Zustainability report

Mobility
Public space
Buildings
Energy
Waste and Circularity
Water and Greenery
Community

Hello Zuidas Green Business Club Zuidas Zuidas Amsterdam Development Office



Foreword



Photo: Anne Imfeld

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What does art in public spaces and a locally brewed beer have to do with sustainability? Somebody asked this question at the presentation of last year's edition of this report. A valid question.

The relationship between sustainability and the 'nicer' things, quality of life, can be problematic. To live more sustainably, we need to make concessions. Give up the fast company car, choose meals more carefully, consume less and adhere to stricter (building) rules: sustainability requires work, and sometimes, it even hurts a little.

Nevertheless, we believe that sustainability and quality of life can go hand in hand, and can even reinforce each other. Even more so, one cannot be without the other, as sustainability also means future-proof, and in the domain of urban development, this can only be achieved if space is given to human development, a pleasant,

attractive living and work environment with social cohesion. For this reason this Zuidas sustainably report includes initiatives and activities that strengthen liveability and liveliness. Therefore, aside from the latest developments on energy savings and mobility, you will also find, for example, an electric delivery van that Zuidas companies have donated to the food bank (Voedselbank), as well as the 'Get Lost' art route and other cultural subjects.

In the domain of more 'serious' sustainability, Zuidas made strong progress in the last year. Zuidas Amsterdam Development Office has issued 'building envelopes' for developers, with guidelines for nature, water and sustainability. For example, new developments must include high-quality green on roofs, the electricity network has been worked on extensively, as we want to move Zuidas away from the reliance on natural gas, and we also worked intensively on intelligent city logistics to reduce the constant inflow of deliveries in the area. These measures, combined with the 'soft measures' mentioned earlier, have made Zuidas a more pleasant and more liveable place in 2018. Sustainability can hurt sometimes, but it makes life better in the end.

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Beyond the business case

Working in Zuidas, I often see people pitching creative, clever and sustainable projects to companies. Most of these start-ups construct a logical narrative – starting with a problem, ending with its solution – all supported by a proper business case. That business case is provided to convince companies to participate or invest. The start-up proposes a win-win scenario: its product or service is environmentally friendly and the potential investor saves money or stands to earn more money: everybody is happy.

There are a lot of opportunities for smart and innovative companies during this energy transition, also in Zuidas. But for now, more than anything, the transition will cost a lot of money. Yet, the more we spend now, the less it will cost us in the future.

In its bi-annual risk analysis the Dutch Central Bank (DNB) warns about the financial consequences of waiting too long before executing a radical climate policy. "Delay increases the risk that 'abrupt' measures will be necessary, which could lead to 'heavy losses' for the Dutch financial sector" (NRC, 18 October 2018). The Dutch National Bank thereafter presents four possible scenarios in which far-reaching climate policy, increased CO2 prices and linked energy prices cause from 48 up to 159 billion Euros of losses; 'only' 48 billion if we act quickly and accurately now, 159 billion in the worst scenario, if we wait too long. And these losses don't even include actual investments in solutions, we're talking about pure devaluation

We cannot avoid that the measures we need to take, will affect the economy; companies and personal finances, regardless of income level. Therefor the question 'What's in it for me?' is no longer relevant, definitely not in the long term. 'You should approach it as you would a child' a friend of mine said in discussion, 'You invest a lot of

energy in raising them, but you don't ask yourself what your profits will be, do you?' Good point. Efforts in climate change should be made with that logic: well thought out, but unconditionally. For, as long as people keep asking 'What do I get out of it?' we will not get anywhere at all. And that question is easy to answer anyway. How about clean air, less natural disasters, anyone? I am reminded of an old advertisement for a credit card company: 'Heavy investment in climate change policy? 159 billion Euro. A liveable world? Priceless...'

The climate conference in Poland held in December 2018 concluded that we need to work more intensely to protect our planet from further global warming. This conclusion was based on the IPCC report (the United Nations body for assessing the science related to climate change) published earlier that year. In the report a significant difference in consequences is described between 1.5 degrees Celsius global warming and 2 degrees Celsius. With "only" 1.5 degrees, weather will be less extreme, as will the damage to our ecosystem, sea levels will rise 10 centimetre less by 2100 and developing countries will have a significantly reduced chance of suffering from food and water scarcity. In addition, a global rise of 1.5 degrees Celsius as opposed to 2, will cost three to four times less, despite any economic slowdown resulting from strict laws and guidelines.

Half a degree, one cannot even feel that difference in air temperature. However, that half degree will save us billions and billions in damages, and more so: nature, a more stable political environment, less drought. In other words, a liveable world. All that for just half a degree. If that is not a good business case, I do not know what is.

Maartje Oome

Editor-in-Chief





Photo: Accenture

Mobility & Logistics

encompass 24% of the total CO2 emitted in The Netherlands.
Traffic has a large impact on an area's atmosphere and liveability. The , Hello Zuidas, Green Business Club Zuidas, BYCS and the Taskforce Bereikbaarheid Zuidas have been working for years to ensure sustainable mobility in Zuidas in its 'Smarter and Sustainable' programme.

Goods and personal transport

Smarter and Sustainable focusses on the transitioning of mobility whereby air quality, logistics and innovation play an important role. We are on the verge of unveiling the Zuidasdok, an infrastructure measure that will greatly influence the mobility around Zuidas. In the long term, this will have a positive impact, but in the short term we all have to adapt to keep Zuidas accessible in a sustainable manner. The Smarter and Sustainable programme works with large employers allowing them to offer a smart mix of flexible and last-mile mobility solutions.

From owner to user

Part of the mobility transition is a move from ownership to use. More and more bike-sharing schemes, e-bike sharing and electric car-sharing schemes are being used. Mobility budgets offered by companies allow employees to decide for themselves how they wish to travel to and from their workplace.

The Zuidas Amsterdam Development Office directors, partners and involved employers in the area issued a combined tender for the development of Mobility as a Service (MaaS). This service will allow a traveller to see which mode of transport is most suitable at any given moment while taking personal preferences into account and factors such as how busy the roads and railways are. The service will allow the user to reserve their trip and pay with the same system. Such a service is being developed at an advanced pace to improve access to Zuidas and the area. The specifications were published in January 2019 and the MaaS service should be available by the end of 2019.



In anticipation of these developments a number of pilot programmes were launched that allowed Zuidas employees to try flexible ways of travelling. Employees who live north of Amsterdam were introduced to the Noord/Zuid metro line as an additional mode of transport instead of travelling by car. The Zuidas Mobility Experience saw 75 employees leave their car at home for a month and test other modes of transport. Another experiment allowed employees of companies

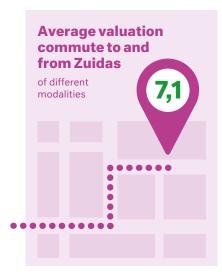




Photo: S. Pennington de Jongh



Photo: Kees Winkelman

in the WTC building to leave their car and take public transport to work for free for one or more days a week.

Bicycle

In the end, the bicycle and walking are the most sustainable modes of transport. In the Smarter and Sustainable programme, Zuidas employees are encouraged to cycle as much as possible. A combination

of the bicycle and public transport is another great mix, either using a privately-owned bicycle or a shared Hello Bike, allowing the last leg of the journey to be done with pedal-power. 2018 saw a positive trend. People who live less than five kilometres from Zuidas are using the bicycle more and more (source: Mobiliteitsonderzoek 2018). The e-bike in particular is winning market share.



Smart city logistics

City logistics is becoming a larger focus of Zuidas mobility policy. It encompasses all goods and services that are delivered to offices and residents in the area, such as post and package deliveries, waste transport and office supplies. The ambition to have city logistics fully emission-free in 2025 while improving safety and accessibility can only be achieved if we work together. The motto is: reduce, improve and make more 'green'. A number of companies and organisations took part in a data

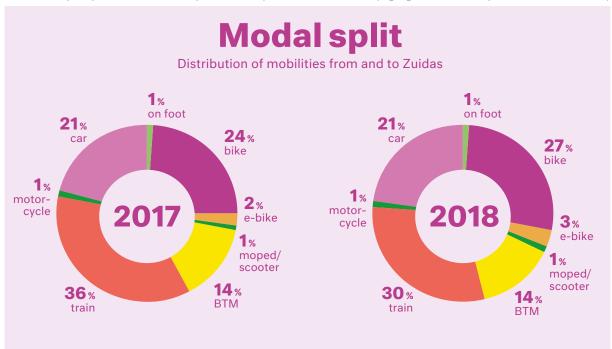
survey in 2018 to launch pilot projects in 2019.

Catering logistics

Deliveries for hotels, cafés and restaurants, which form a large part of city logistics, is growing fast in Zuidas. More restaurants, cafés and bars are being opened while the roads are becoming more congested, causing fast-rising costs for last-mile deliveries. The question is if the current distribution network will be maintainable without any change in the supply chain. Until recently, little attention has been

given to the problems this causes for residents, large distributors and suppliers. Food distribution demands extra attention and is more complex than other city logistics due to food safety and the large variation of products delivered. An integral approach consulting with all parties including suppliers, distributors, entrepreneurs and the Municipality of Amsterdam can provide solutions. Restaurant and café owners have a key role in making decisions about the distribution of goods.

Source: Mobility study Zuidas 2016 Accessibility Taskforce and provisional results for 2017 (ongoing research ultimately also includes the 2018 data).



Spotlight



Photo: Jorrit 't Hoen

Avoiding traffic jams with the Noord/Zuid-line

In 2018, 150 people who work in Zuidas and live north of Amsterdam were given a month's free pass to try the Noord/Zuid metro line. This offer was an initiative of the GVB, Zuidasdok and Hello Zuidas. Participants could park free at the P+R station Amsterdam Noord and travel by metro to the Zuidas – a 15-minute trip. In most cases the travel time is less than when travelling by car.



Ghulam Regain, NINE restaurant and cooking studio owner

'The trial offer was a great success. I arrived at work quickly and avoided traffic jams while the connections were excellent. I live in Amsterdam Noord and this way of commuting is quicker than by car. When the trial finished, I bought a public transport card. Now I always take the metro.'



