Innovative Temperature Monitoring Solution

Blulog & DHL
22nd GCCA European Cold Chain Conference
21 March 2019 | Brussels
What is the next technology to use?
Joint collaboration between Blulog and DHL
DHL Thermonet – visibility on temperature controlled shipments

1. Departure or pick up from shipper
2. Receipt by export forwarder
3. Storage at export forwarder
4. Delivery to carrier
5. Carrier acceptance
6. Storage at origin carrier
7. Departure from origin
8. Arrival at transit point
9. Storage at transit point
10. Departure from transit point
11. Arrival at destination
12. Storage at destination carrier
13. Import clearance
14. Recovery by import forwarder
15. Storage at import forwarder
16. Goods out for delivery
17. POD
DHL SmartSensor RFID

- DHL SmartSensor **RFID** device in use since 2010
- **130,000 devices** have been deployed
- **>120 GB of data** submitted
- **> 200 million temperature measurements**
- Full compliance with **pharma requirements** (EU GMP Annex 11, US 21 CFR Part 11, EU GDP)

>> Back in 2010 RFID was the state of the art technology to provide visibility
Purpose

Improve process performance!

Save time!

Improve read-out rate!
1st step: technology screening

Cost-Effectiveness

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<th>Low</th>
<th>Medium</th>
<th>High</th>
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<td>GPS</td>
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<td>LP-WAN</td>
<td>NFC</td>
<td>Bluetooth RFID</td>
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<td>3G, 4G/LTE</td>
<td>Satellite</td>
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2nd step: partnering with Blulog

- Several **months** of **testing** samples, audits and meetings
- BluLog temperature loggers already **compliant with all regulations**
- **Adjustments** and **individualization** accordingly to DHL needs
- **Integration** of two systems
- Facilitating use with **highest quantity** of shipments

*The engagement level of the partners during the phase of testing and improvements allowed to come up with a great „new“ product at the next level*
3rd step: rollout solution

Prerequisites

- Android phone
- Readout App
- Temp loggers
Immediate project payoff

- Faster scanning of temperature data, w/o need for specific hardware
  - 40% less spent on operations to get things done

- Easy to use – everyone with a smart phone can do it
  - Removing obstacles to executing sensor readings

- Ambient temperature data visible within seconds
  - Mobile App to gain instant access

- Cost effective as compared to RFID
  - 40% less expensive
Benefits from an open innovation approach

A simple technology upgrade can generate significant benefits in
- operational efficiency,
- process compliance,
- and cost

available for 3rd parties
Questions? Contact us!

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THANK YOU