World Customs Organization 2023

# **Technology Innovations Power Customs Inspection Through Collaboration**

Daisy Dai

Nuctech company Limited

12 October 2023

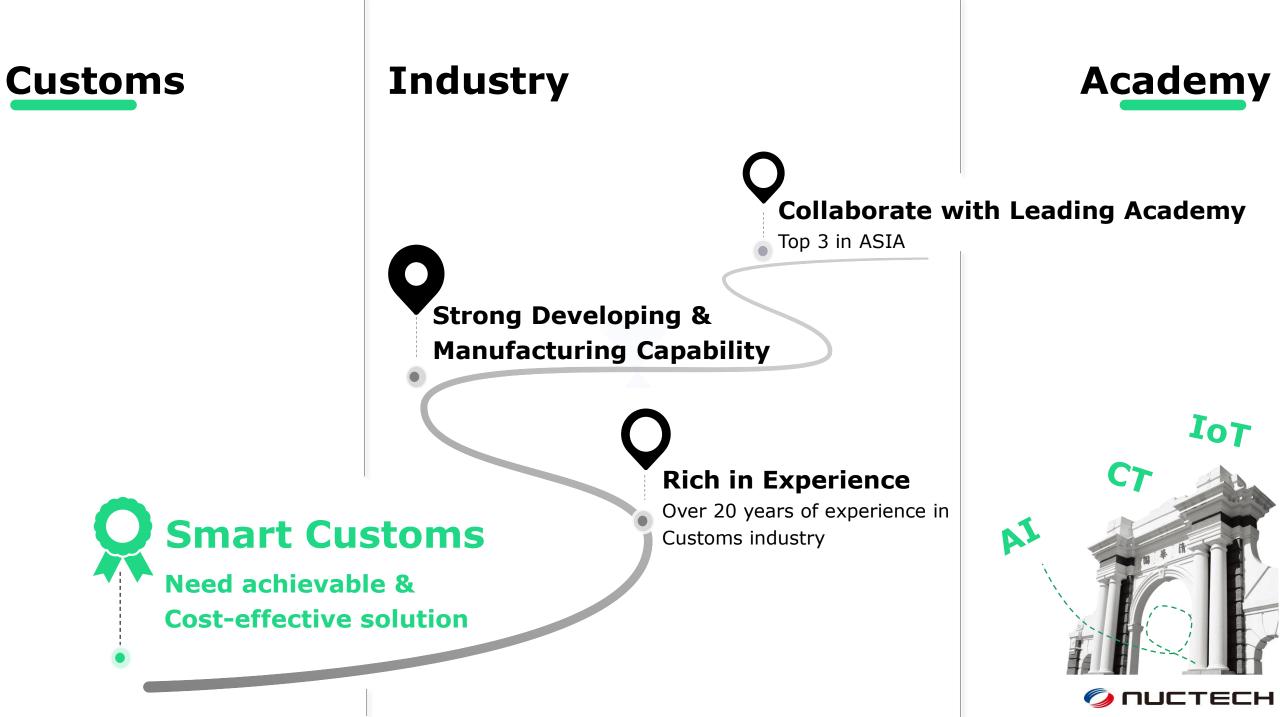


#### **Challenges**

**Cargo** transportation and e-commerce are developing rapidly. The traditional inspection equipment and solutions cannot meet the growing needs for inbound cargo control

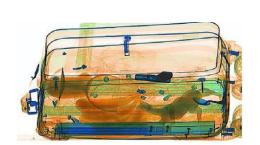
# Need advanced technology to Build intelligent customs and drive up the quality of customs service.





