



# The EAJADE Project

Europe-America-Japan Accelerator Development and Exchange Programme

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ILC Europe Meeting

15 July 2022

# EAJADE

## The Europe-America-Japan Accelerator Development and Exchange Programme

### A Marie Skłodowska-Curie Action

- Horizon framework programme: a research & innovation (RI) staff exchange (SE) action
- All in all about 1.6 MEUR for travel purposes (“secondments”) to partner institutions in Canada, Japan, USA and to industry partners in the EU; roughly 350 person-months
- Run time: from early 2023 for four years

### Some history

- Precursor programme: E-JADE (Europe-Japan Accelerator Development and Exchange programme) 2014-18
  - <https://www.e-jade.eu>
  - Exclusively with Japan, no industry
  - Focus on ILC / SCRF technology and relevant physics, detectors and MDI aspects.
  - Considered extremely helpful for a number of projects – despite “This is not enough” (Santander, 2015)
- ➔ Build on established collaboration scheme and extend it with EAJADE.

**Status:** grant agreement preparation process with short deadlines.



**E-JADE**

Europe -Japan Accelerator  
Development Exchange Programme

# EAJADE Institutions

## Beneficiaries (sending) and associate partners (receiving)

### Beneficiaries in the EU

- CEA (E. Cenni), CERN (S. Stapnes), CNRS (P. Bambade), CSIC/IFIC (J. Fuster), DESY (T. Schörner), INFN (L. Monaco), U Hamburg (M. Wenskat)

### Associate academic partners

- Canada: U Victoria
- Japan: KEK, U Tokyo, U Tohoku
- USA: LBNL, BNL, FNAL, Cornell, JLAB, SLAC

### Associate non-academic partners (in EU)

- CPI TMD (UK), INEUSTAR (Spain), ZANON (Italy), ScandiNova (Sweden), Research Instruments (Germany)

### Somewhat of a grey zone: U Oxford

- After Brexit and with pending Northern Ireland discussions – unclear status of UK in Horizon etc.: Can U Oxford be beneficiary or not?
- UK promise to replace EU funds from national budget.
- Decision expected (according to EU PO) in late August / early September.



# EAJADE Work Packages

## And intended facilities

### **WP 1: R&D&I at currently operating state-of-the-art accelerator facilities (143 months)**

- CERN, **CNRS**, DESY, CSIC/IFIC, INFN, UOXF, CEA
- Experience from running linear and circular machines for future colliders; positron production, ...
- ATF3, LCLS II, FAST-IOTA, SuperKEKB, FACET-II, polarized positron facility at JLAB, cERL, CBETA

### **WP 2: State-of-the-art high-gradient, high-efficiency, reduced-cost RF structures and power sources (68)**

- CEA, CNRS, CERN, CSIC/IFIC, **INFN**, UHH, UOXF
- Cavity materials/treatment, cryomodules, diagnostics, NCRF & high-power sources, industrialization, cost reduction

### **WP 3: Special technologies, devices and systems performance (74)**

- CEA, **CERN**, CNRS, DESY, UOXF
- Final focus, collimation and magnets, lumi devices, MDI studies, beam dynamics, simulation, polarization / polarimetry including hardware concepts

### **WP 4: Sustainability (12)**

- **CEA**, CERN, DESY, CNRS, INFN
- SC cavities, RF power amplifiers, ERLs, power modulation, smart tunneling, Green ILC

### **WP 5: Investigations of potential early applications of novel and advanced technologies for colliders (52)**

- **DESY**, CNRS, INFN, UOXF
- Plasma concepts for HEP, experimental plasma acc tests, high-performance computing / simulation codes

### **WP 6: Management, dissemination, training, knowledge transfer, and communication (DESY, 4)**

# Backup