

# APPENDICES

## Key Performance

Category	Indicators	Unit	2020	2021	2022
Operations and development	Total assets	RMB billion	580.62	591.08	642.66
	Operating revenue	RMB billion	303.84	327.85	354.94
	Service Revenue	RMB billion	275.81	296.15	319.35
	Profit before income tax	RMB billion	16.03	17.93	20.59
	Total number of "Big Connectivity" subscribers <sup>4</sup>	Thousand	/	/	861,744
	Aggregate number of 5G package subscribers	Thousand	/	/	212,727
	Aggregate number of IoT terminal connections	Thousand	/	/	385,540
	Number of customers served by virtual 5G private networks	Persons	/	/	3805
	Monthly active users of China Unicom APP	Billion households	0.092	0.127	0.131
Network capabilities	Number of 4G base stations	Thousand	1,503	1,560	1,696
	Total number of 5G base station construction	Thousand	380	690	1,000
	4G population coverage	%	94	95	98
	Number of fixed network broadband access ports	Billion	0.225	0.239	0.25
	Broadband coverage rate in administrative villages in ten northern provinces	%	96	98	99
	Gigabit fibre network coverage capacity	Billion households	/	0.108	0.208
	Urban 20M or above broadband network coverage rate	%	96	99	99
	Rural 4M or above broadband network coverage rate	%	100	100	100
	Co-construction rate of pole lines	%	95	95	95
	Sharing rate of pole lines	%	92	93	93
	Co-construction rate of pipelines	%	94	85	91
	Sharing rate of pipelines	%	97	92	93
	International Internet external bandwidth	G	4755	5312	5860
	Number of data centre racks	Thousand	277	312	363
Commitment in major assurance initiatives	Total times of emergency communication assurance	Times	612	695	672
	Emergency communication support personnel	Thousand person-time	660	670	790
	Emergency communication vehicles called out	Thousand vehicle-time	153	155	285
	Emergency communication equipment inputted	Thousand set-time	180	172	186

Category	Indicators	Unit	2020	2021	2022
Independent innovation	R & D investment <sup>5</sup>	RMB billion	11.99	13.23	14.38
	Leading new international standards	Items	23	25	29
	Lead new industry standards	Items	37	38	71
	Number of patent applied	Items	1,734	2,224	2,672
	Number of patents granted	Items	518	1,128	1,666
Customer service	Monthly average complaint rate in the year	Person-time/ million users	11.84	8.75	6.71
	Comprehensive satisfaction rate	Points	81.32	81.68	81.97
	Including: Customer satisfaction of mobile business <sup>5</sup>	Points	80.72	80.62	81.24
	Fixed line phone customer satisfaction	Points	87.7	88.41	88.34
	Fixed broadband subscribers satisfaction rate	Points	80.49	81.84	81.32
People-oriented	Total number of employees	Persons	242121	243380	244,658
	Gender proportion of employees	Male: female	1.54: 1	1.62: 1	1.63: 1
	Proportion of ethnic minority employees	%	6.7	6.8	6.8
	Proportion of female in senior management	%	12.5	12.4	12.8
	Input in employee training	RMB million	364.86	340.99	333.32
	Training hours per employee	Hours	88	94	118
	Network college online learning person-time	Thousand person-times	51000	42000	50040
	Network college per capita learning hours	Hours	2178	2373	2465
	Proportion of contracted employees in labour union	%	100	100	100
	Input to help and support employees suffered from difficulties	RMB thousand	78,800	70,220	81,000
	Input in condolence fund	RMB thousand	42,590	42,100	42,000
	Employee turnover rate	%	1.87	1.69	2.18
	Number of new employees	Persons	10281	12479	13260
	Number of new male employees	Persons	6422	7947	8468
	Number of new female employees	Persons	3859	4532	4792
	Number of employees who voluntarily resign	Persons	4692	3939	3200
	Number of male employees who voluntarily resigned	Persons	2806	2515	2103
	Number of female employees who voluntarily resigned	Persons	1886	1424	1097
	Number of employees dismissed	Persons	1244	1458	2122
	Number of male employees dismissed	Persons	797	927	1369
	Number of female employees dismissed	Persons	447	531	753
	Turnover rate of employees aged below 30	%	7.07	6.23	4.23
	Turnover rate of employees aged 30-50	%	1.18	0.94	0.94
	Turnover rate of employees aged over 50	%	0.13	0.10	0.35
	Turnover rate of male employees	%	1.88	1.67	1.39
	Turnover rate of female employees	%	2.02	1.53	1.18
	Turnover rate of domestic employees	%	/	1.69	1.31
	Turnover rate of oversea employees	%	/	0.58	1.68
	Number of work-related fatalities	Persons	0	0	0
	Rate of work-related fatalities	%	0	0	0

