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Measuring digital development

The ICT Development Index 2024

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Measuring digital development

The ICT Development Index 2024

Foreword

I am pleased to present the 2024 edition of the ICT Development Index (IDI).

Measurement is crucial for achieving universal and meaningful connectivity (UMC). Accurate and comprehensive data help us understand priorities, design effective interventions, monitor progress, and hold ourselves accountable. The IDI serves as a tool for policymakers to assess the state of digital development. However, while we share a common objective, each country has its own characteristics, faces its own challenges, and must follow its own path to UMC.

This year's IDI results demonstrate continued progress toward UMC, with most economies improving scores from the previous edition. Encouragingly, low-income economies show notable advancements, driven by gains in Internet access, mobile broadband penetration, and affordability.

The IDI results confirm the strong link between overall economic development and digital progress. Low-income economies, despite showing the highest improvement rates, still lag far behind high-income economies. The index highlights the deep divides within regions, but we must acknowledge the limitations of our current knowledge. Important dimensions of UMC are missing from the assessment owing to lack of data, that prevents us from painting a more complete picture.

The journey towards a fully and meaningfully connected world is ongoing. With the right data, tools, and commitment, we can ensure everyone benefits from digital connectivity, contributing to a more inclusive and sustainable future.

Cosmas Luckyson Zavazava
Director, ITU Telecommunication Development Bureau

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Introduction

The Internet delivers substantial economic benefits, revolutionizing communication, entertainment and collaboration. It provides access to essential services, vast knowledge, learning opportunities, and job prospects, making digital connectivity a vital everyday necessity. And yet, one-third of humanity remains offline, and many users have to make do with poor connectivity at a very basic level. Digital divides persist and are actually widening for some demographics and geographies.

Universal and meaningful connectivity (UMC) is defined as the possibility for everyone to enjoy a safe, satisfying, enriching and productive online experience at an affordable cost. The concept emphasizes a multidimensional approach to digital connectivity. It highlights the need for holistic strategies beyond digital infrastructure. This comprehensive approach is crucial for fully leveraging the potential of connectivity for social and economic development.

The role of data in achieving UMC is vital, but frequently overlooked. Data provide insights into past, present and future states, guiding us in setting priorities, crafting effective interventions, tracking progress and ensuring accountability. This is why for many decades the International Telecommunication Union (ITU) has been gathering, analysing and disseminating data on connectivity and information and communication technology (ICT) more generally.

To assist stakeholders in their policy and research work, in 2009 the ICT Development Index (IDI) was launched to give a measure of countries' digital connectivity. It was published annually until 2018. After a six-year hiatus (see Box 1), the IDI was revived in 2023, with a new methodology that has UMC at its core. Annex 1 gives an overview of that methodology and references to additional documentation.

The revamped IDI supports comparisons not only across geographies but also over time, so as to assess progress towards UMC. Due to limited data availability and the inherent constraints of the index approach, the IDI can only offer a partial assessment of a country's connectivity status. It complements the rich datasets and suite of tools maintained by ITU, including the ITU DataHub, the Dashboard for Universal and Meaningful Connectivity, the ICT Regulatory Tracker, the Digital Regulation Platform, and the Global Cybersecurity Index; publications, including the Measuring Digital Development and Global Digital Regulatory Outlook series; and guidelines, such as the ITU Manual for Measuring ICT Access and Use by Households and Individuals, the ITU Handbook for the Collection of Administrative Data on Telecommunications/ICT, and the Digital Regulation Handbook.

Stakeholders concerned with the connectivity agenda are strongly encouraged to complement their analysis of the IDI outcome with other data, tools, information and evidence so as to obtain a full, timely and accurate picture.

Box 1: A brief history of the IDI

Introduced in 2009 by ITU, the ICT Development Index (IDI) is a composite indicator, which initially aimed to measure the level of development of the ICT sector.

In March 2017, an extraordinary meeting of ITU's Expert Group on ICT Household Indicators (EGH) and Expert Group on Telecommunication/ICT Indicators (EGTI) adopted a revised set of 14 indicators to be included in the IDI. However, because of data quality and availability issues, the IDI based on the revised set of indicators was not released.

Attempts to address the issues between 2019 and 2020 with a revised IDI and proposals for an entirely new index did not achieve consensus among ITU Member States. In October 2022, the ITU Plenipotentiary Conference in Bucharest adopted a revised text of Resolution 131. The revised text defined, *inter alia*, the process for developing and adopting a new methodology for the IDI and some features of the IDI itself. Accordingly, the new IDI methodology, based on the concept of universal and meaningful connectivity, was developed by the ITU Secretariat and the two expert groups, EGTI and EGH, in close consultation with Member States. In November 2023 the methodology was approved by Member States and thereupon adopted for use. IDI 2023, the index based on the new methodology, was released in December 2023. The methodology will remain valid for four years.

ICT Development Index 2024: results

In accordance with Resolution 131, only scores are reported; economies are not ranked. This approach allows focusing on what matters: how close are countries and groups to universal and meaningful connectivity and how much progress have they achieved? This allows meaningful comparison, with income group and regional averages. Importantly, it reflects the fact that connectivity is neither a competition among countries nor a zero-sum game – progress is not achieved at the expense of other countries, and all countries can achieve UMC. A ranking-based approach may reinforce the impression of a competition and suggest misleading conclusions. For instance, if all countries were to achieve a score of at least 95 out of 100, there would still be a country ranked first and another ranked last, even if the one ranked last has almost achieved UMC and is in fact not far behind the first.

Box 2 provides important pointers on interpreting and using the IDI results. Annex 2 reports country values and scores for all the indicators of the IDI, Annex 3 shows indicator values and scores by groups, Annex 4 shows IDI and pillar scores by groups, and Annex 5 provides the definitions of the indicators. Additional data and notes are available for download on the IDI webpage, and country results can be visualized in the IDI Dashboard.

Box 2: Interpreting and using the IDI results

Caution is required when interpreting and using the IDI results. They need to be complemented and corroborated with additional information and evidence due to the following complications:

A partial picture. Dimensions and concepts of UMC are missing from the IDI (see Annex 1). Consequently, a robust performance in the IDI does not necessarily mean that UMC has been achieved, because performance could be lacking in other dimensions of UMC that are not currently included in the IDI, such as skills, or safety and security.

Time lag. Because of the lag in the submission of data by countries, and in the processing and validation of that data, the assessment done in IDI 2024 is for the year 2022. Gaps in the availability of official data for 2022 are filled with official data for 2021, or, as a last resort, estimates for 2022.

No universal recipe. The performance of a peer may not be attainable in the short term. Each country has its own characteristics, faces its own challenges and must follow its own development path. Although the IDI can help benchmark recent achievements, these are not necessarily replicable or scalable.

Drill down. The usefulness of the IDI is not limited to the overall IDI score. That score may conceal vast disparities in performance across individual indicators.

Disparities within countries. Country-level scores smooth over potentially significant disparities between regions and demographic groups for the sake of an overall assessment or a score at the level of a pillar or indicator. To design effective interventions, policy-makers must look beyond national averages and use data disaggregated by locations and demographic groups.

Estimations and imputations. Even with the reduced set of indicators in the IDI, 20.4 per cent of the values have had to be estimated or imputed, and all indicators but *mobile broadband subscriptions per 100 inhabitants* and the two affordability indicators contain at least one such value. While every effort is made to maximize accuracy, estimates and imputed values are not perfect substitutes for values submitted by countries.

Revised data. The IDI results are computed using the data available at the time of the calculation. Resolution 131 prevents ITU from retroactively revising published results. Therefore, time comparisons are always based on the published results, even when data are subsequently revised. In such cases, the comparisons may not accurately reflect actual changes.

Previous IDI methodologies. The results of the 2023 and 2024 editions of the IDI cannot be compared with earlier editions of the IDI (2017 and earlier), because the methodologies are different.

Uncertainty. In any index, several sources of uncertainty influence the scores, from measurement errors in individual indicators to modelling assumptions (e.g. selection of indicators, estimation and imputation of missing data, weighting, normalization, choice of goalposts and thresholds, etc.). It is difficult to adequately account for such uncertainty. For more information, see section 5 of the Joint Research Centre's statistical audit of the IDI.

Overall results

The 2024 edition of the ICT Development Index covers 170 economies, compared with 169 for the 2023 edition. Improvements in data availability made it possible to add five economies that were not in the 2023 edition, while four economies had to be removed because sufficient data was not available this time.

The economies covered in the IDI 2024 are listed in Table 1, giving the geographical region and the income group to which the economy belongs, the overall IDI scores for 2023 and 2024, the performance of the economy (blue horizontal bar) in comparison with the income group (orange line) and regional average (dark blue line), and the scores on the pillars *Universal connectivity* and *Meaningful connectivity*.

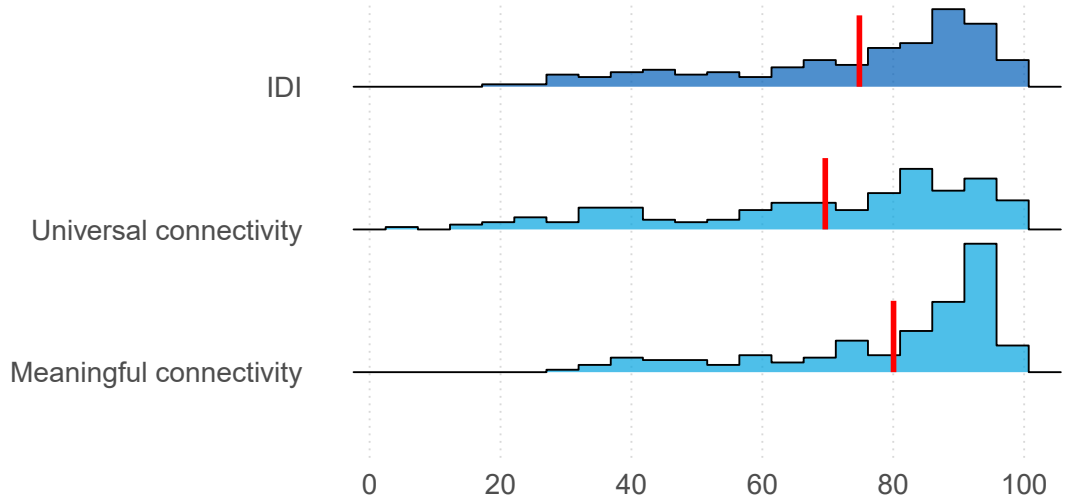
Table 1: IDI 2024 scores

Economy	Region	Income Group	IDI score 2023	IDI score 2024	Change	IDI score & group average | Income | Region	Universal Score	Meaningful Score
Afghanistan	ASP	LI	28.9	33.1	+15%		27.5	38.6
Albania	EUR	UMI	81.6	84.7	+4%		79.1	90.3
Algeria	ARB	LMI	77.8	80.9	+4%		75.4	86.3
Andorra	EUR	HI	87.2	88.8	+2%		87.6	90.0
Angola	AFR	LMI	44.1	49.9	+13%		35.3	64.5
Argentina	AMS	UMI	81.5	83.4	+2%		79.5	87.3
Armenia	CIS	UMI	85.1	86.4	+2%		81.2	91.6
Australia	ASP	HI	94.0	95.1	+1%		94.7	95.4
Austria	EUR	HI	92.5	94.3	+2%		92.5	96.1
Azerbaijan	CIS	UMI	79.0	80.4	+2%		77.7	83.1
Bahamas	AMS	HI	88.5	89.3	+1%		86.1	92.5
Bahrain	ARB	HI	96.5	97.5	+1%		100.0	95.1
Bangladesh	ASP	LMI	61.1	62.0	+1%		39.4	84.5
Barbados	AMS	HI	77.3	77.5	+0%		70.1	85.0
Belarus	CIS	UMI	86.9	88.5	+2%		84.5	92.6
Belgium	EUR	HI	88.2	89.3	+1%		87.2	91.4
Benin	AFR	LMI	38.3	45.4	+19%		37.1	53.7
Bhutan	ASP	LMI	76.5	85.9	+12%		85.2	86.6
Bolivia (Plurinational State of)	AMS	LMI	68.0	69.4	+2%		62.4	76.5
Bosnia and Herzegovina	EUR	UMI	76.6	78.6	+3%		68.7	88.6
Botswana	AFR	UMI	74.0	78.7	+6%		78.7	78.8
Brazil	AMS	UMI	81.9	82.0	+0%		77.1	87.0
Brunei Darussalam	ASP	HI	94.8	95.7	+1%		93.1	98.4
Bulgaria	EUR	UMI	85.6	88.7	+4%		84.1	93.4
Burkina Faso	AFR	LI	28.5	30.1	+6%		25.5	34.7
Burundi	AFR	LI	23.0	24.4	+6%		12.6	36.1
Cabo Verde	AFR	LMI	68.1	69.1	+1%		68.4	69.8
Cambodia	ASP	LMI	68.5	72.6	+6%		62.8	82.5
Cameroon	AFR	LMI	36.8	44.2	+20%		40.3	48.1
Canada	AMS	HI	87.2	88.6	+2%		84.3	93.0
Chad	AFR	LI	20.0	21.3	+6%		6.7	35.9
Chile	AMS	HI	90.7	91.7	+1%		88.4	95.0
China	ASP	UMI	84.4	85.8	+2%		79.0	92.6
Colombia	AMS	UMI	71.9	73.2	+2%		63.3	83.1
Comoros	ARB	LMI	43.5	46.5	+7%		45.7	47.4
Congo (Rep. of the)	AFR	LMI	29.2	30.7	+5%		30.7	30.6
Costa Rica	AMS	UMI	83.9	84.8	+1%		79.6	89.9
Côte d'Ivoire	AFR	LMI	59.0	65.3	+11%		58.0	72.5
Croatia	EUR	HI	87.1	89.6	+3%		86.9	92.3
Cyprus	EUR	HI	87.4	88.6	+1%		83.6	93.7
Czech Republic	EUR	HI	86.1	88.0	+2%		83.0	93.0
Dem. Rep. of the Congo	AFR	LI	29.1	31.0	+7%		24.6	37.4
Denmark	EUR	HI	96.9	97.1	+0%		98.4	95.9
Djibouti	ARB	LMI	63.6	61.6	-3%		54.7	68.5
Dominica	AMS	UMI	76.9	78.4	+2%		72.2	84.5
Dominican Rep.	AMS	UMI	75.0	75.4	+1%		62.0	88.8
Ecuador	AMS	UMI	68.2	70.0	+3%		58.9	81.1
Egypt	ARB	LMI	75.8	76.8	+1%		65.4	88.1
El Salvador	AMS	UMI	61.9	66.1	+7%		49.3	82.9
Equatorial Guinea	AFR	UMI	37.6	44.8	+19%		40.7	48.8
Estonia	EUR	HI	96.9	97.9	+1%		98.6	97.3
Eswatini	AFR	LMI	71.7	70.4	-2%		68.1	72.8
Ethiopia	AFR	LI	33.8	39.8	+18%		18.6	61.0
Finland	EUR	HI	96.7	98.1	+1%		99.3	96.9
France	EUR	HI	89.4	89.8	+0%		84.3	95.3
Gabon	AFR	UMI	72.9	74.7	+2%		74.3	75.2
Georgia	EUR	UMI	85.1	87.8	+3%		83.0	92.6
Germany	EUR	HI	87.3	87.8	+1%		85.5	90.2
Ghana	AFR	LMI	65.9	66.2	+0%		57.9	74.5
Greece	EUR	HI	83.7	86.5	+3%		81.4	91.7
Grenada	AMS	UMI	73.4	78.6	+7%		73.8	83.4
Guatemala	AMS	UMI	54.8	51.7	-6%		32.2	71.2
Guinea-Bissau	AFR	LI	33.1	36.9	+11%		32.4	41.3
Honduras	AMS	LMI	56.3	60.9	+8%		48.0	73.7
Hong Kong, China	ASP	HI	96.5	97.4	+1%		100.0	94.8
Hungary	EUR	HI	86.8	87.4	+1%		81.5	93.3
Iceland	EUR	HI	94.8	95.9	+1%		94.7	97.0
Indonesia	ASP	UMI	80.1	82.8	+3%		79.6	86.0
Iran (Islamic Republic of)	ASP	LMI	80.9	82.2	+2%		81.2	83.3
Iraq	ARB	UMI	69.5	73.9	+6%		69.0	78.8
Ireland	EUR	HI	88.9	90.7	+2%		92.8	88.6
Israel	EUR	HI	91.1	92.5	+2%		90.0	95.0
Italy	EUR	HI	86.4	87.7	+2%		80.3	95.0
Jamaica	AMS	UMI	77.0	76.9	-0%		70.2	83.7
Japan	ASP	HI	92.0	93.2	+1%		94.6	91.9
Jordan	ARB	LMI	78.5	84.9	+8%		79.1	90.6
Kazakhstan	CIS	UMI	88.9	90.1	+1%		87.1	93.0
Kenya	AFR	LMI	54.2	58.5	+8%		45.0	72.0
Kiribati	ASP	LMI	45.5	52.1	+15%		51.7	52.5
Korea (Rep. of)	ASP	HI	93.8	94.4	+1%		93.4	95.5
Kuwait	ARB	HI	98.2	100.0	+2%		100.0	99.9
Kyrgyzstan	CIS	LMI	84.7	88.3	+4%		94.1	82.5
Lao P.D.R.	ASP	LMI	64.6	65.3	+1%		59.6	71.0
Latvia	EUR	HI	93.8	94.3	+1%		90.7	97.8
Lesotho	AFR	LMI	44.3	48.8	+10%		32.7	64.9

