Corporate brochure connect sbetter solution









In many countries across the world and especially throughout Europe, Wavin is all around you. Yet, for the most part, our products are out of sight.

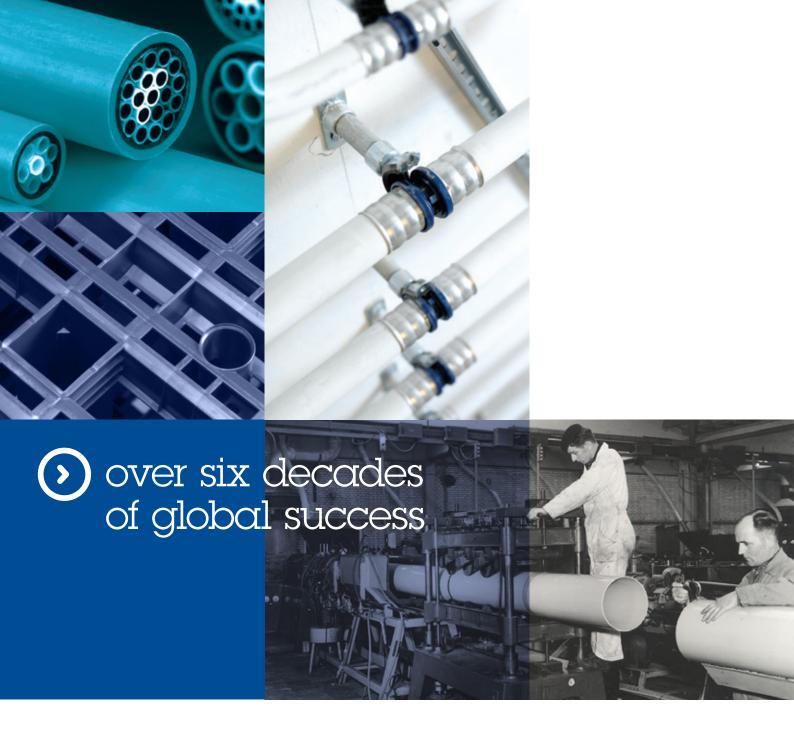
Wavin technology and systems are connected, above and below ground, in and around many of the buildings that you see. Quietly and efficiently, they are delivering long-lasting, high performance. Our dedication to innovation and partnership is continuing to solve further complex challenges, and connecting to better solutions, whatever the project.

Wavin – there's more to us than meets the eye. We invite you to take a closer look.



Contents

How Wavin began	4
Connect to better	7
Customer-focused	9
Making the future possible now	10
Connecting ideas to solutions	12
Connect to better technologies	15
Taking responsibility	16
Good for the planet	18
Wavin in action	20
A career within the Wavin team	26
Connect to Wavin	27



How Wavin began

Wavin has been providing pioneering solutions for six decades beginning with a local pipe problem in 1950s Netherlands.

The WMO utility company had a serious situation: main supplies of drinking water were passing through iron pipes that were corroding and leaking.

A WMO director, J.C. Keller, decided to search for the answer. In a small workshop, he successfully developed the first large diameter plastic pressure pipes for potable water.

When this solution attracted wider interest, growing demand for these pipes soon became unsustainable for a small government-owned utility.

So, in August 1955, an independent manufacturing company was created combining WAter and VINyl for its name.



We are Wavin. Leading in our field

Wavin is now a global leader in the supply of plastic pipe systems and solutions for both above and below ground applications in projects around the world.

Since the 1950s, we have built an unrivalled reputation for continuous innovation, intelligent problem-solving, dedicated technical support and the highest standards.

Today, Wavin employees connect customers to the benefits of our technology and service. We link performance to practicality for durability and faster installation. We have sales and manufacturing operations in most European countries.

