

# IATA AirPharma Conference

29 – 31 October 2019, Amsterdam, Netherlands







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29 – 31 October 2019, Amsterdam, Netherlands



# Opening Day 1

Andrea Gruber

Head of Special Cargo

IATA





#IATA\_Cargo



*coffee break*



# IATA Competition Law Compliance

Do not discuss:

- Pricing, including fares, service charges, commissions, etc.
- Bids on contracts or allocation of customers
- Geographic/Product market allocations and marketing plans, including
  - Expanding or withdrawing from markets
  - Group boycotts
  - Your commercial relations with agents, airlines or other third parties

Any discussion aimed at influencing the independent business decisions of your competitors

You will be asked to leave the meeting, and the meeting may be terminated, if the above-mentioned discussions occur.

Remember: All discussions count, even informal ones outside the meeting room!



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Shaping Europe's smartest cargo hub at Amsterdam Airport



# Welcome Address & Chairman Opening Remarks

Maarten van As

Managing Director

Air Cargo Netherlands (ACN)



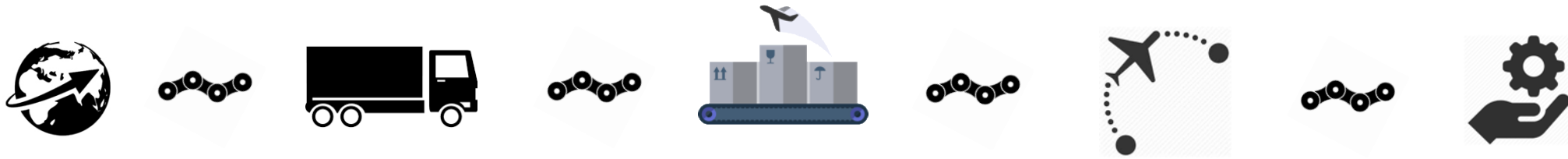


MAARTEN VAN AS

MANAGING DIRECTOR AIR CARGO NETHERLANDS



AIR CARGO NETHERLANDS IN **52 SECONDS**



**AIR CARGO NETHERLANDS IS THE CHAIN WIDE INDUSTRY ASSOCIATION FOR THE AIR CARGO SECTOR IN THE NETHERLANDS.**





DEFENDING THE INTERESTS OF AIR CARGO INDUSTRY



INNOVATING TO INCREASE COMPETITIVENESS OF OUR AIR CARGO COMMUNITY



FACILITATOR

MEETING PLACE NETWORK



INNOVATOR

OUTLOOK, RESEARCH, KNOWLEDGE PARTNER VISION



LOBBYIST

REPRESENTING INTERESTS

WE BELIEVE THAT  
A STRONG AIR CARGO COMMUNITY IS AN **IMPORTANT ASSET**





**Pharma Gateway Amsterdam** is an alliance between **23 logistics companies** centered around Amsterdam Airport Schiphol to ensure a certified closed chain for your pharmaceutical air cargo shipments.



**A POWERFULL JOINT EFFORT TO IMPROVE THE QUALITY OF  
PHARMACEUTICAL SUPPLY CHAIN**

# **IATA AIRPHARMA CONFERENCE**

THESE DAYS ARE ABOUT

GETTING TO KNOW EACH OTHER

SHARING EXPERIENCES

RECOGNIZING TRENDS

LEARNING TOGETHER

# Keynote Speech

Dr. Marco J. van de Velde  
Head of Department  
Farmatec







CIBG  
*Ministerie van Volksgezondheid,  
Welzijn en Sport*

## Challenges of transporting cannabis as a legal medicinal drug

Marco van de Velde (PhD)  
Head Office of Medicinal Cannabis (OMC)  
Ministry of Health, Welfare and Sport  
The Netherlands

October 29<sup>th</sup> 2019



Multiple sclerosis: chronic disease with high impact on quality of life





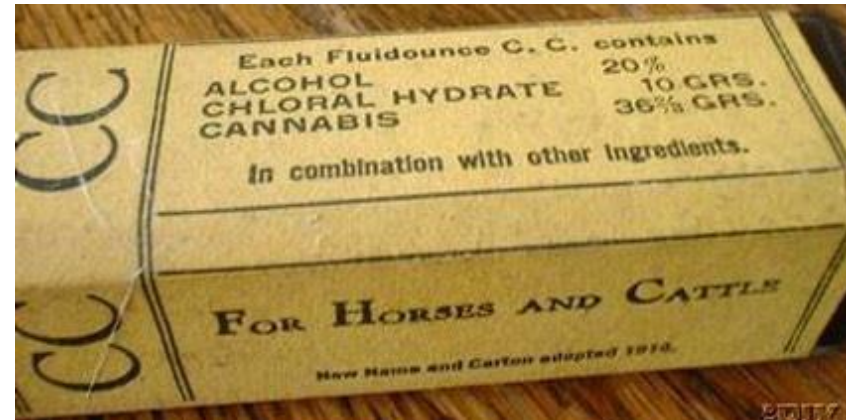
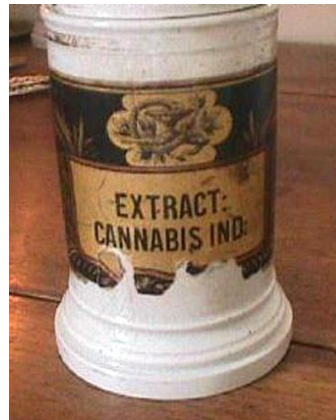
## Therapeutic Indications

- Chronic pain / neuropathic pain;
- Spasticity: multiple sclerosis, spinal cord injury, etc;
- Gilles de la Tourette syndrome;
- Glaucoma;
- Anti-emetic: chemotherapy, radiotherapy, etc;
- Epilepsy.





## History of cannabis as a 'therapeutic agent'



- Already 2000 BC: China, India;
- 1900-1930: >20 products in U.S.;
- >1937 prohibited; list of forbidden drugs;
- 1961/1971: Single convention on narcotic (and psychotropic drugs).



## Single convention on narcotic drugs and psychotropic substances (1961/1971) U.N.

Aims of the convention/treaty:

- To limit the possession, use, trade in, distribution, import, export, manufacture and production of drugs exclusively to medical and scientific purposes;
- To combat drug trafficking through international cooperation to deter and discourage drug traffickers;
- Establish a national agency.





## Reasons for a new policy on medicinal cannabis

### From 1993 onward:

- Increasing pressure from society against prohibition of medicinal use;

### Health Council advised (1996):

- Insufficient evidence of efficacy;
- Clinical trials done with ill-defined products.

### Existing practice of illegal medical use

- No quality control;
- No medical coaching of patients;
- Patients at the mercy of illicit trade.



# Microbiology: *illegal* cannabis coffee shop

(Source: A. Hazekamp et al; University of Leiden, the Netherlands,

Cannabis sample	aerobic bacteria (cfu/gram) <sup>1)</sup>	aerobic fungi (cfu/gram) <sup>1)</sup>	Identified pathogens
Bedrocan <sup>2)</sup>	<10	< 100	
Bedrobinol <sup>2)</sup>	<10	< 100	
A	<10	480000	
B	4500	900	
C	<10	1000	
D	70	120	
E	13000	6500	
F	80000	4800	
G	180	350	
H	27000	1300	
I	350	4200	
J	23000	91000	
K	5900	3600	<i>E. coli</i> <i>Penicilium</i> <i>Cladosporium</i> <i>Aspergillus</i>

1) : CFU = colony forming units

2) : limit: total aerobic bacteria and fungi <100 cfu



## Illegal cannabis

- Heavily contaminated with fungi
  - Up to 600.000 colony forming units/gram  
(source: Hazekamp);
- 50% of samples contaminated with pesticides  
(source: Rikilt, The Netherlands);
- Heavy metals;
- No constant content (st dev: 15%).



## Foundation of OMC

- In 1998 the Dutch government decided to establish an agency as regulator for medicinal cannabis according to art. 28 of Single Convention (U.N.);
- Foundation of the Office of Medicinal Cannabis (OMC) (1 March 2000);
- Office of Medicinal Cannabis empowered as national agency (1 January 2001);



## National legislation

### *Amendment to the Opium Act (2002-2003)*

- With respect to hemp, hashish and hemp oil Our Minister e.g. the OMC is, to the exclusion of others, authorized:
  - > to import or export from the Netherlands;
  - > to sell and deliver it;
  - > to have it available, with the exception of stocks maintained by those who have a license to cultivate, work up and convert.

### *Amendment to the Royal Decree (2002)*

Royal Decree on prescribable and dispensable controlled substances.