Table 1: IDI 2024 scores (continued)

Economy	Region	Income Group	IDI score 2023	IDI score 2024	Change	IDI score & group average | Income | Region	Universal Score	Meaningful Score
Liberia	AFR	LI	n.a.	37.1			33.5	40.8
Libya	ARB	UMI	79.4	88.1	+11%		88.2	87.9
Liechtenstein	EUR	HI	91.9	92.3	+0%		94.1	90.4
Lithuania	EUR	HI	92.4	94.2	+2%		91.2	97.3
Luxembourg	EUR	HI	92.1	92.6	+1%		92.4	92.8
Macao, China	ASP	HI	93.3	94.1	+1%		95.9	92.3
Madagascar	AFR	LI	26.4	29.9	+13%		18.0	41.8
Malawi	AFR	LI	31.5	33.1	+5%		23.5	42.7
Malaysia	ASP	UMI	94.5	95.0	+1%		95.0	95.0
Maldives	ASP	UMI	79.0	81.5	+3%		73.6	89.5
Mali	AFR	LI	38.2	40.4	+6%		39.7	41.1
Malta	EUR	HI	87.0	93.5	+7%		92.4	94.6
Mauritania	ARB	LMI	53.7	55.5	+3%		52.6	58.5
Mauritius	AFR	UMI	81.7	84.2	+3%		78.4	89.9
Mexico	AMS	UMI	78.0	80.7	+3%		72.5	88.8
Moldova	EUR	UMI	77.1	78.3	+2%		65.2	91.4
Monaco	EUR	HI	n.a.	92.6			89.6	95.5
Mongolia	ASP	LMI	85.9	87.0	+1%		82.9	91.1
Montenegro	EUR	UMI	83.9	87.9	+5%		82.1	93.6
Morocco	ARB	LMI	85.1	86.8	+2%		81.9	91.7
Mozambique	AFR	LI	25.8	32.0	+24%		18.1	46.0
Myanmar	ASP	LMI	65.7	63.8	-3%		65.8	61.8
Namibia	AFR	UMI	68.1	68.8	+1%		61.2	76.3
Netherlands (Kingdom of the)	EUR	HI	93.5	92.5	-1%		93.2	91.7
New Zealand	ASP	HI	89.5	90.3	+1%		88.0	92.5
Nicaragua	AMS	LMI	56.1	61.6	+10%		52.0	71.3
Nigeria	AFR	LMI	44.2	46.9	+6%		34.9	58.8
North Macedonia	EUR	UMI	79.6	82.0	+3%		74.0	89.9
Norway	EUR	HI	90.9	93.4	+3%		92.7	94.2
Oman	ARB	HI	90.5	91.7	+1%		92.4	91.0
Pakistan	ASP	LMI	48.7	55.6	+14%		36.7	74.4
Palestine	ARB	UMI	67.3	69.3	+3%		68.4	70.3
Panama	AMS	HI	74.8	77.6	+4%		76.2	79.0
Paraguay	AMS	UMI	71.7	74.1	+3%		60.2	88.0
Peru	AMS	UMI	73.4	76.4	+4%		64.5	88.3
Philippines	ASP	LMI	65.0	74.4	+14%		67.2	81.7
Poland	EUR	HI	94.6	95.8	+1%		96.6	94.9
Portugal	EUR	HI	85.6	87.4	+2%		81.9	92.9
Qatar	ARB	HI	97.3	97.8	+1%		100.0	95.6
Romania	EUR	HI	87.0	87.6	+1%		82.2	93.0
Russian Federation	CIS	UMI	88.9	90.6	+2%		86.7	94.4
Rwanda	AFR	LI	40.1	46.8	+17%		33.1	60.5
Saint Kitts and Nevis	AMS	HI	82.3	84.9	+3%		79.8	90.0
Saint Lucia	AMS	UMI	73.3	73.9	+1%		66.8	81.0
Saint Vincent and the Grenadines	AMS	UMI	73.0	70.7	-3%		67.3	74.1
Samoa	ASP	LMI	63.1	67.8	+7%		61.0	74.7
San Marino	EUR	HI	n.a.	92.7			92.9	92.5
Sao Tome and Principe	AFR	LMI	54.5	55.9	+3%		50.4	61.4
Saudi Arabia	ARB	HI	94.9	95.7	+1%		94.7	96.8
Senegal	AFR	LMI	66.5	69.3	+4%		64.2	74.3
Serbia	EUR	UMI	85.1	87.7	+3%		82.9	92.5
Seychelles	AFR	HI	80.9	84.7	+5%		81.8	87.7
Sierra Leone	AFR	LI	n.a.	34.3			23.6	45.1
Singapore	ASP	HI	97.4	97.8	+0%		100.0	95.6
Slovakia	EUR	HI	87.1	87.1	+0%		81.6	92.6
Slovenia	EUR	HI	88.4	90.8	+3%		85.0	96.5
Somalia	ARB	LI	21.4	28.7	+34%		15.1	42.3
South Africa	AFR	UMI	80.5	83.6	+4%		82.6	84.6
Spain	EUR	HI	91.4	92.5	+1%		91.1	93.9
Sri Lanka	ASP	LMI	69.9	71.3	+2%		58.3	84.3
Suriname	AMS	UMI	76.8	82.5	+7%		82.4	82.7
Sweden	EUR	HI	93.9	95.3	+1%		95.3	95.4
Switzerland	EUR	HI	91.6	92.4	+1%		89.9	94.9
Syrian Arab Republic	ARB	LI	49.6	59.6	+20%		38.7	80.5
Tanzania	AFR	LMI	37.2	43.1	+16%		29.3	57.0
Thailand	ASP	UMI	88.7	91.0	+3%		89.7	92.4
Timor-Leste	ASP	LMI	39.0	39.2	+1%		40.2	38.2
Togo	AFR	LI	40.2	46.2	+15%		39.9	52.4
Tonga	ASP	UMI	58.2	58.2	+0%		45.5	70.9
Trinidad and Tobago	AMS	HI	76.6	78.8	+3%		68.2	89.3
Tunisia	ARB	LMI	75.4	77.2	+2%		65.0	89.5
Türkiye	EUR	UMI	85.8	87.5	+2%		81.0	94.1
Uganda	AFR	LI	34.8	40.4	+16%		32.7	48.1
Ukraine	EUR	LMI	80.8	81.0	+0%		74.6	87.3
United Arab Emirates	ARB	HI	96.4	97.5	+1%		100.0	94.9
United Kingdom	EUR	HI	92.8	93.6	+1%		92.2	94.9
United States	AMS	HI	96.6	96.7	+0%		99.0	94.4
Uruguay	AMS	HI	87.1	89.9	+3%		89.3	90.5
Uzbekistan	CIS	LMI	81.7	84.9	+4%		86.5	83.3
Vanuatu	ASP	LMI	67.9	70.2	+3%		82.2	58.3
Venezuela	AMS	n.a.	64.2	67.7	+5%		63.4	72.0
Viet Nam	ASP	LMI	80.6	85.0	+5%		79.1	90.8
Yemen	ARB	LI	n.a.	43.5			24.7	62.4
Zambia	AFR	LMI	49.5	55.6	+12%		39.3	71.8
Zimbabwe	AFR	LMI	42.7	47.7	+12%		44.9	50.6

Figure 1: Distribution of scores for IDI 2024 and the pillars



The scores of the overall IDI and the two pillars range from 0 to 100. A score of 100 corresponds to a situation where that economy or group has reached the goalpost value on every component indicator. A score of zero corresponds to the hypothetical situation of an economy without Internet, with no mobile broadband coverage, no mobile broadband subscriptions, zero data traffic, etc.

Figure 1 shows the distribution of country scores for the main components of the IDI. The average IDI 2024 score for the 170 economies is 74.8.[1] The lowest score is 21.3 and the highest is 100.0. Forty-two economies have an IDI score between 90 and 100. Another 49 economies have a score between 80 and 90. At the other end of the scale, 29 economies score below 50, and a further 9 have a score between 50 and 60.

These results suggest that much of the world is well advanced on its way to UMC, with more than half of the economies past the 80-point mark (the median being 82.0). However, the lower-scoring half of the economies are spread across a 60-point range (from 21.3 to 82.0), with several scoring in the low 20s. Additionally, as mentioned in Annex 1, the IDI does not capture all the aspects of the UMC framework, notably excluding fixed broadband penetration, Internet speed, ICT skills, and safety and security, which implies that the picture painted here may look more positive than it is in reality.

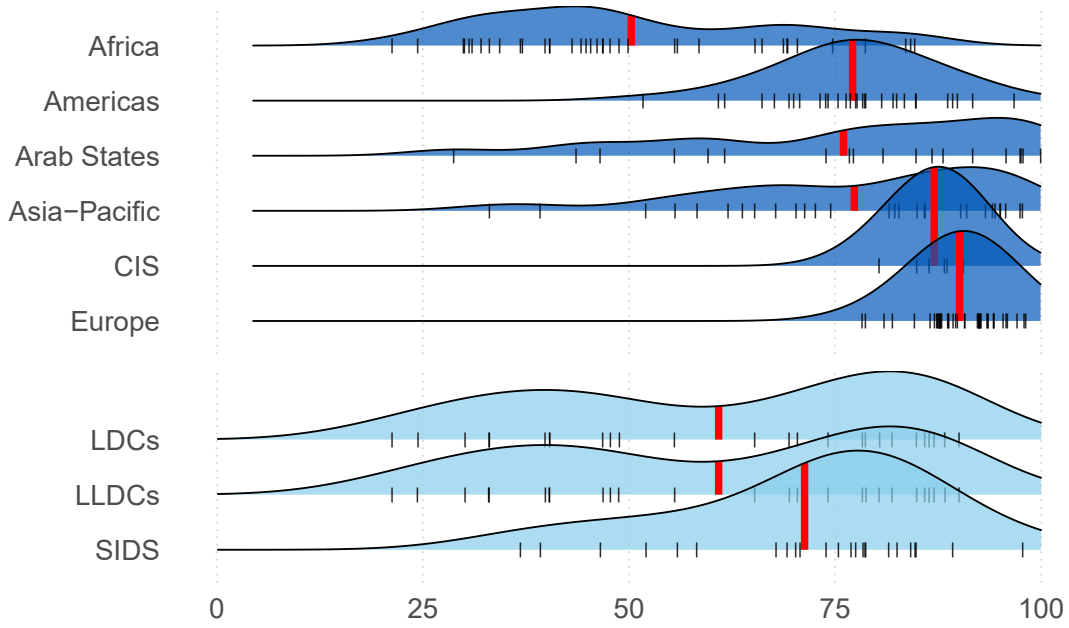
Figure 2 shows the overall score distribution by income group. The average IDI score (red line) in the group of low-income economies is 36.2, while for lower-middle-income economies it is 64.8, a nearly 30-point gap. By contrast, it is only a 14-point jump to the next higher-income group, that of the upper-middle-income economies (79.1), and just 13 points to the high-income group. Note that there are significant overlaps: thus, some upper-middle-income countries scored higher than some high-income countries (see Annex 4 for country group average scores).

Figure 2 illustrates an effect of diminishing marginal returns in the relationship between income level and IDI performance: a given increase in income is associated with ever smaller improvements in the IDI score.[2] It is likely that several factors contribute to this effect. Thus, richer countries have more mature digital ecosystems with less room for growth.

[1] Since the main unit being analysed is the individual economy, averages in this publication are calculated without population weighting to avoid biasing the results in favour of countries with large populations.

[2] For more information on the strong positive correlation observed between IDI scores and income see the *ICT Development Index 2023* publication.

Figure 2: Distribution of IDI 2024 scores by income group



Also, advanced economies may perform better on some aspects of UMC that the IDI score currently does not capture (e.g. fixed broadband, 5G, skills). The capping of extreme values and the logarithmic transformation of the traffic indicators also contribute to smoothing the distribution of IDI scores, since the income distribution is not transformed.

Comparison with 2023 edition

To ensure strict comparability, the average scores of the 2023 and 2024 editions for regions, income groups and the worldwide total have been calculated using the scores from the subset of 165 economies that were included in both editions (the common set). This prevents spurious differences caused by the fact that the two editions study slightly different groups of countries.

In addition, the IDI results reflect the data available at the time of the computation. Resolution 131 prevents ITU from retroactively revising the IDI results after publication. For those countries that revise their data in subsequent submissions, a change in the IDI performance may be based on data that has been revised since publication and therefore not accurately reflect an *actual* change.

The IDI score for the 165 economies in the common set is 75.3 for IDI 2024, up from 72.9 in 2023, which translates into 3.3 per cent growth. Among those 165 economies, 158 had a higher score than they did in IDI 2023, and only 7 saw their score go down, in most cases by only a modest amount (Figure 3). The changes ranged from -5.7 to +34.2 per cent.

As can be expected, economies with a high IDI 2023 score have less room to improve. As a result, the largest improvements are observed in low and lower middle-income economies with a low IDI 2023 score. Thus, for low-income economies the change between the 2023 and 2024 editions was an improvement of 13.7 per cent; for lower-middle-income economies it was 5.3 per cent; for upper-middle-income economies 2.8 per cent; and for high-income economies it was 1.4 per cent.

Figure 3: Comparison of IDI 2023-2024 change with IDI 2023 score

Note: Based on the 165 economies covered in both the IDI 2023 and 2024 reports. See text for details.

