optimisation concept in integration with local control systems.

The approach: the COCOP project's concept is based on the decomposition-coordination optimisation of the plant operations: the overall problem is decomposed into unit-level sub-problems, so then the solutions of sub-problems are coordinated to plant-wide optimal schedule using high-level coordination. This will enable operators to understand the functioning of the plant as a whole, including the areas traditionally beyond their control, and take better decisions within their part of the process.

COORDINATION FOR OPTIMAL PLANT-WIDE MONITORING AND CONTROL

SP 1 SP 2 SP 3 SP 4 ... SP 7

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Calle de los Reyes 102, 46100 Burjassot (Valencia)
España. Tel: 915 10 000 - Operación
web: www.cocop.eu

General information of the project:
• Project Title: Coordinating Optimisation of Complex Industrial Processes
• Acronym: COCOP
• Project Start Date: 1st October 2018
• Project End Date: 31st March 2020
• Project duration: 42 months
• Grant Agreement n.: 723661
• Subgranting: JRP-02-2018-FW-K2020-04-CO-2018-01

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Figure 3. COCOP webpage Home screenshot. At the bottom: footer with the partners and general information of the project included in all the sections

- **Blog** → allow sharing information related to the COCOP topics and facilitating the interaction with the interested parties. The target audience of these posts are scientific-technical community, developers, providers, and general public.

In order to avoid the risks of having an open access blog (without any control of the messages that are posted), only the COCOP partners have access to upload posts in the blog and the discussion with the external community is activated in the “COCOP debate group” created in LinkedIn, as it is explained later. Figure 4 shows the working scheme: the full text of the post is uploaded in the website blog that provides a link to the new conversation started in the COCOP debate group and reciprocally the new conversation has a link to the post of the website blog.

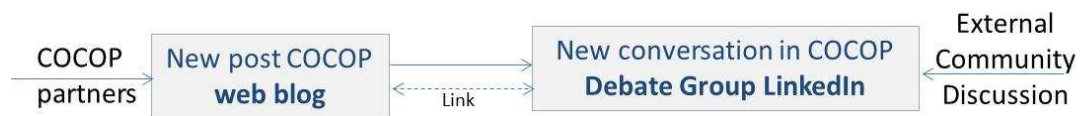


Figure 4. Working scheme of the COCOP blog

The blog started in March 2017 with the post titled “Efficient plant operation – a plant-wide approach” (iError! No se encuentra el origen de la referencia.) to encourage the discussion about the COCOP approach: plant-wide monitoring using the decomposition-coordination optimisation concept.

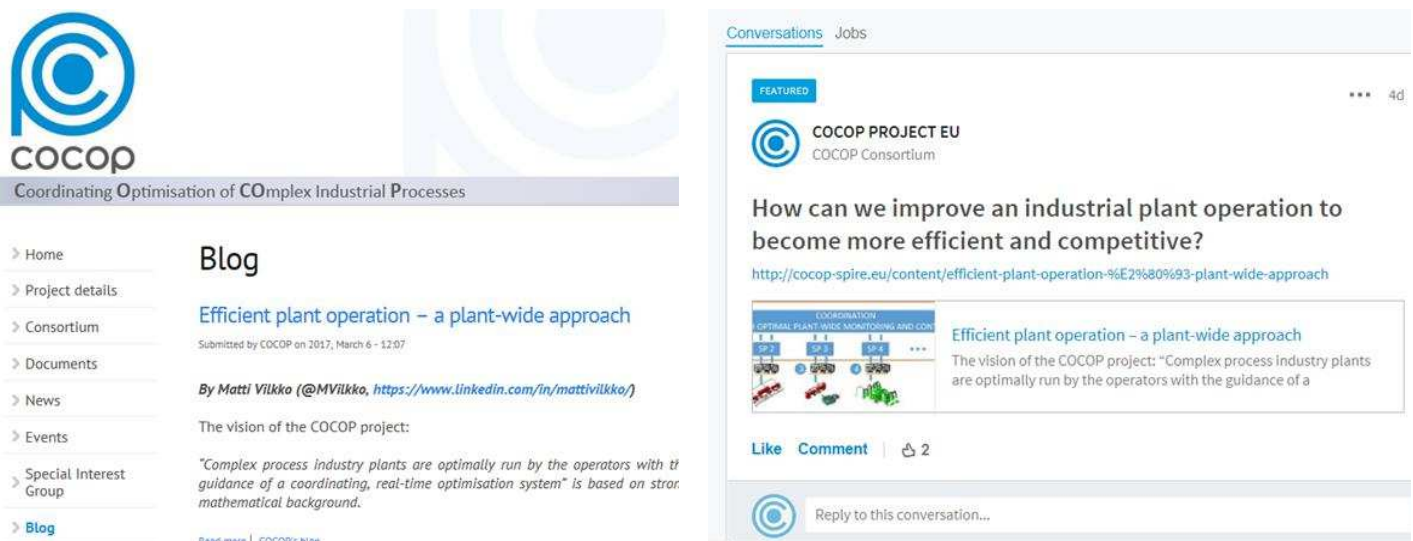


Figure 5. First post of the COCOP project: post in the website (on the left) and conversation in the linkedIn COCOP debate group (on the right)

The website is updated regularly by the webmaster upon with inputs of partners and information of deliverables and dissemination material. A new post in the blog (and its corresponding conversation in the COCOP debate group) is published at the beginning of each month, with information about the technologies related to the COCOP goals/activities (tools, new trends, etc.) or information about the project (deliverables, main results, etc.). Table 5 details the 17 posts published in the COCOP blog so far:

Table 5. Posts published in the COCOP blog

Nº	Post Title	Partner	Date
1	Efficient plant operation – a plant-wide approach	TUT	March 17
2	Process control and optimisation in the Chemical process industry	DSM	April 17
3	Threats and challenges in the Special Bar Quality steel sector	SIDENOR	May 17
4	Digitalization in copper smelting - taking the next big step	OUTOTEC	May 17
5	Key Performance Indicator (KPI) and impact evaluation in distributed production systems – The importance of feedback	OPT	June 17
6	Data Analysis for optimized water processing as a roadmap to a smart city	MSI	July 17
7	Optimising process operations – Model Predictive Control	2-control	August 17
8	Industrial data mining in Process Industry	BFI	Sep. 17
9	Industry 4.0: key features and benefits	TECNALIA	Oct. 17
10	A New Innovation Paradigm Based on Social Innovation	TUDO	Nov. 17
11	System requirements specification for COCOP system ready – The use of Software Development methodologies in EU research projects	IDENER	Dec. 17
12	Online LCA models enable daily process optimisation in terms of environmental impacts	VTT	Jan. 18
13	The Beauty of Automation System Architectures	TUT	Feb. 18
14	Process control and optimisation: on commonalities between methodologies	DSM	March 18
15	Knowledge management in COCOP	BFI	April 18
16	Optimising Process Conditions: neural network based modelling	DSM	May 18
17	The COCOP implementation workflow	VTT	June 18

Analysis of the COCOP website visits (until the end of May 2018)

COCOP uses Google Analytics to monitor the behaviour of the website. This allows the project to steer the strategy with the main aim of reaching the right audience. From the analytics collected over a period of 17 months (since the beginning of January 2017, when the website was created, until the end of May 2018) it can be seen that the total number of visits to the COCOP website is 3.080 with about 2.030 different users and an average session duration of 00:02:15. Figure 6 shows the evolution of the number of users and sessions along this period and Figure 7 the channels used for the access to the website and the evolution of the number of users per day. It has been observed that the blog posts publication marks often the highest number of visits to the website. The blog posts and their specialized contents are also helping to position the project and its SEO (Search Engine Optimisation). The publication of such dedicated, focused content, is helping the project increasing the visits that come from search queries as demonstrated in Figure 7. Now about 56% of the visitors to the COCOP website come through organic searches, 33% through a direct access and 6.5% from the social networks.

