





**Awareness Sessions**  
New Queensland Harmonised Asphalt Specification  
**Advantages – why change?**



**Strategic Alliance Workshop**  
Delivering asphalt in Queensland – the future direction  
**Opportunities & challenges of potential changes for Q asphalt producers**  
**Rob McGuire**  
AAPA Q Chairman


*Opportunities & challenges of potential changes for Q asphalt producers* 2



**Scope**

- Current situation
- Opportunities
- Challenges

*Opportunities & challenges of potential changes for Q asphalt producers* 3



**Current situation:**

- Low risk
- Low responsibility
- Limited need for technical staff
- Limited opportunity


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**Opportunities:**

- Suppliers greater control, responsibility & flexibility
- Increased competency and skills to deliver improvements
- Awareness of performance outcomes
- Value-for-money & innovation
- Asphalt standards for Local Gov. use

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**Challenges:**

- Time needed to make the change
- Rapid loss of skills & competency in client base
- Specifications linked to performance
- Improving construction efficiency
- TMR Region differences in approach

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**Close:**

- **General Managers keen to take responsibility with more flexibility from the clients**
- **Must consider the future needs**  
– performance / systems / methods
- **Work together to agree on the path**

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**Workshop – scoping futures for asphalt**

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**Strategic Alliance**

**Workshop Report**

**Delivering asphalt in Queensland – the future direction**

held 5 April 2013 - Brisbane

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**Participation**



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**Agenda**

- Welcome:** Les Millar – AAPA Q Sustainability Working Group
- Scope and introductions:** Facilitator: Alan McLennan
- Short presentations:**
  - Overview of long term future for asphalt mix & inclusion in pavement design: *ARRB & AAPA National Technology Committee – Erik Denneman*
  - Current status of asphalt design, manufacture & performance in Australia: *Asphalt Research WG – Warren Carter & Bevan Sullivan*
  - Queensland need for change: *QTMR (PD&O and E&T) Peter Evans*
  - Opportunities & challenges of potential changes for Qld asphalt producers: *AAPA Q Chairman : Rob McGuire*
- Facilitated session:** Alan McLennan  
**First Workshop Session :** Outline the desired future for asphalt supply in Q.(10 year)  
**Second Workshop Session:**  
 a) What long range strategies are needed to create the desired future?  
 b) What immediate (short term) actions are required to orientate to the future direction?
- Action plan from Workshop**

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**Why . . . . ?**

- Queensland – most asphalt & full depth asphalt used in Australia**
- Transport & Main Roads emphasis – v-f-m, cost effective, WOLC**
- Transfer responsibility onto asphalt suppliers**
  - Mix design and testing
  - Asphalt mix design based on the production mix
  - Performance improvements and innovation
- Cost comparisons show lower cost asphalt projects in other states**
- Opportunities to collaborate on cost efficiencies**
- Today – capturing knowledge and sharing experience**
  - Common vision of the future
  - Understanding our current paths to that future
  - Planning to get there
- Qld commitment to change and deliver improvements!**

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## Positioning

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### Current and future developments in asphalt technology – Erik Denneman

Conventional mix design – volumetrics by different methods | straight forward, experience, reliable on binder but no direct link to pavement design (PD), empirical, reactive

International trend to performance related, properties needed in field, performance specified, simplified.

Methods in USA, EU & Australia - need work locally on PD link

Current projects – HiMA, SMA design, PD & modulus/master curves, RAP and performance.

HiMA or EME – good fatigue. Impermeable, high modulus = thinner pavements

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### Material Characterisation of Australian Asphalts – Bevan Sullivan

Characterisation of Australian Asphalts – thickest in the world

Fatigue endurance limit valid & accepted, design models poor.

AAPA sponsored project – calibration local to international

Dynamic modulus & master curves should be used, links to international, shows very high similarity in Australian mixtures.

Provides proof of undervaluing of asphalt in current pavement design

Delivers significant benefits and cost saving, can be applied immediately

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### QTMR Technical and Regional asset managers

Technical – considering RMS approach | increase 90 day defects liability | warranty 12 – 24 mths | remove waterproofing seals | harmonise across state specs | seek similar RMS system

Superior technical areas – volumetric assessment | proven local specs | quarry management systems allows use of lower standard rock sources | panel system unworkable in Q

Regional input – Qld temperatures are higher | desire for performance based on production approved designs | transfer flexibility and responsibility to industry

AAPA NSW – term maintenance contracts will impact on the viability of panel contract system

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### Opportunities & challenges of potential changes for Q asphalt producers – Rob McGuire

Current: low risk | low responsibility | limited need for tech staff | limited opportunities

Opportunities: Taking responsibility with greater control | skills can be used | performance experience increased | easier innovation & v-f-m | easier Local Govt mixtures

Challenges: Time needed to change | Skills scarce | Need to increase construction efficiency | TMR region differences

Close: General Management keen to change | Must include | future needs | best to work together

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## Facilitated Workshop

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Desired future for asphalt supply in Qld

- Smaller government
- Risks transferred to industry with an expanded role and increased capacity
- Collaborative relationships with mutual respect
- Long-term performance responsibilities of products
- Increased sustainability
- Attractive & leading edge
- Flexible pavements more competitive on price/performance offering increased value for money

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Long term strategies - create the future

1. Nationally integrated asphalt mix & pavement designs
2. Implement performance based systems
3. Prove value-for-money as an industry
4. Improve training
5. Improve safety performance
6. Public acceptance of need for road worker safety
7. Maintain commitment to collaborative R&D
8. Renew & continue strategic alliance

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Short term actions – orientation for future

1. **Integrated asphalt mix & pavement design:** Undertake GAP analysis in harmonisation assessment | Peer review local with international pavement designs | Review production based mixes | Review Asphalt Supplier Registration system
2. **Performance based specifications:** Best practice in performance based maintenance contracts | Support development of a) PBS maintenance contracts b) Functional wearing courses
3. **Safety & industry image:** AAPA Safety Working Group – include TMR
4. **Sustainability:** Partner with TMR, LG, AAPA & Austroads in reviewing procurement systems and standards | A plan to capture knowledge base data with loss of skilled persons
5. **Training:** Find a way of handing over experience to industry

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And now?



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Workshop immediate actions

1. Progress performance based specifications – asphalt & contracting | road map
2. Communications package – trends, papers and future directions for asphalt & pavement designs
3. Mechanism of sharing contemporary technical information
4. Prepare capability framework for transfer of knowledge
5. Review long & short term strategies & develop action plan to implement
6. Set up small team to work on harmonisation of design & processes of RMS
7. Prepare and distribute report from the workshop

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Please help . . . . . !



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