 FuSuMaTech	Deliverable 6.4 – FINAL DISSEMINATION AND EXPLOITATION PLAN OF FuSuMaTech PHASE 1
	FuSuMaTech-6.4-DE-20-V1.0






Future Superconducting Magnet Technology


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DELIVERABLE D 6.4

FINAL DISSEMINATION AND EXPLOITATION PLAN OF FuSuMaTech PHASE 1

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1. INTRODUCTION

This document is the final dissemination plan. It will be a continuation from Deliverable 6.2, the Initial Dissemination Plan. Final Dissemination and Exploitation plan is a deliverable in Month 18.

Overall, the FuSuMaTech phase 1 has contributed to more cohesion between academia and industry, and in particular between the 12 members of the consortium. The backbone of dissemination is communication, and the work done in the various tasks, but also the intense dialogues in the IP Workshop and during the Final Event have helped to bring the communication to the next level – and thereby have facilitated dissemination of knowledge amongst participants.

The backbone of exploitation is trust: before you can successfully exploit a technology with multiple partners, it is important that there is open sharing about different viewpoints, requirements and interest. This is especially critical for exploitation where academia and industry team up. The IP workshop has created a strong foundation for trust amongst the participants early on in the FuSuMaTech Phase 1, as parties have to dive into the details of exploitation and potential commercialization together.

In the case of FuSuMaTech, it includes the central themes of the project, such as the ambition to reinforce the synergy between academics and industry and to contribute to the impact of the future superconducting magnets technology.

Dissemination and Exploitation plans are covered in different chapters.


What is meant by Dissemination?

The Dissemination Plan is an instrument and planning tool for the communication of the project. It is a strategic document, containing lists and actions which have been undertaken during the project and at the end of the project. As such, it includes detailed information about selected means and channels for communication – meetings, reports, web presentation, etc. It also specifies the different target groups – both internal and external - including media and proposed actions to reach the objectives for the communication.

A dissemination plan often starts out by establishing the “communicative platform”. That is the core values and concepts of the project or organisation. The plan is built in relation with the major events of the project in order to give it the largest possible publicity.


What is meant by Exploitation?

The Exploitation Plan deals with the utilization of results in further research activities, in developing, creating and marketing a product or process, or in creating and providing a service, or in standardization activities. It aims to make use of the results, to recognize exploitable results and their stakeholders and to concretize the value and impact of the activity for societal challenges. Exploitation can be commercial, societal, political, or suitable for improving public knowledge and action. Project partners can exploit results themselves or facilitate exploitation by others (e.g. through making results available under open licenses).

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The Dissemination and Exploitation Plan regarding a research project will to some extent be flexible regarding the later parts of the projects. Depending on the outcome of the studies, some communication activities may have to be adapted, enforced or tuned down in relation to the original plans.

The communicative challenges of the FuSuMaTech project have been discussed and evaluated in the light of the overall objectives – possibly with some regard to strengths, weaknesses and characteristics compared to other projects or organisations.

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2. FUSUMATECH DISSEMINATION AND EXPLOITATION PLAN

2.1 Overall dissemination and exploitation strategy

As a condition of the European impact of **FuSuMaTech Phase 1**, dissemination activities have played a crucial role during the life of the project and have strengthened the EU collaboration between experts in superconductor magnet technology.

FuSuMaTech Phase 1 has deployed a variety of actions to make the results generated available and understandable to researchers, policy-makers and industrial players, so as to raise their awareness and knowledge on superconductor magnet technology.

The Figure 1 below presents the overall executed strategy during and beyond the project lifetime.

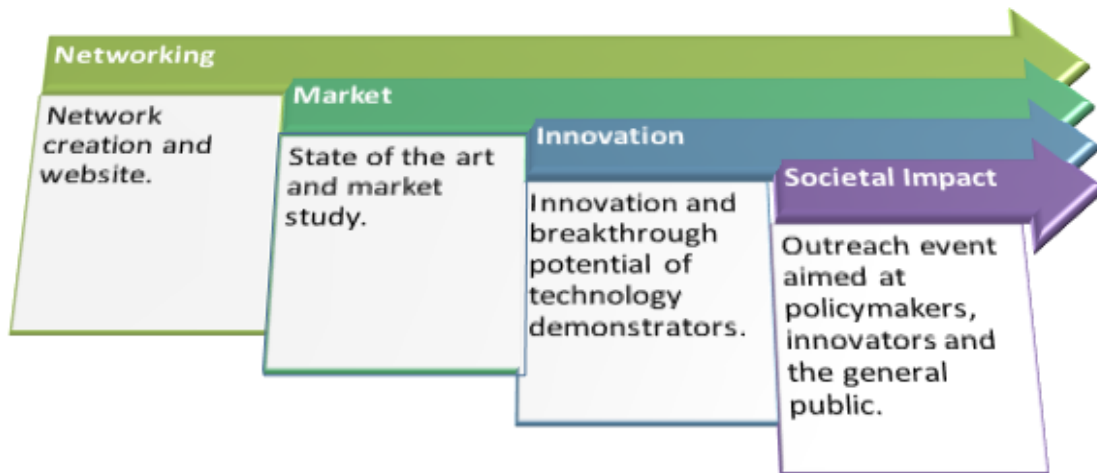



Figure 1 - Overall dissemination strategy

During FuSuMaTech Phase 1:

Setting-up of the FuSumaTech European Cluster (Partners responsible: All partners);

1. Website development (Partner Responsible: CERN): see <http://fusumatech.web.cern.ch/>. The website has played a pivotal role in the communication. Fully in line with the creative concept inspired by the Japanese sliding doors, the website look and feel have been in sync with the off line communication like the fliers and training materials provided. The website also has been of help to the FuSuMaTech participants, as for keeping track of news, deliverables, key persons.
2. Publication and widespread dissemination through website and social media of:
 - a. Report on state-of-the-art of superconducting magnet technology (M14, T2.1, CERN)
 - b. Report on market situation and landscape of patents and IP agreements (M18, T2.3, CERN)

We have witnessed a fast adoption of the website by search engines like Google, partly resulting from metatags included in the website in order to facilitate organic search. Also, various social media activities by CERN KT have created more traffic to the FuSuMaTech social media posts.
3. For each technology demonstrator planned, a communication able to catch the attention has been disseminated in the form of 10 different Posters, the enabling potential of such technology

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demonstrator (M12, T5.1 – T5.5), by the respective partner responsible for the demonstrator (ASG, BNG, ELYTT, OI, Sigmaphi and Tesla).

