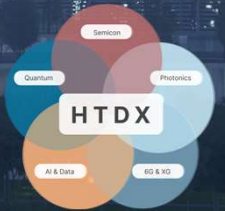


# NL

## Osaka Expo 2025

### Privacy Enhancing Technologies (PETs) in data sharing



11-20-2024

# Agenda



1. Opening (Peter) 5`
2. Japan in a nutshell (Sonoko & Charlotte) 15`
3. The Osaka Expo and the program AI & Data sharing/PETs (Tijs & Sonoko) 15'
4. How to join the delegation (Charlotte) 5`
5. Q&A (Peter) 15`



Today`s purpose:  
to check your interest, to finetune the mission, and to inform you how to join

We would like to know:

- What are the **elements that are interesting** for you?
- How would the program be even **more appealing** to you?

And we will tell you:

- How to make sure that you will not miss this opportunity.



## 2. Japan in a nutshell

## Japan and The Netherlands differ in many aspects

2022	Japan	The Netherlands
Population	124 million	18 million
GDP	\$ 5 trillion	\$ 1 trillion
Exports	22%	94%
Imports	25%	93%
Industry	29%	19%
Services	70%	79%
R&D (% of GDP)	3.5%	2.3%



# ...but share multiple societal challenges



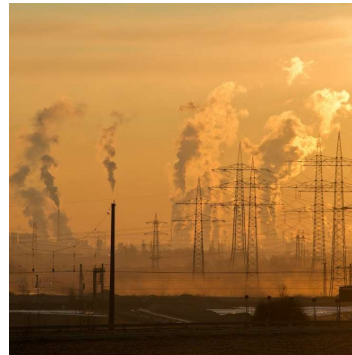
Ageing society



Lack of labor force



Carbon emissions



Fiercer natural disasters



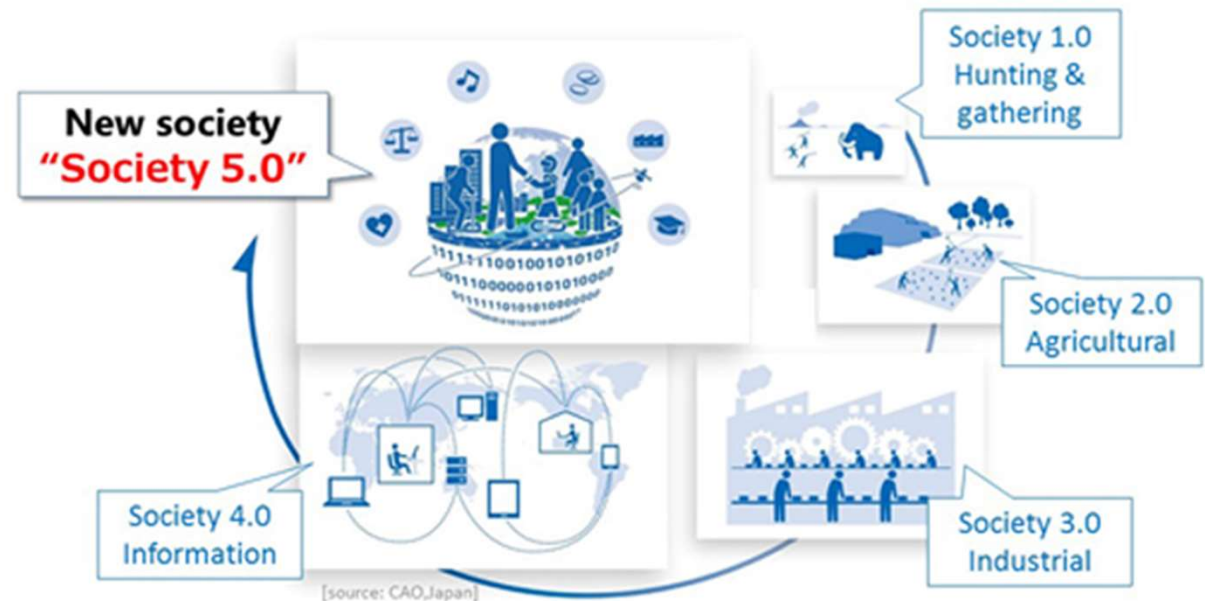
Energy shortage



# Society 5.0 is JP`s vision how societal challenges are going to be solved

## Society 5.0

- Resolution for societal challenges
- Promotion of economic growth
- Integration of cyber & physical space
- Personalised, proactive/on demand information, service and goods
- IoT, big data, AI, 6G are prominent



