



Pharmaceutical Handling





"FRA meets Pharma" November 28, 2017





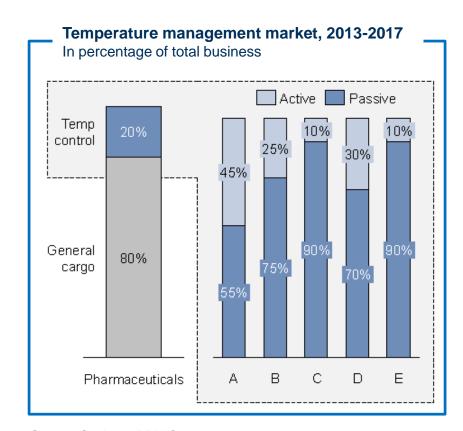
- 1.0 <u>Introduction:</u> Pharma logistical market growing Concerns and Challenges
- 2.0 Standards + Regulations: The nature of the industry requires strong cooperation and IATA as a standard setting organization
- 3.0 Objective: CEIV Pharma is a concerted effort to improve the level of competency, operational and technical preparedness
- 4.0 Approach and methodology: Validate knowledge, facilities, as well as processes, train stakeholders and recognize compliance
- 5.0 CEIV Pharma approach, governance, and organization: A partnership model and approach tailored to the needs of the different stakeholders in the value chain with qualified experts
- 6.0 CEIV Pharma: Update of activities





Background: Pharmaceutical Product Logistics

Temperature control share of pharma



Source: Seabury, BRU Cargo

- A big share of pharmaceutical shipments in the 15-25°C segment are shipped as general cargo.
- A **significant part** of pharmaceutical shipments requires **temperature controlled** transport.
 - 75% of shipments require **passive** cooling solutions, and
 - **⊘** 20% require active temperature control.
 - Active temperature control solutions demand a yield premium due to complex requirements.
 - Passive solutions drive volume and are less costly to implement.

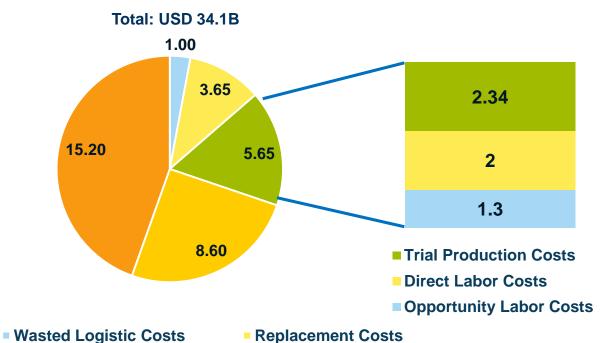




Background: Critical Issues Raised by the Shippers

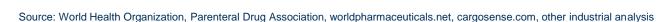
Looses associated with temperature excursions in healthcare are around a staggering ~USD 35B

Losses associated with temperature excursions In USD Billion



Root Cause Analysis

The average costs of root cause analysis for each excursion can range from \$3K to up to \$10K (avg. USD 6.5K per year)



