

## Water treatment

### Establishing the future of brine research in South Africa

**A new Water Research Commission (WRC) publication presents the proceedings of a workshop on the current state and future priorities of brine research in South Africa.**

#### Background

The WRC Brine Workshop on the state of brine research in South Africa was held on 22-23 January 2014 at the Eskom Academy of Learning Midrand, Gauteng Province.

The workshop was hosted by Eskom in collaboration with the WRC, and was facilitated by the CSIR. A variety of stakeholders participated in this workshop; including representatives from industry, academics and science councils and government departments.

The aim of the workshop was to provide, a sector perspective of the current state of brine research in South Africa and the gaps that will define the future research portfolio and the priorities that the partners can pursue over the next 10 years.

This should enable the sector to consolidate, focus, support and drive relevant research initiatives with the aim of realising "real" solutions to the current and future brine challenges.

#### Structure of the workshop

The structure of the workshop was designed to facilitate participation; interaction and networking between stakeholders to collectively discuss and formulate innovative solutions to the challenges associated with brine research in South Africa. Prior to the workshop a blog was created to enable participants to submit inputs to the topic under discussion.

The workshop was divided into different sessions; Session One of the workshop was on the future desired state of brine in South Africa. Session Two took the form of introductory presentations from different experts working with

brine research. Workshop Session Three took the form of group discussions and feedback from the different groups in plenary.

Participants were continuously encouraged to continue engaging each other on the blog and to also submit additional inputs on the topics discussed during the day.

Day Two of the Workshop started off with reflections on Day 1 proceedings and proceeded to Session Four of the workshop which was setting out the research priorities in terms of probing what needs to be done.

The last session of the workshop entailed crafting a road map on how should we do in the short- and long term. WRC Executive Manager, Dr Valerie Naidoo, gave a parting message at the end of the workshop and thanked the participants for attending the workshop.

#### Workshop proceedings

The proceedings outline the inputs from the participants in the following three main areas:

1. The Future Desired State and the gaps that need to be met to achieve a 5 to 10 year vision.
2. The Research priorities areas.
3. The practical steps that could be taken (roadmap).

The gap analysis was framed within the 4 areas of Knowledge, Technology, Capability and Practice. Under the knowledge area there was a need to share, advance and benefit knowledge while the gaps in technology was largely focussed on implementation, integration, collaboration, co-ordination and funding.

Capability gaps could be grouped into training, networking, regulation, markets and innovation while practice was grouped into enable, measure and manage, learn and adopt and support.

The research priorities could be grouped into 8 sub-clusters and 4 clusters:

1. Technologies
  - a. Review Technologies and Knowledge
  - b. Improve Technologies
  - c. Integrate Technologies
2. Waste
  - a. Beneficiate Waste
  - b. Waste Options
  - c. Eliminate Waste
3. Economics
4. Regulation

Finally, a 6-12 month action plan was looked at from the perspective of different role players, the desired state topic areas, and a chronology of steps. The three perspectives are provided in the report.

**Further reading:**

To order the report, *The current state and future priorities of brine research in South Africa: Workshop proceedings (Report No. KV 338/15)*, contact Publications at Tel: (012) 330-0340, Email: [orders@wrc.org.za](mailto:orders@wrc.org.za) or Visit: [www.wrc.org.za](http://www.wrc.org.za) to download a free copy.