

# Our sustainability journey

mapping the future



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# Where we are today

Wavin's purpose – building healthy, sustainable environments – lies at the basis of all our actions. Our sustainability journey has led us to work on some wonderful projects with like-minded business partners and NGOs. We are delighted to share some of the work we do together, by letting them tell our sustainability story.

Wavin's Plastic Road in Zwolle, the Netherlands.

# A word from the CEO

Our sustainability journey, which began in the 1990's when we became the first in the industry to use recyclate, has transformed over the last three decades. We've been privileged to align ourselves with customers and partners who share the same passion for innovation and its role in creating livable and loveable cities – and, indeed, advancing life around the world. Together – with other business groups which are part of our parent company, Orbia – we contribute to the greater purpose of making the world a safer, healthier and more comfortable place.

By 2030, more than 70% of the world's population will live in large cities. A population that is growing exponentially, posing multiple challenges. Cities will have to adapt, in order to be safe and sustainable in the face of extreme weather and other climate hazards – like massive, intense rainfalls and severe droughts. In 2015, the UN introduced 17 Sustainable Development Goals (SDGs). They form a global compass for various challenges like poverty, health and climate change. At Wavin, we endorse all the SDGs and through our sustainability strategy, we contribute to 4 SDGs directly. In fact, they are the 4 pillars that form the foundation of our core purpose – to build healthy, sustainable environments. These are the drivers of our sustainability journey.

## 1. Safe and efficient water supply

Water is essential to life – for all humans, animals and wildlife. And, according to the United Nations, access to safe and readily accessible drinking water is a fundamental human right. At Wavin, we are focused on creating innovative and sustainable solutions for preventing contamination and water loss from leakages in aging infrastructures – and on increasing the quality and performance of water distribution networks. And we are privileged to form alliances/exchange ideas with likeminded stakeholders, to secure safe and efficient water supply.

## 2. Better sanitation and hygiene

Sanitation is an urgent problem, especially with the sprawling, rapidly expanding urban areas across the globe. By 2050, approximately 2.5 billion people will migrate to cities in the developing world. Today, 61% of our global population have inadequate and sub-standard access to safely managed sanitation services. Sanitation and hygiene are critical for health and economic growth and overall productivity, which is why urban sanitation has become a global priority. And Wavin is leading the way – on a global scale – by providing lasting piping



- SDG 6: Ensure availability and sustainable management of water and sanitation for all.
- SDG 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.
- SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable.
- SDG 13: Take urgent action to combat climate change and its impacts.

solutions for sanitation infrastructure that will ensure future-proof wastewater transport and sanitation that is accessible to all.

## 3. Climate-resilient cities

As urban cities become more populated, the pressure on cities is high because of climate change challenges like massive rainfall, and extreme heat and droughts. As leaders and innovators in this industry, Wavin encourages customers and stakeholders – from municipality leaders, water authorities, and urban planners to the landscape architects, engineers and private residents themselves – to embrace new ideas, new innovations, new (and better) solutions for building healthy and livable cities and communities. An integral part of this transformative undertaking is the development of an integrated urban stormwater infrastructure that will be resilient to the



challenges of intense, excessive rainfall, drought and heat stress due to climate change. Wavin will continue to play a leading role in the development and production of forward-thinking solutions – not just to diminish the challenges of urban flooding but to adapt to the reality that is climate change.

## 4. Better building performance

For Wavin, better building performance means we are enabling an efficient building process through BIM (Building Information Modeling) and prefabrication. And we are increasing comfort through energy-efficient heating, cooling, ventilation and noise reduction. We need to create healthier, more efficient buildings that shape the way we live, work and play. Better building performance cannot happen without innovation and collaboration. When forward-thinking companies like Wavin collaborate for a better, more sustainable future in building design, the end result is that cities and communities benefit with buildings that are future-fit and enhance their daily lives for years to come.

## Innovation

As a company, we encourage knowledge sharing and innovative thinking. And we seek these same skills when we search for new talent. It is an important driver in our internal organization and in contacts and cooperation with other parties – from established corporations to start-ups. We continuously improve our level of innovation by bringing great ideas together, resulting in the creation of smart, sustainable solutions.

## Transparency

In my opinion, transparency is one of the most important drivers in becoming a truly sustainable company. And instead of telling the Wavin story ourselves, we prefer to



Maarten Roef, CEO Wavin

share those of our customers, business partners and the communities we work with – providing their impression of the work we do together and their thoughts about the challenges that lie ahead.

## Leading by example

Since our founding in 1955, we have always paid attention to the quality and durability of our production processes and value chain. Monitoring our impact provided clear data, which contributed to setting ambitious goals to reduce carbon footprint, improve efficiency and advance durability of products.

I feel privileged leading a company with such motivated professionals – 10,500 worldwide. And together, as a global market player, we wish to make a difference and become an industry leader in sustainability – leading by example in our operations and value chain, but also in the vicinity of our operations. The focus on diversity and social inclusion remains an important priority, especially in an organization deploying activities in 40+ countries worldwide.

I am confident that our current actions – and the targets set as part of our strategy – will importantly mitigate our impact to the environment, while contributing to a better world.



building  
healthy  
sustainable  
environments

# Wavin at a glance

## About us

Wavin designs and builds sustainable surroundings while contributing to waterway engineering, safe drinking water, sanitary facilities and optimising interior climate conditions. We are active on multiple continents. With 60+ years of knowledge and expertise, we provide innovative solutions to the building and infrastructure industry – Together with our suppliers, customers and business partners.

We are part of Orbia, a community of companies working together to tackle some of the world's most complex challenges. We share a common purpose: To advance life around the world and effectively mitigate our impact on the environment, while contributing to a better world.

