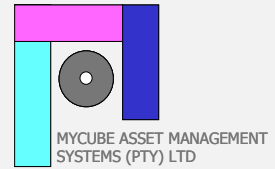


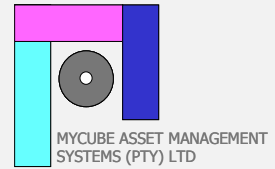
Global Sprayed Seal Alliance



Feedback on recent Workshop Melbourne Australia

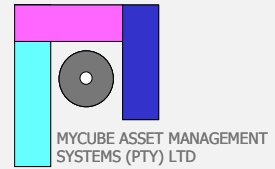
Gerrie van Zyl

Scope of Presentation



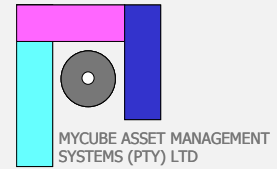
- **Background to the SSA**
- **Examples of working together**
- **Purpose and outcomes of the workshop**

The Sprayed Seal Alliance



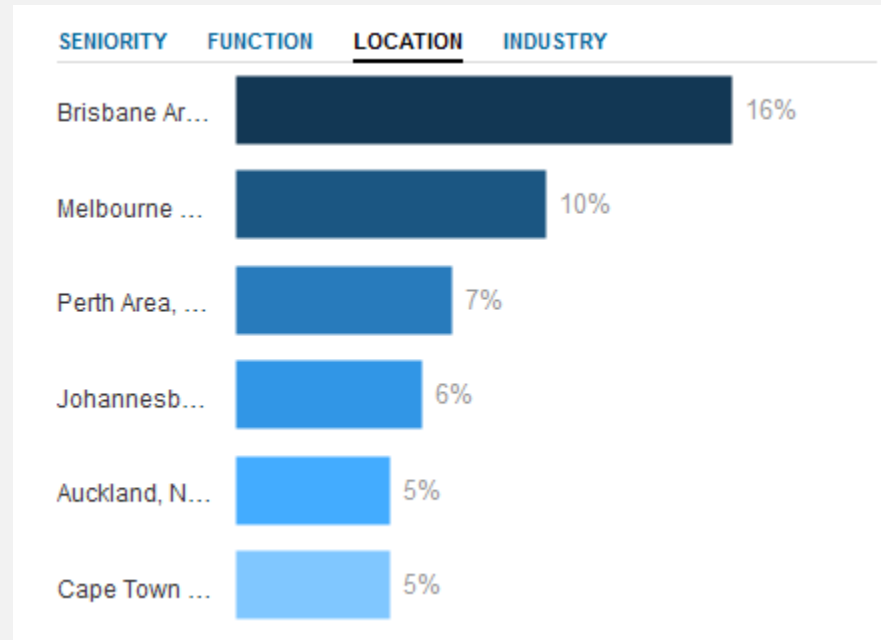
- **Facilitate international communication**
 - in particular with **Australia, New Zealand, South Africa**
- **Identify world best practice**
- **Increase international peer review**
- **Assist in training and education**
- **Awareness of trends in global sprayed seal markets**
- **Share engineering and technology developments**
 - **Examples**

Currently 450+ members



Web topics have included

- Polymer modified binders
- Seal design
- Research survey for Massey University (NZ)
- Inverted seals
- Can slurries compete with chip seals
- Organic bitumen extenders
- PME specifications
- Primer seals
- Emulsion precoating



Leadership Team



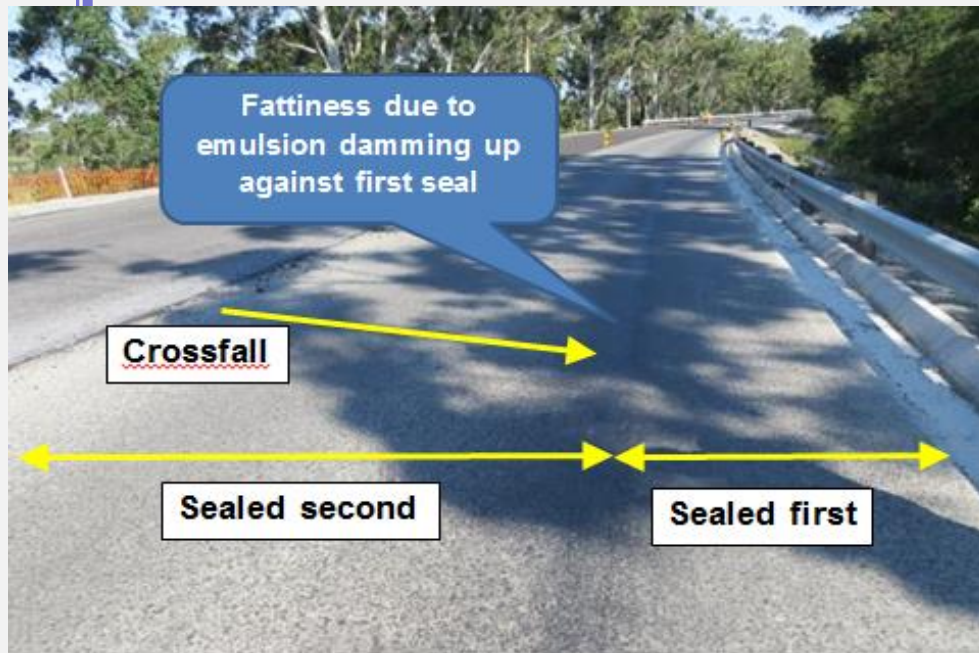
- **Kym Neaylon, Convener, Opus International Consultants, New Zealand.**
- **Robert Busuttill, VicRoads, Australia**
- **John Esnouf, Austroads, Australia**
- **Jeff Waters, Fulton Hogan, New Zealand**
- **Gerrie van Zyl, MyCube, Republic of South Africa**

