# The Robot Revolution and Industrial IoT International Symposium 2025

# Japan-Germany Expert Forum

**S3-1 Collaboration for future growth**

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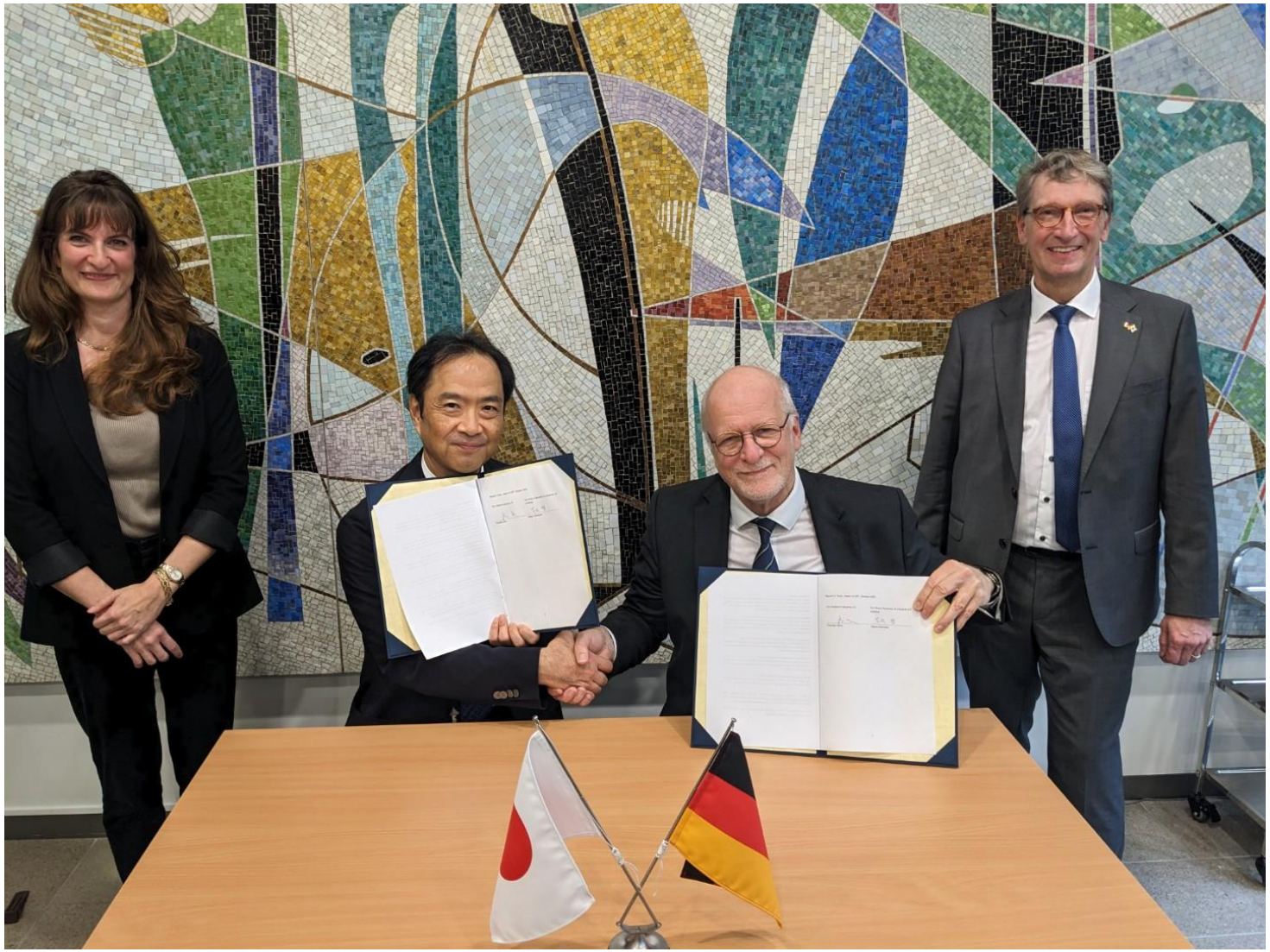
# Agenda

1. Announcement of our new collaboration strategies
2. Our history of the collaboration
3. Visions & Views
4. Collaboration strategies
5. Moving Forward

# The new collaboration strategies signed on Oct. 20th



ロボット革命・産業IoTイニシアティブ協議会 Robot Revolution & Industrial IoT Initiative

PLATTFORM INDUSTRIE 4.0

JOINT STATEMENT
between
Plattform Industrie 4.0(Germany)
and
Robot Revolution & Industrial IoT Initiative(Japan)
on
Collaboration Strategy

**Introduction**

Climate change, geopolitical tensions, and interrupted supply chains: around the globe, manufacturing industries are facing challenges that manifest uniquely within individual countries, yet stem from global trends that transcend national borders. In response, digitalization and data-driven solutions have emerged as powerful tools – enabling manufacturers to reduce carbon footprints, enhance supply chain resilience, and unlock innovative business models, such as digital marketplaces and pay-per-use services.

