

## **Pit-to-port infrastructure needs injection of funds and innovation**

**Cape Town, 05 February 2014** – Underdeveloped infrastructure and infrastructure spending deficit remains a major obstacle to growth for Africa and this could not be truer than for the mining sector – plagued by insufficient pit-to-port infrastructure.

"Africa has a history of underdevelopment of infrastructure – across roads, railways, airports, ports and harbours, etc.", says De Buys Scott, Head of the KPMG Global Infrastructure advisory in Africa. The current spend on infrastructure in Africa is about \$45 billion\* a year, however, \$90-100 billion a year is needed to catch up with other major developing countries – even with this, it has been further estimated that there is a \$45 billion+ spending gap\*.

Scott continues: "With this, infrastructure – and particularly projects for pit to port transportation of natural resources – also remains one of the biggest stumbling blocks that mining companies and trading houses are still facing in Africa. While in recent years we have seen significant investments into mining projects in Africa and a number of them involve pit to port infrastructure; including in South Africa, Mozambique, the Democratic Republic of the Congo (DRC) and Sierra Leone, for example; the reality is that we still don't have sufficient systems. The challenge in Africa is twofold; there is either too much bulk stock in one region or country that does not have a direct line from pit-to-port and to create this access would require not only significant investment into the infrastructure, but that this investment may be included by much needed and complex cross-border deals. This is often the case with landlocked countries. On the other hand, we are also faced with regions or countries where the volumes of resources that are being extracted from the mines aren't large enough to justify a business case for investment in large transport infrastructure development."

### ***Finance is not the only resource needed to get infrastructure projects of the ground***

"Within the South African context there has been under-spending on rail particularly and to a lesser extent port infrastructure over the last thirty to forty years," says Darrin Green, Chief Operating Officer for WSP Civil and Structural Engineers in Africa. "The major constraint to the export of resources – specifically coal, manganese and iron ore – from the mining sector is around rail infrastructure and this is severely hampering the sector and the economy in general, as currently these bulk resources are often being transported by road, which is uneconomic and disproportionately damaging to the road infrastructure that in itself, often regions have insufficient capacity. While this has been realised by government and Transnet as the primary implementing arm, it is a game of catch up at the moment."

Green further highlights that within the greater African context there is a general lack of logistics infrastructure across roads, rail, port, warehousing etc. in support of economic growth and more specifically in this case around exploitation of Africa's mineral resources. "Much of the logistics associated infrastructure and particularly pit to port rail solutions are being driven and implemented by resources companies, though this is greatly complicated by the divergence between government requirements for social reform and the resources companies need."

Scott adds, "The fact that many pit-to-port infrastructure developments involve multiple countries means that multiparty commitments are required to ensure optimum infrastructure solutions are developed. The optimum for the system might not be the optimum for each country, but is crucial for sustainable cost effective infrastructure systems."

### ***Fixed transport isn't the only missing connection***

"International trade is critical to the sustained future of the mining sector in Africa and considering sea transport is usually the most economical way to move bulk stock, the majority of international trade depends on efficient harbours and ports," says Michael Fletcher, Regional Sales Director for Ruckus Wireless sub-Saharan Africa. "There is also a global trend for ports to become more involved in value added activities such as cargo processing and logistics, which will require new processes, practices and technological advances around stock control and integration, as well as connectivity."

Fletcher goes on to say: "In many cases, getting connectivity in such areas – like a port or mine – can prove difficult and expensive. Where, not only is Wi-Fi more cost effective and easier to deploy than GSM for example, but having Wi-Fi in place can provide a better user experience in supporting the use of mobile devices – such as scanners and smartphones for reading barcodes and RFID – to drive improved service efficiencies and staff productivity."

Increasingly there is a need to optimise pit-to-port turnover worldwide – where logistics must ensure the efficient storage and retrieval of containers in a minimum timeframe – after all time is money. "Exact positioning and tracking of all containers is therefore key. But to optimally do so, connectivity and reliable connectivity at that is essential. As such, having access to a reliable connection allows logistic managers to obtain and manage container, crane and vehicle information in real time which significantly optimises the entire chain process. Essentially this results in less downtime, less management and support calls and ultimately more productivity," adds Fletcher.

"This connectivity can be taken one step further for full blown connectedness,"

says Gysbert Kappers, CEO of Wyzetalk. "In today's highly competitive markets, an idea not shared is an opportunity not explored and a potential loss to an organisation. Where improved efficiencies, increases in productivity and accelerated growth in business continues to be largely influenced by their ability to improve on communications. That being said, this is best achieved in a highly collaborative and openly innovative environment and resultantly the Social Business trend is emerging – underpinned by mobile technology and social business software. Add to this the ability for all stakeholders in the pit to port ecosystem to be interconnected in a single system using whatever device they're able to at any given time, means insight like you've never experienced it before. Using technology to improve process proficiency will ultimately save costs and improve efficiencies throughout the system."

Simply put, Social Business is the ability to mobilise the collective brainpower of the entire organisation in a meaningful and transparent way to; collaborate, increase productivity, manage data and intelligence, improve responsiveness, streamline operations, connect and communicate, limit the impact of crisis, increase customer advocacy, drive innovation and increase revenue potential. "It's not just about accumulating content, ideas and chatter; rather it is about using a rich multi-play platform (desktop and mobile) in a meaningful way to gain intelligence, insights and sentiment in a way that helps businesses make more informed decisions, faster - irrespective of geographic presence – making it perfect for both mining and a port environment," adds Kappers.

### ***Once online, why not automate?***

According to Greg Vercellotti, Executive Director of Dariel Solutions: "Mining companies - and similarly ports and harbours – just aren't focused enough on technology and as markets and market conditions change, these stalwarts contributors to the African economy need to adapt to the changes. New and innovative technologies can increase effective control of access and present both the mining sector and port/transport sector with the prospect of more efficient ways to conduct daily operations, ultimately saving them millions of Rands. Such customisable technologies can also help improve corporate governance with respect to processes – like safety procedures, for instance - and keep these processes within the parameters of legislations, allowing the company to focus on the business aspects of what they do best."

"At the end of the day, however, no amount finance and innovation is enough to get a pit to port project out of the pipeline and onto the ground without government engagement and transparent partnership as infrastructure projects are long-term investment. With this in mind that we look forward to following the conversations between governments, businesses and investors over the 2014 Africa Mining Indaba, as mining infrastructure projects is still a place of great promise in Africa," concludes Scott.