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Executive Summary

This report summarises and analyses, as of the end of the second part of this deliverable series (month 32), the projects and initiatives that promote the EU-Japan cooperation on science, technology and innovation (STI). It also provides suggestions for possible synergies for the various EU-Japan initiatives to become more widespread and bring the EU and Japan closer.

Furthermore, this report takes into account, apart from projects, stakeholders (academic and non academic) that have an active interest in the enhancement of EU-Japan cooperation on science, technology and innovation.

The initiatives that are found are categorised according to their type, namely whether they are a Horizon 2020 project, an EU initiative targeting Japan (mostly support and coordination action), a joint initiative between EU and Japan, an initiative on S&T that comes from the Japanese side or an international initiative relevant for the international STI cooperation and involving both EU countries and Japan.

The findings include relevant initiatives that promote joint research between European and Japanese funding agencies such as the Trilateral dialogue EU-US-JP on Critical Raw Materials (CRM), research projects, coordination and support actions, EU initiatives as well as Japanese initiatives ranging from the support of joint research and scientific exchanges to business programmes targeting EU enterprises and the European Interest Group CONCERT-Japan.

A particular section is dedicated to the co-funding and matching fund schemes which allow Japanese researchers that cannot receive EC contribution in Horizon 2020, to participate in the Framework Programme receiving funding from Japanese institutions. These instruments are fundamental to increase the STI cooperation between EU and Japan, strengthening the Japanese participation in Horizon 2020 and therefore the cooperation dialogue in research.

1. Introduction

The main task was to identify the initiatives, namely the European and/or Japanese that could complement the mission of the JEUPISTE project. During the second year of JEUPISTE, the project team mainly looked for the following types of initiatives:

- Horizon 2020 projects relevant for STI cooperation EU-JP;
- International initiatives relevant for Japan;
- Co-funding mechanism;
- EU-funded instruments;
- Japanese initiatives relevant for STI cooperation;
- Joint initiatives between the EU and Japan;
- EU-based Japanese Universities
- Any synergies implemented with the active involvement of EU-Japan stakeholders.

The identification of the current inventory of initiatives/projects promoting the EU-Japan STI cooperation is the basis to examine potential synergies in order to group all these initiatives and produce bundled, meaningful information that consortium members can share as well as act upon.

The following sections provide the basic findings on the initiatives aiming to bring closer the EU-Japan side, an analysis of potential synergies and recommendations for short to medium term actions.

2. Horizon 2020 Projects and other international initiatives

The focus of the second project year is on Horizon 2020 projects.

The in-depth analysis of the various projects reveals opportunities for synergies in quite a few cases. The cooperation opportunities could be explored mainly in the areas of the joint organisation of events for wide dissemination of information, namely collaborative research results and outputs/report of coordination and support actions.

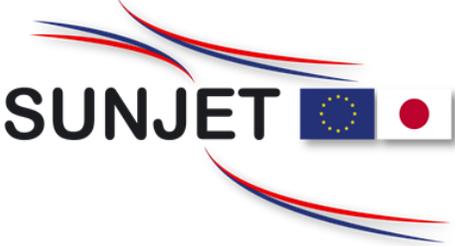
Regarding the Horizon 2020 Programme, the data collected shows that 27 Japanese entities are so far participating in 17 ongoing projects. The Japanese participation is split in 8 participations in Research and Innovation Actions, 4 participations in Coordination and Support Actions and 15 participations in Marie Skłodowska Curie Actions. The Japanese participation is concentrated in Marie Skłodowska Curie Actions (15), EURATOM (6), the Societal Challenge number 5 *Climate action, environment, resource efficiency and raw materials* (3), Space (2), and Research Infrastructures (1) ¹.

2.1 Horizon 2020 projects relevant for EU-Japan STI Cooperation

Below follows a series of projects identified under Horizon 2020 that promote the bilateral STI cooperation between the EU and Japan. The following list of projects is focused on specific STI sectors, such as

¹ More detailed statistics will be available in the Deliverable 2.8 *Update of Analysis of the EU-Japan Cooperation in Horizon 2020*

Transport, Space and Environment/Climate change, and on the specific cooperation activities which can be implemented. In addition, it lists projects with thematic relevance for JEUIPSTE, based on the thematic areas that have been identified as a focus of the JEUIPSTE project.

<p>SUNJET-II</p>	<p>SUNJET-II http://sunjet-project.eu/</p> 
<p>Description</p>	<p>SUNJET-II is a support action funded by the European Commission, aiming at enhancing the relations between EU and Japan in research activities related to aviation. The project unfolds in two main directions, which at the same time form its main objectives:</p> <ul style="list-style-type: none"> ✓ Building on existing relationships and experience gained from previous collaborations among European and Japanese key-players, SUNJET-II will develop consolidated roadmaps in the fields of Airframes, Engines, Systems and Equipment with the support of R&T Institutions, Academics and Cluster Communities. Out of the above mentioned roadmaps, key topics for future EU-Japan R&T cooperation in the field of aviation will be selected, with an assessment of the funding and time required, and concrete recommendations for future EU-Japan Calls will be produced taking into consideration the EU and Japanese R&T mechanisms. At the same time, a guidance desk will be made available, providing to both the European and Japanese research community relevant guidance material, including recommendations and best practices from past and ongoing cooperation activities. ✓ At the same time, several actions will be implemented, aiming at promoting communication, networking and exchanges between the European and Japanese aeronautics stakeholders. These include a number of physical meetings in Europe and Japan, as well as a dedicated on-line forum platform to facilitate communication and the development of contacts between European and Japanese researchers.
<p>Outcome</p>	<p>JEUIPSTE has cooperated with SUNJET, providing them input for one deliverable. They will also provide us with information for our deliverables.</p>
<p>Potential Synergies</p>	<p>Dissemination of project information on the JEUIPSTE website and information sharing regarding project deliverables.</p>
<p>CD-LINKS</p>	<p>Linking Climate and Development Policies - Leveraging International Networks and Knowledge Sharing http://www.cd-links.org/</p>