As access to vast datasets and advances in artificial intelligence continue to accelerate, the manufacturing sector is entering a new phase of transformation. This evolution is giving rise to novel possibilities: sustainable value creation models that align economic growth with environmental responsibility, collaborative value ecosystems that foster cross-sectoral innovation, and advanced engineering approaches capable of addressing increasingly complex and dynamic requirements.

At the heart of this transformation lies a shared commitment to human-centered innovation – one that prioritizes individual well-being, inclusivity, and long-term societal resilience. By integrating these values into industrial strategies, Robot Revolution & Industrial IoT Initiative (RRI) from Japan and Plattform Industrie 4.0 (PI40) from Germany aim to shape a future in which manufacturing not only drives competitiveness but also contributes meaningfully to the prosperity and sustainability of global communities.

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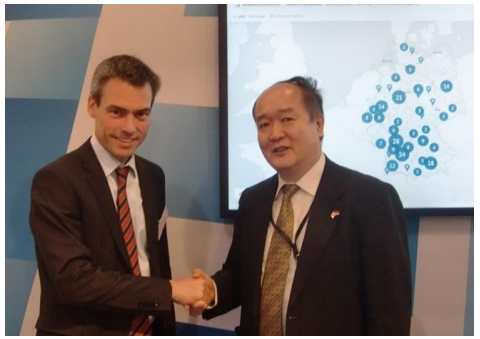
English: https://www.jmfrri.gr.jp/g-j_jointstatement2025e/ Japanese: https://www.jmfrri.gr.jp/g-j_jointstatement2025/

# Collaboration with trusted partner

2011 Plattform Industrie 4.0

2015 RRI started

2016 METI – BMWi announced collaboration. RRI and PI4.0 partnering for the collaboration. Expert groups have been established. Hannover Fair and RRI symposium as progress reporting.



2011 ··· 15 16 17 18 19 20 21 22 23 24 25 26

2017 METI announced “Connected Industries”.
Hannover declaration about the fourth Industrial Revolution by METI/MIC and BMWi.

2019 RRI delegation to Germany

2023 RRI delegation#2 to Germany

New Collaboration Strategy

RRI International Symposium 2022

# Challenges, Risks, and Opportunities for Industry Collaboration with trusted partner is essential!

In the coming decade, the competitiveness of industry will be challenged by a series of fundamental challenges

## A. Geopolitical

Global developments lead to increasing regionalization, regulatory fragmentation, and threatens the established export model of our industry – strongly regionally focused activities dominate.
Increasing geopolitical conflicts raise volatility and threaten the resilience of industrial supply chains, especially for critical raw materials and technologies.