Marion Dijkman, secretary at Loyens & Loeff

'The North/South-line surpassed my expectations. After the summer I faced the busy morning rush hour yet again with traffic jams on the A10 and on the exit roads to Purmerend and Volendam. During the trial, I took the bus from Purmerend to Ilpendam and switched to the metro in Noord. A breath of fresh air. No traffic jams, no stress. It only took slightly longer by car on a quiet day. This way of traveling allows me to get more exercise. Now that the trial has ended, I regularly leave the car at home to travel by public transport and relax.'



Clive Pritchard, managing director at Savills Investments

'I rediscovered public transport thanks to this experiment. It reminded me of when I lived in London: travelling on the underground is fast. The Noord/ Zuid-line is the ideal connection between the North of Amsterdam and the South. It is wonderful to avoid sitting in traffic jams that often start before you even leave the parking lot! Having said that, the toilets at the Amsterdam Noord station could be better and using the OV bikes could be easier. The Park+Ride should also have license plate recognition. Despite these comments I am very pleasantly surprised!

Text: Romy Lange

Mobility

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Go cycling

The Go Cycling campaign was launched in October 2018 by BYCS in cooperation with Zuidasdok, Zuidas Amsterdam Development Office, Green Business Club Zuidas and Hello Zuidas. It has been proven that cycling to work reduces short-term sick leave and avoids long-term illness. Cycling also improves mental health. Employees can visit www. go-cycling.org for tips, information about rules and regulations, local bike routes and options to buy, lease or share bikes and e-bikes. The site also provides information for employers to make bicycles more attractive as means of transport for their employees.

WAVF

BYCD started WAVE to stimulate young people to take up the bicycle as an alternative for travelling by public transport, scooter and car, instead of spending many hours watching screens and getting little exercise. The campaign started in September at the ROC College Zuid. Students received a free Swapfiets in exchange for sending weekly feedback about their experience.

E-bike try-out

To foster enthusiasm for the electric bike as an alternative for the car or public transport, Green Business Club Zuidas organised a try-out for twenty employees In addition, bicycle tours were organised of Zuidas companies to test the Speed Pedelec bicycle (45 km/h) for two weeks.

Participants were extremely enthusiastic and some bought the Speed Pedelec, while others are contemplating a purchase. Infrastructure, purchase costs and weather are the key concerns according to a survey held after the try-out.

Impact survey on smart working at EY

EY calculated the value of its 'smart working' approach in 2018. A Total Value concept was applied by quantifying and monetising the economic, social and environmental impact. By allowing employees flexible workspace options, EY realised an average societal worth of 5.3 million Euros a year. The largest positive impact was found to be in the social domain as employees could spend the time in other ways that they would normally spend commuting. The costs of working at home were less than the increased productivity, reduction of accidents and the reduction of CO2 and PM10 (nanoparticle) emissions.

Cycling in the Zuidas

During the We Make the City festival BYCS organised an event to stimulate cycling in Zuidas every day. An exhibition on city planning and architecture with a focus on bicycles was opened in the bicycle parking lot under the Gustav Mahlerplein. A lecture on the role of the bicycle in the city of the future was held, together with the Amsterdam University of Applied Sciences: Where can the bicycle take us? from Zuidas to the NDSM docks: We Bike the City.



Hello bike

160 hello Bikes

17 dropzones

15.000 app downloads

200⁺ journeys per day

Zuidas Mobility Experience 2.0

Seventy-five people working in Zuidas tried new types of transport for a month and left the car at home in April 2018. The Zuidas Mobility Experience allowed employees to try new ways of travelling free and without contracts. Feedback from this initiative and the one before it, offers insights into how the end-user will use Mobility as a Service in the future. The wishes and needs have been included in the aforementioned MaaS Zuidas proposal.





Sustainable mobility at Stibbe

When Stibbe moved into its new office on the Beethovenplein, it changed its parking policy and significantly reduced the number of cars and the CO2 emissions. Employees now primarily take public transport or cycle to work. Modern technology in the new offices and services offered by Stibbe make (international) travel hardly necessary anymore.

Electric shared cars

A number of companies in Zuidas use car sharing for business purposes. Employees can take the train or cycle to work and still have a car at hand to travel to an appointment. Even better than sharing is electric sharing. ABN AMRO and EY have recently started using shared car supplier Amber that only offers electric cars. A smartphone application allows users to reserve a car to drive to their business appointment and return home in the evening by bike or public transport.



Photo: Kees Winkelman

TCA and RAI Amsterdam encourage electric taxis

On the 'Day of Sustainability' 10 October 2018, Amsterdam taxi company TCA deployed only electric cars for all trips from the RAI. They also agreed that environmentally-friendly taxis would have priority during events, meaning that emission-free taxis will always be at the head of the queue at taxi stands at the RAI.



Photo: TCA

Electric driving at Van Lanschot Kempen

From 23 September to 1 November 2019, 25 lease drivers at Van Lanschot Kempen swapped their own car for an electric car for two to three days. After their test-drive most employees were pleasantly surprised and are considering opting for an electric car the next time they buy a new car. The cars were silent, fine for commuting and charging them was easy. The range was a concern for some due to the commuting distance.

Changing behaviour: It's Your Choice

A travel concept developed for the Amsterdam transport region, Provincie Noord-Holland and entrepreneur network ORAM, targets the intrinsic need for freedom of choice in travellers. With a no-nonsense message and a nudge, the programme gave people a 'Push' to take the metro or a different public transport option. There was no discussion about which transport is the best or any annoying messages. The concept consisted of two parts: a Low Car Diet e-bike pilot programme for 31 employees from the VUmc and Loyens & Loeff who, amongst others, biked from Waterland to metro station Noord where they got on the Noord/Zuid-line line. Six people immediately bought an e-bike! Another 32 people from the Waterland made use of a free trial that was sent by post after signing up through the Flitsmeister app. A unique public transport starters package for travellers from Waterland to the Zuidas included bus, tram and metro tickets, door-todoor travel advice, and an overview of all the bicycle rental opportunities. A number of talks were held with employers to discuss policy changes on how to advise newly hired employees on transport choice.

Accessibility Dashboard Zuidas

The Taskforce Bereikbaar Zuidas is a collaboration between a number of larger employers in Zuidas. The Taskforce launched the Accessibility Dashboard Zuidas in 2018. Data from many sources about accessibility for car, public transport and the bicycle are grouped together. The dashboard visualises how accessible Zuidas is at any time, which means targeted actions can be undertaken to ensure accessibility and improve access.

Breikers

The Breikers employer network took up offices in Zuidas in 2018. In collaboration with Breikers, 200 companies throughout Amsterdam have ensured that almost 10 000 less people a day travel during peak commuting hours. Breikers will work more intensively with local organisations in Zuidas such as Hello Zuidas and Green Business Club Zuidas to advise employees on how to make their daily commute even more smart, sustainable and easy.

From A to Zuidas

The city council, companies and other organisations think of new solutions for sustainable transport every day. The platform www.vanatotzuidas.nl was developed to give employers and travellers an overview of the possibilities and alternatives. A clear overview of current mobility projects, suppliers and products is presented to help employees offer more efficient and sustainable mobility to their employees. It helps travellers to choose a more sustainable mobility solution as well.





Photo: RAI Amsterdam

E-bikes Accenture

Accenture started a trial with e-bikes in July 2018. Fifty colleagues tested both normal and high-speed bicycles for commuting. Some employees biked 40 km every day instead of taking their car to and from work. In 2019 Accenture wants to make the e-bikes a permanent part of its mobility package.

Zuidasdok update

Zuidasdok is currently one of the largest infrastructure projects in The Netherlands. Zuidasdok will ensure better accessibility for Zuidas and the northern parts of the Randstad. The A10 Zuid will tunnel underground at the heart of Zuidas. The project includes much green: public spaces and tunnel roofs will include green areas as well as buildings that are part of the station will have green roofs. Having the road routed underground for over a kilometre will improve air quality and ensure less sound pollution in the central area. Zuidasdok is being realised by ZuidPlus. Zuidplus uses electric deliveries as much as possible to minimise CO2 emissions. Construction will commence in 2018 and is expected to be completed in 2028

Logistics

Catering sector supply survey

In 2018 the Amsterdam University of Applied Sciences and Hello Zuidas started a survey into deliveries for cafés, restaurants and hotels in Zuidas. The survey showed that there is little awareness for the impact deliveries have. Even sustainable owners do not consider supply deliveries a priority. The current accessibility of Zuidas is good and companies have few problems with their supply chain making the urgency for improvement less obvious. Possible impacts from infrastructural

changes such as the construction of the Zuidasdok are not included in their decision-making. To be 'future-proof', the Amsterdam University of Applied Sciences and Hello Zuidas started mapping the logistics of the catering sector. The first results were shared during We Make the City in Circl. Their research will continue in 2019.

Buffer area RAI Amsterdam

In September RAI Amsterdam opened a new buffer area in Amsterdam Westpoort. During events where a busy construction or deconstruction is expected, the area outside Zuidas is used to regulate traffic to and from the RAI. The 15 000 m2 area is large enough to hold 90 trucks. The trucks are registered and move to the RAI Amsterdam when needed. In this way trucks arrive at the right time at the RAI and leave as quickly

as possible. Delays and extra traffic searching for the destination around the RAI is minimised, CO2 emissions are reduced and a more efficient construction and deconstruction is ensured. Other parties may use the space when the buffer area is not needed by RAI. The buffer area was created in collaboration with the City of Amsterdam, Rijkswaterstaat and the Port of Amsterdam. RAI Amsterdam and its logistics partner DB Schenker ran a pilot project during the Metstrade convention for professionals in the pleasure-boat industry. During build-up and deconstruction of the Metstrade, DB Schenker allowed participants to deliver their goods to a storage facility outside of Amsterdam. The goods were grouped and transported to and from the RAI in an environmentally-friendly Scania LPG truck, and were unloaded with electric forklift trucks.