Results by region

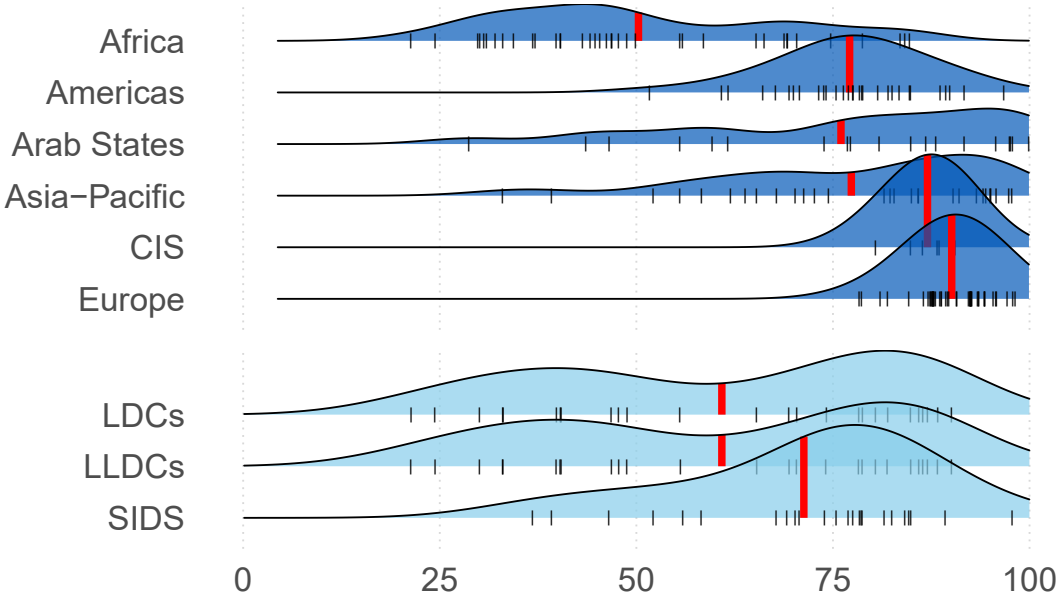
The IDI allows for comparisons among peers and against relevant group averages. Thus, Figure 4 shows the distribution of IDI scores by ITU region and by selected group of interest: least developed countries (LDCs), landlocked developing countries (LLDCs) and small island developing States (SIDS).[3] For each group, the red line corresponds to the group's average IDI score. Crests in the distribution curve indicate denser concentrations of countries. A curve that is flat or more spread out, or that has more than one crest, is a sign of greater heterogeneity within that group.

Among the six regions, Europe and the Commonwealth of Independent States (CIS) achieve the best group performance (at 90.1 and 87.0 respectively, red line). They are also the most homogeneous (tall, narrow curve). Asia-Pacific (77.3), the Americas (77.1) and the Arab States (75.7) achieve almost the same average score. But this result conceals extreme disparities. The Arab States group includes countries with both the highest IDI score (100.0) and the third-lowest (28.7) among the 170 economies in the IDI 2024 set. Likewise, in the Asia-Pacific group, the gap between the best-performing country (97.8) and the worst (33.1) is nearly 65 points. Again, while the average IDI score for Africa (50.3) is by far the lowest among the regions, there is more than a 63-point difference between the region's best (84.7) and worst (21.3). Indeed, when it comes to connectivity, geography is a very poor predictor of IDI performance.

Among LDCs, IDI scores range between 21.3 (the global minimum) and 85.9, significantly above the global average. LLDCs appear to form two distinct groups as indicated by the twin crests, with a lower performing group of 12 countries that have scores ranging between 21.3 and 55.6, with an average of 38.5, and another group of 14 countries with scores between 65.3 and 90.1 and an average of 80.1. SIDS are also a very heterogeneous group of countries, including some of the lowest (36.9) and highest (97.8) IDI scores.

[3] The composition of the LDCs, LLDCs, and SIDS is available at https://www.un.org/ohrlls/.

Figure 4: IDI 2024 scores by region



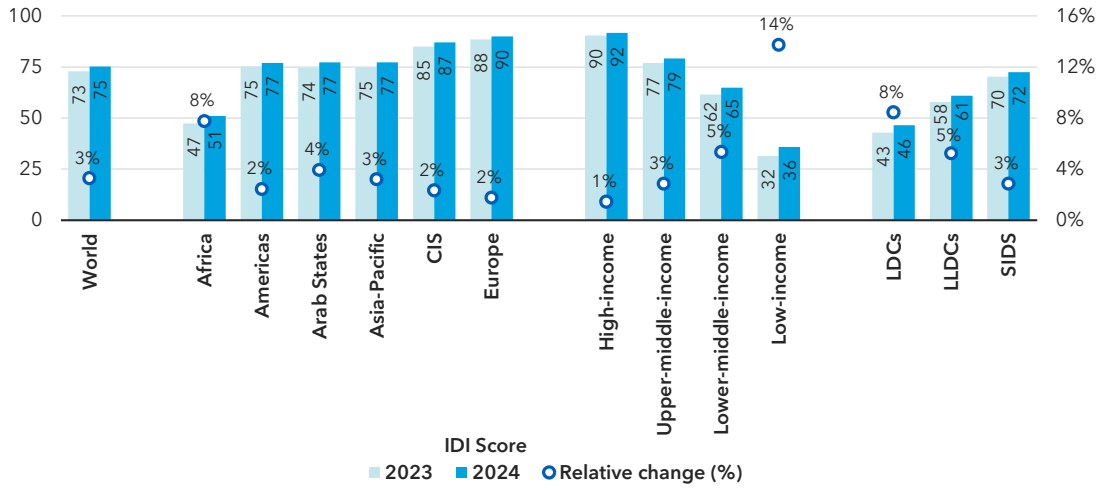
Comparison with 2023 edition

In absolute terms, between the 2023 and the 2024 edition the average IDI score improved for every region (Figure 5), by amounts ranging from 1.6 points in Europe to 3.7 points in Africa. Expressed in relative terms, the improvements in the regions ranged from 1.8 per cent in Europe to 7.8 per cent in Africa. In LDCs the relative improvement reached 8.4 per cent, and in LLDCs it was 5.2 per cent. As has already been observed above for the income groups, the lower the IDI score in the 2023 edition, the higher the relative growth achieved. In the other regions, the biggest improvement in any region was in the Arab States (3.9 per cent), ahead of Asia-Pacific (3.2 per cent) and the CIS countries (2.3 per cent).

Results by pillar

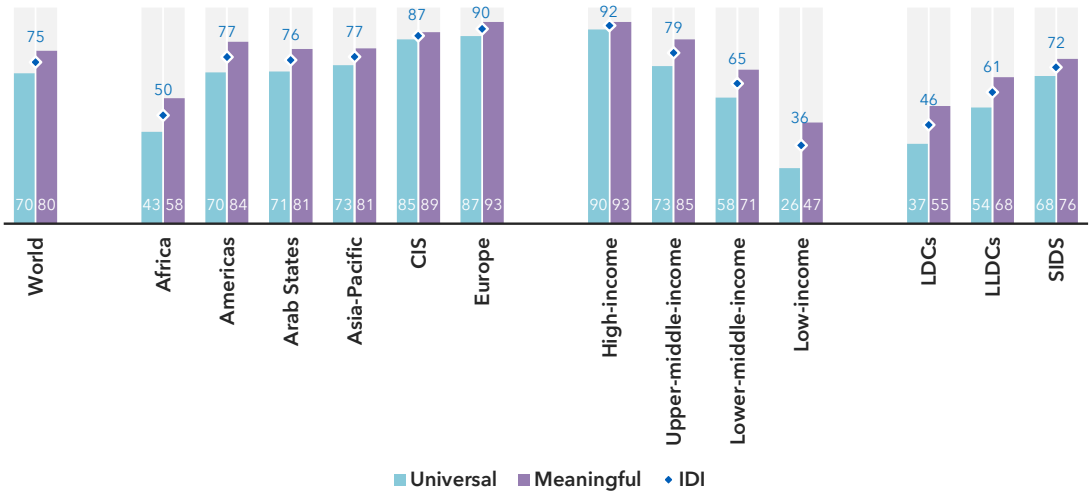
The IDI is composed of two pillars, reflecting the universal dimension and the meaningful dimension in the UMC framework. Country scores for the two pillars have different ranges.

Figure 5: IDI 2023 and 2024 average scores and annual change



Note: Based on the 165 economies covered in both editions. Bars represent the point scores in IDI 2023 and 2024 (scale on the left-hand vertical axis), dots show the year-on-year percentage change (right-hand axis).

Figure 6: Universal and meaningful connectivity pillar scores, by region and income group



The scores on the universal connectivity pillar in the 2024 edition range from 6.7 to 100 points, with an average of 69.6. The scores for meaningful connectivity range from 30.6 to 99.9 points, with an average of 80.0 (Figure 6).

The meaningful connectivity pillar is dominated by infrastructure indicators, where it is arguably easier to achieve high scores, given that it depends heavily on the deployment activities of operators and their strategy. The universal connectivity pillar, by contrast, depends more on adoption by consumers, which takes longer. It also reflects a persistent usage gap: despite the pervasive availability of infrastructure and connectivity, many people continue to not use the Internet. The scores in meaningful connectivity pillar might have turned out lower if such enablers of meaningful connectivity as Internet speed, 5G network coverage, ICT skills, and security and safety, had been included in this IDI.

Indeed, countries' scores for the meaningful connectivity pillar tend to be stronger than for universal connectivity across all regions, income groups and development status. The two scores converge as income increases: high-income countries show only a 3.6 point gap between scores for the two pillars, compared with 21.1 points for low-income countries, where the usage gap is much larger.

Comparison with 2023 edition

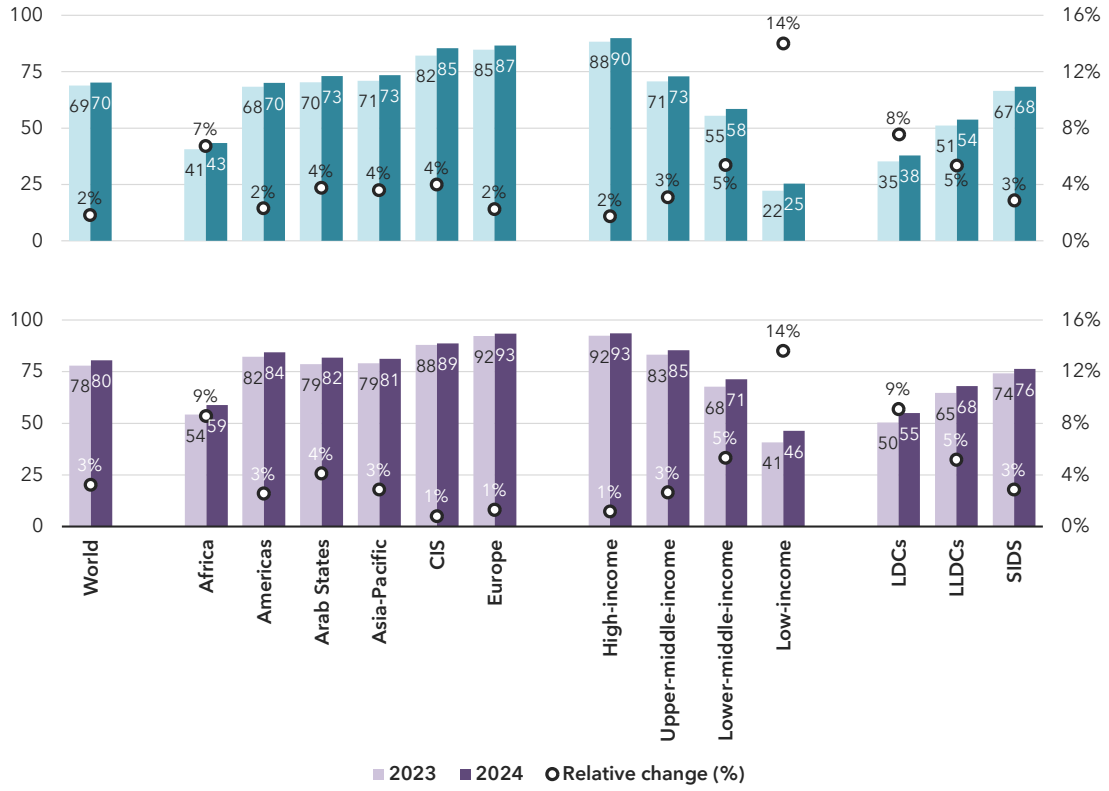
Compared with the 2023 edition, the 2024 average scores increased by 1.2 points (or 1.8 per cent) for universal connectivity and 2.3 points (3.2 per cent) for meaningful connectivity, slightly widening the gap between the two. This is due to the different nature of the indicators included in the two pillars: mobile network coverage, traffic and affordability indicators tend to grow faster (Figure 7).

As observed with other comparisons, the increases were larger for economies that had lower scores in IDI 2023. For universal connectivity, expressed as a percentage, the IDI 2024 score for low-income economies improved by 14.0 per cent over IDI 2023, compared with 1.7 per cent for high-income economies only. Similarly, the average score under the meaningful connectivity pillar increased by 13.6 per cent among low-income economies, compared with just 1.2 per cent for high-income economies.

Results by indicator

Figure 8 shows the normalized scores (on a scale from 0 to 100) for each indicator, for the world and by income group. Every indicator is strongly and positively correlated with income

Figure 7: Evolution of pillar scores for universal and meaningful connectivity, by region and income group



Note: Based on the 165 economies covered in both the IDI 2023 and 2024 reports. Bars represent the IDI 2023 and 2024 point scores for the pillars (scale on the left-hand vertical axis), dots show the year-on-year percentage change (right-hand axis).

level. While the order of the four income groups is the same across the ten indicators (that is, high-, upper-middle-, lower-middle-, and low income economies), the distance between the groups' average normalized scores varies significantly.

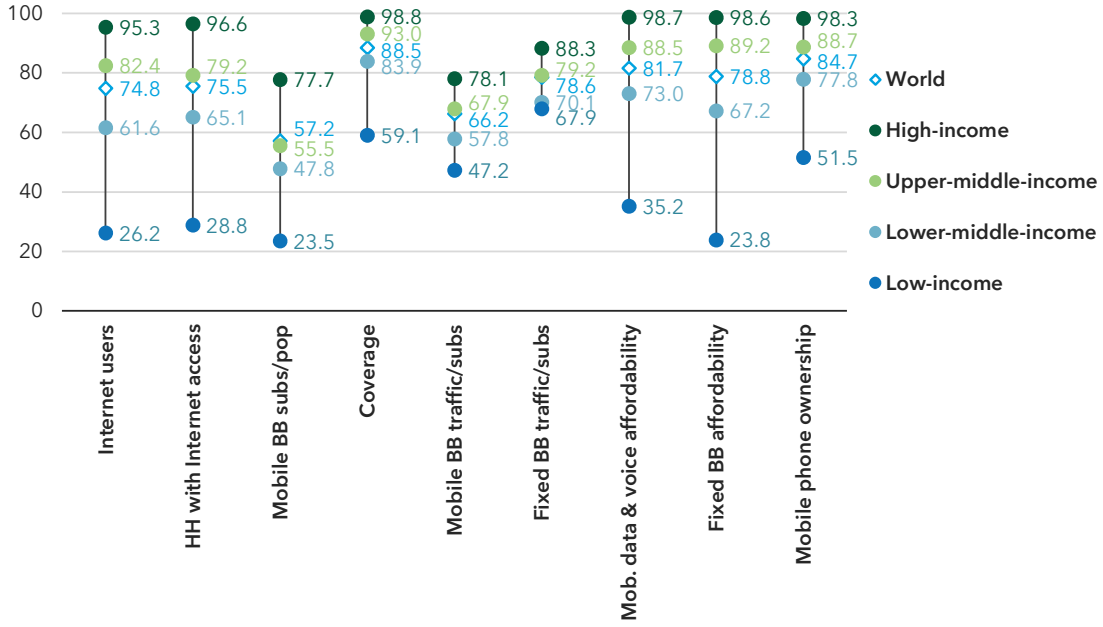
There is a big gap between low-income economies and lower-middle-income economies in most of the indicators, with the exception of the two traffic indicators. The largest gap between high- and low-income economies is for fixed broadband affordability, where the average score for the former is 4.1 times the latter. The second-biggest gap is for the number of Internet users, where this ratio is 3.6.

