within Europe. This substitution brings several advantages, reducing aviation emissions and helping to offset scarce airport capacity.

Smart mobility

Schiphol is taking the initiative in discussing the current bottlenecks and exploring possible solutions with various transport partners and interest groups. In 2017, we joined the Amsterdam Metropolitan Area (MRA)'s Smart Mobility Front Runner Group. More generally, we continuously look for smart and sustainable mobility solutions together with local authorities, educational establishments and major businesses in the region. Introducing car2go, an electric car-sharing initiative, and Uber to Schiphol's mobility mix are just two examples of future initiatives being considered.

Developing a digital mobility platform

In November 2018, Schiphol held an expert meeting with all regional public transport suppliers with a view to exploring the use of digitisation to improve travel, as well as travel information, between Schiphol and Amsterdam. The subject of the discussions was creating a joint digital mobility platform through which arriving passengers can buy their train or bus tickets in advance. By downloading the ticket on their phone, travelling to and from Amsterdam will be made easier, resulting in an improved passenger flow at the airport.

Security

Reliable and adequate security is crucial to airport operations. Together with our partners, we make every effort to put the best possible arrangements in place. Security at airports involves many parties in and around the terminal: alongside Schiphol and its staff, these include the Royal Netherlands Marechaussee (RNLM: military police), Dutch Customs and private security firms. Our aim is to comply with all security laws and regulations in a customer-friendly and cost-efficient way.

Landside safety

Guaranteeing the safety of Schiphol's landside areas is a key part of our short- and long-term decision-making. Following a series of terrorist attacks at other airports in recent years, we are working closely with different government parties to minimise the possibility and potential impact of any future attack.

We have a dedicated, multi-year landside safety programme in place to oversee and implement the measures assigned to Schiphol. The programme is based on a thorough threat and risk assessment for public areas, which was carried out under the direction of the public-private platform BPVS. Its purpose is to protect the airport's publicly accessible areas and assets against a possible attack without greatly impacting our day-to-day operations or the airport's welcoming atmosphere. Since

launching the programme in 2017, we have undertaken a number of non-visible measures to improve security and made several physical adjustments to our landside infrastructure. The latter category has included positioning concrete blocks on Jan Dellaertplein to widen the barrier between the front roads and the terminal.

Schiphol has been in close consultation with the Group's regional airports in developing and implementing the landside security programme, and we are also in communication with other international airports. A schedule of requirements has also been established to ensure that any physical security developments meet aviation industry requirements for explosion resistance in line with national and international airport standards.

Additional security measures for flights to the US

Schiphol currently has additional security measures in place for flights to the United States. The measures are the result of an emergency amendment made to American aviation security protocols by the US government in July 2017. Specifically, we have established a process for carrying out additional checks at relevant security gates in collaboration with the relevant airlines. The measures were further streamlined in preparation for new national legislation on security measures for flights to the US, which will take effect from early 2019. They entail, among others, the use of CT equipment and other technologies implemented over the course of 2018. The use of these new technologies such as CT scans has been well received by passengers and our sector partners at Schiphol.

These technologies and additional procedures are important in the ongoing discussions between the Dutch and US governments on the subject of preclearance. Preclearance is a service involving travellers passing through US border control at the airport of departure, thus avoiding long queues on arrival in the United States.

Brexit

On 29 March 2019, the United Kingdom plans to leave the EU. This may have an effect on airport operations. As a result, multiple scenarios and their effects on aviation regarding a possible 'no deal' or 'hard Brexit' have been evaluated in close cooperation with all relevant public and private stakeholders, both nationally and internationally. Following on from this, measures to mitigate the effects of possible Brexit scenarios have also been jointly developed. Both Schiphol and the Netherlands government successfully lobbied the European Commission to maintain One Stop Security (OSS) for passengers travelling to the Netherlands from the UK. In November 2018, the EU communicated a contingency action plan, which states that OSS arrangements between the EU and the United Kingdom will remain in force after Brexit, even in the event of a 'no deal' scenario.

One Stop Security is a provision under EU law, whereby passengers and luggage arriving from non-EU countries with

equivalent aviation security measures are not required to undergo additional security measures when transferring at Schiphol. This means that the impact on security operations from even a 'no-deal' scenario will be limited. Disruption to Customs and border procedures to and from the UK continues to feature in all scenarios, however, which is why Schiphol is continuing relevant preparations with all aviation partners. When the UK leaves with an agreed deal, there will be status quo on border and Customs procedures until 1 January 2021.

Alleviating pressure on security control and border control points

Our priority is to enable travellers to pass through security control as quickly as possible without compromising safety. Nevertheless, amid rapid growth in passenger volumes at Schiphol, staff shortages at border control have become a growing problem in recent years. In 2018, additional Royal Marechaussee immigration personnel were made available by the government and in 2019, the number of immigration agents at the airport is set to rise further, to a total of 417. Meanwhile, we are looking for new ways to improve passenger flows at border control points, including reassigning staff from other services during peak periods.

Speeding up security through automation

The ongoing automation of our border processes offers a further solution to Schiphol's security issues. Since 2017, we have been performing automated ID checks based on facial recognition using specially designed No-Q portals. 84 portals are now in place throughout the airport; approximately 12 million non-Schengen passengers made use of this facility in 2018, equivalent to one out of every three travellers through Schiphol. We are currently working with the Netherlands government and the technology supplier, Vision Box, to enhance the stability of the system.

