## D8.1 Communications Plan

<table>
<thead>
<tr>
<th>Version number</th>
<th>02</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submission planned Date</td>
<td>31 October, 2019</td>
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<tr>
<td>Submission due Date</td>
<td>31 October, 2019</td>
</tr>
<tr>
<td>Dissemination level</td>
<td>PUBLIC</td>
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<tr>
<td>Project full title</td>
<td>Hyperconnected architecture for high cognitive production plants</td>
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<tr>
<td>Project acronym</td>
<td>HYPERCOG</td>
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<tr>
<td>Topic / Call</td>
<td>DT-SPIRE-06-2019</td>
</tr>
<tr>
<td>Grant Agreement no.</td>
<td>869886</td>
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</table>
This document has been produced in the context of the HyperCOG Project.

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<table>
<thead>
<tr>
<th>Date</th>
<th>Version</th>
<th>Author (Company)</th>
<th>Changes to document</th>
</tr>
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<tbody>
<tr>
<td>2019/10/29</td>
<td>V01</td>
<td>William Davis (IMG);</td>
<td>Initial version</td>
</tr>
<tr>
<td>2019/10/31</td>
<td>V02</td>
<td>Miriam García (LORTEK)</td>
<td>Revised by Coordinator</td>
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</table>

D8.1 Communications Plan

Public
D8.1 Communications Plan

Public
1. Deliverable abstract

The communications activities planned for this project will ensure project results are disseminated to a wide, varied and relevant audience in a targeted manner that will enable the efficient and successful exploitation of these results beyond the project lifetime. Moreover, this dissemination will allow us to measure how the project’s results are received and used and this information can then be reused in other projects.

This Plan defines the strategy and planned activities for the successful communication of project results and details these activities and how they will support exploitation.

The plan also defines the organisation and the methodology that all the partners shall apply for dissemination and communication of their HyperCOG activities and research results throughout the Project. It establishes a common standard for the entire Project lifecycle. It is a multipurpose deliverable aimed at supplying all instruments and procedures required for a smooth process of Project tasks.

This is the first version of this document and it will continue to be updated throughout the project lifespan. It contains partners’ preliminary intentions for exploiting the project results, as outlined in the initial version of the project Description of Work. It also includes the dissemination channels that will be implemented during the course of the project. Communications activities carried out throughout the project will be added.

A final version of this plan will be submitted at the end of this project as a final report on Dissemination Activities.
2. Introduction

2.1. Objectives

This document describes the official dissemination and communication strategy of the HyperCOG Project. This deliverable is part of Work Package 8 “Dissemination, communication and exploitation” and the related task 8.1 “Development of a Communication Plan”. The objectives of this communication strategy are to:

- Address our key stakeholders and widen as much as possible the HyperCOG stakeholder base, including researchers in multiple disciplines, educators and related industry, SMEs in all sectors of European society and economy and the general public, seeking their input from the very beginning of the project. This stakeholder group has started to be defined in this document, but this task will be ongoing throughout the project to ensure a growing database of interested stakeholders;
- Support the generation of new knowledge to facilitate understanding high cognitive production plants and the opportunities they offer industry in terms of efficiencies in costs and energy savings;
- Promote the widest possible exploitation of the Project results at the industry and societal levels;
- Form a critical mass of interest and awareness of project results within a growing HyperCOG network;
- Disseminate the Project findings amongst the scientific and research communities;
- Promote the long-term, self-sustainable adoption of the technology being developed by the Project, by transferring the knowledge acquired to relevant industry, consumers and policy makers in an effective and engaging manner.

2.2. Scope of the document

The document is divided into two sections:

1. One that briefly provides an overview of the HyperCOG project’s objectives and expected results and the corresponding dissemination activities, specifying the target audiences and the various communication strategies that will be used for each. The activity is outlined in a way that ensures the EC can verify it.

2. One that begins to describe the expected exploitable results at this stage of the project, and the communications activities related to those results. This section will develop over the project lifespan and will include when it is completed:

- A verifiable list of all intellectual property rights that will have been applied for or registered (e.g. a European patent)
- A list of all the results that may have commercial or industrial applications (e.g. inventions, prototypes, technologies, compiled information and data, etc.)
- An outline of the owner of each particular element of foreground, whether it is a single participant or several of them (in a situation of joint ownership)
• An explanation of how the foreground is going to be used, in either further research or commercial exploitation activities, including elements such as the following:
  ▪ Purpose, main features and benefits of the technology resulting from this HyperCOG research: innovative aspects in comparison, intended audience
  ▪ Together with any technologies and systems already available, the needs for further R&D activity and implied risks, collaboration needs for exploitation (technology transfer activities);
  ▪ Customer detection: identification of potential customers and the factors that affect the decisions they make when making operational decisions;
  ▪ Features of the target market: size, share that the technology could reach, driving factors likely to change the market, legal, technical and commercial barriers, other technologies likely to emerge in the near future;

The plan will also describe:
  • The socio-economic impact of the results
  • Any contributions to standards or policy developments

An important consideration to make at this stage of the project is that this document will develop over the lifespan of the project and as objectives are achieved. The strategy will be updated regularly and included in both the periodic and final reports to the EC to include elements of what is listed above.

