Australian Local Government Association (ALGA)

ALGA supports the notion of a more robust infrastructure pipeline being developed as part of the Australian Infrastructure Plan, including to address freight and supply chain priorities.

However, the delivery of individual infrastructure projects should be dealt with as part of a comprehensive infrastructure plan and asset management framework. This includes striking a sensible balance between expanding freight access, whilst retaining sufficient capacity to still maintain the maintenance of existing Local Government freight routes and networks. This infrastructure plan should be integrated and developed in consultation with all three levels of government.

ALGA notes that the Australian Government has committed $8.5 million to settle the design of a National Freight Data Hub, which will help business and governments plan and make better operational and investment decisions.

Why design a freight data hub?

Better freight data would enhance the efficiency of Australia’s freight supply chain, and benefit our community and economy through higher productivity. The need for improved freight data was a key focus of the industry led Inquiry into National Freight
and Supply Chain Priorities, and is an important part of delivering the National Freight and Supply Chain Strategy.

Question 1

a) Of the following, what are the most important purposes of the Hub?

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Importance rank (High/Medium/Low)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support operational decisions</td>
<td>High/Medium</td>
</tr>
<tr>
<td>Improve investment decisions</td>
<td>High</td>
</tr>
<tr>
<td>Performance measurement and benchmarking</td>
<td>High</td>
</tr>
</tbody>
</table>

b) What other purposes should the Hub have?

In the initial stages of developing the Data Hub, there are four critical areas for design for the Data Hub that need to be settled as soon as possible.

They are:

- **Data collection**: working toward agreed principles for data collection, including standards and priority gaps;
- **Protection and confidentiality**: developing agreed needs for cyber security, data protection, and future proofing;
- **Dissemination**: designing modes of aggregation, access needs, supporting sharing protocols and agreements; and
- **Hosting**: spanning development of a business model, structure and technical specifications, and a roadmap for iterative implementation.
ALGA understands that the Data Hub Project Team will be engaging further on these issues and providing more information as the design project progresses through workshops and refinement of concepts.

ALGA looks forward to direct engagement with the Project Team in the near future on the above matters to tease out how these important issues can be dissected, reviewed and resolved in a timely manner.

**Question 2**

a) For each purpose, what are the most critical things to include in the Hub?

(List all elements and data sources that you see as important)

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Data element</th>
<th>Current/new data sources</th>
</tr>
</thead>
</table>
| ALGA’s key local government data sources  | ALGA has two key data sources that may be of assistance to National Freight Data Hub, subject to certain conditions. They are:  
  - The National State of the Assets (NSoA); &  
  - The National Local Roads Data System  
  These two sources are described in more detail below. |                                           |
| Improve investment decisions              | **National State of the Assets (NSoA)**  
Since 2012, ALGA has encouraged all local councils in Australia () to participate in a self-assessment survey of their infrastructure performance and management practices.  
The project aims to report the value, performance, and management of local government infrastructure assets across the nation on a consistent basis.  
The project commenced with the collection of roads and bridges data | Current source |
in 2012. The subsequent NSoA Report was formally presented to the Federal government in 2014.

In 2015, the Project was expanded to include all other key asset groups for which local government is typically responsible. The Report now provides an informed analysis of performance trends for roads (sealed & unsealed), bridges (concrete & timber), and other community infrastructure assets, such as buildings, stormwater drainage, water supply, wastewater treatment, parks, airports and aerodromes.

Whilst optional, participation has increased, with 408 or 75% of local councils across Australia providing data for the NSoA Report. Of note, close to a third more local councils in urban areas participate than their rural counterparts.

The most recent NSoA Report was issued in November 2018.

Key outcomes that the NSoA Report has delivered are:

1. Proof of concept that LG can provide consistent, evidence-based infrastructure performance reporting for use by all levels of government.
2. Complete performance reporting results for sealed and unsealed road assets and concrete and timber bridges in terms of condition, function and capacity indicators;
3. An updated and complete performance reporting results for all key LG infrastructure groups; and
4. Consistent trend analysis enabling past comparisons and projections for future
investment in LG infrastructure. (NSoA 2018)

**National Local Roads Data System**

The NLRDS is designed to aggregate existing sources of local road information to provide a simple, consolidated national local roads reporting system. The NLRDS provides a 10-year rolling series of data.

Data is collected and aggregated from existing sources from each of the State Grants Commission office and transport authorities.

The cooperation of the State Grants Commissions, ACT Department of Urban Services and Australian Transport Safety Bureau are involved in collecting and providing local road data which ALGA acknowledges. The data is accessible to ALGA, State Local Government Associations, Councils and other approved groups.