- **Outputs available from www.arrb.com.au**
 - **infrastructure**
 - **sprayed sealing alliance**
- **Or from links at the groups 'linkedIn' page**

Examples of sharing

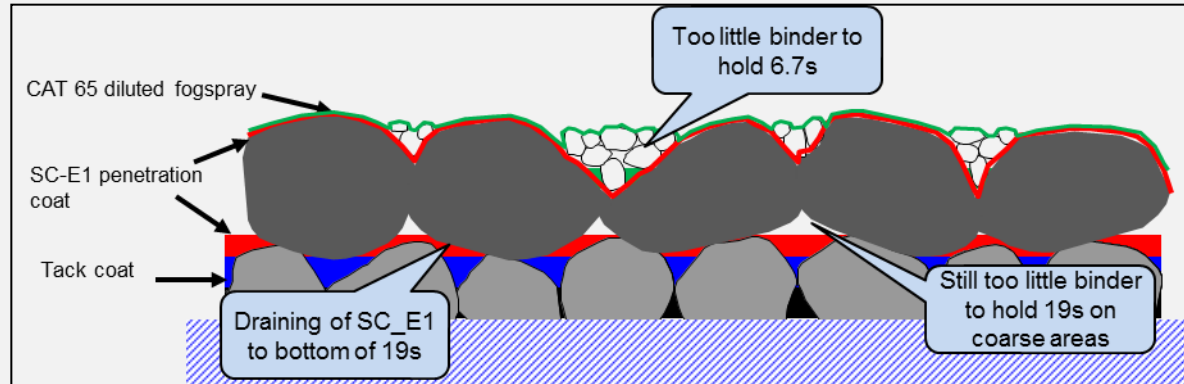
- **Our emulsion problem**

- Time to opening
- Run-off



Our Emulsion Problem

- Run-in



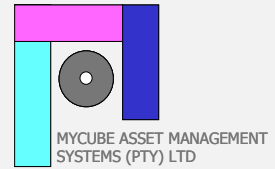
Experience NZ: How steep ?

12% +



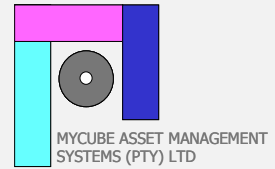
30% Gradient

Local developments



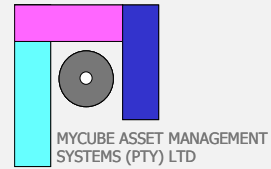
- **Both Colas and Tosas responded with new products and processes**

RSA technology to Australia



- **Seal experiment Victoria (Distin & Esnouf)**
- **20/7/7 Seal compared with 2 standard double seals on heavily trafficked road**
- **Result**
 - ❑ Superior performance by the “South African” seal reported

