



# THE WCO DATA MODEL

***CROSS-BORDER TRANSACTIONS  
ON THE FAST TRACK***

**WCO Data Model:  
Government Implementation  
Experiences in Adoption & Use**

**World Customs Organization**



# Two Countries, Two Methods

- Current - Oman Standardization During a Project, with a vendor
- Previous - Australia SDS as an individual exercise



# Data Harmonization is a 4-step Process



### Step 1

#### Capture

- **Capture [Gather, Collect, Inventory]**
  - What information is being collected by cross-border regulatory agencies in a Single Window?
  - Which agency collects it?



### Step 2

Define the  
information

- Define the information
  - What do you mean when you say “import” or “declaration”?
  - Different agencies have different definitions for common terms
  - Need to be very clear on the definitions



### Step 3

#### Analyze

- Analyze
  - The similarity and differences of common terms
  - Actual meaning conveyed by the term





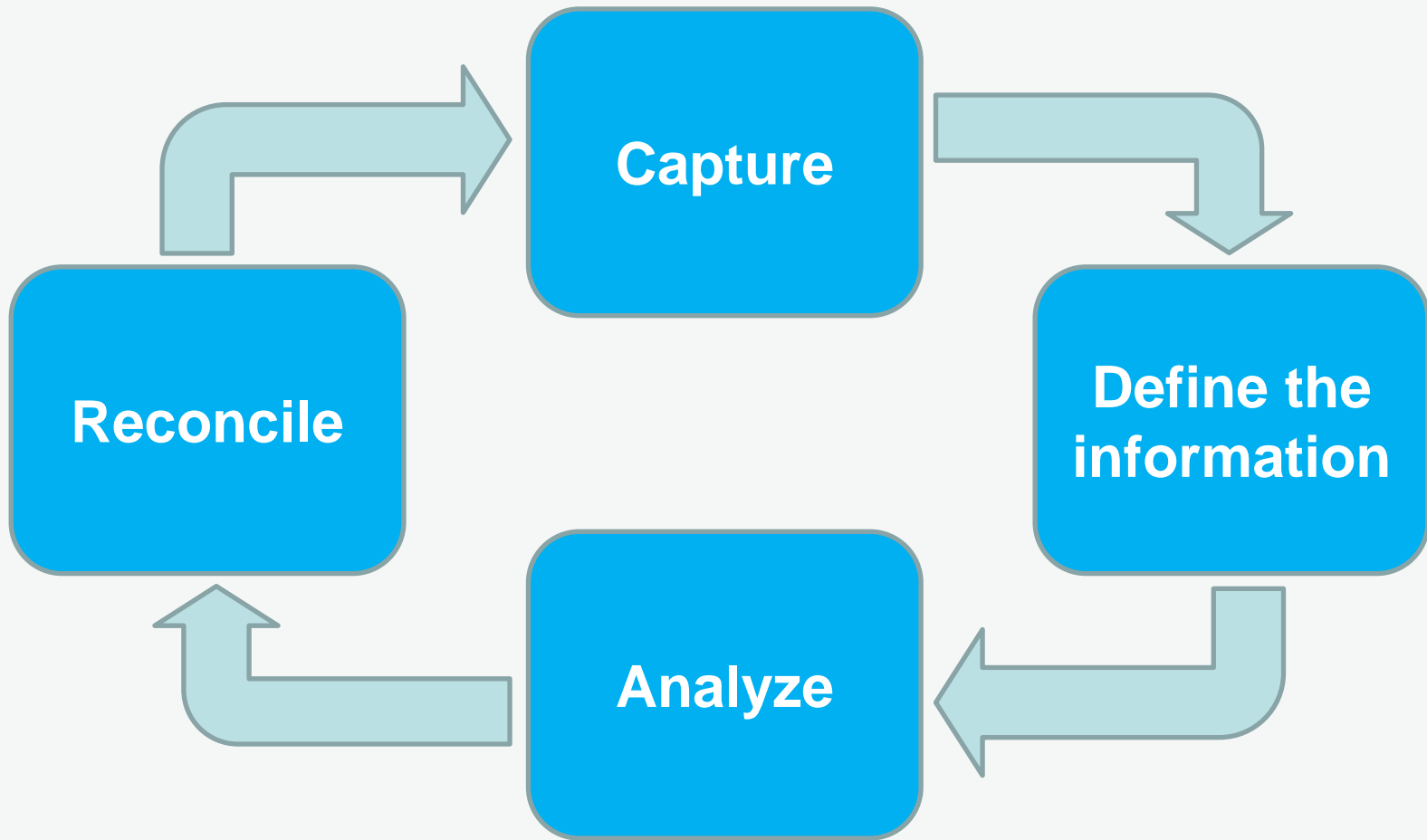
### Step 4

#### Reconcile

- Reconcile
  - Reconciling differences
  - Mapping them to the WCO Data Model



### The 4-step cycle







# The Oman Experience

- Oman's economy: All round progress
- Government Modernization Initiative
- Central IT Authority
- Self Funded Project
- Low levels of Government ICT





# Customs Modernization

- Consultant Designed Modernization Agenda
- Internal Ministry Funding
- Implementation Specialist Company
- Data Collection and Harmonization as Part of a Customs Reform Agenda



# Australia

- Standalone Project
- Dedicated 12 Month Project Team
- All Government Agencies Canvassed
- Highly Computerized Environment
- No Centralized Government IT Authority



# Data Collection, Oman

- Identification of Key Agencies
  - Agriculture and Fisheries
  - Environment & Climate
  - Health
  - Commerce
  
- Surveys Not Understood or Responded To
  
- Pending Phased Implementation to National Single Window and Customs Management System

