SDG 9: Industry, innovation and infrastructure

Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation

With 193 governments coming together to agree a common framework to tackle 17 major world issues by 2030, business engagement to achieve them is seen as critical. So how do you understand the implications of the SDGs and prioritise them? How do you quantify and minimise the potential risks, and explore the opportunities?

This is an extract from PwC's Navigating the SDGs: a business guide to engaging with the UN Global Goals 2016 on SDG 9 Industry, innovation and infrastructure. For more on the other 16 SDGs, go to www.pwc.com/globalgoals

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What's the global challenge?

- Physical infrastructure has far-reaching and long-lasting effects on the economy, environment and quality of life. Investments in **public services** such as energy, transport, ICT infrastructure, waste and water are also among the **largest and longest-term capital investments** that society makes. This means, in order to build a sustainable and resilient future, it is crucial to get infrastructure right from the outset.

- Many infrastructure systems are **aged and in need of replacing** or updating, in order to prevent the inefficiencies and problems of reliability which can mount up. **Early and smart investment** can save maintenance, inefficiency costs and natural resources and ensure a better system in which business can thrive.

- **Climate change** often creates additional capacity needs for and/or poses risks to critical physical infrastructure, making the **need for resilient systems** more urgent than ever. Risks include increasingly frequent and more severe events such as **floods, tsunamis and heat waves**. Designing for climate resilience from the outset can reduce the future costs of climate-proofing.

- It is estimated that the **global shortfall on necessary basic infrastructure investments needs is $1 trillion**.[1] Globally, about 2.6 billion people cannot access a reliable electricity source, with another 2.6 billion without basic sanitation access. 1.5 billion do not have access to reliable phone services, and over 4 billion are without the internet.[2,3]

- **Innovation is a key driver of business growth**, with gains from innovation not only profitable but also likely to create significant social value. Research and development (R&D) investment, when integrated into business models, can produce significant growth. This may be through updating existing technologies, or through breakthroughs which open up new markets.[4]

- **Disruptive technologies**, which grow fast and reduce in cost, such as solar photovoltaics, electric cars, smart phones and wireless communications can be drivers of rapid shifts in the markets, and lay the foundations for more sustainable societies.

Why does it matter for business? And what can business do?

Adequate and resilient infrastructure underpins future economic growth, and is the means by which people access the resources they need for a high quality of life. While infrastructure has often been seen as the responsibility of governments, intensifying pressures such as population growth and climate impacts mean there are growing opportunities for business to apply its resources and expertise in this space.

- Effective and accessible **public transport and roadways** are important operational factors driving efficiency in supply chains and distribution networks. **Public private partnerships** are becoming increasingly important, with private companies in the infrastructure and finance sectors supporting government to deliver improved transport systems that enhance the environment for communities and business.
- Businesses are beneficiaries of **reliable and sustainable local municipal services**, such as waste collection and water services. Conversely, where services are inefficient this can be a cost to business and wider economic growth.

? *Do you have a programme in place to **upgrade** your own transport and/or building infrastructure, or built in to your supply chain (due to your commissioning of work) to ensure it is resource efficient, resilient and sustainable?*

? *If you **operate or source from a developing nation**, could you invest in transport improvements that would deliver direct business benefits to you, as well as supporting the broader economic development of your host community?*

? *If appropriate for your sector, can your business contribute to improving local municipal services? This may be through **strategic** or **in-kind support**, or via **financial investments**. Or are there opportunities for you to get involved in infrastructure public private partnerships, and have you explored the potential grants, tax breaks or other **incentives** that might be available?*

- **Disruptive technologies** pose risks and opportunities for business. Agile, innovative companies that successfully harness disruptive technologies can reap huge rewards: some have successfully transformed whole sectors – think of Skype and long distance calls or Uber and taxis.[5]
- **ICT** is an area of infrastructure in which businesses may be underperforming. Infrequent systems updates are often a source of inefficiency, and may reduce competitiveness in an increasingly digital marketplace.

? *Do you know how disruptive technologies and innovative business models are impacting your market? Do you consider your vulnerability to your assets becoming **"stranded assets"** as part of your **risk analysis** and **strategy reviews?** Stranded assets are assets that lose their economic value well ahead of their expected useful life, typically as a result of changes in legislation, regulation, market drivers, societal norms or major environmental risks.*

? *Are you making the most of the potential for **digital** to transform both what you do, and how you do it? Do you need to invest more in this area to sustain and grow your business?*

- **Technological innovation** and **research and development** (R&D) are high-value economic activities. Growing these areas in developing countries can help boost the economy and build the capacity of higher skilled and more educated workforce.

