Measuring connectivity divides: The OECD experience with third-party sources

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BETTER POLICIES FOR BETTER LIVES

OECD Going Digital project - Phase IV :
Digital Divides: Improving connectivity

Two main goals of this project:

1) Develop a harmonised approach to measure **spatial connectivity divides**

2) Evidence-based **policies** to bridge connectivity divides

Horizontal work across three Directorates during 2023-2024

A two-fold approach:

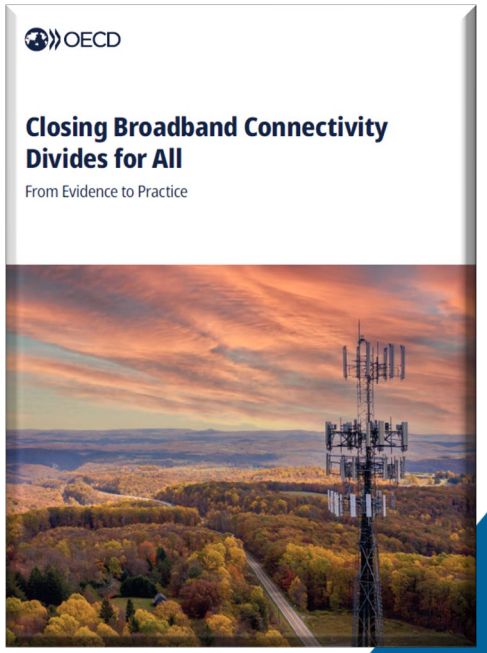
I. Informal Expert group on "Broadband Mapping & Digital Divides"

II. Third-party sources on granular broadband indicators & policies to bridge divides *featured in the report*

OOKLA for good

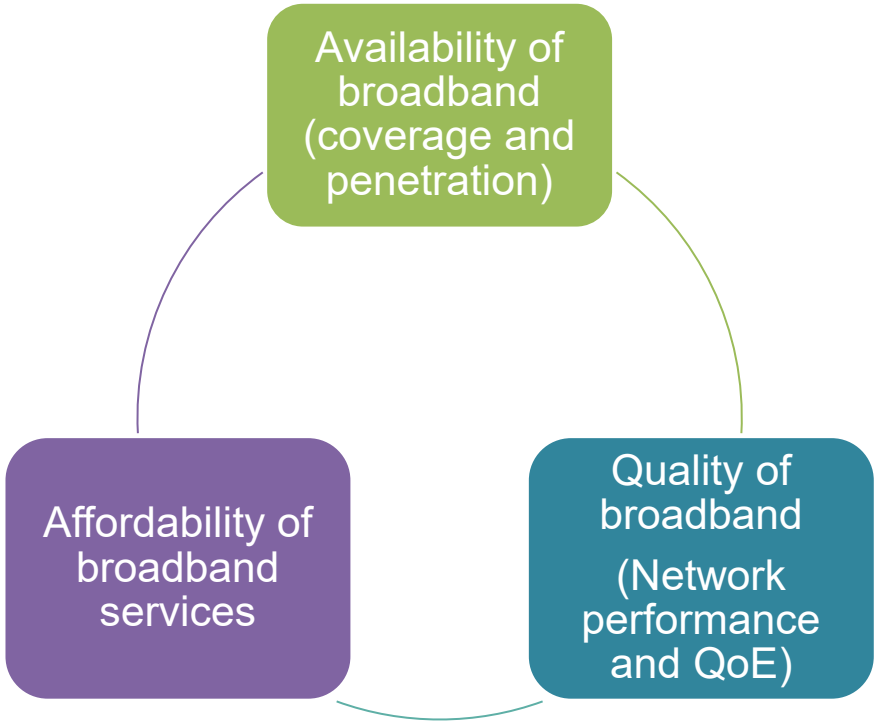
OPENSIGNAL

Outcome:
Closing Broadband Connectivity Divides for All
From Evidence to Practice
(July 2025)



