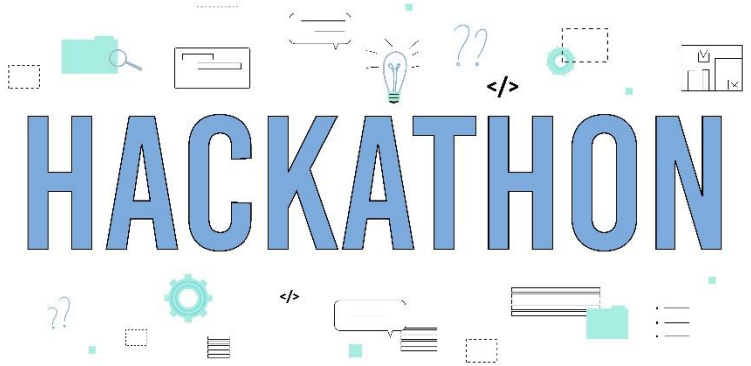
INPACE

Indo-Pacific-European Hub for Digital Partnerships

東京大学
THE UNIVERSITY OF TOKYO



Interoperability of Dataspaces

gaia-x

GLEIF Enabling global identity Protecting digital trust

egm

HACK FOR EARTH FOUNDATION

VTT

NTT DATA

Funded by the European Union

Project funded by
Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra
Swiss Confederation
Federal Department of Economic Affairs, Education and Research EAER
State Secretariat for Education, Research and Innovation SERI

Agenda

- Introduction to the Hackathon Event - Dr Franck Le Gall (EGM) [10 min]
  - INPACE context, overall objective, engagement rules
- Welcome for local organizer – Prof. Noboru Koshizuka (Tokyo University) [20 min]
  - Local logistic
  - Presentation of the Tokyo set-up
  - Example of challenges
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- Q&A [25 min]
  - Technical integration
- Event closing - Dr Franck Le Gall (EGM) [5 min]

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Context

Rational behind the project

1

The **EU aims to strengthen its connection to the Indo-Pacific region** for research, innovation, technology deployment, regulation alignment, and supply chain stability.

2

Promotion of digital technologies being one of the highest priorities, the EU has established Digital Partnerships with Japan (2022), the Republic of Korea (2022) and Singapore (2023), and a Trade and Technology Council (2022) with India.

3

The goal is that society and businesses in both regions **benefit from opportunities in the growing global digital economy**.

Expected outcomes of INPACE

1. **Harmonized research and innovation** funding programs and joint calls
2. Convergence on **principles in regulation, legislation, and standards for digital technologies** and new joint major policy initiatives between the EU and the Indo-Pacific region
3. **Reduction of barriers** for trade and commercialization of new digital technologies
4. **Long-term collaborations in the field of digital technologies** and their applications

Digital partnership in focus

- **EU-Japan Digital Partnership**
  - Signed May 2022; covers AI, quantum computing, 5G/6G, semiconductors, and cybersecurity
  - April 2024 memorandum specifically targets digital identity interoperability and mutual recognition of trust services
- **G7 Data Free Flow with Trust (DFFT)**
  - Endorsed at the Hiroshima G7 Summit in 2023; aims to enable cross-border data exchange while respecting sovereignty, privacy, and regulatory compliance
  - Must simultaneously navigate GDPR (EU), APPI (Japan), and diverging frameworks across Korea, Singapore, and India
- **EU Global Digital Partnerships Strategy**
  - Moves beyond bilateral agreements toward a multilateral trust ecosystem spanning multiple regions and jurisdictions
  - Supply chain and dataspace integration demands that data from Korea, Japan, India, Singapore and Europe can semantically and legally across dataspaces

The Gap You're Here to Fill

- **Problem**: Policy cooperation is advancing rapidly. Technical interoperability lags behind.
- **Opportunity**: You get to build the bridges before the standards are fully set, meaning your innovations could literally become the reference implementations that inform global policy.
- **The Impact**: Success here doesn't just win you a prize—it positions your work at the forefront of how digital cooperation evolves between Europe and the Indo-Pacific for the next decade.