## For the transition to Society 5.0, technology plays a prominent role

### Priority areas for the JP government

- Digital transformation
- Sustainability
- Security, safety & resilience

### Areas of focus and investment

- Semiconductors
- Quantum - Photonics - Nano
- IoT - Big Data - AI - 6G - Robotics
- Startups & Scale-ups
- Open innovation





# Data sharing is key for societal, economical, environmental, political, and technological advancement

There are multiple societal triggers for data sharing:

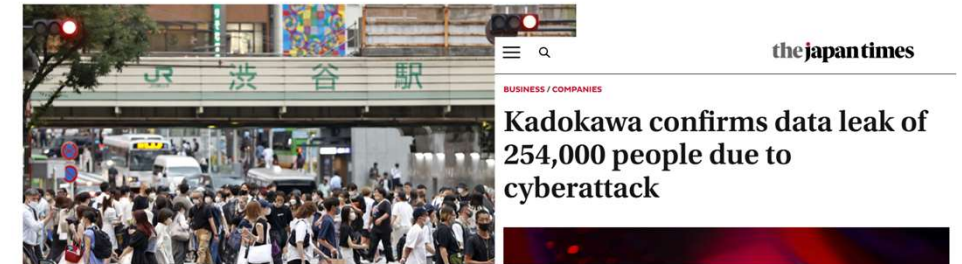
- To realise Society 5.0 with the transformation on which it relies
  - DX
  - GX
- To intensify international collaborations with like-minded countries
  - For geopolitics (Data Free Flow with Trust)
  - International trade
  - Supply chain reliability
  - Technology standardisation
- To lead technological developments and R&D e.g.
  - AI, JPLLM
  - Pharma & health

# Japan has a need for PETs

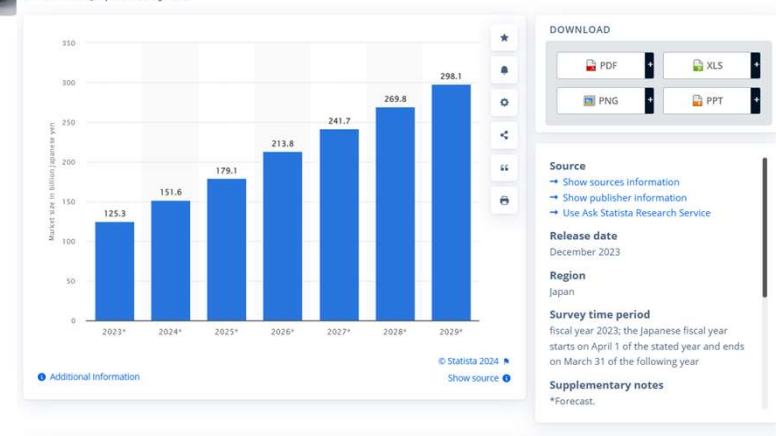
- Tension between ambition with more data utilization and increasing risks of privacy violation.
  - Ambition with more data utilization: Privacy Enhancing Technologies for Society 5.0
  - Risks: Past privacy incidents in Japan
- Japan can not stay behind
  - Topic during WEF and G7
- Japan works on protecting privacy using legislation.
  - The Act on the Protection of Personal Information (APPI)

## Japan personal data leaks hit record high 13,000 cases in FY 2023

KYODO NEWS - May 28, 2024 - 21:30 | All, Japan



Forecast value of the privacy technology market in Japan in fiscal year 2023 to 2029  
(in billion Japanese yen)



Privacy tech market size in Japan FY 2023-2029

Published by Statista Research Department, Jan 9, 2024

The privacy tech market in Japan was projected to grow from 125.3 billion Japanese yen in fiscal year 2023 to more than 298 billion yen by fiscal year 2029. The market comprises the two segments solutions and consulting.

