# SUSTAINABILITY AND CAPACITY
# VALUE FOR MONEY WORKSHOP
# INTERACTIVE SESSION

## SYDNEY

## OUTCOMES AND ANALYSIS REPORT

**3 April 2014**

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## *Purpose of interactive session*

The purpose of the interactive session was to invite the 72 participants at the Roads Australia Value for Money Workshop to offer their views and experiences in providing value for money when delivering transport infrastructure projects by considering 5 questions.

Each table was given time to consider and prepare their response to the 5 questions below:

1. **What key criteria/priorities should we use to define value for money within a transport infrastructure project?**

2. **For each criterion, which attributes are most important to assess for value for money?**

3. **Mark each attribute as objective (measurable) or subjective (qualitative)**

4. **Discuss how best to demonstrate value for money for each attribute (objective/subjective), using examples where possible**

5. **Identify the key elements of a decision making framework that may assist to deliver better value for money outcomes for procurement**

## *Analysis of interactive session discussion*

Value for money is more than creating efficiencies with time and money. It's about delivering tangible *public* value through a transport solution.

It's about ensuring legitimacy and support for a transport infrastructure asset from early development throughout delivery, and for its operational life.

It involves defining value for money objectives for each individual project and developing essential criteria to meet value for money objectives.

It involves creating diagnostic tools to demonstrate delivery of the public value promise and collaborating to satisfy ecosystems, local communities and a broad range of experienced stakeholders.

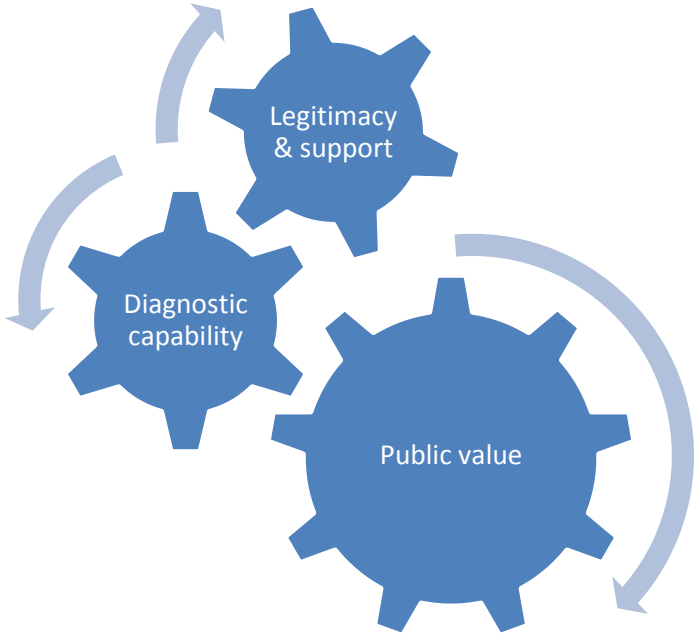
Monitoring and measuring each identified criteria for value for money is an ongoing and detailed process.

Understanding how learnings from one project can be transferred to future project is an important legacy to be nurtured.

Standardising how to capture value for money proponents of a project across the life of an asset may help government and industry find efficiencies and a common understanding on how value for money can be delivered.