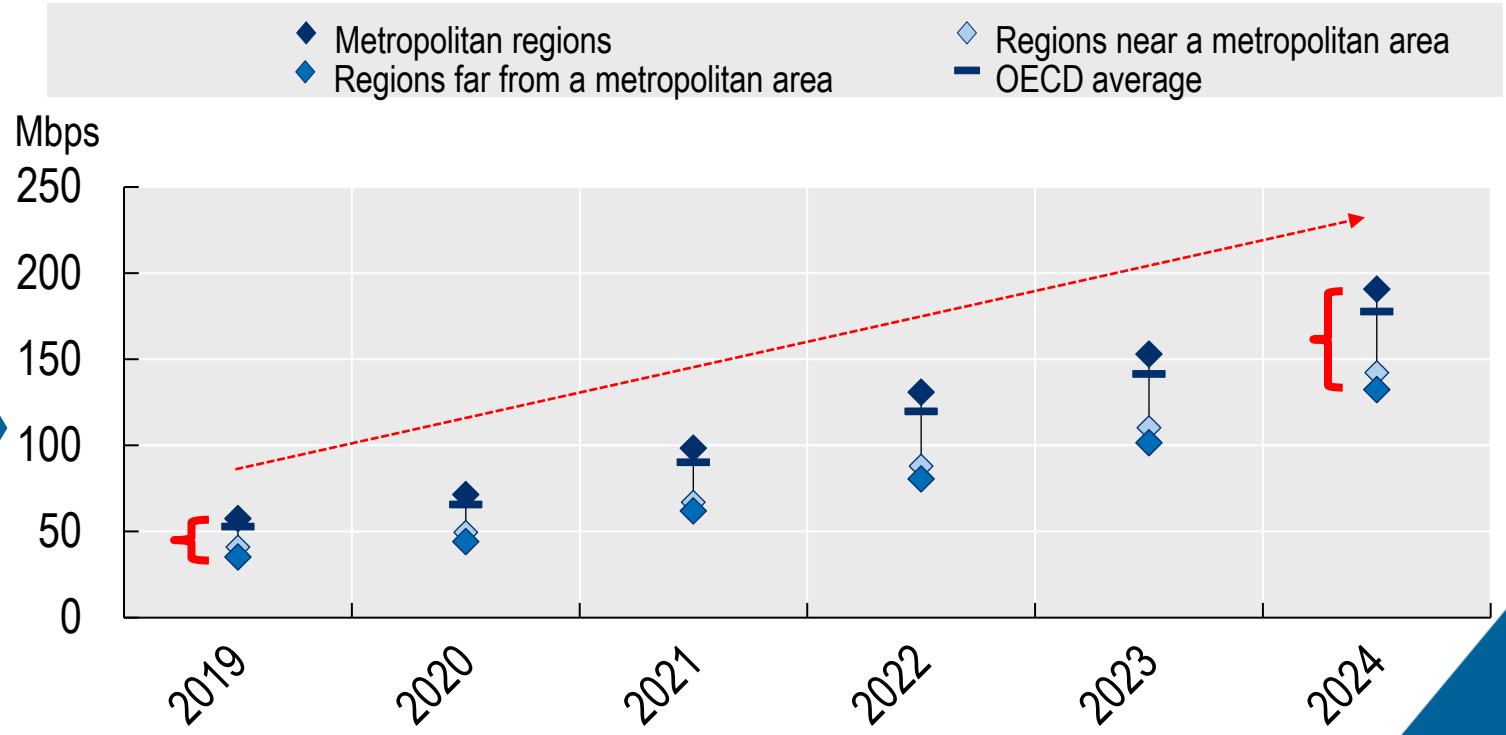
What is high-quality connectivity ?