Figure 8 shows the most visited pages of the website. After the homepage with the 20% of visitors, the second position corresponds to the page with the deliverables (6.3%) followed by the objectives section n (5.9%) and the blog (5.4%). The fourth position achieved by the blog together with the high number of visits to the different posts (for example the post about Industry 4.0 with almost 400 visits, occupying the 6th position) confirm the high impact of the blog.



Figure 6. Users(top) and sessions (bottom) evolution to COCOP website (1st January 2017- end May 2018)

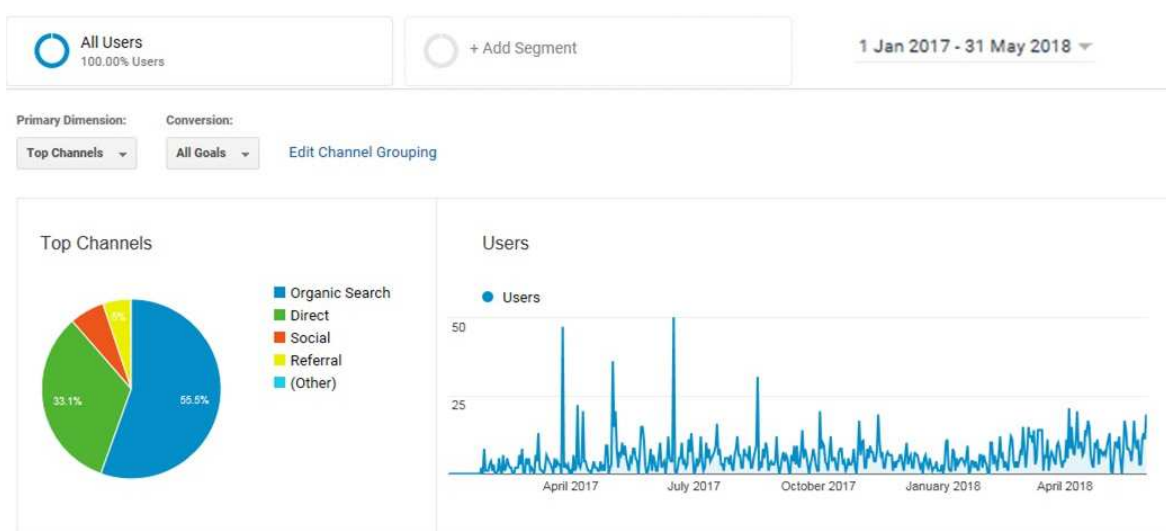


Figure 7. Traffic in COCOP website

Page Title	Page Views	% Page Views
1. Home COCOP SPIRE H2020 Project	1,890	20.37%
2. Deliverables COCOP SPIRE H2020 Project	583	6.28%
3. Objectives COCOP SPIRE H2020 Project	539	5.81%
4. Blog COCOP SPIRE H2020 Project	498	5.37%
5. Consortium COCOP SPIRE H2020 Project	445	4.80%
6. Industry 4.0: key features and benefits COCOP SPIRE H2020 Project	385	4.15%
7. Project meetings COCOP SPIRE H2020 Project	358	3.86%
8. User account COCOP SPIRE H2020 Project	262	2.82%
9. News COCOP SPIRE H2020 Project	255	2.75%
10. Special Interest Group COCOP SPIRE H2020 Project	254	2.74%

Figure 8. Most visited pages of COCOP website

Finally, Figure 9 shows the percentage of visits per country. The first, second and fourth positions are occupied by countries with partners in the COCOP consortium: Spain (15.3%), Finland (10.2%) and Germany (6%) respectively.

	Country	Users	% Users
1.	Spain	317	15.31%
2.	Finland	212	10.24%
3.	United States	175	8.45%
4.	Germany	126	6.08%
5.	India	123	5.94%
6.	Brazil	97	4.68%
7.	United Kingdom	77	3.72%
8.	Malaysia	69	3.33%
9.	Sweden	62	2.99%
10.	Belgium	57	2.75%

Figure 9. COCOP website users by country

4.3 COCOP at social networks

The Twitter account for the project @CocopSpire and the LinkedIn profile (COCOP) were created at the end of the month 3 (see Figure 10). So far, 1-2 tweets and posts have been published monthly, mainly to publish announcement of the project and spread the blog posts, including the URL to the information on the COCOP website to generate interest also on additional content of the website, and thus increase awareness of the project. In addition to the above, COCOP partners use their respective Twitter channels to directly promote events and news concerning COCOP.



@CocopSpire

<https://www.linkedin.com/in/cocop-project-eu-377251138/>

Figure 10. COCOP Twitter account and LinkedIn profile

In order to raise awareness among interested stakeholders, at this stage four Official LinkedIn groups have been joined: Industrial Automation and Process Controls Network, Industry 4.0, Automation Project Management and Steel making and casting.

In addition, a COCOP debate group was created in LinkedIn: “COCOP: Process Industry Automation and Optimization” (<https://www.linkedin.com/groups/8596768>). The main goal of this group is to promote discussion and share information on the topics related to industrial process simulation, modelling, monitoring, control, automation and optimization. As it was explained above, this group is used as discussion platform for the posts of the website blog. Currently, this group currently has 48 members (see Figure 11).