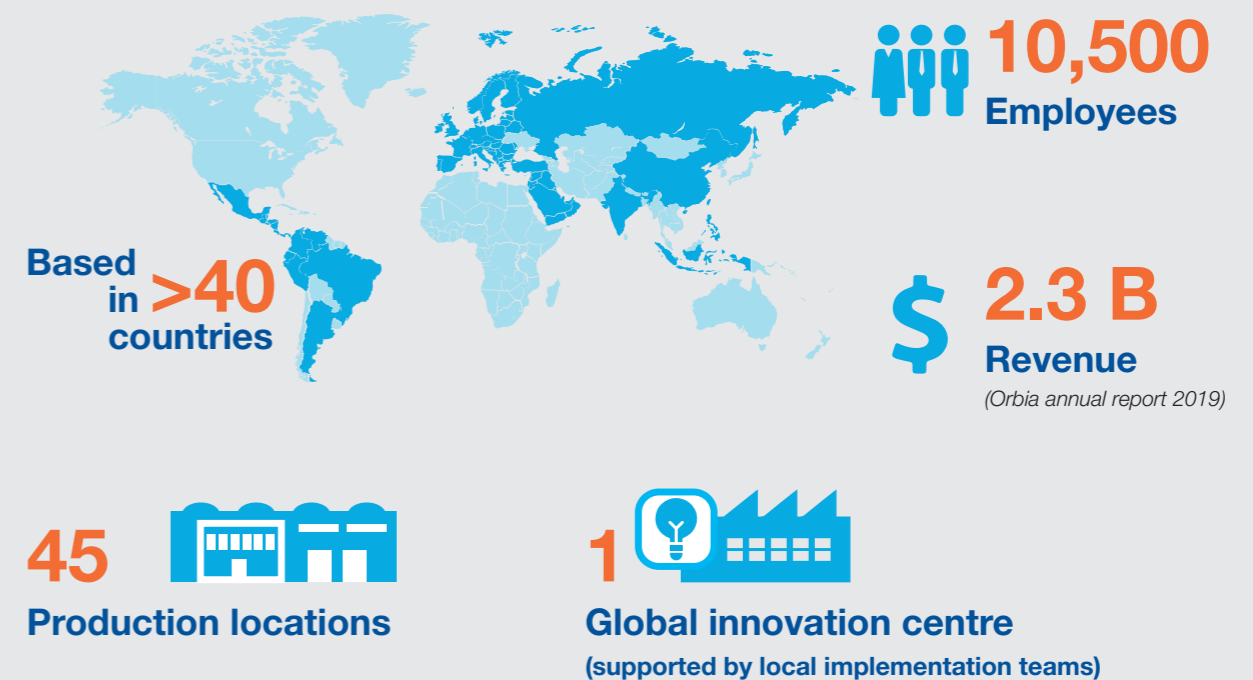
## Our purpose explained

Our world is about building. It lies at the heart of what we do. The construction market defines our playing field. Both as a company and as individuals, we wish to reside and be part of healthy, future-proof environments where we can safely live, play and work. The purpose Wavin lives by is crystal clear: We will build healthy, sustainable environments.

While we build and create value, we are at the same time aware of doing so in a mindful way, together – by using as much recycled material as possible, reducing energy consumption and waste, and keeping a close eye on our footprint. In other words, doing our utmost to create a sustainable future.



## A few facts about Wavin



# Our road to sustainability

Wavin is an international leading provider of innovative solutions for the building and infrastructure industry. Backed up by years of experience, we are geared to tackle some of the world's biggest challenges around water supply, sanitation, climate-resilient cities and building performance. Meanwhile, we remain focused on what we do best: intelligent problem-solving, dedicated technical support and being actively involved in creating positive societal and environmental impact.



90<sup>s</sup>

## Circular Economy

As early as the 90s, we started as one of the first in our industry to use recyclate (recycled materials).

## Recycling plant

Setting up a joint venture recycling plant to increase recyclate availability and quality.

## Sustainability Report

First Sustainability Report in 2011 to externally communicate on our sustainability performance and targets.



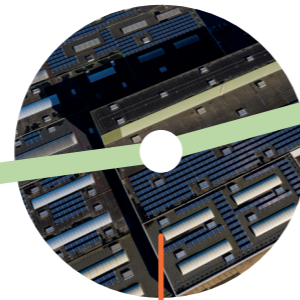
00<sup>s</sup>

## Stakeholder trainings

Training programs set up to train local plumbers to create economic opportunities for local communities in Latin America.

## Supporting communities

To ensure good education for local communities, Wavin has built 7 schools in the proximity of its production facilities in Latin America.



10<sup>s</sup>

## Renewable energy

Photovoltaic (PV) cell installation at production sites and purchase of renewable electricity.



20<sup>s</sup>



## Self-supporting houses

Development of houses that offer an environmental and social sound solution (e.g. integrated safe and hygienic water cycle, affordability, PV cells for continuous electricity, etc.) for those who are in the utmost need in Central America.

## Plastic Road

Modular, long-lasting, circular road made from recycled plastic.



future

## Car policy

Ambitious global sustainable car policy to phase out fossil fuel powered cars as early as 2025 in EMEA.



## Sustainability Strategy

Adopting ambitious sustainability strategy based on six global sustainability programs with clear quantitative targets for 2025.



# Some sustainable solutions from our product portfolio

## TreeTanks® for greener cities

Trees provide shade, absorb carbon dioxide, release oxygen and fresh air, and provide a cooling effect. To support trees to grow in urban environments while greening up and cooling cityscapes, Wavin developed the TreeTank®. It provides trees in urban areas a greater chance to survive and secures trees to grow faster by providing unhindered root growth in urban spaces. Other benefits include preventing the tree roots from damaging road surfaces. And since the ground is not compacted, this also allows the ground to capture more rainwater.



## Second chance plastics, first class roads

Wavin has, in a joint venture with Volker Wessels, developed a plastic road created from post consumers plastics: The PlasticRoad. This consists of circular and modular elements made from recycled plastic. Each element has been designed to contribute to a fully circular application. Its smart design allows excess water to drain quickly and has a built-in solution for pipes and cables. It can be built in a few days' time and it lasts three times longer than a traditional road surface. In addition, switching from asphalt to plastic roads can reduce carbon dioxide emissions by up to 70%, compared to traditional road construction. While scaling up to commercial production, pilots have been installed to test different user qualifications in the Netherlands and in Mexico.



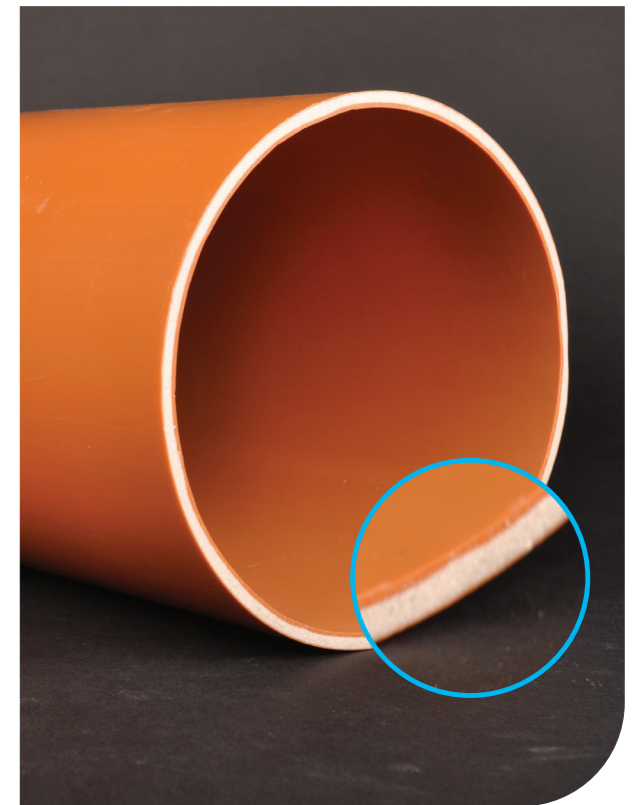
## Invisibly making the difference

A smart and easy solution for sewer installation systems is Wavin's Tegra Road Gully. The drainageway enables a quick disposal of rainwater peaks while retaining as much dirt as possible. An innovative filter prevents litter and debris from ending up in open water and when it needs to be cleaned, the intelligent design ensures >95% cleanliness in one go. The gully is made of 100% recycled plastics and with its ergonomic design makes installation a fast, cost efficient and easy one-person job. With its low Environmental Cost Indicator (ECI) value, the fully recyclable gully fits into any sustainable sewage project.



