Interim Group management report

Group organization, strategy, and management

With regard to our Group organization, strategy, and management, please refer to the explanations in the 2022 combined management report (2022 Annual Report). From the Group's point of view, the following significant events in the first half of 2023 resulted in changes and/or additions.

Group organization

Sale of GD Towers. On July 13, 2022, Deutsche Telekom agreed to sell a 51.0 % stake in the cell tower business companies in Germany and Austria (GD Towers), hitherto assigned to the Group Development operating segment, to DigitalBridge and Brookfield. After all necessary regulatory approvals had been duly granted and all other closing conditions met, the transaction was closed on February 1, 2023. The sale price is based on an enterprise value of EUR 17.5 billion. The total preliminary gain on deconsolidation resulting from the sale amounts to EUR 15.9 billion, of which EUR 12.9 billion is included in profit/loss from discontinued operation as other operating income in the consolidated income statement as of the deconsolidation date. As Deutsche Telekom has largely leased back the sold passive network infrastructure in Germany and Austria under a sale and leaseback transaction, a further EUR 3.0 billion will be recognized pro rata in subsequent periods. Overall, right-of-use assets were recognized in the amount of EUR 2.0 billion and lease liabilities in the amount of EUR 5.0 billion. The transaction resulted in preliminary cash proceeds of EUR 10.7 billion. The stake retained by Deutsche Telekom of 49.0 % has been included in the consolidated financial statements using the equity method since February 1, 2023. The carrying amount of the investment amounted to EUR 6.1 billion as of June 30, 2023.

> For further information on the sale of the GD tower companies, please refer to the section "Changes in the composition of the Group and other transactions" in the interim consolidated financial statements.

Sale of the U.S. wireline business. On September 6, 2022, T-Mobile US reached an agreement with Cogent Infrastructure (Cogent) on the sale of T-Mobile US' fiber-optic-based wireline business. Under the agreement, Cogent will take over all shares in the entity that holds all of the assets and liabilities related to the former Sprint's fiber-optic-based wireline network. The transaction was closed on May 1, 2023. All necessary regulatory approvals had been duly granted and all other closing conditions met. The sale price was USD 1 and was subject to customary adjustments laid down in the purchase agreement. The cash proceeds received upon completion of the transaction amounted to USD 14 million (EUR 13 million). The loss on deconsolidation resulting from the sale amounted to EUR 4 million. In addition, upon completion of the transaction, T-Mobile US undertook to enter into a separate agreement on IP transit services, according to which T-Mobile US will pay a total of USD 0.7 billion (around EUR 0.6 billion) to Cogent in agreed installments over subsequent periods. In connection with the payment obligations entered into as part of the transaction, total liabilities of EUR 0.7 billion had already been recognized in the 2022 financial year. As a result of the concluded sales agreement, the assets and liabilities of the wireline business were reported in the consolidated statement of financial position as "held for sale" from September 30, 2022 up until their sale on May 1, 2023.

Share buy-back program continued and majority stake in T-Mobile US secured. In the first half of 2023, T-Mobile US bought back around 58 million additional shares with a total volume of USD 8.3 billion (EUR 7.7 billion) under its share buy-back program. Taking the treasury shares held by T-Mobile US into account, Deutsche Telekom's stake in T-Mobile US stood at 51.3 % as of June 30, 2023.

Furthermore, the transaction described below will affect the segment and organizational structure of Deutsche Telekom in the future:

Agreement on the acquisition of Ka'ena in the United States. On March 9, 2023, T-Mobile US entered into a Merger and Unit Purchase Agreement for the acquisition of 100 % of the outstanding equity of Ka'ena Corporation and its subsidiaries including, among others, Mint Mobile, for a maximum purchase price of USD 1.35 billion to be paid out 39 % in cash and 61 % in shares of T-Mobile US common stock. Ka'ena Corporation is currently one of the wholesale partners of T-Mobile US, offering wireless telecommunications services to customers. The purchase price is variable dependent upon specified performance indicators of Ka'ena Corporation during certain periods before and after closing and consists of an upfront payment at deal close, subject to certain agreed-upon adjustments, and a variable earnout payable 24 months after the close of the transaction. The upfront payment is expected to be approximately USD 950 million, before working capital adjustments. The acquisition is subject to certain customary closing conditions, including certain regulatory approvals, and is expected to close by the end of 2023.

Management of the Group

Presentation of GD Towers according to the management approach. The GD Towers business entity had been recognized in the interim consolidated financial statements as a discontinued operation from the third quarter of 2022 until its sale on February 1, 2023. In the interim Group management report, we include the contributions by GD Towers in the results of operations according to the management approach for the period mentioned. The following table provides a reconciliation of the amounts recognized in the consolidated income statement to the financial performance indicators relevant for the management approach:

millions of €		H1 2023	Of which: continuing operations	Of which: discontinued operation	H1 2022	Of which: continuing operations	Of which: discontinued operation
Net revenue[a]		**55,060**	**55,045**	**15**	**55,634**	**55,528**	**106**
Service revenue[a]		**45,767**	**45,770**	**(4)**	**44,666**	**44,674**	**(8)**
EBITDA		**35,122**	**22,121**	**13,001**	**23,019**	**22,559**	**460**
Depreciation of right-of-use assets		(2,453)	(2,453)	0	(3,770)	(3,668)	(101)
Interest expenses on recognized lease liabilities		(888)	(883)	(5)	(710)	(697)	(13)
EBITDA AL		**31,780**	**18,784**	**12,996**	**18,539**	**18,193**	**346**
Special factors affecting EBITDA AL		11,779	(1,145)	12,924	(1,224)	(1,223)	(1)
EBITDA AL (adjusted for special factors)		**20,002**	**19,929**	**73**	**19,763**	**19,416**	**347**
Depreciation, amortization and impairment losses		(11,900)	(11,900)	0	(14,335)	(14,144)	(192)
Profit (loss) from operations (EBIT)		**23,222**	**10,221**	**13,001**	**8,684**	**8,415**	**269**
Profit (loss) from financial activities		(2,954)	(2,938)	(16)	(1,523)	(1,539)	15
Profit (loss) before income taxes		20,269	7,283	12,986	7,160	6,876	284
Earnings per share (basic and diluted)	€	3.40	0.64	2.75	1.09	1.05	0.04
Adjusted earnings per share (basic and diluted)	€	**0.77**	**0.76**	**0.01**	**0.94**	**0.90**	**0.04**

[a] As of the third quarter of 2022 the principal/agent consideration regarding the recognition of gross and net revenues was changed. Prior-year comparatives were adjusted retrospectively.

Broader definition of service revenue. Since January 1, 2023, service revenue additionally includes certain software revenues generated with ICT business in the Systems Solutions and Europe operating segments, as well as in the Group Headquarters & Group Services segment. Comparative figures have been adjusted retrospectively.

The economic environment

This section provides important additional information and explains recent changes in the economic environment compared to those described in the 2022 combined management report (2022 Annual Report), focusing on macroeconomic developments, the overall economic outlook including the currently prevailing economic risks, and the regulatory environment in the first half of 2023.

Macroeconomic development

The global economic outlook dampened in the second quarter of 2023. The inflation-induced loss of purchasing power is stifling macroeconomic demand, while higher interest rates are negatively affecting financing terms for households and businesses. The upturn in consumer prices in the United States and the eurozone has slowed, although the core inflation rate remains at a relatively high level.

In its July 2023 forecast, the International Monetary Fund (IMF) expects global economic output to grow by 3.0 % in the current year compared to growth of 3.5 % in the prior year.

For the German economy, the IMF expects economic output to decline by 0.3 %. According to the Bitkom-ifo-Digitalindex, the business climate in the digital sector deteriorated in the second quarter of 2023, but remains positive in contrast to the business climate in the economy as a whole.

The national economies in our core markets in North America and Europe are set to grow this year. According to the IMF forecast, economic output is expected to grow this year by 1.8 % in the United States and by 0.9 % in the eurozone.

Overall economic outlook

Cooling inflation and falling prices on the global energy markets could lead to moderate economic recovery in the course of the year. However, significant downside risks continue to weigh on the economic outlook. If inflation falls at a slower rate than expected, it could result in the need for a more aggressive tightening of monetary policy. This would further dampen consumer demand. Europe avoided a gas shortage in winter 2022/23, but the supply situation for winter 2023/24 is still uncertain and energy prices could rise if demand for natural gas increases in Asia. A possible escalation of the war in Ukraine could also lead to a renewed rise in energy prices. Geopolitical tensions between the United States and China present a further risk, and could put significant pressure on global trade in goods and international supply chains.

Regulation

Awarding of spectrum

At the multi-band auction in Croatia, which began with a bidding phase on January 17, 2023, Hrvatski Telekom secured an above-average package of spectrum, comprising the largest share of spectrum (2x 105 MHz), for around EUR 135 million.

The Polish regulatory authority UKE launched the award procedure for the 3,400 to 3,800 MHz band with an auction announcement on June 22, 2023. Mobile network operators had until August 8, 2023 to register their interest in participating. The bidding phase is scheduled for September/October 2023. Awards for the 700/800 MHz and 26 GHz bands could follow in the course of 2023. In the Czech Republic, the procedure to extend the 900/1,800 MHz GSM license, which expires in 2024, is expected to begin in the course of 2023. Meanwhile, the Slovak regulator announced a procedure (auction) to re-award spectrum in the 900 MHz and 2,100 MHz bands at the end of 2023. In Austria and Hungary, the millimeter wave spectrum in the 26 GHz band is also expected to be awarded in 2023. To free up this band, Hungary has already begun awarding substitute frequencies in the 32 GHz band.

The following table provides an overview of the main ongoing and planned spectrum awards and auctions as well as license extensions. It also indicates spectrum to be awarded in the near future in various countries.

Main spectrum awards

	Expected start of award procedure	Expected end of award procedure	Frequency ranges	Planned award procedures
Austria	Q3 2023	Q4 2023	26 GHz/3,400–3,800 MHz (residual spectrum)	Auction (SMRA[a])
Poland	Started	Q4 2023	3,400–3,800 MHz	Auction (SMRA[a]), 4 blocks of 100 MHz, cap set at 100 MHz in consultation draft
Poland	Q3 2023	Q4 2023	700/800 MHz	Auction or tender procedure[b], details and timeline tbd
Poland	Q3 2023	Q4 2023	26 GHz	Details tbd
Slovakia	Q3 2023	Q4 2023	900/2,100 MHz	New award procedure (auction)
Czech Republic	Q3 2023	Q4 2023	900/1,800 MHz	Extension procedure
Hungary	Q3 2023	Q4 2023	26 GHz	Details tbd

[a] SMRA: simultaneous (electronic) multi-round auction with ascending, parallel bids for all available frequency bands.
[b] Tender procedure (beauty contest auction) offering a competitive selection process for assigning scarce frequencies.

Agreements on spectrum licenses

In the United States, on August 8, 2022, T-Mobile US entered into agreements with **Channel 51 License** and **LB License** for the acquisition of licenses in the 600 MHz spectrum for an aggregate purchase price of USD 3.5 billion (EUR 3.4 billion). On March 30, 2023, the contractual parties further agreed that the transaction be divided into two separate tranches. The transfer of the licenses in accordance with the agreements is subject to regulatory approvals and certain other customary closing conditions. The first tranche is expected to be concluded by the end of 2023, while the second tranche is expected to be concluded in 2024.

On July 1, 2020, T-Mobile US and **DISH Network Corporation** (DISH) entered into an agreement on the sale of spectrum licenses, under which DISH receives an option to purchase certain 800 MHz spectrum licenses from T-Mobile US for USD 3.6 billion (EUR 3.5 billion). The transaction is subject to approval by the Federal Communications Commission (FCC). Pursuant to the agreement, the application for approval would have had to be filed with the FCC at the latest by June 1, 2023. As of July 27, 2023, DISH has not fulfilled this obligation. At the request of the U.S. Department of Justice, T-Mobile US agreed not to take action to terminate the agreement until August 11, 2023. If the application is filed with the FCC before this date, and the FCC subsequently approves the transaction, the contractual parties are obligated to close the transaction within five days of the FCC's approval. If DISH were to be in breach of contract, it would have to pay a contractual penalty of USD 72 million to T-Mobile US. However, should the transaction not be closed by April 1, 2024, without breach of contract, both parties are entitled to terminate the agreement. In this case, DISH would not be required to pay a contractual penalty. If DISH does not exercise its option to purchase the 800 MHz spectrum licenses, T-Mobile US is obligated to put the licenses up for sale at auction. Should bidding not reach the defined minimum purchase price of USD 3.6 billion, T-Mobile US would be released from its obligation to sell the licenses.

Development of business in the Group

This section provides important additional information and explains recent changes in the significant events compared to those described in the 2022 combined management report (2022 Annual Report), and looks at the effects of these changes on the development of business in the Group. In the section "The economic environment," we also focus on macroeconomic developments in the first half of 2023. For more information on global economic developments and the associated business risks, please refer to the section "Risks and opportunities."

For further information on significant events in the 2022 financial year, please refer to the sections "Group organization," "Management of the Group," and "Development of business in the Group" in the 2022 combined management report (2022 Annual Report).

Presentation of GD Towers according to the management approach. The GD Towers business entity had been recognized in the interim consolidated financial statements as a discontinued operation from the third quarter of 2022 until its sale on February 1, 2023. In the interim Group management report, we include the contributions by GD Towers in the results of operations according to the management approach for the period mentioned.

For further information on the sale and the presentation of GD Towers according to the management approach, including a reconciliation to the consolidated income statement, please refer to the section "Group organization, strategy, and management."

Results of operations of the Group

millions of €

		H1 2023	H1 2022	Change %	Q1 2023	Q2 2023	Q2 2022	Change %	FY 2022
Net revenue[a]		**55,060**	**55,634**	**(1.0)**	**27,839**	**27,221**	**27,888**	**(2.4)**	**114,413**
Service revenue[a, b]		**45,767**	**44,666**	**2.5**	**22,814**	**22,952**	**22,633**	**1.4**	**91,988**
EBITDA AL (adjusted for special factors)		**20,002**	**19,763**	**1.2**	**9,963**	**10,038**	**9,891**	**1.5**	**40,208**
EBITDA AL		31,780	18,539	71.4	22,364	9,416	7,453	26.3	35,989
Depreciation, amortization and impairment losses		(11,900)	(14,335)	17.0	(6,030)	(5,869)	(7,570)	22.5	(27,827)
Profit (loss) from operations (EBIT)		**23,222**	**8,684**	**n.a.**	**18,015**	**5,207**	**2,356**	**n.a.**	**16,159**
Profit (loss) from financial activities		(2,954)	(1,523)	(94.0)	(1,331)	(1,623)	(634)	n.a.	(4,455)
Profit (loss) before income taxes		20,269	7,160	n.a.	16,685	3,584	1,723	n.a.	11,703
Net profit (loss)		16,899	5,409	n.a.	15,360	1,539	1,460	5.4	8,001
Net profit (loss) (adjusted for special factors)		3,846	4,683	(17.9)	1,959	1,887	2,445	(22.8)	9,081
Earnings per share (basic and diluted)	€	3.40	1.09	n.a.	3.09	0.31	0.29	6.9	1.61
Adjusted earnings per share (basic and diluted)	€	**0.77**	**0.94**	**(18.1)**	**0.39**	**0.38**	**0.49**	**(22.4)**	**1.83**

[a] As of the third quarter of 2022 the principal/agent consideration regarding the recognition of gross and net revenues was changed. Prior-year comparatives were adjusted retrospectively.

