

TURKCELL ILETISIM HIZMETLERI A S

Form 20-F

March 20, 2017

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As filed with the Securities and Exchange Commission on March 20, 2017

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 20-F

**REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES
EXCHANGE ACT OF 1934**

OR

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT
OF 1934**

For the fiscal year ended December 31, 2016

OR

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE
ACT OF 1934**

For the transition period from to

OR

**SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES
EXCHANGE ACT OF 1934**

Date of event requiring this shell company report

Commission File Number: 1-15092

TURKCELL ILETISIM HIZMETLERI A.S.

(Exact Name of Registrant as Specified in Its Charter)

TURKCELL

(Translation of Registrant's Name into English)

Republic of Turkey

(Jurisdiction of Incorporation or Organization)

Turkcell Kucukyali Plaza

Aydinevler Mahallesi Inonu Caddesi No:20 Kucukyali Ofispark B Blok

Maltepe

Istanbul, Turkey

(Address of Principal Executive Offices)

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Turkcell Kucukyali Plaza

Aydinevler Mahallesi Inonu Caddesi No:20 Kucukyali Ofispark B Blok

Maltepe

Istanbul, Turkey

(Name, Telephone, E-mail and/or Facsimile Number and Address of Company Contact Person)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
American Depositary Shares	New York Stock Exchange
Ordinary Shares, Nominal Value TRY 1.000*	New York Stock Exchange

*Not for trading on the NYSE, but only in connection with the registration of ADSs representing such ordinary shares pursuant to the requirements of the Securities and Exchange Commission.

Securities registered pursuant to Section 12(g) of the Act:

None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

None

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

Ordinary Shares, Nominal Value TRY 1.000	2,200,000,000
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Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T

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(§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act. (Check one):

Large Accelerated Filer

Accelerated Filer

Non-Accelerated Filer

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP

International Financial Reporting Standards as issued

Other

by the International Accounting Standards Board

If Other has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

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INTRODUCTION

This is the 2016 annual report for Turkcell Iletisim Hizmetleri A.S. (Turkcell), a joint stock company organized and existing under the laws of the Republic of Turkey. The Company , we , us , our , Group and similar terms refer to Turkcell, its predecessors, and its consolidated subsidiaries, except as the context otherwise requires.

Our audited Consolidated Financial Statements as of December 31, 2016 and 2015 and for each of the years in the three-year period ended December 31, 2016 included in this annual report have been prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB).

Certain figures included in this annual report have been subject to rounding adjustments. Accordingly, figures shown for the same category presented in different tables may vary slightly, and figures shown as totals in certain tables may not total exactly. In this annual report, references to TL , TRY and Turkish Lira are to the Turkish Lira, and references to \$, U.S. Dollars , USD , U.S. \$ and cents are to U.S. Dollars and, except as otherwise noted, all interest rates are per annum basis. In this annual report, references to Turkey or the Republic are to the Republic of Turkey.

Statements regarding our market share and total market size in Turkey are based on the Information and Communication Technologies Authority s (ICTA) or operators announcements, and statements regarding penetration are based on the Turkish Statistical Institute s (TUIK) announcements pertaining to the Turkish population. Furthermore, statements regarding our 2G coverage are based on the ICTA s specifications as well as the TUIK s announcements, and statements regarding our 3G coverage are based on the ICTA s 3G coverage calculation specifications issued on April 25, 2012. Statements regarding 4.5G coverage and performance are based on our own calculations, pending publication of ICTA specifications.

References to the Information and Communication Technologies Authority or the ICTA include its predecessor entity, the Telecommunications Authority.

We have not independently verified the information in industry publications or market research, although management believes the information contained therein to be reliable. We do not represent that this information is accurate.

The methodology for calculating performance measures such as subscriber numbers, average revenue per user (ARPU) and churn rates varies substantially among operators and is not standardized across the telecommunications industry, and reported performance measures thus vary from those that would probably result from the use of a single methodology. In addition, subscriber numbers in the mobile communications sector may be difficult to calculate as a result of individuals having more than one SIM card or SIM cards being removed due to periods of inactivity. The differing methodologies for calculating these performance indicators make it difficult to draw comparisons between these figures for, and to determine the relative market share of, different mobile operators.

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FORWARD-LOOKING STATEMENTS

This annual report includes forward-looking statements within the meaning of Section 27A of the U.S. Securities Act of 1933, as amended, Section 21E of the U.S. Securities Exchange Act of 1934, as amended, and the Safe Harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. All statements other than statements of historical facts included in this annual report, including, without limitation, certain statements regarding our operations, financial position, and business strategy, may constitute forward-looking statements. In addition, forward-looking statements generally can be identified by the use of forward-looking terminology such as *may*, *will*, *expect*, *intend*, *estimate*, *anticipate*, *believe*, *continue*, or similar statements.

Although we believe that the expectations reflected in such forward-looking statements are reasonable at this time, we can give no assurance that such expectations will prove to be correct. Given these uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements. Important factors that could cause actual results to differ materially from our expectations are contained in cautionary statements in this annual report, including, without limitation, in conjunction with the forward-looking statements listed below, and include, among others, the following:

competition in our main market;

increased competition and/or the entrance of new direct and indirect competitors in the market due to new applications and regulatory changes in Turkey with respect to certain technologies;

the refocusing of our business strategy in Turkey and the execution of this strategy by our new senior management team;

failure to successfully integrate and manage the new opportunities we pursue new business models, new technologies and international activities;

regulatory decisions and changes in the regulatory environment;

managing changes in our liquidity position and increased indebtedness and finance costs;

failure to abide by the requirements of our licenses or applicable regulations, including new requirements regarding personal data protection in Turkey and local-sourcing requirements for the development of our 4.5G license in Turkey;

economic and political developments in Turkey and internationally;

exposure to certain risks through our interests in associated companies, including due to political instability in Ukraine;

foreign exchange rate risks;

reduction in cash generated from operations and increased capital needs, which may increase our borrowing requirements, and consequently, our finance costs and exposure to the risks associated with borrowing;

our ability to deal with spectrum limitations;

zoning limitations related to our Base Transceiver Stations (BTS) and potential increase in coverage requirements;

potential liability and possible reduced usage of mobile phones as a result of alleged health risks related to BTSs and the use of handsets;

our dependence on certain suppliers for network equipment and the provision of data services;

Turkcell s complex ownership structure and ongoing disagreements among our main shareholders;

our dependence on certain systems and suppliers for network technology and IT services and our exposure to potential natural disasters, regular or severe IT and network failures, human error, security breaches and other cybersecurity incidents and IT migration risk;

technological changes in the telecommunications market;

our dependence on third party providers to help us navigate the regulatory, security and business risks of industries where we traditionally do not compete;

our ability to retain key personnel and distributors;

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legal actions and claims to which we are a party; and

inherent limitations of the effectiveness of our internal control over financial reporting.

All subsequent written and oral forward-looking statements attributable to us are expressly qualified in their entirety by reference to these cautionary statements.

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Not Applicable.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not Applicable.

ITEM 3. KEY INFORMATION**3.A Selected Financial Data**

Our audited annual Consolidated Financial Statements including our consolidated statements of financial position as of December 31, 2016 and 2015 and our consolidated statements of profit and loss, comprehensive income, changes in equity and cash flows for the three years in the period ended December 31, 2016 (Annual Consolidated Financial Statements) included in this annual report have been prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB).

Effective from the fourth quarter of 2015, our financial statements have been presented in TRY only, the currency in which we recognize the majority of our revenues and expenses. We no longer present financial statements in USD. This change has allowed us to align our Turkish and US reporting.

The following information should be read in conjunction with Item 5. Operating and Financial Review and Prospects , our audited Consolidated Financial Statements as of December 31, 2016, 2015 and 2014, and the related consolidated statements of profit and loss, comprehensive income, changes in equity, and cash flows for the years ended December 31, 2016, 2015 and 2014, and the related notes appearing elsewhere in this annual report.

The following table presents our selected consolidated statements of operations, statement of financial position and cash flows data as of and for each of the years in the four-year period ended December 31, 2016, presented in accordance with IFRS as issued by the IASB which have been derived from our audited Consolidated Financial Statements as of and for the year ended December 31, 2016; and our selected consolidated statements of operations, statement of financial position and cash flows data as of and for one-year period ended December 31, 2012, presented in accordance with IFRS as issued by the IASB which have been derived from our accounting records as of and for the year ended December 31, 2012. Our financial statements for 2012 were originally published in U.S. dollars and were audited.

	2016	2015	2014	2013	2012
	(Million TRY, except share data and certain other data)				
Selected Financial Data Prepared in Accordance with IFRS as Issued by the IASB					
Consolidated Statement of Operations Data					
Total revenues ⁽¹⁾	14,285.6	12,769.4	12,043.6	11,407.9	10,507.0
Direct cost of revenues ⁽²⁾	(9,236.6)	(7,769.5)	(7,383.9)	(7,063.9)	(6,487.3)

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Gross profit	5,049.0	4,999.9	4,659.7	4,344.0	4,019.7
Other income	78.6	44.5	58.9	35.5	32.3
Administrative expenses	(721.8)	(625.3)	(562.7)	(550.3)	(484.2)
Selling and marketing expenses	(1,910.9)	(1,901.9)	(1,974.6)	(1,843.6)	(1,705.7)
Other expenses	(312.8)	(270.4)	(135.2)	(94.4)	(137.5)
Results from operating activities	2,181.9	2,246.8	2,046.1	1,891.2	1,724.6
Finance income	1,064.8	756.1	955.4	759.9	691.7
Finance costs	(1,237.6)	(799.5)	(1,247.0)	(204.6)	(224.2)
Net finance income/(costs)	(172.8)	(43.4)	(291.6)	555.3	467.5
Monetary gain ⁽³⁾			205.1	176.9	169.9
Share of profit of equity accounted investees ⁽⁴⁾			4.5	(0.7)	(37.6)
Profit before income taxes	2,009.1	2,203.3	1,964.0	2,622.7	2,324.3

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	2016	2015	2014	2013	2012
	(Million TRY, except share data and certain other data)				
Income tax expense	(423.2)	(667.1)	(730.4)	(591.4)	(522.5)
Profit from continuing operations	1,586.0	1,536.2	1,233.6	2,031.3	1,801.8
Profit/ (loss) from discontinued operations ⁽⁴⁾	(42.2)	367.3	202.8	298.0	256.1
Profit for the period	1,543.8	1,903.6	1,436.5	2,329.3	2,058.0
Attributable to:					
Equity holders of the Company	1,492.1	2,067.7	1,864.7	2,325.9	2,079.0
Non-controlling interest	51.7	(164.1)	(428.2)	3.4	(21.0)
Profit for the period	1,543.8	1,903.6	1,436.5	2,329.3	2,058.0
Basic earnings per share Total Group	0.68	0.94	0.85	1.06	0.95
Basic earnings per share- from continuing operations	0.70	0.77	0.76	0.92	0.83
Consolidated Statement of Financial Position Data (at period end)					
Cash and cash equivalents	6,052.4	2,918.8	9,031.9	8,128.9	6,998.9
Total assets	31,600.2	26,207.3	23,694.2	21,284.6	18,687.4
Long-term debt ⁽⁵⁾	6,935.1	3,487.8	1,247.9	1,528.5	1,103.8
Total debt ⁽⁶⁾	9,781.2	4,214.2	3,697.7	3,332.5	3,039.6
Total liabilities	15,531.8	11,788.4	6,983.6	6,549.5	5,923.7
Share capital	2,200.0	2,200.0	2,200.0	2,200.0	2,200.0
Total equity/net assets	16,068.4	14,418.9	16,710.6	14,735.1	12,763.7
Weighted average number of shares ⁽⁷⁾	2,193,184,437	2,200,000,000	2,200,000,000	2,200,000,000	2,200,000,000
Consolidated Cash Flows Data⁽⁸⁾					
Net cash generated by operating activities	607.1	1,901.3	1,990.8	2,210.6	2,122.7
Net cash (used in)/ generated by investing activities	(2,976.7)	(3,563.0)	(1,378.0)	(1,084.0)	543.4
Net cash generated by/(used in) financing activities	4,839.0	(4,887.4)	93.0	(232.0)	(309.9)
Other Financial Data					
			794.0	990.0	885.0

Dividends declared or proposed ⁽⁹⁾⁽¹⁰⁾					
Dividends per share (declared or proposed) ⁽¹⁰⁾			0.36	0.45	0.40
Gross margin ⁽¹¹⁾	35%	39%	39%	38%	38%
Adjusted EBITDA ⁽¹²⁾	4,619.5	4,140.5	3,761.8	3,544.5	3,241.5
Capital expenditures	3,494.7	8,536.2	2,144.8	1,822.3	1,738.8

- (1) Total revenues includes Telecommunication services, equipment revenues, revenue and commission fees on betting business, call center revenues and revenues from financial services (Note 7).
- (2) Direct cost of revenues includes payments for our treasury share (the amount paid to the government under our license) and universal service fund, transmission fees, base station rent and energy expenses, billing costs, depreciation and amortization charges, technical, repair and maintenance expenses, roaming charges, interconnection fees, costs of simcards sold, handset costs where we are the principal in the sale of handsets and personnel expenses related to our technicians and direct cost of revenues from financial operations (Note 12).
- (3) Hyperinflationary period lasted until 31 December 2005 in Turkey and commenced on January 1, 2011 in Belarus. In the financial statements of subsidiaries operating in Belarus, restatement adjustments have been made to compensate the effect of changes in the general purchasing power of the Belarusian Ruble in accordance with IAS 29. IAS 29 requires that financial statements prepared in the currency of a hyperinflationary economy be stated in terms of the measuring unit current at the balance sheet date. The economy of Belarus was considered to transit out of hyperinflationary status and we determined to cease applying IAS 29 starting from January 1, 2015. Therefore, subsidiaries operating in Belarus have not applied IAS 29 in 2015.

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- (4) Turkcell's ownership in A-Tel was sold to Bereket Holding A.S. for a consideration of TL 31.0 million in 2014. The Company accounted its joint venture A-Tel by applying equity method accounting until August, 27 2014. We have announced our intention to exit from jurisdictions in which Fintur operates and initiated an active program to locate a buyer for our stake. Fintur is now classified as held for sale and reported as discontinued operations (Note 17).
- (5) Long-term debt consists of long-term loans and borrowings, debt securities issued as well as long-term lease obligations.
- (6) Total debt consists of long-term and short-term loans and borrowings, debt securities issued as well as lease obligations.
- (7) The Company has purchased 6,815,563 shares back with a price range of full TL 8.92 to 9.99 as part of the share buyback decision on 27 July 2016. The transactions amount to TL 65,607 million. Treasury shares are deducted from Equity (Notes 25 and 26).
- (8) The presentation of statement of cash flows for the year ended December 31, 2015 has been revised in 2016, For details please refer to 18.A Financial Statements Note 2.
- (9) The Ordinary General Assembly meeting of our Company pertaining to the years 2010, 2011, 2012, 2013 and 2014 approved a dividend in respect of these years amounting to TRY 3,925 million, which represented 42.5% of net distributable income. The dividend was paid to shareholders on April 6, April 8 and April 13, 2015.
- (10) Dividends per share was computed over 2,200,000,000 shares. The dividends per share were TRY 0.40, TRY 0.45 and TRY 0.36 for the years ended 2012, 2013 and 2014 respectively (equivalent to \$0.11, \$0.13, and \$0.10 respectively as of December 31, 2016).
- (11) Gross margin is calculated as gross profit divided by total revenues.
- (12) Adjusted EBITDA is a non-GAAP financial measure that is defined as the profit of the Company for the period before finance income, finance costs, income tax expense, other income, other expense, monetary gain, profit or loss from discontinued operations and depreciation and amortization. A reconciliation of Adjusted EBITDA to net income is presented below.

Non-IFRS measures

Adjusted EBITDA is a non-GAAP financial measure that is defined as the profit of the Company for the period before finance income, finance costs, income tax expense, other income, other expense, monetary gain, profit or loss from discontinued operations, share of profit of equity accounted investees and depreciation and amortization. Our management reviews Adjusted EBITDA as a key indicator each month to monitor our financial performance. Net income is also considered by our management as an indicator for our overall business performance which includes results from our operations, financing and investing activities. Adjusted EBITDA is not a measurement of financial performance under IFRS and should not be construed as a substitute for profit for the period as a measure of performance or cash flow from operations as a measure of liquidity.

We believe Adjusted EBITDA, among other measures, facilitates performance comparisons from period to period and management decision making. It also facilitates performance comparisons from company to company. Adjusted EBITDA as a performance measure eliminates potential differences caused by variations in capital structures (affecting interest expense), tax positions (such as the impact of changes in effective tax rates on periods or companies) and the age and book depreciation and amortization of tangible and intangible assets (affecting relative depreciation and amortization expense). We also present Adjusted EBITDA because we believe it is frequently used by securities analysts, investors and other interested parties in evaluating the performance of other mobile operators in the telecommunications industry in Europe, many of which present Adjusted EBITDA when reporting their results.

Nevertheless, Adjusted EBITDA has limitations as an analytical tool, and you should not consider it in isolation from, or as a substitute for analysis of, our results of operations, as reported under IFRS.

Some of these limitations are:

it does not reflect our cash expenditures or future requirements for capital expenditures or contractual commitments;

it does not reflect changes in, or cash requirements for, our working capital needs;

it excludes share of profit of equity announced investees and discontinued operations;

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it does not reflect the interest expense, or the cash requirements necessary to service interest or principal payments, on our debt;

it excludes depreciation, amortization and impairments and although depreciation and amortization are non-cash charges, the assets being depreciated and amortized will often have to be replaced in the future, and Adjusted EBITDA does not reflect any cash requirements for such replacements;

it does not reflect other income and expense items which are generally outside the scope of our ordinary operations;

it is not adjusted for all non-cash income or expense items that are reflected in our consolidated statement of cash flows; and

other companies in our industry may calculate this measure differently from how we do, which may limit its usefulness as a comparative measure.

We compensate for these limitations by relying primarily on our results under IFRS and using Adjusted EBITDA measures only supplementally. See Item 5. Operating and Financial Review and Prospects and the Consolidated Financial Statements contained elsewhere in this annual report.

The following table provides a reconciliation of Adjusted EBITDA, as calculated using financial data prepared in accordance with IFRS as issued by the IASB, to net profit, which we believe is the most directly comparable financial measure calculated and presented in accordance with IFRS as issued by the IASB.

	Year ended December 31,				
	2016	2015	2014	2013	2012
	(Million TRY)				
Adjusted EBITDA	4,619.5	4,140.5	3,761.8	3,544.5	3,241.5
Finance income/(costs)	(172.8)	(43.4)	(291.6)	555.3	467.5
Monetary gain			205.1	176.9	169.9
Other operating income/(expense)	(234.2)	(225.9)	(76.3)	(58.9)	(105.2)
Depreciation and amortization	(2,203.3)	(1,667.8)	(1,639.4)	(1,594.4)	(1,411.7)
Share of profit of equity accounted investees			4.5	(0.7)	(37.6)
Consolidated profit before income tax	2,009.1	2,203.3	1,964.0	2,622.7	2,324.3
Income tax expense	(423.2)	(667.1)	(730.4)	(591.4)	(522.5)
Profit or (loss) from discontinued operations	(42.2)	367.3	202.8	298.0	256.1
Profit for the period	1,543.8	1,903.6	1,436.5	2,329.3	2,058.0

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The following table presents selected operational data:

I. Operating Results

	As of and for the year ended December 31,		
	2016	2015	2014
Industry Data			
Population of Turkey (in millions) ⁽¹⁾	79.8	78.7	77.7
Turkcell Data⁽²⁾			
Number of mobile postpaid subscribers at end of period (in millions) ⁽³⁾	17.4	16.6	15.2
Number of mobile M2M subscribers at end of period (in millions)	2.1	1.9	1.5
Number of mobile prepaid subscribers at end of period (in millions) ⁽³⁾	15.7	17.4	19.4
Number of fiber subscribers at end of period (in thousands)	1,043.9	899.4	735.1
Number of ADSL subscribers at end of period (in thousands)	818.0	620.8	456.2
Number of IPTV subscribers at end of period (in thousands)	359.7	223.7	60.1
Total Turkcell Turkey subscribers at end of period (in millions)	35.3	35.8	35.9
Total Turkcell Group subscribers at the end of period (in millions) ⁽⁴⁾	50.1	51.6	52.0
Mobile average monthly revenue per user (in TRY) ⁽⁵⁾	26.8	24.5	22.5
Postpaid	39.2	38.5	37.7
Postpaid (excluding M2M)	44.0	42.7	41.5
M2M	3.3	3.3	3.2
Prepaid	13.9	12.4	11.6
Fixed Residential average monthly revenue per user (in TRY) ⁽⁵⁾	51.1	48.7	47.4
Mobile average monthly minutes of use per subscriber ⁽⁶⁾	323.9	296.6	275.3
Mobile Churn ⁽⁷⁾	24.7%	27.3%	28.3%
Fixed Churn ⁽⁸⁾	18.9%	16.7%	17.7%
Number of Turkcell employees at end of period	3,870	3,851	3,319
Number of employees of consolidated subsidiaries at end of period ⁽⁹⁾	15,129	12,798	12,311

(1) The population of Turkey for 2016, 2015, and 2014 is based on TUIK's announcements.