Caroline Gehrels, Arcadis | Photo: GBC Zuidas



Door survey

To achieve emission-free deliveries we must know what is delivered, to whom, and when. Together with students from the Amsterdam University of Applied Sciences Green Building Council Zuidas conducted a survey of the WTC, VU Amsterdam, ABN AMRO and the Symphony tower to count what entered the premises. Not only did the extent of the problem and the need for solutions become clear, the survey provided ideas for concrete interventions – both in the short and long term. The most suitable approach seems to be the one by Trias Logistica that focusses on minimising unnecessary transport. The next step is to transport more efficiently by bundling goods and finally to encourage electric transport.

Green Deal Zero Emission City logistics

During Green Business Club's Zuidas annual CEO-breakfast in May 2018 all present signed the Green Deal Zero Emission City logistics. By signing the document, companies pledged to back emission-free city logistics by 2025. The focus is on procurement, waste and package deliveries. The signatures confirm support for this ambition at directorial level and offers access to a network for knowledge and experience on smart and clean logistics.

We Make The City

During the city-wide festival We Make The City (20–24 July 2018) BYC, Green Business Club Zuidas, Hello Zuidas and ORAM organised a well-attended programme on emission-free city logistics in Circl. In addition to Geert

Deliveries to the catering industry per week 143 245 suppliers deliveries

Source: HvA, Urban Technology research program

Kloppenburg as keynote speaker, splinter sessions were organised around package and postal deliveries by bike (BYCS), procurement (Green Business Club Zuidas), catering sector logistics (Hello Zuidas), and water transport for construction logistics (ORAM). These sessions are part of projects that contribute to the emission-free city logistics in 2025 goal.

Electrification at Sixt

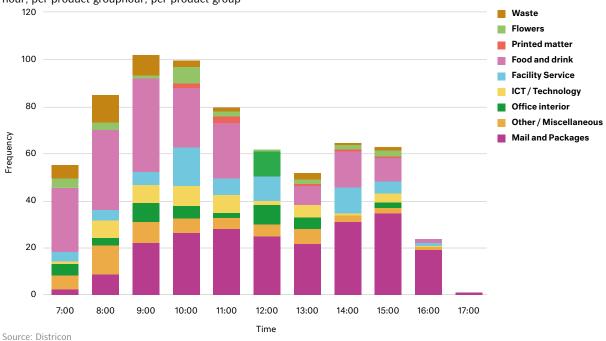
Car rental company Sixt started increasing its electric fleet in 2018. New models were added such as the Jaguar I-PACE, Tesla Model S and the Volkswagen e-Golf offering an electric alternative for each rental category. The share of plug-in hybrid models also increased. Sixt invested in its own charging infrastructure: the first charging possibilities were installed for electrical cars at the RAI Amsterdam outlet and now all outlets in and around

Amsterdam have charging stations. Quick-charge stations were installed at the Amsterdam depot so electric cars can be quickly made ready for their next rental and more customers can choose an emission-free car.

Construction logistics by waterways

Construction is increasing enormously in Zuidas. Aside from residential buildings and offices, Zuidasdok and Zuid station are on the agenda until 2028. How do we ensure that the transport of building materials have minimal impact on the environment? An alternative for road transport is transport by waterways. Many construction materials can be transported from the Amsterdam harbour by boat to a building hub such as in the Nieuwe Meer. From there the materials can continue to their destination with smaller transport solutions such as cargo bikes or electric vans.

Results door survey Amsterdam University of Applied Sciences at three large companies in Zuidas; number of stops per hour, per product grouphour, per product group



ability report Zui



Photo: P.Geenen

Vivalditunnel

Similar construction work on the Vivalditunnel was happening by the EY offices at the same time. This tunnel will connect the A. Vivaldistraat to the Beatrixpark. Foundation pillars where delivered to the area between the southern road of the A10 and the train tracks to start building the first deck of the cycling and pedestrian tunnel. Simultaneously, dam walls were inserted into the ground to support part of the A10 while digging the tunnel. December also saw the start of the second construction site for the Brittenpassage under the Parnassusweg viaduct. The Zuidasdok is starting to take form in the dynamic public space of the Zuidas area.

Verdi

A new area was added to Zuidas on 1 January 2018 increasing the surface area to 245 hectares: Verdi. In 2017 consultations were held with owners and users to collect information about the area, and to listen to plans, possibilities and challenges. In 2018 Zuidas organised a participation trajectory with the Zuidas Amsterdam Development Office and stakeholders to discuss and shape



Photo: Jos Moerkamp

development goals in the area. Estate owners, organisations, residents and users could participate. In April a number of public meetings were organised as well as online input collected about the various proposals. Hello Zuidas organised a meeting with its members about the Verdi area in

the second part of 2018. Participants could vote and join in the discussion about the goals for public space such as for cars, bicycle, green areas, water and sport facilities. The results from the consultations where included in the further development that continues in 2019.

Public spaces

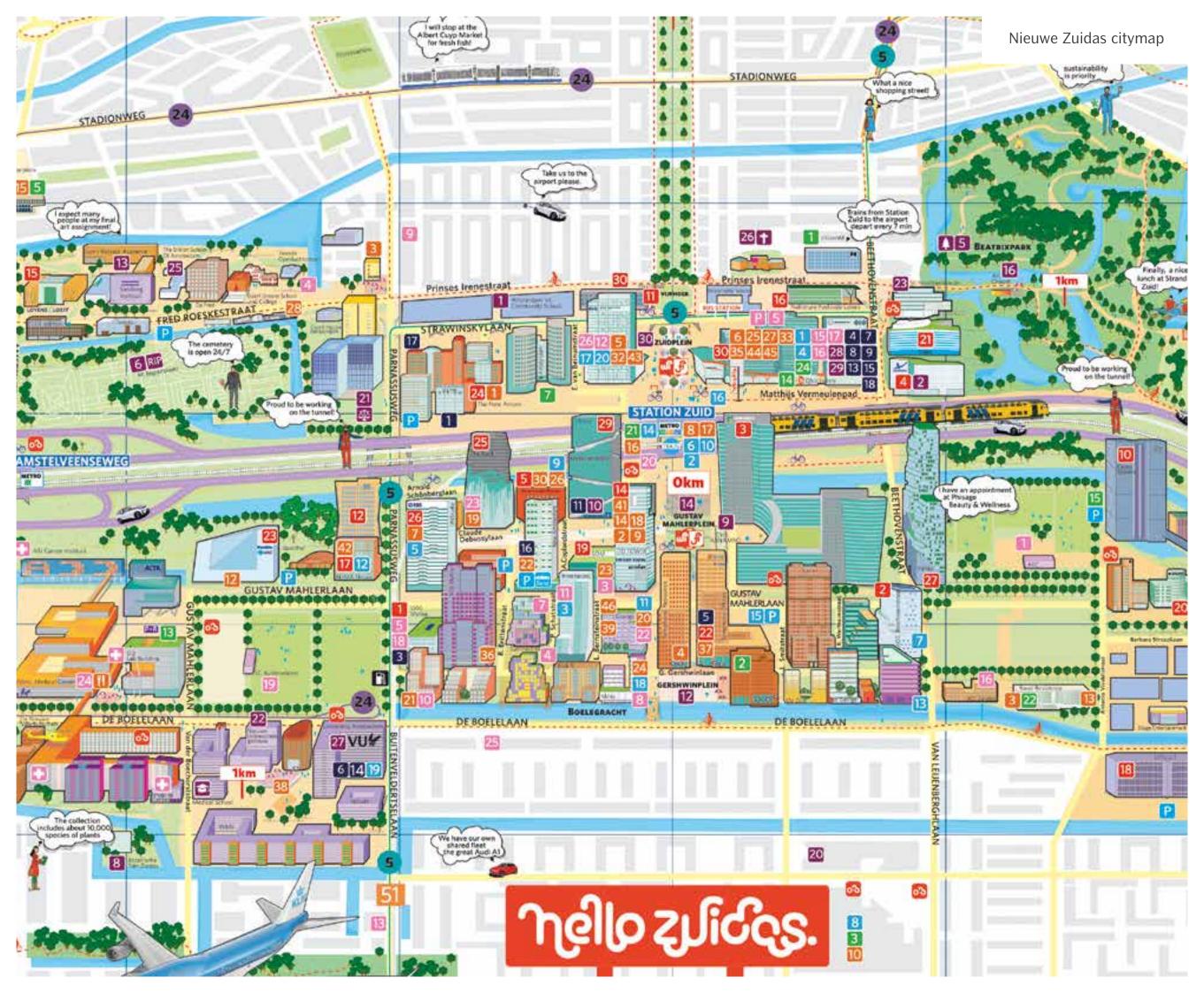
With the start of construction on Zuidasdok, Zuidas will experience a metamorphosis. Public spaces will look different in the next few years with changes in infrastructure for cars, public transport, bicycles and pedestrians. All this while general construction work continues besides the general day-to-day functioning of the existing offices, shops, restaurants, cafes, hotels, the university and the hospital.

With the construction area on the Arnold Schönberglaan having been prepared in August 2018, Zuidasdok is becoming more real for residents and visitors. In December 2018 heavy trucks bought foundation pillars over the Mahlerplein to support the construction of the first part of the Brittenpassage that will provide another passage under the railway and another entrance to the new Amsterdam Zuid station.

Source: municipality of Amsterdam



Sustainability report Zuidas 2018





Verdi: the city's hidden gem

A new area was added Zuidas on 1 January 2018. What does this mean for Zuidas? Gregor van Lit, city planner working for the Zuidas Amsterdam Development Office is specialised in developing existing urban areas and is closely involved in Verdi.

What makes Verdi unique?

Verdi is part of the transition from the city to more green and aquatic areas. Current users call it the city's hidden jewel. By developing the area further, an attractive work and residential area is being created with highvalue green and areas for sport and recreation. Together with Amsterdam district Zuid an exploratory investigation into the opportunities at Verdi was conducted. Zuidas then consulted with residents, recreational users (water), entrepreneurs and other Amsterdammers and interested parties. As we wanted to make this area attractive to more Amsterdammers we sought ideas and opinions from a broad group of people.

How do you see connections forming with the rest of Zuidas?

By increasing the quality of the greener areas, making the area more accessible and offering more facilities, a natural connection will occur with the rest of the city. The atmosphere will gain character according to how the residents and users will make use of the area.