2.3. Intended audience of this document

The document is aimed at the following audiences:
  • European Commission: to communicate the consortium’s communication and dissemination strategy and demonstrate how this will maximise exploitation opportunities;
  • Consortium partners: to ensure their involvement in all aspects of dissemination and further exploitation.
3. Dissemination

3.1. Scope of the project

Industrial modernisation is vital for Europe if it is to remain competitive and dynamic in a global economy and create the jobs it needs. Digitisation is at the heart of these modernisation needs and will allow European companies to benefit from a potential increase in value of 1.25 trillion euros over the next 10 years. If Europe fails to take advantage of digital technology, then potential losses will be equally dramatic. The main challenge for the EU now is to ensure that all industrial sectors make the best use of innovative technologies and manage their transition towards higher-value digitalised products and processes, commonly known as Industry 4.0.

Digitalisation is identified by SPIRE as one of the transversal topics that will support and accelerate the much-needed transformation for the process industries. The position and role of digital technologies set out by the SPIRE 2050 Vision is central to achieving its objectives within Europe.

Cognitive manufacturing refers to a new manufacturing paradigm where machines are fully connected through wireless networks, monitored by sensors, and controlled by advanced computational intelligence to fine-tune product quality, optimise performance and sustainability while reducing costs. Such cognitive features have not been realised yet in the process industry.

So, the HyperCOG project will develop an innovative Cyber-Physical System (CPS) to cover industrial production needs in the current technological context of Industry 4.0. CPS is the technology that integrates computational and physical (devices, material, products, machinery and facilities) capabilities to provide useful information to operators. The system will have the ability to interact with humans and expand the capabilities of the physical world through computation, communication and control. The following 3 differentiating aspects will be assessed:

1. Interconnection and interoperability among heterogeneous devices which ensure the real-time data acquisition from production environment and production commands feedback from the cyber space;
2. Management, analysis of multi-source and heterogeneous big data (cognition systems)
3. Knowledge acquisition and learning methodology that supports intelligent decision-making to move towards the smart factory.

In the HyperCOG project the CPS architecture will be validated in three pilots involved in three different manufacturing sectors - steel, cement and chemical.

Thus, the main objective of HyperCOG is to demonstrate the innovation potential of Cyber-Physical Systems and Data Analytics to transform the process industry and its business models. A CPS architecture will be developed to achieve the goals of cognitive manufacturing. HyperCOG will show the potential of these technologies in the value chain and benchmark results. It will also evaluate the replicability and transferability to different industrial sectors. The project will strive to demonstrate how data technologies embedded in a CPS platform applied in the process industry can streamline processes, achieve a step gain in efficiency, sustainability and resource utilisation and act as a basis for the provision of new services.

To achieve these objectives, HyperCOG will integrate knowledge and engineering principles across the computational and engineering disciplines (networking, control, software, human interaction, learning theory, as well as electrical, mechanical, material science, chemical and other engineering disciplines) by means of a hyper-connected CPS architecture with embedded advanced data analytics. CPSs are perceived among the scientific community as the enabler of a new era of real-time communication and collaboration with value chain participants (humans, machines, products, algorithms, etc.) in the Industrial Internet of Things (IIoT).
3.2. Benefits

As a result of the implementation of its technical objectives, HyperCOG will achieve clear and measurable impacts. These benefits will be demonstrated in three different use-cases (steel, cement, and chemical plants), which will demonstrate industrial symbiosis. KPIs of current processes will be compared with the KPIs obtained in the new digitalised lines, while the demonstration activities will address scalability and replicability of the proposed concepts. The impacts include:

- A reduction in CO2 emissions by 2.5% (steel plants), 5% (cement plants), 6% (chemical plants);
- A reduction in NOx emissions by 6% in cement plants;
- A reduction in waste spills by 5%;
- A reduction in energy consumption by 2.5% (steel plants), 7% (cement plants), 5% (chemical plants);
- A reduction in the consumption of raw material by 3.38% (steel plants), 5% (cement plants), 5% (chemical plants);
- A reduction in waste production by 20% (steel plants), 5% (chemical plants);
- An increase by-products valorization by 12% (to steel plant to cement plant);
- Helping to determine the sustainability potential of ICPS;
- An increase in productivity by 4% (steel plants), 5% (cement plants), 10% (chemical plants);
- An increase in profitability by 14% (steel plants), 27% (cement plants), 20% (chemical plants);
- An increase of 20% in young people being attracted to working in aged industrial sectors of SPIRE
- An increase of 30% of woman being employed in traditionally gender unbalanced SPIRE sectors
- The effective dissemination of digital innovations to the employees of SPIRE sectors
- The capture of the deep expertise and knowledge of those already in the industry and the translation of this into knowledge of the “cognitive factory”.

3.3. Communications objectives

With a clear understanding of the project’s objectives and its expected outcomes, each of the overriding communications objectives will be closely aligned to the technical, economic and environmental/social objectives of the project.

