International Digital Connectivity Readiness Index

September 2024





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Introduction

Background

In today's world, digital connectivity is crucial in driving economic growth, social progress, and environmental sustainability. As technology continues to evolve, the ability to connect digitally is becoming essential for fostering innovation, enhancing access to information, and creating new opportunities for communities and businesses alike.

The impact of digital connectivity extends beyond economic benefits; it also facilitates social inclusion, bridging gaps between different communities and empowering individuals with the tools they need to thrive. Moreover, it supports environmental initiatives by enabling more intelligent resource management and promoting sustainable practices on a global scale.

Over the last decade, a strong focus has been increasing access to good-quality digital infrastructure. However, the rollout of new fibre and cellular mobile masts does not mean anything without widespread adoption.



What is the Digital Connectivity Readiness Index?

The Digital Connectivity Readiness Index (DCRI) allows policymakers and businesses to benchmark their key challenges and opportunities and make informed, evidence-based decisions when developing digital strategies and projects.

This international DCRI enables decision-makers to identify where a country performs well and where challenges remain. This will ensure that they can make evidence-based decisions to prioritise investment.

This DCRI analysis utilises the same methodology as FarrPoint's UK assessment. The scores contained within the DCRI are based on a range of indicators gathered from a series of data sources, including the OECD, the World Bank, the European Commission, ITU, GSMA, the UN, and UNESCO.

On the infrastructure side, our analysis includes metrics on Gigabit, Superfast, 4G and 5G connectivity. The adoption indicators focus on understanding performance on Online Households, Digital Skills, Security Online, Online Wellbeing, Access to Public Services, Affordability, the Digital Economy, and Innovation.

FarrPoint has worked with regional and local governments to use this assessment to understand where they perform strongest and where challenges remain across digital infrastructure and adoption. This has provided policymakers with the tools to make evidence-based decisions to maximise digital's economic, social and environmental benefits.

International Comparison Overview

The DCRI results are summarised for the G7 countries in the following table which shows the results for each country across a range of indices over the last two years.

	Canada		France		Germany		Italy		Japan		United Kingdom		United States	
	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023
Digital Connectivity Readiness Index	81	81	81	78	83	83	74	72	81	81	84	83	83	82
Digital Connectivity Infrastructure Index	93	93	91	85	89	88	83	81	94	94	89	86	87	86
Gigabit Connectivity	84	84	97	95	62	57	71	70	100	98	76	67	48	41
Decent Fixed Connectivity	92	92	82	78	91	91	91	91	94	94	93	93	91	90
4G Connectivity	100	100	100	90	100	100	88	82	96	96	95	94	100	100
5G Connectivity	77	77	74	74	81	81	57	57	80	80	68	58	82	82
Digital Connectivity Adoption Index	74	73	74	73	80	79	68	67	72	73	82	81	79	79
Online Households	89	88	85	82	86	84	78	74	79	84	89	88	84	80
Digital Skills	73	73	69	69	78	77	60	60	66	66	78	77	76	73
Security Online	77	77	67	67	74	72	73	74	70	70	73	73	71	72
Online Wellbeing	76	74	70	69	71	68	68	66	65	63	72	71	72	72
Accessible Public Services	87	81	87	78	81	78	81	76	92	91	92	91	93	89
Affordability	66	66	65	67	80	85	64	65	37	38	79	78	56	60
Digital Economy	69	70	83	82	84	85	66	65	84	83	92	92	92	92
Innovation	53	56	65	66	83	83	52	53	85	84	79	79	91	91

Despite the G7 countries all being high-income advanced nations, the results of the Digital Connectivity Readiness show significant differences in infrastructure and adoption performance. Given the role that digital connectivity plays in driving economic growth, social progress, and environmental sustainability, it is of paramount importance that policymakers understand the individual challenges and opportunities available to them regarding Digital connectivity. This framework allows them to do this.



Italy is ranked last in infrastructure, adoption, and in overall score. This is largely driven by poor mobile connectivity, including slow 5G rollout, and lagging future-proofed network deployment. Additionally, Italy underperforms in digital skills, the digital economy, and household adoption, further hindering its ability to foster a secure, inclusive, and competitive digital environment.



Canada is joint 4th in the G7 on the overall score, with strengths in widespread access and adoption of household broadband and mobile coverage. However, remote areas still face ongoing challenges, and Canada lags in digital economy and innovation. The country needs to address these gaps to enhance its competitiveness and ensure more equitable access to digital resources nationwide.