	
<p>Description</p>	<p>CD-LINKS is a 4-year research project (starting in September 2015), with 17 partners and collaborators from Europe, China, India, Brazil, Russia, Japan and the USA. The project brings together expertise from several domains, including integrated assessment modelling, human development, climate adaptation, economics, energy geo-politics, atmospheric chemistry and human health, land use and agriculture, and water.</p> <p>Main objectives:</p> <ul style="list-style-type: none"> ✓ to gain an improved understanding of the linkages between climate change policies (mitigation/adaptation) and multiple sustainable development objectives, ✓ to broaden the evidence base in the area of policy effectiveness by exploring past and current policy experiences, ✓ to develop the next generation of globally consistent, national low-carbon development pathways, and ✓ to establish a research network and capacity building platform in order to leverage knowledge-exchange among institutions from Europe and other key players within the G20.
<p>Outcome</p>	<p>CD-Links provided a presentation at Horizon 2020 info day in October 2015. Information about their project is uploaded on the JEUIPSTE website including a part on the benefits to join this project from the point of view of the Japanese participants.</p>
<p>Potential Synergies</p>	<p>Dissemination of CD-LINKS outputs</p>

<p>GNSS.asia2</p>	<p>Industrial cooperation across continents http://www.gnss.asia/</p> 
<p>Description</p>	<p>GNSS.asia2 engages on pre-marketing activities and business development support for European Industry and EGNSS (Europe’s own Global Navigation Satellite System) in the Asian region: GNSS.asia2 is building on GNSS.asia (FP7)</p>

	<p>which has established the foundations for concrete collaboration between European and Asian industry with already significant results with India, China, Taiwan, Korea and Japan:</p> <ul style="list-style-type: none"> ✓ Built an effective team by blending industrial cooperation professionals with GNSS experts ✓ Developed a toolbox of GNSS communication instruments in local languages ✓ Established an industrial relationship platform through numerous workshops, seminars, round tables and communication activities ✓ Enabled unique networking opportunities for European companies to showcase their products in Asia ✓ Facilitated the introduction of GALILEO in Asian industry players' products ✓ Provided transparency on Asian markets, research input and contacts for GSA and industry ✓ Engaged key GNSS stakeholders in Asia (industry, associations, institutes and government agencies) <p>Industrial collaboration in the GNSS downstream sector is becoming increasingly important as Galileo hits the market and services get tested. Half of the world's population lives in Asia and Asian high-tech companies supply GNSS-electronics to the world. The differentiators of Galileo need to be underlined in the MULTI-GNSS HOTSPOT ASIA. European industry needs support in building industrial partnerships with Asian companies.</p> <p>GNSS.asia2 will create and deepen industrial relationships, promote EGNSS differentiators in Multi-GNSS, raise EGNSS awareness in Asia. The team will achieve this through partnerships with Asian GNSS stakeholders like the MULTI-GNSS ASIA Campaign and a dedicated GNSS.asia INDUSTRY ADVISORY BOARD. The proposal is endorsed by more than 20 GNSS companies and organisations in Europe and Asia who would like to continue the successful partnership on GNSS industrial cooperation across continents.</p>
Outcome	<p>JEUIPSTE gave a presentation at a GNSS.Asia event in July 2015 and is disseminating information about their events. A joint event targeting space in Horizon 2020 is being considered.</p>
Potential Synergies	<p>Dissemination of GNSS.asia2 outputs and input into their events. A joint event with GNSS.asia2 can be considered when dealing with the space area.</p>

IRENA	<p>International Re-Entry demoNstrator Action http://www.irena-project.eu/index.php/2-uncategorised/2-home</p> 
Description	<p>In January 2014, the ISEF (International Space Exploration Forum) participants insisted on the importance of “fostering international cooperation for additional space exploration projects”. The partners of IRENA (International Re-Entry</p>

	<p>demonstrator Action), including major space agencies involved in ISEF and ISECG (International Space Exploration Coordination Group), are convinced of the need for demonstrators in atmosphere entry/re-entry and of the potential for international cooperation in this area.</p> <p>IRENA mainly aims at:</p> <ul style="list-style-type: none"> ✓ creating a cluster of European and international stakeholders to study two types of demonstrators aimed at developing entry/re-entry technologies and suitable for other enabling technologies ✓ jointly defining two technology demonstrator projects relevant for international cooperation ✓ contributing to a European position for ISEF and ✓ disseminating the results and preparing the next steps. <p>To achieve these objectives, IRENA will rely on an international and complementary team: four major European and international space agencies (CNES, DLR and JAXA as beneficiaries and NASA as a 3rd party), the two European industry leaders in entry/re-entry and space exploration (Astrium, Thales Alenia Space) and a research institute expert in dissemination and exploitation. IRENA will build on a cooperative approach to jointly define the projects, on feasibility and cost assessment studies and on implementation assessment studies (governance, funding, international cooperation). Five workshops including one in Japan, the USA and two based on Concurrent Engineering will be used to support the work.</p> <p>IRENA's objectives have been chosen to explicitly meet the main work programme's requirements i.e. to be in line with ISEF recommendations, to involve international countries active in space exploration, to create a cluster around several demonstrator projects, to define these projects and discuss how to build them, to target enabling technologies and to include workshops and information events.</p>
Potential Synergies	Dissemination of IREANA outputs and cooperation on events.

