

Collaboration key to building for the future - WSP

#womeninSTEM

If the African vision of Agenda 2063 for an integrated, prosperous and peaceful Africa is to be achieved, enablement through sustainable built environment intervention will be an important contributor.



L-R: Hologelo Manthose, Frankie A'Bear, Jabulile Nhlapo, and Karen King

Four WSP built environment professionals from engineering, environmental consulting and sustainability consulting share their insights on the trends they believe will underline how we design and build for the future.

Breaking down silos of isolation

Historically, the building space has been divided by clear silos – architect, engineer, quantity surveyor, project manager, contractor, consultants etc. – and while each of these areas of expertise and lines of responsibility still exist and play a vital role per project, there is a rapidly evolving industry movement towards improved collaboration across disciplines. This collaboration is underpinned by communication – internal-external, up-down and lateral – thus ensuring that every element of a building project speaks to each other and collectively forms part of a bigger picture that enables society to continue to thrive.

According to Jabulile Nhlapo, mechanical engineer associate, Building Services, WSP in Africa, “As a mechanical engineer, and particularly when I started building my career in this profession, I often found myself working in silos – mainly because I was focused on the technical side of my personal learning curve. But along the way I realised that, as you grow and evolve as an engineer, you need to learn about and understand what is important to all other disciplines, for every part of the project and the building to work well together. And, the change in mindset that we are seeing in the professional engineering and consulting space excites me. In my role at WSP I’ve had experience in coordinating between the different disciplines within our own business on key projects. And, it’s not to say that this hasn’t been without its challenges, but it has also been very rewarding in ensuring that we are coming up with the best possible, innovative solutions for our clients.”

Frankie A'Bear, civil engineer, Transport & Infrastructure, WSP in Africa, agrees. In speaking from her own experience, she notes that there is movement to overcome generational and gender differences in the industry, as well as challenges posed by geographically dispersed teams. “I’m working on a project that involves water, structural, electrical and mechanical engineering and because the project is based in water, although I’m the youngest person on the team, I’ve

been fortunate that I am also the person who is coordinating it all. The process has been challenging, as often trying to relay information to each member of the team can be intense. However, we've been able to leverage on technology and video conferencing applications to host collective team meetings – which has enabled us to share and discuss ideas more instantly. And, as an experienced engineer, the mechanical lead always communicates exceptionally well and ensures that she is clear on what is required to keep the team and client informed at every phase of the project. Because of this, she is a wealth of knowledge and a key resource to learn from.”

Sustainability emerging as the leading approach to design

Hologelo Manthose, sustainability consultant, Building Services, WSP in Africa, highlights that the level of collaboration that can be seen in the industry today not only adds value to processes but has a crucially important role to play in designing and building for the future. “Designing and building for a sustainable future means bringing all the disciplines together, to challenge the ordinary, discuss different ideas and present innovative and workable solutions that speak to each other, and overall ensure the project conforms to the requirements of sustainability - for the economy, society and the environment – today and in the future. And, it's very exciting to not only see this changed approach to collaboration, but to personally be a part of it as a young professional. There is immense strength in diversification, a lot of learning that can be gained, and knowledge that can be shared by bringing together experts from different disciplines, generations and even cultures.”

In Africa, most countries continue to place significant focus on economic triggers, where the natural environment and society have traditionally lagged in focus. Over the last decade, responding to climate change and extreme weather changes have led to environmental triggers receiving a fair amount of attention. However, WSP believes that in the future places will be designed and built around people – how they live, work and play.

“If I look at some of the building projects we are involved with and in the process of applying for a Green Star SA rating on, the Green Building Council provides a socioeconomic tool which looks at how we bring in ‘people’ – and early on in the concept and design phases. This is proof of the transition we are seeing in the approach professionals in our multidisciplinary fields are taking to design and building projects,” adds Manthose.

Collaboration underscores adopting global best practices for local context

Delivering on a future that is more resilient and sustainable for generations to come is complex and takes extraordinary efforts to imagine, consider and design. Getting it right for Africa will also mean learning from international best practices and adopting these within the context of local regions.

Karen King, senior associate, Environment & Energy, WSP in Africa, says, “When we talk about thinking, designing and building to be future ready, this means breaking out of all of our silos – and doing things differently. This includes looking to our colleagues in other regions for new learnings and working together in a sustainable way. We must ensure that whatever we design and then build – even if we may not yet fully understand the impact or have the necessary regulation in place to guide decision making – is something that has been collaborated on for the best all-round sustainable impact.”

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