? *If you operate in developing nations, are you actively seeking to build your in-country technological and R&D capacity? Could this give you better insight into meeting your customers' needs in those markets?*

? *Could you add value by fostering innovation in your supply chain, perhaps by sourcing from developing countries in order to promote R&D?*

- **Small scale industrial and other enterprises** are a fundamental part of the economic fabric in developing countries, and they play a crucial role in furthering growth, innovation and prosperity. Yet, they are strongly restricted in **accessing the capital** they need to grow and expand, with nearly half of SMEs in developing countries rating access to finance as a major constraint.[6]

? *Are your developing country suppliers constrained by lack of access to capital? Are there creative ways you could help them access credit or other financial services?*

You could also think about:

? *Ways that you could help improve **access to ICT** and the **internet** in developing countries, either via your business activities or through community engagement.*

? *Whether your business has a **Chief Information Officer** at Board level. This is someone responsible for ICT and critical information resources. They have a key role in innovation and the long term quality, reliability and resilience of your business: their voice needs to be heard at the highest level.*

? ***Infrastructure investment** – which can make a reliable return in the long-term, with stable and predictable cash flows, at the same time as helping drive economic growth in developing nations. Are there ways that your business may be able to take advantage of investing in infrastructure, perhaps with regard to staff pensions?*

Key links to other SDGs:

Goal 6 – Clean water and sanitation: physical infrastructure is a necessary precursor to effective water and sanitation. The challenge which infrastructure has to meet is more pronounced in remote, water-pressured or very densely populated areas.

Goal 7 – Affordable and clean energy: access to energy is as much an issue of infrastructure as it is production; grids and other infrastructure facilitate the distribution of produced energy.

Goal 11 – Sustainable cities and communities: well-designed and efficient infrastructure is integral to the functioning of cities and urban areas.

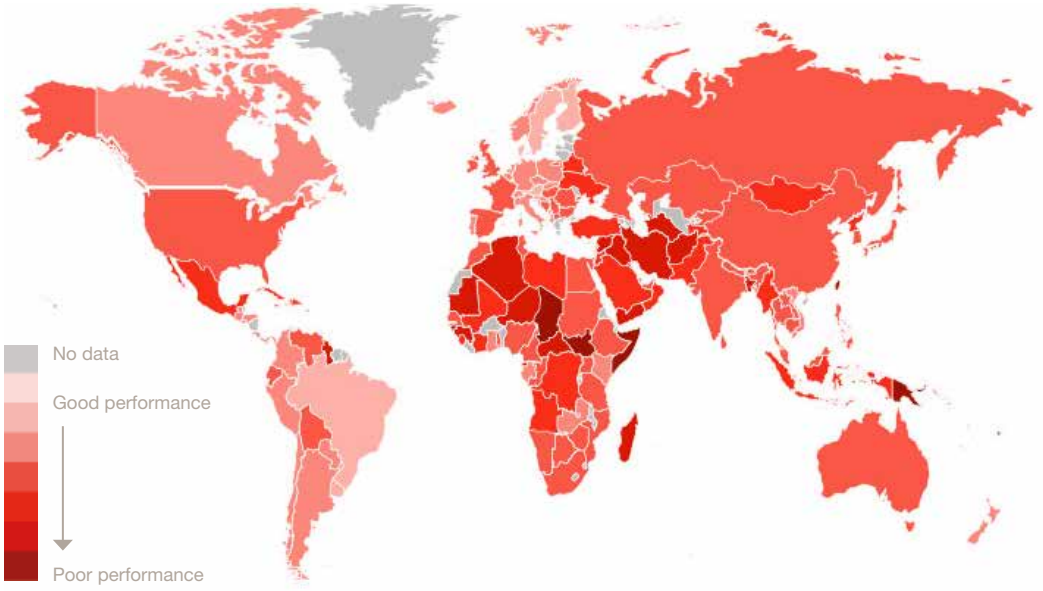
Goal 13 – Climate action: climate impacts (such as extreme weather events) place physical infrastructure at risk of damage and destruction, and mean that some infrastructure may no longer be fit for purpose (e.g. hospitals not equipped to maintain a suitable room temperature during heat waves). Planning and building of infrastructure should therefore include climate resilience as a priority.

Targets *in focus*

There are eight targets for this SDG. The first is to "Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all". We've illustrated target 9.4 in the heat map – "By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities". For details on the remaining targets, please see 'Global Goals and targets' on page 6.

The lie of the land – exploring the distance to cover to achieve

Target 9.4: By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities



Case Study

Company: Ford Motor Company

Sector: Automotive

Region/country of impact: USA

Aligns to: SDG 9

The 10-acre "living roof" planted over ten years ago is thriving and paying-off

Global Challenge: Building new sustainable industrial plants is hard enough. However, what it is even harder is to redevelop an existing old industrial facility and make it more efficient and sustainable.