To support the overall strategy, the

Table 1 below summarizes the timeline for key dissemination materials with have been prepared, technical and practical tools made and sent through the most sustainable channels such as the project website and brochures as well as through the community of applied superconductivity.

Table 1 - Timeline for key dissemination materials

	Project Year 1 2017-2018									Project Year 2 2018-2019								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Dissemination activities																		
Meetings and events / workshops participation																		
Workshops organisation																		
Foreground / IPR management																		
Exploitation opportunities validation																		
Supporting dissemination materials																		
Press release and public articles																		
Flyer																		
Poster																		
Public deliverables																		

2.2 FuSuMaTech Phase 1 common exploitation plan

The **FuSuMaTech Phase 1** project has a joint exploitation plan which is to create a sustainable Network between Europe’s leading superconducting magnet manufacturers, major public research organisations and end-users (MRI and NMR system integrators, innovative energy companies).

In addition, the sustainability of the Network could also build on the initial experience of the Working Group on Future Superconducting Magnet Technology established as part of the CERN-CEA Collaboration Agreement.

Looking forward, the 12 FuSuMaTech partners have agreed in the Expression of Intent to continue to seek opportunities for exploitation around various project proposals. The exploitation will be done by those partners that together are executing the projects that have been formulated in Phase 1. So the exploitation activities will related specifically to each technology demonstrator and be driven by the team working on this.

Below, a summary is provided of the different actors with relevant positions in the ecosystem of superconductive magnets which could help drive exploitation, also in Phase 2 of FuSuMaTech



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Table 2 - Type of actors and their influence within the FuSuMaTech

Actors	Description	Influence within the FuSuMaTech Phase 1 exploitation plan executed
HL-LHC Project and FCC Study	Both HL-LHC Project and FCC Study are the major drivers for R&D in superconducting magnet technology, on the one hand for a major accelerator upgrade (HL-LHC) and for a future circular collider targeting energies above 100TeV. HL-LHC project and FCC Study provide the umbrella for the FuSuMaTech Initiative and the FuSuMaTech European Cluster (the future Phase 2) which will align its R&D and pilots with the R&D program of HL-LHC and FCC Study	Close collaboration and mutual participation in project meetings and work packages.
MRI System Integrators	As one of the key stakeholders to achieve the desired impact of FuSuMaTech Phase 1 , MRI System Integrators will receive a strong focus within the networking activities of Phase 1. Future superconducting magnet technology is an enabler for existing European companies which provide components of MRI machines and a platform for innovation for groundbreaking start-ups in this field.	Dedicated networking actions to ensure the value from innovations in superconducting magnet technologies is fully captured.
NMR System Integrators	Next to MRI, another market where innovations in superconducting magnet technology are a key drivers, is Nuclear Magnetic Resonance (NMR) imaging. Hence, NMR System Integrators (such as Bruker) also received a strong focus within the networking activities of FuSuMaTech Phase 1 .	Dedicated networking actions to ensure the value from innovations in superconducting magnet technologies is fully captured.
Electrical power distribution companies	Smart grids and novel solutions for fast electric car charging are an important R&D focus for energy and utility companies. While this Industry does not rely on superconducting magnets per se, the R&D on superconducting cables itself is an important driver to achieve a higher efficiency power grid and faster charge times for cars, for example through superconducting magnetic energy storage (SMES).	Throughout FuSuMaTech Phase 1 , synergies with these stakeholders have been tested and initial contacts established to incorporate possible new R&D projects into FuSuMaTech Phase 2 relating to energy and sustainability.
Special Magnets Companies	While the focus of FuSuMaTech Phase 1 is on the mainstream applications of superconducting magnet technology, it is important that special magnets companies operating in niche markets are also on board.	The FuSuMaTech Phase 1 networking activities have also included European Special Magnets Companies.


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2.3 FuSuMaTech Phase 1 individual partner exploitation plans


Besides the exploitation plan at the consortium level which is detailed in the section above, each partner has a clear exploitation strategy of the project results which will provide guidance for execution on Phase 2:

Table 3 - FuSuMaTech individual partner exploitation plans driving execution in Phase 2

Partner	Individual partner exploitation plan
CEA	CEA has in his missions to explore new applications in medical research in particular with high magnetic fields. Also one of the missions of CEA is to open collaborations between research and Industry. So FuSuMaTech Phase 1 which has been coordinated by CEA is at the heart of CEA activities. Technically new quench analysis tools and cryogenic data base as well as cryogen free technology have been used by CEA for the development of many different magnets. All the pre-selected R&D axes of FuSuMaTech Phase 1 are strategic for the CEA activities and the results of the programme have been proven to be of great added value.
CERN	New or refined quench analysis tools will be used by CERN for the development of the high field magnets for a new collider. To get more precise results from the various models, mechanical, thermal and quench, that are required to reach higher fields for future collider magnets, CERN initiated a new materials database. Equally important for these magnets is the availability of new high stress materials. A better understanding of the IP situation of the magnet technologies as used by CERN has been part of the IP workshop, to improve its knowledge dissemination.
ASG	Technologies for the design and manufacture of high field magnets is becoming key to most of the research efforts both in High Energy Physics and in Healthcare: ASG will leverage on the findings and the results of the FuSuMaTech Phase 1 and Fusumatech Initiative in order develop the awareness of Research Institutions in both fields as to the feasibility of specific projects and to provide them tools that can actually support their investigations.
BNG	High field magnets are a key technology for future applications in material science, medicine and high energy physics. The development of an HTS high field insert for the LNCMI hybrid magnet will be an enabler for the further commercialization of high field magnets, leading to new and advanced applications. For Babcock Noell, FuSuMaTech Phase 1 has supported the basis for further developments in these fields.
ELYTT	The development of innovative geometries for superconducting magnets would create totally new applications to the field of MRI. A fully new market would be created for portable and open MRI systems. Because ELYTT is a newcomer to the existing market, we consider that our best chance relies on a new product and market instead on entering in the existing one, with well positioned, technically able competitors. FuSuMTech Phase 1 has provided insights to ELYTT in the technology challenges in the SC domain as well as in the ecosystem of players in the field.
OI	FuSuMaTech Phase 1 results will facilitate the development of new and advanced technical and engineering capabilities required for a variety of superconducting and cryogenic applications. OI expect to exploit the new advancements in commercialization of new superconducting and cryogenic solutions that will have enhanced capabilities in a compact size and manufactured cost effectively. In particular compact high field magnets, cryogen