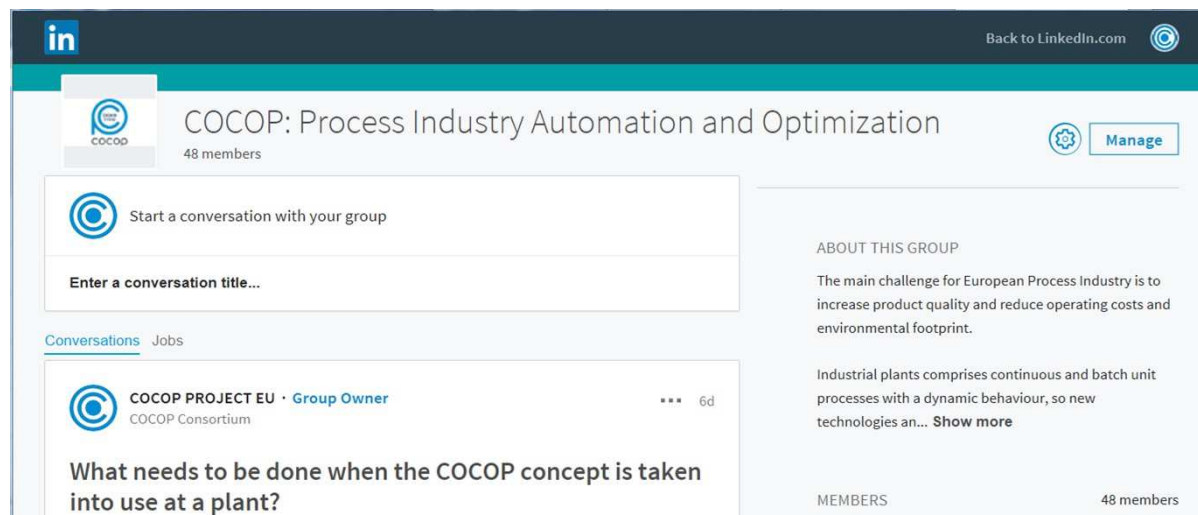


Figure 11. COCOP debate group in LinkedIn

Analysis of the twitter activity

Figure 12 depicts the activity of the project’s twitter account during the last quarter of 2017 and the first one of 2018 and lists the top tweets with the largest number of impressions. The first position is occupied by the tweet related to the video presenting the project (3463 impressions). It can also be observed that the average value of the number of impressions reached by the last posts is between 800 and 1000.

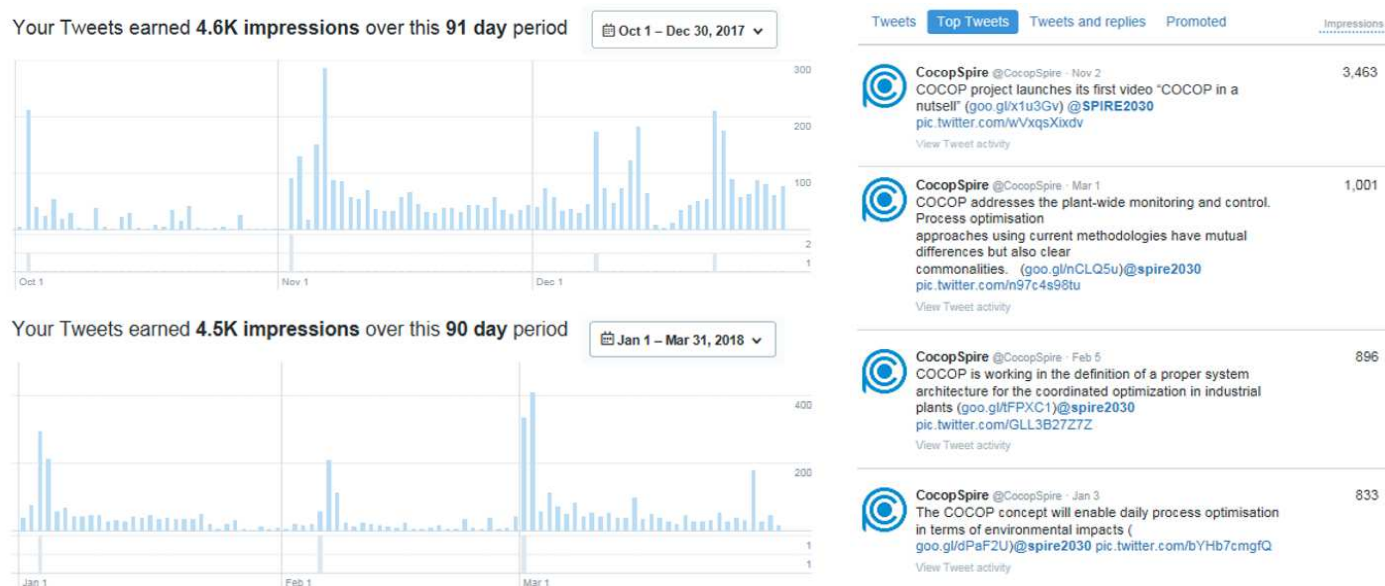


Figure 12. COCOP Twitter activity registry (Oct-Dec 2017 and Jan-March 2018)

4.4 Preparation of dissemination material

A first flyer of the COCOP project was prepared at the beginning of the project. It presents the goals, the approach, the consortium and the main (expected) benefits (see Figure 14 in the annex III). 1.500 copies of the flyer were printed and an electronic version is available in the website.

A general presentation of the project was also produced and uploaded to the website and SlideShare. It describes the motivation and objectives, the approach, the pilot cases, the potential impact and the consortium of the project.

On the other hand, three videos have been produced and are accessible from the website (see Figure 13):

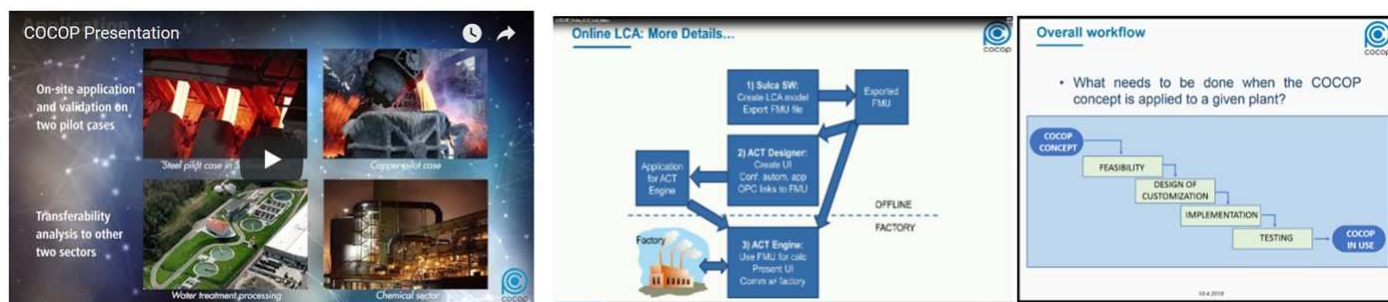


Figure 13. Videos accessible from the COCOP website: “COCOP in a nutshell” (on the left), “LCA model demo” (in the middle) and “D4.4 deliverable summary” (on the right).

- “COCOP in a nutshell” (4 minutes) was produced in October 2017 by a professional marketing company. The video describes the objectives, approach, pilot cases and potential benefits of the project and is being used to disseminate the project in different events. It is also uploaded in YouTube.
- “On-line LCA model into ACT demo” (5 minutes) was produced by VTT in February 2018 to show an example of the integration of the new on-line LCA model into a DCS system, as the ACT platform of OUTOTEC used in the copper pilot case.
- “Summary of the D4.4. Modelling guideline document and demonstration development kit” (7 minutes) was produced by VTT in April 2018. This video summaries the main contents of the deliverable, focusing on “What needs to be done when the COCOP concept is applied to a given plant”.

Finally, during this period eight public deliverables (see Table 6) have been prepared and released for the public.