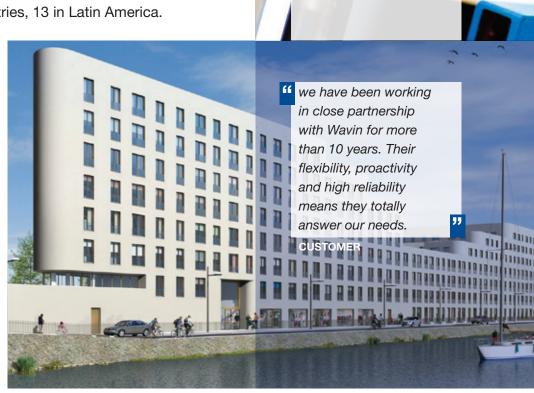
Beyond Europe, as part of the Mexichem Group, we maintain an international network of approximately 120 agents, licensees and distributors with representation all over the world.

For projects great and small – worldwide

Wavin's established leadership position in plastic pipe systems across Europe complements that of Mexichem, who are present in 16 countries, 13 in Latin America.

Every day, our systems and solutions are contributing to all types of projects: from major prestige construction programmes to small domestic installations and refurbishment

These applications, however complex or routine, also combine cost-effectiveness with what's best for our environment. In short, they mean better **solutions** that you can trust.







Water management

Solutions designed to handle rainwater run-off from hard surfaces.

Roof drainage

Roof gutters and downpipes, as well as siphonic systems to drain large quantities of water quickly from any flat roof. Modelling software ensures the safest and most efficient configuration for any building.

Infiltration/attenuation units

For temporary storage of excess rainwater, enabling controlled discharge. Managing intense rainfall run-off and reducing risk of flooding.

Filtration and separation

To remove pollutants such as oil, hydrocarbons and heavy metals from the water before it is discharged, infiltrated or re-used.

Heating and cooling

Systems for circulation of water within residential and commercial buildings to deliver space heating and cooling.

Surface heating and cooling

Systems that can be integrated into floors, ceilings and walls to increase the energy efficiency of buildings and provide comfort without compromising on aesthetics and freedom of design.

Radiator heating

Pipe systems to connect a primary heat source to traditional heating systems such as radiators – including push-fit, press-fit and welded versions.

Water and gas distribution

Systems for water distribution within residential and commercial buildings, and pipes for transportation of gas and main water supplies.

Hot and cold tap water

Plastic and metal-plastic pipe and fitting systems for flexible and fast plumbing with secure connections. For standard applications and for use in demanding environments such as hospitals and care homes.

Transportation of drinking water

Including innovative multi-layer products that provide strong inner and outer protection to allow safe distribution of potable water, even in the most demanding environments.





Connect to better

Wavin is more than a manufacturer. We solve complex challenges, whatever the project scope. We connect you to better technologies, partnerships and solutions.

We work in partnership with construction professionals, apply specialist expertise and deliver peace of mind.



Waste water drainage

Solutions for the efficient disposal of waste and foul water above and below ground.

Soil and waste systems

For secure removal of soil and waste water from residential and commercial buildings. Including special low-noise solutions, designed using comprehensive acoustic calculation, to ensure comfortable living and working environments.

Foul water systems

For underground transportation of foul water to water purification plants. Including manholes, gullies and inspection chambers to provide trouble-free accessibility for easy inspection and cleaning.

Cable ducting

Systems for safe channelling of cables for communications and power.

To guide and protect telecom cables and power lines.
Future-proofed to allow additional, upgrade or replacement cables to be efficiently fed into the duct as required. Also, protective pipes for in-house power distribution cables.



Wavin is part of Mexichem. Prior to joining the Group in 2012, we had a long track-record of transatlantic cooperation with other Group companies – including Amanco, which is one of Wavin's oldest licensees

We continue to build on these synergies to deliver further benefits and add value for our clients. These strong global connections are being applied to serve the primary beneficiaries – our customers.

Every year, we further increase our ability to help all construction professionals rise to the continuing challenges they face – whether from climate, new legislation or economic pressure.

Technologies

and development expertise are being shared and integrated, including the introduction of Wavin's successful AquaCell infiltration units and Hep₂O flexible plumbing into Latin America.

Design,

engineering and research & development capabilities are a key strength.

Best practices

are being refined and enhanced, including manufacturing efficiency initiatives.



Customer-focused

Wavin strengths are applied single-mindedly for the benefit of our customers. We never forget that our future depends on winning and sustaining their confidence in us.