Japan: privacy tech market size 2029 | Statista

# Japanese firms and research institutes have multiple initiatives on data sharing and PETs

Examples of organisations	Description	Usage (application, what sector, how, when)
NTT Data	<ul style="list-style-type: none"> <li>- Secure computing</li> <li>- Data spaces</li> </ul>	<ul style="list-style-type: none"> <li>• Healthcare: Observational study</li> <li>• Finance: Demand forecasting</li> <li>• Automotive: BOM</li> </ul>
NEDO	<ul style="list-style-type: none"> <li>- Data spaces (Ouranos)</li> </ul>	<ul style="list-style-type: none"> <li>• Energy</li> </ul>
NEC	<ul style="list-style-type: none"> <li>- Data security: Lightweight authenticated encryption, Secure Computing, Private Biometric Authentication</li> <li>- AI security: Privacy-preserving Federated Learning</li> </ul>	<ul style="list-style-type: none"> <li>• Healthcare: Genomic analysis</li> <li>• Finance: AML judgement</li> <li>• Manufacturing: Failure risk diagnosis</li> </ul>
Eaglys	<ul style="list-style-type: none"> <li>- Secure computing (Homomorphic encryption, TEE, Federated learning, quantum safe cryptography) + AI</li> </ul>	<ul style="list-style-type: none"> <li>• Healthcare: Personalised medicine</li> <li>• Finance: Fraud detection</li> <li>• Logistics: Robotised distribution center optimization</li> </ul>
Fujitsu	<ul style="list-style-type: none"> <li>- Confidential computing (Fujitsu-MONAKA)</li> </ul>	

## Summary: There are various opportunities in JP for collaboration

Focus on data is an important building block for **Society 5.0** vision

- Development of Data Spaces for...
  - Health, Smart Industry, Automotive
  - Including DATA-EX (IDSA / GAIA-X) and Ouranos (Cross Border Data Sharing)
- Data Free Flow with Trust > *MoU on Digital Identities and Trust services signed by Commissioner Breton and Minister Kono*
- Digital Product Passports

Japan has an excellent **digital infrastructure** for data and AI innovation:

- Development Large Language Models > GPT JPN
- Collaboration Super Computer 'Fugaku' > Riken Center for Computational Science & Fujitsu (HPC)
- Collaboration AI Act, Japan AI Safety Institute (AIS)

Japan`s **participation in Horizon Europe** and future innovation collaboration



### 3. The Osaka Expo and the program AI & Data sharing/PETs

## The Expo 2025 in Osaka is a good door opener for business

- **When**  
13 April 2025 – 13 October 2025  
(183 days)
- **Venue**  
Yumeshima, Osaka
- **Participating Countries**  
160 countries/regions and 9 international organizations
- **Projected Visitors**
  - Total: Approximately 28.2 million
  - Daily: 154.000
  - *Expected that visitors will mainly be Japanese or from the East-Asian region (90%)!*



# NL will focus on five themes where Common Ground can be found with Japan



There are five themes that are important to Netherlands that will be highlighted during the Osaka Expo, and collaboration is actively sought for these themes:

- |                                      |                         |
|--------------------------------------|-------------------------|
| 1. Hightech & Digital transformation | 18-28 May               |
| 2. Agrifood & Horticulture           | 2-13 Jun & 30 Aug-6 Sep |
| 3. Life Science and Health           | 23-27 Jun               |
| 4. Energy transition                 | 14-25 Sep               |
| 5. Culture                           | 13 Apr-13 Oct           |



# The Netherlands (NL) is joining the Osaka Expo 2025, with the participation theme of *Common Ground*

**Common Ground** refers to the Netherlands history, culture and the way the Netherlands works together with Japan.

On common ground, we can develop far-reaching breakthrough solutions. Future resilience depends on **our joining forces** and **combining expertise** now.

Our pavilion is an open meeting space where we can discover new ideas, empower collaborations and share our energy, to **innovate together**.



