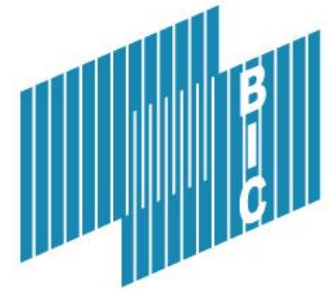




January 2017

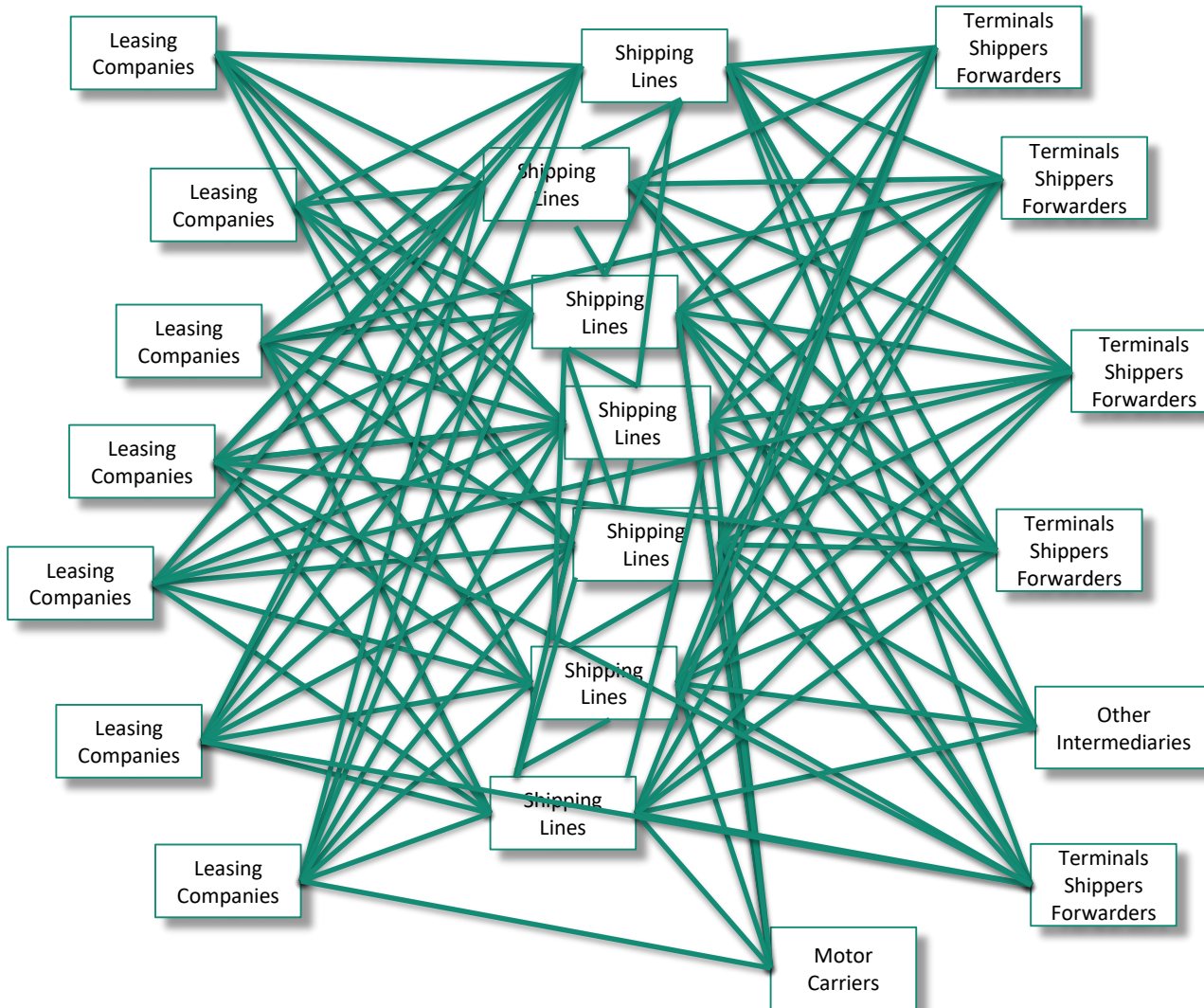
- Non-profit NGO, founded in 1933
- 2100+ members in over 120 countries
- Promoting safety, security, standardization and sustainability.
- Owner code registration authority since 1972.
- Manage Global ACEP Database, under IMO guidance since 2013
- Official NGO Observer status at:
IMO, World Customs Organization, UNECE



What is BoxTech?

The BoxTech Technical Characteristics Database is a neutral, non-profit, centralized data repository providing container owners and users a platform to easily exchange container fleet technical details.

Does this make any sense?