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	free systems and new solutions for life sciences, quantum technologies, energy applications and physical sciences.
Sigmaphi	FuSuMaTech Phase 1 has given to Sigmaphi the opportunity to carry on the work started in 2012 with CEA Saclay on small MgB2 coils and demonstrate the MgB2 technology new potential at large scale. First objective for Sigmaphi has been to propose in a near future MgB2 cryogen free magnets with low electrical consumption for replacing high power resistive magnets. This technology breakthrough could help the company to expand its market and turnover.
Tesla	FuSuMaTech Phase 1 will result in a network of cryogenic and superconductivity expertise in Europe. Tesla has looked to exploit this knowledge network to commercialise advanced magnet and gradient engineering solutions for MRI and other medical applications (such as superconducting cyclotrons for radiation therapy).
CNRS	FuSuMaTech Phase 1 through the HTS insert prototype has contributed to clarify what role HTS could play in the Roadmap for high magnetic field development in Europe.
KIT	FuSuMaTech Phase 1 with access to leading software codes has strongly supported the already very successful transfer of KIT's modeling expertise and codes to the industries and users of HTS solutions strongly supporting the expertise. The existing collaboration with a couple of material companies will profit from the new established data basis and characterization work on advanced high performance cryogenic materials, qualifying existing materials (suitability unknown) and exploring new solutions for the ultra-low temperatures. The focus will be on expanding this in FuSuMaTech Phase 2 on thermoplastic, metallic and composites (conventional and 3D printed) and dispersion and fiber reinforced composite materials with the general goal of drastically improved cryogenic performance.
PSI	Together with CERN, PSI is active in the development of software tools for quench analysis for low-temperature SC magnets. Through FuSuMaTech Phase 1 , access to new high-strength materials, validated material databases, data and experience on cryogen-free magnets, as well as quench-analysis tools for low-temperature and high-temperature SC has enabled PSI to understand implications of production of state-of-the art SC magnet systems for particularly challenging environments.
STFC	Reliable materials data is an enabling factor in developing cryogenic technology, which underpins many science projects. Through FuSuMaTech Phase 1 , a network of labs and individuals in cryogenic materials testing has helped STFC projects to share state of the art testing facilities across Europe. Projects across STFC in Space, Astronomy, Synchrotron Light Sources, Particle Physics and Neutron Science will benefit.

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3. TARGET GROUPS

3.1 Identified Target Groups

The Final Dissemination and Exploitation Plan is presented below for each target group and related quantified performance indicators with target values to reach during the project lifetime. The dissemination activities have been well tailored to reach the key targets, which will be further involved in the strategic exploitation of FuSuMaTech Phase 2 and from which the partners are willing to obtain a useful feedback.

Table 4 - FuSuMaTech Phase 1 initial Dissemination Plan

Target groups	Group description	Indicators for measuring the effectiveness of the approach	Executed (project end)	Feedback
EU Policy Makers	FuSuMaTech Phase 1 being a preparatory phase for creating a European Cluster (FuSuMaTech Phase 2). One of the key stakeholders during the first phase will be EU policymakers. The group have been composed of decision makers at the EC (DG Research and Innovation, DG Health and Food Safety) and policy officers in national ministries (research and health).	• Attendance to public engagement event for presenting FuSuMaTech Phase 2	1	Has contributed to the development of synergies in order to foster common accepted solutions in Europe
		• Meetings with EU policymakers	5	
		• Joint events with other EU projects (FCC Study, ARIES, AMICI)	1	
FuSuMaTech Industrial Network	Industrial partners in the FuSuMaTech Consortium (namely superconducting magnet manufacturers) and downstream system integrators and end-users.	• Attendance to Joint meetings with the consortium	3	Knowledge exchange and definition of common roadmap.
		• Engagement meetings with system integrators and end-users	3	
General Public	Citizens of Europe of all ages and backgrounds.	• Number of monthly visits to the FuSuMaTech Phase 1 website by non-consortium members.	180	Awareness of the benefits of superconducting magnet technology for day to day applications used by the General Public.
		• Number of FuSuMaTech Phase 1 articles prepared for the general public	2	

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The presentation and identification of the “exact” target groups will be refined as the project moves into Phase 2.

3.2 Media

Although FuSuMaTech itself may not be that “newsworthy”, the project and its research field might be of interest to specific media for some selected purposes.

For this reason, the messages have been delivered in a periodical approach, with respect to a **general approach** and the anticipated development during the course of the project:

1/ from the kick-off (October 2017) to the IP workshop (April 2018):

“FuSuMaTech exists”

2/ from the IP workshop (April 2018) to the mid-term report (July 2018):


“FuSuMaTech is going to produce relevant information that may interest your business in the future”

3/ from the mid-term report (July 2018) to the Final workshop (April 2019):

“FuSuMaTech has produced relevant preliminary information that will impact your business in the future”

4/ At the Final workshop (April 2019):