<table>
<thead>
<tr>
<th>PROJECT OBJECTIVES</th>
<th>RELATED COMMUNICATION OBJECTIVES</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECHNICAL To make process plants more efficient, cleaner and more cost-effective by introducing an innovative Cyber-Physical System to cover industrial production needs</td>
<td>To raise awareness of HyperCOG and boost the interest of industry and research communities, so that HyperCOG becomes widely recognised as an effective, relevant and desirable solution that is commercially possible.</td>
</tr>
</tbody>
</table>

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| ECONOMIC | To introduce HyperCOG into selected industries, demonstrate its effectiveness and roll-out the technology commercially | To support the implementation of demonstration projects, to raise awareness and prepare manufacturers to accept the new technology |
| ENVIRONMENTAL/SOCIAL | To mitigate the environmental impact of the process industry, create employment opportunities across all sectors of society in the industry and provide users with wider choice, greater flexibility and shorten time to market. | To promote the known environmental and social credentials that are possible with the implementation of the project’s results and anticipate possible social acceptance issues. Also to identify and mitigate negative impacts. |

The more overarching objectives of the communications and dissemination activity will be:

- To disseminate the project’s results amongst key target audiences, who will include the process industry and the scientific community working within the process industry sector. This promotional activity will also focus the new technology and its economic, environmental and social benefits when applied in the steel, cement and chemical industries.
- To explain the technology and to demonstrate its feasibility, reliability, benefits and cost advantages;
- To transfer the knowledge and properly exploit results and the foreground into the market;
- To activate industry and end users and convince them to adopt the new processes and practices being developed and use the systems in their processes.
- To enhance the exploitation of the results by including standardisation models in dissemination and communication activity.

### 3.4. Dissemination and communication planning

HyperCOG results can only be properly transferred if the interested stakeholders and potential users understand their potential in terms of its flexibility, efficiency, cost-effectiveness, and environmental impacts. The project, therefore, includes tasks designed to promote awareness, understanding and the involvement of all relevant stakeholders. As the need for raising knowledge and successfully disseminating results to relevant stakeholders is directly related to the success of the project, all partners will play a role in awareness raising, using their own tools, networks and channels to add to and support the communications and dissemination activities taking place in WP8. Dissemination and communication activities are very much linked, so they will always be carried out in a coordinated way to ensure they optimise all possible synergies and avoid overlapping messages.

In summary, the main objective of developing a coordinated dissemination and communications plan is to make sure that the project results effectively reach all the relevant stakeholders through targeted communication tools. As well as coordinating this overall strategy, IMG will support partners in their own dissemination activity to ensure consistent messages about the project reach the maximum target audience in a coherent manner.
4. Target groups

The goal of “dissemination” is to promote and raise awareness of the project’s achievements and communicate their benefits to the targeted stakeholder community.

4.1. Main target audience

There is a wide range of stakeholders relevant to this objective, ranging from those relevant to the science (IIOT technology, modelling, data, integration etc), those relevant to industry (companies working in the process industry, factories etc) and those relevant to society (awareness raising, local government, industry owners and the general public). HyperCOG has therefore identified five different categories of target groups at which all communications will be targeted. These groups are:

Industry
- Manufacturers, suppliers, integrators, engineering companies;
- OEMs and TIERs;
- Big parts and end users;
- Process technology companies;
- Industry associations

Regulators, research and academia
- EU associations, platforms, partnerships;
- Universities and RTDs;
- PHDs and students.

Policy makers and public bodies
- European Commission
- European Parliament
- National government organisations
- National decision makers
- Associations

General public and projects
- Environmental organisations and clusters
- Regional competitiveness poles
- SPIRE
- Related European projects

Media
- Specialist media – science and research
- Specialist industry media
- Media associations involved in industrial and environmental field
- Regional and national mass media
- Industry-focussed publications
- Peer review journals
4.2. Target objectives

The project results will be of great interest to all those identified at its target audience (above). These are the people who should bring these new technologies into their planning for investment leading to Europe-wide deployment.

The dissemination process aims to spread information among all potentially concerned stakeholders and to influence industrial decision making in both the process industry and beyond as well as influencing industrial policy making.

This approach will be helped by the research and academic organisations involved in the project as well as all industry stakeholders, who are also directly involved in the project as consortium partners. IMG will also make use of its existing extensive database that cuts across all relevant thematic sectors.

4.3. Target audience database

A database of target group users and target audience has been and will continue to be developed. This is enabling strategic communications that are being targeted for each identified group. IMG will continue conducting extensive market research to populate this database and, importantly, qualify the target audience as interested in receiving information about HyperCOG.

4.4. Targets, channels and messages

The consortium has strong relationships and ties with industry, associations, universities and research centres, that will enable extensive dissemination to the target communities. Dissemination partner IMG already has an extensive database of relevant specialist and mass media contacts that will also be used to promote the overall potential of HyperCOG within industry, its benefits to the European economy and society and its potential to produce innovative and exciting products. These contacts will also be exploited to promote HyperCOG’s potential within that market.

The plan will follow a tried-and-tested approach to formulating the communication strategy by:

- Identifying the target audiences that should be reached (WHO).
- Tailoring the messages towards these target audiences (WHAT).
- Selecting the most appropriate communication channels and tools to reach these target audiences (HOW).
- Developing a detailed implementation timeline for communicating the project messages in a timely fashion (when results emerge) and maximising topical opportunities (leveraging newsworthy events etc) (WHEN).

