Airport capacity

As the demand for our services has grown, capacity has become an increasingly critical issue at Schiphol in recent years. We strive to offer our travellers and other visitors an efficient, enjoyable and safe user experience at all times. To ensure these objectives are met, Schiphol Group is undertaking a series of investments and other initiatives aimed at meeting our future capacity needs, both in the immediate future as well as the long term. Our goal is to carry out investment projects and to begin implementing projects relating to the Capital Programme. The latter include various capacity-related projects and initial construction work on the landside roads and new pier. In 2018, construction work on the landside roads and the new pier commenced. We note that not all projects have been realised in accordance with planning, for various reasons.

We will be undertaking major expansion and redevelopment work at the airport over the coming months and years, as we look to add new physical capacity, while also working to improve quality and further optimise our processes.

Master Plan

A large number of investments are planned, the main ones being our new pier and terminal, the revised landside road infrastructure and the renovation of Departure Hall 1. There are also plans in place to extend the airport’s parking facilities.

Taking into account evolving industry and societal trends and developments, we are currently exploring several options for the smart and sustainable development of our airport, both landside and airside. These spatial developments will be incorporated into a new Master Plan for Schiphol, with a particular focus on the phase to follow the completion of the new pier and terminal. We will, of course, be involving important stakeholders in this process.

Our plans extend further still. The world around us is changing rapidly, and this requires Schiphol to take a proactive, future-focused approach, taking into account key societal issues such as climate change, emissions and, of course, safety and security. Responses to those issues will be detailed in Schiphol’s new ‘Vision 2050’ document, in which we will set out the course we intend to take through to 2050. It will form the basis for Schiphol’s spatial development vision and Master Plan. Please consult the Strategy chapter of the annual report for further information on Vision 2050.

The new pier and terminal

Development of the new pier continued at a steady pace through 2018, building on the groundwork and other preparatory work that took place in 2017. Piling work was completed during the course of the year, and the pier’s foundations were subsequently put in place. BN-TAV, a joint venture between Ballast Nedam and TAV Construction, was selected as general contractor for the project. This allowed construction work to begin, starting with the erection of the steel structure of the pier. The pier will become operational next year.

The new pier, which will accommodate large and medium-sized aircraft, will allow a much-needed expansion of our current capacity, enabling us to meet the demand for aircraft stands and gates at Schiphol. Two further stands for large aircraft will be added to the pier at a later stage.

Cargo volumes and growth by continent

Schiphol cargo x 1,000 tonnes (growth versus 2017)
Our results

The new terminal will be built on the roof of Baggage Hall South, occupying some of the space where the P2 multi-storey car park was formerly located. A preliminary design was delivered by the terminal designer in November 2018. The new terminal building will feature a connection to the existing terminal, allowing us to continue offering passengers the much-appreciated ‘one terminal’ concept. Accommodating the new pier and terminal requires the relocation of underground utilities on the Havenmeesterweg, along with adjustments to the adjacent road infrastructure.

Reflecting our ambition to become a zero-emissions airport by 2030, the terminal and new pier will be designed to high sustainability and environmental standards, and both will receive Leadership in Energy and Environmental Design (LEED) Gold certification.

Redevelopment of Departure Hall 1 and Departure Lounge 1

We are redeveloping Departure Hall 1 as part of our ongoing efforts to relieve congestion within the terminal and support the growing number of passengers travelling to and from Schengen destinations.

In 2019, we will finalise our plans for redesigning the existing departure halls within the Schiphol terminal. These plans include extending the mezzanine floor above Departure Hall 2 to Departure Hall 1 in order to create an enlarged security floor that will accommodate the Schengen filter. We will also be able to make flexible use of the Departure Hall 1 and 2 security lanes depending on demand, adding speed and comfort for passengers as they go through security. The relocation of the Schengen security filter, currently located on the same level as the check-in desks, will free up space for an extended check-in and bag-drop area.

Preparatory work on the renovation of Departure Hall 1 began in 2018, and we also started creating a temporary security filter to manage passenger flows during the redevelopment project. We are rerouting the passenger walking routes linking Arrivals and Schiphol Plaza to the departure halls on the floor above. The extension of the mezzanine will have consequences for a number of commercial operations.

Additional aircraft stands

The growing trend towards larger aircraft at Schiphol has put increasing strain on the airport’s wide-body connected handling capacity, leading us to introduce an additional parameter in the Capacity Declaration (more information on this development can be found in Network of destinations). Meanwhile, we are actively working to address the current shortage of connected gates and parking stands by expanding one of Schiphol’s remote holding locations, the Uniform Platform, in a series of stages. Phase 1 of construction was completed in November 2018, adding four new buffer spaces, with a further three spaces still to be built.

Coming soon: Fully automated passenger bridge

Full Automatic Connection, a collaboration between Schiphol, KLM and the supplier of our passenger bridges, CIMC-Tianda, is developing a prototype of a solution that enables the passenger bridge to connect itself automatically to awaiting aircraft. An automatically connecting bridge offers a number of potential advantages: the connection time is shortened to less than a minute, resulting in much-reduced waiting times for passengers boarding or leaving the aircraft; the entire turnaround process is also shortened, and there is a reduced chance of malfunctions or damage due to operational errors.

The fully automated passenger bridge is an entirely new innovation; if the prototype proves successful, Schiphol will be the first airport in the world to use the technology.
The development of six cargo parking places at Schiphol-Southeast also progressed steadily through 2018. In view of the current shortages, the ten temporary remote handling positions that were brought into use at the E, G and J buffers in 2018 will be also made suitable as final positions for remote handling.