Hackathon challenge

Technical Core Frontiers (1/2)

Dataspace Connector Interoperability: The Foundation

- European Dataspace Connectors:
  - **Gaia-X Federation Services**:
  - **IDSA (International Data Spaces Association)**: Reference Architecture
  - **FIWARE connector and context broker**
  - **Eclipse Dataspace Components (EDC)**
- Japanese Dataspace Approaches:
  - **CADDE (Cross-ministerial Association for Data-driven society on Diversified Environments)**:
  - **Trusted Web Project**: Japan's vision for decentralized, user-centric data exchange

Semantic Interoperability and Data Models: Making Sense Across Borders

- European Semantic Standards:
  - NGSI-LD: ETSI standard for context information with JSON-LD linked data, entity relationships, temporal properties
  - DCAT-AP (Data Catalog Vocabulary): W3C application profile standard for dataset metadata and catalogues
  - European Smart Data Models: 500+ standardized schemas for manufacturing, agriculture, smart cities, mobility
- Japanese Data Standards:
  - IMI (Infrastructure for Multilayer Interoperability): Japan's core vocabulary for government data exchange
  - Domain-specific standards: Automotive data formats, manufacturing protocols, logistics metadata
  - Industry-led initiatives: Sector-specific data models from consortiums

Technical Core Frontiers (2/2)

Trust Frameworks and Verifiable Credentials: Establishing Cross-Border Confidence

- European Trust Mechanisms:
  - eIDAS 2.0: Digital identity wallets with organizational credentials, qualified trust service providers
  - EBSI APIs: API for EU based blockchain solution
- Japanese Trust Models:
  - My Number Card: Government-issued identity with qualified certificates
  - Commercial trust providers: Industry-specific identity and certification systems
  - Blockchain-based provenance: Pilot programs for supply chain trust
- Global
  - Gaia-X Trust Framework: Participant self-descriptions with verifiable credentials, compliance verification, trust anchors
  - GLEIF vLEI: Verifiable Legal Entity Identifiers using KERI (Key Event Receipt Infrastructure) for tamper-evident organizational identity

Policy Enforcement and Usage Control: Governance That Scales

Optional Advanced Frontiers

- **High-Performance Computing Integration**
  - Real-time semantic matching across millions of European and Japanese dataspace offerings
  - Cryptographic operations for verifiable credentials at scale
  - Distributed policy evaluation across federated connectors
- **AI-Powered Intelligence for Dataspace Operations**
  - Automated schema mapping and Smart data discovery: AI discovers semantic correspondences between European and Japanese data models
  - Compliance prediction: ML models assess regulatory compatibility before cross-border data exchange
  - Contract negotiation: AI agents negotiate usage terms between European and indo-pacific dataspace participants
- **Blockchain and Distributed Ledgers for Provenance**
  - Track data lineage as it flows from Japanese manufacturing sensor → CADDE connector → European supply chain dataspace → automotive manufacturer
  - Verifiable usage logs proving compliance with data sovereignty policies
  - Smart contracts automating payment for data transactions between regions

Selection criteria

🎯 Interoperability (30%)

Actual demonstration of end-to-end interoperability across EU & Indo-Pacific Dataspaces and digital identity systems

⚙️ Technical Excellence (10%)

- Robust architecture and scalable design
- Quality of implementation and code craftsmanship
- Integration complexity - ability to bridge diverse systems

🌎 Real-World Impact (20%)

- Addresses genuine cross-border dataspaces advantages
- Potential to serve citizens across EU-Indo-Pacific region
- Measurable benefits for government services, healthcare, or commerce

🔒 Trust & Security (20%)

- Data sovereignty preservation across jurisdictions
- Privacy-by-design implementation
- Cybersecurity best practices and compliance readiness

🚀 Feasibility & Presentation (20%)

- Clear implementation roadmap and realistic timeline
- Quality of pitch and demonstration
- Team collaboration and project execution

Judging Process: Expert evaluation panel including standardization experts, technical architects, and industry practitioners