[b] As of January 1, 2023, the definition of service revenue was extended. Prior-year comparatives were adjusted retrospectively.

In order to increase the informative value of the prior-year comparatives based on changes to the Company's structure or exchange rate effects, we also describe selected figures in organic terms, by adjusting the figures for the prior-year period for changes in the composition of the Group, exchange rate effects, and other effects. Due to changes in the composition of the Group, the figures for the prior-year period presented on an organic basis were reduced in the Group Development operating segment in connection with the sale of T-Mobile Netherlands as of March 31, 2022, of GD Towers as of February 1, 2023, and of the wireline business at T-Mobile US as of May 1, 2023. The net positive exchange rate effects were primarily attributable to the translation of U.S. dollars to euros.

Revenue, service revenue

In the first half of 2023, we generated net revenue of EUR 55.1 billion, a decrease of 1.0 % or EUR 0.6 billion year-on-year. In organic terms, revenue decreased only slightly by EUR 0.2 billion or 0.4 %, including positive net exchange rate effects of EUR 0.4 billion, with changes in the composition of the Group having a reducing effect of EUR 0.7 billion. High-value service revenue in the Group increased by EUR 1.1 billion or 2.5 % year-on-year to EUR 45.8 billion. In organic terms, service revenue increased by EUR 1.3 billion or 2.9 %.

Contribution of the segments to net revenue (according to the management approach)

millions of €

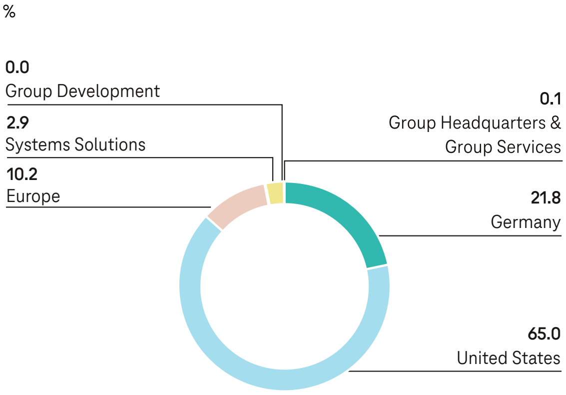
	H1 2023	H1 2022	Change %	Q1 2023	Q2 2023	Q2 2022	Change %	FY 2022
Germany	12,290	12,001	2.4	6,141	6,150	6,038	1.9	24,505
United States	35,817	36,320	(1.4)	18,262	17,555	18,440	(4.8)	75,436
Europe	5,683	5,411	5.0	2,784	2,899	2,729	6.2	11,158
Systems Solutions	1,905	1,869	1.9	946	959	942	1.8	3,811
Group Development	106	1,115	(90.5)	102	4	291	(98.6)	1,708
Group Headquarters & Group Services	1,130	1,220	(7.4)	578	552	616	(10.4)	2,407
Intersegment revenue	(1,873)	(2,302)	18.6	(975)	(898)	(1,169)	23.2	(4,612)
Net revenue[a]	**55,060**	**55,634**	**(1.0)**	**27,839**	**27,221**	**27,888**	**(2.4)**	**114,413**

[a] As of the third quarter of 2022 the principal/agent consideration regarding the recognition of gross and net revenues was changed. Prior-year comparatives were adjusted retrospectively.

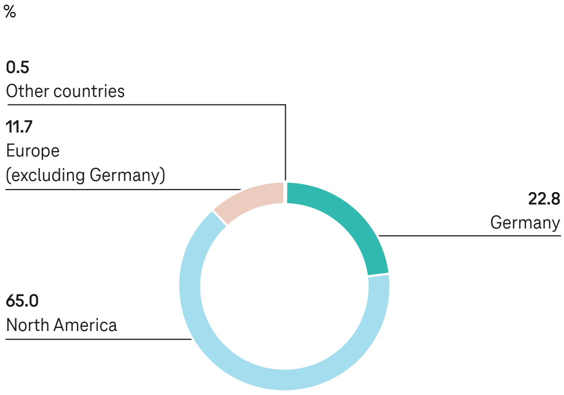
The loss of the value contributions of the sold entities T-Mobile Netherlands and GD Towers had a significant negative impact on year-on-year revenue development in the Group Development operating segment. In organic terms, however, revenue increased by 3.1 %. In our United States operating segment, revenue was down 1.4 % against the prior-year level, due in part to exchange rate effects. In organic terms, it declined by 2.2 %. This was attributable to lower terminal equipment revenue, which was only partially offset by higher service revenue. The other operating segments recorded positive revenue trends. Revenue in our home market of Germany was up on the prior-year level, increasing by 2.4 %. In organic terms, revenue grew by 1.7 % year-on-year. This was mainly driven by growth in service revenues in the fixed-network core business and in mobile communications. Another revenue driver was the partnership business. In our Europe operating segment, revenue increased by 5.0 % year-on-year. In organic terms, too, revenue increased by 5.0 %, primarily attributable to the increase in higher-margin service revenues in the mobile business. Revenue in our Systems Solutions operating segment was up 1.9 % year-on-year; in organic terms, it was up 4.6 %. This positive revenue trend was mainly driven by growth in the Digital, Road Charging, and Advisory portfolio areas.

For further information on revenue development in our segments, please refer to the section "Development of business in the operating segments."

Contribution of the segments to net revenue[a, b]



Breakdown of revenue by region[b]



[a] For further information on net revenue, please refer to the section "Segment reporting" in the interim consolidated financial statements.
[b] As of the third quarter of 2022 the principal/agent consideration regarding the recognition of gross and net revenues was changed. Prior-year comparatives were adjusted retrospectively.

At 65.0 %, our United States operating segment provided by far the largest contribution to net revenue of the Group. This was 0.3 percentage points below the level in the prior-year period. The proportion of net revenue generated internationally decreased from 77.7 % to 77.2 %.

Adjusted EBITDA AL, EBITDA AL

Adjusted EBITDA AL increased year-on-year by EUR 0.2 billion or 1.2 % to EUR 20.0 billion in the first half of 2023. In organic terms, adjusted EBITDA AL increased by EUR 0.5 billion or 2.4 %, including positive net exchange rate effects of EUR 0.1 billion, and with changes in the composition of the Group having a net reducing effect of EUR 0.4 billion. Adjusted core EBITDA AL, i.e., adjusted EBITDA AL excluding revenue from terminal equipment leases in the United States, thereby presenting operational development undistorted by the strategic withdrawal from the terminal equipment lease business, increased by EUR 0.8 billion or 4.4 % to EUR 19.8 billion.

Contribution of the segments to adjusted Group EBITDA AL (according to the management approach)

millions of €

	H1 2023	H1 2022	Change %	Q1 2023	Q2 2023	Q2 2022	Change %	FY 2022
Germany	5,016	4,823	4.0	2,489	2,528	2,429	4.1	9,837
United States	13,090	12,509	4.6	6,536	6,554	6,337	3.4	25,614
Europe	2,007	1,961	2.3	983	1,024	986	3.9	3,964
Systems Solutions	159	147	8.2	75	84	79	6.3	284
Group Development	60	519	(88.4)	65	(5)	164	n.a.	964
Group Headquarters & Group Services	(317)	(185)	(71.4)	(176)	(141)	(100)	(41.0)	(437)
Reconciliation	(14)	(11)	(27.3)	(9)	(5)	(3)	(66.7)	(17)
EBITDA AL (adjusted for special factors)	**20,002**	**19,763**	**1.2**	**9,963**	**10,038**	**9,891**	**1.5**	**40,208**

All operating segments – with the exception of Group Development due to the aforementioned loss of the value contributions of the sold units – made a positive contribution to the development of adjusted EBITDA AL. Our Germany operating segment contributed to the increase thanks to high-value revenue growth and improved cost efficiency with 4.0 % higher adjusted EBITDA AL; in organic terms, it increased by 3.0 %. In our United States operating segment, adjusted EBITDA AL increased by 4.6 %, due in part to exchange rate effects. But also in organic terms, adjusted EBITDA AL grew by 3.1 % year-on-year. Adjusted core EBITDA AL at T-Mobile US increased by EUR 1.2 billion or 10.1 % to EUR 12.9 billion. Adjusted EBITDA AL in our Europe operating segment increased by 2.3 %. In organic terms, adjusted EBITDA AL grew by 1.9 %, again making a positive contribution to earnings, with a positive net margin more than sufficient to offset the higher indirect costs. In our Systems Solutions operating segment, adjusted EBITDA AL increased by 8.2 % or, in organic terms, by 3.2 %. Efficiency effects from the transformation program and increased revenue in the Digital and Road Charging portfolio areas exceeded the decline in earnings in the Cloud portfolio area, which includes the traditional IT infrastructure business.

EBITDA AL increased by EUR 13.2 billion year-on-year to EUR 31.8 billion, with special factors affecting EBITDA AL increasing by EUR 13.0 billion to EUR 11.8 billion. Net income of EUR 12.4 billion was recorded as special factors under effects of deconsolidations, disposals, and acquisitions. The deconsolidation of GD Towers as of February 1, 2023 gave rise to income of EUR 12.9 billion. Net expenses of EUR 0.6 billion, mainly in connection with integration costs as a result of the merger of T-Mobile US and Sprint, had an offsetting effect. These expenses include in particular expenses from the integration of IT systems, expenses in connection with the decommissioning of the former Sprint's wireless network, and additional depreciation and impairment losses from reductions in the useful lives of leased network technology for cell sites in the United States. In the prior-year period, net expenses of EUR 0.1 billion were recorded as special factors under effects of deconsolidations, disposals and acquisitions. Of this income, EUR 1.7 billion resulted from the deconsolidation of GlasfaserPlus and a further EUR 0.9 billion from the sale of T-Mobile Netherlands. Net expenses of EUR 2.8 billion, mainly in connection with integration costs as a result of the merger of T-Mobile US and Sprint, had an offsetting effect. Expenses incurred in connection with staff restructuring were on a par with the prior-year level at EUR 0.6 billion. No significant impairment losses or other special factors affecting EBITDA AL were recognized in the reporting period. In the prior year, the impairment losses classified as special factors amounted to EUR 0.2 billion and mainly related to right-of-use assets used in connection with the former Sprint's fiber-optic-based wireline network. In the prior year, other special factors affecting EBITDA AL included expenses of EUR 0.4 billion for the settlement reached and the further proceedings pending in consequence of the cyberattack on T-Mobile US in August 2021, offset by payments on account from insurance companies of EUR 0.1 billion in connection with damage sustained in the catastrophic flooding in July 2021.

For further information on the development of (adjusted) EBITDA AL in our segments, please refer to the section "Development of business in the operating segments."

Profit/loss from operations (EBIT)
Group EBIT increased to EUR 23.2 billion, up EUR 14.5 billion against the level of the prior-year period. This change was primarily due to the deconsolidation gain from the sale of GD Towers. At EUR 11.9 billion, depreciation, amortization and impairment losses on intangible assets, property, plant and equipment, and right-of-use assets were EUR 2.4 billion lower in the first half of 2023 than in the prior-year period, with the decrease being mainly attributable to the United States and Group Development operating segments. Depreciation and amortization at T-Mobile US were lower due to the ongoing strategic withdrawal from the terminal equipment lease business. Depreciation and amortization also decreased due to the complete write-off of certain 4G network components, including assets affected by the decommissioning of the former Sprint's legacy CDMA and LTE networks in 2022. The decrease was offset by increased depreciation and amortization in connection with the further build-out of the nationwide 5G network in the United States. In the Group Development operating segment, depreciation of property, plant and equipment and right-of-use assets were down on the prior-year level in connection with the fact that GD Towers had been held for sale until it was sold and accordingly the related depreciation had been suspended, and in connection with its subsequent sale. By contrast, a further reduction in the useful life of leased network technology for cell sites following the business combination of T-Mobile US and Sprint increased depreciation of the corresponding right-of-use assets by EUR 0.2 billion. At EUR 0.1 billion, no significant impairment losses were recorded in the reporting period. The impairment losses recorded in the prior-year period amounted to EUR 0.5 billion and were mainly attributable to the former Sprint's fiber-optic-based wireline assets in the United States operating segment.

For information on the sale and the presentation of GD Towers according to the management approach, including a reconciliation for the consolidated income statement, please refer to the section "Group organization, strategy, and management."

Profit before income taxes
Profit before income taxes increased by EUR 13.1 billion to EUR 20.3 billion. Loss from financial activities increased year-on-year from EUR 1.5 billion to EUR 3.0 billion, with other financial income declining from EUR 1.0 billion to an expense of EUR 0.1 billion, in particular in connection with the interest component from the measurement of provisions and liabilities. This decrease was mainly attributable to the subsequent measurement using actuarial principles of the present value of the provision recognized for the Civil Service Health Insurance Fund. Gains/losses from financial instruments also declined year-on-year by EUR 0.3 billion to EUR 0.1 billion, partly due to less pronounced positive measurement effects compared with the prior-year period from a forward transaction which was terminated early in the first quarter of 2023 to hedge the price of acquiring T-Mobile US shares in the future. Finance costs increased from EUR 2.5 billion to EUR 2.9 billion, mainly due to the sale and leaseback of passive network infrastructure in Germany and Austria in connection with the sale of GD Towers, which resulted in an increase in the carrying amounts of the lease liabilities, and due to an increase in the average interest rates of our financial liabilities.