Based on the average scores, countries in all income groups have opportunities to improve their performance in at least some of the indicators. Low-income economies should focus on improving performance in terms of individuals and households accessing and using the Internet, mobile broadband penetration, and affordability. Middle-income and high-income economies show relatively weaker performance in terms of mobile broadband penetration and mobile broadband traffic per subscription. Internet use, affordability, coverage, and mobile ownership are absolute strengths of high-income economies.

Comparison with 2023 edition

Table 2 shows the lowest, highest and average values reported for each indicator in IDI 2023 and IDI 2024, as well as the threshold and the goalpost, which represents the ideal state. The average score improved for each

Figure 8: Average normalized indicator scores by income group (IDI 2024)



of the indicators.[4] For the two mobile network coverage indicators and for mobile phone ownership, the average values are already quite high, and the dispersion across income groups relatively small. By contrast, for the two traffic indicators, the figures are far below the goalpost and there are substantial differences between the income groups. The same is true of the two affordability indicators; the exception being the high-income group, for which the average is in line with the goal (in the case of mobile data and voice affordability) or close to it (fixed broadband affordability).

Another perspective is given by looking at the evolution of the normalized scores for each of the indicators. Comparing the average normalized scores between the 2023 and the 2024 edition, all indicators saw an improvement, at the global level as well as for each of the income groups. The biggest improvement was for the mobile data and voice affordability indicator, which increased by 4.2 points, from 78.7 to 82.9 (Figure 9). The smallest improvement was for mobile phone ownership, which increased by 1.4 points, from 84.3 to 85.7. The other indicators saw an average score increase of between 2.1 and 2.7 points.

Drilling down to income groups provides a more nuanced picture. Generally, low-income economies, starting from a lower score, recorded the biggest increases, and high-income economies had the smallest increase. But this was not the case for all indicators, and there were also significant differences in the degrees of change observed. For Internet use, the average score of the high-income group of economies improved by 1 point, while that of the low-income group improved by 2.9 points. At the same time, for mobile data and voice affordability, the score of the high-income group did not move, while that of the low-income group improved by 15.1 points.

For the households with Internet access indicator and the fixed broadband affordability indicator, the biggest increase was not in the low-income group of economies, but the lower-middle-income group.

Finally, the two traffic indicators show a more homogeneous picture. For fixed broadband

[4] Unlike other indicators in the IDI, a lower figure for *Mobile data and voice high-consumption basket price* and *Fixed broadband Internet basket price* indicates greater affordability and therefore a better outcome.

traffic, the point score in all four income groups improved by a similar amount. Due to the logarithmic transformation, the same traffic per subscription increase translates into a smaller score improvement in absolute terms for an economy that already has higher scores than one with a lower score. At the same time, the fact that the goalposts were set at a relatively high level (this was done to accommodate the rapid pace of growth in traffic) leaves room for high-income economies with higher traffic per subscription to further improve their scores. In the mobile broadband traffic indicator, the biggest score improvement was for the low-income group of economies (4.4 points), followed by the high-income economies (2.7 points).

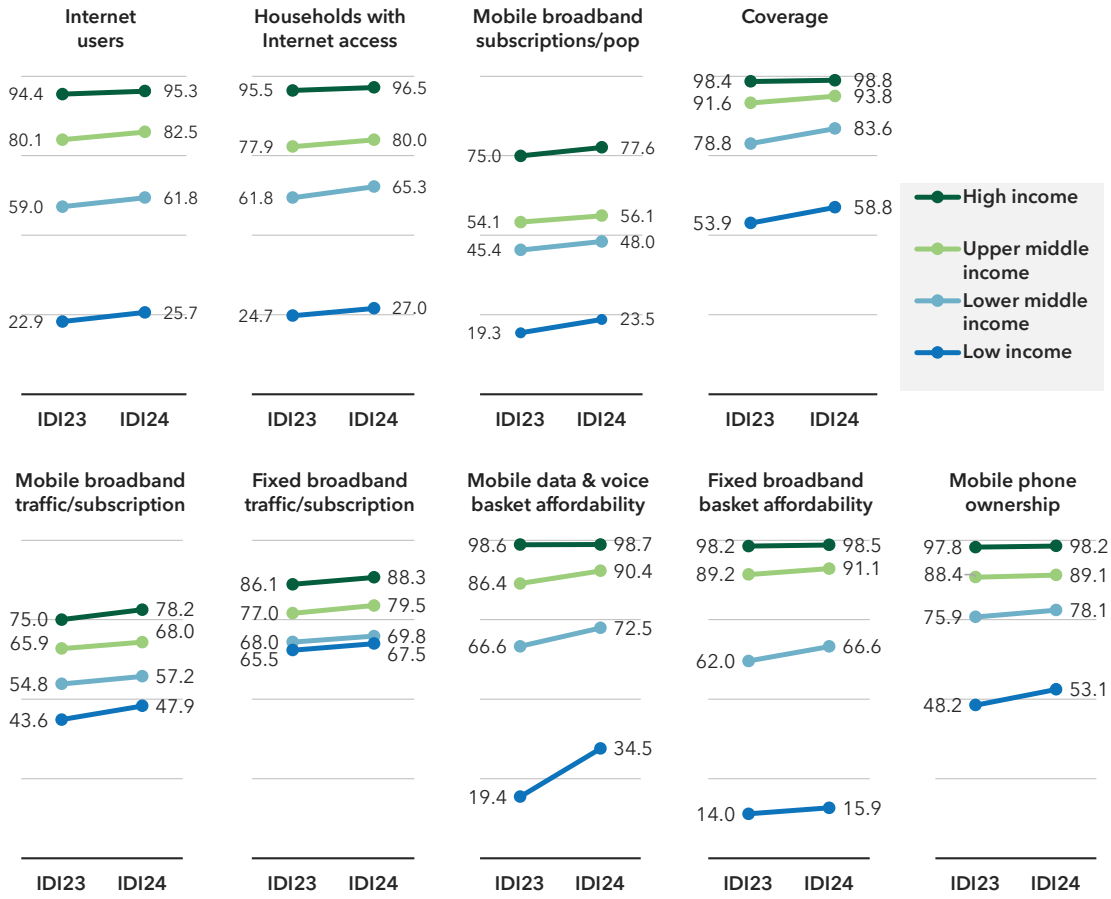
Depending on the indicator, goalposts have different meaning. Some of the goalposts express a UMC target (such as the share of Internet users, or households with Internet access), but a few are purely technical: they were introduced to cap the data distribution, for example, in order to treat outliers, and to improve discrimination among countries' performance figures and comparability with other indicators (this is the case for *Mobile broadband subscriptions per 100 inhabitants* and *Fixed* and *Mobile broadband Internet traffic per subscription*). A target value of 1 per cent of GNI per capita was selected for the affordability indicators on conceptual as well as technical grounds: this is more demanding than the 2 per cent target used by the UN

Table 2: Descriptive statistics by component indicator

Indicator	IDI year	World min	World average	World max	Low-income average	Lower-middle-income average	Upper-middle-income average	High-income average	Threshold	Goalpost
Individuals using the Internet (%)	2023	10.0	71.1	100.0	20.9	56.3	76.1	90.5	0	95
	2024	10.0	73.1	100.0	23.6	59.0	78.4	91.6		
Households with Internet access at home (%)	2023	4.2	72.7	100.0	19.5	61.3	73.8	91.7	0	95
	2024	4.7	75.1	100.0	21.3	64.7	75.9	92.7		
Mobile broadband subscriptions per 100 inhabitants	2023	0.7	85.9	285.1	29.0	71.1	81.2	118.0	0	150
	2024	0.9	90.7	324.8	35.3	76.5	84.2	123.4		
Percentage of the population covered by at least a 3G mobile network	2023	25.8	92.5	100.0	72.2	88.5	95.2	99.2	0	100
	2024	43.9	93.5	100.0	74.4	90.6	95.9	99.3		
Percentage of the population covered by at least a 4G/LTE mobile network	2023	0.0	82.8	100.0	41.7	72.4	89.2	97.8	0	100
	2024	0.0	86.3	100.0	48.4	78.9	92.3	98.4		
Mobile broadband Internet traffic per mobile broadband subscriptions (GB)	2023	0.2	95.0	681.2	15.9	47.4	94.8	147.9	0	500
	2024	0.3	113.1	681.2	29.4	60.7	121.8	169.1		
Fixed broadband Internet traffic per fixed broadband subscriptions (GB)	2023	0.0	2'346.9	10'484.5	1'642.1	1'068.3	2'511.0	3'447.6	0	10'000
	2024	0.0	2'703.1	10'323.5	2'416.1	1'250.6	2'737.7	4'027.6		
Mobile data and voice high consumption basket price (as % of GNI per capita)	2023	0.1	5.7	56.9	22.2	8.1	3.4	1.0	21.3	1
	2024	0.2	4.7	53.1	18.0	6.9	2.5	0.9		
Fixed broadband Internet basket price (as % of GNI per capita)	2023	0.3	9.3	164.2	47.8	12.8	4.5	1.5	37.4	1
	2024	0.4	8.3	92.6	42.3	11.9	3.9	1.4		
Percentage of individuals who own a mobile phone	2023	18.9	81.4	100.0	45.3	72.4	84.2	94.6	0	95
	2024	25.6	82.8	100.0	50.4	74.5	84.9	95.1		

Note: Based on the 165 economies common to the IDI 2023 and 2024 reports, non-estimated data only.

Figure 9: Evolution of indicator scores from IDI 2023 to IDI 2024



Broadband Commission, for example, so the indicators allow more variation and offer more information for benchmarking country performance and measuring progress.

Table 3 gives a synopsis of overall progress for selected indicators, showing the goalpost figure and giving the number of economies that have achieved it in IDI 2023 and 2024. The indicators are those for which the goalpost corresponds to a conceptually defined target (rather than being a purely technical parameter). The table reveals encouraging results. For *Proportion of households with Internet access at home*, 8 additional economies reached the 95 per cent goalpost since the previous edition, for a total of 28. The largest increase was registered for *Mobile data and voice high consumption basket affordability*, where the total number of economies that have met or exceeded the goalpost increased by 11, reaching 53. For *Percentage of individuals who own a mobile phone*, where 46 economies had met the 95 per cent target the previous year, only one additional economy did so in IDI 2024.

Table 3: Number of economies meeting or exceeding the goalpost for selected indicators

Indicator	Goalpost	IDI2023	IDI2024	Change
Individuals using the Internet (%)	95	18	22	4
Households with Internet access at home (%)	95	20	28	8
Percentage of the population covered by at least a 3G mobile network	100	24	28	4
Percentage of the population covered by at least a 4G/LTE mobile network	100	13	18	5
Mobile data and voice high consumption basket price (as % of GNI per capita)	1	42	53	11
Fixed broadband Internet basket price (as % of GNI per capita)	1	25	32	7
Percentage of individuals who own a mobile phone	95	46	47	1

Note: Based on the 165 economies common to both the IDI 2023 and 2024 reports.

Conclusions

Following IDI 2023, which inaugurated the new methodology, IDI 2024 shows consistent results in overall scores and their distribution across regions and income groups.

The global average score of 74.8 on a scale of 0-100 indicates significant progress towards universal and meaningful connectivity. However, many economies are still in the early stages of digital development, with scores as low as 21.3. Connectivity remains closely tied to development, highlighting deep divides between rich and poor countries; but significant variations within regions belie any notion of regional determinism.

The unchanged methodology in IDI 2024 allows for a direct comparison with IDI 2023, revealing a 3.3 per cent increase in the global score. Among the 165 assessed economies in the common set, 158 improved their scores, with low-income economies showing the highest average improvement (13.7 per cent).

Of the two pillars that comprise the IDI, all regions and income groups achieved better scores and bigger improvements in the *Meaningful connectivity* pillar than in *Universal connectivity*, thanks primarily to improvements in the indicators for mobile network coverage, traffic and affordability. All global average scores showed improvements, the most significant being in mobile data and voice affordability and the smallest in mobile phone ownership.

Opportunities for improvement exist in all income groups. Low-income economies should focus on Internet access, mobile broadband penetration, and affordability. Middle- and high-income economies need to improve mobile broadband penetration and traffic per subscription.

While the results are promising, the IDI has limitations, providing only a high-level and partial view of the state of digital connectivity. The index excludes some important concepts, due to incomplete data availability and the constraints of Resolution 131. Coverage of the 2024 survey increased to 170 economies (87 per cent of ITU's Member States), but 26 remain excluded due to insufficient data. Improved statistical capabilities and ICT data collection are essential for a more accurate global connectivity picture.

ITU will continue to support countries in measuring connectivity by providing guidelines, data collection tools, capacity-building activities and technical assistance. Enhanced data collection will make possible a broader set of indicators in future IDI editions, providing a more comprehensive assessment of global connectivity and driving progress towards universal and meaningful connectivity for all.

Annex 1: Methodology of the ICT Development Index

This Annex provides an overview of the methodology of the IDI. The document "Methodology of the ICT Development Index: Version 3.1" presents the methodology in detail.

Conceptual framework

Universal and meaningful connectivity (UMC) is the possibility for everyone to enjoy a safe, satisfying, enriching, productive online experience at an affordable cost. This concept of UMC was developed into an analytical framework that guided the development of the IDI (Figure A1.1). The objective of the IDI is, accordingly, *to assess the extent to which a country's connectivity is universal and meaningful*.

Indicator selection

By design UMC has two distinct pillars: universal connectivity and meaningful connectivity. The universal connectivity pillar contains indicators on people, households, communities and businesses, covering the main places where people can connect, namely at home, in schools and community centres, and at work.

The meaningful connectivity pillar contains indicators on the five enablers of connectivity: infrastructure, affordability, device, skills, and safety and security (note that the indicators on skills or on safety and security were not included in the current IDI exercise). Figure A1.2 shows the indicators that are included in the index, and the pillar under which they are subsumed.

Reference year and data coverage

The reference period for computing the IDI released in year *t* is always *t-2*. This means that the reference year for this 2024 edition is 2022. If an official value is not available for 2022 but available for 2021, the 2021 value is used. Inclusion in the IDI 2024 requires official data for 2021 or 2022 for at least five of the ten indicators.