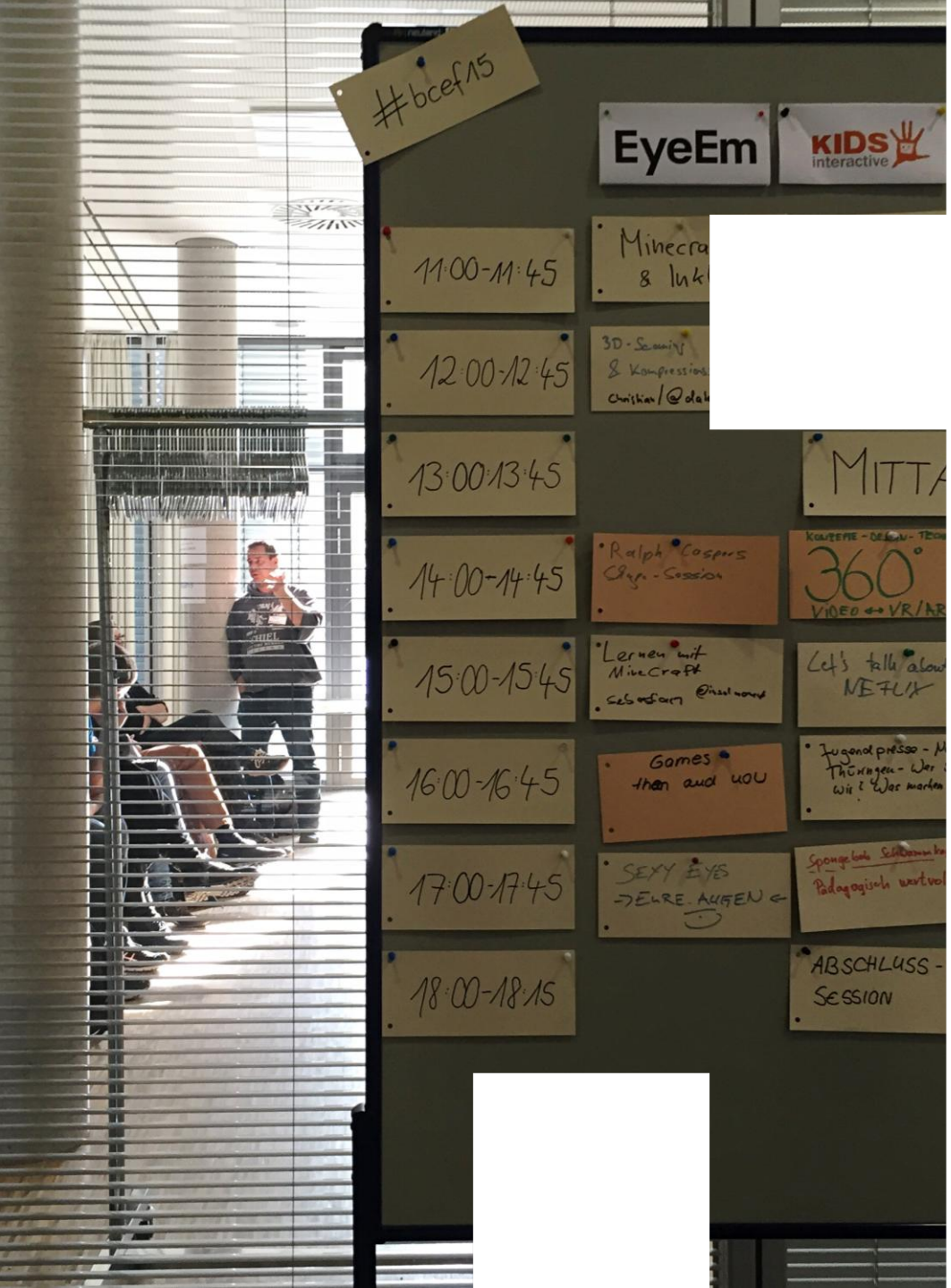
🏆 Prize : Present and accelerate your Solution

Travel and Showcase Opportunity

- Winning team's representative invited to present the team's solution at an international event:
  - Final INPACE evnt(Brussels S1 2027)
  - Alternative to be discussed

Build for Earth acceleration program

- A 6-month digital acceleration programme by the Hack For Earth Foundation
- Up to 2 winning teams per hackathon may be selected by Hack For Earth representatives to join the programme