On the overall Digital Connectivity Readiness, Japan ranks joint 4th. It is a two-sided story for Japan, as it currently leads the G7 on digital infrastructure, excelling in 5G and Gigabit network deployment and robust broadband and 4G coverage. However, it ranks 6th in technological adoption due to affordability issues, a lack of digital skills, and concerns about online well-being, which hinder the widespread use of its advanced infrastructure.

France's headline DCRI score is joint 4th in the G7, with the infrastructure score improving its overall 2024 performance. On the infrastructure side, an improving picture was primarily driven by increases in 4G connectivity, with a strong showing on Gigabit connectivity. Despite progress in public services and household online adoption, challenges remain in innovation and affordability.

Germany is ranked joint 2nd in the G7 on its overall Digital Connectivity Readiness Score. Germany ranks 4th in the G7 for infrastructure with strong 4G coverage and significant 5G investments, but its slower Gigabit network rollout could hinder future digital progress. While it leads in Digital Skills and affordability, it faces challenges with stagnating innovation and a slight decline in the digital economy.



The United Kingdom leads the G7 in terms of overall Digital Connectivity Readiness. The UK ranks in the middle for digital infrastructure, with strong fixed connectivity, good 4G coverage, and notable progress in 5G and Gigabit coverage. However, it has a strong performance on Digital Adoption, excelling in the digital economy, Online Households, and Digital Skills, while still needing to address challenges in Online Wellbeing, Security, and Innovation.



Overall, the United States ranks joint 2nd in the G7 for Digital Connectivity Readiness. The US ranks 6th in digital infrastructure, leading in 4G and 5G but struggling with broadband and Gigabit coverage. On adoption, it ranks 3rd, excelling in the Digital Economy, innovation and public services but facing challenges with Digital Skills, Security, and affordability.



Canada Results



Canada Results





Canada is joint 4th in the G7 on the overall score, with strengths in widespread access and adoption of household broadband and mobile coverage. However, remote areas still face ongoing challenges, and Canada lags in business adoption.

Canada has performed well regarding the availability of robust infrastructure, with the country ranking 2nd in the G7 for **Digital Connectivity Infrastructure**. In particular, most of the population now has widespread access to decent fixed broadband and mobile 4G. However, many remote and rural areas in Canada face poor digital connectivity, with slower internet speeds and limited access compared to more urban centres. High costs and challenging terrain hinder infrastructure development, leaving many communities underserved. Over recent years, the government has prioritised investment in the rollout of fibre networks and improving 5G mobile coverage.

On **Digital Connectivity Adoption**, Canada ranks joint 4th alongside France. Currently, it leads the G7 regarding online security and well-being, which are important for reducing the digital divide. In the most recent year, more people (as a percentage of the total population) were online in Canada than in any other country in the G7. Additionally, it has made substantial progress in providing accessible public services online, enhancing citizens' ability to interact with government services digitally.

Despite these strengths, Canada underperforms in key areas of digital adoption, particularly in business-related metrics. It ranks 6th in the G7 for both the Digital Economy and Innovation, suggesting that Canadian businesses are slower to adopt digital technologies and innovate than their G7 counterparts. This underperformance highlights the need for targeted strategies to boost digital transformation within the business sector, ensuring Canada remains competitive in the global digital economy. On household adoption, ensuring people have access to affordable digital options continues to be a challenge in Canada.

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France Results

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France Results





France's headline DCRI score is joint 4th in the G7, with the infrastructure score improving its overall performance over the most recent year.

France ranks 3rd among the G7 countries in **Digital Connectivity Infrastructure**, reflecting its significant advancements in this area. In addition to notable improvements in average 4G mobile connectivity speeds, France has made substantial progress in deploying Gigabit networks. Over recent years, the country has seen a strong rollout of these high-speed networks, further enhancing its digital infrastructure.

On the **Digital Connectivity Adoption side**, France is placed in joint 4th. Although France does not outperform any other G7 country in any specific category, it has demonstrated significant progress in several key areas over the most recent year. Notably, there has been a substantial improvement in the accessibility of public services. This progress reflects the country's efforts to make digital services more available and user-friendly for its citizens. Additionally, there have been improvements in the percentage of households going online, signalling a positive trend in digital adoption across the population.