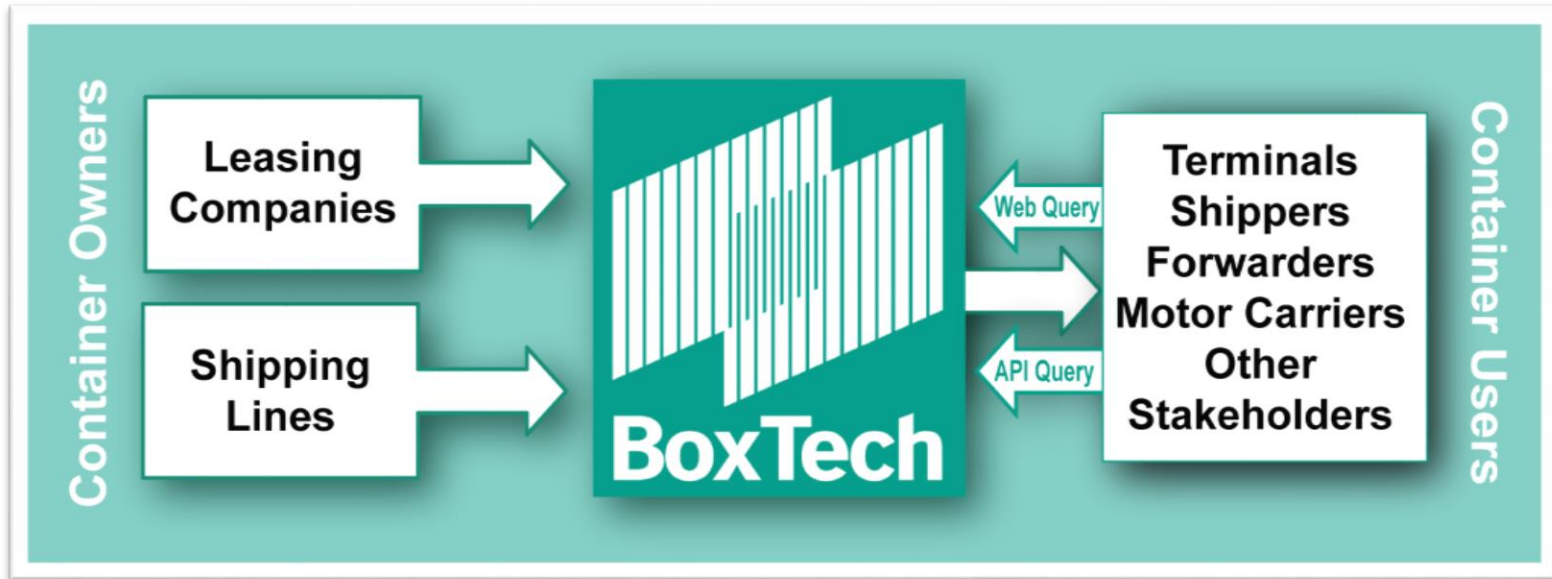
Container Owners

- Receive multiple inquiries via phone and email; employees are being used for non-core business
- Processes are not in place for sharing key data
- Building/maintaining an online database is not core business

Container Users and Intermediaries

- Must access multiple sources not always knowing who to contact
- Manual re-keying of data
- New processes needed for non-core business

BoxTech TCD Provides a Centralized, Neutral Database for all parties



Use of the Boxtech TCD means a one-stop-shop for all parties.
Everybody wins.

Demand for efficiency

- Already > 570 major shippers, forwarders, terminals, rail and motor carriers have signed-up up to access data.

Shippers/3PL/Hauliers/Rail



Terminals



SOLAS Regulation

- Effective July 1, 2016, any shipping container leaving from any port in the world must be accompanied by a shipping document signed either electronically or in hard copy by the shipper on the bill of lading listing the Verified Gross Mass (VGM) of a container in order to be loaded onto a ship.
- Obtaining the VGM is allowed by one of two methods:
 - **Method 1** – Weigh the loaded container using calibrated and certified equipment.
 - **Method 2** - Weigh all of the packages that are stowed in the container, including all pallets, dunnage and other packing material, and then add the **tare weight** of the container.

Where to obtain container tare weight?