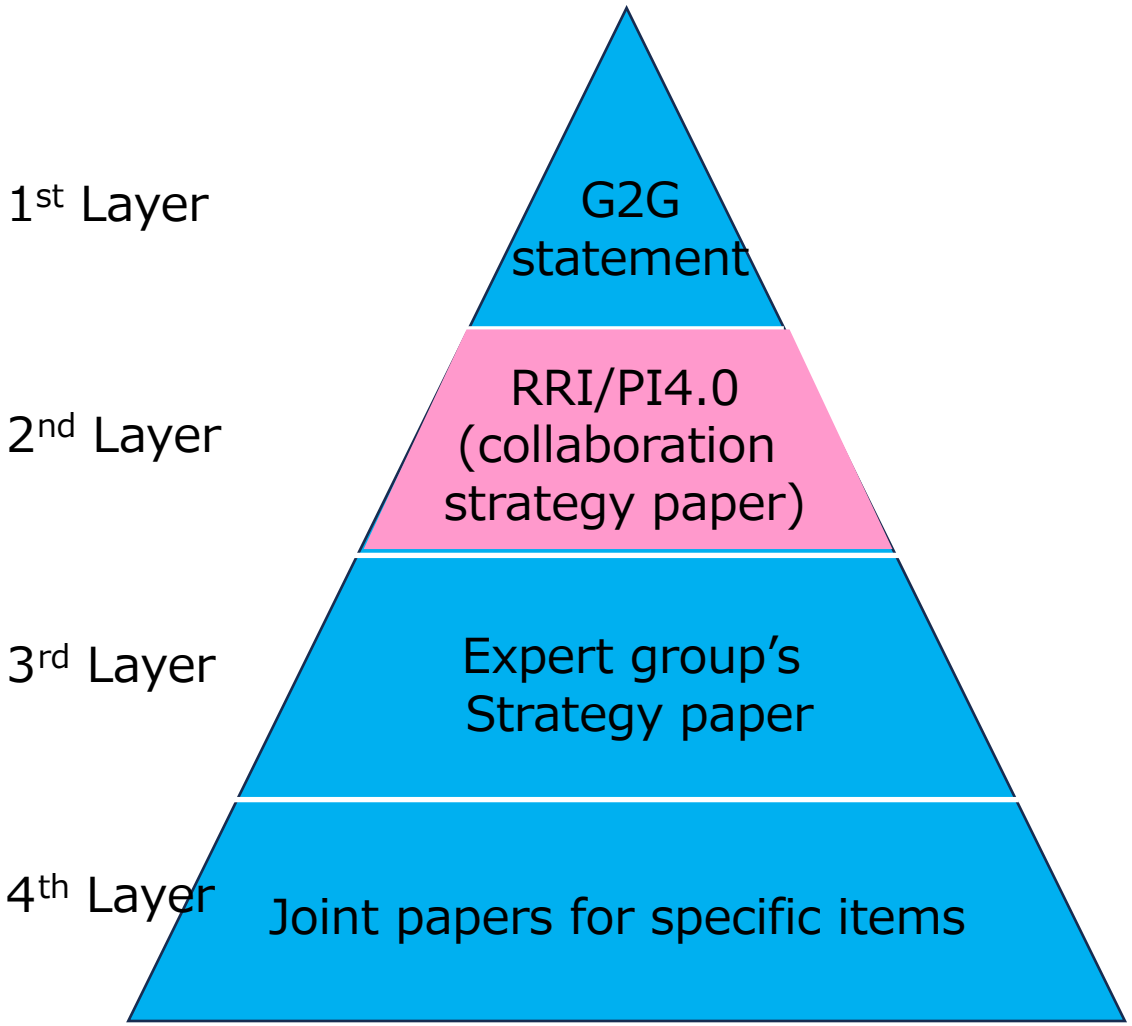
## B. Technological

Exponential dynamics in developments (up to singularity), requirements (compute power, sovereign computing capacity, etc.), and the adoption of disruptive technologies (today: AI, tomorrow: quantum computing) challenge established innovation and economic ecosystems; existing market mechanisms are broken up/disrupted by new participants/players.
Threatened loss of the established leadership role, e.g., in international standardization, and loss of (global) industrial policy control points and speed, particularly at the interface between manufacturing and IT industries ("OT/IT convergence").

## C. Societal

Demographic change, skilled labor shortages, and generational change further slow down the speed of transformation and thus the competitiveness of our industries.
Climate change and changing framework conditions for the transformation to a sustainable, CO2-neutral energy supply act equally as an accelerator (energy transformation only through systemic application of digital solutions) and a risk factor (systemic uncertainty) for the global competitive strength of our industry.

# Structure of the Collaboration




- Collaboration is based on G2G statement in 2016.
- Industrie4.0 and Industrial IoT were emphasized in RRI/PI4.0 statement in 2016.
- Current collaboration
  - Four expert groups. Resulting in collaboration strategies, joint papers and conferences.
    - Industrial Trustworthiness and Security
    - Digital Platforms in Manufacturing Industries
    - International standardization
    - Manufacturing Dataspaces
- 10 years after the 1st statement
  - Visons and Views have been built in each country.
  - New challenges and the technologies emerged.

Time for us to build the new collaboration strategy.

# Statements and joint papers

| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| G2G | 2016.4.28 Joint Statement | 2017.3.19 Hannover Declaration | | | | | | | | | |
| PI4.0/RRI | 2016.4.28 Joint Statement | | | | | Our new strategy paper | | | | 2025.10 update | |
| Expert Groups' strategy papers | 2017.3.22 Facilitating International Cooperation… | 2017.3.20 Common Strategy | 2018.2.22 update | 2019.4.1 update | 2020.10.14 update | | | | | | |
| Joint papers (all expert groups) | | | | | | | | | | | |