METIS-II	<p>Mobile and wireless communications Enablers for Twenty-twenty (2020) Information Society-II https://metis-ii.5g-ppp.eu/</p> 
Description	The METIS-II builds on the successful METIS project and will develop the overall 5G radio access network design and to provide the technical enablers needed for

	<p>an efficient integration and use of the various 5G technologies and components currently developed.</p> <p>METIS-II will provide the 5G collaboration framework within 5G-PPP for a common evaluation of 5G radio access network concepts and prepare concerted action towards regulatory and standardisation bodies.</p> <p>Based on its very strong and international consortium with partners from all regions with strong 5G R&D initiatives (EU, US, China, Japan, Korea) comprising most of the major international vendors, major operators, and key researchers, METIS-II will have the unique capability to drive consensus building globally, to consolidate a full picture of the needs of mobile as well as vertical industries, and to disseminate the results towards the relevant bodies, forums, and standardisation groups in all regions.</p>
<p>Potential Synergies</p>	<p>Dissemination of METIS II project results</p>

<p>EuroCirCol</p>	<p>European Circular Energy-Frontier Collider Study https://fcc.web.cern.ch/eurocircol/Pages/default.aspx</p> 
<p>Description</p>	<p>The award of the 2013 Nobel Prize for Physics acknowledged the leading role of Europe in particle physics, which has a global community of over 10,000 scientists. To reinforce its pole position throughout the 21st century, Europe must be ready to propose an ambitious post-LHC accelerator project by 2018/19. This is one of the main recommendations of the updated European Strategy for Particle Physics, adopted by the CERN Council in May 2013. The EuroCirCol conceptual design study is a direct response to this recommendation, initiating a study for a 100 TeV energy-frontier circular collider through a collaboration of institutes and universities worldwide.</p> <p>A new research infrastructure of such scale depends on the feasibility of key technologies pushed beyond current state of the art. Innovative designs for accelerator magnets to achieve high-quality fields up to 16 T and for a cryogenic beam vacuum system to cope with unprecedented synchrotron light power are required. The effects of colliding two 50 TeV beams must be mastered to meet the physics research requirements. Advanced energy efficiency, reliability and cost effectiveness are key factors to build and operate such an accelerator within realistic time scale and cost.</p> <p>This proposal is part of the Future Circular Collider study under European leadership, federating resources worldwide to assess the merits of different post-LHC accelerator scenarios. It forms the core of a globally coordinated strategy of converging activities, involving participants from the ERA and beyond. Organisations joining this study from Japan and the USA are expected to take</p>

	<p>part in a global implementation project and a suitable governance model will be drawn-up accordingly.</p> <p>The main outcome of EuroCirCol will be laying the foundation of subsequent infrastructure development actions that will strengthen the ERA as a focal point of global research cooperation and as leader in frontier knowledge and technologies over the next decades.</p>
Potential Synergies	Dissemination of EuroCirCol project

2.2 Relevant initiatives

EIG CONCERT-Japan	<p>European Interest Group CONCERT-Japan http://www.concert-japan.eu/</p> 
Description	<p>CONCERT-Japan began as an ERA-NET project funded by the 7th EU Framework Program for Research and Technical Development (FP7) from 2011 to 2014. The European Interest Group (EIG) CONCERT-Japan is an international joint initiative to support and enhance science, technology and innovation (STI) cooperation between European countries and Japan. The EIG CONCERT-Japan is flexible and inclusive in nature, able to accommodate a range of forms of collaboration from unanimous concerted efforts to optional participation among its core members and other interested STI institutions.</p> <p>The primary function of the EIG CONCERT-Japan is to collaboratively implement multilateral joint funding with the objective of enhancing the cooperation between European countries and Japan in various fields of STI. As far as it is relevant to that objective, the EIG CONCERT-Japan also aims to facilitate coordination between participating organisations in their activities relating to the programmes of the European Union and those undertaken within other international collaborative frameworks through the identification of common preferences, priorities and areas of mutual interest.</p>
Potential Synergies	Publication of relevant information on Joint Calls
Outcome	JEUPISTE published on its website the (pre-)announcement of the Call 2016, informed its network through an e-mail alert and disseminated the information through twitter

<p>EUJO-LIMMS²</p>	<p>http://limmshp.iis.u-tokyo.ac.jp/ http://www2.cnrs.fr/en/1971.htm</p> 
<p>Description</p>	<p>The Laboratory for Integrated Micro Mechatronic Systems (LiMMS) is an international research unit on micro and nanoelectromechanical systems (MEMS and NEMS) operated jointly by the French National Centre for Scientific Research and the Institute of Industrial Science (CNRS) of the University of Tokyo (UT), located in Komaba Campus (II), Tokyo, Japan. LiMMS hosts French and Japanese scientists, either CNRS permanent researchers or post-doctoral researchers in host research groups at UT-IIS. The research projects developed in LIMMS are related to micro and nanosystems.</p> <p>In 2010, the European Commission (EC) launched an INCOLAB call for proposals, to establish European laboratories in third countries. CNRS and the Institute of Industrial Science of the University of Tokyo therefore offered to open LIMMS to 3 European partners:</p> <ul style="list-style-type: none"> ✓ Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland ✓ University of Freiburg, Department of Engineering (IMTEK), Germany and ✓ Valtion Technical Research Centre of Finland (VTT), Finland.
<p>Potential Synergies</p>	<p>Dissemination of Information and promotion of the EUJO-LIMMS scheme as a model case</p>
<p>Outcome</p>	<p>EUJO-LIMMS participated as speaker in the JEUPISTE FP7 event in Tokyo (6/12/2013)</p>

2.3 International Fora

<p>EMMC</p>	<p>The European Materials Modelling Council http://emmc.info/about/</p> 
<p>Description</p>	<p>As a result of the Leadership in Enabling and Industrial Technologies (LEIT) Meeting on 27th Feb. 2014 in Brussels, that was organized by the EC Directorate-General for Research and Innovation, Directorate D — Key Enabling Technologies, Unit D.3 — Advanced Materials and Nanotechnologies, a number of experts in the field of material modeling discussed several issues pertaining to the future of material modeling in Europe. This assembly of scientists and</p>

² EUJO-LIMMS has been previously reported on in D3.1, but has been included again as it is an ongoing project

	<p>experts formed the initial core of the European Material Modeling Council (EMMC).</p> <p>In 2015 South Korea, Japan, USA and the EMMC agreed to establish the International Material Modelling Board (IM2B) to continue as a channel of communication and interaction between all material modelling actions happening in each geography. The International Material Modelling Board – IM2B, acts as a channel for international collaboration with the EMMC. It is also the way to enable non-EU members to be involved in the EMMC actions.</p>
Potential Synergies	Dissemination on JEUPISTE website, and can be consulted in relation to the JEUPSITE academic workshop on nanomaterials if relevant.

