Trends and developments

# Flexibility and responsiveness

A robust, futureproof strategy is vital for our business. In developing this strategy, Royal Schiphol Group must anticipate a wide range of potential scenarios. We keep a close eye on emerging trends that could impact our operations and track the most important risks and opportunities. Business flexibility is essential in enabling us to adjust our strategy in response to new developments when necessary.

Economic and societal developments

Economic growth

Economic growth and trade are strong drivers of air travel. A growing economy and rising disposable incomes allow people to spend more money on holidays and trips abroad, while companies also expand their travel budgets. Healthy growth across the European and the wider global economy has directly benefitted the aviation industry in recent years. The number of passengers flying from European airports rose again in 2018, while the region's cargo volumes and air transport movements also grew overall. Closer to home, the Dutch economy expanded by 2.5%, providing a solid platform for local air travel demand.

While forecasters still project positive economic momentum over the coming years, several sources expect the pace of growth to gradually decelerate due to geopolitical instability caused by Brexit, trade disputes, rising oil prices, and other factors. Despite these risk factors, Boeing forecasts air travel to, from and within Europe to continue growing at an average 3.8% annual pace through to 2037. A fast-expanding global middle class, including increasing numbers of Chinese and Indian travellers, will be an important driver.
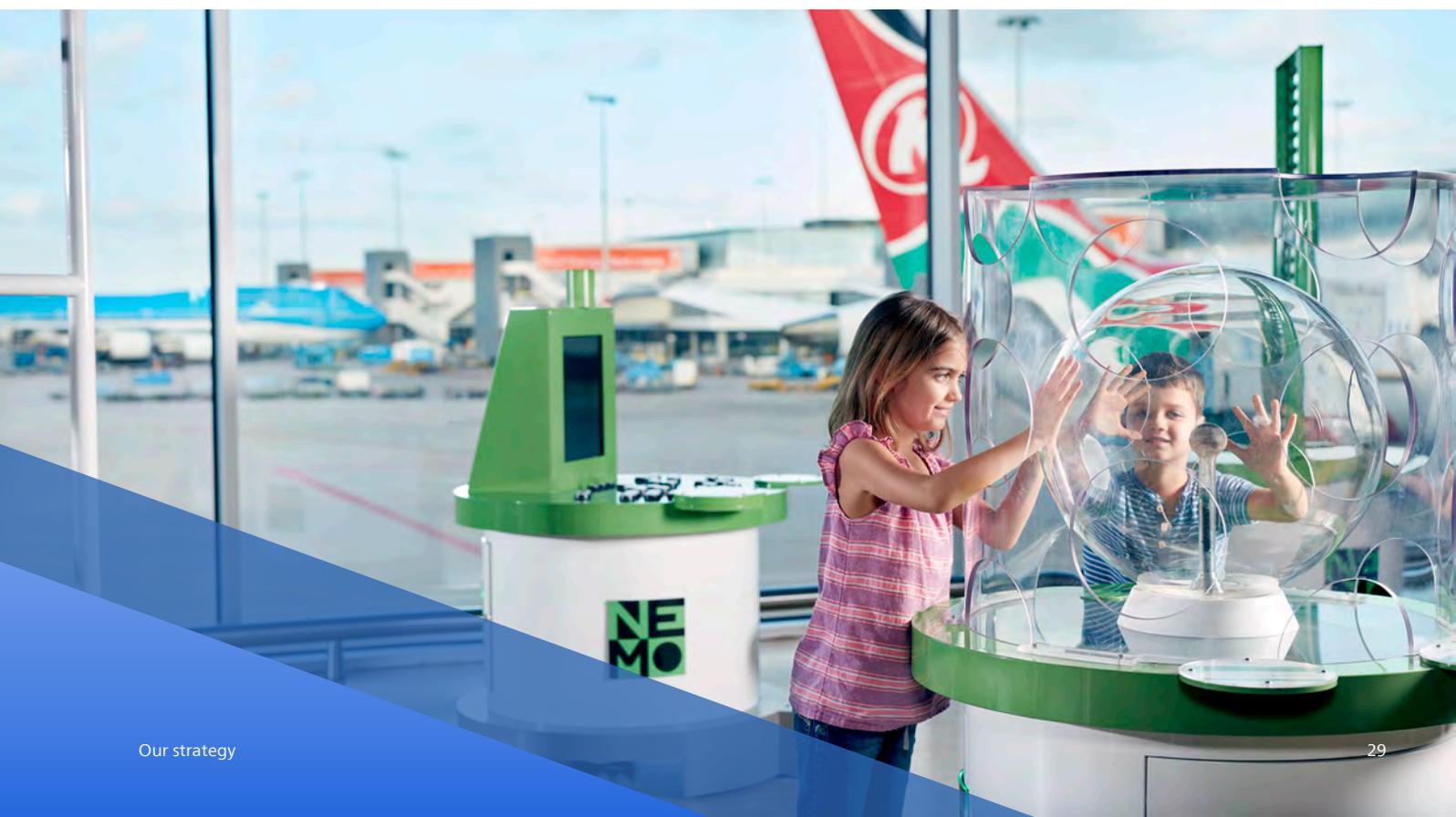
Climate and sustainability top of mind

