

IATA & the story of the electronic Air Waybill (e-AWB)

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International trade is about moving goods



But also is about information sharing

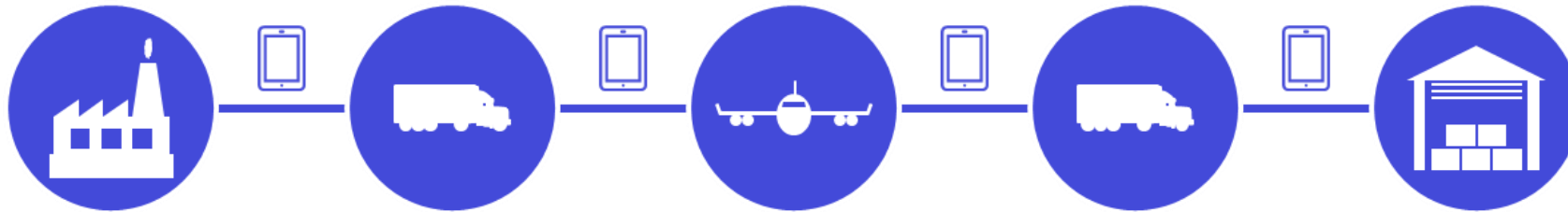
**Each year, more than
7'800 tons of paper
documents are processed**

**It's the equivalent of 80 Boeing
747 freighters filled with paper**



2005: IATA kicks off the e-freight program

e-Freight is an industry-wide program that aims to build an end-to-end paperless transportation process for air cargo made possible with regulatory framework and electronic message standard



2005: IATA kicks off the e-freight program

2010

Paper out of the
cargo

\$1.2B

Industry yearly
savings

-25%

Shipping time to
4 days

e-freight benefits

Operational efficiency



e-Freight brings operational efficiency through the reduction of the end-to-end processing time (up to 24h)

Cost effectiveness



e-Freight brings cost effectiveness through the reduction of document processing and archiving costs

Data quality



e-Freight improves data quality and accuracy (e.g. auto-checks, mandatory fields, ...)

Innovation



Standardization and digitization are key enablers for the development of new innovative services and solutions, thus increasing the value of the air freight to shippers (e.g. real time status update)

Sustainability



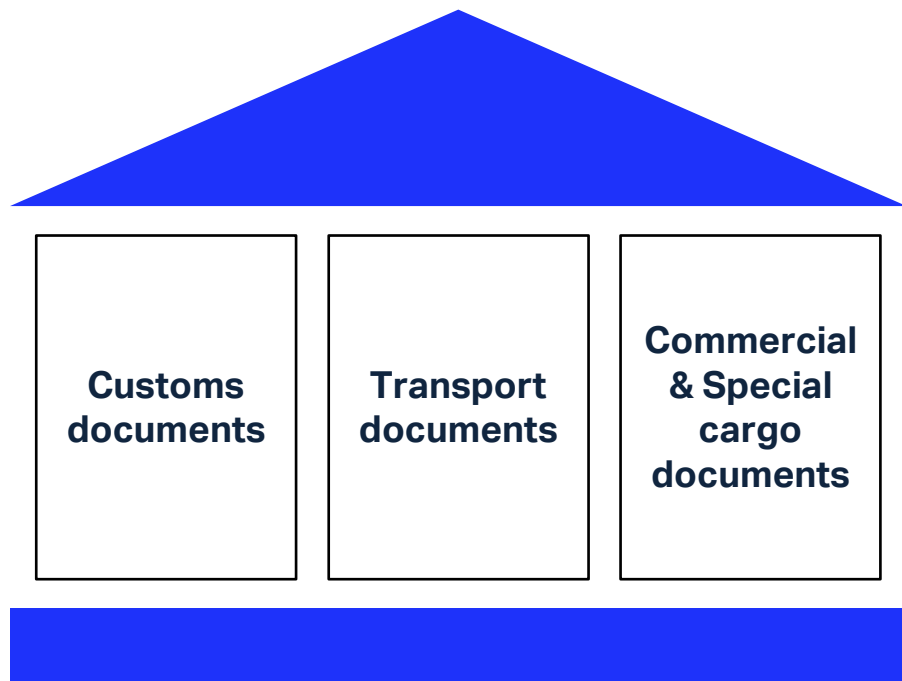
e-Freight will eliminate more than 7,800 tons of paper documents annually, the equivalent of 80 Boeing 747 freighters filled with paper