### *The 'public' value chain*

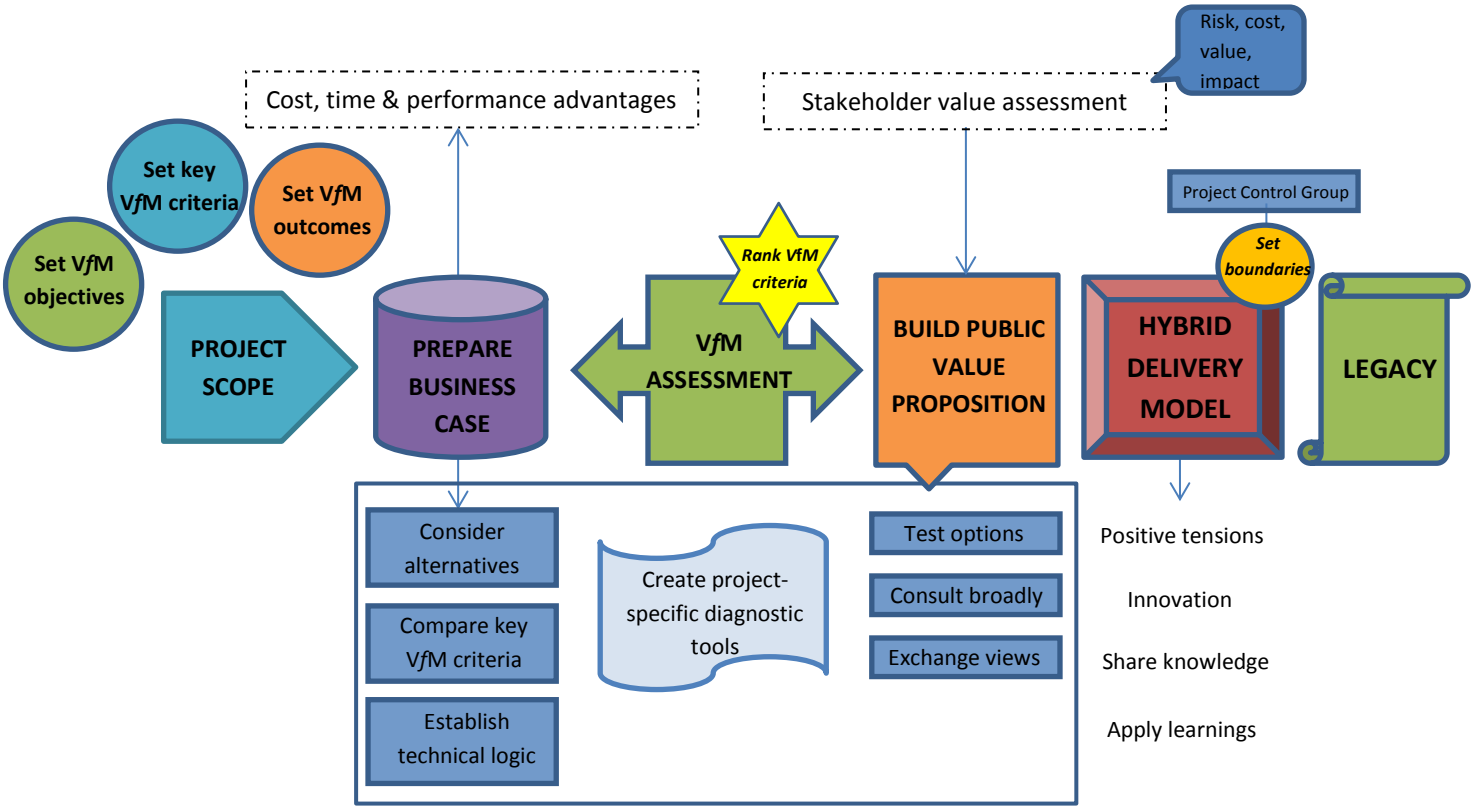
Bob Higgins. General Manager, Pacific Highway described the essential elements of the value chain for the delivery of 'public' value for money as:



*Process to investigate value for money*

To extend Bob's value chain diagram and to bring together the key themes of the workshop, a draft process model for articulating and realising value for money is presented below for industry review and discussion.

The intention is to create a reference tool for industry to deliver strong, tangible value for money outcomes. This diagram will evolve as further workshops are held, and feedback is received.



*Creating and measuring value for money - interactive session outcomes*

**OBJECTIVE: To understand how to demonstrate and achieve better value for money outcomes within a transport infrastructure project, and for the life of a transport infrastructure asset.**

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## OUTCOMES

Each table was asked to consider the five questions.

1. ***What key criteria/priorities should we use to define value for money within a transport infrastructure project?***
2. ***For each criterion, which attributes are most important to assess for value for money?***
3. ***Mark each attribute as objective (measurable) or subjective (qualitative)***