France has seen marginal yet encouraging progress in online wellbeing and the digital economy, indicating gradual advancements in how digital tools are integrated into daily life and economic activities. However, these gains are tempered by declines in innovation and affordability. The drop in innovation is particularly concerning, as it suggests challenges in fostering a competitive digital environment. Meanwhile, the decline in affordability underscores ongoing issues in ensuring digital services remain accessible to all segments of the population.

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Germany Results

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Germany Results





Germany is ranked joint 2nd in the G7 on its overall Digital Connectivity Readiness Score. Germany ranks 4th in the G7 for infrastructure, with strong 4G coverage and significant 5G investments, but its slower Gigabit network rollout could hinder future digital progress. While it leads in Digital Skills and affordability, it faces challenges with stagnating innovation and a slight decline in the digital economy.

On **Digital Connectivity Infrastructure**, Germany is placed joint 4th in the G7. It performs well in mobile connectivity, particularly with a solid foundation in 4G coverage and significant investments in future-proofed 5G networks. These efforts have positioned the country as a strong player in mobile infrastructure. However, Germany has been slower in rolling out Gigabit networks, which could hinder overall digital progress in the coming years. This lag in high-speed broadband deployment may pose challenges as the demand for faster and more reliable connectivity continues to grow.

Germany has a strong showing across the board on **Digital Connectivity Adoption**, with improvements seen in most of the indicators across the most recent year. The country's key strengths include its top performance in Digital Skills, where it ranks joint 1st among the other advanced economies, and affordability, where it leads the group. These achievements highlight the country's commitment to equipping its population with the essential skills to access and thrive in the digital world. By making digital education and services more affordable and accessible, the country ensures that a broader segment of its population can participate online.

Interestingly, on the business adoption front, Germany has recently experienced a stagnation in innovation, accompanied by a slight decline in the digital economy. This slowdown may indicate emerging challenges in maintaining momentum and fostering growth in the digital sector.

Italy Results

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Italy Results





Italy is ranked last in infrastructure, adoption, and in overall score. This is largely driven by poor mobile connectivity, including slow 5G rollout, and lagging future-proofed network deployment. Additionally, Italy underperforms in digital skills, the digital economy, and household adoption, further hindering its ability to foster a secure, inclusive, and competitive digital environment.

Italy ranks 7th among G7 nations in **Digital Connectivity Infrastructure**, performing poorly in mobile connectivity compared to its peers. Although its overall mobile coverage is similar to other European countries, the offered speeds are significantly lower, and Italy lags in 5G rollout. On the fixed side, while access to decent broadband is comparable to other G7 nations, Italy is also behind in deploying future-proofed networks. This underperformance in mobile and fixed connectivity highlights significant gaps in Italy's digital infrastructure.

Italy ranks behind the other G7 nations in **Digital Connectivity Adoption**, driven by underperformance in key digital economic indicators like skills, the digital economy, and innovation. These areas are crucial for fostering a competitive digital environment, yet Italy continues to lag behind its peers, struggling to develop the digital competencies and infrastructure needed for robust economic growth.

In addition to its weak performance in digital economic indicators, Italy also faces significant challenges in overall household adoption of digital technologies and in ensuring security and online wellbeing for its citizens. These shortcomings suggest that Italy is falling behind in developing a thriving digital economy and failing to provide a secure and inclusive digital environment for its population. This dual challenge hinders Italy's ability to fully leverage digital advancements for broader societal, environmental and economic benefits.

Japan Results

Japan Results





On the overall Digital Connectivity Readiness, Japan ranks joint 4th. It is a two-sided story for Japan, as it currently leads the G7 on digital infrastructure, excelling in 5G and Gigabit network deployment and robust broadband and 4G coverage. However, it ranks second lowest in technological adoption due to affordability issues, a lack of digital skills, and concerns about online well-being, which hinder the widespread use of its advanced infrastructure.

Japan leads the other G7 nations in **Digital Connectivity Infrastructure**, demonstrating strong performance in the deployment of future-proofed 5G and Gigabit networks. The country provides widespread coverage with robust and reliable broadband and 4G mobile networks, setting a high standard for digital connectivity. This strong performance highlights Japan's commitment to advancing its digital infrastructure, ensuring that its broadband and mobile networks are equipped to support future technological advancements and meet the demands of a rapidly evolving digital landscape.

