Implementing the Transport Domain Plan and Transport Research Strategy

Transport Sector Strategic Challenges

Networking event
27 July 2017
NZ’s construction and transport sector spends a lot on research & development... so it is necessary to make sure the sector invests in the right data, information and research work.

### Research and development expenditure

*By purpose of research and sector, 2016 and 2014*

<table>
<thead>
<tr>
<th>Purpose of research</th>
<th>Expenditure sector</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Business</td>
<td>Government</td>
</tr>
<tr>
<td>2016</td>
<td>$ (million)</td>
<td></td>
</tr>
<tr>
<td>Primary industries</td>
<td>266</td>
<td>214</td>
</tr>
<tr>
<td>Energy</td>
<td>37</td>
<td>31</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>478</td>
<td>93</td>
</tr>
<tr>
<td><strong>Construction and transport</strong></td>
<td><strong>151</strong></td>
<td><strong>0</strong></td>
</tr>
<tr>
<td>Information and communication services</td>
<td>258</td>
<td>C</td>
</tr>
<tr>
<td>Commercial services and tourism</td>
<td>112</td>
<td>C</td>
</tr>
<tr>
<td>Health</td>
<td>139</td>
<td>37</td>
</tr>
<tr>
<td>Education and training</td>
<td>14</td>
<td>C</td>
</tr>
<tr>
<td>Law, politics, and community services</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Cultural understanding</td>
<td>3</td>
<td>C</td>
</tr>
<tr>
<td>Economic framework</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Environment</td>
<td>19</td>
<td>223</td>
</tr>
<tr>
<td>Other(2)</td>
<td>111</td>
<td>20</td>
</tr>
<tr>
<td>Knowledge – general(3)</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,602</td>
<td>654</td>
</tr>
</tbody>
</table>

*Public sector’s expenditure has been excluded in SNZ’s figures*

1. Source: Statistics NZ. Figures exclude GST.
Where are we now?

- **Transport Research Strategy and Transport Domain Plan** (July 2016)
- **Transport Knowledge Hub** continues to develop (now 8 topic hubs)
- **Transport Research Register** (First edition: April 2017)
- **Transport Sector Strategic Challenges and related Actions Map** (June 2017)

Having a clear set of Strategic Challenges
- help us understand what is important and what might be impeding us from having a transport system that maximises social and economic impacts and minimises harm
- help us to set priorities to make sure things are done in the right order to achieve the goals.
Know your threats
Strategic challenge - Congestion

What are the right mechanisms and technologies for managing transport demand?

**Research questions:**
What are the roles of transport demand management in land use and urban development?

What does a comprehensive well designed approach to ensure a smooth transition towards implementation of demand pricing look like?

Stockholm – Trial started 3 January 2006
Image source: www.ted.com
Strategic challenge - Fatalities

How best to minimise harm (safety and health)?

Research questions:
What are the best interventions to influence safer behaviours and to minimise health impacts?
Strategic challenge - Natural events

Research questions:
How do social, economic, and environmental events affect our transport system?

What do we need to do to ensure the right level of resilience?
Strategic challenge - carbon

Research questions:
Which interventions are best for lowering greenhouse gas emissions and protecting the environment that New Zealanders and businesses value?

How best to lower transport-related environmental impacts?
Look for opportunities
Strategic opportunity – sharing economy

Major improvements on key objectives:

- In the 3-mode configuration (Metro, Shared Taxis & Taxibuses), no congestion, even at peak
  - VKM at peak 37% lower than current (no congestion!)
- Much lower emissions
  - Short-term due to reduced VKM (34% lower than current)
  - Mid- and long-term even better given faster fleet turnaround (each vehicle travels much more)
- Results for 2-mode configuration also very good on reduction of emissions and congestion

Research questions:
What is the best modal choice and how best to encourage that choice?

How do we ensure compatible information is used for assessing the performance of the transport system?
Strategic opportunity - technology

How best to seize the opportunities arising from technological developments?

Research questions:
What are the systems and capabilities we need so as to take advantage of the technology opportunities and to manage the challenges?

Where do we want to be responsive and where do we want to lead?

Image source: San Francisco Sustainable Transport Strategy
Strategic opportunity - connections

NZ’s Air services relationships

How best to maintain international connectedness to facilitate economic development?

Research questions:
What opportunities and challenges, advantages and disadvantages does New Zealand have being far away from international markets?

What are the roles of transport?
Spread the knowledge

400,000
## Combined conferences in November 2017

<table>
<thead>
<tr>
<th>EVENT</th>
<th>DESCRIPTION</th>
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| **Transport Knowledge Conference 2017** | * Theme: “Managing transport demand: Technologies, social and economic impacts”  
* provides an annual forum for people working across the transport sector to share, build and maintain their transport knowledge  
* improves visibility of data, information and research programmes |
| **ATRF** | * NZ is one of the jurisdictions that take turns to host the annual ATRF  
* it was last held in Auckland hosted by MoT in 2009 |
| **International Transport Forum** | * Topic: “Social impact of time and space-based road pricing”  
* Open to country delegates  
* Limited additional seats available for observers |

**Dates and Locations:**
- **27 November 2017**  
  Grafton Campus, University of Auckland
- **27-29 November 2017**  
  Grafton Campus, University of Auckland
- **30 November – 1 December 2017**  
  The Langham, Auckland (*To be renamed as Cordis Auckland from 1 November 2017*)

Register of interest, email [knowledgehub@transport.govt.nz](mailto:knowledgehub@transport.govt.nz)
We would like to hear from you if you

- are interested in joining the Transport Knowledge Hub
- know of any research activities that we should include in the actions map

Email knowledgehub@transport.govt.nz