Schedule and logistic

Schedule

- Event start: Tuesday 2026/03/03 - 18:00-20:00 JST
- Phase 2: technical Webinars: Tuesday 2026/03/10 - 18:00-21:00 JST
- Phase 3: 2 Days Hybrid Hackathon Run: Friday 2026/03/20 & Saturday 2026/03/21
  - Room and tech-team available 13:00-20:00 from Fri. 20th to Sat 21st
- Saturday 2026/03/21 - 16:00-18:00 JST : Shortlist (3 candidates) selection
  - 10 min pitch presentation per each team via Online
  - Materials (Slides deck; video record, etc) to be uploaded to : before 16:00
- Thursday 2026/03/26 - 13:00-15:00 JST : Final
  - 15 min presentation by each shortlisted teams in Track 1 Session
  - Vote by the jury -Results announcement and pictures

Phase 2: Technical webinars

- **Dates**: March 10, 2026
- **Time**: 10:00-13:00 CET / 18:00-21:00 JST
- **Registration**: Inpace Hub
- **Presentations by domain experts (approximately 6 presentations):**
  - testbed presentation and accessUniversity of Tokyo testbed presentation and available tools
  - IDS data trading demonstration
  - “NGSI-LD and DCAT-AP as dataspace foundation”, EGM
  - "FIWARE Dataspace Components: enabling more powerful data spaces supporting monetization and access to applications, services and data from devices, robots, AI agents and end users", Seamware
  - “DIL Data Space playground”, VTT
  - …

Phase 3: Hybrid Intensive Sprint (On-Site Focus)

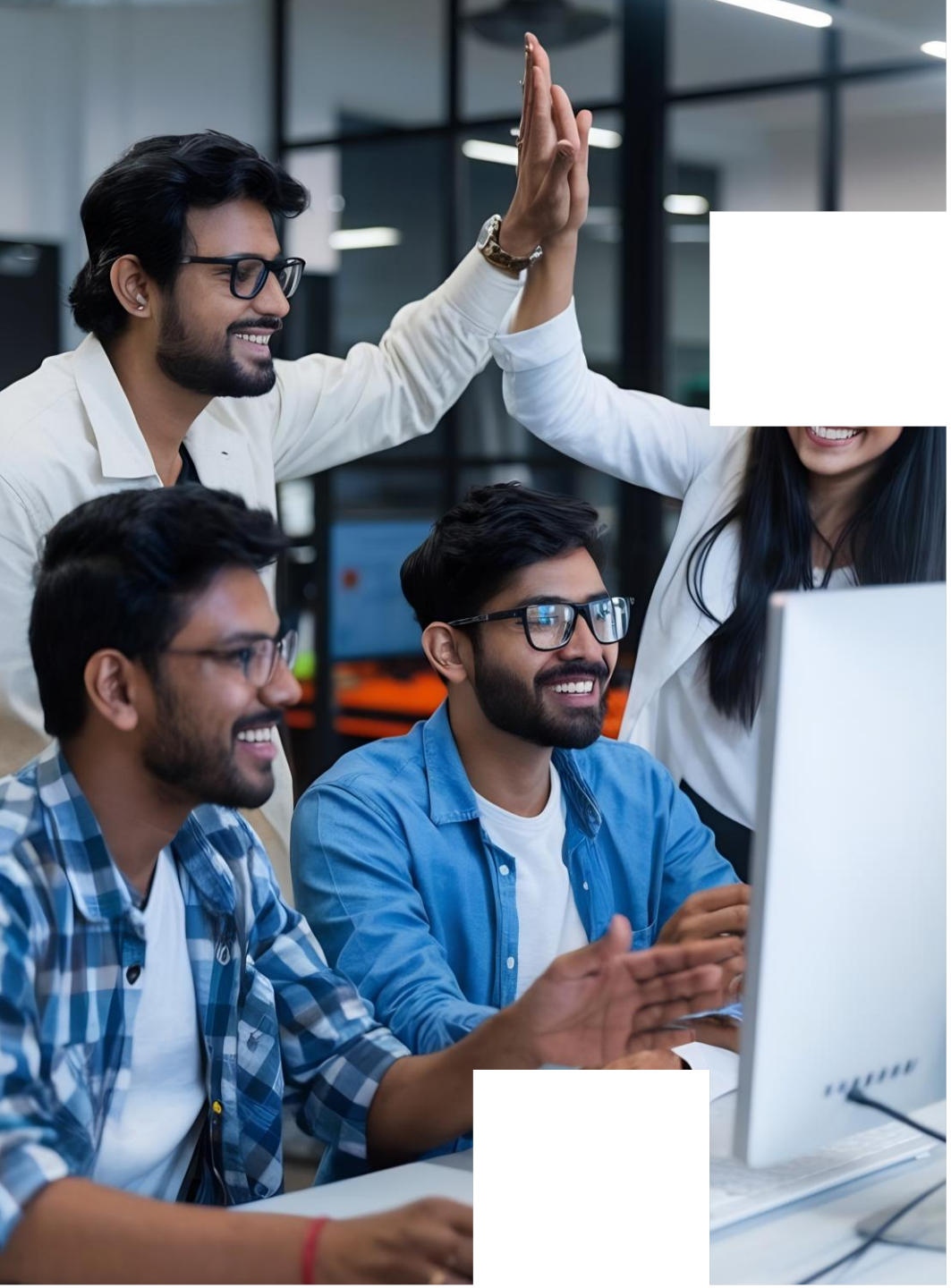
- **Dates:** March 20-21, 2026 (Friday-Saturday)
- **Time:** 13:00-20:00 JST (05:00-12:00 CET)
- **Registration**: online registration link
- **Venue:** Hongo Campus, The University of Tokyo / Online
- **Facilities:**
- Co-located team workspace with tables, high-speed internet, blackboards
- Catering provided (coffee, light meals, and snacks)
- Technical desks from supporting organizations

