威视
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UFF：Container for NII Data

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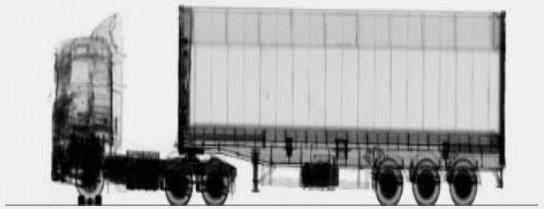
New Insights into NII Data:
Multi modal Digital Fusion of Physical Goods

NII Image



Chassis Photo

RM Curve

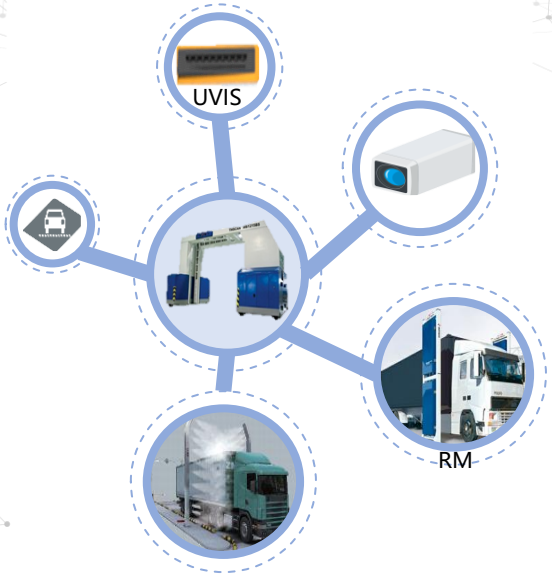
More Sensors ···

Weighbridge

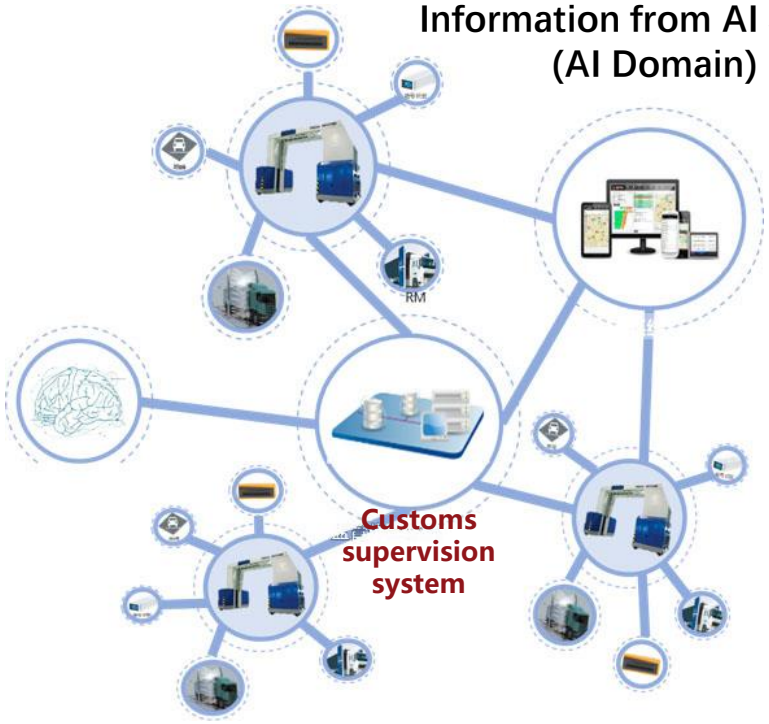
Container No
License Plate No

Digital Goods
Based on UFF format

New Understanding of NII Applications:
Digital Perception and Networked Interconnection



Data from Multiple Sensors



Information from AI System (AI Domain)

Internet of NII

Document Information (Logistics Domain)

