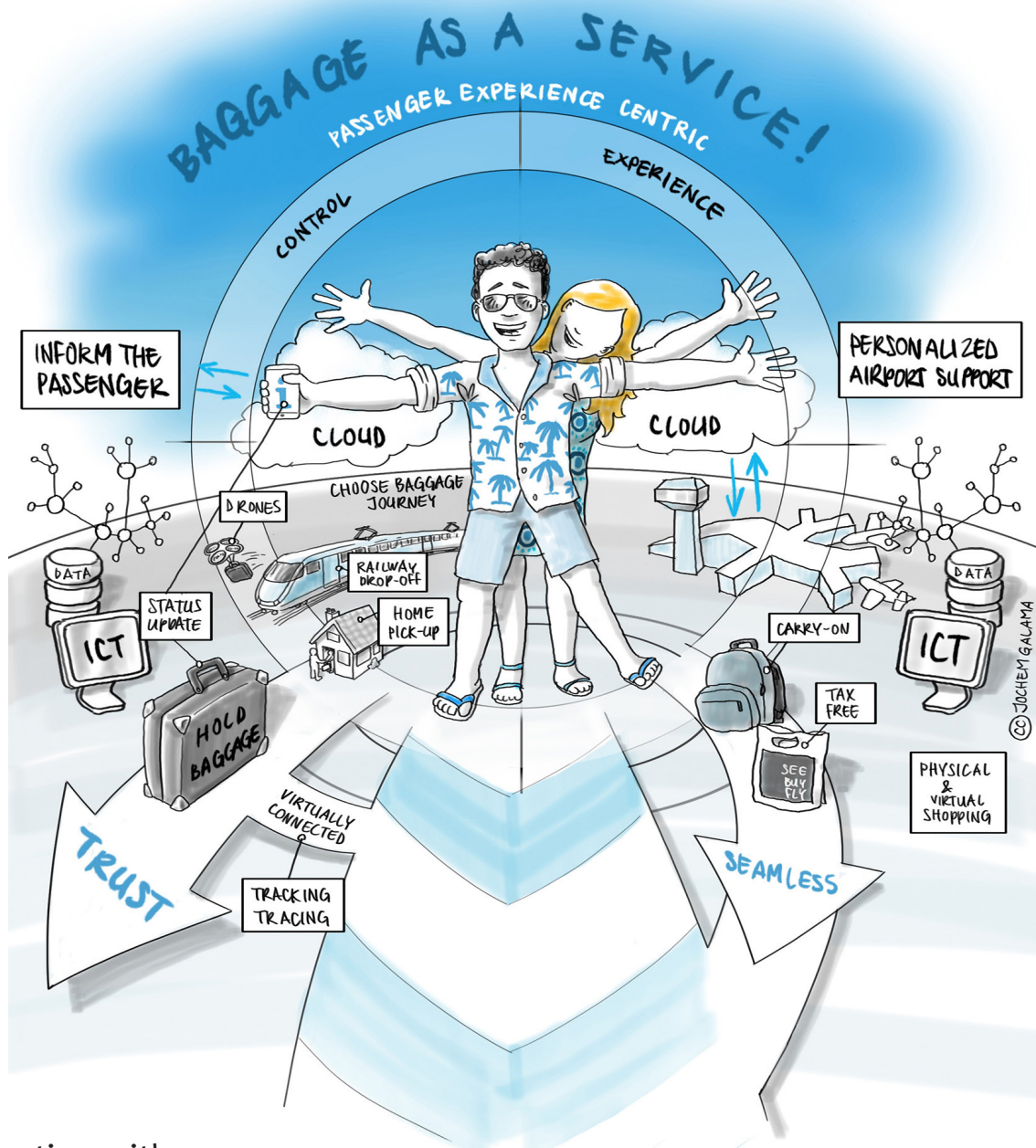


# Conclusions of the “BAGGAGE AS A SERVICE” workshop 8 and 9 June 2016



In cooperation with



**PASSME**



**VANDERLANDE**

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# 1. Introduction

*On 8 and 9 June 2016, the “Baggage as a Service” workshop was held in Amsterdam under the auspices of ACI Europe and in cooperation with the PASSME project (see appendix 1). The workshop was organised by Schiphol Group, Vanderlande and Delft University of Technology. The focus was on the future of baggage handling from 2040 and beyond.*

In preparation for the workshop, a number of interviews were held and presentations were given to airport managers and industry partners in Europe. This led to the following observations regarding the existing baggage process.