## Making impact by innovative technology

Part of a prominent product range within Wavin's assortment are PVC pipes developed with Recycore® Technology. The pipes represent three-layer pipes, produced with at least 40% recycle, while the outer layers are (in line with current legislation) made of virgin material. This way, Recycore® is suitable for wastewater and rainwater drainage, and also for waste/drainage water. Wavin's Pipes Collection System contains a significant part of the waste material, which can be used as the basis of Recycore® pipes. Containing the optimal amount of recycled plastic, combined with its proven environmental benefits, make the pipes an excellent choice in achieving environmental gains through sustainable procurement.

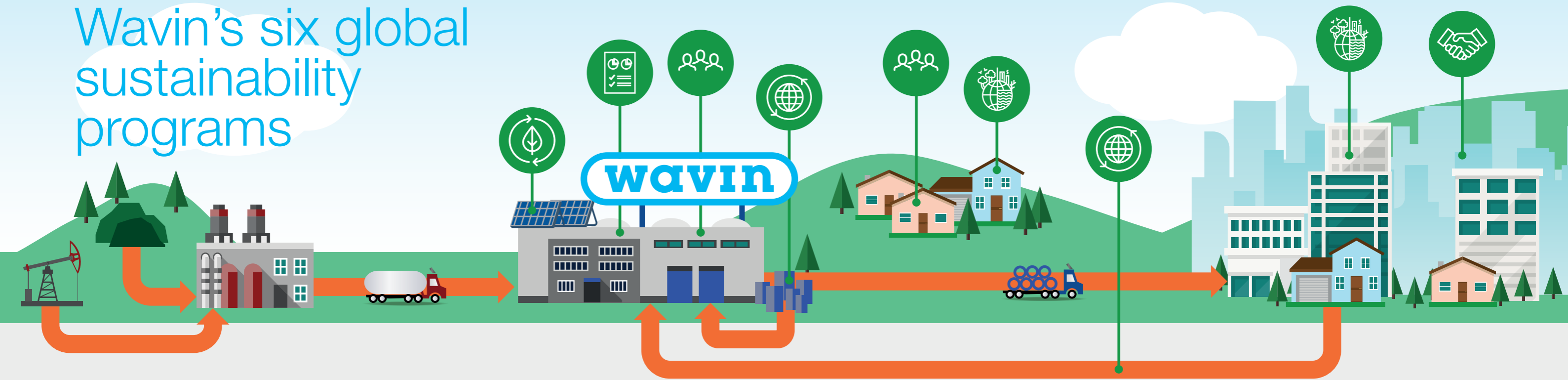




# Our sustainability programs

Wavin's 2025 sustainability strategy comprises of six global sustainability programs. Ambitious targets have been defined for each program. All focused on becoming an industry leader in sustainability by 2025. Read more about our current work and how we move forward in the next few pages.

# Wavin's six global sustainability programs



An overview of Wavin's sustainability programs.



## Innovation

Offering innovative solutions to contribute in the adaptation of climate change for our customers by:

- Using recycle materials as much as possible and reducing, where possible, the amount of materials used to minimize environmental impact (e.g. reduce CO<sub>2</sub> emissions through freight).
- Increasing the number of innovative Climate Change Adaptation (CCA) solutions such as Indoor Climate Solutions, TreeTanks® among others.
- Integrating a Portfolio Sustainability Assessment Framework company wide that will stimulate innovative solutions and reduce our customers' footprint.



## Circular Economy

Contributing to the increase of recycle usage and recyclability of products.

- Increasing global recycle usage to 25% (2025).
- Further growing the recyclability of our products to 90% (2025).
- Reducing Zero Waste to Landfill to 100% by 2025.



## Environmental Impact

Decreasing the environmental footprint for customers.

- Increasing the usage of sustainable energy (e.g. solar panels) at our plants worldwide, moving to 15 sites by 2025.
- Piloting SMART supply chain solutions to reduce our GHG emissions, in alignment with market requirements.
- Optimizing our operations as much as possible (e.g. sustainable car fleet, reduction of energy by using smart LED lighting).

Orbia has set clear and high-level ambitions for all business groups: 100% sites with a certified environmental management system by 2025, achieve net zero carbon emissions by 2050 and 100% of the plants with zero waste to landfill by 2025. The above programs support these ambitions.

The complete targets of our 6 global sustainability programs can be found on our website wavin.com.



## Social Inclusion

Creating a positive impact on (local) communities and embrace diversity.

- Expanding water fund projects\* – from the distribution and installation of irrigation kits to 9 sites (2025).
- Increasing volunteering and donation projects in Latin America and EMEA to 52 locations (2025).
- Improving diversity hiring rate throughout the organization to 40% (2025).
- Increasing the number of WASH'N (Water, Sanitation, Hygiene & Nutrition) sites to 16 (2025).
- Introducing the implementation of standardized data collection and conduct impact assessments.

\* Water fund: Organizations that design and enhance financial and governance mechanisms that unite different stakeholders to contribute to water security, distribution and installation of irrigation kits or supporting the recovery and Conservation of watersheds globally.



## Reporting

Reporting performance on sustainability programs to stakeholders.

- Continue to create awareness amongst employees on the relevance of collecting high quality data and provide them with the necessary tools and skills.
- Further integrate and combine sustainability reporting in existing processes to give full transparency.



## Public Affairs

Active involvement in policy development to increase the impact of our sustainability activities.

- Join forces and build active sectoral partnerships to promote sustainability, act upon it and further grow awareness.
- As a frontrunner on sustainability, share our experience and knowledge to drive developments on sustainability.



# Innovation



## Solutions for sustainable water usage

A big risk to human well-being worldwide is the lack of clean and safe water resources. It is an urgent problem and one of the effects of climate change we are already witnessing today. Wavin continuously develops innovative solutions to mitigate these effects.

