

Key issues

- 5G, particularly in combination with the Internet of Things (IoT), is a potentially transformative technology that could have significant impacts across the economy, driving innovation, productivity and international competitiveness.
- The deployment of 5G technology has begun in Australia but is in its early days ^{s 47C} [redacted]
[redacted] 5G will initially be rolled out in capital city cities and then regional centres ^{s 47C} [redacted]

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- The 5G strategy, [5G—Enabling the future economy](#), released in October 2017, identified four key actions to support the timely rollout of 5G in Australia and committed to establishing the 5G Working Group. The group has sought to raise awareness in government of 5G’s potential and identify enablers and blockers in key industry sectors. The group’s role is to be reviewed by 30 June 2019.
- ^{s 47C} [redacted] In August 2018, the government announced guidance that any company that is likely to be subject to extrajudicial directions from a foreign government that conflict with Australian law will be unable to participate in 5G projects. ^{s 47C} [redacted]

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Policy context

In April 2018, the Bureau of Communications and Arts Research (BCAR) published [Impacts of 5G on productivity and economic growth](#), which showed that, ^{s 47C} [redacted]

[redacted] it is likely to improve productivity growth across the economy. 5G could provide an additional \$1,300 to \$2,000 in gross domestic product per person after the first decade of the rollout. Productivity growth is expected to be slower initially, reflecting the upfront costs of building a network before it is completely utilised.

IoT systems are already in use in Australia, using 4G and other networks. ^{s 47C} [redacted]

[redacted] 5G will support more intensive, mission-critical use of IoT, including in smart cities and, potentially, automated vehicles.

In October 2017, the government released its 5G strategy, identifying four immediate actions to be taken to support the timely rollout of 5G: making spectrum available ^{s 47C} [redacted]

[redacted] engaging in the international standardisation process ^{s 47C} [redacted]

[redacted] streamlining infrastructure deployment arrangements ^{s 47C} [redacted]

[redacted] and reviewing other regulatory arrangements to ensure they are fit-for-purpose ^{s 47C} [redacted]

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The 5G Working Group brings together representatives from industry and government to foster an ongoing discussion regarding 5G issues. The working group, chaired by the department, has met four times to date. A priority for the working group has been to look at how 5G can best be utilised in industry sectors or ‘verticals,’ in particular the transport, agriculture and health sectors.

The department has been consulting with working group members to revise the terms of reference for the group. Consideration is being given to the role, objectives and composition of the 5G working group. Members generally support its continuation and extension to IoT generally. ^{s 47C}

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Following trials by Telstra, Optus and Vodafone the rollout of 5G has begun. Development and demand for applications is expected to grow as 5G infrastructure becomes widely available. Telstra announced its first 5G commercial customer in December 2018, had deployed 200 5G base stations by December 2018 and has committed to providing 5G in all major capital cities and regional areas over the course of 2019. Optus launched its fixed-wireless 5G home broadband network across two Canberra suburbs and one tower in Sydney in January 2019, with plans to rollout 1,200 5G sites by March 2020. Vodafone is expected to offer its first 5G services in 2020.

The department is co-funding a Horizon Scanning report by the Australian Council of Learned Academies to examine the impact IoT is likely to exert on Australia over the coming decade. This multidisciplinary, evidence-based report will identify and assess the opportunities and challenges presented by IoT deployment in Australia, in key industry sectors and as an economy-wide enabler, and will support government decision making processes.

The department is working with Infrastructure, state governments and local councils so cities can leverage the opportunities from emerging communications technologies. In negotiating the Western Sydney City Deal, the department ensured future telecommunications, including 5G, are considered during strategic planning and infrastructure design stages. It continues to engage with stakeholders, including Western Sydney Airport, the NSW Government and western Sydney councils on these issues.

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