

12:00 – 12:30	Panel Discussion: <ul style="list-style-type: none"> <li>Transform water innovations from the laboratory desk to application</li> <li>Achieving effective partnership for water institutions</li> <li>Accessing to available resources (financial, human and infrastructure) to build a viable water sector</li> <li>Knowledge exchange for building inter-institutional partnerships</li> </ul>	Percy Sechemane (TCTA) Ndileka Mohapi (DWS) Thami Hlongwa (Umgeni water) Limakatso Moorosi (Bloem Water) Phakamani Buthelezi (Overberg) Alex Samalwabi (GWP) Sunil Maharaj (UP) Kirsty Carden (UCT)
12:30 -12:45	Reorganising for a Connected Water Sector – a Way forward	Joseph Leshabane (DWS)
13:00	Closing Remarks	WRC Executive

## SESSION 13:

# EMERGING SUBSTANCES AND OTHER ISSUES OF CONCERN IN WATER

**Chair: Nonhlanhla Kalebaila (WRC) | Venue: Ballroom 3**

Water quality issues are complex and dynamic in nature. In the past, regulators have responded to changes in water quality by imposing stricter regulations/standards. New and emerging substances of concern present a new water safety challenge because of the high uncertainties that comes with the diversity of these substances/compounds, their sources, “unknown knowns and unknowns”, as well as their environmental and human health impacts, both individually and in combinations. Emerging substances of concern include industrial compounds, pharmaceuticals, personal care products, biocides, and plant and animal protection products, as well as many other new compounds found in daily use products. These substances enter the natural environment through a number of pathways; industrial and domestic wastes discharges; use in agriculture, etc. Managing emerging substances of concern in water is a serious challenge as they are difficult to monitor and the associated risks are poorly understood, hence not currently regulated. Moreover, existing water treatment infrastructure is not designed to remove them. Thus, adapting to the new operating environment requires continuous engagement, as well as investments in research and development to foster harmonisation of protocols for detection, monitoring and risk assessment and ultimately the management of these substances of concern.

The aim of this session is to (i) compare sampling, detection and monitoring methods; (ii) broaden understanding on emerging substances of concern and facilitate exchange of data and information on new substances of concern, their sources, occurrence and potential human health effects, and based on this (iii) establish knowledge, research and policy gaps that need to be addressed.

### PROGRAMME

Welcome and session overview		Nonhlanhla Kalebaila (WRC)
11:00 – 11:25	Chemicals of emerging concern: identification and quantification tools	Jonathan Okonkwo (TUT)
11:25 – 11:50	Addressing emerging substances of concern in water recycling	Leslie Petrik (UWC)
11:50 – 12:15	Microplastics and pharmaceuticals as drivers for antimicrobial resistance in the environment	Carlos Bezuidenhout (NWU)
12:15 – 12:40	Urban wastewater epidemiology evaluating human exposure to emerging substances of concern	Edward Archer (SU)