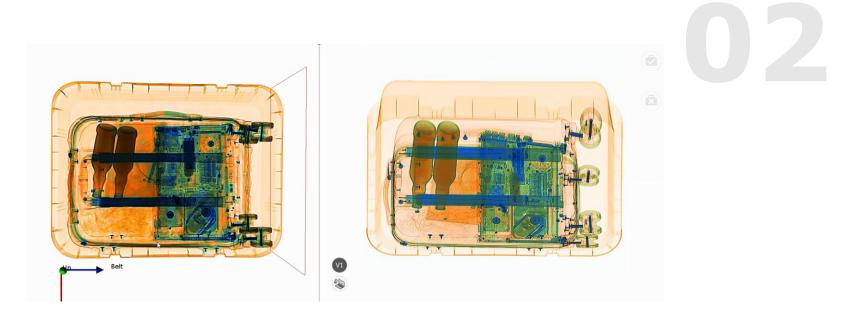
### **More Advanced Imaging Technology**

Computed Tomography and Dual Energy Technology



#### 2D image

Overlapping seriously



#### **3D image**

360 degree rotatableNo blind cornerEasier to find out concealed contraband



# **AI Technology- A Tool for Contraband Resolution**



#### **Auto-Detection**

# Static CT technology



Compliance with the highest standards



#### **Static CT**

- . Largest tunnel 1m x 1m
- . Smallest dimensions
- . Lightest weight
- 3D/2D/CT slice images

EDS+AI as Level 1: non-stop & 100% check & in-line mode



# What about the cargo screening?

100



# IMAGE OVERLAP

NO

# **AUTO ALARM**

# COMPLECATED

# LARGE SIZE

тΕ





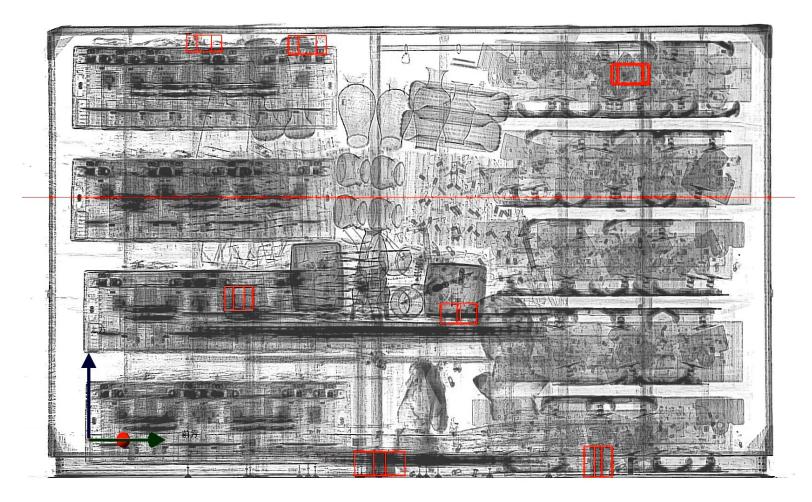
- LOW EFFICIENCY
- HIGH LABOR COST
- MORE SPACE



Respond to the demand from the market Create the First in the world Air cargo consolidate CT inspection solution

# Citan

# **Full Volumetric 3D Image**

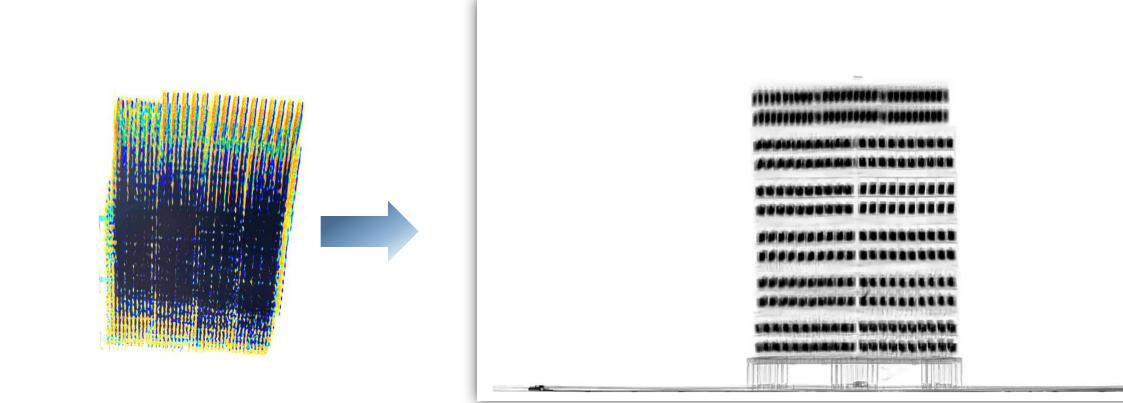


Future Security Inspection Robust Security Level High Efficiency & Effectiveness Save Space/ Time / Labor