Reducing carbon emissions to limit global temperature increases to 1.5-2 degrees Celsius is a major global challenge. Aviation accounts for 2-3% of global carbon emissions and 7-8% of Dutch carbon emissions, according to EU estimates. As demand for air travel grows and other industries transition to alternative energy sources, the relative environmental impact of aviation organisations looks set to increase. With society and policymakers increasingly aware of the environmental impact of aviation, this critical issue has become a key priority for our industry and is increasingly a central topic in aviation-related discussions. Indeed, a number of partners from across the Dutch aviation sector have joined forces to address this very issue, by developing the Smart and Sustainable action plan.

Aviation is a key topic of debate around the Dutch 'climate agreement' and also features prominently in European environmental legislation, including the European Emissions Trading System (EU ETS). We also highlight the importance of industry-wide sustainability agreements, most notably the International Air Transport Association (IATA) targets to increase fuel efficiency by 1.5% per annum, to deliver carbon-neutral growth from 2020, and to lower carbon emissions to 50% of 2005 levels by 2050. Meeting these targets will require Schiphol to embrace innovative solutions and technologies, including increased use of biofuels in the short term. Looking further ahead, technologies and alternative fuels - such as bio and synthetic kerosene and hydrogen, hyperloop technology, hybrid-electric vehicles, and even the transition to fully electric flying - are likely to play their part in driving down carbon emissions, while also reducing noise and improving air quality.

Tourism: Challenges and opportunities

Tourism is an important source of income and employment for countries around the world, not least the Netherlands. Our country welcomed 19.1 million international tourists in 2018, a significant number of whom visited Amsterdam. However, despite its many economic and reputational benefits, the downsides of mass tourism are increasingly being felt both here and abroad. Overcrowded city centres and tourist attractions impair the visitor experience, while also making these areas less attractive for local residents.

Society's changing stance towards tourism and its effects is being reflected in policymaking. Increasingly, municipalities are trying to limit visitor numbers by capping Airbnb stays and other short-term rentals, or new hotel beds. Meanwhile, European governments are exploring ways to spread tourist inflows more evenly across different cities and regions. Measures taken by the Dutch government and by cities such as Amsterdam, Rotterdam and The Hague to regulate tourism are likely to have a bearing on incoming air travel demand in the near future.

Geopolitics and Brexit

Geopolitical instability has the potential to disrupt our business regardless of the macroeconomic environment, with Brexit an area of particular concern. The UK is a key market for Amsterdam Schiphol Airport, contributing about 15% of all passenger flows. What's more, with 26 destinations across the UK (compared with the eight offered by Heathrow), Schiphol is a crucial hub for the UK market.