The following table lists how the different target audiences will be targeted, the communications channels to be used, the different messages communicated and the objectives of these messages.
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### Public

<table>
<thead>
<tr>
<th>Target</th>
<th>Industry, regulators, research</th>
<th>Policy makers and public bodies</th>
<th>General public and projects</th>
<th>Media</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Publications</td>
<td>Publications</td>
<td>HyperCOG website</td>
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<td></td>
<td>Final project conferences and</td>
<td>Final project conferences and</td>
<td>Newsletter</td>
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<td>workshops</td>
<td>workshops</td>
<td>Social media</td>
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<td>Conferences and seminars</td>
<td>Conferences and seminars</td>
<td>Dissemination material</td>
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<td></td>
<td>Project website</td>
<td>HyperCOG web, social media</td>
<td>Promotional video</td>
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<td></td>
<td>Social media</td>
<td>Project newsletter</td>
<td>Project’s final event/workshop</td>
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<td></td>
<td>Dissemination material</td>
<td>Dissemination material – factsheets, infographics and policy briefs</td>
<td>Communication campaign.</td>
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<td></td>
<td>External workshops</td>
<td>External workshops</td>
<td>Surveys and interviews.</td>
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<td></td>
<td>On-site visits</td>
<td>Promotional videos</td>
<td>Factsheets, infographics</td>
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<td></td>
<td>Promotional videos</td>
<td>Communications campaign for workers, lifelong learners, students etc</td>
<td>HyperCOG website</td>
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<td>Newsletter</td>
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<td>Dissemination material</td>
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<td>Promotional video</td>
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<td>Participation at the final event</td>
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<td>Conferences</td>
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<td>Press releases</td>
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<td>Articles and interviews</td>
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<td>Media partnerships</td>
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<td>Spire</td>
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### Type of information

<table>
<thead>
<tr>
<th>Technical, economic, environmental &amp; analysis</th>
<th>Technical, economic, environmental analysis</th>
<th>Social and environmental analysis.</th>
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<tbody>
<tr>
<td></td>
<td>Economic impact</td>
<td>Cost savings</td>
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### Goal

<table>
<thead>
<tr>
<th>Foster the uptake of results.</th>
<th>Demonstrate how HyperCOG contributes to</th>
<th>Raise awareness of HyperCOG and EU funding</th>
<th>Make the technology recognised and celebrate</th>
</tr>
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<tbody>
<tr>
<td>Foster implementation of</td>
<td></td>
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</tbody>
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<table>
<thead>
<tr>
<th>Messages</th>
<th>How HyperCOG will make plants more efficient - Reduction production costs: time, energy and raw materials consumption.</th>
<th>Reduction production costs: time, energy and raw materials consumption.</th>
<th>The integration of innovative CPS for plants</th>
<th>Reduction production costs: time, energy and raw materials consumption.</th>
<th>The integration of innovative CPS for plants</th>
</tr>
</thead>
<tbody>
<tr>
<td>How the technology works</td>
<td>Environmental and economic benefits</td>
<td>Cost-effectiveness and competitiveness.</td>
<td>Benefits to consumers – cost, flexibility</td>
<td>Environmental and social impacts</td>
<td>Economic benefits</td>
</tr>
<tr>
<td>How to get involved</td>
<td>Costs involved</td>
<td>The benefits HyperCOG delivers</td>
<td>Green credentials</td>
<td>Benefits to the consumer</td>
<td></td>
</tr>
</tbody>
</table>

The target groups, communication channels and information types required have been pre-identified in the table above.

Moreover, HyperCOG will address those target groups or consortia where RTO and/or industrial partners have joined to maximise efforts towards cooperation, dissemination and exploitation in specific areas of interest related to the digitalization of process industries. Cooperation will be promoted with these target groups:

- AERTO community: it is composed of a group of RTOs representing 150,000 professionals. The AERTOS Community is a powerful strategic cooperation effort and frequently shows its ability to identify challenges and tackle them jointly. LORTEK through IK4 and TECNALIA are members of this community.
• Sustainable Process Industry through Resource and Energy Efficiency (SPIRE) Public-Private Partnership (PPP): HyperCOG has been submitted under this PPP. In fact, almost 30% of the consortium is member of SPIRE-PPP: RTOs (LORTEK through IK4, TECNALIA,), Large companies (SIDENOR, SOLVAY).

• Projects funded under the same topic: synergic effect on exploitation and dissemination come across when efforts of the different projects approved under the same topic are combined. Some of the possible activities that can be underlined via clusterisation include sharing of non-confidential information, combined dissemination activities, and the establishment of common procedures. All these activities will have a synergistic effect for all the projects funded under the same or related topics.

• Projects funded in previous calls: HyperCOG proposes advances that go beyond the activities performed in previous EU funded projects like COCOP or CONSENS. Good practices and cooperation will be addressed by sharing through the common partners non-confidential information that could suppose an added value (i.e. SIDENOR, MSI and TECNALIA are participating in both COCOP and HyperCOG).
5. Communications activities

A series of communication activities has been planned for the dissemination of the project’s work and results. This section of the strategy document provides an outline of dissemination activities designed to promote the project within the general scientific community, public authorities and industry. The plan has detailed target audiences, media/communication method selections for each audience, timings for the communications and resources required.

As well as communicating project activities and disseminating project results amongst interested parties, the communications activities are designed to enhance coordination and synergies between the HyperCOG project and other EU-funded projects or national programmes in order to reach the maximum joint impact and in some instances share knowledge. This activity will be enhanced by the project’s involvement in SPIRE (T.7.3).

5.1. Partner involvement

The aim is also to involve all partners in these activities, both as a way of providing the widest possible view of project activities but also to enhance each partner’s exploitation potential. By using effective, accessible and attractive communications and targeted dissemination, all partners will be able to maximise their exploitation success by:

- Increasing awareness;
- Explaining the technology and demonstrating its feasibility, reliability and advantages;
- Initiating European-wide replication;
- Transferring the knowledge and properly exploiting results;
- Activating users and convincing them change their processes;
- Influencing policy and decision makers.