Responses to questions 1, 2 and 3 (*denoted in subscript*) are below:

| Criteria/priorities | Attributes most important to assess |
|---|---|
| **Project specific issues** | • What are the objectives and what would value look like (Individuals define value for money differently) $^{S}$<br>• Current trends, industry objective/goal |
| **Fit for purpose** | • Right solution/infrastructure $^{O/S}$ (does it meet overall need, no gold-plating)<br>• Improved safety - black spot $^{O}$<br>• Congestion (increased capacity/alternative choice)<br>• Journey time improvement $^{O}$<br>• Balance of competing interests $^{S}$<br>• Meets user objectives (ride quality/accessibility) |
| **Whole of life cost**<br><br>(standardise process/model) | • Hard data/historical data/regional dependent $^{O}$<br>• Data input accuracy is critical $^{O}$<br>• Whole of life models/financial models $^{O}$<br>• Benefit cost ratio (what are the boundaries – indirect/direct) $^{O}$<br>• Affordability/best bang for buck $^{O}$<br>• Net present value (return on investment) $^{O}$<br>• Capital cost $^{O}$<br>• Operational/maintenance budget/cost $^{O}$<br>• Are existing pavement management systems sufficient?<br>• Future proofing vs. upfront costs (include future upgrades) $^{O/S}$<br>• Ongoing financial sustainability (lifetime) $^{O}$<br>• Safety $^{O}$<br>• Salvage value $^{O}$ |

| Criteria/priorities | Attributes most important to assess (continued) |
|---|---|
| **Time/cost efficiency** | • Fast delivery time on budget [O] (target vs. actual completion)<br>• Minimal disruption/delay [O] |
| **Delivery model** | • Strategic assessment[O= front end/S= back end]<br>• Early decisions can dictate ultimate VfM outcomes<br>• Flexibility (financial)[O]<br>• Alliance/D&C and construct only<br>• Early certainty (financial)[O/S] |
| **Local community, social impact and benefits** | • Community (public) perception/buy-in[S] (individuals vs. groups, current vs. future generations)<br>• Minimal disruption[O/S]<br>• User benefits[O/S]<br>  ○ Congestion/traffic management – reduction in travel times[O/S]<br>  ○ Patronage – increase in usage of transport network[O]<br>  ○ Liveable communities[S]<br>  ○ Roughness/smoothness[O/S]<br>• Local versus long distance users[S]<br>• Connectivity with broader transport network[O]<br>• Quality of life (jobs, accessibility)[O]<br>• Regeneration[O]<br>• Stakeholder interaction[S] (early)<br>  ○ Local community<br>  ○ Road users<br>  ○ Business/industry<br>  ○ Polictically palatable |
| **Economic impact and benefits** | • Affordability[O]<br>• Safety[O]<br>• Capability/industry skills[O]<br>• Transport efficiency[O]<br>• GDP growth and enablers for economic development/growth[O]<br>• Sustainable industry capacity[O]<br>• Innovation (retain/share knowledge) [S]<br>• Increased productivity[O/S] |
| **Road user expectations** | • Accessibility[O/S]<br>• Tourism enabler[O/S]<br>• Pedestrian/cycling benefits[O/S]<br>• Rest areas for fatigue management[S]<br>• Freight cost[O]<br>• Reduced traffic congestion[O] (travel time savings)<br>• User travel experience[S] (ride quality/smoothness, alternative choice)<br>• Reduced noise[O/S]<br>• Fuel cost[O]<br>• Maintenance commitment[O]<br>• Vehicle operational costs[O] |

| Criteria/priorities | Attributes most important to assess (continued) |
|---|---|
| **Legacy value/return** | • Service levels targets (e.g. lane availability)[O/S]<br>• Development opportunities[S]<br>• Local government program benefits[O/S] |
| **Environmental improvement/ biophysical**<br><br>(Includes soil, air, water, noise, flora, fauna, carbon offset, mitigation, heritage) | • Quick approval time/conditions[O]<br>• Resource efficiency (time, cost vs. value) [O]<br>• Recycling/recyclability of materials[O]<br>• Vegetation/carbon foot print[O/S]<br>• Less pollution[O]<br>• Minimise dust[O/S]<br>• Air quality[O/S]<br>• Flora and fauna passages[O/S] (wildlife corridors)<br>• Endangered species[O/S]<br>• Indigenous Australians/Heritage[O/S] (culture/health)<br>• Noise (lower noise impact to sustain/grow local property value) [O]<br>• Biodiversity[O/S]<br>• Cost[O] versus value to the environment[S]<br>• Sustainability (during construction and operation)[O/S] |
| **Safety**<br><br>(during construction and operation) | • Improved safety (road user/construction/maintenance)[O]<br>• Removal of black spots[O]<br>• Reduced accidents (accident rate pre/post) [O]<br>• Cost associated with accidents[O]<br>• Peace of mind[S] |
| **Trust and confidence in Delivery Authority** | • Transparency/methodology[O]<br>• Establish parameters, discard notes[O]<br>• Delivery and maintenance models[O]<br>• Satisfaction surveys[S]<br>• Stakeholder communication[O/S] |
| **Innovation** | • Early capture of innovation and benefits[O/S]<br>• Time for development of innovation[O/S] |

Responses to question 4 and 5 follow.