Net profit, adjusted net profit

Net profit increased year-on-year by EUR 11.5 billion to EUR 16.9 billion. The tax expense decreased by EUR 0.2 billion to EUR 1.2 billion. The tax rate was significantly reduced in the first half of 2023 by the realization of tax-free income from the sale of GD Towers. Taxes were furthermore reduced by deferred tax effects arising in connection with the sale-and-leaseback transaction concluded. Profit attributable to non-controlling interests increased by EUR 1.8 billion to EUR 2.1 billion. This increase was almost entirely attributable to our United States operating segment. Excluding special factors, which had a positive overall effect of EUR 13.1 billion on net profit, adjusted net profit amounted to EUR 3.8 billion in the first half of 2023, compared with EUR 4.7 billion in the prior-year period. The increase in loss from financial activities in particular had a decreasing effect.

For further information on tax expense, please refer to the section “Income taxes” in the interim consolidated financial statements.

Earnings per share, adjusted earnings per share

Earnings per share is calculated as net profit divided by the weighted average number of ordinary shares outstanding, which totaled 4,975 million as of June 30, 2023. This resulted in earnings per share of EUR 3.40, which was mainly affected by the gain on the sale of GD Towers. In the prior-year period, earnings per share had been EUR 1.09. Earnings per share adjusted for special factors affecting net profit amounted to EUR 0.77 compared with EUR 0.94 in the prior-year period.

Employees

Headcount development

	June 30, 2023	Dec. 31, 2022	Change	Change %	June 30, 2022
FTEs in the Group	**205,212**	**206,759**	**(1,547)**	**(0.7)**	**210,595**
Of which: civil servants (in Germany, with an active service relationship)	7,585	8,381	(796)	(9.5)	8,889
Germany	60,596	59,014	1,582	2.7	60,401
United States	66,581	67,088	(507)	(0.8)	68,826
Europe	33,645	34,083	(438)	(1.3)	34,689
Systems Solutions	25,976	27,392	(1,416)	(5.2)	26,580
Group Development	103	828	(725)	(87.6)	829
Of which: GD Towers	0	762	(762)	(100.0)	754
Group Headquarters & Group Services	18,309	18,353	(44)	(0.2)	19,270

As of June 30, 2023, the Group’s headcount was down slightly compared with the end of 2022, by 0.7 %. In our Germany operating segment, the number of employees increased by 2.7 % against year-end 2022, mainly due to the transfer of employees of Multimedia Solutions (MMS) from the Systems Solutions operating segment. The total number of full-time equivalent employees in the United States operating segment decreased slightly compared to year-end 2022 – primarily due to headcount rationalization to manage costs. In our Europe operating segment, the headcount was down by 1.3 % compared with the end of the prior year, in particular in Slovakia, Greece, Hungary, and Croatia. The headcount in our Systems Solutions operating segment was down 5.2 % against year-end 2022, mainly due to the transfer of MMS into the Germany operating segment. In the Group Development operating segment, the sharp year-on-year decrease in headcount of 87.6 % was mainly due to the sale of GD Towers as of February 1, 2023. The headcount in the Group Headquarters & Group Services segment as of June 30, 2023 was at the same level as at year-end 2022. The continued staff restructuring at Vivento offset the increase in the number of employees in the Technology and Innovation Board of Management department.

Reconciliations of financial performance indicators from the IFRS consolidated financial statements

A reconciliation of the definition of EBITDA to the **"after leases" indicator** (EBITDA AL) can be found in the following table:

millions of €	H1 2023	H1 2022	Change %	Q1 2023	Q2 2023	Q2 2022	Change %	FY 2022
EBITDA	35,122	23,019	52.6	24,046	11,077	9,927	11.6	43,986
Depreciation of right-of-use assets[a]	(2,453)	(3,770)	34.9	(1,246)	(1,207)	(2,116)	43.0	(6,507)
Interest expenses on recognized lease liabilities[a]	(888)	(710)	(25.1)	(435)	(453)	(358)	(26.5)	(1,489)
EBITDA AL	**31,780**	**18,539**	**71.4**	**22,364**	**9,416**	**7,453**	**26.3**	**35,989**
Special factors affecting EBITDA AL	11,779	(1,224)	n.a.	12,401	(622)	(2,438)	74.5	(4,219)
EBITDA AL (adjusted for special factors)	**20,002**	**19,763**	**1.2**	**9,963**	**10,038**	**9,891**	**1.5**	**40,208**

[a] Excluding finance leases at T-Mobile US.

The following table presents the reconciliation of net profit to **net profit adjusted for special factors**:

millions of €	H1 2023	H1 2022	Change %	Q1 2023	Q2 2023	Q2 2022	Change %	FY 2022
Net profit (loss)	**16,899**	**5,409**	**n.a.**	**15,360**	**1,539**	**1,460**	**5.4**	**8,001**
Special factors affecting EBITDA AL	11,779	(1,224)	n.a.	12,401	(622)	(2,438)	74.5	(4,219)
Staff-related measures	(587)	(569)	(3.2)	(232)	(355)	(386)	8.0	(1,230)
Non-staff-related restructuring	(17)	(46)	63.0	(10)	(7)	(37)	81.1	(175)
Effects of deconsolidations, disposals and acquisitions	12,384	(99)	n.a.	12,623	(240)	(1,433)	83.3	(2,256)
Impairment losses	(8)	(201)	96.0	(1)	(7)	(197)	96.4	(276)
Other	7	(308)	n.a.	21	(14)	(385)	96.4	(283)
Special factors affecting net profit	1,275	1,949	(34.6)	1,000	274	1,453	(81.1)	3,139
Impairment losses	(48)	(341)	85.9	(17)	(31)	(310)	90.0	(989)
Profit (loss) from financial activities	(2)	24	n.a.	0	(2)	3	n.a.	(487)
Income taxes	1,029	782	31.6	876	154	778	(80.2)	1,936
Non-controlling interests	296	1,484	(80.1)	141	154	982	(84.3)	2,680
Special factors	**13,053**	**726**	**n.a.**	**13,401**	**(348)**	**(985)**	**64.7**	**(1,080)**
Net profit (loss) (adjusted for special factors)	**3,846**	**4,683**	**(17.9)**	**1,959**	**1,887**	**2,445**	**(22.8)**	**9,081**

The following table presents a reconciliation of EBITDA AL, EBIT, and net profit to the respective figures adjusted for **special factors**:

millions of €	EBITDA AL H1 2023	EBIT H1 2023	EBITDA AL H1 2022	EBIT H1 2022	EBITDA AL FY 2022	EBIT FY 2022
EBITDA AL/EBIT	**31,780**	**23,222**	**18,539**	**8,684**	**35,989**	**16,159**
Germany	**(271)**	**(271)**	**1,406**	**1,406**	**1,162**	**1,162**
Staff-related measures	(256)	(256)	(277)	(277)	(523)	(523)
Non-staff-related restructuring	(7)	(7)	(3)	(3)	(8)	(8)
Effects of deconsolidations, disposals and acquisitions	1	1	1,634	1,634	1,608	1,608
Impairment losses	0	0	0	0	0	0
Other	(9)	(9)	51	51	84	84

millions of €	EBITDA AL H1 2023	EBIT H1 2023	EBITDA AL H1 2022	EBIT H1 2022	EBITDA AL FY 2022	EBIT FY 2022
United States	**(722)**	**(732)**	**(3,454)**	**(3,745)**	**(5,949)**	**(6,637)**
Staff-related measures	(172)	(172)	(124)	(124)	(352)	(352)
Non-staff-related restructuring	0	0	0	0	0	0
Effects of deconsolidations, disposals and acquisitions	(582)	(564)	(2,750)	(2,791)	(4,956)	(5,084)
Impairment losses	(8)	(36)	(200)	(452)	(275)	(836)
Other	40	40	(379)	(379)	(366)	(366)
Europe	**(45)**	**(45)**	**(18)**	**(18)**	**(31)**	**(147)**
Staff-related measures	(38)	(38)	(44)	(44)	(70)	(70)
Non-staff-related restructuring	0	0	0	0	0	0
Effects of deconsolidations, disposals and acquisitions	4	4	5	5	12	12
Impairment losses	0	0	0	0	0	(117)
Other	(11)	(11)	21	21	27	27
Systems Solutions	**(51)**	**(61)**	**(66)**	**(85)**	**(159)**	**(270)**
Staff-related measures	(40)	(40)	(46)	(46)	(107)	(107)
Non-staff-related restructuring	(1)	(1)	0	0	(5)	(5)
Effects of deconsolidations, disposals and acquisitions	1	1	(2)	(2)	(2)	(2)
Impairment losses	0	(11)	0	(18)	0	(111)
Other	(11)	(11)	(17)	(17)	(44)	(44)
Group Development	**12,947**	**12,947**	**906**	**906**	**992**	**992**
Staff-related measures	(3)	(3)	(2)	(2)	(10)	(10)
Non-staff-related restructuring	0	0	0	0	0	0
Effects of deconsolidations, disposals and acquisitions	12,951	12,951	909	909	1,003	1,003
Impairment losses	0	0	0	0	0	0
Other	0	0	(1)	(1)	(1)	(1)
Group Headquarters & Group Services	**(80)**	**(81)**	**1**	**(21)**	**(234)**	**(270)**
Staff-related measures	(79)	(79)	(76)	(76)	(168)	(168)
Non-staff-related restructuring	(9)	(9)	(43)	(43)	(162)	(162)
Effects of deconsolidations, disposals and acquisitions	9	9	104	104	80	80
Impairment losses	0	0	(1)	(23)	0	(36)
Other	(1)	(1)	17	17	17	17
Group	**11,779**	**11,757**	**(1,224)**	**(1,557)**	**(4,219)**	**(5,171)**
Staff-related measures	(587)	(587)	(569)	(569)	(1,230)	(1,230)
Non-staff-related restructuring	(17)	(17)	(46)	(46)	(175)	(175)
Effects of deconsolidations, disposals and acquisitions	12,384	12,401	(99)	(140)	(2,256)	(2,384)
Impairment losses	(8)	(47)	(201)	(494)	(276)	(1,100)
Other	7	7	(308)	(308)	(283)	(283)
EBITDA AL/EBIT (adjusted for special factors)	**20,002**	**11,465**	**19,763**	**10,240**	**40,208**	**21,330**
Profit (loss) from financial activities (adjusted for special factors)		(2,925)		(1,540)		(3,931)
Profit (loss) before income taxes (adjusted for special factors)		**8,541**		**8,700**		**17,399**
Income taxes (adjusted for special factors)		(2,264)		(2,193)		(4,157)
Profit (loss) (adjusted for special factors)		**6,276**		**6,507**		**13,242**
Profit (loss) (adjusted for special factors) attributable to						
Owners of the parent (net profit (loss)) (adjusted for special factors)		3,846		4,683		9,081
Non-controlling interests (adjusted for special factors)		2,431		1,824		4,161

Financial position of the Group

Condensed consolidated statement of financial position

millions of €

	June 30, 2023	%	Dec. 31, 2022	Change	June 30, 2022
Assets					
Cash and cash equivalents	8,742	2.9	5,767	2,975	5,281
Trade receivables	15,750	5.3	16,766	(1,016)	16,853
Intangible assets	138,026	46.1	140,600	(2,574)	144,544
Property, plant and equipment	65,840	22.0	65,729	111	65,185
Right-of-use assets	34,312	11.4	33,727	585	38,061
Investments accounted for using the equity method	7,349	2.5	1,318	6,031	1,995
Current and non-current financial assets	10,206	3.4	9,910	296	9,394
Deferred tax assets	7,251	2.4	8,316	(1,065)	8,604
Non-current assets and disposal groups held for sale	122	0.0	4,683	(4,561)	99
Miscellaneous assets	12,103	4.0	11,774	329	11,670
Total assets	**299,701**	**100.0**	**298,590**	**1,111**	**301,686**
Liabilities and shareholders' equity					
Current and non-current financial liabilities	109,980	36.7	113,030	(3,050)	114,506
Current and non-current lease liabilities	41,999	14.0	38,792	3,207	42,525
Trade and other payables	10,384	3.5	12,035	(1,651)	11,179
Provisions for pensions and other employee benefits	3,870	1.3	4,150	(280)	3,913
Current and non-current other provisions	7,159	2.4	8,204	(1,045)	8,378
Deferred tax liabilities	22,159	7.4	22,800	(641)	22,925
Liabilities directly associated with non-current assets and disposal groups held for sale	0	0.0	3,347	(3,347)	0
Miscellaneous liabilities	9,751	3.3	8,912	839	9,768
Shareholders' equity	94,399	31.5	87,320	7,079	88,492
Total liabilities and shareholders' equity	**299,701**	**100.0**	**298,590**	**1,111**	**301,686**

Total assets amounted to EUR 299.7 billion as of June 30, 2023, up by EUR 1.1 billion against December 31, 2022. The main contributing factors were the cash proceeds from the sale of GD Towers, the sale-and-leaseback transaction concluded in this connection to lease the sold passive network infrastructure in Germany and Austria, and the inclusion of the remaining 49.0 % stake. Total assets were reduced in connection with the derecognition of the assets and liabilities that had been fully consolidated until the transaction was closed. Exchange rate effects, primarily from the translation of U.S. dollars into euros, decreased the carrying amount of total assets.

For further information on the sale of GD Towers, please refer to the section "Group organization, strategy, and management."

On the assets side, **trade receivables** amounted to EUR 15.8 billion, down by EUR 1.0 billion against the 2022 year-end. This was due to lower receivables in the United States and Germany operating segments. Exchange rate effects, mainly from the translation of U.S. dollars into euros, also decreased the carrying amount. By contrast, receivables increased in the Europe operating segment.

Intangible assets decreased by EUR 2.6 billion to EUR 138.0 billion, mainly due to amortization and impairment losses of EUR 3.3 billion. Exchange rate effects, primarily from the translation of U.S. dollars into euros, also decreased the carrying amount by EUR 1.8 billion. By contrast, additions increased the carrying amount by EUR 2.5 billion. Of these additions, EUR 0.3 billion related to the acquisition of mobile spectrum in the Europe and United States operating segments.

Property, plant and equipment increased by EUR 0.1 billion compared to December 31, 2022 to EUR 65.8 billion. Additions, primarily for the upgrade and build-out of the network (broadband, fiber-optic, and mobile infrastructure build-out) increased the carrying amount by EUR 6.4 billion. Depreciation charges of EUR 5.9 billion had a decreasing effect. Exchange rate effects of EUR 0.4 billion, primarily from the translation of U.S. dollars into euros, and disposals of EUR 0.2 billion also reduced the carrying amount.

Compared with December 31, 2022, **right-of-use assets** increased by EUR 0.6 billion to EUR 34.3 billion. The carrying amount was increased by additions of EUR 4.0 billion, mainly as a result of the sale and leaseback of passive network infrastructure in Germany and Austria in connection with the sale of GD Towers. In this context, retained right-of-use assets of EUR 2.0 billion were recognized in the consolidated statement of financial position. Depreciation and impairment losses decreased the carrying amount by EUR 2.8 billion. Exchange rate effects of EUR 0.5 billion, primarily from the translation of U.S. dollars into euros, and disposals of EUR 0.1 billion reduced the carrying amount.