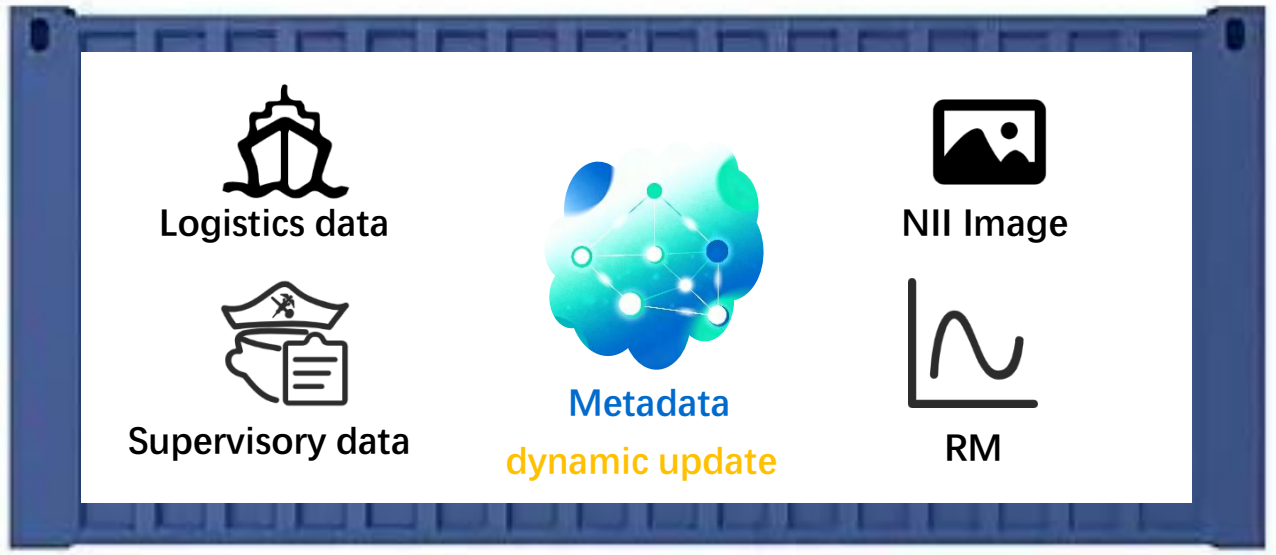
Supervision Directive & Conclusion (Custom Domain)

We need a “Container” to save various NII data

UFF Advantage

Just like a "container", various NII data from different domains are packed together, and **Independent Metadata** is similar to the "cargo manifest" . Its core value lies in recording the correspondence between various data.

Independent metadata management can ensure data integrity and traceability.



