

2016 National Research Infrastructure Roadmap Capability Issues Paper

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Advanced Physics, Chemistry, Mathematics and Materials

Question 21: Are the identified emerging directions and research infrastructure capabilities for Advanced Physics, Chemistry, Mathematics and Materials right? Are there any missing or additional needed?

Osmoflo is a progressive water treatment company that provides tailored, turn-key water and wastewater solutions across the industrial, resources and municipal sectors globally.

Osmoflo is the largest Australian owned designer and builder of desalination projects, with offices in the Middle East, South America and India. Osmoflo have an enviable track record of providing successful, affordable, high technology water solutions dating back to 1991.

Water is life and every day Osmoflo's water treatment systems are vital to the wellbeing of thousands of people internationally. Since establishment Osmoflo has specialised in the design, build and operation of over 450 reverse osmosis desalination plants.

A complete project solution from inception to operation is supported by technical expertise as well as the spare parts, consumables and chemicals needed to keep your plant fully operational. Combined with Osmoflo's flexible purchase options means Osmoflo can tailor the right solution for you.

Osmoflo's plants are located at remote mine sites, oil and gas fields, power stations, city breweries, townships and coal seam gas fields – wherever there's a need for drinking, process, high purity or recycled water.

In February 2011, Japan's Marubeni Corporation selected Osmoflo as a water partner in pursuit of water projects across the globe and acquired a 40% stake. Marubeni facilitates access to its global companies and partners; they provide specific project support and deliver the additional commercial capability that will enable Osmoflo to join the small number of international water companies capable of delivering very large desalination projects.

To achieve these lofty heights Osmoflo has made use of the Australian Microscopy and Microanalysis Research Facility (AMMRF) located within the Future Industries Institute (FII) at the Mawson Lakes

Campus of the University of South Australia. This South Australian node of the AMMRF offers state of the art surface analysis techniques such as X-ray Photoelectron Spectroscopy (XPS) and the Time of Flight Secondary Ion Mass Spectrometry (ToF-SIMS). These diagnostic surface analysis tools allow Osmoflo to quickly identify fouling contaminants on their filtration and desalination membranes. This in turn allows us to tailor our cleaning procedures to provide the fast restoration and turn-around time expected by our clients of their critical systems.