Regulatory compliance



e-Freight implementation facilitates compliance to international and local regulations (e.g. facilitate Advance Electronic Information (AEI) requirements for security purpose)

The 3 pillars of the e-freight program



1. Customs documents

Engaging regulators and governments worldwide to create an 'e-freight route network' with fully electronic customs procedures and where regulations support paperless shipments

2. Transport documents

Working collaboratively within the cargo supply chain to digitize the core industry transport documents, starting with the Air Waybill (AWB)

3. Commercial & Special cargo documents

Developing a plan to digitize the commercial and special cargo documents typically accompanying airfreight today, in or outside of the 'Cargo pouch'

The Air Waybill

The Air Waybill (AWB) is a critical air cargo document that constitutes the contract of carriage between the “shipper” and the “carrier” (airline).

The image shows a sample Air Waybill (AWB) form, which is a critical document in air cargo transport. The form is divided into several sections, including:

- Shipper's Details:** Includes the shipper's name, address, and contact information.
- Carrier's Details:** Includes the carrier's name, address, and contact information.
- Flight Details:** Includes the flight number, origin, destination, and date of departure.
- Cargo Details:** Includes the description of the cargo, weight, volume, and value.
- Charges:** Includes a table for various charges, such as freight, handling, and insurance.
- Signatures:** Includes fields for the signatures of the shipper and the carrier.

The form is filled out with specific details, such as the shipper being "COLT MANUFACTURING ACER EXHIBITS" and the carrier being "LUFTHANSA CARGO AG". The flight is identified as "LH 6401" from "NYC" to "MUN". The cargo is described as "COLT MANUFACTURING ACER EXHIBITS". The form also includes a table for charges, with a total charge of "140.00".

It is governed by IATA Resolution 600a “The Air Waybill” and 600b “Air Waybill Conditions of Contract”.



Air Waybill and electronic Air Waybill

```
<ns0:BusinessHeaderDocument>
  <ram:ID>
    <ram:ID>020-92560996</ram:ID>
    - <ram:SignatoryCarrierAuthentication>
      <ram:ActualDateTime>2016-05-16T00:00:00</ram:ActualDateTime>
      <ram:Signatory>U168411</ram:Signatory>
      <ram:IssueAuthenticationLocation>
        <ram:Name>NYC</ram:Name>
      </ram:IssueAuthenticationLocation>
      </ram:SignatoryCarrierAuthentication>
    </ns0:BusinessHeaderDocument>
  <ns0:MasterConsignment>
    <ram:NilCarriageValueIndicator>true</ram:NilCarriageValueIndicator>
    <ram:NilCustomsValueIndicator>true</ram:NilCustomsValueIndicator>
    <ram:NilInsuranceValueIndicator>true</ram:NilInsuranceValueIndicator>
    <ram:TotalChargePrepaidIndicator>true</ram:TotalChargePrepaidIndicator>
    <ram:TotalDisbursementPrepaidIndicator>true</ram:TotalDisbursementPrepaidIndicator>
    <ram:IncludedTareGrossWeightMeasure unitCode="KGM">2</ram:IncludedTareGrossWeightMeasure>
    <ram:GrossVolumeMeasure unitCode="MTQ">0.02</ram:GrossVolumeMeasure>
    <ram:TotalPieceQuantity>1</ram:TotalPieceQuantity>
    - <ram:ConsignorParty>
      <ram:Name>COLT MANUFACTURING ACER EXHIBITS</ram:Name>
      <ram:PostalStructuredAddress>
        <ram:PostcodeCode>21078</ram:PostcodeCode>
        <ram:StreetName>1601 CLEARK RD</ram:StreetName>
        <ram:CityName>HAVRE DE GRACE</ram:CityName>
        <ram:CountryID schemeVersionID="second edition 2">MD</ram:CountryID>
        <ram:CountrySubDivisionName>MD</ram:CountrySubDivisionName>
      </ram:PostalStructuredAddress>
    </ram:ConsignorParty>
    - <ram:ConsigneeParty>
      <ram:Name>BLACK SEA DEFENSE AND AEROSPACE</ram:Name>
      <ram:PostalStructuredAddress>
        <ram:PostcodeCode>85214</ram:PostcodeCode>
        <ram:StreetName>CARE OF SCHENKER 65 67 MAR</ram:StreetName>
      </ram:PostalStructuredAddress>
    </ram:ConsigneeParty>
  </ns0:MasterConsignment>
</ns0:BusinessHeaderDocument>
```

