

# Department of Transport and Main Roads' strategy

## *Reducing the cost of infrastructure*

The Department of Transport and Main Roads' role is to provide safe and cost effective, functional transport infrastructure that meets the current and future needs. This will be done in part by delivering long-term innovative infrastructure solutions which will deliver value for money. Our department's vision is Connecting Queensland – delivering transport for prosperity.

The department recognises:

- claims that infrastructure costs are higher in Queensland\*
- the need to watch every dollar—do more for no more
- Government as an enabler rather than a doer
- the role of innovation for economic success.

The department has identified principles that will assist in meeting our objectives of safe, functional transport infrastructure that is 'value for money'. Specifically:

- determining the scope of projects to ensure functionality is addressed on a 'what is needed?' basis
- encouraging and using innovative products and processes that provide the required functionality for a safety, cost or durability benefit.

Simply, the department is focused upon reducing the cost of transport infrastructure by:

- making sure the department is open for business
- listening to industry (inviting feedback on improvements)
- encouraging and implementing innovation that demonstrably helps us achieve our objective
- asking our suppliers and staff 'can it be done better/smarter?'
- using Austroads and Australian Standards to deliver context sensitive solutions wherever feasible
- implementing cost efficient and competitive processes that are consistent with the community and industry expectations
- compromising in a responsible manner, with a priority being safety and reduction in long term costs.

# Six groups of initiatives to reduce costs

## Transport and Main Roads have compiled strategies to reduce the cost of delivering and maintaining the state's road and transport infrastructure

The strategy comprises a suite of initiatives to reduce the cost of infrastructure.

### 1 Remove 'nice to haves' from project scope and reduce traffic and pavement design life, flood immunity for lower initial investment

We have:

- set up a centralised system of project reviews at key times to check for appropriate and affordable scope
- published Project Scoping Guidelines
- reviewed warrants for street lighting to be consistent with other states.

We are:

- amending our policy on help phones
- rationalising new gantries for Variable Speed Limit and Lane Use Management System.

### 2 Use innovation, research and technology to save money

We have:

- published on the department's website a policy/brochure on technical innovation in the department
- encouraged innovation in contracts for major projects
- committed research and development funding for pavements, structures and asset management to assess what's saving money elsewhere and see if it will work in Queensland.

We will:

- continue to evaluate and develop use of new technologies for efficiency and improved safety (Mobile laser scanning, Building Information Modelling (BIM) for design, bluetooth monitoring of traffic)
- compile specifications and standard drawings for Fibre Composite Girders
- assess innovation as proposed by industry
- compile a guide on engineering risk, innovation and decision making to focus on skills of those in the department involved in decisions.

### 3 Improved technical and project delivery skills to reduce error, smart solutions and be comfortable with innovation

We will continue to skill our staff in core technical skills to reduce risks and costs including:

- contract administration practices
- bridge construction and maintenance
- pavement, rehabilitation and spray seal design and construction practices include commentary in specifications so that users can understand the intent of the specification and increase our ability to accept something innovative that will meet the intent in a different way
- compiling a guide on cost effective risk based audit and surveillance.

### 4 Use packaging and delivery options to reduce the cost of projects

The department will continue to drive value through using risk based:

- packaging of infrastructure projects and maintenance
- infrastructure procurement methods for the situation.

### 5 Review specifications used for procurement and guidelines used for designs and decision making, benchmark the department's costs and practices interstate

The department has:

- benchmarked costs and practices between Queensland and New South Wales and interstate practices in design criteria, help phone policy, road lighting warrants, reinforced concrete, asphalt specifications and incorporated learnings into research priorities and specification reviews
- revised our specifications on reinforced concrete pipes
- revised our specifications on reinforced precast concrete products
- ceased Queensland specific bitumen sprayer calibration
- revised our asphalt specification to allow the use of Warm Mix Asphalt
- released a Brownfields Design Manual and reviewed the design philosophy chapter of the Road Planning and Design Manual to address conservative design practice and provide a better understanding of application of design exceptions.

We are:

- progressing harmonising our asphalt specifications and procurement with New South Wales' Roads and Maritime Services
- extensively reviewing our specifications and processes regarding traffic management at roadworks to reduce cost but not safety
- reviewing our Pavement Design Manual to become a Pavement Design Supplement to Part 2 of the Austroads Guide to Pavement Technology
- revising our specifications on concrete, landscaping, road furniture and pre-stressed concrete products
- reviewing how quarry approval and quality is managed.

