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ECONOMICS – POLICY – STRATEGY – CORPORATE ADVISORY

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**ANALYSIS**: DUE DILIGENCE, ASSESSMENT, RESEARCH, DATA ANALYTICS, MODELLING, EVALUATION

**DELIVERY**: PROGRAM DELIVERY, PARTNERSHIP, RESEARCH, THOUGHT LEADERSHIP, TRAINING

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1. Introduction

DeltaPearl Partners – economics + public policy + strategy + corporate advisory – is pleased to provide our suggestions to Department of Infrastructure, Transport, Cities, and Regional Development (DITCRD) on the proposed National Freight Data NFDH (NFDH) design issues.

2. Our interest in the NFDH

We believe the creation of the NFDH will, over time, deliver substantial dividends for Australia. It would be a mistake to think about this project as a finite effort. Rather, the NFDH will be a long-term, ongoing policy and technical project. It will require broad and passionate “ownership” and clear promotion of its public policy and commercial value. It would also likely be a mistake to be too prescriptive at the outset about the design and parameters of the NFDH. Ex ante, it will be too hard to forecast all the issues. Instead, an ongoing approach via an agreed framework to test, trial and succeed will likely be most efficacious.

The NFDH will need some form of guiding vision. We think that should approximately be: giving government and industry a detailed and up-to-date understanding of the entirety of the national freight task.

Our firm works on a broad range of economic and public policy issues. Much of our work relates to investment and infrastructure decisions. We are forever butting our heads against the challenge of old, inaccurate or unavailable data to underpin economic decisions. We have been advocating for a NFDH for some years. We wish the Department well and we would be glad to be part of the story in the following ways:

(i) We have been in touch with the Department for six months to talk about our data dashboard service and would like to use this for a mini-pilot on specific area – we have had discussions about waste freight and we know this is of interest to the States and the Department of Environment and Energy. We would welcome a discussion about doing a small-scale trial. We have an established technical capability and platform (Accelerator) and so would be able to relatively quickly deliver a pilot.

(ii) The Business Case – this is all important. We do business cases and would welcome the opportunity to be involved in its delivery. It will be a complicated business case, including because of the amorphous nature of the project and so will need skilled and informed effort.

(iii) Formalised involvement in your external reference group; we are fearful that you may not have enough representation from non-commercial users of the data i.e., users with a focus on the public benefit.

3. High-Level Suggestions

- Make an early start to pilot work to give real practical examples of success and failure
- Design in early failures and mis-steps to your work program
- Build confidence in trickier future issues – data availability, confidentiality and so on – by building some working prototypes on easier freight data questions
- Link the early work on the NFDH to other priority federal and state/territory issues to obtain maximum buy-in. Initial suggestions relate to waste and recycling and to carbon emissions reductions.
4. Standard response to questions

4.1. Question 1

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

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Importance rank (High/Medium/Low)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support operational decisions</td>
<td>High</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 NFDH have?

The purposes of the NFDH are vast and mostly unknowable at this time. DITCRD should take care to design the core of the NFDH as a very large secure database that could be used by any user as much as practically possible. That is, this is a market design issue. Making clear where the government ownership of the data and the open availability of the data for commercial use is important. The government is best placed to collect and hold the data as the trusted entity but then release the de-identified data in a public way to allow commercial operators to use that data for business purposes.

Open access to deidentified data will be an enabler for all manner of businesses to find ways to use the data to create commercial and economic value for the system. Some of the problems with the government attempting to specify how the data is used is demonstrated in the example provided in the DITCRD NFDH discussion paper, where it states an example of “Support operational decisions” is “Enhanced supply chain visibility, allowing a manufacturer to track their product on the way to customers, or to prove the provenance of a product”.

While this statement could be true it is also true that many private sector firms currently provide this capability to their customers as a key benefit to using that providers services. The government can enter the market and provide this service for all people for free or at a subsidised rate but that would destroy the current private operators value of its key benefit developed for its customers. Besides crushing that businesses value the act of a government providing free or subsidised services will also destroy the incentive for innovation by private sector, creating large and perpetual opportunity costs.

The government will have a very wide range of interested parties both internally and externally. The internal government interested parties would be Ministers, departments, and all types of related government agencies at all levels of government. The NFDH may be able to provide those internal stakeholders a greater degree of free access to increase the quality of decisions on infrastructure and policy. There are a range of potential issues here related to commercially sensitive information that could be used for or against particular freight providers or modes that may or may not be used for the greater good of Australia. Powerful lobby groups and strong vested interested parties could access the data and use it for personal gain at the expense of Australian interests. The key will be having a trusted government actor holding the data who will only release data in a deidentified way that protects the data provider and reduces the risks for misuse. Once the data is provided from the NFDH it is not really the concern of the NFDH what purpose the data is used.

