DAWE Profiling

current capability and future uplift

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About

PaTS

The Profiling and Targeting Section (PaTS):

- Profile governance owners across cargo, traveller and mail pathways

- Deploy control testing to validate regulatory control effectiveness

- Support tactical targeting to discover and disrupt high-harm threat

- Administer the Cargo Compliance Verification program

What is mail and traveller profiling
capability?

- Mail
  - ✓ restricted capability based on the restricted article level detail
  - ✓ based on limited data parameters
  - ✓ Intervention based on postal system controls
  - ✓ limited ability to go beyond country of origin

- Traveller
  - ✓ statistical methodology based on various factors and deployed against 'cohorts' of travellers
  - ✓ Specific schemes managed for non-compliant travellers, frequent travellers and crew
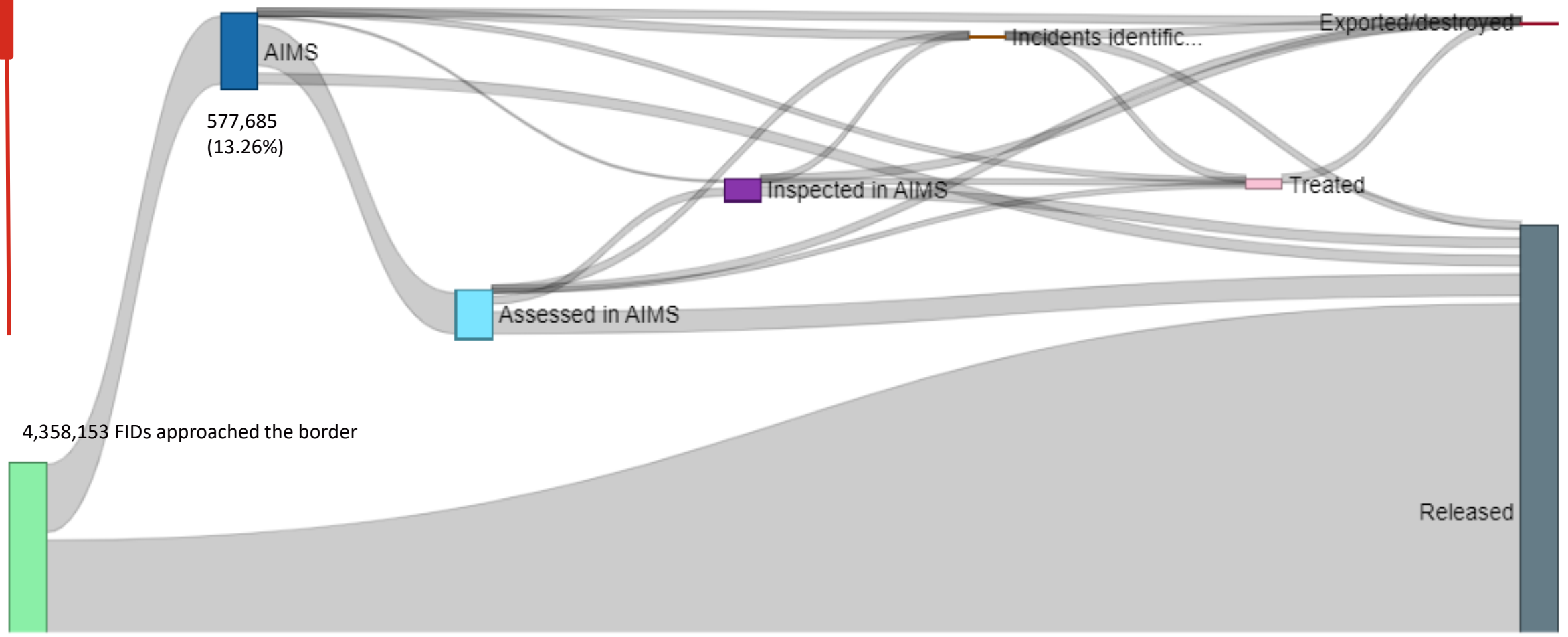 - ✓ COVID impacts yet to be told

What is Cargo Profiling
capability?