The three pillars of high-quality connectivity



Fixed broadband download speeds increased in all regions

… but connectivity gaps in speeds for users living outside metropolitan areas also increased compared to those living within them



Source: Based on OECD analysis of Ookla's Speedtest Intelligence data

Role and approaches of third-party sources : Ookla (Speedtest) and Opensignal

Deliver **granular,** user-level insights

Capture real-world experience: speed, latency, reliability, coverage

Provide harmonised, comparable data for cross-country analysis

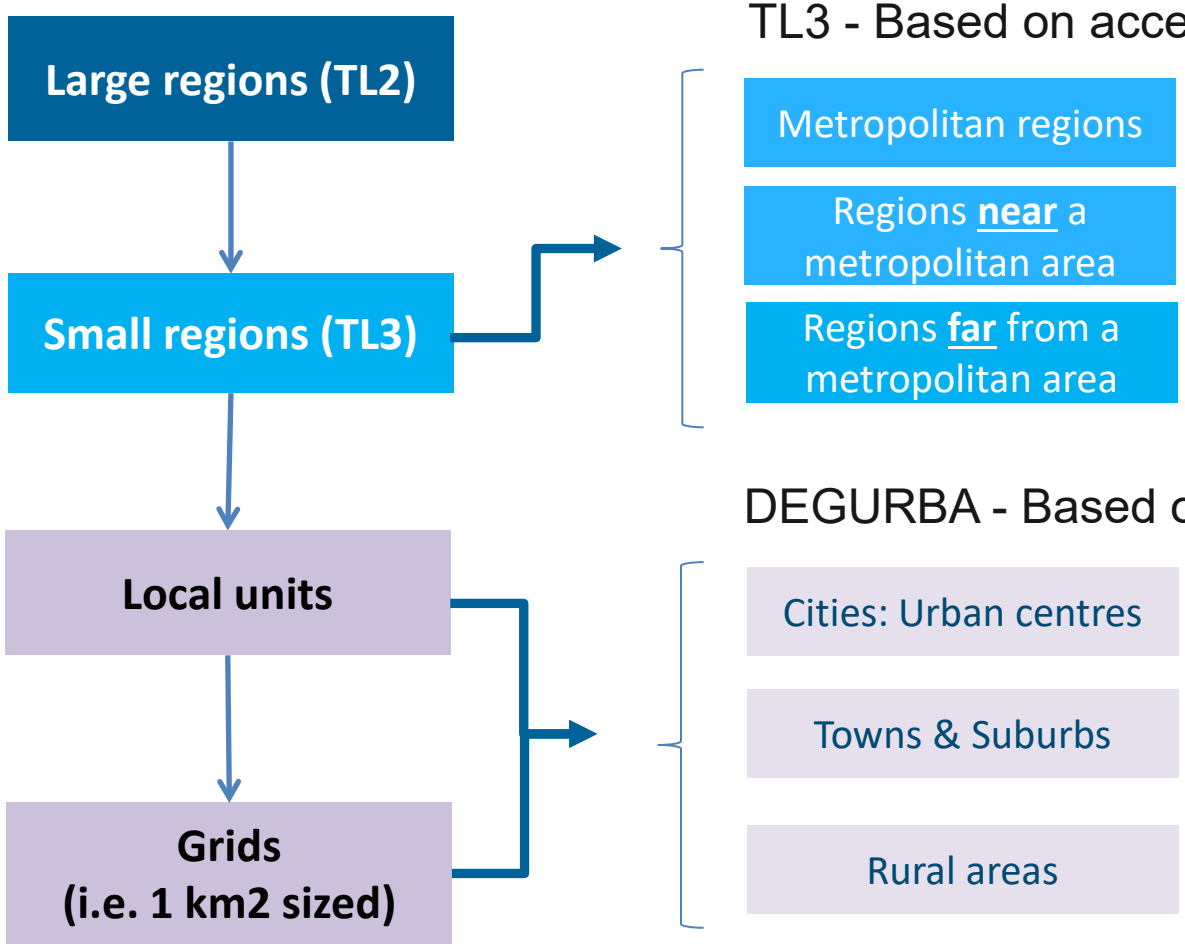
Fill gaps in official statistics, especially in rural/remote areas