Observations of the current baggage process by EU airports:

- › Baggage handling is seen as a commodity.
- › Baggage handling costs are relatively high and it occupies precious space.
- › Baggage handling facilities consume a high proportion of materials and energy.
- › Baggage handling is a traditional process utilising a high level of manual labour.
- › The approach of baggage handling is fragmented and parties in the process are insufficiently aligned.
- › In the baggage process there is little or no leverage from other processes.
- › Innovation is slow and IT capabilities are underused.
- › The voice of the customer is not being listened to.

The workshop was attended by a number of representatives from leading European airports and industry partners (see appendix 2). By focusing on the future of baggage handling, a shared long-term (2040) vision was created. This was then elaborated upon to create both a baggage innovation agenda and an action plan for ACI and the aviation industry.

The general consensus of participants was that in order to improve baggage handling, it is imperative to put the passenger and their future needs first. In addition, the role of IT cannot be underestimated.

We would like to thank all participants for their enthusiastic and constructive contribution to the workshop’s success. This has encouraged the organisers to continue “Baggage as a Service” as an initiative to stimulate further progress and innovation in baggage handling throughout Europe.

On behalf of the Baggage as a Service team,

Ad Rutten, former COO Schiphol Group  
Rob Houben, Vanderlande

## 2. Summary of the Vision

### “How do we see the future in 2040?”

The view of the future is based on four key points:

- 1 The passenger experience is paramount**
  - › The passenger is in full control, has choice and will experience no queuing.
  - › Personalised travel assistance and real-time information sharing at every stage of the passenger’s journey.
  - › Personalised use of common facilities utilising biometric passenger verification.
- 2 Hold baggage travels**
  - › The bag can travel independently based on the decision of the passenger.
  - › The passenger relies on a guaranteed bag delivery.
  - › Airport logistics become part of the ‘logistics chain’.
  - › New players become part of/take over the ‘logistics chain’.
  - › Different origins and destinations (home, hotels, railways, and other public places).
- 3 Carry-on baggage for immediate needs only**
  - › Paid bin space/airplane locker .
  - › No waiting at the gate – ‘seamless boarding’.
  - › Tax-free (online) shopping with home delivery.
- 4 Significant change of business model for airports and airlines**
  - › Passenger has greater freedom, airport takes on more of an entertainment role.
  - › Physical shopping becomes virtual shopping.
  - › Customised baggage activities only.
  - › Incentives to ensure optimal usage of services and facilities.
  - › Less income to be generated from primary activities.



# 3. The Vision put in perspective

## FLIGHTPATH 2050

In 2011, the High Level Group on Aviation Research (tasked by the European Commission) produced a document – FLIGHTPATH 2050 Europe’s Vision for Aviation Research.

In its chapter “Meeting societal and market needs,” the document depicts a view of the future in 2050 that is well aligned with the Vision produced by the participants of the workshop on 8 and 9 June 2016.

*“In 2050, the passenger experience is paramount. Air transport is at the heart of an integrated, energy-efficient, diffused intermodal system taking travellers and their baggage from door-to-door, safely, affordably, quickly, smoothly, seamlessly, predictably and without interruption. Choices are offered between customised products and services offering levels of facilities, quality of service, on-board comfort, journey time, optional rescheduling and price.*

*Passage through the airport is streamlined and rapid. All checks for security and immigration are conducted smoothly and in a non-intrusive manner.*

*Passengers are able to access global high-speed personal communication and internet services for work or leisure continuously throughout the entire journey.*