The NLRDS is a valuable tool for the development of cases for all levels of government for assistance and financial support for local roads. It is designed to demonstrate local government’s credibility, capacity and leadership at a national level. NLRDS will complement many current asset management initiatives, such as the MAV/LGAQ Shared Systems Project, LGAQ/Qld Main Roads Roads Alliance, MAV Step Program and Asset Management Knowledge Base, the LGASA Step by Step program and WALGA Local Asset and Expenditure Report.

The aggregated data in the NLRDS is owned by ALGA. The data being collected reports
against eight road system performance measures endorsed by the ALGA Roads and Transport Advisory Committee (RTAC). RTAC has established a sub-committee to manage the NLRDS.

Access to the data is available on a ‘low cost, high value’ basis. Access to basic data is freely available on the web, with more detailed requests (e.g. regional comparative data) attracting a fee to cover administrative and operating costs.

The NLRDS is operated by the Institute of Public Works Australasia (IPWEA) on behalf of ALGA. IPWEA provides day to day operational services for NLRDS including first point of call and help desk services.

<table>
<thead>
<tr>
<th>Performance measurement and benchmarking</th>
<th>- No -</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-No -</td>
</tr>
</tbody>
</table>

b) Are there other critical data elements that should be included in the Hub?

- A national approach to data consistency across jurisdictions
- Freight performance benchmarks and indicators established;
- Decision-makers having relevant information in a timely manner;
- Information improves decision-making about infrastructure investment needs, areas of reform required, freight operations and community amenity.
- These four elements above need to be achieved under and through one framework priority action – which is developing an evidence-based view of key freight flows and their supply chains and their comparative performance to drive improved government (all three levels) and industry decision-making, investment and operations.
Question 3

a) What are the barriers to sharing data? (Please provide examples in the table below)

b) How could these barriers be overcome?

c) What are the benefits of greater data sharing?

<table>
<thead>
<tr>
<th>Barrier to sharing</th>
<th>How to address?</th>
<th>Potential benefit?</th>
</tr>
</thead>
<tbody>
<tr>
<td>According to the iMove report (2019) overall, concerns about competitors were viewed as the most important barrier and challenge for freight data sharing (35%). The cost in terms of necessary resources (30%) was viewed as the second most important barrier.</td>
<td>By improving the availability, consistency and security of freight location and performance data, we can significantly improve freight operations, make better investment decisions and monitor and evaluate freight performance.</td>
<td>Improving freight access, particularly across jurisdictional boundaries and access regimes, will boost use of freight-related infrastructure, and enhance network performance, critical to handling forecast freight growth.</td>
</tr>
<tr>
<td>There is a lack of available information and data to measure, monitor and evaluate supply chain performance.</td>
<td>To do this, we need to develop an evidence-based view of key freight flows and supply chains and their comparative performance to drive states, territories, local governments and industry decision-making, investment selection.</td>
<td>Responsibility for planning and access to the road freight networks lies largely with local, state and territory governments.</td>
</tr>
<tr>
<td>Insufficient information or visibility across the supply chain is exacerbated by data inconsistency across jurisdictions (and as a consequence an inconsistency across local councils nationally, by default).</td>
<td>From ALGA’s perspective, specific areas of interest include urban freight, first and last mile issues of respective networks and other regional network issues. First and last mile access and pinch-points (e.g. bridges) continues to be a drain on improving heavy vehicle freight access.</td>
<td></td>
</tr>
<tr>
<td>Without resources to assess supply chain performance, the three levels of government and industry are unable to optimise decisions about infrastructure investment needs, freight operations, and community amenity.</td>
<td>Local council road managers are interested in having regular access to volume and capacity data, and require forecasts of demand in order</td>
<td></td>
</tr>
<tr>
<td>One of the fundamental shortcomings around freight</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
data tend not to stem from the ‘what is being collected’, but instead from the ‘how it is being collected and disseminated’. Existing data sets could and should be used more productively, since better utilising existing datasets would, prima facie, be a lower cost options rather than developing entirely new datasets.

There are numerous potential datasets that could and should be incorporated into the Data Hub.

A lack of incentive, capability or resources to conduct timely and coordinated assessments of key road freight infrastructure reduces access on local government roads.

to best establish investment and revenue targets.

It is important that local government gets datasets in these important areas as a priority to improve various ways of delivering better access for Heavy Vehicles, particularly in an environment where the forward-looking Freight Task is expected to continue to grow strongly.
Question 4

a) What products are required? (Please provide examples in the table below)

b) What is the best way for Hub products to be made available?

c) How frequently should data be updated?