Sustained partnerships

Wavin values and maintains strong partnerships, working directly with investors, architects, developers, construction engineers, planners and contractors to achieve project success. In addition, we have long-standing and successful working relationships with the main merchant groups who stock and distribute our products.

In this digital age, connection to individual professionals who select and use our products has also become increasingly important. Our continuing local dialogue with them helps ensure we remain alert to their changing needs over time.



connect to better partnership

Mexichem key facts*

- Over 50 years' experience in petrochemicals and plastics
- Sales exceeding €5.6 billion
- Manufacturing in over 30 countries
- Commercial operations in over 90 countries
- Over 19,000 employees
- No.1 in plastic pipe systems worldwide

Mexichem.

Delivering value

We have shown consistent leadership in our specialist field of plastic pipe systems technology, and pioneered new developments that have become established benchmarks within our industry.

Our expertise and understanding of each category within our marketplace is proven and available everywhere across Europe – and beyond, through Wavin Overseas and Mexichem.

The Wavin product portfolio is comprehensive and unrivalled in its breadth and depth. All our operations are dedicated to providing assured availability, competitive pricing and timely delivery to match our customers' expectations.

We also work to help our customers achieve their own environmental goals and responsibilities alongside our own. For all of them, their continuing partnership with Wavin means they can be sure of connecting to solutions that add value at every level.

^{*}including Wavin

Wavin has sustained progress by always looking ahead – and innovating. Not just in product design, but also in technology and customerfocused operations – the world does not stand still.

For all construction professionals, the pressure to drive down costs is constant. Projects are expected to be completed and delivered faster.

Meanwhile, new regulations keep bringing fresh challenges with tougher demands. The call for greater energy efficiency and even better operational reliability of buildings and infrastructure is always getting louder. Time becomes even more precious.

Throughout Wavin, we recognise that the only way to keep pace with this significant agenda is to innovate continuously. As a continuing principle, we are aiming to generate 20% of our annual revenue from innovative products that have been on the market for less than 5 years.



Wavin is
customer-focused.
With their products
we gain greater
flexibility and value
for our investment.

CUSTOMER

Innovating in readiness for tomorrow

Our commitment to innovation is seen first in Wavin T&I, a dedicated development operation. This has a team of some 50 people focused exclusively on product and process innovation, including a pilot plant.

But within Wavin, innovation is not only about developing and exploiting new technology and techniques in isolation. It is about redefining what is possible. We do so by responding to specific needs within the construction industry – whether they are existing or anticipated – and finding intelligent, practical solutions.

Where appropriate, we will work in partnership with customers and specialist professionals to help find the answer they need.

Our existing products and systems that are proven in service are also kept under constant review. If even better solutions are achievable, Wavin is determined to find them.



The innovative new generation of modular systems that sets new standards for managing excess rainfall. The units incorporate vertical access points, with connection options that mean complete freedom of tank design.

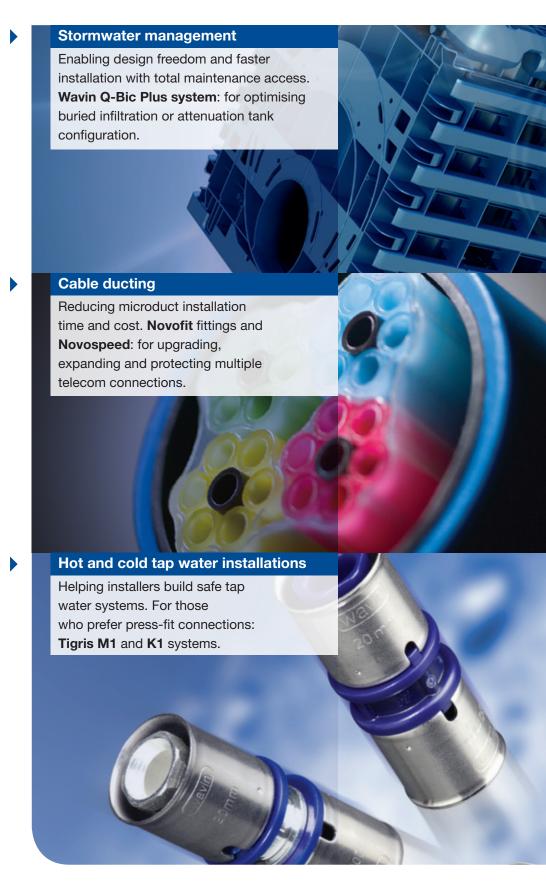
Integrated connectors on the lightweight units require just a finger-push for a firm fit and significantly faster, cost-effective installation. The market's most open tank design ensures optimum capacity and allows simple, effective maintenance.

