

## Mapping innovation activities for local development: Chris Hani District

Preliminary findings using the Rural Innovation Assessment Toolbox to map innovation activities among a purpose-built sample of 123 enterprises in Chris Hani District Municipality (the District) provide some high-level insights regarding district innovation patterns, innovating enterprises' awareness of STI support and their networks. The highlights provide helpful steps towards thinking about appropriate policy recommendations utilising innovation to enhance local development.

Slightly more than 800 000 residents live in the District, with about 70 per cent concentrated in rural settlements. The District is characterised by relatively high levels of poverty and unemployment compared to those of the Eastern Cape. Human wellbeing indicators for the district generally fall below provincial averages, suggesting relatively lower quality of life and living standards.

### Innovation patterns and trends

A novel framework to comprehensively document the nature and extent of innovation activities (invention, adoption, adaption and diffusion) in the District underpinned the pilot study. With the aid of this innovation value chain approach and its related purposively built sampling methodology, patterns of rural innovation were uncovered that have potential to alleviate rural underdevelopment and raise the living standards of rural communities. These patterns, however, need further investigation prior to implementation of innovative interventions for development.

### Invention

Few enterprises in this district are pioneering creators of new products, processes, organisational or marketing arrangements, combined with intensive research and the development of new knowledge. While the figure was relatively higher than other districts, only 18 per cent of all sampled enterprises for the years 2011 and 2012 were responsible for new inventions, and this figure declined

in 2012. This finding is not surprising as the critical drivers of original knowledge and artefact creation are generally missing, as is access to the means for further development and refinement.

### Adoption

In sharp contrast to invention, adoption was far more prevalent among enterprises (43%). The evidence points towards vigorous uptake of new ideas, practices and artefacts originally developed by enterprises outside the District.

Enterprises that adopt innovative ideas, arrangements and products from outsiders confirmed that they are offered various options, enjoy the freedom to choose and tend to introduce the 'new knowledge'.

### Adaption

Improvements and incremental changes to innovations sourced from outside enterprises rank a distant third after adoption in terms of the proportion of enterprises involved in this activity. On average, only one out of three enterprises actively adapts innovations, with private enterprises ahead of non-profits on this front.

### Diffusion

The proportion of enterprises that transfer, share and distribute new ideas, products and practices in the District increased from 39 per cent to 41 per cent from 2011 to 2012. Diffusion of innovations among sampled enterprises clearly surpassed invention and

adaptation in both years, thus shifting it into the second most prevalent innovation activity in the District.

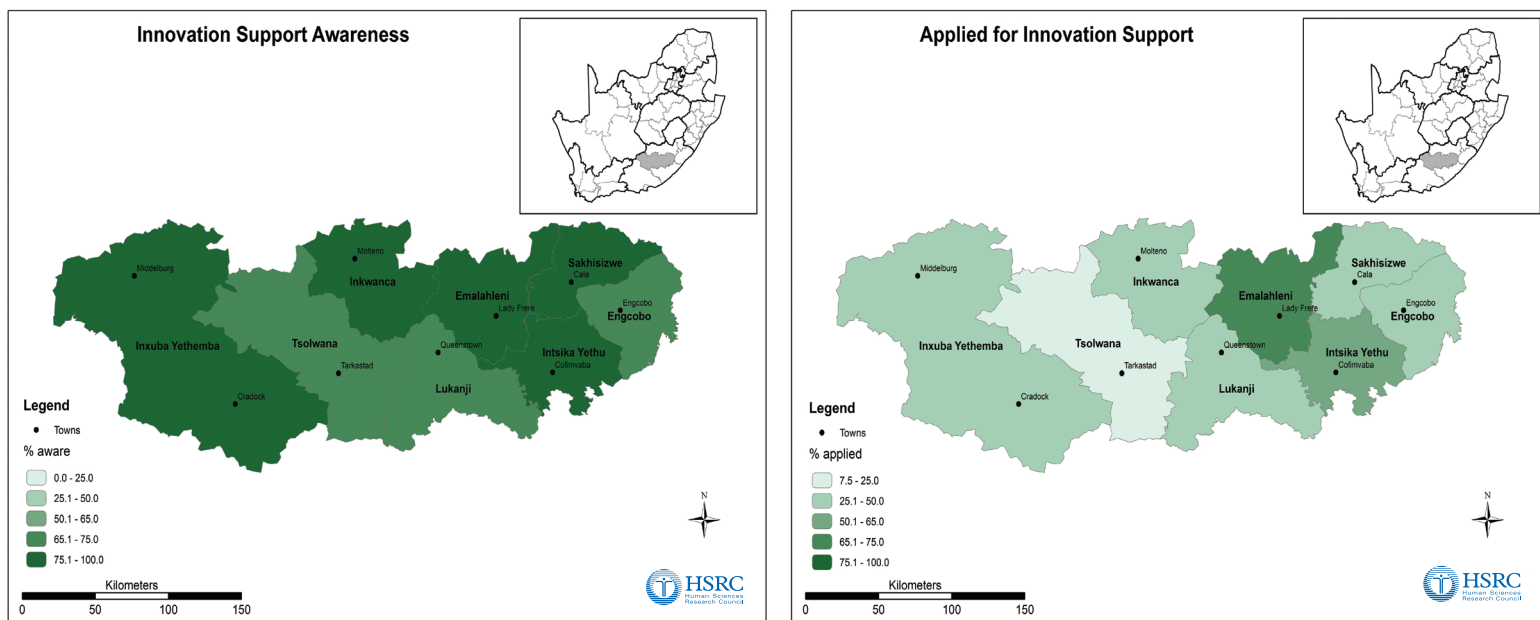
### Awareness of innovation policies and support

