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FOREWORD

Positioning SA's fruit industry ahead of the curve

The 21st century is characterised by an information explosion whereby the creation, distribution, use, integration and manipulation of information are an important economic, political and social activity (Wikipedia, 2019). According to K. Mossberger, we are rightly referred to as an information society, which is comprised of digital citizens, i.e. those who are able to use the internet regularly and effectively.

SA is also caught up in the fourth industrial revolution (4IR) hype. I say hype, because of my previous experience with government's catchy and fashionable policy slang that is never implemented, or not implemented properly to produce the desired impact. The point is, the Internet of Things (IoT) is changing our world significantly and progressively, whether SA is ready or not! The question I want to pose to the fruit industry is: how are we positioning ourselves to draw maximum economic, social and cultural benefits from this revolution?

There are numerous opportunities and possibilities for application of 4IR in agriculture: drone technology to monitor crops, pest and disease surveillance, migratory pest monitoring, climate change monitoring and early warning systems, map land and other strategic agricultural infrastructure; digital sensors to monitor soil moisture and nutrients for efficient use; site specific or precision application of agricultural inputs for efficient and environmentally friendly systems; virtual reality platforms for collaboration with experts and access to the best facilities in the world (e.g. laboratories and technology), circumnavigating the challenge of geographic location; and market intelligence using "small and big data".

The fruit industry can draw maximum benefit from strategically riding the 4IR wave, if we efficiently use information (and "small data") and manipulate it into market intelligence (MI). It should not simply present the facts of what happened, but it should be able to guesstimate what may happen in future, its potential implications

and impact (Swaminathan & Chinnadurai, 2013).

Here's a practical example: the SA table grape industry was negatively impacted by the USA-China trade war last season. But what does SA's table grape trade have to do with USA-China issues? The closing of the China market for USA grapes resulted in most of the grapes that would have been exported from the USA, remaining in their domestic market. This meant that grapes from South American countries that are usually imported into the USA needed to be diverted to other markets, such as Europe. With Europe being SA's biggest table grape export destination (77% of our table grape exports go to the EU and the UK, 2019 Fresh Produce Export Directory), this presented a significant market challenge for us. Here, optimal use of MI would've guided strategic decisions, resulting in better performance.

SA is a highly connected society. According to Stats SA's 2017 data, nationally, 88,2% of households have access to at least one cellular phone, 8,2% of households have access to both a landline and a cellular phone, and only 3,5% of households did not have access to either landlines or cellular phones. Households in rural provinces such as Mpumalanga (95,0%) and Limpopo (94,4%) are reliant on the more accessible cellular telephones than landlines. Nationally, 61,8% of households had at least one member who used the Internet either at home, their place of work or study, or at Internet cafés. So, are SA and the fruit industry ready for 4IR? Absolutely. But there's a proviso.

Government and/or business need to work together to establish critical enablers such as a policy framework, investment in relevant infrastructure, an education system that will produce the required skills, and a social compact between government, business and labour as current jobs are going to be impacted. My parting thought is this: a change of mindset is needed where we see 4IR as an opportunity, rather than a threat.