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# E-JADE

Europe-Japan Accelerator Development Exchange Programme  
Horizon 2020 / Marie Skłodowska-Curie Research and Innovation Staff Exchange (RISE)

## DELIVERABLE REPORT

### E-JADESUMMARY

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## **Deliverable**

*Month 36 E-JADE Summary:* Summary of dissemination activities

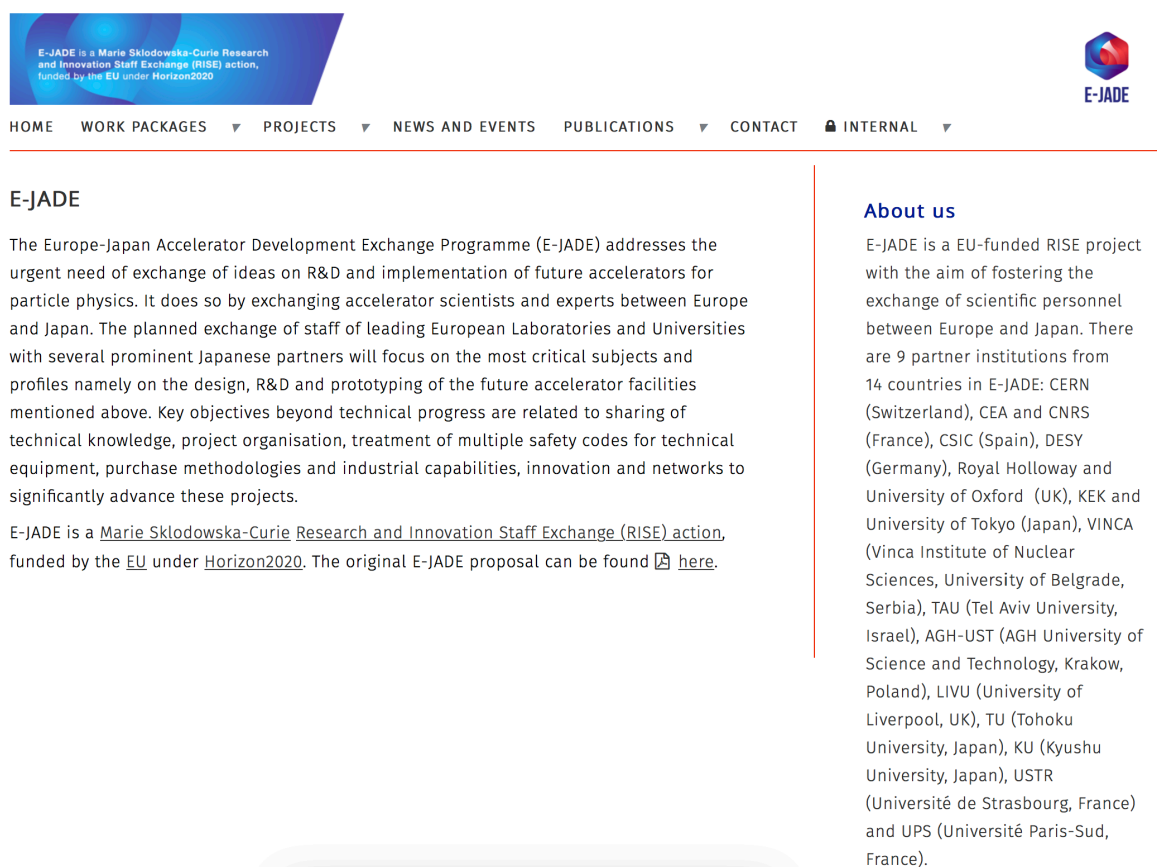
### **Executive summary**

This report summarises communication, outreach and dissemination activities conducted within E-JADE or connected to central E-JADE topics. Given the widespread nature of E-JADE activities and the rather large number of involved institutions, in many cases no centralised actions were taken, but rather the already well-established dissemination channels of the individual partner institutions and their researchers were used to additionally transmit E-JADE content. Nevertheless, some centralised action was of course taken, e.g. the E-JADE web pages, a certain amount of social media, and some centralised workshops.