The electronic Air Waybill (e-AWB) is the **electronic contract of carriage** between the **"shipper"** and the **"carrier"** (airline)



The Electronic Air Waybill Resolution 672 (MeA) **removes the requirement for a paper Air Waybill**



The **original transportation contract is electronic** (shipment record)



There is **no longer a need to print, handle or archive the paper AWB** simplifying the air cargo process

Paper AWB versus electronic AWB

The 2 components of an AWB can be found both in the paper and in the electronic worlds

**Paper
AWB**

Front (600a)

Reverse (600b)

e-AWB

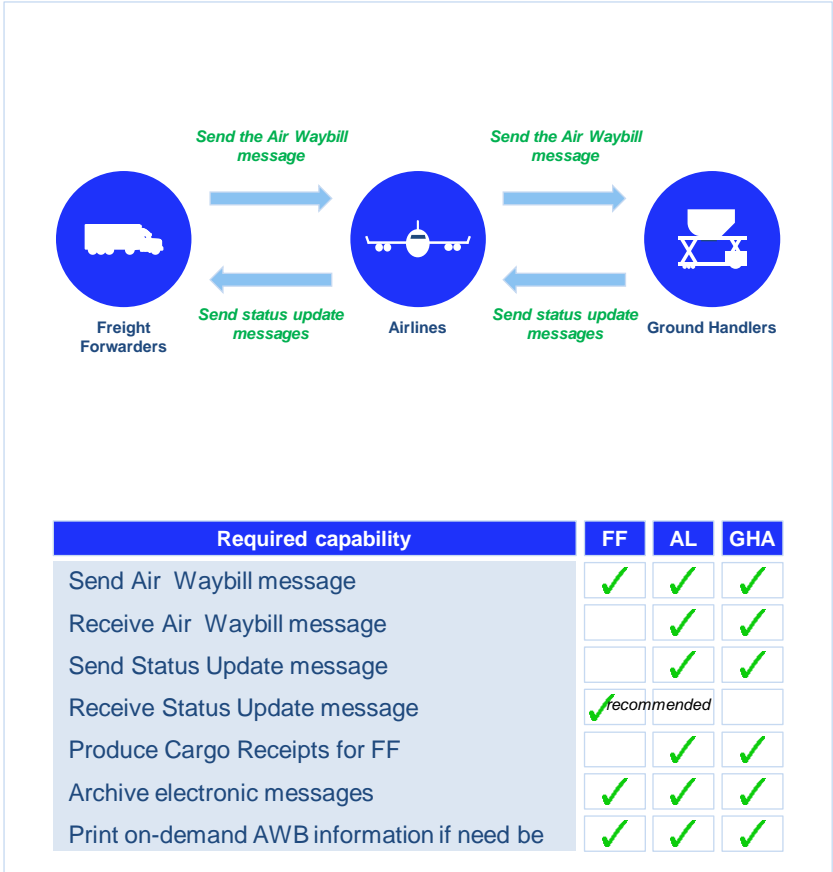
Electronic message*

Signed e-AWB agreement

IATA message standards: Cargo IMP (FWB message), Cargo XML (XFWB message)