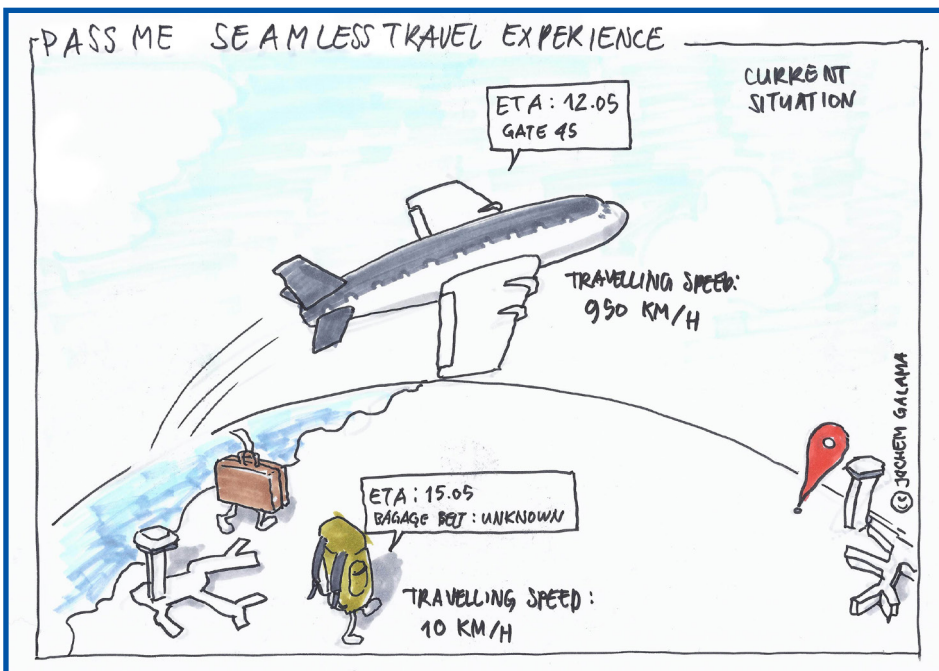
*These services are also used to facilitate speed and convenience by providing dynamic information to the passenger at all stages of the journey. Executive passengers have access to a truly flexible and rapid air transport service providing a seamless flying office.”*

In its chapter “Ensuring safety and security,” the document contains the following section:

*In 2050, security processes for air travellers are non-intrusive, preserve privacy and personal dignity, and are free from interruption and delay. The majority of passengers pass through security screening without intervention or disruption (...).*

## HORIZON 2020

As part of the EU Research and Innovation programme “Horizon 2020” the PASSME project is aiming to improve door-to-door air travel times within Europe by 60 minutes. In addition, IATA and other industry partners such as SITA and Microsoft are working towards the goals described in “Flightpath 2050”.



[Read more about the PASSME project](#)

# 4. Main objectives and trends endorsed by the workshop

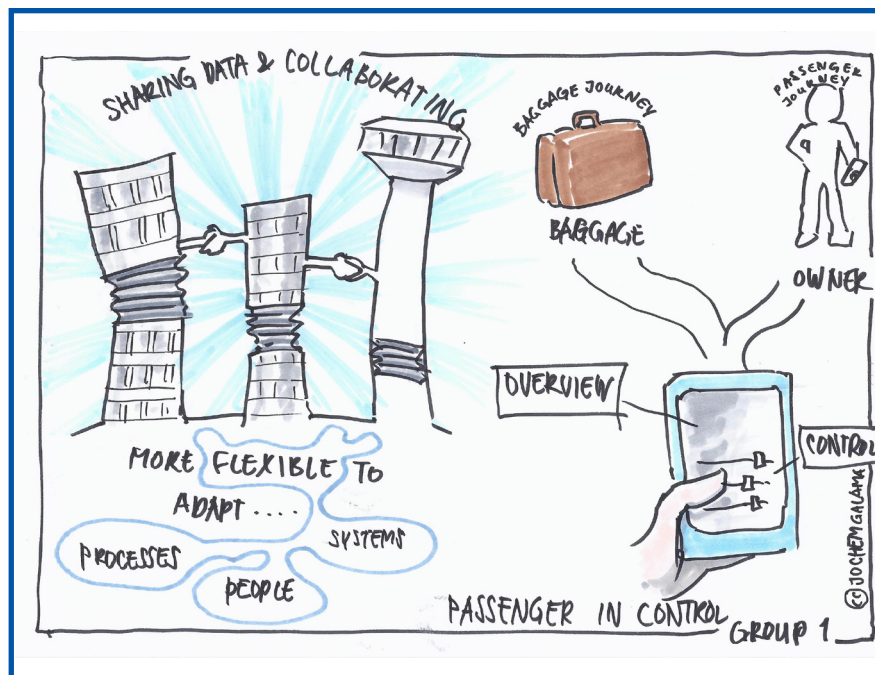
Four main business objectives were considered to be high on the agenda of European airports and airlines, and should get priority in order to realise the Vision for 2040.