It is essential that all partners are involved in this process to ensure that all aspects of the resulting innovation are communicated and understood by all target groups. IMG will ensure that this process will involve all partners. This will involve consolidating information about technical results of the project from all partners in order to form a base for the exploitation plans for the consortium. This exploitation is supported by this overarching communication plan to ensure a firm understanding of HyperCOG’s results in real manufacturing conditions being developed by those who will benefit from its use at all stages in its value chain, from raw materials to end users. The benefits and the limitations of the project and its outcomes will be reported along with recommendations for further developments. Meanwhile, those results and knowledge arising from the project and determined by the HyperCOG consortium to be suitable for public consumption, will be made available in a variety of appealing, accessible and target-specific formats to the public through public reports (via project website, press releases, films, interviews etc.) and/or journal publications and conferences. IMG will also engage with the mass media where appropriate to ensure the widest possible dissemination of results where appropriate.

IMG will communicate directly with the responsible partners for each work package to be able to supply specific communication materials for each one, to maximise the impact of each element of work taking place in the project individually, as well as develop overarching material that explains the overall aims and objectives the project as a whole as well as all expected results. As well as being distributed widely throughout the project’s target audience database, partners will be responsible for
the distribution of project press releases, newsletters, and video clips via their established networks and media distributors.

Material will be mainly prepared in the English language, but where appropriate it will be developed in local languages to maximise impact amongst a particular audience. All communications material produced in print will also be made available in digital format and widely distributed online. All material published through IMG’s own publications will be published under a Creative Commons licence and will be completely open access and freely available.

IMG will also make use of its established database of contacts within this specific sector, established through its work with other related and complementary projects and through its association with events to expand the reach of these communications activities.

All materials will also be supplied to A.SPIRE (https://www.spire2030.eu/) and an ongoing relationship with the initiative will ensure increased exposure of all HyperCOG developments to an established and influential organisation operating in the process industry. This audience will cut across industry, research and policy. IMG has an ongoing relationship with SPIRE through other projects and has presented at SPIRE meetings.

An Exploitation & Dissemination committee (EXC) will be composed by the all the partners and IMG and will coordinate all exploitation, dissemination and communication activities. It is responsible for coordinating and supervising the production of the dissemination and communication, and exploitation plans, as well as follow-up of these plans.

5.2. Key messages

In order to engage effectively with each target audience, specific key messages are being developed that will be adapted for each audience and delivered through appropriate media. These key messages will be based on the premise that HyperCOG’s Hyperconnected approach will provide more intelligent, cognitive process plants, leading to enhanced European industry competitiveness due to its ability to deliver more customised products at lower costs thus contributing to job security and greater customer satisfaction as well as more production flexibility, a shorter time-to-order and a reduction of cost per ton produced. Additionally, with less embedded energy being used in the processing industries using HyperCOG technology due to a reduction in fossil fuels, imported from outside Europe, with a reduction of GHG emissions (in sectors that run in the CO2 markets) and a reduction of air pollution (NOx), another key message will be of HyperCOG’s green credentials.

Importantly, HyperCOG’s more technological approach to process manufacturing also provides the opportunity for it to be promoted as an attractive industry amongst young people (the process industry is currently not a preferred career choice for young people) and that it will now favour the presence of women in the production plants. Women traditionally do not work in process plants, but making these plants more technology driven rather than mechanical will make them more attractive to all members of society. Further social impact will be considered in terms of inclusivity of opportunity for ageing workers and, in the WP6, some workshops will be organised to co-create the trainings for workers of all ages, sexes and backgrounds.

These target audiences and key messages will be further developed throughout the project’s lifespan by IMG in WP8, which is focused on communicating all key project findings to the identified target audiences with the specific aim of maximising the awareness of the work being carried out by HyperCOG as well as the benefits of the resulting innovation in general and specifically to the relevant industries. Exploitation and dissemination activities are interlinked and so the WP is planned to undertake all associated tasks in a coordinated way in order to fully exploit all synergies and avoid any overlaps that may arise.

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Public
5.3. Branding

Before any communication can be properly executed, a visual identity needs to be developed that reflects the project vision and key concepts and creates an easily recognisable “image” to improve the project visibility. Such visual identity is defined by the project logo that is used prominently in all dissemination tools and printed materials. The HyperCOG logo has already been created; A full branding exercise will derive from this, including colour as well as black & white versions of the logo in several resolutions to meet all dissemination purposes. Furthermore, a set of detailed branding guidelines has been produced and sent to all partners with clear instructions on how the logo and all HyperCOG branding should be used. A standardised template for presentations will be sent to all partners which ensures the branding message is coherent throughout.

5.4. HyperCOG communications tools

The following communications tools will be developed for the HyperCOG project.

5.4.1. HyperCOG Website

www.hypercog.eu

The domain for the project website has been activated and at the start of the project, a holding “splash” page was developed to announce the start of the work. The bespoke and attractive HyperCOG website will be now launched by the end of November 2019.