What role does sustainability play in the development and vision for Verdi?

While developing Verdi we are looking specifically at the natural values that are present in the area. Parts of the greener areas belong to the area's main ecological structure and are important (foraging) areas

for bats, birds and other small animals. It is an aquatic area with thickets interspersed with more open landscapes. Treelines and zones with trees also occur with a significantly different variations in types of trees. Trees have had years to grow and bloom undisturbed. We are taking great care to preserve the unique aspects of the area as we develop the new zoning plan. Sustainability also plays a factor in other aspects such as water storage, construction and a good city atmosphere.

App to design pocketpark

The Zuidas Amsterdam Development Office has been in dialogue with residents (and other users) through an app from May 2018 about three areas of public space that still need development plans in the Benjamin Brittenstraat, the Peter Schatstraat and the Leonard Bernsteinstraat. How do residents and users want to structure these areas? Every few weeks the Zuidas Amsterdam Development Office asked participants questions through the app. The designs for the public areas will be themed around 'play', 'meeting' and 'green' and take the input from the app into account for completion in early 2019.

New design De Boelelaan

Between the end of July and the first week of September 2018 the public field on the De Boelelaan was redecorated near the VU Amsterdam. The work was combined with new sewage systems and the reconstruction of the De Boelelaan's south side.

Bicycle parking garage Strawinsky

In May 2018 the official opening took place of the Strawinsky bicycle parking garage that can hold 3750 bikes. The garage is the third and largest underground parking space for bicycles at Amsterdam Zuid station, the other parking spaces are under the Mahlerplein (3000 bicycles) and under the Zuidplein (2500 bicycles). All this space is needed to accommodate the expected growth of train passengers at Amsterdam Zuid, from 100 000 a day now to up to 300 000 passengers a day in 2030. All three parking garages in Zuidas are free to use for the first 24 hours.

Removing bicycles

With the new underground parking garages for bicycles, the aboveground bicycle parking garage on the Mahlerplein have been removed to create more space on the square. Wrongly-parked bicycles (outside designated areas) on the Zuidplein up to the Prinses Irenestraat and on the Mahlerplein to the Mahlerlaan have been removed on the basis of the Dutch Algemeen Plaatselijke Verordening APV

Bicycle signs

Five areas in Zuidas had signposts installed in October alongside bicycle paths. The signs point to the bicycle parking garages and show the number of parking spots available. Zuidas is the first area in Amsterdam to have these intelligent signs. While biking to Zuidas and Amsterdam Zuid station, you can see where space is available in each of

the three underground parking garages near the station.

Future Past Glory

To celebrate its 80th birthday, the Beatrixpark received the 'Future Past Glory' statue from the Municipality of Amsterdam. The stature is 8.5 meters wide and 5.3 meters high and was made by artist duo Heringa and Van Kalsbeel. The statue is a homage to the park's designer Jakoba Mulder and is placed at a prominent place on an open field in the park.

Sustainable builder award 2018

For the second year running, the Bewuste Bouwer Award was given in Zuidas to encourage environmentally conscious construction. The Bewuste Bouwers foundation and a public panel chose the most sustainable and beautiful construction site in Zuidas. The winner in 2018 is the mixed-use building Valley. The prize was awarded during the Dag van de Bouw in Zuidas. Valley was awarded the prize due to the quality of its construction enclosures: nice-looking covers with clear impressions of what Valley will become. The contractor also took measures to minimise disturbances by vibrating a number of dam walls into place instead of simply driving them into place. They conducted these works between 08:00 and 10:00 to reduce nuisance.

A new City Map Hello Zuidas

In September 2018 the new edition of the City Map was launched. The first edition appeared in 2013. Landscape architect Gloria Font designed the map in 2013 and was also involved in the newest edition. The map shows how the area has developed with more residential areas, hotels, offices, shops and catering. The map shows the fastest transfer times to the city centre, Schiphol airport and the green areas at the edge of Zuidas. The Noord/Zuid-line and other changes in public transport are included in the map, just as the new bicycle parking lots and all the drop-off zones for Hello Bikes.

Safety: Veiligheidsplatform Multiple times a year Hello Zuidas organises a 'Veiligheidsplatform Zuidas' (safety platform) on safety in public spaces. Large organisations such as RAI Amsterdam, the VU, the Zuidas Amsterdam Development Office and the police take part. In 2018 thematic meetings on social safety, terrorist threats and fire were organised. Whatsapp groups were formed whereby security experts can quickly and efficiently share reports and information that is relevant during incidents and mishaps.

VU Amsterdam exhibition on, and under the campus

When construction started in 2017 for the sustainable thermal storage of the Nieuwe Universiteits building, the drilling was combined with scientific measurements. By taking a ground sample at each metre drilled under the surface, a treasure of information was unearthed, dating back over 2.5 million years to now. The exhibition about the results encompasses 2.5 million years in the past to the future in 2030. From the early Pleistocene to the Ice ages. Eridanus and the current Holocene, the exhibition starts at ground level with the removing of peat and rising sea levels to the development of the university building and the ever-expanding city. The exhibition offers visitors a clear overview of how the landscape has changed as well as how human intervention and planning created public spaces, and offers insight into how Zuidas developed from an empty space into the office and residential area it now has become



Buildings

Living in Zuidas raised much heavy discussion in 2018. Social housing in Zuidas. Some say it does not exist, others think it is ridiculous. The municipal policy does not differ for Zuidas from the rest of the city's districts. To achieve sufficient affordable and good housing it is suggested all new developments are divided into four residential types: 40% social rental residences, 40% mid-range residences and 20% is reserved for the free-market sector (for sale and for rent).

The location of Zuidas coupled with Zuidasdok makes it one of the most accessible residential areas in The Netherlands. This great accessibility makes Zuidas a high-density place for living and working. The residential needs and the infrastructure available make high-rise apartments a logical and fitting solution.

A complete city district

The municipality has been transforming Zuidas from an exclusively business district into a mixed Amsterdam city district with



Living on the De Boelengracht | Photo: Jan Vonk



Nieuwe Universtiteitsgebouw | Photo: Kees Winkelman

its own character for quite some time. Zuidas wants to keep its reputation as a great location for international companies but is already more than that. Around 4000 people live in Zuidas presently and as a result the area is becoming more lively. Shop-keepers and caterers are seeing opportunities as the level of services in the area increases. Between 7000 and 10 000 residences will be built in coming years, bringing the population to around 20 000 people. The Zuidas is growing into a complete city district for everybody.

Diversity and character

Developing agreeable places to live is not simply a matter of adding houses. It also means that Zuidas will have to approach city planning differently. Less strict and businesslike, more room for diversity and developing its own character. In 2017 the Amsterdam city council finalised the 'Woonagenda 2025' that sets rules and guidelines for residential planning up until 2025 that includes percentages for lower income, mid-range and free-market sector residences.

Rules

In determining the residential divisions, the Zuidas Amsterdam Development Office have not based the regulations by individual property but on the whole area. Amsterdam has issued a set of 'game rules' for the implementation of the Woonagenda. They stipulate that the divisions are not applicable 'at locations whereby the council already has contractual obligations towards a market actor'. Zuidas will not change agreements already made with developers as that would cause large financial risk and construction delays. As a large number of new houses are needed to supply the large demand the council is beneficiary of timely completion.

Zuidas' neighbouring districts

In the southern area of Zuidas a residential sector is being developed along the Gustav Mahlerlaan running from west (sub-district Kenniskwartier) to east (Vivaldi). This is by far the largest residential area in Zuidas and forms an area 1.5 km across. The main roads Amstelveenseweg, Parnassusweg,



2Amsterdam | Photo: Marcel Steinbach

Beethovenstraat and the Europaboulevard connect the city in the north-south direction. Due to these 'natural' borders, Zuidas develops different neighbourhoods that all have their own character. even in the northern part (see the map on page 27).

Other developments

Since January 1st 2018 Zuidas has been extended with Verdi: the area between the Amstelveenseweg, the Schinkel and the Nieuwe Meer. This area will also be developed into an attractive residential and business zone that offers green areas and sport facilities while contributing to the connection of the east and west parts of the city of Amsterdam.

Property developers were asked at the end of 2018 to submit plans for a building on an unbuilt lot in the Kenniskwartier that will be the start of the future pedestrian area between Amsterdam Zuid station and the VU Amsterdam. The chosen plan will form the basis for a building with a mix of residential apartments, offices, facilities and an inner square that will be green and be publicly accessible. Whereas in the past years no new residential properties have been completed,



View from New University building | Photo: Kees Winkelman

there are six residential buildings currently in construction. The building of offices and facilities as Rechtba continues at full pace. In 2018 five buildings were completed, including

two parking garages, and eight more properties are under construction such as Rechtbank Amsterdam, EMA and Suitsupply.

BREEAM stands for Building Research Establishment Environmental Assessment Method. It is an assessment method to determine the sustainability performance of buildings. The certificate is issued by the Dutch Green Building Council.

BREEAM certifications issued in Zuidas 2018 New construction Office 400 Beethovenstraat **VUmc Diagnostic Center** Office 500 Beethovenstraat NoMA House Office building 2Amsterdam Van der Valk Hotel Amsterdam-EDGE Olympic $\star\star\star\star$ Office Charity Lotteries The New Atrium office function tower South In-Use (Asset) **Cross Towers** Mathematics and Physics (W&N) Building, VU University Amsterdam FOZ office building $\star\star\star\star\star$ O | 2 Laboratory Building VU **University Amsterdam** The New Atrium existing building UN Studio \star

Residential buildings 2018 no residential spaces delivered 651 residential spaces in development 2,600 residential spaces in total present Offices & facilities 2018 26.400 m2 GFA delivered 299,381 m2 GFA in development 1,886,400 m2 GFA in total present

Spotlight



EDGE Olympic | Photo: EDGE Technologies

Sustainable building materials: Edge Olympic

'We know precisely what all the materials are made of and where they come from.'