- 5800 Cargo Profiles – biosecurity, illegal logging, imported foods

- Types of profiles – compliantly reported commodity profiles (98%) and response/entity profiling (2%)

- Cargo profiling is the essential link between import conditions and getting consignments in front of officers for assessment

- Support for control tests and targeting and ad-hoc support across environment, fisheries and export domains

Cargo Profiling,
what it looks like

AIMS

577,685
(13.26%)

Inspected in AIMS

Incidents identific...

Exported/destroyed

Treated

Assessed in AIMS

4,358,153 FIDs approached the border

Released

DAWE Profiling

capability uplift

- Why?
  - ✓ increasing trade
  - ✓ Increasing complexity of supply chains
  - ✓ efficient and effective resource utilisation
  - ✓ government commitments

- What?
  - ✓ improved data holdings and analytical tools
  - ✓ IT infrastructure development
 - ✓ systems ownership

Profiling capability uplift
machine learning – SAC (live)

- currently deployed machine learning capability for non-commercial cargo

- provides recommendation of required 'at-border' action for non-commercial cargo

- requires manual (human) validation

- currently deployed to a subset of our profile (approx. 60 profiles that account for about 40% of match volume)

- evolving process of maturing and refining the capability, both technically and to ensure appropriate human interaction

- Expected iterative release phases to realise full potential

Profiling capability uplift

machine learning – FID (emerging)

- Proof of concept ran in 2019 to test ability for machine learning algorithms performance in accurately predicting risk

- Trained on historical data and tested against live inspections.

- Phase 2 validation nearing completion and design and architecture discussions underway.

- Options for implementation/deployment

- Strong governance and management

- Significant shift in risk management approach

Assessment   Inspection   Detection

What we do now   What's possible
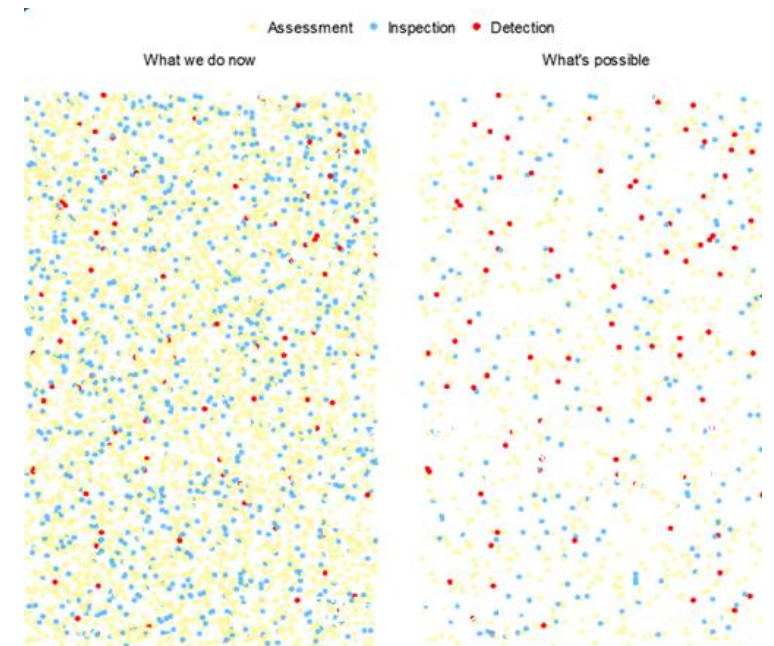
Profiling capability uplift
mail Electronic Advance Data

- EAD is the info from the customs declarations that people fill out when posting internationally. We now receive this data in near real-time.

- The data tells us more about mail than ever before, and it may allow us to predict non-compliance in the future.

- Successful small-scale trials mimicking cargo profiling

- Second stage trial to look at entities

- Future use case and capacity

Cargo Profiling

Questions