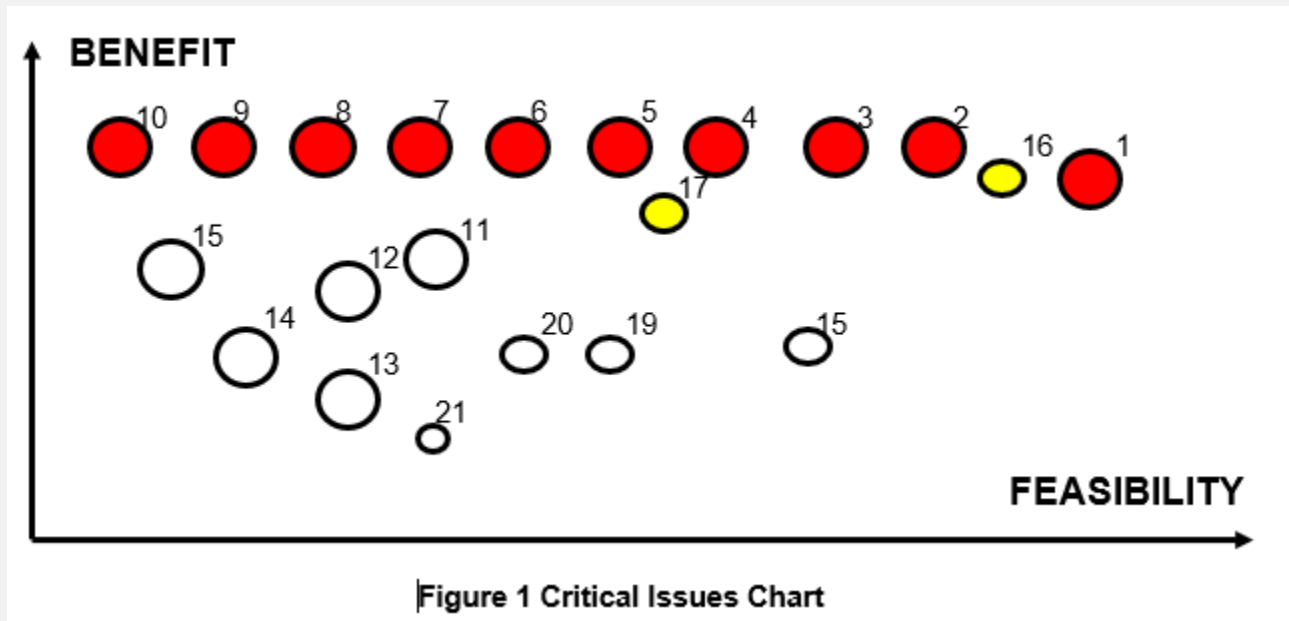
Workshop Summary



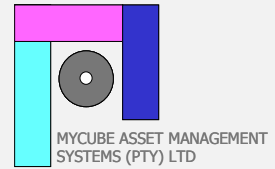
- **52 participants**
- **Aim: To identify gaps in current knowledge and practice for research priorities (ARRB)**
- **Welcoming: Erik Denneman**
- **Presentations by:**
 - ❑ *Warren Carter (National Technical Manager, Downer Group)*
 - ❑ *John Esnouf, Principal Engineer Spray Seal Technology, VicRoads*
 - ❑ *Dr Richard Yeo, Austroads Program Manager Assets*
- **Introduction to workshop**
 - ❑ *K Neaylon and G van Zyl*

Process and Critical issues identified

- Four working groups
- Identify and rate critical issues

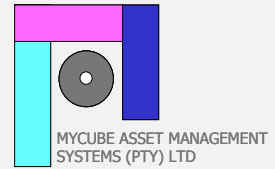


Critical issues (4 Groups)



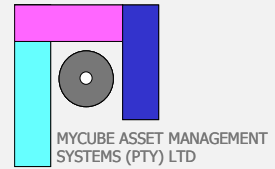
- 1. Maintenance assessments & preparation for sealing**
- 2. Safety: Bituminous emulsion - hot cutback bitumens.**
- 3. Knowledge transfer**
- 4. Harmonisation of specifications**
- 5. Prequalification of contractors**
- 6. Training**
- 7. Harmonisation of work practices**
- 8. Harmonisation of standards, procurement practice & development of performance based specifications**
- 9. Funding models**
- 10. Data driven models for life cycle costing of sprayed seal performance**

Critical issues summarised



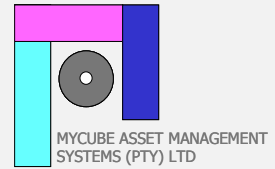
- **Performance modelling – Improved sprayed seal performance models and collection of data for:**
 - Selection of sprayed seal treatments and
 - Enhancements to sprayed seal design.
- **Knowledge transfer – Greater knowledge of sprayed seal requirements & benefits by all levels to ensure:**
 - Funding commitment (High level)
 - Fund allocation (Management)
 - Appropriate selection of treatments (Technical)
 - Proper design and construction (Operational)

Critical issues summarised



- **Harmonisation of**
 - Specifications, including performance based specs
 - Prequalification requirements
- **Sprayed sealing materials –**
 - Safety through the use of bituminous emulsions in preference to hot cutback bitumens and
 - Conservation of high quality aggregate resources though effective use of lower quality materials.

How are we doing?



- **Performance modelling**
- **Knowledge transfer**
- **Specifications**
- **Materials**
 - Towards emulsions
 - Appropriate aggregate properties

END