GIF	<p>Generation IV International Fora https://www.gen-4.org/gif/jcms/c_9260/public</p> 
Description	<p>The Generation IV International Forum (GIF) is a co-operative international endeavour which was set up to carry out the research and development needed to establish the feasibility and performance capabilities of the next generation nuclear energy systems.</p> <p>The Generation IV International Forum has thirteen Members which are signatories of its founding document, the GIF Charter.</p> <p>The goals adopted by GIF provided the basis for identifying and selecting six nuclear energy systems for further development. The selected systems are based on a variety of reactor, energy conversion and fuel cycle technologies. Their designs include thermal and fast neutron spectra cores, closed and open fuel cycles. The reactors range in size from very small to very large. Depending on their respective degree of technical maturity, the first Generation IV systems are expected to be deployed commercially around 2030-2040.</p>
Potential Synergies	Dissemination on JEUPISTE website

CEOS	<p>Committee on Earth Observation Satellites http://ceos.org/</p> 
Description	<p>CEOS was established in September, 1984 in response to a recommendation from a Panel of Experts on Remote Sensing from Space and set up under the aegis of the G7 Economic Summit of Industrial Nations Working Group on Growth, Technology, and Employment. This Panel recognized the multidisciplinary nature of space-based Earth observations and the value of coordinating international Earth observation efforts to benefit society.</p>

	<p>Accordingly, the original function of CEOS was to coordinate and harmonize Earth observations to make it easier for the user community to access and use data. CEOS initially focused on interoperability, common data formats, the inter-calibration of instruments, and common validation and inter-comparison of products. However, over time, the circumstances surrounding the collection and use of space-based Earth observations have changed.</p> <p>Over the past three decades, CEOS has significantly contributed to the advancement of space-based Earth observation community efforts. CEOS Agencies communicate, collaborate, and exchange information on Earth observation activities, spurring useful partnerships such as the Integrated Global Observing Strategy (IGOS). CEOS played an influential role in the establishment and ongoing development of the Group on Earth Observations (GEO) and the Global Earth Observation System of Systems (GEOSS). CEOS, through the major investments made by CEOS Agencies in developing the space segment of GEOSS, continues to provide space-based Earth observations in support of GEOSS implementation.</p>
Potential Synergies	Dissemination on JEUPISTE website

IASC	<p>International Arctic Science Committee http://iasc.info/iasc/about-iasc</p> 
Description	<p>The International Arctic Science Committee (IASC) is a non-governmental, international scientific organization. The Founding Articles committed IASC to pursue a mission of encouraging and facilitating cooperation in all aspects of Arctic research, in all countries engaged in Arctic research and in all areas of the Arctic region. Overall, IASC promotes and supports leading-edge multi-disciplinary research in order to foster a greater scientific understanding of the Arctic region and its role in the Earth system.</p> <p>To achieve this mission IASC:</p> <ul style="list-style-type: none"> ✓ Initiates, coordinates and promotes scientific activities at a circumarctic or international level; ✓ Provides mechanisms and instruments to support science development; ✓ Provides objective and independent scientific advice on issues of science in the Arctic and communicates scientific information to the public; ✓ Seeks to ensure that scientific data and information from the Arctic are safeguarded, freely exchangeable and accessible; ✓ Promotes international access to all geographic areas and the sharing of knowledge, logistics and other resources;

	<ul style="list-style-type: none"> ✓ Provides for the freedom and ethical conduct of science; ✓ Promotes and involves the next generation of scientists working in the Arctic; and ✓ Promotes bipolar cooperation through interaction with relevant science organizations.
Potential Synergies	Dissemination on JEUPISTE website

BELMONT FORUM³	 https://bfgo.org/ https://igfagcr.org/
Description	International Group of Funding Agencies for Global Challenge Research Initiative that supports global collaborative research actions on climate change. Current members of the Belmont Forum are: Australia, CSIRO; Brazil, FAPESP; China (Beijing), NSFC; European Commission; France, Allenvi ANR; Germany, DFG and BMBF ; India, MOES; International Council for Science (ICSU); International Social Science Council (ISSC); Italy, CNR-DTA; Japan, MEXT; Norway, RCN ; South Africa, NRF; Sweden, SSEESS; United Kingdom, NERC ; United States of America, NSF
Outcome	<ul style="list-style-type: none"> ▪ Participation in INCONTACT events for dissemination of information ▪ Participation in events of BILAT-Projects to disseminate project results and raise awareness on the existence of the BELMONT GROUP

Trilateral dialogue EU-US-JP on CRM	Trilateral dialogue EU-US-JP on CRM http://ec.europa.eu/growth/sectors/raw-materials/specific-interest/international-aspects/index_en.htm
Description	Common interests in raw materials issues, as well as strong research and administrative capacity have resulted in successful cooperation between the EU and the US and Japan. In 2011, the EU, Japan, and the US launched a trilateral dialogue to promote cooperation in critical materials. The EU-US-Japan Trilateral Critical Materials Initiative aims to improve collaboration on extraction, use efficiency, encouraging recycling, and finding substitutes for critical raw materials. Priority areas for co-operation: <ul style="list-style-type: none"> ✓ critical/strategic raw materials with the aim to compare methodologies and criteria, and combine data collections; ✓ geological knowledge agreed actions to compare and contrast how the U.S. Geological Survey (USGS) and European Geological Surveys collect, structure, and share data, and how classification systems could be made compatible with global standards (e.g. UN); ✓ eco-design, recycling, substitution agreed actions include building on EU-US-Japan research cooperation on rare earth materials, discussions with

³ BELMONT FORUM has been previously reported on in D3.1, but has been included again as it is an ongoing initiative

	<p>manufacturers on how to better collect and recycle, better information sharing, recycling obstacles, recycling, and substitution efforts;</p> <p>✓ exchange of best practices in mining policies including technologies.</p>
Potential Synergies	Dissemination on JEUIPSTE website of relevant information

IHEC	<p>International Human Epigenome Consortium http://ihec-epigenomes.org/</p> 
Description	<p>The International Human Epigenome Consortium (IHEC) is a global consortium with the primary goal of providing free access to high-resolution reference human epigenome maps for normal and disease cell types to the research community. The epigenome reference maps will be of great utility in basic and applied research. They are likely to have an immediate impact on the understanding of many diseases, and will hopefully lead to the discovery of new means to treat or manage them. In addition to this work, many members support related projects to improve epigenomic technologies, investigate epigenetic regulation in disease processes, and explore broader gene-environment interactions in human health.</p> <p>IHEC will facilitate communication among the members and offer a forum for coordination, with the objective of avoiding redundant research efforts, implementing high data quality standards, and thus maximizing efficiency among the scientists working to understand, treat, and prevent diseases.</p>
Potential Synergies	Dissemination on JEUIPSTE website of relevant information.