Investments accounted for using the equity method increased by EUR 6.0 billion compared to December 31, 2022, to EUR 7.3 billion, essentially as a result of the sale of the 51.0 % stake in GD Towers. Following the loss of control pursuant to the IFRSs as a result of the transaction, the companies were deconsolidated as of February 1, 2023. Since this date, the remaining 49.0 % of the shares have been included in the consolidated financial statements as an investment accounted for using the equity method. The carrying amount of the investment amounted to EUR 6.1 billion as of June 30, 2023.

Current and non-current **financial assets** increased by EUR 0.3 billion to EUR 10.2 billion. The net total of originated loans and receivables increased by EUR 0.3 billion to EUR 4.6 billion. The carrying amount was also increased by an existing shareholder loan to GD Towers, which must be reported in the consolidated statement of financial position as a result of the deconsolidation of the companies. As of June 30, 2023, this loan had a carrying amount of EUR 0.3 billion. In addition, government bonds were bought during the course of the year under short-term investments. As of June 30, 2023, they had a carrying amount of EUR 0.2 billion.

Non-current assets and disposal groups held for sale decreased by EUR 4.6 billion compared with December 31, 2022 to EUR 0.1 billion. The sale of GD Towers as of February 1, 2023 reduced the carrying amount by EUR 4.2 billion, and the sale of the wireline business at T-Mobile US as of May 1, 2023 by EUR 0.3 billion. The corresponding assets had previously been reported as held for sale on account of the sales agreements concluded.

For further information on the corporate transactions, please refer to the section "Group organization, strategy, and management."

Miscellaneous assets increased by EUR 0.3 billion to EUR 12.1 billion. Current and non-current other assets contributed EUR 0.5 billion to this increase, due in part to an increase in various advance payments, mainly in connection with agreements on services for certain mobile communications equipment. In addition, contract assets and capitalized contract costs each increased by EUR 0.1 billion. By contrast, inventories declined by EUR 0.4 billion, mainly due to the sale of older terminal equipment and to reduced stocks as a result of closures of former Sprint sites in the United States operating segment.

On the liabilities and shareholders' equity side, current and non-current **financial liabilities** decreased by EUR 3.1 billion compared with the end of 2022 to a total of EUR 110.0 billion. The carrying amount of bonds and other securitized liabilities decreased by EUR 2.0 billion, with exchange rate effects, in particular from the translation of U.S. dollars into euros, accounting for EUR 1.2 billion of this decrease. Early repayments in the Group by way of early buy-backs in February and March 2023 of EUR, GBP, and USD bonds with a total volume of EUR 3.3 billion, and scheduled repayments of EUR bonds of EUR 1.3 billion also reduced the carrying amount. Net repayments of commercial paper also decreased the carrying amount by EUR 2.3 billion. The carrying amount was increased by the senior notes issued in the reporting period by T-Mobile US with a total volume of USD 6.5 billion (EUR 6.0 billion). In addition, the carrying amounts of liabilities to banks, liabilities with the right of creditors to priority repayment in the event of default, and derivative financial liabilities decreased by EUR 1.0 billion overall.

Current and non-current **lease liabilities** increased by EUR 3.2 billion to EUR 42.0 billion compared with December 31, 2022, mainly as a result of the sale and leaseback of passive network infrastructure in Germany and Austria in connection with the sale of GD Towers. As a result of this transaction, lease liabilities increased by EUR 5.0 billion. By contrast, lease liabilities in the United States operating segment decreased by EUR 1.1 billion due to the decommissioning of the former Sprint's wireless network, the closure of former Sprint shops, and a decline in network and build-out investments, primarily on account of higher capital efficiency resulting from the accelerated build-out of the nationwide 5G network in the prior year. Exchange rate effects, in particular from the translation of U.S. dollars into euros, reduced the carrying amount by EUR 0.5 billion.

Trade and other payables decreased by EUR 1.7 billion to EUR 10.4 billion, due in particular to lower liabilities in the United States operating segment, primarily attributable to a seasonally lower procurement volume and exchange rate effects with a reducing effect on the carrying amount. By contrast, the Germany operating segment recorded an increase in liabilities.

Provisions for pensions and other employee benefits decreased by EUR 0.3 billion compared with December 31, 2022 to EUR 3.9 billion, mainly due to an increase in the fair values of plan assets. The decline in the discount rate compared with December 31, 2022 had an offsetting effect. Overall, the remeasurement of defined benefit plans resulted in an actuarial gain of EUR 0.2 billion to be recognized directly in equity.

Current and non-current **other provisions** decreased by EUR 1.0 billion compared with the end of 2022 to EUR 7.2 billion. Other provisions for personnel costs decreased by EUR 0.3 billion, mainly in connection with the performance-based remuneration components for the prior year paid out to employees in the first half of 2023. By contrast, other provisions for personnel costs recognized for the Civil Service Health Insurance Fund (Postbeamtenkrankenkasse – PBeaKK) increased as a result of the subsequent measurement of the present value determined using actuarial principles due to the decline in the interest rate level. Provisions for procurement and sales support decreased by EUR 0.3 billion, mainly in connection with the bonuses paid out to sales partners in the United States operating segment. Provisions for restoration obligations also decreased by EUR 0.2 billion, due in particular to the decommissioning of the former Sprint mobile network and due to shop closures.

Liabilities directly associated with non-current assets and disposal groups held for sale decreased by EUR 3.3 billion against December 31, 2022 to EUR 0.0 billion. The sale of GD Towers as of February 1, 2023 reduced the carrying amount by EUR 3.0 billion, and the sale of the wireline business at T-Mobile US as of May 1, 2023 by EUR 0.4 billion. The corresponding liabilities had previously been reported as held for sale on account of the sales agreements concluded.

For further information on corporate transactions, please refer to the section "Group organization, strategy, and management."

Miscellaneous liabilities increased by EUR 0.8 billion compared to December 31, 2022 to EUR 9.8 billion, mainly due to an increase in other liabilities of EUR 0.4 billion, driven by an increase in liabilities from other taxes. In addition, contract liabilities increased by EUR 0.3 billion and income tax liabilities by EUR 0.1 billion.

Shareholders' equity increased from EUR 87.3 billion as of December 31, 2022 to EUR 94.4 billion, with profit of EUR 19.0 billion and capital increases from share-based payments of EUR 0.2 billion having an increasing effect. By contrast, transactions with owners reduced shareholders' equity by EUR 7.9 billion, mainly in connection with the share buy-back program at T-Mobile US. Shareholders' equity was reduced in connection with dividend payments for the 2022 financial year to Deutsche Telekom AG shareholders in the amount of EUR 3.5 billion and to other shareholders of subsidiaries in the amount of EUR 0.2 billion. Other comprehensive income decreased the carrying amount by EUR 0.6 billion.

For further information on the statement of financial position, please refer to the section "Selected notes to the consolidated statement of financial position" in the interim consolidated financial statements.

Calculation of net debt

millions of €

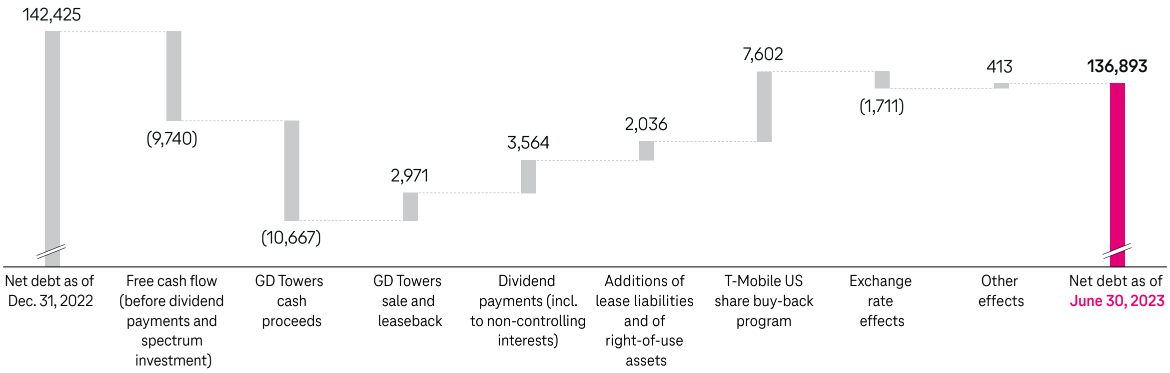
	June 30, 2023	Dec. 31, 2022	Change	Change %	June 30, 2022
Bonds and other securitized liabilities	91,822	93,802	(1,980)	(2.1)	95,953
Liabilities to banks	3,610	4,122	(512)	(12.4)	3,999
Other financial liabilities	14,548	15,107	(559)	(3.7)	14,554
Lease liabilities	41,999	41,063	936	2.3	42,525
Financial liabilities and lease liabilities	**151,979**	**154,093**	**(2,114)**	**(1.4)**	**157,032**
Accrued interest	(1,036)	(999)	(37)	(3.7)	(1,023)
Other	(1,046)	(805)	(241)	(29.9)	(994)
Gross debt	**149,897**	**152,289**	**(2,392)**	**(1.6)**	**155,015**
Cash and cash equivalents	8,742	5,767	2,975	51.6	5,281
Derivative financial assets	2,174	2,273	(99)	(4.4)	2,369
Other financial assets	2,088	1,824	264	14.5	1,261
Net debt[a]	**136,893**	**142,425**	**(5,532)**	**(3.9)**	**146,104**
Lease liabilities[b]	39,719	38,692	1,027	2.7	39,815
Net debt AL	**97,174**	**103,733**	**(6,559)**	**(6.3)**	**106,289**

[a] Including net debt reported under liabilities directly associated with non-current assets and disposal groups held for sale.

[b] Excluding finance leases at T-Mobile US.

Changes in net debt

millions of €



Other effects of EUR 0.4 billion included, among other factors, the acquisition of spectrum, share buy-backs at subsidiaries, and the recognition of liabilities for the acquisition of broadcasting rights.

For further information on the sale of GD Towers, please refer to the section "Group organization, strategy, and management."

Calculation of free cash flow AL

millions of €

	H1 2023	H1 2022	Change %	Q1 2023	Q2 2023	Q2 2022	Change %	FY 2022
Net cash from operating activities	**18,864**	**17,979**	**4.9**	**9,558**	**9,306**	**8,621**	**7.9**	**35,819**
Cash outflows for investments in intangible assets	(2,441)	(4,679)	47.8	(1,187)	(1,254)	(1,128)	(11.2)	(7,551)
Cash outflows for investments in property, plant and equipment	(6,995)	(7,579)	7.7	(3,639)	(3,356)	(3,958)	15.2	(16,563)
Cash capex	(9,436)	(12,259)	23.0	(4,826)	(4,611)	(5,086)	9.3	(24,114)
Spectrum investment	255	2,616	(90.3)	67	189	102	85.3	3,096
Cash capex (before spectrum investment)	**(9,181)**	**(9,642)**	**4.8**	**(4,759)**	**(4,422)**	**(4,984)**	**11.3**	**(21,019)**
Proceeds from the disposal of intangible assets (excluding goodwill) and property, plant and equipment	57	84	(32.1)	23	34	34	0.0	439
Free cash flow (before dividend payments and spectrum investment)	**9,740**	**8,421**	**15.7**	**4,822**	**4,918**	**3,671**	**34.0**	**15,239**
Principal portion of repayment of lease liabilities[a]	(2,639)	(1,881)	(40.3)	(1,244)	(1,395)	(912)	(53.0)	(3,769)
Free cash flow AL (before dividend payments and spectrum investment)	**7,101**	**6,540**	**8.6**	**3,579**	**3,522**	**2,759**	**27.7**	**11,470**

[a] Excluding finance leases at T-Mobile US.

Free cash flow AL (before dividend payments and spectrum investment) increased by EUR 0.6 billion year-on-year to EUR 7.1 billion. The following effects impacted on this development:

Net cash from operating activities increased by EUR 0.9 billion to EUR 18.9 billion on the back of the good business performance. Lower cash outflows in connection with the integration of Sprint in the United States also had an increasing effect. The increase in net interest payments of EUR 0.2 billion and the increase in tax payments of EUR 0.2 billion, in particular, had a reducing effect.

Cash capex (before spectrum investment) decreased from EUR 9.6 billion to EUR 9.2 billion. Cash capex in the United States operating segment decreased by EUR 1.0 billion to EUR 5.4 billion, mainly as a result of higher cash outflows in the prior year for the accelerated build-out of the 5G network and the integration of Sprint. In the Group Development operating segment, cash capex decreased, mainly due to the sales of T-Mobile Netherlands and GD Towers. In the Germany operating segment, capital expenditure totaled around EUR 2.3 billion in the first half of 2023, EUR 0.5 billion more than in the prior-year period, with much of this figure going towards the fiber-optic build-out. Cash outflows in the Europe operating segment increased by EUR 0.1 billion to EUR 0.9 billion, largely due to the timing of the allocation of capital expenditure. We continue to invest here in the provision of broadband and fiber-optic technology and in 5G as part of our integrated network strategy. In the Systems Solutions operating segment, our capital expenditure was EUR 0.1 billion. The increase is mainly due to higher demand for on-board units in the Road Charging portfolio area and higher investments in the Digital portfolio area.

An increase of EUR 0.8 billion in cash outflows for the repayment of lease liabilities reduced free cash flow AL. This mainly related to leases in the United States and Germany operating segments.

For further information on the statement of cash flows, please refer to the section “Notes to the consolidated statement of cash flows” in the interim consolidated financial statements.

The rating of Deutsche Telekom AG

	Standard & Poor’s	Moody’s	Fitch
Long-term rating/outlook			
Dec. 31, 2022	BBB/positive	Baa1/stable	BBB+/stable
June 30, 2023	**BBB+/stable**	**Baa1/stable**	**BBB+/stable**
Short-term rating	A-2	P-2	F2

On May 19, 2023, the rating agency Standard & Poor’s raised the **long-term rating** from BBB to BBB+ with a stable outlook. We are therefore a solid investment-grade company with access to the international capital markets.

For more information on Deutsche Telekom AG’s rating, please refer to the section “Profitability and financial position of the Group” in the 2022 Annual Report.