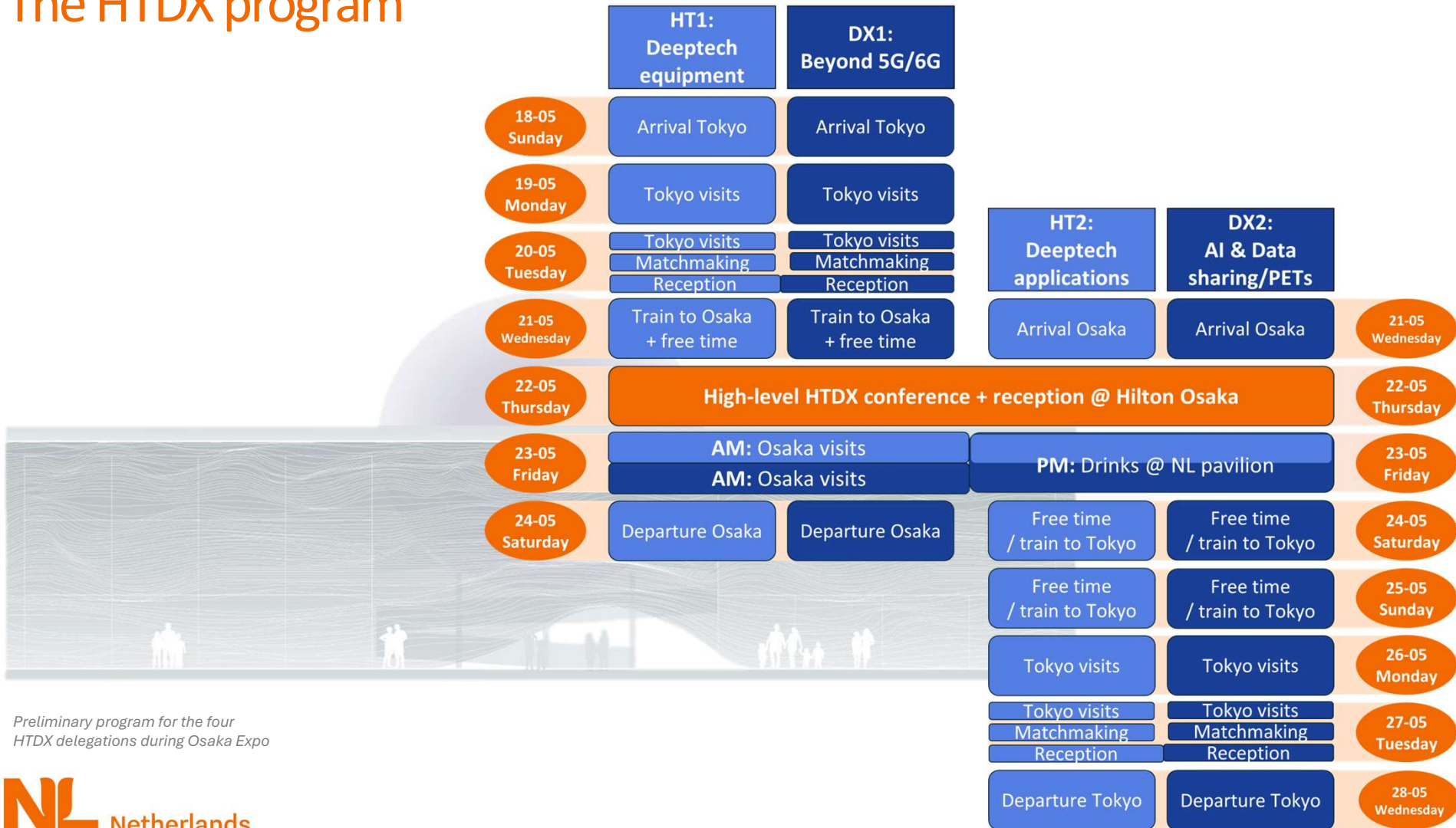


# The HTDX topics involve Semicon, Quantum, Photonics, beyond 5G/6G and data sharing

- Four delegations cover four different themes
  - HT1: Deeptech equipment
  - HT2: Deeptech application
  - DX1: Beyond 5G/6G
  - DX2: AI & data sharing/PETs
- Each delegation has max. 25 participants
  - Corporates, SMEs, universities, research institutes, public sector, ministry
  - Executives, business developers, researchers
  - Interest in research & innovation, trade, foreign investment