Instead of demolishing the original building, developer EDGE Technologies decided to redesign the Olympic Plaza on the Fred Roeskestraat. The original building from 1980 was stripped, two new floors were added and many

EDGE used the Madaster platform that maps which materials are used and where they come from for consumers and companies. This helps to choose sustainable materials, but offers no guarantee the building itself is built sustainably. For that a visionary approach is required and EDGE's vision is clear: to build as sustainable and circular as possible. Jan Hein Tiedema, EDGE Technologies **Executive Managing Director explains** how this works out in practice. 'We first looked at how we could reuse as many materials from the old building as possible. The façade was made of stone for example and is now used as flooring over most of the bottom floor. All building materials were carefully chosen: we know precisely what all the materials are made of and where they come

from, and chose the most sustainable suppliers. To build the two additional floors, we used a wooden frame that can be disassembled completely, and could easily be reused somewhere else in the future.

The Madaster platform is in effect a post-examination: you build a 3D model of the building and provide information on the materials used. They analyse this and give a percentage of circularity. We achieved a 48% score for this building – a high mark for The Netherlands. This construction method will most probably gain in popularity and subsequently, the scores will increase too.

This type of development takes a bit more time, and sometimes the materials are more expensive. In the end, you still need to be able to rent or sell at market levels, but this is what we believe in. If we had a client who was willing to pay well, but did not want to build sustainably, we would not accept the commission.

The Madaster platform is an online tool that maps materials used in property development. This helps recycling and reusing materials when a building is renovated or demolished. The platform is based on the book Material Matters published in 2016 by architects Thomas Rau and Sabine Oberhuber. The book describes the transition to a new economic model whereby the consumer is no longer the owner but the user.



CMS Amsterdam | Photo: G&S Vastgoed

2Amsterdam

CMS South Tower Atrium The South Tower estate that is part The former Twin Towers are being of the New Atrium building is made repurposed as a multi-functional of the most sustainable materials. It has solar panels on its roof and its exterior consists of an ingenious climate façade that ventilates warm air in the summer between the inside and outside 'skin' of the building. This keeps the interior building cool. In the winter the ventilation is cut off, causing the still air to heat up and warm the building. The building also has a ground-coupled heat exchanger and energy efficient led lighting as well as water-saving techniques on the toilets and water locks on taps. The design uses glass to exploit daylight to the fullest.

New University Building

This multi-functional educational building is part of the transformation of the campus of the VU Amsterdam. The heart of the New University Building is the atrium that groups all other functions around it. The atrium is a stepped building sloping upwards with an above-ground surface area of around 30 000 m2 divided over thirteen floors. The double entrance opening onto the new campus square and De Boelelaan accentuates the building's public character. The ground floor will house a grand café and services such as shops. The first floor is designed for the multimedia library. The design has a flexible layout allowing it to adapt to changes in needs and wishes of users in the future. A maximum of sustainable building materials, natural energy storage (heat exchangers), energy efficient lighting, lifts, escalators, fixtures as well as water-saving sanitation, a water recuperation system and a 1100 m2 green roof make the building operate at optimum sustainability.



On the Parnassusweg work has commenced on the 80-meter tall Hourglass building. The building offers office space for - among others -Loyens & Loeff, 115 hotel apartments, shops and restaurants and a parking lot over two floors.



Het Nieuwe Universiteitsgebouw | Artist impression: Team V Architectuur



Het Nieuwe Universiteitsgebouw | Photo: Marcel Steinbach

2Amsterdam | Artist impression: Provast



building with flexible office space, a fourstar hotel with 328 rooms, a semi-public garden and restaurants. The renovation and expansion entails around 55 000 m2 including the bicycle and car parking lot. A number of solutions have contributed to the sustainability of the building and create a pleasing work environment for employees. The cement hull was preserved and efficient lighting keeps the energy use low. The building is heated and cooled through thermal storage and the roof has solar panels. All sanitation is installed with water-saving facilities. The office building received a BREEAM-NL In Use Excellent certificate. The hotel is aiming for a 6 on the GPR

sustainability index. 2Amsterdam was designed by KCAP under an assignment

by Provast for CRI.



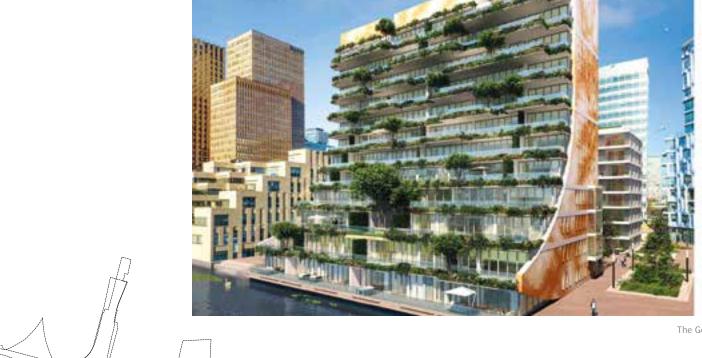


The building is designed by Dam & Partners architects and is shaped like an hourglass. The office space will consist of around 21 000 m2. A BREEAM Excellent qualification is the guiding principle for the design. This means that the construction materials are sustainably sourced, the walls will be green with plants and finished with wood while avoiding emissions of harmful particles by choosing materials carefully. The building will be sustainably heated and cooled by the Amsterdam district heating- and cooling system. The roofs have solar panels to generate electricity while led lighting, motion detectors and daylight minimise energy use. An ecologist is examining whether plants and animals can be incorporated. The design includes nesting areas for birds and bees. As much natural light and fresh air is let in the building as possible making the Hourglass a healthy building with a climate class A certificate.

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Goede Doelen Loterijen

Her Majesty Queen Máxima inaugurated the new Goede Doelen Loterijen building on December 6th 2018, on the corner of the Beethovenstraat





Map: Municipality of Amsterdam, Zuidas Directorate



Hourglass | Artist impression: Maarsen Groep

and Prinses Irenestraat. In two years, the former Winterthur building was transformed into the most sustainably renovated building in The Netherlands. The renovation was conducted to the highest possible standards according to the BREEAM-NL guidelines and has an BREEAM-NL In Use Outstanding certificate.

ROESKE PARNAS

The building contains many sustainable innovations such as electricitygenerating PowerWindows by PHYSEE. The building is heated and cooled

through thermal storage and also has 949 solar panels that generate around 300 MWh electric energy a year. This is enough to supply the whole building with electricity, making it energy neutral. The roof collects rain water and uses it to flush the toilets and irrigate the roof garden supplying 37% of the building's need.

The George

In April 2018 construction began on apartment building The George. The bowl-shaped roof is completely covered in solar panels allowing it to collect rain water and generate electricity. The energy is used for lighting the building's shared spaces. District heating and cooling is used and a ventilation recuperates warm air. The residential building adheres to modern high standards and includes charging stations for electric cars, solar panels and a modern water buffer system for the plants on the balconies. The George will be completed in 2020.





Photo: NUON

Energy

The City of Amsterdam wants to make a substantial contribution to achieving the Paris agreement. The city has the ambition to reduce CO2 emissions in Amsterdam by 55% in 2030 and 95% in 2050. Amsterdam also wants to be free from natural gas by 2040. The Zuidas contributes to this goal through steps to disconnect mainly new buildings, but also existing buildings from the natural gas pipelines.

The Zuidas Amsterdam Development Office is also working on making the area free of natural gas by 2040. New developments are being constructed without natural gas connections and heating is supplied from local and sustainable sources as much as possible. The council is setting restrictions to the energy demand of buildings and is challenging the market to construct circular, energy-positive buildings.

A good local and sustainable alternative for gas is thermal storage whereby heat is stored in the summer and released in the winter to heat a building, while in the winter cold is stored to cool the building on warmer days. The first thermal storage system in Zuidas dates from 2002. The city district heating is another sustainable alternative and Zuidas is one of the few areas with a cooling network. It taps cool water from the Nieuwe Meer and has been in operation since 2006.

Gas-free Zuidas

According to the Dutch 'Gaswet' (gas law) a user must always be allowed to connect to the gas network if requested. Sustainable options were often required to make room for 'old-fashioned' gas pipes causing complications in the crowded underground Zuidas infrastructure. The Summer of 2018 saw this gas delivery obligation removed from the Gaswet (for

Used energy GBC Zuidas asked 15 of its participants about the type and origin of used energy. Some of the companies that entered these data make use of a combination of energy types. The energy used was known in eight of the fifteen. green energy **Biogas** solar energy green energy **EU** wind energy (origin unknown)

low-demand users). A gas-free Zuidas has been in the works for many years now. First, one must provide sustainable alternatives for new construction projects. To formalise this, a heating and cooling plan was recently developed that offers the council and property developers guidelines for gas-free buildings.

Existing buildings gas-free

Aside from actively encouraging

gas-free buildings in new developments the Zuidas Amsterdam Development Office is working towards systematically disconnecting gas lines. Zuidas is investigating options with partners for a consolidation path whereby the largest gas connections are turned off first. This should be possible by actively approaching parties involved and agreeing on a roadmap for sustainable solutions. The execution will be detailed in the

2019 update to the master plan energy and utilities in Zuidas, MENZ (Masterplan Energie en Nutsbedrijven Zuidas). The first steps have been taken around the station area and two buildings, the WTC (in part) and Station Zuid, have been disconnected from the gas pipeline.



Spotlight



Photo: Too van Velzen

Thermal storage at the VU

Two wells have been drilled 160 meters underneath the VU Amsterdam's New University Building. They do not deliver oil or gas, but warmth and cold. Once they are charged at least, and that will take a while.

The charging is underway but will not be completed until next year from when the wells will be full of heat and cool. Strangely, the wells will have collected their temperatures from each other. This sounds mysterious and for many people it still is, according to Rooske Gaal, (energy coordinator at the **Energy Coordination Centre of the** VU Amsterdam and the Amsterdam medical centre VUmc). 'It works somewhat like a refrigerator. A refrigerator also expels warmth from the back. Warmth is stored in underground sources during the summer months when cool air needs to rise to the buildings above. In the other way around, the cold well fills up in the winter months when warmth flows upwards. After a year of charging with and external help, the system will work independently. Possibly aided with above-ground installations at peak demands.

