



Concept note

Nanomaterials and Bionanoscience in Japan-Europe Cooperation

Tuesday 5 July 2016. Thessaloniki, Greece

The 3rd Joint Committee on Scientific and Technological Cooperation between the European Union and Japan defined as of May 2015, **research and innovation in advanced materials** as a **priority** sector. Nanomaterials and bionanoscience are challenging areas where Europe and Japan can work together and develop common solutions, in particular in relation to characterisation, hazard assessment and medical applications.

The Japanese nanotechnology sector is highly important as it is the main enabling technology to other sectors namely ICT, Energy and Health. The potential for cooperation between European high-tech Companies and the Japanese academia and industry is particularly growing, however there is space for more systematic initiatives and targeted approach.

Europe's interest in nanomaterials research will cover "from atoms to components and systems", new material functionalities induced by intelligent processing technologies, multi-material systems process engineering and advanced engineering of nanotechnologies as well as advanced materials systems for process industries.

The benefit of cooperation between Europe and Japan on this area is directly related to cooperation in the field nanotechnologies for high **added value products, process industries, modelling, healthcare** and **energy applications**. Especially cooperation under Horizon 2020, activities will focus on process technologies and management of resources based on high performance nanotechnologies and



advanced materials science with the aim of making processes "smarter", "cleaner" and "intelligent", contributing to the Circular Economy.

Nanotechnology & Horizon 2020

Nanotechnology is considered as a Key Enabling Technology (KET) and therefore is a priority topic for R&D in the Horizon 2020. Although Japan is not eligible for automatic funding from the EU, Japanese organizations and individuals can join the projects, potentially with the following benefits:

- ✦ Creation of a large network with top class research organizations and researchers in the EU
- ✦ Role in standardization and rulemaking, therefore a key market advantage
- ✦ Access to databases not available in Japan and/or devices not (yet) authorized in Japan
- ✦ Possibility of technology watch

The participation enables researchers, research organizations and companies to have direct access to newly developed technologies and therefore permits them to be the first in capitalizing innovations. Japanese subsidiary companies in Europe are eligible for Horizon 2020 funds as European legal entities.

As it can be seen from the table below on the top10 countries collaborating with Japan on Materials, there is room for strengthening cooperation between Europe and Japan in the field.

| Country | Co-authored publications | Co-authors in Japan | Co-authors in the other Country |
|--------------------|--------------------------|---------------------|---------------------------------|
| China | 5,902 | 7,214 | 10,322 |
| United States | 5,524 | 9,451 | 11,067 |
| South Korea | 2,285 | 3,423 | 3,623 |
| Germany | 2,226 | 3,837 | 4,047 |
| France | 1,657 | 3,365 | 2,983 |
| United Kingdom | 1,556 | 2,938 | 2,495 |
| India | 1,074 | 1,575 | 1,722 |
| Australia | 840 | 1,429 | 1,158 |
| Taiwan | 782 | 1,523 | 1,510 |
| Russian Federation | 727 | 1,176 | 1,005 |

Table: Top 10 countries collaborating with Japan between 2011-2016 on Materials Science based on <http://www.scival.com/> database.

The JEUISTE Project

The aim of the JEUISTE project is to strengthen cooperation between European Union and Japan on priority areas through a number of networking activities. In this light, this workshop, parallel event of



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Nanotechnology, organised on the 5th of July will seek to highlight cooperation opportunities within as well as outside the context of H2020.

Organized by: The partners of the JEUISTE Project:

EU-Japan Centre for Industrial Cooperation

Foundation for Research & Technology – Hellas (FORTH)

TÜBİTAK

Kobe University

Venue: Hotel Porto Palace: Azurro room. Thessaloniki, Greece (as part of nanotechnology 2016)

Date: Tuesday 5 July 2016, between 15:00 – 18:30

For more information, interested participants may contact Mr. Stijn LAMBRECHT (stijn.lambrecht@eu-japan.gr.jp) from the EU-Japan Centre for Industrial Cooperation, Coordinator of the JEUISTE project.