Only if no official value is available for 2021 or 2022 is a value estimated or imputed. Resolution 131 imposes the obligation to rely primarily on official data and to use other sources or estimates only as a last resort. Detailed documentation on estimation and imputation methods is available in the Definitions, standards and methodology

Figure A1.1: Universal and meaningful connectivity framework

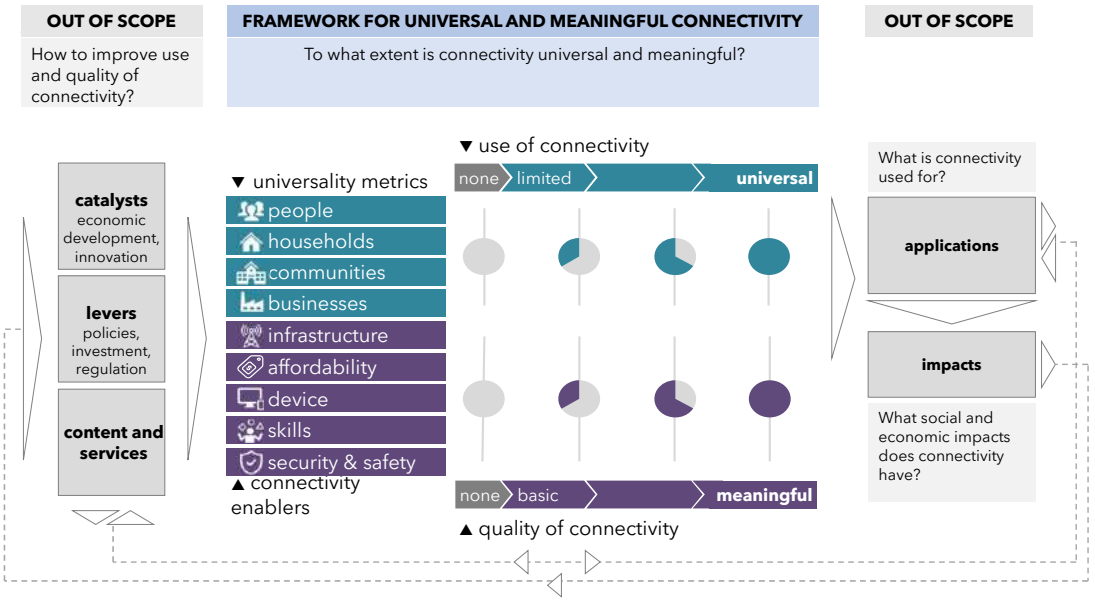
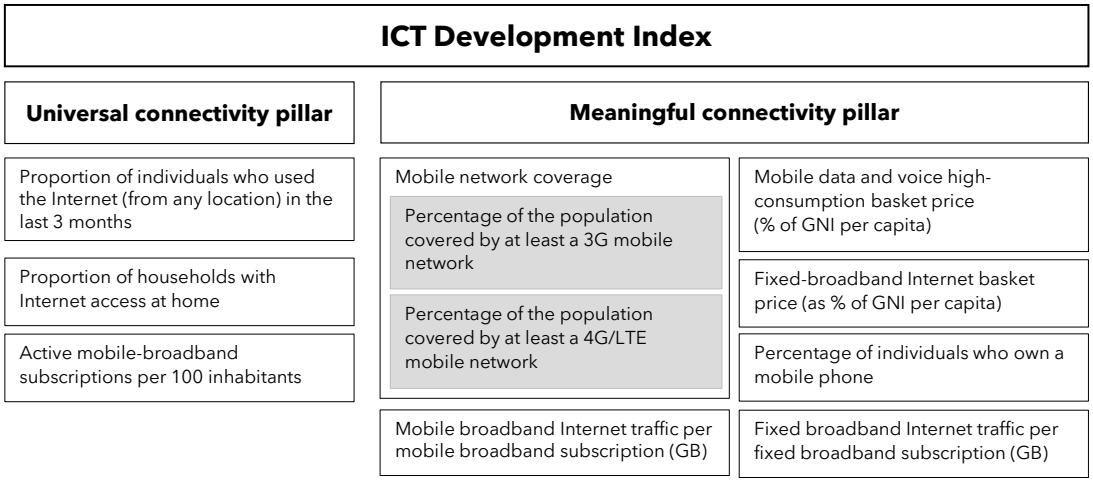


Figure A1.2: Structure of the ICT Development Index



section of the ICT Data and Analytics Division's website. A country can choose to reject the ITU estimates, in which case it is excluded from the IDI, since computing the IDI score requires a complete dataset.

Outliers

All indicators retained for inclusion contain missing values and, in some cases, outliers. To ensure that IDI scores can be computed based on a statistically robust dataset, outliers need to be treated accordingly. The majority of outliers can be handled by means of thresholds and goalpost values. The rightmost column of Table A1.1 shows what additional treatment was required for the remaining outlier values. Specifically, for the two traffic indicators a logarithmic transformation was applied which corrects for the very skewed distribution.[5]

Normalization

The indicators selected are measured on various scales and expressed in different units. Normalization is applied to bring all indicators on a common scale. The most common and intuitive method is the min-max approach, which rescales indicators onto an identical range of 0 to 100 by subtracting the threshold value for the given indicator across all economies from each value and dividing by the difference between the goalpost and the threshold. Table 1 lists the values of the goalposts and thresholds. Formally, we have:

$$\text{score}_{i,c} = \frac{\text{value}_{i,c} - \text{threshold}_i}{\text{goalpost}_i - \text{threshold}_i} \times 100$$

where $score_{i,c}$ is the normalized score of country c's value for indicator i, $value_{i,c}$ is the value of country c on indicator i, $threshold_i$ is the minimum value for indicator i and $goalpost_i$ corresponds to the target value for indicator i.

For any value at or below the threshold value, $score_{i,c}$ is kept to 0; for any value at or above the goalpost, $score_{i,c}$ is capped at 100. In the case of the two affordability indicators, where the goal is to have a lower share of income spent on ICT services, the directionality is reversed:

$$\text{score}_{i,c} = \frac{\text{goalpost}_i - \text{value}_{i,c}}{\text{threshold}_i - \text{goalpost}_i} \times 100$$

Aggregation and weighting

The aggregation step involves combining the different components of the IDI, starting with the individual indicators, to produce an overall IDI score. In the absence of clear conceptual and statistical justifications, the

[5] Using the formula *ln(x+1)*, where the offset of 1 ensures valid results even for 0's without influencing the scores.

Table A1.1: Goalposts, thresholds and outlier treatment

Indicator	Threshold	Goalpost	Additional treatment
Universal connectivity indicators			
Proportion of individuals who used the Internet	0%	95%	Not needed
Proportion of households with Internet access at home	0%	95%	Not needed
Active mobile broadband subscriptions per 100 inhabitants	0	95th percentile	Not needed
Meaningful connectivity indicators			
Percentage of the population covered by at least a 3G mobile network	0	100	Not needed for the two coverage indicators combined
Percentage of the population covered by at least a 4G/LTE mobile network	0	100	
Mobile broadband Internet traffic per mobile broadband subscription (GB)	0	95th percentile, projected	Log transformation applied
Fixed broadband Internet traffic per fixed broadband subscription (GB)	0	95th percentile, projected	Log transformation applied
Mobile data and voice high consumption basket price (as % of GNI per capita)*	95th percentile	1%	Not needed
Fixed broadband Internet basket price (as % of GNI per capita)*	95th percentile	1%	Not needed
Percentage of individuals owning a mobile phone	0	95	Not needed

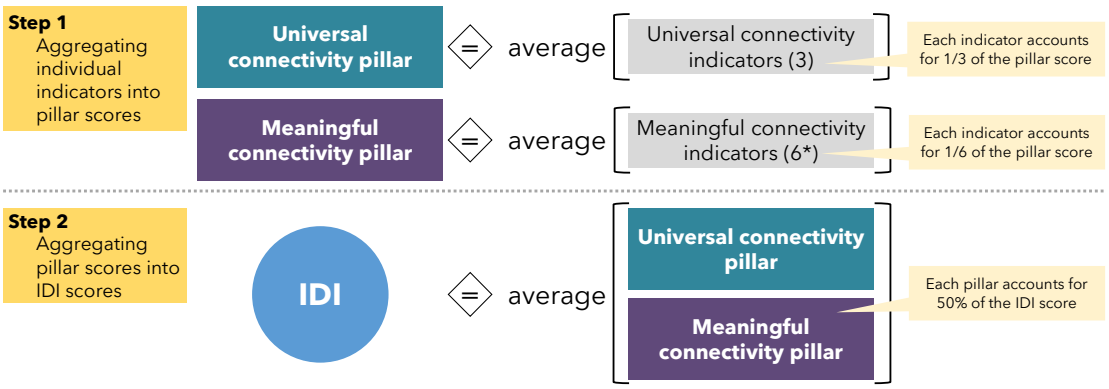
* The direction of the affordability indicators is reversed, so prices that are *below the goalpost* are given a score of 100 and those *above the threshold* are given a score of 0. See Table 2 for the actual value of the goalposts defined based on percentiles of the distribution.

preferred approach is neutral: applying equal weights at each level of aggregation. The *Universal connectivity* pillar consists of three indicators. The pillar score is the average of the normalized scores of these three indicators. The *Meaningful connectivity* pillar comprises seven indicators, two of which – *Percentage of the population covered by at least a 3G mobile network* and *Percentage of the population covered by at least a 4G/LTE mobile network* – are combined into a single *Mobile network coverage* indicator, calculated as the weighted average of the score for the two underlying indicators: 0.4 for 3G and 0.6 for 4G/LTE. The *Meaningful connectivity* pillar score is the average of the combined *Mobile network coverage* indicator and the other five indicators of the pillar.

Finally, the overall IDI scores are computed by taking the simple average of the individual scores for meaningful connectivity and universal connectivity.

The process is depicted in Figure A1.3. Box A1.1 gives an example of how to compute the IDI score for a country.

Figure A1.3: Weighting and aggregation



* Six indicators, including *Mobile network coverage*, which is composed of two sub-indicators (Figure A1.2).

Box A1.1: Example of IDI score calculation

This table shows how to calculate the IDI score, assuming fictional but plausible values for the 10 indicators.

Indicator *More information:*	Value *Annex 2*	Threshold *Table 2*	Goalpost *Table 2*	Formula *Outlier treatment and normalization section*	Score *0-100*	Ref.
Universal connectivity pillar						
Individuals using the Internet (%)	87.4	0	95	min-max	92.0	*u_1*
Households with Internet access at home (%)	89.3	0	95	min-max	94.0	*u_2*
Mobile broadband subscriptions per 100 inhabitants	105.7	0	150	min-max	70.5	*u_3*
Pillar score				***(u_1 + u_2 + u_3)/3***	**85.5**	***u***
Meaningful connectivity pillar						
Population covered by at least a 3G mobile network (%)	99.2					*m_1_a*
Population covered by at least a 4G/LTE mobile network (%)	98.5					*m_1_b*
Coverage		0	100	0.4 x *m_1_a* + 0.6 x *m_1_b*	98.8	*m_1*
Mobile broadband Internet traffic per subscription (GB)	123.3	0	500	log transformation and min-max: (ln(*m_2* + 1) -ln(1)) / (ln(*m_2* + 1) - ln(1)) x 100	77.6	*m_2*
Fixed broadband Internet traffic per subscription (GB)	2'908.6	0	10'000	Log transformation and min-max: (ln(*m_3* + 1) -ln(1)) / (ln(*m_3* + 1) - ln(1)) x 100	86.6	*m_3*
Mobile data and voice high consumption basket price (as % of GNI p.c.)	1.0	21.33	1	min-max (reversed)	100	*m_4*
Fixed broadband Internet basket price (as % of GNI p.c.)	1.4	33.30	1	min-max (reversed)	98.8	*m_5*
Individuals owning a mobile phone (%)	93.8	0	95	min-max	98.8	*m_6*
Pillar score				***(m_1 + m_2 + m_3 + m_4 + m_5 + m_6)/6***	**93.4**	***m***
IDI score				***(u + m)/2***	**89.5**	

Annex 2: Indicator values and scores – IDI 2024

This Annex reports the values and scores for all indicators for the economies included in the IDI. The reference year is 2022 unless indicated by (‡). Estimates are indicated with (†). Imputed values for traffic and unreliable estimates are not published. This dataset, enriched with data sources and notes, is available for download on the IDI 2024 website. Annex 3 provides average values and scores for the world, regions, income groups, the LDCs, LLDCs and SIDS, while Annex 4 shows IDI and pillar scores by groups.

	Indicator values										Normalized progress scores (0-100)								
Country	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	Percentage of the population covered by at least a 3G mobile network	Percentage of the population covered by at least a 4G/LTE mobile network	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	3G and 4G/LTE Network Coverage	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)
Afghanistan	n.a.	n.a.	55.5	58.0‡	26.0‡	9.8	n.a.	21.1	15.0	n.a.	n.a.	n.a.	37.0	38.8	38.3	n.a.	1.2	56.8	n.a.
Albania	82.6	96.5	75.3	99.0	99.0	86.2	1'734.8	1.5	1.3	88.2†	87.0	100.0	50.2	99.0	71.9	81.0	97.8	99.2	92.8
Algeria	71.2†	80.6†	99.7	98.1	85.9	78.5	1'948.4	2.4	3.9	85.9†	75.0	84.8	66.5	90.8	70.4	82.2	93.0	91.1	90.4
Andorra	94.5†	98.9†	95.2	99.5	97.0	28.1	3'172.8	0.5	0.8	96.6†	99.5	100.0	63.5	98.0	54.2	87.5	100.0	100.0	100.0
Angola	39.3†	44.6†	26.3	87.2	57.9	18.6	861.3	4.5	12.2	45.6†	41.4	47.0	17.5	69.6	47.8	73.4	82.8	65.4	48.0
Argentina	88.4	92.1	72.9‡	98.5	97.7	47.5	n.a.	0.6	5.7	89.3	93.0	97.0	48.6	98.0	62.4	n.a.	100.0	85.6	94.0
Armenia	77.0	89.7	102.1	100.0	100.0	91.6	5'207.7	0.9	4.2	89.0†	81.1	94.4	68.0	100.0	72.8	92.9	100.0	90.1	93.7
Australia	94.9†	97.0†	126.4	99.8	99.7	161.7	4'516.3	0.5	1.2	97.3†	99.9	100.0	84.3	99.8	81.9	91.4	100.0	99.3	100.0
Austria	93.6	93.2	121.3	98.0	98.0	354.0	2'276.4	0.2	0.7	97.0†	98.5	98.1	80.9	98.0	94.5	83.9	100.0	100.0	100.0
Azerbaijan	86.0‡	86.5‡	77.1	99.8	94.0	35.1	314.8	1.8	1.8	84.0‡	90.5	91.1	51.4	96.3	57.7	62.5	96.0	97.7	88.4
Bahamas	94.4†	88.6†	98.5	98.0	95.0	139.1	1'928.1	1.1	1.6	94.5†	99.4	93.2	65.7	96.2	79.5	82.1	99.6	98.2	99.4
Bahrain	100.0	100.0	157.6	100.0	100.0	316.9	3'092.5	1.7	3.0	100.0	100.0	100.0	100.0	100.0	92.7	87.3	96.6	93.9	100.0

(continued)