(2) For a discussion of how these metrics affect our revenues, please see Item 5A. Operating Results, VI. Year Ended December 31, 2016 Compared to the Year Ended December 31, 2015 a. Revenues.

(3) Subscriber numbers do not include subscribers in Ukraine, Belarus, Northern Cyprus and Germany.

(4) Subscriber numbers include subscribers in Ukraine, Belarus, Northern Cyprus and Germany.

(5) We calculate average revenue per user (ARPU) using the weighted average number of our mobile and fixed subscribers in Turkey during the period.

(6) Average monthly minutes of use per subscriber is calculated by dividing the total number of incoming and outgoing airtime minutes of use by the average monthly sum of postpaid and prepaid mobile subscribers in Turkey for the year divided by twelve.

(7) Churn rate is the percentage calculated by dividing the total number of subscriber disconnections during a certain period by the average number of subscribers for the same period. For these purposes, we define average number of subscribers as the number of subscribers at the beginning of the period plus one half of the total number of gross subscribers acquired during the period. Churn refers to our mobile subscribers in Turkey that are both

voluntarily and involuntarily disconnected from our network. Additionally, in the fourth quarter of 2015, 379 thousand subscriptions and in the first quarter of 2016, 196 thousand subscriptions which were not topped-up within the stipulated period were also disconnected.

- (8) Fixed churn rate represents the rate of subscriber disconnections during a certain period and is calculated by dividing the total number of subscriber disconnections during a certain period by the average number of subscribers for the same period. For these purposes, we define average number of subscribers as the number of subscribers at the beginning of the period plus one half of the total number of gross subscribers acquired during the period. Churn refers to our fixed subscribers in Turkey that are both voluntarily and involuntarily disconnected from our network. Fixed churn rate includes switches between Fiber and ADSL.
- (9) See Item 6.D. Employees for information concerning our consolidated subsidiaries.

II. Exchange Rate Data

The Federal Reserve Bank of New York does not report, and historically has not reported, a noon buying rate for the Turkish Lira. For the convenience of the reader, this annual report presents translations of certain Turkish Lira amounts into U.S. Dollars at the relevant Turkish Lira exchange rate for purchases of U.S. Dollars at the \$/TRY exchange rate announced by the Central Bank of Republic of Turkey (CBRT). The assets and

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liabilities of foreign operations, including goodwill and fair value adjustments arising on acquisition, are translated to TRY from the functional currency of the foreign operation at foreign exchange rates prevailing at the reporting date. The income and expenses of foreign operations are translated to TRY at monthly average exchange rates excluding foreign operations in hyperinflationary economies which are translated to TRY at exchange rates at the reporting date.

The income and expenses of foreign operations in hyperinflationary economies are translated to TRY at the exchange rate at the reporting date. Prior to translating the financial statements of foreign operations in hyperinflationary economies, their financial statements for the current period are restated to account for changes in the general purchasing power of the local currency. The restatement is based on relevant price indices at the reporting date. As stated in the annual monetary and exchange rate policy announcements of the CBRT, which have been published since 2002, the foreign exchange rate is not a policy tool or target; it is determined by the supply and demand conditions in the market. Along with inflation targeting, the CBRT continued to support financial stability and the implementation of the floating exchange rate regime in 2016.

The hyperinflationary period in Turkey ceased by December 31, 2005 and commenced in Belarus on January 1, 2011 and ceased by January 1, 2015. Accordingly, the economy of Belarus was considered to transit out of hyperinflationary status and we determined to cease applying IAS 29 starting from January 1, 2015. The following table sets forth, for the periods and the dates indicated, the CBRT's buying rates for U.S. Dollars. These rates may differ from the actual rates used in preparation of our Consolidated Financial Statements and other information appearing herein. The \$/TRY exchange rate on March 10, 2017 was TRY 3.7522= \$1.00.

	2017 ⁽²⁾⁽³⁾	2016 ⁽²⁾	2015 ⁽²⁾	2014 ⁽²⁾	2013 ⁽²⁾	2012 ⁽²⁾
High	3.878	3.534	3.060	2.367	2.160	1.889
Low	3.519	2.793	2.278	2.071	1.746	1.734
Average ⁽¹⁾	3.702	3.021	2.720	2.188	1.901	1.793
Period End	3.752	3.519	2.908	2.319	2.134	1.783

Source: CBRT

- (1) Calculated based on the average of the daily exchange rates of each month during the relevant period.
- (2) These columns set forth the CBRT's buying rates for U.S. Dollars expressed in Turkish Lira.
- (3) Through March 10, 2017.

	March 2017 ⁽¹⁾	February 2017	January 2017	December 2016	November 2016	October 2016
High	3.752	3.787	3.878	3.534	3.440	3.100
Low	3.608	3.569	3.519	3.367	3.098	3.000

Source: CBRT

- (1) Through March 10, 2017.

No representation is made that Turkish Lira or the U.S. Dollar amounts as presented in this annual report could have been or could be converted into U.S. Dollars or Turkish Lira, as the case may be, at any particular rate. For a discussion of the effects of fluctuating exchange rates on our business, see Item 5A. Operating Results .

3.B Capitalization and Indebtedness

Not applicable.

3.C Reasons for the Offer and Use of Proceeds

Not applicable.

3.D Risk Factors

The following is a discussion of those risks that we believe are the principal material risks faced by our Company and its subsidiaries. No assurance can be given that risks that we do not believe to be material today will not prove to be material in the future. Consequently, the risks described below should not be considered to be exhaustive.

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Competition in the Turkish telecommunications market may adversely affect the growth of our business and our financial condition.

The majority of our revenue comes from our operations in Turkey. Competition in this market and certain regulatory actions that limit our ability to respond effectively to competitive pressures may adversely affect the growth of our business and our financial condition. Continued price competition and higher incentive-driven competition has, and will continue to, put pressure on our prices, market shares and profitability, as well as our liquidity. If the competition further intensifies, or the market slows or develops in unexpected ways, this could harm our business and financial condition.

In this market, we currently face intense competition from two other operators, Vodafone and Turk Telekom Group, both of which have recently experienced changes in senior management, which may result in changes in their strategies. As part of the changes to our own strategy announced in 2015, we are taking an integrated approach to the mobile, fixed and TV businesses. When viewing mobile and fixed as a single converged market, we are the second largest player in Turkey in terms of revenue, after the Turk Telekom Group, whereas when viewing the mobile market alone, we are the market leader.

In light of this newly-defined strategy and market, our aim is to solidify our position in Turkey as a converged communications and technology services company. However, our convergence strategy faces numerous challenges, including gaining access to the installed infrastructure, particularly from the incumbent operator, and to content. We also face the challenge of building or acquiring required assets at a reasonable cost. Furthermore, within our own organization, legal impediments prevent us from freely marketing all of our services to all of our subscribers.

In line with our strategy, we are currently in discussion with Turksat, a satellite and cable TV operator in Turkey, Vodafone, and TELKODER, the association of small ISPs of Turkey, to create a joint venture that would deploy fiber infrastructure in Turkey. No assurance can be given that these discussions will be successful. If the joint venture is established, the associated costs and regulatory hurdles are likely to be significant and the sharing of infrastructure may have an impact on the way we market fiber services and on the competitive landscape in the fiber market. In this regard, no decision has yet been taken regarding the contribution of our existing fiber infrastructure to the proposed joint venture.

As other operators in Turkey are also moving towards converged services, aggressively priced converged offers may have an adverse effect on our revenue, ARPU and our market share. Furthermore, convergence may increase the level of competition from other operators that have not been our traditional competitors, such as television service providers, that may prevent us from acquiring new customers.

In the past, Turkey's principal telecommunications regulator, the ICTA, interfered with our ability to price our services and respond to competitive pressures. Regulatory actions such as the ICTA's regulations on our retail pricing and maximum retail prices had been a significant factor in shaping the development of the Turkish market and in our ability to respond to changes in the market. Regulatory actions have often favored our competitors, such as interconnection rates which have been set asymmetrically and have facilitated increased competition. Although the ICTA's maximum and minimum retail price regulations have been lifted, it is possible that the ICTA may act to regulate other areas of our business, including converged offers, and we cannot predict the impact that such regulation would have on our ability to execute our convergence strategy and on our competitive position and also the removal of the minimum retail price regulation may change the market dynamics. Furthermore, sub-brand initiatives of the existing competitors, and new licenses and authorizations issued by the regulator such as Fixed Telephony Service (FTS) and Mobile Virtual Network Operator (MVNO) licenses have made it easier and/or more attractive for new direct and indirect competitors to enter the market.

Competition has also been affected by the increasing use of applications and services that make use of the internet as a substitute (namely over the top , or OTT services) for some of our more traditional services, such as messaging and voice. These have had an adverse impact on our revenues which may in the future be material. Reduced demand for our core services of voice, messaging and data could significantly impact our growth and profitability.

In some businesses, we are dependent on our competitors for certain services that we provide. For example, we are reselling xDSL from the incumbent operator Turk Telekom and we are dependent on their sales service in this business. Therefore, any delay or negligence of Turk Telekom could result in dissatisfaction of our customer end and lead to churn of our xDSL subscribers.

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With respect to terminals, there is an increasing emphasis in the Turkish market on terminal bundled campaigns. Increased demand for terminal bundled campaigns will continue to lead to higher working capital requirements and bad debt expense. Working capital requirements related to terminal financing and bad debt expenses are being managed by our consumer finance company, which commenced operations in 2016. Our consumer finance company is exposed to changes in the economic environment in Turkey and may encounter increased credit default risk, particularly as its credit portfolio increases or in the event of degradation in the economic environment. Furthermore, the demand for consumer loans might be negatively affected in case of an increase in interest rates.

We are in process of restructuring our sales channel and renovating Turkcell stores (TİM). Any delay in store renovation, roll-out execution or disagreement with dealers could lead to a loss of customers or loss of key locations.

Competition in the market may also be adversely affected by changes in a number of other areas that are not specific to telecommunications, tax (in particular taxes on our services and on mobile devices), increases in interest rates, depreciation of the Turkish Lira against U.S. Dollar or Euro, macroeconomic developments and changes in consumer behavior, which could in turn adversely affect our financial results and the development of our business.

Our growth strategy is partly dependent on new investment opportunities, which could affect our business and financial condition, and the return on our investments cannot be guaranteed.

In addition to growing our existing business, our strategy for growth involves selectively seeking and evaluating new investment opportunities and participating in those meeting our criteria. We intend to pursue inorganic growth opportunities both in Turkey and in countries where we believe we can replicate our business model, including countries with a cultural affinity and similar dynamics to our domestic and international markets in order to be able to leverage our experience and technological base. These opportunities may include alliances, such as MVNOs, management service agreements and marketing partnerships, and may be in the area of mobile or fixed telecommunications and services. In accordance with our convergence strategy, the opportunities that we pursue in some markets, including Turkey, may include services that would be adjacent or complementary to services that we already offer in such market. In addition, we may provide services in related areas and also consider investing or increasing our investments in business areas outside of the scope of our core business.

Telia Company, the majority shareholder of Fintur Holdings B.V. (Fintur) through its 58.55% stake, has initiated a process to divest its Eurasian assets on September 17, 2015. In line with our growth strategy and as the minority (41.45%) shareholder in Fintur (operating in Kazakhstan, Azerbaijan, Georgia and Moldova), we submitted a binding offer to acquire Telia Company's 58.55% stake in Fintur and its 24% direct stake in Kcell JSC (Kazakhstan) on February 26, 2016. However, negotiations with Telia Company were inconclusive. We have since announced our intention to exit from jurisdictions in which Fintur operates and initiated an active program to locate a buyer for our stake. Fintur is now classified as held for sale and reported as discontinued operations. No assurance can be given that we will successfully or completely exit on commercially viable terms. We may also decide not to sell and it is still possible that we could buy out the majority shareholder, which would likely lead to an increase in our debt and increases in our exposure to macroeconomic risks in the Fintur countries, to fluctuations in currencies that have been prone to devaluation, to countries that have a high risk of corruption and to other compliance issues. Fintur has been the subject of allegations of corruption in the past, often as part of broader allegations against Telia Company and certain of its subsidiaries. Furthermore, in the case of an acquisition, we would be exposed to risks in our ability to successfully integrate these companies, their systems and their networks and to implement new strategies, and to the reaction of customers, competitors and regulators. If we do not completely exit or acquire Fintur, we also face the risk that the majority shareholder may sell to another party, leaving us as a minority shareholder with a new majority shareholder not chosen by us or that we may disagree with. Should there be a disagreement between us and the other shareholder (Telia Company or a successor) in the future, no assurance can be given that we will be able to take the

course of action that we believe appropriate, including with respect to operational and strategic matters.

New investments may not achieve expected returns or returns that are in line with those of our core business, which may cause high value erosion. In many of the markets and businesses in which we have invested or may invest, it may take several years and significant investments to achieve desired profitability, if at all. As part of our strategy to become an integrated player, we may consider acquiring fixed operators in certain of the markets in which we operate. Any such acquisition would increase risks associated to these countries and to this type of business. If we become a minority shareholder in an investment, we might encounter difficulties for the

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protection of our minority shareholder rights. In addition, if an asset in which we have invested does not provide the expected returns, we may need to make further investment or we may consider disposal at a sale price that may be below carrying value or liquidation.

In the context of our evaluation of potential investments in the regions we target for international expansion, Turkcell has considered opportunities in countries in the Commonwealth of Independent States (CIS), Eastern Europe, the Balkans and the Middle East and Africa (MEA), and may consider such opportunities in the future. Operations in many of these countries are subject to economic, political and other risks. Furthermore, for acquisitions outside of Turkey, current and future E.U., U.S. and international laws and regulations, as well as legal and regulatory actions, targeting certain countries, local companies and individuals may curtail our ability to do business in affected countries and may impede our exercise of control. Turkcell itself, as well as certain of its key employees (notably those who are E.U. or U.S. citizens), could be subject to sanctions under such laws and regulations. Some of the countries and companies in which we have contemplated making investments and in which we may from time to time consider opportunities, and certain individuals involved in such companies, have been the specific targets of such laws and regulations. Similarly, jurisdictions in which we have invested may from time to time become subject to sanctions, as has been the case in Crimea. Investors may be reticent to invest in a company doing business in such countries or other countries that may be at risk due to the political instability. These factors could have an adverse effect on the demand for and the price of our shares.

Regulatory decisions and changes in the regulatory environment could adversely affect our business and financial condition.

Our industry is subject to extensive regulation, in Turkey and the other countries in which we operate. Compliance with new and existing laws and regulations has had and is likely to continue to have a significant impact on the ways in which we do business. This may include but is not limited to the impact on our ability to set our pricing and offer new and existing services, including converged services, on customer use of our services, the way we handle, process and store customer data, the terms of our subscriber contracts, the way we can communicate with customers, including in particular our ability to contact subscribers with new converged offers, and our ability to obtain and maintain licenses. Furthermore, the laws, regulations, regulatory orders and licenses under which we operate are subject to interpretation and enforcement by regulators with which we are not always in agreement. Complying with regulations may be costly, and failure to comply may lead to significant penalties, adverse publicity and the loss of licenses in the affected line of business or country and could adversely affect our business and financial condition. Furthermore, our licenses generally have specified terms and renewal is not assured. For more information on regulation and how it may impact our business, see Item 4.B. Business Overview Regulation of the Turkish Telecommunications Industry .

Pricing is one of the key areas in which we are subject to regulation. The actions of the ICTA and the Ministry of Transport, Maritime Affairs and Communications in our voice, SMS, data, value added services, roaming and interconnection pricing have, and will continue to, negatively affect our pricing and our ability to design and launch campaigns and offers. Consequently, these actions have and will continue to adversely affect our business and financial condition. For more information, see Item 4.B. Business Overview Regulation of the Turkish Telecommunications Industry . In addition, the ICTA has determined and may in the future determine that we are an operator with significant market power and as a result impose certain constraints on us, while imposing less stringent ones on other mobile and fixed telecommunications operators in the market, both of which may adversely affect our business and financial condition. Recently the ICTA imposed new rules regarding the proration of service fees for postpaid subscribers that will lead to revenue loss.

The ICTA is currently considering new regulations or changes to regulations in a number of areas that could affect our business, including the following:

An ICTA decision relating to the cost of ISP access to the Turk Telekom network (effective from October 2016) and possible changes in Fair Usage Policy in the fixed broadband market, have had and may have a negative effect on our cost structure, as we may be required to provide additional service and incur additional access costs that we cannot fully charge for. This problem will increase as customer traffic increases, which we expect to occur, in particular as a result of increases in demand for videos, increased use of OTT apps and increased smartphone penetration. We have proposed a change in the pricing model to the ICTA, but no assurance can be given that this will be accepted.

The ICTA has taken decisions in the fiber market that have favored the incumbent Turk Telekom, in particular exempting the fiber market from market analysis. This exemption has expired in October 2016, but in order to maintain their competitive advantage, Turk Telekom has requested an extension. No assurance can be given that this will not be granted.

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ICTA has extended its Double opt-in rule (requiring consumers to submit two approvals before purchasing value added services) from game and music services to all value added services that are purchased via SMS. This makes it more difficult to purchase our services and which may adversely affect our services revenue.

Taxation is also an area in which we are subject to specific regulations. We are already subject to a Special Communication Tax and could be adversely affected by an increase in tax rates or new taxes, including on mobile devices, data, and services. Such taxes could adversely affect consumer demand for products and services and our results of operations.

As a result of the establishment of our consumer finance company and our existing operations in mobile finance, we are subject to banking and finance laws and regulations (the principal regulator is the Banking Regulation and Supervision Agency (BRSA)), and pursuant to our focus on services such as TV and music, we are subject to broadcasting and copyright laws and regulations. These regulations are different from those that we currently encounter in our core communications business in Turkey and we will need to obtain and develop the expertise required to comply with these laws and regulations, which may be costly. As we enter new businesses, such as energy, we will also be exposed to the regulatory regimes and decisions specific to those businesses.

Any downturn in the economy and instability in the political environment in Turkey and internationally may have an adverse effect on our business and financial condition.

With a substantial portion of our revenues, assets and business derived from and located in Turkey, and denominated in Turkish Lira, adverse developments in the Turkish economy are likely to have a material adverse effect on our business and financial condition. The performance of the Turkish economy may be affected by global, regional and domestic economic and political developments. In our view, the biggest threats to the global economy, including Turkey, in 2017 are the sustainability of economic growth and the sustainability of current low energy prices, which have generally benefitted the Turkish economy and the country's current account deficit. The effect of prolonged low energy prices on commodity exporter countries in the region such as Russia, Saudi Arabia and Iran may negatively affect terms of trade between these countries and Turkey. Other potential threats to the Turkish economy result from an increasing pace of normalization of U.S. monetary policy with possible higher inflation and interest rates under the new U.S. administration, continuing Eurozone deflation risks, and geopolitical tensions with military operations in Iraq and Syria and the southeastern part of Turkey and instability in Ukraine in the Commonwealth of Independent States (CIS), the Balkans and Caucasus regions.

The Turkish economy grew for 27 successive quarters until Q3 2016, including growth of 3% in 2014 and 6.1% in 2015. The Turkish economy experienced a 1.8% contraction in the third quarter of 2016. If the Turkish economy slows or develops in unexpected ways, this may have an adverse impact on our operations and financial condition.

The Turkish economy is also sensitive to instability in the domestic political environment, which has been a factor in recent years, notably the failed July 2016 coup attempt. After this failed coup attempt, economic activity declined in the third quarter. Despite slowing domestic growth, improvement in the current account deficit was halted, in particular due to a sharp decline in tourism income. The coup attempt and regional political tensions are believed to have contributed to a 35% fall in tourist arrivals in 2016. In addition, political decisions in the countries that we serve to limit internet access (including limiting access to YouTube or Twitter) may negatively impact our revenues.

During the failed July 2016 coup attempt, we were required to provide certain communication services for free, adversely affecting our revenue. In the state of emergency that has followed, on July 21, 2016, the Turkish Capital Markets Board (the CMB) under its Communiqué on Share Buy-backs decided to temporarily remove the limits that are applicable to public companies' acquisition of their own shares (especially the limit restricting buy-backs up to

10% of the share capital) and authorized Turkish public companies to initiate stock repurchases, even in the absence of shareholder approval. Public companies that do not currently have any share buy-back programs can acquire their own shares from the stock exchange without being subject to any limit under the Communiqué provided that they publicly disclose any such trade. No end date has been set for this temporary regime. Our company with its board resolution dated July 27, 2016, has chosen to take advantage of this authorization and set aside a maximum fund amount (TRY 150 million) for buy-backs of both shares and bonds and has purchased 6,815,563 shares in a price range of TRY 8.92 to 9.99 from September 2016 through March 10, 2017 at a cost of TRY 65.607 million. On January 30, 2017 our board increased the maximum fund amount to TRY 300 million for share buy-back, including our ADRs traded on the NYSE, and bond buy-back, allowing management to buy, sell and/or redeem these securities within the maximum fund amount.