We contribute by building healthy and sustainable environments and by creating future-proof cities.



## Goals

- Use recycle materials as much as possible and reducing, where possible, the amount of materials used to minimize environmental impact (e.g. reduce CO<sub>2</sub> emissions through freight).
- Increase the number of innovative Climate Change Adaptation (CCA) solutions such as Indoor Climate Solutions, TreeTanks® among others.
- Integrate a Portfolio Sustainability Assessment Framework company wide that will stimulate innovative solutions and reduce our customers' footprint.

# Male' Water and Sewerage Company

## Safe water for everyone, always

Being an island country, the Maldives have a very limited availability of fresh water. The Maldives are composed of over one thousand low-lying islands, with about one third of the population living in the capital island, Male'. Most of the population is served with desalinated water and some rural areas use rainwater. Access to water and sanitation services is high, however, water degradation due to high salinity and/or polluted water are serious challenges for the water sector in the Maldives.

Ibrahim Akram, Assistant Manager Business Development at MWSC: "Setting up water and sewerage infrastructure on islands like the Maldives come with many challenges. Because of the soft soil and corrosive environment, using metal pipes or concrete manholes are not an option.

We have been working together with Wavin for many years, and, for the last 12 years, they have supported us with the installation of plastic pipes and plastic manholes in the Maldives. With the contribution of Wavin's expertise and their broad product range, we were able to optimally advise and facilitate the Maldivian Government in providing safe water and sewerage services that are sustainable, affordable and environmentally friendly.

All logistics of pipes and fittings is handled with the help of small vessels between the islands. To make distribution more efficient, we decided to start a local pipe production facility under the technology license of Wavin, in 2014. We now produce PE pipes and uPVC non-pressure/sewer pipes locally. There are significantly limited logistical delays in projects and a positive environmental impact by reducing transport mileage.

"Because of the soft soil and corrosive environment, setting up water and sewerage infrastructure on islands like the Maldives comes with many challenges."

## Male' – Hulhumale' Bridge Water Pipeline

An important project we worked on together with Wavin was the Male' – Hulhumale' Bridge Water Pipeline project. For this project, Wavin assisted in the timely supply of large diameter PE pipes and fittings. In the Maldives, especially in the capital of Male', water storage facilities are limited.

There is simply not enough space in the capital, whereas the neighbouring island, Hulhumale' does have enough land to build storage facilities. To secure water security for all residents, we connected both Male' and Hulhumale' by means of a large pipeline for the supply of potable water. Since 2018, there is a 2.1 km long bridge connecting both islands. Parallel to the bridge, we installed a water supply pipeline with an approximate length of 6 km.

At the moment, we are constructing pumping stations required to boost the water between the two islands."

Construction of water and sewer network, The Maldives.



Ibrahim Akram, Assistant Manager Business Development at MWSC

Since its founding in 1995, Male' Water & Sewerage Company Pvt. Ltd. (MWSC) has been focused on providing the Maldivian population with potable water and managing wastewater sustainably. Nowadays, MWSC is a multi-disciplinary engineering and manufacturing organization, providing innovative utility solutions for water, wastewater and power for resorts, the government and contract clients.



Working together with Wavin over the years has been very successful. With their help we have been able to take our services to the next level as well. The Maldivian government has set the ambitious goal to have most inhabited islands connected to a water network by 2023. Working as a team, MWSC and Wavin are the suppliers of choice to realize this.



# Creating future-proof houses

## Şanlıurfa Naturel Park Houses

Naturel Incorporated has a clear view on developing future-proof housing. It was their plan to develop a state-of-the-art, sustainable housing project in the city of Şanlıurfa in the south-east of Turkey. A challenging environment, as the city's climate features extremely hot, dry summers and cool, moist winters.

The company placed great emphasis on the project being environmentally friendly, -by refraining from using fossil fuels and becoming as climate neutral as possible. Wavin was asked to provide a sustainable indoor climate while taking the extreme weather conditions into account. As one of the leading national companies in the plastic pipe industry and well-known for its solutions in underfloor heating & cooling, Wavin was able to contribute to the creation of a sustainable, future-proof and comfortable residential living environment.

A bird's eye view of the Naturel Park area.



“We look forward to welcoming more sustainable initiatives in the region with Wavin.”



Aziz Olağan,  
partner at Naturel Incorporated

Turkish company Naturel Incorporated was founded in 2014 and is known for its real estate investment projects throughout the country. In 2018 the company started developing its first real estate project, the Naturel Park Houses project in the city of Şanlıurfa. A total of 104 apartments were built taking into account the basic principles of the company: to realize innovative, pioneering, modern and environmentally-friendly projects.



## Wavin Sentio system

The apartments were built to retain heat much better and use less energy to maintain warmth. Although outdoor temperatures in Şanlıurfa are as high as 40 degrees Celsius during summertime, Wavin's Sentio system provides a comfortable indoor climate of 20 degrees. Cooling is supplied by a heat pump, converting renewable energy into thermal energy.

The underfloor heating and cooling system creates a much more comfortable and healthy cooling of the building and is very energy-efficient. A wireless outdoor temperature sensor allows for automatically switching between winter and summer mode.

With an individual heat pump for each apartment, residents can simply control the temperature for each room by using a mobile app on their phone. Typically residents can save between 20-30% of electricity consumption by using the Sentio system. By offering a holistic solution to indoor climate control, Wavin contributes to low carbon living and creating a healthier and more comfortable home environment.



Wavin Sentio system

## Aziz Olağan, partner of Naturel Incorporated

“Besides being a mechanical engineer, I am an environmentalist. The idea of creating Turkey's most environmentally-friendly housing project was supported by my partners. Since it was the first time we developed real estate ourselves, we needed to involve true experts in this field. We selected Wavin for their track record, knowledge and capacity. During the development and building process Wavin proved to be a knowledgeable partner with a hands-on mentality, never losing sight of the sustainable objectives in mind.”

## Energy-efficient

The combination of knowledge and insights of all partners involved, resulted in an energy-efficient design of the housing project. The apartments have been built without air-conditioning, an important element in reducing high energy demand. Without a natural gas supply, the majority of the heating and cooling, hot water supply and ovens are powered by electricity. Over 60% of the annually used energy is generated by renewable energy. With 1600 m<sup>2</sup> of solar panels installed on the roofs, annual generated electricity amounts to 480,000 kWh.

## European grant

The project's energy-efficient focus has made a name in the international arena and the project has been awarded a grant by the European Bank for Reconstruction Development (EBRD). As part of the European Union, the EBRD strives to develop a healthy investment climate and promote environmentally and socially sound sustainable development.

