

MEDICAL BREAKTHROUGHS & ACTUAL TRENDS



Trends in transformation

The Life Science sector is in a transition and main shifts we experience

More personal, direct, colder, smaller & digital

CONVENTIONAL DRUGSTO BIOPHARMA

By 2030, about

45%

of pharmaceutical market will be BioPharma

PATIENT CENTRICITY

Direct to Patient is

estimated to grow 15% over coming 2-3 years

DIGITAL HEALTH

7 of **10**

consumers feel personally responsible for managing their own health

1895

1928

1967

1996

2001

2012

2013

2015

2016

2018

2019

FUTURE



X-ray discovery



Penicillin 1st use





World's 1st heart transplant



1st cloning 'Dolly the sheep'



Sequencing of the Human Genome



Tumor profiling



HIV virus suppressed in a mouse



Editing the Genome



Needle-free connector system



Advances in immune system therapy DNA home test kits



Covid-19 Pandemic vaccines



Augmented Reality used for the first time in surgery Artificial organs



GROWING SECTORS

In Life Science & Healthcare











Medical Devices

Pharma

Clinical Trials

Consumer Healthcare

Medical devices and expendable supplies manufacturers

Pharmaceutical product manufacturers

Clinical trials laboratories & pharmaceutical and biotech manufacturers Direct to Patient & home deliveries of medicinal products



MEDICAL EXPRESS





DHL MEDICAL EXPRESS

PREMIUM service combining our logistics **EXPERTISE** with a dedicated and **UNIQUE** range of features to create a **FLEXIBLE** solution for the Life Sciences industry

RELIABILITY

- Global coverage
- Dry Ice provision & preconditioning
- Temperature controlled solutions through TCP
- Contingency
- 24/7 monitoring



SPEED & FLEXIBILITY

- Priority handling
- Earliest possible delivery



CONTROL & VISIBILITY

- Quality Control Centers
- LSH Dedicated Customer Service
- Customized booking tools



COMPLIANCE

- Customs expertise
- Dangerous Goods compliance
- GDP Friendly *



CONNECTING THE WORLD









QUALITY CONTROL



GLOBAL QUALITY CONTROL CENTRES

Our 6 Global Quality Control Centres monitor shipments in real time – from pick up to delivery – as they travel across the entire globe.

GQCC SERVICES COVER

- Live tracking
- IT platform with traffic light system
- Contingency rescue team
- Interact with network to keep shipments moving



GLOBAL KEY ACCOUNT SERVICES

When you partner with us, you will have a dedicated team to assist you in managing your transportation flows effectively. These logistics professionals have supported development and growth of many multinational companies.

EKAS MAKING THE DIFFERENCE

- One point of contact
- Exception management and recovery
- Customized reporting
- Proactive track & trace of your shipment 24/7
- Customs support
- Multilingual, over 20 languages
- Reversed logistics

This gives you peace of mind that you are receiving the best possible service, maximum safety and minimum risk

24/7 365 DAYS A YEAR







TEMPERATURE CONTROL

DHL Express offers passive conditioning of medical shipments to transport goods under required conditions

Our capabilities allow us to accommodate a range of temperature needs:

- Ambient
- Chilled* (refrigerated) 2-8°C
- Controlled* (room temperature) 15-25°C
- Frozen < -20°C</p>

SUSTAINABILITY

Chilled and Controlled options are available as disposable or reusable

FULL LOOP SERVICE Temperature controlled shipments. Under control





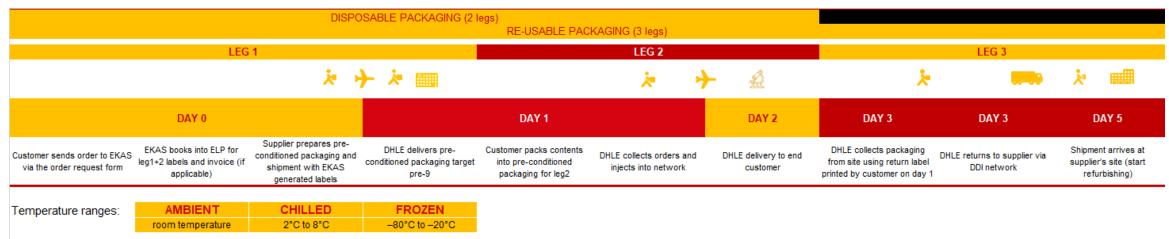
THE FULL LOOP



ALL INTEGRATED SERVICE

- Integrated program for pre-conditioned thermo-controlled packaging
- From initial customer order, pre-conditioning supplies, shipping leg 1-2 until final mile delivery and if applicable leg 3 to refurbishment center
- Including all temperature ranges, full monitoring, exception handling and reporting

Process





DATA LOGGER SOLUTIONS



- Our Smart Sensors monitor the conditions of the shipment and content during its entire journey to ensure consistency
- Wide range of passive- and active loggers, one-off purchase or reusable rental

Measure to be safe



KEY FEATURES

Temperature logger

- Sensors can be linked to individual shipment IDs
- Passive temperature loggers: use of standard smartphones or capable handheld scanners for data read out
- Active temperature loggers: global connectivity for near to real time data uploads

Pharma compliant DHL system

Visualization of temperature data in a LSH compliant system



USE CASES

- Keep an eye on temperature data and ensure warehousing, transport and delivery compliance of pharmaceutical products
- Monitor product safety and reduce spoilage risk of perishable products



CUSTOMER BENEFITS

- Compliant pharma graded supply chain solution with more than a decade experience
- Get proactive alert notifications via E-mail or SMS
- Highly secure web platform and encrypted data transmission





GOODS DISTRIBUTION PRACTICE

WHAT IS IT?

GDP applies to the receiving, storage and distribution of pharmaceuticals and is either regulated or produced as a guideline by national security.

OBJECTIVE

Every consignment is delivered on time, in good condition and with no change to the quality.

QUALITY ASSURANCE

Although DHL Express is not GDP certified, but—friendly, and above all have a full trust in our service quality, we are more than happy to conclude a Quality Assurance Agreement

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We are GDP FRIENDLY and adhere to legal regulations







THANK YOU.