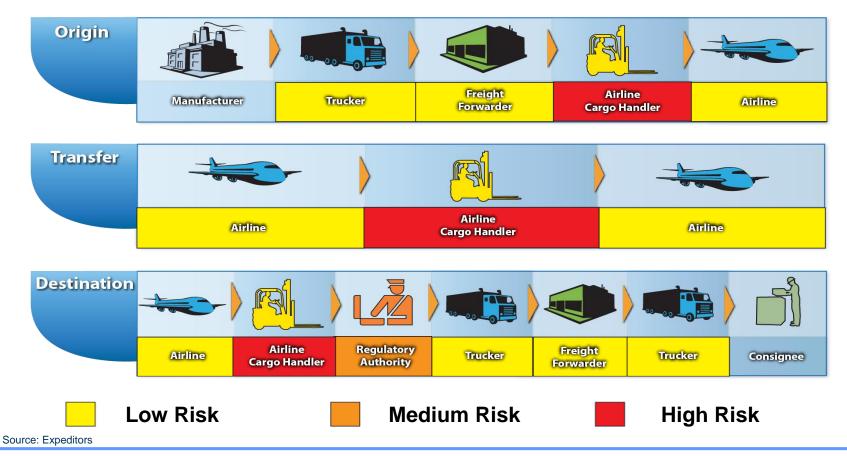


Clinical Trial Costs



Background: Air Cargo Industry Concerns and Challenges

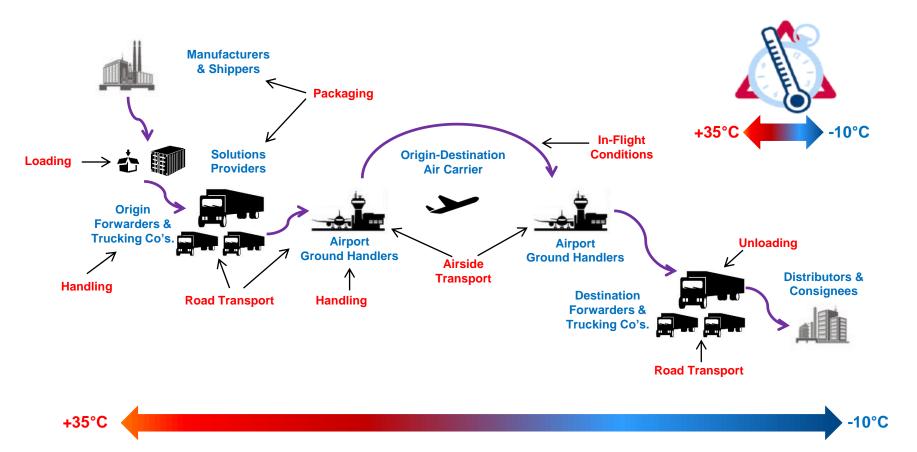
Temperature Excursions – Where do they occur?





Background: Air Cargo Supply Chain Challenges

From origin to destination pharmaceutical products can be exposed to different climates







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Industry Cooperation in Air Cargo

The nature of the business requires strong industry cooperation – Strong stakeholder management is required







IATA a Standard Setting Organization

Since 2007 IATA and its industry stakeholders have developed a number of temperature sensitive standards

2007

Perishable Cargo Regulations (PCR) *Industry standard*



2010

PCR New Chapter 17

New T&T Sensitive Label 2012

Mandatory T&T Sensitive Label

> Must be affixed to all shipments booked as T+T sensitive cargo

2014



Provides requirements + standards

2008

2009

2011

2013

Mandatory Standard Checklist





Content

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- 6.0 Benefits: A win-win opportunity for all stakeholders
- 7.0 CEIV Pharma: Update of activities





CEIV Pharma

To ensure the integrity of the product throughout the supply chain





Prevent sanitary issues caused by temperature excursions during transportation.

Improve handling of pharmaceutical products and compliance with existing

Ensure product integrity

regulations + standards.

through efficient and robust training program.

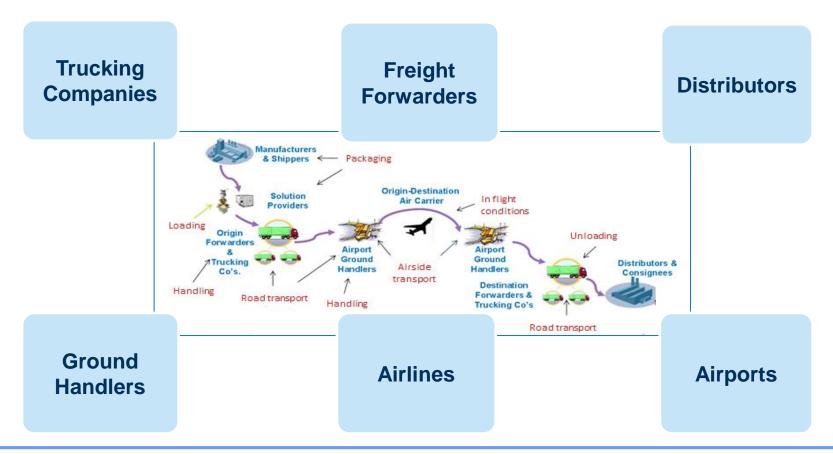
Create a global and consistent certification that industry can rely on.





CEIV Pharma targets

Who does CEIV Pharma target? The supply chain







CEIV Pharma Standard

... by applying the newly developed CEIV Pharma standard that focuses on global coverage and universality...

