BAGGAGE AS A SERVICE

# Preface

*The following document is the result of a round-table discussion held by European air travel executives at Munich Airport on 11 and 12 July 2017 and organised by Baggage-as-a-Service (BaaS). The conference concentrated on the 'Vision 2040' on baggage, which was generated at an earlier workshop held in Amsterdam in June 2016 by EU airport, airline and industry representatives. The Vision 2040 was unanimously endorsed by the attendees of the round table.*

This document focuses on the EU air travel industry, which will face the following baggage-related challenges over the next few decades:

- by 2030, passenger volumes will have doubled
- capacity expansion is limited due to a scarcity of space
- there will continue to be a strong demand for security measures
- almost 50% of passengers in 2020 will be millennials
- technology developments (smartphones, the internet of things and e-commerce, for example) will accelerate
- customers now expect to have the same service (level) at every airport
- the influence of social media will continue to grow.

The team of BaaS will stimulate and monitor the recommended developments and actions as described. This will be to ensure that results are achieved and the industry can offer baggage as a service rather than an inconvenience.

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# Disruption of baggage: fad or fact?

## Introduction

The business world is changing at an ever-increasing pace. Terms like 'disruption' and 'googlification' are commonplace. However, is the word 'disruption' also relevant for baggage in the air travel industry? Detailed below are three key characteristics of industries with a high likelihood of disruption:
- there are high levels of waste and inefficiencies
- money is being made through intransparent pricing strategies
- customers are forced into processes not of their own choice.

Sound familiar? Could these characteristics be applied to the current state of the baggage industry? Observe, for example, the inefficient use of baggage systems designed for peak capacity; the baggage surcharges which vary per airline and frequent flyer status; or the fragmented baggage processes that increase complexity and thus costs. Disruption is therefore likely to occur soon and, in some cases, has already started to happen (see examples highlighted on this page).

While most of these examples are currently small scale, what happens if giants such as Google or Uber decide to move into baggage transportation (something they have publicly announced they are working on)? The impact could be huge, as experienced by large retailers when Amazon announced it was moving into the grocery business. Furthermore, think of all the industries where disruption has already happened and the far-reaching consequences it has had for existing players (banking, insurance, legal, brokerage, taxis, hotels, and so on).

However, it would seem that the air travel industry is not giving much attention to the consequences of disruption at the moment. Currently, there are too many other baggage-related challenges that the EU industry is faced with, including:
- by 2030, passenger volumes will have doubled
- capacity expansion is limited due to a scarcity of space
- there will continue to be a strong demand for security measures
- almost 50% of business travellers in 2020 will be millennials
- technology developments (smartphones, the internet of things and e-commerce, for example) will accelerate
- passengers now expect to have the same service (level) at every airport
- the influence of social media will continue to grow.

*Examples of current disruptive baggage services include the remote check-in of baggage in collaboration with airlines, for example Airporter with British Airways and PostNL with Corendon. There are also different services available for airport-to-hotel baggage delivery from PostNL, Airporter, Leave Your Luggage and Bags. Additionally, an increasing number of providers, including Travel-Light, Sendmybag, Care4luggage and Luggage Free, avoid remote check-in and passing customs by offering door-to-door services which bypass the airport completely.*

However, there are a few initiatives that deal with disruption, for example Flightpath 2050 and the PASSME project. In 2011, the High Level Group (HLG) on Aviation Research (tasked by the European Commission) produced a document entitled FLIGHTPATH 2050, Europe's Vision for Aviation Research. In the chapter 'Meeting societal and market needs', the document depicts a vision of the future which starts to address the challenges posed by disruptors.

As part of the EU Research and Innovation programme – 'Horizon 2020' – the PASSME project aims to shorten door-to-door air travel times in Europe by 60 minutes, while also enhancing the passenger experience. Additionally, IATA and other industry partners, such as SITA and Microsoft, are working towards the goals described in Flightpath 2050. For example, IATA Resolution 753 comes into effect in June 2018 and says that "IATA members shall maintain an accurate inventory of baggage by monitoring the acquisition and delivery of baggage". But are these

1) Source: Professor Annet Aris (INSEAD) in Financieel Dagblad, 13 December 2014.
2) When Amazon announced its acquisition of Whole Foods, Ahold – Europe's largest grocery chain – lost more than 15% of its market value.
3) See https://www.bcg.com/documents/file129974.pdf for more details.

# The Vision 2040

initiatives focused on the right challenges? Or is it a matter of 'too little, too late?'.

***In summary: the disruption of baggage processes is starting to happen. However, the industry is currently focused on numerous other concerns and there are few initiatives addressing the challenges posed by disruptors.***

The aviation industry is faced with a choice. Either wait and see what happens, or shape the future by putting forward a vision for baggage and working towards its realisation. There are many reasons why taking a 'wait-and-see' approach is not a good idea. It could result in not being in control anymore and, as such, not being able to fulfil the baggage promise to the passenger. There is potential for losing revenue that is currently associated with baggage or, worse still, losing passengers that opt for airlines that offer a more seamless baggage experience. There is also the risk of losing cargo business – if baggage can be disrupted, then so can cargo.

The purpose of this paper is to put forward a vision for baggage, discuss the requirements to make it happen and shape the future by calling upon the EU air travel industry for action to realise the vision.