Support evidence-based policies

	Ookla (Speedtest)	Opensignal
Method	**Consumer-initiated** QoS speed tests to dedicated servers	**Passive tests** from devices to common Internet endpoints (e.g. Google, Akamai, Amazon CDNs)
What it measures	**Peak throughput** (maximum speeds under saturation)	**End-to-end user experience**, mimicking real-world app/website use
Focus	**Quality of Service** (QoS) – maximum speed achievable	**Quality of Experience** (QoE) – actual performance for daily activities
Strengths	Shows **network capacity** under optimal conditions	Shows **real-world experience** (e.g. video streaming, gaming)
Limitations	May not reflect everyday use	Less focused on absolute peak speeds

The geographical units and spatial classifications

The scale is important: From large regions to grids



TL3 - Based on access to metropolitan areas

- Metropolitan regions
- Regions **near** a metropolitan area
- Regions **far** from a metropolitan area

A metropolitan region is a region where at least half of its population lives in a metropolitan area (a functional urban area of at least 250 000 inhabitants)

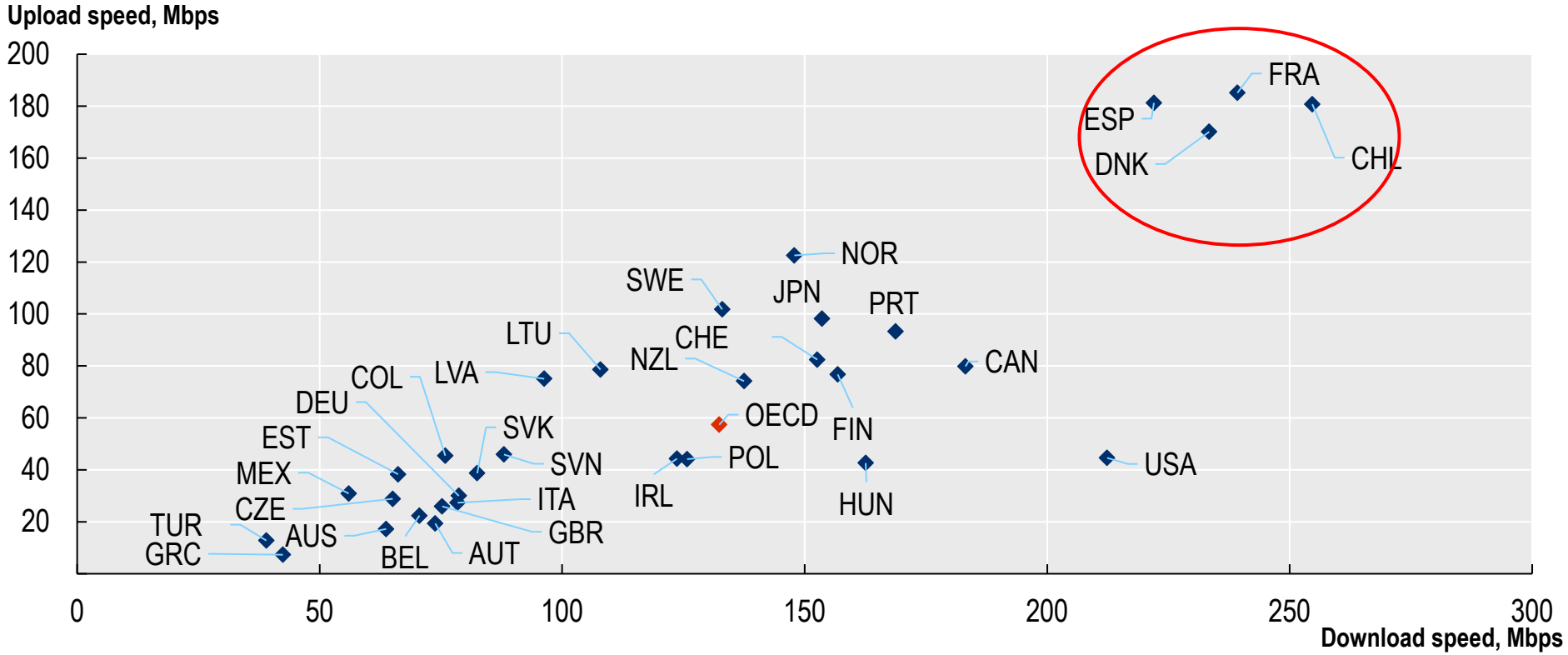
DEGURBA - Based on density and population size