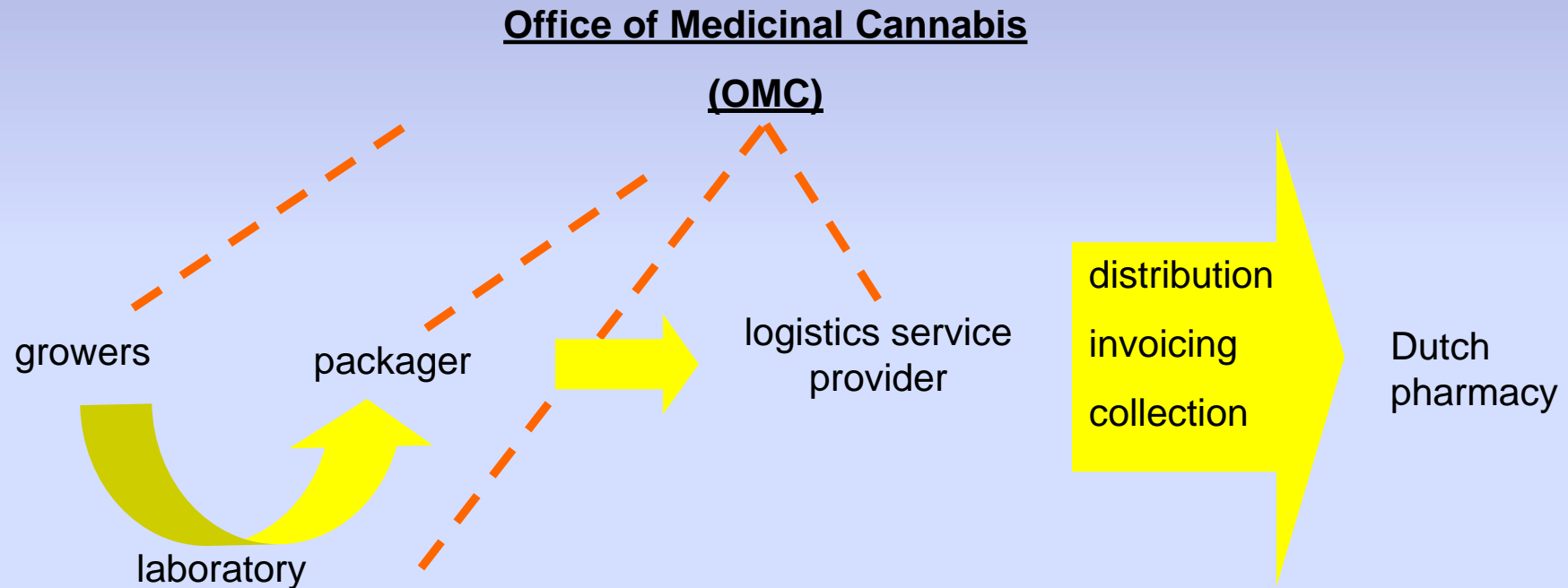




## Main responsibilities of the OMC

- Ensure constant quality of medicinal cannabis produced which meets **pharmaceutical standards**;
- Establish an effective procedure for distribution;
- Prevent leakage to the criminal circuit (tracking procedure / recordkeeping);
- Ensure availability of medicinal cannabis.

# Production and distribution model – supply chain





## Contracted third parties:

**Cultivation** (Bedrocan BV)



**Quality control** (Proxy - Eurofins)



**Packaging and distribution (national)** (Fagron BV)



**Pharmacy/Research/Product development**



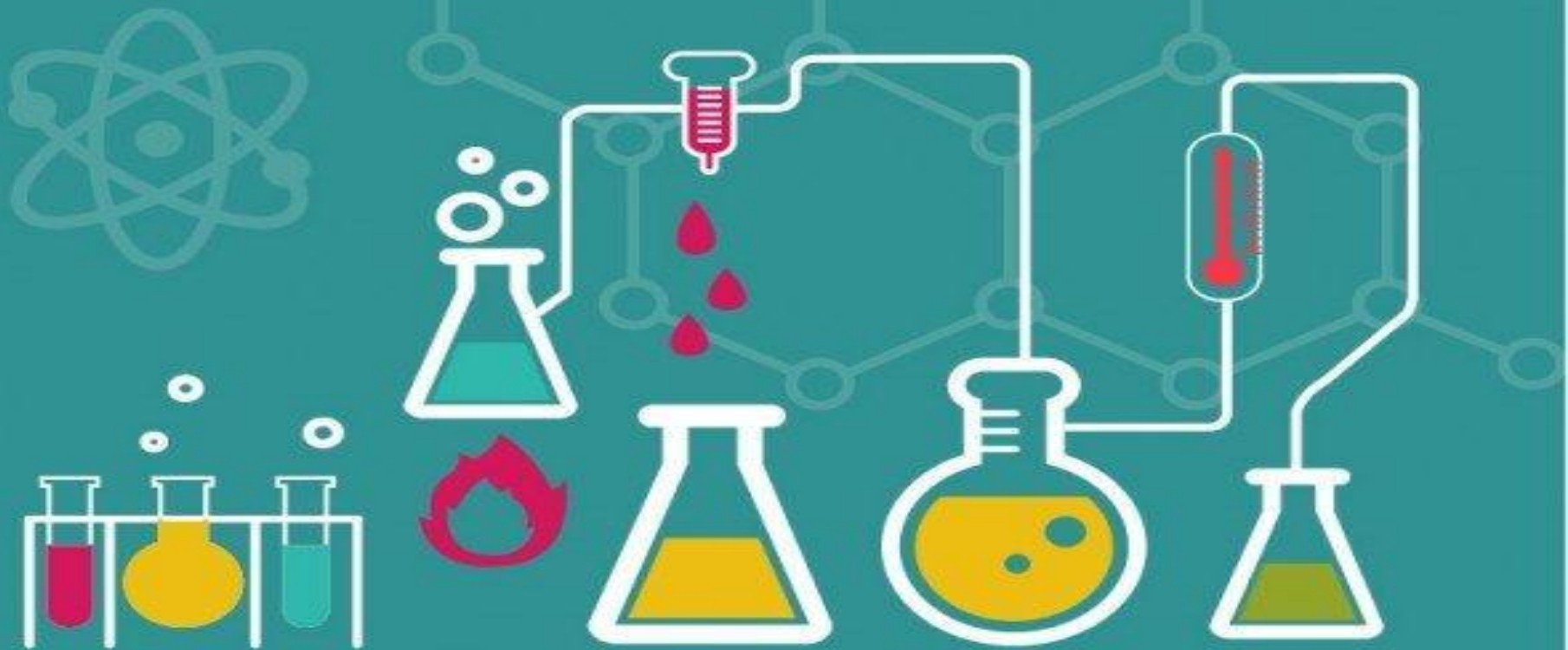
## Growers

- GAP- and GMP certified
- License to grow cannabis
  - according to Opium Act
  - supervised by Health Inspectorate
  - permitted by OMC
- Contract to supply cannabis
  - with Minister of Health
  - supervised by OMC









# CHEMISTRY LAB

designed by  freepik.com



Product/sample name : Bedrocan  
 Client-code : 394  
 Project-code : 0095752  
 Batch number : A1.01.89.180816  
 Analysis : Monograph OMC/Farmalyse Version 7.1/November 28, 2014  
 Version : 2

Test	Test method	Specification	Result	Complies
Appearance	Monograph	Brown green clustered flowers of 1.5 to 3 cm with a characteristic smell	Conform	Yes
Identity by microscopy	Monograph	Mainly gland hairs visible	Conform	Yes
Identity by TLC	Monograph	Must comply	Conform	Yes
Foreign material	Monograph	Stalks, insects and other vermin are absent	Conform	Yes
Fineness	Monograph	No leaves shooting out more then 20% of the length of the flowers Stalks are cut away directly under the bottom flowers of the inflorescence	Conform	Yes
Microbiological purity	Monograph			
TAMC		Not applicable	2.4 x 10 <sup>5</sup> cfu/gram	N/A
TYMC		Not applicable	> 1.0 x 10 <sup>6</sup> cfu/gram	N/A
Pseudomonas aeruginosa		Not applicable	Absent **	N/A
Staphylococcus aureus		Not applicable	Absent	N/A
Bile tolerant gram neg bacteria		Not applicable	< 10 cfu/g	N/A
Loss on drying	Monograph	≤ 10.0%	9.8 %	Yes
Assay (UPLC)	Monograph	Fingerprint must be similar Dronabinol (THC): Not applicable Dronabinol acid (THCA): Not applicable Dronabinol (THC, total eq.) ± 22 % Cannabidiol (CBD, total eq.) < 1.0 %	Conform 0.3 % 23.9 % 21 % 0.1 %	Yes N/A N/A Yes Yes
Related substances (UPLC)	Monograph	Cannabinol (CBN, total eq.) < 1.0 %	0.1 %	Yes
Absence of aflatoxins	Monograph	Aflatoxin B1: Not applicable Aflatoxin B2: Not applicable Aflatoxin G1: Not applicable Aflatoxin G2: Not applicable Sum B1, B2, G1 and G2 < 4 µg/kg	< 1.0 µg/kg < 0.2 µg/kg < 0.5 µg/kg < 0.5 µg/kg < 2.2 µg/kg	N/A N/A N/A N/A Yes
Absence of pesticides	Monograph	Ph. Eur (current ed.) 2.8.13 *	Conform	Yes
Absence of heavy metals	Monograph	Lead ≤ 20.0 ppm Mercury ≤ 0.5 ppm Cadmium ≤ 0.5 ppm Arsenic: Indicative Nickel: Indicative Zinc: Indicative	< 1 ppm < 0.1 ppm < 0.1 ppm < 2 ppm 2.1 ppm 42 ppm	Yes Yes Yes N/A N/A N/A

Product/sample name : Bedrocan  
 Client-code : 394  
 Project-code : 0095752  
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 Analysis : Monograph OMC/Farmalyse Version 7.1/November 28, 2014  
 Version : 2

Test	Test method	Specification	Result	Complies
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Remark:

\*) The following components are not being analyzed on using the current method:  
 Dithiocarbamate; Fenchlorophos; Methacriphos; S-421.

\*\*) Probable genus identification: Pseudomonas mosellii determined.


QA-statement:

This study met the criteria for a valid test and was performed in compliance with the Good control Laboratory Practice as defined in the Guide to Good Manufacturing Practice for Medicinal Products in the European Community.  
 The reported results adequately reflect the raw data of the study.

Conclusion:

The results do comply with the specifications

This certificate is approved by Manager QA on 17 January 2017





## Logistics – packaging and distribution (national)

- External partner with experience in packaging, labelling and distribution of pharmaceutical products to Dutch pharmacies;
- Quality standards and certification: GMP and GDP-certified, FDA audited / approved;
- Recordkeeping procedure for tracking medicinal cannabis to the patient.