Development of business in the operating segments

Germany

Customer development

thousands	June 30, 2023	Mar. 31, 2023	Change June 30, 2023/ Mar. 31, 2023 %	Dec. 31, 2022	Change June 30, 2023/ Dec. 31, 2022 %	June 30, 2022	Change June 30, 2023/ June 30, 2022 %
Mobile customers	57,695	56,067	2.9	54,249	6.4	54,551	5.8
Contract customers	24,391	24,037	1.5	23,791	2.5	23,402	4.2
Prepaid customers[a]	33,304	32,030	4.0	30,458	9.3	31,149	6.9
Fixed-network lines	17,332	17,349	(0.1)	17,363	(0.2)	17,437	(0.6)
Retail broadband lines	14,856	14,789	0.5	14,715	1.0	14,578	1.9
Of which: optical fiber[b]	12,486	12,238	2.0	12,112	3.1	10,836	15.2
Television (IPTV, satellite)	4,208	4,172	0.9	4,122	2.1	4,039	4.2
Unbundled local loop lines (ULLs)	2,877	3,017	(4.6)	3,136	(8.3)	3,351	(14.1)
Wholesale broadband lines	8,137	8,086	0.6	8,045	1.1	8,001	1.7
Of which: optical fiber	7,103	7,020	1.2	6,970	1.9	6,883	3.2

[a] Due to a network switchover, a portion of our prepaid customers had been migrated to another provider by the end of the third quarter of 2022.

[b] From June 1, 2022 until December 31, 2022, we migrated customers to fiber-optic lines under our “Turn customers into fans” (Kunden zu Fans machen) initiative. Around 1 million lines in total were upgraded as part of this initiative.

Total

In Germany we continue to be market leader both in terms of fixed-network and mobile revenues. This success is attributable to our high-performance networks, a broad product portfolio, and good service. We want to offer our customers a seamless and technology-neutral telecommunications experience. We regularly adapt our product portfolio to address the needs of our customers.

The fixed-network broadband market hosts a large number of players with differing infrastructures – from national through to regional providers. In order to consolidate our position on the market as Germany’s leading telecommunications provider, we continue to add new offerings to our portfolio.

Mobile communications
The number of high-value mobile contract customers under the Telekom and congstar brands grew by 593 thousand customers overall. Sustained high demand for mobile rate plans with data volumes continues to drive this trend. The number of prepaid customers grew by 2.8 million against the start of the year, primarily from the automotive industry.

Fixed network
Demand remained high for our fiber-optic-based lines, with the total number increasing to 19.6 million since the end of 2022. Two key factors are driving this strong growth: demand for higher bandwidths, and the technical migration of customer lines to optical fiber under our “Turn customers into fans” (Kunden zu Fans machen) initiative, which concluded at the end of 2022.

The number of retail broadband lines remained at a high level, increasing by 141 thousand in the first half of 2023 to 14.9 million. 43 % of the customers subscribed to a rate plan with speeds of 100 Mbit/s or higher. We recorded an increase of 86 thousand in the number of TV customers compared with year-end 2022. The number of fixed-network lines stood at 17.3 million.

Wholesale
As of June 30, 2023, fiber-optic-based lines accounted for 64.5 % of all lines – 2.2 percentage points more than at the end of 2022. This growth is a result of the demand for our commitment agreements. Ongoing demand among retail customers for higher-bandwidth lines also contributed to the increase. The number of unbundled local loop lines decreased by 259 thousand compared with the end of the prior year, partly as a result of the shift to higher-value fiber-optic-based lines and partly from consumers switching to other providers. In addition, our wholesale customers are migrating their retail customers to their own fiber-optic-based lines. The total number of wholesale lines at the end of June 2023 was 11.0 million.

Development of operations[a]

millions of €		H1 2023	H1 2022	Change %	Q1 2023	Q2 2023	Q2 2022	Change %	FY 2022
Revenue[b]		**12,290**	**12,001**	**2.4**	**6,141**	**6,150**	**6,038**	**1.9**	**24,505**
Consumers		6,132	6,097	0.6	3,077	3,055	3,063	(0.3)	12,370
Business Customers		4,514	4,399	2.6	2,269	2,245	2,213	1.4	9,040
Wholesale		1,354	1,353	0.1	672	682	674	1.2	2,676
Other		290	152	90.8	123	167	89	87.6	419
Service revenue[b]		**10,901**	**10,645**	**2.4**	**5,417**	**5,484**	**5,356**	**2.4**	**21,533**
EBITDA		4,992	6,242	(20.0)	2,483	2,509	2,221	13.0	11,025
Special factors affecting EBITDA		(271)	1,406	n.a.	(104)	(167)	(215)	22.3	1,162
EBITDA (adjusted for special factors)		5,263	4,836	8.8	2,587	2,676	2,436	9.9	9,864
EBITDA AL		4,745	6,229	(23.8)	2,385	2,360	2,214	6.6	10,998
Special factors affecting EBITDA AL		(271)	1,406	n.a.	(104)	(167)	(215)	22.3	1,162
EBITDA AL (adjusted for special factors)		**5,016**	**4,823**	**4.0**	**2,489**	**2,528**	**2,429**	**4.1**	**9,837**
EBITDA AL margin (adjusted for special factors)	%	40.8	40.2		40.5	41.1	40.2		40.1
Depreciation, amortization and impairment losses		(2,090)	(1,992)	(4.9)	(1,036)	(1,054)	(995)	(5.9)	(4,019)
Profit (loss) from operations (EBIT)		**2,902**	**4,250**	**(31.7)**	**1,447**	**1,455**	**1,226**	**18.7**	**7,006**
EBIT margin	%	23.6	35.4		23.6	23.7	20.3		28.6
Cash capex		(2,300)	(1,778)	(29.4)	(1,187)	(1,113)	(876)	(27.1)	(4,399)
Cash capex (before spectrum investment)		**(2,300)**	**(1,778)**	**(29.4)**	**(1,187)**	**(1,113)**	**(876)**	**(27.1)**	**(4,399)**

[a] As of July 1, 2022, the security business was transferred from the Systems Solutions operating segment to the Germany operating segment. Prior-year comparatives were adjusted retrospectively.

[b] As of the third quarter of 2022 the principal/agent consideration regarding the recognition of gross and net revenues was changed. Prior-year comparatives were adjusted retrospectively.

Revenue, service revenue
In the first half of 2023, we generated revenue of EUR 12.3 billion, which was up by 2.4 % year-on-year. This was mainly attributable to growth in service revenues of 2.4 %, due to increased revenue in the fixed-network core business, largely broadband-driven, and to higher mobile service revenues. Another revenue driver was the partnership business. In organic terms, revenue increased by 1.7 % year-on-year and service revenue by 1.6 %.

Revenue from **Consumers** increased by 0.6 % compared with the prior year. Revenue from broadband business continued to grow, due in part to the positive effects from customer appreciation for reliable networks and high bandwidths. Fixed-network terminal equipment business also posted growth on the back of demand on the customer side for terminal equipment lease models. Volume-driven declines in revenue from voice components continued to impact on traditional fixed-network business. Mobile business declined on account of terminal equipment business.

Revenue from **Business Customers** was up by 2.6 % year-on-year. IT business and mobile business, the latter driven by sustained growth in the customer base, contributed to this uptrend. In organic terms, revenue increased by 1.0 % year-on-year.

Wholesale revenue was on a par with the prior-year level at the end of June 2023. The positive trend in the number of fiber-optic-based lines held steady year-on-year, and this was enough to offset the decrease in revenues from, among other things, declining volumes of unbundled local loop lines.

Adjusted EBITDA AL, EBITDA AL

Adjusted EBITDA AL increased by EUR 0.2 billion or 4.0 % year-on-year to EUR 5.0 billion. In organic terms, adjusted EBITDA AL grew by 3.0 % year-on-year. Our adjusted EBITDA AL margin increased to 40.8 %. The main reasons for this increase are a sound operational development, driven by high-value revenue growth, and enhanced cost efficiency. Organic factors also included the smaller headcount and ongoing implementation of efficiency enhancement and digitalization measures.

EBITDA AL decreased by EUR 1.5 billion to EUR 4.7 billion. In the prior-year quarter, special factors included the gain on deconsolidation of GlasfaserPlus (EUR 1.7 billion) and initial payments on account received from insurance companies in connection with damage sustained in the catastrophic flooding in July 2021 (EUR 0.1 billion). Expenses for socially responsible instruments in connection with staff restructuring were at the prior-year level.

Profit/loss from operations (EBIT)

Profit from operations amounted to EUR 2.9 billion, a decrease of 31.7 % year-on-year. This decline is primarily attributable to the gain recognized in the prior year on the deconsolidation of GlasfaserPlus. Depreciation, amortization and impairment losses were up against the prior-year level, mainly as a result of the sale and leaseback of passive network infrastructure in Germany in connection with the sale of GD Towers.

For further information on the sale of GD Towers, please refer to the section “Group organization, strategy, and management.”

Cash capex (before spectrum investment), cash capex

Cash capex increased by EUR 522 million or 29.4 % compared with the prior-year period, primarily due to different seasonal effects. Capital expenditure totaled around EUR 2.3 billion in the first half of 2023, in particular for the fiber-optic build-out. The number of households passed by our fiber-optic network had increased to around 6.2 million by the end of June 2023. In mobile communications, 95.3 % of German households can already use 5G.

United States

Customer development

thousands

	June 30, 2023	Mar. 31, 2023	Change June 30, 2023/ Mar. 31, 2023 %	Dec. 31, 2022	Change June 30, 2023/ Dec. 31, 2022 %	June 30, 2022	Change June 30, 2023/ June 30, 2022 %
Customers	116,602	114,917	1.5	113,598	2.6	110,023	6.0
Postpaid customers	95,086	93,525	1.7	92,232	3.1	88,787	7.1
Postpaid phone customers[a]	74,132	73,372	1.0	72,834	1.8	71,053	4.3
Other postpaid customers[a]	20,954	20,153	4.0	19,398	8.0	17,734	18.2
Prepaid customers	21,516	21,392	0.6	21,366	0.7	21,236	1.3

[a] The total base adjustment in the second quarter of 2022 was a reduction of 1.3 million total customers. Customers impacted by the decommissioning of the legacy Sprint CDMA and LTE and T-Mobile US UMTS networks have been excluded from our customer base resulting in the removal of 212 thousand postpaid phone customers and 349 thousand postpaid other customers in the first quarter of 2022 and 284 thousand postpaid phone customers, 946 thousand postpaid other customers and 28 thousand prepaid customers in the second quarter of 2022. In connection with our acquisition of companies, we included a base adjustment in the first quarter of 2022 to increase postpaid phone customers by 17 thousand and reduce postpaid other customers by 14 thousand. Certain customers now serviced through reseller contracts were removed from our reported postpaid customer base resulting in the removal of 42 thousand postpaid phone customers and 20 thousand postpaid other customers in the second quarter of 2022.

Customers

At June 30, 2023, the United States operating segment (T-Mobile US) had 116.6 million customers, compared to 113.6 million customers at December 31, 2022. Net customer additions were 3.0 million in the first half of 2023, compared to 3.2 million in the first half of 2022 due to the factors described below.

Postpaid net **customer** additions were 2.9 million in the first half of 2023, compared to 3.0 million in the first half of 2022. Postpaid net customer additions decreased primarily from lower postpaid other net customer additions, primarily due to lower net additions from mobile internet devices. This decrease was partially offset by higher High Speed Internet net customer additions, primarily due to continued growth in gross additions driven by increasing customer demand, partially offset by increased deactivations from a growing customer base. High Speed Internet net customer additions included in postpaid other net customer additions were 892 thousand and 826 thousand in the first half of 2023 and 2022, respectively.

Prepaid net **customer** additions were 150 thousand in the first half of 2023, compared to 208 thousand in the first half of 2022. This decrease was primarily due to continued moderation of industry growth and continued industry migration of prepaid to postpaid, partially offset by growth in High Speed Internet. High Speed Internet net customer additions included in prepaid net customer additions were 140 thousand and 72 thousand in the first half of 2023 and 2022, respectively.

Development of operations

millions of €		H1 2023	H1 2022	Change %	Q1 2023	Q2 2023	Q2 2022	Change %	FY 2022
Revenue[a]		**35,817**	**36,320**	**(1.4)**	**18,262**	**17,555**	**18,440**	**(4.8)**	**75,436**
Service revenue[a]		**28,903**	**27,810**	**3.9**	**14,475**	**14,428**	**14,353**	**0.5**	**58,219**
EBITDA		15,033	13,008	15.6	7,545	7,488	6,361	17.7	26,707
Special factors affecting EBITDA		(516)	(2,124)	75.7	(234)	(282)	(1,304)	78.4	(4,155)
EBITDA (adjusted for special factors)		15,549	15,132	2.8	7,779	7,770	7,665	1.4	30,862
EBITDA AL		12,368	9,055	36.6	6,173	6,195	4,141	49.6	19,665
Special factors affecting EBITDA AL		(722)	(3,454)	79.1	(363)	(359)	(2,196)	83.7	(5,949)
EBITDA AL (adjusted for special factors)		**13,090**	**12,509**	**4.6**	**6,536**	**6,554**	**6,337**	**3.4**	**25,614**
Core EBITDA AL (adjusted for special factors)[b]		12,895	11,717	10.1	6,401	6,494	5,976	8.7	24,280
EBITDA AL margin (adjusted for special factors)	%	36.5	34.4		35.8	37.3	34.4		34.0
Depreciation, amortization and impairment losses		(7,770)	(10,046)	22.7	(3,970)	(3,800)	(5,443)	30.2	(19,237)
Profit (loss) from operations (EBIT)		**7,262**	**2,962**	**n.a.**	**3,575**	**3,688**	**918**	**n.a.**	**7,470**
EBIT margin	%	20.3	8.2		19.6	21.0	5.0		9.9
Cash capex		(5,451)	(9,003)	39.5	(2,862)	(2,589)	(3,468)	25.3	(16,340)
Cash capex (before spectrum investment)		**(5,360)**	**(6,393)**	**16.2**	**(2,799)**	**(2,561)**	**(3,368)**	**24.0**	**(13,361)**

[a] As of the third quarter of 2022 the principal/agent consideration regarding the recognition of gross and net revenues was changed. Prior-year comparatives were adjusted retrospectively.

[b] Adjusted core EBITDA AL is distinguished by excluding revenue from terminal equipment leases from adjusted EBITDA AL, thereby presenting operational development undistorted by the withdrawal from the terminal equipment lease business.

Revenue, service revenue

Total revenue for the United States operating segment of EUR 35.8 billion in the first half of 2023 decreased by 1.4 %, compared to EUR 36.3 billion in the first half of 2022. In U.S. dollars, T-Mobile US' total revenues decreased 2.5 % during the same period. Total revenues decreased primarily due to lower equipment revenues partially offset by higher service revenues. The components of these changes are described below.