IATA e-AWB messaging standard

Communicating effectively requires Freight Forwarders, Airlines and GHAs to exchange standard messages



The Resolution 670 rules the Cargo electronic data interchange message standard, supported by the recommended practice 1670 (Carriage of Cargo using Electronic Data Interchange), the recommended practice 1672 (Cargo-Fact/Cargo-IMP Message Standards) and the recommended practice 1675 (Cargo-XML Message Standards)

The table below describes the different messages as per the 2 IATA message standards – Cargo-IMP and Cargo-XML:

Message type	Cargo-XML	Cargo-IMP
Air Waybill message	XFWB	FWB
Status Update message (Freight on Hand - FOH, Ready for Carriage - RCS)	XFSU	FSU
Error message	XFNM	FNA
Message Acknowledgment	XFNM	FMA

Cargo-IMP message standard is no longer maintained since 2014. IATA recommends to use standard IATA Cargo-XML to exchange electronic information along the air freight supply chain as the alternative to IATA Standard Cargo-IMP

For more information, please visit: www.iata.org/cargo-xml

Montreal Convention 1999 (MC99)

- MC99 is intended to replace the patchwork of regimes that developed since the Warsaw Convention in 1929
- Entered in to force in 2003
- It governs airline liability for passengers, baggage and cargo on international flights in cases of:
 1. death, injury or delay to passengers
 2. delay, loss or damage to baggage
 - 3. delay, loss or damage to cargo**
- IATA and its member airlines continue to support ICAO in promoting MC99 as the single, global Convention on airline liability
- Ratified by 137 parties

MC99 is modern and fair

	Warsaw Convention 1929	Hague Protocol 1955	Montreal Protocol 4	Montreal Convention 1999
Cargo	USD 20 per Kg	USD 20 per Kg	USD 25 per Kg	USD 31 per Kg
Provision for electronic AWB?	No	No	Yes	Yes

NB: Treaties don't express limits in USD but in IMF Special Drawing Rights (SDR). These have been calculated using xe.com for comparison purposes

Regulatory framework for e-AWB

The use of e-AWB as a means to establish the contract of carriage is **only recommended on feasible trade lanes**. In February 2021, the **feasible trade lanes** represented **67%** of the AWBs.

