GOOD MORNING IGHC
Thank you for a great gala evening!

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QATAR AIRWAYS

IGHC 2019

IATA GROUND HANDLING CONFERENCE

IATA MADRID, SPAIN | 26-29 MAY
GOOD MORNING IGHC
Coffee Break

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HOST AIRLINE

IBERIA

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IATA GROUND HANDLING CONFERENCE

MADRID, SPAIN | 26-29 MAY
GOOD MORNING IGHC
THE FINALISTS ARE...

Jose Luis Camara Palacios, CEO, iboardings.com
Florian Eggenschwiler, Head of Innovations, Swissport International
Rob Schoenthaler, CEO and Founder, Atollogy, Inc.
OUR 2019 IGHC INNOVATOR IS...
NEXTT
Let’s build the journey of the future
Passenger journey

Our vision: a seamless, secure and efficient walking pace journey that is highly personalized throughout
Baggage journey

Our vision: convenient and hassle free handling and tracking of baggage for passengers, with greater choice of services offerings
Cargo journey

Our vision: efficient operations and modern technologies support easier, smarter and faster movement of cargo.
Aircraft journey

Our vision: predictable, safe and fully coordinated aircraft turnaround processes every time
Exploring off-airport activities

Using advanced processing technology

Harnessing interactive decision-making
How we are delivering NEXTT?

Collaborations
validation

Vision Development
the ideas

Engagement
promotion and sharing

Industry Alignment
strategic integration
Our innovators
Guiding us through our design sprint
THE PLAN

THE BOOTCAMP AGENDA

May 26
SUNDAY
12.30PM – 6.30PM

MAP & SKETCH

May 27
MONDAY
12.30PM – 6.30PM

DECIDE & STORYBOARD

May 28
TUESDAY
10.30AM – 6.30PM

PROTOTYPE

May 29
WEDNESDAY
09.00 – 11.15AM

PITCH
Frustrated customers?
Prepared for future demand?
Losing money... ...just waiting?
AI-enabled total situational awareness
Expected delay of shipment arriving at warehouse is over 4 hours. Will miss LATAM’s cut off time for today. Alternate routes are proposed.
Truck 72 is caught in a forming delay. ETA is now 4 hours later losing cut off time and conflicting with other priority cargo. Current staff allocation at time of truck arrival is insufficient.
Consolidated cargo after 4 hours missing the cut off time.

Impact provided if flight is held. Alternate flights with available capacity proposed based on new ETA.
The Future. A fully connected system.
ONEaircargo

Lisa Williams, ACI World
Kasia Mieszczak, IAG Cargo
Deniz Arslan, Swissport International
Camilla Carosio, Fraunhofer Institute
Mammen Tharakan, Edmonton Int’l Airport
Ladislav Pflimpfl, CreativeDock Prague
Eva Penalva, LATAM Cargo
Join the discussion on our LinkedIn Group: NEXTT New Experience Travel Technologies

#NEXTTjourney
THE CONSCIOUS RAMP
RAMP PROJECTIONS OVER NEXT 20 YEARS

AN ENORMOUS OPPORTUNITY

2 x Passengers

2 x Cargo

50,000 Additional Aircraft

*Source: IATA Economics / Tourism Economics

2017-2037: 2.2 to 6.8 billion additional O-D passengers
1.6 to 3 times current passenger traffic level
THE CHALLENGES

Improving communication

Integrating systems and providers

Dynamic Adaptability

Real-time performance data

Predictability
TURNAROUND WORK CONTEXT
Pilot says Plane is here. Where’s the Gate Agent?

I’m on my way from Gate #580

STATUS QUO

COMMUNICATION

STATION OPS

RAMP #582

GROUP CHANNEL
STATUS QUO

CONSCIOUS RAMP

STATION OPS

COMMUNICATION

RAMP #582

GROUP CHANNEL

FUELING BEHIND
FUELING CRITICAL

STATUS QUO

CONSCIOUS RAMP

STATION OPS

Do we have a belt loader yet?

COMMUNICATION

Sorry – I’m behind at Ramp 585. Be there soon.

RAMP #582

GROUP CHANNEL

FUELING CRITICAL
I’ll radio them. They are wrapping up at Gate #581.

That’s not good. PAX are queued up, and we can’t board until they finish.
We are going to miss our window in 3 minutes.