# The HTDX program



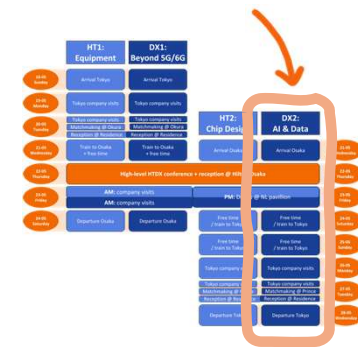
Preliminary program for the four HTDX delegations during Osaka Expo

# DX2: AI and Data sharing/PETs

21 May – 28 May

	AM	PM	Evening	Hotel
<b>Tue 20 May</b>	Depart from NL			-
<b>Wed 21 May</b>	Arrive in Osaka		Joint briefing dinner	Osaka
<b>Thu 22 May</b>	High-level HTDX conference		Reception/buffet dinner	Osaka
<b>Fri 23 May</b>	2 or 3 visits		Drinks @Pavillion	Osaka
<b>Sat 24 May</b>	Free time	Travel jointly to Tokyo (optional)		Osaka
<b>Sun 25 May</b>	Free time			Tokyo
<b>Mon 26 May</b>	2 or 3 visits		Joint dinner	Tokyo
<b>Tue 27 May</b>	2 visits		Matchmaking @ Prince Hotel Reception @Residence	Tokyo
<b>Wed 28 May</b>	Depart from Tokyo Narita Airport			

- Briefing
- Joint dinners
- Conference
- Receptions
- Visits Osaka & Tokyo
- Pavilion
- Matchmaking



## DX2 AI and Data sharing/PETs – potential visits



Research inst.	Universities	Government/ Other	Private companies
AIST – Crypto Platform CPSEC	Osaka University	Data Society Association DSA DATA EX	NEC
NEDO	Waseda University	Information-technology Promotion Agency IPA	NTT R&D / NTT Data
RIKEN – AI security & privacy team	Chiba University	Japan Institute for Promotion of Digital Economy and Community JIPDEC	Fujitsu
NICT	University of Tokyo	AI Safety Institute AISI	EAGLYS
NII		Personal Information Protection Commission (PPC)	Zenmu Tech
		Bank of Japan	Hitachi
			SoftBank

**Let us know which parties you would like to add to the long list !**

# All four delegations join the conference of 22 May @Hilton Osaka



## 1-day conference program

- Pitches by NL participants
- MoU presentation and pictures with NL & JP top-VIPs
- Cross-over sessions
- *Innovation Parade* – exhibits of NL innovations
- Networking reception

9:00 ~ 12:00	HT 1 Pitches: Semicon, photonics & quantum equipment, component manufacturing and advanced packaging	HT2 Pitches: Quantum technology, chip design and system integration	DX1 Pitches: Beyond 5G/6G	DX2 Pitches: The use of PETs for data sharing
12:00 ~ 14:00	Lunch + Picture moment + Keynote speakers			
14:00 ~ 16:30	Session: Cross-over topic 1	Session: Cross-over topic 2	Session: Cross-over topic 3	Session: Cross-over topic 4
16:30 ~ 18:30	Reception			

Innovation Parade



## You gain insight that helps in your future plans

- Get **insight** in the **opportunities** in JP and match
- Meet and connect with **JP counterparts**
- **Learn** from JP practice
- Opportunities to **promote your organization** to JP organizations & high-level NL executives
- A chance to experience a historical **world expo**
- **Improve ties** in the NL ecosystem