Solar panels

From 2004 to 2006, the VU Amsterdam already installed thermal storage under its Training Centre for Health and Wellness. Why is the second system only being installed now? 'The need for gas-free heating only developed recently. Three years ago a number of scenarios were considered for that goal.' Solar panels were also part of the plan, but they only offer part of the solution: 'Even if we lay solar panels all over our roof, we will only be able to generate eight percent of the electricity we need. Thermal storage offers more energy but installation is complicated. You need to dig two wells and adapt the systems in the building, as different temperatures come out of the ground than from gas-fuelled heaters and electric air conditioning.'

Postage stamp

In addition, when installing the heat exchanger storage system, you need to be very careful, especially in Zuidas. Reservoirs must not be too close to each other or they might leak heat. 'You need to take precautions in this postage-stamp-size area of Amsterdam', says Rooske. All the large consumers in the area do offer an advantage: they can exchange warmth and cold. 'A circular connection can be installed around the reservoirs to supplement needs and to share external sources.' In 2006 O|2 and Acta installed a pipe to pump cool water from thirty meters deep in the Nieuwe Meer lake. Gaal: 'And in the future we will probably extract heat from waste.

Thermal storage

In 2018 a permit was issued to Suitsupply 2Amsterdam and the new WTC tower to apply a thermal storage system. The permit allows for a maximum of two million cubic meters of ground water transport each year. This brings the total power output in Zuidas to 40 megawatt whereby 19 million cubic meters of ground water can be moved each year. The Zuidas Amsterdam Development Office formulated a Masterplan Thermal Storage for the sub-districts Ravel and Vivaldi. The plan will allow for new thermal storage initiatives to be applied in the future. The masterplan for the Kenniskwartier received an update this year to better fit the needs of the VU Amsterdam and the medical centre VUmc. Underneath the VU Amsterdam's New University Building are two 160-metre-deep thermal storage wells. The wells were charged in 2018 for operating at capacity in 2019. After a year's charge the system will work independently with incidental aid from above-ground installations at peak moments.

Climate and lighting system Vesteda headquarters

The De Boel building where Vesteda is headquartered has climate-control

smart ceilings that heat and cool the offices. Smart ceilings work through heat irradiation and convection to make offices require less energy to operate at a comfortable temperature. Office lighting in De Boel consists of fluorescent and led lights. Most of the lights are triggered by sensors so the lights are only switched on when people are in the rooms.

GVB invests in locally sourced green

From 1 January 2019 Nuon/Vattenfall is the new energy supplier for Amsterdam city transport company GVB. This is the result of a tender that GVB issued together with Metro and Tram from the Municipality of Amsterdam in May 2018. The contract will run for ten years ending in December 2028. The green energy will all be produced nationally. In addition, Nuon/Vattenfall will increase their sustainable energy capacity in order to supply the GVB's energy needs.

Crowdfunded solar panels

Nuon/Vattenfall crowdfunded bonds to take the first steps to develop three solar parks at existing electric power plants in Velsen, Eemshaven and Amsterdam. The full target investment of two million Euro was reached in less than two weeks

after allowing Nuon customers and non-customers the opportunity to buy bonds in October 2018. The capacity is estimated at around 7.8 megawatt generated by 27 000 solar panels and will be enough to power 2500 households.

Zuidas off the gas

During Green Business Club Zuidas EnergieLab in October 2018 the ambition to get Zuidas off natural gas was launched. The Zuidas Amsterdam Development Office has already taken many steps to phase the area off gas. Together with Alliander they are mapping the energy needs for the area and the possibilities to use new techniques to optimise the energy network. Roland de Vlam, chairperson of Green Business Club Zuidas and lawyer at Loyens & Loeff wants to concentrate on getting existing buildings disconnected from the gas supply. VU Amsterdam and WTC have already started on this goal. Green Business Club Zuidas will develop a master plan with its participants to bring the ambition to fruition.



Photo: GBC Zuidas



Photo: GBC Zuidas

Waste & Circularity

In 2018 much attention was given to waste, or better yet, waste reduction. Besides waste reduction, the focus was on the logistics of waste: collecting the different waste streams involves considerable transportation. Add to this the large number of waste collectors that are active, and it becomes obvious that there is room for improvement.

Collaboration

To reduce waste, more collaboration was sought with sustainable companies and start-ups such as MUD Jeans, Dutch Spirit, Van Hulley, Fairphone, Sims Recycling, Closing the Loop, Wastewatchers and E-waste Arcades. The projects that formed from Green Business Challenge (a Green Business Club Zuidas programme for young professionals) were reinforced by these collaborations and were ensured continuity. A number of Zuidas companies have engaged in long-term commitments with these circular partners. Start-ups and scale-ups are becoming more

Waste and circular An inventory of waste flows among GBC participants has shown that the following flows are separated. The data were entered by 11 Zuidas companies. paper & cardboard residual waste glass plastic hazardous waste swill/GFT coffee grounds coffee cups

important in the transition to a circular economy.

confidential

Less, smarter and greener

By signing the Green Deal Zeo Emission Stadslogistiek (city logistics) companies in Zuidas have committed to working towards emission-free deliveries and waste collection. The first steps to map current streams have been made and will continue in 2019. This year a number of pilot projects on smart emission-free logistics, including waste collection and removal, will also start.

Zero Waste Zuidas

Green Business Club Zuidas and the Amsterdam Economic Board are working towards a Zero Waste Zuidas, focussing on high-value processing to make landfills, incineration or foreign-country

processing of waste a thing of the past. In 2018 a number of companies such as the VU Amsterdam, RAI Amsterdam, ABN AMRO, WTC management company, AkzoNobel and Accenture were asked to be a frontrunner in this new project. The kick-off was planned for February 2019.

Photo: RAI Amsterdam







Food waste: knowing what your guests eat

Many companies and their caterers are troubled by unnecessary food waste. Tackling this problem can save a lot of food and a lot of money. Early 2018 Green Business Club Zuidas started a project together with Wastewatchers to fight food waste in Zuidas companies. This resulted in a reduction of food waste of 8% per category on average.

The Method

During six months, companies kept track of what they served during lunch meetings and what was actually consumed. For the first three months the caterers continued business as usual, aside from noting exactly what food was wasted per item. From there, the caterers adapted the selection of food based on the collected data. Over the next three months the monitoring of waste continued to compare the results at the end of the project.

Fruit and drink

The food items were sorted into the categories bread, salad, drinks, snacks and fruit. Drinks and fruit scored highest for waste with 41% and 44% respectively being thrown away. By adjusting supply, waste was lowered

to 23% and 34%. Salads were also often wasted with 41% – this was reduced to 37% at the end of the project run.

Advice: know what your guests eat

Wastewatchers presented a report based on this project advising participants and companies in general, Christiaan Houben from Wastewatchers recounts the findings:

'No-shows, participants not turning up, are an important factor. This happens mostly at companies on Thursdays. For example, to get a good overview of who will - and who will not - turn up at a meeting or event, you could send an e-mail on Wednesday evening requesting conformation.

Portions can be adapted, as people

eat less than is offered anyway. Present your lunch in a different way to avoid looking 'stingy' such as serving miniature sandwiches instead of larger sandwiches.

The largest gains can be made by simply adapting what is offered to the actual consumption. Is little salad eaten? Then offer less salad. Consumption varies wildly per company and even per day. This is why it is so important to use the Wastewatcher's tool to gain insight into how, when and what is eaten by whom. It allows the servings to be well adapted to the demand and everybody can enjoy an adequate lunch.

Anatomy of the Waste Bin

During Interclean Amsterdam, RAI Amsterdam organised the workshop Anatomy of the Waste Bin. What ends up in the waste bin? And what items can be recycled? The workshop offered participants a chance to discover how they can practically reduce their ecological footprint. RAI Amsterdam has a zero-waste ambition that views waste not as waste but as material that requires a new destination. All the RAI waste is fully recycled and is used as raw materials for new products. In September 2018 RAI Amsterdam reached The Gold level of the EPCAS Food Waste Initiative for activities taken to reduce food waste.

Less plastic waste

Simple, small measures can sometimes save a lot of plastic waste. Market 33 exchanged all plastic straws for cardboard versions. Houthoff has also banned plastic straws and aims to be a completely plastic-free work office environment. Loyens & Loeff made a simple change in 2018 to save much plastic on a yearly basis: their canteen no longer offers cheese and meat products wrapped in plastic. Hotel Crowne Plaza Amsterdam South has its own sustainability programme, the Green Engage System, and the hotel has achieved the highest level in the programme. One of the initiatives in 2018 was to swap plastic water bottles for glass bottles. A total of 57 000

Digibon

bottles a year.

Digibon is a new digital cashier receipt that was introduced at Circl in 2018. It replaces the paper version. This small piece of paper adds up, in The Netherlands alone 13 million litres of oil and 55 million litres of water are used to produce all the paper receipts each

year. Digibon aims to make Amsterdam the first city where digital receipts are the norm

Waste reductions at Stibbe

Stibbe undertook a number of steps to recycle waste and recycle in 2018. Food waste and coffee grains are composted and glass and plastic waste are separated. Paper is processed and reused too. Desk lamps from the old offices have been given a second life. Drinks in plastic bottles are no longer on sale in the office but water fountains are available on each floor

Less paper consumption due to energy competition

Social psychology masters student Ivar Maas researched how behavioural changes can increase sustainability during his research internship at Green Business Club Zuidas. He initiated an Energy Competition at seven organisations in Zuidas that aimed to reduce printing and copying. Participants companies and organisations Accenture, Arcadis, CBRE, the Faculty of Behavioural and Movement Sciences. Faculty of Law, Loyens & Loeff and the Zuidas Amsterdam Development Office saved 522941 pages of print paper in only two months during the competition.

Recycling telephones and clothes

Two teams of young professionals that took part in Green Business Club Zuidas Green Business Challenge placed attractive displays with special bins to collect mobile phones, shirts, suits and jeans at six participating companies: Circl, CBRE, VU Amsterdam, Accenture, Loyens & Loeff and RAI Amsterdam. They collaborated with sustainable companies such as MUD Jeans, Dutch Spirit, Van Hulley, Fairphone, Sims Recycling, Closing the Loop, Hemd and E-waste Arcade. The project allowed 167 clothing items and 143 telephones to find a new home. They presented their findings at the Sustainability report 2017 presentation together with a fashion show featuring sustainable clothes.