Designed to enable remote subducting installation and customised multi-function microduct combinations.

Site working time and costs are reduced because Wavin systems allow longer blowing times. We provide a total package that includes methodology, training and technical support.

The unique hexagonal shape of the fitting sleeve has two practical benefits:

- during pressure-testing, it allows immediate detection of insufficiently-pressed connections by revealing a defined leak. This helps the installer quickly identify where a pipe connection still needs to be pressed.
- it assists the initial assembly by reducing the push-in force required.



For Wavin, seeking a solution to a construction project issue - or the anticipation of more demanding regulations - is simply another opportunity for innovation.

Whatever the challenge, finding a solution drives progress and helps raise standards for the whole construction industry.

That's why we are always listening to construction professionals and customers - and always alert for opportunities to find improvements that will match customer needs more precisely.



ff products like Wavin's, designed to specific applications, allow you to solve the problems unique to certain construction projects.

CLIENT/OWNER

Partnering to find solutions

Wavin worked with Dutch roofing company Cityroofs to solve a stormwater drainage problem for local government owners of properties with large flat roof areas. Cityroofs specialises in projects to make better use of large roof areas by creating ecological solutions or roof terraces.

Existing drainage was unable to cope with torrential rainfall during storms. Temporary measures to deal with the consequences of these events were typically expensive and time-consuming.

Peak water volumes needed to be managed so that they drain off over a period of 26-28 hours in compliance with government regulations - and so minimise the risk of flooding.

Wavin and Cityroofs used intelligent design to develop a solution for rainwater drainage from roofs. Wavin's systems - such as outlets and pipes for transportation of the water - are especially suitable for these applications. Solutions also incorporate temporary water storage capacity and controlled discharge.



The PPr Fiber Basalt pipe incorporates two material innovations that improve its characteristics:

- Use of new generation PP-RCT gives the pipe an increased resistance to high temperatures and high pressure. We achieved a reduced thickness of the pipe wall to allow increased flow, while retaining the same overall strength.
- ① The basalt fibers add to the benefits of the new material by reducing thermal expansion of the pipe when in contact with high temperature water.

Climate ceilings operate as a full radiant heating and cooling system. They provide the double benefit of maximum indoor climate comfort and lowest energy consumption.

Metal Cassette ceilings are just one of Wavin's ceiling systems. Pre-assembled modules are mounted into the metal cassette ceiling panels to enable quick installation.

When connected to Wavin oil separators, run-off water is cleansed to contain less than 5mg oil per litre

This can be run-off from roads following intense rainfall - or in locations where water pollution is likely, such as in restaurants, petrol stations and car wash sites.

The units are designed for heavy traffic loading and do not require casting in concrete, ensuring lower installation costs.







Innovation is also about saving time for customers. We find ways to identify the right solution sooner, and to increase the accuracy of information on which project decisions are based.

Wavin has developed tools that help construction professionals plan, select and decide on what is required for specific project situations.

As well as basic tools – to calculate pipe length or flow requirements, for example – we also have software for resolving more complex or challenging issues in order to configure optimum solutions. You can read about some of these below, and on the previous page.

Different design options can be evaluated and prioritised against specific criteria. Installed system outputs and outcomes can be predicted to ensure compliance with regulations or with specified performance requirements.



Heating & cooling

Early simulation of performance and costs. **Energy efficiency tool**: to simulate and calculate heating and cooling needs during the early stages of project planning.

Wavin can provide quick and clear comparisons of performance for different solution options, and help identify the one that is best-suited for the specific project.