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This is a temporary regime that the CMB may discontinue at any time. The eventual discontinuation of this policy may have an adverse effect on the demand for shares in the Turkish market, including our shares, and lead to a decline in the prices of such shares.

We hold interests in several companies that may expose us to various economic, business, political, social, financial, liquidity, regulatory and legal risks and may not provide the benefits that we expect, and our pursuit of acquisition opportunities may increase these risks.

Our investments in subsidiaries and associated companies within Turkey and internationally has and is likely to continue to expose us to economic, political, social, financial, regulatory, currency devaluation and legal risks. These risks have affected and could adversely affect our result of operations and the carrying value of assets in our financial statements. Turkcell Group has investments in emerging markets including Azerbaijan, Belarus, Georgia, Kazakhstan, Moldova, the Turkish Republic of Northern Cyprus and Ukraine and has activities that involve other emerging markets. We are also exploring new opportunities, primarily in emerging markets.

Legal systems, institutions, commercial practices and economies in emerging markets tend to be relatively underdeveloped and some may also suffer from relatively high rates of fraud and corruption. Furthermore, through our subsidiaries in Turkey and internationally, we engage in businesses outside of the scope of our core mobile business. These other businesses are subject to risks that are in some respects different from those of our mobile business, such as in our new consumer finance company. We will need to obtain the expertise required to compete and operate in these new businesses, which may be costly. No assurance may be given that we will succeed and that we will not incur losses that could adversely affect our business and financial condition.

In some countries, we hold our investments with another shareholder or local government and in some cases we are a non-controlling shareholder. Should there be a disagreement between us and other shareholders, no assurance can be given that we will be able to take the course of action we believe is appropriate. In these cases, we may consider exiting, or alternatively increasing our investment in order to take control, which may be costly. Furthermore, some of the countries in which we have businesses or would consider investing, and the companies and individuals that we come into contact with, may be the target of E.U., U.S. and international sanctions, as has occurred in Crimea. There can be no assurance that political, legal, economic, social or other actions or developments in these countries or involving such companies and individuals will not have an adverse impact on our investments and businesses in these countries.

In this regard, we have and are likely to continue to experience issues in some of our international businesses that adversely affect our Company. Recent issues include the following:

Our operations in Ukraine may be adversely affected by military actions, political instability, civil unrest and economic problems in that country. Due to increased political instability in the Crimea region, we were eventually obliged to discontinue services there in the fourth quarter of 2014. We impaired our assets in the Crimea region down to their scrap value, while retaining our license and frequency rights. We are currently evaluating our options with respect to the disposal of lifecell's assets in Crimea and the actions that we may take may raise challenges with respect to compliance with lifecell's license requirements. Furthermore, the current military and political crisis in the Eastern part (mainly in Donetsk and Luhansk) with Russia remains unresolved and could lead us to evaluate our options in the Eastern region. The ongoing crisis may further adversely affect the Ukrainian economy and our results of operations in Ukraine and/or the value and security of our assets and operations there. We are unable to predict the likely course or duration of these

events, or the extent of the adverse impact that they have had and are likely to have on the telecommunications market dynamics and composition, our investment in Ukraine and our operations there.

In Ukraine, the local currency, the Ukrainian Hryvnia (UAH), depreciated against the U.S. Dollar by 52% in 2015 and by 13.3% in 2016. UAH appreciated by 1% against U.S. Dollar as of March 10, 2017 compared to closing rates on December 31, 2016. The UAH has been stable against the U.S. Dollar to date in 2017. The National Bank of Ukraine, among other measures, continues to impose certain restrictions on the processing of client payments by banks and on the purchase of foreign currency on the inter-bank market. There remains further currency devaluation risk as the country is suffering from continuing instability as noted above, and has a large current account deficit and high external funding needs. As of December 31, 2016, our outstanding debt balance related to our Ukrainian operations was UAH 3.1 billion (equivalent to TRY 407.2 million). lifecell s foreign currency revenues were 11% of its total revenues and its foreign currency operational expenses were estimated at 16% of total revenues as of December 31, 2016.

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Our development strategy in Ukraine in 2015 was marked by our acquisition of the 44.96% in lifecell that we did not own, with a view to strengthening our regional position, a restructuring of lifecell's balance sheet, and the acquisition of a 3G license at a cost of UAH 3,355 million (equivalent to TRY 434.3 million as of December 31, 2016) paid in 2015, plus UAH 358 million (equivalent to TRY 61.4 million as of December 31, 2016) paid in 2015 for spectrum conversion and an additional UAH 426 million (equivalent to TRY 51.6 million) committed to be paid and indexed to inflation. These increases in our investment have further increased our country and currency risk exposure.

A tender to issue 4G licenses could be held in 2017 on the basis of a July 2015 presidential decree on the introduction of 4G in Ukraine. There is no assurance that we would be successful in our bid to win a license, which would put us at a competitive disadvantage. The 4G license fee may be prohibitively high and significant deployment costs will need to be incurred. If we were successful in obtaining a 4G license it would increase our exposure to Ukraine and there is no assurance that we could operate it profitably.

In another development, MNP may finally be launched in Ukraine in 2017. The implementation of MNP may lead to a high churn of subscribers between operators. In some cases, MNP has been more disadvantageous for the third player in the market.

A decrease in the MTR rate from UAH 0.23 to UAH 0.15 was implemented from January 1, 2017. This MTR decrease could adversely affect our profitability in Ukraine.

Apart from these economic and political risks, our operations in Ukraine could expose us also to operational, competitive, regulatory and legal risks, all of which may prevent us from delivering our strategic targets. These risks have affected and could adversely affect our result of operations.

The economic situation is fragile in Belarus. The country remains vulnerable to global shocks which may trigger renewed weakness in the country's ability to service its external debt and further depreciation of the local currency, Belarusian Rubles (BYN), which could in turn lead to a further reduction in the value of our investment in this country. The BYN depreciated against the U.S. Dollar by 57% in 2015 and further depreciated in 2016 by 5.5%. BYN appreciated by 2.3% as of March 10, 2017 based on closing rate on December 31, 2016. Devaluation risks still remain, as limited currency reserves, high debt repayments and the current account deficit coupled with the close ties to the Russian economy puts the recent BYN stabilization at risk and creates inflationary and devaluation pressure. In line with our strategic priority of improving our balance sheet structure, the outstanding debt of Belarusian Telecom has been restructured. As part of the restructuring, Belarusian Telecom's total existing intra-group loans were converted into subordinated loans, provided directly by Turkcell. As of December 31, 2016, Belarusian Telecom's outstanding debt was BYN 3.3 million (equivalent to TRY 5.6 million as of December 31, 2016) owed to financial institutions and a 612 million (equivalent to TRY 2,270 million as of December 31, 2016) subordinated loan owed to Turkcell.

In Belarus, as the third operator in the market, we face regulatory and operational difficulties. No assurance can be given that the regulatory situation will change in our favor in the future. These risks have affected and could adversely affect our result of operations.

There are ongoing political discussions regarding the reunification of Cyprus, which may bring growth opportunities for our subsidiary, Kibris Mobile Telekomunikasyon Limited, but may also lead to risks including unfavorable changes in applicable regulations, an increase in competition, an increase in capex requirements and loss of revenues. A 4G tender might be held in 2017 which could require additional investments. MNP might also be introduced in the market which may intensify the competition.

We hold a 41.45% stake in Fintur, which has operations in Kazakhstan, Azerbaijan, Georgia and Moldova, and Telia Company holds the remainder, although it has announced an intention to exit. The Group is committed to exit from Fintur as well and has initiated an active program to locate a buyer. See above for a discussion of risks relating to this effort and other possible outcomes.

The spectrum license of Fintur's subsidiary in Azerbaijan will expire in 2017. No agreement has been reached for an extension and one may not be available on commercially reasonable terms. Failure to obtain an extension could lead to a halt in some of Azercell's operations.

A disagreement with the licensing authority may have consequential adverse effects on our sports betting license in Azerbaijan. Legal actions may be taken before national and international judicial authorities by our Company in case the agreement between Azerinteltek and Azeridmanservis is unilaterally terminated and/or authorization of Azerinteltek in Azerbaijan is withdrawn.

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Corruption is an area of significant concern in emerging markets. We are subject to laws such as the U.S. Foreign Corrupt Practices Act, which prohibit corrupt payments to governmental officials or certain payments or remunerations to customers. Violations of these laws and regulations could result in significant fines and penalties, criminal sanctions against us, companies in which we invested, and our and their officers and employees and could adversely affect our business in affected countries. Such violations or allegations of violations may also adversely affect our reputation, our revenue or our overall financial performance. There can be no assurance that acts of corruption will not occur or be alleged in respect of any of our activities or those of our affiliates. In this regard, allegations have been made regarding improper payments relating to the operations of Kcell, a 51% subsidiary of Fintur. With respect to Kcell and the other Fintur companies, through our representation on the Fintur board, we remain vigilant about such allegations, however there can be no assurance that such issues will not be substantiated or that new allegations will not arise. Turkcell has received and responded to a request from the U.S. Securities and Exchange Commission (SEC) to submit documents and information related to Uzbekistan and the Uzbek subsidiary of Telia Company (which is the majority owner of Fintur). Furthermore, one of our key suppliers, Ericsson, has been the subject of corruption allegations and investigations, including in respect of its Turkish operations. Although we have not to our knowledge been implicated, no assurance can be given that these allegations and investigations will not touch our Group. Our international and Turkish subsidiaries may not benefit us in the way we expect for the reasons cited above, as well as other reasons, including general macroeconomic conditions, poor management and legal, regulatory or political obstacles. For many of these subsidiaries, we do not expect to achieve desired levels of profitability in the near or mid-term, and we may be required to record impairments. We may also in response to such conditions consider increasing, restructuring or exiting certain of our investments. In addition to the foregoing, the new Turkish Commercial Code and related legislation may require us to provide new capital or other financial support to certain of our controlled subsidiaries, which may divert resources from other needs.

Furthermore, in addition to investing in our international operations, we also engage in business through roaming agreements in a number of countries. In international markets in which duopoly markets exist, such as the United Arab Emirates, Tunisia or the Maldives, operators tend to increase their roaming prices despite the overall trend of declining roaming prices in the world, which could increase our roaming costs.

We are exposed to foreign exchange rate risks that could significantly affect our results of operation and financial position.

We are exposed to foreign exchange rate risks because our income, expenses, assets and liabilities are denominated in a number of different currencies, primarily Turkish Lira, U.S. Dollars, Euros, Ukrainian Hryvnia, Belarusian Rubles and Azerbaijani Manat. Fluctuations of Turkish Lira, Ukrainian Hryvnia, Belarusian Rubles, Azerbaijani Manat and Kazakhstan Tenge, on the one hand, and U.S. Dollars and Euros, on the other, have had and may have an unfavorable impact on us. In particular, a substantial majority of our equipment expenditures are currently, and are expected to continue to be, denominated in U.S. Dollars and Euros, while the revenues generated by our activities are denominated in other currencies, in particular the Turkish Lira, Ukrainian Hryvnia, Belarusian Ruble, Azerbaijani Manat and Euro. In addition, we are exposed to such currency mismatches with respect to certain capital expenditures and off-balance sheet obligations, in particular our obligations in respect of universal service for the installation of infrastructure in uncovered areas of Turkey, a service that we have contracted to provide for an amount in TRY, but which requires expenditures in foreign currencies. See Item 8. Financial Information and Note 34 to our audited Consolidated Financial Statements included in Item 18. Financial Statements of this annual report on Form 20-F. Increases in inflation and devaluations that are not matched by adjustments in our tariffs have had, and may continue to have, an adverse effect on our results of operations and our liquidity.

The TRY depreciated by 21.5% against the U.S. Dollar and 16.8% against Euro in 2016, driven mainly by increased internal macroeconomic and political volatility, national security issues, terrorist attacks and political uncertainties as well as international developments such as Britain's EU exit referendum result and U.S. presidential elections which led U.S. rates higher and the Federal Reserve's hike in interest rates, and downward emerging markets growth outlook. We enter into derivative transactions and hold cash to manage the risk with respect to the Turkish Lira, however, these transactions have a cost and do not fully cover all of our risks.

In 2016, the Belarusian Ruble depreciated against the U.S. Dollar by 5.5% while the Ukrainian Hryvnia depreciated by 13.3%. During the same period the Belarusian Ruble appreciated by 13.1% and the Ukrainian Hryvnia appreciated by 6.6% against the TRY. In December 2015, the Azerbaijani Manat was allowed to float

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and total depreciation of the Manat against the U.S. Dollar reached 98.8% in 2015. Risks of further devaluation remained and currency depreciated by a further of 13.6% in 2016 as the country struggled to bring its balance of payments for its energy-dependent economy back into equilibrium. The Kazakhstan Tenge appreciated by 14% against the U.S. Dollar in 2016 and the central bank eased its policy rate to 12% from 17% as a response to foreign exchange gains and downtrend in inflation. There are no tools to hedge foreign exchange rate risks effectively due to restricted and undeveloped financial markets in these countries.

As of December 31, 2016, our consolidated debt was TRY 9,781 million. The debt balance of our companies operating in Turkey was TRY 9,368 million, of which TRY 2,059 million (\$585 million) was denominated in U.S. Dollars and TRY 3,641 million (981 million) in Euro. The debt balance of lifecell was TRY 407.2 million, denominated in UAH. Meanwhile, Belarusian Telecom had a debt balance of TRY 5.6 million, denominated in BYN. The financing of infrastructure investments, license fee payments and any other potential investment opportunities could lead to an increase in our U.S. dollar and/or Euro debt, further increasing our currency exposure.

Reduction in cash generated from operations and increased capital needs may increase our borrowing requirements, which may increase our financing costs and our exposure to the risks associated with borrowing.

We continue to experience challenging macroeconomic, regulatory and competitive conditions in our markets that may reduce cash generated from operations, and we may continue to face increased capital needs to finance our technological and geographic expansion. In 2015, this included the payment of the Ukrainian 3G license fee and the buyout of SCM's interest in lifecell/Euroasia and the debt restructuring of lifecell and Belarusian Telecom, the payment of the Turkish 4.5G license fee and related capital expenditures in Turkey, and the establishment of a consumer finance company. Furthermore, in 2015, we paid a dividend for the first time in several years, which significantly reduced our available cash. In 2016, major cash outflow items included 4.5G license fee installments, capital expenditures and loan payments. In addition, an increase in the volume of assigned contracted receivables has resulted in and may continue to result in higher working capital requirements if we fail to successfully run our consumer finance company. These pressures have in the past reduced, and may continue to reduce, our liquidity. Reduced liquidity may lead to an increase in our borrowing requirements. Our borrowings expose us to foreign exchange rate risk, interest rate risk and possibly to increases in our total interest expense, each of which could have a material adverse effect on our consolidated financial condition and results of operations. We enter into derivative transactions and hold cash to manage the risk with respect to the Turkish Lira. However, these transactions have a cost and do not fully cover all of our risks. Furthermore, no assurance can be given that we will continue to have access to financing on terms that are satisfactory to us or at all. In addition, no assurance can be given that unexpected cash outflows will not be required that could further erode liquidity and increase borrowing requirements.

As of December 31, 2016, our consolidated debt was TRY 9,781 million. TRY 4,214 million of our debt portfolio consisted of financing obligations paying interest at fixed rates. The remainder of our debt portfolio pays interest at floating rates, which has been favorable in the current interest rate environment, but would expose us to increased costs if rates increase further. In 2015, we obtained financing lines of around \$2.9 billion (part in U.S. Dollars and part in Euro) for the refinancing needs of the Company and our subsidiaries and to fund infrastructure investments and any other potential investment opportunities, which would significantly increase our indebtedness. Of this amount, we issued a Eurobond with an aggregate principal amount of \$500 million and drew \$500 million and 445 million under our club loan agreement with five international banks and 500 million of debt under our loan agreement with China Development Bank. We are likely to increase our debt for the financing of infrastructure investments, license fee payments and any other potential investment opportunities.

In 2015, we received investment grade ratings from Moody's, Standard & Poor's and Fitch Ratings and sustained in 2016. These investment grade ratings may not be sustained since Turkey's credit has been downgraded to below

investment grade by Fitch, S&P and Moody's. Furthermore a decrease in our free cash flow, an increase in our net debt position or more generally a change in financial policies and projections, a material increase in investment and acquisition plans or shareholder returns and an increase in corporate governance issues could also result in a credit rating cut.

Some of our borrowing agreements contain cross default clauses under which a default by a group company could constitute an event of default under certain of our borrowings.

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We are subject to a variety of risks with respect to our Base Transceiver Stations (BTSs) excellence.

Spectrum limitations and frequency costs may adversely affect our ability to provide services to our subscribers and the cost to us of providing such services.

Our spectrum licenses have specified terms and are subject to renewal upon a payment of a fee, but renewal is not assured. The loss of, or failure to renew, our licenses could have a material adverse effect on our business and financial condition. Those licenses have also specified radio spectrum. The spectrum is a continuous range of frequencies within which the waves have certain specific characteristics. The number of subscribers that can be accommodated on a mobile network is constrained by the limited amount of spectrum allocated to the operator of the network and is also affected by subscriber usage patterns and network infrastructure. After the 4.5G auction held on August 26, 2015, we have 2x10 MHz of FDD spectrum in 800 MHz band, 2x12.4 MHz of FDD spectrum in 900 MHz band, 2x30 MHz of FDD spectrum in 2100 MHz band, 10 MHz of TDD spectrum in 2100 MHz band, 2x29.8 MHz of FDD spectrum in 1800 MHz band, 2x25 MHz of FDD spectrum in 2600 MHz band and 10 MHz of TDD spectrum in 2600 band. As our subscriber base and their demand for mobile services such as voice and data grow and as we offer a greater number of services, we will require additional capacity. We may face capacity problems, which may in turn lead to deterioration in our network's quality and may negatively impact our operational results.

We have recently been awarded a license allowing us to deploy a IMT advanced network in Turkey. There are certain coverage and local production obligations imposed by the tender. Potential increase in coverage requirements or failure to abide by the requirements of our licenses or applicable regulations may have an adverse effect on our business and financial condition.

We have achieved a major step forward in the development of telecommunications in Turkey with the deployment of IMT Advanced (known commercially as 4.5G) networks in 2016. Our 4.5G build-out requires significant financial investments and there can be no assurance that we will be able to meet all of the 4.5G license terms and conditions. The cost of the 4.5G license as well as the capital expenditure required in connection with our 4.5G build-out is material. Furthermore, the license agreement contains certain tedious terms that may weigh on the profitability of this investment and may have an adverse effect on our 4.5G investment plans in the future. These include terms regarding minimum required usage of domestic equipment in meeting infrastructure obligations, an active network sharing obligation for a portion of the population, high coverage obligations for roads and railroads and significant taxes and spectrum usage fees, which will increase as the number of frequencies used increases. With respect to the domestic procurement requirement, since there is not enough research and development, product development and production capacity in the domestic market, it is not possible to meet our obligations in the short term and we have asked ICTA to waive this requirement for 2015-2016, but no assurance can be given that ICTA will not find us to be in breach of our license. More generally, demand for 4.5G services may also not be at the level we expect, such that the return on investment we make in connection with 4.5G may not meet our expectations. Any of the foregoing could harm our competitive position and our profitability.

In addition, if we fail to obtain additional frequencies in the future at a reasonable cost, the competitive coverage advantage of our Company may be adversely impacted. The cost of obtaining new frequencies has increased significantly in recent years and is expected to continue to increase. This has had and is likely to continue to have an adverse impact on our cost of providing competitive coverage and also on our results of operations.

Consistent with the nature of terminal technology development, traffic on the 2G network is expected to shift to the 3G network and, once fully deployed, to the 4.5G network. However, terminal penetration is the key factor in providing the expected shift in traffic. Penetration may stay low or our subscribers may choose to stay on the 2G or 3G network for reasons such as the 2G network's lower battery power consumption. In addition, coverage will depend

on the full deployment of the 4.5G network, compared to the coverage level of the 2G and 3G networks.

There are alleged health risks, zoning limitations related to our BTS may adversely affect our ability to provide services at certain areas.

We are aware of allegations that there may be health risks associated with the effects of electromagnetic signals from BTS and from mobile handsets. While we believe that there is currently no substantiated link between exposure to electromagnetic signals at the level transmitted by our BTS and mobile handsets and long

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term damage to health, the actual or perceived health risks of mobile communications devices could adversely affect us through a reduction in subscribers, reduced usage per subscriber, increased difficulty in the leasing and acquisition of site locations for base stations and exposure to potential liability. Furthermore, we may not be able to obtain insurance with respect to such liability on commercially reasonable terms.