Business Response: Ford's River Rouge Plant was built in 1917, after 83 years, in the year 2000, it underwent a major redevelopment. In addition to modernising the production line with innovative solutions, making the plant more "employee friendly" and increasing the natural light throughout the plant, Ford invested in a "living roof". 90% of the truck plant final assembly building was covered with plants, mainly drought resistant species of sedum. Ford's leadership regarded this investment as a business decision and not as corporate sustainability project. This was just the beginning of the company's journey of embedding sustainability throughout their operations and products. The company has set out a number of quantified targets aiming e.g. to reduce their water use, reduce carbon emissions and improve fuel efficiency of their vehicles.

Benefits: The green roof was created as a part of an innovative water management plan; the landscape-based infrastructure is less costly as it needs minimum use of pipes; it acts as a natural filter of rainwater which means chemical-based treatment isn't needed; it helps to manage excess storm water as its vegetation can hold up to an inch of water; the green roof acts as a natural temperature controller, it keeps the building an (estimated) 10 degrees cooler in the summer and 10 degrees warmer in the winter, which reduces energy cost by about 5%; the green roof requires much less maintenance than a standard roof; and it produces oxygen which helps to offset Ford's CO2 emissions. In addition, the roof provides a thriving habitat for nesting birds, butterflies and insects, which helps to maintain the biodiversity in the area.

Source:

https://www.thehenryford.org/visit/ford-rouge-factory-tour/highlights/living-roof/

http://www.greenroofs.com/projects/pview.php?id=12

https://www.youtube.com/watch?v=H_jAjI3kVV0

general info: http://www.treehugger.com/sustainable-product-design/fords-giant-green-roof-started-ten-years-ago-how-things-have-changed.html

Global Goals and targets

Please note 'Targets' are referenced as n.1 n.2 n.3 etc. 'The means of implementing the targets' are referenced as n.a n.b n.c etc.

Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all

9.2 Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries

9.3 Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets

9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending

9.a Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island developing States

9.b Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities

9.c Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020

Sources

1 GreenBiz, Sustainable Development Goal 9: Build resilient infrastructure, webpage http://www.greenbiz.com/article/sustainable-development-goal-9-build-resilient-infrastructure

2 UN Sustainable Development Goals, Goal 9: Build resilient infrastructure, promote sustainable industrialization and foster innovation, webpage http://www.un.org/sustainabledevelopment/infrastructure-industrialization/

3 UNDP, Goal 9: Industry, innovation, infrastructure, webpage http://bit.ly/1FR90dp

4 PwC Advisory Oracle practice, How to drive innovation and business growth Leveraging emerging technology for sustainable growth, 2012 http://pwc.to/22mDjW6

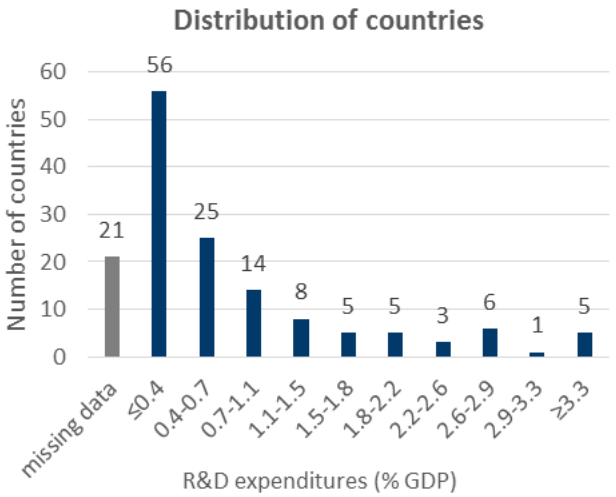
5 The Economist, What disruptive innovation means, 2015 http://econ.st/1z08lF1

6 http://www.eib.org/infocentre/press/news/all/supporting-smes-in-developing-countries.htm

How well are countries performing against the indicators that sit behind the SDG goals and targets?

SDG 9 Indicator Profile: R&D expenditures
(NB. this table is from the SDG Index & Dashboards - Global Report)

R&D expenditures (% GDP)



Country	Value/Rating
Korea, Rep.	4
Israel	3.9
Finland	3.5
Japan	3.4
Sweden	3.4
Denmark	3
Germany	2.9
Switzerland	2.9
Austria	2.8
Slovenia	2.8
USA	2.8
Iceland	2.6
Australia	2.4
France	2.3
Belgium	2.2
Estonia	2.2
Netherlands	2.2
Singapore	2.1
China	2
Czech Republic	1.9
Canada	1.7
Ireland	1.7
Norway	1.7
UK	1.7
Portugal	1.5
Luxemb.	1.4
Hungary	1.3
Italy	1.3
New Zealand	1.3
Spain	1.3
Brazil	1.2
Malaysia	1.1
Russia	1.1
Tunisia	1.1
Kenya	1
Serbia	1
Lithuania	0.9
Poland	0.9
Turkey	0.9
Croatia	0.8
India	0.8
Malta	0.8
Slovakia	0.8