Country	Indicator values										Normalized progress scores (0-100)									
	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	Percentage of the population covered by at least a 3G mobile network	Percentage of the population covered by at least a 4G/LTE mobile network	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	3G and 4G/LTE Network Coverage	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)
Bangladesh	38.9‡	38.1‡	55.9	98.5	98.5	78.7	1'195.5	1.4	1.5	61.8‡	41.0	40.1	37.3	98.5	70.4	76.9	98.0	98.3	65.1
Barbados	76.2†	82.4†	64.8	100.0	99.0	38.1‡	n.a.	3.6	3.6	84.3†	80.2	86.7	43.2	99.4	59.0	n.a.	87.3	92.1	88.7
Belarus	89.5	89.5	97.8	99.9	98.0	143.5	1'502.1	1.6	0.7	97.0	94.2	94.2	65.2	98.8	80.0	79.4	97.2	100.0	100.0
Belgium	94.0	94.4	94.9	100.0	100.0	63.2	2'952.4	0.6	0.7	90.0‡	99.0	99.4	63.3	100.0	66.9	86.8	100.0	100.0	94.8
Benin	33.8†	45.4†	42.2	80.0	46.0	36.1	790.1	12.6	23.0	53.9†	35.5	47.7	28.1	59.6	58.1	72.5	43.2	32.0	56.8
Bhutan	85.6‡	99.6	98.0	97.0	97.0	170.9	246.4	2.2	2.9	87.2‡	90.1	100.0	65.3	97.0	82.8	59.8	94.1	94.2	91.7
Bolivia (Plurinational State of)	66.0‡	56.9‡	86.7‡	87.8‡	74.5†	n.a.	n.a.	7.4	8.3	83.0†	69.4	59.9	57.8	79.8	n.a.	n.a.	68.7	77.4	87.4
Bosnia and Herzegovina	78.8	75.9	64.9	99.0	99.0	42.0	n.a.	2.3	2.1	89.1†	83.0	79.9	43.3	99.0	60.5	n.a.	93.5	96.6	93.8
Botswana	77.3†	78.3†	108.2	98.0	91.0	21.8	767.8	3.2	10.1	90.8†	81.4	82.5	72.1	93.8	50.3	72.1	89.2	71.9	95.5
Brazil	80.5	80.2	93.1	92.4	92.4	48.2	1'674.1	0.9	3.1	88.1	84.8	84.5	62.0	92.4	62.7	80.6	100.0	93.7	92.7
Brunei Darussalam	99.0	96.7†	118.8	98.6	98.6	610.0‡	4'995.7	0.7	1.2	98.1†	100.0	100.0	79.2	98.6	100.0	92.5	100.0	99.4	100.0
Bulgaria	79.1	87.3	115.6	100.0	99.9	102.0	3'139.7	0.9	1.5	95.7†	83.3	91.9	77.1	99.9	74.6	87.4	100.0	98.4	100.0

(continued)

Country	Indicator values										Normalized progress scores (0-100)								
	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	Percentage of the population covered by at least a 3G mobile network	Percentage of the population covered by at least a 4G/LTE mobile network	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	3G and 4G/LTE Network Coverage	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)
Burkina Faso	19.9†	14.1†	60.9‡	53.2‡	36.6‡	1.3‡	n.a.	18.3	31.1	58.2†	21.0	14.8	40.6	43.2	13.5	n.a.	15.0	6.9	61.3
Burundi	11.3†	19.5†	8.3	50.6	32.2	85.7	1'396.2‡	53.1	n.a.	25.6†	11.9	20.5	5.6	39.5	71.8	78.6	0.0	n.a.	26.9
Cabo Verde	72.1†	75.7†	74.6	93.8	80.2	60.2	2'172.0	20.1	2.9	79.4†	75.9	79.7	49.7	85.7	66.2	83.4	5.9	94.3	83.5
Cambodia	56.7†	57.7†	102.0	92.1	92.1	212.8	n.a.	3.1	11.6	77.3†	59.7	60.7	68.0	92.1	86.3	n.a.	89.7	67.2	81.4
Cameroon	43.9†	48.1†	36.0	70.0†	70.0†	4.2	230.9	15.9	19.8	60.9†	46.2	50.7	24.0	70.0	26.6	59.1	26.6	41.9	64.1
Canada	94.0	96.1†	81.0	99.7	99.5	64.2	4'427.6	0.9	1.1	96.4†	98.9	100.0	54.0	99.6	67.2	91.2	100.0	99.8	100.0
Chad	12.2†	4.7†	3.4	68.0	36.0	34.5‡	n.a.	38.6	n.a.	38.9†	12.8	4.9	2.3	48.8	57.4	n.a.	0.0	n.a.	41.0
Chile	90.7†	91.9†	109.5	95.0	89.0	230.7	5'606.5	0.8	1.8	94.8†	95.4	96.7	73.0	91.4	87.6	93.7	100.0	97.4	99.8
China	75.6	81.2†	107.8	99.9	99.9	174.8	2'575.1	1.0	0.5	83.0†	79.6	85.5	71.9	99.9	83.2	85.3	100.0	100.0	87.4
Colombia	72.8	59.5	76.2	100.0	99.8	72.6	265.9	1.5	3.8	75.8	76.6	62.6	50.8	99.9	69.2	60.7	97.5	91.3	79.8
Comoros	n.a.	n.a.	61.5	87.0	85.0	20.9	19.1	14.1	29.2	n.a.	n.a.	n.a.	41.0	85.8	49.7	32.6	35.6	12.8	n.a.
Congo (Rep. of the)	36.2†	n.a.	15.8‡	87.0‡	85.0‡	0.3‡	0.0‡	15.6	31.0	55.6†	38.2	n.a.	10.5	85.8	3.6	0.2	28.0	7.2	58.6
Costa Rica	82.6	83.3	96.6	89.0	91.0	66.2	3'075.1	1.0	1.6	91.6†	86.9	87.6	64.4	90.2	67.7	87.2	100.0	98.0	96.4
Côte d'Ivoire	38.4	68.9	91.4	97.2	91.1	29.8	1'787.2	5.9	13.0	63.1	40.4	72.6	60.9	93.5	55.1	81.3	76.0	62.9	66.4

(continued)

Country	Indicator values										Normalized progress scores (0-100)									
	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	Percentage of the population covered by at least a 3G mobile network	Percentage of the population covered by at least a 4G/LTE mobile network	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	3G and 4G/LTE Network Coverage	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)
Croatia	82.1	85.5	126.5	99.9	99.7	206.4	3'120.7	0.5	0.5	76.8†	86.4	90.0	84.3	99.8	85.8	87.4	100.0	100.0	80.8
Cyprus	89.6	94.0	86.1	100.0	100.0	108.4	2'997.6	0.5	0.9	98.0†	94.3	98.9	57.4	100.0	75.5	86.9	100.0	100.0	100.0
Czech Republic	84.5	85.4	105.0	99.8	99.8	79.6	3'253.6	0.9	1.0	98.8	89.0	89.9	70.0	99.8	70.6	87.8	100.0	100.0	100.0
Dem. Rep. of the Congo	27.2†	n.a.	26.2	55.0	45.0	18.7	n.a.	31.0	n.a.	49.4†	28.7	n.a.	17.5	49.0	47.9	n.a.	0.0	n.a.	52.0
Denmark	97.9	95.2	142.7	100.0	100.0	190.6	4'260.7	0.4	0.7	97.9†	100.0	100.0	95.1	100.0	84.5	90.7	100.0	100.0	100.0
Djibouti	65.0†	68.4†	35.6	90.0	76.0	19.0	816.3	10.4	8.8	74.4†	68.5	72.0	23.7	81.6	48.2	72.8	54.0	75.9	78.3
Dominica	83.4†	79.5†	67.8‡	100.0‡	100.0‡	n.a.	n.a.	5.9	5.6	88.4†	87.8	83.7	45.2	100.0	n.a.	n.a.	76.1	85.9	93.0
Dominican Rep.	85.2‡	46.1‡	71.6	98.7	97.6	135.5	5'757.4‡	3.3	2.7	74.4‡	89.7	48.5	47.8	98.0	79.1	94.0	88.6	94.9	78.4
Ecuador	69.7	60.4	59.4	95.7	93.9	63.6	2'323.9	3.0	4.7	58.8	73.4	63.6	39.6	94.6	67.0	84.2	90.3	88.4	61.9
Egypt	72.2	73.2	64.8	99.7	98.0	40.4	1'413.8	1.6	2.8	97.4	76.0	77.1	43.2	98.7	59.9	78.8	97.0	94.5	100.0
El Salvador	62.9†	30.2†	74.9	92.0	76.0	n.a.	n.a.	2.9	6.7	81.0†	66.2	31.8	49.9	82.4	n.a.	n.a.	90.7	82.4	85.3
Equatorial Guinea	66.8†	48.7†	0.9	65.0	65.0	384.3	0.0	n.a.	12.9	65.3†	70.3	51.2	0.6	65.0	95.8	0.3	n.a.	63.3	68.7
Estonia	91.0	95.0	209.6	100.0	99.0	246.5	n.a.	0.5	0.8	98.6†	95.8	99.9	100.0	99.4	88.7	n.a.	100.0	100.0	100.0
Eswatini	58.3†	63.8†	113.5	99.1	81.0	6.9	n.a.	4.7	13.4	87.1†	61.3	67.2	75.7	88.2	33.2	n.a.	82.0	61.7	91.7

(continued)

Country	Indicator values										Normalized progress scores (0-100)									
	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	Percentage of the population covered by at least a 3G mobile network	Percentage of the population covered by at least a 4G/LTE mobile network	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	3G and 4G/LTE Network Coverage	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)
Ethiopia	16.7‡	19.4†	26.9	98.5	33.0	19.8	1'400.6	4.9	16.3	43.9†	17.6	20.4	17.9	59.2	48.8	78.7	80.7	52.5	46.2
Finland	93.0	97.6	160.5	100.0	100.0	443.2	2'199.0	0.7	0.9	98.2†	97.9	100.0	100.0	100.0	98.1	83.6	100.0	100.0	100.0
France	85.3	87.3	107.0	99.0	99.0	160.6	n.a.	0.6	1.2	94.9	89.8	91.8	71.3	99.0	81.8	n.a.	100.0	99.4	99.9
Gabon	73.7†	78.3†	94.4	98.0	98.0	n.a.	n.a.	2.9	7.2	84.6†	77.6	82.4	62.9	98.0	n.a.	n.a.	90.7	80.7	89.0
Georgia	78.7	88.4	109.5	100.0	99.7	107.6	3'534.2	1.2	2.4	91.9	82.9	93.0	73.0	99.8	75.4	88.7	99.2	95.8	96.8
Germany	91.6	91.4	95.5	99.9	99.9	84.3	3'225.1	0.3	1.0	77.9†	96.5	96.2	63.7	99.9	71.5	87.7	100.0	100.0	82.0
Ghana	68.6	53.2†	68.4	95.8	67.7	61.3	1'335.7	3.7	12.8	69.8	72.2	56.0	45.6	78.9	66.5	78.1	86.5	63.6	73.5
Greece	83.2	85.5	100.1	99.7	99.2	94.8	2'175.9	1.4	1.9	93.3†	87.5	90.0	66.7	99.4	73.4	83.4	98.3	97.3	98.2
Grenada	79.9†	82.0†	76.6‡	98.5‡	98.5‡	n.a.	n.a.	5.2	4.9	85.7†	84.1	86.3	51.1	98.5	n.a.	n.a.	79.5	88.0	90.3
Guatemala	50.8	30.0	17.0‡	95.0	89.0	n.a.	n.a.	3.1	6.3	63.5	53.5	31.6	11.4	91.4	n.a.	n.a.	89.6	83.7	66.9
Guinea-Bissau	31.6†	21.3†	62.5	48.0	23.0‡	19.8	n.a.	8.0	67.0	57.9†	33.2	22.4	41.7	33.0	48.8	n.a.	65.7	0.0	61.0
Honduras	59.7†	45.5†	49.8	86.2	86.2	132.9	1'408.7	9.5	12.8	72.9†	62.9	47.9	33.2	86.2	78.8	78.7	58.4	63.6	76.8
Hong Kong, China	95.6	96.1	158.0	99.0	99.0	137.0	4'174.0	0.2	0.5	98.2	100.0	100.0	100.0	99.0	79.3	90.5	100.0	100.0	100.0
Hungary	89.1	91.4	81.6	99.2	99.2	133.8	2'035.5	1.1	0.7	94.5†	93.8	96.2	54.4	99.2	78.9	82.7	99.5	100.0	99.5
Iceland	99.7	98.4	126.1	100.0	100.0	270.0	5'353.6	0.4	1.4	98.7†	100.0	100.0	84.1	100.0	90.1	93.2	100.0	98.8	100.0

(continued)

Country	Indicator values										Normalized progress scores (0-100)									
	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	Percentage of the population covered by at least a 3G mobile network	Percentage of the population covered by at least a 4G/LTE mobile network	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	3G and 4G/LTE Network Coverage	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)
Indonesia	66.5	86.5	116.5	96.5	96.5	91.0	6'267.6	1.7	6.1	67.9	70.0	91.1	77.7	96.5	72.7	94.9	96.5	84.1	71.4
Iran (Islamic Republic of)	78.6	79.5	115.6	85.0	81.0	103.3	457.4	n.a.	n.a.	72.4	82.7	83.7	77.1	82.6	74.7	66.5	n.a.	n.a.	76.2
Iraq	78.7	88.7	46.2	98.2	96.6	9.7	1'694.2	2.6	n.a.	65.7	82.9	93.4	30.8	97.2	38.2	80.7	92.4	n.a.	69.2
Ireland	95.6†	94.5†	118.6	95.0	90.0	52.7	1'189.2	0.4	1.5	96.6†	100.0	99.5	79.1	92.0	64.1	76.9	100.0	98.6	100.0
Israel	91.9	86.2	123.6‡	99.0	97.0‡	162.4	n.a.	0.3	0.9	98.8†	96.7	90.7	82.4	97.8	82.0	n.a.	100.0	100.0	100.0
Italy	85.1	83.1	95.9	100.0	100.0	189.1	2'707.6	0.6	1.0	95.6†	89.5	87.4	63.9	100.0	84.4	85.8	100.0	100.0	100.0
Jamaica	82.4	75.4	66.7	99.0	99.0	37.1	5'744.7	5.8	8.9	93.7†	86.7	79.3	44.4	99.0	58.6	94.0	76.3	75.5	98.6
Japan	84.9	89.5	234.4	99.9	96.6	82.9	2'781.3	1.5	1.1	93.8	89.4	94.3	100.0	97.9	71.3	86.1	97.6	99.8	98.7
Jordan	90.5	92.2	67.6	99.8	99.8	234.2	4'133.2	3.5	6.7	91.1†	95.3	97.1	45.0	99.8	87.8	90.4	87.5	82.3	95.9
Kazakhstan	92.3	96.2	96.2	97.7	87.3	229.2	1'982.7	1.1	0.6	92.7	97.2	100.0	64.1	91.5	87.5	82.4	99.3	100.0	97.6
Kenya	40.8†	50.2†	59.0	98.0	97.0	36.9	1'950.5	6.0	16.6	63.2†	43.0	52.8	39.3	97.4	58.5	82.3	75.6	51.7	66.5
Kiribati	54.4†	62.2†	48.4	73.0	64.0	43.5	n.a.	15.1	n.a.	67.3†	57.3	65.5	32.3	67.6	61.0	n.a.	30.9	n.a.	70.8
Korea (Rep. of)	97.2	100.0	120.1	99.9	99.9	168.8	4'131.7	0.8	1.0	97.2	100.0	100.0	80.1	99.9	82.6	90.4	100.0	99.9	100.0
Kuwait	99.7	99.4	151.5	100.0	100.0	664.5	10'003.1	0.7	1.2	99.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.4	100.0