Table 6. List of public deliverables produced by the COCOP consortium during the first period

Deliverable Title	Deliverable description
<i>D7.1 Project website (December 2016)</i>	Description of the COCOP web page
<i>D7.2. Master Dissemination and Communication Plan (March 2017)</i>	This deliverable includes the formulation of the COCOP dissemination strategy and the action plan focused on the first half of the project (month 1-21)
<i>D2.2. Impact evaluation criteria (March 2017)</i>	This document includes a description of the relevant impact evaluation criteria defined to measure the success of the COCOP implementations at the pilot sites of Boliden (copper production) and Sidenor (steel production).
<i>D2.3. System Requirements Specifications (September 2017)</i>	This report presents a snapshot of the actual set of use cases of the two pilot cases of the project and requirements for the system. This information will be updated during the execution of the project in order to accompany the different developments achieved and reflect the new discoveries found during the work.
<i>D4.2. Near-online sustainability indicators (September 2017)</i>	This deliverable reports the principles of LCA (Life Cycle Assessment) and the data needed for the environmental sustainability indicators that enables near-online LCA for the steel and copper pilot cases. The LCA indicators take into account the value chain from raw material extraction to the end of the production process.
<i>D3.1. Software architecture description for the runtime system (March 2018)</i>	This report presents the general COCOP system architecture, focused on laying out the fundamental architecture directions both for the internal composition as well as external integrations
<i>D3.5. Interface and protocol definitions (March 2018)</i>	This document covers two core aspects in order to enable systems integration: communication protocols and message formats. Existing legacy systems may provide data access interfaces in various formats, so additional interfaces are specified to enable common formats for interoperability. Interface wrappers or adapters are used for legacy system integration.
<i>D4.4. Modelling guideline document & demonstration development kit (March 2018)</i>	This document helps a stakeholder of an industrial plant to assess, whether the COCOP methodology fits in a targeted process, and guides in the system development, commissioning and maintenance. The guideline addresses the question "What needs to be done when the COCOP concept is applied to a given plant?" from several different angles.

4.5 Creation and management of the Special Interest Group (SIG)

After agreeing the rules for the management of the SIG and implementing the mechanism for the subscription of the members in the web (<http://www.cocop-spire.eu/content/special-interest-group>), the COCOP SIG was launched in April 2017 (month 7). Currently, the SIG is composed of nine members from Finland, Germany, France, Netherlands and Belgium, covering different profiles: two chemical companies, six providers of solution working in different sectors and one from a technological platform.

4.6 Preparation of contributions for dissemination channels offered by other entities

Different material has been prepared to disseminate the project through the channels offered by other entities, such as:

- A short description of the project together with the logo and link to the COCOP web page has been published in the projects page of the SPIRE website (<https://www.spire2030.eu/projects/our-spire-project>)
- A summary of the project for the Edition no. 12 of the SPIRE newsletter in May 2017 (<https://www.spire2030.eu/news/press-office/newsletter>)
- Information of the project for the 2nd quarter bulletin of EUWIN (European Workplace Innovation Network) in June 2017 (http://uk.ukwon.eu/File%20Storage/5989654_7_EUWIN-Second-quarter%20bulletin-June-2017.pdf)
- A short description of the project for the annual SPIRE projects brochure in July 2017 (<https://www.spire2030.eu/sites/default/files/pressoffice/publication/20170504%20-%20Booklet%202016%20-%20final.pdf>)

4.7 Publications in scientific and trade journals

Table 7 provides the main details of the three publications carried out by the partners in the first half of the project: two in trade journals and one in a scientific one.

4.8 Presentations at national and international scientific conferences

Table 8 collects the main information of the presentations performed by the partners at different national and international conferences, five in total.

4.9 Participation at exhibitions, fairs and workshops

As shown in Table 9, during the M1-M21 period the partners have participated in different:

- Events organized or promoted by the EC in order to improve business opportunities through networking and better awareness of the technologies and services offered by COCOP
- Workshops and exhibitions at which the COCOP is mainly presented to potential customers

As it was explained in the previous section, the full dissemination report of each activity (journal, conference, workshops, exhibition, etc) is stored in the collaborative tool of the project

4.10 Other activities

Finally, most of the partners have conducted internal presentations at their organisations to show the goals/progress of the project and have contributed to the project dissemination with communications in their day-to-day during visits with clients or meetings with other parties.

Table 7. COCOP publications in scientific and trade journals (Month 1 – Month 21)

Journal/Magazine information				Paper information			
Journal Name	Type	Journal topics	Indexed (Yes/No)	Paper title	Paper topics	Partner coordinating the paper	Date
SIDENEWS	Trade	Steelmaking	No	Complex industrial process optimization ²	General presentation of the project focused on the steelmaking pilot case	TECNALIA	December 2016
Automaatioväylä	Trade	Process automation	No	COCOP – next generation plant-wide optimisation ³	Overall introduction to the COCOP concept	VTT	February 2017
Materials & Techniques - Journal of industrial materials, their implementation techniques & use	Scientific	Materials and materials processing	Yes	A New Innovation Paradigm: Combining Technological and Social Innovation	Social innovation, steel sector, human factors requirements	TUDO	Submitted May 2018

² <http://www.siderex.es/wp-content/uploads/2016/12/Siderex-diciembre.pdf>

³ <http://www.automaatiovayla.fi/lehti/verkkolehti/>

Table 8. COCOP presentations at conferences (Month 1 – Month 21)

Conference information				Presentation information			
Conference Name	Where/When	Scope	Type of audience	Presentation Type	Presentation Title	Presentation topics	Partner coordinating presentation
NPCW – 21 Nordic Process Control Workshop	Abo, Finland January 2018	International	Universities and Industrials	Paper	Industrial implementation of non-linear model based controllers	ModelBuilder and Non-linear MPC	2-control
HICSS 51 - Hawaii International Conference on System Sciences 2018	Hawaii, USA January 2018	International	Researchers and practitioners	Paper	Gamification of the work floor: a literature review of gamifying production and logistics operations	Gamification; information systems; industrial work	TUT
SAM 12 – the 12 th Society and Material International Conference	Metz, France May 2018	International	Companies, Universities, Research Institutions	Paper	A new innovation paradigm: Combining Technological and Social Innovation	new innovation paradigm, plant wide digital optimisation of production processes, designing new working practices	TUDO
INCOM 2018 - 16 th IFAC Symposium on Information Control Problems in Manufacturing	Bergamo (IT) June 2018	International	Researchers and practitioners	Paper	Asynchronous Communication Platform Concept to Coordinate Large-scale Industrial Processes	COCOP information system architecture	TUT
EURAM 2018 -Research in Action conference	Reykjavik, Iceland June 2018	International	Researchers	Paper	Positioning Workplace Innovation under different socio-technical perspectives on Logistics and Process Industries	Social Innovation, Sociotechnical Systems, Workplace Innovation	TUDO

Table 9. COCOP presentations at events (workshops, exhibitions, ...) (Month 1 – Month 21)