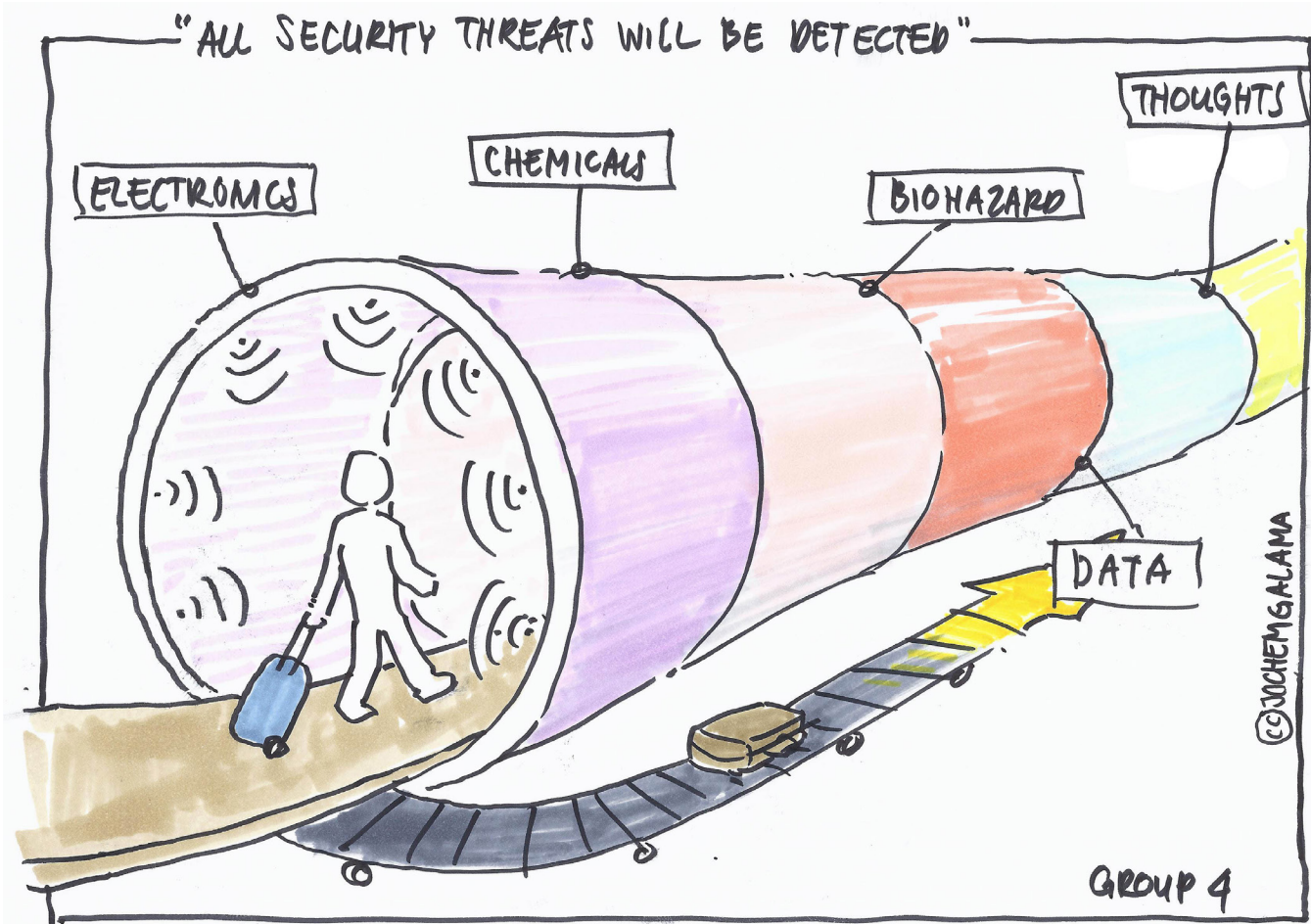
- 1 Enhance passenger experience
- 2 Bring down costs
- 3 Facilitate growth
- 4 Accommodate security

The underlying trends, as listed below, were defined by the four workshop teams and should form the basis of an action calendar.

## 1. Enhance passenger experience

- › Accommodate changing passenger profile and needs:
  - demography: elderly vs 'new' travellers and their specific needs
  - geographically split families: virtual groups
  - work/private = mixed, more leisure/less business.
- › Travel without hold baggage, minimal carry-on luggage.
- › The passenger is in control and connected: 'the passenger owns himself'.
- › Provide baggage services, tailored to individual needs.
- › Personalised travel assistance and information sharing.
- › Passenger not 'captive' but 'entertained'.
- › Home pick-up and delivery (baggage travels separately to the passenger).
- › Passenger should rely upon ('trust') a guaranteed baggage service.