# Clean rooms







## Medicinal cannabis complies with pharmaceutical quality guidelines

- Standardized product with constant content (dronabinol, cannabidiol and other)
  - Within ranges of regulatory authorities
- Very low concentration of degradation compounds (e.g. CBN)
- Free of contamination
  - Micro-organisms
  - Pesticides
  - Heavy metals



## Products - varieties

- Cannabis flos, variety Bedrocan: 22% THC, <1% CBD
- Cannabis flos, variety Bedrobinol: 13,5% THC, <1% CBD
- Cannabis flos, variety Bedica granulated: 14% THC, <1% CBD
- Cannabis flos, variety Bediol, granulated: 6,3% THC, 8% CBD
- Cannabis flos, variety Bedrolite granulated: <1% THC, 8% CBD

*Note: all varieties are also available in 'placebo'*

Products



*Bedrocan dried flowers*





*Bediol granulated*





Cannabis flavo granulae  
**BEDIOL**

Cannabis sativa dried floral fresh green

Batchnr: (A)05 23 00008  
Content: THC app. 8 % / CBD app. 14 %  
Netto weight: 100 grams





## Pharmaceutical characteristics:

- Pharmaceutical raw material;
- Standardised herbal medicinal product;
- Not registered as a medicine;
- Opium Act.



## Export of Medicinal Cannabis (or derivatives)

- Import license (original copies in duplo) issued by authorities of importing country;
- Export license issued by authorities of the Netherlands;
- Transported volume reported to the UN (INCB);
- Contract with the OMC.



## Dutch policy rules concerning export (additional)

- Country of import is member of UN and supports international treaty on narcotics and psychotropic substances;
- Cannabis may only be used for treatment of patients, for scientific research or product development;

**BUNDESREPUBLIK  
DEUTSCHLAND**

Federal Republic of Germany

Einfuhrgenehmigung Nr. **E659/2018**

Import Authorization No.

Bonn, \_ \_ **07.12.2018** \_ \_ \_ \_ \_

Im Namen der Regierung der Bundesrepublik Deutschland genehmigt das Bundesinstitut für Arzneimittel und Medizinprodukte aufgrund des Betäubungsmittelgesetzes und der internationalen Übereinkommen über Suchtstoffe und psychotrope Stoffe hiermit die folgende Einfuhr:

On behalf of the Government of the Federal Republic of Germany, the Federal Institute for Drugs and Medical Devices, in the meaning of the national legislation on narcotic drugs and the International Conventions on Narcotic Drugs and Psychotropic Substances, hereby authorizes the following import:

Einführer: Importer:	
Ausführer: Exporter:	Bureau voor Medicinale Cannabis Hoferen-Eijstrastraat 30 NL-2515 XP Den Haag
Menge und Bezeichnung der Stoffe oder Zubereitungen: Quantity and designation of the substances or preparations:	
13 000 ± 1 g Cannabis (Bedocan) 7 500 ± 1 g Cannabis (Bedief) 3 500 ± 1 g Cannabis (Bedrobinaf) 1 500 ± 1 g Cannabis (Bedica) 1 500 ± 1 g Cannabis (Bedelite)	
Menge und Bezeichnung des enthaltenen Suchtstoffes oder psychotropen Stoffes: Quantity and designation of the narcotic drug or psychotropic substance contained:	
25 kg Cannabis	
Die Hinterlegung der Einfuhrmandate in dem nachgenannten Zolllager wird hiermit genehmigt. The placing of the importation in the following bonded warehouse is approved:	
Versand an Zolllager oder Freihafenlager verboten! Shipping to a bonded warehouse or into a free port prohibited	
Sonderbedingungen: Special conditions:	
Teillieferungen verboten! Partial shipments prohibited!	

Verfallsdatum: \_ \_ **31.12.2019** \_ \_ \_ \_  
Expiration date:



Bundesinstitut für Arzneimittel und Medizinprodukte  
- Bundesapothekestelle -  
Federal Institute for Drugs and Medical Devices  
- Federal Opium Agency -  
Kurt-Georg-Kieringerring/Wilhelm-Str. 23-25 53174 Bonn

Im Auftrag  
By order

*A. Klein*  
A. Klein, TB  
(Stempel und Unterschrift)  
(signature and title)

Copy for foreign exporter

Ausfertigung für den gebietsfremden Ausführer



Patient use	Product development	Scientific research
Italy	Germany	United Kingdom
Germany		Switzerland
Norway	Israël	Israël
Sweden		
Denmark		Australia
Finland		
Poland		
Canada		





# Packages

## Package sizes (l x h x b)

120 X 80 x 100

62 X 43 X 67

53 X 43 X 34

37 X 28 X 24





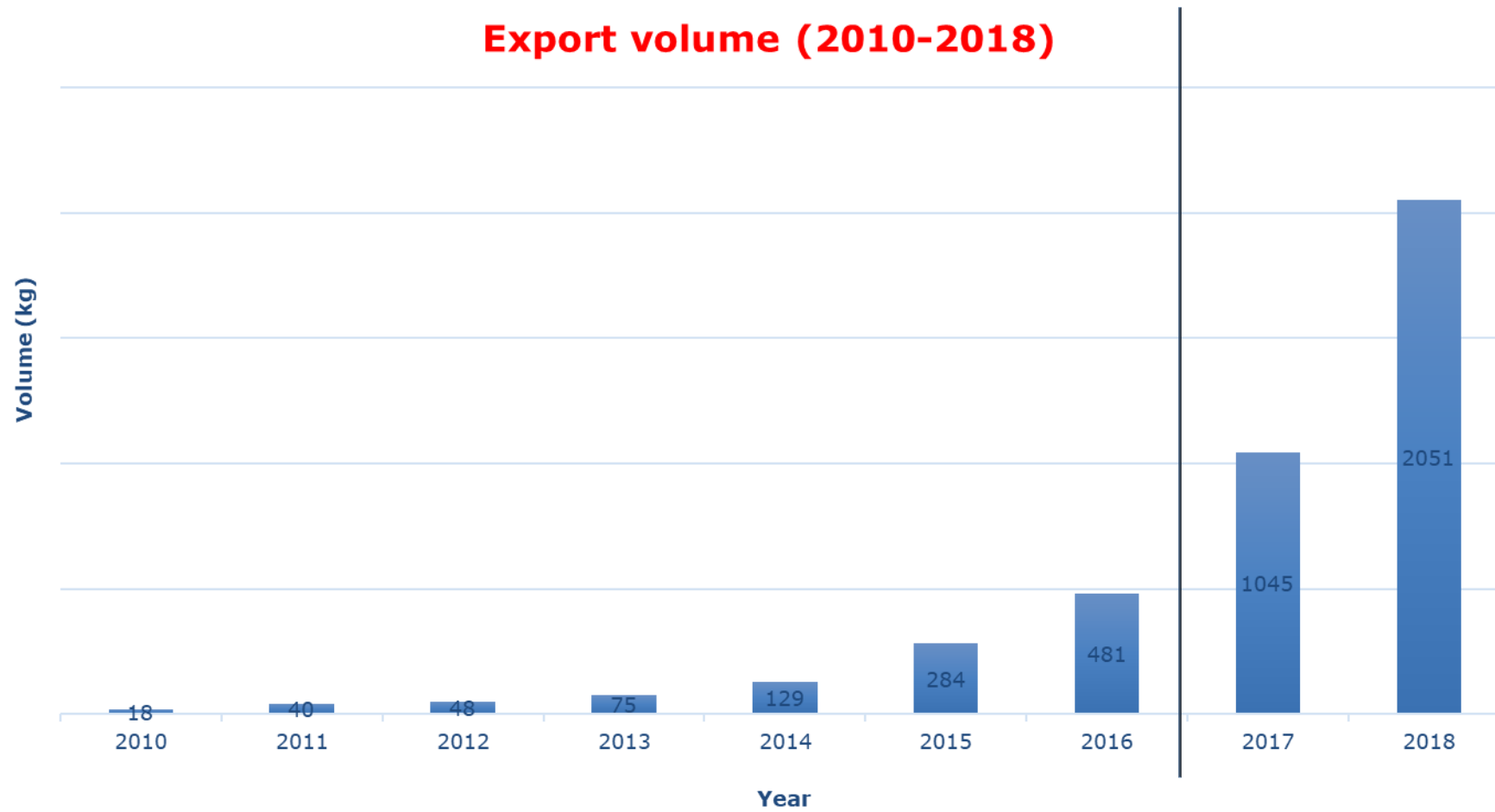


## Partnership

- A logistics company operating worldwide;
- Experience in transport of pharmaceutical products;
- Adhere to G(ood)D(istribution)P(ractices) guidelines;
- Maintenance of product quality, safety and efficacy during shipment;
- Temperature-controlled if needed;
- Pickup on time, flown as booked, delivered on time, and accompanied with relevant documentation.

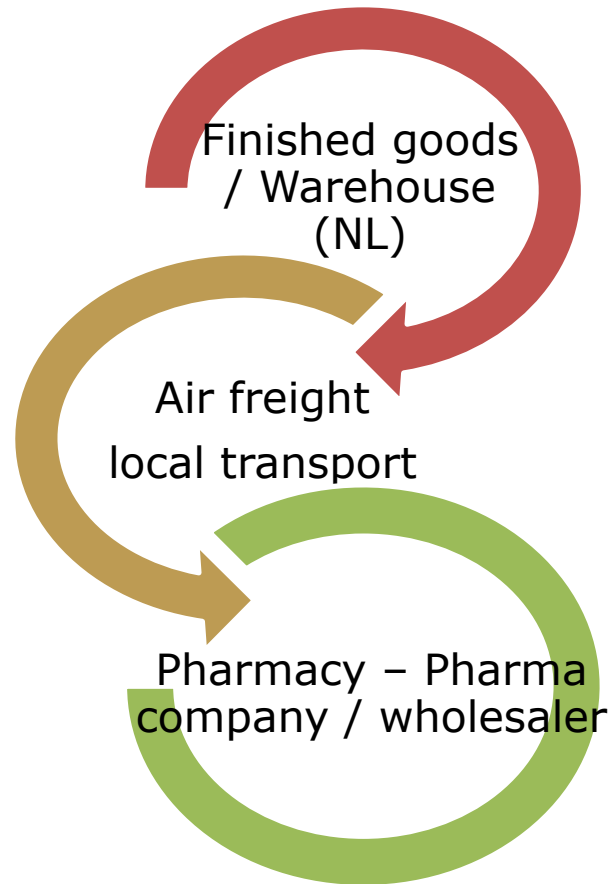


### Export volume (2010-2018)





## Experiences of the OMC with export/air freight



- Damage of image;
- Part of the protocol;
- ‘Fear of cold water’;
- Lack of knowledge about legislation:



*Fully controlled in conformity with international treaties and under the auspices of national authorities*





## Cases

1. Airline was not allowed to transport; other airline only with transit via Bucharest. Transit authorization needed and special permit from authorities;
2. Damage of (outer) package;





## Cases

3. Airline will not treat the goods as pharmaceutical products but as valuables: temperature-controlled transport not possible;
4. Temperature-controlled transport: datalogger only present in one of three boxes and/or recordings show strong temperature deviations;
5. Exchange of customer addresses;
6. Suspicion of theft by local transport company: missing cans.



