

*Inria*  
inventors for the digital world



# Cybersecurity France-Japan

Strategic cooperation / Funding strategy

# Cybersecurity France-Japan: Website

## Collaboration showcase

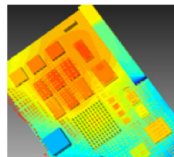


### Joint collaboration between France and Japan on Cybersecurity Research

Following the true success and interest issued from the workshop held in Tokyo April 1-3, 2015, this web site wants to help exchanges between French and Japanese researchers working on cybersecurity. It is expected to get a real impact on research in cybersecurity through a dedicated French-Japan cooperation, taking advantage of: each country specificities and excellence in the domain and a shared vision of geo-strategy and privacy concerns.

Gives **visibility** to different **WG**

#### Formal Methods



#### Cryptography



#### System Security and IoT security



#### Privacy



#### Events and Malware Analysis



#### Network security and its performance measurement



#### ICS/ITS Security

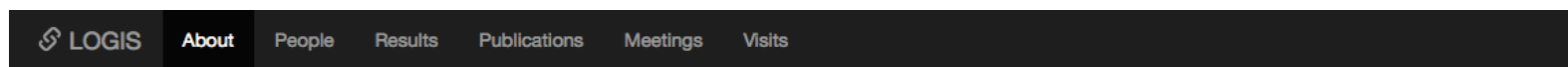


#### News

# Cybersecurity France-Japan: WG web pages

- **WG1: Formal Methods**

**Working Group Leaders: Gergei Bana; Catuscia Palamidessi; Mitsu Okada**  
**Cryptographic Protocol Verification/ Privacy by Formal Methods**



## LOGIS Logical and Formal Methods for Information Security



### About the project

Numerous attacks have been found on cryptographic protocols that were long thought to be secure. Formal logic-based approaches to verify protocol security have helped to find such attacks; however, these approaches have limited applicability, in particular with respect to more powerful attackers as those modeled by computational complexity or those capable of detecting side channel leakage.

To solve this, our project aims at integrating the logical / formal approaches with (A) *complexity theory* and (B) *information theory*. The first direction aims at establishing the foundations of logical verification for security in the computational sense, with the ultimate goal of automatically finding attacks that probabilistic polynomial-time adversaries can carry out on protocols. The second direction aims at developing frameworks and techniques for evaluating and reducing information leakage caused by adaptive attackers.

# Cybersecurity France-Japan: Website

**Collaborative Website** that  
can be **updated by all**  
members to keep it alive:

**Example: WG6 Workshop in France**



The screenshot shows the website header with the logo and title "Cybersecurity France-Japan" and the tagline "Scientific collaborations between France and Japan". The navigation menu includes "Home", "Steering Committee", "Conferences", and "News". A search bar is located in the top right corner. The main content area displays a workshop announcement for "WG6 workshop January 26th and 27th 2017 in Gardanne and Cadarache (13, France)". The announcement includes a list of activities for Day 1 and Day 2, and a list of presentations. The footer contains the "Partners" section with logos for Inria, French Embassy in Japan, CNRS, NICT, and Keio University, and the text "POWERED BY TEMPERA & WORDPRESS."

Search

Home | Steering Committee | Conferences | News | Search

Uncategorized > WG6 workshop January 26th and 27th 2017 in Gardanne and Cadarache (13, France).

WG6 workshop January 26th and 27th 2017 in Gardanne and Cadarache (13, France).

Uncategorized

Within **Working Group 6** framework, a two days workshop has been organized on January 26th and 27th 2017 in Gardanne and Cadarache (13, France).

Day 1 was dedicated to hardware security including :

- Presentation of system and architecture security labs
- Visit of the clean room and security labs
- Presentations coming from academics labs (Inria, CEA and EMSE).