Service revenues increased in the first half of 2023 by 3.9 % to EUR 28.9 billion. This increase resulted from higher postpaid revenues, primarily due to higher average postpaid accounts and higher postpaid Average Revenue per Account (ARPA). This increase was partially offset by lower wholesale and other service revenues, primarily from lower MVNO revenues and lower Wireline revenues due to the sale of the wireline business on May 1, 2023, and lower prepaid revenues, primarily from lower prepaid Average Revenue per User (ARPU), partially offset by higher average prepaid customers.

Equipment revenues decreased in the first half of 2023 primarily from a decrease in the number of devices sold, primarily driven by higher postpaid upgrades in the prior-year period related to facilitating the migration of Sprint customers to the T-Mobile US network, as well as longer device lifecycles, and lower prepaid sales. In addition, equipment revenues decreased due to a decrease in lease revenues and customer purchases of leased devices primarily due to a lower number of customer devices under lease as a result of the continued strategic shift in device financing from leasing to equipment installment plans (EIP). The decrease in equipment revenues was partially offset by higher average revenue per device sold, primarily driven by higher promotions in the prior-year period, which included promotions for Sprint customers to facilitate their migration to the T-Mobile US network, partially offset by a decrease in the high-end phone mix.

Adjusted EBITDA AL, EBITDA AL

In euros, adjusted EBITDA AL increased by 4.6 % to EUR 13.1 billion in the first half of 2023, compared to EUR 12.5 billion in the first half of 2022. The adjusted EBITDA AL margin increased to 36.5 % in the first half of 2023, compared to 34.4 % in the first half of 2022. In U.S. dollars, adjusted EBITDA AL increased 3.5 % during the same period. Adjusted EBITDA AL increased primarily due to lower costs as a result of lower number of devices sold, primarily driven by longer device lifecycles and lower prepaid sales, lower average cost per device sold driven by a decrease in the high-end phone mix, higher service revenues as discussed above, higher realized Sprint Merger-related synergies, lower costs due to the sale of the wireline business on May 1, 2023, and lower bad debt expense. This increase was partially offset by lower equipment revenues as described above, higher site costs related to the continued build-out of our nationwide 5G network, higher commission amortization expense and higher advertising expense. In U.S. dollars, lease revenues decreased as a result of the continued strategic shift in device financing from leasing to EIP by 75.8 % in the first half of 2023.

In euros, adjusted core EBITDA AL increased by 10.1 % to EUR 12.9 billion in the first half of 2023, compared to EUR 11.7 billion in the first half of 2022. In U.S. dollars, adjusted core EBITDA AL increased by 8.9 % during the same period. The change was primarily due to the fluctuation in adjusted EBITDA AL, discussed above, excluding the change in lease revenues.

EBITDA AL in the first half of 2023 included special factors of EUR -0.7 billion compared to EUR -3.5 billion in the first half of 2022. The change in special factors was primarily due to lower Sprint Merger-related costs, lower legal-related expenses, including the settlement of certain litigation associated with the cyberattack on T-Mobile US in August 2021 of EUR 0.4 billion and lower impairment expense due to the non-cash impairment of certain Wireline Operating lease right-of-use assets recognized during the first half of 2022. Special factors include Sprint Merger-related costs predominantly associated with the integration of Sprint and are comprised of integration costs to achieve efficiencies in network, retail, information technology and back office operations, migrate customers to the T-Mobile US network and billing systems and the impact of legal matters assumed as part of the Sprint Merger. In addition, Sprint Merger-related special factors include restructuring costs, including severance, store rationalization and network decommissioning as well as transaction costs, including legal and professional services related to the completion of transactions. Overall, EBITDA AL increased by 36.6 % to EUR 12.4 billion in the first half of 2023, compared to EUR 9.1 billion in the first half of 2022, primarily due to the factors described above, including special factors.

Profit/loss from operations (EBIT)

EBIT increased to EUR 7.3 billion in the first half of 2023, compared to EUR 3.0 billion in the first half of 2022. In U.S. dollars, EBIT increased by USD 4.6 billion during the same period primarily due to higher EBITDA AL and lower depreciation, amortization and impairment losses. In U.S. dollars, depreciation, amortization and impairment losses decreased by 23.3 % primarily due to the non-cash impairment of certain Wireline Network assets recognized during the first half of 2022 and lower depreciation expense on leased devices, resulting from a lower number of total customer devices under lease and certain 4G-related network assets becoming fully depreciated, including assets impacted by the decommissioning of the legacy Sprint CDMA and LTE networks in 2022. These decreases were partially offset by higher depreciation expense (excluding leased devices) from the continued build-out of our nationwide 5G network.

Cash capex (before spectrum investment), cash capex

Cash capex (before spectrum investment) decreased by 16.2 % to EUR 5.4 billion in the first half of 2023, compared to EUR 6.4 billion in the first half of 2022. In U.S. dollars, cash capex (before spectrum investment) decreased by 16.9 % due to decrease in purchases of property and equipment primarily due to increased capital efficiencies from accelerated investments in the T-Mobile US nationwide 5G network in 2022.

Cash capex decreased by 39.5 % to EUR 5.5 billion in the first half of 2023, compared to EUR 9.0 billion in the first half of 2022. In U.S. dollars, cash capex decreased by 40.6 % primarily due to USD 2.8 billion paid for spectrum licenses won at the conclusion of Auction 110 in February 2022 compared to no spectrum licenses won during the first half of 2023 and lower purchases of property and equipment as discussed above.

Europe
Customer development

thousands		June 30, 2023	Mar. 31, 2023	Change June 30, 2023/ Mar. 31, 2023 %	Dec. 31, 2022	Change June 30, 2023/ Dec. 31, 2022 %	June 30, 2022	Change June 30, 2023/ June 30, 2022 %
Europe, total	Mobile customers	47,582	47,357	0.5	47,336	0.5	46,459	2.4
	Contract customers	26,753	26,580	0.7	26,476	1.0	26,046	2.7
	Prepaid customers	20,829	20,777	0.3	20,860	(0.1)	20,413	2.0
	Fixed-network lines[a]	7,970	7,935	0.4	7,907	0.8	7,839	1.7
	Broadband customers	6,837	6,765	1.1	6,682	2.3	6,514	5.0
	Television (IPTV, satellite, cable)	4,194	4,160	0.8	4,131	1.5	4,067	3.1
	Unbundled local loop lines (ULL)/ Wholesale PSTN	1,690	1,728	(2.2)	1,768	(4.4)	1,849	(8.6)
	Wholesale broadband lines	1,078	1,044	3.3	1,011	6.6	937	15.0
Greece	Mobile customers	7,325	7,298	0.4	7,323	0.0	7,275	0.7
	Fixed-network lines[a]	2,623	2,624	0.0	2,622	0.0	2,621	0.1
	Broadband customers	2,387	2,375	0.5	2,359	1.2	2,329	2.5
Romania	Mobile customers	4,063	4,062	0.0	4,166	(2.5)	3,941	3.1
Hungary	Mobile customers	6,089	5,987	1.7	5,950	2.3	5,811	4.8
	Fixed-network lines	1,911	1,899	0.6	1,886	1.3	1,848	3.4
	Broadband customers	1,553	1,534	1.2	1,507	3.1	1,454	6.8
Poland	Mobile customers	12,460	12,553	(0.7)	12,512	(0.4)	12,107	2.9
	Fixed-network lines	29	30	(3.3)	30	(3.3)	29	0.0
	Broadband customers	205	182	12.6	154	33.1	107	91.6
Czech Republic	Mobile customers	6,464	6,440	0.4	6,423	0.6	6,373	1.4
	Fixed-network lines	741	721	2.8	704	5.3	673	10.1
	Broadband customers	447	440	1.6	430	4.0	411	8.8
Croatia	Mobile customers	2,323	2,293	1.3	2,305	0.8	2,318	0.2
	Fixed-network lines	869	867	0.2	868	0.1	872	(0.3)
	Broadband customers	654	649	0.8	648	0.9	642	1.9
Slovakia	Mobile customers	2,480	2,464	0.6	2,446	1.4	2,460	0.8
	Fixed-network lines	854	851	0.4	856	(0.2)	858	(0.5)
	Broadband customers	647	644	0.5	643	0.6	636	1.7
Austria	Mobile customers	4,645	4,566	1.7	4,510	3.0	4,557	1.9
	Fixed-network lines	608	607	0.2	605	0.5	601	1.2
	Broadband customers	664	665	(0.2)	663	0.2	661	0.5
Other[b]	Mobile customers	1,733	1,693	2.4	1,702	1.8	1,617	7.2
	Fixed-network lines	336	336	0.0	336	0.0	337	(0.3)
	Broadband customers	280	277	1.1	277	1.1	273	2.6

[a] In the second quarter of 2023, fixed-network lines in Greece were adjusted retrospectively for the first quarter of 2023 due to changes in definitions.
[b] "Other": national companies of North Macedonia, Montenegro, and the lines of the GTS Central Europe group in Romania.

Total
In the Europe operating segment, almost all key performance indicators for customer development improved compared with the end of 2022. Our convergent product portfolio, in particular, generated growth compared with year-end 2022 of 4.6 % in FMC customers thanks to ongoing demand. As a consequence, we are working flat out to build out our fixed-network infrastructure with state-of-the-art optical fiber. The number of broadband customers has increased by 2.3 %. The number of mobile customers increased slightly compared with the end of 2022. Our build-out of the 5G network is making good progress.

Mobile communications
We had a total of 47.6 million mobile customers at the end of the first half of 2023, a slight increase of 0.5 % compared with the end of 2022. The number of contract customers increased by 1.0 %. The contract customer base grew in almost all of our national companies, but in particular in Greece, the Czech Republic, Poland, Croatia, Slovakia, and Austria. Overall, contract customers accounted for 56.2 % of the total customer base. Our customers benefited from greater coverage with fast mobile broadband – a result of our integrated network strategy. The footprint countries of our operating segment are also making excellent headway with 5G. As of June 30, 2023, our national companies covered 58.7 % of the population on average with 5G.

The prepaid customer base remained stable compared with the end of 2022. As part of our ordinary business activities, we offer our prepaid customers high-value contract plans with the resulting number of contract conversions also contributing positively to contract customer business.

Fixed network
The broadband business increased by 2.3 % compared with the end of 2022 to a total of 6.8 million customers. This growth is mainly driven by the national companies in Poland, Hungary, Greece, and the Czech Republic. By continuing to invest in optical fiber, we are systematically building out our fixed-network infrastructure. As of the end of the second quarter of 2023, around 8.5 million households have access to our high-performance fiber-optic network offering gigabit speeds. We have already won some 33 % of the households in these areas as active customers for one of our fiber-optic broadband products. The total number of fixed-network lines subscribed to increased again slightly by 0.8 %, reaching 8.0 million as of June 30, 2023.

The TV and entertainment business had a total of 4.2 million customers as of the end of the second quarter of 2023, up by 1.5 % compared with the end of the prior year. This was attributable among other things to the acquisition of exclusive rights to broadcast sports events in the prior year. With both telecommunications providers and OTT players offering TV services, the TV market is already saturated in many countries of our segment.

FMC – fixed-mobile convergence and digitalization
Our portfolio of convergent products, MagentaOne, was highly popular with consumers across all of our national companies. As of June 30, 2023, we had 7.3 million FMC customers; this corresponds to growth of 4.6 % compared with the end of the prior year. Our national companies in particular in Greece, the Czech Republic, Poland, and Hungary contributed to this growth. At the end of the first half of 2023, FMC customers accounted for 61.5 % of the broadband customer base. We have also seen rising customer numbers from the marketing of our MagentaOne Business product to business customers.

We continue to expand our digital interaction with customers, which means we can meet customer needs in a more personalized and efficient way, and position products and innovative services on the market more quickly. Around 66 % of our customers use our service app.

Development of operations

millions of €

		H1 2023	H1 2022	Change %	Q1 2023	Q2 2023	Q2 2022	Change %	FY 2022
Revenue[a]		**5,683**	**5,411**	**5.0**	**2,784**	**2,899**	**2,729**	**6.2**	**11,158**
Greece		1,523	1,512	0.7	736	787	768	2.5	3,155
Romania		138	157	(12.1)	69	69	78	(11.5)	306
Hungary		966	856	12.9	457	510	423	20.6	1,715
Poland		730	685	6.6	365	365	348	4.9	1,413
Czech Republic		650	591	10.0	321	329	300	9.7	1,226
Croatia		452	425	6.4	222	230	216	6.5	905
Slovakia		401	387	3.6	202	199	197	1.0	806
Austria		701	675	3.9	352	348	334	4.2	1,391
Other[b]		157	158	(0.6)	77	80	83	(3.6)	320
Service revenue[a, c]		**4,715**	**4,551**	**3.6**	**2,298**	**2,416**	**2,301**	**5.0**	**9,296**
EBITDA		2,197	2,124	3.4	1,088	1,109	1,059	4.7	4,296
Special factors affecting EBITDA		(45)	(18)	n.a.	(5)	(39)	(16)	n.a.	(31)
EBITDA (adjusted for special factors)		2,242	2,142	4.7	1,094	1,148	1,075	6.8	4,327
EBITDA AL		1,962	1,944	0.9	978	985	969	1.7	3,933
Special factors affecting EBITDA AL		(45)	(18)	n.a.	(5)	(39)	(16)	n.a.	(31)
EBITDA AL (adjusted for special factors)		**2,007**	**1,961**	**2.3**	**983**	**1,024**	**986**	**3.9**	**3,964**
Greece		640	633	1.1	319	322	319	0.9	1,310
Romania		8	25	(68.0)	4	5	14	(64.3)	38
Hungary		275	243	13.2	110	164	116	41.4	493
Poland		196	198	(1.0)	93	103	100	3.0	378
Czech Republic		245	252	(2.8)	129	116	127	(8.7)	503
Croatia		163	160	1.9	80	83	81	2.5	349
Slovakia		170	174	(2.3)	84	86	89	(3.4)	350
Austria		263	252	4.4	133	130	128	1.6	506
Other[b]		46	24	91.7	31	15	12	25.0	37
EBITDA AL margin (adjusted for special factors)	%	35.3	36.2		35.3	35.3	36.1		35.5
Depreciation, amortization and impairment losses		(1,251)	(1,235)	(1.3)	(610)	(641)	(617)	(3.9)	(2,572)
Profit (loss) from operations (EBIT)		**946**	**889**	**6.4**	**478**	**468**	**443**	**5.6**	**1,724**
EBIT margin	%	16.6	16.4		17.2	16.1	16.2		15.5
Cash capex		(1,053)	(766)	(37.5)	(439)	(614)	(404)	(52.0)	(1,872)
Cash capex (before spectrum investment)		**(889)**	**(760)**	**(17.0)**	**(436)**	**(453)**	**(402)**	**(12.7)**	**(1,755)**

The contributions of the national companies correspond to their respective unconsolidated financial statements and do not take consolidation effects at operating segment level into account.