In recent years, legal proceedings have been brought against mobile operators seeking the removal of base station sites for health reasons. In addition, the Turkish Supreme Court overruled the decisions of some local courts, finding that a base station in question could have negative effects on human health over the long term. If the number of those cases increases or if new regulations were to result, these could have a material adverse effect on our operations and financial results. Such legal proceedings may make it more difficult for us to establish and maintain such sites. Furthermore, there are conflicting and confusing reports in the media about the health effects of BTS. These reports have even caused local residents in certain regions to form large protests in strong objection to the BTS sites. Such obstacles have made it increasingly difficult to build new BTS sites and maintain our existing sites. The ICTA has issued an updated regulation which further tightened electromagnetic field limits. This may negatively impact network quality and increase our capital expenditures.

There are zoning limitations related to our BTS that require operators to obtain construction permits and certificates, which may be costly and may have an adverse effect on our operating results. Zoning law in Turkey requires mobile operators to obtain certifications for all existing and new BTS, which may result in significant compliance costs and/or closing of BTS for which certification cannot be obtained, negatively impacting our financial condition. An exception to this requirement for base stations was recently rescinded by a court decision. As a result of this situation, some municipalities take actions to suspend the construction of BTS or order their demolition. Modifications to the Zoning Law with respect to building certification procedures are under discussion. Any difficulty in maintaining or building BTS due to health concerns and our inability to obtain the required permission and certificates, may negatively impact the quality of our network, including our ability to expand and upgrade it, and affect our operational performance.

In 2012, metropolitan municipalities were authorized to consider the requirements of city and building aesthetics and electronic communication services when certifying BTS sites. We believe that certification should be based on technical and legal considerations only. Operators will also be required to pay additional fees to obtain a site selection certificate, which may lead to additional operational costs and the certificate processes for implementation of sites may delay the permit process. No regulation or enacting legislation has yet entered into force, creating uncertainty on this issue, including as to the details of such fees and the application process.

In addition, municipalities regulate the choice of operators' BTS locations, and if we do not have, or are unable to obtain, a construction certificate in our preferred location, we may have to move our BTS to another location. In relation to our fiber business, there is an obligation to get permission for excavations from authorized municipalities or institutions. In some areas, excavations may have to be stopped due to the high cost of tariffs requested from municipalities. Our investment plans may be affected due to excavations being banned during certain seasons within the administrative boundaries of municipalities. In some cases, we could face the risk that, although we get the approval of the Ministry of Transport, Maritime Affairs and Communications, institutions subordinate to the Ministry do not recognize these approvals and do not give permission to excavate. In addition, a new law has increased the number of metropolitan municipalities and in some cases, the size of their territory was increased, which may have the effect of increasing our coverage obligations and the number of BTS required to meet them. Furthermore, right of way conflicts with major municipalities to establish fiber optics infrastructure may affect our ability to provide services and to maintain operational excellence. Related regulatory actions in the future are likely to increase our costs and affect results of operations, in many cases, adversely.

We are dependent on a small number of suppliers for network equipment, information systems and handsets and for the provision of data and services. We also rely on a small number of distributors. The failure of any of our counterparty such as suppliers or distributors may have an adverse effect on our business and financial condition.

Like all operators, we purchase our mobile communications network equipment, from a limited number of major suppliers. Our business is dependent on a small number of critical suppliers in areas such as network infrastructure, information systems and handsets and distribution. We also rely on a small number of distributors and, in 2015, we have decreased the number of distributors that we work with in Turkey from five to two, which may further increase the concentration risk. Any financial difficulty or failure of any of our suppliers in terms of timing and quality and of any of our distributors may adversely affect our business and financial condition. There

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can be no assurance that we will be able to obtain equipment from one or more alternative suppliers on a timely basis in the event that any current supplier for any reason, including that the technological requirements for our increasingly advanced infrastructure are too complex, is unable or unwilling to satisfy our demands. This could also affect our competitive position, if our suppliers stay behind technological developments compared to the suppliers of our competitors. Adverse economic conditions have negatively affected and may continue to affect our domestic and international suppliers, leading to a contraction in their business, which in turn may lead to a decrease in the quality of the services that they render to us and adversely affect timely delivery of such services, negatively impacting our business and operations. In addition, our existing and new license agreements or new regulations may require us to purchase network equipment from specified suppliers or meet certain specifications regarding our existing suppliers. Equipment from these suppliers may not always be compatible with our existing equipment or the supplier may fail to integrate it, and our employees may not be familiar with the technical specifications and maintenance requirements of equipment from these suppliers. Furthermore, if our suppliers fail to meet the requirements, we may end up violating the terms of our license agreements. These factors could also have a material adverse effect on our business and financial condition.

Turkcell's complex ownership structure and ongoing disagreements among our main shareholders have adversely impacted and may continue to impact decision-making on important matters. These ongoing disputes may lead to further regulatory or legal actions, and affect the ownership and control of our company.

Our principal shareholder is Turkcell Holding A.S., which holds 51.00% of Turkcell's shares as of March 10, 2017, based on the Company's share book. On December 6 and 7, 2016, Sonera Holding BV applied to the Central Registry Agency to convert its 13.07% of direct Turkcell stake into tradable shares, with a nominal value of TRY 287,632,179.557 which are now publicly held. Turkcell Holding A.S. is 52.91% owned by Cukurova Telecom Holdings Limited and 47.09% by Telia Sonera Finland Oyj. Cukurova Telecom Holdings Limited is 51% owned by Cukurova Finance International Limited and 49% by Alfa Telecom Turkey Limited. According to public filings (a Schedule 13D filed in November 2009), Alfa and Telia Company entered into an agreement regarding a possible consolidation of their holdings in Turkcell into a new company. In a Schedule 13D filing, Alfa has deleted references to this agreement.

Cukurova and Alfa are involved in a long-running dispute regarding, in summary, amounts due by Cukurova to Alfa and Alfa's claim to take ownership of Cukurova's indirect 13.8% interest in our Company in settlement of such amounts. In 2014, as a result of a court decision, Cukurova paid Alfa \$1.6 billion to release this claim. Cukurova has been provided loan financing amounting to \$1.6 billion by the Turkish state-owned Ziraat Bank for which an indirect 13.8% interest in our Company has been provided as collateral. According to the latest publicly available information, Alfa and Cukurova remain in a stalemate over a right given to Alfa to buy Cukurova's stake and rights of Cukurova to either buy Alfa's stake or sell its own stake to Alfa. This dispute and other disputes have effectively blocked shareholder decision-making on important corporate matters, and could have an adverse effect on the ability of our management to execute business decisions and take other actions. We cannot predict how the resolution of this dispute will affect our Company, whether other disputes will be resolved and whether our shareholders will be able to achieve agreement on matters regarding the operation of our Company.

The shareholding structure and the ongoing disputes have adversely affected our company in a number of ways and present a number of risks, including in particular:

Our Articles of Association contain quorum and majority requirements, at various levels, for shareholder meetings and decisions. Failure to achieve a quorum or the required majority vote can

block decisions that require shareholder approval. Prior to our shareholders meeting held in 2015, we have had difficulty convening shareholder meetings and numerous items submitted to our shareholders have not been approved, including the distribution of dividends, the approval of our dividend policy, the election of independent board members, the release of directors for actions taken and the approval of financial statements. In 2012, 2013 and 2014, due to lack of quorum, the annual general assemblies could not convene on time, but eventually convened on March 26, 2015. The annual general assembly meeting for 2015 convened on March 29, 2016 but did not approve all items submitted to it. Our Board of directors has decided to call the Annual General Assembly Meeting of our Company for 2016 to convene on March 30, 2017.

A number of corporate governance requirements were enacted under Turkish regulations by the CMB with mandatory effect from June 30, 2012.

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We were unable to comply with some of these requirements because of a lack of consensus among our main shareholders, including a requirement that one-third of our Board members and that all of our Audit Committee members be independent .

Under the Capital Markets Law, the CMB has the power to take action against the Company, our Board members and our main shareholders in respect of the various governance issues that have arisen or to amend the Articles of Association without general assembly approval. Under such powers, the CMB directly appointed all of the current members of our Board. The CMB appointed members' terms of office will last until new appointments are made in accordance with applicable legislation.

An Investor Compensation Center (ICC) was formed in 2013 by the CMB under the 2013 Capital Markets Law. Under the Capital Markets Law that deals with the duties and responsibilities of the CMB, it is stipulated that the ICC may use the rights vested on the general assembly in public companies whose ordinary general meetings of two consecutive financial years could not be made within statutory deadlines and whose board members have been nominated partly or wholly by the CMB. The Regulation on the Investor Compensation Center was published in the Official Gazette with no further details on how this right shall be exercised by the ICC. The form and scope of such actions are not clearly defined and we are not aware of any precedents, thus were we to find ourselves in this situation in the future, we may not be able to predict what actions the ICC might eventually take, if any.

No assurance may be given regarding the impact of past or future CMB actions, future ICC actions, or any future legal actions against our Company, on the overall company strategy, convening of our general assembly or the distribution of dividends.

Compliance with our home country governance rules is an important element of our compliance with the listing requirements of the New York Stock Exchange (NYSE). Failure to comply with such rules could jeopardize the continued listing and trading of our ADRs on the NYSE.

For so long as our main shareholders are in dispute and/or unable to achieve consensus, we are likely to continue to experience difficulties obtaining corporate decisions, including with respect to the matters discussed above, and we may have difficulty obtaining decisions regarding our business and operations. This situation may also lead to further regulatory and legal actions being taken in respect of our Company, the nature and effects of which we cannot predict. Ongoing disputes among the shareholders may affect the ownership and control of our shares, the demand for and price of our shares and our ability to manage our business, and no assurance can be given that the interests of these shareholders will be aligned with those of our other shareholders.

We face risks related to our dependence on network and IT systems and the products and services we provide through third party suppliers as well as our exposure to technological changes in the communications market, including industries where we traditionally do not compete.

We are dependent on certain systems and suppliers for information technology (IT) and network technology (NT) services and our business continuity is at risk due to our exposure to potential natural disasters, regular or severe IT and network failures, human error, security breaches and other cyber security incidents and IT migration risk, any of which could have an adverse effect on our operations, damage our reputation and affect our relationships with our customers.

We are heavily dependent on IT and NT systems, suppliers of IT and NT services and our IT and NT employees for the continuity of our business and we are continually upgrading and converting our IT and NT systems. Although we devote significant resources to the development and improvement of IT and NT and of security, backup and continuity

systems, we could still experience IT and network failures and outages due to system deficiencies, human error, security breaches, sabotages, terrorist or other destructive acts, natural disasters such as earthquakes and floods, unsuccessful migration to alternative or improved IT and NT systems, or other factors. We have experienced an increased number of attempted cyber-attacks of varying degrees of sophistication by unauthorized parties attempting to obtain access to our computer systems and networks. As of the date of this annual report, we believe that no such attacks have succeeded in obtaining access to our critical systems, although such attacks in practice may develop over long periods of time during which they can remain undetected. Computer hackers routinely attempt to breach the security of technology products, services, and systems. If successful, these could result in, for example, unauthorized access to, misuse, loss, or destruction of our data or systems and theft of sensitive or confidential data, including personal information of our employees and customers, and theft of services and/or funds. In the event of such breaches, we could be exposed to potential

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liability, litigation, and regulatory action, as well as the loss of existing or potential customers, damage to our reputation, and financial loss. In addition, the cost and operational consequences of responding to breaches and implementing remediation measures could be significant.

Mobile networks are migrating towards internet protocol (IP) technology to transport information. These networks open up the possibility for IP-based services. However, once these services are introduced into the IP domain, the mobile network may be harmed by potential attacks. The threats on the mobile network can originate from external sources, such as the public internet, or internal sources, such as terminals connected to our mobile network. Despite the systems and infrastructure which we have put in place to address these security concerns, we could encounter successful attacks on our infrastructure, which could have an adverse effect on our operations, damage our reputation and affect our relationships with our customers.

Although we closely follow general technological trends in communications and technology, we may be unable to adapt to rapid technological changes in communications and information technology, which could result in higher capital expenditures and a greater possibility of commercial failure.

Rapid technological changes in communications and information technology are redefining the markets in which we operate and the products and services we offer, shortening product life cycles and facilitating the convergence of various segments, including in our core mobile communications businesses. If we fail to anticipate, invest in and implement new technologies with the levels of service and prices that customers demand or to respond effectively to technological changes, our business, financial condition and results of operations could be adversely affected. In addition, such new technologies require significant capital expenditures and it is impossible to predict with any certainty whether the technology selected by us will be the most economical, efficient or capable of attracting customer usage, or whether such technologies will be developed according to anticipated schedules, will perform according to expectations or will achieve commercial acceptance. Although we are following general technological trends in communications and technology, there can be no assurance that we will be able to develop new products and services that will enable us to compete efficiently.

We have become active in providing products and services for industries other than telecommunications, many of which are developed and/or maintained by third party providers. Our reliance on these third party providers to help us navigate the regulatory, security and business risks of industries where we traditionally do not compete adversely affects our business.

The operation of our business depends, in part, upon the successful deployment of continually-evolving products and services, including for applications in industries other than telecommunications, such as TV, music, energy, mobile financial services, mobile health and mobile education solutions, authentication solutions, data center services and entertainment and community services. We are reliant upon third party providers to help us navigate risks relating to security, regulations and business in the industries where we do not traditionally compete. Changes in such industries may impair our partners' business and/or negatively impact the content we are developing, such as for entertainment, which, in turn, could have a material adverse effect on our business and financial condition.

Our business, consolidated financial results and/or operational performance could be adversely affected unless we retain our key personnel, our partners and their employees.

Our performance depends, to a significant extent, on the abilities and continued service of our key personnel. Competition for qualified telecommunications and technology personnel in Turkey and elsewhere is intense. In addition, we depend on our dealers, distributors and their employees for the growth and maintenance of our customer base. The loss of the services or loyalty of key personnel could adversely affect our business and financial condition

and could lead to breaches of confidentiality, particularly if a number of such persons were to join a competitor.

Our former Chief Executive Officer, Mr. Sureyya Ciliv, resigned from his position effective January 31, 2015. Mr. Kaan Terzioglu was appointed as our Chief Executive Officer later in 2015 and a new Chief Financial Officer, Mr. Bulent Aksu, was appointed as of July 20, 2016. In 2015 and 2016, there have been organizational changes in our Company, including changes to our management team, to our structure and business strategy and further changes may be made. Although, we have taken measures to prevent major disruptions to our operations, no assurance can be given that the changes being implemented will achieve their objectives, or that they will not have an adverse effect on our business or lead to retention issues among our key personnel. Failure to implement these changes successfully could adversely affect our ability to compete effectively, which could impact our revenues, operations, or results of operations.

Table of Contents**We are involved in various claims and legal actions arising in connection with our business, which could have a material effect on our financial condition.**

We are subject to investigations and regular audits by governmental authorities in Turkey, including the Competition Board, the ICTA, tax authorities and certain other parties, and governmental authorities in other countries in which we have operations. We are currently involved in various claims and legal actions with such authorities. We have set aside provisions for certain of our ongoing disputes based on applicable accounting standards. However, no assurance can be given that the provisions we set aside will be sufficient to cover our actual losses under these matters, and that new disputes will not arise under which we would face additional liabilities and reputational risk. For a more detailed discussion of disputes that we presently believe to be significant, see Item 8. Financial Information and Note 37 to our audited Consolidated Financial Statements included in Item 18. Financial Statements of this annual report on Form 20-F. In particular, we have an ongoing dispute regarding the application of the Turkish Special Communication Tax to prepaid card sales made by our distributors. The tax authority has assessed a significant special communication tax and a related penalty against our Company as a result of a tax investigation regarding the years 2008 to 2012. The tax amount assessed with respect to the Company was TRY 211.1 million as principal and TRY 316.6 million as tax penalty, totaling TRY 527.6 million. There was no provision with regard to this case in financials for the year ended 2016. The dispute is being litigated in a variety of courts and first instance courts have notified their verdicts; some are in favor of us, some are partially in favor of us and partially against us, while others are against us. These verdicts are appealed by the party against which the verdict was rendered. In accordance with the Law no.6736 we filed applications for the restructuring of penalties and interest on the Special Communication Tax regarding the disputes on the tax amount for the years 2008-2012. The tax office accepted the restructuring application for the years 2008, 2009, 2010, and 2012, and we paid the restructured amount. Within this scope we submitted a waiver petition to the tax office related to the cases for these terms and as a result of this situation the Council of State decided that there is no need to grant a decision by the reason of waiver during the appeal process related with the cases for the years 2008, 2009, 2010 and 2012. On the other hand the tax office rejected the application for the restructuring of SCT regarding the dispute on the tax amount for the year 2011. The Company also filed a case for the cancellation of aforementioned rejection act of Tax Office for the year 2011. The case is pending. Therefore the appeal processes are ongoing related with the cases for the year 2011. Currently, we are under tax investigation for the year 2013 and a provision of approximately TRY 15 million is set in our year-end financials. We may face investigations in respect of later years, and there is a risk that we may incur a special communication tax and penalties as a result of such investigations. We may also face with a risk of unexpected tax audits and claims in many different areas that are subject to taxation such as corporate tax, value added taxes and others. Additionally, changes in tax laws and non-tax regulations may lead to the growth of our tax burden and may, as a result, materially adversely affect our financial condition and results of operations.

Due to our license, we pay the Undersecretariat of the Treasury (the Turkish Treasury) a monthly treasury share equal to 15% of our gross revenue including some exemptions. The Turkish Treasury may change its opinions based on interpretations of treasury share calculations. Therefore unanticipated treasury share liabilities and fines may also be levied. We have also had several long running disputes with the Turkish Treasury regarding claims for payments of additional treasury share and allegations of deficient treasury share and contribution share payments and penalties imposed within the context of our 2G and 3G Concession Agreements. We are also involved in several disputes regarding administrative fines imposed by the ICTA and ICTA's additional radio utilization and usage fee requests made after ICTA's investigations on number of subscribers and radio utilization and usage fees regarding the years 2010-2011, 2012, 2004-2009, 2013. The ICTA has investigated the same issue with respect to 2014 and has warned the Company by alleging that the Company made an incorrect notification. For a more detailed discussion of our disputes that we presently believe to be significant, see Note 37 to our audited Consolidated Financial Statements included in Item 18. Financial Statements of this annual report on Form 20-F.

Although we maintain and regularly review our internal control over financial reporting, there are inherent limitations on the effectiveness of our controls.

We maintain and regularly review internal control over our financial reporting. However, internal control over financial reporting has inherent limitations and there is no assurance that a system of internal control over financial reporting, including one determined to be effective, will prevent or detect all misstatements on a timely basis. A control system, no matter how well-designed and operated, can provide only reasonable, not absolute, assurance regarding financial statement preparation and presentation. Our systems may not always allow us to detect and prevent fraud or other misconduct by our employees, representatives, agents, suppliers or other third parties. We may be exposed to fraud or other misconduct committed by our employees, representatives, agents, suppliers or other third parties that could subject us to litigation, financial losses and sanctions imposed by

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governmental authorities, as well as affect our reputation. Such misconduct could include misappropriating funds, conducting transactions that are outside of authorized limits, engaging in misrepresentation or fraudulent, deceptive or otherwise improper activities, including in return for any type of benefits or gains or otherwise not complying with applicable laws or our internal policies and procedures.

Our latest review as of December 31, 2016, has revealed certain deficiencies in our controls, although none that we believe constitute material weaknesses. However, our controls have in the past suffered from these and lesser deficiencies and no assurance can be given that others will not emerge in the future. A failure to detect or correct deficiencies and weaknesses in a timely manner could have an adverse effect on the accuracy of our financial reporting and also on the operations and may also cause financial losses or increase opportunity cost.

ITEM 4. INFORMATION ON THE COMPANY

4.A History and Development of the Company

Turkcell Iletisim Hizmetleri A.S. (Turkcell), a joint stock company organized and existing under the laws of the Republic of Turkey, was formed in 1993 and commenced operations in 1994. Our principal shareholder is Turkcell Holding A.S., which holds 51.00% of Turkcell s shares based on the Company s share book. On December 6 and 7, 2016, Sonera Holding BV applied to Central Registry Agency to convert its 13.07% of Turkcell stake into tradable shares, with a nominal value of TRY 287,632,179.557. Turkcell Holding A.S. is 52.91% owned by Cukurova Telecom Holdings Limited and 47.09% by Telia Sonera Finland Oyj. Cukurova Telecom Holdings Limited is 51% owned by Cukurova Finance International Limited and 49% by Alfa Telecom Turkey Limited.¹

The address of our principal office is Turkcell Iletisim Hizmetleri A.S., Turkcell Kucukyali Plaza, Aydindevler Mahallesi Inonu Caddesi No:20 Kucukyali Ofispark B Blok, Maltepe, Istanbul, Turkey. Our telephone number is +90 (212) 313 10 00. Our website address is www.turkcell.com.tr. In July 2000, we completed our initial public offering with the listing of our ordinary shares on the Borsa Istanbul and our ADSs on NYSE.

We operate under a 25-year GSM license granted in April 1998, a 20-year 3G license granted in April 2009 and a 13 year 4.5G license effective for until April 30, 2029.