It will be the main platform or information hub for the communication of the project – including its objectives, proposed benefits and all up-to-date news relating to the project during and after the project. It will provide an overview of the project, outlining its main tasks, while it will also provide access points for interested stakeholders to use to get involved in the project, as well as project partners coordinates. The website will allow partners to promote their involvement in HyperCOG and it will be linked to partners’ website and vice-versa, thus increasing its online exposure. The website will also connect together industry, media, academia and skills and education platforms in a digital ecosystem. It will have strong links with relevant clusters and initiatives, like SPIRE, to ensure the widest online exposure. Target groups: General Public, European process industry, SMEs, media, EC experts, Academia and other research organisations.
How the website will be the main information hub for HyperCOG and how traffic will be channeled to it

**The website has the following structure:**

Home - This will be a button or an icon that leads back to the home page or refreshes it. It will have space for a video, welcome to HyperCOG, the latest news and a working in partnership design that clearly presents the partner logos and the fact we have received funding from the EC.

- About – This will be page that leads to and about page and also drops down to the following  
  - why we need HyperCOG  
  - aims and objectives  
  - methodologies  
  - impacts
- Demo sites – This will lead to individual pages introducing the demo sites in the different process industries
- Partners – This will drop down, open up and reveal individual pages for each of the partner organisations
- Work packages – This will lead to a page that will provide links to the 9 work packages – each work package page will include details of the tasks and partners involved in the work package.
- Publications – this will be a drop down that will provide links to the following pages  
  - Posters and flyers  
  - Factsheets  
  - Newsletters  
  - Peer reviewed papers
- Media – A page that provides links to where HyperCOG has appeared in the media – Also provides information for the media
- Contact – This leads to the contact page
- Latest news – This takes the viewer to the blog, news section of the website. This is a news feed that attractively presents HyperCOG and related news. This content will be used to drive traffic back into the site from social media, newsletters etc
- Private area – this will be used for internal project management and will be developed soon after the launch of the main site.
Use is made of social media and news items within the HyperCOG website to keep a regular flow of project news moving out to various online communities. This information will also be clearly displayed on the news wall of the site, as well as through live social media updates on the site. All partners have the ability to publish the latest information in order to ensure the up-to-date ‘live’ information sharing between the project and the external actors.

5.4.2. Social media

Social media has become an interesting and increasingly effective channel for dissemination and by presenting HyperCOG through its own Facebook page and on Twitter and using other social media and LinkedIn, we will be aiming to maintain meaningful contact with target users, particularly young scientists and engineers, from all over the world. Many organisations are aware of the importance of Social Media (WEB 2.0) and use it to reach new generations of internet users.

HyperCOG will present itself on Facebook and will post all activities there, while we will also alert a growing following of this activity through Twitter, which is increasingly being used as an academic and political means of communication. Twitter will also be used to alert a growing following of all HyperCOG news and developments. All partners will have access to the HyperCOG Twitter account and will be encouraged to Tweet regularly.

All partners have been asked to contact IMG before attending events such as conferences to prepare a plan for creating Twitter posts live from the events. IMG will assist at producing the Twitter posts using the information supplied by the partners attending the events.

HyperCOG will also be active on LinkedIn. All partners will link up with existing contacts and promote the project. A HyperCOG LinkedIn group will be formed by month 6 of the project and this will carry news as well as act as an additional forum for debate for interested parties and stakeholders. All partners are encouraged to use content presented in the group to share on personal LinkedIn profiles. Later, when more visual aspects of project activity is available, an Instagram account will be set up.

We will analyse critically the outcome of this approach in the final version of the Communication Plan. IMG will produce a bespoke guide for best practice use of social media for partners to follow that will maximise the impact the project has online and help direct traffic to the main project website. **Target groups:** General Public, Other projects.

5.4.3. Printed marketing materials

For the duration of the project, flyers, brochures and posters, which will describe the objectives of the project will be made available. The first versions of these will be produced in the first period of the project. A summary abstract document and leaflet will be developed following interviews with HypeCOG partners by IMG once the website is live.

The documents will outline the project’s main aims and objectives and will place this work into the context of the need for the digitisation of European industry and the benefits that will lead to. A further document will be developed following interviews with each WP leader and this will identify the key messages that will form the basis of dissemination activity at this time. These messages will develop over time and as project results, achievements and demonstrations evolve.
A roller banner will be produced for use at conferences, workshops and industry events and this will be used throughout the project to increase the brand awareness. IMG will also assist at producing bespoke communication materials for partners to be used at workshops and conferences upon request. This will include the development of posters for presentations.

HyperCOG factsheets that describe in a concise manner the project’s main objectives, steps and expected outcomes in relation to specific activities taking place within the project. These will be produced and made available for download by IMG. The factsheets will be distributed among the partners to facilitate the promotion of HyperCOG within the general scientific community and industry during workshops, conferences, seminars and personal communication.

Posters will also be produced to be used at all relevant events, workshops and conferences at which HyperCOG has a presence. IMG will produce these for all partners attending conferences to ensure continuity of presentation quality and style.

A technical brochure will also be produced mid-way through the project (M26). This will be aimed at the scientific and industry audience with a high degree of knowledge of the subject and will explain the project’s aims and objectives as well as significant results on the technical level.

A further publishable summary will be designed as a PDF document and all project partners will be asked to distribute this electronically to their own databases. These contacts will be asked to opt in to the HyperCOG dissemination and target user database. This method for collecting target user data has been selected to comply with European data protection laws.