## 4. How to join the delegation?

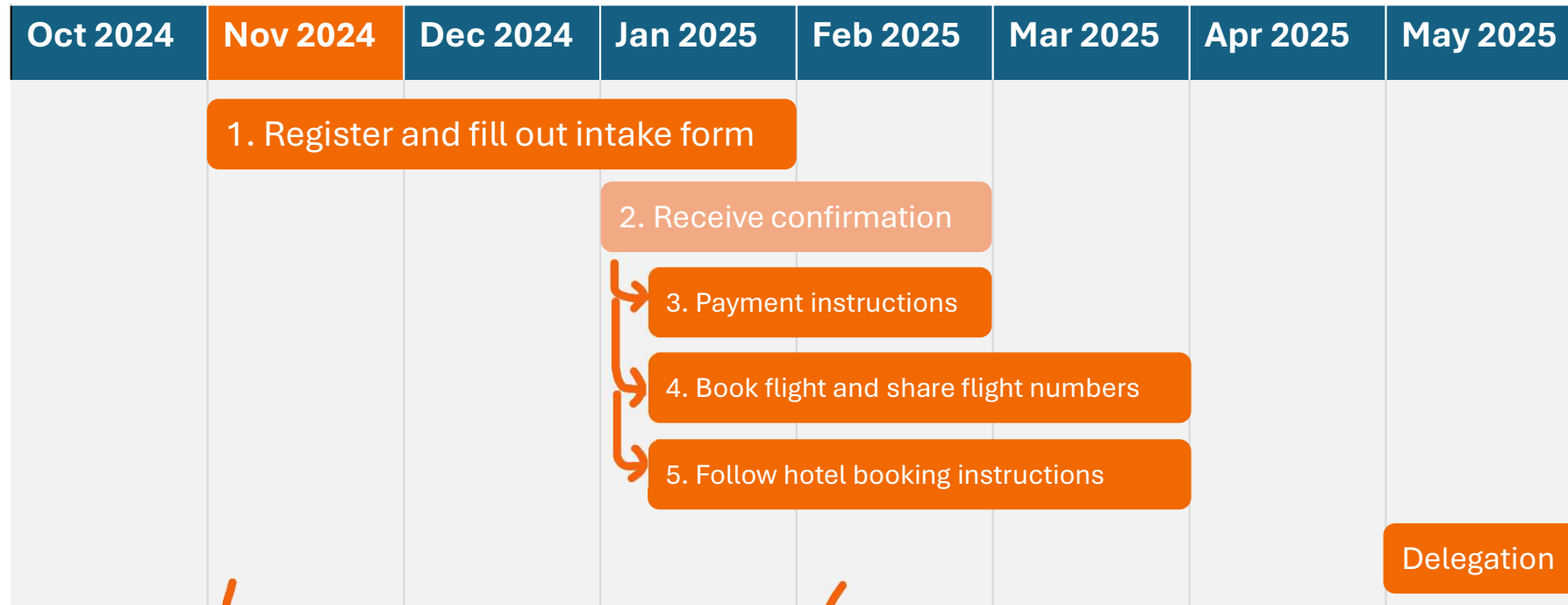
## Information on joining delegation

- Max. 25 participants per delegation
- **Tailored program** depending on the joining delegates
- We select the delegation to represent the Netherlands in a **balanced** way (not on a first come, first serve basis)
- Costs
  - We pay the **costs associated with the program** - e.g. lunches during the program, transport, conference venue, reception
  - You are responsible for **the other costs** - e.g. hotel and flight ticket
- **Registration opens soon, intended closing time is end of January, 2025**



# Timetable

Requirements and responsibilities to join the Osaka Expo 2025 mission:



Registration opens in November (to be confirmed)

- Registration link

By February at the latest you will hear if you can join!

# Stay in touch

Got any questions? Feel free to reach out:

- CoE-DSC  
Peter Verkoulen [peter.verkoulen@coe-dsc.nl](mailto:peter.verkoulen@coe-dsc.nl)
- Project secretary HTDX for Osaka Expo, The Netherlands Embassy  
Charlotte Peeters Weem [charlotte@hollandinnovation.jp](mailto:charlotte@hollandinnovation.jp)
- Topsector ICT  
Tijs Koops [tijs.koops@topsector-ict.nl](mailto:tijs.koops@topsector-ict.nl)
- Rijksdienst Voor Ondernemend Nederland (RVO)  
Ruben Wassink [ruben.wassink@rvo.nl](mailto:ruben.wassink@rvo.nl)



Follow this QR-code for the Netherlands Innovation Network and information about the mission



A decorative graphic on the left side of the slide. It features a purple dome shape at the top left. Below it is a horizontal band with a wavy, textured pattern in shades of grey and white. At the bottom of this band, there are silhouettes of people walking. The text '5. Q&A' is overlaid on the right side of this graphic.

## 5. Q&A

A stylized illustration on the left side of the slide. It features a large, light purple dome on the left. Below it, a horizontal band contains a series of wavy, grey lines. At the bottom of this band, there are white silhouettes of people walking. The overall style is modern and architectural.

Thank you for your attention!