

**To: EU MEMBER STATE S&T COUNSELLORS**

Dear colleagues,

As announced at the last S&T counsellors meeting on 20 February, we are pleased to transmit to you the official invitation and registration form for the two-day event titled the “**Europe-Japan Symposium: Electrical Technologies for the Aviation of the Future**”, to be held at the EU Delegation on 26-27 March 2015. You are cordially invited to attend. In that case, please fill in the registration form.

The symposium, organised by the Horizon 2020 project SUNJET-II, with the support of the European Commission and METI, and hosted by the EU Delegation in Japan, will gather experts in electrical energy technology from Europe and Japan to discuss on the topics mentioned below.

When the idea of this seminar was first toward the end of last year, a number of you had mentioned potential speakers from your respective countries,. If you still have such experts in mind, that can fit in the general themes covered by the conference, please contact them and ask them to contact the organisers (see registration form) and express their interest, as soon as possible. That will be the fastest way, but I will also be glad to provide any clarifications I can. Please note that the wish is to complete the list of speakers in the next 10 days or so, but every effort will be made to accommodate interesting expert presentations even at a later stage. Of course, the final choice falls on the organisers, who aim to achieve a good balance between European/Japanese and Academic/Industrial speakers with the highest expertise in the respective fields.

In addition, wide dissemination of this symposium invitation to your contacts in Japan and in Europe who might be interested to attend will be very much appreciated.

We are pleased to invite you to the

**Europe-Japan Symposium**  
**Electrical Technologies for the Aviation of the Future**  
**on March 26 - 27, 2015, at the EU Delegation, Tokyo**

This 2-day symposium will be a unique opportunity:

- To share the requirements and the vision of the aviation industry for high value products using the best current and future electrical energy technology that can be envisaged;
- To understand the current and future developments and performance capability for elements of energy storage systems, including: Batteries, Super/Ultra Capacitor, Fuel Cells / Hydrogen Storage, High Integrity Control Systems, including Power Electronics.
- To consider the potential synergies between different industries: aviation, other transport, space, etc in relation to electrical technologies;
- To deliver inputs to SUNJET II and prepare future coordinated calls between Japan and Europe.

The symposium is organised by the Horizon 2020 project SUNJET-II, with the support of the European Commission and METI and is hosted by the Delegation of the European Union to Japan.

Participation is free of charge, but prior registration is needed. Speakers are mostly welcome, based on slot availability. Instructions on how to register either as a participant or as a speaker are included in the attached "General Information" file. The draft agenda of the symposium is also attached. Updated versions of the agenda will be posted on <http://sunjet-project.eu/>

**Looking forward to your participation!**

Best regards,

**Dr. Leonidas Karapiperis**  
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Head of S&T Section  
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**Europe-Japan Symposium**  
**Electrical Technologies for the Aviation of the Future**  
**DATE: 26-27 March 2015**  
**VENUE: EU Delegation, Tokyo**

**REGISTRATION FORM**

First Name: \_\_\_\_\_  
Last Name: \_\_\_\_\_  
Affiliation: \_\_\_\_\_  
Address: \_\_\_\_\_  
Country: \_\_\_\_\_  
Email: \_\_\_\_\_

I intend to participate to:

- Day 1, 26/03/2015  
 Day 2, 27/03/2015  
 Reception (evening of 26/03/2015)

I would like to contribute to the symposium with a presentation on \_\_\_\_\_ (please enter topic)

Comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**SUBMIT**

(or save the form on your computer and send it by email to [jules.gueguen@airbus.com](mailto:jules.gueguen@airbus.com) )

(Any accompanying person should submit their own registration form)



## **Europe-Japan Symposium**

### **Electrical Technologies for the Aviation of the Future**

**DATE: 26-27 March 2015**

**VENUE: EU Delegation, Tokyo**

#### **INTRODUCTION**

Electrical technologies are increasingly used in aviation, aiming at more energy efficiency and less environmental impact, while maintaining high levels of safety and affordable costs.