[a] As of the third quarter of 2022 the principal/agent consideration regarding the recognition of gross and net revenues was changed. Prior-year comparatives were adjusted retrospectively.

[b] “Other”: national companies in North Macedonia, Montenegro, and the GTS Central Europe group in Romania, as well as the Europe Headquarters.

[c] As of January 1, 2023, the definition of service revenue was extended. Prior-year comparatives were adjusted retrospectively.

Revenue, service revenue

Our Europe operating segment generated revenue of EUR 5.7 billion in the first half of 2023, a year-on-year increase of 5.0 %. Revenue also increased in organic terms by 5.0 %. Service revenues grew by 3.6 % year-on-year, or by 3.5 % in organic terms.

Organic revenue growth was largely driven by the strong performance of the mobile business, especially the increase in mobile service revenues with higher margins: alongside the larger contract customer base, higher prices in several countries and slight increases in roaming and visitor revenues further contributed to this trend. Contract customer additions also had positive effects on terminal equipment revenues. Fixed-network service revenues increased against the prior year. Our intense focus on the continued build-out of high-speed network infrastructure drove growth in broadband and TV revenues, which offset the expected declines in voice telephony revenues and wholesale revenues. The systems solutions business made a positive contribution to revenue overall. Regulatory interventions such as the reduction in termination rates had a negative impact on our organic development of revenue in the reporting period.

All countries apart from Romania contributed to the growth in revenue in organic terms, with our national companies in Hungary, Poland, the Czech Republic, Austria, Croatia, and Slovakia recording the best absolute development by country.

Revenue from **Consumers** increased in organic terms by 5.6 % year-on-year, due to the mobile business, where both service revenues and sales of mobile terminal equipment increased. In the fixed network, revenue from broadband and TV business increased thanks to our continuous fiber-optic build-out and our TV and entertainment offerings. This more than offset the decline in revenue from voice telephony. In addition, the higher number of FMC customers had a positive impact on revenue.

Revenue from **Business Customers** grew by 6.3 % against the first half of the prior year, with Hungary, Poland, and Greece making significant contributions in core business. Growth was reported across all product areas. The number of mobile contract customers increased by 2.3 %, with almost all national companies contributing to growth, in particular Poland, followed by Austria and Greece, which offset the census-driven decline in Hungary. In the fixed-network business, the number of broadband customers rose by 5.1 %. Growth was recorded in particular in the segment of smaller business customers. ICT revenue grew strongly compared with the first half of the prior year due to an increase in systems solutions business and data communication, especially in Hungary and Greece. Digital Infrastructure developed positively as a result of the expansion of capacities and strong growth in the security solutions business.

Adjusted EBITDA AL, EBITDA AL

Our Europe operating segment generated adjusted EBITDA AL of EUR 2.0 billion in the first half of 2023, up by 2.3 % against the prior-year level. In organic terms, adjusted EBITDA AL grew by 1.9 %, again making a positive contribution to earnings, with a positive net margin more than sufficient to offset the rise in indirect costs. This rise in costs is mainly driven by inflation-induced cost increases (especially energy and personnel costs). In Hungary, the supplementary telecommunications tax continues to have an adverse impact on our EBITDA AL.

Looking at the development by country, the increase in adjusted organic EBITDA AL was attributable to positive absolute trends, in particular at our national companies in Hungary, Greece, and Austria.

At EUR 2.0 billion, EBITDA AL was slightly up against the prior-year level. The expense arising from special factors was higher than in the prior year.

Development of operations in selected countries

Greece. Revenues in Greece amounted to EUR 1.5 billion in the first half of 2023, a slight year-on-year increase of 0.7 %. This trend is due to higher mobile revenues. Alongside higher service revenues, the addition of new contract customers drove an increase in terminal equipment revenues. However, mobile revenues were affected by termination rate cuts imposed by the regulatory authority. Revenue declined in the fixed-network business, where traditional voice telephony revenues are tapering off. Wholesale revenues also decreased as a result of lower volumes of international traffic. Our convergence products, however, performed well, with further customer additions and corresponding revenue. Systems solutions business recorded a further substantial rise in revenue.

Adjusted EBITDA AL stood at EUR 640 million, up 1.1 % year-on-year, driven by lower indirect costs.

Hungary. Revenues in Hungary totaled EUR 966 million in the first six months of 2023, which corresponds to substantial growth of 12.9 % despite unfavorable exchange rate effects. In organic terms, revenue was up against the prior-year period by 14.6 %. The biggest driver of this increase was mobile business, mainly on account of significantly higher service revenues. Fixed-network revenue also increased markedly against the first half of the prior year. We recorded higher service revenues in the broadband and TV business, both driven again by larger customer bases. Thanks to our increased investments in the build-out of fiber-optic lines, our offers have won over large numbers of customers. Our convergence products also continued to perform well, with further customer additions and corresponding revenue. Systems solutions business also recorded a significant increase in revenue.

Adjusted EBITDA AL stood at EUR 275 million, up 13.2 % year-on-year. In organic terms, the increase was 15.4 %. The increase in indirect costs, especially for energy and personnel, was more than offset by the higher net margin.

Poland. Revenue in Poland grew by 6.6 % in the first half of 2023 to EUR 730 million. In organic terms, revenue increased by 6.3 %. Mobile business was the main driver of this uptrend in revenue, with growth in the contract customer base also having a positive effect on terminal equipment business. However, mobile revenues were affected by termination rate cuts imposed by the regulatory authority. The number of FTTH customers in the fixed-network business also increased significantly, creating the basis for further broadband growth. This is reflected in higher broadband service revenues, and is also thanks to our successful partnership agreements on network infrastructure. The number of FMC customers increased again substantially in the first half of 2023. This had a corresponding positive impact on revenues. Revenue in systems solutions business remained stable.

Adjusted EBITDA AL stood at EUR 196 million, down slightly by 1.0 % against the prior-year period level. In organic terms, the decline was 1.2 %. The revenue-driven increase in the net margin was entirely offset by the increase in indirect costs, in particular as a result of higher energy and personnel costs.

Czech Republic. Revenue in the Czech Republic stood at EUR 650 million in the first half of 2023, an increase of 10.0 % against the prior-year period. Excluding positive exchange rate effects, organic growth was 5.7 %. This is largely attributable to our mobile business, which recorded higher service revenues and increased revenues from terminal equipment sales, the latter driven in part by renewed growth in the number of contract customers. However, mobile revenues were affected by termination rate cuts imposed by the regulatory authority. The fixed-network business also contributed to revenue growth. Thanks to our investments in the build-out of fiber-optic lines, our offers have won over large numbers of customers. Our convergence products recorded further customer additions and corresponding revenue growth.

Adjusted EBITDA AL decreased slightly by 2.8 % year-on-year to EUR 245 million. In organic terms, earnings fell by 6.2 %. The stable net margin was offset by higher indirect costs, in particular as a result of higher energy and personnel costs.

Austria. In the first six months of 2023, we recorded revenue of EUR 701 million in Austria. This increase of 3.9 % was mainly attributable to growth in mobile revenues, despite the adverse effects from the termination rate cuts. Alongside higher service revenues, terminal equipment revenues also increased, driven in part by growth in the contract customer base. Fixed-network revenues increased slightly due to higher broadband revenues. Revenue from systems solutions business remained stable.

Adjusted EBITDA AL increased by 4.4 % year-on-year to EUR 263 million. In organic terms, earnings grew by 3.3 %, driven mainly by a revenue-related increase in the net margin.

Profit/loss from operations (EBIT)

In our Europe operating segment, EBIT increased by 6.4 % in the first half of the year to EUR 946 million, mainly due to the 3.4 % increase in EBITDA. Depreciation, amortization and impairment losses were up 1.3 % against the prior-year period.

Cash capex (before spectrum investment), cash capex

In the first six months of 2023, our Europe operating segment reported cash capex (before spectrum investment) of EUR 889 million, up 17.0 % year-on-year, largely due to the timing of the allocation of capital expenditure. Cash capex increased by 37.5 % against the first half of the prior year as a result of the acquisition of spectrum licenses in Croatia and the Czech Republic. We continue to invest in the provision of broadband, fiber-optic technology, and 5G as part of our integrated network strategy.

Systems Solutions

Order entry

millions of €

	H1 2023	Q1 2023	FY 2022	H1 2022	Change H1 2023/ H1 2022 %
Order entry[a]	1,500	754	3,952	1,902	(21.1)

[a] As of July 1, 2022, the security business was transferred from the Systems Solutions operating segment to the Germany operating segment. Prior-year comparatives were adjusted retrospectively.

Development of business

The first half of 2023 continued to be dominated by the focusing of our systems solutions business on growth and future viability and the continuation of our transformation program. As communicated at the Capital Markets Day in May 2021, we have established four portfolio areas in line with market needs: Advisory, Cloud, Digital, and Security.

We have also defined selected industries (automotive, healthcare, public sector, and public transport), for which we have increased our offer of vertical solutions based on our expertise. In addition, we have agreed partnerships with leading cloud service providers (e.g., Amazon, Google, and Microsoft), so as to be able to offer our customers an even broader and more flexible range of cloud solutions. We are also increasingly expanding our portfolio with AI (artificial intelligence)-based solutions and data room offerings.

By aligning ourselves in this way, our strategic goal is to become the leading IT service provider in the DACH region (Germany, Austria, Switzerland) and in other selected countries.

Order entry in our Systems Solutions operating segment was down by 21.1 % year-on-year in the first half of 2023. This development is largely attributable to the high-volume deals concluded in the prior year, the like of which are not expected in this reporting year until the second half of the year. Furthermore, the prior-year figure includes order entry for Multimedia Solutions (MMS), which was reassigned to the Germany segment as of January 1, 2023.

Development of operations[a]

millions of €

		H1 2023	H1 2022	Change %	Q1 2023	Q2 2023	Q2 2022	Change %	FY 2022
Revenue[b]		**1,905**	**1,869**	**1.9**	**946**	**959**	**942**	**1.8**	**3,811**
Of which: external revenue		1,588	1,527	4.0	792	796	764	4.2	3,106
Service revenue[b, c]		**1,855**	**1,844**	**0.6**	**921**	**934**	**930**	**0.4**	**3,751**
EBITDA		155	133	16.5	72	82	67	22.4	229
Special factors affecting EBITDA		(51)	(66)	22.7	(26)	(25)	(37)	32.4	(159)
EBITDA (adjusted for special factors)		205	199	3.0	99	107	105	1.9	388
EBITDA AL		108	80	35.0	49	59	42	40.5	125
Special factors affecting EBITDA AL		(51)	(66)	22.7	(26)	(25)	(37)	32.4	(159)
EBITDA AL (adjusted for special factors)		**159**	**147**	**8.2**	**75**	**84**	**79**	**6.3**	**284**
EBITDA AL margin (adjusted for special factors)	%	8.3	7.9		7.9	8.8	8.4		7.5
Depreciation, amortization and impairment losses		(118)	(131)	9.9	(61)	(57)	(61)	6.6	(340)
Profit (loss) from operations (EBIT)		**36**	**2**	**n.a.**	**11**	**25**	**7**	**n.a.**	**(110)**
Special factors affecting EBIT		(61)	(85)	28.2	(35)	(27)	(42)	35.7	(270)
EBIT (adjusted for special factors)		98	87	12.6	46	52	48	8.3	160
EBIT margin (adjusted for special factors)	%	5.1	4.7		4.9	5.4	5.1		4.2
Cash capex		(120)	(96)	(25.0)	(60)	(59)	(53)	(11.3)	(221)
Cash capex (before spectrum investment)		**(120)**	**(96)**	**(25.0)**	**(60)**	**(59)**	**(53)**	**(11.3)**	**(221)**

[a] As of July 1, 2022, the security business was transferred from the Systems Solutions operating segment to the Germany operating segment. Prior-year comparatives were adjusted retrospectively.

[b] As of the third quarter of 2022 the principal/agent consideration regarding the recognition of gross and net revenues was changed. Prior-year comparatives were adjusted retrospectively.

[c] As of January 1, 2023, the definition of service revenue was extended. Prior-year comparatives were adjusted retrospectively.

Revenue, service revenue

Revenue in our Systems Solutions operating segment developed more strongly than expected, increasing by 1.9 % year-on-year in the first half of 2023 to EUR 1.9 billion. This positive revenue trend is driven by growth in the Digital (up 10.1 %), Road Charging (up 41.1 %) and Advisory (up 9.8 %) portfolio areas, and by a stable performance in the Cloud portfolio area, which includes our declining traditional IT infrastructure business. External revenue increased by 4.0 %, mainly driven by the Digital and Road Charging portfolio areas. Service revenue also developed positively, increasing by 0.6 %. In organic terms, revenue increased by 4.6 % year-on-year and service revenue by 3.3 %.

Adjusted EBITDA AL, EBITDA AL

In the first half of 2023, adjusted EBITDA AL at our Systems Solutions operating segment increased by 8.2 % year-on-year to EUR 159 million, which was in line with our expectations. Efficiency effects from our transformation program and effects from increased revenue in the Digital and Road Charging portfolio areas exceeded the decline in earnings in the Cloud portfolio area, which includes our traditional IT infrastructure business. In organic terms, adjusted EBITDA AL grew by 3.2 % year-on-year. EBITDA AL increased by EUR 28 million compared with the prior year to EUR 108 million. The expense arising from special factors decreased by EUR 15 million year-on-year, to EUR 51 million, as a result of lower restructuring costs.

Profit/loss from operations (EBIT), adjusted EBIT

Adjusted EBIT in our Systems Solutions operating segment grew by EUR 11 million year-on-year in the first half of 2023, coming in at EUR 98 million, due to the reasons described under adjusted EBITDA AL. EBIT increased by EUR 34 million year-on-year to EUR 36 million. The expense arising from special factors decreased by EUR 24 million year-on-year, to EUR 61 million, as a result of lower restructuring costs and lower impairment losses.

Cash capex (before spectrum investment), cash capex

Cash capex in the Systems Solutions operating segment stood at EUR 120 million in the first half of 2023, up EUR 24 million year-on-year, primarily due to increased demand for on-board units in the Road Charging portfolio area and higher investments in the Digital portfolio area.

Group Development

The sale of the GD Towers business entity was consummated on February 1, 2023, and GD Towers has not been part of the Group since that date. The development of operations contains the contributions for the first month of 2023.

