

assessments by Schiphol's contractors have concluded the contaminated soil so far poses no significant health risk to those who come into contact with it. Nevertheless, we continue to make every effort to find a long-term solution to this issue.

Schiphol examines the environmental threat of PFOS on a case-by-case basis. Contaminated soil is typically excavated in the event of construction and development projects; however, the ban on dumping requires us to store the affected material on site rather than removing or recycling it. As such, approximately 100,000 cubic metres of soil excavated from the Schiphol site is currently stored in depots awaiting redistribution or decontamination. By applying the municipal reuse policy, we were able to re-purpose approximately 50,000 cubic metres of soil for land reclamation or other uses during 2018. We have also held discussions with the Ministry of I&W regarding a proposed national policy for managing PFOS-contaminated land. Our hope is that such a policy would eliminate the requirement to store soil, while also alleviating the substantial delays and costs associated with PFOS disposal. We will continue to monitor developments over 2019.

## Raw materials and residual flows

The earth cannot endlessly supply raw materials, so it is essential that, as an organisation, we make the shift from a linear economy to a circular economy. To this end, Schiphol Group takes a responsible approach to our use of natural resources and other materials, and we are committed to operating zero-waste airports by 2030. This means that any raw materials, components or products we use are reused or recycled to the highest possible standard, preferably at our own locations, or else as close to our airports as possible. In light of our vision, we refer to 'residuals' and not 'waste', since every residual retains some form of value. As we work towards our goal, we are adapting our activities in line with the circular economy. These processes include construction and design, as well as our use of raw materials and our management of residual flows.

Accordingly, we are working to speed up the integration of recycling and other circular concepts; however, we recognise that Schiphol still has a long way to go in making this transition. A key step in this process involves taking responsibility for how we use and dispose of materials across our operations. From reducing our dependency on raw materials and changing how we design and construct assets to strengthening our waste separation and recycling processes, we will be working with our stakeholders and partners over the coming years to make positive, long-term changes to our airport processes.

### Mindful resource use

As a starting point, we have been looking critically at our construction methods, our waste processes and our use of materials to better understand them and the impact on the

environment. Schiphol is currently working with Milgro, a cleantech company that uses ICT platforms to help organisations monitor and manage waste and resources in a more efficient way. In 2018, we ran a pilot programme for customers using the business class lounges of British Airways and SwissPort to test the registration system provided by Milgro. The aim was to determine whether the system provides sufficient insight into the residual flows from companies located within the terminal and to establish the basis for a reward system for sustainable and circular behaviour. Unfortunately, we had to terminate the pilot earlier than planned due to organisational issues. We will resume our measuring activities in 2019.

Schiphol also undertook a number of proactive efforts to drive passenger awareness around waste separation over the course of the year. Despite our efforts to promote best practice, it is unrealistic to expect to be able to influence the actions of many millions of passengers each year. In particular, it is now apparent that we will not achieve significantly higher separation percentages in the terminal than the current 40-45% level (we have been able to achieve 80% separation at our offices as we have greater influence over our employees' behaviour). As such, Schiphol and Suez are researching post-separation technology to help identify different routes to reaching the separation targets.

### Design for disassembly

A central element of our zero-waste approach will involve the gradual integration of circular building design and construction methods into our assets and real estate development strategy. Our ultimate goal is to implement design for disassembly principles for all new constructions, allowing physical assets and materials to be easily salvaged and repurposed for new projects. Schiphol's Circular Economy (CE) Task Force, which was set up in 2017, had a pivotal role in driving this approach.

A key recent focus of Schiphol's design for disassembly strategy has involved identifying bottlenecks within our organisation that may be holding back the advancement of circular building approaches. In particular, much was learned from the Pier C renovation project: while circular concepts were used in designing the renovated pier, unfortunately, we were ultimately unable to utilise circular processes as part of the project. Nevertheless, the project proved to be a valuable learning exercise that will inform future developments.

### Closing the loop: Advancing strategic resource management

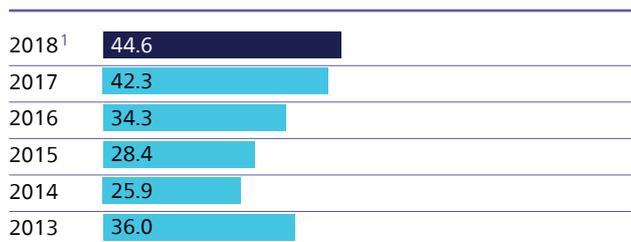
For Schiphol to become its own fully circular economy, it is imperative that all of our value chain partners are equally engaged in this mission and 100% aligned in their goals. In 2018, we continued to adapt our contracting and tendering practices to reflect this need. Circularity was a decisive factor in selecting a new display supplier (Display As A Service) and a visual docking guidance system provider.