IHMC	<p>International Human Microbiome Consortium http://www.human-microbiome.org/</p> 
Description	<p>The goal of the IHMC is to work under a common set of principles and policies to study and understand the role of the human microbiome in the maintenance of health and causation of disease and to use that knowledge to improve the ability to prevent and treat disease. The Consortium's efforts are focused on</p>

	<p>generating a shared comprehensive data resource that will enable investigators to characterize the relationship between the composition of the human microbiome (or of parts of the human microbiome) and human health and disease.</p> <p>The IHMC is open, at any time, to the funders and PIs of human microbiome research programs that have the capacity to mount a comprehensive analysis of the human microbiome in health and/or disease, and that agree to carry out their efforts according to a set of commonly agreed-upon IHMC policies (see Principles in the Membership section).</p> <p>The principles, structure and operating modes of the IHMC were defined progressively through several meetings organised since November 2005 (see Historical perspective and previous meetings). The IHMC was officially launched at its meeting held in Heidelberg on October 15-16 2008.</p>
Potential Synergies	Dissemination on JEUPISTE website of relevant information.

ICGC	<p>International Cancer Genome Consortium https://icgc.org/</p> 
Description	<p>The International Cancer Genome Consortium (ICGC) has been organized to launch and coordinate a large number of research projects that have the common aim of elucidating comprehensively the genomic changes present in many forms of cancers that contribute to the burden of disease in people throughout the world.</p> <p>The primary goals of the ICGC are to generate comprehensive catalogues of genomic abnormalities (somatic mutations, abnormal expression of genes, epigenetic modifications) in tumors from 50 different cancer types and/or subtypes which are of clinical and societal importance across the globe and make the data available to the entire research community as rapidly as possible, and with minimal restrictions, to accelerate research into the causes and control of cancer. The ICGC facilitates communication among the members and provides a forum for coordination with the objective of maximizing efficiency among the scientists working to understand, treat, and prevent these diseases.</p>
Potential Synergies	Dissemination on JEUPISTE website of relevant information.

HFSP	<p>Human Frontier Science Program http://www.hfsp.org/</p> 
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<p>Description</p>	<p>The Human Frontier Science Program (HFSP) is an international program of research support, funding frontier research on the complex mechanisms of living organisms. Research is funded at all levels of biological complexity from biomolecules to the interactions between organisms.</p> <p>Key elements of HFSP’s mission are:</p> <ul style="list-style-type: none"> ✓ Support for innovative, cutting edge research at the frontiers of the life sciences ✓ Encouragement of high risk research ✓ Promotion of international collaboration in the spirit of science without borders ✓ Support for financial and intellectual independence for early career researchers <p>Selection of awards is made by high level, expert international review committees. Research Grants enable scientists from different countries to collaborate on focused innovative projects that are expected to open new fields of investigation. Interdisciplinary collaborations are especially encouraged. Postdoctoral fellowships enable the most talented early career scientists, trained in the life sciences or in the physical sciences, to extend their scientific repertoire in laboratories abroad. Former HFSP Fellows who return to their home country or move to a third HFSP member country can apply for a Career Development Award to support their transition to independence.</p> <p>HFSP awardees are brought together in an annual meeting to help build a global network of like-minded scientists working on a broad range of subjects within the life sciences and to stimulate new collaborations.</p>
<p>Potential Synergies</p>	<p>Dissemination on JEUPISTE website of relevant information.</p>

3. Co-funding Mechanisms⁴

3.1 Coordinated call in ICT in Horizon 2020

Through the Horizon 2020 work programme 2016-2017, the third coordinated call for ICT was launched with MIC and NICT. This time, 4 topics are available for joint projects:

- EUJ-01-2016: 5G – Next Generation Communication Networks
- SC1-PM-14-2016: Novel ICT Robotics based solutions for active and healthy ageing at home or in care facilities
- EUJ-02-2016: IoT/Cloud/Big Data platforms in social application contexts
- EUJ-03-2016: Experimental testbeds on Information-Centric Networking

⁴ Source: Research and Innovation International Cooperation website (<http://ec.europa.eu/research/iscp/index.cfm?lg=en&pg=japan>)

3.2 ERC-JSPS initiative

At the 23rd EU-Japan Summit in Tokyo, held on 29 May 2015, a new EU-Japan Strategic Partnership in Research and Innovation was endorsed. The joint vision on this partnership builds on the strong research ties in areas like ICT, materials and aeronautics and to strengthen collaborations in health and medical research, environment, energy and high-energy physics. An agreement to stimulate scientific exchanges has been signed between the Japan Society for the Promotion of Science (JSPS) and the European Research Council (ERC).

The common initiative launched is based on the existing EU-Japan Scientific and Technological Cooperation Agreement signed in 2009. The JSPS Fellows who will come for these scientific visits in Europe will continue to receive remuneration from JSPS. The first initiative of this kind was signed in July 2012 with the US (National Science Foundation, NSF) to provide opportunities for NSF researchers to join ERC-funded teams for shorter visits. This was followed by similar agreements with Korea (National Research Foundation of Korea, NRF) in November 2013 and with Argentina (National Scientific Technical Research Council, CONICET) in March 2015.