Shippers & Intermediaries

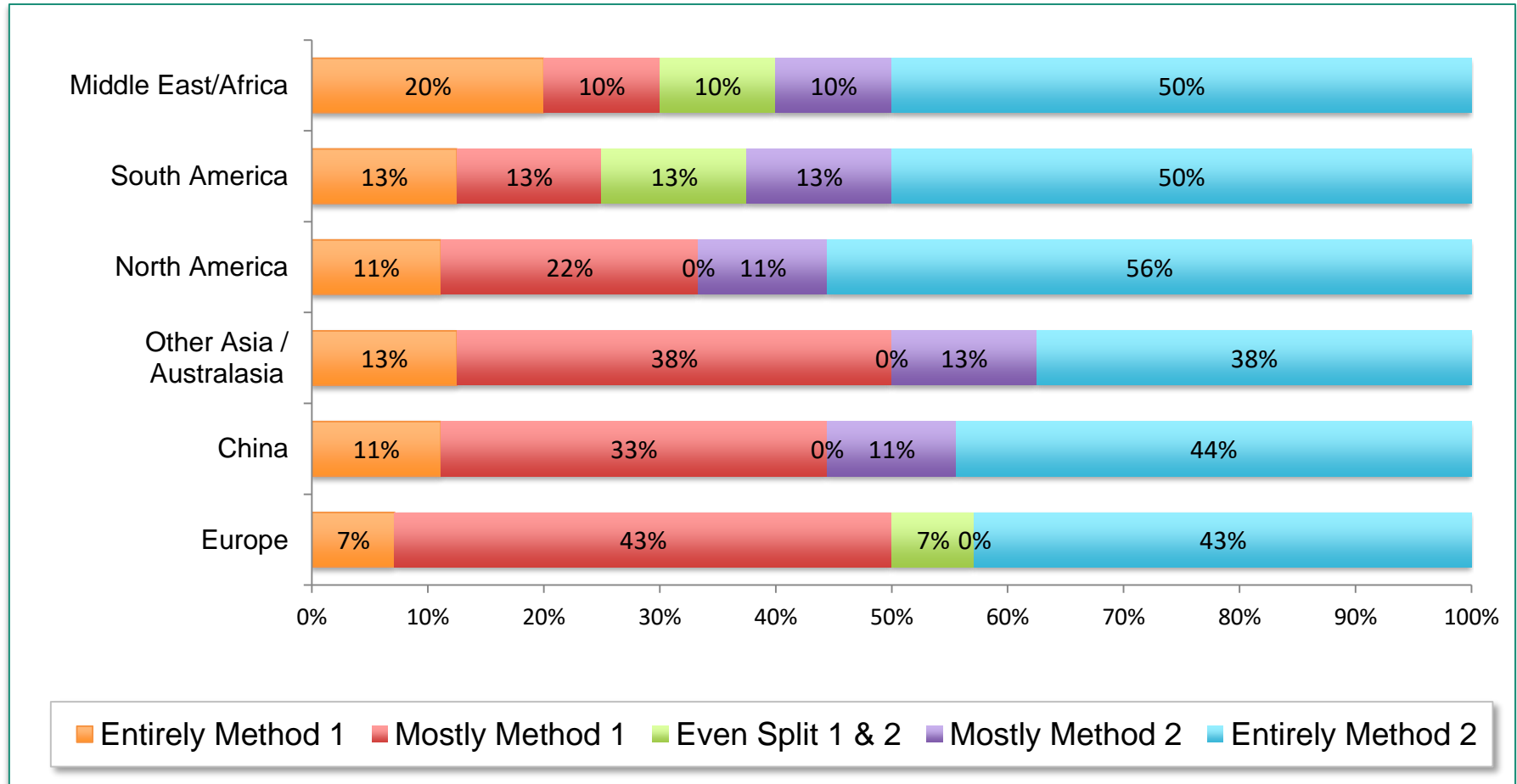
- From door of container?
- From 2-3 dozen websites?
- Need a standard process and instant access to technical data to support efficient operations.

Owners & Operators

- Heavy admin to exchange data between lessors-carriers and carriers-shippers
- Can satisfy customer's need AND become more efficient themselves through use of a neutral platform

