TRAVEL SENTRY®

simply smarter

RAIN RFID MEETING

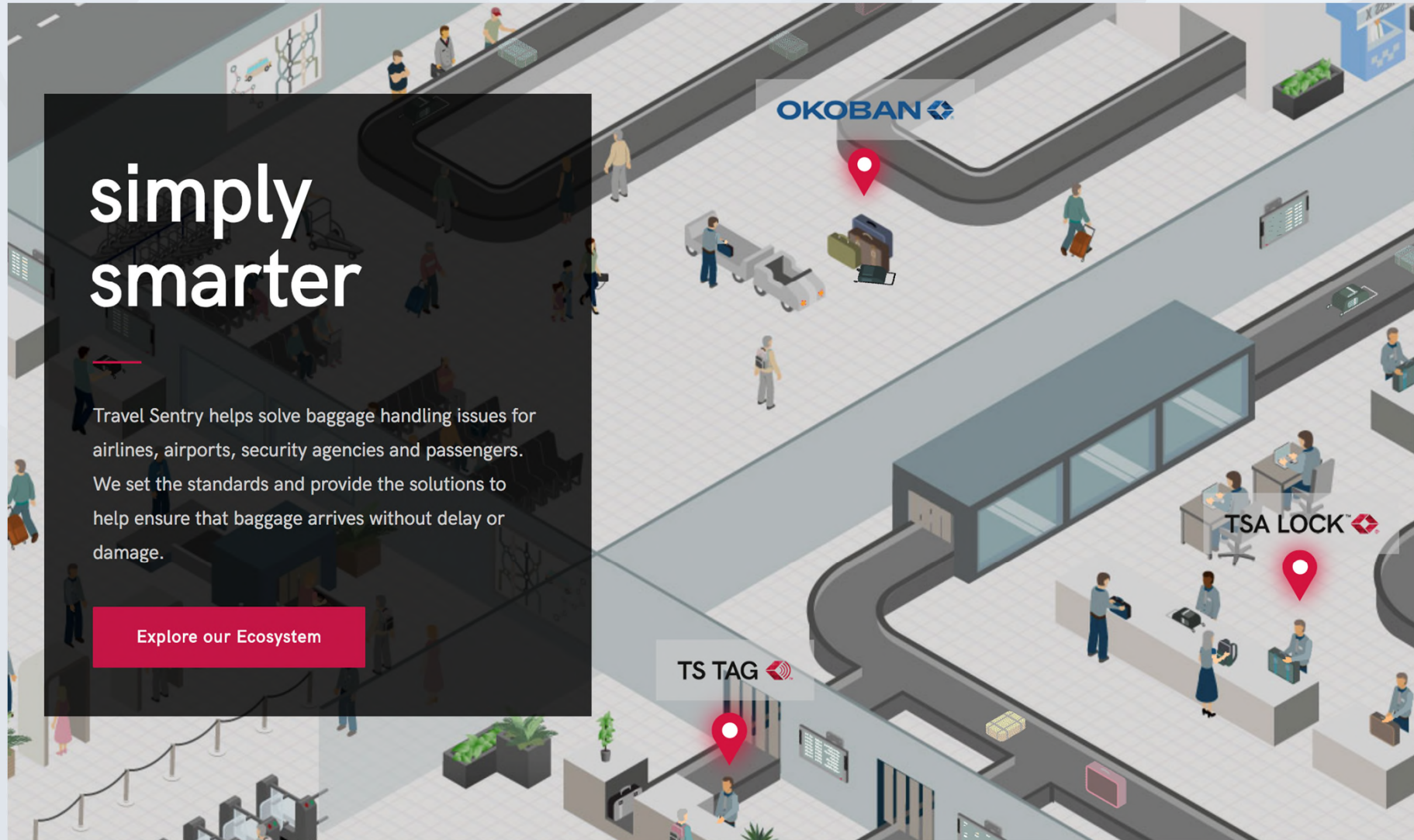Florent PERRICHON

Vienna, 27th June 2018

The future of RAIN RFID in baggage tracking

IF FOUND: TSTAG.CO

TGGM-YLYV

Permanent Baggage Tag?