Unfortunately, at grassroots level there is poor localised awareness of national innovation policies and government assistance to promote innovation. Approximately 25 per cent of enterprises reported awareness of national Science, Technology and Innovation (STI) policies, with this figure heavily skewed in favour of non-profit enterprises. Almost all of the enterprises (92%) considered institutional support (policies, laws and agencies regulating and supporting innovations) an important contributor to innovation activities.

The private commercial enterprises that actively adopt and adapt, rarely applied for government support for the dominant innovation activities, in contrast to many non-profit enterprises (62%) that do apply. Awareness of state support for innovation does not automatically result in application by rural enterprises for this.

Figure 1 indicates no clear overlap between the application for, and awareness of, state support for innovation. In the neighbouring municipalities of Lukhanji and Tsolwana, awareness of state support is similar, but lower than most other local municipalities in the District. Application for support for innovation in Lukhanji is roughly similar to other municipalities, but enterprises in Tsolwana

**Figure 1:** Share (%) of enterprise awareness of state support for innovation activities and share (%) of enterprises applying for this support



are least likely to apply for state-financed innovation support. The reasons for this deserve further investigation. The disproportionately negative perception of government institutional support prevalent among private enterprises in our sample does, however, reduce appreciation of the need for this.

### Innovation networks

Almost 75 per cent of sampled enterprises are actively involved in knowledge sharing networks, interactions which adopters are most likely to benefit from. Innovation network interactions with partners are predominantly formal rather than informal, although there are differences across the different economic sectors. Formal and informal enterprises engage in both formal and informal networks. Enterprises in Tsolwana and Inkwanca are the least likely to participate in innovation networks, while those in Sakhisizwe and Intsika Yethu reported the highest participation (Figure 2).

Even though Lukanji has the strongest economic base in the district, the extent of innovation networking is not on par with the municipality's economic capacity. Formal innovation networks dominate even in municipalities where relatively small shares of enterprises actively participate in them. Further investigation is needed to explain how and why the differences in the formality of innovation networking affect local innovation.

### Innovation opportunities and challenges

Most respondents equated innovation with hard technologies, creativity, and bringing something new into the enterprise – a tra-

ditional notion of innovation. Almost 74 per cent of private enterprises engaged in innovation activities for direct economic benefit. Around 81 per cent of responding enterprises indicated no awareness of the narrow understanding of social innovation as innovative activities, such as the use of goods and services to improve social wellbeing.

Despite this, a substantial share of sampled public and non-profit enterprises pursued innovation activities with the explicit or implicit goal of improving human and social wellbeing. The fact that a fair proportion of enterprises interviewed engage in 'social innovation' oriented activities (including 26 per cent of private sector enterprises) provides an opportunity for increased social development; especially if coupled with increased and coordinated government support for social innovation. Although there is evidence of innovation activity in the district, improved government support could increase the capacity of the environment for innovation – especially in the areas of adoption and diffusion.