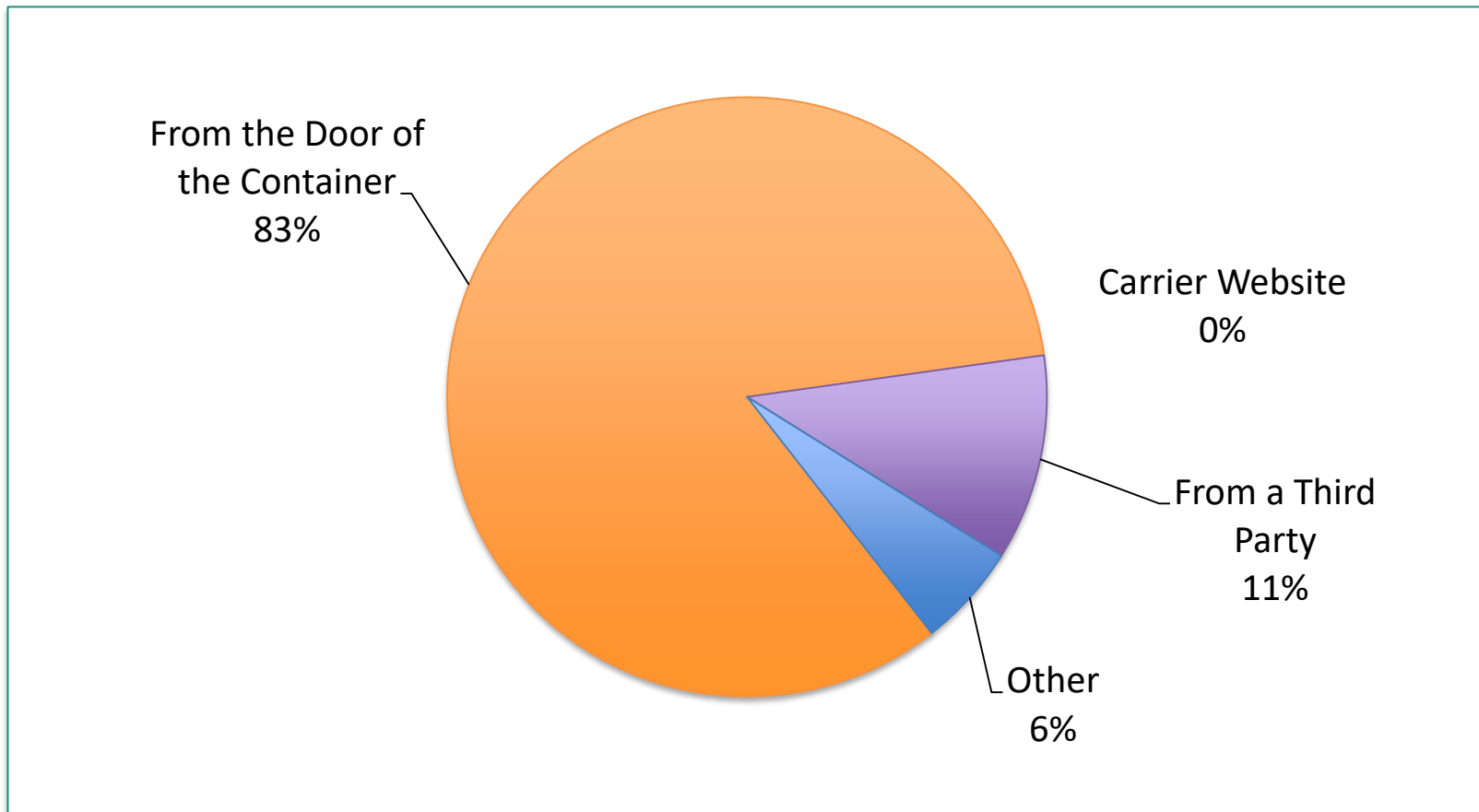
Survey results: method 1 vs. method 2

When submitting your SOLAS VGM declaration what method do you use?