The aviation challenges on environment and energy go beyond sectorial and geographical borders. Europe and Japan are very well placed to pursue research together in electrical technologies for aviation. This Symposium is an excellent opportunity to gather relevant stakeholders and to pave the way for future cooperation, which could be co-funded by Horizon 2020 (EU's Framework Programme for Research & Innovation) and by METI (Japan's Ministry of Economy, Trade and Industry) and other relevant Japanese Ministries or organizations.

Europe's vision for aviation "Flightpath 2050" includes main goals such as:

- 75% reduction in CO<sub>2</sub> emissions per passenger kilometer, 90% reduction in NO<sub>x</sub> emissions and 65% reduction of perceived noise emission (relative to typical new aircraft in 2000).
- Emission-free aircraft movements when taxiing.
- Design and manufacturing of air vehicles to be recyclable.
- Providing the best products and associated services in aeronautics and air transport

Japan's first and basic strategy for aviation industry (especially in aircraft system area) is further development, so that Japanese aviation industry will be a leading-edge industry which can adopt various state-of-the-art technologies. In order to do that, it is important to collaborate with other industries such as automotive, electronics, and so on, as well as pursue international cooperation such as EU-Japan cooperation on civil aviation industry.

EU-Japan cooperation in aviation research has proven successful by means of coordinated projects (FP7 SHEFAE on heat exchangers, FP7 JEDI-ACE on de-icing, FP7 HIKARI on high-speed aircraft). New EU-Japan coordinated projects are expected from the Horizon 2020 call for proposals currently open (on cabin systems, composite structures, heat exchangers and flight control).

In order to identify further areas of common interest and to facilitate EU-Japan cooperation, a key role is played by SUNJET-II, the Horizon 2020 funded "Sustainable Network for Japan-Europe Aerospace Research and Technology cooperation", bringing together diverse stakeholders from industry, academia and research community. Under the coordination of Airbus Group Innovation, SUNJET-II is organizing this Symposium with the support of the European Commission and METI. It is hosted by the Delegation of the European Union to Japan on its premises.

Airbus Group is involved in a number of technological programs, whose breakthroughs could eventually be applied to all-electric or hybrid-electric aircrafts in several aviation market segments. Synergies with other sectors (transport, space, etc.) are also desirable and welcomed in electrical technologies for aviation.

## OBJECTIVES

- To share the requirements and the vision of the aviation industry for high value products using the best current and future electrical energy technology that can be envisaged;
- To understand the current and future developments and performance capability for elements of energy storage systems, including: Batteries, Super/Ultra Capacitor, Fuel Cells / Hydrogen Storage, High Integrity Control Systems, including Power Electronics.
- To consider the potential synergies between different industries: aviation, other transport, space, etc in relation to electrical technologies;
- To deliver inputs to SUNJET II and prepare future coordinated calls between Japan and Europe.

## WHEN

- Thursday 26 March 2015, from 9:00 to 18:00
- Friday 27 March 2015, from 8:00 to 15:00

## WHERE

Delegation of the European Union to Japan  
Europa House  
4-6-28 Minami-Azabu, Minato-ku  
Tokyo 106-0047, Japan

## MAP

<http://www.euinjapan.jp/en/about/map/>

## WHO

Companies, universities and research institutes active in aviation and/or in electrical technologies, including systems integration, from Japan and European countries.

## LANGUAGE

English, no interpretation.

## KEYWORDS

Batteries, Advanced Materials for Batteries, Super/Ultra Capacitor, Fuel Cells, Hydrogen Storage, Superconductivity, High Integrity Control Systems, Power Electronics, Lightweight Electrical Machines, Diversion Scenario, Horizon 2020, SUNJET II.