Decoupling and fusion of cross Domain and cross Modal data

NII Scanner

Logistics system

Custom system

Logistics data

Supervisory data

Metadata

dynamic update

NII Image

RM

Future data fusion

New Sensors

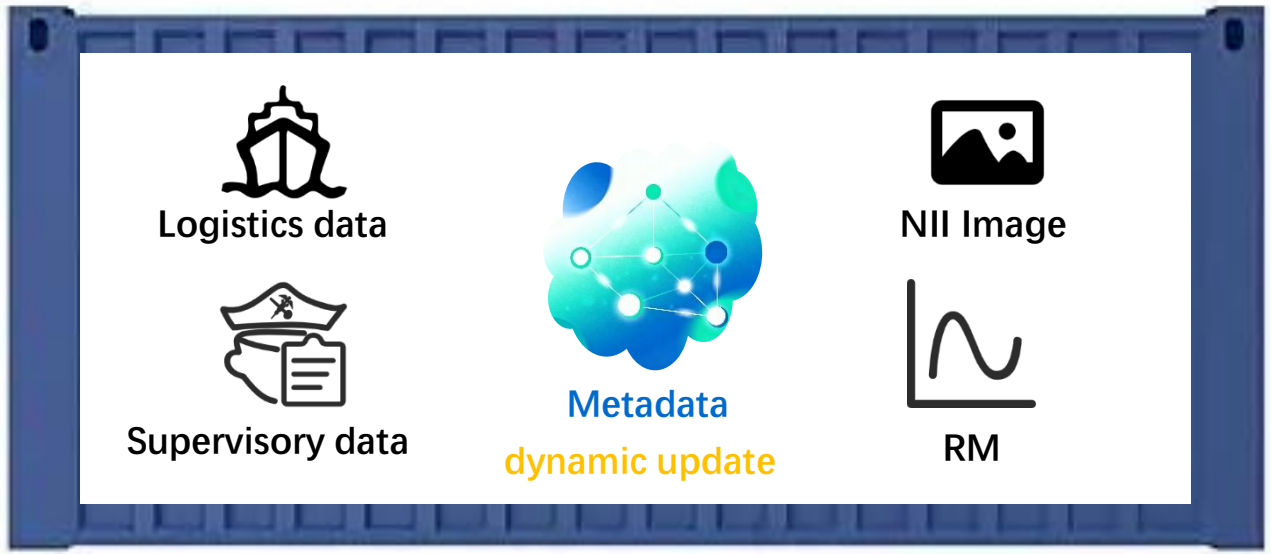
New Systems

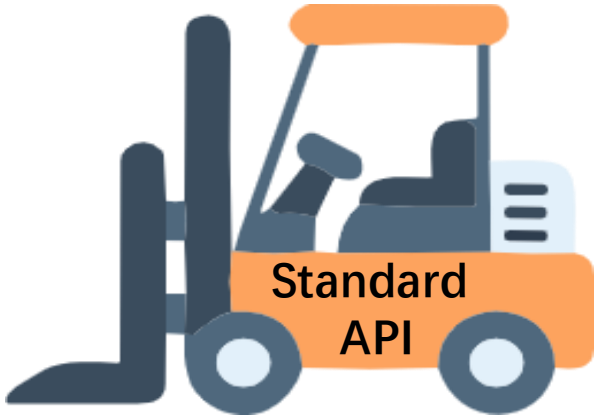
Radiation Monitor

3 Key points of UFF 3.0

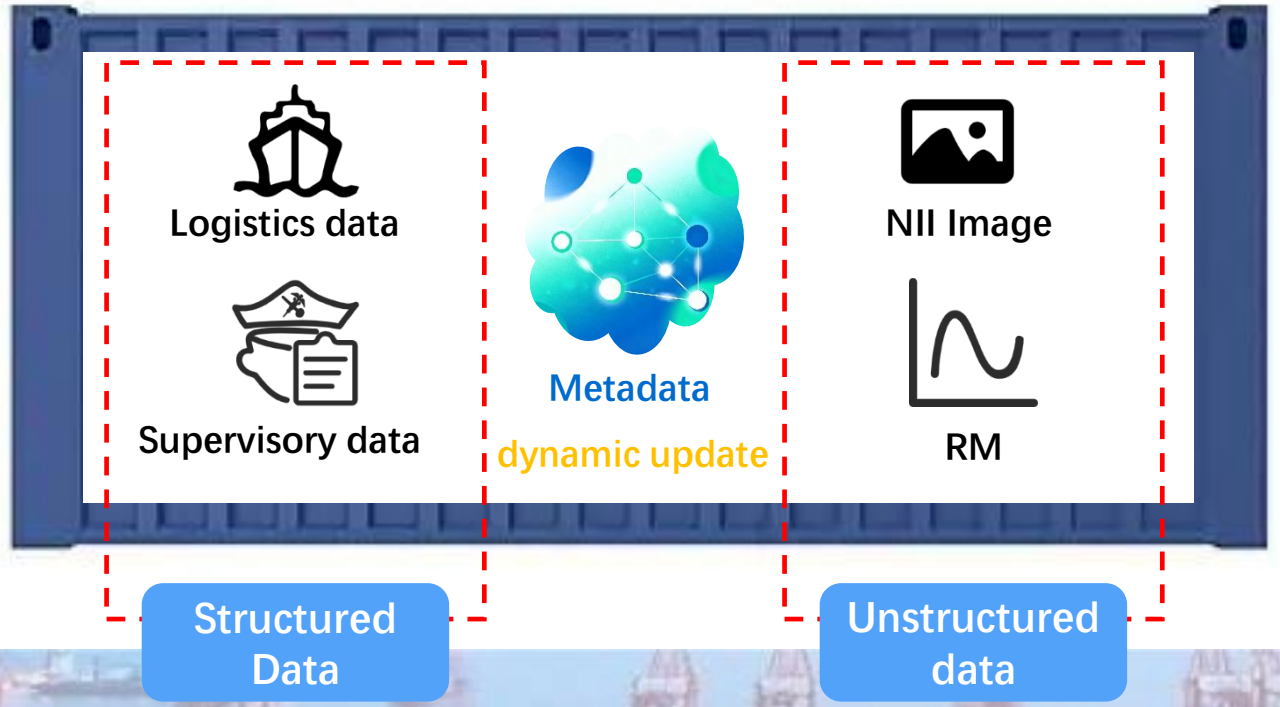
UFF 3.0 =

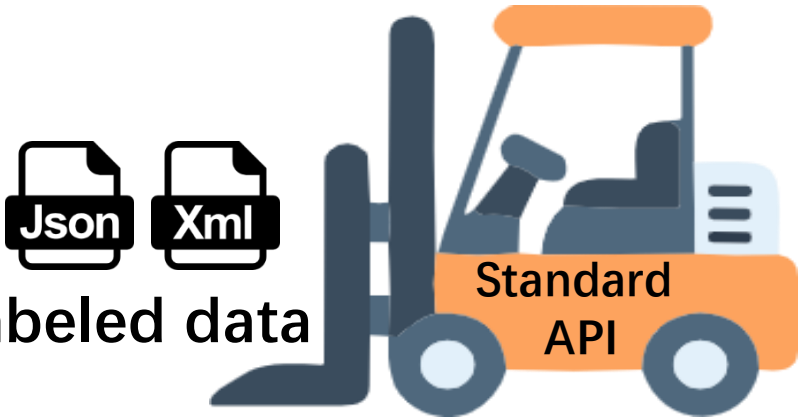
Multi domain multi modal raw data Added
+
Dynamic metadata layer management
+
Standard Application Programming Interface