## 2. Bring down costs

- › Bring activities away from airports – baggage factories, check-in facilities in public places.
- › Global IT and parcel companies may take over (parts of) the process.
- › Everything stored in the cloud, no legacy systems.
- › Local 3D printing of necessities .
- › Incentives for passengers to enable peak shaving.
- › Autonomous vehicles.

## 3. Facilitate growth

- › Customised use of common facilities and utilities.
- › Free up space for alternative use, virtual tax-free shopping.
- › Incentives for passengers.

## 4. Accommodate security

- › Biometrics, risk-based security information sharing across borders.
- › Better throughput thanks to biometric verification at passenger touchpoints – no queues at security and border control.
- › 'Bagless' airports .

# 5. Conclusions

In 2040, the passenger experience is paramount. They are in full control of their own personalised journey and experience. On their journey, they will only travel with the baggage they need. Other items arrive independently at the destination they prefer, and in a reliable manner. Due to the seamless way in which a passenger travels – and the separation of baggage – boarding becomes easier. The whole system and all relevant (current and new) stakeholders support this process.

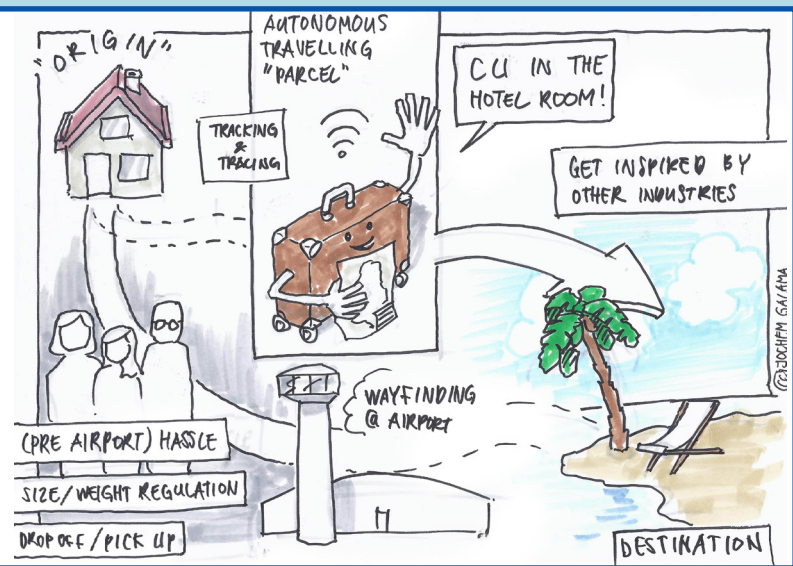
### The key question:

*Could Vision 2040 be realised sooner if we consider the technologies presently available?*

### Points underlying this key question:

- › What specific elements for baggage handling can be derived from the main objectives and trends?
- › How to organise the transformation in terms of people, technology and business?
- › How to offer consistent service to passengers in full control – liabilities, guarantees?
- › How to treat baggage services as a business and not as a commodity? What value can be derived? What will the business model look like, and who will run it?

It also became clear during the workshop that among airports and airlines, there is a reluctance to change and share information. There is also an underestimation of the potential of Google and Microsoft and a fear for loss of control. In other words, an ‘old school’ way of thinking. It was also felt that the role of the rule makers is relevant to enable change. However, what do we expect from the rule makers?



This will require a significant change of the current business model of the different stakeholders.

It was also generally felt that Vision 2040 (see 2) could possibly be realised in a much more ambitious timeframe. The main reason for this opinion is that many relevant technologies exist, or will soon do so. Also, in other industries such as e-commerce, and parcel and postal, current practices are close to the ambitions described in this document.