## In general:

- Contact and collaboration with logistic companies is positive;
- Objective of the OMC is to further optimize the whole supply chain in cooperation with the logistic partner(s).



***Thank you for your attention.***

# Schiphol Airport New Strategy

Ferry van der Ent

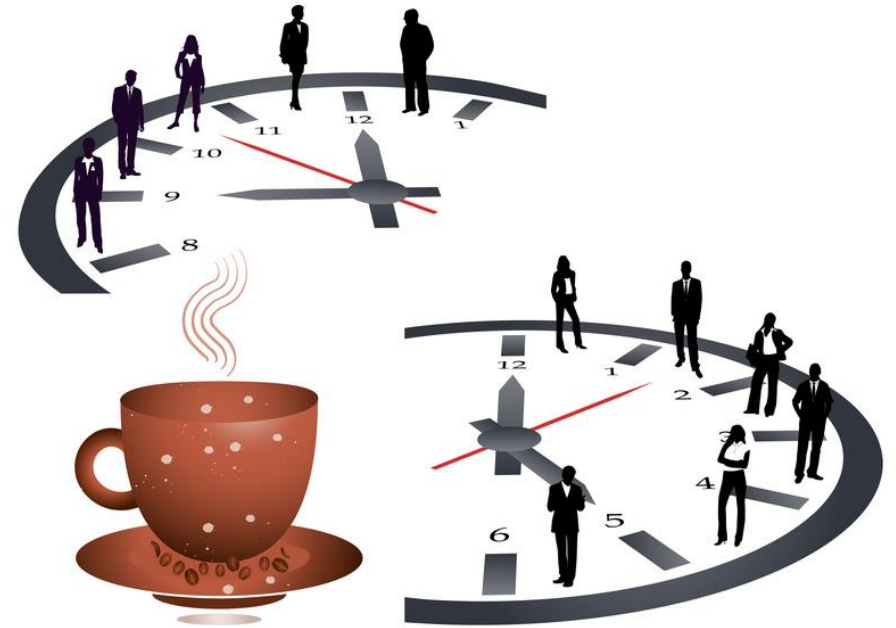
Business Development Director

Amsterdam Airport Schiphol



# Networking break 10:30 – 11:00

Kindly sponsored by;





# Know your Customer Speed Dating Meet the Pharma Shippers



**IATA  
AIRPHARMA  
CONFERENCE**



Amsterdam, Netherlands  
29-31 October 2019





# *Meet the Pharmaceutical Experts*



- **Steef van Amersfoort**, SC integrated Planning and Logistics



- **Gavish Hurgobin**, Manager -Logistics, Supply Chain



- **Julian Wann**, Global Category Leader - Procurement Freight & Logistics



- **Christopher Stein**, Transport Expert



- **Ine Kemper**, Logistics Specialist/Security Advisor



- **Ruud van der Geer**, Assoc. Director Global Deliver Strategy Team –EMEA Product Handling



- **Eddy Weygaerts**, Transportation Manager



- **Roman Mijnhart**, Sr. Director Global Supply Chain Quality



# “Know your Customer Speed Dating”



GE Healthcare

1



SANOFI GENZYME

2



3



AstraZeneca

4




5



6



7



8

8 Tables  
8 Sessions  
10 minutes each



# “Know your Customer Speed Dating”

## 1. Round Table Introduction

## 2. Potential topics of discussion

### ➤ Regulatory Environment:

- Compliance and application of the existing Regulations, how well are these understood, interpreted locally or regionally ?
- What is to be expected in the industry?

### ➤ Operations / Visibility

- Are roles and responsibilities in the supply chain clearly defined and understood? How can this be enhanced?
- Are the shipper’s operational challenges shared with the airlines?
- Are the complexity of the airport processes, starting from the booking, well known from the shipper’s community?

### ➤ Investments

- Improved packaging can affect the processes, how is this communicated with the stakeholder of the supply chain?
- Are the investments done by the air freight industry meeting the shippers’ expectations?

### ➤ Certification/Audits

- How to simplify/reduce the number of audits and how could shippers accept audit requirements performed by other companies?
- How can the shipper’s community be more supportive to the air freight industry?

# Networking Lunch 12:30 – 14:00



Kindly sponsored by;



iSHARE





# Industry Partnership

## The Manufacturer's perspective

Gavish Hurgobin

Manager Logistics Supply Chain

Aspen Global Incorporate



# Industry Partnership

## The Freight Forwarders perspective

Nina Heinz

Global Head of Network & Quality

DHL Global Forwarding





# INDUSTRY PARTNERSHIP

## Freight Forwarder Perspective

Nina Heinz  
Global Head of Network & Quality

Amsterdam, October 2019

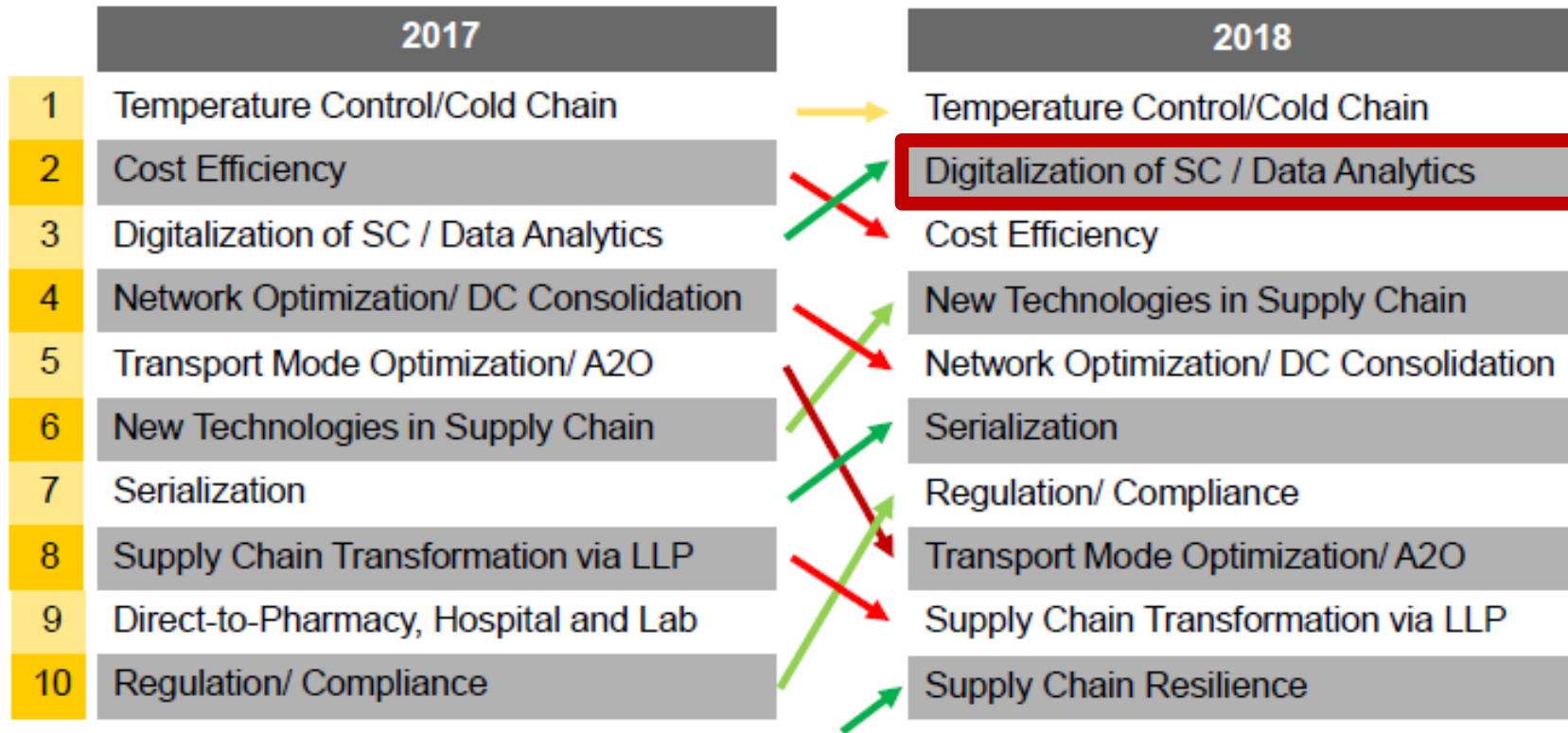
**FORWARD-THINKING, INTELLIGENT HEALTHCARE**

**#DHLWECARE**



## Industry trends

**Business is going digital & large amounts of data are being produced within supply chains**



Source: 2018 post conference surveys, LSH Sector Strategy Team; 1) Ranking based on occurrences of customer answers only; 2) Question asked to participants: We would like to understand the key hot topics (key opportunities & challenges) for your organization in the next 1-3 years. Please choose up to 6 topics.

