

## NSTF-South32 Awards

# Lifetime focus on improving service delivery

Lifetime Award by an individual

Debbi Schultz

**P**rofessor Kevin Wall is a professional civil engineer and a town planner. He has spent his life considering issues on multiple levels and focusing on improving service delivery. His work has ranged from skills enhancement and developing guidelines to changing policies and formulating national-level strategies.

In the 1970s, when working at the Cape Town City Engineers Department, Wall was part of the team that created a radically different development for Mitchells Plain. This included relooking at planning and engineering standards.

It was a new way of thinking and involved a transdisciplinary team. This meant, for example, those with different skill sets could help each other at earlier and more appropriate times in the planning stages. Wall says that this transdisciplinary approach, including transdisciplinary co-operation and understanding, has been a continual thrust in his work.

## From residential development to guidelines

Moving away from traditional planning, the team wanted to make the development more urban and use the space better. Higher density attracts more services, from transport to libraries. It also allows for economies of scale.

Word spread about the development, and engineers and planners from across the country came to visit. In 1983, the Council for Scientific and Industrial Research (CSIR) then definitive guideline on infrastructure standards was, for the most part, based on the Mitchells Plain innovative standards. The book has since been updated and expanded. It continues to be the guideline for residential development.

During his time at the Cape

Town City Engineers Department, Wall was responsible for the design and construction of numerous housing, township services and amenities, among other things.

## Self-selection entrepreneurship model

Wall's work can also be seen within the context of empowering people through skills development. Post working at Cape Town City, he led the team that worked on a form of self-help housing. The primary focus was for people to build their own houses; by using their own labour, they kept costs down.

It started by asking people on the housing waiting list whether they wanted to learn to build their own houses. There was a further vetting process, which included assessing financial stability, financial responsibility, and whether there was an extended community that could help.

The chosen individuals were given various support mechanisms, including an onsite builder. Participants were also given the needed resources for each stage. After sign-off from a building inspector, they then received the next set of vouchers or building materials. This methodology went beyond self-help housing to providing an environment where people could acquire building skills.

"You can't take random people and just expect them to become entrepreneurs," says Wall. For there to be success, he believes there needs to be certain elements within the individual.

## Entrepreneurship ecosystem model for infrastructure maintenance

After three decades in both public and private sectors, much of it at a senior level, in 1999 the CSIR headhunted Wall for his transdisciplinary and collaborative approach to improving service delivery. The aim was to develop a focus on urban infrastructure and management, making strategic contributions to service delivery. It was here that his lifelong drive to raise awareness about maintenance — or the lack of it — came to the fore.

Wall was involved in many areas and projects during his time at the CSIR. He led the team that piloted



Lifetime Award recipient, Dr Kevin Wall, is a civil engineer and a town planner.. Photo: Supplied

the social exchange partnership model for creating and nurturing emerging microenterprises that provide maintenance work for low-technology water and sanitation infrastructure. There were two parallel pilots in the Eastern Cape, between 2009 and 2012. An emerging micro entrepreneur ecosystem was developed that involved transferring skills and creating jobs.

Beyond that, the project assisted with maintenance in public schools in the Eastern Cape, among other contracts. Many of the schools in rural areas use rainwater harvesting and ventilated improved pit latrines. These structures need maintenance to continue working, but this wasn't happening.

"While there was a maintenance budget, it wasn't being used for maintenance and rather, for example, hiring a new teacher," explains Wall. "While both issues are critical, the layperson often doesn't understand the ramifications of not maintaining infrastructure. For example, when rain harvesters don't work, it means school pupils must carry water from far away. This impacts their time and energy for schoolwork."

The social exchange partnership model operated as follows. After a general meeting, similar to the self-help housing project, there was a self-selection process by the participants. The initial sessions saw the participant numbers reduce as the individuals understood the scope of work and the role they would need to play. Post that, there was intensive training and support with equipment.

The idea was to be in business for yourself but not by yourself. As part of the ecosystem, there was an overall central management role and other support roles that assisted the entrepreneurs. Instead of individuals having to, for example, chase payments, someone from the central organisation could do so in an ongoing, focused way, and for a large number of the participants.

"This type of model hadn't been done with infrastructure maintenance and is still the largest example in the world," says Wall. He says the model's potential is vast, both from public and private sector perspectives. However, there needs to be political will to make it happen.

Regular maintenance is needed for school sanitation facilities and households with ventilated improved pit latrines. For the most part, this is not happening. The model can also be used for water and sanitation facilities at many other institutions. Wall says that the principle can be applied to other forms of infrastructure, particularly roads and electricity distribution infrastructure. This is proven method and can help create long-term jobs with specialised skills, while alleviating poverty.

## Report cards on national infrastructure

Wall's output has been widely read and has influenced government thinking. An example is the series of national infrastructure condition report cards. The report cards explain the conditions and the reasons for them. Wall was both research team leader and a co-

author of the series in 2006, 2011 and 2017.

"It's difficult to express the importance of infrastructure maintenance to a lay person, as well as the consequences of not conducting maintenance. It also doesn't help to give a difficult explanation," says Wall. This is where grades really help.

## Policy level impact

Wall's work on building the case for improved infrastructure asset management led to, among other things, the drafting of the National Infrastructure Maintenance Strategy and responsibility for taking it forward. Another important strategy involved Wall leading a team to create the first National Water Services Infrastructure Asset Management Strategy.

## Current and future work

Beyond the work described, Wall has worked on an extensive list of projects and initiatives on local, provincial, national and international levels. He has contributed to peer-review journals, written books and book chapters, been extensively involved in conferences, and supervised postgraduate students. He has received numerous awards, including in 2017 the highest award of South Africa's civil engineering profession, the Gold Medal of the South African Institution Of Civil Engineering.

Wall continues with many of these activities, focusing on infrastructure support and service delivery. He is also currently part of a pilot, under national treasury, for municipal turnaround.

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