### 6 Optimise Asset Management practices and investment decision making

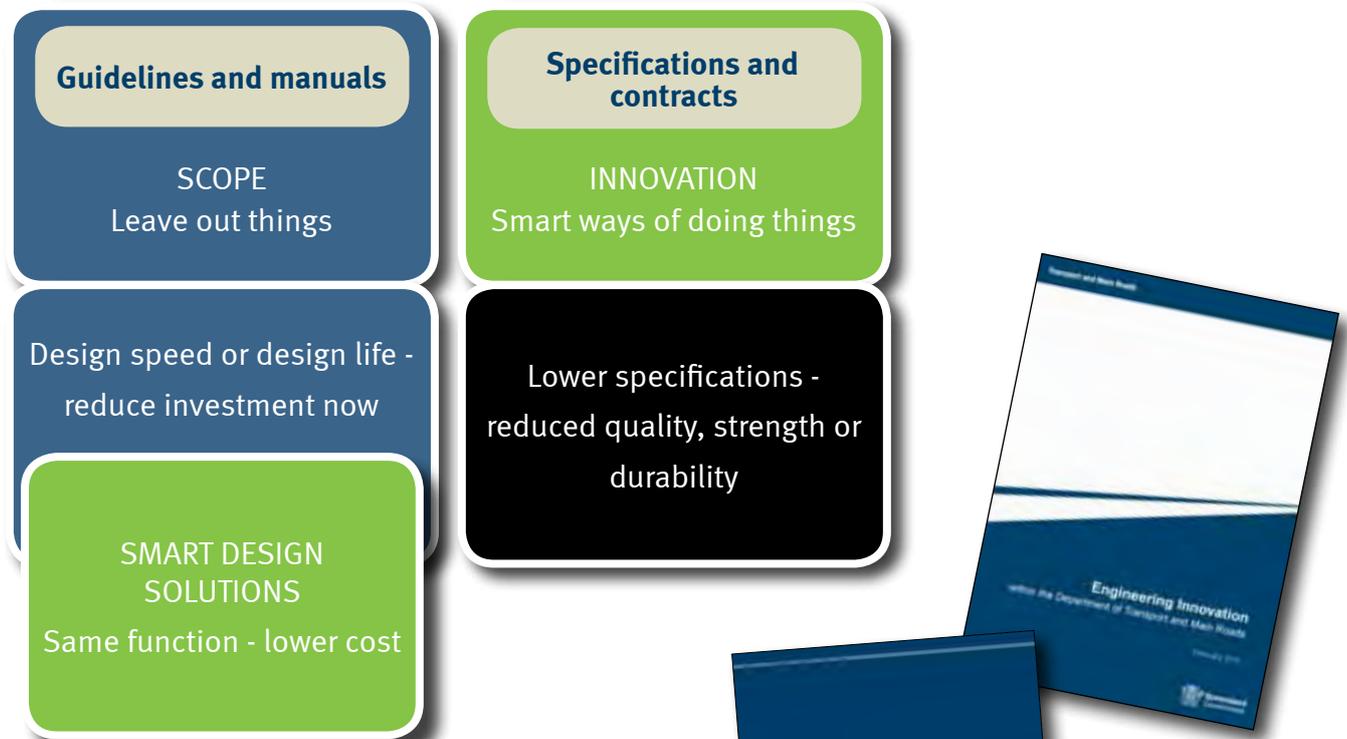
We are:

- capturing best practice from industry maintenance contracts
- utilising research and development to inform investment decision making and condition assessment practices.

# Reducing the cost of infrastructure

There are many ways to achieve transport infrastructure that is 'functional' and cost effective.

Practically the department's technical manuals and specifications are highly influential in determining the quality and cost of projects.



The diagram above shows ways in which we can review our project scope and delivery specifications to deliver infrastructure at lower costs.

We encourage and support our staff and suppliers to consider solutions in the green boxes: actively pursue smarter ways of doing things to achieve practical and cost effective outcomes.

The department has published the document '*Engineering Innovation with the Department of Transport and Main Roads*' for further information.

Caution should be used when adopting solutions in the black box: lowering of specifications.

The department has also compiled the document '*Project Scoping Guideline*' which discusses solutions in the blue boxes: fit-for-purpose reduction of project scope and helps us answer the question "what's in, what's out?".

**Further information**

For information on the department's technical documents visit [www.tmr.qld.gov.au](http://www.tmr.qld.gov.au) and follow the prompts (Business and Industry>Technical documents)

To contact us please email [mr.techdocs@tmr.qld.gov.au](mailto:mr.techdocs@tmr.qld.gov.au)

\*ABS producer price index 1999-2012—measures changes in price in Australia and for states. Queensland's road costs have increased at higher rate than elsewhere in Australia. However, this does not mean road costs are higher in Queensland.



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