Event information					Action information			
Event Name	Where / When	Scope	Type of audience	Size of audience	Presentation type	Presentation Title	Presentation topics	Partner coordinating presentation
VTT Co-creation Day (Workshop)	Finland Nov. 2016	National VTT Internal	VTT staff	1500	Poster	COCOP - Next Generation Plant-Wide Control	COCOP project in general	VTT
Automationsdagarna 2017 (Exhibition/workshop)	Sweden Feb. 2017	Scandinavia	Automation, managers	250	COCOP flyers and discussion in stand		COCOP project in general	OPTIMATION
Workshop for Process Industry Tackling the Future of Plant Operation (Workshop)	Germany Jan. 2017	European	Integrated automation & monitoring in industry	150	Distribution of COCOP flyers		COCOP project in general	TUT
Automaatiopäivät22 (Workshop)	Finland March 2017	National	Automation professionals from industry & academia	>200	Distribution of COCOP flyers		COCOP project in general	VTT
cPPP Impact workshop (Workshop)	Brussels May 2017	European	SPIRE Community	200	Distribution of COCOP flyers		COCOP project in general	TUT
2017 EU Process Industry Conference: a look to the future (A.SPIRE) (Workshop)	Brussels Sep. 2017	European	A. SPIRE members and SPIRE project members	60	Presentation + Distribution of COCOP flyers	Coordinating Optimisation of Complex Industrial Processes - COCOP	COCOP project in general	TUT
ESTEP WG People Meeting	Brussels Oct. 2017	European	Human resources managers, CEO's (steel companies, research & educ. institutions)	16	Presentation	COCOP Project Status	Baseline Survey	TUDO

Event information					Action information			
Event Name	Where / When	Scope	Type of audience	Size of audience	Presentation type	Presentation Title	Presentation topics	Partner coordinating presentation
Steelmater 2017 (Workshop)	Italy Nov. 2017	National	steel company employees (management, engineers, ...)	25	Presentation	Human Resources in the Steel Industry	Social Innovation	TUDO
ISPT (Institute for Sustainable Process Technology) Day 2017 (Workshop)	Netherlands Nov. 2017	National	Dutch process technology community	240	Video display	"COCOP in a nutshell" video	COCOP project in general + pilot cases	DSM
Tackle the Future of Plant Operation - Jointly towards a digital process industry (Workshop)	Spain Dec. 2017	European	SPIRE project members, industry representatives	140	Distribution of COCOP flyers		COCOP project in general and synergies with other projects	TUT
AI – Finnish Operations Research Society (Seminar)	Finland April 2018	National	Applied maths, decision making, AI specialists	100	Distribution of COCOP flyers		COCOP project in general	VTT
SPRING Project Workshop	Switzerland April 2018	European	academia, industry, industry associations	20	Contributions to group work & discussion, statement of COCOP social innovation approach		Social Innovation, social KPIs, results of the users perspective	TUDO
Social Innovation Community (SIC): "Social Innovation and Technological Innovation: Antagonistic or Complementary Approaches?" (Workshop)	Germany June 2018	European	Social Science researchers	12	Presentation	Technological Development as a Social Innovation Process - The COCOP project	Social innovation	TUT/TUDO

4.11 KPIs performance and evaluation

As it was explained in the previous section, some quantitative indicators have been defined for the purposes of evaluating the COCOP dissemination activities. Table 10 shows the comparative between the target and real values for each metric of the KPIs in the M1-M21 period. As it can be observed, the KPI4 (networking) and most of the metrics of the KPI1 (awareness through the website and social media) have been fulfilled. The main deviation is related to the number of papers (both scientific and trade journals), although it is expected that the number of publications increases considerably in the next period, when the project progresses and results are achieved.

Table 10. KPIs performance in the M1-M21 period: target vs real values

ID	Indicator	Metrics	Target Value (M1-M21)	Real Value (M1-M21)
KPI1	Awareness through the website and social media	Number of visits on the project website	75 visits per month	180 visits per month
		Number of posts on the blog of the website	1 post per month	1 post per month
		Number of members of the COCOP debate group in LinkedIn	60	48
		Number of contributions to LinkedIn/Twitter	30	45
		Number of presentations uploaded to the Website/SlideShare	2	1
		Number of videos uploaded to Website/Youtube	1	3
KPI2	Awareness of the Scientific Community interest	Number of papers in scientific journals	4	1
		Number of presentations in scientific conferences/workshops	8	6
KPI3	Awareness of the industrial Community interest	Number of papers in trade journals	5	2
		Number of participations at events with industry (fairs, exhibitions, workshops,...)	3	5
		Number of Interest expressions from industry to receive more information + industrial members of the Special Interest Group (SIG)	10	8
KPI4	Coordination with other research projects	Number of participations in joint forums with other national/international projects	3	6

In order to analyse the quality of the project dissemination strategy and plan and define further actions to improve it, the dissemination activities performed during the first period have also been evaluated internally by the partners, by means of the following questionnaire implemented in Confluence:

- *Q1. Do you think the individual target groups are being addressed by means of proper communication channels and tools?*
- *Q2. Do you think the COCOP web page provides useful content to all the identified target groups?*
- *Q3. Do you think the dissemination material is suitable and enough?*
- *Q4. Do you think the blog is an useful tool to exchange opinions about COCOP topics both inside and outside of the consortium?*
- *Q5. Do you think, the number of dissemination activities towards research community (i.e. number of papers in journals, workshop and conference proceedings, etc.) is sufficient?*
- *Q6. Do you think, the number of dissemination activities towards the industrial community sufficient (i.e. number of presentations at industrial events) is sufficient?*
- *Q7. Do you think, the number of dissemination activities towards the general public (web activities, social media, presentations) is sufficient?*
- *Q8. Do you think, the dissemination activities are carried out timely, in accordance with the schedule of principal project outcomes?*
- *Q9. Do you have any suggestion to improve the dissemination of the COOCP project?*

Overall the evaluation has been positive detecting as key points: i) the usefulness of the web blog; ii) the convenience of increasing the activity in twitter (to disseminate the publication of deliverables and papers, attendance to events, technical achievements and prototypes,... and also support other related SPIRE projects) and uploading in the web presentations and videos with the achieved results; iii) the relevance of the activities oriented to the process industries as well as automation industry target groups; and iv) the need of increasing the number of publications.

5 Work plan for the next 21 months

This section describes the main dissemination and communication activities planned for the next period of the project (from month 22 to month 42).

5.1 Maintenance of the COCOP Web page, social media and SIG

The COCOP web page will be updated periodically with new contents such as summaries of the new released deliverables, information about project meetings and dissemination events participated by the partners, new dissemination material, etc. One important point will be the continuation of the web blog, with monthly posts that in this second part will be more focused on the new developments and results of the project.

During this first reporting period, the project has kept a low activity in twitter and LinkedIn focusing mainly on disseminating the concept and technologies of the project through the dissemination of the blog posts. During the second period, as soon as more results are available, the project will increase its effort in these social networks as it is an excellent tool to show the project's achievements.

Finally, the maintenance of the SIG will include the management of the new members and the communication with all the members to provide them information about relevant news, events and results of the project.

5.2 Preparation of dissemination material

Different dissemination material will be produced along the second half of the project, such as:

- Project flyers (hardcopy and electronic version) to provide to the target audiences with an attractive and written overview of the results achieved in the project. The flyers will be also downloadable from the project website.
- Short Project presentations (electronic version) showing the main achieved results. Four main presentations are foreseen: the first to show the architecture proposed in COCOP (by month 24), the second to describe the main models developed in the project (by month 30), the third related to the prototypes of the copper and steel pilot cases tools (by month 36) and the last one presenting the main results obtained (by month 42). These presentations will be downloadable from the website and could be uploaded in SlideShare.
- Videos to communicate the project's results. Different types of videos are scheduled: some videos will be produced along the project by the partners, showing demos of the new models/tools or summarising relevant deliverables, and one final video will be produced by a professional marketing company focused on presenting the copper and steel pilot cases tools and the main results achieved.

