

Roger Franzen, Principal Consultant (Earthspace) and former SKA International Dish Consortium Leader (CSIRO Astronomy and Space Science) to discuss the Evolution of Systems Engineering in Mega Science Infrastructure and observations, lessons and the Clash of Currencies. The presentation will be held at Engineers Australia Capital Hill Auditorium and will be live streamed to Engineers Australia in Brisbane, Sydney, Melbourne and Adelaide.

#### **PRESENTATION**

6.00pm start, Monday 11 December 2017
Drinks and nibbles will be available from 5.30pm

Capital Hill Auditorium, Engineers Australia, 11 National Circuit, Barton

# Systems Engineering Evolution in Mega Science Infrastructure – Observations, Lessons and the Clash of Currencies

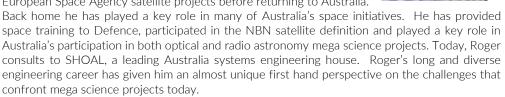
Scientists have always needed infrastructure. In the earliest days of civilisation's scientific journey, the necessary infrastructure was designed and created by the authors of the science being investigated. That remains true even today.

As the journey continues, some scientific domains need ever larger, more power and more complex research infrastructure that can no longer be designed and built by the researchers alone or even with teams available to them in the universities and institutes around the world. Industry has the system design, organisational and physical tools available to assist but is often still seen as interested only in profiting. Of course, profit is the necessary currency of industry for without it, there is no industry. However, the researchers must publish or perish because kudos is the necessary currency of the scientific world.

This clash of currencies can lead to substantial convolution, time and cost overruns and sub optimal performance because today, open cheque books no longer exist and the cost and complexity of mega science infrastructure is every bit the equal of the most complex military and civilian projects around the world. What can be done?

## Speaker: Roger Franzen Principal Consultant, Earthspace

Roger Franzen is a Mechanical Engineer with a career that spans more than 35 years and roles from design engineer to CEO. Graduating from Curtin University, he commenced work in Western Australia's gas industry but quickly moved overseas to work in the UK on several European Space Agency satellite projects before returning to Australia.



### LIVE STREAMS

Brisbane – 5:30pm for 6pm start Hawken Auditorium, Engineering House, 447 Upper Edward Street Brisbane

Adelaide - 5pm for 5.30pm start Sir Robert Chapman Theatre, Engineers Australia Level 11, 108 King William Street, Adelaide

Sydney - 5:30pm for 6pm start Auditorium, Engineers Australia 8 Thomas St, Chatswood

Melbourne – 5:30pm for 6pm start Innovation Hub, Engineers Australia 600 Bourke Street, Melbourne

## **TICKETS**

EA & SESA Members Complimentary Non-members \$30

## CONTACT

Member Services 1300 653 113 memberservices@engineersaustralia. org.au

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