## 1. INTRODUCTION

Dissemination was a central task within E-JADE, and – as was described in deliverable report no. 38 “Communication Strategy” [1] – has received a significant amount of attention from the E-JADE management and E-JADE researchers.

The fields of action originally foreseen was described in a table in the Ref. [1] (see also below in Sect. 10). In almost all of these fields, numerous activities have already taken place, and this short document describes them in some detail. Some details that are not repeated here have also been presented in the 2016 periodic report [2].



The screenshot shows the E-JADE website. At the top left, there is a blue banner with white text: "E-JADE is a Marie Skłodowska-Curie Research and Innovation Staff Exchange (RISE) action, funded by the EU under Horizon2020". To the right of the banner is the E-JADE logo. Below the banner is a navigation menu with the following items: HOME, WORK PACKAGES, PROJECTS, NEWS AND EVENTS, PUBLICATIONS, CONTACT, and INTERNAL. The main content area is divided into two columns. The left column is titled "E-JADE" and contains a paragraph describing the program's purpose and objectives, followed by a link to the RISE action. The right column is titled "About us" and contains a detailed list of partner institutions from 14 countries, including CERN, CEA, CNRS, DESY, Royal Holloway, University of Oxford, KEK, University of Tokyo, VINCA, University of Belgrade, Serbia, TAU, AGH-UST, LIVU, TU, KU, USTR, and UPS.

Figure 1: Screenshot of the E-JADE web page <http://www.e-jade.eu>.

## 2. E-JADE WEB PAGES AND SOCIAL MEDIA

As described in deliverable report no. 24 “Public Web Pages” [3], a web site <http://www.e-jade.eu> was set up (see Fig. 1). The page describes the overall scope and structure of E-JADE, the work packages and main projects, as well as the relevant E-JADE publications, reports (e.g. all deliverable reports), and events. Note that due to the widespread nature of E-JADE, no attempt was made to mirror a complete list of presentations and publications by E-JADE scientist. However, a good impression can be won on the web page.

Rather late in the project, E-JADE also started to serve Twitter with a dedicated channel containing news about the project (see Fig. 2).



Figure 2: Screenshot of a recent E-JADE tweet (<https://twitter.com/cecile59632253?lang=de>).

### 3. PUBLICATIONS

Publications are THE means of scientific dissemination, and E-JADE members are particularly productive in this respect. We do not reproduce publication lists in this report – they can be found in the recent annual and periodic reports Refs. [2,4,5] and, partly, on the E-JADE web pages. As an example, the 2017 periodic report [4] lists 33 refereed publications from all E-JADE work packages.

### 4. WORKSHOPS AND CONFERENCE PRESENTATIONS

Conferences and workshops are natural places of information exchange and dissemination among physicists. In fact, E-JADE results and topics relevant for E-JADE were so frequently discussed at large and small conferences as well as at topical workshops that no attempt at completeness is made here (see the E-JADE web page for an overview of events and presentations). A few events, however, were remarkable for their E-JADE impact, and they will be briefly discussed here.

#### 4.1. E-JADE INDUSTRY WORKSHOPS

The organisation of two industry workshops was an E-JADE deliverable. The first of these workshops was held at the 2017 International Linear Collider Workshop (Strasbourg, <https://agenda.linearcollider.org/event/7645/>) [6]. The second took place during the Asian Linear Collider Workshop 2018 in Fukuoka (Japan, May/June 2018, <https://agenda.linearcollider.org/event/7826/>).

Both events brought together numerous research institutions, industries and organisations like chambers of commerce etc. In particular the 2018 event in Fukuoka was remarkable for its presence of the Advanced Accelerator Association (AAA), an association of Japanese industries from all fields that promote the ILC. Members of AAA are, for example, heavy industry companies, electrical power suppliers, construction companies, computer firms, and many more, a total of 113 companies (the who-is-who of Japanese industry) and 42 research and other institutions.

We believe that with the organisation of the industry workshops we have significantly strengthened the vision for the ILC among especially Japanese industries, who have significant lobbying power, and that we have thus strengthened the case for the ILC in general.