The sampled enterprises identified government's lack of coherent support in rural districts as one reason for low innovation activity. The highly bureaucratic funding process also discourages most enterprises. Lack of capacity of enterprises is another reason for the low level of innovation. This could be improved through government support in creating necessary innovation awareness and facilitating skills transfer.

### Conclusion

Findings of this pilot study in the District support this basic proposition: for innovation to be a catalyst for rural development, with an emphasis on enhancing human wellbeing, the costs deterring innovative performance must be cut.

- This means increasing the ability of enterprises to adopt and adapt innovative products, processes, organisational and marketing arrangements by improving access to support mechanisms.
- Interventions urgently needed are to increase the learning opportunities of actors in the local innovation space, especially their knowledge of STI policies and the national system of innovation, combined with effective institutional co-ordination. In this way innovation could be successfully harnessed for broad-based improvement of the quality of life in the District.

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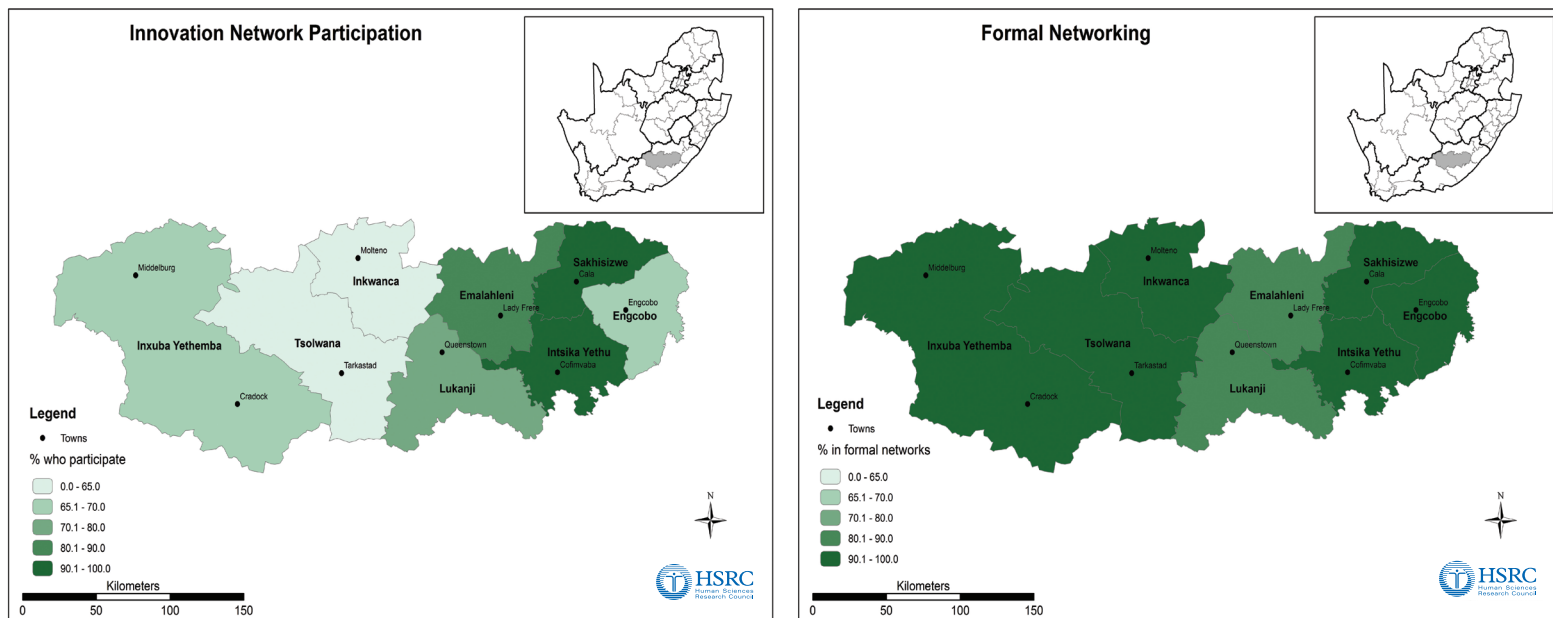
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The full version of the report from which this briefing note is drawn can be found at <http://www.hsrc.ac.za/en/departments/economic-performance-and-development/innovation-patterns-in-districts>.

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**Figure 2:** Share (%) of enterprises involved in networks and share of enterprises involved in formal networks



Source: Authors own calculations