Country	Value/Rating
South Africa	0.8
Belarus	0.7
Greece	0.7
Iran	0.7
Latvia	0.7
Mali	0.7
Morocco	0.7
Ukraine	0.7
Argentina	0.6
Bulgaria	0.6
Gabon	0.6
Uganda	0.6
Botswana	0.5
Senegal	0.5
Tanzania	0.5
Costa Rica	0.5
Cyprus	0.5
Mozamb.	0.5
Romania	0.5
UAE	0.5
Chile	0.4
Egypt	0.4
Ghana	0.4
Jordan	0.4
Mauritius	0.4
Mexico	0.4
Moldova	0.4
Montenegro	0.4
Uruguay	0.4
Armenia	0.3
Mongolia	0.3
Nepal	0.3
Pakistan	0.3
Thailand	0.3
Togo	0.3
Zambia	0.3
Albania	0.2
Azerbaijan	0.2
Bolivia	0.2
Burkina Faso	0.2
Colombia	0.2
Ecuador	0.2
Ethiopia	0.2
Georgia	0.2

Country	Value/Rating
Kazakhstan	0.2
Kyrgyzstan	0.2
Macedonia	0.2
Nigeria	0.2
Panama	0.2
Sri Lanka	0.2
Algeria	0.1
Burundi	0.1
Cabo Verde	0.1
Congo, Dem. Rep.	0.1
Gambia	0.1
Indonesia	0.1
Kuwait	0.1
Madagascar	0.1
Namibia	0.1
Oman	0.1
Paraguay	0.1
Philippines	0.1
Saudi Arabia	0.1
Tajikistan	0.1
Afghanistan	0*
Bangladesh	0*
Benin	0*
Bosnia and Herzegovina	0*
Cambodia	0*
CAR	0*
Chad	0*
El Salvador	0*
Guatemala	0*
Guinea	0*
Haiti	0*

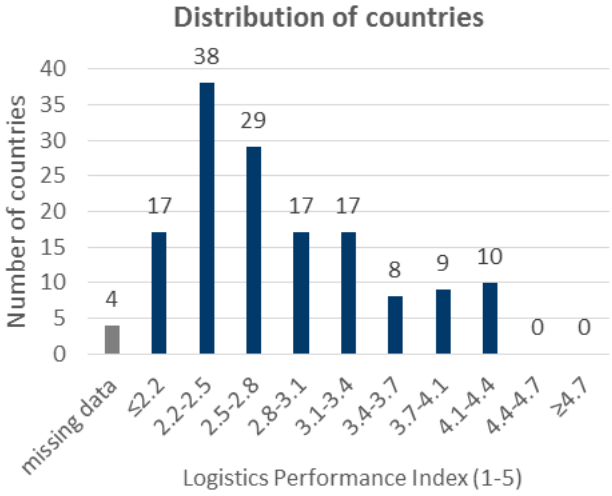
Country	Value/Rating
Iraq	0*
Lesotho	0*
Liberia	0*
Malawi	0*
Myanmar	0*
Niger	0*
Rwanda	0*
Sierra Leone	0*
Trinidad and Tobago	0*
Zimbabwe	0*
Angola	n/a
Bhutan	n/a
Cameroon	n/a
Congo, Rep.	n/a
Cote d'Ivoire	n/a
Dominican Republic	n/a
Guyana	n/a
Honduras	n/a
Jamaica	n/a
Lao PDR	n/a
Lebanon	n/a
Mauritania	n/a
Nicaragua	n/a
Peru	n/a
Qatar	n/a
Sudan	n/a
Suriname	n/a
Swaziland	n/a
Venezuela	n/a
Vietnam	n/a
Yemen	n/a

Source : UNESCO (2016). Years : 2005-2012. Detailed metadata and quantitative thresholds used for each indicator are available online at www.sdgindex.org. Data refer to the most recent year available during the period specified.
* Assumed to be 0% (see Annex 1 for details)

How well are countries performing against the indicators that sit behind the SDG goals and targets?