# **Full Volumetric 3D Image**

# No image overlapping, Super clear, 360 degree ratable

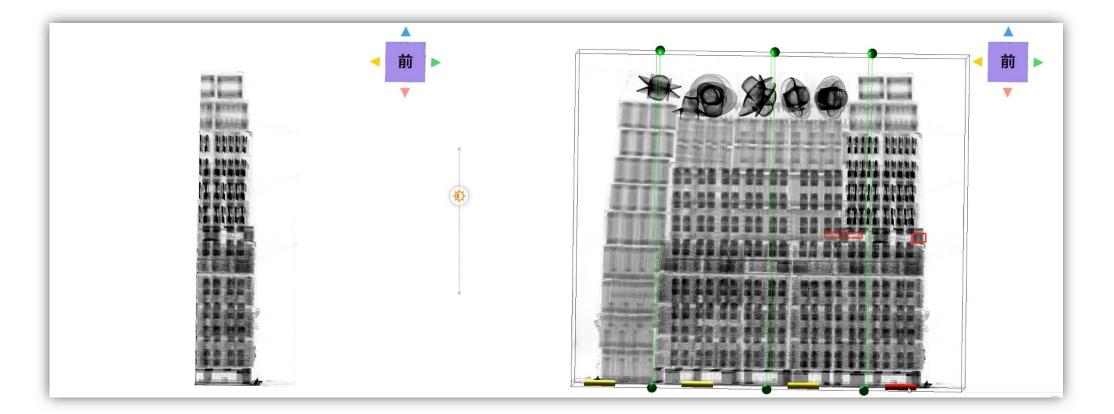


X-ray Machine Lithium battery Electronic Cigarette

CTitan Lithium battery Electronic Cigarette

# **Powerful Image Tool**

# Quick Partition- Quickly See Through the Cargo



# **Powerful Image Tool**

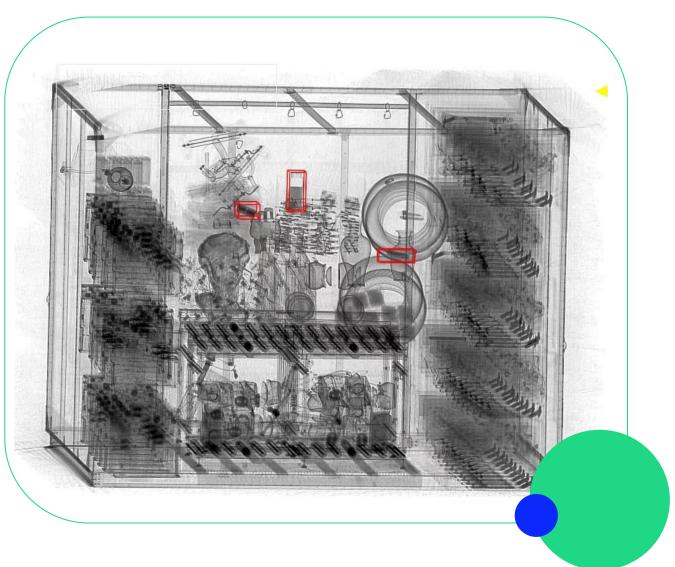
# **Emphasis Everything Inside ULD**



# **Clear cargo image+ Check all + Quick process**

# **Continue Developing of AI technology**

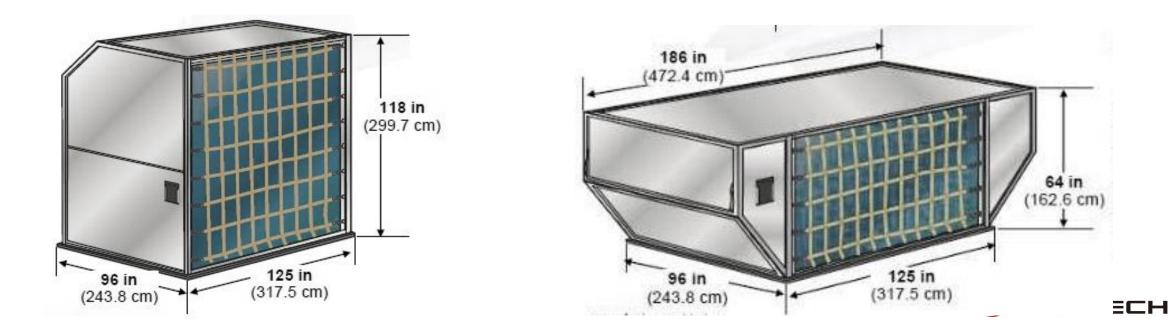
- Developed automatic alarm function for common explosives