Our GSM license was granted in April 1998 upon payment of an upfront license fee of \$500 million. Under our license, we pay the Undersecretariat of the Treasury (the Turkish Treasury) a monthly treasury share equal to 15% of our gross revenue. Of such fee, 10% is paid to the Ministry of Transport, Maritime Affairs and Communications of Turkey (Turkish Ministry) for a universal service fund. We also operate under interconnection agreements with other operators that allow us to connect our networks with those operators to enable the transmission of calls to and from our GSM system.

In early 2009, we were granted a 20-year type A 3G license, which provides the widest frequency band, for a consideration of 358 million (excluding VAT), and we signed the related 3G license agreement on April 30, 2009. The 3G license agreement has similar provisions to the aforementioned 2G license agreement.

In 2013, we won an auction held by the Turkish Ministry related to universal service, which requires installing sufficient infrastructure to uncovered areas with a population of less than 500 and the operation of the service for three years. We started the service in August 2013 and as of the end of 2015, infrastructure covering 1,794 settlements has been installed (out of the three-year target of 1,799) within the scope of the project, with network-sharing technology. This contract was recently renewed until December 31, 2018 and to add mobile broadband services to the

existing infrastructure providing GSM services under Universal Service Law and to operate the new and existing networks together.

In the 4.5G auction held on August 26, 2015, we were awarded a total frequency band of technology agnostic 172.4 MHz, the largest amount of spectrum of any operator, for 1,623.5 million (excluding VAT and interest payable on the installments). We commenced offering 4.5G services from April 1, 2016. The 4.5G license is effective for 13 years until April 30, 2029. The first installment of the license fees of 706 million, including VAT, was paid on October 26, 2015. The second installment of 413.8 million was paid on April 25, 2016. The third installment of 413.8 million was paid on October 25, 2016. The last installment will be paid on April 27, 2017. We may choose to pay the last installment in Euro or in Turkish Lira converted at the buying exchange rate announced by Central Bank of the Republic of Turkey on January 2, 2017.

¹ Turkcell Holding A.S. and Cukurova Telecom Holding Limited's shareholding structure are described as set forth in its disclosures in Public Disclosure Platform dated March 25, 2015 and April 14, 2015 respectively, which the Company has not independently verified.

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Following the 4.5G auction, we have a total frequency bandwidth of 234.4 MHz which has increased our spectrum share of the total bandwidth of the market to 43%. We acquired twice the bandwidth acquired by Vodafone while paying the same amount in terms of price per MHz, and 56% more bandwidth than Turk Telekom (formerly known as Avea) while paying only 9% more per MHz. Moreover, we paid the lowest per subscriber price for 1 MHz in the auction at 0.28 per subscriber, compared to 0.44 and 0.52 paid by Vodafone and Turk Telekom, respectively. The new spectrum acquired, including the widest frequency bands on 1800 MHz and 2600 MHz, along with a strong network deployment has enabled us to provide the fastest 4.5G speeds of 500 Mbps and above. We plan to increase these speeds to 1000 Mbps and beyond in the future through more carrier aggregation combinations and availability of advanced user devices supporting new features. This will allow customers to access mobile services at a speed comparable to fiber broadband.

In 2016, we had total revenues of TRY 14,285.6 million, our Adjusted EBITDA totaled TRY 4,619.5 million and we reported net income of TRY 1,492.1 million. For the year ended December 31, 2016, we spent approximately TRY 3,494.7 million on capital expenditures including non-operational items and our 4.5G license fee, compared to TRY 8,536.2 million and TRY 2,144.8 million in 2015 and 2014, respectively. Capital expenditures in 2015 and 2016 related mainly to our 4.5G license and the GSM and fixed-line networks of the Company, Superonline and lifecell.

Our subscriber base has grown substantially since we began operations in 1994. At year-end 1994, we had 63,500 subscribers. By year-end 2016, that number had grown to 50.1 million for the Group.

In addition to our operations in Turkey, we have various international operations. For more information, see [Item 4.B. Business Overview International and Domestic Subsidiaries](#) .

4.B Business Overview

We are the leading mobile telecommunications operator and the second largest converged telecommunications company in Turkey in terms of revenue, with a 37.4% share (including our financial services revenue) in the fourth quarter of 2016, among the three major operators in the Turkish telecommunications market (Turkcell Turkey, Turk Telekom and Vodafone) according to the operators' announcements for the year ended December 31, 2016. Beginning in 2015, Turkcell Turkey has positioned itself as a converged player in the total telecommunications market in line with our new strategic priorities. We have shifted to a new organizational structure with the aim of increasing efficiency and simplifying our business processes, as well as strengthening our position as a provider of converged communications and technology services. We have taken steps to integrate our marketing efforts, sales channel and technical platform as well as to establish customer services as a key focus area.

We provide high-quality mobile and fixed voice, data, TV and other services over our advanced network and have developed what we believe to be the premier mobile service provider in Turkey by differentiating ourselves from our competitors with our value offers, which include superior and innovative technologies, more advantages, outstanding and extensive service quality, and being a leader in social responsibility. We maintain our strong position in the market due to our customer-oriented approach and our ability to provide quick and diverse solutions to meet customers' needs through lifestyle segments.

We have differentiated our network in terms of quality and speed of service, with extensive spectrum rights covering 43% of the total spectrum available, extensive 3G coverage (covering over 95% of the population) and the broadest 4.5G license of any operator in terms of spectrum allocation. We have also focused on building out an advanced fiber network to support our mobile and fixed offerings (including broadband and television), through our 37,154 km fiber network, which reached 18 cities in Turkey as of December 31, 2016. As a result, we had a 55% subscriber market share of the fiber to the home/building market as of December 31, 2016 according to the operators' announcements,

despite not being the incumbent fixed line operator, and expect this to be a key focus area going forward.

The total number of subscribers in the five countries where we have consolidated operations reached 50.1 million as of December 31, 2016. In Turkey total mobile, fixed and IPTV subscribers were 35.3 million.

Effective from 2015, we have changed our reportable segments in order to align the segments with our convergence strategy. Following this change, our business is divided into two main reportable segments: Turkcell Turkey and Turkcell International.

Turkcell Turkey. Our Turkish telecommunications business represents the largest share of our business, accounting for 89.5 % of our revenues and 90.1% of our Adjusted EBITDA in 2016. During

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the first half of 2015 we realigned our strategy in Turkey to focus on developing innovative and integrated telecommunications solutions for consumer, corporate and wholesale customers in Turkey by leveraging our leading brand, extensive customer base, technological capabilities and strong distribution channels. We have invested in what we believe to be the most advanced mobile and fiber networks in Turkey and have the broadest spectrum in 4.5G in Turkey, which we expect will provide us with a competitive advantage by allowing us to provide high quality and speedy service across the Turkish mobile telecommunications industry.

Turkcell International. Turkcell International accounted for 6.1% of our Group revenues in 2016. We have telecommunications operations in a number of emerging market geographies that we believe are complementary to our operations in Turkey as a result of our cultural affinity and the potential to export our business model. These geographies include Ukraine (which accounted for 4.0% of our revenues in 2016), Belarus (which accounted for 1.0% of our revenues in 2016) and the Turkish Republic of Northern Cyprus (which accounted for 0.9% of our revenues in 2016) and Germany.

Other Subsidiaries and intersegment eliminations. Other Subsidiaries and intersegment eliminations mainly comprises our information and entertainment services in Turkey and Azerbaijan, consumer financing services and call center revenues, and accounted for 4.6% of our revenues in 2016.

We have a strong track record of profitable operations with total revenues for 2016 of TRY 14,285.6 million and Adjusted EBITDA in 2016 of TRY 4,619.5 million. We have achieved these results while continuing to invest in our network to support our strategy of offering innovative solutions, with capital expenditures for 2016 of TRY 3,494.7 million.

We serve a broad range of consumer, corporate and wholesale customers, which accounted for 79.9%, 17.1% and 3.0% of Turkcell Turkey revenues (not including other revenues and prior to consolidation eliminations) in 2016. As part of the realignment of our strategy, we have emphasized the importance of customer services and established customer services as a separate focus area. Revenues from data and services and solutions have been growing rapidly, with growth of 56.3% and 94.6%, respectively, in 2016.

We are the only company listed on both the NYSE and the Borsa Istanbul, with a market capitalization of TRY 21.5 billion as of December 31, 2016, making us the 6th most valuable publicly traded company in Turkey.

I. Industry**a. Overview**

GSM, one of the digital standards for mobile communications, was developed in 1987 to facilitate unification and integration of mobile communications worldwide.

Since Turkcell was founded in 1994, mobile technology has evolved from GSM (2G) to UMTS/HSPA+ (3G) to LTE/LTE-Advanced (4G/4.5G), providing new capabilities and extensive improvements in customer experience. 2G was originally intended to carry voice, with some limited data and messaging capabilities whereas the focus in 3G shifted more onto data, along with simultaneous voice and data capability. And 4G has brought fully IP-based architecture where everything is considered as data. Turkcell currently has all of these technologies in its mobile networks to serve customers who use and depend on them based on their subscription profiles and terminal types. With the advent of 4G/4.5G technologies it has become possible to introduce more sophisticated services utilizing

lower latency and higher data speeds.

Our Company has also branched out in to the development of fixed line networks, including fiber-optics connecting directly to the home, creating a fiber-to-the-home (FTTH) network.

b. The Turkish Telecommunications Market

We believe that the Turkish telecommunications market has growth potential with favorable demographics, including a relatively young population and lower penetration levels compared to Western Europe and other developed markets.

According to a TUIK announcement, the estimated median age of the Turkish population is 31.4, which is lower than elsewhere in Western Europe, and the majority of the population lives in urban areas. There were 79.8 million people living in Turkey as of December 31, 2016.

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There are currently three major operators in the telecommunications sector in Turkey, Turkcell Turkey, Vodafone Telekomunikasyon A.S. (Vodafone) and Turk Telekomunikasyon A.S. (Turk Telekom and together with its mobile segment (formerly known as Avea) and TTNET, Turk Telekom Group). In 2016, the total revenue of the Turkish mobile and fixed markets was TRY 36.7 billion compared to TRY 32.5 billion in 2015, according to the operators announcements (for the calculation of total market revenues, non-group call centers and financial services revenues are added to Turkcell Turkey s reported revenue).

Vodafone entered the Turkish mobile market by acquiring Telsim on May 24, 2006 from the Savings Deposit Insurance Fund (SDIF). Turk Telekom Group is 55% owned by Oger Telecom.

II. Strategy

Our vision is to become a converged communications and technology services company with globally relevant services.

In an effort to create value for our customers, we have identified the following four strategic pillars through which we intend to pursue sustainable profitable growth:

Strengthening Our Position in Turkey

Our goal is to become the number one converged telecom company in Turkey. In order to reach this goal, we have taken the following actions:

We realigned our organization and have taken steps to integrate our mobile and fixed network platforms to provide a seamless experience to our customers.

We integrated our sales channels and offers with the goal of providing a full range of mobile, fixed and broadband products and services.

In April 2016, we launched the first converged bundle offer in Turkey, which includes mobile and fixed products in a single bill.

Our aim is to meet our customers increasing demand for data while providing the highest quality network experience. To be able to do this, we acquired the widest range of spectrum in the 4.5G auction at a very competitive price per MHz and subscriber. We will also continue to invest in our fiber network both to ensure scale and to meet the demands of 4.5G technology.

A key element of our strategy is to expand our range of multiple-play offerings, adding fixed, broadband and television to deliver a multi-play offering (including mobile, fixed and TV) to the Turkish market. As a result of the launch of our new offerings, we have grown our share of fiber residential multi-play subscribers (who subscribe to our internet and TV bundles) and mobile triple play subscribers (who subscribe to voice, data and strategic services).

In addition, we aim to continue to increase our revenues from corporate customers by offering them fixed and mobile converged total telecom solutions. In line with this strategy, in order to become the leading cloud services provider in Turkey, we have established data centers in Istanbul and Ankara to provide cloud services to our corporate customers.

Expanding in Existing and New Markets

We aim to improve the performance of our international subsidiaries and increase their revenue contribution to the Group. After the restructuring of debt at both our Ukrainian and Belarusian subsidiaries in 2015, we believe we have positioned these businesses to be able to achieve profitable growth.

Starting from 2016, our Ukrainian operations offer their services under the new brand lifecell . Under the new brand identity and with ongoing investments in 3G+ infrastructure and services, seeks to become Ukraine s top data operator.

In Belarus, we started to provide LTE services on beCloud s infrastructure in August 2016, which we believe will contribute to our growth in the market.

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We also intend to actively pursue external opportunities in ways that would allow us to replicate our business model in countries with cultural affinity and similar dynamics to our domestic and international markets in order to be able to leverage our experience and technological base. Accordingly, to the extent that we continue to grow our international business, we expect that our international revenues will represent a greater share of total group revenues over the medium term, further diversifying our revenue streams and positioning us for further growth.

Developing and Spreading Digital Services

We continued to create value for our customers through our services and solutions delivered through our superior network. We increased our focus on strategic services including BiP, Turkcell TV+, fizy, lifebox, Sports and Education. BiP, our integrated IP-based communication platform has been downloaded by 11.1 million people; global downloads exceeded 1.2 million as of December 31, 2016. We believe that these services will facilitate our strategy shift from being a telecom operator to an over-the-top (OTT) company. We are also seeking to expand in other adjacent business areas in Turkey, for example by launching our payment platform Paycell. We are currently working on the integration of Paycell with all our digital services. Furthermore, we are pursuing opportunities to grow inorganically in Turkey to add new capabilities and/or widen the range of our products/services offerings.

Focus on Sustainable Shareholder Return

In order to grow profitably, we aim to manage our costs effectively, while investing in growth areas. We have taken significant steps towards improving our balance sheet, thereby creating value for our shareholders. We launched a consumer financing company to further facilitate the financing of the technology demands of our customers. We are still the only Turkish company with an investment grade rating from all three major rating agencies (S&P, Moody's and Fitch). In 2015, we obtained new sources of credit of approximately \$2.9 billion (part in U.S. Dollars, part in Euro) that we have partly used for infrastructure investments and restructuring of existing debt.

III. Customer Segmentation and Services

a. Customer Segmentation

In Turkey, we have a total of 35.3 million customers including 33.0 million mobile, 1.9 million fixed broadband and 359.7 thousand IPTV customers. We serve a broad range of consumer, corporate and wholesale customers, which accounted for 80%, 17% and 3% of Turkcell Turkey revenues in 2016, excluding other revenues and consolidation eliminations. Revenues attributable to consumer and corporate segments grew by 12% and 8%, respectively in 2016, while revenues attributable to the wholesale segment increased by 17% over the same period.

Through our increased focus on customers, all loyalty actions are designed in line with the targeted segments lifestyles, needs, priorities, and expectations.

The aims of the segmentation are:

to increase the loyalty of existing Turkcell customers;

to ensure behavioral and emotional brand loyalty; and

to ensure a seamless series of positive brand experiences throughout all customer touch points, as well as to attract new customers.

Turkcell Turkey serves its customers' needs, priorities and expectations under three main categories:

Consumer Category

For mobile, we manage our customers either under the mass segment or under one of our two large sub-segments; youth and premium. With differentiated mobile communication offers, value added services, as well as campaigns and co-branded activities we aim to create value for customers in these segments. Our priority for these segments is especially the bundling of mobile services such as BiP, fizy, Turkcell TV+, and lifebox in multiplay propositions.

Fixed consumer customers are consolidated under a single segment, residential.

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Corporate Category

The Corporate segments for our mobile and fixed customers are composed of Small Office /Home Office (SoHo), Small and Medium Enterprises (SME) and Enterprise customers, for which we have differentiated mobile communication offers as well as campaigns and co-branded activities with selected companies from other sectors to create added value for targeted segments.

Wholesale Category

Our wholesale segment focuses on managing wholesale voice, data and roaming services with the national licensed operators, international operators and network centric business owners such as data centers and content providers.

For roaming services, the wholesale segment strives to achieve the best international coverage for customers to have continuous communication wherever they travel and to enable all visitors to enjoy the service quality of Turkcell.

For wholesale data and voice services, our main strategy is to become the regional junction point in an increasingly connected world.

b. Services

We provide high quality mobile and fixed voice, data, TV and other services to our subscribers throughout Turkey. We provide a range of mobile services to our customers, enabling them to call, text, access the internet, stream music and watch videos and roam abroad. We provide these services through our network of over 48,500 base stations providing 99.67% 2G, 96.04% 3G, 82.5% 4.5G coverage in Turkey. Our mobile subscribers can choose between our postpaid and prepaid services. Currently, postpaid subscribers sign a subscription contract and receive monthly bills for services. Prepaid subscribers must purchase a starter pack, which consists of a simcard with balance of TRY 35 or monthly usage allowance with 1000 minutes, 1000 SMS and 1 GB, while the top-up (TL refill) cards or usage allowance (package refill) cards (both physical and digital) can be purchased in amounts ranging from TRY 10 to TRY 180. As of December 31, 2016, we had approximately 15.7 million prepaid subscribers and 17.4 million postpaid subscribers, compared to approximately 17.4 million prepaid subscribers and 16.6 million postpaid subscribers as of December 31, 2015.

We provide a range of fixed services in Turkey including voice, broadband and TV services to consumers and a wider range of services to our corporate customers, including cloud and traffic carrying. We provide these services through a combination of our own fiber infrastructure and leased copper. As of December 31, 2016, we had approximately 1.9 million fixed line customers of which approximately 1 million were fiber and 818 thousand were ADSL customers. We cover 2.7 million homes with our fiber infrastructure.

(i) Voice Services

Voice services are the main services that we provide to our customers. Voice services consist of high quality mobile communication services on a prepaid and postpaid basis and fixed voice services for consumers and corporate customers.

(ii) Broadband

Our broadband services consist of mobile broadband, fiber to the home/building and ADSL.

We commercially launched 3G simultaneously in 81 city centers and major cities in Turkey at the end of July 2009 and reached 96.04% population coverage as of December 31, 2016 and launched LTE (4.5G) network simultaneously in 81 city centers in Turkey on April 1, 2016.

Smartphones, which combine the features of a mobile phone with those of other popular digital mobile devices (e.g. personal digital assistants, media players, GPS navigation, digital camera) and have an open operating system (e.g. Windows Mobile, Android) allowing access to the Internet and running a variety of third-party software applications, are an important component for the growth of our mobile broadband business. The smartphone penetration on our network reached 64% by the end of 2016, up from a 52% penetration at the end of 2015. 4.5G services have been commercially launched in Turkey on April 1, 2016. In order to increase penetration of the 4.5G services, Turkcell launched campaigns in which various 4.5G enabled smartphones were

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offered to Turkcell customers by dealers at competitive prices. In most cases, Turkcell is acting as an agent on behalf of its dealers to provide handsets, although the Company is increasingly selling handsets itself as a principal. The table below shows the number of smartphones in our network and smartphone penetration for the periods indicated:

	2009	2010	2011	2012	2013	2014	2015	2016
Number of smartphones in our network (millions)	0.9	2.0	3.8	6.2	9.6	12.7	16.1	19.2
Penetration ⁽¹⁾	3%	6%	12%	19%	30%	40%	52%	64%

(1) Smartphone penetration is calculated as the ending number of smartphone subscribers (excluding smartphone subscribers with deactivated status) divided by the ending number of Turkcell mobile voice subscribers (excluding Turkcell subscribers with deactivated status).

A wide variety of data offers are made available as part of our voice and terminal bundled campaigns, where terminals are sold by dealers, to increase LTE available device penetration, create a unique terminal experience and enhance the broadband internet experience. Distributors, dealers, Turkcell Consumer Finance Company and Turkcell offer joint campaigns to the subscribers, which may include the sale of devices by the dealer and a communication service to be provided by us. In addition, we are increasingly selling handsets ourselves as a principal. These campaigns contain a variety of devices such as smartphones, LTE available modems and tablets and some complimentary products such as wearables, game consoles, headsets, TV set top boxes and VR sets. Throughout 2016, we maintained our position as leader of handset campaigns through our dealer channel and we delivered attractive joint campaigns with top of the class models of brands in high demand such as Samsung, Apple, and some local handset manufacturers such as Vestel and General Mobile. We have also launched Turkcell-branded T series smartphones and a tablet with Android operating systems since 2010, which we believe contributes to increased smartphone penetration, data usage and further builds customer loyalty by offering a technologically advanced product at a competitive price. The latest version of the T-series, the T70, was launched in June 2016 and sold more than 200 thousand units country wide.

When the Group sells goods or services as a principal, income and payments to suppliers are reported on a gross basis in revenue and operating costs, respectively. If the Group sells goods or services as an agent, revenue and payments to suppliers are recorded in revenue on a net basis, representing the margin earned.

We emphasize our value propositions to our broadband products by not charging our customers for activation, modem or installation services and by offering high-speed fiber broadband at attractive prices.

We offer fixed broadband internet packages to our residential customers. We also offer internet, voice and TV bundles, where we benefit from the use of our own fiber. We need the incumbent's network to provide services outside our fiber zones, therefore we are able to offer double-play packages only with internet and voice to our customers. We are not offering IPTV service on DSL because our TV technology is IP based (IPTV), which has a multicast structure, technically DSL infrastructure can not support this kind of service.