The vision for the future of baggage is based on four key points:

1. The passenger experience is paramount: the passenger is in full control, has a choice and will experience no queuing. Also, personalised travel assistance is available, real-time information is shared at every stage of the passenger's journey and common facilities are personalised using biometric passenger verification.
2. Hold baggage travels 'door to door': the bag can travel independently based on the passenger's decision. They can rely on a guaranteed bag delivery for different origins and destinations (home, hotels, railways and other public places, for example). Airport logistics become part of the 'logistics chain', which may be taken over by newcomers to the market.
3. Carry-on baggage is for immediate needs only: with 'seamless boarding', waiting at the gate is a thing of the past. Tax-free (online) shopping with home delivery will be possible.
4. Business models for airports and airlines will change significantly: the passenger has greater freedom, with the airport taking on more of an entertainment role (with potentially less income from primary activities) and virtual shopping replacing physical retail. Baggage activities are fully customised, and incentives are put in place to ensure optimal use of services and facilities. Airlines will become the aggregators of services.

# Requirements

To realise the vision, industry players must see things more from the passenger's point of view (passenger centricity). They need to cooperate more intensely, lobby for new legislation, and one of the players needs to assume the overall responsibility, and direct the end-to-end baggage supply chain.

**Passenger centricity**: *the air travel industry is insufficiently focussed on the needs of passengers.*

Going forward, the industry needs to listen more carefully to the passenger, while also considering the fact that the passenger demographic will change dramatically (50% of business travel by millennials in 2020). If the conventional processes do not live up to future passenger (millennial) needs, the risk of disruption increases further, especially if other players start to offer the services they desire (for example, door-to-door delivery).

Passenger centricity also involves some other aspects:
- the central role of airlines, who hold the greatest amount of data and access to the passengers
- pricing needs to become much more transparent, although the underlying cost base for baggage services is not always clear
- there will be no 'one-size-fits-all' solution, for example, there will always be passengers who want to travel with their baggage.

**Cooperation**: *the current baggage process is too fragmented with all associated risks.*

Industry players need to cooperate more effectively in several ways. Firstly, baggage data must be shared across the supply chain (without disclosing commercial passenger data) and this sharing of data requires the passengers' approval . In fact, with the use of RFID tags and other technology, some passengers already have better access to data on their baggage than the airlines or airports do. Emerging technologies such as block chain may force data transparency across the supply chain either way.

Secondly, airports and airlines need to work more closely together operationally, sharing their processes or even jointly designing the baggage supply chain. This is particularly relevant for hub airports. There are already some good examples of this, including between Munich Airport and Lufthansa, and London Heathrow and British Airways. Ideally, the parties involved would also give each other insights into their cost, revenue and value-generation models, so that the benefits of a new approach are distributed fairly.

**Legislation**: *current regulations do not allow for bags to travel independently of passengers.*

New legislation is necessary, for example, to allow bags to travel independently of passengers. This requires a common vision and intensive lobbying approach to legislators, and regulators. Legislators may fear unwanted consequences of 'paxless' bag travel (smuggling, for example) but may also be enticed by the promise of tighter controls and the availability of real-time data. Finally, it should be noted that disruptors are very creative in finding ways around legislative restrictions.

**Supply-chain control**: *without a single party in control, the vision cannot be realised.*

To achieve the vision, one industry party needs to assume control and responsibility for the whole baggage chain. Ultimately, this is what disruptors will do as well. Airlines or even airports seem to be the most logical candidates. But, whoever takes on this role, they will require a much better understanding of the business economics of end-to-end solutions than any single party currently has.

# Results

So, what can be expected if the vision becomes reality? A seamless baggage solution may become a key buying factor (although passengers will see it as an expected service). It will certainly become a differentiator when comparing different transportation modes (for example, train vs. plane) and, as such, an enabler for growth in the aviation sector.

As far as cost is concerned, it could be argued that – since the existing solutions will have to remain in place for those passengers who wish to continue using them – putting new solutions into place will increase costs. However, with the expected growth of passenger volumes, moving baggage out of the system, even if it is only a small fraction initially, will alleviate immediate capacity pressures. This will reduce the necessity to invest in existing baggage capacity and provide additional revenues.

# Timing and next steps

When can the vision be expected to become reality? There are no stumbling blocks to realising the vision today, at least not in terms of available technology, processes and infrastructure. In fact, it is somewhat surprising that large-scale change has not yet happened, given that much of the required technology has been available for quite some time in other industries. This may be due to the scale of the changes required in passenger centricity, cooperation, legislation, and control.

To continue to make progress, the industry is urged to take the following steps:

- start trying things out – for example experimenting with door-to-door solutions that could bring the industry closer to this vision (some airports and airlines have already indicated a willingness to set up such trials)
- set up a working group to establish the business case for seamless baggage solutions (Delft University of Technology has offered to take the lead)
- continue to meet regularly to share experiences and further shape the vision
- involve IATA and ACI in supporting this process as a mediator and facilitator with legislators and authorities.

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The industry is urged to address the baggage challenges posed by disruptors, see these challenges as an opportunity and work on realising the vision as described in this paper. As the saying goes – ‘a crisis is a terrible thing to waste’.

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