- Cities: Urban centres
- Towns & Suburbs
- Rural areas

The DEGURBA (Degree of Urbanisation) can be applied at the local unit scale and at the grid scale. GHS Settlement Model grids (1 x 1 km cells) according to the degree of urbanization.
The definition was endorsed by the UN Statistical Commission in March 2020.

Key findings - Persistent connectivity divides in Fixed broadband symmetrical speeds

Median fixed broadband download and upload speeds in regions far from metropolitan areas, Q4 2024, TL3 classification



Source : Based on OECD analysis of Ookla's Speedtest Intelligence data

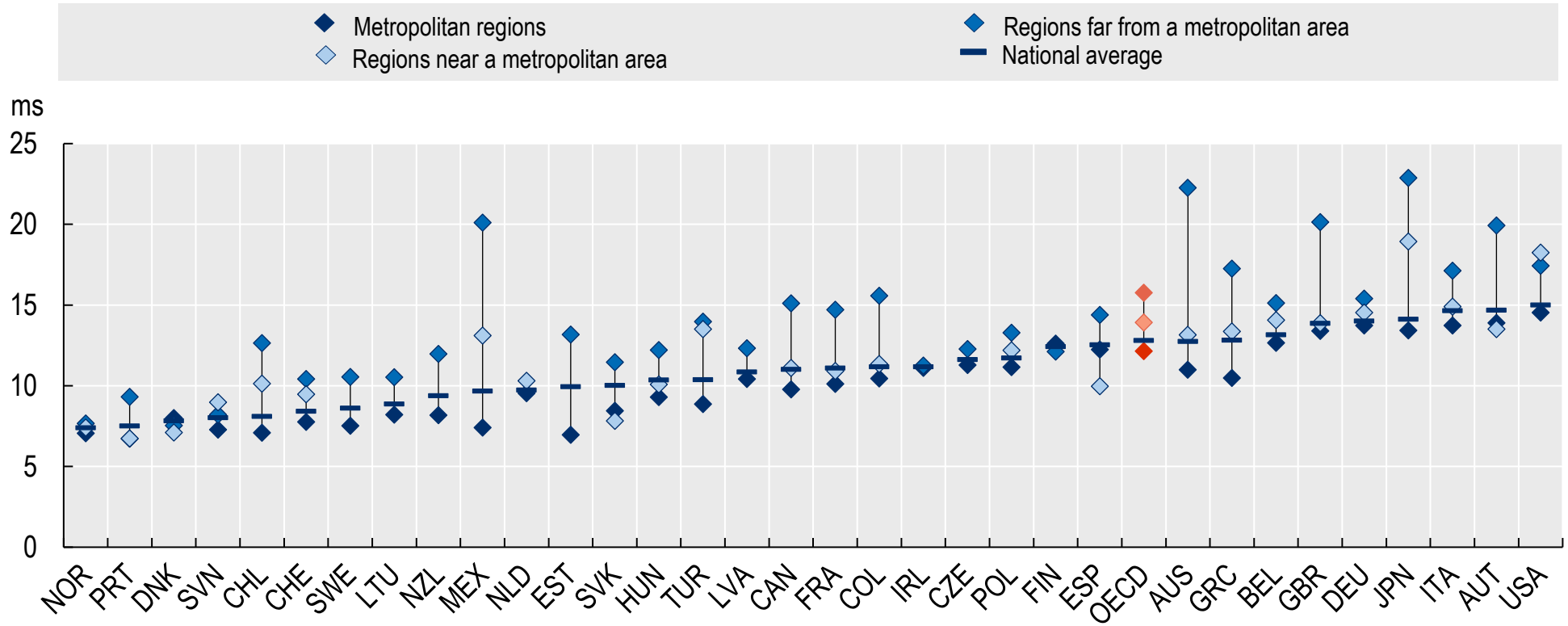
Key findings - Persistent connectivity divides in Mobile broadband