(iii) Digital Services & Solutions

By providing a wide range of digital services, Turkcell enables users to remain connected wherever they are, via their mobile devices. From digital communications services to media and entertainment services, Turkcell responds to the diverse needs of subscribers to help them connect to life.

Digital Services

Turkcell seeks to differentiate itself by providing innovative and pioneering solutions in collaboration with its strong solution providers and various partnerships.

Turkcell is focused on developing and managing digital services and solutions to address the diverse needs of both consumers and corporate customers, thereby enriching their lives. These services are designed around enhancing the communication experience of our customers via better call management and messaging services, enriching their on the go experience by using mobile technologies, especially in the areas of information and entertainment (i.e. television, communication, education, music and sports) and enabling our customers to access information according to their needs and providing convenience services such as mobile payment and finance services.

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Turkcell has developed a number of Turkcell-branded mobile applications in-house. Turkcell App Market is a localized application store for users to download both free and paid mobile applications to their supported handsets. It enables people to download more than 20,000 applications including Turkcell-branded applications and third party applications such as news, games and sports. As of December 31, 2016, Turkcell has 42 active Turkcell-branded mobile applications that were downloaded from the Turkcell App Market over 3 million times in 2016.

Among others, below are the strategic services on which we focus:

BiP is an Integrated IP-based communication platform;

Turkcell TV+ enables subscribers to watch live television channels and on-demand video content on their mobile devices and through IPTV platform;

fizy (formerly known as *Turkcell Music*) is a digital music platform to stream and download music,

lifebox (formerly known as *Smart Storage*) is a cloud service that facilitates data storage;

My Account is an application for our customers to track their bills and usage, changing their settings and making transactions & purchases;

Goals on Your Mobile (Goller Cepte) allows fans to follow their team and be updated on a wide variety of categories such as game scores and player transfers;

Turkcell Academy provides digital learning contents and services in various categories such as technology, innovation, personal development, marketing, leadership, certificate programs;

Dergilik is a digital publishing platform which enables access to more than 250 popular magazines published in Turkey;

Downloads of strategic services increased to 44.2 million in 2016, from 21.4 million in 2015.

Integrated IP-Based Communication Platform (BiP)

BiP is available for all operators' subscribers on iOS and Android platforms through App Store and Play Store and has been downloaded 11.2 million times in 192 countries as of December 31, 2016. The application supports eleven languages including Turkish, English, Ukrainian, Belarusian and Russian Spanish, Arabic, Azerbaijani, German, Farsi, and Romanian. Every month around 240 million messages are sent, more than 5 million items of entertainment are shared, and 3.8 million calls are made with 400.000 hours of call duration.

The most important features of Turkcell's IP-based communication platform BiP includes:

Instant messaging, sending photos, videos and audios;

Group messaging with multiple people;

High quality VoIP and video call;

Entertaining content: Creating and sharing internet memes, a wide range of emojis;

Secret chat Disappearing messages in the pre-defined time;

Communicating with non-BiP users via SMS; and

Sharing location.

BiP Discover area provides also a new connected life experience as a marketplace that consists of various entertainment and information services. Discover area offers two way communication between users and services. Today, BiP Discover serves more than 71 different services including top Turkish banks, TV Shows, celebrities, content providers and customer services with 3 million followers.

Similar to the product offered in Turkey, BiP in Ukraine, includes voice and video call features in addition to messaging capabilities. lifecell subscribers also benefit from free data while using BiP.

BiP data includes a roaming package (100 MB) as well.

Turkcell TV+

Turkcell's multi-screen TV platform Turkcell TV+, launched in October 2014, delivers an enhanced television viewing experience to its subscribers anywhere, any time. Its unique features as compared to other

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platforms include the abilities to pause and rewind live streams, record to cloud and the capability to switch between four screens. As of December 31, 2016 Turkcell TV+ reached 1.1 million subscribers, 360 thousand of which were IPTV users, and customers who have downloaded Turkcell TV applications reached 2.3 million to date. We expect that with the launch of 4.5G technology in Turkey, a more extensive content library, a new generation 4K-Ultra HD technology and application portfolio starting with YouTube, TV+ will become an even more popular and attractive service for both fixed and mobile users while playing an important role for the growth of Turkcell Group.

fizy

Turkcell's digital music service fizy enables its users, via an application, to access a number of songs free of data charges. Users have the flexibility to listen to their favorite songs offline as well. As of December 31, 2016 fizy has been downloaded 8.0 million times to date.

Goals on Your Mobile (Goller Cepte)

Goals on Your Mobile is a sports application designed for the four top soccer clubs and live score fans. It provides instant super league goal videos, betting analysis and the latest news. It is also a social application where people can come together in a forum. The app had been downloaded 2.9 million times as of December 31, 2016. The service plans promise new features such as multiplayer games and an in-depth betting analysis in the first quarter of 2017.

lifebox

Turkcell's personal cloud service, lifebox is the first local storage service in Turkey and globally provides all users the ability to store their photos, documents, and videos in one secure, convenient and personal space with autosyncing abilities, and to share them easily. lifebox awareness is at the second place in the local market. With its autosyncing, searching and storing features, lifebox has aimed to provide solutions to user storage needs and engage them with their memories. lifebox had reached more than 3.6 million downloads and subscribers by the end of 2016. More than 600 million items have been stored in lifebox servers as of today.

Turkcell Academy

Turkcell launched the Turkcell Academy service in 2014 in order to reshape ways of learning so that anyone, anywhere, would have access to world class learning and quality content. Enriched with Turkcell's technology and training knowhow and content partnerships with top institutions worldwide, Turkcell Academy provides an access to a digital and innovative world. Turkcell believes that accessible knowledge with mobility will offer equal opportunities in education and empower people.

Turkcell Academy offers services for consumers and corporates. As the consumer service, Turkcell Academy has a website and mobile application that provide digital learning contents and services in various categories such as technology, innovation, personal development, marketing, leadership, certificate programs.

Regarding the corporate service, the Learning Management System (LMS) of Turkcell Academy enables to easily prepare trainings, courses, exams and questionnaires. User management on the LMS is easy-to-use and the platform also allows detailed training-tracking and reporting. Besides these advantages of Turkcell Academy LMS as a training tool; it is also a highly developed evaluation tool with its capabilities of simultaneously reporting the responses.

Turkcell Academy mobile application had been downloaded by 1.2 million customers by the end of 2016. About 5 million learning videos have been watched on Turkcell Academy as of today.

My Account

One of our priorities as Turkcell is to drive customer loyalty through digital. Within the scope of this strategy, we invest in our digital self-service channels. The primary channel is our mobile application called *My Account* by which we provide our customers the ability to track their bills, usage and settings and make transactions and purchases. Our engagement activities combined with these offerings brought over 14 million downloads and about 10 million monthly active users in 2016. Our customer satisfaction and effort scores also indicate that we offer a simple and user friendly experience and make our customers' lives easier.

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Dergilik (Digital Publishing)

Our digital publishing app, Dergilik, is an all-access application that gives users access to more than 250 popular magazines published in Turkey on their iOS and Android tablets and smartphones. All magazines available on Dergilik can also be downloaded and read via a monthly subscription fee. Dergilik service is enhanced with auto-download, favorite pages and magazines features. As of December 2016, the app has been downloaded by 0.9 million customers.

Business Applications

Business Applications provides corporate customers with a competitive advantage by providing non-core industrial solutions. Fleet management, employee tracking, push-to-talk services, energy monitoring services and new generation cash register solutions are available to streamline customer processes and provide operational efficiency through new revenue streaming channels, better customer reach and experience.

With the rise of the enterprise applications market as well as improvements in mobile internet, cloud services and mobile devices, businesses have been undergoing a strategically important process of digital and mobile transformation. Turkcell continues to be a strategic business partner to companies in all industries for transformation projects that aim to render all processes manageable via mobile devices anytime and anywhere.

In addition to a network that is superior and stronger than ever with the arrival of 4.5G, Turkcell offers companies M2M, digital services and business app solutions that enable real time data exchange with an end-to-end approach.

Turkcell also aims to meet corporate customers' network and infrastructure management needs via access, data center and cloud infrastructure solutions combined with managed services capabilities in order to reduce operating expenses and increase productivity.

Mobile transformation, network management and IT outsourcing projects provide a significant opportunity for business growth and expansion, especially in the large enterprise market. Turkcell takes pride in being the strategic partner to more than 100 companies and public institutions in such projects where it implemented technology, communications and systems integration services via its Professional Services organization.

Turkcell Super Esnaf Application

Super Esnaf (tradesman) is a location-based application which provides the geographic information of approximately 300,000 small business owners. The aim of the application is to make small business owners more visible and accessible, and to make it easier for people using Super Esnaf application to find the nearest craftsmen according to their needs. There are 62 categories of business operators from grocery stores to carpenters available on the Super Esnaf application.

Turkcell Smart Enablers Services

Turkcell Smart Enablers is a network of mobile-based and innovative technological services that offers companies the opportunity to know their customers better, reach the right customer in the right place, and increase security measures. These services are provided through a web service (API) that is easy to integrate into a company's existing systems. Eighteen services have been launched within this service group.

As of the end of 2016, more than 400 companies evaluate their business processes and provide new technological services to their customers by using Turkcell Smart Enablers web services (APIs).

Turkcell Smart Map

The Turkcell Smart Map service, which is another first for Turkey, makes it possible for companies who want to target specific customers to analyze large-scale data. Turkcell Smart Map operates on a website on which Turkcell's corporate customers can analyze Turkcell's mobile activity concentration at a point and time where an activity is being planned, or analyze where their own customers are concentrated at a specific time of day. Through this application, companies may have access to important data that will help them conduct marketing activities, develop growth strategies, and decide on new investment and design campaigns. In 2015, Turkcell developed new features such as Point of Interest (POI) analysis, movement analysis and interactive dashboard reports.

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Location Based Services

Corporate customers can monitor and manage their sales forces and fleets with Ekip Mobil. Ekip Mobil is a management console that allows customers to view their field teams/vehicles on a map, define alarms for specific regions and create direct communication channels to the field. Ekip Mobil can be used on any mobile device. For companies, the investment costs are minimal.

Turkcell Smart Education

The aim of the Turkcell Smart Education program is to provide an interactive education platform for corporate customers. Classrooms with interactive whiteboards, document cameras and lecture capture systems will support active-learning environments. Telepresence systems, video and web conferencing enables online education or distance learning for participants around the world.

Authentication Services

One Time Password is widely used by corporate customers for two-level authentication controls on transactions. The service allows corporate customers to send a single-use password via SMS to consumers when providing authentication on transactions. It is widely used for online banking processes and login transactions.

Mobile Signature, which was launched in February 2007, enables mobile subscribers to sign electronic documents and transactions with a legally-accepted digital signature using GSM SIM cards. Mobile signature subscribers can easily verify their personal identity in a digital environment and complete transactions remotely, without needing to be physically present.

Mobile Connect is a secure universal log-in solution powered by GSMA and launched in December 2015 by Turkcell. Simply by matching the user to their mobile phone, Mobile Connect allows them to log-in to websites and applications quickly without the need to remember passwords and usernames. We believe that it is safe and secure and no personal information is shared without permission.

Cloud Services

Turkcell offers a wide range of cloud solutions for its corporate customers. These services range from collocation solutions, to infrastructure, backup and security services. In 2016, Turkcell managed over 3,000 virtual servers and protected more than 1 Petabyte of data for its corporate customers. As of December 31 2016, our datacenters are based across six locations on approximately 55,000 square meters.

In 2016, to meet Turkey's digital data management need, we built the nation's largest Tier 3 Designed data center in Gebze, which has a closed area of 33 thousand square meters with 10 thousand square meters of white space, 30 MVA power capacity meeting the highest standards. Data center has Turkcell Superonline's powerful fiber network through 5 connection points and infrastructure provides above 99.9% availability with its 7/24 surveillance/security/mechanical /electrical and network operations as well as its seismic ground isolation against earthquakes of magnitude 9, the DC protects your data with Turkcell know-how offering nonstop service and cost efficiency at the same time. In addition to Turkcell's powerful technology, Data Center provides comfortable work areas, including private and shared rental offices. Also, data center has international standards of ISO 27001, 22301, 10002, 20000, 50001 and Leed Gold energy efficiency.

Turkcell offers cloud based applications from its data centers. Apart from the basic hosting and e-mail solutions, Turkcell offers cloud based (aaS) productivity applications such as videoconferencing and fax which enable corporate customers to send and receive fax digitally from anywhere.

Machine to Machine (M2M)

Since 2009, Turkcell has focused on its M2M business, whose principal markets in Turkey are car telematics, team tracking, fleet management, POS terminals, security alarms, smart metering, mobile health management, smart agriculture and sales force automation applications. Turkcell launched Turkey's first M2M Platform in March 2012. With the M2M Platform, customers can manage their devices more effectively. As of December 31, 2016, the number of M2M subscribers increased to 2 million compared to 1.9 million as of December 31, 2015.

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Mobile Marketing

Turkcell utilizes mobile marketing and advertising channels to create additional value for its customers. In 2016, many companies sought to expand and reach their customers through corporate messaging products, differentiating themselves from the competition. Those companies have created fast and efficient solutions to their marketing needs through the use of bulk messaging stand apart from the competition by enriching their messages in terms of visual aspects with rich content messages which is a corporate messaging service that enhances the customer's ability to send visual messages and by reaching their customers at the right place, at the right time, with our location-based SMS services. These companies also collected customer feedback by conducting satisfaction surveys using our Instant Response suite.

Increase in smartphone and tablet penetration has resulted in more data usage, more space to be creative and the need for more interactive marketing tools in order to be engaged with customers. As the use of mobile devices increases, mobile marketing has become a necessary part of every brand's marketing strategy. Turkcell utilizes mobile marketing and advertising channels to create additional value for customers.

See Item 3.D. Risk Factors for a discussion of the regulatory changes affecting our digital services & solutions.

(iv) Wholesale

(i) International Roaming

Our coverage extends to many countries in the world. As of December 31, 2016, we believe we have further enhanced our position as a leading mobile operator of international roaming services in Turkey by expanding our partnership in 208 destinations throughout the world, pursuant to commercial roaming agreements with 706 operators.

Since July 2002, we have provided roaming services for prepaid subscribers of foreign mobile operators visiting Turkey. We were the first operator to provide such a service in Turkey. This service, called Passive Customized Applications for Mobile Network Enhanced Logic (passive CAMEL), can only be enabled if both operators have installed the passive CAMEL system on their networks. As of December 31, 2016, we offered prepaid roaming to the prepaid subscribers of 411 operators from 154 destinations.

Since October 2004, we have offered roaming services for Turkcell prepaid subscribers traveling abroad. This service, called Active Customized Applications for Mobile Network Enhanced Logic (active CAMEL), can only be enabled if both operators have installed the CAMEL system on their networks. As of December 31, 2016, we offered prepaid roaming to Turkcell prepaid subscribers through 444 operators in 174 destinations.

Since October 2002, we have offered GPRS roaming. As of December 31, 2016, we allowed our subscribers to access the internet and reach their email accounts while traveling, through 607 GPRS roaming partners across 199 destinations.

As of December 31, 2016, our subscribers can send SMS to more than 732 mobile operators located in

209 destinations, including North America and China and in order to balance international SMS traffic, we have 84 International SMS Interworking Agreements in place.

Since December 2005, our subscribers have been able to send and receive MMS to and from subscribers of foreign operators. As of December 31, 2016, our subscribers were able to send MMS to 390 mobile operators in 142

destinations.

On July 30, 2009, we became the first operator in Turkey to launch 3G Roaming services in many different locations around the world. As of December 31, 2016, our subscribers enjoyed high speed mobile internet connections with 445 operators in 166 destinations.

On January 20, 2015, we have launched LTE Roaming services for our subscribers in many different locations around the world. As of December 31, 2016, our subscribers experienced LTE Roaming experience with 123 operators in 67 destinations.

On April 1, 2016, we have launched LTE Roaming services for visitor subscribers from many different countries around the world. As of December 31, 2016, subscribers of 131 operators from 62 different locations experienced LTE Roaming in Turkcell network.

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We have entered into direct international roaming agreements with GSM operators around the world, including in Cuba, Iran, Sudan, Libya and Syria. These arrangements have been entered into in the ordinary course of business and on arm's-length terms that we believe to be in line with industry standards. Under the roaming arrangements in the listed countries, our net revenues for roaming on our Turkish network totaled less than 1.1 million in 2016 and our net expense for our subscribers roaming on the networks of operators in the listed countries was less than TRY 5.2 million in 2016. In terms of revenue generation, we do not believe that our roaming arrangements with operators in Cuba, Iran, Sudan, Libya and Syria are material.

(ii) Wholesale Voice

Turkcell and Superonline Iletisim Hizmetleri A.S. (Turkcell Superonline) together supply wholesale voice service by establishing interconnection agreements with fixed line and mobile operators and international carriers.

As of December 31, 2016, Turkcell Superonline had interconnection agreements with more than seventy local and international carriers. Turkcell has interconnection agreements with Turk Telekom, Vodafone, Avea and Fixed Telephony Service Operators and via these agreements parties connect their networks to enable the transmission of calls to and from their mobile communications system. As of December 31, 2016, Turkcell had interconnection agreement with 31 fixed line and mobile operators and carriers.

For Turkcell, current interconnection rates are based on the ICTA's decision on the MTRs and FTRs. ICTA designated Turkcell as an operator having significant market power in the mobile access and call origination markets. Due to this designation, Turkcell is obliged to provide access and call origination service to MVNOs and directory services. As of December 31, 2016, Turkcell had agreements with 13 Directory Service Providers. Commercial negotiations in view of reaching agreements with MVNOs are ongoing. For more information, see Item 4.B. Business Overview Regulation of the Turkish Telecommunications Industry .

(iii) Wholesale Data

Our vision to become a regional player has been reinforced with 11 border crossings in Turkey. Five border crossings are towards Europe where we can offer various diversity options to connect with important European cities through protected and completely diverse routes. Six of the border crossings are towards the East, where we can offer capacity services to the Caucasus and Caspian region as well to the Middle East.

Turkcell Superonline, that aims to transform the Silk Road into the Fibre Road, has been taking important steps to develop Istanbul as the world's newest Internet base due to its geostrategic location. Accordingly, the company provides a bridge between east and west, which supplies a continuous connection with partnerships with the Tier-1 operators and strategic partners between Asia, the Middle East and Europe, such as RCN. Today, we provide telecom services to more than 70 international operators including Tier-1 companies. Currently, we carry more than 3.5 Terabits of international traffic.

In addition to our Voice Interconnect business with national operators, we have started to enter into partnerships both in the area of backbone and customer solutions.

IV. Tariffs

Our charges for voice, messaging, data and value added services consist mainly of bundles and also monthly fees, usage prices, and volume discount schemes and options under various tariff schemes.

We have various segmented tariff plans for mobile that target specific subscriber groups (postpaid or prepaid, corporate or consumer). A majority of our customers choose all-inclusive packages which include minutes to Turkcell, intra-company calls (for the corporate segment) and all national directions, data, SMS and value added services. Turkcell also offers all-inclusive packages with annual fixed-price plans that include price discounts and/or extra minutes.

Turkcell's fixed offers are based on speed, quota and fair usage. The tariffs are designed upon the composition of the different needs of different customers. Turkcell's fiber offers high speeds throughout our own infrastructure up to 1000 Mbps, usually bundled with voice, devices and TV products. ADSL offers up to

16 mbps and has voice bundled tariffs. Since 2016, VDSL is offered to our customers using DSL products, with higher speeds up to 100 Mbps.

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(i) Consumer Tariffs

We mainly offer bundled packages including voice, data, SMS and various value added services.

We have various tariff bundled smart device campaigns offered jointly by our dealer channel in which minutes, SMS and data services can be bundled with these smart devices, which are expected to lead to higher mobile broadband and services usage.

Today, more and more customers need reliable, consistent and uninterrupted internet connectivity both for mobile and fixed networks. At Turkcell, we focus on providing the best customer experience in all channels supported by competitive offers and an extensive network. We initiated our convergence program with two products for consumer and corporate segments, which include fixed broadband (fiber or DSL) and mobile broadband launched in December 2015. Furthermore, in April 2016, we launched the first converged bundle offer in Turkey, which includes mobile and fixed products in a single bill. In November 2016, we took another step forward and added TV to a converged bundle which brings together mobile, fixed and TV products in a single bill. In 2017, we will continue providing the best service and fastest speed with 4.5G offers in mobile.

In fixed broadband products (fiber and DSL internet) we have various tariffs for different internet speeds and quota. We offer 25 Mbps to 1000 Mbps internet speed in the fiber internet which we serve through our own infrastructure. The campaign prices are valid for a 24-month commitment and we generally acquire customers for a 24-month commitment. Our fixed voice product is bundled with our fixed data product. We also have tablet and desk phone campaigns in which the terminals are offered jointly by dealers, bundled with Turkcell Superonline fixed data products.