500 luggage brands use Travel Sentry's features

RAIN RFID baggage tracking is now a reality in air transport

- From an estimated 200 million RAIN tags used in 2018 by Delta Airlines, Hong Kong and Las Vegas airports…
- … to more than 4 billion per year as soon as 2020 (maybe) with IATA's initiative to make RAIN RFID inlays mandatory

Providing competitive advantages to airlines/airports early adopters

- Reduced mishandled baggage rates
- Improved customer satisfaction
- Compliance with Resolution 753

2 million km of single-use baggage tags per year! This is not sustainable

- The tags can wrap around the equator 50 times
- The tags are not recyclable
- 400 million $ annual cost of material for the airline industry
- Adding single-use tags is awkward, creates queues, delivers a poor consumer experience
- Single-use tags hinder self-bag drop implementations

2 Million km's

Of paper tag produced in 2017
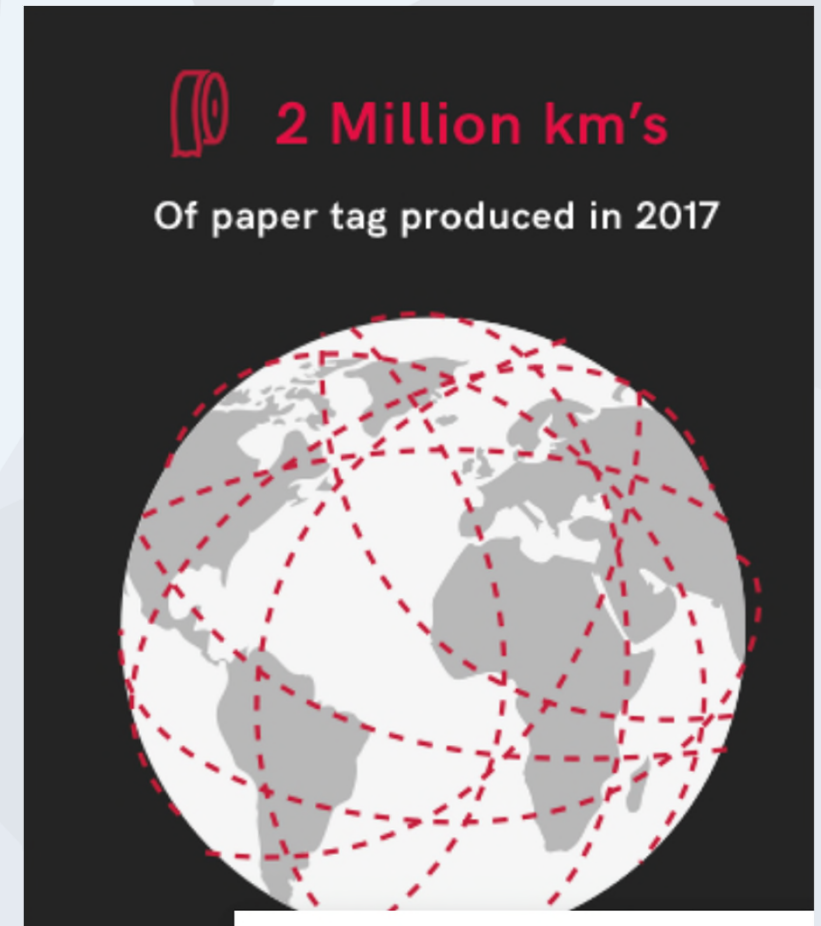
Tickets and boarding passes are now digital

Will paper bag tags, even with RFID inlays, stay forever?

Can permanent reusable RAIN RFID tags be a solution?