#### **4.2. ILC MDI / CFS / INFRASTRUCTURE WORKSHOPS**

The topics of machine-detector interface (MDI), of civil facilities and services (CFS) and of general infrastructure for the ILC experiments has since long received a lot of attention. Since 2015, E-JADE has been instrumental in organising combined MDI+CFS+infrastructure working meetings, typically at KEK, at which the experts from the fields came together to work out ever more detailed plans for their respective fields (see <https://agenda.linearcollider.org/category/86/> for the agendas of the meetings).

The meetings – typically attended by about 20 scientists from Europe, the US and Japan – were typically held twice a year and included visits to the presumed ILC site, to relevant facilities and infrastructures, and very careful discussions of related issues like detector and accelerator assembly, integration etc.

E-JADE funds were vital for the

#### **4.3. ATF2 WORKSHOPS**

The ATF2 work has been benefited very strongly from the E-JADE secondments. Associated to the ATF2 project there are weekly coordination phone-meetings and annual project workshops (<https://agenda.linearcollider.org/category/47/>) in Europe or Japan. For the latter typically 20-30 researchers from Japan and Europe participate.

#### **4.4. VII MINI-WORKSHOP FOR THE ADVANCED GENERATION OF THZ AND COMPTON X-RAY BEAMS “AGTAX” USING COMPACT ELECTRON ACCELERATORS**

The mini-workshop has brought together different communities working on the simulation, generation and experimental investigation of high-brightness THz and Compton X-ray beams. It strongly benefitted from the E-JADE secondments. The workshop was organized by the High Energy Accelerator Research Organization (KEK), University of Oxford and Royal Holloway University of London (<https://kds.kek.jp/indico/event/20598/>). It is part of a series of workshops taking place since quite some time. The workshop in question attracted close to 30 researchers from Japan and Europe.

#### **4.5. OTHER WORKSHOPS AND EVENTS**

Several other events relevant for E-JADE were co-organised or hosted by E-JADE institutions. A prominent example is the Top@LC Quark Physics Workshop (see the web page at <https://agenda.linearcollider.org/event/7820/>), the 6<sup>th</sup> installement of a series in which E-JADE researchers are very influential. The purpose of this workshop is to gather theorists and experimentalists from all over the world to discuss experiments on the top and bottom quarks, from 250 GeV to higher energies of electron-positron collision, that would expose the connections between the top quark and physics beyond the Standard Model.

### **5. SCHOOL VISITS**

Individual E-JADE researchers are frequently invited to schools, in order to lecture about their specific fields of research. We do not keep track of these events, but can just pick two examples: The Oxford institute representative, Prof. P. Burrows, was invited to the Windsor Boys' School, on 27 April 2017, in order to talk about the "Particle accelerators: Making the Higgs boson and MUCH more!".

## 6. GUIDED TOURS AND SIMILAR EVENTS

Guided tours are a well-established tool for disseminating knowledge on projects in particle physics and accelerator physics to the general public. All large laboratories have their own tour programs – CERN, DESY, KEK, to name a few.

At DESY, as a typical example, tours of the premises (with visits also to the former HERA tunnel) typically last 2-3 hours and include a 30-minute presentation on the laboratory and its portfolio. In the course of these presentations, the ILC and other future projects of the field of high energy physics figure prominently – especially since the ILC accelerator technology was developed at DESY and is now in use in the European XFEL linac. This gives ample opportunity to stress the relevance of international cooperation, of EU funding and in particular of the E-JADE project and its scope.

Guided tours address all generations and all thinkable selections of people. Taking again DESY as an example, school classes are guided alongside with groups of pensioners, and privately organised tours are as common as visits by companies or clubs and associations. In 2017, about 10000 people participated in altogether about 500 guided tours about the premises (KEK: 20000; CERN 110000). At DESY, about 60% of the guided tours are for school children.

"Days of open doors" are very special events at the large laboratories as well as at universities. They attract a very broad public, often in large numbers (DESY 2017 – 20000 visitors; KEK 2017 – 6000 visitors). These events are especially suited for displaying large pieces of hardware, and information on the relevant projects alongside with them, and the accelerator projects that are at the core of the E-JADE programme, feature prominently in these events.