5.4.4. Press releases

The media, both mainstream and specialist will be a crucial tool used to diffuse information about HyperCOG to a wide range of stakeholders including the general public. Other opportunities for press releases will be identified in conjunction with major milestones as they occur, meaning many more than those planned in the DoA will be issued. IMG has identified specific multi-media contacts throughout Europe from its own database. These contacts have specific interest in and influence on this thematic sector and the database cuts across all mainstream European press, TV and radio as well as specialist publications and programming.

At least two press releases will be produced each year of the project and these will be sent to suitable media channels, as well as distributed through CORDIS, relevant LinkedIn groups. More will be produced when project activity delivers “newsworthy” content.

Press releases will also be issued at a local and regional level in partner areas. This is an effective way to generate interest as local and regional media are more likely to be interested in following up on a story if there is a local perspective. IMG will target this channel when individual partners report results or deliver impacts.

Target groups: General Public, Policy makers, General media, Industry.

5.4.5. Project newsletters

Digital and interactive newsletters will be designed to keep the targeted audience fully up to date with the progress. E-newsletters will be prepared and distributed electronically over the project’s life in order to support the dissemination strategy and secure an effective information exchange between the members of
the project consortium, policy makers, industry stakeholders and the scientific community. It will provide information on milestones and publications achieved in the project, as well as relevant developments in respective policy areas. It will be directed at consortium members and their networks, industry, policy makers at European and national levels, stakeholders, participants in related research projects and the research community. All newsletters delivered to date can be seen on the project website.

5.4.6. Project videos

At least two videos will be produced to show the outcomes of the project and its possibilities. These videos will be uploaded to YouTube, Vimeo and to the project website and promoted widely through social media and on a variety of news sites. They will also be sent to relevant media outlets as a way of stimulating interest and published on partner websites. Each film will be supported by a widespread social media campaign.

The first film will be an introduction to HyperCOG in the form of a short, animated explainer that details in an accessible format the context of digitizing factory processes and the benefits of this, the aims and objectives of the project, its methodologies and expected impacts, outcomes and benefits for all. This will be presented as a simple concept that provides concise and easy-to-understand information about what is a complex subject.

Short animation films of two to three minutes in length are highly effective in communicating complex information quickly and memorably. The format will be short, making it appealing to a social media audience, while at the same time being appealing on YouTube and the project website. This film will be launched in the first phase of the project to attract interest in the concept and attract its audience to get involved and find out more about the project. Short animations are also effective in attracting the attention of the media and so the HyperCOG film will be supported by a press release, with invitations to journalists to interview key partners.

Further films will also be developed to be used throughout the project as effective means of communication. All films will be supported by press releases, social media campaigns and local support for each partner involved. The films will include:

- Interviews with partners about results.
- Documentary footage of the “project in action”. The process industry on the ground using HyperCOG technology and how it is benefitting
- Testimonials and interviews outlining best practices and success stories with project partners and associates, to scale up HyperCOG impact during and after the project.

All partners will be asked to be involved in these films, allowing the work to be explained from a variety of viewpoints and activities within the project. All films will be designed to maximise impact for online viewing, will include interviews with partners explaining their individual work in the context of the project as well as simple explanations of the technology and demand response. The pilot sites will also be used to explain how the technology is being deployed, tested, monitored and used.

Target groups: General Public, European Manufacturing SMEs and Mid-caps

5.4.7. Publications

Project partners will be involved in the dissemination of research project results through publications in (peer-reviewed) journals and magazines, e-journals, and also by means of presentations and demonstrations in conferences (and their proceedings), workshops, and exhibitions. Scientific/technical publications will be made in relevant journals (at least 4), as for example: Journal of Industrial Ecology and the Journal of Cleaner
Production, for scientific articles in the environmental sciences area. Regarding designed machine-Learning based approached, and especially those dealing with multi-model issued identification, UPEC will focus publication in high-level scientific journals, namely Neurocomputing, Softcomputing and Applied Intelligence.

**General publications**

Publications describing the overall project aim, the consortium and the on-going activity will be inserted in professional magazines. (10 publications within the project). The EU’s own Horizon Magazine has been contacted for a special feature about factories of the future and IIOT.

As HyperCOG aims to raise the overall knowledge and awareness of high cognitive plans and integrated process industries, most of the publications related to the results will be “gold” open access and will be available for all on the Project website, and potentially other websites.

**Scientific and peer-reviewed publications**

IMG also publishes a popular Research and Innovation publication called Projects Magazine. This is available in both print and digital formats and it has a subscriber database of more than 50,000. Project activities will be reported in selected releases of the "Projects Magazine" (between project months 24-36). Delivery in print and digital format to these subscribers will include targeted email alerts and newsletters highlighting HyperCOG.

At least 12 publications will be sent by RTD partners to peer-reviewed conferences and at least 6 publications to peer-reviewed journals. At least 2 scientific papers per pilot site will be published. The Partners will guarantee “green” and “gold” open access to all peer-reviewed scientific publications as foreseen in Art. 29.2 of the Model Grant Agreement.

### 5.4.8. Conferences and events

The participation in conferences and sectoral events connected to HyperCOG and its field of research and development is an important activity to disseminate project progress, its research and innovation and its potential application. It is one of the most effective way to get in contact with target groups and stakeholders (specially coming from the scientific world), to create a network of contacts interested in HyperCOG and in its outreach, and to collect information about ongoing research. The consortium seeks participation in at least 2 events linked with the process industry and SPIRE, where the project target groups can be reached: Bespoke communications materials will be produced for each event, including brochures, leaflets, posters etc. Steel sector conferences like METEC, ICS. UPEC will organize Special Sessions in two international conferences, namely ICINCO60 and IJCCI61 relating machine-learning based identification and complex behaviour. Modelling. UPEC will also perform presentations in specific sessions dedicated to Horizon 2020 projects of the two above-mentioned conferences. Target groups: European Manufacturing SMEs and Mid-caps.