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Country	Indicator values										Normalized progress scores (0-100)								
	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	Percentage of the population covered by at least a 3G mobile network	Percentage of the population covered by at least a 4G/LTE mobile network	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	3G and 4G/LTE Network Coverage	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)
Kyrgyzstan	79.8†	93.4†	175.3	98.0	96.9	37.6	377.1	2.7	6.2	94.2†	84.0	98.3	100.0	97.3	58.8	64.4	91.5	83.8	99.1
Lao P.D.R.	62.0	72.0	56.4‡	85.0‡	52.0‡	42.0‡	532.6‡	8.2	7.2	82.7†	65.3	75.8	37.6	65.2	60.5	68.2	64.5	80.7	87.1
Latvia	91.0	91.4	120.1	99.0	95.0	486.0	4'727.8	0.4	1.4	96.7†	95.8	96.2	80.1	96.6	99.5	91.9	100.0	98.9	100.0
Lesotho	47.0†	n.a.	67.1	95.8	85.1	5.6	439.8	11.7	6.1	n.a.	49.5	n.a.	44.7	89.4	30.4	66.1	47.6	84.2	n.a.
Liberia	30.1†	n.a.	41.2	76.0	67.0	28.2	n.a.	27.1	n.a.	50.5†	31.7	n.a.	27.5	70.6	54.3	n.a.	0.0	n.a.	53.1
Libya	88.4†	n.a.	125.6	93.5	90.0	n.a.	n.a.	1.2	0.9	89.1†	93.1	n.a.	83.7	91.4	n.a.	n.a.	99.0	100.0	93.8
Liechtenstein	96.8†	95.0†	123.6	99.0	98.3	26.9	4'109.9	0.2	0.4	96.8†	100.0	100.0	82.4	98.6	53.5	90.3	100.0	100.0	100.0
Lithuania	87.7	87.7	133.3	100.0	100.0	297.4	n.a.	0.4	0.8	95.7†	92.3	92.3	88.8	100.0	91.7	n.a.	100.0	100.0	100.0
Luxembourg	98.2	97.6	115.7	100.0	100.0	100.7	n.a.	0.2	0.7	98.6†	100.0	100.0	77.1	100.0	74.3	n.a.	100.0	100.0	100.0
Macao, China	88.5	89.9	174.5	99.8	99.8	52.8	n.a.	0.3	0.8	94.6†	93.1	94.7	100.0	99.8	64.1	n.a.	100.0	100.0	99.6
Madagascar	20.6†	15.6†	24.1	67.2	27.3	17.9	4'590.3	15.5	92.6	38.1†	21.7	16.4	16.1	43.3	47.3	91.5	28.5	0.0	40.1
Malawi	27.7†	14.9†	38.3	85.9	70.2	16.7	117.3	14.9	63.7	47.5†	29.1	15.7	25.6	76.5	46.2	51.8	31.6	0.0	50.1
Malaysia	97.4	96.0	127.4	96.9	96.9	269.4	3'342.6	1.1	2.5	98.2	100.0	100.0	84.9	96.9	90.1	88.1	99.8	95.4	100.0
Maldives	83.9	91.9	53.6	100.0	100.0	53.4	2'489.2	2.5	2.5	96.0†	88.3	96.7	35.7	100.0	64.3	84.9	92.4	95.2	100.0

(continued)

Country	Indicator values										Normalized progress scores (0-100)									
	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	Percentage of the population covered by at least a 3G mobile network	Percentage of the population covered by at least a 4G/LTE mobile network	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	3G and 4G/LTE Network Coverage	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)
Mali	33.1†	43.0†	58.5	70.0	53.0	n.a.	n.a.	17.0	24.1	67.3†	34.8	45.2	39.0	59.8	n.a.	n.a.	21.2	28.6	70.8	
Malta	91.5	93.4	123.7	100.0	100.0	122.4	n.a.	0.5	0.9	96.2†	96.4	98.3	82.5	100.0	77.5	n.a.	100.0	100.0	100.0	
Mauritania	44.4†	n.a.	73.4	43.9	34.7‡	44.2	1'657.2‡	8.6	19.2	61.3†	46.7	n.a.	48.9	38.4	61.3	80.5	62.4	43.7	64.5	
Mauritius	75.5	73.8	117.3	99.0	99.0	66.9	2'297.3	1.4	1.4	87.0	79.5	77.6	78.2	99.0	67.9	84.0	98.1	98.7	91.6	
Mexico	78.6	68.5	94.0	96.1	95.3	64.7	4'444.7	1.2	2.1	79.2†	82.8	72.1	62.7	95.6	67.3	91.2	98.9	96.5	83.4	
Moldova	63.5†	67.5	86.5	99.9	99.2	91.8	n.a.	0.9	2.0	89.1†	66.9	71.1	57.6	99.5	72.9	n.a.	100.0	96.9	93.8	
Monaco	98.4†	99.1†	103.4	100.0	100.0	192.7	3'394.0	0.3	0.2	96.4†	100.0	100.0	68.9	100.0	84.7	88.3	100.0	100.0	100.0	
Mongolia	81.6	80.0	117.6	100.0	99.0	120.2	1'678.3	1.9	1.7	91.3	85.9	84.2	78.4	99.4	77.2	80.6	95.7	97.8	96.1	
Montenegro	88.2	81.0	102.5	98.0	97.9	161.7	2644.6	1.0	1.7	93.7†	92.9	85.2	68.4	97.9	81.9	85.6	99.8	97.7	98.7	
Morocco	89.9	87.4	88.6	99.5	99.4	130.4	3'129.5	2.3	3.8	96.5	94.6	92.0	59.1	99.4	78.5	87.4	93.7	91.2	100.0	
Mozambique	21.2†	15.6†	23.2	85.0	60.0	39.0	n.a.	18.7	33.7	77.3	22.3	16.4	15.4	70.0	59.3	n.a.	12.9	0.0	81.4	
Myanmar	n.a.	n.a.	97.1	95.4	94.3	0.6‡	87.6‡	4.9	15.3	n.a.	n.a.	n.a.	64.7	94.8	7.0	48.7	80.7	55.6	n.a.	
Namibia	62.2†	63.2†	77.4	89.0	79.0	11.0	n.a.	2.6	8.7	79.6†	65.5	66.6	51.6	83.0	40.0	n.a.	92.3	76.2	83.8	
Netherlands (Kingdom of the)	92.5	95.6	123.3	99.0	99.0	75.5	n.a.	0.5	1.1	87.4	97.4	100.0	82.2	99.0	69.8	n.a.	100.0	99.8	92.0	

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Country	Indicator values										Normalized progress scores (0-100)									
	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	Percentage of the population covered by at least a 3G mobile network	Percentage of the population covered by at least a 4G/LTE mobile network	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	3G and 4G/LTE Network Coverage	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)
New Zealand	95.7†	98.0†	96.2	98.5	97.5	60.3	4'402.2	0.5	0.8	95.8†	100.0	100.0	64.1	97.9	66.2	91.1	100.0	100.0	100.0
Nicaragua	61.1†	46.5†	64.0	85.0	72.9	51.6	646.2	6.1	12.5	72.8†	64.3	49.0	42.7	77.7	63.8	70.3	75.1	64.3	76.6
Nigeria	35.5†	37.9†	41.4	86.8	80.9	5.7	9.4	3.5	19.3	78.5†	37.3	39.9	27.6	83.2	30.6	25.4	87.5	43.3	82.6
North Macedonia	84.2†	82.6†	69.7	99.9	99.6	91.0	2'568.3	2.2	3.2	89.7†	88.7	86.9	46.4	99.7	72.7	85.2	94.3	93.1	94.4
Norway	99.0	99.0	117.1	99.9	99.9	119.9	n.a.	0.4	1.1	96.0	100.0	100.0	78.0	99.9	77.1	n.a.	100.0	99.6	100.0
Oman	97.8†	97.1†	115.9	100.0	99.0	73.0	4'157.2	2.0	3.7	97.8†	100.0	100.0	77.3	99.4	69.2	90.5	95.1	91.8	100.0
Pakistan	32.9†	39.0†	51.5	79.9	76.4	82.8	2'175.3	1.5	12.7	50.3†	34.7	41.0	34.4	77.8	71.2	83.4	97.5	63.7	52.9
Palestine*	88.6	92.3	21.9	58.3	0.0	85.6	5'028.8‡	7.6	6.6	79.2	93.3	97.2	14.6	23.3	71.8	92.5	67.8	82.7	83.4
Panama	73.6†	82.3†	96.9	95.0	84.0	n.a.	n.a.	1.9	3.8	88.8†	77.5	86.6	64.6	88.4	n.a.	n.a.	95.7	91.5	93.5
Paraguay	76.3	50.4	71.0	98.4	97.6	n.a.	n.a.	3.0	4.0	85.0†	80.3	53.1	47.3	97.9	n.a.	n.a.	90.0	90.7	89.5
Peru	74.7	55.2	85.3	86.6	81.2	140.6	n.a.	1.4	3.0	84.9	78.6	58.1	56.9	83.4	79.7	n.a.	98.1	93.8	89.4
Philippines	75.2	76.9	62.4‡	96.0‡	80.0†	99.6‡	n.a.	2.3	11.3	80.7†	79.2	80.9	41.6	86.4	74.2	n.a.	93.5	68.2	84.9
Poland	86.9	93.3	202.7	100.0	100.0	99.0	6'729.9	0.5	1.1	95.7†	91.5	98.2	100.0	100.0	74.1	95.7	100.0	99.7	100.0
Portugal	84.5	88.2	95.7	100.0	100.0	86.5	2'946.7	0.7	1.5	97.1	88.9	92.8	63.8	100.0	71.9	86.7	100.0	98.5	100.0
Qatar	100.0†	96.2†	174.0	100.0	99.8	138.4	7'980.4	0.3	2.0	99.6†	100.0	100.0	100.0	99.9	79.4	97.6	100.0	96.9	100.0

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Country	Indicator values										Normalized progress scores (0-100)									
	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	Percentage of the population covered by at least a 3G mobile network	Percentage of the population covered by at least a 4G/LTE mobile network	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	3G and 4G/LTE Network Coverage	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)
Romania	85.5	89.4	93.6	100.0	98.6	100.5	2'467.2	0.6	0.6	98.0	90.0	94.1	62.4	99.2	74.3	84.8	100.0	100.0	100.0
Russian Federation	90.4	86.6	110.9	96.6	92.6	220.6	2'540.2	0.7	0.7	98.8	95.2	91.1	73.9	94.2	86.9	85.1	100.0	100.0	100.0
Rwanda	34.4†	21.9†	60.1	98.8	98.8	15.5	5'429.8	7.1	41.6	53.3†	36.3	23.1	40.1	98.8	45.1	93.4	69.8	0.0	56.1
Saint Kitts and Nevis	76.5†	86.5†	101.7‡	100.0‡	100.0‡	n.a.	n.a.	2.5	3.2	89.1†	80.5	91.0	67.8	100.0	n.a.	n.a.	92.8	93.3	93.8
Saint Lucia	74.2†	83.4†	51.8‡	100.0‡	96.0‡	n.a.	n.a.	5.4	4.7	77.5†	78.1	87.8	34.5	97.6	n.a.	n.a.	78.4	88.5	81.6
Saint Vincent and the Grenadines	77.7†	77.1†	58.5	100.0	90.0	n.a.	n.a.	6.3	6.7	90.3†	81.8	81.2	39.0	94.0	n.a.	n.a.	74.0	82.3	95.1
Samoa	75.3†	77.1†	33.7	99.0	99.0	n.a.	n.a.	5.3	15.1	82.7†	79.2	81.2	22.4	99.0	n.a.	n.a.	78.8	56.3	87.1
San Marino	85.1†	93.1†	136.7	99.0	99.0	69.6	3'114.8	0.5	0.9	97.0†	89.5	98.0	91.1	99.0	68.5	87.3	100.0	100.0	100.0
Sao Tome and Principe	57.0†	61.0†	40.6	95.0	0.0	19.3	2'885.2	7.8	15.6	70.0†	60.0	64.3	27.1	38.0	48.4	86.5	66.6	54.9	73.7
Saudi Arabia	100.0	100.0	126.0	100.0	100.0	420.7	6'888.8	1.3	4.5	100.0	100.0	100.0	84.0	100.0	97.2	96.0	98.3	89.3	100.0
Senegal	60.0†	60.8†	98.1	99.4	95.4	35.9	1'533.7	5.5	17.8	81.0†	63.1	64.0	65.4	97.0	58.1	79.7	77.9	48.1	85.3
Serbia	83.5	83.2	109.5	99.5	98.7	114.6	2'185.8	0.9	2.3	95.5	87.9	87.6	73.0	99.0	76.4	83.5	100.0	95.9	100.0

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Country	Indicator values										Normalized progress scores (0-100)									
	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	Percentage of the population covered by at least a 3G mobile network	Percentage of the population covered by at least a 4G/LTE mobile network	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	3G and 4G/LTE Network Coverage	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)
Seychelles	86.7†	83.5†	99.2	99.0	99.0	84.9	851.5	4.3	1.1	93.7†	91.2	87.9	66.1	99.0	71.6	73.3	83.9	99.6	98.7
Sierra Leone	30.4†	23.4†	21.2‡	79.9‡	48.6‡	n.a.	n.a.	26.2	n.a.	40.8†	31.9	24.6	14.1	61.1	n.a.	n.a.	0.0	n.a.	43.0
Singapore	96.0	98.7	163.6	100.0	100.0	95.1	n.a.	0.3	0.6	98.8	100.0	100.0	100.0	100.0	73.4	n.a.	100.0	100.0	100.0
Slovakia	87.2	90.3	86.7	99.0	99.0	104.0	2'229.2	1.4	0.9	97.7	91.8	95.1	57.8	99.0	74.9	83.7	98.2	100.0	100.0
Slovenia	88.9	92.6	96.0	99.8	99.8	157.2	10'323.5	0.4	1.8	97.8	93.6	97.5	64.0	99.8	81.5	100.0	100.0	97.6	100.0
Somalia	27.6	13.9†	2.5	70.0	30.0	n.a.	n.a.	5.3	80.0	26.6†	29.1	14.6	1.7	46.0	n.a.	n.a.	78.7	0.0	28.0
South Africa	74.7†	75.3	135.1	99.9	98.5	32.2	2'983.5	3.5	3.9	81.9†	78.6	79.3	90.0	99.0	56.3	86.9	87.8	91.1	86.3
Spain	94.5	96.1	110.8	99.7	99.7	117.7	3'617.3	1.3	1.3	99.2‡	99.5	100.0	73.9	99.7	76.8	89.0	98.6	99.2	100.0
Sri Lanka	44.5	61.7	94.9	97.0	97.0	79.6	429.6	0.7	0.8	68.6†	46.8	65.0	63.3	97.0	70.6	65.9	100.0	100.0	72.2
Suriname	75.8†	80.2†	124.4	95.0	82.0	681.2‡	n.a.	7.6	3.6	89.0†	79.7	84.4	82.9	87.2	100.0	n.a.	67.4	91.9	93.7
Sweden	95.0	92.7	132.4	100.0	100.0	214.8	n.a.	0.5	1.1	88.5†	100.0	97.6	88.2	100.0	86.5	n.a.	100.0	99.6	93.1
Switzerland	95.6‡	96.2‡	104.6	100.0	100.0	204.2	2'194.0	0.7	0.8	97.8‡	100.0	100.0	69.8	100.0	85.6	83.5	100.0	100.0	100.0
Syrian Arab Republic	n.a.	n.a.	21.9	98.9	75.7	97.8	n.a.	5.9	1.1	n.a.	n.a.	n.a.	14.6	85.0	73.9	n.a.	75.9	99.7	n.a.
Tanzania	31.9†	33.4†	28.6	85.0	58.0	40.3	9.0	6.9	20.7	74.5†	33.6	35.2	19.0	68.8	59.8	24.9	71.1	38.9	78.4