Day 2 in Cadarache deal with cyber security :

- Cartography of French public research in cybersecurity
- Visit of CEA SCADA platform
- Presentations coming from industrial partners (Atos, Seclab)

*Presentations:*

[NICT\\_YNU\\_2017](#)

[Allistene\\_2017](#)

[LHS-PEC\\_STM\\_OrangeLabs\\_2017](#)

[CEA\\_UVSQ\\_EMSE\\_2017](#)

[Cidr\\_Centrale\\_Supelec](#)

← 2nd Joint Workshop on Cybersecurity, September 21-23, Rennes

3rd Joint Workshop on Cybersecurity, April 24-26, 2017-Tokyo (Japan) →

Partners  
Inria, French Embassy in Japan, CNRS, NICT, Keio University

POWERED BY TEMPERA & WORDPRESS.

# Sustain the WG collaborations

## **Funding bilateral projects:**

- **CNRS instruments**
- **Inria - JSPS AYAME Associate Teams**
- **French Embassy PHC SAKURA**
- **JSPS Open Partnership Joint Research Projects/Seminars**
- **ANR-JST agreement (see the ANR or JST web sites)**

## **Funding students/researchers exchanges**

- **PhD**
- **Post-docs**
- **Senior Researchers**
- **Student Fellowships**

**From Japan to France : JSPS and French Embassy**

**From France to Japan : Inria + JSPS**

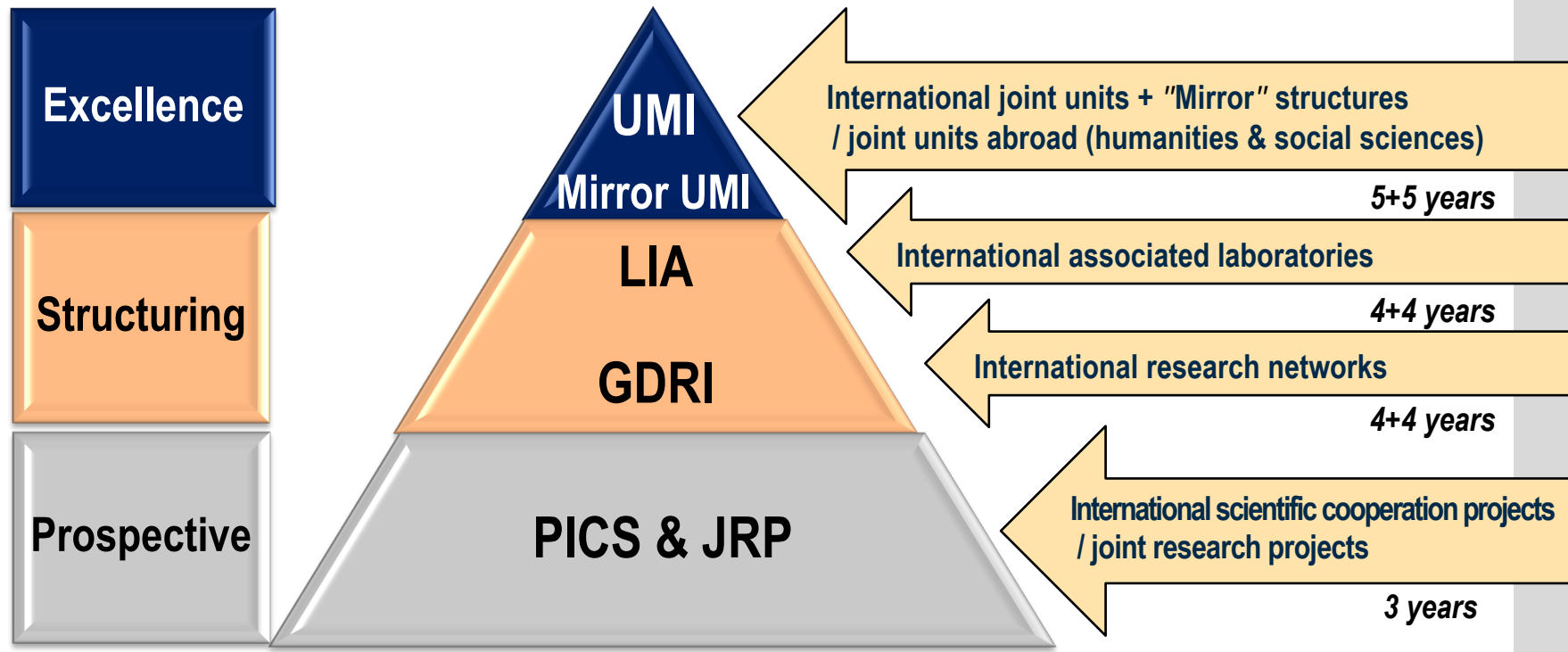


# CNRS Opportunities



<https://www.cnrs.fr/>

The CNRS plays a key role in global structuration & has developed a range of cooperative tools functioning on a competitive basis