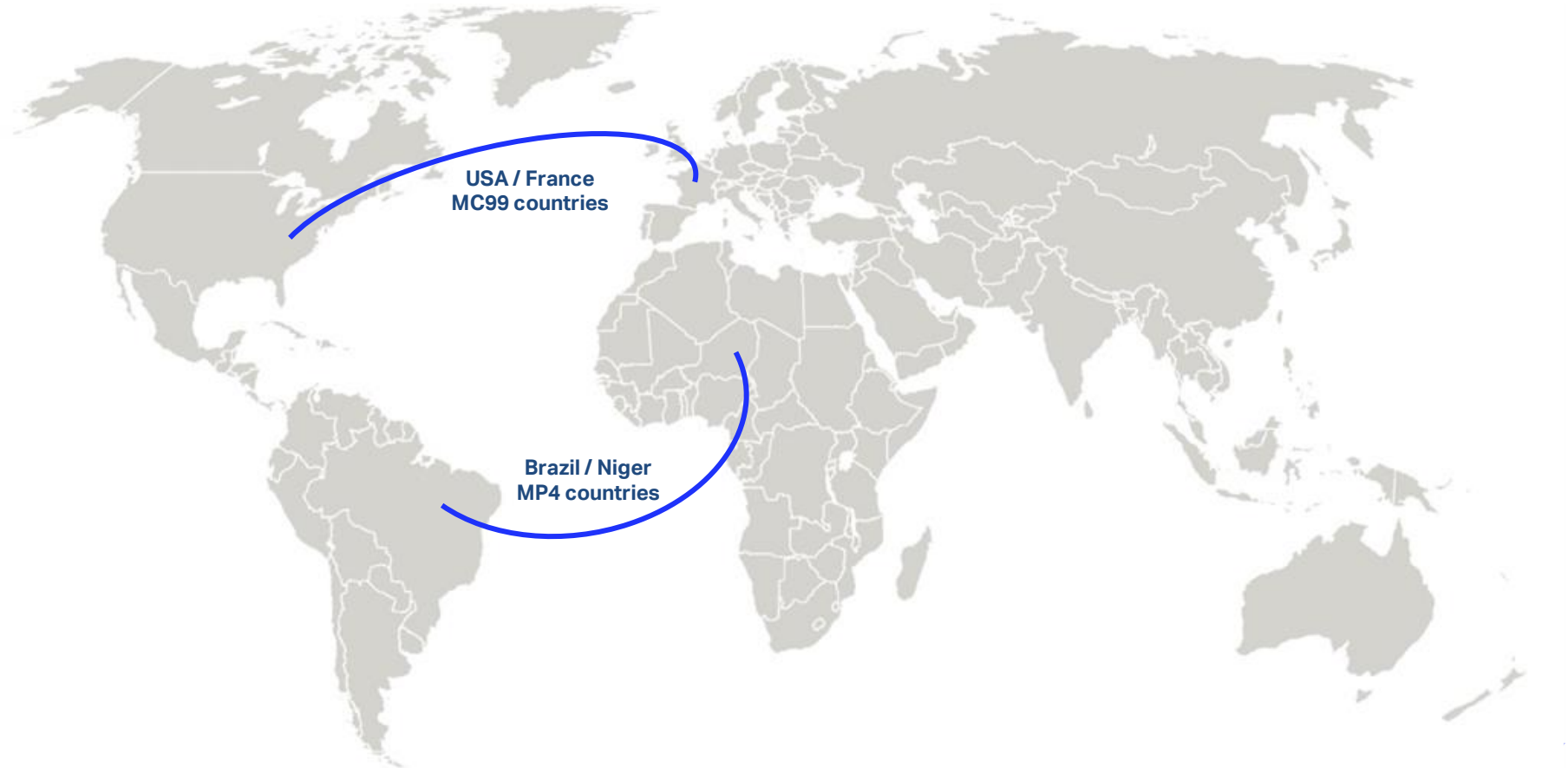
Feasible trade lane is defined as such when country of **origin and country of destination ratified the same treaty** - either the Montreal Protocol No. 4 of 1975 (MP4) or the Montreal Convention of 1999 (MC99)