## Develop more eco-friendly projects

Aziz Olağan, partner of Naturel Incorporated: “The project was completed in May 2020 and I am proud that we were able to successfully reach our ambitious goals. All residents are happy they can contribute to saving energy while living in a comfortable environment. In the meantime, we initiated the search for new locations to develop more eco-friendly projects. We look forward to welcoming more sustainable initiatives in the region with Wavin.”

# Circular economy



## Closing material loops

Limited natural resources and climate change are important drivers of the circular economy. A circular economy preferably starts at the very beginning of a product's life cycle. Wavin has been an early adaptor in using recyclate (internal and post-consumer/producer waste) in its products. Our materials and products are designed to be reused and recycled to maximize environmental and financial value.

Circularity is a broad concept which does not only include product reuse or lifetime extension. Next to a focus on increasing recyclate usage and improving the rate of recyclability of our products, we will continuously improve our procurement processes.



## Goals

- Increase global recyclate usage to 25% (2025).
- Further grow the recyclability of our products to 90% (2025).
- Reduce Zero Waste to Landfill to 100% by 2025.



A view of Breda.

## The city of Breda, the Netherlands

The city of Breda is one of the ten largest cities in the Netherlands. In 2016, Breda adopted its Sustainability Vision 2030 which is built on various sustainability themes, such as Energy and Climate Mitigation, Sustainable Mobility, Air Quality and Circular Economy.

Peter de Leeuw is the city's process coordinator and responsible for the procurement process of materials for land, road and waterway engineering at the city of Breda: "In the past years, we have really stepped up our game with regards to our contribution to circularity – for example, by using our purchasing power to innovate in this field. To enable a contribution to a circular economy, we have enhanced our tendering and contracting processes and added concrete circularity criteria."



Installation of a Tegra Road Gully.

"This tender was granted to Wavin because of the holistic view they have on sustainability."

## Challenging the market

Before issuing a tender award process, Breda conducts market consultation to explore what kind of new solutions and products are available. This way they can determine whether there is a possible gap between the wishes they have and what is feasible within the marketplace. In 2020, Wavin was awarded a four-year procurement tender, which includes all PVC materials and pipes Breda needs for groundwork with regards to drainage and sewage systems. It also includes an agreement on regular inspections and working on pilots together.

De Leeuw: "Each four-year period, we open a new tender for relevant companies to subscribe to. This way, we provide an equal opportunity for all players in the sector. Pricing used to put in a lot of weight, but it now counts for less than 50%. This tender was granted to Wavin because of the holistic view they have on sustainability, not only because their products have a high percentage of recyclate material. Wavin is innovative in its way of thinking. The goals they set for their company to reduce their own and their client's environmental impact, they truly work on closing the loop."



Peter de Leeuw, Process Coordinator, city of Breda.

## Pilot Tegra Road Gully

The Tegra gully is part of the sewer installation. The drainageway enables a quick disposal of rainwater peaks while retaining as much dirt as possible. The city of Breda will be testing the gully for a year in several places in the region, both at heavy traffic locations and in rural areas. With its low Environmental Cost Indicator (ECI) value, the fully recyclable gully contributes to the city's sustainable vision.



# Recyclate supplier Van Werven

## Long-term partnership

Since its first cooperation in 2010, Wavin and Van Werven have been working together on a continuous basis, turning Van Werven into a valuable supplier of recycled granulate for Wavin's activities in multiple European countries.

CEO Van Werven, Ton van der Giessen: "Being active in the construction industry automatically confronts you with the consequences of waste. Early in the process we agreed that disposing waste is not a real solution and this brought us to how we are positioned now, an international leading innovative recycler. We have been recycling construction and demolition waste for many years and started the recycling of PVC in 2006. Converting it into a sustainable business model was a bit of a struggle but, together with Wavin, we were able to grow the business. They were the first in the sector to truly believe in the many opportunities and were convinced of the high quality and durability of recyclate. We have been business partners ever since."

Van Werven collects post consumption PVC products from many municipal waste points in the Netherlands and abroad. To guarantee a continuous high quality of recyclate, Van Werven and Wavin developed calibration equipment. It measures the percentage of unmelted particles per square decimeter. Using this method improves the quality of recyclate, resulting in a longer lifespan and a more durable product.

Van Werven recycling facility in Biddinghuizen, the Netherlands.



Ton van der Giessen,  
CEO Van Werven

Family-owned specialized service provider Van Werven has a long history and extensive experience in infrastructure and recycling. Van Werven is a versatile supplier of raw materials, such as sand, soil, granulate and compost.

"Wavin was the first in the sector to truly believe in the many opportunities and the high quality and durability of recyclate."

# Recycling solutions Penfold Plastics

## Recycling since 1985

Matthew Penfold, Technical Director: "Wavin and Penfold have been working together for over 20 years now. When you work as a supplier for so many years, the relationship automatically changes into a partnership. As we do for our other customers, we filter which product best suits Wavin's needs. Since we work with a lot of different suppliers, both post-industrial and small consumer waste, you are potentially working with material of 20 to 30 years old. We always test, mix and try to ensure a material which is the most sustainable for the inner core of Wavin's pipes.

Over the course of the years, we see that producers are looking at different materials to use in their windows, which might be less easy to recycle. It is very important to make sure that producers and recyclers work together, to enable the best possible and sustainable way to produce recyclate."

"When you work as a supplier for so many years, the relationship automatically changes into a partnership."

Window profile scrap can be easily recycled back into a high-grade product. Weston-super-Mare, United Kingdom.



Matthew Penfold,  
Technical Director,  
Penfold Plastics Ltd.

Family-owned business Penfold Plastics Ltd was initially a recycler of aluminum windows but changed along with the industry when it moved to the production of PVC windows. The UK-based company recycles most of the factory grade scrap from the making of uPVC windows, as this by-product can easily be recycled back into a high-grade product. Penfold is also a supplier of many other unplasticized PVCs like bar length scrap, head waste and regrind and powders.

# Environmental impact



## Reducing the environmental footprint

As an international company, with production facilities in over 40 countries, Wavin is fully aware of its environmental impact. Not only the effect our actions have, but also the footprint of our customers and suppliers in the value chain. By monitoring and measuring emissions, Wavin can perfectly assess which improvements or changes can and should be made. Goal setting helps Wavin to steer towards lower greenhouse gas (GHG) emissions in the production process and to further fine-tune innovative processes and support the right decisions going forward.

Wavin is taking broad measures to reduce the GHG emissions and increase energy efficiency by, for example, installing LED lightings at production sites, by using more efficient machines or reorganizing production lines. Besides our concrete goals, we also work on increasing the number of sites, using 100% electricity from renewable sources. Six sites in the UK and Ireland comply to these objectives in 2020.