Turkcell intends to provide advantageous price schemes to consumer and corporate customers when abroad. With a customer-oriented focus, Turkcell offers products to subscribers with high- and low-roaming usage. Not only Platinum customers, but also other Turkcell postpaid customers enjoy *Roam Like Home* offer automatically which enables them to use their domestic tariff while abroad by paying a daily fee. The only requirement is that the tariff should include voice, SMS and data all together. *Roam Like Home* is valid for 66 countries and Turkcell is the most advantageous operator on that field. The subscribers, unless they apply for a specific roaming package or reject *Roam Like Home* feature, are subject to the *Smart Roaming Tariff* which was launched in January 2013. With this tariff, voice/SMS bundle and data-only solutions are offered. The *Smart Roaming Tariff* activates automatically, if and only when, the subscriber makes/receives a call, sends an SMS or uses GPRS. The tariff is activated again after the limits are exceeded. Whenever the subscriber goes abroad again, the tariff is reactivated automatically with the first usage unless the subscriber opt-in other package. Additionally, for subscribers preferring low-usage, Turkcell offers a linear roaming tariff known as the *Turkcell World Tariff*. Overall, Turkcell aims to provide better roaming experiences with various pricing schemes that fit different usage patterns.

(ii) Corporate Tariffs and Loyalty Programs

We offer a variety of voice packages to our corporate customers to meet their communication needs. These packages include company, on-net and/or flat minutes. We also offer bundled versions of these packages including data and flat SMS. In February 2016, just one month before the 4.5G launch, we launched our new corporate mass tariff line which includes higher data volumes and VAS services such as *Lifebox* and *BiP*. In December 2016, we took another step and added new VAS services, *Fizy* and *TV* to our new corporate mass tariff line.

We also offer various joint terminal campaigns in which voice, SMS and data packages can be bundled with different terminals. In addition, we provide various mobile data packages in order to meet different customer needs. These

packages include shared data packages, URL-based packages, VINN Wi-Fi offers and tablet bundled campaigns.

In addition to mobile tariffs, we also address and provide solutions to our corporate customers different telecommunication needs with the Total Telecom Solutions Provider (TTSP) approach. We provide TTSP products such as VOIP, MPLS/VPN, data center, cloud, and mobile and fixed bundle offers to our customers from a single source. Moreover, we have initiated new data center investments in Gebze and Ankara, which are active since the second half of 2016. Our corporate customers will benefit from the services provided by the data centers which include co-location, cloud and security services.

We have dedicated voice and non-voice offers, and provide different benefits for artisans . We launched several new bundled mobile tariffs for artisans at the beginning of the October 2016. These tariffs also include a

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variety of mobile services such as Turkcell TV+, fizy, Lifebox and BiP. In addition to mobile services and tariffs in which voice, SMS and data packages are bundled, we offer voice campaigns which provide limitless talk on fixed lines from 7 am to 7 pm for free.

We also launched new corporate add on packages primarily targeting enterprise segment customers. These add on packages enable our corporate customers to transfer voice, data or roaming packages to any Turkcell customer regardless of whether the line is owned by a corporate or an individual. Our corporate customers may transfer and cancel any add on package at any time by using the online transaction channel or via dedicated corporate representatives.

For corporate customers, Turkcell Superonline provides internet services over its fiber-optic infrastructure with the latest transport technology and DSL infrastructure of the incumbent fixed operator. We have fixed internet offers and fixed internet and VoIP bundle offers. With our offers, modem products are free. We also offer fixed internet and tablet bundles jointly by dealer channel for our customers.

We have two loyalty programs which are called Win at Work and Platinum Business. We launched our business to business (B2B) loyalty program, Win at Work, in March 2010, for Turkcell's corporate customers. Win at Work is the first loyalty program focused on the B2B segment. The main focus of Win at Work is to offer advantages to our corporate customers and provide them with cost advantages on their non-GSM costs. With this program, Turkcell's corporate customers get discounts in several areas such as market, water, technology, car rentals, dry cleaning services and translation services. Platinum Business is a loyalty program for both corporate and consumer subscribers with the Platinum tariff plan which provides attractive co-branding offers with various brands such as discounts on sea taxi services between the Asian-European zones of Istanbul, gift cinema tickets, car park services in shopping malls, free transportation to the airport; and providing shuttle services to customers to reach their destination during ski holidays.

(iii) Wholesale Tariffs

In 2016 ensuring the necessary wholesale roaming cost basis to be able to support the new roaming consumer and corporate tariffs and propositions Roam Like Home was one of the main focuses of the Wholesale Roaming Agreements.

Based on Turkcell's roaming agreements, Turkcell hosts the subscribers of foreign operators on its network. When a subscriber of a foreign operator makes a call using Turkcell's network, that subscriber's operator pays us our inter-operator tariff (IOT) for the specific call type. IOT is a wholesale tariff applied between mobile operators having roaming agreements.

Interconnection rates in Turkey are based on the ICTA's decision on the interconnection tariffs for Turkcell, Vodafone, Avea, Turk Telekom and Fixed Telephony Service Operators.

With respect to data sales, Turkcell intends to provide competitive prices to promote Istanbul as a regional hub for peering and IP transit services.

V. Churn

Mobile churn rate is the percentage of disconnected subscribers calculated by dividing the total number of subscriber disconnections during a period by the average number of subscribers for the same period. For these purposes, we define average number of subscribers as the number of subscribers at the beginning of the period plus one half of the total number of gross subscribers acquired during the period. Churn refers to subscribers that are both voluntarily and

involuntarily disconnected from our network. Under our disconnection process, postpaid subscribers who do not pay their bills are disconnected and included in churn upon the commencement of a legal process to disconnect them, which commences approximately 180 days from the due date of the unpaid bill. Pending disconnection, non-paying subscribers are suspended from service (but are still considered subscribers) and receive a suspension warning, which in some cases results in payment and reinstatement of service. Prepaid subscribers who do not reload TRY for a period of 270 days are disconnected (this was changed in 2010 from 210 days). Under our churn policy, prepaid subscribers are disconnected from the system if they do not top-up above TRY10 during a twelve month period. In 2016, the mobile churn rate decreased to 24.6% from 27.3% in 2015, primarily due to churn actions such as voice/data bundle offers based on different customer needs. The fixed churn rate increased to 18.9% in 2016 from 16.7% in 2015.

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We have what we believe to be an adequate allowance for doubtful receivables in our Consolidated Financial Statements for non-payments and disconnections amounting to TRY974.5 million and TRY816.4 million as of December 31, 2016 and 2015, respectively.

The churn rate for the fixed broadband products is calculated in the same way as the churn rate for the mobile products. Fixed broadband subscribers who do not pay their bills are disconnected in 15-62 days according to the financial risk segments of the customers. The legal process commences approximately 104 days from the due date of the unpaid bill.

VI. Seasonality

The Turkish mobile communications market is affected by seasonal peaks and troughs. Historically, the effects of seasonality on mobile communications usage has positively influenced our results in the second and third quarters of the fiscal year and negatively influenced our results in the first and fourth quarters of the fiscal year. Recently, however these seasonality effects have been less significant. Local and religious holidays in Turkey generally affect our operational results.

The Turkish fixed broadband market is also affected by seasonal peaks and troughs. Historically, the effects of seasonality on fixed broadband usage have negatively influenced our results in the third quarter of the fiscal year. This is mainly due to summer holidays when both usage and acquisition numbers decrease and churn increases due to residents moving.

VII. Mobile and Fixed Network

a. Coverage

Statements regarding our 2G coverage are based on the ICTA's specifications as well as the TUIK's announcements regarding the population, and statements regarding our 3G coverage are based on the ICTA's 3G coverage calculation specifications issued on April 25, 2012. Statements regarding 4.5G coverage and performance are based on our own calculations, pending publication of ICTA specifications.

Our mobile communications network is designed to provide high-quality coverage to the majority of Turkey's population throughout the areas in which they live, work and travel. As of December 31, 2016, Turkcell covered 92.85% of Turkey and 99.67% of its population, including 100% of cities with a population of 1,000 or more. Coverage also includes a substantial part of the Mediterranean and Aegean coastline, and during 2015, we enhanced coverage in low-populated areas (populations of less than 1,000 people) as well. In terms of 2G, we have significantly exceeded the minimum coverage requirements of our license.

We have also expanded our mobile communications network to add capacity to existing service areas and to offer service to new areas, including the improvement of existing urban, suburban and intercity road coverage. In 2016, we continued to expand our coverage and further enhanced capacity in populated areas. Within the scope of the Ministry of Transport, Maritime Affairs and Communications' Rural Coverage Project as part of universal services which we started in August 2013, infrastructure covering 1,794 settlements with populations of less than 500 has been installed as of the end of 2016, with network sharing technology, which enables all operators to use the same BTS, BSC and IP Transmission lines. This contract was recently renewed until December 31, 2018 and to add mobile broadband services to the existing infrastructure providing GSM services under Universal Service Law and to operate the new and existing networks together.

We commercially launched 3G simultaneously in 81 provinces and major cities in Turkey in July 2009. As of December 31, 2016, we covered 96.04% of Turkey's population and 99.88% of 16 metropolitan municipalities populations. As a result of the amendment to the Law for Metropolitan Municipalities, the number of metropolitan municipalities increased and the borders of some municipalities were extended. After this amendment, the ICTA increased our coverage obligations, defined in our concession agreement by its decision, based on this amendment. We filed a lawsuit for a stay of execution and the cancellation of this aforementioned decision. The Council of State granted a motion for the stay of execution of ICTA's aforementioned decision. The ICTA objected to this decision. The objection was also rejected in favor of Turkcell. The case is still pending.

Benefiting from higher-quality communications provided by the widest spectrum in 3G, Turkcell will continue to offer seamless communications services to its customers with what we believe to be the most extensive coverage amongst its competitors.

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In 2016, we continued to develop and improve the coverage and capacity of our network. In urban areas, we increased both coverage and capacity by placing network infrastructure in commercial sites such as shopping malls, business complexes and entertainment centers. We became the first mobile operator extending 3G coverage to all of the districts in Turkey.

We have been using 3G Small Cells (such as Femto, pico and micro) which are solutions to further enhance our coverage in places where signal penetration problems exist due to thick concrete walls, coated glass windows, basement floors, etc. 3G Repeaters have been used to serve the same purpose.

Following the IMT-Advanced (4.5G) tender held on August 26, 2015, Turkcell acquired 10 MHz from the 800 MHz frequency band and an additional 1.4 MHz of 900 MHz frequency band and additional 10 MHz of 2100 MHz frequency band. We use these frequency bands that provide high signal penetration in order to provide IMT coverage and enhance 3G coverage as well as capacity. As of December 31, 2016, Turkcell reached 82.5% population coverage for 4.5G in Turkey.

Our fixed communications network is designed to provide high capacity and high-quality service to consumer and corporate customers. Moreover, we believe that it is very well designed and implemented to provide capacity to our mobile network. Our fixed network has capabilities to carry large volumes of data and internet traffic inside the country and is also connected to national and international telecom operators.

As of December 31, 2016 our fiber network has reached to 37,154 kilometers and connects 79 of 81 cities. In 18 cities we have fiber to the home (FTTH) network and homepass, which means the number of premises that are connected to the fiber network, has reached 2,734 million. We also provide enterprise Wi-Fi services.

In the fixed access network we have two main network structures called fiber to the building (FTTB) and fiber to the home (FTTH). In FTTB network, we are installing switches to access our subscribers. In FTTH networks, we are installing Gigabit Passive Optical Network (GPON) equipment which is the latest access network technology for residential and business subscribers. These network structures enable Turkcell to offer triple play services (High speed internet, TV, Voice over IP). The fixed access network also provides bandwidth requirement for mobile sites with Metro Ethernet services.

b. Quality of Service

The ICTA published a Regulation on Quality of Service in the Electronic Communications Sector on September 12, 2010, effective as of December 31, 2011 (see Item 4.B. Business Overview Regulation of the Turkish Telecommunications Industry for further details). The Turkcell Network is currently above the standards set by the statement. As usual, Call Drop was one of the major Quality of Service figures that we focused on during 2016.

Dropped calls are calls that are terminated involuntarily and are measured by using the ratio of total dropped calls during the most congested hour of network traffic during the relevant time period to the traffic intensity in that congested hour. Using such industry standard for dropped calls, our dropped call rate for our 2G network has further decreased below 0.60%.

Turkcell also provides high quality services through its 3G network. In a short time, we have succeeded in reducing the 3G dropped call rate below the 2G network. Our dropped call rate for our 3G network is below 0.30%. The rate of service quality is being enhanced all the time due to investments in our 2G and 3G network to improve the quality and capacity of the network.

We have started to offload data traffic by increasing the percentage of small cells in the network for improving customer satisfaction. We also focused on Special Distributed Antenna Solutions and customization of parameter settings in major stadiums to maximize the capacity of our 2G/3G Access Network. Together with Turkcell Superonline, we have also implemented Wi-Fi offload integrated with the Turkcell 3G network to further enhance the customer experience.

We are the only operator in Turkey that can increase its carrier number up to eight carriers, allocated to mobile communications in the long term, by having the widest frequency spectrum in Turkey. We are using this capability to increase our capacity to provide superior services to a larger number of subscribers and improve coverage. In 2016, we continued to increase the number of carriers with the advantage of large spectrum assets. We believe we have sufficient bandwidth to serve our current and projected short-term subscriber base and we currently meet the capacity requirements of both our 2G and 3G subscribers.

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Turkcell has been awarded the ISO 9001 certificate since 1999 and renews its ISO 9001 certification every two years in the fields of design, installation, operation, sales, after sales services of global mobile communications within Turkcell functions. The latest certification Turkcell was awarded is the ISO 9001:2008 Quality Management System Certificate in 2016. In addition, Turkcell received the ISO/IEC 20000-1:2005 IT Service Management System Certificate in January 2011. As the first telecommunications company to receive the ISO 20000-1:2005 certificate in Turkey, Turkcell has promoted the adoption of an integrated process approach to effectively deliver managed services to meet business requirements.

On the fixed network side, we monitor traffic utilization in our access network continuously to prevent any saturation and upgrade the capacity as soon as possible. Turkcell modifies and redesigns the network topology to meet the future requirements which allows us to improve our quality of service performance.

The optical transmission network relying on DWDM systems with Automatically Switching Optical Network (ASON), Optical Transport Network (OTN) and traditional Synchronous Digital Hierarchy (SDH) using protection mechanisms benefit alternative fiber routes wherever available. This increases the capabilities of re-routing in the event of service interruption. Thus, the delivered point to point services provides an experience up to 99,999% availability figures; a level of quality defining the transmission network as upper level carrier-class network.

c. Network Evolution***(i) Radio Network***

We launched the LTE Advanced network (also known as 4.5G in Turkey) on April 1, 2016 after extensive trials and preparations. On the launch day, millions of our customers were able to switch to our new 4.5G network seamlessly in one hour, reflecting our operational capacity, while it took days for our competitors to migrate their customers to their respective LTE networks. We have deployed 4.5G in all 81 provinces, including all counties. We have also upgraded our in-building systems (such as those in shopping malls) so as to enhance the 4.5G user experience of our customers indoors.

With a new spectrum acquisition of 172.4 MHz in the 2015 auction, Turkcell spectrum holdings have reached 234.4 MHz, corresponding to 43% of total spectrum assets acquired by the mobile operators in Turkey. Leveraging the advantage of large spectrum assets and by a significant investment into the network infrastructure, our 4.5G network has widely supported 375 Mbps peak downlink speeds from the very first day. Three Carrier Aggregation (3CA) (an LTE Advanced technology) has enabled us to provide very high downlink speeds to our customers. We have been continuously exploring new ways to enhance our customers' experience by activating new technologies currently available. Lately, we have activated 256QAM downlink technology in the entire network to increase peak downlink speeds up to 500 Mbps. For the uplink, we have switched on 64QAM technology to increase peak uplink speeds by 50% to 75 Mbps in the entire 4.5G network. In 2017, as our next step, we plan to integrate 4x4 MIMO feature into the network to increase peak downlink speeds by as much as two-fold. Thanks to our advance planning and network deployment strategy, our 4.5G network infrastructure has been ready to support 4x4 MIMO from day one and therefore its activation should easily be accomplished via software. In this way, we believe that not only has Turkcell 4.5G network been assured to be the fastest in Turkey, but we believe that it also has become one of the most advanced and fastest mobile networks in the world. This has been proven by reports from certain independent organizations (such as in the Ookla Speedtest report dated December, 2016) that Turkcell has by far the fastest 4.5G network in Turkey when compared to other competitor networks. In the future, as the technology and its ecosystem evolve to new heights, we expect to introduce newer capabilities such as Four/Five Carrier Aggregation (4CA/5CA) and Uplink Two Carrier Aggregation (UL 2CA) by utilizing our large spectrum assets to support higher-order carrier aggregation options. We think ongoing network upgrades will also pave the way for easy migration to the next

generation technology. Turkcell is currently using the latest and most advanced products from its infrastructure vendors.

For voice services, Voice over LTE (VoLTE) has been supported from day one to provide voice services over our 4.5G network. With a larger terminal support base, we expect that voice services will be migrated to the 4.5G network from legacy 3G/2G networks. In accordance with technology evolution, currently most of the voice traffic is already carried by our 3G network, which has enabled us to gradually shrink the 2G network due to decreasing 2G traffics levels.

In order to provide a solution for VPN over the wireless technologies like 4.5G, we have announced the Mobile VPN offer to our corporate customers. With this solution, customer companies are able to the connect

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internet cloud over a wireless interface using 4.5G technology, without sacrificing their service quality requirements. This is a fast and flexible solution for connections between their branch offices and headquarters.

We have also focused on TV and video services utilizing much higher download speeds provided by the 4.5G network. We are closely following LTE Broadcast technology and have performed live demonstrations of LTE Broadcast (eMBMS) technology in some important sporting events (a basketball game and a sailing race).

While we have been investing into new technologies, we also have been upgrading our 3G/2G networks to improve the user experience of our customers who are served by the legacy networks. By conducting modernization projects, we have achieved an energy efficiency improvement of about 30% on our 3G/2G networks. The equipment modernization also enables us to use multiple technologies (LTE, UMTS and GSM) in a mixed mode configuration on the same hardware units located at the sites, providing smaller footprints for the installations along with other benefits. It is also important to note that since the traffic volumes on the 3G network are still on the rise, we have been using newly acquired 2x10 MHz spectrum on 2100 MHz band as 5th and 6th carriers for additional capacity.

Although the 900 MHz band is still being primarily used for GSM900, we have started rolling out UMTS900 to provide coverage layer for voice calls redirected from the 4.5G network via the technique called

CS Fallback (CSFB). This has been possible by some previous projects such as Thin Layer Project for GSM 900, by which we have extracted enough spectral capacity to partially re-farm the 900 MHz band for UMTS. UMTS900 has also strengthened our 3G indoor coverage compared to the existing UMTS2100 layer.

Furthermore, we have been closely cooperating with our network vendors for long term prospects through projects that enable Turkcell to deploy the latest technologies even before their general availability. This puts Turkcell at the forefront of the technology race and allows the evaluating of the new technologies benefits when they are in the development phase, and then their timely deployment following their commercial availability.

Turkcell continues to give extensive support to the projects involving local products. We cooperate with local companies regarding base stations, antennas, transports and infrastructure solutions. ULAK Project, which is an initiative taken by Undersecretariat for Defense Industries (SSM), aims to design and develop national software and hardware components for an LTE-Advanced communication system and enhance Turkey's self-sufficiency in this area. Since the signature of the agreement between SSM and Turkcell in March 2014, we have been supporting the project, which is on developing base stations domestically, with our engineering expertise. We contributed to the product development by transferring mobile operations experience and providing a test environment. The goal of Turkcell in this project is to contribute to the positioning of 4.5G base stations manufactured locally as a competitive product, not only in Turkey but also in the region and beyond.

In the scope of the next generation technology, known as 5G, Turkcell has been participating in technology organizations such as NGMN and GSMA by joining projects and programs to follow the latest developments and shape its strategies for the future accordingly. In this context, Turkcell has been selected by NGMN to trial the 5G prototypes in the field as a part of NGMN 5G test and trial activities. Turkcell has also signed agreements with vendors (Ericsson, Huawei, Aselsan) to collaborate in the research & development and work on various use case options. Our cooperation with Ericsson in the 15GHz band enabled us to achieve a speed of 24.7Gbit in Turkey's first 5G test. In addition to technology organizations and vendors, Turkcell has been doing some research activities with universities and research centers. 5G Research and Development related MoU has been signed with some major universities in Turkey. There are a couple of applications for 5G-PPP (The 5G Infrastructure Public Private Partnership) European Commission projects together with some European partners that perform important activities on the 5G development.

Regarding our 3G and 2G networks, we have supported up to 63.3 Mbps speeds using 3C-HSDPA

(3 Carrier High Speed Downlink Packet Access) technology for downloads and 11.5 Mbps using DC-HSUPA (Dual Carrier High Speed Uplink Packet Access) technology for uploads in our 3G network since early 2015. These technologies globally had their first commercial network activations by Turkcell. For GSM, although shrinking in traffic load and capacity, up to 300 Kbps download speeds are supported with EDGE technology for users having legacy terminals or in rural areas where GSM-only coverage exists.

