



Customs Administration of the
Netherlands
Ministry of Finance

Update Dutch Customs

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Summary

- “Dutch Customs aims to ... optimally facilitate legitimate trade, to work smartly and adequately to protect our society...”
- Challenges to processing of data/ goods:
 - Shifts in declarations prompting change to IT systems and inspections
 - a. Increasing amounts of declarations/ inspections
 - b. Increased real-time processing of declarations
 - Important developments in risk to society as with sanctioned goods, drugs and related to subversive activities
 - Staff shortage and background
- Effective and efficient solutions are sought in diversification, use of external data, use of a wider array of technology and automation
- European research and innovation projects, international law enforcement cooperation, technology evaluation, market surveillance and tendering help to come to use actual solutions for inspections



Framework

- European Customs administrations are by law required to put in place measures aimed, in particular, at the following:
 - a. protecting the financial interests of the Union and its Member States;
 - b. protecting the Union from unfair and illegal trade while supporting legitimate business activity;
 - c. ensuring the security and safety of the Union and its residents, and the protection of the environment, where appropriate in close cooperation with other authorities; and
 - d. maintaining a proper balance between customs controls and facilitation of legitimate trade.
- Improving the balance between facilitation and inspection has always been a driver for process changes, investments and innovation for Dutch Customs



Challenges and directions for solutions

■ Challenges

- Interactions with declaration systems are estimated to reach 450,000,000 this year, with 375,000,000 real-time results produced. A fraction is selected and requires inspection
- Selection and inspection using current technologies produce too many false-positives to just scale-up
- Staff numbers too small to just scale-up; keeping staff up-to date on technology application
- Risk scenarios vary more, rendering current technology challenged at times

■ Directions

- Pull trusted data at a time when needed rather than receiving data pushes in peaks
- Education, automation, diversification and innovation in technology use; phased in with logistics

→ This presentation will focus on solutions for inspections



Internal developments and innovation projects

- Developments (a.o.)
 - 1st line container scans phased in with logistics at terminals
 - Application of trace detection technology in inspection of goods
 - Detector dog operation on sampled container air in carousel
- Internal innovation projects typically are limited scale applications of data-driven supervision, artificial intelligence, internet of things, physical internet, blockchain, sensor technology, robotisation and social innovation as (a.o)
 - Terminal surveillance using drones
 - App to classify potential (traditional) pharmaceuticals using text recognition
 - Development of internal capability to train, deploy and maintain artificially intelligent X-ray image interpretation algorithms, next to externally sourced models



European research and innovation projects

- Running
 - PARSEC - Limited angle and full diffraction X-ray, neutron interrogation and AI for over the belt inspection in postal supply chains
 - MULTISCAN 3D - 3D X-ray imaging of entire sea containers using novel generator for X-ray (pulse and long duration)/ neutrons
 - BORDERSENS - Handheld electrochemical sensor for classification and identification of chemicals
- Done
 - COSMIC - Muon interaction, mass spectrometry, and colorimetry for inspection of containers
 - C-BORD – Neutron interaction, X-ray (pulsed and continuous), and electrochemical sensor for inspection of container air
 - ACXIS - Automated container X-ray image interpretation, computer based training
 - CRIM-TRACK - Colorimetric sensor for classification and identification of chemicals



Cooperation

- Law-enforcement
 - European Union Customs administrations
 - Beyond, based on bilateral agreements
- Suppliers (potential)
 - Governed by tender regulations
see TenderNed <https://www.tenderned.nl/cms/english>
 - Internal innovation may take the shape of limited scale application tests e.g. with suppliers
- European funded technology evaluation
 - Customs Control Equipment Instrument
see https://taxation-customs.ec.europa.eu/eu-funding-customs-and-tax/customs-control-equipment-instrument_en
- European funded research and innovation projects
 - Horizon Europe programme (consortia reacting to calls under civil security for society work programme)
see <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-search>