External users of the data will be only limited by the NFDH’s limitations of quantity, quality, relevance and accessibility of the data. Every organisation in Australia and many around the world will find some use for some parts of the data if available. Don’t try and decide on what it will be used for but focus on how to capture as much data as possible and provide it to the public as freely as practicable.
### 4.2. Question 2

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

(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>
<tbody>
<tr>
<td>Support operational decisions</td>
<td>All left blank</td>
<td></td>
</tr>
<tr>
<td>Improve investment decisions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance measurement and benchmarking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other purposes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

b) Are there other critical data elements that should be included in the NFDH?
### 4.3. 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>Companies will be afraid of sharing commercially sensitive data as it will provide a reduction in their market power.</td>
<td>The NFDH owner must be a government body that is legally required to protect commercial and other interests of data providers. The NFDH must be a very secure organisation and database as the data is highly valuable. Data providers need to be sufficiently satisfied the information and data provided will be safe in the hands of the NFDH.</td>
<td>A secure database and trusted relationships between the NFDH and data providers will need to be the basis of current and future data being provided. Without this the value of the NFDH will likely be greatly diminished as data providers would likely refuse to continue to give data if there is a risk of commercial or other damage to their organisation.</td>
</tr>
<tr>
<td>Cost of data collection and delivery. Data owners are going to incur costs in the activity of collecting and providing data to the NFDH. The higher the cost the less data or less likely data will be provided.</td>
<td>The best way to reduce the cost of providing the data to the data owners is to gain permission to access the organisations data and use a big data technology to capture the data automatically when it is available. Then the data owner only needs to interact with the NFDH for occasional agreements rather than every time data is available. The NFDH may provide a data owner free or reduced cost access to data in return for the data owner agreeing to give its data to the NFDH.</td>
<td>The benefit of using a big data technology that automatically collects and allocates data is the reduced costs of time and money created if the data has to be manually uploaded or emailed by an organisation to the NFDH and then a NFDH employee would have to manually receive and allocate that data. Data owners are more likely to provide data if the process of doing so is minimum cost to that organisation. Having an arrangement with a data owner for free data/free access will increase the benefit to the data owner for the regular and ongoing provision of the data.</td>
</tr>
<tr>
<td>Different data, different standards, different categorization, different measures, and many more data issues. All organisations will likely have a wide range of data treatment and measures that will not easily be combined</td>
<td>There is no easy way to get around this issue, the NFDH will need to employ staff who manage data collection and treatment to find ways to bring the data together in a meaningful way. Another way to treat the data provided is to just deidentify the data and add it to the</td>
<td>NFDH employees will likely need to become familiar with the data owners and data formats to be able to make sense of the information provided. This will build relationships with industry that will benefit the NFDH by easy access to valuable data. Having staff sort through the range of different data sets will</td>
</tr>
</tbody>
</table>
| with other organisations data. | general database as is. Leave it up to the data users to figure out the data sorting issues. But this might make it difficult to hide the true owner of the data.  
The suggestion that a “mechanism” should be established to define standards for freight data is not realistic as the data is collected and owned by a very large number of diverse organisations that have established methods of data treatment and the government currently does not have the power to force compliance. The cost of compliance and enforcement would be significant and damaging to the market. | provide detailed texture to the data and the individuals doing the work will be able to form a deep understanding of the data and prove to be valuable from the experience.  
Letting the public sort through the different data sets will reduce the operating costs of the NFDH and give work to consultants in the market.  
Setting a national standard may assist in reducing differences but have limited actual effect due to the high cost low benefit to the individuals and no government enforcement capability. |
|---|---|---|
| No data to collect. Many organisations do not yet collect data on freight | Provide incentives for organisations to collect data and to provide it to the NFDH.  
Another way is to understand a specific freight activity and infer data or collect indicator data that can inform. Example is if coal railway company does not provide data you may be able to collect port data from government owned ports and connect that with annual report data of mining companies in that region and/or royalty information from Treasury. | Provides a deeper understanding of the total freight task |
### 4.4. Question 4

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

b) What is the best way for NFDH 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>The most valuable product that could be produced is very large amounts of data that can be used in excel or similar format by everyone.</td>
<td>Similar to the Australian Bureau of Statistics, provide some minimal top-level analysis but mostly provide extensive excel type documents full of data that can be freely downloaded</td>
<td>Whenever it is available.</td>
</tr>
</tbody>
</table>