## Voice of the customer

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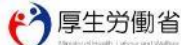



**Customers are seeking to transform data into actionable insights to support continuous improvement & risk reduction**





# GDP Regulatory Requirements




## Worldwide regulation of distribution requires quality risk management principles to supply chain management of pharmaceutical product

WHO <sup>1)</sup>			
The relevant sections of these guidelines should also be considered for implementation by, among others, governments, regulatory bodies,			
EU GDP <sup>2)</sup>	USP <sup>3)</sup>	PIC/S <sup>4)</sup>	
<p><b>1.5. Quality risk management</b></p> <p>Quality risk management is a systematic process for the assessment, control, communication and review of risks to the quality of medicinal products. It can be applied both proactively and retrospectively.</p> <p>Quality risk management should ensure that the evaluation of the risk to quality is based on scientific knowledge, experience with the process and ultimately links to the protection of the patient. The level of effort, formality and documentation of the process should be commensurate with the level of risk. Examples of the processes and applications of quality risk management can be found in guideline Q9 of the International Conference on Harmonisation (ICH).</p>	<p><b>Risk Management System</b></p> <p>Risk Management System strategies should ensure that each organization's best interests are served by adhering to proper practices, controls, and procedures, including but not limited to the following: the nature of the drug products; distribution requirements on the readable container labeling; exposure to adverse environmental conditions; number of stages/receipts in the supply chain; manufacturer's written instructions; contractors; and drugs at risk from freezing (vaccines, insulin, and biological products) or elevated temperatures (fatty-based suppositories, vaccines, insulin, and biological products).</p>	<p><b>1.5 QUALITY RISK MANAGEMENT</b></p> <p>1.5.1 Quality risk management is a systematic process for the assessment, control, communication and review of risks to the quality of medicinal products. It can be applied both proactively and retrospectively.</p> <p>1.5.2 Quality risk management should ensure that the evaluation of the risk to quality is based on scientific knowledge, experience with the process and ultimately links to the protection of the patient. The level of effort, formality and documentation of the process should be commensurate with the level of risk. Examples of the processes and applications of quality risk management can be found in guideline Q9 of the International Conference on Harmonisation (ICH).</p>	
 	 	    	   

Source: 1) World Health Organization Annex 5 Good Distribution Practices for Pharmaceutical Products No. 957, 2010 2) European Commission Good Distribution Practice of Medicinal Products for Human Use, (2013/C 343/01), 3) USP 36 General Information Chapter <1079> Good Storage and Shipping Practices, 4) Pharmaceutical Inspection Co-operation Scheme PE 011-1 1 June 2014.

## Do you have a strategy in place for mitigating risk?

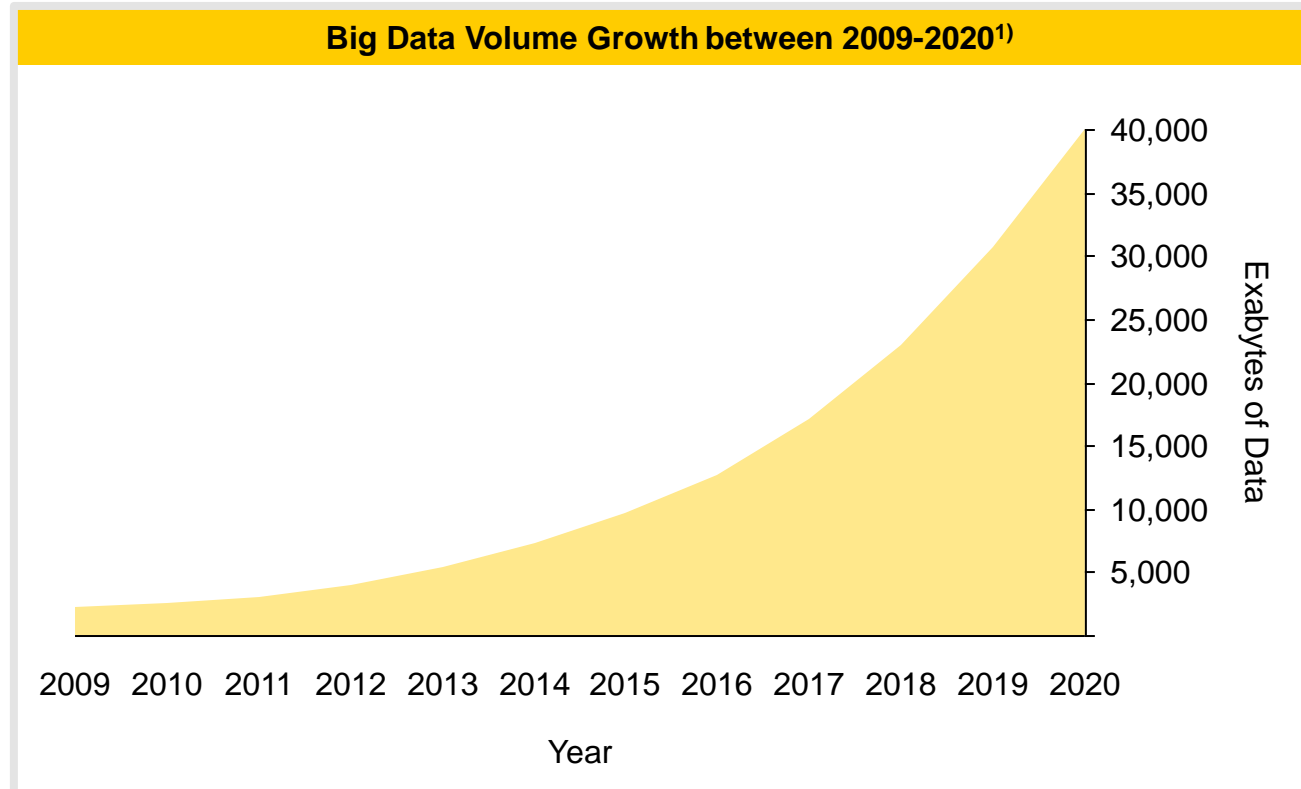
### Life sciences companies need to mitigate risk aggressively due to increasing regulatory enforcement and cost pressure

Customer Needs	Description <sup>1)</sup>
 <b>Regulatory Compliance</b>	<ul style="list-style-type: none"><li>• LSHC companies required to ensure <b>regulatory compliance</b> from EU GDP, USP, China FDA, etc</li><li>• EU GDP regulation <b>enforcement increase</b> (audits doubled since 2013)</li><li>• Increase in supply chain regulation published worldwide since 2010<sup>2)</sup></li><li>• Ensure <b>patient safety</b> through regulatory compliance</li></ul>
 <b>Total Cost Management</b>	<ul style="list-style-type: none"><li>• <b>Mitigate product delay</b> (and product loss), especially for biotech products and increasingly demanded biologic drugs</li><li>• Identify best <b>carriers, packaging, and service levels</b> for optimal cost</li></ul>
 <b>Network Reliability</b>	<ul style="list-style-type: none"><li>• <b>Decrease overall distribution risk</b> (e.g., temperature deviation)</li><li>• Establish optimized new routes for <b>expanding market reach</b>, especially in developing markets</li><li>• Create <b>reliable product supply</b> and leaner inventory</li></ul>

Source: DHL Consulting; Cold Chain IQ; 1) Voice of customer collected from interviews with LifeConEx Business Development Team; 2) Temperature-controlled supply chain regulations from Brazil, China, Singapore, and the World Health Organization published after 2010

## Growth of big data

**Big data is growing exponentially, providing an opportunity to use it for powerful analytics**



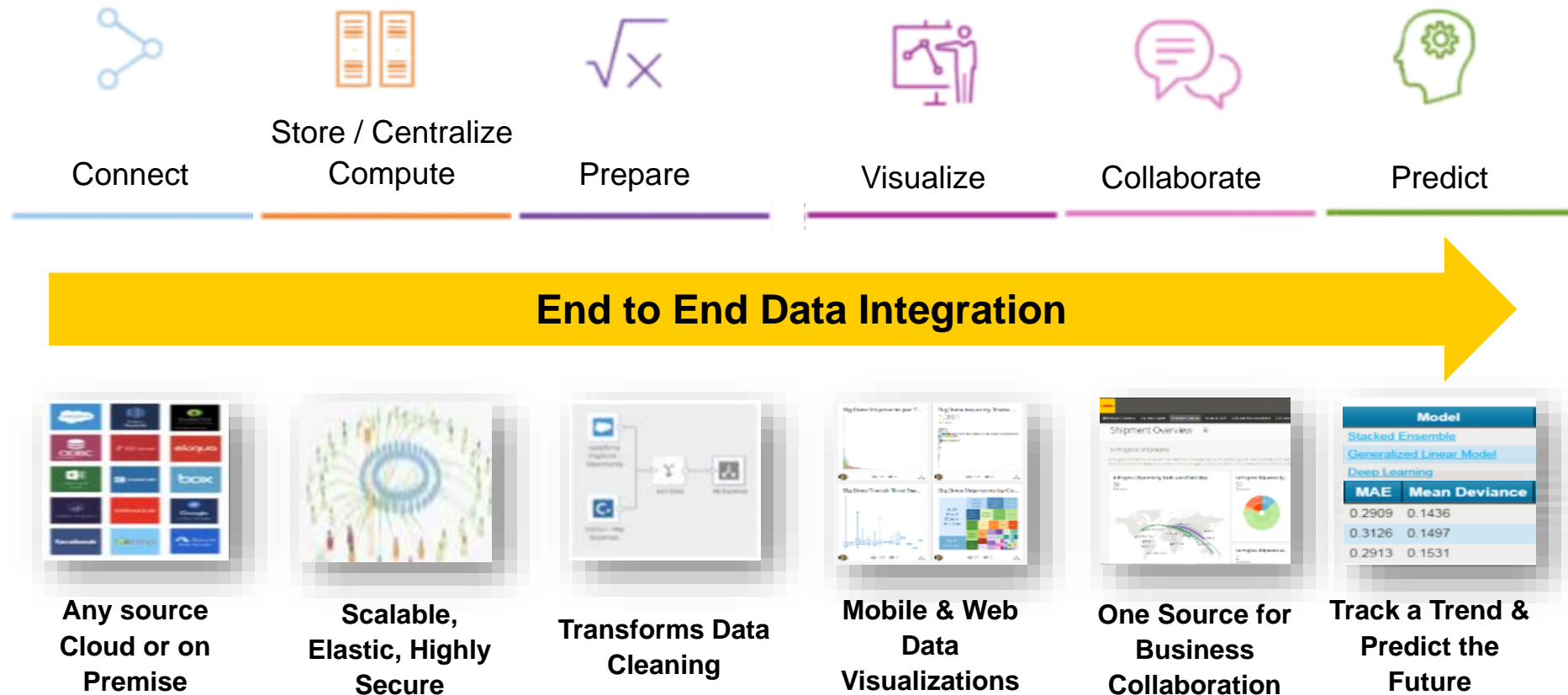
### Key Insights<sup>1)</sup>

- **Volume:** Data increases by a factor of 50 between 2010 and 2020
- **Variety:** High variety of data types due to increase in unstructured data, (e.g., images, video footage, blog entries)
- **Velocity:** Connected devices (e.g., packaging sensors, cars) continuously generate data streams

