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The WRC operates in terms of the Water Research Act (Act 34 of 1971) and its mandate is to support water research and development as well as the building of a sustainable water research capacity in South Africa.

Contribution of WRC research to sustainable wastewater treatment

A Water Research Commission (WRC) study has developed a user-friendly, interactive modelling system to patch daily water quality data.

Background



Local government is a key stakeholder of the WRC. It is therefore critical for the Commission to get insight into how its research products rate in terms of awareness, uptake and impact in the municipal environment and hence the contribution that these products make to sustainable wastewater and sanitation services.

This study aimed to:

- Give the WRC insight into the factors that shape the use of research-based knowledge in the municipal environment;
- Give the WRC insight into the uptake and impact of its research products in wastewater and sanitation services; and
- Identify success stories and map opportunities.

A better understanding of the knowledge needs, knowledge sources and knowledge use of municipal officials will

also add value to the actions of all sector partners and municipalities to improve and sustain water and sanitation services.

The final document reports on the primary research, which comprised qualitative interviews with 108 municipal officials working in wastewater and sanitation services and 70 self-completed questionnaires. The purposeful sample of 22 municipalities represented all nine provinces and included six metros, seven B1, four B2, four B3, and one C2 municipality.

A tool was developed to analyse the correlation/interaction between municipalities' performance journey and the way that they engage with knowledge in terms of knowledge needs, knowledge gaps, knowledge sources and knowledge use.

Main results

The study confirmed a correlation between performance and engagement with knowledge.

On the upper end of the performance journey, municipal officials in wastewater and sanitation departments of Metros and well-performing smaller municipalities (B1 and B2) tend to:

- Be aware of their own knowledge gaps and strategies to improve. These include agreements with tertiary institutions;
- Practise mentorship and knowledge sharing;
- Have a vision and the drive to improve (to be the best in the world); be on the forefront; achieve a Green Drop; or to improve consistently;
- Be a source of knowledge for other municipalities;
- Be aware of the WRC and its knowledge products.

Uptake is a function of context and the exposure that the individual has had to the researchers and research-based knowledge.

On the low end of the performance journey, municipal officials in struggling wastewater and sanitation departments tend to:

- Define their knowledge gaps in terms of operational or maintenance problems that they are unable to solve;
- Have limited knowledge sharing;
- Drive to survive and keep their plants more or less functional. This also becomes a mindset and a comfort zone.
- Focus their attention on innovative solutions to deal with operational challenges, for example, to bypass broken infrastructure or to keep old equipment running; and
- Have a low awareness and use of the WRC and its research products.

It was furthermore found that engagement with knowledge in municipal wastewater and sanitation services is influenced by the interplay of a range of factors in both the institutional and the individual domains.

Conclusions

A research organisation such as the WRC will have to address both domains (needs of large and small municipalities) in its marketing and research strategies to improve uptake and achieve impact.

Unfortunately, awareness of the WRC and its research products is particularly low in local and district municipalities. Without awareness there can be no uptake.

In most cases, awareness of the WRC, and even use, is championed by individuals. Only in eThekweni and in

Ekurhuleni (through ERWAT), do the institution and its particular knowledge culture drive the use of research-based knowledge.

The WRC is well-respected among municipal officials who are familiar with the organisation. Unfortunately, there are also a number of misconceptions about the WRC, and perceptions that the WRC products are not practical, or 'too academic'.

The research found that different levels of municipal officials differ in their self-reported use of WRC research. Uptake in wastewater and sanitation is limited to a handful of research reports that are used over and over again.

The following priority actions are recommended:

1. Establish a customer database of all municipal officials in wastewater and sanitation. This database will have to be regularly updated.
2. Undertake a basic baseline assessment of these officials' awareness of the WRC.
3. Share the report of this study, or a summary, with these officials.
4. Develop and implement a municipal marketing and research strategy that caters for institutional relations, and individual relations with the database of officials. Assess and improve the strategy every year.
5. A knowledge sharing event where the WRC could share and discuss the findings of this study with its partners in the water sector with the aim of developing an action plan.
6. Update the reports that are widely used in the municipal wastewater and sanitation space and make sure that all relevant officials have the updates.

Further reading:

To obtain the report, *The contribution of WRC research to sustainable municipal wastewater and sanitation services* (WRC Report No: 2476/1/16) contact Publications at Tel: (012) 761-9300; Email: orders@wrc.org.za or Visit: www.wrc.org.za to download a free copy.