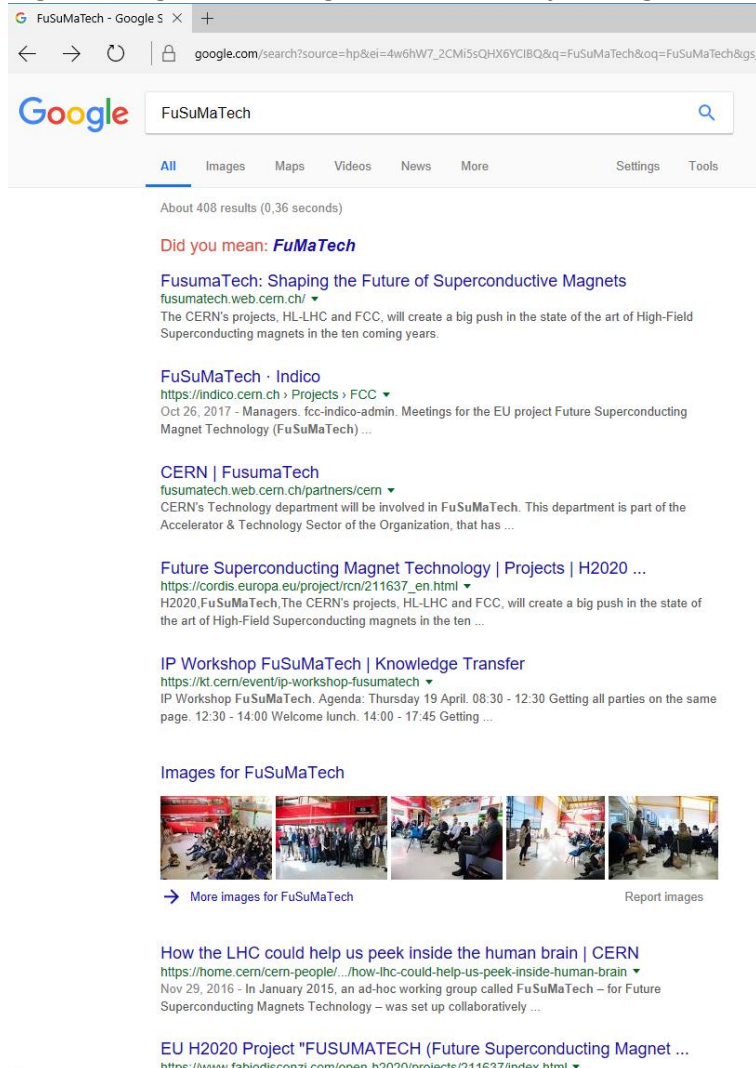
“Here are the results of FuSuMaTech Phase 1 and prolongations induced by the project for future funding”

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Example of media materials and coverage

The approach above has resulted in various media reporting about FuSuMaTech. The multimedia approach, with a mix of communication elements deployed has resulted in good visibility despite the limited available budget. Below a collection of some example to illustrate how we used communication to drive dissemination.

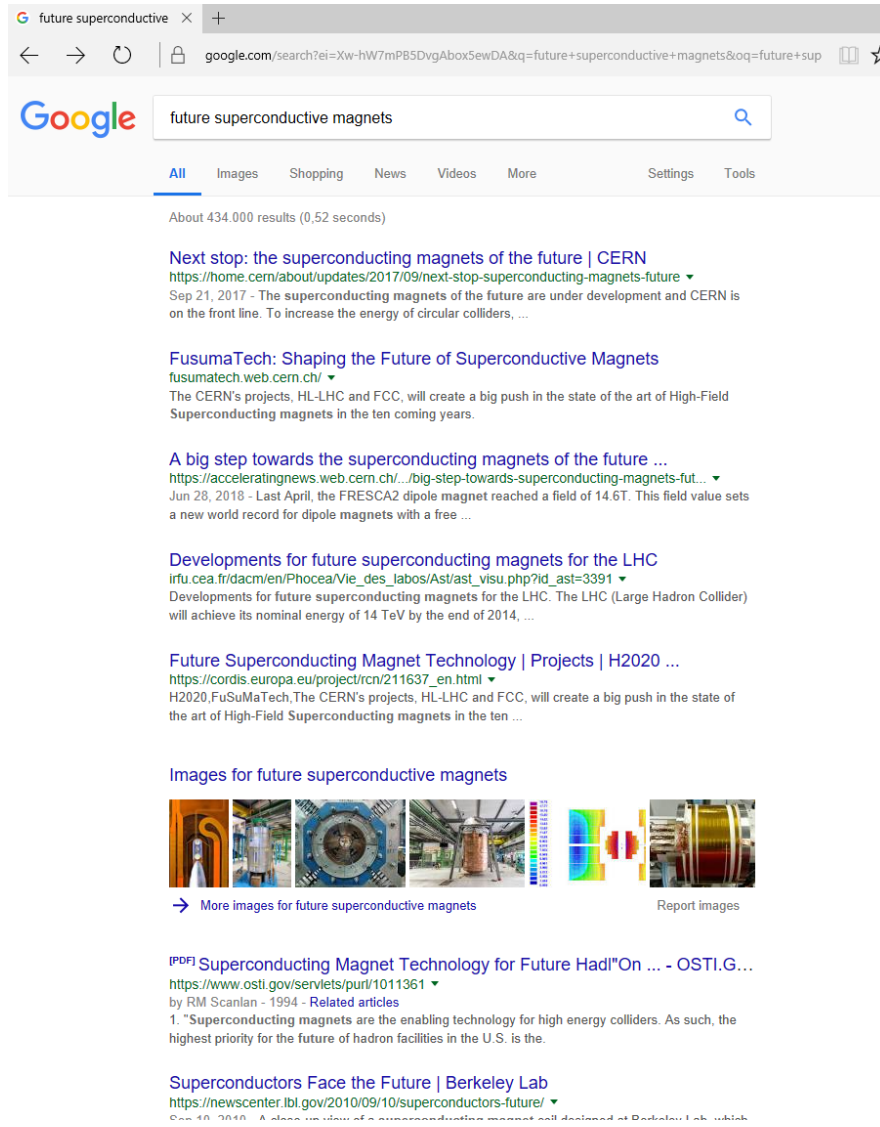
High Ranking in Search Engines when directly looking for FuSuMaTech (prompted search):



The screenshot shows a Google search for 'FuSuMaTech'. The search bar contains the text 'FuSuMaTech' and the search button is visible. Below the search bar, there are navigation tabs for 'All', 'Images', 'Maps', 'Videos', 'News', and 'More'. The search results are displayed below, starting with 'About 408 results (0,36 seconds)'. A suggestion 'Did you mean: FuMaTech' is shown. The first result is 'FusumaTech: Shaping the Future of Superconductive Magnets' with the URL 'fusumatech.web.cern.ch/'. The second result is 'FuSuMaTech · Indico' with the URL 'https://indico.cern.ch'. The third result is 'CERN | FusumaTech' with the URL 'fusumatech.web.cern.ch/partners/cern/'. The fourth result is 'Future Superconducting Magnet Technology | Projects | H2020 ...' with the URL 'https://cordis.europa.eu/project/rcn/211637_en.html'. The fifth result is 'IP Workshop FuSuMaTech | Knowledge Transfer' with the URL 'https://kt.cern/event/ip-workshop-fusumatech'. Below the search results, there is a section for 'Images for FuSuMaTech' with a grid of five images and a link to 'More images for FuSuMaTech'. The bottom of the screenshot shows two more search results: 'How the LHC could help us peek inside the human brain | CERN' and 'EU H2020 Project "FUSUMATECH (Future Superconducting Magnet ...'.