SDG 9 Indicator Profile: Logistics Performance Index
(NB. this table is from the SDG Index & Dashboards - Global Report)

Logistics Performance Index (1-5)



Country	Value/Rating
Germany	4.3
Singapore	4.3
Japan	4.2
Netherlands	4.2
Norway	4.2
UK	4.2
USA	4.2
Belgium	4.1
Canada	4.1
Sweden	4.1
Australia	4
France	4
Switzerland	4
Luxemb.	3.9
Denmark	3.8
Ireland	3.8
Italy	3.8
Korea, Rep.	3.8
Spain	3.8
China	3.7
New Zealand	3.7
UAE	3.7
Austria	3.6
Malaysia	3.6
Finland	3.5
Turkey	3.5
Portugal	3.4
Qatar	3.4
Thailand	3.4
Czech Republic	3.3
Estonia	3.3
Iceland	3.3
Saudi Arabia	3.3
Slovenia	3.3
Chile	3.2
Greece	3.2
Hungary	3.2
Kuwait	3.2
Lithuania	3.2
Slovakia	3.2
South Africa	3.2
Israel	3.1
Malta	3.1

Country	Value/Rating
Morocco	3.1
Poland	3.1
Vietnam	3.1
Latvia	3
Malawi	3
Mexico	3
Panama	3
Brazil	2.9
Bulgaria	2.9
Croatia	2.9
Cyprus	2.9
Egypt	2.9
India	2.9
Indonesia	2.9
Oman	2.9
Argentina	2.8
Jamaica	2.8
Montenegro	2.8
Romania	2.8
Azerbaijan	2.7
Ghana	2.7
Pakistan	2.7
Peru	2.7
Serbia	2.7
Belarus	2.6
Bosnia and Herzegovina	2.6
Cambodia	2.6
Dominican Republic	2.6
El Salvador	2.6
Jordan	2.6
Liberia	2.6
Moldova	2.6
Namibia	2.6
Nigeria	2.6
Philippines	2.6
Russia	2.6
Ukraine	2.6
Venezuela	2.6
Algeria	2.5
CAR	2.5
Ecuador	2.5
Guatemala	2.5
Lebanon	2.5

Country	Value/Rating
Macedonia	2.5
Mauritius	2.5
Paraguay	2.5
Sierra Leone	2.5
Uruguay	2.5
Albania	2.4
Armenia	2.4
Benin	2.4
Burundi	2.4
Colombia	2.4
Costa Rica	2.4
Cote d'Ivoire	2.4
Georgia	2.4
Guyana	2.4
Iran	2.4
Kazakhstan	2.4
Kenya	2.4
Lesotho	2.4
Mauritania	2.4
Tajikistan	2.4
Uganda	2.4
Burkina Faso	2.3
Chad	2.3
Mongolia	2.3
Nepal	2.3
Rwanda	2.3
Senegal	2.3
Tanzania	2.3
Tunisia	2.3
Zambia	2.3
Bhutan	2.2
Bolivia	2.2

Country	Value/Rating
Botswana	2.2
Ethiopia	2.2
Honduras	2.2
Iraq	2.2
Lao PDR	2.2
Mali	2.2
Mozamb.	2.2
Nicaragua	2.2
Sri Lanka	2.2
Zimbabwe	2.2
Angola	2.1
Bangladesh	2.1
Gabon	2.1
Guinea	2.1
Madagascar	2.1
Myanmar	2.1
Niger	2.1
Togo	2.1
Kyrgyzstan	2
Gambia	2
Haiti	2
Cameroon	1.9
Sudan	1.9
Yemen	1.9
Afghanistan	1.8
Congo, Dem. Rep.	1.8
Congo, Rep.	1.8
Cabo Verde	n/a
Suriname	n/a
Swaziland	n/a
Trinidad and Tobago	n/a

Source : World Bank (2016). Years : 2014. Detailed metadata and quantitative thresholds used for each indicator are available online at www.sdgindex.org. Data refer to the most recent year available during the period specified.

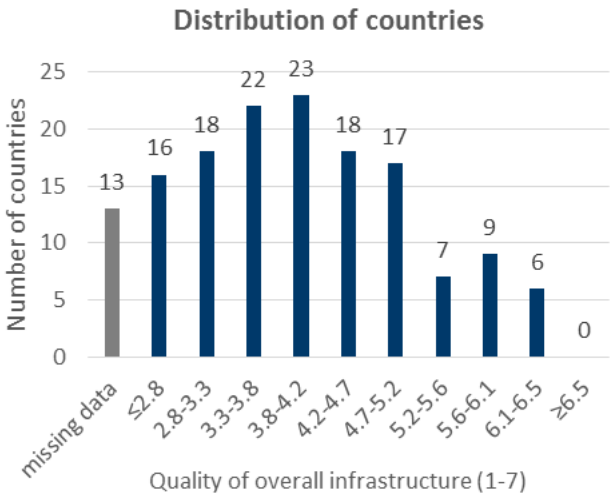
How well are countries performing against the indicators that sit behind the SDG goals and targets?