Beyond its potential impact on trade and mobility, unless there is a timely agreement on UK-EU aviation relations, Brexit may also affect the landing rights of European carriers both in the UK and mainland Europe. The same holds true for the One Stop Security (OSS) protocols in place across the EU, which prevent UK passengers from having to re-screen at security when connecting via Amsterdam. Schiphol Group therefore welcomes the communication by the EC that the OSS will remain in place after Brexit, and that basic traffic rights are guaranteed in the event of a 'no-deal' scenario.

The global trend towards protectionism is a further concern. In 2018, new protectionist legislation was introduced in the US, leading to the EU and China enforcing their own trade tariffs. The growing shift away from liberalisation in certain parts of the world has the potential to inhibit international trade and aviation demand. Demand for air cargo services, which depends on the ease of trading goods, may be affected.

The UK Market and Brexit

The United Kingdom is Schiphol's largest passenger market. Amsterdam Airport Schiphol is directly connected to 26 destinations in the UK on a daily basis: London (City, Gatwick, Heathrow, Luton, Southend and Stansted), Manchester, Birmingham, Edinburgh, Bristol, Glasgow, Newcastle, Aberdeen, Leeds Bradford, Southampton, Liverpool, Norwich, Cardiff, Belfast (City and Intl Airport), Humberside, Durham Tees Valley, Inverness, Doncaster Sheffield, Exeter, and East Midlands. On average 254 flights run between the UK and Schiphol each day; in total, 10.4 million passengers travel on these routes during an average year, of whom 26% transfer at Schiphol. Given the size and importance of the UK market, Brexit is expected to have a significant impact on our Customs operations. For further information, see Security in Network, capacity and security.

Industry developments

Airline business models: The drive towards consolidation

Much of the growth in passenger numbers and direct connections at European airports over the past decade has been generated by low-cost carriers (LCCs) increasing their share of the market. According to Airports Council International Europe (ACI Europe), LCCs accounted for 84% of the region's passenger growth between 2007 and 2017.

However, the traditional low-cost business model is evolving into more of a hybrid model: LCCs are moving upmarket, targeting higher numbers of business travellers and increasingly serving primary airports. Meanwhile, some low-cost carriers are focusing increasingly on transfer traffic, while others are making use of new-generation aircraft to expand their long-haul networks. In particular, modern narrow-body designs, such as the Boeing 737 Max and the Airbus A321neo, allow airlines to fly non-stop from Europe to the US East Coast with smaller planes that are easier to fill. Smaller planes flying long-haul from smaller airports (a trend known as 'hub-bypassing') challenges the traditional long-haul model.

Given Schiphol's relatively small catchment area, the hub operation of Air France-KLM with SkyTeam and the other carriers remains central to the airport's connectivity performance. At the same time, we see divergent industry trends materialising: easyJet added Amsterdam Schiphol to its 'Worldwide by easyJet' connections programme in early 2018, enabling passengers to book connecting flights operated by easyJet and partner airlines through Schiphol. Norwegian Air also launched its long-haul Amsterdam-to-New York operation in May. More generally, as well as creating additional competition within Europe, 'hub-bypassing' will allow narrow-body aircraft to fly long-haul routes from Amsterdam to smaller cities in North America and other non-European locations.

A growing capacity challenge

Airport capacity is an increasingly scarce resource across Europe. According to Eurocontrol's 'Challenges of Growth' 2018 report, 16 large European airports will be congested by 2040, with an estimated 1.5 million flights and 160 million passengers unable to be accommodated. The impact of the 500,000 ceiling for air transport movements until the 2020/2021 winter season at Schiphol is being felt by the sector. In 2018, there was limited air traffic growth, though passenger volumes at Schiphol continued to rise, growing by 3.7% (2017: 8.4%) due to higher load factors and larger aircraft. This is also affecting cargo operations, with freight carriers gradually being pushed out. Cargo movements at Amsterdam Airport Schiphol decreased by 10.4% in 2018, largely due to slot unavailability. Schiphol has to accommodate growing numbers of larger, wide-body passenger aircraft requiring access to aprons rather than passenger bridges.