OK – I guess we are delayed. Let me get next window. At least 20 mins 😊

We are finally boarding, but not seen the departing bags yet

I’m about to drive over from terminal

We are finally boarding, but not seen the departing bags yet

I’m about to drive over from terminal
WORKING DIFFERENTLY
CHOREOGRAPHED EFFICIENCY
VISUALIZE BUSINESS IMPROVEMENTS: INCREASE TEAM SPIRIT AND MOTIVATION

TREND ANALYSIS: JUL 2023 vs. AUG 2023

OPERATIONS
- OTP & Flights / Ramp
- Efficiency
- Delay Cost

SAFETY
- Number Incidents
- Medical cost

CUSTOMER
- Satisfaction
- Number

Improvement Index
Incentive: USD XXX
WE CAN ALL CHOOSE TO START TODAY

Use Today’s Sensor Technology
- Smart Devices
- Video analytics
- Location sensing

Choose To Share The Data
- Models
- API
- Warehousing
- Performance and contract monitoring

Evolve the Work Performance
- Allocation of people, skills & assets
- Autonomous equipment introduction
MAKE A **CONSCIOUS DECISION:**

Start Shaping Your Future

COME TALK TO US!
OUR INNOVATION TEAM

JJ DeGiovanni
Carolijn Schoofs
Michael Muzik
Rob Schoenthaler
Jim Nixon
Join the discussion on our LinkedIn Group: NEXTT New Experience Travel Technologies

nextt.iata.org

#NEXTTjourney
Revamp the Ramp
Introduction – Setting the Scene

**2018**

- 4.3 billion pax
- 96 million movements
- 0.58 incidents / 1000 movements
- 56,000 incidents

**2028**

- 6 billion pax
- Assuming constant ratio (but more likely to get worse)
- 107,000 incidents
Introduction – Sketching the Problem

We have strictly regulated and monitored aircraft movements on the ramp.

We have multiple GSE moving around the ramp independently, frequently unmonitored.

When those two patterns mix, accidents happen.

The objective is to reduce independent GSE movement to the minimum by automation and moving equipment underground → more space for aircraft.
Revamp the Ramp – Proposed Solution

1-3 years  
3-5 years  
3-5 years  
10+ years  
10+ years

All these technologies exist today!
T-CDM - From Siloed Way of Working

Data collection → Data storage → Data usage → Operations

Airport

Airline

Handler
T-CDM - To an Integrated Collaboration

Data collection

Airport

Data storage and sharing

T-CDM Database

Airline

Data usage

Handler

Permissions Validation Aggregation

Operations
Combi GSE – Fewer Touchpoints

- Agnostic to existing ground handling equipment
- One unit with multiple independent platforms to connect to aircraft, not multiple pieces of equipment
- Adapts to aircraft door configuration through independent and moveable platforms
- Facilitate state-of-the-art sensor and camera technology to approach the aircraft fully autonomously and align/connect it safely to the aircraft.
Fluids under ground – Fewer Equipment

- Put all liquid transportation underground
- Concept already established for underground kerosene service stations
- Drastically reduces necessary ground support equipment around the aircraft

400 Hz
Kerosene
Water
Waste Water
Automatic aircraft moving – once GSE are not in the way...

Automatic aircraft movement on the tarmac
GSE Tunnel

Tunnel along the Terminal (full-scale solution) with lift to ground-level and conveyor belts going to the aircraft (and Combi-Lift-GSE).

Terminal

Level -1: Tunnel

Level 0: Apron

Conveyor

Combi-Lift GSE

Level 0: Apron

Level -1: Tunnel

All service below the Apron
GSE Lane – Cheaper option without a tunnel

Level 0: Dedicated GSE lane

Terminal

Usual service road

Conveyor

Combi-Lift GSE
Summary – Revamp the Ramp

- Current approach results in accidents + damage and is slow
- Proposed approach gradually combines multiple existing technologies:
  - 1-3 years - Collaborative Turnaround Decision Making
  - 3-5 years - Combi lift GSE
  - 3-5 years – Fluids under ground
  - 10+ years – Automatic aircraft towing
  - 10+ years - Underground tunnel to the stands
- Benefits of proposed approach:
  - Uses existing technologies from „dumb” towards „smart”
  - Easier to finance due to gradual introduction
  - Customisable for different airports
  - Enough time to manage change
Muchas gracias!

Feel free to reach out to us!