SDG 9 Indicator Profile: Quality of overall infrastructure
(NB. this table is from the SDG Index & Dashboards - Global Report)

Quality of overall infrastructure (1-7)

Country	Value/Rating
Switzerland	6.5
Singapore	6.4
UAE	6.4
Netherlands	6.3
Finland	6.2
Japan	6.2
Austria	6
Iceland	6
France	5.9
Germany	5.9
Denmark	5.8
USA	5.8
Portugal	5.7
Spain	5.7
Korea, Rep.	5.6
Luxemb.	5.6
Malaysia	5.6
Qatar	5.6
Sweden	5.6
Belgium	5.4
Canada	5.4
UK	5.3
Sri Lanka	5.1
Estonia	5
New Zealand	5
Norway	5
Australia	4.9
Czech Republic	4.9
Ireland	4.9
Lithuania	4.9
Oman	4.9
Saudi Arabia	4.9
Slovenia	4.9
Turkey	4.9
Azerbaijan	4.8
Latvia	4.8
Panama	4.8
Hungary	4.7
Namibia	4.7
Chile	4.6
Croatia	4.6
Cyprus	4.6
Ecuador	4.6

Country	Value/Rating
Mauritius	4.6
China	4.5
Cote d'Ivoire	4.5
Rwanda	4.5
Slovakia	4.5
Jordan	4.4
Malta	4.4
Morocco	4.4
Armenia	4.3
Greece	4.3
Israel	4.3
South Africa	4.3
Trinidad and Tobago	4.3
Georgia	4.2
Kazakhstan	4.2
Kenya	4.2
Italy	4.1
Kuwait	4.1
Mexico	4.1
Poland	4.1
Russia	4.1
Bhutan	4
El Salvador	4
Guatemala	4
India	4
Jamaica	4
Thailand	4
Albania	3.9
Gambia	3.9
Iran	3.9
Lao PDR	3.9
Macedonia	3.9
Botswana	3.8
Indonesia	3.8
Lesotho	3.8
Senegal	3.8
Swaziland	3.8
Tajikistan	3.8
Ukraine	3.8
Bulgaria	3.7
Honduras	3.7
Tunisia	3.7
Uruguay	3.7
Cabo Verde	3.6



Country	Value/Rating
Guyana	3.6
Romania	3.6
Zambia	3.6
Dominican Republic	3.5
Moldova	3.5
Montenegro	3.5
Pakistan	3.5
Uganda	3.5
Vietnam	3.5
Algeria	3.4
Cambodia	3.4
Bolivia	3.3
Costa Rica	3.3
Kyrgyzstan	3.3
Mongolia	3.3
Philippines	3.3
Colombia	3.2
Ethiopia	3.2
Mali	3.2
Nicaragua	3.2
Peru	3.2
Bosnia and Herzegovina	3.1
Cameroon	3.1
Egypt	3.1
Gabon	3.1
Serbia	3.1
Tanzania	3.1
Ghana	3
Liberia	3
Zimbabwe	3
Argentina	3

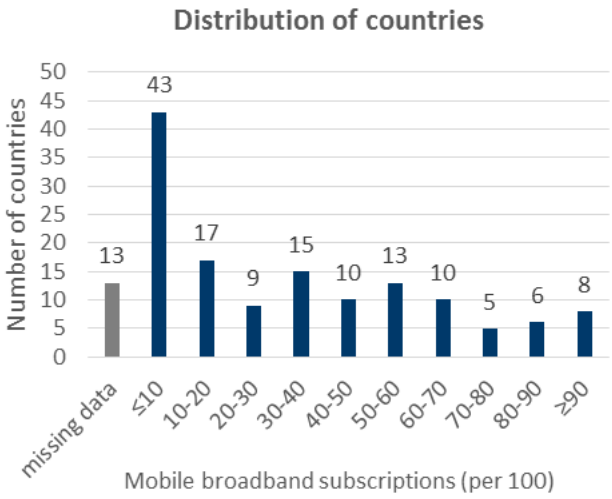
Country	Value/Rating
Brazil	2.9
Bangladesh	2.8
Burundi	2.8
Malawi	2.8
Mozamb.	2.7
Nepal	2.7
Madagascar	2.6
Venezuela	2.6
Benin	2.5
Paraguay	2.5
Chad	2.4
Lebanon	2.4
Mauritania	2.4
Myanmar	2.4
Nigeria	2.4
Sierra Leone	2.4
Haiti	2.2
Guinea	2.1
Afghanistan	n/a
Angola	n/a
Belarus	n/a
Burkina Faso	n/a
CAR	n/a
Congo, Dem. Rep.	n/a
Congo, Rep.	n/a
Iraq	n/a
Niger	n/a
Sudan	n/a
Suriname	n/a
Togo	n/a
Yemen	n/a

Source : WEF (2015). Years : 2014/2015. Detailed metadata and quantitative thresholds used for each indicator are available online at www.sdgindex.org. Data refer to the most recent year available during the period specified.