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High ranking in Search Engines when looking for related topics (unprompted search):



An Archive of visual materials for FuSuMaTech partners to include in their own marketing communication activities: <https://cds.cern.ch/record/2317084?ln=en>



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PLAN OF FuSuMaTech PHASE 1

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Newsletter issued by CERN Knowledge Transfer to gain more publicity for FuSuMaTech:

European Commission co-funded projects




FuSuMaTech IP Workshop at IdeaSquare

In April, a workshop on IP was organised at the IdeaSquare facility of CERN. The goal of the workshop was to educate superconductivity and magnet experts about intellectual property. About 30 participants from multiple institutes and companies worked together in this two-day interactive program which was facilitated by CERN KT. Great progress was made in shaping the FuSuMaTech industrial demonstrator projects as well as the R&D&I subjects.

Read more about the FuSuMaTech initiative [here](#).

Find out more about other European Commission co-funded projects [here](#).

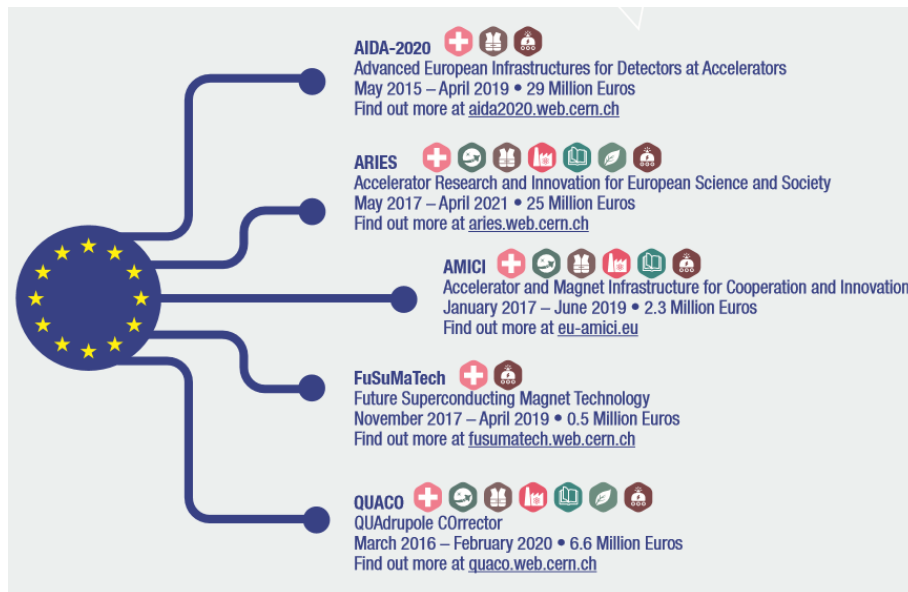
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A summary of FuSuMaTech in the 2018 CERN KT Annual Report, printed and distributed to key stakeholders in Member States:

FUSUMATECH

The FuSuMaTech Initiative aims at establishing a strong and sustainable R&D&I European network for structuring and strengthening the field of superconductivity and associated industrial applications. It will enlarge the innovative potential, especially in High Field Nuclear Magnetic Resonance and Magnetic Resonance Imaging, opening future breakthroughs in neuro-imaging.

The project kick-off was held in October 2017, gathering six European research institutes and six European companies active in the field of superconductive magnets. All work packages and concrete deliverables were presented and aligned amongst the participants.





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A Summary of FuSuMaTech in the CERN KT 2019 Annual Report:

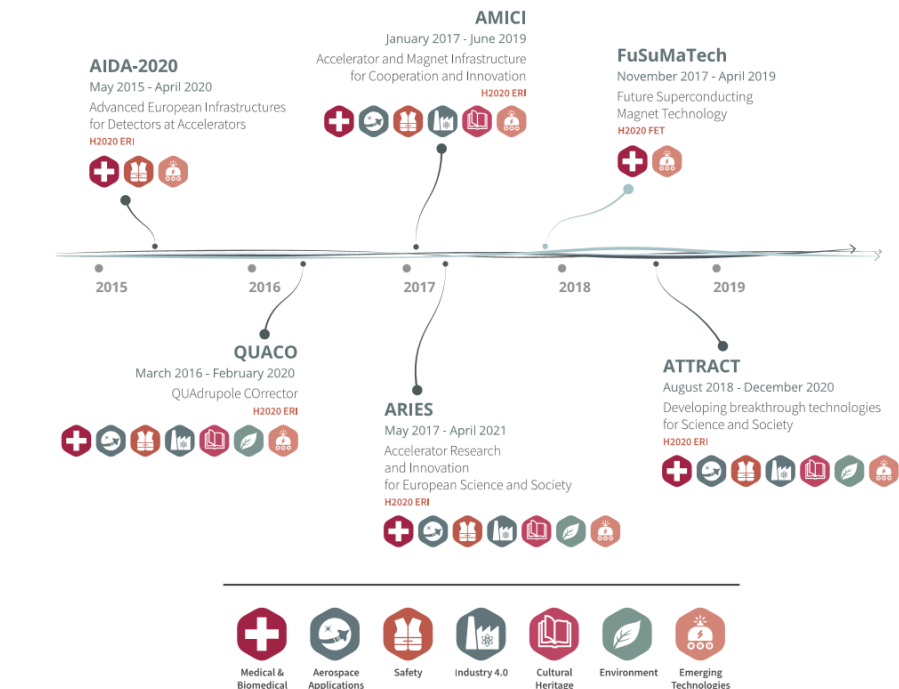
Total funding: 6.6 M Euros | EC Contribution: 4.7 M Euros


FUSUMATECH fusumatech.web.cern.ch

The FuSuMaTech Initiative aims to establish a European network for strengthening the field of superconductivity, superconductive magnets and associated industrial

applications. It is taking the form of concrete actions, such as the creation of a database of the materials' properties or the preparation of technology-pilot projects. In April 2018, the FuSuMaTech initiative organised an intellectual property workshop at IdeaSquare. In April 2019, the twelve FuSuMaTech partners will organise a Phase-1 final workshop, focused on the initiative's progress and perspectives for Phase-2.