Mobile download speeds experienced in cities, towns and rural areas, Q4 2024, DEGURBA classification

Source: OECD based on data from Opensignal (2025), Insights, www.opensignal.com

Key findings - Persistent connectivity divides in Latency

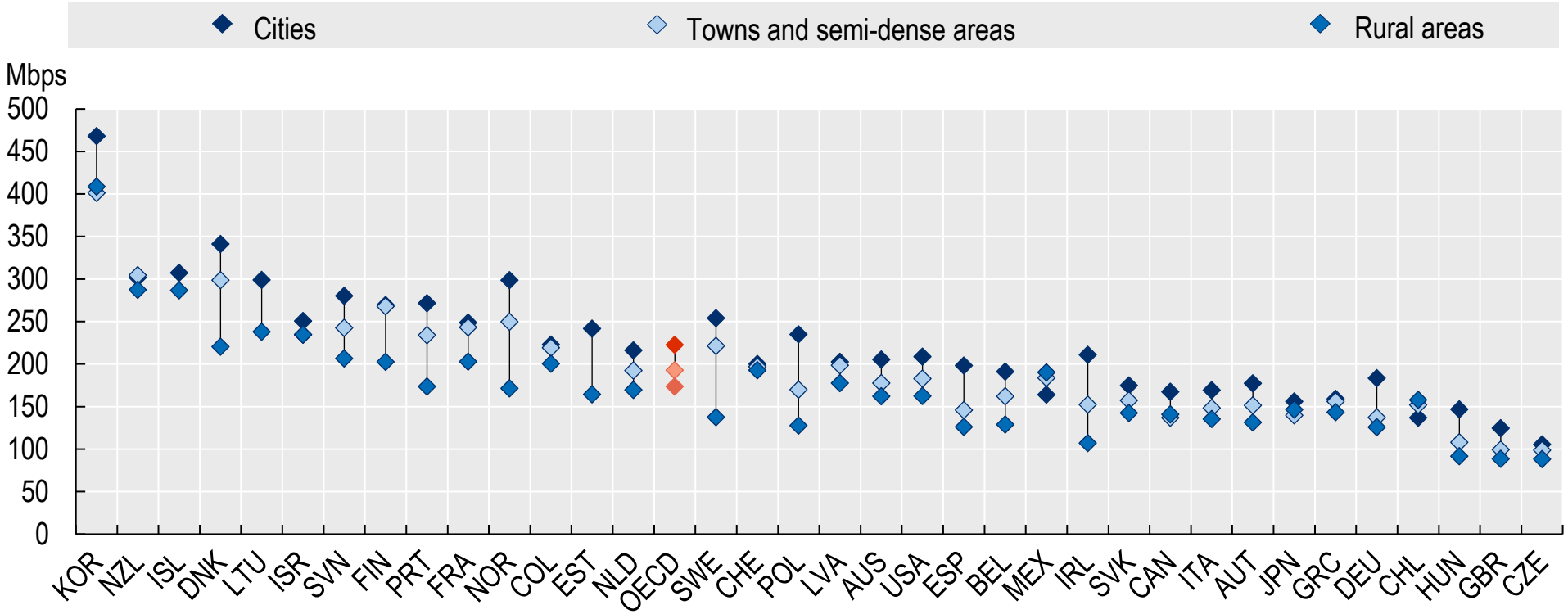
Median latency for fixed networks, Q4 2024, small regions (TL3) classification