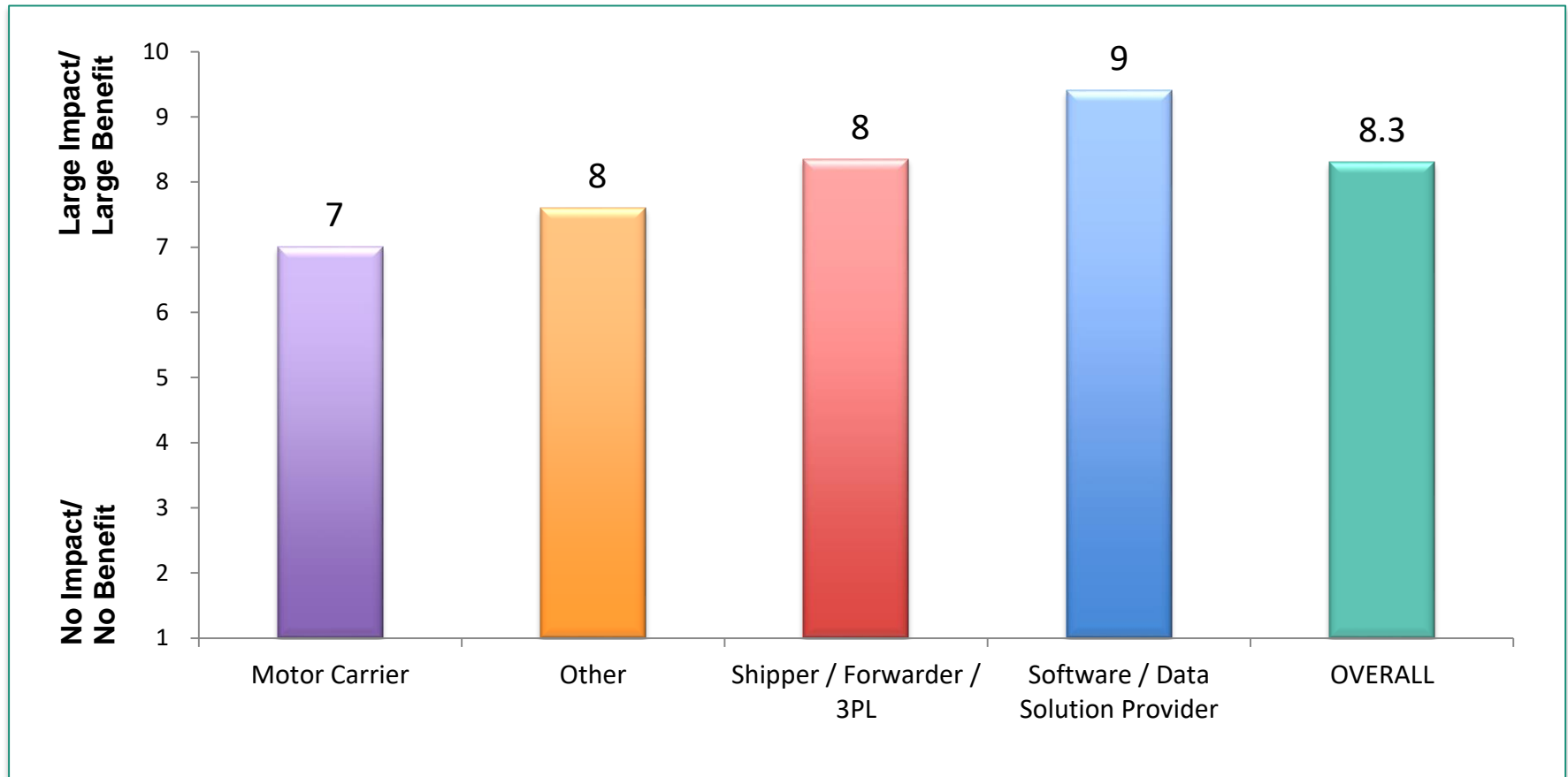
Container tare weight for method 2

When using Method 2 VGM how do you generally obtain the container tare weight needed for the declaration?



How beneficial would a central database be?

If you were able to obtain/validate characteristics electronically from one source for every container globally how beneficial would it be to your company/operation?

