



Media release

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Research redefines broadband world leaders

New report focuses on broadband equity over unreliable speed-test rankings

New research unveiled overnight at Broadband World Forum by NBN Co, the company building Australia's broadband access network, provides a comprehensive assessment of Australia's place in world broadband rankings for the first time.

The research, conducted by strategy and economics advisory, AlphaBeta, provides much needed clarity in ranking national fixed-line broadband performance. Further, it highlights the significant challenges that come with relying on popular speed-test rankings and highlights the unique nature of the **nbn**[™] broadband access network which delivers high-speed broadband for the benefit of all Australians.

Analysing 37 comparable economies using representative, government-validated data, and factoring for service availability, the report ranks Australia 17th for average fixed-line broadband speeds, ahead of comparable nations such as Germany, France and China. It forecasts that at the completion of the **nbn**[™] rollout, Australia will rank 13th for broadband speeds. Meanwhile, among Organisation for Economic Co-operation and Development (OECD) countries, the report found that once the **nbn**[™] rollout is complete Australia is on track to rank 10th in terms of internet equality, the measure of how broadband is fairly distributed across populations.

These new findings counter popular but unreliable speed test rankings, which don't provide an accurate measurement of national broadband performance because of their focus on individual tests and vastly different samples across different countries. For example, one speed test ranking has compared the average speed of city-state Macao based on only 831 tests with Australia's sample of 3.5 million tests*.

The report, *Speed Check: Calibrating Australia's broadband speeds*, presents a range of major conclusions:

- **International speed comparisons are challenging and many global 'speed-test rankings' present a misleading comparison of international broadband speeds.** These rankings are problematic as speed-test samples are typically small, unrepresentative, and highly volatile.
- **Australia's average broadband speed is comparable to those of peer countries.** Australia fares well among 37 comparable economies based on data representative of all broadband users and service availability.
- **Australian speeds have more than doubled from an average speed** of 16Mbps in 2014 to 37Mbps in 2019,** and much of this increase is attributable to the rollout of the **nbn**[™] access network.

NBN Co's Chief Executive Officer Stephen Rue said:

"We're extremely proud of what we're doing with the **nbn**[™] access network to deliver high-speed broadband to eligible Australian homes and businesses and help raise the digital capability of the nation. The *Speed Check*



report highlights that the work we're doing has set us in good stead among other world leaders, particularly as we near the completion of our build.

"There's no perfect ranking of fixed-line broadband performance but, clearly, there are flaws with some of the popular speed tests, with wildly fluctuating and unrepresentative samples and results, and no accountability for the actual availability of broadband to the whole community. We hope this report can play a role to balance the way we talk about broadband and its contribution to our societies and economies.

"This report confirms that Australia ranks 17th in the world against comparable nations. This is a strong position and a great benchmark for us to continue our mission to improve."

AlphaBeta Director Andrew Charlton said:

"When we looked at how countries are often compared for broadband performance, we quickly found that many popular measures are based on poor quality data and present flawed, unreasonable comparisons.

With this report, we've sought to compare national broadband performance relying on validated data and a robust statistical methodology that takes account of key factors that contribute to the value of broadband, including how many people have access to the service.

"On this basis, Australia's broadband speed is clearly comparable to other major economies."

For more details and the methodology used in the report, please visit the [NBN Co website](#).

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Notes to editors

- The report, *Speed Check: calibrating Australia's broadband speeds*, uses government-validated subscription speed data, adjusting for household broadband access to assess Australia's broadband speed and distribution of service compared to other major economies.
- Australia ranks 22nd out of 37 comparable economies when analyses using government-validated subscription speed data, rising to 17th when data that includes all broadband users and broadband availability is used. At full **nbn**[™] roll out, Australia could be ranked as high as 13th.
- Australia is projected to reach the top 10 OECD countries for internet equality by 2021 (assuming all other OECD countries hold constant at their 2016 figures). This ranking uses a smaller comparison sample limited to more comparable countries (i.e. major economies).



- * In a 2019 published ranking, M-Lab compared the average speed of only 831 users in Macao (equivalent to only 0.4% of households) with a test sample of 3.5 million unique Australian users (equivalent to 38% of households, a sample rate 95 times larger than Macao's). See Exhibit 4 in report.
- ** The change in Australia's internet speeds overtime was measured using government-validated ABS subscription speed data, compiled from "Internet Activity" (8153.0) and "Household Use of Information Technology" (8146.0) surveys.

About speed tests

- Speed test samples are not representative of the general population, as they account only for fixed line broadband users who *use* speed tests. These samples are often small and highly volatile.
- Speed tests do not represent a country's true average broadband speed as they neglect the share of households without access to broadband.
- Speed tests do not account for population and geographic factors that affect the cost and complexity of providing high-speed broadband.

Report methodology

- This report uses government-validated data on broadband speed and availability to calculate the national average speed that is available to all citizens of across 37 nations. Rankings are based on these national averages.
- For broadband speed, the following sources of subscription speed data were used, including the advertised speed and number of subscriptions to each broadband speed plan:
 - International subscription speed data published by the OECD Broadband Portal, which is collected and validated by national governments.
 - Current Australian subscription speed data collected and reported by the ABS (Internet Activity 2018).
 - For full **nbn**[™] access network rollout Australian speeds, nbn's internal forecasts of speed and market uptake were used.
- For broadband availability, the following sources of data on the share of households in each country that are connected to broadband:
 - Internet connectivity data from the UN's International Telecommunication Union (ITU), to determine the share of population with internet access.
 - European Commission and ITU data, to determine the share of total internet users with fixed broadband.

Equity

- The UN considers internet access to be a human right; it is therefore important that all people have the opportunity to access the internet, whether they be rich or poor, live in urban or remote areas, are highly educated or less so.
- Broadband equity/equality describes how fairly broadband access is distributed in each country by measuring the share of citizens with access to broadband.



- More equitable nations have a higher share of people with access to broadband. These new broadband rankings compare Australia with 'comparable economies', which are OECD countries and some major G20 economies. These countries have been selected due to comparable economic development and/or country size.
- *Speed Check: Calibrating Australia's broadband speeds* is a research series commissioned by NBN Co and completed by AlphaBeta Advisors.

Visit www.nbn.com.au for more information.