Qantas's Q-tag demonstrated that reusable RAIN RFID tags work, but in a limited environment

- In use since 2011

- Australian domestic routes only
- Hangtags only, no built-in luggage option
- Expensive. Retail at 30$ or offered to frequent flyers

- Can conflict with other RFID inlays

Delta Airline is now using RFID on a global scale


Delta Airlines invested $50m in RFID in 2016

- ✓ 344 airports equipped with RFID Tag printers
- ✓ Dual barcode/RFID Single Use Tags
- ✓ Fixed and portable RFID readers

14% reduction in mishandled bags in the first year of operation.

- ✓ N°1 performing airline in USA (DOT statistics).
- ✓ Improved customer experience resulting in higher revenues (check in baggage fees)

Current focus is on tracking. Bar codes are still used in sortation, self drop, transfer… RAIN RFID can improve these
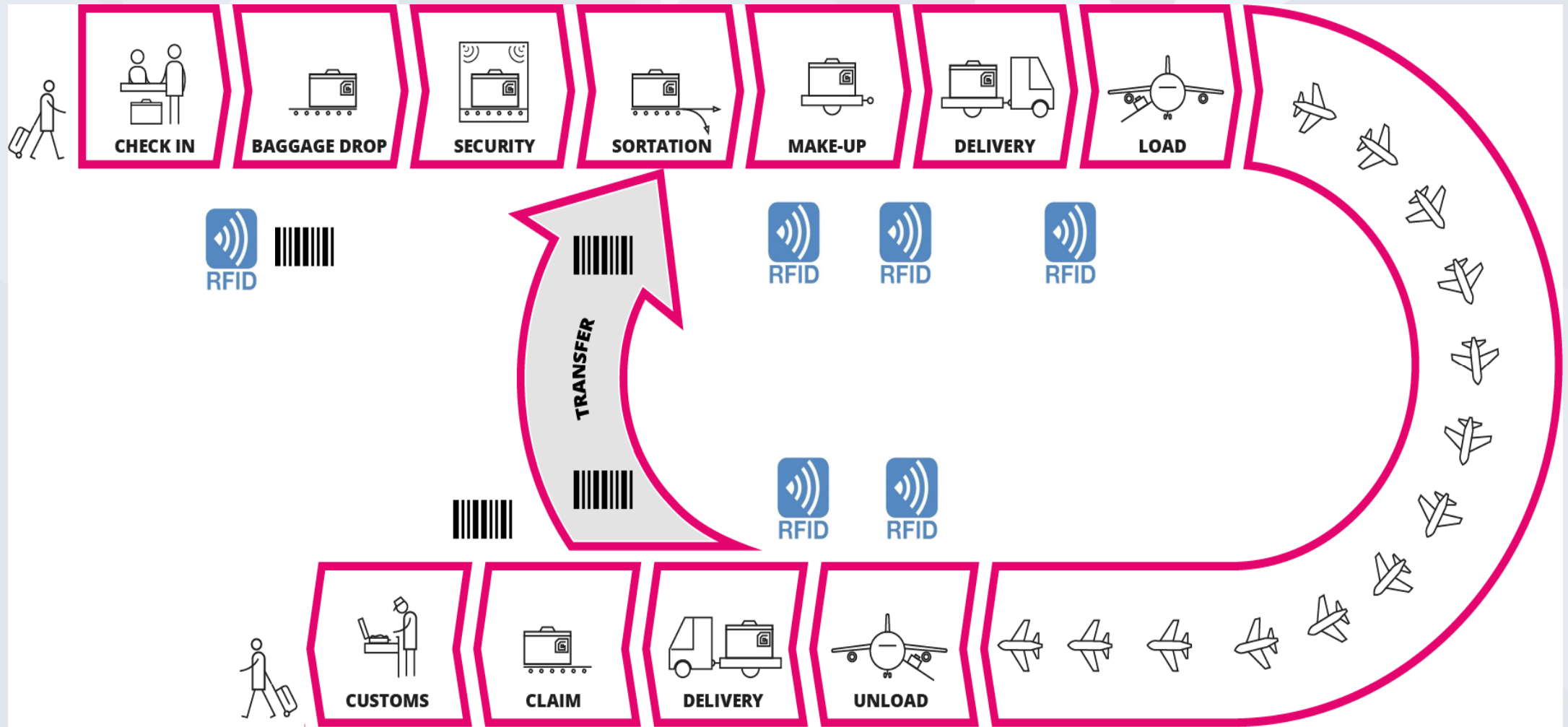
Human readable information is used for manual handling.
Hand free readers could be the solution