Source: 1) Big Data in Logistics, DHL in cooperation with Detecon Consulting, December 2013

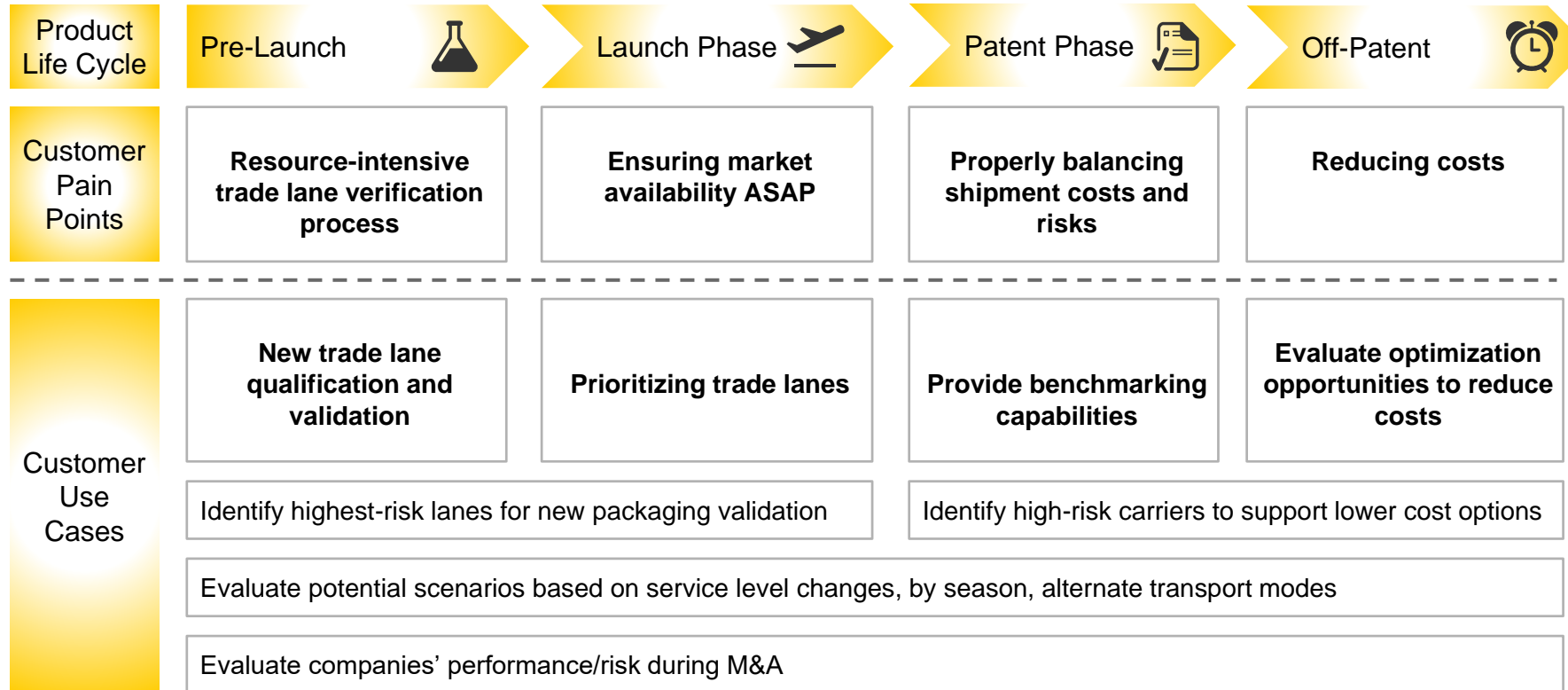
## Stages in big data journey

The biggest challenge in any organization's analytics journey is transforming insights into outcomes from end-to-end, this is how the value of analytics is ultimately extracted



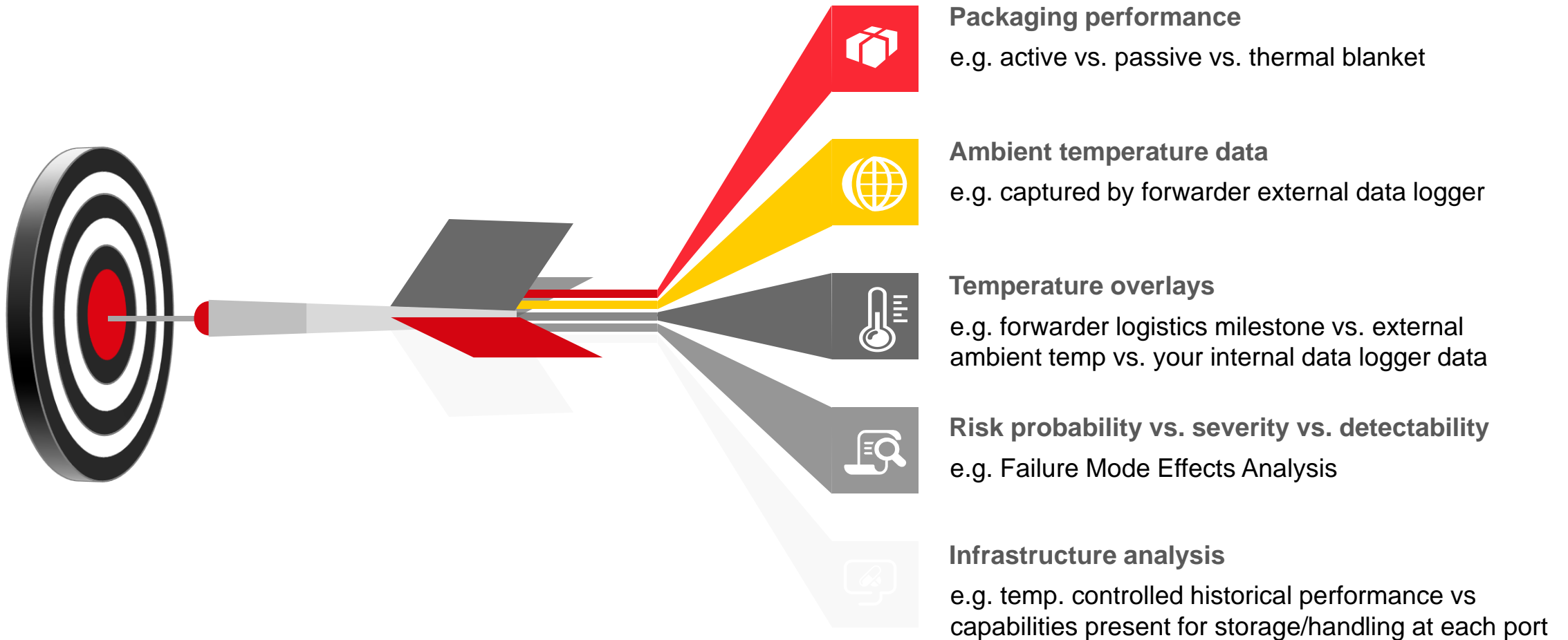
## Data analytics use cases

Life sciences customers needs are different through the general life cycle of a product; identify areas to focus on through data analytics



## Food for thought on how to make use of data

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## Data Analytics: What can it do for you?