IATA GUIDELINES





GOOD DISTRIBUTION PRACTICES





LOCAL + REGIONAL GUIDELINES

E.g. Singapore GDP & GDPMDS or FAGG in Belgium

CEIV Pharma:







- **aims at reducing the number of audits or simplifying them.**
- **aims to align air cargo stakeholders needs.**







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6.0 CEIV Pharma: Update of activities





Certification Approach and Methodology

IATA will certify companies in several steps

Preparation

- Assemble team
- Prepare project logistics
- Send data and information request
- sheet for first visit

Assessment

- On-site assessment by Independent validator
- Assessment versus minimum IATA Temperature Controlled Audit Checklist
- 7 Comparison against best practice
- Establish findings and offer recommendations for change
- Develop implementation plan and secure resources
- Draft gap analysis report

Validation

- On-site visit by an Independent Validator to ensure full compliance with the IATA CEIV Pharma checklist and also review the progress made against recommendations during the assessment phase
- Drafting of report





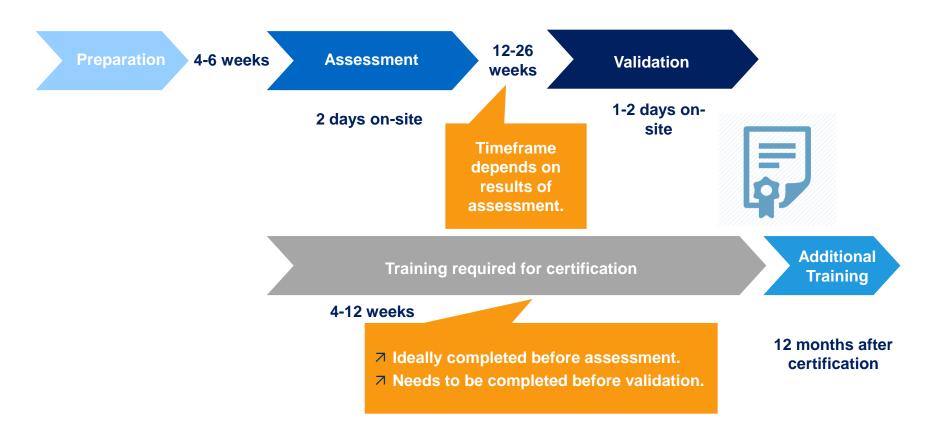
Training required for certification

Additional **Training**





Certification Timeline (general approach)





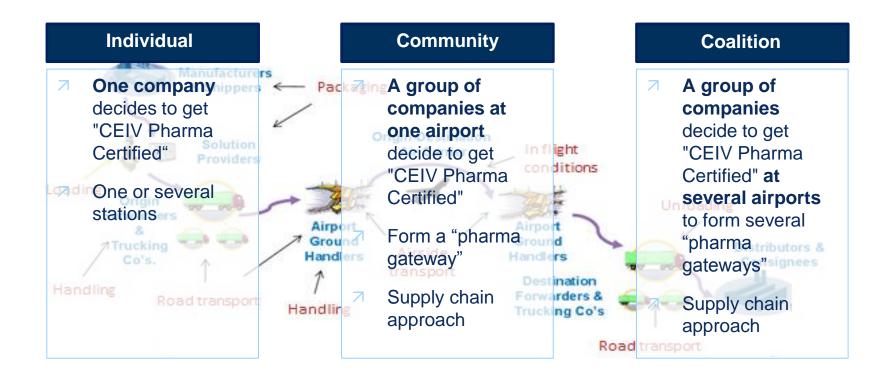
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CEIV Pharma Certification Approach

There are different approaches to obtain certification







Project structure – Who is involved and who can participate?