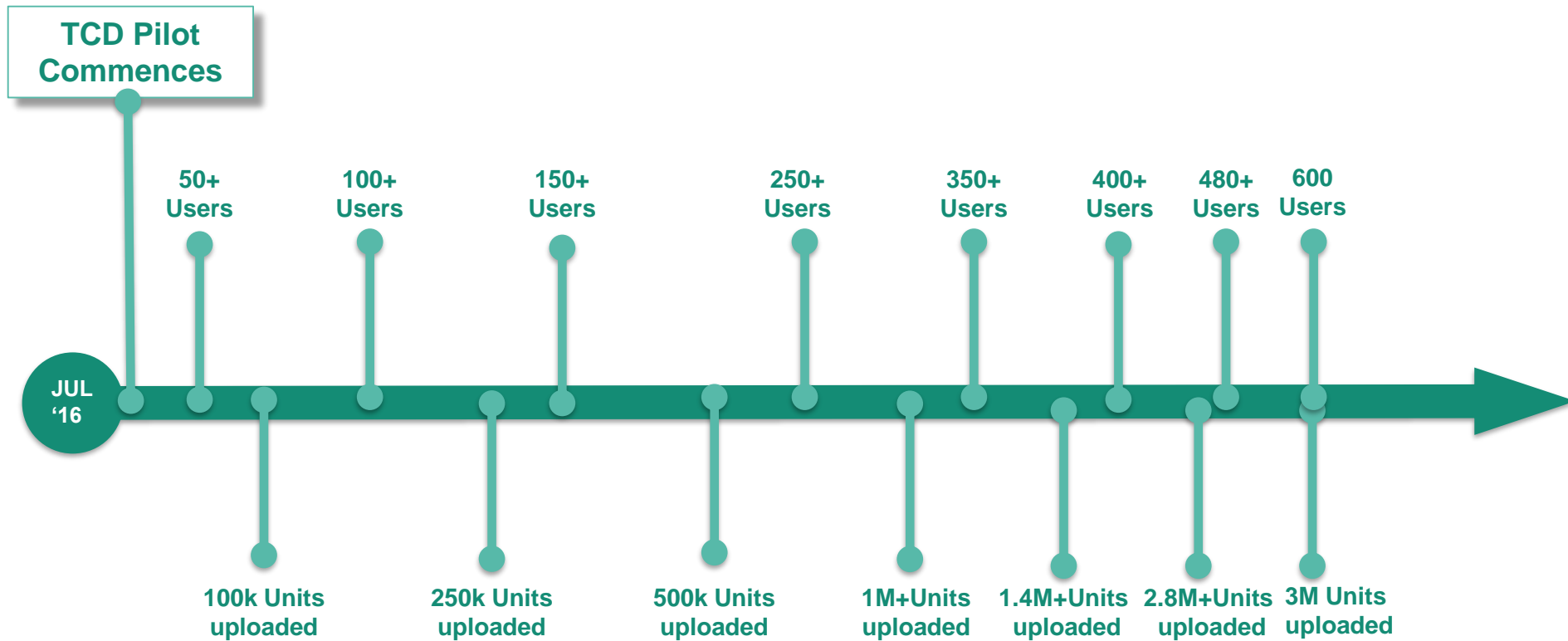


And here is what they have to say

How our users intend to utilize BoxTech data to support their customers and business.

- . “For our exporter client requirements.”
- . “To verify the container code and get the full container info.”
- . “To Improve OCR data reads.”
- . “To provide the container tare weights so our customers may declare an accurate VGM as the shipper. “
- . “To search for container specifications.”
- . “To use container data as reference data.”
- . “To satisfy shipper in my country.”
- . “To speed up the weighing of containers to capture the Tare mass of the shipping container into our system in order to make the weighing process faster so that they would only need to weigh out the shipping container once when it is full.”
- . “To be able to get the Tare mass of the shipping container without needing to rely on the user's accuracy.”

Great Interest and Steady Growth



Container Lessors

- Avoid sending constant file updates to hundreds of lessees.
- Avoid phone/e-mail customer support to answer basic equipment questions

Ocean Carriers

- Avoid chasing leasing companies for file updates
- Avoid the maintenance of online tare weight query tool
- Avoid phone/e-mail customer support to answer basic equipment ?'s
- Customer and vendor satisfaction: Make customers and other trading partners more efficient

Shippers / Forwarders

- Avoid accessing dozens of different websites to obtain tare weight
- Avoid manual re-keying of characteristics
- Avoid any manual intervention whatsoever, once automated API in place

Terminals/Depots

- More efficient planning through better visibility of container size/types and other characteristics
- Exception management: Non-standard equipment, spot errors, missing data

Onboarding Process: Container Owners



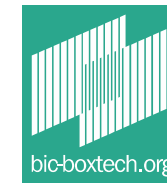
Quick sign-up and
account verification



Upload initial file using
CSV template



Subsequently
automate fleet
updates via API



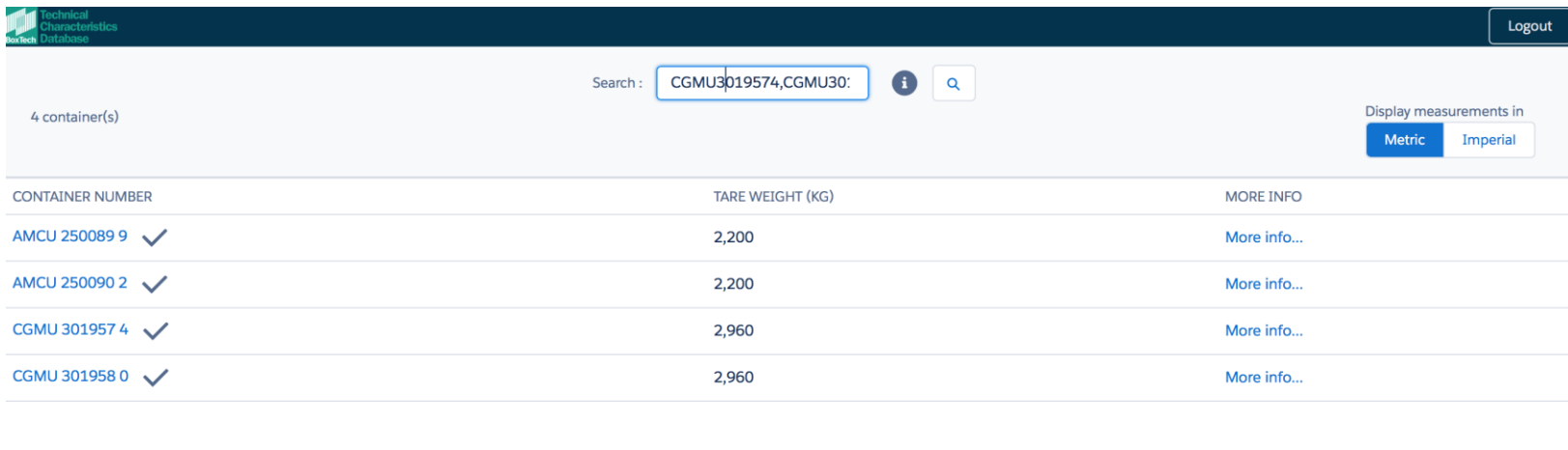
**Technical
Characteristics
Database**

FLEET LOADED



Accessing data in the TCD Database

- Users complete an online sign-up form to immediately obtain access
- Query database online by typing container number(s)
- Users may integrate data into their internal systems through APIs
- In either case, the container number is required