UFF 3.0 supports AI training and application



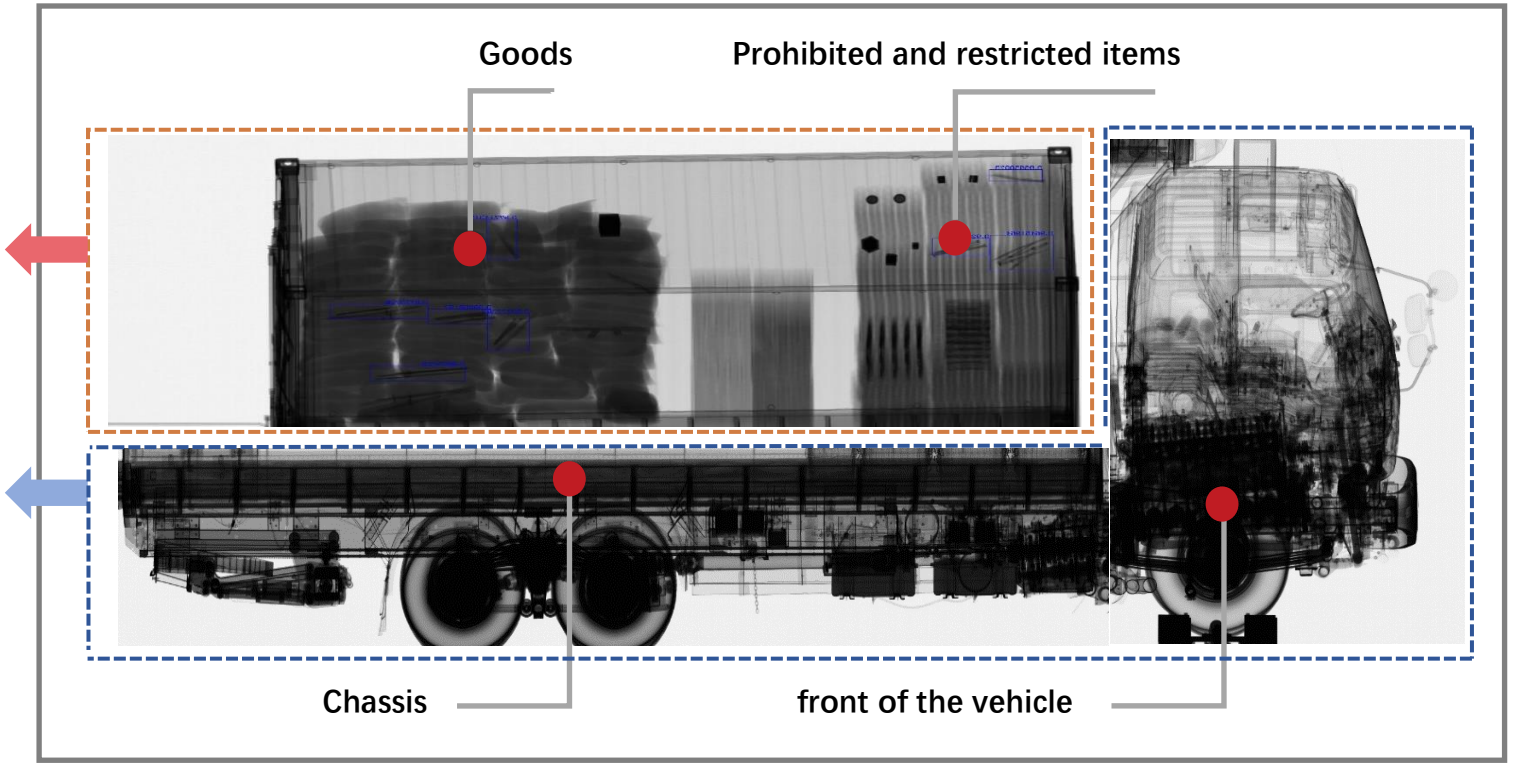


Multi modal and multi domain data to supporting large model training

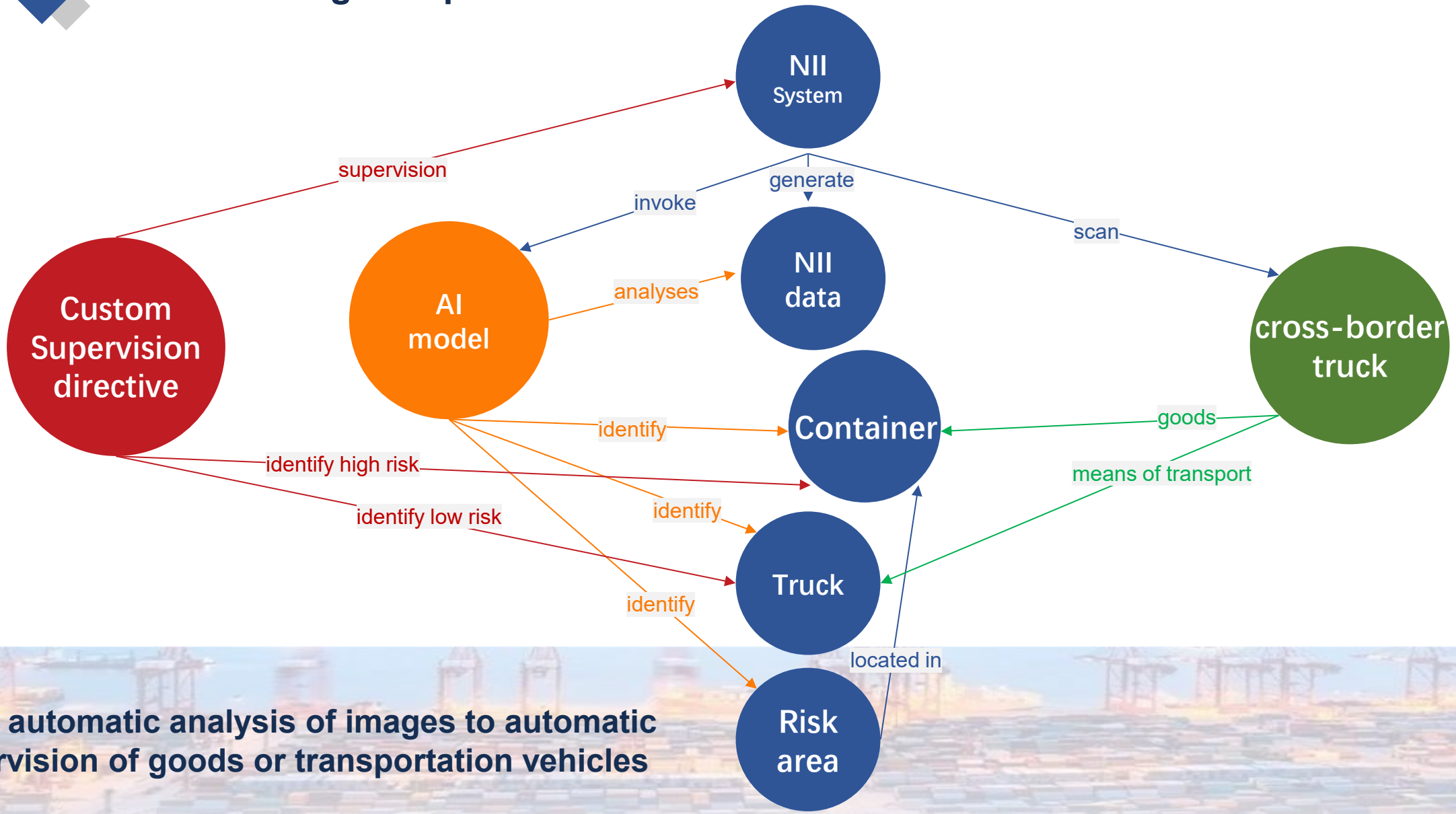
Key New capabilities brought by AI:
Cross modal or Cross domain alignment

Container No = Xml = Info of goods declaration

License Plate No = Xml = Info of vehicle declaration



Key New capabilities brought by AI:
Knowledge Graph Automation



From automatic analysis of images to automatic supervision of goods or transportation vehicles

Building a Smart Interface between Logistics and Customs

Logistics

Transportation

Customs Clearance Management

Declaration

Digital Goods

ID

Clearance

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THANKS

zenglei@nuctech.com

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