In 2018, we took further steps to enhance passenger security flows by expanding our use of CT hand-baggage scanners. From 2019, all non-Schengen security lanes at Schiphol will be equipped with CT scanners, while our Schengen lanes will steadily introduce the technology over the following year. Our transition to CT scans complies with the requirements of the National Coordinator for Counterterrorism (NCTV). Moreover, it is helping to significantly improve the customer experience at Schiphol, allowing travellers the convenience of leaving liquids and electronics in their bag during security checks. Meanwhile, we have continued our use of 'small bags only' lanes during busy periods to relieve passenger congestion.

The innovations described above are proving successful in reducing wait times and queues, even during peak periods: in 2018, 93% of departing passengers experienced a wait time of ten minutes or less when passing through security.

New security lanes in Departures 1

The newly renovated Departure Hall 1 will see 22 new security lanes added to the Schiphol terminal, to be installed on a new

mezzanine floor. This additional capacity will minimise the time passengers spend in the security filter, resulting in a faster, smoother journey towards the Departure Lounge. The temporary Departure Hall 1A, which was completed in April 2017, continued to be operational throughout 2018 and will remain in place throughout the redevelopment.

Drones

The disruptions experienced at London's Gatwick and Heathrow airports in December 2018 have generated international debate regarding the best approach to prepare for - and deal with - drone-related issues at airports. In the Netherlands, the Ministry of Infrastructure and Water Management (I&W) and the police are jointly responsible for the preparation of anti-drone measures as well as the enforcement thereof.

Schiphol has taken the lead, in collaboration with the aviation sector and the relevant police authorities, in developing a risk-based approach to dealing with the risk of drone incursions. This approach will take into account the impact on aircraft operations and available mitigation measures, including anti-drone activities, bylaws governing the operation of drones in the airport's vicinity, and identifying the geographical boundaries of no-fly zones for drones at and around the airport (especially approach and take-off flight paths). We coordinate closely with the Royal Marechaussee to ensure that any new anti-drone measures do not create unintended safety hazards and unmitigated risks to other manned aircraft, authorised drones and aviation infrastructure. We also maintain close contact with our UK colleagues through Airports Council International (ACI), with a view to sharing experiences and lessons learnt on anti-drone measures and drone-related incidents.

Building IT resilience throughout our ecosystem and beyond

IT and cyber security are key priorities for our Group, reflecting our growing focus on the digitisation of our airport. Schiphol has put in place a dedicated IT security programme, overseen by the Schiphol Cyber Security Center (SCSC), to drive continuous improvement in our IT and information security processes. At the same time, our employees remain our strongest barrier against cyber threats, and we work hard to promote awareness among the workforce through regular campaigns and initiatives. We have also added a responsible disclosure notification feature to the Schiphol website, so that individuals can report IT breaches and vulnerabilities in a safe and structured way.

In 2018, the focus of our security programme shifted from our generic IT infrastructure to protecting our key IT assets. Among other developments, the year saw the launch of our dedicated 24/7 Security Operations Center (SOC), as well as the Incident & Response team (CSIRT), which will allow us to respond more effectively to cyber threats and attacks. Schiphol also participated in ENISA Cyber Europe, an industry event led by the European

Union to test and improve the response of aviation stakeholders to cyber-related crises.

In an increasingly digitised and technology-dependent world, we realise that a single weak link in the chain can have major repercussions for security across the wider ecosystem. More than ever, there is the need for an integrated approach to IT resilience that extends beyond our own business operations or the airport site itself. For these reasons, we play a leading role in the Cyber Synergy Schiphol Ecosystem (CYSSEC): a partnership for improving the cyber security and resilience of all private and public organisations involved in the chain of processes and services at Schiphol, while also exploring economic opportunities. In 2018, the CYSSEC organised a series of knowledge-sharing sessions for stakeholders and made key tools and information available via its online platform.

Schiphol is also a member of the Cyber Security Council, an independent Dutch advisory body tasked with providing advice on issues surrounding IT security and monitoring the execution of the National Cyber Security Strategy.

Regional significance

Airports have a significant economic impact on their surrounding regions. A survey of 500 EU companies found that 42% of businesses consider international transport links to be an important factor when choosing a location for their operations in Europe. Airports also generate employment. For example, Schiphol is home to about 500 companies, which, together with our own activities, currently employ approximately 67,000 people. Schiphol's overall employment contribution - including direct, indirect, induced and catalytic roles - is estimated to be about 300,000 jobs, though these figures vary per study.

Air travel is particularly important to the economy of the Netherlands, which, being the world's fifth-largest exporter, relies on having excellent air connectivity with its trade partners. Indeed, over one-third of Dutch GDP depends on foreign markets, much of this generated through business services, a category which depends heavily on international face-to-face contacts.

Economic significance applies to both hub and regional airports. The connectivity provided via Schiphol and the airports in our Group offer clear benefits to the businesses located in the Randstad and the Netherlands; our airports are important reasons why numerous multinationals, NGOs and institutions choose this part of the world to base their headquarters or distribution centres. A quick-scan social cost-benefit analysis performed by economic research and consulting company, Decisio, estimates that further development of the Dutch air transport sector would contribute an additional 4% to GDP.

Tourism and conference hosting
Tourism and conference hosting make an important contribution to the Dutch economy. The number of inbound tourists to the Netherlands increased by 7% in 2018, to reach 19.1 million. The Netherlands Office for Tourism & Conferences (NBTC) expects tourist inflows to continue rising in 2019 in line with persisting economic growth in key markets, and projects the number of foreign tourists in the Netherlands to grow by at least 50% between now and 2030. However, capacity constraints at Schiphol, combined with perceived tourism pressure on Amsterdam and the rising cost of hotel accommodation, may see growth soften in the short term.

The excellent connectivity of the Netherlands also makes it a popular destination for conferences and exhibitions. According to the latest data of the International Congress and Convention Association (ICCA), the Netherlands ranks tenth globally for the number of international association meetings and is number six for this metric in Europe.