## 7. PUBLIC LECTURES

All E-JADE institutions organise programmes of public lectures, science cafés, and similar events. These – often advertised through local newspapers – often also attract large numbers of participants – as an example, the DESY public lectures (which take place roughly on a monthly basis) typically have between 100 and 200 visitors.

A similar audience, albeit in a more communicative, dialogue-oriented setting, is attracted to science cafés or event series like "Science on the tap" (see <http://www.wissenvomfass.de>).

In these events, E-JADE relevant topics feature regularly and prominently. Recent examples is a science café on "New particle physics projects – always bigger, fatter, heavier?" at DESY, which discussed the role of future accelerator projects from HL-LHC to FCC, concentrating on the ILC.

## 8. SUMMARY

E-JADE puts a lot of emphasis on and a lot of effort into dissemination activities. This report provides an overview of the activities conducted.

## REFERENCES

- [1] E-JADE deliverable report no. 28 “Communication Strategy”, 2016.
- [2] E-JADE periodic report 2016, March 2017.
- [3] E-JADE deliverable report no. 24 “Public Web Pages”, 2015.
- [4] E-JADE periodic report 2017, March 2018.
- [5] E-JADE progress report, May 2016.
- [6] E-JADE deliverable report no. 27 „Industry Workshop“, 2017.

## APPENDIX A: REMINDER: COMMUNICATION ACTIONS

The following table is an excerpt from the deliverable report no. 28 “Communication Strategy” [1] from October 2016. It summarises the used channels of communication within E-JADE.

<b>Description</b>	<b>When</b>	<b>Action, Target(s), Status</b>	<b>Responsible</b>
Setting up Public Web pages	Month 3	<b>Action:</b> Setting up public web pages as well as providing information for media and general public. <b>Target:</b> Project members, scientific community and general public. Accelerator project stakeholders. <b>Status:</b> This is done. The pages are currently maintained and updated.	CERN, DESY
Industry workshops	Months 20 and 45	<b>Action:</b> Workshops for industry connected to accelerator projects in Europe and Japan. In connection with annual meetings of all E-JADE participants or other conferences where the community participates. <b>Target:</b> Industries and Scientific accelerator project leaders. <b>Status:</b> The first will take place during the IEEE conference in Strasbourg early November.	CERN with all partners
CommStrgy	Month 12	<b>Action:</b> Communication strategy report. <b>Status:</b> This document.	CERN
Publications	During the project	<b>Action:</b> The results of the research will be presented at conferences and published in open-access journals. They will also be made available in the public domain via web sites and video casts as well as public lectures and magazines. <b>Target:</b> Scientific community and general public. <b>Status:</b> The major projects supported by E-JADE secondments are doing this. Overview to be provided by E-JADE.	All partners



School visits	During the project	<p><b>Actions:</b> School class and university visits with involvement of the seconded researcher.</p> <p><b>Target:</b> Enhanced interest in science subjects on high schools and universities as well as interest in scientific careers and recognition of the international aspect/possibilities of science.</p> <p><b>Status:</b> Not started in a co-ordinated way within E-JADE.</p>	All partners
Guided tours	During the project	<p><b>Actions:</b> Guided tours, visitor programmes and science open days at all research institutes, in order to inform the general public and motivate young adults on following a scientific career. Communicate on research benefits and justify tax expenses.</p> <p><b>Target:</b> General public including school classes.</p> <p><b>Status:</b> Ongoing in all the large labs participating in the project.</p>	All partners
Multimedia / Social media about E-JADE	During the project	<p><b>Action</b> Seconded researcher will be interviewed about their experience.</p> <p><b>Target:</b> General public, schools, E-JADE project members.</p> <p><b>Status:</b> Not started.</p>	CERN, KEK
E-JADE public exhibition	Around month 45	<p>Presentation of the results and experiences from the E-JADE programme.</p> <p><b>Target:</b> General public.</p> <p><b>Status:</b> Preparation not started.</p>	CERN, KEK