Roche

GLOBAL PHARMA SUPPLY CHAIN & LOGISTICS FORUM

Ways to ensure E2E Product Control

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19th & 20th October 2023

Agenda

- Roche

- The impact of counterfeited/falsified medicine is severe

- Packaging Concept

- Serialization Tracking

- Authentication & Verification

- SMART Solutions

- Data Sharing via Platform

- Other Initiatives to ensure Patient Safety

- Q&A

Roche at a glance
Maintaining a long-term orientation

Roche

126 years-old
Founded in Basel in 1896

One of the largest, **family owned** companies worldwide

Uniquely positioned to integrate **Pharma, Diagnostics and data insights**

CHF 14.1 billion
R&D investment in 2022

103,613
employees worldwide

14.2 million
people treated with our medicines in 2022

32 Roche medicines
on the WHO List of Essential Medicines

Ranked 10th worldwide
in the Access to Medicine Index

29 billion
tests conducted with our Diagnostics products in 2022

The impact of counterfeited/falsified medicine is severe
Be aware of the risks

- Patient safety is at risk, with a possibility of
    - Adverse events
    - Therapeutic failure
    - Drug resistance
    - Death

- Regulatory Non Compliance

- Loss of confidence in public healthcare systems

- Impact on brand/company reputation

Packaging Concept

1. **Product Authentication**:
   ACF features

2. **Product Identification**:
   Coification & Serialization:

3. **Pack Integrity**:
   Tamper Evidence

4. **Tracking & Tracing**
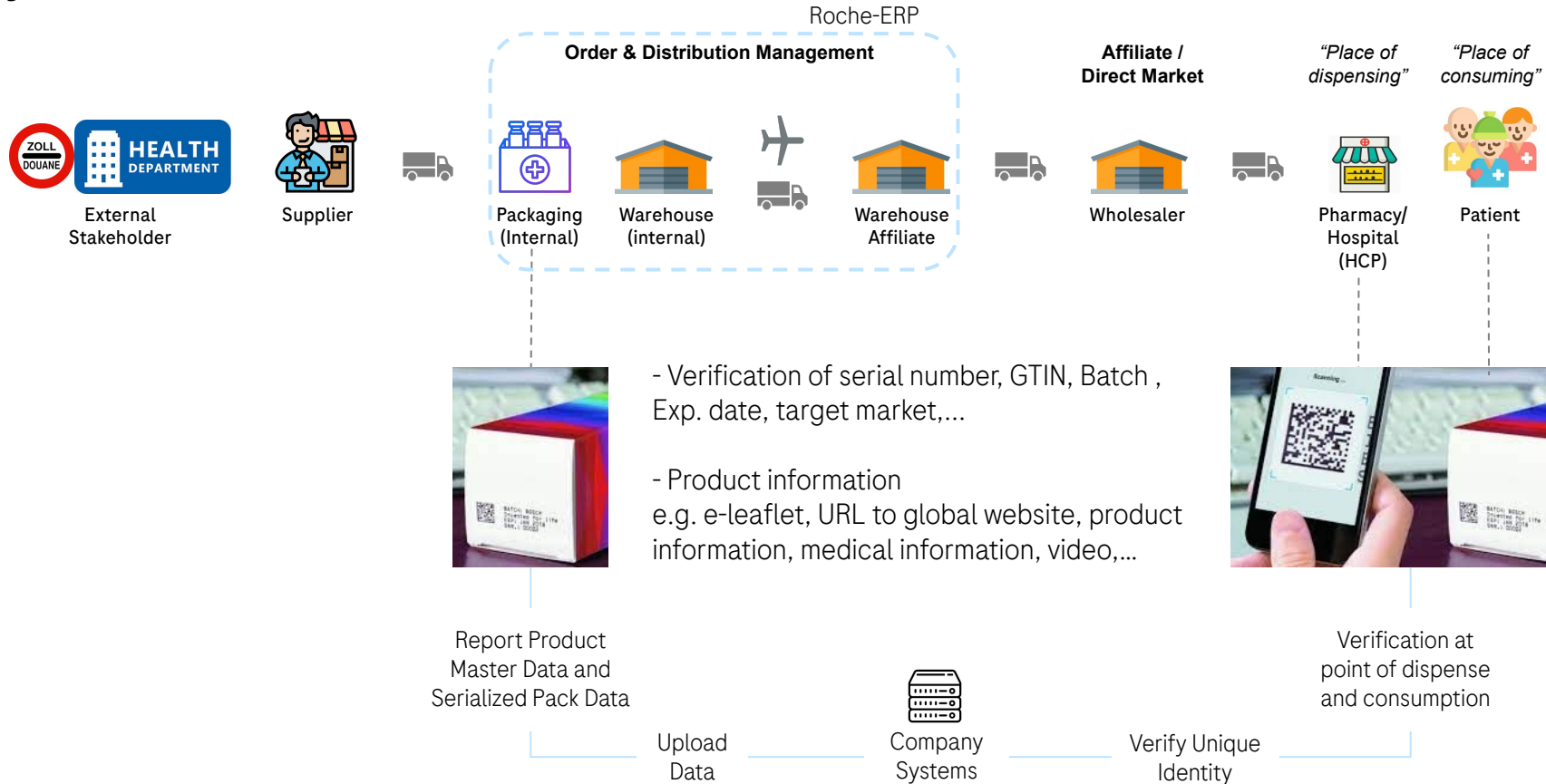   Serialization & Aggregation