Working together, circular

To make their services completely circular Circl formed a coalition called FM coalitie Circl. This collaboration connects parties with representatives from ABN AMRO, Avex, CSU, Donkergroen, Engie, Securitas, Spirit and Vermaat. Coffee cups that are delivered by one party, are collected by another one and a third coalition partner recycles them as raw materials for the paper towels that Circl offers customers in their toilets. The coalition is also working on a dashboard that maps all the material streams, so problems as well as opportunities for more collaboration can be found.

Buurtbuik

Buurtbuik fights food waste by collecting left-overs at caterers, supermarkets and shops and shares them with locals. Accenture started donating all leftover food on Fridays to Stichting Buurtbuik from May 2018 to support local residents and avoid food waste.

Closing the Loop

Mobile phones are a large waste problem in developing countries. Unused phones end up in landfills in developing countries causing pollution and health issues for the local population. Accenture signed a contract with Closing the Loop in 2018. Closing the Loop is an organisation that collects old unused phones from developing countries to recycle them sustainably in Belgium. For every telephone Accenture has in use a mobile phone from developing countries is recycled sustainably.





Photo: Anton Meester

6 Water & Greenery

In February 2018 the Plan for a Green Zuidas was decided upon by the city council. Zuidas Amsterdam Development Office is using multiple instruments to implement the plan for a green Zuidas.

Biodiversity

From the Summer of 2018 the Zuidas Amsterdam Development Office has its own adviser for biodiversity. The adviser ensures that in planning and design of aquatic and green areas the

biodiversity is considered.
Ecologists, city planners, landscape architects and project leaders hold weekly sessions to discuss opportunities to increase biodiversity. These opportunities are collected in a 'opportunity card' that is given to future developers and architects.

Water and green building envelopes

Water, nature and sustainability are also considered in the planning stage. District Zuidas has included rules about this in its building envelope guidelines. Green areas contribute to the liveability and make the Zuidas more resistant to climate change. To ensure green roofs for example, the guidelines stipulate that buildings under a certain height must include highquality green. This entails that the green areas must be attractive, contribute to biodiversity and must be accessible. Changes such as more extreme rainfall and climate change required more specific demands in the building guidelines. Buildings must include collecting and storing runoff from rainwater in their design. The minimum water retention for a plot must be the total surface area x 60 mm per 24 hours.

Trees make way for Zuidasdok

To realise the Zuidasdok project trees are being cut down by the A10 Zuid and at the intersections De Nieuwe Meer and Amstel. In February 2018 the removal of 630 trees commenced. The trees are cut down 'at the latest possible time' when needed in accordance with the season for felling, which runs from 1 November to 31 March. These green areas were often created without planning so the tree roots are close to each other and intertwined – giving the trees little chance of survival if they were to be replanted. Trees that are healthy and can be expected to live a long life are being replanted but there are not many of them. In total 14 400 trees will be felled during the project. The space created for Zuidasdok in this way, will influence how the area is experienced. Once the Zuidasdok is commissioned the green will be grown back in higher quality, so fewer trees in total but of a better quality and with more diversity. The wood from the trees that have been cut down will go to the Stadshout association to be repurposed.



Photo: Jeroen Assen



Photo: Jeroen Assen

Spotlight



Photo: Too van Velzen

Green roofs in Zuidas: enthusiasm and obstacles

'There are tens of thousands of square meters grey gravel roofs in the area just waiting to be turned green.'

In 2017 Green Business Club Zuidas and the Zuidas Amsterdam Development Office declared the ambition to have realised 25 000 m2 of Parkdak in 2020. A Parkdak is a green roof with high-quality growth that can also act as a water buffer.

Existing roofs

The advantages of a Parkdak are obvious: it insulates, avoids water-flow problems and offers a green outside area. The Zuidas building envelope guidelines stipulate that roofs up to 50 meters high must include high-quality plant growth. With new property developments in the last years the amount of green square meters has increased impressively. For the instigators however, this is not enough and they want to see existing roofs turn green too, mainly because existing buildings in particular can use the extra energy saving and water buffering advantages.

Roof scans

Rooftop Revolution was tasked to make an inventory of the existing roofs, offer roof scans to owners and companies and to put interested parties in contact with companies that can lay these types of green roofs. From the end of 2017 until the end of 2018 they made an inventory of 74 office buildings and 25 apartment buildings with a total surface area of 180 000 m2. Detailed advice was given on four properties with a combined surface area of almost 17 000 m2 to turn their roofs into green

Rooftop Revolutions director, Jan Henk Tigelaar, was involved in the Zuidas rooftops in 2018 and encountered lots of enthusiasm but also some obstacles.

'One of the problems that we came across is ownership and the distance between the owners and their real estate. Many properties in Zuidas are

owned by international investment companies that hire a management firm to look after their real estate. It is the owners and not the leaseholders that decide whether to invest in a green roof. It turned out to be difficult to convey the local enthusiasm for green roofs to the owners. We performed a detailed analysis on a number of large properties and showed what could be achieved on the roofs. The roof scans can be decisive in putting a Parkdak in an agenda. We now also have a good overview of what the rooftop landscape looks like in Zuidas. There are tens of thousands of square meters grey gravel roofs in the area just waiting to be turned green! The urgency to start acting on this will hopefully get through to the owners auickly.

11% recreational use

Water meters read automatically

In 2018 real-estate investor Vesteda started placing automatic water meters to carefully monitor water use as they do not always have access to their water connections. Meter-reading specialist Smartvatten installed a specially-developed camera that they can install on the water meter without a technician. The cameras send a reading every minute to an online portal for monitoring.

Green walk

A number of residents in Amsterdam Zuid initiated a 'Groene Wandeling', or green walk. The walk passes through sixteen noteworthy areas including the city garden near sub-district Beethoven, the garden at Circl, the Beatrixpark, the Botanical garden at the VU Amsterdam and the cemetery RK Begraafplaats Buitenveldert. On request the residents organised a number of walks in 2018 In addition, the folder they designed can be found on the Zuidas website. so everybody can visit the green areas without a guide.

Mahlerplein nominated for tree project

After a redesign and the building of the underground bicycle parking garage in 2017, the Mahlerplein was made more attractive with trees and grass lawns. An investigation into the wind around the Zuidplein however, showed that a closed crown of trees would improve the climate there, so Mahlerplein was planted with large trees. The individual trees are surrounded by natural stone enclosures that can be used as benches and to relax on. Grass mats were laid down to increase the green atmosphere and to encourage recreation under the trees. Industry association VHG awards a 'Tree project of the year'. National tree association National Bomenbank (NBB) that also works in Zuidas nominated the Mahlerplein. The prize was awarded in 2018 to Pius Floris for a project in Venlo.

Preserving trees in Beethoven

A temporary bicycle path was placed in sub-district Beethoven in 2018. The bicycle path winds its way through the trees. Three trees were in the way but instead of cutting them down a solution was found for each tree. The bicycle path goes around one tree, the second tree is now in the middle of the path and a bridge was built to keep the third tree.

Plants in RAI Amsterdam

Plant enclosures have been set up at the RAI Strand Zuid location. A double row of conifers are already growing there. In addition, new street covering has been laid down and around the trees, new plants with different types of ivy and perennials.

New trees in Vijfhoek

At the Vijfhoek 68 trees of all types were planted in early December. They include

climbing trees such as prunus that have multiple trunks and low branches, but also the extraordinary scarlet oak that has a beautiful red autumnal colour.

More care for trees

Due to the dry summer the plants around Zuidas needed extra care. The sunlight was so strong at times that tree leaves burned. Extra water was given in many places. Most of the green areas were saved but not all. Many of the trees in mobile containers died for example. Inside the scope of the 'quality in all phases' policy, Zuidas has around 30 mobile containers for trees. These containers can be moved to provide greenery in areas that are under construction. In 2017 120 trees were planted on the eastern side of the De Boelelaan. Much work was made to make the young trees take root. All the trees received extra water from April onwards. Because the ground water level is at 1.5 metres depth the trees needed the helping hand. The extra attention worked and all 120 elm trees are doing

Water conscious at the Ronald McDonald House

The Ronald McDonald House in the VUmc receives parents whose children are being cared for at the university hospital Amsterdam UMC – VUmc location. The House took a number of steps to be more sustainable in 2018 such as making guests more aware of water use. All showers have a timer with a sticker that states 'Many of our guests reuse their towels'. Taking shorter showers saves the environment and donated money.

The Zuidas vegetable garden

A highlight of the 'public green' in Zuidas is the vegetable patch from Michelin-star restaurant Bolenius on the Gershwinlaan. To keep their garden producing in the winter they plant kale shortly before winter. The kale is used partly in the restaurant and, after blooming in the early spring, the plants are used as animal feed at the city farm in the nearby Amstelpark.

Week without meat

Members of Green Business Club Zuidas such as VU Amsterdam (Sodexo), Accenture (ISS), and ABN AMRO (Vermaat) joined the national 'Week Zonder Vlees' (Week without Meat), campaign in 2018. During the week of 5 March they served no meat in their office restaurants. Companies and individuals could register through the campaign website. It was the first national week without meat and the campaign will be repeated in 2019. By not eating meat for a week an individual saves 130 litres of water and 3.3 kg of

Japanese gardens redesign

The botanical garden Zuidas is one of the few botanical gardens in The Netherlands to have an authentic Japanese garden. Working under Japanese expert guidance, volunteers redesigned the garden in 2018 for a reopening in July.

Bees at Accenture

Starting in the summer of 2018 two bee populations are living on the rooftop terrace on the sixteenth floor of the Accenture offices. They were placed by Workplace and ISS. Accenture wants to create awareness for climate change and bees play an important part. Climate change is causing bee populations to decline while they play an extremely important role in the ecosystem. The honey that the bees make is served in the office espresso bar.