The screenshot displays the 'Technical Characteristics Database' interface. At the top left is the logo for 'BoxTech Technical Characteristics Database'. A search bar contains the text 'CGMU3019574,CGMU30:'. To the right of the search bar are an information icon and a search icon. Below the search bar, it indicates '4 container(s)'. On the right side, there is a 'Logout' button and a section for 'Display measurements in' with 'Metric' and 'Imperial' options. The main content is a table with three columns: 'CONTAINER NUMBER', 'TARE WEIGHT (KG)', and 'MORE INFO'. The table lists four containers with their respective tare weights and 'More info...' links.

CONTAINER NUMBER	TARE WEIGHT (KG)	MORE INFO
AMCU 250089 9 ✓	2,200	More info...
AMCU 250090 2 ✓	2,200	More info...
CGMU 301957 4 ✓	2,960	More info...
CGMU 301958 0 ✓	2,960	More info...

Detailed Container Data

- Further details such as Physical Characteristics, Dimensions and Manufacturer are displayed on the detailed view. Most are optional.

← Logout

CGMU
CGMU 301958 0
Data containing an asterisk (*) were uploaded in a different unit of measure

Physical characteristics	
<u>Group ST</u> 20RF	<u>Detail ST</u> 22R1
<u>Tare weight</u> Kgs : 2,960 Lbs : 6,526 *	<u>Cubic capacity</u> m3 : cu ft :
<u>Max payload</u> Kgs : 27,520 Lbs : 60,671 *	<u>Max gross mass</u> Kgs : 30,480 Lbs : 67,197 *
<u>Stacking</u> Kgs : Lbs :	<u>Racking</u> Kgs : Lbs : Newton :

Dimensions	
<u>External length</u> mm : ft :	<u>Internal length</u> mm : ft :
<u>External width</u> mm : ft :	<u>Internal width</u> mm : ft :
<u>External height</u> mm : ft :	<u>Internal height</u> mm : ft :
<u>Door opening width</u> mm : ft :	<u>Door opening height</u> mm : ft :

Manufacturer data, and data plates	
<u>Manufacturer data</u> Manufacturer : Manufacturer # : Manufacturing date :	<u>Customs plate</u> Customs approval : Customs approval type :
<u>CSC plate</u> Customs approval :	<u>Timber treatment plate</u> Timber certificate :

One door off operations	
<u>Stacking</u> Kgs : Lbs :	<u>Racking</u> Kgs : Lbs :
<u>End wall strength</u> Kgs : Lbs :	

BoxTech Alerts for Recoveries, Sale boxes...

Pop quiz: Whose box is this?



And the answer is...



t
e
x

For Asia (Including Oceania)

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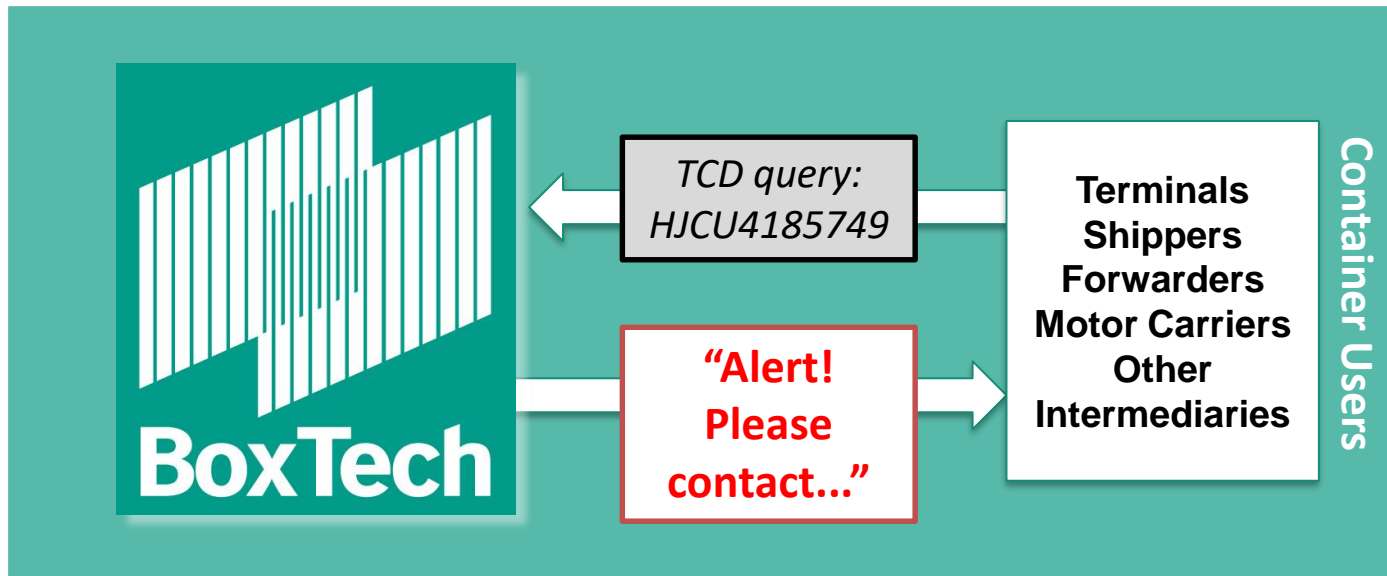
Jorge Dias