Source: Based on OECD analysis of Ookla's Speedtest Intelligence data

Key findings - Persistent connectivity divides – the effect of 5G rollout

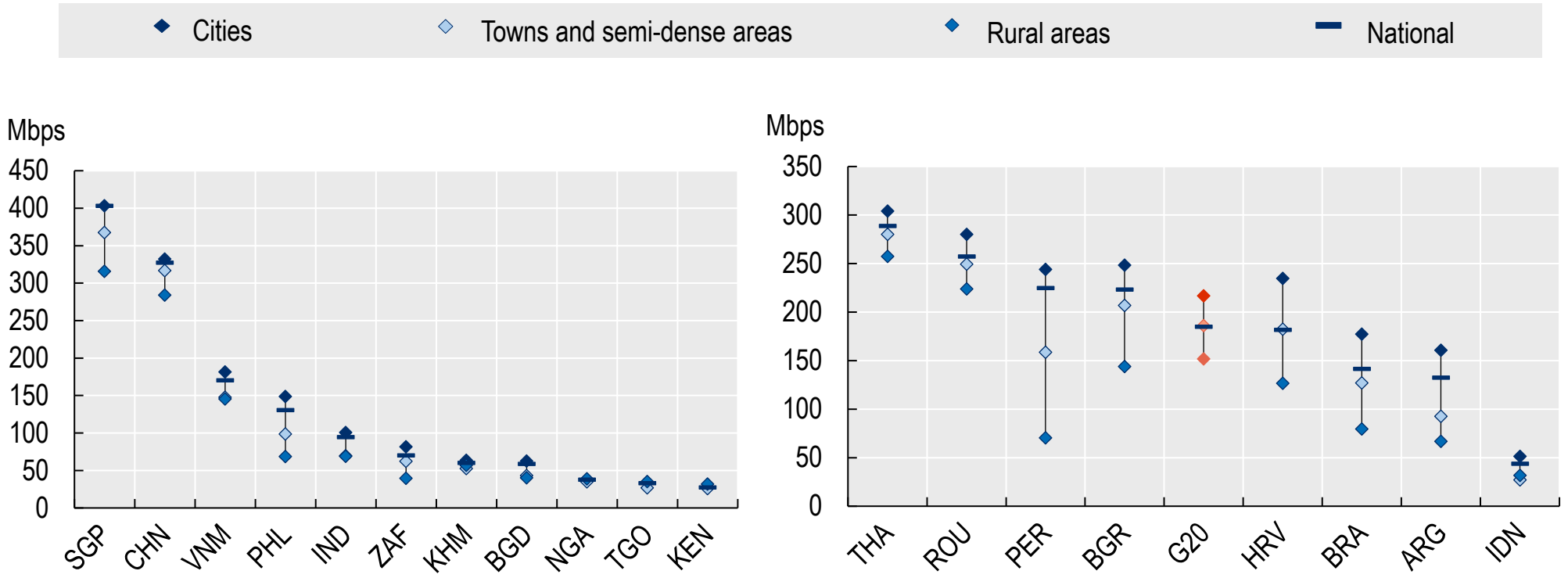
5G mobile download speeds experienced in cities, towns and rural areas, Q4 2024, degree of urbanisation classification



Source: OECD based on data from Opensignal (2025), *Insights*, www.opensignal.com.