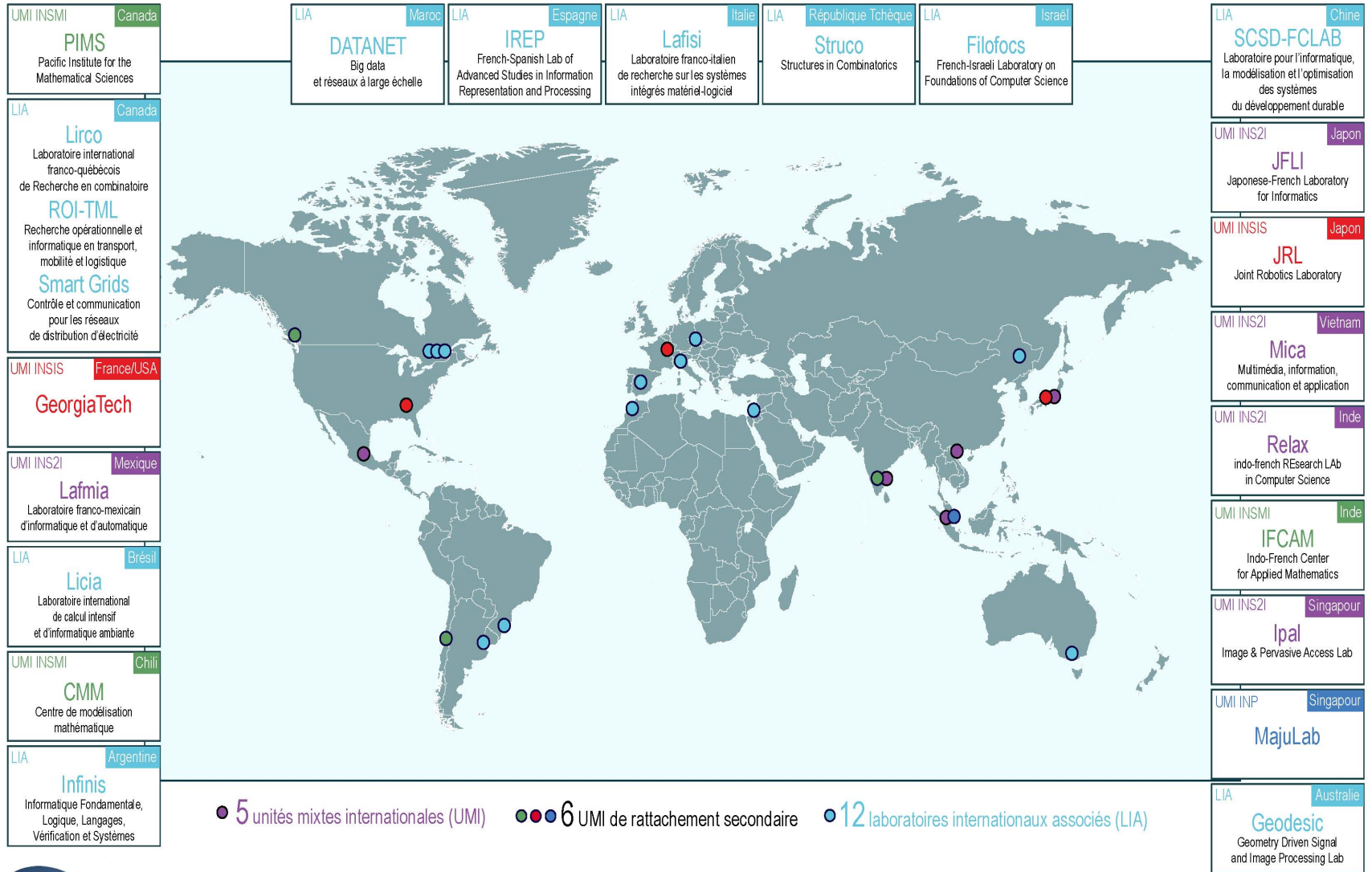


<https://www.cnrs.fr/derci/>

- **Joint Research Projects (PRC)** make it possible to set up co-financed collaboration between teams from the CNRS and specific international partners.
- **International Programs for Scientific Cooperation (PICS)** deal with financing initiatives between teams that have already established links through joint publications or student training programs.
- **International Associated Laboratories (LIA)** lay the bases of cooperation around a joint project, mostly between one or several French teams and a main partner abroad. They sometimes foreshadow the creation of an International Joint Unit.
- **International Research Networks (GDRI)** allow teams from two or more countries to collaborate on a joint scientific project.
- **International Joint Units (UMI)** which are proper joint laboratories, have the same status as CNRS joint research units (UMR) in France. These UMIs are most often backed by one or several French laboratories, making up a “mirror UMI”.



## L'INS2I à l'international



● 5 unités mixtes internationales (UMI) ●●● 6 UMI de rattachement secondaire ● 12 laboratoires internationaux associés (LIA)

❖ JFLI (Japan French Laboratory for Informatics)



❖ 3 on-going PICS and JRP (starting in 2018 : JRP on *security of IoT* with AIST in Tsukuba)

❖ ~ 3-4 JSPS post-docs and fellowships per year

# Inria funding instruments: Associate teams

## AYAME call for proposals:

- Jointly funded by Inria and JSPS for a 3 years term
- Annual call for joint research projects between an Inria project-team and a Japanese university/ research institution partner
- Around 60 000 euros funding per project