3.3 JST-EU co-funding scheme

Further to the positive interaction between the European Commission (EC) and Japan's Science and Technology Agency (JST) over the past year, the 3rd EU-Japan Joint S&T Committee meeting in May 2015 endorsed a co-funding scheme developed by JST in close cooperation with the EC. This scheme has the intention to support EU-Japan collaboration in research and innovation, and to provide funding to successful Japanese participants in open calls for proposals in Horizon 2020.

The co-funding scheme is initially applied to the following two call topics in Horizon 2020, Work Programme 2016-17, which opened in October 2015 (Deadline: first stage - 8 December 2015; second stage - 24 May 2016):

- NMBP-02-2016: Advanced Materials for Power Electronics based on wide bandgap semiconductor devices technology
- NMBP-03-2016: Innovative and sustainable materials solutions for the substitution of critical raw materials in the electronic power system

In these topics, Japanese participants may apply for funding from JST. JST will carry out its own evaluation of Japanese applicants prior to that on the EC side (see further here: http://www.jst.go.jp/sicp/announce_eujoint_03_GeneralInfo.html).

The EC-JST co-funding scheme is one of the support schemes put in place by EU international partner countries to enable a stronger and more balanced collaboration between their universities, research institutes and enterprises with European ones under Horizon 2020.

4. EU funded Instruments

Another area of opportunities for synergies lies with the EU funded institutions and initiatives targeting Japan, as previously reported in JEUPISTE Deliverable 3.1. Cooperation opportunities have been

investigated towards two directions: The Enterprise Europe Network office in Japan, and the EURAXESS Links Japan office. Several new cooperation actions have been implemented.

4.1 Enterprise Europe Network

The Enterprise Europe Network is a business support network that operates as a one-stop shop for any European SME or organisation needing any type of support, namely international partners for commercial and technological cooperation, research partners, EU funding, finance) as well as information on EU legislation. With over 600 partner organisations offering business support located in 50 countries, the Enterprise Europe Network is currently the largest network of contact points that are connected through powerful databases that allow thorough knowledge of Europe and associated opportunities for international business cooperation, innovation, knowledge and technology transfer and cooperation in EU programmes.

The Enterprise Europe Network office in Japan (<http://www.een-japan.eu/>) is located within the EU-Japan Centre for Industrial Cooperation, which is a branch of the JEUPISTE project Coordinator, IIST. Moreover, APRE and FORTH are also members of the Enterprise Europe Network.

Collaboration between JEUPISTE and the Enterprise Europe Network office in Japan and in Europe could be beneficial for all sides. The following activities have been implemented:

- Exchanges of inquiries between JEUPISTE and EEN;
- JEUPISTE could disseminate to Europe information on the Enterprise Europe Network activities of Japanese office
- JEUPISTE has participated to the Kyoto Smart City Expo in May 2015, sharing a booth to promote their activities

JEUPISTE and EEN could collaborate in the future with a joint brokerage event.

4.2 EURAXESS Links Japan

EURAXESS is a pan-European initiative providing access to a complete range of information and support services to researchers wishing to pursue their research careers in Europe or stay connected to it.

In addition to the EURAXESS network in Europe, EURAXESS is also present in ASEAN, Brazil, China, India, Japan, and North America. The main mission, of these Extra-European offices is to promote Europe as an attractive destination for researchers, and promote the EURAXESS services and the Marie Skłodowska-Curie actions (MSCA) (H2020).

Collaboration, between EURAXESS Links Japan and JEUPISTE has been already established, as EURAXESS Links Japan participated as speaker in the JEUPISTE event in Tokyo (December 2013), and in the JEUPISTE events in Osaka (September 2015) and Tokyo (October 2015). JEUPISTE regularly publishes on its website relevant information related to EURAXESS (as example please see [http://www.jeupiste.eu/news/survey-
euraxess_2016](http://www.jeupiste.eu/news/survey-euraxess_2016)).

5. Japanese Initiatives

The initiatives listed below concern joint research and scientific exchanges. They come from two important Japanese funding organisations, the Japan Science and Technology Agency (JST) and the Japan Society for the Promotion Science (JSPS). Furthermore, RIKEN, a major research institution is offering programmes. This part has also been previously reported in Deliverable 3.1.

5.1 Japan Science and Technology Agency (JST)

Japan Science and Technology Agency (JST)	http://www.jst.go.jp/EN/ http://www.jst.go.jp/inter/english/sicp/summary.html
SICP	Strategic International Research Cooperative Programme (SICP) Japanese and European Funding Agencies jointly fund, on an equitable basis, small-scale research.
Description	Japan Science and Technology Agency (JST) has been implementing the Strategic International Research Cooperative Program (SICP) since 2003. This is a “top-down type” of program that provides support to international research projects with countries and areas and in fields of cooperation designated by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) on the basis of intergovernmental agreements and agreements at ministerial-level meetings. Maximum duration of projects is 3 years Cooperating European countries: EC (DG RTD), UK, Croatia, Switzerland, Sweden, Spain, Denmark, Germany, Finland, France
Potential Synergies	Raise awareness on the possibility to cooperate with Japanese teams through the SICP Relevant presentations can be held in JEUIPSTE events or in events of other CSA actions.
Outcome	JST delivered a presentation at the Horizon 2020 information day organized by JEUIPSTE in October 2015.

Furthermore, as part of the SICP Programme, JST, in response to emergencies requiring urgent scientific cooperation, offers the RAPID-J programme.

Japan Science and Technology Agency (JST)	http://www.jst.go.jp/EN/ http://www.jst.go.jp/inter/english/sicp/country/j-rapid.html
J-RAPID	The <i>J-RAPID</i> program is dedicated to support collaboration activities between Japanese and foreign (including European) researchers regarding natural or anthropogenic disasters and similar unanticipated events.
Description	<ul style="list-style-type: none"> JST calls for proposals when (it) identifies needs on immediate support of international collaborative research or survey activities on unanticipated events occurred in Japan or other countries, considering degree of

	<p>urgencies and social/economic impacts of the events and/or at the request of the national government or academia.</p> <ul style="list-style-type: none"> • JST assists researchers in Japan and funding agencies or research institutes in counterpart countries assist researchers in their countries
Potential Synergies	Raise awareness on the possibility to cooperate with Japanese teams through the SICP.
Outcome	JST delivered a presentation at the Horizon 2020 information day organized by JEUIPSTE in October 2015.