In addition, the partners will prepare material to be disseminated through the channels offered by the EC, SPIRE and other entities, such as: newsletters, bulletins, news, reports, etc.

5.3 Publications in scientific and trade journals

The partners will publish the project activities and results in different scientific and trade journals. Table 7 shows the publications that have been planned up to now. The target of publications for the second period (month 22-42) is indicated in Table 14 at the end of this section.

5.4 Presentations at national and international scientific conferences

The partners will present the project activities and results at national and international conferences. Table 8 shows the presentations that have been planned up to now. The target of presentations at conferences for the second period (month 22-42) is indicated in Table 14 at the end of this section.

5.5 Participation at exhibitions, fairs and workshops

Finally, partners will attend different events such as workshops, exhibitions and fairs. Table 9 shows the events that have been planned up to now. The target of participations at events for the second period (month 22-42) is indicated in Table 14 at the end of this section.

5.6 Events organised by COCOP

The consortium considers suitable to carry out dissemination activities jointly with other SPIRE projects in order to increase the impact of the dissemination activities and define potential synergies and collaboration opportunities. In this sense, a joint workshop with the SPIRE projects of the same call as COCOP (COPRO, FUDIPO and MONSOON) will be organised the third week of October 2018, probably in Frankfurt to facilitate the attendance of the industrial community. This event will be disseminated through the channels offered by all the involved projects.

At the end of the project, a COCOP workshop will be organized to show the achieved results and to give the opportunity to meet potential interested clients (either on public or private field), investors, and researchers. Therefore, target audience could include different players in the scientific, industrial, financial and social fields, as well as journalists. Announcement of the COCOP workshop will be done through all the available channels (web, Twitter, LinkedIn, EU/SPIRE tools, SIG, related Platforms and Associations, etc.) to reach the maximum audience as possible. In order to increase the impact of the workshop, if feasible, it could be organized jointly with the workshops of other SPIRE projects or in connection with any other relevant event (for example a well-known conference or exhibition).

The material of the final workshop could also be the basis to prepare a COCOP webinar (1-2 hours), describing mainly the objectives, approach and main achieved results. The use of this kind of tools would allow to achieve and spread the COCOP's results to the largest possible concerned audience. As the workshop, the emission of the webinar would be announced through all the available channels mentioned above and direct invitations to the client networks of the partners.

Table 11. Planned COCOP publications in scientific and trade journals for the period M22-M42

Journal/Magazine information				Paper information			
Journal Name	Type	Journal topics	Indexed (Yes/No)	Paper title	Paper topics	Partner coordinating the paper	Planned date
Journal of Cleaner Production	Scientific	Cleaner production and technical processes; Sustainable Development and Sustainability; Sustainable Consumption, Environmental and sustainability assessment	Yes	Sustainability communication in copper and steel industry	Sustainability communication and eco-efficient use of resources in mining and metals processing	VTT	Q3/2018
International Journal of Technology Transfer and Commercialisation	Scientific	Knowledge/technology transfer processes, strategies, implementation	Yes	TBD	Social Innovation	TUDO	Q4/2018
TBD	Scientific	Life Cycle Assessment or automation IT	Yes	TBD	Online LCA and results of experimental runs	VTT	Q4/2018
DYNA	Scientific	Industrial innovation, engineering & management	Yes	TBD	Mathematical modelling, software sensors	TECNALIA	Q4/ 2018
Empresa XXI	Trade	Manufacturing industry	No	Software Architecture Challenges in Big Data	Big Data; Software Architecture	SIDENOR	Q4/ 2018
Computers in Industry	Scientific	Trends in and options for the use of Information and Communication Technology in industry	Yes	TBD	Software architecture	TUT	Q1/2019
SIDENEWS	Trade	Steelmaking	No	TBD	General presentation of the tools developed for the steel pilot case	TECNALIA	Q1/2020

Table 12. Planned COCOP presentations at conferences for the period M22-M42

Conference information				Presentation information		
Conference Name	Where/ When	Topics	Type of audience	Type	Presentation topics	Partner coordinating the presentation
KMIS 2018 - 10th International Conference on Knowledge Management and Information Sharing	Spain Sep 2018	Knowledge management	Academic	Paper	Integration architecture, communication semantics	TUT
SETAC - Europe 24th LCA Symposium	Vienna Sep 2018	Life Cycle Assessment	Researchers, practitioners, policymakers and experts from academia, business, governmental organisations	Paper	On- and offline LCA in the COCOP context	VTT
SACBD@ECSA2018 – Workshop on software architecture challenges in Big Data	Spain Sep 2018	Software Architecture & Big Data	Technicians	Paper	Data Management	SIDENOR
IECON 2018 - 44th Annual Conference of the IEEE Industrial Electronics Society	USA Oct 2018	Industrial electronics	Academic	Paper	System architecture, cyber-physical systems	TUT
ISPIM Connects - The International Society for Professional Innovation Management	Japan Dec 2018	Innovation management	Research, industry, consulting and public sector	Paper	Exploitation	VTT
EUROSIM	Spain July 2019	Simulation / Process Systems Engineering	Research and industry	TBD	COCOP modelling workflow with examples	VTT
ECML-PKDD 2019 - European Conference on Machine Learning	Germany Sep 2019	Machine Learning, data analytics and Data Mining	Researchers and practitioners	TBD	Data based models in steel	TECNALIA
TBD	TBD	Human factors	Research and industry	TBD	Human factors in the COCOP context	VTT

Table 13. Planned COCOP presentations at events (workshops, exhibitions,..) for the period M22-M42

Event information					Action information			
Event Name	Where/When	Scope	Type of audience	Size of audience	Presentation title	Presentation type	Presentation topics	Partner coordinating the presentation
SPIRE projects' conference	TBD	European	SPIRE Community	>200	TBD	Talk / Poster	Results is COCOP	TUT
SMAgua	Spain March 2019	International	Engineering and exploitation companies	>500	TBD	TBD	COCOP project and its transferability	MSI

5.7 KPIs for the second period and the whole project

Table 14 shows the target values estimated for each metric of the KPIs defined to evaluate the dissemination activities of the project. The fourth column corresponds to the target values defined for the activities to be performed during the second half of the Project (M22-M42), and the last column to the target values for the whole project, taking into account the real values obtained in the first period (see Table 10). During the WP7 meetings and/or the Project progress meetings, the real and planned values of the KPIs will be analysed, and, if needed, contingency plans could be defined in case the threshold is not reached.

