Advancing Sustainable Solutions

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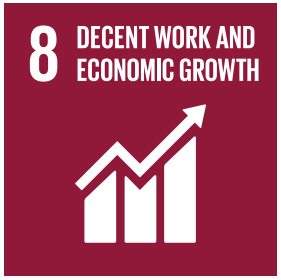
Ratified by the United Nations General Assembly in September 2015, the UN Sustainable Development Goals (SDGs) represent a comprehensive set of social and environmental benchmarks that demand the action of governments, businesses and communities to achieve inclusive global prosperity by 2030. In pursuing our purpose, we have identified six out of the 17 goals on which we can have the greatest impact, as noted below.

Feeding the world sustainably

Advancing responsible business



Making health and well-being more accessible

Making cities more livable, lovable and resilient

Better managing water systems

Empowering communities with data

Find out more: www.un.org/sustainabledevelopment/sustainable-development-goals

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Better Managing Water Systems

While access to safe and sanitary water should be a basic human right, it is actually a pipe dream for billions of people around the globe. According to the United Nations, 3 in 10 people today lack access to safely managed drinking water and 6 in 10 people lack access to safely managed sanitation facilities.

At Orbia, we are seeking to open access to this critical resource by fluidly innovating to deliver safe, efficient water management systems and technologies. Our resilient solutions include capture, recycling and reuse of water, with rain and stormwater harvesting, street gullies and heating and cooling systems. Our smart products include solutions that ease the burden of installation for managing the movement of water for homes and buildings; sewer systems that support city-wide sanitation, and fluorspar applications for water treatment. These solutions help bring clean water to millions of people and bring more circularity to water systems within buildings and entire communities.

At Orbia, in so many parts of the world, we see the tragic loss of water in cities and in homes, through inadequate water infrastructures. That's just one of the pressing challenges we are helping address through our innovative technologies and advanced solutions for water and sanitation through our Wavin brand. Enabling a water-secure future is the key to advancing life around the world."

Maarten Roef
President, Building & Infrastructure

The Source for Sustainable Urban Living

To keep global cities and citizens supplied with water through extreme weather cycles, Wavin's stormwater management solutions reduce flooding risks and help control groundwater loss in urban environments. For example, we help compensate groundwater depletion and reduce floods through our Q-Bic Plus or AquaCell, modular units that are installed underground.

In 2019, Wavin introduced several additional initiatives to improve stormwater management, leak detection and rainwater harvesting around the world:

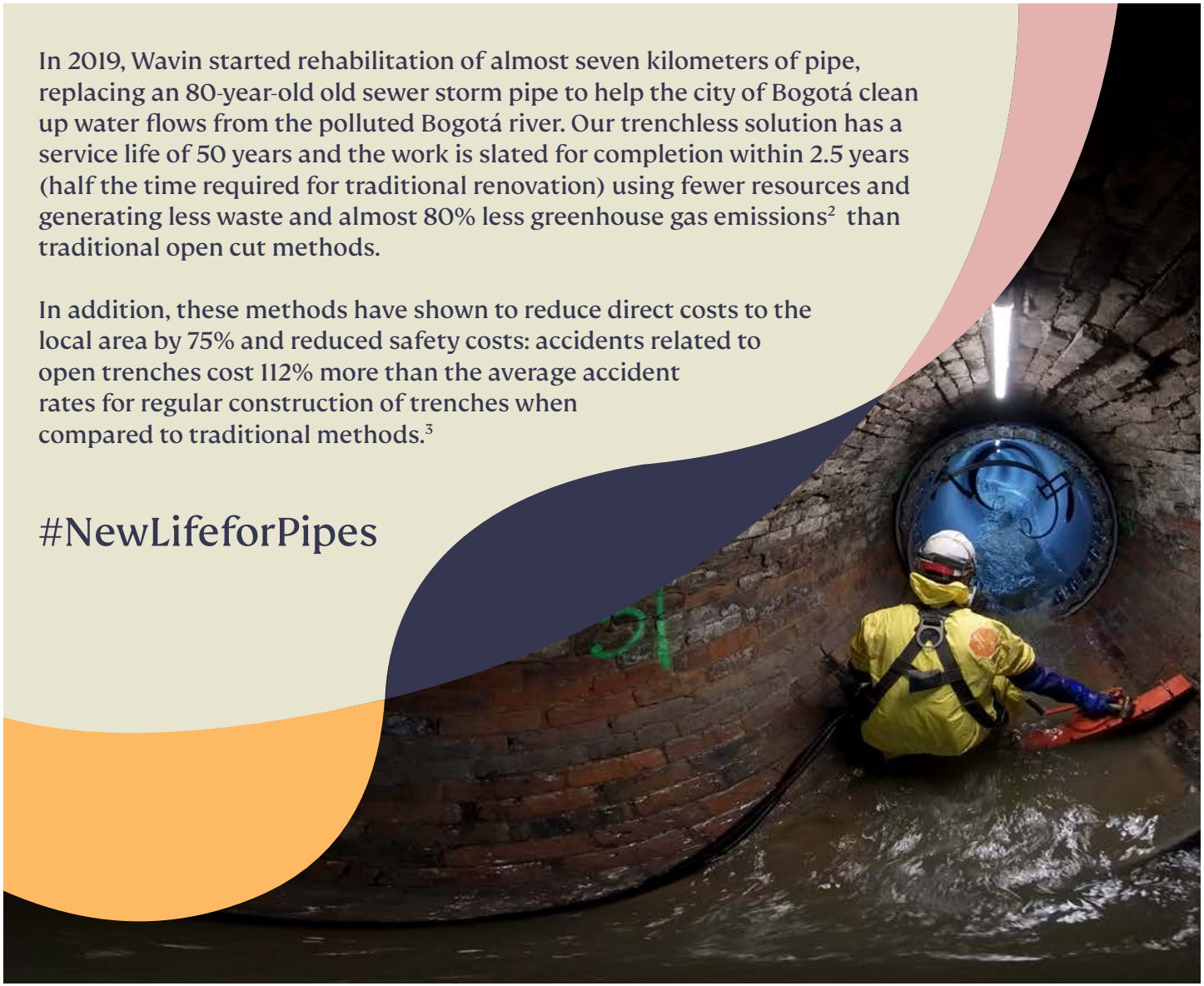
- **A smarter drainage system**: Through a new partnership with StormHarvester, a leader in automated monitoring and control of drainage infrastructure, Wavin is now offering cities the Wavin StormHarvester system: an all-in-one-tank rainwater reuse and flood drainage system run on smart weather forecasting technology. The system is already achieving widespread recognition and awards in Europe, and is currently shortlisted as one of the five nominees for the 2020 Belgian VLARIO Innovation Award.
- **A new gully to prevent flooding in cities**: In 2019, Wavin introduced the new Tegra street gully (made from 100% recycled plastic), which uses patented technology to filter up to 98% more leaves, dirt and litter without compromising discharging capacity, keeping rainwater tanks and rivers and oceans clean while reducing the risk of puddles on roads and in parking places.