As heating and cooling typically accounts for over 40% of energy costs in buildings, this tool has the potential to contribute to very significant cost-savings over time.

Service support for defined types of building project. Tailoring solutions to sector needs – every building sector has its own agenda of challenging needs and demanding criteria that must be satisfied.

Wavin has demonstrated thorough understanding of each sector: how construction professionals and clients have to work within it; how to help them fulfil their objectives and satisfy legal obligations; how to assist with their environmental goals of sustainability and energy-efficiency; and what special requirements each building's occupants will need for day-to-day safety and comfort.

Accordingly, we connect customers to better targeted and innovative solutions for building projects such as:

- Hospitals and care homes
- Offices
- O Hotels
- Sports facilities
- Schools and universities
- High-rise apartments





Taking responsibility

There is one constant objective that is common to everything that Wavin does: to act responsibly.

In particular, we aim to ensure that all our operations and achievements are beyond ethical criticism. This is equally true throughout Mexichem.

We recognise that design, manufacturing, delivery and service to customers all need sustainable policies and practices, implemented consistently and effectively. We have new targets for 2015-2020, building on those we originally set in 2008. We measure our progress against them annually. We also recognise that we can assist our clients and customers to achieve their own sustainability objectives.





Helping clients achieve their own targets

We recognise that our clients and customers have their own obligations for achieving sustainability and environmental responsibility.

So Wavin looks to match their expectations, and to work with them in long-term partnership towards these joint goals.

Such cooperation is increasingly important in our markets. We therefore regularly apply our in-depth knowledge of Green Building Certification methods such as LEED and BREEAM to help clients hit their specific targets. This is a long-term commitment.



It is already the subject of legislation and regulations – and, at Wavin, we ensure it is top-of-mind for all our employees.

We have created our own framework on sustainability for driving our renewed agenda and goals from 2015-2020.

This embraces our responsibilities as both producer and employer: reducing our environmental footprint, increasing material recycling, and ensuring the well-being of our workforce. We are equally focused on helping clients reduce their own footprint through our products portfolio. It also includes our social responsibility to suppliers, contractors – and to all the communities in which we all operate.

Reducing energy consumption

Wavin takes the view that there is always more we can do ourselves to reduce energy consumption.

It is not enough simply to avoid unnecessary usage. It requires initiatives for investment in energy management programmes.

We have done so by:

- Ontinuously investing in more modern and energy-efficient machinery.
- $\ \, \bigcirc$ Equipping our sites with energy monitoring and sub-metering systems.
- Renewing and upgrading to other more energy-efficient alternatives in lighting, compressed air and heating & cooling.

These measures are being applied across all Wavin operations.



Sustainable solutions

Our surface heating & cooling systems that use significantly less energy than alternatives.

Our water management solutions that attenuate and temporarily store excess rainwater volumes, before controlled infiltration or safe discharge.





For example:

- Across Europe, we offer 3-layer pipes that use recycled PVC as the middle layer
- ① Infiltration units for stormwater management include a version that is manufactured from 100% recycled material

These, and other products that use recycled material, have been independently tested to show that there is no loss of performance and durability in service by comparison with equivalent products made exclusively of virgin materials.

This allows customers to contribute to their own sustainability credentials at no extra cost.

We are now one of the leading recyclers of PVC in Europe.

We are a member of The European Plastic Pipes and Fittings Association [TEPPFA] and are fully supporting the goal of achieving more sustainable products.

This includes producing Environmental Product Declarations for our products. These compare the environmental footprint for plastics to that of equivalent products made with other materials.

In general, the footprint of plastic products is 30% less.



Environmental responsibility is now a duty rather than simply a desirable goal. Continuing to reduce the impact of our activities on the environment is just part of this obligation.

Offering our customers the means to contribute to their own goals – through our technology, systems and solutions – is another.

Transparent

Wavin takes great care to provide open and honest information about all aspects of our Corporate Social Responsibility [CSR] actions. Since 2009, we have fully conformed with Global Reporting Initiative [GRI] guidelines. We are proud to have received a GRI A+ grade for our CSR reporting.

