



Utilization of Advanced Technologies in Scanning Operations at Japan Customs

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Overview: Advance Technology use in Japan Customs

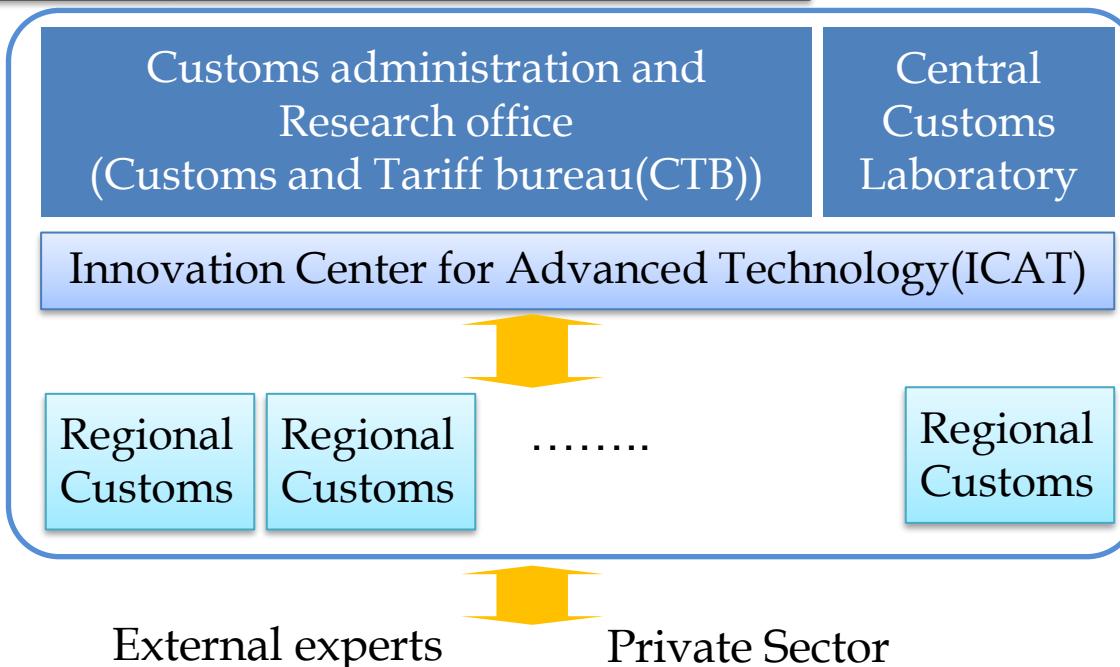
1. Japan Customs' Policy for Utilizing Advanced Technologies

Based on 2020 Smart Customs Initiative (Japan Customs' mid- to long- term strategy), Japan Customs actively incorporate advance technologies such as AI, Machine Learning, LLM, X-ray CT, drone, Passengers' E-gate with face recognition etc. into customs operations with the aims of:

- 1) facilitation customs procedures,
- 2) achieving effective and efficient border control, and
- 3) enhancing the work environment.



2. Organizational Structure



- In 2024.7 ICAT was established to accelerate DX and the use of AI in Customs operation.
- ICAT collaborates with CTB in the deployment AI models, and also supports regional Customs by Identifying issue to be solved by advance technologies.



Summary: Advance Technology use in Japan Customs

- Utilizing advance technologies can be one of useful and powerful tools to effectively conduct customs operation in response to rapidly increasing number of cargoes
- The Expected Outcomes of AI Utilization:
 - 1) Advance Customs capabilities
 - AI identifies patterns and trends that are difficult for humans to detect.
 - 2) Enhance Efficiency
 - AI supports human tasks to improve operational efficiency
 - Automate routine work to reduce paperwork and overtime.

- Issues of utilizing advance technologies include:
 - 1) The necessity of storing large amount of “white” and “black” image data in a same format for accurate machine learning
 - 2) The workload of conducting annotation tasks of X ray images
 - 3) Human resource development of data science experts internally and effective cooperation with private sector
 - 4) Use of cloud service or on premises server to store and analyze huge amount of data