The team:
Jan Willem Kappes – INFORM
Christian Hen – ASSAIA
Abhishek Krishna – Amadeus
Damien Le Gac – JBT

Alberto Taha – AENA
Stephan Weinmann – Lufthansa
Andras Bognar - ICF
Major Growth in Aviation Jobs Expected in Ground Operations

Conor Wilcock, Director, B2B International
Major Growth In Ground Handling Jobs Expected

A Study For IATA Assessing The Future Skills Required
The Research Challenge

**What?**
Research to understand the challenges and the future of jobs in ground operations.

**How?**
A global survey of 300 interviews followed by 14 depth telephone interviews with leaders of major ground operations organisations.

**Why?**
e-commerce sales expected to reach $5 trillion by 2021
8.2 billion passengers by 2037
27 new aviation megacities by 2037
Recruitment
### 83,000 More Employees Required In The Sector By 2022

(+19% In The Next Five Years – Assuming No Advances In Automation)

<table>
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<tr>
<th>YEAR</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
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Our research suggests that the #1 challenge facing ground handlers is recruiting suitable staff.
Recruiting The Right Talent Into The Industry

The challenge

The global economy is strong

Increasing education levels

Skills shortages e.g. language skills and interpersonal skills
Recruiting The Right Talent Into The Industry

What is being done

Digital transformation of the recruitment process

Exposure of the nature of the work at the recruitment stage

Resource utilisation & technological investment
I think we’re an unknown sector so people don’t necessarily know what the job is that they’re applying for; whereas if they applied for a job in either Tesco or McDonalds it’s very evident, probably, what they’re going to do. We’re trying to do a lot in the space of bringing to life what it’s like to work here to people as part of the recruitment programme, with videos and things.

- Global Ground Handler
**Recruiting The Right Talent Into The Industry**

**Food for thought**

- How can we better use human resources to reduce the total number of employees required?
- What impact will millennials and GenZ have on the workforce, especially with an increasing requirement for customer service roles?
Training
The tipping point for employee retention is 6 months.

During that time, a large ground handler may employ 20,000 new employees per year.

The cost of this may be around 170m Euros in salary.

23m of this in the first two weeks: €26m

46m in additional training costs: €46m
Getting Employees Ready For Work

The challenge

Training new-entrants is taking longer

Operations takes priority over training

Few common practices between airlines
Getting Employees Ready For Work

What is being done

- On the job training to support operations
- In-person training is predicted to decrease by 22% in the next 3 years
- Digital training is more flexible
We are training people on the tarmac through virtual reality and getting them to perform or practice what they have learnt in those conditions. That is definitely going to be the big thing going forward. This is a general statement but we are looking at how the younger employees consume technology or training best and it is in the form of mobile. That is something we are looking at as well.

- Global Ground Handler
Getting Employees Ready For Work

Food for thought

How can ground service providers, airlines and airports work better together to develop more standardisation?

How can we ensure our existing employees become digital ready?
Retention
Most ground handlers have a staff turnover rate of between 30-50%

The challenge

The industry is no longer seen to be attractive

People are looking outside the industry for better-paid jobs

The competition is not aviation, there is little loyalty to companies
Employee Retention

What is being done

- Developing employer brands & improving company culture
- Competitive rewards and benefit packages
- Better and clearer career path for entry-level staff
We are open and generous compared to our direct competitors in the industry in terms of offering training and openly communicating that all employees will have a chance for a career at our organisation. That’s the main driver in what we have already seen at reducing turnover rates – we track those month-to-month. The second element is investing in leadership development. The direct superior of the teams really makes a difference to turnover rates. We want to ensure that supervisors can positively influence the teams that they manage.

- Global Ground Handler
Employee Retention

Food for thought

Could investing more in existing employees be offset by recruitment and training savings, and create a healthier working environment and more loyal staff?
FULLY RAMPED UP FOR THE FUTURE: EXECUTIVE FOCUS POINTS FOR GROUND OPERATIONS

Carlos Cardiga, Senior Vice President Sales & Customer Service, Fraport AG
Alexandra Huzuneanu, CEO, Romanian Airport Services
Igor Ivliev, Ground Handling Department Director, Aeroflot
Mervyn Walker, EVP Operations Support, Menzies Aviation

Moderator: Joseph Suidan, Head of Ground Operations, IATA

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Where to Next?

IATA GROUND HANDLING CONFERENCE 2019

MADRID, SPAIN | 26-29 MAY
Where to Next?
IATA GROUND HANDLING CONFERENCE

Mexico City, Mexico
May 2020

SEE YOU NEXT YEAR!
Lunch in the Exhibition

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