Activities:

- Intensive development focused on final integration, testing, and demo preparation
- Daily standups, technical and innovation mentoring, debugging sessions
- Evening social events fostering EU-Japan-Indo-Pacific networking
- Remote participation allowed but will limit the participant experience
- **Important:** Teams can join/leave freely except during the Final Presentation Time on March 21.

Phase 4: Final pitching ceremony

- **Date**: March 26, 2026 (Thursday)
- **Time**: 13:00-15:00 JST
- **Registration**: online registration link
- **Venue**: EU Delegation premises, Tokyo
- **Format**: Pitch session during EU-Japan Digital Week 2026
- **Program** :
  - Greeting message - 10 minutes
  - Pitches from the 3 teams – 3*15 minutes (10min presentation + 5 min questions)
  - Prize awarding - 10 minutes



Teams registration

Teams making and registration

REGISTER ON-LINE

Flexible Participation — Join Solo or Team Up!

- **Register as an Individual**
  - Sign up independently and participate solo, or join up with others at the event to create a team.
- **Register as a Team**
  - Bring your own team—just make sure each member registers separately before the hackathon starts.
- **Needed from each team**
  - Team name
  - For each member of the team
    - Firstname, Lastname, e.mail, Organisation, Country

Participation mode

On-Site - Tokyo (Strongly Recommended)

- **Direct access to local mentors**
- **Technical desks**:
- **High-speed infrastructure**
- **Spontaneous collaboration**
- **Networking events**:
- **Immersive experience**

Remote Participation (Allowed, but Limited)

- Remote participation is permitted
- Mentorship happens via scheduled video calls and online chat (slack)
- Technical support is provided asynchronously
- No access to evening networking events where many partnerships form
- Pitching remotely is a disadvantge

Organisation will make its maximum to smooth our remote participation


START

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Interested to be a player or supporter ?

Register at
https://inpacehub.eu/eu-japan-digital-week-2026/

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Keep in touch with us!

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Join the INPACE Hub!

https://egcp.enrich-global.eu/communities/inpace

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Thank you

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The INPACE project has received funding from the European Union's Horizon Europe Research and Innovation Programme under grant agreement 101135568. Funded by the European Union (SPIRIT, 101135568). Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them. This work has received funding from the Swiss State Secretariat for Education, Research and Innovation (SERI).