## Goals

- Increase the production of sustainable energy at our facilities worldwide - to 15 locations by 2025.
- Pilot SMART supply chain solutions to reduce our GHG emissions, in alignment with market requirements.
- Create a 100% sustainable car fleet in 2025, starting the EMEA's implementation in 2021.



Wavin production plant in Hardenberg, The Netherlands.

## Creating renewable energy

Frans van Schoor,  
CEO SolarAccess



“By developing, building, financing and operating solar power, SolarAccess contributes to its clients’ sustainable objectives.”

Frans van Schoor is the founder and CEO of SolarAccess: “We have seen a lot of changes on the topic of solar power in the past few years. Next to important developments in technology, regulation and behaviour have also improved. While some companies started using solar power for the wrong reasons – collecting subsidies – we now see many companies who truly use solar power as an intrinsic part of their objective to become a sustainable company and contribute to a better world. When working on a solar power plant, the success of the project depends on the cooperation between the SolarAccess team and our client’s dedicated team. Our collaboration with Wavin started in 2018 at their production plant in Hardenberg, the Netherlands. We were privileged to work with a very professional and motivated team, both from the Wavin production facility and the Group.

So far we have been able to contribute to 1,500 MW of yearly solar power use by Wavin in the Netherlands.”

### Sustainable energy supplier

SolarAccess is also exploring new possibilities for Wavin to make use of solar power at its plants abroad, both in Europe and South America. By developing, building, financing and operating solar power, SolarAccess contributes to Wavin’s and all of its corporate clients’ sustainable objectives, while expanding to Northern and Central-Eastern Europe and beyond.

As a sustainable energy supplier, SolarAccess creates high-quality solar power plants at its clients’ locations. The full-service provider was founded in 2004 by Frans van Schoor and after starting its activities in Germany, they entered the Dutch market in 2005 as soon as regulation and infrastructure in the Netherlands had sufficiently developed towards facilitating solar power on a larger scale. The company further expanded into Belgium, UK, Italy and France.

# Acueducto de Bogotá

## Specialists in water treatment

Acueducto and Wavin have been working together for over 30 years on many, often challenging projects. Supporting the company's engineers, Wavin cooperates in the search for innovative solutions in both incorporating existing water treatment processes and designing new water treatment systems, in order to contribute to a future-proof city.

### Natalia Ines Ayala Blandon, Zone Manager

"As a trained civil engineer I started working in the water and sewage sector in Bogotá 20 years ago, a city which inhabits 10 million people. The district I operate in services 350,000 households. With approximately 1.5 million people living in a dense area, providing optimal sewage and guaranteeing clean water supply remains a challenge.

We have worked with Wavin on a wide variety of projects over the years. Mostly projects where we needed innovative ideas on the table, trying new technologies to optimize systems and improve life in the city. Two important projects we have been working on lately were focused on sewage.

"With approximately 1.5 million people living in a dense area, providing optimal sewage and guaranteeing clean water supply remains a challenge."

## New life for pipes

A major project involved a large renovation of networks, replacing sewage over a length of 4 km across town, passing many apartment buildings, city squares and main roads. Replacing pipes in such a dense area normally takes five to six years and causes major inconvenience in the daily lives of people living in the area. Together with Wavin, we have worked on a solution in which we could avoid closing roads, breaking up sidewalks and streets.

To investigate how things were connected and to determine the flow of the water in the pipe, we had to scan and map the whole system. We were dealing with water collectors installed 80 years ago, without any maintenance during those years. Rather than replacing the old system with new pipes, we chose to use an

innovative technology to upgrade the existing system and place new pipes inside the old pipes without interrupting a steady flow.

This could be done without the need to open up and replace the road surface, limiting the use of heavy machinery and materials like concrete and tarmac. Doing it this way, we not only minimized the impact on public space, we limited waste management and also future-proofed the system for processing large volumes that occur during the rainy season floods. The project was a huge success and we were able to do it all in half the time for half the budget.

Another important project we also worked on together in water management is separating rainwater from wastewater. By separating waterflows, we can direct wastewater to the water treatment plant while the clean rainwater will flow into a creek. An important saving of energy, since less water has to pass through the treatment plant. Working on these kinds of projects with the Acueducto and Wavin team enabled us to find smart and sustainable solutions. Together, we advance our knowledge and realize projects which can serve as an example on country and even international level."

Natalia Ines Ayala Blandon,  
Zone Manager Acueducto



Aqueduct and sewage company, Acueducto de Bogotá, is the public entity that regulates and manages the sewage system of the city of Bogotá, Colombia. The company manages 7,000 kilometres of sewer networks. Besides offering solutions for designing, building and managing water treatment facilities, the company also provides custom services, operations and maintenance.

Working on the Bogotá sewage system with minimal inconvenience to local residents and traffic. Bogotá, Colombia.



# Social inclusion



## Improving accessibility to basic human needs

Wavin has 45 production facilities throughout the world. Many of these are based in regions, mainly in Latin America, where potable water facilities, sewer systems and other crucial infrastructure are lacking behind.

Wavin is keen on supporting such regions in the development of these basic needs. Creating a positive impact for the community results in more prosperity in the area and an increase in local entrepreneurship. It enables Wavin to attract and attain motivated employees, support their families while securing stable conditions around the production facility. At the same time, Wavin is aware of the relevance of a diverse composition of its workforce. Being an international company automatically provides an international and culturally diverse workforce. Through our hiring process and employee promotions, Wavin is committed to fostering a corporate culture of inclusion and equality – embracing of race, ethnicity, gender, religion, sexual orientation and identity, and age.



## Goals

- Expand water fund projects – from the distribution and installation of irrigation kits to 9 sites (2025).
- Increase volunteering and donation projects in Latin America and EMEA to 52 locations (2025).
- Improve diversity hiring rate throughout the organization to 40% (2025).
- Increase the number of WASH’N (Water, Sanitation, Hygiene & Nutrition) sites to 16 (2025).
- Introduce the implementation of standardized data collection and conduct impact assessments.

# The community of Guachené

## Guachené, Colombia

Guachené is a small municipality in Colombia, with approximately 20,000 inhabitants. Wavin settled in the region 20 years ago. Back then, people lived in extreme poverty. Basic needs like potable water and proper sanitation was lacking and average education levels were poor.

The mayor of Guachené, Mr. Elmer Abonia Rodriguez: “Our community is very keen to have an employer like Wavin in the region. Besides employment, it provides them a better quality of life, not only for the employees and their families but also a significant improvement in regional education and in infrastructure in general.”

“By supporting the development of local supplier programs, Wavin also drives entrepreneurship within the region.”



Elmer Abonia Rodriguez,  
Mayor Guachené

The company and local government have formed a strategic alliance. Over the years this resulted in the development of several projects like building a sewer system, improve the infrastructure in schools and support the region in attaining potable water.