Category	Indicators	Unit	2020	2021	2022
Low-carbon development	Special investment in energy conservation and emission reduction	RMB billion	0.123	0.13	0.168
	Energy saving	Thousand tonnes of standard coal	245	77	269
	Water consumption	Thousand tonnes	14,990	16,980	16,630
	Water consumption density	Tons/RMB Million	47.21	51.65	50.72
	Total energy consumption	Thousand tonnes of standard coal	2,380	2,700	2,890
	Fossil energy consumption	Thousand tonnes of standard coal	100	100	60
	Gasoline consumption <sup>7,9</sup>	Millions of litres	56	37	40
	Diesel consumption <sup>7,9</sup>	Millions of litres	14	20	11
	Natural gas consumption <sup>9</sup>	Thousand m <sup>3</sup>	5,420	5,810	4,650
	Coal consumption <sup>9</sup>	Thousand tonnes	23	40	1
	Electricity consumption	Billion KWH	17.22	20.4	22.2
	Energy consumption per unit of information flow	kg standard coal/TB	2.8	3.7	2.4
	Greenhouse gas emission <sup>10</sup>	Million tonnes	14.2	12.97	13.4
	Total direct emission of GHG (category I)	Million tonnes	0.2	0.53	0.14
	Total indirect emission of GHG (category II)	Million tonnes	14.0	12.44	13.22
	Carbon emission intensity	Tons/RMB million	46.6	39.5	40.9
	Sulphur dioxide emission	Thousand tonnes	0.01	0.02	0.002
	Recycling upon scrappage and disposal	RMB billion	0.733	0.456	0.63
	Scrappage and disposal of batteries	RMB billion	0.113	0.122	0.093
	Scrappage and disposal of general materials	RMB billion	0.247	0.334	0.287
Compliance management	Participant attending the compliance training	Thousand persons	243	243	200
	Production safety training sessions	Times	93	119	131
	Production safety training coverage rate	%	100	100	100
Community responsibility	Number of registered volunteers	Persons	55006	57550	89714
	Credit rating <sup>8</sup>	Grade	AAA	AAA	AAA
	Total tax paid	RMB billion	6.59	7.93	7.105
	Employment creation	Persons	10,652	13,038	13349
	Total donations	RMB thousand	6,374	2,082	1,045