In addition to partnering with like-minded companies on site, we are also working to spread circular knowledge and practices to other organisations in our region. 2018 saw the launch of C-creators: a partnership between Royal Schiphol Group, Rabobank Regio Schiphol and the municipality of Amsterdam to advance circular construction in the Amsterdam Metropolitan Area (MRA). The programme organises masterclasses and events and supports relevant construction projects throughout the region. Indeed, Schiphol's Flexoffice and Innovation Lab are among the initiatives to have already received support from C-creators.

Equally, we recognise the value that other organisations can add to our own circular processes and methodologies, and we are increasingly looking to bring new skills and tools into the airport environment. In 2018, Schiphol joined a pilot led by Excess Materials Exchange (EME), a digital marketplace where companies can exchange surplus products and materials. Through this innovative pilot, we have gained further insight into the residual flows of shops and catering outlets in the terminal, putting us in a stronger position to identify the optimal recycling options for all of our residual flows. We will conduct further research into our flows in 2019.

We are working with our strategic partner, Suez, to ensure these flows are reused or recycled to the maximum extent possible. By 2020, we aim to recycle at least 70% of the operational residual flows at Schiphol, up from 44.6% in 2018 and 42.3% in 2017. Construction and demolition waste and CAT1 waste from aircraft are not included in these targets, as they are separated and processed by business partners at our location.

**Percentage of separated operational residual flows**  
(per year at Amsterdam Airport Schiphol)



<sup>1</sup> Excluding CAT1 aircraft waste.

**Community engagement**

At Schiphol, we make every effort to listen to the needs and wishes of our local communities and are keen that residents view us as a good neighbour. As we work to fulfil our mission of strengthening Mainport Schiphol, it is more important than ever that we listen closely to the concerns of families, individuals and businesses affected by our activities. We recognise the negative effects of our

business, such as noise and emissions, and continue working hard to ensure we have a positive impact on our region.

As in previous years, Schiphol organised a range of initiatives and events throughout 2018 aimed at fostering engagement with local neighbourhoods, setting ourselves the target of organising at least four stakeholder dialogues. Our community engagement programme remains a key focus in 2019, and we will continue to explore ways to promote dialogue with our neighbours and engage different stakeholder groups.

**Schiphol Aviation Community**

Schiphol stimulates regional employment through initiatives such as the Schiphol Aviation Community: a partnership with KLM and the Regional Training Centre (ROC) of Amsterdam aimed at developing and organising working and learning programmes for the aviation industry. The key focus in 2018 was on the development of IT skills; over the next few years, the Community will concentrate on labour security, vitality and attractive employment practices. One of its major successes since formation has been the 'one-stop desk' programme where employers across the Amsterdam Metropolitan Regions (MRA) are connected with potential employees through speed dates, job markets and inventories of talented people.

The Community also plays a coordinating role in the Aviation Inclusive programme: an initiative supporting people who have difficulty accessing employment. The programme took shape in 2016; since then, participation has expanded to include 36 employers at the Schiphol site. A great many individuals have found work through the scheme, including over 50 people in 2018 alone.

**Projects for young people**

Young people today are increasingly outspoken, and many are keen to have a say on issues affecting their local communities. As part of our efforts to engage with future generations, we reach out to children in nearby communities through educational activities at the Schiphol site and by involving them in discussions relating to the airport's future. We have also created a Schiphol teaching package aimed at introducing school children aged 11 to 12 to our airport in a fun way. The module consists of teaching materials for the students and a manual for teachers; further information can be found on the '[You and Schiphol](#)' website.

Schiphol is also a longtime supporter of JINC, a non-profit organisation working with children aged 8 to 16 from deprived areas to ensure they make a smooth entry into the world of work. The JINC programme offers the children an insight into different professions and encourages them to explore roles that fit their talents. Schiphol plays an active role, from organising insight days at the airport to 'language trips' where children with language difficulties are given help developing their vocabulary.