Despite Japan's good performance in **Digital Connectivity Infrastructure**, it ranks second lowest in Digital Connectivity Adoption, reflecting broader issues with its economic growth over recent decades and contributing to its challenges in this area. Although Japan's indicators for the digital economy and innovation are comparable to those of other advanced economies, it struggles significantly with affordability, the worst among all advanced economies assessed. This issue is a barrier to increasing the proportion of online households. Additionally, Japan faces difficulties with digital skills and concerns about online wellbeing, hindering its ability to effectively leverage the available digital infrastructure. These factors collectively impact Japan's ability to fully capitalise on its advanced digital infrastructure and achieve widespread digital adoption and utilisation.

United Kingdom Results

United Kingdom Results





The United Kingdom leads the G7 in terms of overall Digital Connectivity Readiness. The UK ranks in the middle for digital infrastructure, with strong fixed connectivity, good 4G coverage, and notable progress in 5G and Gigabit coverage. However, it has a strong performance on Digital Adoption, scoring well in the digital economy, Online Households, and Digital Skills, while still needing to address challenges in Online Wellbeing, Security, and Innovation.

In terms of **Digital Connectivity Infrastructure**, the UK ranks in the middle of the G7 pack, reflecting a solid performance with high levels of decent fixed connectivity and good 4G mobile coverage. Significant progress is also being made in the rollout of 5G technology, showcasing the country's commitment to advancing its digital network. Additionally, there has been substantial investment in Gigabit-capable infrastructure, underscoring efforts to enhance and future-proof the nation's connectivity landscape.

The UK leads the G7 in **Digital Connectivity Adoption**, particularly in the strength of its digital economy. This top ranking reflects the significant size of the digital sector and the substantial investments made across various industries to integrate digital technology. The UK is also joint 1st in indicators for Online Households and Digital Skills, demonstrating its success in promoting widespread internet access and digital literacy. Additionally, emphasising a digital-first approach to service delivery ensures good performance in access to Public Services.

Despite these achievements, challenges remain. The UK needs to address areas related to Online Wellbeing and Security, where improvements are necessary to ensure safe and positive digital experiences for users. Furthermore, progress is needed to foster broader innovation to maintain its leading position and fully leverage the potential of digital advancements.



United States Results

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United States Results





Overall, the United States ranks joint 2nd in the G7 for Digital Connectivity Readiness. The US ranks 6th in digital infrastructure, leading in 4G and 5G but struggling with broadband and Gigabit coverage. On adoption, it ranks 3rd, doing well in the Digital Economy, innovation and public services but facing challenges with Digital Skills, Security, and affordability.

In terms of **Digital Connectivity Infrastructure**, the US ranks 6th. It scores highly in mobile connectivity, ranking joint 1st in 4G coverage and 1st in 5G coverage. This strong mobile performance is counterbalanced by slightly below-average broadband connectivity and the lowest ranking in Gigabit-capable coverage.

In terms of **Digital Connectivity Adoption**, the US ranks 3rd among the G7 nations. The country's leading technology sector contributes to its strong performance in the Digital Economy and Innovation, placing it at the forefront in these areas. Additionally, the US does well in providing accessible online public services, reflecting its commitment to integrating technology into public sector offerings. This performance highlights the country's capability to harness digital advancements for economic and social benefits.

However, the US faces challenges in other aspects of digital adoption. The country performs weaker in Digital Skills, impacting the overall effectiveness of its digital initiatives and hindering some segments of the population from fully leveraging digital opportunities. Concerns about Online Security and Wellbeing also pose barriers to broader digital engagement. Moreover, affordability remains a significant obstacle, as many households struggle with the cost of digital services. These issues underscore the need for targeted improvements to ensure more equitable access and utilisation of digital resources across the nation.

About FarrPoint

FarrPoint is a connectivity and smart technology consultancy with operations in the UK, US and Canada.

At FarrPoint, we understand the importance of connectivity, as it drives business and society, bringing communities and commerce together. That's why we use our insight and experience to connect people and companies, anywhere in the world.

Our services

Areas of Expertise

Our team of consultants advise public and private sector organisations on the strategy, procurement and implementation of digital technology and connectivity infrastructure. We specialise in a wide range of areas, including 5G, Digital Connectivity, Enterprise IT, Net-Zero, Networking, Technology-Enabled Care, Smart Places, GiS and more.

The approach that makes us go further:





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