Reducing waste

Product waste is another target area for progress in environmental responsibility.

Wavin waste management programmes separate recyclable and non-hazardous waste at source. This has the effect of increasing the amount identified for recycling, and reducing the volume sent to landfill.

Wherever we have the facilities available to do so, we are sending non-hazardous waste, that cannot be recycled, to incinerators that can convert it back into energy.



good for people

Environmental impact

The reduction of carbon emissions is high on Wavin's agenda.

We measure progress annually and have already substantially reduced our carbon footprint in line with the original target of 20% within 7 years set in 2008.

Our 2015-2020 strategy takes this even further. This continuing drive includes monitoring emissions from our own processes, from the generation of purchased electricity, and from our distribution network.

Good for people - inside and outside Wavin

Health and safety are essential aspects of Wavin operations and output - both within and outside the Wavin team.

In this respect, we are not only concerned for our own employees in their working environment.

We are also concerned that any risks to users of our products on site during construction works are minimised.

Accordingly, we actively promote good practice to ensure the well-being of installers when handling, placing and connecting Wavin systems. This extends further to helping ensure that any potential hazards to the public during building works are eliminated.

Since 2005, we have partnered with UNICEF to bring drinking water and sanitation facilities to tens of thousands of children in Mali, Papua New Guinea, Nepal and Bhutan.

BELGIUM: Ghent

Ghelamco arena

Requirement: manage rainwater runoff after intensive rainfall.

Solution: buried attenuation tanks with innovative design using Wavin Q-Bic and Q-BB units. This created a structure with a combination of inspectable and non-inspectable sections, configured exactly as the location needed.

Also provided by Wavin: drinking water systems.





TURKEY: Antalya

Mardan palace hotel

Requirement: soil & waste drainage system for a 560-room luxury hotel

Solution: installation of Wavin AS low-noise soil and waste system. Selected because it can absorb both structural and airborne sound, ensuring minimum noise disturbance of guests.





TURKEY: Kutahya

Zafer airport

Requirement: fast dispersal of rainfall from large flat roof areas – even during storm conditions.

Solution: precise design using the Wavin QuickStream siphonic roof drainage system. Wavin's speed in designing the solution was decisive in winning this assignment.

Also provided by Wavin:

training and on-site supervision of installation.





HUNGARY: Kecskemét

Mercedes factory

Requirement: fast dispersal of heavy rainfall from large flat roof areas.

Solution: Wavin QuickStream siphonic roof drainage. Its smaller pipes save material and space, and allow greater design flexibility.

Also provided by Wavin: design support for all systems, as well as highly durable KG PVC pipes to discharge collected rainwater into open-air infiltration ponds.



NETHERLANDS: Rotterdam

Maasstad hospital

Requirement: a plumbing system suitable for tap water and central heating in a healthcare environment with the highest standards for hygiene.

Solution: Tigris pipes and fittings. These are resistant to temperatures of 70°C which is required to prevent legionella developing.

Also provided by Wavin:

siphonic roof drainage and soil & waste drainage – including pre-fabricated pipe sections to reduce installation time.





healthcare commerce, education, residential



POLAND: Warsaw

Business garden

Requirement: rainwater and indoor drainage systems for a new 90,000m² ecological complex of offices, hotel and conference facilities.

Solutions: installation of Wavin AS low-noise soil & waste system and Wavin QuickStream siphonic roof drainage for rainwater drainage. These helped to create ecologically sound, efficient working environments, thus contributing to the buildings' LEED certification.





UK: London

Athletes' village

Requirement: sustainable heating system for apartments designed to house participants in London 2012 Olympics and Paralympics, before being transferred to permanent residential use.

Solution: Wavin subsidiary Warmafloor supplied bespoke surface heating designed to use innovative construction techniques, including FSC-certified acoustic timber floors with minimised installation time.

Certifications included BREEAM 'Excellent' rating.



solutions whatever your need

UK: Manchester

Bespoke ceiling panels

Birley fields building

Requirement: reduced-energy, low-emission cooling system to help the Metropolitan University achieve its environmental goals.