Expanding Taxiway Quebec
Schiphol is in the process of expanding Taxiway Quebec from a singular taxiway into a dual taxiway consisting of two separate lanes. This conversion is part of the wider ‘Completion dual taxiway system’ project: the entire lane system around the terminal is being converted into a double-lane format in order to expand the airport’s ground handling capacity and improve flexibility.

The doubling of Quebec lane will also help improve safety across Schiphol’s ground operations, forming part of the Roadmap Safety Improvement Schiphol put in place by the Integral Safety Management System (ISMS) collaboration. Having a two-way traffic flow makes the work of Air Traffic Control far clearer, reducing operational risks. It will also have a direct environmental benefit, with an improved airside flow of traffic enabling a reduction in carbon emissions. Further details of the ISMS and the Roadmap can be found in Safety, within People, environment and community.

Adding the second Quebec taxiway will be complex: a second viaduct must first be built over the A4 motorway, existing infrastructure above and below ground will require modification, and a number of buildings will need to be demolished.

Proposed 'local rule' moves closer
Severe weather conditions and other extreme events can have a major impact on capacity at our airport. To mitigate this, Schiphol convenes a meeting, involving our home carrier, KLM, as well as Air Traffic Control (ATC) and the weather service, to assess the situation one or two days in advance of anticipated events. Based on the outcome, Schiphol can decide to send out an alert to the airlines one day in advance requesting that they reduce their flight volume during the period in question.

This request for voluntary capacity reduction has been in place for many years; however, rapid growth in air transport movements has left less and less room for such contingency measures. In order to prevent incidences of over demand, Schiphol has proposed a ‘local’ rule, which would strengthen our response to anticipated capacity issues. Similar to the voluntary procedure, under the proposed rule, the airport can make a request for voluntary schedule adjustments during the impacted period, provided each of the parties agrees. If the requested voluntary schedule adjustments are still deemed insufficient, the airport can force airlines to adjust their schedules, but only as a last resort.

The proposed rule has been discussed by a dedicated task force comprising members of the Slot Performance Committee as well as other key industry representatives. In September 2018, the proposal was approved by a majority of votes at an extraordinary meeting of the Coordination Committee the Netherlands (CCN). The proposal for the local rule is currently awaiting approval by the Dutch Ministry of Infrastructure and Water Management (I&W).

Mid-Term Plan
In the autumn of 2018 we began work on our Mid-Term Plan, to cover the period up to and including 2027. This will be an integral plan covering airside and landside development. It seeks to supplement the expansion of our physical capacity over the next few years with additional asset, non-asset and digital solutions. We have already communicated our capacity needs up until 2023 with the airlines.
Our results

Dutch airports depend on a sophisticated network of domestic and international multimodal connections to ensure their strong competitive position. Travellers choose an airport primarily based on ticket prices, destinations and flight frequencies, but also on its transport connections and ease of access. Similarly, accessibility is one of the most important factors for businesses when selecting a location for their operations.

As the number of visitors to our airport grows, the roads, railway station and parking facilities at Schiphol are increasingly busy. Meanwhile, security measures are putting additional pressure on our landside infrastructure capacity. More than ever, there is a need for new accessibility options; self-driving cars, car-sharing and other emerging solutions have the potential to add value to our offering, and we are keeping a close eye on future innovations such as the Hyperloop.

The emphasis of our long-term mobility strategy is on collective, clean transport. This strategy includes a re-examination of the layout of the airport’s access and drop-off roads and examines ways to improve accessibility by motorcycle, scooter and bicycle. By providing excellent public transport connections, we encourage passengers to travel to and from Schiphol by train. Equally, we dissuade passengers travelling by car from being picked up and dropped off, as this creates four transport movements instead of two.

Further to this, the Schiphol Landside Infrastructure and Mobility (SLIM) programme structure has been put in place to integrate and coordinate all landside development projects at the Schiphol site so that they don’t significantly impact accessibility.

Travelling to Schiphol by train
It is vital for Schiphol to have strong train connections to prime locations such as Amsterdam and surrounding areas, as well as major economic centres across the Netherlands and other parts of Europe. At present, passengers can take the high-speed Thalys train from Schiphol to Antwerp, Brussels and Paris. However, the Eurostar to London doesn’t currently stop at Schiphol, and we lack a high-speed connection with Germany. Likewise, a reliable, fast connection between Schiphol and Eindhoven’s Brainport region would further strengthen the international business climate of the Netherlands.

Getting to Schiphol by bus and bicycle
Public bus use to and from Schiphol is on the rise, with demand especially high on the Sternet route to central Amsterdam. The new express bus connection at Schiphol-East, which we are developing in partnership with local authorities and the Amsterdam Transport Region, has been delayed due to PFOS-contaminated soil. We expect the route to be fully operational from 2024; in the meantime, we are providing public transport

Travel to Schiphol baggage-free

In 2018, Schiphol extended its baggage home pick-up pilot service in collaboration with PostNL, as well as Corendon and Transavia. The service offered passengers the convenience of being able to check in and ‘drop off’ their baggage at their home address, allowing them to travel to Schiphol baggage-free and head straight through to security on arriving at the terminal. It is hoped that such a service will encourage the use of public transport to and from Schiphol, while also helping to relieve pressure on the airport’s check-in processes.

We aim to explore new ways to expand the baggage collection service in 2019. In addition to home pickup, we are looking for ways to introduce baggage drop-off point at strategically important locations, including conference centres, hotels and cruise terminals. These kinds of innovations are also likely to have an important long-term role in driving sustainable mobility practices.