

# What 4IR means in the context of South Africa

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From the Internet of things (IoT) to Artificial Intelligence (AI) to smart cities, to the Fourth Industrial Revolution (4IR), the list of buzzwords is steadily growing with a shortage of tangible and visible planning on how this will change the lives for the citizens of a low-income country beset by unemployment and poverty and a struggling economy such as South Africa.



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In an environment that is unable to provide basic services such as water and sanitation, refuse removal and electricity, effective education and healthcare to all its citizens, what role can these buzzwords represent to most of our population?

We live in an era that is more and more defined by technology and terminology, and whether we like it, not, whether we are ready, or not, we are in the midst of it already.

We are part of a global market, part of global developments and part of a global economy that will favour the ones who are prepared and leave behind the isolationist. But behind all the terms hide a number of prerequisites, that have to be fulfilled before we can begin to feel the effect of 4IR related developments.

## Unlocking modern development

These prerequisites have largely been identified and need to be addressed in order to advance South Africa into the full benefits of modern developments. Work needs to be completed on effective policy and regulation, legislation on for instance for the use of radio frequencies, digital ethics, personal protection and security measures to name but a few.

How do we achieve a status quo that changes the lives of our population in a similar manner as cell phones did from the early 90s and the internet from the turn of the century?

The technology of 4IR allows us to increase safety in dangerous work environments such as mining and construction. Lives that are currently being lost and injuries that occur can be significantly reduced using robotic technology.

4IR allows us to unlock new methods of agriculture, increase the efficiency of agriculture, and open new ways of food production. 4IR in the medical sector can treat diseases and save lives, and in the industrial and manufacturing sector, has the capability to put South Africa into a level playing field with the rest of the world.

The impact of 4IR is going to be felt throughout all sectors of the formal economy, but what about the informal economy that constitutes a significant part in South Africa? 4IR also contains many dangers such as unemployment, discrimination, monopolies and privacy infringement to name a few.

## **An all-inclusive approach is needed**

When it comes to participation in the economy, our focus must shift from policy-making on behalf of the privileged few, to an all-inclusive principle. We have already seen that recent focus has led to the deterioration into a 70/30 economic participation, which will soon further decline to a 60/40 participation. Policy and legislation need to move into a new mindset in order to reverse the current trend. 4IR is a significant opportunity, but it and its prerequisites must be positioned correctly so that the full population is able to benefit from it.

4IR allows us to move back into greater manufacturing, food-producing and service-driven economy, rather than our current economy that controls valuable assets and a large labour force, but still trades on an export deficit.

Whilst these goals are reliant on effective infrastructure, education and health services, these underlying pillars represent the first prerequisite and significant opportunity for the 30% unemployed or the 50% that are living in poverty. For this population segment, 4IR will not bring a rapid change, but meeting the prerequisites can.

Not having an all-inclusive approach to achieving the prerequisites to 4IR will result in a monumental loss in opportunity, not only for the affected parties but also for the economy.

South Africa is not alone in its quest to understand the meaning and impact of 4IR, the context of which differs from country to country. But what is of greater importance is to focus on achieving the prerequisites to create a solid foundation, on which 4IR can flourish and become a tool that enables a leapfrog effect to a level of prosperity which our economy requires.

## **ABOUT ECKART ZOLLNER**

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