Solution: bespoke ceiling panels with embedded cooling coils for structural load-bearing capacity and durability. Wavin subsidiary Warmafloor worked with the supplier of these pre-cast concrete units. Off-site assembly enabled faster installation and lower labour costs.



SWEDEN

Emterviks fibre

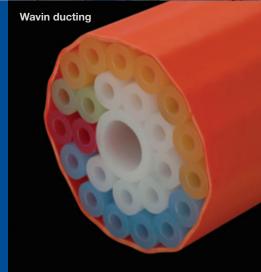
Requirement: cost-efficient ducting of 350km of optical broadband cable for residents and businesses in a sparsely populated area.

Solution: Simplified layout design, using three diffent dimensions of both Wavin Optoduct and Wavin microducts. This allowed cable to be blown over exceptional distances so that installation was faster.





infrastructure telecommunications



NETHERLANDS

Odoorn municipality

Requirement: sustainable drainage and water management to protect a community from flooding after intensive rainfall.

Solution: vertical infiltration pipes to infiltrate rainwater directly into the soil, thus alleviating the pressure on the sewer system.

Also provided by Wavin: design and planning advice for construction of emergency basins to retain excess water run-off if that ever becomes necessary.





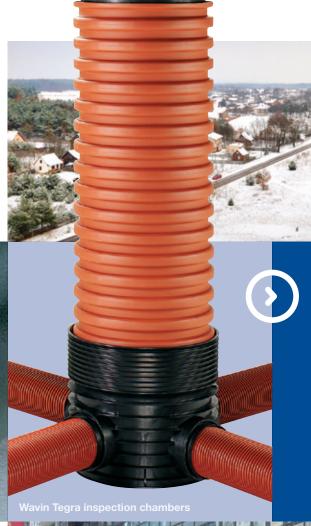
POLAND

Bojanów municipality

Requirement: improve sanitation for over 700 homes, in a community which is not connected to mains sewage infrastructure.

Solution: building a self-contained system to collect and treat sewage, with Wavin Tegra inspection chambers and Wavin TS pressure sewer pipes and fittings.

Also provided by Wavin: design advice from early stages in the project.



solutions whatever your need

HONG KONG

Water main renovation

Wavin Compact Pipe

Requirement: restore water supply pipework to full performance functionality, avoiding inconvenience to commercial and social life, and with no disruption of water supply.

Solution: Wavin Compact Pipe, which is installed using no-dig trenchless technology. Factory deformation reduces the pipe diameter by 35% for easier insertion into old pipework. Then, using special installation equipment, it is re-rounded to create a tight fit.



If your closer look at Wavin includes the possibility of working for the company, here's what to expect.

Locally and internationally, Wavin is a team. This is at the core of our culture and history - and is essential to our continued future success. It requires a very broad range of professional skills. Newcomers can bring experience - or simply arrive as talented individuals who are just starting out in their working lives.

Those who do join us, will be contributing to achievement of the goals that drive our company. These are all focused on making a difference to the way people manage the essentials of daily life and setting future standards for their safe, sustainable and efficient delivery.

a career

the wavin

within

team



We are always on the lookout for new talent to start their careers with Wavin.

Degrees and skills

- o engineering
- technology
- sales and marketing
- procurement
- production and logistics
- information services
- human resources
- finance and administration

Wavin is interested in recognised degrees, or previous experience, in:



Bringing experience

Recruits to the Wavin team regularly include established professionals who can connect and contribute the experience of their careers to date to further Wavin progress.



Connect to Wavin

www.wavin.com info@wavin.com

Corporate Social Responsibility

www.wavin.com/csr sustainability@wavin.com

Human Resources

www.wavin.com/Careers CorporateHR@wavin.com





Acknowledgements

Picture on page 12 courtesy of Cityroofs

Picture page 23 (top) courtesy of Olympic Delivery Authority (ODA)

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For more information you can visit www.wavin.com



Water management | Heating and cooling | Water and gas distribution Waste water drainage | Cable ducting

Wavin B.V.

P.O. Box 173 | 8000 AD Zwolle The Netherlands Phone +31 (0)38 - 429 49 11 Internet www.wavin.com E-mail info@wavin.com









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