Benefit:
1. Company and Customers can spot potential counterfeits through difficult to copy features

2. Avoid medication errors through better product identification. Falsified medicines can be detected more easily

3. Protects package contents. Helps customers trust that contents are original

4. Enables to trace products through the supply chain which leads to greater business benefit
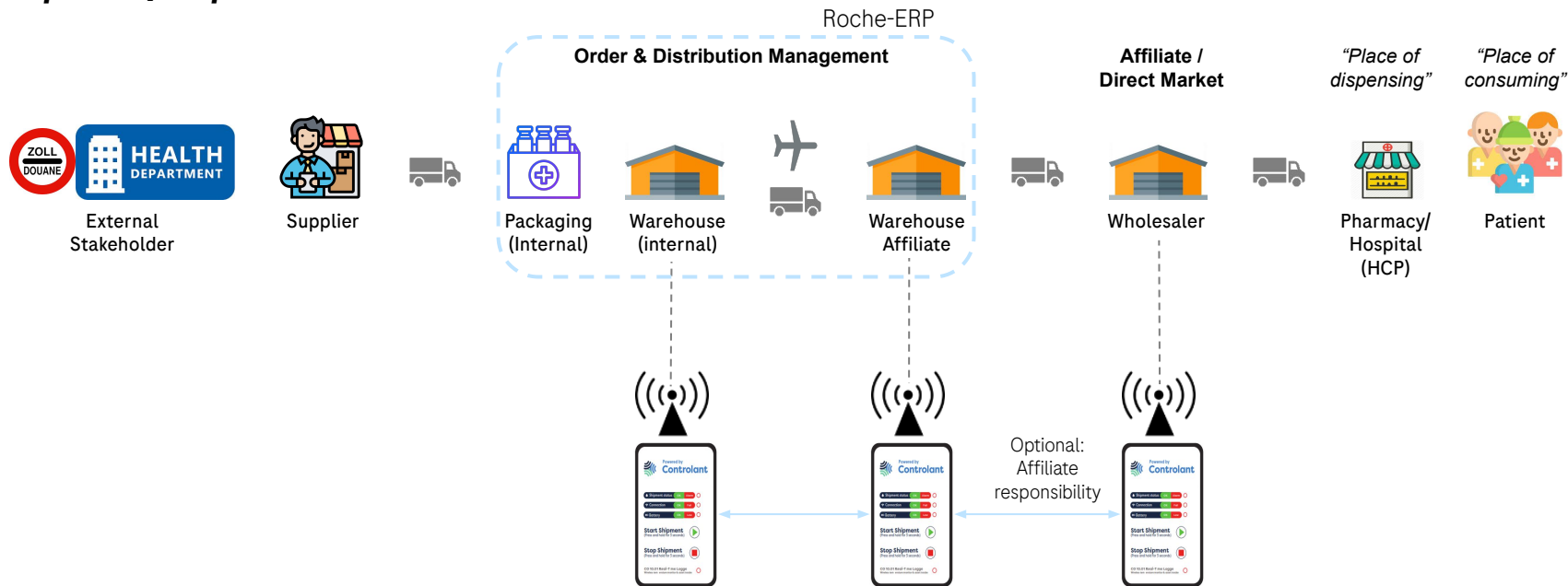
Authentication & Verification
By HCP/Patient

BPO: Stefan Blattner

Roche-ERP

Order & Distribution Management

Affiliate / Direct Market

"Place of dispensing"

"Place of consuming"

External Stakeholder — Supplier — Packaging (Internal) — Warehouse (internal) — Warehouse Affiliate — Wholesaler — Pharmacy/Hospital (HCP) — Patient

- Verification of serial number, GTIN, Batch , Exp. date, target market,...