Everyone in the value chain can participate in the certification process



Example (BRUCargo)







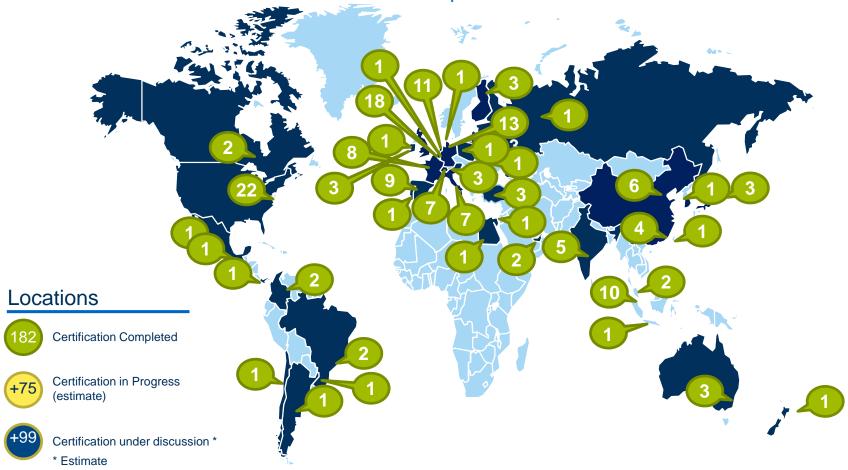
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CEIV Pharma (Certified Entities)

Certified Pharmaceutical Trade Lanes Development

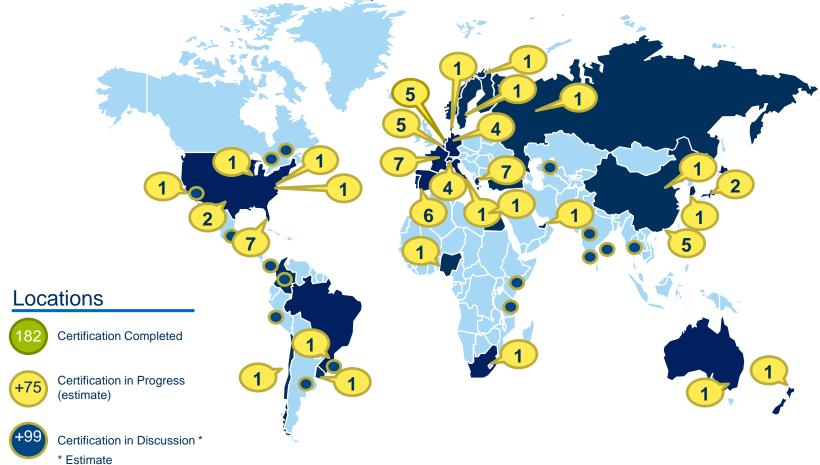






CEIV Pharma (Certification in Progress)

Pharmaceutical Trade Lanes Development

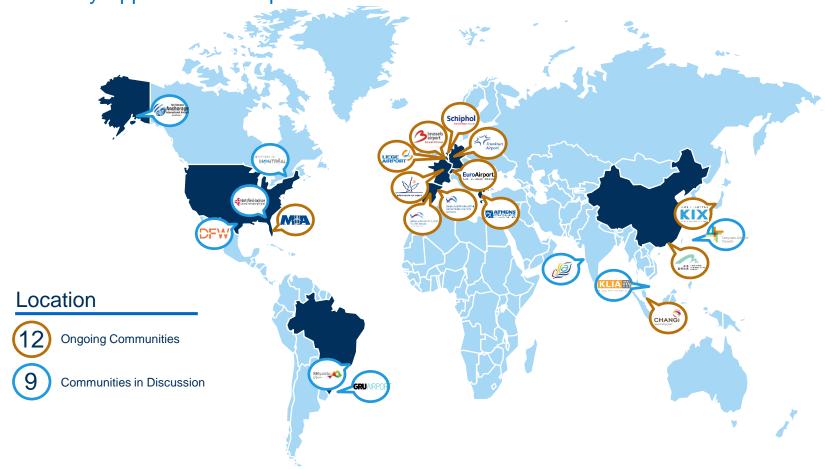






CEIV Pharma (Community Approach)

Community Approach Development Worldwide







CEIV Pharma (Community Approach)