Strategic International Collaborative Research Programme (SICORP)	<p>http://www.jst.go.jp/EN/ http://www.jst.go.jp/inter/english/sicorp/index.html</p>
Description	<p>The aim of this program is to contribute solutions to challenges facing the world today, through joint scientific cooperation of Japan with a broad range of countries, including Europe. This programme has been executed since 2009 and is based on intergovernmental agreements</p> <p>JST liaises with funding agencies in counterpart countries and regions, and on an equal partnership selects research projects supported by both countries.</p> <p>Large-scale research is funded on an equitable base by each funding agency of the participating countries.</p> <p>Duration of projects is 3-5 years</p> <p>European cooperation countries: EC (DG RTD), France, Germany</p>
Potential Synergies	Raise awareness on the possibility to cooperate with Japanese teams through the SICORP
Outcome	JST delivered a presentation at the Horizon 2020 information day organized by JEUIPSTE in October 2015.

5.2 The Japan Society for the Promotion of Science (JSPS)

JSPS promotes international scientific exchanges between Japan and counterpart countries following agreements or memoranda of understanding concluded with Research and Technology Organisations and other science-promotion organisations in countries around the world, including Europe. These exchanges take the form of joint research projects, joint seminars and researcher exchanges.

European countries with affiliated funding agencies are Austria, Bulgaria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Italy, Hungary, Netherlands, Poland, Romania, Slovenia, Spain, Sweden, Switzerland and the UK.

JSPS	<p>JSPS – Researcher Exchange Programme, Bilateral Cooperative Programme and Postdoctoral Fellowships for Overseas Researchers</p> <p>http://www.jsps.go.jp/english/e-bilat/data/proposals_28_2.pdf http://www.jsps.go.jp/english/e-bilat/data/01_proposals_28_5.pdf http://www.jsps.go.jp/english/e-fellow/postdoctoral.html</p>
Potential Synergies	Awareness raising through JEUIPSTE events
Outcome	<p>JSPS delivered a presentation at the Horizon 2020 information day organized by JEUIPSTE in October 2015.</p> <p>In February 2016, a training seminar targeting EU-Japan cooperation was held in London with support from JSPS. JSPS programmes were promoted.</p>

5.3 RIKEN

RIKEN	<p>Special Postdoctoral Researchers Program</p> <p>http://www.riken.jp/en/careers/programs/spdr/</p>
Description	<p>The Foreign Postdoctoral Researcher (FPR) program launched in 2007 has provided talented young foreign scientists with the same kind of opportunities as the Special Postdoctoral Researcher (SPDR) program which was primarily targeted at young Japanese scientists. Starting from FY 2016, the two programs will be merged into a new SPDR program. Qualified candidates of all nationalities are welcome to apply. Please see below for details.</p> <p>RIKEN's program for Special Postdoctoral Researchers (SPDR) was instituted to provide young and creative scientists the opportunity to be involved in autonomous and independent research that is in line with RIKEN objectives and research fields.</p>
Potential Synergies	Dissemination on JEUIPSTE website

6. Joint Initiatives between the EU and Japan

6.1 EU-JAPAN Centre for Industrial Cooperation

The EU-Japan Centre for Industrial Cooperation is supported by the European Commission and the Japanese Ministry of Economy, Trade & Industry (METI). Its mission is to support all forms of industrial, trade and investment cooperation between Japan and the EU. It disposes a variety of business programmes for EU enterprises interested in or are already engaging in cooperation with Japan counterparts.

Cluster Missions	
http://www.eu-japan.eu/cluster-missions	
Description	The cluster missions are targeted to EU clusters that are interested in internationalisation activities in Japan. EU clusters can select one SME member that is believed to have potential. Through the cluster mission the SME

	beneficiary can participate in market-specific business seminars, company visits, one-on-one meetings at a targeted trade fair with showcase and networking events as well as to benchmark with the Japanese ones during a dedicated cluster session.
Potential Synergies	Synergies with Entepre Europe Network Awareness raising to the wider European public through JEUPISTE events and newsletters.
Outcome	JEUPISTE promoted their outcomes and presented Horizon 2020 and Japanese Programmes at the ICT mission in October 2015 and at the NANOTECH in January 2016. JEUPISTE and the Cluster Missions shared a booth twice in order to disseminate their information towards Japanese public.

MINERVA	<p>"MINERVA" EU-Japan Fellowship Programme http://www.eu-japan.eu/other-activities/minerva-fellowship</p> 
Description	<p>The EU-Japan Centre for Industrial Cooperation proposes a 6 month in-house fellowship scheme in Japan, designed to support its research and policy analysis of EU-Japan economic and industrial issues.</p> <p>The Research Fellow will undertake research work on a selected priority topic of the Centre, which should result in a consistent policy report (70-100 pages), to be owned by the Centre.</p> <p>Apart from research on a pre-determined topic, the Research Fellow will be expected to support the daily analytical activities of the Centre, including media monitoring, policy briefings, seminar reports, etc.</p> <p>Candidates must be citizens of an EU Member-State or COSME Third Country and Japanese professionals(trade and economic analysts, academics, scientists, civil servants) with a proven interest in Japan and EU-Japan cooperation from multiple perspectives (trade/market access, industrial policy issues, R&D, etc...).</p>
Potential Synergies	Dissemination of information

World Class Manufacturing
http://www.eu-japan.eu/detail-business-programmes (WCM)

Description	<p>The 5-day World Class Manufacturing training mission is destined to managers/executives of EU manufacturing companies who wish to acquire an in-depth knowledge of the Japanese world class manufacturing principles</p> <p>The 5-day training course consists of lectures, workshops and visits to Japanese most advanced factories in order for the participants to acquire hands- on experience and observe the manufacturing methods of international recognition.</p>
Potential Synergies	<p>Synergies with Enterprise Europe Network</p> <p>Awareness raising through JEUIPSTE events and newsletters</p>

Japan Industry Insight (H RTP)	
http://www.eu-japan.eu/detail-business-programmes/H RTP	
Description	<p>A 4-week Human Resources Training Programme that offers EU executives the opportunity to experience and understand the cultural and economic elements that underly Japan’s business conditions. The programme provides EU businessmen with a professional Japan-related expertise. It consists of a combination of lectures, a joint seminar as well as of company visits.</p>
Potential Synergies	<p>Synergies with Enterprise Europe Network</p> <p>Awareness raising through JEUIPSTE events and newsletters</p>

7. EU-based Japanese Universities

The Japanese Universities based in EU can represent a relevant entry-point for strengthen the cooperation between Europe and Japan in Research and Innovation.