Safety takes centre stage

Safety is among the top priorities for every airport. While Schiphol has the highest airport safety standards in place, we are implementing a range of additional safety initiatives across our Group operations as we look to accommodate a growing passenger volume. Furthermore, we have been working with other industry stakeholders to deliver the Safety Improvement Roadmap Schiphol as part of the Integral Safety Management System (ISMS) collaboration. The roadmap, which was published online in October 2018, outlines measures taking place across the aviation industry to ensure the safety of passengers, personnel and local residents.

Embracing the digital age

Perhaps more than any other trend, digitisation and innovation will shape the future of air travel over the coming decades. As well as offering complementary services, virtual and augmented reality also represent potential long-term alternatives to the experience of physical travel. Meanwhile, self-connect and travel

Future Dutch aviation tax

In 2018, the Dutch government's proposed reintroduction of a national aviation tax moved a step closer to reality. The government presented a draft act to the Council State in which it proposed introducing a 7-euro levy per departing passenger (excluding transfers) and a separate levy for full freighter cargo aircraft. Both levies will come into effect from 2021. However, the government has stated its willingness to withdraw its plans if Europe can agree on a pan-European tax scheme.

Stakeholders were asked to make their views on the tax known via an online consultation. In its contribution, Schiphol indicated that it does not support any taxation system where the sole intention is to fill gaps in the national budget. Moreover, research undertaken by independent consultancy firm CE Delft suggests that taxing passengers will not generate a significant sustainability contribution. Schiphol stated that, if a tax is introduced, the revenue should be reinvested into sustainable aviation and regional development.

integrator services are likely to drive changes to airline business models and airport operations.

Digitisation can also help airports meet the demands and expectations of modern consumers. Machine learning and data integration are just some of the emerging technologies that can help deliver enhanced, personalised customer journeys. Technology can also provide clear benefits at an operational level: initiatives such as 'biometric boarding', pre-screening of passengers, and eliminating the re-screening of connecting passengers have the potential to streamline passenger flows and provide a seamless travel experience. Schiphol Group is actively working to develop new digital solutions aimed at driving passenger satisfaction.

What it means for our airports

The trends and developments discussed above will directly affect the decisions and strategic direction taken by Royal Schiphol Group over the coming years, and our response can be found throughout this strategy section. In particular, we will focus on finding the balance between quality of life and quality of network, because of the responsibility we have to local residents and future generations. We also need to actively reduce noise hindrance, regain trust and help to make the sector more sustainable.

While Amsterdam Airport Schiphol continues to be regarded as one of Europe's top hub airports, we note that the air transport movement cap in place is likely to affect our positioning going forward. Nevertheless, the trend towards larger aircraft and higher load factors will soften the direct effects of the air transport movement ceiling at Schiphol as well as our other airports. We expect political decisions to be made this year that will determine the pace of development after 2020. This includes the opening of Lelystad Airport to commercial traffic.

More information on our regional airports can be found in the Regional airports chapter of the annual report.

Material aspects for stakeholders

Schiphol Group is in regular dialogue with a wide range of stakeholders, who together represent a diverse set of priorities and interests. Our stakeholders vary from sector partners and government authorities to Schiphol employees, local residents and passengers.

As important as it is to be aware of trends and developments, we cannot take full advantage of Royal Schiphol Group's unique socio-economic function without first taking into account the needs and opinions of our stakeholder base. In this sense, our function and our responsibilities extend far beyond the Schiphol site. Equally, our regional airports play an important role in their respective regions and in fulfilling our Group mission to connect the Netherlands. We communicate regularly with stakeholders at various levels, addressing a wide range of material aspects.

The frequency and type of contact we maintain with our various stakeholders is diverse. We consult with our sector partners on a daily basis regarding operational and tactical matters, and there is a fixed schedule of consultations aimed at ensuring safe, efficient operations. Schiphol has plans in place to deal with operational disruptions or emergency situations, and we conduct training sessions and assessments with the sector on a consistent basis. We regularly invite our stakeholders to visit our premises and share information about day-to-day activities, laws and regulations, as well as large-scale investments, renovation projects, and other important developments. The Royal Schiphol Group Management Board is actively involved in these exchanges.