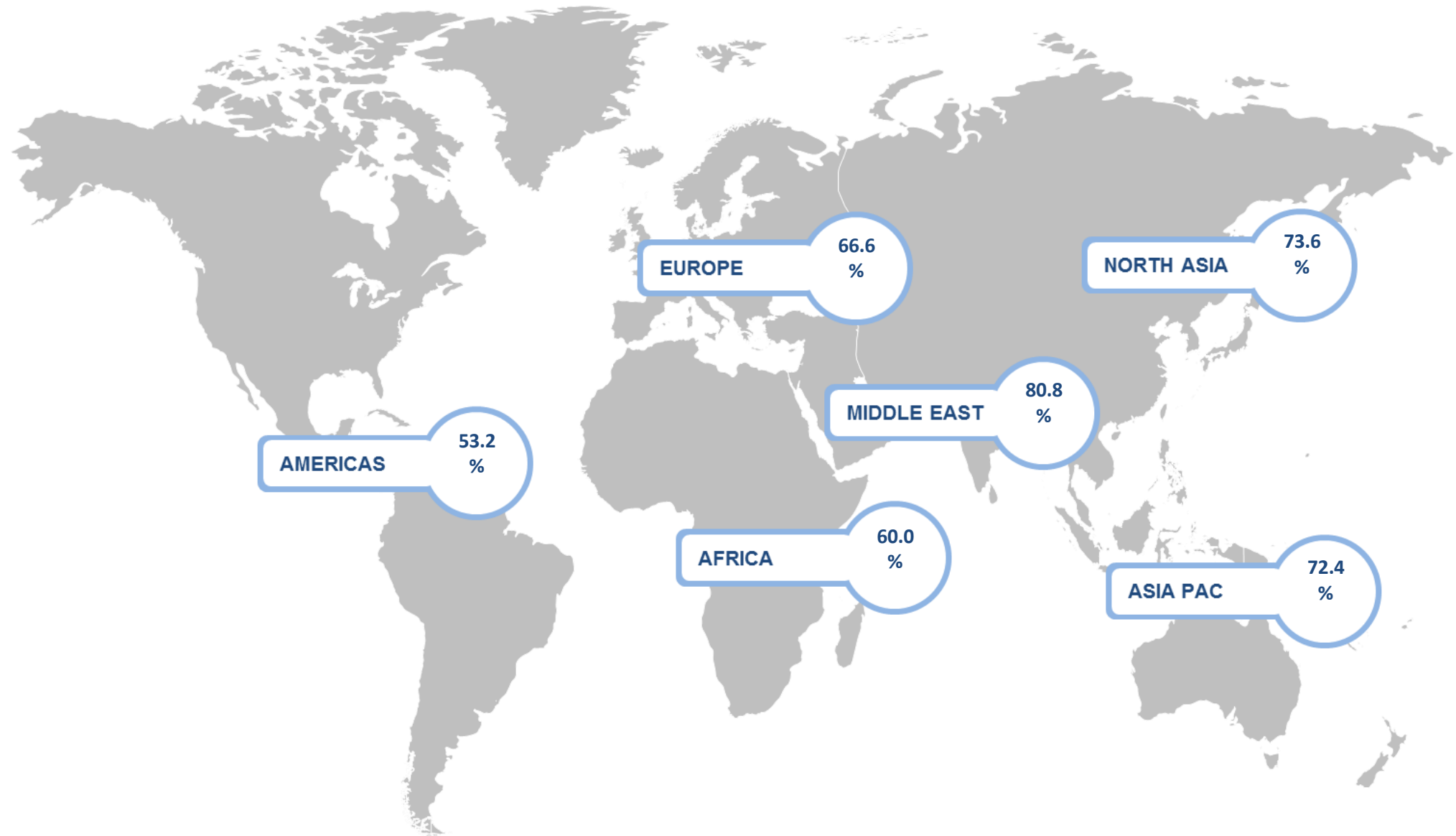
[Countries that have ratified MP4](#)

[Countries that have ratified MC99](#)

The use of e-AWB as a contract of carriage between the "shipper" and the "carrier" may also **depends on government authorities** recognizing and accepting the e-AWB