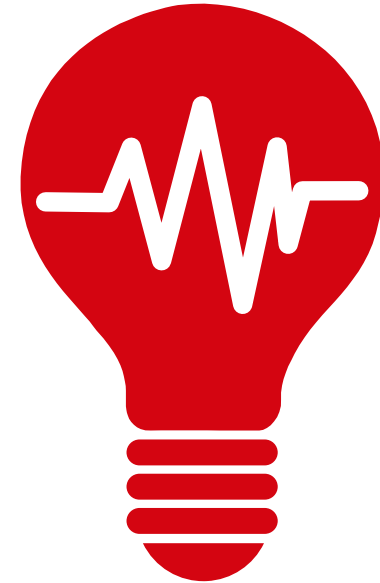
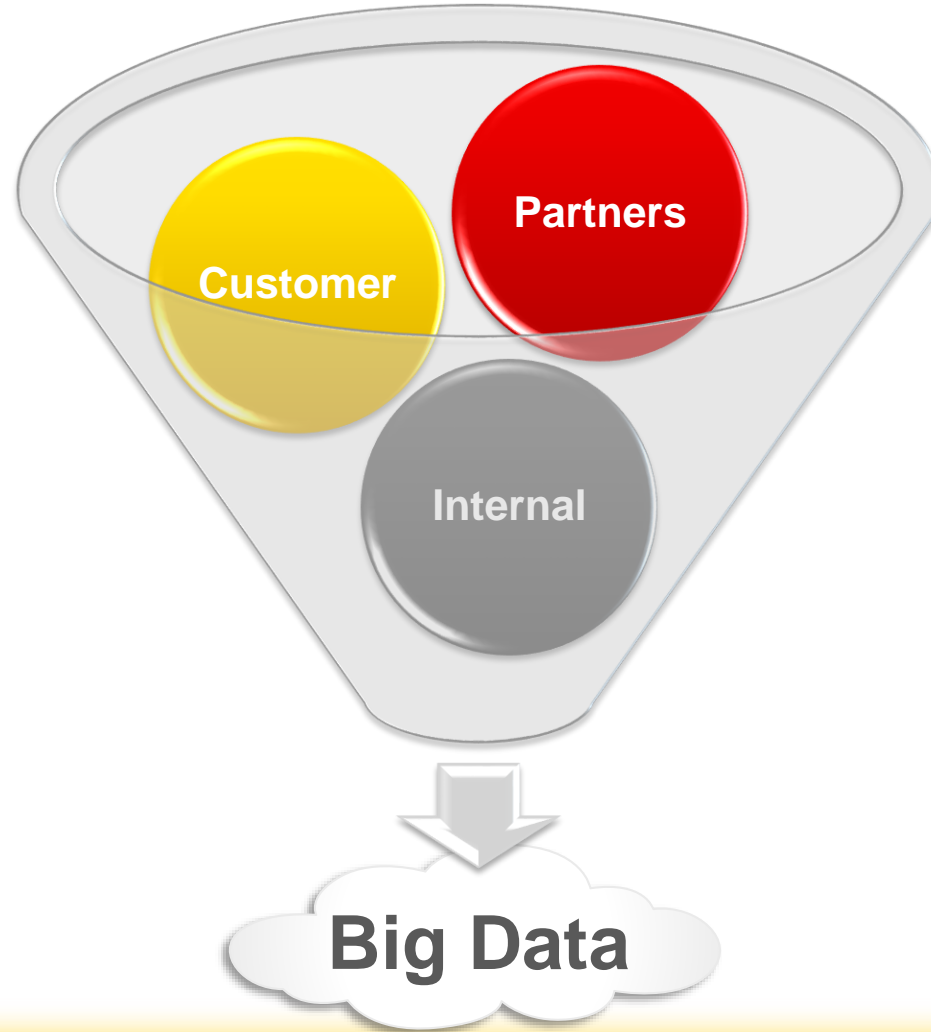
### Enabling our customers to simplify complex data to make faster and smarter decisions

- **Web-based tool** as single platform to access data on demand
- Segment shipment data into meaningful **visualization**
- Ability to **identify problems and trends**
- Include **own reference data** to measure **KPIs**, manage vendors and report on exceptions
- Build **customized dashboards**
- Easily **share information** across organization



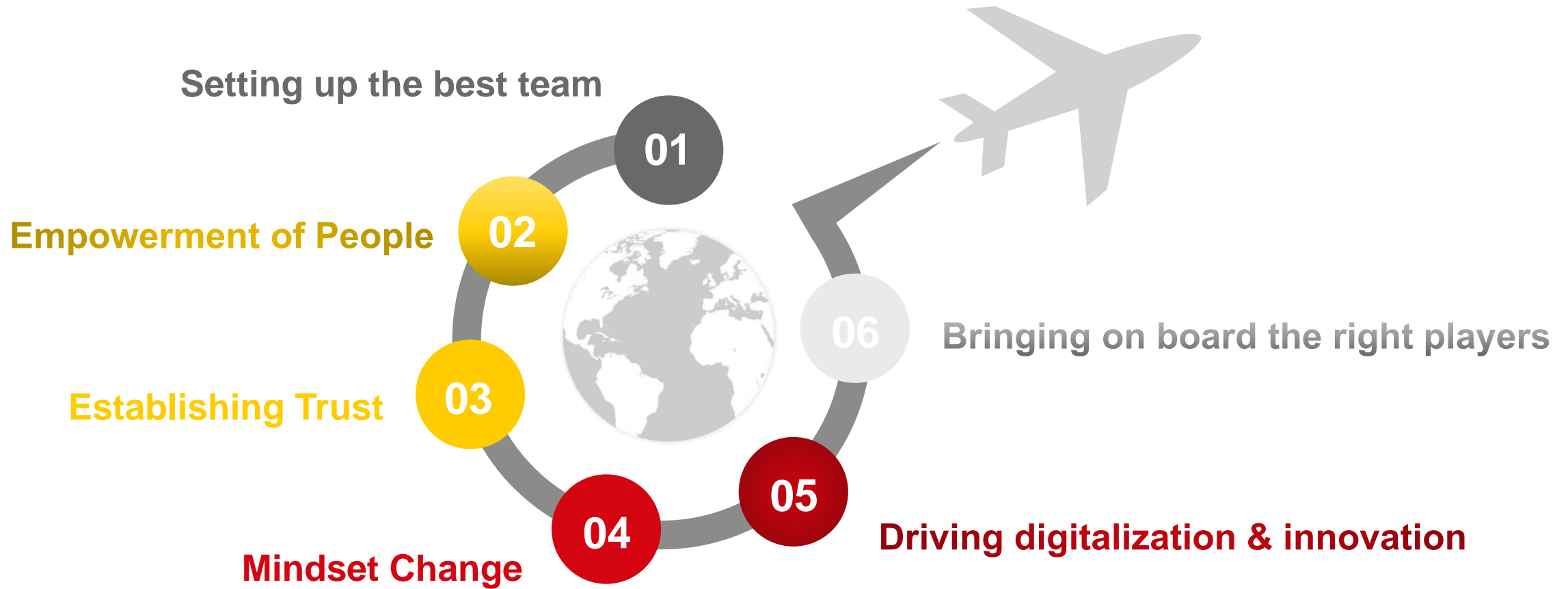
## Why is collaboration key for successful data analytics?

---



## Why is collaboration key for successful data analytics?

---



“Processed data is **information**.  
Processed information is **knowledge**.  
Processed knowledge is **wisdom**.”

---

Ankala V. Subbarao

Our common goal: Patient safety

---







# THANK YOU

**Nina Heinz**

Global Head of Network & Quality  
Temperature Management Solutions

DHL Global Forwarding

Mobile: + 33.6.0875.2286

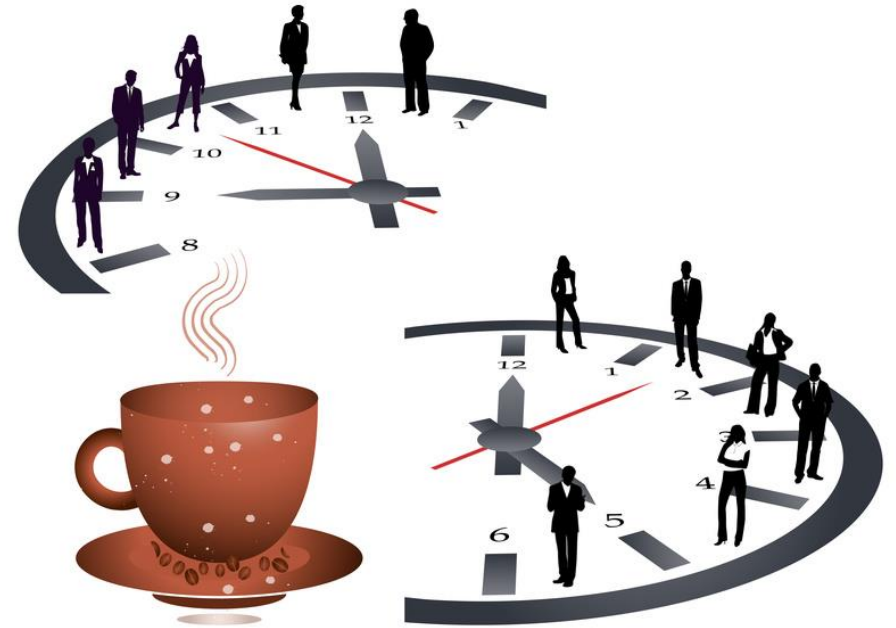
[nina.heinz@dhl.com](mailto:nina.heinz@dhl.com)





# Networking break 15:30 – 16:00

Kindly sponsored by;