Total funding: 501 k Euros | EC Contribution: 501 k Euros



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4. FUSUMATECH COMMUNICATION SUPPORTS

4.1 General Information

Furthermore, as the presenters of the FuSuMaTech results were many, a **PowerPoint template** and a short PowerPoint of the project has been made available at the disposal for all members of the consortium. This is also an important part of the internal communication, as it has formed the basis for a common understanding of the project and its objectives. Slides from general powerpoint template have been used both externally (at conference and meeting like for example Magnet Technology Conference MT26 (Vancouver 2019), but also internally to help create awareness about the FuSuMaTech initiative (like for example a presentation provided to the CERN KT Group Meeting).

Governmental and EU agencies in charge of member states Innovation policies have been offered the possibility to participate in presentations and workshops. For example, representatives of the EU have been participating at the full IP Workshop, to witness the unique approach and its discussions amongst academia and industry for shaping the FuSuMaTech ambitions.

And so far regarding the **“European-relay” institutions**: similar presentations have been arranged for the European Parliament members and for all European wide RI stakeholders mixing EC representatives, member-state representatives and professional lobbyists located in Brussels. For example, for deliverable related to 6.5 (funding) CEA and CERN representatives have had meetings in Brussels to bring stakeholders up to speed on FuSuMaTech aspirations and plans.

4.2 FuSuMaTech flyer

A Flyer has been realized and has been updated during the course of the project. It has been distributed widely to EU Policy Makers, FuSuMaTech Industrial network and people from the community of applied superconductivity. It also has been downloaded frequently from the website:



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WEBSITE

<http://fusumatech.web.cern.ch>

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THE FuSuMaTech Phase 1 H2020 PROJECT OBJECTIVES:

- Moving towards a FuSuMaTech European Cluster
- Building FuSuMaTech Roadmapping
- Defining and preparing Generic R&D Actions
- Defining and Preparing Pilot Actions

FuSuMaTech

CONSORTIUM PARTNER

ACADEMICS	INDUSTRY
 Commissariat à l'Énergie Atomique et aux Énergies Alternatives (France)	 ASG Superconductors (Italy)
 European organization for nuclear research (Switzerland)	 Bilfinger Noell GmbH (Germany)
 Centre National de la Recherche Scientifique (France)	 ELYTT Energy (Spain)
 Karlsruher Institut für Technologie (Germany)	 OXFORD INSTRUMENTS (UK)
 Paul Scherrer Institut (Switzerland)	 SIGMAPHI (France)
 Science and Technology Facilities Council (UK)	 ENGINEERING LTD TESLA Engineering Ltd (UK)



Synergy with Industry and Impact on the Future Superconducting Magnet Technology



THE FuSuMaTech HORIZON H2020 PROJECT AIMS TO:

FOSTER RESEARCH AND INNOVATION

In the field of Superconducting Magnet for scientific instruments, medical instrumentation, electric power generation, transmission and storage.

SUPPORT THE EUROPEAN CLUSTER

of Superconducting Magnet Technology to keep the leading position of Europe in the domain by developing a co-innovation eco-system between academics and industry.

FuSuMaTech Phase 1

FET-CSA (Future and Emerging Technologies - Coordination and Support Action)
EU Framework Programme for Research and Innovation Horizon H2020
Grant Agreement 766974- FuSuMaTech call 31071574 signed August 09, 2017


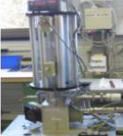




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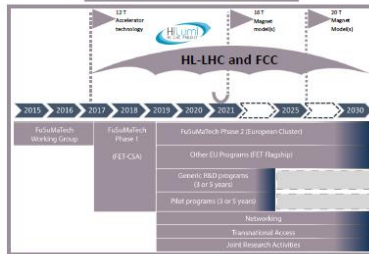
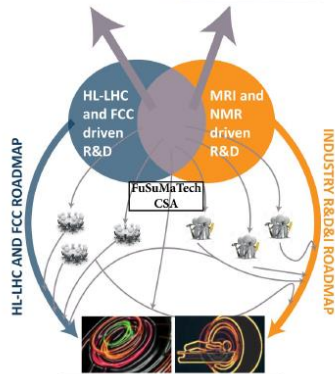
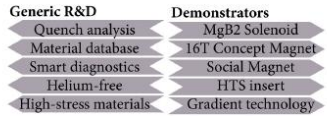
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R&D&I Subjects

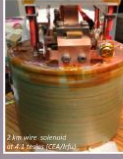

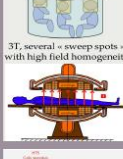
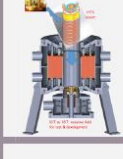

	TA.1 QUENCH ANALYSIS NEW APPROACH BASED ON NEW COMPUTING CAPABILITIES AND ON MULTIPHYSICS Using HTS in High field magnets, the quench must be predicted with more and more accuracy. The progress in computing capabilities and modelling software is an opportunity to support a new approach.	PSI KIT, ELYTT
	TA.2 LARGE MATERIALS PROPERTIES DATABASE MEASUREMENT AT CRYOGENIC TEMPERATURE To accurately model and predict the performance of advanced superconducting magnets, a material database, covering the operating temperature range of the materials from cryogenic to « high temperature », is mandatory and should be in « open access ».	STFC CERN, KIT, POL, OJ
	TA.3 SMART DIAGNOSTICS, COLD WIRELESS INSTRUMENTATION, FOR QUENCH DETECTION AND MANAGEMENT Nowadays embedding « intelligence » inside the cryostat of a superconducting magnet seems possible. Quench management could be completely renewed by using wireless instrumentation.	CERN CEA
	TA.4 HEAT EXTRACTION AND CRYOGEN FREE CRYOGENICS MAGNETS Helium is more and more a rare earth resource. Heat extraction from future superconducting magnets need to be optimised. PHP (Pulse Heat Pipe) are pushing the development of helium free systems and the use of closed cycle refrigerators.	CEA BNG, ELYTT
	TA.5 NEW HIGH STRESS MATERIALS AT CRYOGENIC STRESS TEMPERATURE High field magnets will require the use of high strength materials as strengthening elements. Composite's, are an area of magnets development not yet fully explored. Development of radiation hard composite's is a key for the future.	RIT CERN, OJ