### 2018

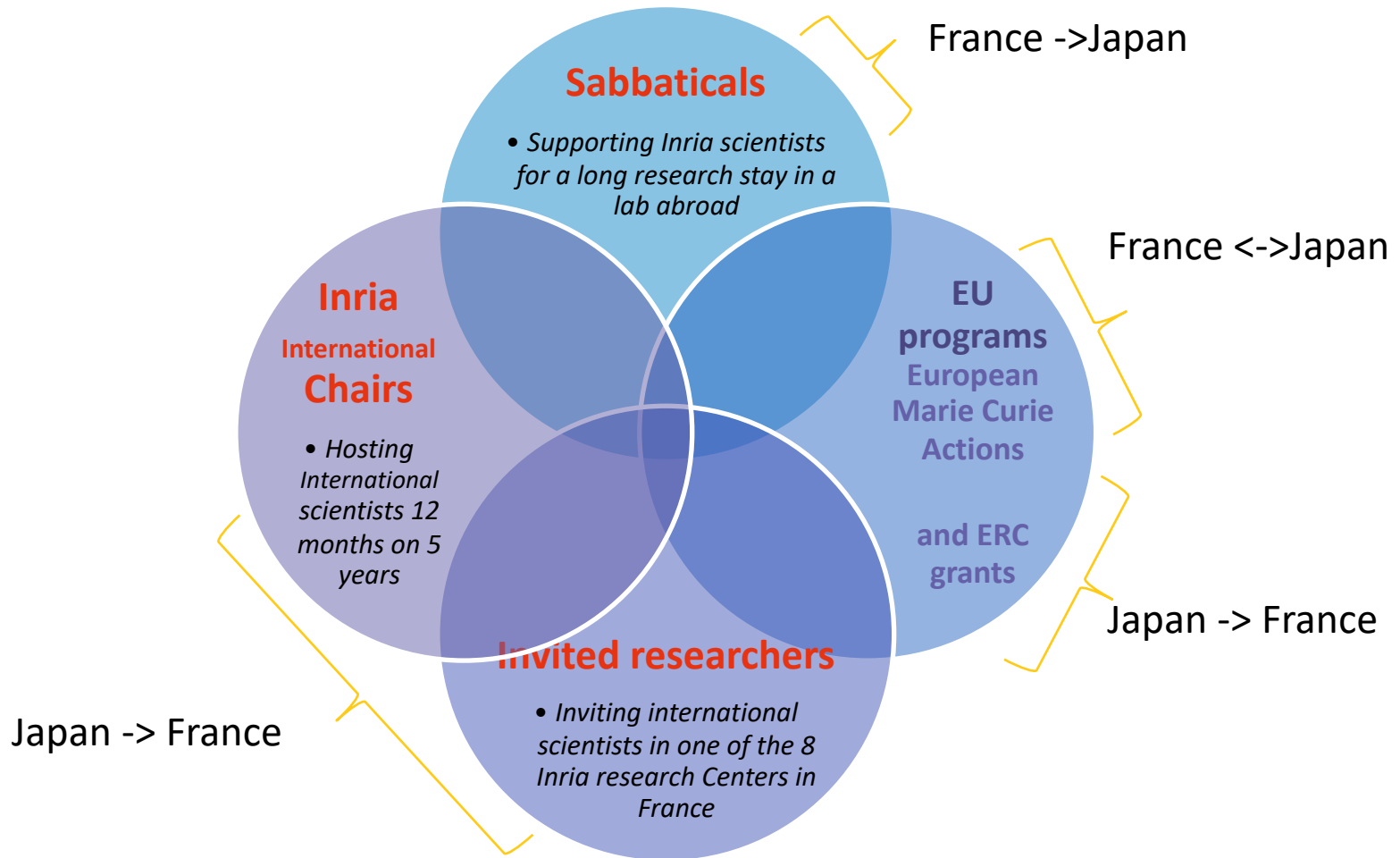
1 on-going joint  
associate team in  
Cybersecurity:  
**LOGIS**  
(Keio and Inria)  
WG1

### 2019 Call Timeline

**Japan:** Call will be launched by JSPS by June 2018  
Deadline for submissions: **September 5, 2018**  
**France:** Call will be launched by Inria on June 28.  
Deadline for submissions: **September 26, 2018**  
**Proposals have to be submitted to Inria and universities**

<https://www.inria.fr/en/research/international-mobility/associate-teams/call-for-projects>

# Mobility programs - Researchers Exchanges



# Inria International Chairs

- To encourage long stays by **eminent international researchers** in its project-teams and give them better visibility, by defining an "Inria International Chair" programme covering 12 months spread over 5 years
- Application conditions:
  - Have main professional activity outside France,
  - Commit to spend twelve months divided in at most five periods at Inria during the Chair holding period, the dates of the visits being decided with the leader(s) of the hosting project-team(s) according to a provisional schedule
  - Propose a work program related to the objectives of the hosting project-team(s)
  - Submission has to be sent to one of the Directors of Inria centres before September 30, 2018

During the visits at Inria, IIC holders have to give seminars or lectures to a large audience and to mention Inria in any scientific production achieved at Inria.