No.	Name of Japanese University	Name of the Institution/office in Europe	Country	Type (administrative office, collaborative research institutes, etc)
1	Kyoto University	Kyoto University European Center – Heidelberg	Germany	Collaborative center
2	Kyoto University	Euro Representative of Kyoto University SACI	UK	European Office

3	Tokyo University	Data Reservoir Amsterdam Laboratory	Netherlands	Graduate School of Information Science and Technology
4	Tokyo University	Data Reservoir ITER Laboratory	France	Graduate School of Information Science and Technology
5	Tokyo University	CTA North Roque Muchachos Observatory for Gamma Ray Astronophysics, Institute for Cosmic Ray Research, the University of Tokyo	Spain	Institute for Cosmic Ray Research
6	Tokyo University	CERN office and laboratory for ASACUSA collaboration, the University of Tokyo	Switzerland	Graduate School of Science
7	Tokyo University	CERN Office for Elementary Particle Physics, the University of Tokyo	Switzerland	International Center for Elementary Particle Physics
8	Tokyo University	SMMIL-E	France	Institute of Industrial Science
9	University of Tokyo	The University of Tokyo London Office	UK	Division of International Affairs
10	Tokyo University	Research Unit for the study of Roman archaeological sites in southern Italy	Italy	Graduate School of Arts and Sciences
11	Tokyo University	Paris Office, Center for International Research on Micronano Mechatronics (CIRMM), the University of Tokyo (Europe Office, IIS, UT)	France	Institute of Industrial Science

12	Tokyo University	PSI Office for Elementary Particle Physics, the University of Tokyo	Switzerland	International Center for Elementary Particle Physics
13	Kobe University	Kobe University Brussels European Centre (KUBEC)	Belgium	Cooperation center
14	Hokkaido University	Helsinki Office	Finland	Cooperation office with EU
15	Tohoku University	Liaison Office of Tohoku University Institute of Fluid Science Graduate School of Engineering	France, hosted by Institut National des Sciences Appliquées de Lyon (Materials Science and Physical Metallurgy Laboratory)	Liaison office
16	Tohoku University	Liaison Office of Tohoku University	Sweden, hosted by Royal Institute of Technology (Faculty of Mechanical Engineering)	Liaison office
17	Yamagata University	Yamagata University Europe Satellite - CERN	Switzerland	Europe Satellite
18	University of Tsukuba	Bonn Office	Germany	European Office
19	Chiba University	Chiba University IEC Office at Seinäjoki University of Applied Sciences	Finland	European Office

20	Tokyo University of Foreign Studies	TUFS London Office	UK	Liaison Office
21	Shinshu University	Global office at the University of Manchester	UK	Global Office
22	Nagoya University	Nagoya University European Center	Germany	European Office
23	Nagoya Institute of Technology	NITech Europe Liaison Office	Germany	Liaison Office
24	Osaka University	The European Centre in Groningen	Netherlands	European Office
25	Kyushu University	London Office	UK	Office for the Planning and Coordination of International Affairs
26	Kyushu University	Munich Office	Germany	Office for the Planning and Coordination of International Affairs
27	Keio University	London Office	UK	European Office
28	Sophia University	Luxembourg Office	Luxembourg	European Office
29	Sophia Univeristy	Cologne Office	Germany	European Office

30	Teikyo University	Teikyo Univeristy of Japan in Durham	UK	European Office
31	Tokai University	Tokai University European Center	Denmark	European Office
32	Bunka Gakuen University	Paris Office	France	European Office
33	Waseda University	Waseda University European Center in Bonn	Germany	European Office
34	Waseda University	Waseda University Paris Office	France	European Office
35	Doshisha University	Doshisha London Office	UK	European Office
36	Ritsumeikan University	Ritsumeikan UK Office	UK	European Office
37	Kansai University	Japan-EU Research Center	Belgium	European Office

8. Synergies

All suggestions for potential synergies lead to the conclusion that the basic medium for the realisation of synergies is the dissemination of information in JEUPISTE website and communication media. Another means of realising synergies is the involvement of Japan-based EU Stakeholders in the project's activities as well as in the events organized in Japan. The role of EU – based Japanese Universities and Institutes and the research institutes is of fundamental importance for the cooperation and for strengthening the research dialogue. Nevertheless, a primary goal for the proper implementation of synergies would be to initiate a constant flow of information exchange.

As the JEUPISTE project is approaching its end, the dissemination of information can take place through presentations of invited speakers in the final JEUPISTE events in Europe and Japan.

As regards to communication media, a suggestion would be to circulate and disseminate all the relevant information related to relevant international initiatives, such as CEOS, IASC, IHEC, IHMC and HFSP.

On a general note, the dissemination of information of initiatives promoting the EU-Japan STI Cooperation consists of primarily raising awareness on the existence of such activities as well as the way they could be accessed in order to facilitate the cooperation of European and Japanese teams.

It could perhaps be argued that the diversity of the above mentioned initiatives could form an EU-Japan ecosystem of opportunities. EU-Japan opportunities for STI cooperation could be grouped and disseminated via final project events (Japanese sessions) that will be organized.

9. Recommendations for the next report

The next report will further elaborate on the information provided above. In addition, it will provide:

- ✓ Any synergies realised with the active involvement of EU-Japan stakeholders.