Key findings – Persistent connectivity divides in non-OECD countries

Mean fixed download speeds in select partner economies, Q4 2024, DEGURBA classification

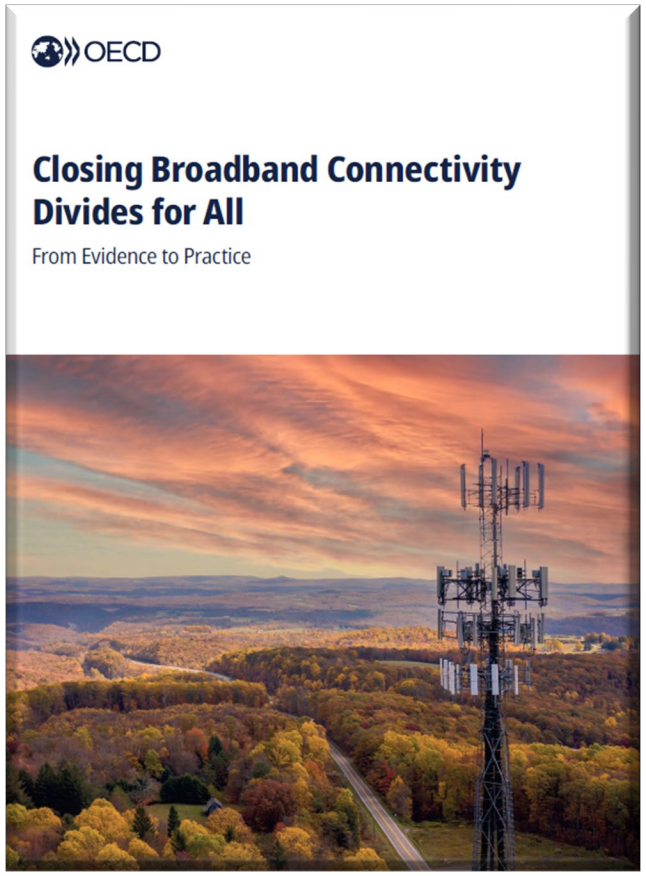


Source: Based on OECD analysis of Speedtest by Ookla Global Fixed and Mobile Network Performance Maps, www.ookla.com

Challenges and way forward in measuring meaningful connectivity

- **Uneven samples**
- Third-party data is a **powerful complement** to official statistics
- Captures the **real user experience**, not just theoretical speeds and coverage
- Provides granular, comparable data across countries and regions
- Essential for evidence-based policymaking and accountability
- **Next step:** systematically integrate third-party data with national broadband maps.
- **Requires co-operation** between governments, regulators, and private providers
- **Goal:** ensure digital transformation reaches everyone, everywhere

Thank you!



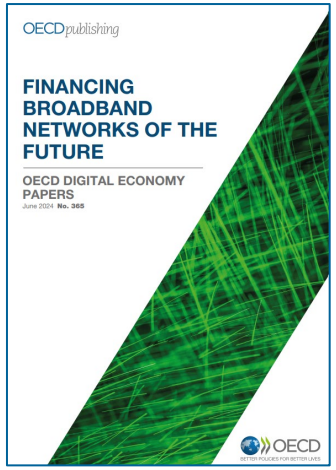
Closing Broadband Connectivity Divides for All - From Evidence to Practice (July 2025)

Access our OECD broadband data on: https://www.oecd.org/digital/broadband/broadband-statistics/

Further reading

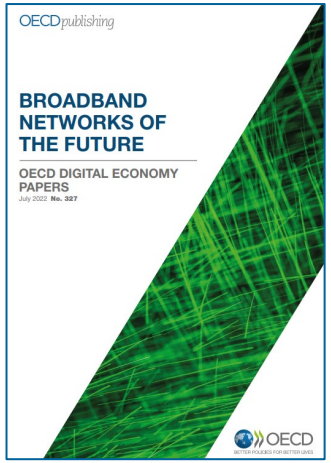
Enhancing the Resilience of Communication Network (2025)

OECD Digital Economy Outlook (Volume 2) (2024)



Financing broadband networks of the future (2024)

Communication Regulators of the Future (2023)



Broadband Networks of the Future (2022)