<http://www.inria.fr/en/institute/recruitment/inria-international-chairs/inria-international-chairs>

# The Inria Sabbatical program

- To support Inria's experienced scientists for a long research stay in a lab abroad
  - Opened to senior researchers from Inria projects-teams
  - Funding for a 6 to 12 months stay in a research center abroad
- Agenda:
  - 2<sup>nd</sup> submission deadline: October 31, 2018
  - Notification send to the candidates: December 7, 2018
  - Stay abroad can start in May 2019

A secondment agreement will have to be signed with the host institution to identify potential problems, especially on intellectual property aspects.

# Other French-Japan partnerships



- **PHC SAKURA, with JSPS : to foster new collaborations**
  - Funding per year/project :6000 € (France) 1.000.000 yens (Japan)
  - **Next call in Mid-May, deadline in September (around September 5, 2018)**
  - To get more information: <https://www.campusfrance.org/fr/sakura>
- **French Government Grants: Fellowship for Japanese students (Master, PhD, Post-doc level).**
  - Launched around June (annual basis), deadline in September
  - Support for Japanese students or young researchers (10 -12 months)
  - To get more information: <https://jp.ambafrance.org/Reglement-des-Bourses-du-Gouvernement-Francais-Disciplines-Scientifiques>



日本学術振興会  
Japan Society for the Promotion of Science

## JSPS opportunities



# Open Partnership Joint Research Projects/Seminars

- What's this scheme for? **To conduct bilateral joint research projects or seminars with funded Japanese colleagues.**
- How does the scheme work? **Fund Japanese colleagues to participate to a joint research project or seminar**
- What expenses does the scheme support? **Supports the costs of the Japanese teams, mainly their travel and accommodations.**
  - ✓ Joint Project (1-2 years) : Up to JPY 2,500,000 /a year/ a project
  - ✓ Joint Seminar (up to 1 week): Up to JPY 2,500,000 /a year/ a seminar
- **2018 Timeline:** similar to the « AYAME » program's timeline
- JSPS Deadline:** around beginning of September
- Deadline on French side:** around end of September

**Contact: [nikokukan@jsps.go.jp](mailto:nikokukan@jsps.go.jp)**

# Core-to-Core Program: Advanced Research Networks

**To create world-class research hubs in research fields considered to be cutting-edge and establish sustainable collaborative relations among research/education institutions in Japan and around the world.**

- Eligibility of Japanese applicants
  - (1) Japanese universities and research institutions or departments are eligible as a Japanese core institution.
  - (2) A full-time researcher employed at the Japanese core institution who is appointed as a co-chair of the project.
- **Project Period: 5 years**
- **At least 2 countries outside Japan with matching funding**
- **Deadline: around end of September - beginning of October 2018**

# International Programs for Individual Researchers (France -> Japan)

The “JSPS International fellowships for research in Japan” consists of two programs:

- **Postdoctoral Fellowships for Research in Japan for young researchers**
- **Invitation Fellowship for Research in Japan for mid-career and senior researchers.**

**Deadlines: September 2018**

**[http://www.jsps.go.jp/english/e-inv\\_researchers/index.html](http://www.jsps.go.jp/english/e-inv_researchers/index.html)**



# General principles for H2020 participation for 3<sup>rd</sup> countries

- General rule of at least 3 participants from 3 different EU Member States or Associated countries
- International cooperation is a cross-cutting priority in H2020, participation from non-European countries welcome
  - Participation in any regular call of the H2020 programme
  - Targeted openings
  - Horizontal actions on international cooperation
  - Coordinated calls
- Eligibility for H2020 funding: only in exceptional circumstances, industrialized economies can receive EU funding
  - existence of a bilateral agreement/arrangement
  - identification of the country in the relevant work programme or call for proposal as being eligible for funding
  - Participation deemed to be essential for carrying out the action