Photo: Botanische Tuin Zuidas

green / blue roof in Zuidas (183,286 m2 total roof area), of which: 53%



Visual: Isabeau Bosscher

Network Gallery 2018



49/0 has found work



has started a training or internship in paid work



1470 started volunteering



38% is still searching

Broadening horizons

Collaboration between organisations is made possible by people who dare to go beyond their horizons. Theatre maker Janke Dekker for example, goes on a safari through Zuidas and incorporates her view into successful shows. She uses the talents of students at the theatre school PACT+ (ROC Amsterdam) and has them perform at special places in Zuidas or in the Kenniskwartier where the new

building developments are starting to take shape and unique collaborations are becoming visible. Encounters, inspiration and information exchange are the point of focus here and offer students and scientists the chance to work in a dynamic lively Zuidas.

Connections

The importance of cooperation and networking was highlighted at the Masters of LXRY in the RAI

Amsterdam November 2018. Roland de Vlam, chairperson of Green Business Club Zuidas was elected as Mr. Zuidas. He talked about the power of cooperation for sustainability, but also in social areas. Ruth Jansen, the creative mind behind Zuidas Today, was chosen to be Mrs. Zuidas due to her commitment to connect people and groups.

7 Community

The development of Zuidasdok and the construction of a large number of new residential and office buildings will make the Zuidas, like the rest of the city, busier and busier. A densely populated Zuidas where many parties work together to develop a diverse, inclusive and sustainable Zuidas thrives on collaborations that mutually strengthen our society. By exchanging expertise the complex processes and challenges that the Zuidas will tackle in coming years will be handled more quickly.

Cooperation

The power of a lively, inclusive Zuidas lies in cooperation. People and organisations know where to find each other and use each other's qualities. This way the district will not only be attractive to people who work here, but also for people who live in Zuidas and surrounding neighbourhoods. City Council Amsterdam-Zuidas, Hello Zuidas and Green Business Club Zuidas conducted projects in 2018 to encourage liveliness in the area by connecting employees, students and residents from the Zuidas and Buitenveldert area throughout the year.



Photo: Funding Circle

Sustainability report Zuidas 20

Spotlight



Photo: Wim Lanser

Safaripark Zuidas: it's a jungle out there

'Every day they run around in the wild with their gluten-free decaf soya lattes in one hand and in the other hand their agenda, in the other hand their children's lunch boxes, in their other hand the latest yearly report... and they only have two hands!'

On Friday 2 November 2018 the theatre show Safaripark Zuidas by Janke Dekker premiered in Circl. Safarpark Zuidas is a comedy 'stand-up musical' about the love and drama that takes place in this hectic, ambitious place and asks questions such as 'What makes us happy? A fat pay check or a day lounging in the sun?' and 'Do you open an email from

your boss if it arrives at eleven in the evening?'.

The burn-out quiz and the traditional Zuidas Christmas drinks caused much hilarity in the audience. Aside from the three main actors a noteworthy performance was given by students of the theatre school College Zuid/PACT Romy van Veen, Brandon

Dannenburg, Melina Themas, Jaimy van Nobelen, Demelsa van der Zwaab and Chris Menoza.

The Safaripark Zuidas show was performed another twelve times in November in different locations around Zuidas, for example in Infinity (the former ING headquarters) and De Nieuwe Poort.

Social

Election debate

In the run-up to the council elections a debate was held in March 2018 on 'The future of the Zuidas'. Five local politicians, policy makers and representatives of the area entered into discussion with companies and city innovators. The most important conclusion was that all parties want a Zuidas that is an integral part of the city. The bicycle and pedestrian paths will need to be improved. More green areas and culture will contribute to a more attractive Zuidas.

Verdi member's meeting

In September Hello Zuidas organised its member's meeting around the development of the sub-district Verdi. David Bout and Gregor van Lit from the Zuidas Amsterdam Development Office kicked off the meeting with an overview of the area and the challenges they face as municipality: creating space for residential buildings, offices and facilities while keeping the unique green character of the area. Moderator Menno van der Veer then invited the members to share their views based on video portraits and statements.

Facilities consultation

In March 2018 the 'Wonen in Zuidas' (Living in Zuidas) - facilities consultation took place in Circl. On the agenda was the Zuidas facilities strategy for the Municipality of Amsterdam. The most important advice that came from the consultation was that flexibility and small-scale quality framework is more important than hasty action and that we should look across the borders of Zuidas to ensure that the area is an integral part of the city.

Residential consultation

The 'Wonen in Zuidas' – residents consultation was held in July 2018 at Circl. The residents themselves were invited. The consultation involved three speed dates whereby the residents could talk about what had brought them to Zuidas, what is happening in Zuidas and what is keeping them in the area. An outcome from the speed dates showed that there is a demand for more green areas close to the residential buildings.

A Broader Mind

The VU Amsterdam offered the bachelor course A Broader Mind in 2018. Central to this course is personal and academic development, social interaction and self-reflection. Students learnt about large social issues such as sustainability, digitalisation and poverty and were shown how they, from their personal



Photo: GBC Zuida

background and beliefs, can contribute to these issues.

Ask-away lunch

Every few months Green Business Club Zuidas organises a 'Vraag-maar-raaklunch' (Ask-away lunch) in collaboration with Welzijnswerk Dynamo and city district Zuid. One of the Green Business Club Zuidas participants invites a group of elderly people in the area for lunch. This way the predominantly elderly population in Buitenveldert comes in contact with the employees at the neighbouring Zuidas and Green Business Club Zuidas members get a feel for the neighbourhood. The Vraag-maar-raaklunch took place in 2018 at Loyens & Loeff, Waternet/Waterschap AGV and Restaurant Bosch/Van Doorne. In December a special Christmas edition in the Ox&Bucks was organised together with Zuidas Today and sponsored by Zuidas companies.

New Piaggo for Voesdelbank Amsterdam Zuid

When the low-emission zone was introduced on 1 January 2018 in Amsterdam for scooters built before 2010, the food bank Voedselbank Amsterdam Zuid was no longer allowed to use their diesel Piaggo delivery van. Green Business Club Zuidas started a crowdfunding campaign at the end of 2017 to purchase a new vehicle. A large amount was raised from Zuidas companies and in April 2018 a new electric Piaggo was delivered to the Amsterdam Zuid food bank. They can now collect products from suppliers and deliver crates of food to customers that are unable to leave their homes.

Harbour dinner

Loyens & Loeff was the donor for a 'Havendiner' in 2018. These are dinners where 100 guests, of which 80 refugees from the AZC in Amsterdam and twenty



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tainability report Zuidas 2018



employees of the company donor, come together for an evening's dinner. The Havendiners take place once a month in the Haarlemmermeerstation on the Amstelveenseweg. They are inspiring evenings with a human touch that often end with Syrian, Iraqi, Iranian, Kurd or Eritrean dance.

Art & culture

Art Zuid Art Camp

The Art Zuid association organised the Art Zuid Art Camp over multiple days in the summer of 2018 for kids between five and twelve year's old. The kids spent five days as real artists and developed their creative skills. They went for walks, played games, went to a city farm and visited company art collections at AkzoNobel amongst others.

Get Lost

In June 2018 the second edition of the Get Lost Art Route opened on the Gustav Mahlerplein, an art route where companies such as AkzoNobel and Flow Real Estate work together with twelve young artists. The Get Lost organisation aims to bridge the gap between art and business and believes that artists and business people can inspire each other. Guided tours were organised and live performances were held in addition to the sculptures and paintings exhibited.

Pure market

In July the travelling Sunday market 'Pure Markt' set up shop in the Beatrixpark. Visitors could meet honest and wholesome entrepreneurs. The Pure Markt was founded in 2008 and after ten years has become a staple attraction of Amsterdam parks.

From blooming flowers to liqueur On the initiative of Frans Taselaar (Hompe & Taselaar) 6000 red tulips were planted on the embankment of the A10. A large part of these were harvested and processed into a unique tulip liqueur 'Primeur Zuidas'. Planting tulips somewhere in the Zuidas, enjoying the colours in the spring and drinking the liqueur afterwards: a cycle that we hope will be repeated every year.

Sport

Padel courts

Padel is a mix of tennis and squash and is played on a brightly-coloured court. Three courts were commissioned in July 2018 in Zuidas at the Claude Debussylaan. The three blue courts were made possible thanks to the Zuidas Amsterdam Development Office. These

professional courts can host worldchampionship-level games. Everybody is welcome to play on them after paying a fee and lessons as well as tournaments and social evenings are organised regularly.

ROC & RAI Amsterdam collaboration

ROC started offering the 'Urban Sport' degree in 2018. Its mission is to get Amsterdam exercising by educating sports trainers who can then organise challenging sports activities for everybody. RAI Amsterdam started cooperating with the ROC Urban Sport course. In coming years around twenty ROC Urban Sport students will use the empty rooms in the RAI every Thursday as a urban sport education location. Through this collaboration, previously unused rooms in the RAI are given social value.

Houthoff Heroes

The Houthoff Heroes programme supports charities that Houthoff employees have personally engaged with throughout the year. In 2018 Sportclub Only Friends received a financial donation. This association offers children with disabilities or a chronic disease opportunities to practice sports. With the company's contribution three football teams could take part in an international tournament in Austria.



Photo: MNO Photo

Zuidas traditions

In 2018 a number of yearly events took place that have become a household name in the Zuidas: Zuidas Culinair Zomerfeest, Grachtenfestival, Open Toren Dag, On The Roof Film Festival, Zuidas Run and the street football tournament organised at De Nieuwe Poort in collaboration with the Calvijn College. The Zuidasrun held its tenth edition as did the street football tournament. The Open Toren Dag was a success in its sixth year running. This way, this relatively new area of



Photo: Too van Velzen

Colophon

Green Business Club Zuidas

brings companies, government and social organisations together to initiate sustainable projects in the Zuidas

gbzuidas.nl

The Hello Zuidas foundation

manages the Zuidas to ensure a well-functioning area. The goal is to promote a district that has international appeal, and high quality working and living conditions.

hellozuidas.com

Zuidas Amsterdam Development

Office, is the department of the Amsterdam city council that works to develop Zuidas into a unique Amsterdam city district: an international location for living, working and recreation.

zuidas.nl

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