- Automatic alarm function for lithium battery
- Automatic detection of Narcotics



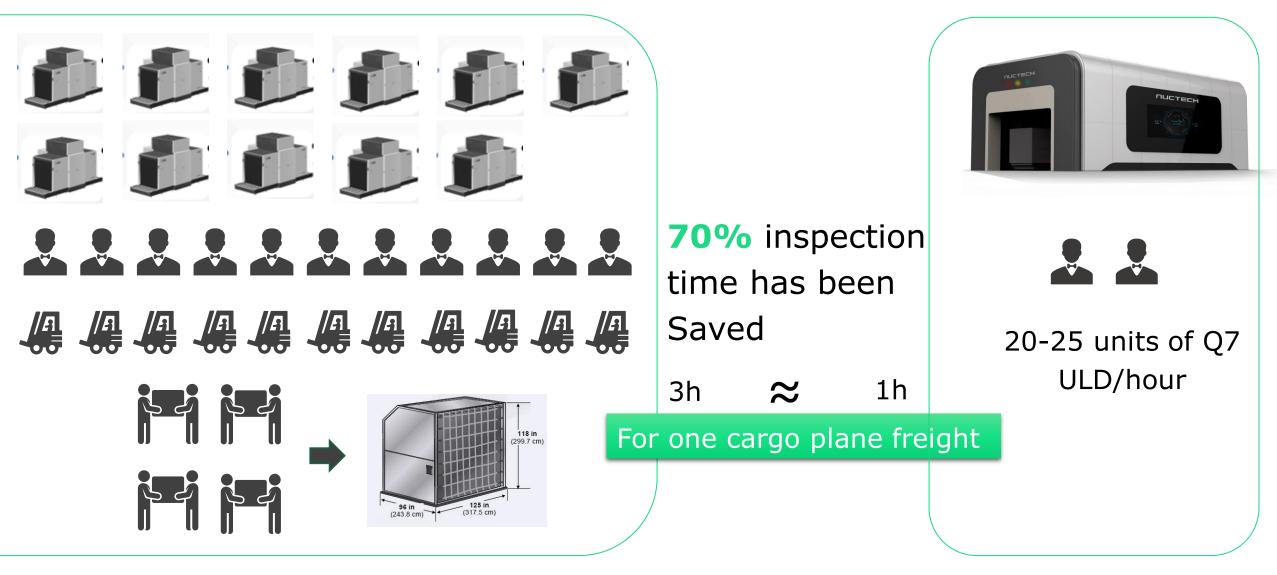
# **Consolidated Scanning**

Nuctech CTitan is capable to scan more than 95% of air cargo ULD in the world including Q7 and W2 ULD

- ULD with the **max. height: Q7** = 3.18m(L) x 2.44m(W) x <u>3m(H)</u>
- ULD with the max. length: W2 = <u>4.73m(L)</u> x 2.44m(W) x 1.62m(H)



# **High Efficiency Cargo Inspection**







#### **Transfer ULD 100% check**





### **Container screening**



#### **Collaborate and Innovate**