# Relevant calls 2018 on cybersecurity

- **SU-DS01-2018: Cybersecurity preparedness - cyber range, simulation and economics**
  - Opening date: 15 March 2018, Deadline: 23 August 2018
  - Innovation Actions, TRL up to 7, Budget available: 16 M€ (projects 5-6 M€)
- **SU-DS04-2018-2020: Cybersecurity in the Electrical Power and Energy System (EPES): an armour against cyber and privacy attacks and data breaches**
  - Opening date: 15 March 2018, Deadline: 23 August 2018
  - Innovation Actions, TRL up to 7, Budget available: 20 M€ (projects 6-8 M€)
- **SU-DS05-2018-2019: Digital security, privacy, data protection and accountability in critical sectors**
  - Subject: Digital security, privacy and personal data protection in finance
  - Opening date: 15 March 2018, Deadline: 23 August 2018
  - Innovation Actions, TRL up to 7, Budget available: 8.5 M€ (projects 3-4 M€)



# Relevant calls 2019 on cybersecurity

- **SU-DS03-2019-2020: Digital Security and privacy for citizens and Small and Medium Enterprises and Micro Enterprises**
  - Opening date: 14 March 2019, Deadline: 22 August 2019
  - Innovation Actions, TRL up to 7, Budget available: 18 M€ (projects 3-4 M€)
- **SU-DS05-2018-2019: Digital security, privacy, data protection and accountability in critical sectors**
  - Subject: Digital security, privacy and personal data protection in healthcare ecosystem
  - Opening date: 14 March 2019, Deadline: 22 August 2019
  - Research & Innovation Actions, TRL up to 7, Budget available: 10 M€ (projects 5 M€)
- **SU-DS05-2018-2019: Digital security, privacy, data protection and accountability in critical sectors**
  - Subject: Digital security, privacy and personal data protection in multimodal transport
  - Opening date: 14 March 2019, Deadline: 22 August 2019
  - Innovation Actions, TRL up to 7, Budget available: 10 M€ (projects 5 M€)



# Other relevant Horizon 2020 calls

- **Marie-Sklódowska-Curie Individual fellowships (IF)**
  - To support for experienced researchers undertaking mobility between countries (optionally to the non-academic sector)
  - Next call MSCA-IF-2018 (Opening date: April 12, 2018, Deadline: September 12, 2018)
- **Opening ERC teams to the world**
  - To encourage young top scientists from non-European countries to join research teams of ERC grantees
  - A specific agreement has been signed in 2015 between ERC and JSPS
  - See: [http://www.jsps.go.jp/j-pd/pd\\_user-haken.html](http://www.jsps.go.jp/j-pd/pd_user-haken.html)
  - ERC grantees at Inria in Cybersecurity:
    - **Steve KREMER** (Nancy, CASSIS project-team)
    - **Karthikeyan BHARGAVAN** (Paris, PROSECCO project-team)
    - **Catalin HRITCU** (Paris, PROSECCO project-team)
    - **Vadim LYUBASHEVKSY** (Paris, CASCADE project-team)
    - **Maria NAYA-PLASENCIA** (Paris, SECRET project-team)

# European Mobility programs

- **ERC (European Research Council)**
  - To attract researchers in Europe and encourage « research at the frontier of knowledge » whose sole selection criterion is excellence.
  - Two grants are aimed at young scientists, Starting Grants (2 to 7 years after the thesis) and Consolidator Grants (7 to 12 years after the thesis) enabling them to build up a research team around an original theme (up to 1.5 and 2 million € during 5 years)
  - The Advanced Grants are aimed at confirmed scientists, enabling them to propose a topic that breaks with their research activities (2,5 million € during 5 years)
- **Marie Skłodowska Curie Actions IF**
  - European Fellowships – for researchers to work at a research organisation in Europe, with a view to acquiring new skills or working in new sectors. For researchers either moving within Europe or coming to Europe. Project Duration 12 to 24 months.
  - Global Fellowships – for European researchers to work outside Europe for a time, then to transfer that knowledge back into Europe. Project Duration 24 to 36 months (including a mandatory 12-month reintegration period back to Europe after the completion of the outgoing stay).