Using the integrated rural mobility and access (IRMA) approach in prospering rural South Africa

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INTRODUCTION
Access and mobility are arguably the most stubborn challenges to improved service delivery and human development, the foundation of rural prosperity. Pedestrian bridges, access roads and services is massive, particularly in rural areas of KwaZulu-Natal, Limpopo, Mpumalanga and the Eastern Cape. However, infrastructure and services backlogging still remain huge nationally1,2.

Examination, analysing and suggesting appropriate interventions to rural development struggles facing contemporary South Africa remains a growing challenge. In this presentation, it is argued that rural prosperity is more than just an increase in output/economic growth. An instrument with the potential to unlock sustainable socio-economic and spatial livelihood opportunities – the integrated rural mobility and access (IRMA) is presented.

RURAL POVERTY AND DEPRIVATION
Affordable and reliable transport is critical in enabling access to basic services and resources. Effective and efficient transport infrastructure and services act as stimuli for growth and development as well as uplifting livelihoods through opening a range of socio-economic opportunities to individuals and communities alike. However, geographical isolation, long distances, poverty levels, poor infrastructure and limited transport services inhibit access to services and resources, particularly for children, youths, disabled and the aged in rural and peri-urban areas. Between 40% and 55% of South Africa’s population can be classified as living in poverty while 25% of the population can be categorised as ultra-poor. The incidence of poverty is closely related to unemployment, underemployment, and un-renumerative forms of employment. This presentation showcases a rural area where government has intervened proactively. The example is drawn from the Department of Roads and Transport, in Mpumalanga, making references to aspects that reflect the spirit and purpose of the Expanded Public Works Programme.

DEFINITION OF TERMS
Rural prosperity has to do with economic growth, increase in individual, household and communal disposable income, reduction of inequalities, appropriate use of local knowledge and content, institutional alignment and strengthening, engagement and dialogue and ultimately pushing the frontiers of poverty back.

The IRMA approach is defined as endeavours to find innovative and integrated rural transportation infrastructure and services that would link communities to one another, and communities alike. However, geographical isolation, long distances, poverty levels, poor infrastructure and limited transport services inhibit access to services and resources, particularly for children, youths, disabled and the aged in rural and peri-urban areas. Between 40% and 55% of South Africa’s population can be classified as living in poverty while 25% of the population can be categorised as ultra-poor. The incidence of poverty is closely related to unemployment, underemployment, and un-renumerative forms of employment.

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RURAL DEVELOPMENT IMPACT TECHNOLOGY IN PRACTICE – THE IRMA PROJECT IN M P UmALANG A: A CASE STUDY
Inherent to South Africa is a dual socio-economic ‘access divide’, clearly visible between metropolitan/urban and non-metropolitan/rural areas, whereas the rural economy is a hybrid between the first and third sector, rural economies. Rural communities lag behind considerably in terms of infrastructure and service delivery due to geographic isolation, low population densities, poor transport and telecommunication connectivity and logistics of apartheid, especially in the former ‘homelands’. In response to this, the CSIR has undertaken research in pursuit of a better understanding of rural transportation infrastructure and services.

Poverty is defined as “the denial of opportunities and choices most basic to human development to lead a long, healthy, creative life and to enjoy a decent standard of living, freedom, dignity, self-esteem and respect from others”3.

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The CSIR has thus implemented only pillar 1 and part of pillar 2 of the 5 pillars of the IRMA approach illustrated in Figure 1. Pillars 1 and 2 relate to all-weather basic road access for communities, through provision of footbridges. Socio-economic opportunities such as school and hospital are now accessible in all-weather and footpath access to socio-economic facilities such as schools, clinics, shops and government offices.

The current IRMA project benefits deprived resource-poor rural communities by building low-level intra and inter-security and access infrastructure essential for livelihood sustenance. Figure 2 illustrates that the IRMA approach is a practical low-cost technology outcomes-based intervention package.

Phase one IRMA low-cost technology interventions include the provision of appropriate and integrated rural transportation infrastructure such as pedestrian bridges, low-level crossings and all-weather road and footpath access to socio-economic facilities such as schools, clinics, shops and government offices.

Phase one has addressed the transport needs of rural households including the most indifferent and, opened opportunities for them. Villagers and community members have testified how much such interventions have alleviated their daily access challenges as well as reduced their transport burden.

Phase two interventions involved introduction of a low-cost technology outcomes-based intervention package for communities, through opening a range of socio-economic opportunities to individuals and communities alike. However, geographical isolation, long distances, poverty levels, poor infrastructure and limited transport services inhibit access to services and resources, particularly for children, youths, disabled and the aged in rural and peri-urban areas. Between 40% and 55% of South Africa’s population can be classified as living in poverty while 25% of the population can be categorised as ultra-poor. The incidence of poverty is closely related to unemployment, underemployment, and un-renumerative forms of employment.

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Before intervention (left): Learners wading through water in the Mpuluzi River. After intervention (right): Learners walking across the newly-constructed pedestrian bridge across the Mpuluzi River

RECOMMENDATIONS
Some of the major recommendations are as follows:

- Access and mobility interventions alone cannot guarantee prosperity in rural South Africa. For genuine rural prosperity to be entrenched it will take measures, actions and interventions in rural energy and economic development, water and sanitation for rural development, geo-spatial and ICT for rural development, gender, empowerment and a generous measure of education.

- Inequality and poverty simply cannot be resolved let alone remedied, without the generation of long-term jobs, rising incomes, and lasting growth that competitive firms can create. At the same time, the “trickle-down” effect from economic development policies cannot be relied on to stimulate development. Specific policies to alleviate poverty and inequality - motivating measures like public works programmes, micro-finance programmes, land reform, increased expenditure on municipal access and mobility infrastructure and services, and improved and better targeted social spending on education and training, welfare, healthcare and governance issues – are thus essential counterparts to rural economic development policy.

- Infrastructure provision and rural development is a multidisciplinary field, which requires the private sector, government, civil society, NGOs, to name but a few role players, to pool their collective resources and energies together to be successful.

- An interesting trend and observation in terms of infrastructure and rural development is the need to implement and maintain appropriate decision-support systems in all spheres of government to support optimal decision-making processes.

CONCLUSION
Perhaps the greatest challenge that development practitioners have to contend with in rural South Africa is the development of a critical mass of infrastructure and services that would link communities to one another, thereby enhancing socio-economic and spatial cohesion, integration and transformation of spaces, places, people and cultures. The IRMA concept and approach discussed throughout this presentation is one way towards building that vision - its potential to engender a sustainable development legacy should thus be harnessed widely.

REFERENCES
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The IRMA approach is a practical low-cost technology outcomes-based intervention package.

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