# Another day in the life of Pharma Shipper

Steef van Amersfoort

SC Integrated Planning & Logistics

AbbVie



# The Innovation journey

Gary Roche

Global Operating Officer  
GEFCO Freight Forwarding

Omar van Geest

Logistic Development Director  
GEFCO





**GEFCO:**

**THE INNOVATION JOURNEY**

**GARY ROCHE AND OMAR VAN GEEST**



Partners, unlimited



## Life Sciences & Healthcare

Pharmaceuticals and medical devices



## Humanitarian relief

Crisis situations war and natural disaster



## Body care

Demand driven products



## Automotive

Component supply, spare parts logistics



## 2-wheelers

Component supply, spare parts logistics



## Heavy Equipment

Industrial Project Cargo



## Aerospace & Defense

Satellites / aircraft parts



## Energy

Electrical, Oil & Gas



## Retail

Demand driven products



## Hi-Tech & Media

Demand driven products

## KEY FACTS & FIGURES

70

YEARS  
EXPERIENCE

47

COUNTRIES

5

CONTINENTS

130

AIR AND  
SEA LOCATIONS

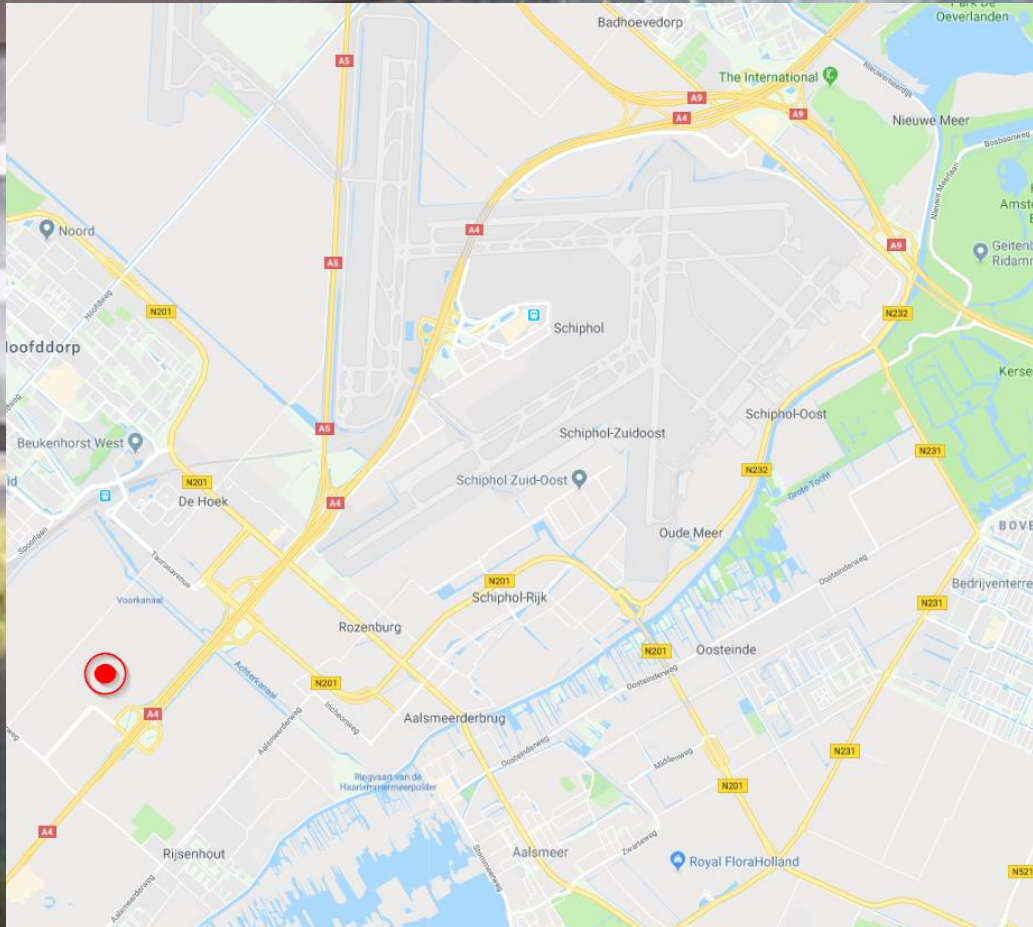
+15,000

EMPLOYEES



# SCHIPHOL CENTRE OF EXCELLENCE

# GEFCO



- CLOSE PROXIMITY TO SCHIPHOL AIRPORT
- OVER 10,000SQM
- GDP CERTIFIED
- TEMPERATURE CONTROL: 2-8°C & 15-25°C
- SECURITY SCREENING
- RF SCANNING
- SERIALIZATION CAPABLE
- WHOLESALE DEALER LICENCE (MINISTRY OF HEALTH IGZ)
- IATA CEIV
- TAPA-A
- ISO 9001:2015
- AEO





# Industry challenges

Business model transformation

**Efficiency  
without  
Compromising  
on Compliance**

**Visibility of  
Products**

**Operational  
Excellence**

**Cost optimized  
Solutions**





Supply chain  
optimisation:

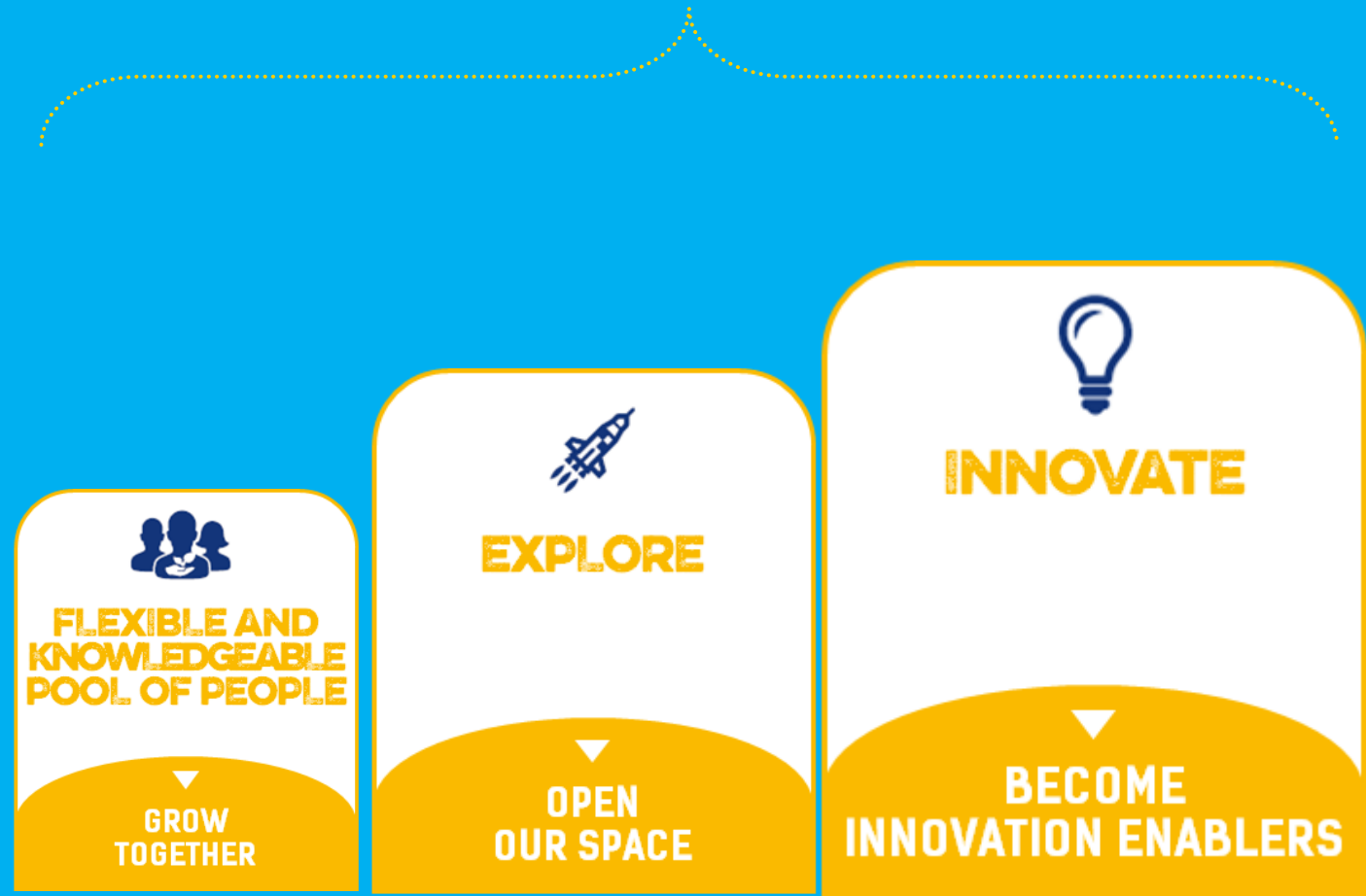
**Putting  
customer  
experience at  
the heart of  
innovation for  
GEFCO**

**Building a  
culture of  
innovation**

**Delivering  
innovation to  
LS&H  
market  
challenges**

**Solution  
driven to  
meet  
customer  
needs**

# INNOVATION IS PART OF OUR **DNA**





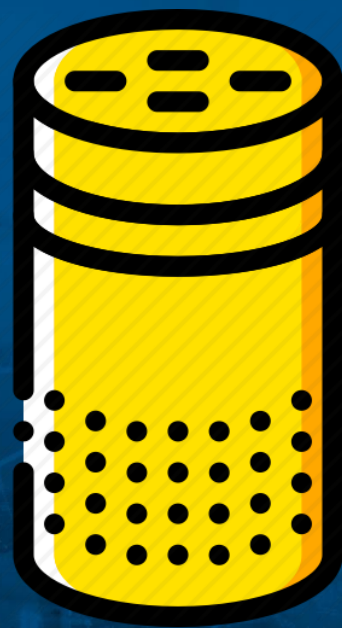
# OUT OF THIS WORLD SOLUTIONS

---





**CUSTOMER  
EXPERIENCE  
AT THE HEART OF  
INNOVATION  
FOR GEFECO**



Smart Speaker Track & Trace



**CUSTOMER  
EXPERIENCE  
AT THE HEART OF  
INNOVATION  
FOR GEFECO**



Augmented Reality

# AUGMENTED REALITY AT GEFCO THE STORY SO FAR...



## Why AR tech?

Complex, traditional pick and pack process

Increased demand for quality

Performance improvement



## Proof of Concept

Prove AR is beneficial to GEFCO business and will contribute to business excellence

Project POC launched with Innovation factory

Partnership with artishock.com



## TRIAL

INCREASE THE QUALITY OF COLD CHAIN PACKING PROCESS FOR CLINICAL TRIALS





**THANK YOU!**

**ANY QUESTIONS?**

**GARY ROCHE AND OMAR VAN GEEST**

**GEFCO**

**Partners, unlimited**

# Chairman Closing Remarks

Maarten van As

Managing Director

Air Cargo Netherlands (ACN)



# Thank you to all our sponsors!



Shaping Europe's smartest cargo hub at Amsterdam Airport





Thank you to our sponsor!



# Welcome Reception 18:00 – 19:30

## Exhibition Hall area

Kindly sponsored by



**IATA**  
**CARGO**  
**EVENTS**

Amsterdam, Netherlands  
29-31 October 2019