## Notes:

1. Data Description: The data and information collection of this report mainly sourced from the Company's internal data collection system and relevant statistical reports, as well as the corporate sustainable development practice cases submitted by provincial companies. There is no material change in relation to the methods used for prepping the disclosure. The data for 2022 quoted in this report is the final statistical data. If there is any discrepancy between the financial data and the annual report, the annual report shall prevail. The monetary unit adopted in this report is RMB.
2. Please refer to the Description to the Report for the details of the report reference standards.
3. Quality assurance: The Board of Directors and all directors undertake that the information disclosed in the report is authentic, complete and correct, with no false record or misleading statements.
4. To better reflect the Company's good progress in grasping new opportunities, embracing new changes and achieving new development, the Company has adjusted the disclosure of its monthly operational statistics since March 22, 2022, and improved market transparency in a number of key business areas such as "Ubiquitous Connectivity, Innovative Application, Smart Services and Technological Innovation". Among them, the aggregate number of "Big Connectivity" subscribers = aggregate number of mobile billing subscribers + aggregate number of fixed-line broadband subscribers + aggregate number of fixed-line local access subscribers + aggregate number of Internet-of-things terminal connections + aggregate number of networking leased line subscribers.
5. The original input data of scientific and technological innovation was adjusted to R&D investment according to the statistical caliber required by the superior regulatory authorities since 2021, and the corresponding historical data was updated.
6. According to the regulatory requirements and industry practices of the telecommunications industry, the satisfaction evaluation of mobile phone and mobile internet business was cancelled in 2021, and the satisfaction evaluation of mobile business was newly added. Therefore, the score of mobile business in 2020 was calculated using the average score of the original mobile phone and mobile internet businesses.
7. With reference to the requirements of ESG information disclosure, gasoline and diesel consumption has been measured by volume unit since 2022.
8. The credit rating of China United Network Communications Corporation Limited, a wholly-owned subsidiary of the Company, was granted by United Credit Ratings Co., Ltd. and China Chengxin International Credit Rating Co., Ltd.
9. The data statistics of petrol consumption, diesel consumption, natural gas consumption, electricity consumption and coal consumption cover the headquarters and 31 provincial branches. The conversion factor of each energy consumption shall refer to "General Rules for the Calculation of the Comprehensive Energy Consumption".
10. Statistical methods of greenhouse gas emissions mainly refer to ISO 14064.

## Honours and Recognition

- China Unicom ranked 267th in “Fortune Global 500” for the year 2022.
- China Unicom ranked 366th in “The Forbes Global 2000” in 2022.
- China Unicom was rated as the highest level (Grade A) for information disclosure by Shanghai Stock Exchange for five consecutive years.
- China Unicom was awarded the “2022 Best Practise of Board Office of Listed Companies.
- China Unicom was awarded the “Best Investment Value Award” in the Golden Bull Award.
- China Unicom was awarded the “Best in Communications Sector” in the IR Magazine Awards –Greater China 2022.
- China Unicom was awarded first prize of the “2022 Radio Science and Technology Award of China Radio Association”.
- China Unicom won 2 Grand Awards and 6 Gold Awards in the “International ARC Awards 2022”.
- China Unicom was awarded the “Best Annual Report in the Asia Pacific Region” at 2022 LACP Annual Report Awards.
- China Unicom won “General Websites: Telecommunications – Gold” and “Website Features: Best Home page – Gold” in the 2022 “International w3 Awards”.
- China Unicom’s website won the Gold Award of “iNova Awards” for seven consecutive years.
- China Unicom Digital Technology Co., Ltd. was awarded the “2022 Big Data 50”.

## Description to the Report

<b>Reporting Period</b>	From 1 January to 31 December 2022, with some contents exceeding the aforesaid period.
<b>Reporting Cycle</b>	China Unicom (Hong Kong) Limited Sustainability Report is an annual report.
<b>Scope of the Report</b>	This report covers China United Network Communications Limited and its subsidiaries. For the convenience of expression, “China Unicom”, “the Group”, “the Company” and “we” are used in the presentation of this report. Guidelines for State-owned Enterprises to Better Fulfil Social Responsibilities issued by the State-owned Assets Supervision and Administration Commission of the State Council; Guidelines for Preparation of Corporate Social Responsibility Report issued by the Shanghai Stock Exchange; HKEX ESG Reporting Guide;
<b>Reporting Reference Standard</b>	Guidelines for Preparation of Social Responsibility Report, AQSIQ and SAC; Chinese Academy of Social Sciences’ Guidelines for the Preparation of Corporate Social Responsibility Reports in China (CASS-CSR 3.0); Chinese Academy of Social Sciences’ Guidelines for the Preparation of Corporate Social Responsibility Reports in China (CASS-ESG 5.0); GRI Sustainability Reporting Standards (latest version) issued by the Global Sustainability Standards Board (GSSB) and the Corporate Social Responsibility Management System of China’s Information and Communication Industry issued by the China Association of Communications Enterprises.
<b>Report Data Description</b>	The 2022 data quoted in this report are final statistical data. In case of any discrepancy between the financial data herein and those in annual report, the annual report shall prevail.
<b>Reporting Quality Assurance</b>	The Board of Directors and all directors undertake that the information disclosed in the report is authentic, complete and correct, with no false record or misleading statement.
<b>Language versions and availability:</b>	The Company’s sustainability report is available in both Chinese and English version in both paper and online formats. The Chinese and English version of the online report is available on the website of China Unicom: <a href="http://www.chinaunicom.com.hk">http://www.chinaunicom.com.hk</a> .
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#### Notes:

- As China Unicom is a massive entity and its business covers a wide geographical region, currently the Company is not able to produce full statistics over its waste production (including hazardous and non-hazardous categories) as prescribed in A1.3 and A1.4. Upon identification of material topics, we mainly report on the recycling and reuse of main resources utilised by the Company in the course of operation including cables, battery, terminals and comprehensive supplies. The Company will establish related data collection system in the future.
- As the amount of waste in network operation is directly related to the rapid development of the network and the constant update and iteration of equipment, and the generation and disposal of hazardous waste is not an important aspect of the Group's operation, the waste reduction target involved in A1.6 cannot be disclosed for the time being. We mainly reported on measures such as building a green supply chain and strengthening recycling.
- As the Company mainly engages in the provision of information communication services, packaging material used for the finished products as prescribed in A2.5 is not applicable to the Company's business practice.
- Product recycling indicator involved in B6.1 is not applicable to the actual business of the Company. Through the identification of substantive agenda, the Company mainly reported on the maintenance of network information security, the protection of emergency communication, and the protection of customer rights and interests in accordance with the law.

### Chinese Academy of Social Sciences CASS-ESG5.0

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Notes:

1. As the Company mainly engages in the provision of telecommunication services, packaging for finished products and discharge of waste water and waste gas as prescribed in E2.7-2.8, E3.1-3.4 are not applicable to the Company's business practice.

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## Notes:

1. Material gases such as ozone-depleting substances (ODS), nitrogen oxides (NOX) and sulphur oxides (SOX) cited in 305-6 and 305-7 are not the major emissions of the Company.

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## Feedback

Dear Reader,

Thank you for reading China Unicom's 2022 Sustainability Report, which is the seventh sustainability report published by the Company to the public. In order to better provide you and other stakeholders with valuable information while facilitating the supervision of social responsibility works as well as enhancing the capability and standard of performing social responsibility, we would like to have your valuable opinions and suggestions regarding this report.

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### ● Your capacity:

A. Customer   B. Shareholder   C. Government   D. Community   E. Business partner   F. Media   G. Social organization   H. Others (please specify) \_\_\_\_\_

### ● Overall evaluation of China Unicom's Sustainability Report:

A. Excellent   B. Good   C. Fair   D. Not Satisfactory   E. Poor

### ● Evaluation of China Unicom's performance in economic, social and environmental responsibilities:

Economic responsibility	A. Excellent	B. Good	C. Fair	D. Not Satisfactory	E. Poor
Social responsibility	A. Excellent	B. Good	C. Fair	D. Not Satisfactory	E. Poor
Environmental responsibility	A. Excellent	B. Good	C. Fair	D. Not Satisfactory	E. Poor

### ● Response and disclosure in this report in connection with the concerns of stakeholders?

A. Excellent   B. Good   C. Fair   D. Not Satisfactory   E. Poor

### ● Overall evaluation of this report in terms of the clarity, accuracy and integrity of the disclosure of information, data and index:

Clarity	A. Excellent	B. Good	C. Fair	D. Not Satisfactory	E. Poor
Accuracy	A. Excellent	B. Good	C. Fair	D. Not Satisfactory	E. Poor
Integrity	A. Excellent	B. Good	C. Fair	D. Not Satisfactory	E. Poor

### ● Readability of this report in terms of content arrangement and layout design?

Content Arrangement	A. Excellent	C. Fair	E. Poor
Layout Design	A. Excellent	C. Fair	E. Poor

### ● Any other opinion/suggestion for our work and report of sustainability?

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Thank you for your feedback and precious time.