Community Approach Development Europe







Location





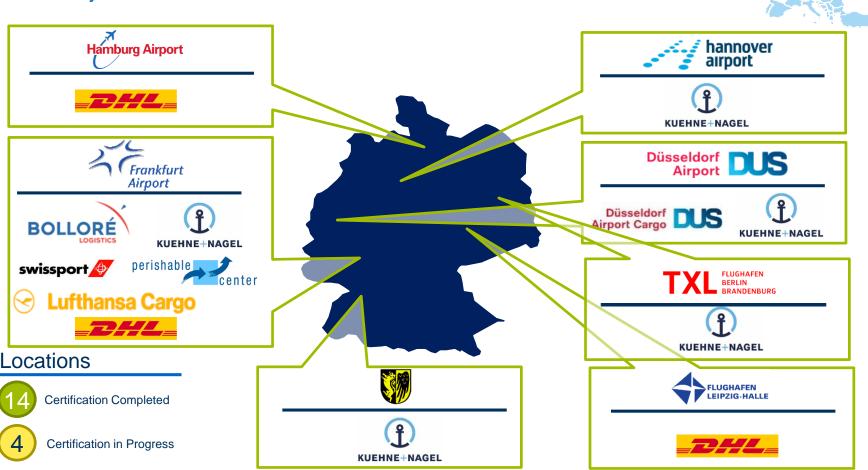






CEIV Pharma (Certified)

Germany



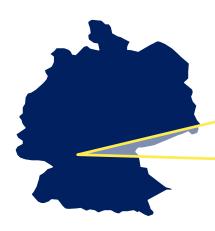




CEIV Pharma (in progress)

Germany















Locations



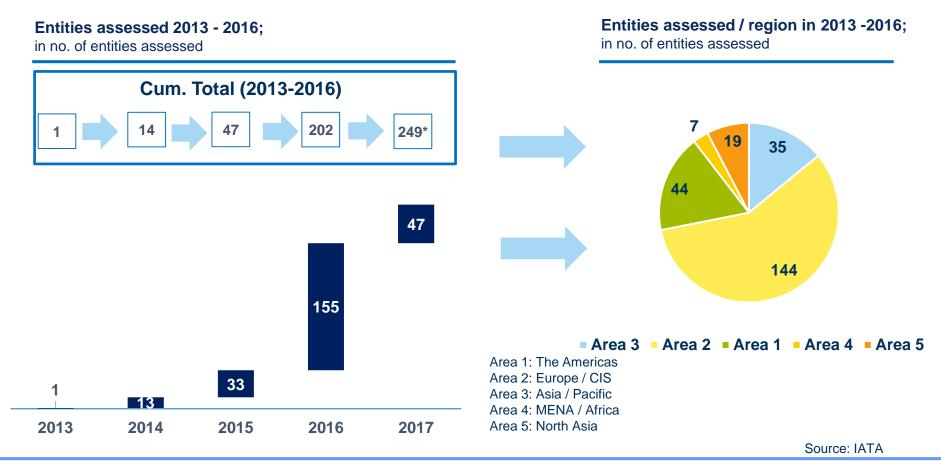






Number of Entities Assessed

IATA expects to have assessed 249 entities by end of 2017 ...and counting





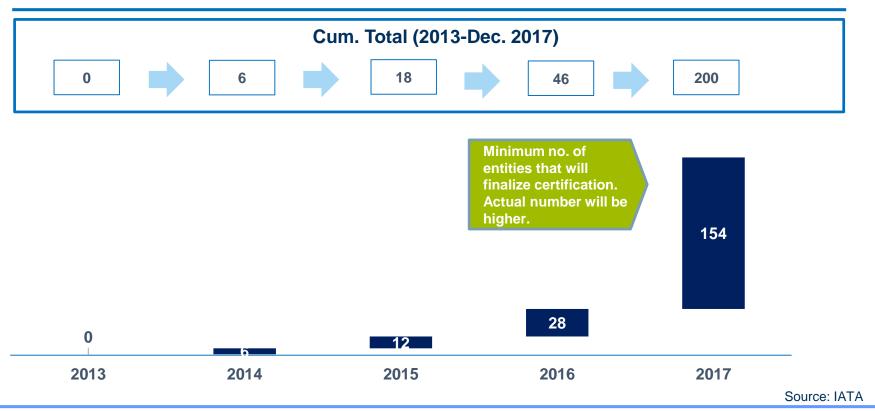


Number of Entities Certified

IATA expects to have a minimum of +190 entities certified by the end of the year... and counting

Entities certified 2013 - 2017;

in no. of entities certified







Thank you!