Permanent tags requires additional investments by the air transport industry…

- No reliance on barcode. RFID readers everywhere.
- No reliance on human readable information for manual handling
- New baggage UID numbering to replace current 10-digit LPN --> IATA
- Global RFID tag standard across all airlines/airports → IATA
- Airlines/Airports would need to accept and use RFID tags brought by the passenger. Certification?

… and it would save them m$, improve passenger experience and save the planet!

- Distribution of tags through Travel Goods retail channels would transfer the cost from the airport/airline P&L
- Travel Goods brands are willing to cooperate provided that:
  - Airlines offer improved services:
    - Expedited baggage drop (no queue)
    - Priority handling
    - "Baggage freedom", home to home delivery
  - RFID tags cost around 1$

# Permanent RAIN RFID tags on bags could provide benefits to other parties

- Luggage supply chain management from factory to retail store
- Security agencies – Pre-Check concept
- Customs controls
- Baggage Delivery Services

Dual RAIN - NFC chips could bring additional features

- At home baggage check-in
- Easier access to real-time tracking
- Lost & Found services
- Anti-counterfeit, product authentication

Each application, each flight will create a new digital twin associated to the same physical tag

| Luggage factory | → | Distributor/retailer | → | Passenger | → | Airline |
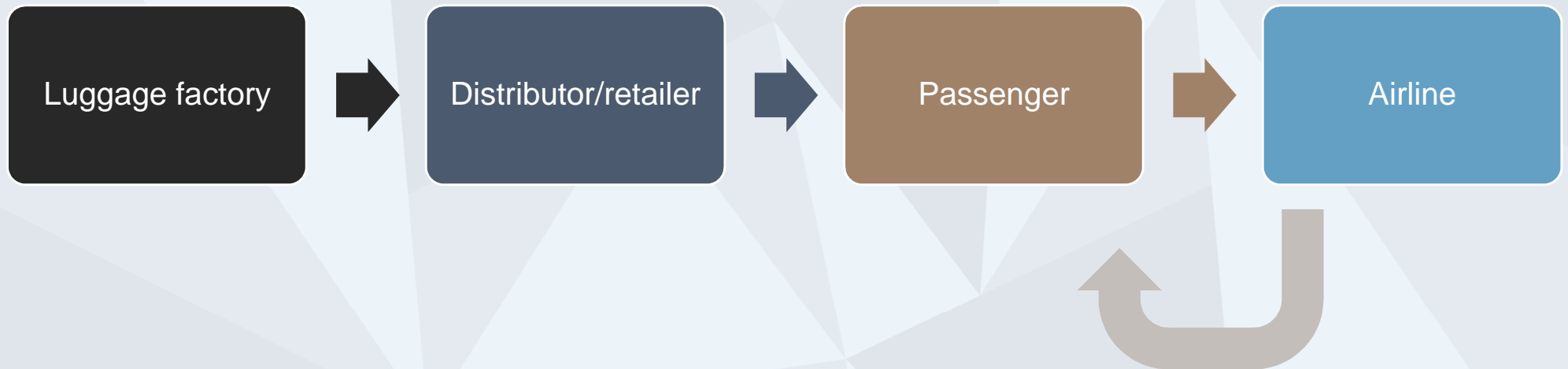
Need to

- Authenticate UID to ensure that physical tags are genuine/certified
- Regulate ownership, privacy and data rights for digital twins
- Allow for transfer of data ownership when needed