

How engineers can help co-create a better Africa

 By [Sandy Peters](#)

12 May 2017

African engineers have been relegated to filling in the technical blanks, but where they really belong is at the main table when development plans are being formulated, said Abbas Jamie, a speaker at the 24th Annual FIDIC-GAMA Conference on Infrastructure. Jamie is the community liaison for Africa for the [World Design Organisation](#), as well as director for innovation and transformation at Aurecon Engineering Consultants.



Abbas Jamie, community liaison for Africa, World Design Organisation, and director for innovation and transformation at Aurecon. Image: www.technopark.org.za

"We have the global-level Sustainable Development Goals and how Africa will respond to that. We also have Agenda 2063 which has been adopted by African countries. In South Africa, we have the National Development Plan - more than 30 African countries have their own development plans. The question we as engineers have to ask ourselves is, what role did we play in shaping these national development plans, or did they only come to us when they wanted to know the size of the pipe that's going to bring the water from the dam to the community?" he asked the room of consulting engineers.

Introduce new ways of thinking

In contributing to the strategic narrative of Africa and tackling our complex challenges, African engineers need to move beyond jumping straight into solution mode, said Jamie, and embrace systems thinking, which entails working towards a greater understanding of all the components of a complex problem.

Design thinking requires a human-centric approach in problem-solving, and while it was first implemented in product design, it is now being used in the general business sphere, explained Jamie. "There's something in design thinking that is very powerful, and it differentiates companies that embrace design thinking from others."

Both systems thinking and design thinking, used in tandem, will allow engineers to contribute positively in shaping Africa's development strategy, said Jamie, but this approach primarily requires creativity – one of the fundamental building blocks of innovation, rather than technology. "Technology is not the answer... Kodak had the technology, Xerox had the technology, but the management was not prepared to accept this creativity in their business," he explained. The trick is to find the sweet spot where the creative and engineering worlds meet, he said, and that's where you'll find innovation.



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Design thinking in Africa

Implementing design thinking in solving Africa's challenges will require a human-centric approach, said Jamie, which tackles Africa's challenges with an African lens. Introduce creative people into your businesses, embrace storytelling, and co-design and co-create with a better empathy for end-users, he said.

"We have fantastic documents - the UN Sustainable Development Goals are something that we can all aspire to, AU 2063 is something we can all aspire to. How do we as engineers take our rightful place at the table and start influencing these plans? We believe that we can co-create in a better Africa, using our engineering technical expertise, and embracing partnerships that can co-create and co-design a better Africa."

Go to www.fidic-gama2017.org.za for more info on the conference. For more info on FIDIC and its members, go to www.fidic.org. FIDIC-GAMA 2017 was held at the CTICC, 7-10 May.

Jamie's presentation was based on Advancing the Afrikan lions' narrative: the quest for a sustainable future for all, a paper he co-authored with Prof. Mugendi K. M'Rithaa.

ABOUT SINDY PETERS

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