Corporate Operations Director

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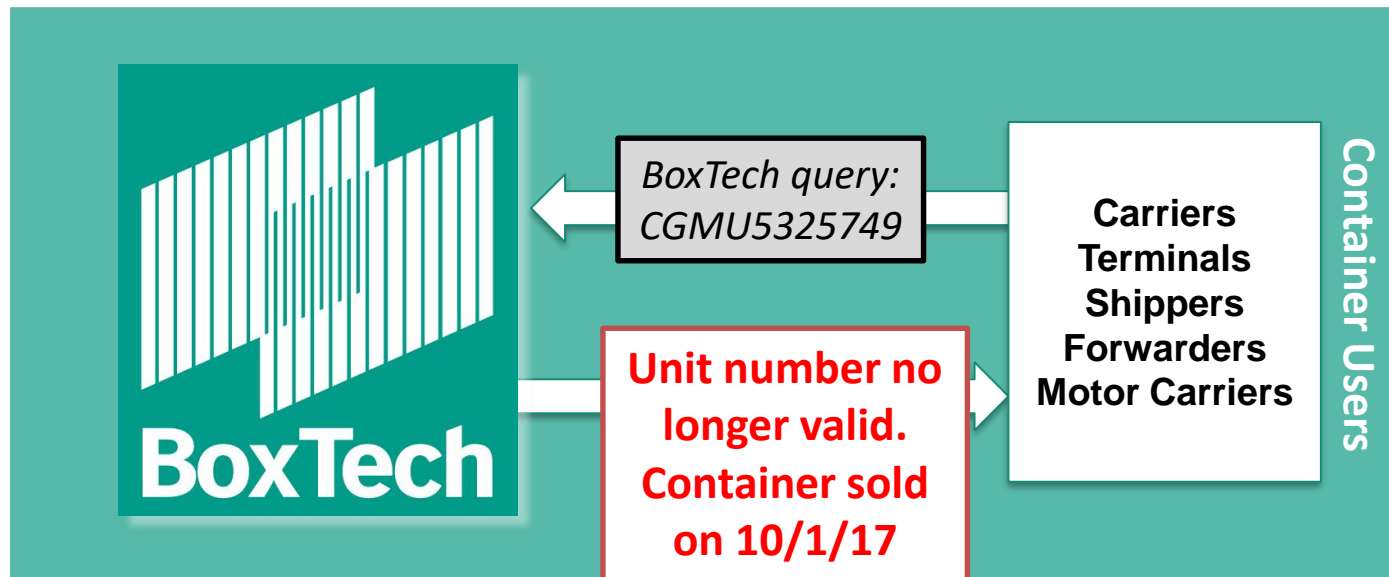
jpd@textainer.com

Alerts: Recoveries, lost units, security



- Bankruptcy / recoveries
- Stolen/lost units
- Security alerts

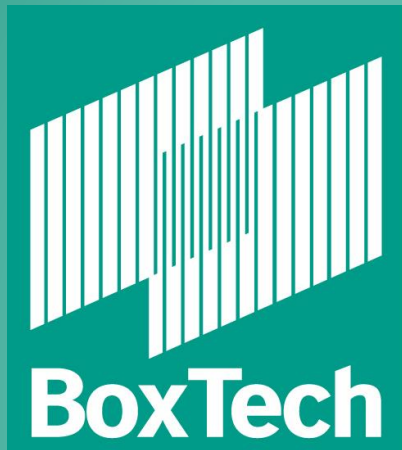
And similarly...a register of sold containers



- Instant visibility / alerts on units that have left fleet
- Increased safety
- Risk reduction
- Increase pressure on buyers to properly re-mark

One database, many uses

- Tare weight for SOLAS VGM
- Max payload for safety
- Reduced capability/stacking alerts
- Size-type and dimensions for terminals, others
- OCR accuracy improvement
- Box recovery alerts
- Sold / scrapped containers
- Insurance & claims investigation
- ?
- ?
- ?



Technical Characteristics Database

Douglas Owen
Secretary General

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