- Product information
e.g. e-leaflet, URL to global website, product information, medical information, video,...

Report Product Master Data and Serialized Pack Data

Upload Data

Company Systems

Verify Unique Identity

Verification at point of dispense and consumption

6

Smart Solution: Location & Temperature
On pallet/shipment level

Data Sharing via Platform
By connecting Systems

Roche-ERP

Order & Distribution Management

Affiliate / Direct Market

"Place of dispensing"

"Place of consuming"

External Stakeholder

Supplier

Packaging (Internal)

Warehouse (internal)

Warehouse Affiliate

Wholesaler

Pharmacy/ Hospital (HCP)
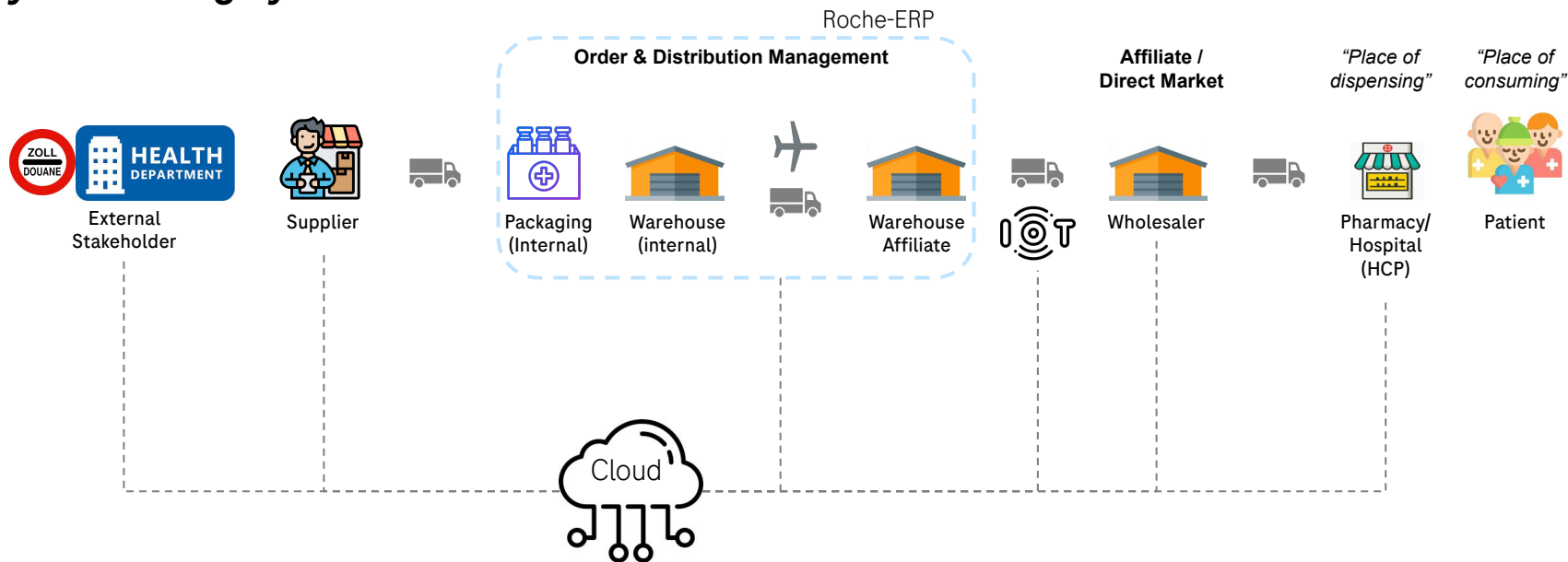
Patient

Cloud

Data sharing via a cloud solution
(Cloud or Blockchain technology)

Other Initiatives to ensure Patient Safety
Examples

- Logistic security team

- Internet monitoring

- Pharmaceutical waste management

- Collaborations with the markets
  Global Network of Ambassadors

- Continuous reflection and improvement

- Internal and external awareness training (!)

- Be proactive

Any Questions?

Doing now what patients need next