## 6. Next step: round table

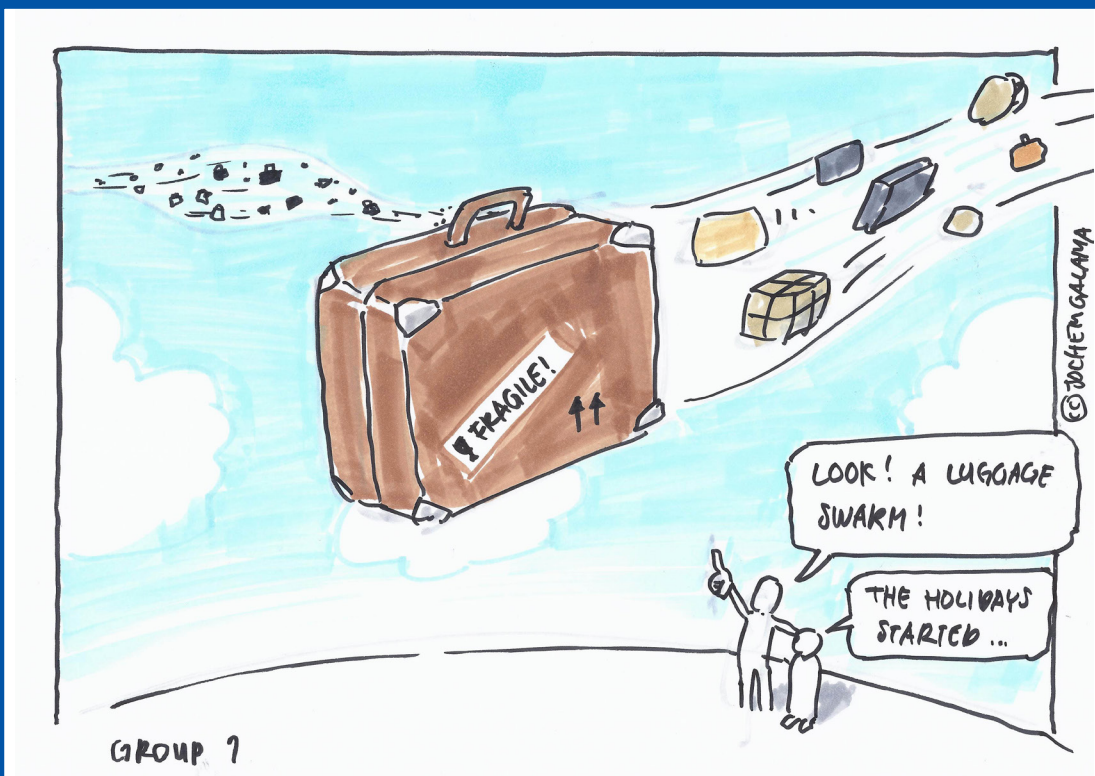
We now propose a round-table discussion, preferably organised by ACI Europe in Brussels. The outcome of the workshop, the vision and the action agenda, can be shared between leading industry experts to develop a more holistic view on the future of the baggage process.

### Proposed participants

- › Three to four airport executives
- › Two to three airline executives
- › Industry partners, such as IATA, SITA and FedEx
- › Representatives from Microsoft and Google
- › The Chair of the PASSME project
- › Organisers of the workshop
- › The Chair of the Facilitation and Passenger Services Committee, ACI Europe
- › Directors from ACI Europe (policy and facilitation)
- › Rule makers (security services etc.)

### Timing

Before the next Airport Exchange event in November in order to provide feedback to the conference.



# Appendix

1. PASSME Project
2. List of workshop participants (8-9 June 2016)

## Appendix 1: PASSME Project

### **PASSME**

PASSME, or Personalised Airport Systems for Seamless Mobility and Experience, is part of Horizon 2020, the largest EU Research and Innovation programme. The project seeks to deliver innovative, industry-driven, passenger-centric solutions for airports, passengers and airlines to address the expected increase in demand for commercial flights in Europe by 2050. Initiated by Delft University of Technology, the 36-month research project received € 4.7 million in funding from the EU and affiliated partners.

### *Objectives*

The overall ambition of PASSME is to achieve the following high-level targets.

1. Reduce the overall door-to-door travel time of passengers by 60 minutes, to be achieved by the following individual time savings:
  - › Faster luggage drop-off and collection (30 minutes)
  - › Reducing queues at key touchpoints through forecasting and capacity adaptations (10 minutes)
  - › Smart boarding systems (10 minutes)
  - › Reducing buffers due to increased predictability (10 minutes)
2. Provide passengers with continuous access to timely information in order to forecast demand more than 20 minutes in advance. We aim for a system that could be used by at least 80% of passengers, in turn leading to reduced buffers, and obtaining a 5% decrease in delays caused by passengers arriving late or not at all at the gate (which we expect to have a knock-on effect in further time savings).
3. Improve the quality of experience for at least 70% of the passengers throughout the door-to-door journey, through a highly personalised passenger-centric experience that will further contribute to time efficiency at the airport and informed decision-making by both passengers and airlines/airports.

## Appendix 2:

# List of workshop participants (8-9 June 2016)



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