Table 14. Planned KPIs for the second period (M22-M42) and the total project

ID	Indicator	Metrics	Target Value (M22-M42)	Target Value (M1-M42)
KPI1	Awareness through the website and social media	Number of visits on the project website		160 visits per month
		Number of posts on the blog of the website		1 post per month
		Number of members of the COCOP debate group in LinkedIn	52	100
		Number of contributions to LinkedIn/Twitter	80 (~4 per month)	125
		Number of presentations uploaded to the Website/SlideShare	4	5
		Number of videos uploaded to Website/Youtube	3	6
KPI2	Awareness of the Scientific Community interest	Number of papers in scientific journals	7	8
		Number of presentations in scientific conferences/workshops	10	16
KPI3	Awareness of the industrial Community interest	Number of papers in trade journals	5	7
		Number of participations at events with industry (fairs, exhibitions, workshops,...)	7	12
		Number of Interest expressions from industry to receive more information + industrial members of the Special Interest Group (SIG)	17	25
KPI4	Coordination with other research projects	Number of participations in joint forums with other national/international projects	4	10
KPI5	COCOP final workshop	Number of people attending the final COCOP workshop	70	70

6 Conclusions

This report corresponds to the second release of the “Master Dissemination and Communication plan” for the COCOP project, and describes:

- the key elements of the strategy that has been defined by the consortium for achieving proper project dissemination:
 - **the objectives** (*why*, mission & vision) → to spread the COCOP’s results to the largest possible concerned audience (at the national, European and international level) in order to promote the implementation and use of the project results (exploitation).
 - **the subjects** (*what* will be disseminated) → the COCOP project itself and its results together with the all the techniques/methodologies used for the project technical development.
 - **the timing** (*when* dissemination will take place) → with three main phases: 1) initial phase (*Awareness*) focused on increasing project visibility and mobilising stakeholders; 2) intermediate phase (*Interest/Desire*) focused on informing and engaging to the target stakeholders when preliminary results become available; 3) final phase (*Action*) focused on encouraging further exploitation of the COCOP outcomes (transfer to other industries and replicability).
 - **the target audience** (*to whom* it will be disseminated) → Industrial Community (Process industry & Process automation industry), Scientific Community, “Internal” Community (COCOP partners), EU projects working to similar domain, Standardisation bodies and Policy makers, Students and General public.
 - **the tools and channels** (*how* to reach the target audience) → web page, social networks, channels offered by the EC and SPIRE, dissemination material distribution, COCOP Special Interest Group and mainly presentation of the COOCP results at scientific & trade journals, conferences, workshops, exhibitions and fairs.
 - **the responsibilities** (*who* will perform the dissemination) → all partners of the consortium will contribute to the COCOP dissemination during the whole project lifetime
 - **the rules** for performing the dissemination activities
 - **the way to evaluate and assess the impact** of the dissemination activities, defining KPIs for the first period of the project
- the main results of the activities performed during the first half of the project (M1 -M21):
 - COCOP Logo and visual identity designed and used in dissemination material and tools
 - COCOP Webpage implemented: www.cocop-spire.eu (with about 3.000 visits and 2.030 users)
 - COCOP at social networks: Twitter account (@CocopSpire), LinkedIn profile (COCOP) and COCOP debate Group in LinkedIn (“COCOP: Process Industry Automation and Optimization”)
 - Creation of the COCOP Special Interest Group
 - First set of dissemination material (1st flyer, COCOP general presentation and the “COCOP in a nutshell” video) prepared and accessible from the website
 - Presentation of the COCOP project in some newsletters, three journals (two trade journals and one scientific), five scientific conferences and different workshops and events.
- the main activities planned for the second half of the project (M22 -M42), where the joint dissemination with other SPIRE projects will be encouraged, and an important action will be the final COCOP workshop organised at the end of the project.

7 Annex I: Technological platforms and Associations with involvement of COCOP partners

Acronym	SPIRE	
Name	Sustainable Process Industry through Resource and Energy Efficiency	
Web	https://www.spire2030.eu/	
Profile	PPP of HORIZON 2020	
Domain	Process Industry	
Scope	European	
Partners involved & Type of involvement	BFI	WG Process, Partnership Board
	SIDENOR	Industrial member
	TECNALIA	Participant of the Steering Committee and all the working Groups (Feed, Process, Application, Waste)
	VTT	Participant of the Steering Committee and the Working Groups: Feed, Application and Horizontal

Acronym	FoF / EFFRA	
Name	FoF - Factories of the Future EFFRA - European Factories of the Future Research Association	
Web	https://ec.europa.eu/research/industrial_technologies/factories-of-the-future_en.html www.effra.eu	
Profile	FoF - PPP of H2020 EFFRA - Association representing the FoF PPP Private Side	
Domain	Advanced manufacturing	
Scope	European	
Partners involved & Type of involvement	TECNALIA	Member of the Advisory Group
	VTT	Member

Acronym	MANUFUTURE	
Name	Future Manufacturing Technologies	
Web	http://www.manufuture.org/	
Profile	European Technological platform	
Domain	Process Industry, advanced manufacturing	
Scope	European	
Partners involved & Type of involvement	TECNALIA	Member of the Steering Committee
	VTT	Member

Acronym	IFAC	
Name	International Federation for Automatic Control	
Web	http://www.ifac-control.org/	
Profile		
Domain	Automation	
Scope	World	
Partners involved & Type of involvement	BFI	Technical Committee “Automation in Mining, Mineral and Metal Processing (MMM)”. Reviewer, Conference Organisation
	TUT	Technical Committee “Linear Control Systems”

Acronym	SAS	
Name	Suomen Automaatioseura ry Finnish Society of Automation	
Web	https://www.automaatioseura.fi/	
Profile	Industrial association for automation professionals	
Domain	Automation (process, manufacturing etc.)	
Scope	National	
Partners involved & Type of involvement	VTT	Individual employees as members
	TUT	Individual employees as members

Acronym	OPC Foundation	
Name	OPC Foundation	
Web	https://opcfoundation.org	
Profile	Technological platform, industrial association	
Domain	Industrial automation, information exchange	
Scope	World	
Partners involved & Type of involvement	TUT	Member (End-User Membership)
	VTT	Member (Corporate Membership)

Acronym	EUROSIM	
Name	Federation of European Simulation Societies	
Web	http://www.eurosim.info	
Profile	Forum for regional and national simulation societies to promote the advancement of modelling & simulation in industry, research & development	
Domain	Simulation in all domains	
Scope	European	
Partners involved & Type of involvement	VTT	Individual employees as members of national simulation society

Acronym	DIMECC	
Name	Digital, Internet, Materials & Engineering Co-Creation	
Web	https://www.dimecc.com/	
Profile	PPP co-creation platform for digital transformations	
Domain	Process, manufacturing, etc.	
Scope	National	
Partners involved & Type of involvement	VTT	Shareholder
	TUT	Shareholder

Acronym	EUWIN	
Name	European Workplace Innovation Network	
Web	http://portal.ukwon.eu/	
Profile	European learning network for innovation at the workplace EUWIN is running a Knowledge Bank with good practice cases	
Domain	Industry, Big Companies and SME's	
Scope	European	
Partners involved & Type of involvement	TUDO	Member of the Founders, Ambassador

Acronym	EUROFER	
Name	The European Steel Association	
Web	www.eurofer.org	
Profile	Industrial Association	
Domain	Steel	
Scope	European	
Partners involved & Type of involvement	SIDENOR	Member

Acronym	ESTEP	
Name	European Steel Technological Platform	
Web	https://www.estep.eu	
Profile	Technological Platform	
Domain	Steel	
Scope	European	
Partners involved & Type of involvement	BFI	Support Group, WG Profit, WG Plant, WG I2m (Integrated Intelligent Manufacturing)
	SIDENOR	Associated member
	TECNALIA	Working groups (Automotive, Environment)
	TUDO	Working Group People (Vice-Chairman)
	VTT	Working group Construction

Acronym	CEFIC	
Name	The European Chemical Industry Council	
Web	http://www.cefic.org/	
Profile	It has 3 distinct groups of members: Corporate (ACOM) - Federation (AFEM) and Business (ABM) and 3 types of partnerships: Associated Companies, Affiliated Associations and partners.	
Domain	Chemical Industry	
Scope	European	
Partners involved & Type of involvement	DSM	Member of the Executive Committee and Member of ACOM

8 Annex II: Dissemination reports

This annex shows the templates and some examples of the Dissemination reports for the different types of activities.