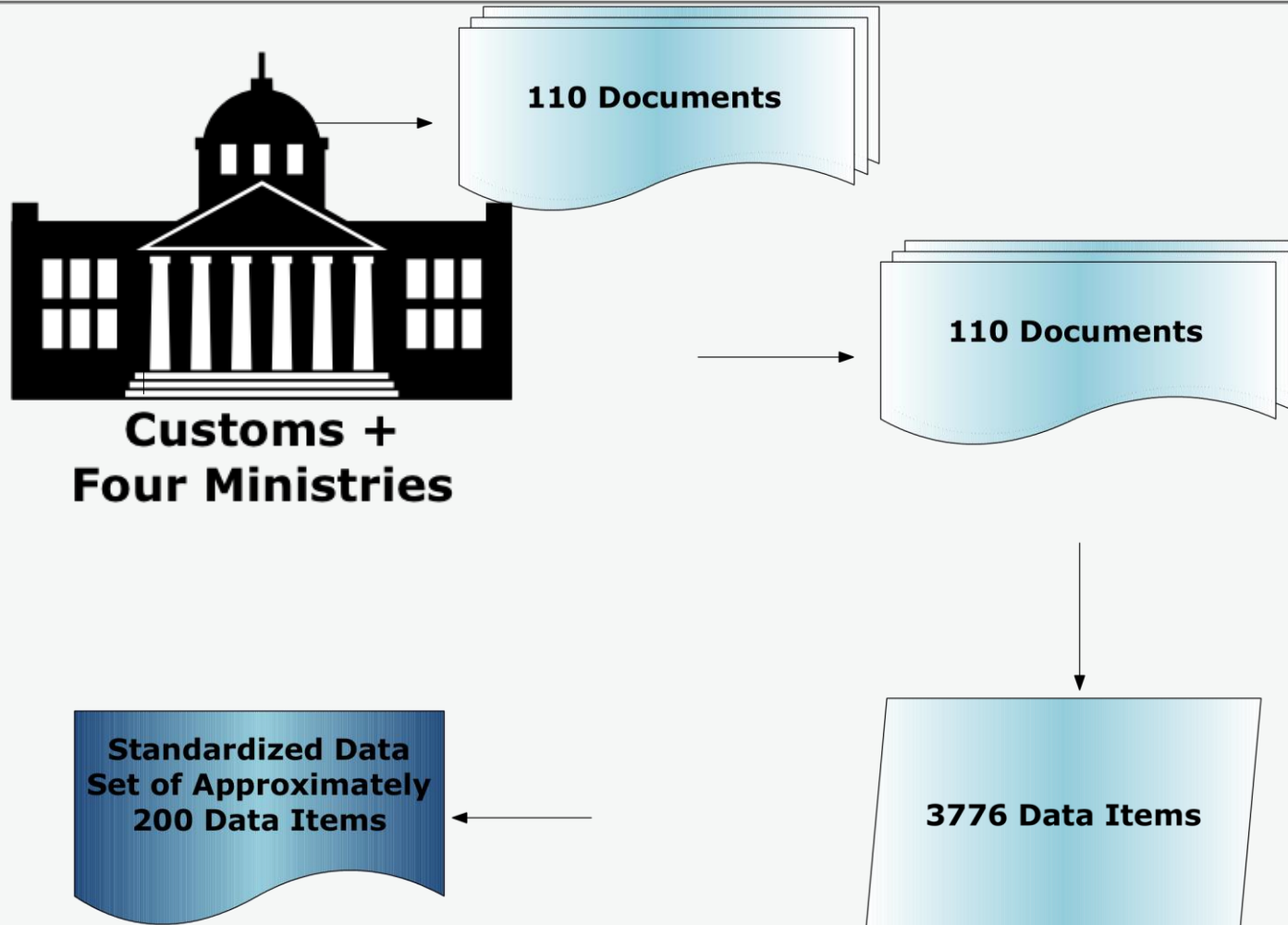


# Data Collection, Australia

- Phased National Collection
- Formal Surveys
- Follow Up Collection Phase
- A Mixture of IT forms and Paper Forms
- Many Agency Designed Data Sets



## Data Harmonization in Oman







- **Capturing** – a simple (and real) example from the US ITDS:
  - **Port of Unloading (Loc. where goods are removed from a ship)**
  - **Port of Unlading (where consignment is taken off the airplane)**
  - **Port of Unloading Domestic/Foreign**
  - **Port of Unlading Domestic/Foreign**



### **□ Defining & Analyzing**

- **All are “the location where the goods are removed from the conveyance”**
- **Loading/Lading are synonymous**
- **“Foreign/Domestic” determined by transaction – export implies “foreign”**
- **Locate existing coded & free text means of how such a location might be represented (UN, ISO, Domestic Codes)**



### ◆ Reconciling

- Agree on one name (say “unloading”)
- “Foreign/Domestic” can be eliminated
- In UNTDED = “Place of Discharge”
- Used in this way in WCO DM (Ref. 3225)
- 6 data representations become 1



- **41 Government Agencies**
- **7,649 data elements collected**
- **275 paper forms**
- **Reduced to 3993 with the elimination of “same as” elements within agencies**
- **Harmonised to 718 prior to agency review**
- **After first quick review = 650**



- **22 Agencies collect the name of the exporter**
- **On 118 different forms**
- **Used 212 times on those 118 forms**
- **Described in 61 different ways**
- **Required in 16 different formats, ranging from 20 to 300 characters in length**
- **The Australian SDS standardised to one data element (Exporter Name) of 70 pos. length.**