(continued)

Country	Indicator values										Normalized progress scores (0-100)									
	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	Percentage of the population covered by at least a 3G mobile network	Percentage of the population covered by at least a 4G/LTE mobile network	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	3G and 4G/LTE Network Coverage	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)
Thailand	88.0	90.4	121.8	98.8	98.1	275.5	3'816.6	2.9	3.5	88.3	92.6	95.2	81.2	98.4	90.4	89.5	90.6	92.4	92.9
Timor-Leste	40.8†	n.a.	29.9	96.5	45.0	n.a.	n.a.	18.6	30.3	65.4†	42.9	n.a.	19.9	65.6	n.a.	n.a.	13.6	9.3	68.8
Togo	37.6†	52.2†	38.0	99.0	96.0	19.2	3'281.5	17.4	32.6	56.6†	39.6	54.9	25.3	97.2	48.3	87.9	19.3	2.1	59.6
Tonga	57.5	33.8	60.7‡	99.0‡	96.0‡	2.0‡	343.4‡	3.1	3.6	62.4	60.6	35.6	40.5	97.2	17.6	63.4	89.6	92.0	65.7
Trinidad and Tobago	79.0	80.6	54.7	100.0	94.0	126.2	3'702.0	2.7	3.4	83.9	83.2	84.8	36.5	96.4	77.9	89.2	91.5	92.7	88.3
Tunisia	73.8†	57.0†	85.8	99.0	95.0	77.3	2'570.6	1.5	2.6	87.9†	77.7	60.0	57.2	96.6	70.1	85.3	97.4	95.0	92.5
Türkiye	83.4	94.1	84.0	99.8	99.5	153.5	2'621.2	0.8	1.3	94.3	87.8	99.1	56.0	99.6	81.1	85.5	100.0	99.1	99.3
Uganda	10.0	n.a.	54.4	85.0	31.0	15.3	697.3	10.9	50.5	65.0	10.5	n.a.	36.2	52.6	44.9	71.1	51.4	0.0	68.4
Ukraine	79.2	82.7	80.1‡	91.0	91.0‡	n.a.	n.a.	1.5	1.9	90.7	83.4	87.0	53.4	91.0	n.a.	n.a.	97.7	97.3	95.5
United Arab Emirates	100.0	100.0	234.9	100.0	99.8	100.1	6'614.6	1.1	0.7	100.0	100.0	100.0	100.0	99.9	74.3	95.5	99.8	100.0	100.0
United Kingdom	95.3†	96.4†	115.1	99.9	99.9	111.9	5'716.5	0.4	1.2	95.9†	100.0	100.0	76.7	99.9	76.0	93.9	100.0	99.5	100.0
United States	97.1†	92.2†	173.5	99.6	99.5	114.6	n.a.	0.7	0.9	96.0†	100.0	97.1	100.0	99.5	76.4	n.a.	100.0	100.0	100.0
Uruguay	89.9	91.1	115.8	93.7	93.7	126.3	2'922.9	2.7	2.3	92.3†	94.6	95.9	77.2	93.7	78.0	86.6	91.7	96.0	97.2

(continued)

Country	Indicator values										Normalized progress scores (0-100)									
	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	Percentage of the population covered by at least a 3G mobile network	Percentage of the population covered by at least a 4G/LTE mobile network	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	3G and 4G/LTE Network Coverage	Mobile broadband Internet traffic per mobile broadband subscription (GB)	Fixed broadband Internet traffic per fixed broadband subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI per capita)	Fixed broadband Internet basket price (as % of GNI per capita)	Individuals who own a mobile phone (%)
Uzbekistan	83.9	95.5	106.7	96.0	85.0	50.9	439.4	1.0	1.7	79.0	88.3	100.0	71.1	89.4	63.5	66.1	99.9	97.8	83.2	
Vanuatu	69.9†	69.3†	324.8	70.0	70.0	13.9	1'004.6	7.5	30.0	79.0†	73.6	72.9	100.0	70.0	43.4	75.1	68.2	10.2	83.1	
Venezuela	n.a.	n.a.	52.1	82.0	65.0	26.9	1'755.1	5.1	13.5	n.a.	n.a.	n.a.	34.8	71.8	53.5	81.1	79.7	61.4	n.a.	
Viet Nam	78.6	85.5	96.9	99.9	99.9	113.5	4'079.8	0.9	2.6	79.3	82.7	90.0	64.6	99.9	76.3	90.3	100.0	94.9	83.5	
Yemen	17.7†	n.a.	29.2	73.7	45.0	9.2	1'440.6	6.1	4.0	34.6†	18.6	n.a.	19.5	56.5	37.3	79.0	74.7	90.6	36.4	
Zambia	31.2†	45.9†	55.3	95.5	91.2	38.9	704.0	3.8	14.7	60.6†	32.9	48.3	36.8	92.9	59.3	71.2	86.1	57.6	63.8	
Zimbabwe	32.6†	57.6†	59.6	84.3	40.1	11.7	1'117.5	28.6	9.5	52.3†	34.3	60.6	39.7	57.8	40.9	76.2	0.0	73.8	55.0	

Notes: †) ITU estimate; ‡) lagged value from 2021; n.a. = not available; * Palestine is not an ITU Member State; the status of Palestine in ITU is the subject of Resolution 99 (Rev. Dubai, 2018) of the ITU Plenipotentiary Conference.

Annex 3: Indicator values and scores by groups – IDI 2024

Group	Indicator values										Normalized progress scores (0-100)								
	Individuals using the Internet (%)	Households with Internet access at home (%)	Active mobile broadband subscriptions per 100 inhabitants	Population covered by at least a 3G mobile network (%)	Population covered by at least a 4G/LTE mobile network (%)	Mobile broadband Internet traffic per subscription (GB)	Fixed broadband Internet traffic per subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI p.c.)	Fixed broadband Internet basket price (as % of GNI p.c.)	Individuals who own a mobile phone (%)	Individuals using the Internet (%)	Households with Internet access at home (%)	Mobile broadband subscriptions per 100 inhabitants	3G and 4G/LTE network coverage	Mobile broadband Internet traffic per subscription (GB)	Fixed broadband Internet traffic per subscription (GB)	Mobile data and voice high consumption basket price (as % of GNI p.c.)	Fixed broadband Internet basket price (as % of GNI p.c.)	Individuals who own a mobile phone (%)
Africa	40.1	42.5	51.1	79.2	60.0	36.3	1'204.7	14.3	80.0	61.8	44.5	46.3	36.8	73.6	49.3	65.7	49.5	42.9	67.0
Americas	77.2	69.8	74.5	94.0	86.7	96.1	2'580.6	6.4	6.9	83.5	81.6	74.1	52.2	91.6	67.6	80.4	85.0	85.1	88.0
Arab States	72.8	75.1	87.3	90.4	79.3	129.2	3'167.7	4.6	9.1	79.4	74.4	77.7	54.4	83.0	68.2	81.3	84.5	80.4	81.5
Asia-Pacific	68.8	72.0	95.3	89.0	78.6	117.6	2'485.8	4.9	8.1	77.9	75.4	78.6	63.9	90.7	67.1	78.2	86.2	82.4	84.2
CIS	77.6	82.4	95.1	95.2	89.0	115.5	1'766.3	1.9	2.9	87.0	90.1	95.6	70.5	95.4	72.5	76.1	97.7	95.6	94.6
Europe	88.8	90.7	111.6	99.3	98.9	145.5	3'500.3	0.7	1.2	94.4	93.0	94.9	72.6	99.1	77.1	87.7	99.5	99.0	97.9
High-income	91.3	92.2	119.2	99.2	96.6	164.5	4'042.7	1.0	1.5	95.0	95.3	96.6	77.7	98.8	78.1	88.3	98.7	98.6	98.3
Upper-middle-income	78.0	74.9	81.8	94.4	89.3	106.8	2'473.2	5.0	4.9	84.7	82.4	79.2	55.5	93.0	67.9	79.2	88.5	89.2	88.7
Lower-middle-income	56.7	59.7	71.7	86.9	75.3	61.4	1'266.4	7.4	12.4	72.6	61.6	65.1	47.8	83.9	57.8	70.1	73.0	67.2	77.8
Low-income	25.3	29.5	32.7	69.9	40.9	25.0	1'223.5	18.7	135.3	47.5	26.2	28.8	23.5	59.1	47.2	67.9	35.2	23.8	51.5
LDCs	36.7	39.5	44.1	73.7	50.8	34.2	991.3	14.1	80.6	58.2	38.2	41.3	31.4	66.6	49.0	65.8	47.9	37.3	61.2
LLDCs	48.7	52.7	66.6	82.0	66.3	52.7	1'428.3	11.1	41.0	68.2	55.3	57.8	48.4	78.9	55.6	72.7	64.2	61.3	74.8
SIDS	70.9	69.6	73.7	88.7	74.5	88.1	2'287.3	9.7	12.5	79.8	76.3	75.1	51.6	87.1	61.3	74.4	70.7	71.1	85.5
World	**69.3**	**70.1**	**84.3**	**90.5**	**81.1**	**104.5**	**2'538.9**	**6.1**	**22.2**	**79.7**	**74.8**	**75.5**	**57.2**	**88.5**	**66.2**	**78.6**	**81.7**	**78.8**	**84.7**

Annex 4: IDI and pillar scores by groups – IDI 2024

	IDI 2024 scores				Universal connectivity scores				Meaningful connectivity scores			
Group	Min	Average	Max	Median	Min	Average	Max	Median	Min	Average	Max	Median
Africa	21.3	50.3	84.7	46.5	6.7	42.5	82.6	38.2	30.6	58.0	89.9	57.9
Americas	51.7	77.1	96.7	77.6	32.2	70.0	99.0	70.1	71.2	84.3	95.0	84.8
Arab States	28.7	75.7	100.0	79.1	15.1	70.6	100.0	72.2	42.3	80.8	99.9	88.0
Asia-Pacific	33.1	77.3	97.8	82.5	27.5	73.4	100.0	79.3	38.2	81.2	98.4	86.3
CIS	80.4	87.0	90.6	88.3	77.7	85.4	94.1	86.5	82.5	88.6	94.4	91.6
Europe	78.3	90.1	98.1	89.8	65.2	86.8	99.3	87.2	87.3	93.4	97.8	93.4
High-income	77.5	91.7	100.0	92.5	68.2	89.9	100.0	91.2	79.0	93.5	99.9	94.2
Upper-middle-income	44.8	79.1	95.0	81.1	32.2	72.9	95.0	75.7	48.8	85.3	95.0	88.0
Lower-middle-income	30.7	64.8	88.3	65.3	29.3	58.4	94.1	58.3	30.6	71.3	91.7	72.8
Low-income	21.3	36.2	59.6	34.3	6.7	25.7	39.9	24.7	34.7	46.8	80.5	42.3
LDCs	21.3	45.8	85.9	43.5	6.7	37.0	85.2	33.5	34.7	54.5	86.6	52.5
LLDCs	21.3	60.9	90.1	67.4	6.7	53.8	94.1	59.9	34.7	67.9	93.0	72.3
SIDS	36.9	72.3	97.8	76.9	32.4	68.4	100.0	70.1	38.2	76.3	95.6	83.4
World	**21.3**	**74.8**	**100.0**	**82.0**	**6.7**	**69.6**	**100.0**	**78.5**	**30.6**	**80.0**	**99.9**	**88.0**

Annex 5: Indicator definitions

Indicator	Definition
Individuals using the Internet (%)	Proportion of individuals who used the Internet from any location in the last three months. The Internet is a worldwide public computer network. It provides access to a number of communication services including the World Wide Web and carries e-mail, news, entertainment and data files, irrespective of the device used (not assumed to be only via a computer – it may also be by mobile telephone, tablet, PDA, games machine, digital TV etc.). Access can be via a fixed or mobile network.
Households with Internet access at home (%)	Proportion of households with Internet access at home. Internet access at home means that the Internet is generally available for use by all members of the household at any time, regardless of whether it is actually used. The connection and devices may or may not be owned by the household but should be considered household assets. If one member of the household has a mobile phone with connection to the Internet and makes it available for all members, then it should be considered that the household has access to the Internet. An Internet connection in the household should be working at the time of the survey.
Active mobile-broadband subscriptions per 100 inhabitants	Active mobile-broadband subscriptions refers to the sum of standard mobile-broadband and dedicated mobile-broadband subscriptions to the public Internet. It covers actual subscribers, not potential subscribers, even though the latter may have broadband-enabled handsets. Subscriptions must include a recurring subscription fee or if in the prepayment modality, pass a usage requirement – users must have accessed the Internet in the last three months.
Population covered by at least a 3G mobile network (%)	Refers to the percentage of inhabitants that are within range of at least a 3G mobile-cellular signal, irrespective of whether or not they are subscribers. This is calculated by dividing the number of inhabitants that are covered by at least a 3G mobile-cellular signal by the total population and multiplying by 100.
Population covered by at least a 4G/LTE mobile network (%)	Refers to the percentage of inhabitants that live within range of LTE/LTE-Advanced, mobile WiMAX/WirelessMAN or other more advanced mobile-cellular networks, irrespective of whether or not they are subscribers. This is calculated by dividing the number of inhabitants that are covered by the previously mentioned mobile-cellular technologies by the total population and multiplying by 100. It excludes people covered only by HSPA, UMTS, EV-DO and previous 3G technologies, and also excludes fixed WiMAX coverage.
Mobile broadband Internet traffic per subscription (GB)	Mobile-broadband Internet traffic (within the country) refers to broadband traffic volumes originated within the country from 3G networks or other more advanced mobile-networks, including 3G upgrades, evolutions or equivalent standards in terms of data transmission speeds. Traffic should be collected and aggregated at the country level for all 3G or more advanced mobile networks within the country. Download and upload traffic should be added up and reported together. Traffic should be measured at the end-user access point. Wholesale and walled-garden traffic should be excluded. The indicator is calculated by dividing mobile-broadband Internet traffic (within the country) by active mobile-broadband subscriptions.

(continued)

Indicator	Definition
Fixed broadband Internet traffic per subscription (GB)	Fixed (wired)- broadband Internet traffic refers to traffic generated by fixed-broadband subscribers measured at the end-user access point. It should be measured by adding up download and upload traffic. This should exclude wholesale traffic, walled garden, IPTV and cable TV traffic. The indicator is calculated by dividing fixed-broadband Internet traffic by total fixed broadband subscriptions.
Mobile data and voice high-consumption basket price (% GNI p.c.)	Mobile-broadband data and voice high-consumption basket price as a percentage of GNI per capita (p.c.). The basket refers to the cheapest mobile broadband plan (and add-on) providing at least 2 GB of monthly data using at least 3G technology, 140 minutes of voice and 70 SMSs. Detailed ICT price basket data collection rules are available here.
Fixed-broadband Internet basket price (% GNI p.c.)	Entry-level fixed-broadband basket price as percentage of GNI per capita. The basket is composed of the cheapest plan providing at least 5GB of monthly high-speed data (256Kbit/s or higher) from the operator with the largest market share in each economy. Detailed ICT price basket data collection rules are available here.
Individuals owning a mobile phone (%)	Proportion of individuals who own a mobile phone. An individual owns a mobile cellular phone if he/she has a mobile cellular phone device with at least one active SIM card for personal use. It includes mobile cellular phones supplied by employers that can be used for personal reasons (to make personal calls, access the Internet, etc.) and those who have a mobile phone for personal use that is not registered under his/her name. It excludes individuals who have only active SIM card(s) and not a mobile phone device.

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