How well are countries performing against the indicators that sit behind the SDG goals and targets?

SDG 9 Indicator Profile: Mobile broadband subscriptions
(NB. this table is from the SDG Index & Dashboards - Global Report)

Mobile broadband subscriptions (per 100)



Country	Value/Rating
Singapore	149.3
Finland	123.5
Japan	120.5
Australia	110.5
Sweden	108.7
Korea, Rep.	105.3
Denmark	103.8
USA	98
UAE	89
UK	87.2
Norway	86.7
Saudi Arabia	85.1
New Zealand	81.3
Luxemb.	80.5
Estonia	77.4
Qatar	76.8
Iceland	74.7
Botswana	74.1
Costa Rica	72.7
Oman	67.3
Ireland	67.2
Spain	66.8
Croatia	65.3
Austria	64.3
Switzerland	63.4
Netherlands	62.3
Latvia	62.1
Italy	61.4
Russia	60.1
South Africa	58.5
Bulgaria	58.1
Kazakhstan	57.2
France	56.9
Malta	56.8
Poland	54.9
Serbia	53.7
Israel	53
Czech Republic	52.3
Thailand	52.3
Brazil	51.5
Slovakia	50.1
Canada	50
Lithuania	48.2

Country	Value/Rating
Moldova	47.2
Belgium	46
Uruguay	45.5
Germany	44.7
Azerbaijan	43.9
Cabo Verde	42.6
Lebanon	41.8
Slovenia	41.8
Venezuela	40.9
Ghana	39.9
Macedonia	38
Zimbabwe	37.8
Romania	37.6
Portugal	36.7
Greece	36.1
Chile	35.6
Namibia	34.2
Turkey	32.3
Argentina	32.1
Cyprus	32.1
Egypt	31.1
Armenia	31
Tunisia	30.9
Jamaica	30.8
Mauritius	28.7
Albania	28.2
Hungary	26.3
Dominican Republic	25.4
Panama	25.2
Colombia	25
Indonesia	24.2
Montenegro	23.1
China	21.4
Kyrgyzstan	19.1
Trinidad and Tobago	18.9
Vietnam	18.8
Mongolia	18.2
Georgia	16.4
Jordan	16.1
Bhutan	15.6
Morocco	15
Senegal	14.1
Bolivia	13.9

Country	Value/Rating
Mexico	13.5
Suriname	13.1
Malaysia	12.5
Angola	12.2
Honduras	11.7
Nepal	10.9
Nigeria	10.1
Cambodia	9.6
Burkina Faso	9
Ecuador	8.3
Sri Lanka	7.8
Lesotho	7.4
Uganda	7.4
El Salvador	6
Kuwait	5.9
Rwanda	5.8
Mauritania	5.4
Ukraine	5.4
Guatemala	4.9
Paraguay	4.9
Ethiopia	4.8
Malawi	3.9
India	3.2
Madagascar	3.1
Kenya	3
Peru	2.9
Tanzania	2.7
Lao PDR	2.5
Bangladesh	1.9
Mali	1.8
Mozamb.	1.8
Nicaragua	1.3

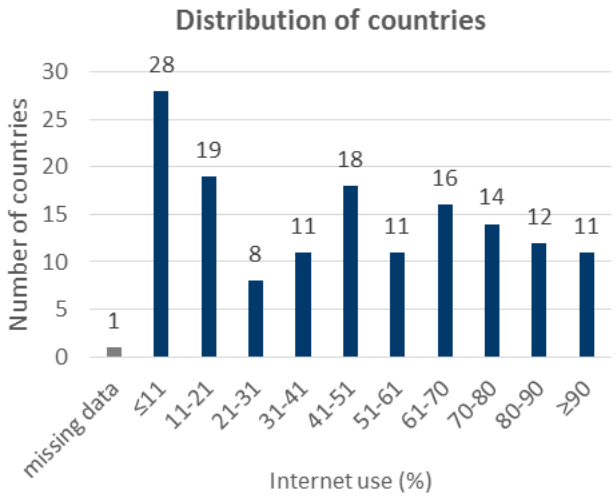
Country	Value/Rating
Gambia	1.2
Iran	1.2
Myanmar	1
Swaziland	0.7
Zambia	0.7
Tajikistan	0.6
Pakistan	0.5
Yemen	0.2
Algeria	0
Burundi	0
Cameroon	0
Chad	0
Cote d'Ivoire	0
Gabon	0
Guinea	0
Guyana	0
Haiti	0
Philippines	0
Afghanistan	n/a
Belarus	n/a
Benin	n/a
Bosnia and Herzegovina	n/a
CAR	n/a
Congo, Dem. Rep.	n/a
Congo, Rep.	n/a
Iraq	n/a
Liberia	n/a
Niger	n/a
Sierra Leone	n/a
Sudan	n/a
Togo	n/a

Source : ITU (2015). Years : 2012-2015. Detailed metadata and quantitative thresholds used for each indicator are available online at www.sdgindex.org. Data refer to the most recent year available during the period specified.