<table>
<thead>
<tr>
<th>Product</th>
<th>Method of reporting</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freight volumes and forecasts</td>
<td>Data file</td>
<td>At a minimum, annually.</td>
</tr>
</tbody>
</table>
| Road Freight Telematics data collection initiative | Adequate data sharing infrastructure is required to facilitate and reap the benefits of improved data collection, access and use. The importance of data sharing has been recognised by the Australian Government.  

Heavy vehicle telematics data are generated and collected from a range of sources, including industry, the National Heavy Vehicle Regulator and other state government bodies.  

The Australian Government should continue to progress the National Freight Data Hub, and should cooperate with Transport Certification Australia (TCA), to develop a regulatory framework for the collection, storage, analysis and access of transport data, in particular telematic data.  

This should enable relevant bodies, including local councils, to have sufficient data access to undertake their tasks for the purposes of planning and | Initially on an annual basis. |
decision making for maintaining and updating infrastructure.

This type of data will provide local governments with more information as to the number and sizes of the heavy vehicles operating on their roads, as well as the routes they take. This information would also enhance local government to adequately plan and implement strategies aimed at improving the productivity of their road freight networks.

At the same time, local government acknowledges the need for protecting data confidentiality via common principles and standards.

**Heavy Vehicle Bridge Assessment System (HVBAS)**

This scoping study that Austroads has currently underway, is investigating the role an HVBAS can play in improving the network access transparency and transparency and certainty for PBS vehicles, oversize/over-mass vehicle classes and other heavy vehicles. This concept has been described as a National Bridge Assessment Tool.

The primary goal is to increase the transparency and timeliness of access outcomes where they pertain to bridge and culvert constraints. This initiative can drive improved decision-making throughout the National transport ecosystem.

To support those local council road managers with limited current bridge assessment capability, there are large gains to be made in providing one or

Near real-time response for selected vehicle configuration/journey rates in relation to bridge access considerations.
more structural assessment modules that can be utilised for defining and supporting data collection and bridge structural capacity to allow the local government networks to be an integral part of a national system that makes access decisions in a timely and transparent manner.

The consulting firm, JYW have recently provided Austroads with an assessment of the technology and relevant opportunities, challenges and issues associated with the development of a NHVBAS. This assessment has concluded that a pragmatic fit for purpose cloud infrastructure-based application can be scoped to deliver heavy vehicle operators with near real-time response for selected vehicle configuration/journey rate in relation to bridge access considerations.

Because of the mixed nature of current structure data existing nationally, the task will not be uniform within road manager organisations, and will vary significantly from road manager to road manager.

As the NHVBAS system being proposed allows a degree of flexibility about the bridge data required to drive automated decision-making, careful consideration of which data requires supplementation needs to be informed by the significance of the freight route supported by each bridge.

These multiple variables indicate the need for sophisticated planning and governance to drive the prioritisation, development,
collection and uploading of new and existing structures data.

ALGA supports this significant Austroads’ initiative to deliver a fundamental **National Bridge Assessment Tool**.

<table>
<thead>
<tr>
<th>In-depth local government regional/rural freight networks which need to be acknowledged and improved</th>
</tr>
</thead>
<tbody>
<tr>
<td>For example: WA’s Revitalising Agricultural Region Freight Strategy – Responding to Change, 2019</td>
</tr>
</tbody>
</table>

| Not infrequent reviews | Spatial database and maps |

<table>
<thead>
<tr>
<th>Smart Cities and Suburbs Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Smart Cities and Suburbs Program established by the Commonwealth is supporting the delivery of innovative smart city projects that improve the livability, productivity and sustainability of cities and towns across Australia.</td>
</tr>
</tbody>
</table>

This program needs to be included in the National Freight Data Hubs’ kit as an important tool available to draw on to address transport and data challenges.

For example, the successful **Smart Move Newcastle: Intelligent Mobility, Energy and Data project**. This project delivered by Newcastle City Council, delivered a city-scale transport, energy and digital infrastructure network including laser-enabled roadside poles, solar and battery powered electric vehicle charge points,
smart bus stop and smart parking. This council infrastructure will be an Australian benchmark for integrated urban systems at a city scale, available to peers for replication nationally and internationally.

Another example is the successful Smart Cities Smart Liverpool, Smart Pedestrians project. This project has delivered a smart phone detection technology for real-time measurement of pedestrian and car movements. This real-time data benefits the community by enabling the council to make informed decisions about transport and urban planning, accommodating population growth impacts on mobility.