e-AWB penetration: 72.0% as of FEB 2021



The air cargo digital transformation journey

2005

From paper to digital

Cargo IMP / Cargo XML

Digitization

2020

e-AWB: ~70%

e-freight: nonsignificant

Shipping time: 5.5 days

2018

The industry needs to get rid of the documentary flow to speed up the cargo flow

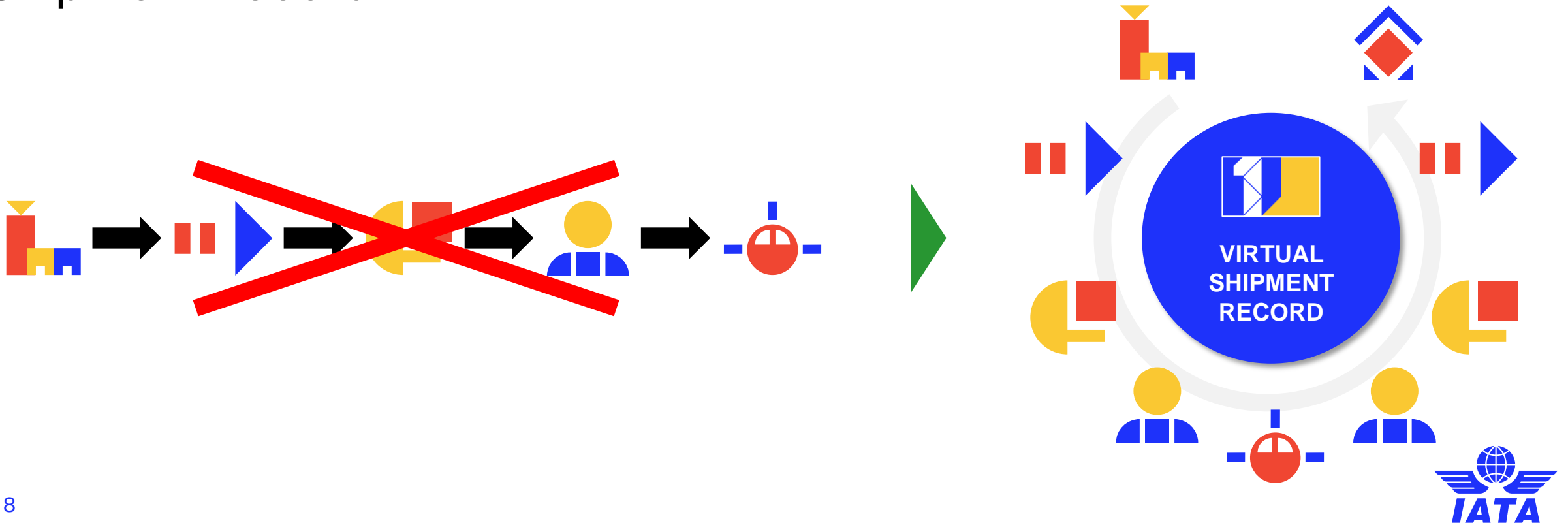
Transforming the industry through data

IATA ONE Record standard

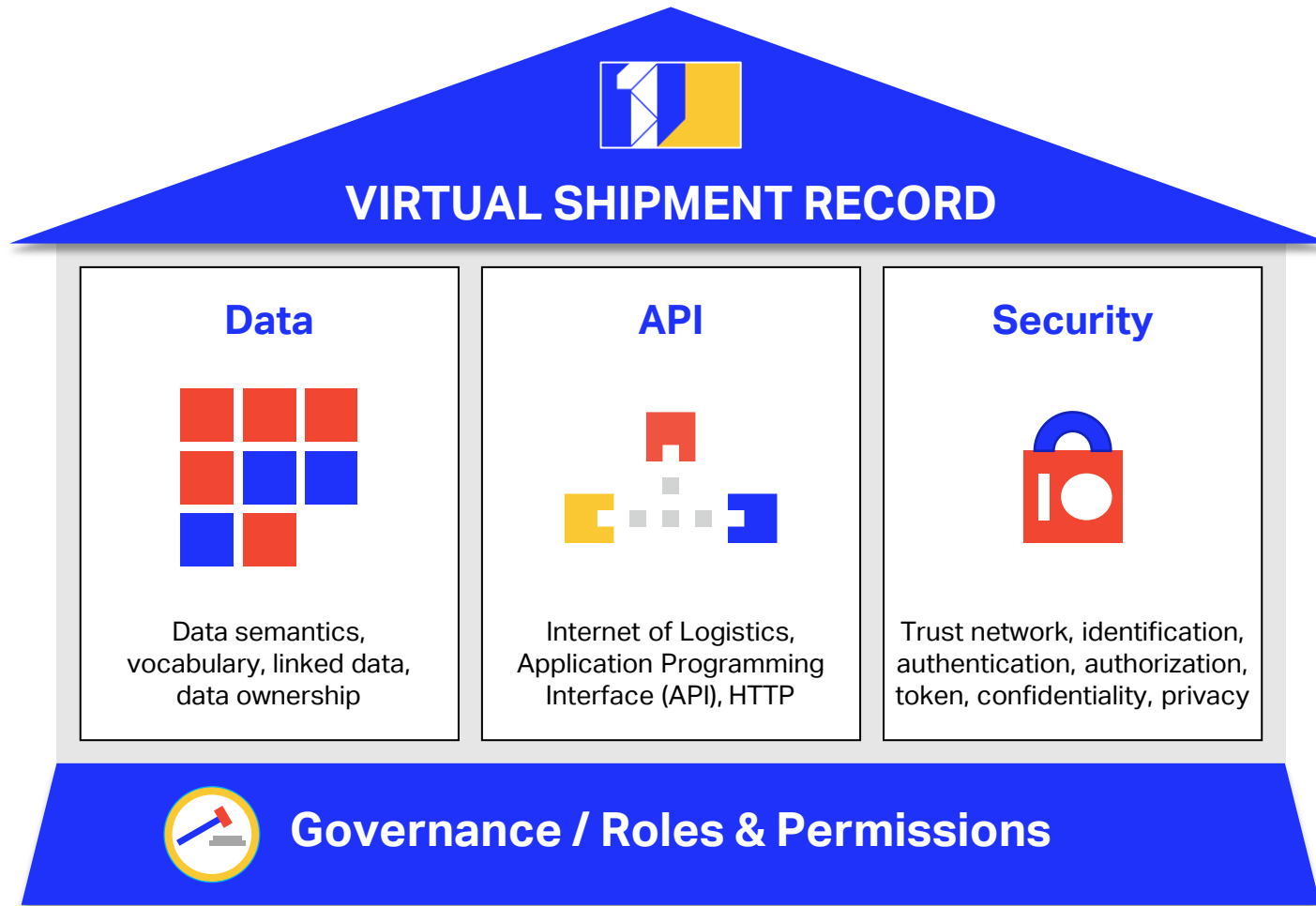
Digitalization / Digital Transformation

ONE Record concept

The essence of the ONE Record is to move from a peer-to-peer messaging model to a data sharing model relying on a Virtual Shipment Record



ONE Record concept



The ONE Record concept is based on 3 pillars enabling to define:

WHAT, HOW, with WHOM

data can be shared

ONE Record

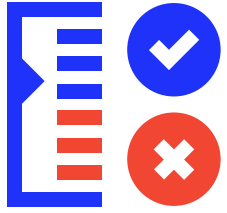
is a
data-centric model
and NOT a
**document-centric
model**

Provide better
visibility and
transparency

Eliminate
duplicate

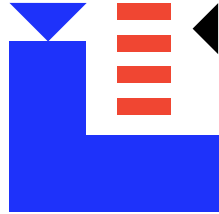
Improve
data quality

Industry benefits



Data quality and control

- Data shared by data owner
- Full control of data
- Data stays at the source
- Owner determines data access



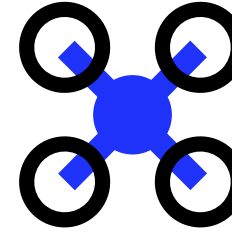
Visibility and transparency

- End-to-end transportation chain
- Share data of the shipment with relevant parties
- Enhanced visibility and transparency



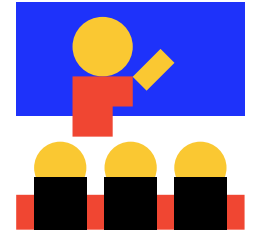
Plug & Play Connectivity

- Facilitate the direct connectivity between all the stakeholders
- Use of web API
- New cooperative IT solutions and innovation



Future of digital cargo

- Foundation for true digital air cargo
- Develop collaborative and automated digital services



Welcome a new generation

- Technology platform that is ready for a new generation of digital natives

Stop looking back
when the future is
ahead



Thank You