**NEWS ARTICLE**

Engineers make an impact in driving sustainable development

**3 March 2023:** In his first two years of working, **Lloyd Wallace** designed a rural water scheme for a community in Northern KwaZulu-Natal. When he had the opportunity to visit the site much later, the community saw the branded vehicles and ran out to thank the team for providing them with water. “It was an amazing experience personally to see the impact of my work as a junior engineer,” says Wallace, Technical Director and Expertise Lead for Infrastructure Advisory at leading consulting engineering and infrastructure advisory firm [Zutari](http://www.zutari.com).

More recently, Zutari led a workshop between municipal officials and community representatives to unpack the public housing that the City of Cape Town administers to over 300 000 people. “Our work brought these groups together to talk about the issues. It was the first time that both sides were able to see how difficult the situation was from each other’s perspective.” The insights from this work have been incorporated into a large training and business optimisation programme that Zutari has been supporting the Department of Public Housing with over the last three years.

“At numerous stages on projects throughout my career I have been amazed to see how much impact engineers can make in driving sustainable development,” highlights Wallace. Engineers operate in a space where they can influence how infrastructure is designed to meet different ideas of value creation. By embedding sustainable development principles and, more importantly, mechanisms to measure the impact of projects in terms of the UN Sustainable Development Goals (SDGs), engineers contribute directly to changing the status quo, and have the benefit of seeing their efforts impact the lives and environments around us.

Due to the skill set that engineering equips young people with, there are numerous opportunities even before qualifying. Wallace says he funded two years of tertiary education and was then able to obtain bursaries for six years of additional studies, during which time he worked as well. “There are lots of opportunities to get funding if your marks are good and you actively build the right networks.” For example, Zutari recently employed 90 graduates in its most recent intake, and puts in place development plans and opportunities for these young engineers, scientists and advisors to find their ideal place in the business to maximise their growth.

Wallace started off studying civil engineering at the University of Pretoria as a bursary student of construction company Aveng. After realising that construction was not for him, he moved to a water consulting engineering company and did his honours degree in environmental engineering part-time, again on a bursary. He then took up a role as a general civil engineer, with most of his projects in the solid waste engineering space. This started with the design of landfills and waste containment facilities, but quickly transformed into waste management, which was much more exciting.

“Managing waste – think black bags and recycling – is as much a social issue as it is a technical issue, and this paved the road for the journey that led me to where I am now,” says Wallace. In 2016, he was fortunate enough to be awarded one of ten annual scholarships offered by the Swedish Institute to South Africans to complete a master’s degree in engineering in Gothenburg, Sweden, for two years.

Wallace opted to study industrial engineering, a field that links business and engineering – and to his surprise it was all about innovation and how we organise industry, business and teams to find new ways of doing things. “My team does exactly this: We search for new ways of solving very complex issues around infrastructure development.”

In his current role, Wallace looks at how infrastructure fits into an organisation’s goals to drive impact and success. He leads a team of diverse people, not only engineers, who assist clients to build the right infrastructure to meet multiple needs. “We focus on making investments in infrastructure sustainable so that everything still works in 20 to 50 years’ time.” The team specifically aids with creating projects where the public and private sector join forces to have a bigger impact. “We create business cases and investment strategies, we help assess and manage project risks and we also help companies with lots of infrastructure improve their businesses to deliver bigger and better impact,” explains Wallace.

His future plan is to concentrate on being an enabler to the business for embedding sustainable development principles and guide technical teams to frame the impact of their efforts in terms of the SDGs and wider impact metrics. “We are especially interested in being the connectors that help private and public entities come together to collectively solve the huge infrastructure challenges facing South Africa and the continent. I have learnt over my 15 years as an engineer that the challenges are very complex, and we need to all come together to collectively frame and solve the issues. Engineers cannot do it alone.”

His advice to young people contemplating a similar career path is: “Do not get too hung up on worrying about if you ‘fit’ the engineering mould. The industry is evolving and there is an amazing opportunity to bring creative skill sets to the table to solve the world’s biggest problems. Engineers are very much trained to be problem solvers, and this leads to a very exciting career with options downstream. Do make sure you keep your maths and science strong, but do not forget to invest in things like your people and emotional intelligence skills, too,” concludes Wallace.

[*World Engineering Day*](https://worldengineeringday.net/) *on Saturday 4 March is an opportunity to celebrate engineering and the contribution of the world’s engineers to a better, sustainable world.*

***Ends***

**Notes to the Editor**To download hi-res images for this news article, please visit <http://media.ngage.co.za> and click the Zutari link to view the company’s press office.

**About Zutari**

As an engineering and advisory firm, we believe infrastructure has unparalleled potential to create enduring impact. Never more relevant, this potential can be realised only if we plan, design, deliver and manage infrastructure in ways that maximise its value. Our work in water, transport, energy, resources, and built-environment infrastructure does just this – helping to nurture thriving communities, growing economies, and healthy environments.

At Zutari we understand that radical impact doesn’t just happen; it requires more of us to connect differently, work smarter, and stay rooted.

**We connect differently**. Our broad collective of in-house experts connects across traditional disciplines to provide integrated results. We collaborate with clients, partners, and end-users, leaning into diverse perspectives to create superior solutions - together.

**We work smarter**. Our people lead the industry. We draw from deep technical skills, accrued over decades, and embrace the transformative power of digital technology to find simpler, better, and more innovative ways to deliver value.

**We stay rooted**. Few can rival our local capacity and understanding. Building on solid foundations, now 90 years in the making, we are trusted to shape locally relevant solutions through our extensive footprint in Africa and the Middle East.

At Zutari our people connect differently, work smarter, and stay rooted. Working in this way, we reliably deliver impact through infrastructure, making the world a better place – one project at a time.

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