As part of the Training Platform scope, and to reach out to a wider audience, training workshops (internal and external) are foreseen (at least 3). These training events will be a match for the identified skills gaps of SMEs, in connection with the services provided by HyperCOG technology. Different events may be used to provide training on different modules. **Target groups:** European Manufacturing SMEs and Mid-caps.

UPEC will also organise lectures and seminars for young students (3rd year undergraduate students) enrolled in Bachelors of Technology at Sénart-Fontainebleau Institute of Technology (of UPEC) to familiarize the future technicians with machine-learning advanced industrial practices. This activity will be fully supported with communications and training materials to be developed with IMG and UPEC. **Target groups:** Students
5.4.9. Project Workshops

Partners will hold regular workshops for European companies, including SMEs. At least two will be held by each partner and these will be supported by IMG with relevant communications materials and the outcomes reported through the website and to relevant media.

Final project workshop
The final conference will present the final results of the HyperCOG project to a wide cross section of the targeted audience. Efforts will be made to coordinate the meeting to coincide with an established and relevant event. It is good practice to link the final conference to an important event that can attract as many (potentially) interested bodies as possible. Public authorities, relevant DGs of the European Commission’s, Committee of the Regions (CoR), Covenant of Mayors signatories and Secretariat will be target participants so it will be cost effective to hold the HyperCOG event at a location and during a time when they are likely to be available.

All delegates attending the HyperCOG event will be made aware of the final workshop through a wide-reaching publicity campaign using publications (including Projects magazine, press releases, social media and online promotion. IMG will also develop an executive summary, which will be used as an internal document to distribute individually, in print and electronically. IMG will also distribute to their network of readers and through EC channels.

5.4.10. Report on communication activity

The periodic and final dissemination reports will update and outline all dissemination and communication activities for the duration of the project and detail the promotion of project results.
6. Pathway to exploitation

6.1. Key aspects

The strongly complementary expertise and multi-disciplinary nature of the HyperCOG consortium is a real added value for the project, which will investigate developing highly cognitive plants for improved efficiency in the process industry. This alone will have technical, business and societal impact.

As part of the development of the technologies, partners will develop individual components and systems designed to enhance process efficiency that will form part of the project’s overall solution(s). Each component part of the overall technology may have exploitable potential in themselves so care will be needed in how the IP is managed and applied to the overall solution. The involvement and cooperation of major industrial players in Europe, who are often competitors, however, is clear evidence of their belief in the project’s strategic importance for enhancing their individual business activities.

6.2. Exploitable results

The exploitation strategy, which will contain a variety of activities, will be updated throughout the project. It will be designed in a way that project results will be widely used/commercialised and that competitiveness of the partners involved will increase. At this stage a number of exploitable results has been predicted by the partners.

6.3. Contribution to standards

A relevant problem with research projects is the fragmentation of knowledge after the project end. A valuable measure to avoid the loss of information is the inclusion of the project outcomes in EU and national standards.

Starting from the elaboration of commercialised technology, available information will be inspected to verify that the products are compliant with the actual relevant standards.

On the other hand, project partners will carry out the pre-standardisation activities necessary to guaranty the smooth and efficient placement of the products on the market, promoting at the same time further development of systemic solutions at market level.

These activities will include the key aspects:
1. Manufacturing and installation
2. Maintenance (preventive and corrective)
3. Test and performance characterization

In this way, a real transition of the construction sector to an industrial approach will be pursued.
6.4. Exploitation plans per partner

It is important that individual partners involved in the project disseminate their outputs both individually and within the context of the overall aims and objectives of the project. Throughout the project, IMG will work with individual partners to maximise dissemination opportunities through existing and on-going business activity and use their existing channels to keep networks and contacts fully up to date with the project’s development.

All dissemination by individual partners will remain consistent with the branding and key messaging brief established by IMG and dissemination materials will be supplied to partners. Each partner will be in regular contact with IMG, who will help identify key opportunities and create engaging dissemination content. This content will be incorporated into the overall dissemination activity as well as targeted to specific audiences for individual partners: for example, training material will be detailed for the specific manufacturer to be used in seminars or agents’ training sessions; press releases and extracts of the newsletters will be specifically targeted to the manufacturers’ existing contacts.

Rules for knowledge management and protection and IPR have be defined in the Consortium Agreement.

The following templates are being used by partners to plan and report dissemination activity back to IMG:

- **The Dissemination Activity Report** will detail foreseen and undertaken dissemination activities by the partner relating to HyperCOG.
- **The Publications Report** will record any academic publications relating to HyperCOG.
- **The Exploitable Foreground** will allow partners to express their intentions in exploiting the foreground.
- **In the Patent Report** project partners will report foreground to be protected

**Report templates**

Dissemination Activity reporting templates will be distributed to all partners by IMG in the first three months of the project and then updated at least every six Months by IMG (during HyperCOG 6-monthly reporting periods). All partners will be asked to list all dissemination activity and report this to IMG for inclusion in the overall report. All partners must also report dissemination activity in their own reporting.