RCA benchmarking: fact sheet on efficiency, effectiveness and value for money

Why are we reporting on Efficiency, Effectiveness & Value for Money?
The 2024-2027 GPS signalled that road maintenance and renewals should see an increase in Value for Money (VfM). Step one in addressing any performance area is to start monitoring and reporting on it.

Why are we reporting on all three measures?
These three measures represent different lenses or dimensions of the question, 'How good is my maintenance delivery compared to others?'

- Efficiency (condition/quantity) - how good is the road condition for my work?
- Effectiveness (quantity/cost) - how much does maintenance work cost on my network?
- Value for Money (condition/cost) - how well is my network performing in terms of the costs of maintenance work?

Networks will incur higher or lower costs for the amount of work they do. At the same time, the impact of the work varies between councils. By using all three parameters, councils can understand their performance better.

Why do we need to compare peer groups?
The condition outcomes of the road network are outcomes from the maintenance quantities, and the VfM is a function of the condition outcomes resulting from respective investment levels. Each network's condition outcomes and work requirements will be unique for known cost drivers such as urban/rural split, VKT and other environmental factors. Peer group comparisons are more meaningful than comparing networks with little in common, e.g. comparing a small rural district with large metros.

Why are the peer groups different from earlier peer groups in Transport Insights?
Because we have introduced combined reporting of conditions and costs, additional peer groups were needed to reflect urban/rural areas and VKT influences on costs.

What is the basis for the peer groups?
We have used the original Transport Insights peer classification for the urban/rural split. We have also included VKT as a clustering factor for more meaningful comparisons, which has resulted in much more comparable peer groups.

- The largest city councils in NZ are currently split across three peer groups. The two largest (Auckland and Christchurch) plus Dunedin have been merged with the others to create a group of the top 7 City Councils in NZ by VKT.
- The Provincial Centres peer group has 40+% of the City Councils and District Councils in NZ and these have a wide range of VKT. RCAs with a lower VKT (< 300M) have been moved into their own Lower VKT Provincial Centres group. Kawerau DC has also been assigned to this group.
- Selwyn District Council has increased its urban percentage over recent years sufficiently to trigger a change into a different peer group. Selwyn has moved into the Higher VKT Provincial Centres group.

Why are we doing the Efficiency, Effectiveness & Value for Money reporting for roughness?
Until the Consistent Condition Data Collection (CCDC) has been completed for all RCAs, roughness is the only condition item available for all councils. Future Efficiency, Effectiveness and Value for Money reporting may include other comparison condition outcomes.

What costs are included in the comparisons?
The only costs we currently have are in the NZTA funded components; for the first iteration, this was deemed appropriate. Unfunded works may also be considered for future comparisons and benchmarking.

Is roughness a good measure for comparisons?
Roughness is an important performance measure because it is one of the few that the public feels, and it also results in higher vehicle operating costs. Roughness is not ideal for VFM reporting as it is a poor indicator of condition outcome as a function of appropriate maintenance quantities and costs.

How can I improve the Efficiency, Effectiveness & Value for Money measures?
There are many strategies that could result in better outcomes on the economic measures reported here. For example, making more optimal decisions on the maintenance type, location and timing will result in the best effectiveness and VfM for a particular network. Other strategies include optimising the maintenance contract styles to fit local situations, which may result in better effectiveness outcomes. Reporting the economic measures in the given peer groups allows for drawing on best practices from others with higher performance for these measures.

Road Efficiency Group
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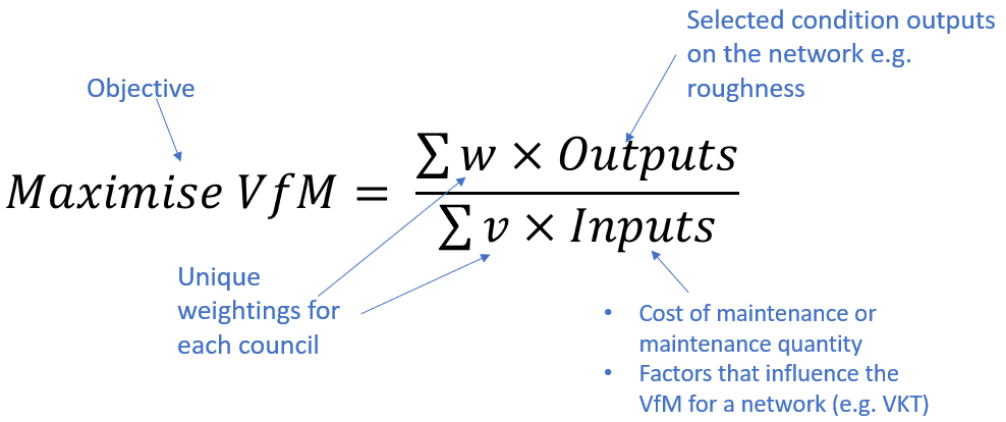
What are the next steps to Efficiency, Effectiveness & Value for Money reporting?
This new comparison is not about the relativity of outcomes and who is the best or worst performing council. This reporting is about self-improvement, so knowing how your RCA compares to others is important information. It also helps identify the other councils you compare with the best and allows for some peer exchange of best practices that work for your situation. As the CCDC data becomes available, we will report these measures using different, perhaps more appropriate, condition performance outcomes. It further allows for employing more appropriate benchmarking methods that will also consider the cost drivers in calculating comparative measures.

How can we overcome the limitations of peer group comparisons to do meaningful benchmarking?
Earlier developments have demonstrated the potential of using Data Envelope Analysis (DEA) to benchmark maintenance effectiveness and VfM on a more equal basis. When the CCDC data becomes available, DEA analysis will be possible across all LA road networks.

What is data envelopment analysis?
Data envelopment analysis is a statistical technique used to identify best practice performance in the use of resources, highlight where the greatest gains may be made from improvements in effectiveness or VfM, and help agencies achieve their potential. [This definition is from the Australian Productivity Commission.

How does DEA work?
DEA maximises the effectiveness or VfM for each council by applying different weightings to the inputs and outputs to result in the best score possible for an RCA. The resulting weightings indicate the main cost drivers for a road network (e.g. having poor subgrade conditions or very high traffic loading). It removes the need for peer group comparisons.



What are the benefits of DEA reporting?

- It's a more equitable way of comparing relative performance from RCAs
- It highlights the main cost drivers that impact the VfM outcome of a given RCA
- It identifies RCA with best practices
- It identifies the 'best' peer councils, e.g. which council has the most similarities that may assist in contributing best practices for me to adopt.

Any additional questions?
Please contact the REG team – reg@nzta.govt.nz