4. *Discuss how best to demonstrate value for money for each attribute (objective/subjective), using examples where possible*

It was noted that demonstrating value for money will depend on specific project proponents and the definition of value for money as defined by the project.

| Attribute | How to best demonstrate value for money - for attribute |
|---|---|
| **Economic outcomes** | • Local data<br>  ○ Chamber of commerce<br>  ○ Economists/consultants can do this<br>  ○ Use economic output<br>  ○ Benefit cost analysis<br>  ○ Completion cost |
| **Social impact** | • Surveys<br>• Feedback (comparative)<br>• Public opinion (i.e. Macleay River Bridges)<br>  ○ Use a collaborative/interactive approach<br>  ○ Provide best case scenarios<br>  ○ Achieve societal outcomes with the least harm |
| **Environment** | • Cost of protection<br>• Value of protection<br>• Instrumentation, monitoring, field survey<br>• Environmental review ratings (using comparative and targets)<br>• Baseline vs. as built assessments |
| **Economic Development** | • Productivity increase<br>• Population<br>• Growth in industry value and opportunity |
| **Connectivity** | • Local data<br>• Traffic and economic studies<br>• Business and trip profiling |
| **Quality of life** | • Surveys |
| **Functionality** | • Fit for purpose<br>• Ride quality<br>• Accessibility<br>• Capacity<br>• Measure functionality of end product |
| **Fit for purpose** | • Safety and travel times – use road survey/statistics<br>• Costs - review against project objectives |
| **Time** | • Time to opening (i.e. to benefit realisation) Target vs. actual completion<br>• Disruption |

| Attribute | How to best demonstrate value for money - for attribute (continued) |
|---|---|
| **Transparency of client evaluation methods and criteria** | • Model numbers<br>• BRC calculations |
| **Whole of life/cost** | • Benchmarking<br>• Measurable KPIs for short and long term using original concept as the base case to compare, customised for each project<br>• Use accepted standardised industry methods<br>• Capital cost<br>• Whole of life cost<br>• Net present value – financial |
| **Clarity over constraints** | • Earlier involvement<br>• Political timelines<br>• Open to challenging – frequent and transparent |
| **Safety** | • Accident rates<br>• Removal of black spots<br>• Cost of accidents/injuries<br>• Black spot, congestion, journey time (economic/financial, K.R.A) |

### 5. *Identify the key elements of a decision making framework that may assist to deliver better value for money outcomes for procurement*

- Clear and concise definition by client/by project on value for money
- Clear understanding of the problem you are trying to solve
- Clear understanding of the outcomes you are trying to achieve
- Identify/define project objectives
- Identify material issues
- Identify the stakeholders and managing their expectations
- Identify the risks and opportunities (and manage these through the process)
- Understand the base case – what is value for money being measured against
- Understand the political environment
- Process to govern the study
- Change value criteria weighting
- Early interaction with knowledgeable stakeholders (i.e. private industry)
- Adequate stakeholder management/engagement (early)
- Risk allocation matrix
- Economic/financial tests
- Constraint mapping
- Gain authority and legitimacy to proceed
- Determine value measurements
- Evidence-based driven decision making
- Analytical tool

- Process must allow innovation
- Trust, transparent process
- Shared values
- Keep it simple
- Standardise the model – pick one (consistent framework)
- Acceptance by funding body
- Design alternatives that align with program/project objectives
- Balancing cost and non-cost objectives
- Balancing BCS vs. capital cost
- Timing to realise benefits (D&C, Alliance, Co)
    - Target vs. actual completion (incl. disruptions)
- Resources (labour/engineering) available to meet profit objectives
- Take value for money principles through to procurement
- Outcome to include  a selection of the best and most efficient procurement models

For information about upcoming Roads Australia policy workshops, contact Mandi Mees – mandi@roads.org.au or Donna Findlay – donna@roads.org.au