FuSuMaTech



TECHNOLOGY DEMONSTRATOR Subjects

	TS.1 MgB2 DIPOLE TECHNOLOGY DEMONSTRATOR An ambitious ST Dipole demonstrator will drive technological developments for MRI, High Field Laboratory, gantries.	SIGMAPH CEA, ASG
	TS.2 NEW CONCEPT FOR HIGH FIELD MRI 16T A conceptual study of a whole body 16 tesla magnet that will require the use of Nb3Sn wires would give a long term perspective for new developments in this domain.	CEA CERN, TESLA, ASG
	TS.3 INNOVATIVE MAGNET IC CONFIGURATION FOR EMERGING MRI APPLICATIONS 3 innovative designs are explored: the One-side Magnet for clinical applications, the Portable MammoMagnet, the Social-Magnet.	ELYTT CERN, CEA
	TS.4 TECHNOLOGY DEMONSTRATOR OF AN HTS INSERT FOR HFML To support HTS industry, development of an High Field demonstrator is necessary. We propose to join EMFL network with industry for the development of a common HTS insert.	BNG CERN, CEA
	TS.5 GRADIENT TECHNOLOGY FOR HIGH FIELD MRI, OVER 30T MRI Gradient performance is critical to improve resolution and sampling time of MRI. An EU project is clearly welcome to push ahead gradient technology by developing a multiphysics model, testing new kind of winding for gradient and exploring the opportunity to use SC material.	TESLA CEA


4.3 Web site

As foreseen in the Grant Agreement WP6 team started constructing a website for FuSuMaTech immediately after the start of the project . It can be found at <http://fusumatech.web.cern.ch>. The website has been developed around a creative concept for FuSuMaTech with detailed instructions for use of logo and color scheme. As can be seen, the concepts of sliding doors as metaphore for trigger open dialogue between academia and industry is clearly used as key visual message:



FuSuMaTech

All partners have been asked to share the link to the web site in their communication and own website as part of FuSuMaTech joint dissemination responsibilities.

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The structure of the website is based 100% on the text and visuals from the agreed FuSuMaTech proposal. This include a reference to Partner institute/company in the partner page (see <http://fusumatech.web.cern.ch/partners>).

Website structure and content is defined and built for :

- Target group: SC/magnet scientist & engineers, EU stakeholders, potential new partners.

Website will content the following tab:


- About | Background | Objectives | Implementation | Partners | News

Website has been a major tool for dissemination by:

- Visibility and link via CERN KT website
- Links from partners (from your websites!)
- Reach out via LinkedIn Groups and CERN KT channels
- Push via personal social media channels of participants

Overall, as indicated earlier in this document, the website has been cornerstone of the communication activities, where we always referred back to from other media instruments. Like for exaple, the flier and invitation for events always referred to more details on the website.

Also we have witnessed a growing number of unique visitors to the FuSuMa Tech website, which was a result of both the increased organic search results from search engines like Google, but also fromt he traffis generated via the offline communication like in the CERN annual reports, in the communication efforts by CEA and the other players. Some of the FuSuMaTech partners have included links to the website from their own website, like we also have included links to their institutes to help create some traffic between websites and with that increase visibility.

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All news items have been consistently published on the FuSuMaTech website. Below example:

Update on FuSuMaTech Technical Workshop



FuSuMaTech Technical Workshop

Published on 17 October 2018

The FuSuMaTech Technical Workshop took place at SACLAY (CEA) and PARIS (FIAP) on Tuesday 3rd and Wednesday 4th of July 2018.

It included several talks, working groups and Infrastructure visits.

These two fruitful days allowed to expose the progress of the different tasks of the ten R & D & I and technology demonstrators subjects and to establish work plan and action list for FuSuMaTech Initiative phase 2.



FuSuMaTech IP Workshop

Published on 10 April 2018


The FuSuMaTech Intellectual Property Workshop took place at CERN on Thursday 19th and Friday 20th of April 2018.

It took place in the innovative environment of IdeaSquare. It included several talks: IP training, brainstorming and preparatory discussions on FuSuMaTech Phase 2.

FuSuMaTech WP leaders and task leaders, as well as legal advisors within partner organisations, actively participated to the workshop.



IP Workshop 2018 at IdeaSquare, CERN

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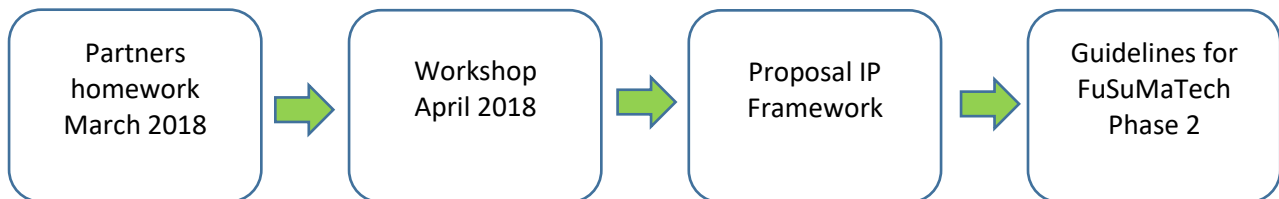
5. IP WORKSHOP

The FuSuMaTech IP workshop has been a major Deliverable of the FuSuMaTech CSA (namely FuSuMaTech Phase 1). It has been an “Information and Brainstorming” workshop. We all agree that in order to successfully prepare the follow up of FuSuMaTech (namely FuSuMaTech Phase 2) the IP aspects are a major issue and should be discussed at the very beginning. IP is not well known among scientists and they need to be educated. We expect that future EU boundary conditions for IP will be more or less the same that in Horizon H2020 rules. IP fundamental knowledge will be presented by Myriam Assas.