Construction on the urban wastewater system in Guachené.

Mr. Elmer Abonia Rodriguez: “Wavin also drives entrepreneurship within the region apart from the plant, by supporting the development of local supplier programs. For example, the Association of the Woman ‘Minga mujer’ and ‘Mulata’, they manufacture and supply the uniforms for the Wavin employees and provide food to employees and visitors of the plant. And since these businesses developed so well, they were able to expand their business elsewhere in the region.”



Natalia Molina,  
Student Universidad Autónoma  
de Occidente de Cali, Colombia

“To ensure a sustainable growth of the region, the education of children is paramount.”

## Educate the next generation

To ensure a sustainable growth of the region, the education of children is paramount. Wavin enabled partial scholarships to employees’ children. These scholarships provide the opportunity for students to go to university in the region.

Natalia Molina (22) is the eldest daughter of a plant supervisor. She is a Biomedical Engineering student at the Universidad Autónoma de Occidente de Cali and is finalizing her last semester.

Natalia: “My father was always very keen on making sure me and my 2 sisters received education. He was my age when he started working in the warehouse of the Wavin plant and was given the opportunity to receive training on the job.

I feel privileged that, with a partial scholarship of Wavin, I am able to go to university and develop important skills at this age already. Unlike other companies in the region, the majority of Wavin’s employees are locals. Wavin has set an example on how to treat its employees and the community. Other companies could follow their example. I know that a lot of children lack the opportunities to receive higher education. The community of Guachené was very lucky with the local orientation Wavin chose when it comes to employment and their engagement in driving local sourcing and project development.”

# Twenty years of teamwork

UNICEF is a United Nations Agency and all its activities are intrinsically motivated to promote the rights and wellbeing of every child worldwide. Since 2000, UNICEF and Wavin have been working together on WASH (Water, Sanitation and Hygiene) projects in schools in Mali and Papua New Guinea amongst others.

This was later extended to Ecuador and Colombia. Water, sanitation and hygiene are dependent on each other. Without toilets, water sources become contaminated; without clean water, basic hygiene practices are not possible.

## WASH

Alban Nouvellon, Regional WASH specialist at UNICEF in Latin America and Caribbean: "UNICEF works with governments and actors of the WASH sector at

identifying and removing the bottlenecks that obstruct universal and sustainable access to water, sanitation and hygiene products and services. To do so, UNICEF provides technical assistance and creates partnerships with centres of excellence or institutes to bring specific expertise needed to strengthen the sector. To be able to achieve the Sustainability Development Goals (SDGs), building strategic alliances with the private sector is essential as well.

With COVID-19 hitting worldwide, we realize that people fall sick irrespective of their social or economic class. But again, the most vulnerable groups and communities are the ones that can less protect themselves, due to poor or no access to basic water and handwashing services. They are the most affected by the secondary impacts. However, COVID-19 is providing a great opportunity to take global, national, subnational and local actions to

ensure sustainable access to handwashing facilities with water and soap to everyone. And, additionally build on communities' knowledge to ensure lasting behaviour change regarding washing hands at critical times.

To give an indication, in some countries in Latin America and The Caribbean up to 32% of primary and secondary schools don't have handwashing facilities. UNICEF and Wavin worked together to develop hand washing stations for schools, health care facilities and public places where they are most needed. We have been able to develop a product which suits COVID-19 requirements and the communities' needs."

Alban Nouvellon,  
Regional WASH  
specialist at UNICEF



## Kitchen garden projects

Apart from the WASH projects elaborated upon below, Wavin focusses on Nutrition by contributing to kitchen garden projects. These projects impact vulnerable communities in Latin America by training locals in techniques to grow organic crops and raise awareness about the use and optimization of natural resources. This resulted in 31 kitchen gardens with an irrigation system in Colombia in 2018-2019.






"To be able to achieve the Sustainability Development Goals, building strategic alliances with the private sector is essential."

## Orbia community

Together with other organizations which are part of the Orbia community, Wavin supports UNICEF by contributing to the COVID-19 response in underserved areas in seven countries worldwide while ensuring that these facilities will remain usable beyond the emergency to sustain long term handwashing practices. Since the agreement was signed with Orbia, UNICEF reached more than 95,000 people daily who can wash their hands with water and soap.

The Santa Elena Health Center in Guayas, Ecuador, one of the eight national cities receiving portable handwashing stations.



<p><b>32%</b> </p> <p>of primary and secondary schools in some countries in Latin America and the Caribbean don't have handwashing facilities.</p>	<p><b>10%</b> </p> <p>of the population in Latin America does not have proper access to a water network.</p>	<p></p> <p>In Ecuador UNICEF and Wavin joined forces in producing and providing handwashing facilities adapted to COVID-19.</p>
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# Reporting



## Clear targets

Setting clear targets are paramount for a sustainability program to better reach its full potential. It is an important aspect of our defined and implemented sustainability strategy to create full transparency and disclosure to all stakeholders.

Through well-defined reporting processes with clear responsibilities on site level, Wavin monitors and steers its sustainability performance. This enables Wavin to actively respond to changes in the business environment and implement measures that contribute to reaching ambitious goals. Wavin has production facilities worldwide; therefore, it is key to define roles and responsibilities and fully engage with all stakeholders.

## Goals

- Continue to create awareness amongst employees on the relevance of collecting high quality data and provide them with the necessary tools and skills by 2025.
- Further integrate and combine sustainability reporting in existing processes by 2025.



Training sessions throughout the world contribute to creating awareness. San Jose, Costa Rica.

# Data validation

To support local data managers in reporting their data in a consistent and high quality manner, Wavin has implemented software and provided a company-wide reporting manual. Both important tools to support data validation processes. But just as important is creating awareness amongst our employees, explain why measuring and monitoring data is essential in moving forward in our sustainability programs.

Next to monitoring and steering our sustainability performance, Wavin is also fully aligned with, and integrated in Orbia's company-wide reporting structure. Together with the other business groups of Orbia, Wavin plays an important role in ensuring the group-wide quality of the sustainability information which can be reported to various stakeholders (e.g. investors, clients, management) and can be used for internal and external communications (e.g. sustainability reports, ratings).

Going forward, we have set the objective to continuously improve reporting and to further integrate and combine sustainability reporting in existing processes. This includes validation processes, improved benchmarking between sites and supplementary targets on key indicators.

# Public affairs



## Creating networks

With a rich history of over 60 years, Wavin has built a great network with a variety of relevant stakeholders. Next to our employees, customers and suppliers, we directly and indirectly engage with NGOs, legislators and various trade and business associations, all relevant stakeholders. With some of them, we interact on a daily or regular basis such as NGOs, Global Resilient Cities Network and TEPPFA (The European Plastic Pipe and Fittings Association) and with others, more project-based.