## Select Packet Data Item

Filter by Name

exporter

Filter by Format

Filter by Definition

Double-click or press Enter on an instance to select it

Count: 223

Name	Format	Definition	Organisation
Exporter Cert Reference	an..35	If Certificate Request function is used Exporter must give a certifi	AQIS
Exporter company name	unknown	Name of the exporting company	OCS
Exporter Contact Name	a.75	Name of Company's contact	WEA
Exporter Contact Name	a.75	Name of Company's contact	WEA
exporter convicted of an offence	alpha	any previous offences for exporter	DEH
Exporter convicted of an offence against commonwealth	alpha	Exporter convicted of an offence against commonwealth indicat	DEH
Exporter Declaration	an..210	Declaration of the goods made by the Exporter	AQIS
exporter email	an..200	exporter email address	AQIS
exporter email	an..200	exporter email address	AQIS
Exporter entity name	a	Entity name of the exporter	AWBC
Exporter entity name	a	Entity name of the exporter	AWBC
exporter fax	an..35	exporter fax number for receipt of permit	AQIS
exporter given name	an..25	exporter first name	AQIS
Exporter Licence	a..10	Licence No for exporter	ASNO
Exporter name	anl.	Name of exporter	AQIS
Exporter name	anl.	Name of exporter	AQIS
exporter name	a	The exporter's name	DEH
exporter name	a	The exporter's name	DEH
exporter name	a	The exporter's name	DEH
Exporter Name	an	Name of Exporter	AQIS
Exporter Name	an	Name of Exporter	AQIS
Exporter Name	an	Name of Exporter	AQIS
Exporter Name	an	Name of Exporter	AQIS
Exporter Name	a..25	Name of Exporter	ASNO
Exporter name	anl.	Name of exporter	AQIS

Exit





- **One organisation:**
- **One data concept**
- **One business application**
- **Used in 17 different contexts**
- **3 field sizes: 128, 250 & 2560!**
- **Standard definition 128**
- **Av. data length reported=17 chars.**



## The solution

- **SW developments to be aligned with the WCO Data Model, (such as ASEAN, APEC, Peru, US, Canada, Korea.....)**
- **International organizations to act as enablers (eg: WCO, UN/ECE, APEC, IATA, IMO)**
- **Data harmonization to continue apace with the use of the ‘WCO Customs Data Harmonization and SW Guidelines’ and R34 when complete**
- **WCO Member countries to implement Data Model where possible**



- **Solutions are available**
- **Political will and commitment VITAL**
- **Governments to accede to relevant instruments**
- **Industry support to generate political will and continued commitment**
- **Co-ordination and Co-operation with business and within Government essential**
- **Have the essential Legal amendments in place**
- **Start now, to have it operational 5 years from now.**



## The Single Window implementation process

- Carry the process out slowly, no hurry
- Incremental process



- Conduct a briefing for the participating agencies
  - Explain what is a Single Window
  - How is it going to work
  - What is the political mandate for the Single Window?
    - Emphasize the political will
    - A Single Window will be implemented
    - Lead Agency is appointed
- Just a briefing, no questionnaires at this stage
- In the future, expect contacts to be made.
  - Responses are expected...
  - Help is expected....
    - In defining the Single Window data



- Now, let's see an example of how the project was undertaken at Jordan Customs.
- Through practical tools, the following template will show you the Data Collection and Analysis steps.





# Data Harmonization

## ➤ Oman

- Customs Collection
- CrimsonLogic Gefeg Entry
- CrimsonLogic Data Mapping
- Customs Review

## ➤ Australia

- Team1 Data Collection
- Team 2 Data Entry
- Team3 Data Mapping
- External Review



## Outcomes

➤ Oman

➤ SDS informs National Standards

➤ Agencies adopt SDS definitions

➤ Australia

➤ SDS is published

➤ SDS is not adopted



## Lessons Learnt

- A separate SDS collection and mapping process is best
- An SDS must have a purpose
- You can never review the data mapping enough
- Get the data out and in use by other agencies
- Get the base SDS data standards included as National Domain Data Standards



# THE WCO DATA MODEL

*Thank you for your attention !*

Contact: [dm@wcoomd.org](mailto:dm@wcoomd.org)