Publications in magazines/journals		
Journal information	Name of the Magazine/Journal	<i>Automaatioväylä</i>
	Journal/Magazine type	<i>Trade journal</i>
	Indexed	<i>No</i>
	Impact factor (and quartile)	
	Web	http://www.automaatiovayla.fi/in-english/
Paper information	Paper title	<i>Working title: COCOP - Seuraavan sukupolven tehdasmittakaavan optimointia (In english: "COCOP – next generation plant-wide optimization")</i>
	Paper topics	<i>Overall introduction to the COCOP concept, partners and how the project will go forward</i>
	Partner coordinating the paper	<i>VTT (Jouni Savolainen)</i>
	Other partners involved	<i>TUT (Matti "Masa" Vilkkio and David Hästbacka)</i>
	Planned date	<i>17/2/2017</i>
	Status	<i>Submitted 16/2/17</i>
	Comments	<i>Automaatioväylä is a Finnish trade journal for automation engineers. The magazine has a circulation of 3200. The targeted issue is 2/2017 which has an overarching theme of "process automation"</i>
To be filled after publishing the paper	Bibliographic Citation	
	DOI	
	ISBN/ISSN	
	Release date	<i>17/3/2017</i>
	Date to be in "open access"	
	Link to the paper in "open access"	http://www.automaatiovayla.fi/lehti/verkkolehti/ <i>The web version of the magazine.</i>

National and International Conferences		
Event information	Name of event	<i>SAM 12 - the 12th Society and Material International Conference</i>
	Web	http://www.irt-m2p.eu/fr/sam-12-registration.html
	Organiser	<i>NTNU, IRT-M2P, ArcelorMittal, IF Steelman, ENIM</i>
	When	<i>22-23 May 2018</i>
	Where	<i>Metz, France</i>
	Scope	<i>European / International</i>
	Audience Profile	<i>Companies, Universities, Research Institutions</i>
	Target Audience Number	<i>100</i>
Presentation information	Presentation title	<i>A new innovation paradigm: Combining Technological and Social Innovation</i>
	Presentation topics	<i>New innovation paradigm, plant wide digital optimisation of production processes, software development, designing new working practices</i>
	Presentation type	<i>Powerpoint presentation</i>
	Partner coordinating activity	<i>TUDO</i>
	Other partners involved	<i>Sidenor</i>
	Status	<i>Done</i>
	Comments	
To be filled after the conference	Bibliographic Citation	<i>Michael Kohlgrüber, Antonius Schröder, Félix Bayón Yusta, Asier Arteaga: a new Innovation Paradigm: Combining Technological and Social Innovation</i>
	DOI	
	ISBN/ISSN	
	Link to the paper/poster, if feasible	
	Number of attendees	<i>80</i>
	Picture of the event?	
	Any comment/feedback	<i>some technological based presentations already integrate social innovation</i>

Event (Fairs, exhibitions, workshops, ..)		
Event information	Name of event	2017 EU Process industry conference: a look to the future
	Web	https://www.spire2030.eu/news/new/2017-eu-process-industry-conference
	Organiser	A.SPIRE
	When	19th September 2017
	Where	Brussels
	Scope	European
	Audience Profile	A.SPIRE members and SPIRE project members
	Target Audience Number	60
Presentation information	Presentation type	Presentation of the project
	Presentation title	COCOP - Coordinating Optimisation of Complex Industrial Processes
	Presentation topics	COCOP project in general
	Partner coordinating the activity	TUT
	Other partners involved	DSM, VTT, Idener
	Status	Done
	Comments	
To be filled after the event	Number of attendees	60
	Picture of the event?	
	Any comment/feedback	Networking with other projects related to COCOP

Dissemination in the media (radio, newspaper, TV,..)	
Media type	<i>(radio, newspaper, TV,...)</i>
Name of the media	
Scope	<i>(Local, national, European, World)</i>
Audience Profile	
Date	
Presentation title	
Objective of the dissemination	
Partner coordinating the activity	
Other partners involved	
Any comment/feedback	

Other Dissemination activity	
Type of activity	
When	
Where	
Scope	<i>(Local, national, European, World)</i>
Audience Profile	
Presentation title	
Objective of the dissemination	
Partner coordinating the activity	
Other partners involved	
Comments	

9 Annex III: First COCOP flyer

12 partners from 6 European countries (Finland, Sweden, Denmark, Germany, The Netherlands and Spain) covering several sectors of the industry: **steel, nutritional and materials products, automation technology providers, consultancy and software.**

The vision:
Complex process industry plants will be optimally run by the operators with the guidance of a coordinating, real-time optimisation system

General details
Project Start Date: 1st October 2016
Project End Date: 31st March 2020
Project duration: 42 months
Grant Agreement n.: 723661
Subprogramme area: SPIRE-02-2016, H2020-IND-CE-2016-17
Web page: www.cocop-spire.eu
@CocopSpire

Contact Information
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Science and Engineering
Tampere University of Technology
Finland

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 723661.

Need
Process industry faces a strong need to increase **product quality** and reduce **operating costs & environmental footprint**. A complex plant comprises continuous and/or batch unit processes. The plant's complexity stems from its dynamic properties, so a **plant-wide monitoring and control** is a requirement for achieving economically and environmentally efficient operation.

Objective
To achieve plant-wide monitoring and control by using the **model-based, predictive, coordinating optimisation concept** in integration with local control systems.

Beneficiaries
The companies who can benefit from the COCOP's results are:

- **Process Industry:** Iron & Steel, Copper, Chemical, Water treatment, Cement, Glass, ...
- **Automation solution suppliers**

Benefits

- **Reduced operation costs**
- **Increased sustainability (reduced energy and resource consumption and decreased greenhouse gas emissions)**
- **Improved working conditions** of plant operators by the new process control tools which support the operating work.
- **Increased competitiveness** of the European process and automation industry.

COCOP is based on the **decomposition-coordination optimisation of the plant operations**: the overall problem is decomposed into unit-level sub-problems, so then the solutions of sub-problems are coordinated to plant-wide optimal schedule using high-level coordination. This will enable operators to understand the functioning of the plant as a whole, including the areas traditionally beyond their control, and take better decisions within their part of the process.

COCOP will combine the technological development with a **social innovation process** of co-creation and co-development for improving effectiveness and impact of the innovations and operator acceptance.

Pilot cases:

- **On-site application and validation at two plants:** copper and steel manufacturing process.
- **Transferability analysis** to other two sectors: **chemical & water treatment processing.**

Figure 14. First COCOP flyer (external pages on the top and internal pages at the bottom)