How well are countries performing against the indicators that sit behind the SDG goals and targets?

SDG 9 Indicator Profile: Internet use
(NB. this table is from the SDG Index & Dashboards - Global Report)

Internet use (%)



Country	Value/Rating
Iceland	98.2
Norway	96.3
Denmark	96
Luxemb.	94.7
Netherlands	93.2
Sweden	92.5
Finland	92.4
UK	91.6
Qatar	91.5
Japan	90.6
UAE	90.4
USA	87.4
Canada	87.1
Switzerland	87
Germany	86.2
New Zealand	85.5
Belgium	85
Australia	84.6
Korea, Rep.	84.3
Estonia	84.2
France	83.8
Singapore	82
Austria	81
Slovakia	80
Czech Republic	79.7
Ireland	79.7
Kuwait	78.7
Spain	76.2
Hungary	76.1
Latvia	75.8
Lebanon	74.7
Malta	73.2
Chile	72.4
Lithuania	72.1
Slovenia	71.6
Israel	71.5
Russia	70.5
Oman	70.2
Cyprus	69.3
Croatia	68.6
Macedonia	68.1
Malaysia	67.5
Poland	66.6

Country	Value/Rating
Trinidad and Tobago	65.1
Argentina	64.7
Portugal	64.6
Saudi Arabia	63.7
Greece	63.2
Italy	62
Uruguay	61.5
Azerbaijan	61
Montenegro	61
Bosnia and Herzegovina	60.8
Albania	60.1
Belarus	59
Brazil	57.6
Venezuela	57
Morocco	56.8
Bulgaria	55.5
Kazakhstan	54.9
Romania	54.1
Serbia	53.5
Colombia	52.6
Turkey	51
Dominican Republic	49.6
Costa Rica	49.4
China	49.3
South Africa	49
Georgia	48.9
Vietnam	48.3
Moldova	46.6
Armenia	46.3
Tunisia	46.2
Panama	44.9
Mexico	44.4
Jordan	44
Kenya	43.4
Ukraine	43.4
Ecuador	43
Paraguay	43
Nigeria	42.7
Mauritius	41.4
Jamaica	40.5
Cabo Verde	40.3
Peru	40.2

Country	Value/Rating
Suriname	40.1
Philippines	39.7
Iran	39.4
Bolivia	39
Guyana	37.4
Thailand	34.9
Bhutan	34.4
Egypt	31.7
El Salvador	29.7
Kyrgyzstan	28.3
Swaziland	27.1
Mongolia	27
Sri Lanka	25.8
Sudan	24.6
Guatemala	23.4
Yemen	22.6
Angola	21.3
Zimbabwe	19.9
Honduras	19.1
Ghana	18.9
Botswana	18.5
Algeria	18.1
India	18
Senegal	17.7
Uganda	17.7
Nicaragua	17.6
Tajikistan	17.5
Zambia	17.3
Indonesia	17.1
Gambia	15.6
Nepal	15.4
Namibia	14.8
Cote d'Ivoire	14.6

Country	Value/Rating
Lao PDR	14.3
Pakistan	13.8
Haiti	11.4
Iraq	11.3
Cameroon	11
Lesotho	11
Mauritania	10.7
Rwanda	10.6
Gabon	9.8
Bangladesh	9.6
Burkina Faso	9.4
Cambodia	9
Mali	7
Afghanistan	6.4
Mozamb.	5.9
Malawi	5.8
Togo	5.7
Liberia	5.4
Benin	5.3
Tanzania	4.9
CAR	4
Madagascar	3.7
Congo, Dem. Rep.	3
Ethiopia	2.9
Chad	2.5
Myanmar	2.1
Sierra Leone	2.1
Niger	2
Guinea	1.7
Burundi	1.4
Congo, Rep.	n/a

Source : ITU (2015). Years : 2014. Detailed metadata and quantitative thresholds used for each indicator are available online at www.sdgindex.org. Data refer to the most recent year available during the period specified.

Source: Sachs, J., Schmidt-Traub, G., Kroll, C., Durand-Delacre, D. and Teksoz, K. (2016): An SDG Index and Dashboards – Global Report. New York: Bertelsmann Stiftung and Sustainable Development Solutions Network (SDSN). All indicators are based on published data. Each data point is coloured as "green", "yellow" or "red", indicating whether the country is close or at SDG achievement (green), is in a "caution lane" (yellow), or is seriously far from achievement as of 2015 (red), on that indicator. Thresholds are based on the authors' analysis and expert assessments. For more detail, see www.sdgindex.org

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