## Goals

- Join forces and build active sectoral partnerships to promote sustainability, act upon it and further grow awareness by 2025.
- Move current developments on sustainability forward, while sharing our experience and knowledge as a frontrunner on sustainability with various stakeholders.

# Join forces

Wavin supports public policy development on water, pipes and fittings and other topics through our engagement with industry associations. We are members of TEPPFA and are participating in initiatives such as Recovinyl to facilitate PVC waste collection and stimulate the uptake of recycled content in new products. Also, we provide input on the upcoming Circular Economy 2.0 legislation at the European Parliament. Wavin contributes, both financially and with resources, to initiatives such as Operation Clean Sweep, a campaign that educates the industry on the impact of pellet loss, and various other more local initiatives. Wavin engages with all these different parties to move current developments on sustainability forward, while sharing our experience and knowledge as a frontrunner on sustainability.

To strengthen, accelerate and broaden these activities, Wavin is continuously searching to join forces and build active sectoral partnerships to promote sustainability, act upon it and further grow awareness. For example, by organizing roundtable discussions with NGOs and involve additional key stakeholders into the discussion. Or by supporting legislative changes to promote recycle uptake in new products. This contributes to further closing material loops and reducing usage of virgin material. Our understanding of public affairs builds on trusting relationships with stakeholders - based on compliance, ethics and transparency to advance public policy development.



Our Global Sustainability Director meets with various NGOs in Guachené, Colombia.

# Our quest for change

Sustainability is more and more becoming an integral part of our lives. The stories we shared in this journey reminds us that environmental changes are affecting humanity already and will do so even more in the near future. Together, with a widespread network of business partners, customers and suppliers, we are in the fortunate position to make a difference.

## Create awareness and support

When I started at Wavin, only a few years ago, I was the first Global Sustainability Director in the company's history. I knew that Wavin had been working on numerous sustainable initiatives and durable solutions already which showed me that they understood the importance of sustainability and were taking it seriously. It gave me the confidence to move forward with a solid, strategic approach based on scenarios and ambitious targets, implemented on a global scale.

I am really proud of the progress we have made so far. It has not always been easy. Finding solutions together sometimes involves difficult choices. Choices that might not be ideal for the short term, but which have advantages in the long run. With the introduction of our sustainability strategy and a substantive story, we set out a clear path for further improvement throughout the Wavin organization globally.

Fundamental to our strategy are the 4 purpose pillars (safe and efficient water supply, better sanitation and hygiene, climate-resilient cities, and better building performance) which form the foundation upon which our core purpose (building healthy, sustainable environments) rests on. They are the beacons that guide us as we progress with our sustainability journey.

“Awareness is key in making positive impact; participating in change is an important driver in futureproofing the world around us.”

## Drive change

We have accomplished a lot already. The progress we are making in growing our electricity intake from renewable resources support our efforts to mitigate our environmental impact. With getting close to 10,000 solar panels installed within a year's time and moving to 50,000 in total in the next year and so on.

At the same time, I also realize we need to keep challenging each other. Some of our programs still need fine-tuning to find the right pace and magnitude. There are many innovations and developments in the area of circular economy, and it is paramount to stay on top of these to make sure we continue to make progress going forward.

The position I have allows me to add value to all of these sustainable efforts. It also comes with the responsibility to remain critical to ourselves, as an individual and as an organization. I am very proud of the degree of social inclusiveness traditionally embedded in our organization. But it is important to ensure that this will also remain to be the case in the future. In my opinion, awareness is key in making positive impact, participating in change is an important driver in future-proofing the world around us.

## Contribute to a futureproof society

Wavin wants to be part of a sustainable value chain by working together with our suppliers and customers, developing innovative and durable products and solutions. As a global market player, we are sustainability thought leaders in an industry that is not commonly known for being a frontrunner in the field of sustainability. We can set an example in further improving sustainable business operations.

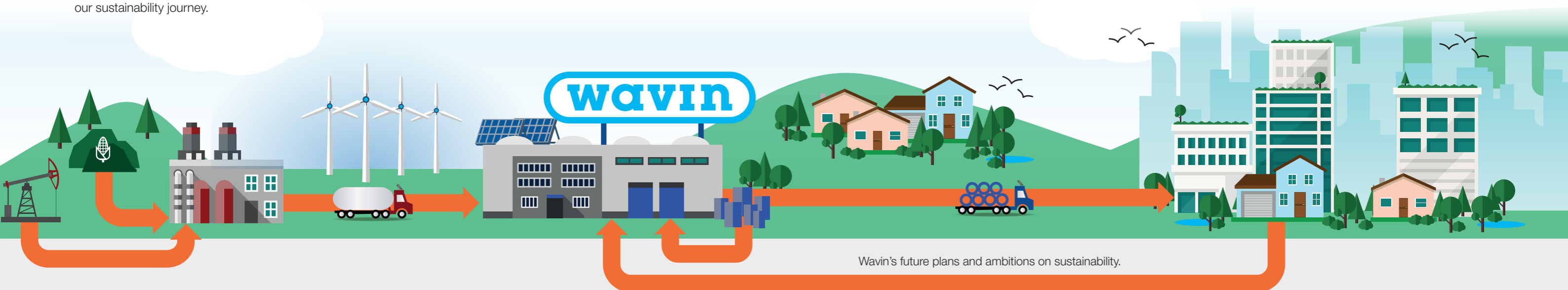
## Future plans & ambitions

In order to be successful in contributing to sustainable and healthy environments, we have set some high goals for 2025 and beyond.

- 1. Safe and efficient water supply:** Enabling safe and easy access to water is a basic human right. We want our product solutions to supply access to clean drinking water for all (and as soon as possible).
- 2. Better sanitation and hygiene:** Further expand our holistic view on Water and Sanitation Hygiene (WASH) globally, and improve accessibility to sanitation for communities and beyond our operations at the global level.
- 3. Climate-resilient cities:** Climate change is causing cities to face increasingly long periods of drought or flooding. To mitigate these negative effects we need to invest more in climate adaptation solutions.
- 4. Better building performance:** We want to ensure that our products contribute to reducing our customers' carbon and energy footprint. In the years to come, we will be part of a transition in which integrated systems will become the standard, linked to new smart technologies. This will ensure we will significantly reduce the energy use and or carbon emissions for our customers in buildings.



Wilco Otte,  
Global Sustainability  
Director Wavin



# Contact us to discover the possibilities for a joint sustainability journey!



Wavin is part of Orbia, a community of companies working together to tackle some of the world's most complex challenges. We are bound by a common purpose: To Advance Life Around the World.



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