StormHarvester system

In 2019, Wavin started rehabilitation of almost seven kilometers of pipe, replacing an 80-year-old old sewer storm pipe to help the city of Bogotá clean up water flows from the polluted Bogotá river. Our trenchless solution has a service life of 50 years and the work is slated for completion within 2.5 years (half the time required for traditional renovation) using fewer resources and generating less waste and almost 80% less greenhouse gas emissions[2] than traditional open cut methods.

In addition, these methods have shown to reduce direct costs to the local area by 75% and reduced safety costs: accidents related to open trenches cost 112% more than the average accident rates for regular construction of trenches when compared to traditional methods.[3]

#NewLifeforPipes



- **No-dig water infrastructure for cities**: The trenchless (ZinZanja) rehabilitation solutions from Wavin using compact pipe and eight other no-dig technologies are now coming into widespread use for urban water installations and aging water infrastructure upgrades alike, offering dramatic gains in direct regional costs (with reductions in construction costs of up to 75%), times-to-completion, resource efficiency, maintenance needs and resiliency. To date, Wavin has now installed over 1.5 million meters of compact pipe systems worldwide to fix old buildings, repair leaking pipes, and reliably carry water to citizens worldwide for up to 80 years, unimpeded.
- **Scalable rainwater reuse systems**: To provide water to rural communities across Central America, Wavin has installed more than 3,000 systems over the past four years, improving water supply for more than 20,000 people. In 2019, Wavin provided more than 200 rainwater harvesting systems to keep Guatemala, Honduras and El Salvador running—as a mere one example, the installation of 15,000-liter tanks and conduits served 500 people in the local communities surrounding Baja Verapaz in Guatemala.
- **A productive pilot**: To get to the source of leaky water pipelines, Wavin partnered in 2019 with an engineering start-up and a utility to pilot a new system in the Netherlands: the pilot harnessed smart sensors and algorithms to detect and predict leak events over 500 meters inside a live water pipeline to ultimately highlight maintenance needs and reinforcement opportunities. The pilot was successful and in 2020, Wavin will team up with additional technology suppliers and utilities to scale this approach, aiming to provide safe, sufficient, and secure water supplies to the world.

2 https://meridian.allenpress.com/jgb/article-abstract/4/2/126/116322/Comparison-of-Emitted-Emissions-Between-Trenchless?redirectedFrom=fulltext

3 Bidding strategies for conventional and trenchless technologies considering social costs R A McKim https://doi.org/10.1139/l97-036