Also we challenged industry partners to bring IP specialists and we want to collect from the different actors their “IP opinion”. In the FuSuMaTech Phase 2, we need an IP agreement for each subproject, not a unique scenario.

The IP workshop has been held at CERN from the 18th to 20th of April 2018 in Idea Square (The purpose of IdeaSquare is to bring together people to generate new ideas and work on conceptual prototypes related to detection and imaging in an open environment). While not in peak use, it also can host special innovation-related events. Located in a technical hall (B3179) next to the Globe of Science and Innovation, it offers ad-hoc meeting space and rapid prototyping facilities for innovation-related projects).

The overall timeline of IP FuSuMaTech is the following :



The objectives of the IP workshop that have been met are :

- Everybody on same knowledge level for best practice in IP dissemination
- Various scenarios available, understood by FusuMaTech participants
- Help participants to agree on scenario for R&D&I subjects and demonstrator

The Feedback about the workshop has been very positive as has been outlines in the specific deliverable document 6.3.



After the workshop, we have disseminated the results also via website and communication by participants at their home institutes. Below an example of news item on our FuSuMaTech website:

FuSuMaTech IP Workshop

Published on 10 April 2018


The FuSuMaTech Intellectual Property Workshop took place at CERN on Thursday 19th and Friday 20th of April 2018.

It took place in the innovative environment of IdeaSquare. It included several talks: IP training , brainstorming and preparatory discussions on FuSuMaTech Phase 2.

FuSuMaTech WP leaders and task leaders, as well as legal advisors within partner organisations, actively participated to the workshop.



IP Workshop 2018 at IdeaSquare, CERN

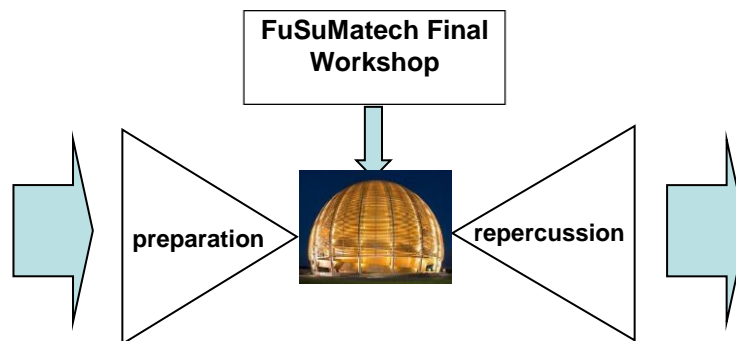
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6. FINAL WORKSHOP

6.1 Aim of the Final Workshop

Being the single most important part of the project’s dissemination plan, it is reasonable to some extent to structure the Dissemination Plan around the organisation and the implementation of the final workshop. Communication tools and actions of FuSuMaTech have to be planned and organised in such a way that the workshop gets maximum attention.

The final FuSuMaTech workshop has been held in CERN GLOBE April the 1st 2019, which symbolises the Open Method of Coordination substance, represents the corner stone of the project communication with respect of the following diagram:




The communication actions before the FuSuMaTech Final Workshop have been focus on this event. All actions after will be aimed at further dissemination of the results of the project and the conference’s outcomes. The details of this final event have been extensively reported in Deliverable 6.6

6.2 Communication preceding the workshop

The primary dissemination products that have been rolled out at external receivers mentioned in the table are these:

1. The final workshop
2. Announcements and invitations to this workshop
3. The final report
4. The "executive summary" of this report
5. A Flyer distribute to
 - a. EU Policy Makers
 - b. Fusumatech Industrial Network
6. Press information concerning the different media groups
 - a. Scientific press about project, community of applied superconductivity, ...
 - b. "commission community media" – press read by commission people (RTD-info, Europa ...)

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c. General public

Invitation prepared for the Final FuSuMaTech Workshop



6.3 Final Workshop structure


Basics: 1-day long workshop at CERN Globe, around 75 attendees

Composition: all FuSuMaTech partners (legal & expert), all member-state representatives, EC and MoP representatives, industrial companies, general public

Objectives: official presentation of the FuSuMaTech Phase 1 results and of FuSuMaTech Phase 2 guidelines

Structure:

- inaugural session (including general presentations)
- working groups sessions (prospective, industry, legal implementation) and report
- final session

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Conference preparation agenda:

Designation of the organisation: October 2018

Designation of the scientific committee: October 2018

Official announcement: December 2018 (including a first agenda draft)

Logistic works (reservations): from January 2019

Second draft agenda (once speakers have confirmed their participation): Mars 2019

7. RESOURCES

The Dissemination Plan is a concern for all partners institute / company, work groups, committees and boards involved in the FuSuMaTech project.

All partners provide the resources for dissemination; however, CERN will be Lead beneficiary for Dissemination. In the Description of Work, the allocation of resources for dissemination activities was described as follows:

Table 5 - Allocation of resources for dissemination

Product	Planned resources	Partner	Comment
Website	2 days / month	CERN, CEA, all partners	Maintained 3 years after the project end for supporting the project impacts
Reports	2 days / month	CEA, CERN	Initial and Final Dissemination and Exploitation plan
Final workshop	1 day / month (last 6 months)	CEA, CERN	Scheduled on the 1 st April 2019 at CERN Globe
Final workshop outcome	2 weeks	CEA, CERN	Report of all presentations
Participation in selected conferences	2x 1 week per event	All partners	ASC Seattle 2018, MT26 Vancouver 2019, EUCAS Glasgow 2019
Presentation material (incl. flyers, slides,...)	2 weeks	All partners	
Video recording	1 week per event	CEA, CERN	At selected events
Press and media contacts	3 weeks	CEA, CERN, all partners	At selected times

This table includes all dissemination products mentioned in the Description of Work. During the course of the project, it has been pointed out that there is a need for additional communication work. Activities and proposals for activities include:



FuSuMaTech

**Deliverable 6.4 – FINAL DISSEMINATION AND EXPLOITATION
PLAN OF FuSuMaTech PHASE 1**

FuSuMaTech-6.4-DE-20-V1.0

- press and media material
- presentation material, including flyers and slides
- news section in the website