The GD Towers business entity had been recognized in the interim consolidated financial statements as a discontinued operation from the third quarter of 2022 until its sale. According to the management approach, we include the contributions by GD Towers, for the period mentioned, in the management-relevant financial performance indicators explained here.

For further information on the sale and the presentation of GD Towers according to the management approach, please refer to the section "Group organization, strategy, and management."

The sale of T-Mobile Netherlands was consummated on March 31, 2022. T-Mobile Netherlands has not been part of the Group since April 1, 2022. The development of operations contains the contributions for the first quarter of 2022.

Development of operations

millions of €

		H1 2023	H1 2022	Change %	Q1 2023	Q2 2023	Q2 2022	Change %	FY 2022
Revenue		**106**	**1,115**	**(90.5)**	**102**	**4**	**291**	**(98.6)**	**1,708**
Of which: T-Mobile Netherlands		0	536	(100.0)	0	0	0	n.a.	536
Of which: GD Towers		99	570	(82.6)	99	0	285	(100.0)	1,154
Service revenue		**0**	**411**	**(100.0)**	**0**	**0**	**0**	**n.a.**	**411**
EBITDA		13,012	1,550	n.a.	13,011	1	259	(99.6)	2,106
Special factors affecting EBITDA		12,947	906	n.a.	12,941	6	38	(84.2)	992
EBITDA (adjusted for special factors)		65	644	(89.9)	70	(5)	222	n.a.	1,113
Of which: T-Mobile Netherlands		0	201	(100.0)	0	0	0	n.a.	201
Of which: GD Towers		78	461	(83.1)	78	0	232	(100.0)	943
EBITDA AL		13,007	1,425	n.a.	13,006	1	201	(99.5)	1,956
Special factors affecting EBITDA AL		12,947	906	n.a.	12,941	6	38	(84.2)	992
EBITDA AL (adjusted for special factors)		**60**	**519**	**(88.4)**	**65**	**(5)**	**164**	**n.a.**	**964**
Of which: T-Mobile Netherlands		0	190	(100.0)	0	0	0	n.a.	190
Of which: GD Towers		73	347	(79.0)	73	0	174	(100.0)	804
EBITDA AL margin (adjusted for special factors)	%	56.6	46.5		63.7	(125.0)	56.4		56.4
Depreciation, amortization and impairment losses		(1)	(193)	99.5	(1)	0	(97)	100.0	(195)
Profit (loss) from operations (EBIT)		**13,011**	**1,357**	**n.a.**	**13,010**	**1**	**162**	**(99.4)**	**1,911**
Cash capex		(19)	(158)	88.0	(18)	(1)	(59)	98.3	(343)
Cash capex (before spectrum investment)		**(19)**	**(158)**	**88.0**	**(18)**	**(1)**	**(59)**	**98.3**	**(343)**

Revenue, service revenue

Revenue in our Group Development operating segment decreased in the first half of 2023 by 90.5 % year-on-year to EUR 106 million. This decline was mainly attributable to the sale of T-Mobile Netherlands and GD Towers. In organic terms, revenue grew by 3.1 % year-on-year, mainly due to operationally and structurally driven growth in our GD Towers business entity in January 2023. The GD Towers business did not generate any service revenues.

Adjusted EBITDA AL, EBITDA AL

Adjusted EBITDA AL decreased by 88.4 % to EUR 60 million. Here too, the decline was attributable to the sale of T-Mobile Netherlands and GD Towers. In organic terms, adjusted EBITDA AL grew by 47.1 %. The suspension of the depreciation on right-of-use assets due to the fact that the GD Towers business entity had been held for sale starting the third quarter of 2022 had a positive effect. EBITDA AL was positively influenced by net special factors of EUR 12.9 billion, mainly due to the deconsolidation of GD Towers. EBITDA AL increased by EUR 11.6 billion compared with the prior-year period to EUR 13.0 billion.

Profit/loss from operations (EBIT)
EBIT increased by EUR 11.7 billion year-on-year to EUR 13.0 billion, mainly as a result of the development described under EBITDA AL. Depreciation, amortization and impairment losses were down year-on-year, primarily in connection with the fact that the GD Towers business entity had been held for sale starting the third quarter of 2022, and, accordingly, the related depreciation and amortization had been suspended, and its subsequent sale.

Cash capex (before spectrum investment), cash capex
Cash capex stood at EUR 19 million, well below the prior-year level. The decline is mainly attributable to the sale of T-Mobile Netherlands and GD Towers.

Group Headquarters & Group Services
Development of operations

millions of €

	H1 2023	H1 2022	Change %	Q1 2023	Q2 2023	Q2 2022	Change %	FY 2022
Revenue	**1,130**	**1,220**	**(7.4)**	**578**	**552**	**616**	**(10.4)**	**2,407**
Service revenue[a]	**482**	**514**	**(6.2)**	**242**	**240**	**257**	**(6.6)**	**1,026**
EBITDA	(253)	(28)	n.a.	(146)	(107)	(37)	n.a.	(361)
Special factors affecting EBITDA	(80)	2	n.a.	(42)	(38)	(14)	n.a.	(234)
EBITDA (adjusted for special factors)	(173)	(30)	n.a.	(104)	(69)	(23)	n.a.	(128)
EBITDA AL	(397)	(184)	n.a.	(218)	(179)	(112)	(59.8)	(672)
Special factors affecting EBITDA AL	(80)	1	n.a.	(42)	(38)	(12)	n.a.	(234)
EBITDA AL (adjusted for special factors)	**(317)**	**(185)**	**(71.4)**	**(176)**	**(141)**	**(100)**	**(41.0)**	**(437)**
Depreciation, amortization and impairment losses	(670)	(738)	9.2	(354)	(317)	(359)	11.7	(1,476)
Profit (loss) from operations (EBIT)	**(923)**	**(766)**	**(20.5)**	**(499)**	**(424)**	**(397)**	**(6.8)**	**(1,837)**
Cash capex	(493)	(473)	(4.2)	(259)	(234)	(238)	1.7	(973)
Cash capex (before spectrum investment)	**(493)**	**(473)**	**(4.2)**	**(259)**	**(234)**	**(238)**	**1.7**	**(973)**

[a] As of January 1, 2023, the definition of service revenue was extended. Prior-year comparatives were adjusted retrospectively.

Revenue, service revenue
Revenue in our Group Headquarters & Group Services segment in the first half of 2023 decreased by 7.4 % year-on-year, mainly as a result of lower intragroup revenues from land and buildings due to the ongoing optimized use of space as well as to lower intragroup service revenues at Deutsche Telekom IT on account of a reduced revenue-relevant cost basis. By contrast, the reassignment of units in connection with the bundling of finance functions that were still assigned to the Germany operating segment in the first quarter of 2022 had an increasing effect on revenue. Against this background, organic revenue decreased by 5.7 % compared with the prior-year period.

Adjusted EBITDA AL, EBITDA AL
Adjusted EBITDA AL in the Group Headquarters & Group Services segment declined by EUR 132 million in the reporting period to EUR -317 million, primarily due to higher intragroup reimbursements and lower revenue from land and buildings, as well as expected seasonal fluctuations. Overall, EBITDA AL was negatively impacted in the reporting period by special factors amounting to EUR 80 million, especially for staff-related measures. In the prior-year period, EBITDA AL had benefited from positive net special factors of EUR 1 million, with the positive effect from the reduction of other provisions, including in connection with the termination of legal proceedings, offsetting expenses for staff-related measures.

Profit/loss from operations (EBIT)
The year-on-year decrease of EUR 157 million in EBIT to EUR -923 million was mainly due to the decline in EBITDA AL. Depreciation, amortization and impairment losses were down by contrast, largely due to lower capitalization in connection with declines both in the licensing of the Group-wide ERP system and in land and buildings due to the ongoing optimization of our real estate portfolio.

Cash capex (before spectrum investment), cash capex
Cash capex increased by EUR 20 million year-on-year, primarily owing to higher capital expenditure in the Technology and Innovation Board of Management department.

Events after the reporting period

Please refer to the section "Events after the reporting period" in the interim consolidated financial statements.

Forecast

The statements in this section reflect the current views of our management. Contrary to the forecasts published in the 2022 combined management report (2022 Annual Report) and the Interim Group Report as of March 31, 2023, we now expect to post higher adjusted EBITDA AL. Adjusted EBITDA AL for full-year 2023 was originally expected to come in at around EUR 40.9 billion. We now expect adjusted EBITDA AL for the Group to come in at around EUR 41.0 billion in the 2023 financial year. This is largely attributable on the one hand to stronger-than-expected business performance outside of the United States. Here we now expect to post adjusted EBITDA AL of around EUR 14.0 billion, up from the previous guidance of EUR 13.9 billion. We are also raising our guidance for the United States operating segment by USD 50 million, still anticipating adjusted EBITDA AL of around USD 28.5 billion.

All other statements made remain valid. Our planning assumes an unchanged U.S. dollar exchange rate of USD 1.05; financial results for GD Towers were not included.

For more information on the business risks, please refer to the section "Risks and opportunities." For additional information and recent changes in the economic situation, please refer to the section "The economic environment." Readers are also referred to the "Disclaimer" at the end of this report.

Risks and opportunities

This section provides important additional information and explains recent changes in the risks and opportunities compared to those described in the 2022 combined management report (2022 Annual Report). Readers are also referred to the "Disclaimer" at the end of this report.

Corporate risks

Strategic implementation and integration. Collaboration with Chinese suppliers is being impeded by the enduring trade conflict between the United States and China. Since 1997, the United States has restricted the use of U.S. technology for various countries, as well as, since 2020, for some Chinese companies, on account of security concerns. The United States also puts pressure on other countries to do the same. In Germany, the legislator adopted the Second Act to Increase the Security of Information Technology Systems, or the IT Security Act 2.0 (IT-Sicherheitsgesetz 2.0), in 2021. The Act does not include any ban on individual manufacturers. All 5G operators must notify the authorities of new critical components and the suppliers thereof in accordance with the catalog of security requirements pursuant to the Telecommunications Act and prior to first-time operation. If the Federal Government has security concerns, it can introduce a blanket ban on using certain manufacturers. Deutsche Telekom itself has long been scrutinizing security-critical components prior to installation and on an ongoing basis once in operation. In March 2023, under the IT Security Act 2.0, the Federal Ministry of the Interior and Community (BMI) asked German network operators to identify all 5G components from the Chinese suppliers Huawei and ZTE that have already been installed and map critical functions, and to notify the authority accordingly. Although BMI speaks of an impartial review, there is public speculation over the possibility that, in the second half of 2023, the findings could lead to a ban on deploying Chinese equipment in further parts of the German network classed as potentially critical, within certain time frames. The replacement of these components could incur high costs. In other countries, such as Austria, the Czech Republic, and Poland, it is still possible that critical infrastructure suppliers will have to be replaced within specific deadlines. Compared to the end of 2022, we already raised the risk significance of the risk category "Strategic implementation and integration" from high to very high in the first quarter of 2023, due to the extensive costs that could be incurred should there be a retrospective order to remove components.

Procurement and suppliers. Deutsche Telekom's supply chains could currently be negatively impacted by a number of factors, such as geopolitical tensions, e.g., the United States' technology sanctions against China, as well as cyberattacks and supply chain restructuring. Furthermore, the general costs of semiconductor materials, production, energy, wages, and global logistics are rising, leading to general price increases for products and services. Europe and the United States are experiencing delays in deliveries of individual products from certain vendors. However, thanks to countermeasures taken, shortages were avoided and continue to recede. At T-Mobile US, the increased concentration on the terminal equipment of a single vendor and the commensurate growing dependency could expose us to further risks. Continued geopolitical effects and price increases are expected. We address these challenges with a range of organizational, contractual, and strategic procurement measures, including the Supply Chain Resilience task force. To reflect the growing dependencies in T-Mobile US' terminal equipment portfolio, we are raising the risk significance of the risk category "Procurement and suppliers" from low to medium.

Data privacy and data security. All Group companies are subject to specific data privacy regulations (in the EU especially the General Data Protection Regulation (GDPR)). These requirements must be implemented and their compliance must be monitored. Data privacy incidents can be sanctioned with extremely high fines (up to between 2 and 4 % of the global Group revenue). The European supervisory authorities' concept for fines has been applied. It stipulates high fines even for violations with a low criticality. The supervisory authorities' practice with respect to fines demonstrates that more and higher fines are being imposed. Despite mitigation measures and well-established data privacy management structures, it is not possible to fundamentally rule out data privacy incidents as almost all procedures/processes in the Group are relevant in terms of data protection. Errors may occur that are linked to reputation, cost, and sanction risks. Cybercrime and industrial espionage are on the rise and they are becoming ever more complex due to rapidly advancing technologies and attack methods. As a result, we face constant challenges and adjustments to protect our customer and business partner data, as well as our networks, technologies, products, and services against these attacks. Such incidents can lead, among other things, to business disruptions, embezzlement, or unauthorized access to confidential or personal information, and to loss of reputation. Due to the rise in successful cyberattacks against Deutsche Telekom in recent years, predominantly in the United States, and the growing overall threat level imposed by cyberattacks, as well as the supervisory authorities' tougher practice with respect to data privacy-related fines, the risk significance of the risk category "Data privacy and data security" is rising from high to very high.

Financial risks. The war in Ukraine and the current situation on the world market drove sharp rises in energy costs in 2022. Energy prices could remain volatile, although the price level on the world market fell slightly in the first half of 2023. Inflationary pressure in Germany and the United States resulted in further interest rate hikes in the first half of 2023, prompting a reduction in the variable-interest debt portfolio to temper interest rate sensitivity. By taking account of fluctuating energy prices and the changes to the debt portfolio during the planning process, we were able to lower the risk significance of the risk category "Financial risks" from high to medium.

Litigation

Proceedings against T-Mobile US in consequence of the cyberattack on T-Mobile US in August 2021. In the proceedings against T-Mobile US in relation to the cyberattack on T-Mobile US in August 2021, the competent court issued an order on June 29, 2023 granting final approval of the agreement dated July 22, 2022 to settle the federal class action lawsuit. The order has been appealed, leading to a delay in the conclusion of the proceedings.

Assessment of the aggregate risk position

The aggregate risk position has deteriorated compared with the risks and opportunities as described in the 2022 combined management report (2022 Annual Report) due to a potential expansion of the ban on Chinese network components, the enduring pressures on global economic development, and the tense geopolitical situation. At the time of preparing this report, neither our risk management system nor our management could identify any material risks to the continued existence of Deutsche Telekom AG or a significant Group company as a going concern.