## REGISTRATION

Participation is free of charge, but prior registration is needed. If you are interested to attend, either as a participant or as a potential speaker, please download the Registration Form file [here](#), fill in the required information and click submit, or save the form on your computer and send it by email to:

### **Jules Gueguen**

Roppongi Hills Mori Tower, 19F  
6-10-1 Roppongi, Minato-ku  
Tokyo 106-6119, Japan  
Tel: +81 (0)80-9561-4836  
E-mail: [jules.gueguen@airbus.com](mailto:jules.gueguen@airbus.com)

## FURTHER INFORMATION

Japan based participants, please contact:

### **Jules Gueguen**

Roppongi Hills Mori Tower, 19F  
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Europe based participants, please contact:

### **Michael Papadopoulos**

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Hosted by



Delegation of the European Union to Japan  
駐日欧州連合代表部



**Europe-Japan Symposium**  
**Electrical Technologies for the Aviation of the Future**

**DATE: 26-27 March 2015**

**VENUE: EU Delegation, Tokyo**

**AGENDA**

<b>Time</b>	
<b>DAY 1 – Thursday, 26 March 2015</b>	
<b>09:00 – 09:30</b>	<b>Registration</b>
<b>09:30 – 10:10</b>	<b>Welcome, presentation of the event and Opening speeches</b> <ul style="list-style-type: none"><li>- Europe: EU Delegation in Japan</li><li>- Japan - METI</li><li>- Japan - MEXT or JAXA (tbc)</li><li>- Japanese and European stakeholders represented by SUNJET II</li></ul>
<b>10:10 – 10:40</b>	<b>Possible areas of Europe-Japan collaboration in the frame of Horizon 2020</b> <ul style="list-style-type: none"><li>- Europe: Introduction to H2020 and public funding projects in aeronautics (FP7, H2020, Clean Sky)</li><li>- Japan: public funding projects in aeronautics</li></ul>
<b>10:40 – 11:00</b>	<b>Coffee Break</b>
<b>11:00 – 12:30</b>	<b>System Level Applications and Requirements</b> <p>Japanese and European stakeholders will present requirements on electrical technologies coming from:</p> <ul style="list-style-type: none"><li>- Commercial aircrafts</li><li>- Engine manufacturers</li><li>- General aviation &amp; Business</li><li>- Lessons learnt from other domains as example: hybrid propulsion where automotive is clearly in advance</li></ul>
<b>12:30 – 14:00</b>	<b>Lunch</b>
<b>14:00 – 15:30</b>	<b>System Level Applications and Requirements (follow-on)</b>
<b>15:30 – 16:30</b>	<b>Advanced Batteries</b> <p>After setting the scene of the batteries technologies and having presented the main challenges for aviation domain, universities, research centers and industries from Japan and Europe will present their capabilities in advanced batteries technology.</p>
<b>16:30 – 17:00</b>	<b>Coffee Break</b>
<b>17:00 – 18:00</b>	<b>Advanced Batteries (follow-on)</b>
<b>18:00</b>	<b>End of DAY 1</b>
<b>18:00 – 20:00</b>	<b>Reception</b>

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**Time**

**DAY 2 – Friday, 27 March 2015**

**08:00 – 08:15 Welcome**

**8:15 – 10:15 Fuel Cells**

After setting the scene of the fuel cells technologies and having presented the main challenges for aviation domain, universities, research centers and industries from Japan and Europe will present their capabilities in fuel cells technology.

**10:15 - 10:30 Coffee break**

**10:30 – 12:30 Superconductivity**

After setting the scene of the superconductivity technologies and having presented the main challenges for aviation domain, universities, research centers and industries from Japan and Europe will present their capabilities in superconductivity technology.

**12:30 – 13:30 Lunch**

**13:30 – 14:30 Discussion on Way Forward and closing remarks**

A short summary of what was discussed during the previous sessions and proposed topics to be investigated for the future.

**14:30 – 14:50 Closing speeches from:**

- Europe: EU Delegation in Tokyo
- Japan - METI
- Japan - MEXT or JAXA (tbc)
- Japanese and European stakeholders represented by SUNJET II

**15.00 End of DAY 2**

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Hosted by



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