# Visions & Views

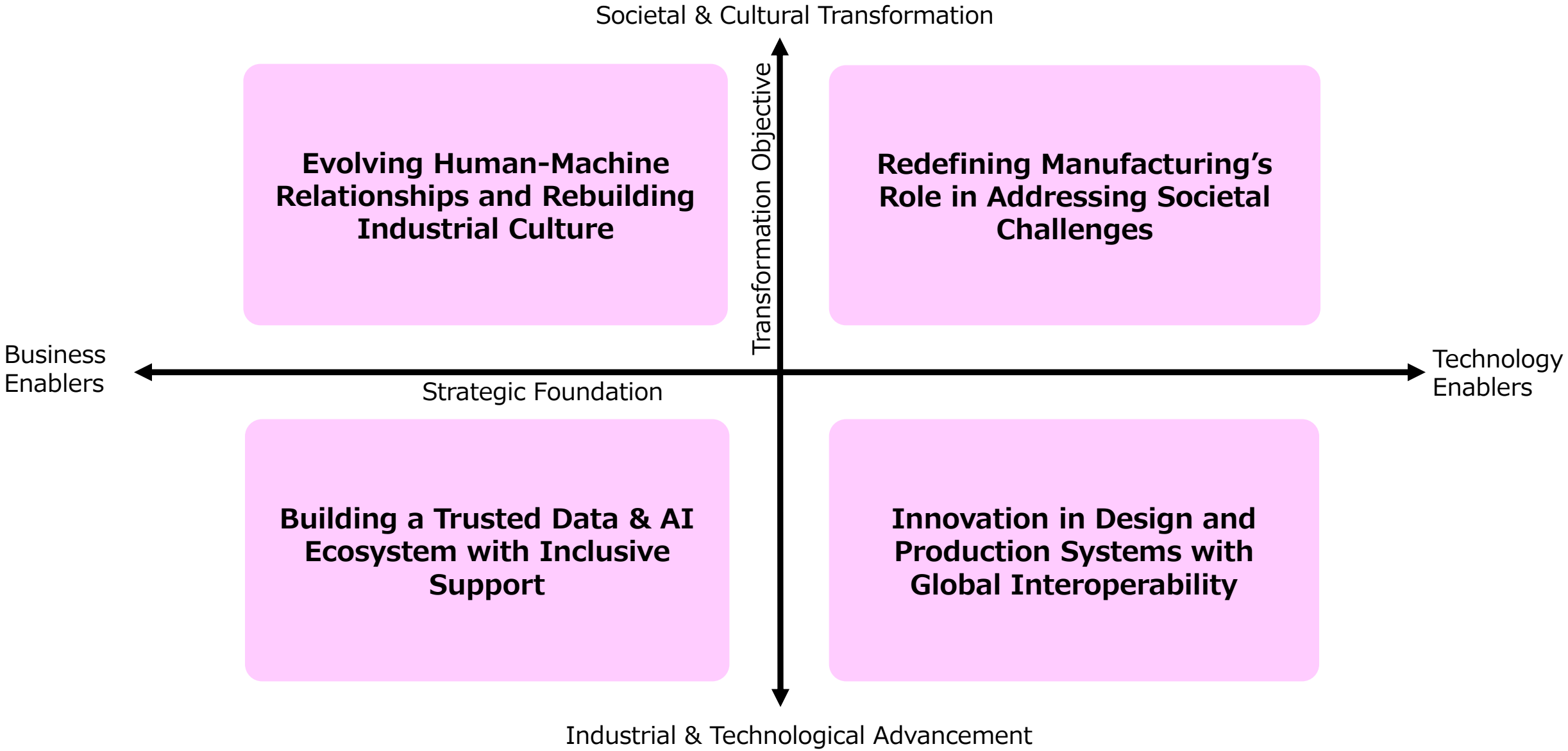
Germany

- Industrial Data Ecosystems will be pivotal to exploit the full potential of Industrial Artificial Intelligence in the future.
- Industrial Metaverse is emerging – a virtual, human-centered environment in which people and machines can collaborate, learn and create in real time.
- New forms of social and economic interaction will come, but also brings challenges like data protection, digital identity and fair participation with it.

Japan

- Society 5.0, a concept of a human-centered society in which economic development and the resolution of social issues are compatible with each other through a highly integrated system of cyberspace and physical space.
- Manufacturing as a key driver to realize Society 5.0, as artifacts are the major source of data.
- Building robust digital ecosystems to support these developments is a strategic priority. To accelerate industrial globalization and innovation, Japan will take an active role in shaping interoperable digital ecosystems—not only within its domestic framework but also in collaboration with the international community.

# Collaboration Strategies



# Moving Forward

- Our collaboration aims to contribute not only to the industries of both countries but also to the global industry.
- Discussions will continue to implement new strategies.
- Synergy among the four expert groups

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