(ii) Transmission Network

Turkcell is the first operator in Turkey to start deploying All-IP NodeBs throughout its network. We are not only expanding our 3G network but also migrating legacy TDM-GSM sites to IP through the deployment of Abis

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over IP technologies. Thus, we currently have an All-IP mobile backhaul of more than 20,000 BTSs and Node-Bs that provides resiliency, ease of operation and operational expense advantages. In addition to this, we have also invested in topology redundancy projects due to our IP/MPLS backhaul for better service availability. Backhaul bandwidth capacities were increased for wide coverage up to 450Mbps 4.5G applications and the Microwave Radio Link network was modernized for Native Ethernet and Adaptive Modulation support to increase availability and reduce outages due to severe rain conditions. Usage of fiber connectivity is moving further from High-RAN aggregation points towards Low-RAN aggregation points. Furthermore, fiber to the site applications have been started for 4.5G readiness of sites with very high traffic. Due to higher bandwidth requirements of the 4.5G users, we are migrating from SDH based leased lines to DWDM or dark fiber multi-Gigabit Ethernet links on the high traffic aggregation points.

(iii) Core Network

The whole Turkcell Core Network is currently composed of IP based layered structure Next Generation Network (NGN) nodes, supporting all mobile standards, including 2G/3G/4.5G. By using a Geographical Redundant Pool (GRP) structure, we get (i) full redundant MSC-Ss, (ii) redundant physical interfaces to MGWs, (iii) CAPEX efficiency, and (iv) improvements in radio network KPIs. By implementing IMS (IP Multimedia Subsystem) based VoLTE (Voice Over LTE) and SRVCC (VoLTE Voice Continuity to 2G/3G), all subscribers can use seamless HDVOICE technology.

We have deployed and continue to develop our all IP Mobile Broadband GPRS network to provide the high speed and reliability to meet the demand of our businesses and consumers. 2G/3G/4.5G data services are given from our converged core network, which is designed to support all mobile broadband.

(iv) Fixed Network

Our fiber optic network provides up to 1000 Mbps high speed internet service in 18 cities across Turkey. We also provide superior triple play service experience to our subscribers. We are installing and investing in EDGE technology access equipment in our network. We believe that with this strategy Turkcell will be ready to offer future customer experiences.

Turkcell is the first company in the world that has realized commercial application of colorless and directionless ASON on a live traffic carrying network. Turkcell also introduced coherent 100G technology in the backbone along with optical ASON in the early stages at the end of 2012 and early 2013. In 2016, Turkcell also tested for 1 Tbps per wavelength using super channels on existing DWDM networks successfully.

Fixed networks will provide backhaul that not only connects the signal towers to the telecom network, but also allows for enough bandwidth to support operations in 4.5G. This is creating an environment in which optical cabling and fiber to ethernet media converters are among the most important parts of a mobile network. As a result, fiber will remain an integral part of telecom networks.

(v) Services and Platforms

We have an intelligent network and other service platforms enabling our services and we also provide secure and controlled access to the network for the content and service providers to provide messaging and data services. This infrastructure is being improved to open up more capabilities on the network for the application and content providers. New infrastructure also contains a portal where subscribers buy services, receive promotions and enroll for campaigns easily.

d. *Network Operations*

We have primarily employed experienced internal personnel for network engineering and other design activities while employing suppliers for our network infrastructure and as our partners in product/service development. Our suppliers install the base station cell site equipment and switches on a turn-key basis, while subcontractors employed by our suppliers perform the actual site preparation.

e. *Network Maintenance*

We have entered into several system service agreements. Under these agreements, our mobile and fixed communications network, including hardware repair and replacement, software and system support services,

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consultation services and emergency services are serviced by local providers. Our subcontractors perform corrective and preventative maintenance on our mobile and fixed communications network in the field, although providers repair all the network equipment. We have regional operation units with qualified Turkcell staff that operate and maintain our network in Turkey.

In addition, the Turkcell Network Operation Center located in Istanbul monitors our entire network 24 hours a day, 365 days a year, and ensures that necessary maintenance is performed in response to any problems.

f. *Site Leasing*

Once a new coverage area has been identified, our technical staff determines the optimal base station location and the required coverage characteristics. The area is then surveyed to identify BTS sites. In urban areas, typical sites are building faces and rooftops. In rural areas, masts and towers are usually constructed. Our technical staff also identifies the best means of connecting the base station to the network. Once a preferred site has been identified and the exact equipment configuration for that site determined, we start the process of site leasing and obtaining necessary regulatory permits. Site leasing processes and construction of the masts or towers is performed by Global Tower. We lease or buy the land and provide site management services (yearly rental payments, contract renewals, rework permits) by Global Tower. We manage all these processes for technical demands of Turkcell, Turkcell Superonline and Global Tower.

g. *Business Continuity Management (BCM)*

Turkcell Business Continuity Management identifies potential threats, their impact and provides a framework for building resilience with the ability to create an effective response that safeguards the interests of our key stakeholders, their reputation, brand and value-creating activities. We established the Business Continuity Management System (BCMS) to implement, operate, monitor, review, maintain and improve the business continuity.

Turkcell BCMS is assisted by the coordinators and business continuity virtual team. Regular BCM training and awareness programs are carried out throughout the organization. The effectiveness of BCMS is monitored every year through internal/external audits, and integrated exercises, the results of which are reviewed in management review meetings. In 2016, we exercised and tested our business continuity plans, communication and warning procedures to ensure that they are consistent with the business continuity objectives.

Turkcell s BCM will be able to cover the majority of Turkcell s operations through potential environmental events and natural disasters. Our aim is to ensure the continuity of the voice call, messaging, data/internet and societal security services for Turkcell, availability of fixed voice call services, data/internet, hosting services, data centers and societal security services for Turkcell Superonline, provision of site acquisition and contract management services for infrastructure requirements of mobile operators, TV/Radio broadcasters and technical infrastructure suppliers and installation, testing, commissioning, operation and maintenance of tower, in building, roof top infrastructure/Sites for Global Tower at acceptable predefined levels following disruptive incidents. Business continuity plans are prepared by taking into consideration the customer s expectations, company policies and legal obligations. They are regularly exercised to guarantee the operation of time-sensitive business activities in case of business disruptions. We are continuously improving our business continuity capacity in accordance with the ISO 22301 Societal Security, Business Continuity Management System international while preserving our image as a reputable and solid integrated service provider.

h. *Enterprise Risk Management (ERM)*

Turkcell's Enterprise Risk Management team is responsible for coordinating the process of identifying, assessing and overseeing actions by management and the company's business units to manage the risks that may affect the business objectives of the company. ERM supplies an information platform to management regarding the risks which may have an effect on the decision making process. Turkcell ERM aims to develop an approach of integrating risk management with the core management processes as well as enterprise risk culture. While doing this, Turkcell uses an ERM framework which is compatible with the COSO ERM framework and the ISO 31000 Standard. Based on the ERM procedures, risks are identified and evaluated in terms of impact and likelihood. Risk responses and controls are developed and the whole process is monitored.

Turkcell's ERM team is the owner of an enterprise risk database. A range of management tools are used for risk identification and evaluation such as workshops, brainstorming sessions, risk reporting from divisions risk

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contacts, in-depth interviews with the management team and research reports while coordinating the process of identifying and assessing risks. The risk database is monitored by the ERM team and critical risks are reported to the Early Detection of Risk Committee bi-monthly.

VIII. Sales and Marketing

We design our sales and marketing strategy around subscriber needs and expectations. We try to ensure the loyalty of our subscribers by providing offers, campaigns and our advanced service delivery platforms.

a. Sales Channel

We support our sales efforts through one of the largest retail telecommunications distribution networks in Turkey, with approximately 1,025 exclusive stores, many with prime locations, as well as approximately 8,854 non-exclusive dealers. Our two exclusive distributors provide our products and services as well as handsets and aftersales services for this wide network of dealers, while 15 exclusive Turkcell distribution centers focus solely on non-exclusive dealers. We also have a door-to-door sales force and home technology management team, which makes approximately 100,000 connected home technology transaction per month. This provides us with an important channel to distribute our integrated solutions directly into the homes of Turkish consumers. We also operate a dedicated corporate direct sales team of approximately 1,227 personnel who can offer tailored solutions to their respective segments.

Our nationwide distribution channel is an important asset that helps us differentiate ourselves from our competitors and achieve our sales targets. Our strong and extensive distribution network consists of distributors, Turkcell Distribution Centers (TDC), Corporate Solution Centers, non-exclusive dealers, Turkcell Communication Centers (TIMs), and Turkcell Stores as well as points of sale for scratch cards and prepaid airtime, including digital channels, ATMs, Point of Sales (POSs), web, call centers, supermarkets, gas stations and kiosks. We sell postpaid and prepaid services, fixed and mobile solutions, value-added services to subscribers through our distribution network. The number of exclusive and non-exclusive dealers totaled approximately 9,950 sales points as of December 31, 2016.

Our exclusive retail network consists of powerful retail dealers with good locations, modern designs and superior after-sales service. TIMs lead the market with their user-friendly atmosphere, new products and services and dedicated employees. In 2009, TIMs were relaunched with the motto "We aim to ease your life with technology" in order to enhance our customer service-oriented image under the TIM brand. As of December 31, 2016, Turkcell had approximately 1,025 exclusive sales points. Every year, around 2,150 million visitors are served by our specialized sales force, which consists of approximately 6,748 people in TIMs. Moreover, we have 116 Technology Specialists in TIMs who coach the entire sales force, help customers experience technology and spread the latest technological information.

Our non-exclusive dealer network provides us with a high penetration of Turkcell products and services in Turkey. Our 15 TDCs are aimed at enhancing our distribution effectiveness in the non-exclusive channel and ensure the timely and efficient distribution of Turkcell products and merchandising materials. They also facilitate the Turkcell brand and offer awareness in this competitive channel.

Alternative sales channels are re-designed under three main branches: Telesales, Online Sales and Self-Service channels.

We are working on attracting our customers to all of our channels through digital channels and by co-branding. We offer our customers fast and safe access to our products and services 7/24 via turkcell.com.tr, our Online Sales channel. Another channel is our Self-Service channel (which consists of ATMs, Call Centers, internet branches of

banks, Kiosks, and in other channels, over 15 thousand national and local markets and post office branches) where we give our customers the opportunity to access Turkcell's products easily and quickly. In contrast to our other two channels, we proactively reach our customers and satisfy their needs easily and safely when they need our products and services, in our Telesales channel.

All dealers are compensated based on the number of new subscribers they sign up and the level of such subscribers usage, as well as additional incentives based on their performance.

Sales Management develops strong relationships with and promotes brand loyalty among dealers through a variety of support and incentive programs. Training programs aim to educate dealers' personnel on the technical

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aspects of our products and services, as well as sales techniques to increase sales and enhance customer relations. The technological development projects, coupled with merchandising services, point-of-purchase (POP) materials and channel specific campaigns, help to support the sales efforts in all of our sales channels.

Corporate clients are managed in five different segments: Public Accounts, Strategic Accounts, Major Accounts, Medium Businesses and Small Businesses. The first four segments' customers are directly contacted by Turkcell's Account Managers, while the Small Business segment is managed by dealers and telesales teams called Corporate Solutions Centers.

The corporate segment services consist of four basic categories:

Mobile Telecom

Fixed Telecom

Data Center and Cloud

Information Technologies

Within Turkcell's sales teams, along with Telecom Services, Mobile Product and Solution Specialists, Fixed Product and Solution Specialists, Corporate Data Network, DC Cloud, Cyber Security Specialists and Professional Services teams specialized in IT solutions have served to the corporate clients.

Turkcell also provides turnkey mobile transformation and IT outsourcing projects for large corporations with the contribution of solution partners.

b. Advertising

In 2016, we remained focused on understanding the needs of each consumer segment thoroughly and sought to offer them superior coverage, a seamless transition from 3G to the new 4.5G network in Turkey, tailored solutions, outstanding service quality, and leadership in social responsibility. We seek to empower our customers by enabling them to be more connected to life with simple communications solutions ready at their fingertips. Through the nation's fastest 4.5G bandwidth which we acquired in 2015, we provided our customers with the most reliable 4.5G LTE network nationwide in 2016.

We base our communication strategy on three pillars. The assets that ensure our leadership position which comprise the first pillar and are fourfold: it includes the mobile and fixed communication technologies which we offer in an integrated manner, the social responsibility projects that we undertake throughout the year in various areas, our position as a brand that is loved and appreciated and lastly the fact that we have established a number of 'firsts' in the Turkish market. The second pillar involves customer conversations which spring from various products and services that target diverse needs of specifically identified customer segments. Our third pillar includes our digital services that connect our customers with a large portion of what the digital world has to offer and the real experience of connectivity.

c. Customer and Experience Management

The key part of our customer and experience management strategy is to provide basic and premium services through several channels by thinking and acting in a customer-focused manner in line with market trends and Turkcell's mobile and fixed solutions. Our goal is to maintain a continuous relationship with our customers through fostering a high level of customer satisfaction. We continuously ask our customers how satisfied they are with the service they receive and for any suggestions through near real-time mobile surveys. We aim to achieve operational excellence throughout all customer touch points for every customer segment by continuously improving and simplifying processes and services. Customer feedback is the major input for Turkcell's continuous process and journey improvement efforts.

With respect to provision of customer services we mainly work with our subsidiary Global Bilgi Pazarlama Danisma ve Cagri Servisi Hizmetleri A.S. (Turkcell Global Bilgi). Turkcell Global Bilgi offers 24/7 contact center services at several sites and manages more than 200 million contracts annually. Turkcell's customer service strategies for contact centers are implemented by Turkcell Global Bilgi and we audit all of their operations along with monitoring whether customer services and customer satisfaction programs are executed in line with Turkcell's customer strategies. Turkcell Global Bilgi's success has been affirmed by a number of domestic and international awards received in 2016. We also offer customer service at face-to-face communication centers all around Turkey which are in a huge transformation process in order to meet our customers' technological needs and demands.

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We aim to channel our customers to reach us digitally. To realize this goal, we invest in our online self-service channels. The primary channel is our mobile application called My Account which provides our customers the ability to track the bills, usage and settings and make top-ups to their plans. In 2017, we plan to focus more on increasing sales through this application. Additionally, our customers can contact us via online chat available on both the website and the application. We also use online chat applications to reach our customers proactively when they are stuck on the website or need assistance while trying to buy a product. For corporate customers, account managers are assigned for exclusive service. An account manager is the single point of contact and provides proper solutions in response to customer needs. While managing our corporate customers through five sales segments, we also support our customers through e-mails, calls and dedicated back offices, under the umbrella of our Contact Center. We have Corporate Customer Representatives to support direct requests from our strategic and large enterprises and/or to support indirect requests received through our account managers. In addition, for small and medium businesses, we aim to meet faster and higher quality service standards by providing online solutions to satisfy the demands of our sales teams regarding their customers demands with our Field Support Desk. Moreover, we developed a mobile application called My Company for corporate customers, which helps them to manage all their GSM lines via mobile. Our corporate customers can experience the convenience and speed of doing self-service transactions for all lines by using this application.

Turkcell has been awarded the ISO 10002 certificate since 2011 and continuously renews its ISO 10002 certification every year in the scope of design, installation, operation, sales, and after-sales services of global mobile communications within Turkcell Functions. The latest certification is ISO 10002:2004 Quality Management-Customer Satisfaction-Complaints Handling Certificate, which was awarded in 2016.

IX. International and Domestic Subsidiaries

A component of our strategy has been to grow or improve our business in both international and domestic markets. International expansion and, in particular, continued strong operations in the countries in which we are currently present is important for us. We believe these operations will provide additional value to us in the future and will continue to serve an important role in our goal to be a converged communications and technology services company.

While continued improvement of our current operations is a key priority, we may further expand and increase our presence in key emerging markets in the region, such as the C.I.S. region, Eastern Europe, the Middle East and Africa and the Balkans. Through such investments, we intend not only to transfer our technological know-how and marketing expertise, but also to maximize economies of scale and group synergy.

Our international and domestic endeavors will continue in 2017. We will continue to selectively seek and evaluate new investment opportunities both in our main and adjacent communication and technology business areas as well as the businesses outside of the scope of our core business.

Ukraine lifecell

We acquired our interest in our subsidiary lifecell LLC (lifecell , formerly known as LLC Astelit or Astelit) on April 2, 2004, by purchasing the entire share capital of Astelit's parent, CJSC Digital Cellular Communications (DCC), from its shareholders.

On July 10, 2015, we completed the acquisition of SCM's 44.96% stake in our Netherlands-based subsidiary Euroasia Telecommunications Holding B.V, which owns 100% of LLC Astelit and which merged with Lifecell Ventures Cooperatief U.A. in December 2016. The terms of the acquisition required a payment of \$100 million as consideration for the acquisition, the payment of Astelit's debts obtained through and with guarantee of SCM Group, the termination

of all guarantee agreements to which SCM Group is party and the release of SCM Group in this regard. In accordance with IFRS 10 Consolidated Financial Statements , the acquisition of the remaining 44.96% in Astelit for a total consideration of \$100 million was considered an equity transaction and the deficit representing the difference between the non-controlling interests was derecognized and the consideration paid for the acquisition of shares amounting to TRY 929 million was deducted from retained earnings in July 2015.

Following the acquisition of the 44.96% interest in Euroasia from SCM, Astelit s borrowings obtained from and with the guarantee of SCM Group have been repaid in July 2015. The Group converted a material portion of Astelit s borrowings to equity and restructured Astelit s remaining borrowings in order to mitigate the foreign

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exchange risks associated with borrowings denominated in foreign currency. Astelit's capital has been increased by \$686 million (equivalent to TRY 2,414.2 million as of December 31, 2016) and Astelit obtained \$66 million (equivalent to TRY 232.3 million as of December 31, 2016) subordinated loan directly from the Company in the third quarter of 2015. As of 31 December, 2016, lifecell utilized loans fully denominated in local currency of UAH 3.15 billion (equivalent to TRY 407.2 million as of December 31, 2016) under the guarantee of Turkcell.

Astelit began its operations in the Ukrainian market in February 2005 with its brand life:) During ten years, the brand became highly recognized in the market due to its focus on a young, innovative and flexible audience. After ten years of successful history in the industry, on January 15, 2016 the company announced a new stage of its development which started with large-scale rebranding. Starting from 2016, the company now offers its services under the new brand lifecell and in connection therewith changed its legal name to lifecell LLC at February 2, 2016. This brand change marks a milestone in the operator's journey as a technology leader in Ukraine. lifecell adopted blue and yellow as its brand colors, bringing Turkcell and its Ukrainian subsidiary closer in terms of brand identity. Under the new brand identity and with ongoing investments in 3G+ infrastructure and services, lifecell will continue its presence in the market, seeking to become Ukraine's top data operator and usher in new possibilities in the country's telecommunications landscape. As of Q3 2016 brand awareness research showed that about 80% of the pollees were aware that lifecell is an operator which has provided mobile services in Ukraine for many years, and recently made a rebranding. Almost all of those who are aware that it was a rebranding 98% said that life:) became lifecell.

As of December 31, 2016, lifecell had 12.4 million registered subscribers. The majority of such subscribers were prepaid subscribers. lifecell's three-month active subscribers reached 9.2 million as of December 31, 2016.

The company has been known in the market as one of the most dynamic and innovative ever since lifecell was the first to introduce a number of new technologies and products that had previously been unavailable to Ukrainian subscribers. The company is highly motivated to keep its innovation leadership in marketing and sales. There are 164 exclusive lifecell shops which are working in 86 cities of Ukraine as of December 31, 2016. There are 40 facelifted and 23 rebranded shops whereas 30 shops in the process of facelifiting and 13 shops in the process of rebranding as of December 31, 2016. In addition, customers can order lifecell services in 93 branded sales points and 31,286 other GSM and non-GSM sales points throughout Ukraine. As of December 31, 2016, lifecell provided roaming services in 200 countries via 533 roaming partners.

As of December 31, 2016, lifecell operated in 99% of the cities in Ukraine (excluding Crimea) with a population of more than 2,000 inhabitants (2,254 settlements) and in total more than 29,097 settlements nationally, and all principal intercity highways and roads, which corresponds to coverage of approximately 98.9% of the whole population of Ukraine or 94.7% geographical coverage with 10,812 base stations. lifecell stopped recording revenues from Crimea starting from the end of September 2014 and impaired its assets in that region. Furthermore, the current military and political crisis in the Eastern region (mainly in Donetsk and Luhansk) and with Russia remains unresolved, which could lead us to evaluate our options in the Eastern region. Cumulative capital expenditure for the development of lifecell's coverage amounted to \$1,874.8 million as of December 31, 2016.

lifecell is dedicated to further developing innovations in the market. The National Commission for the State Regulation of Communications and Informatization (NCCIR) held the 3G license tender on February 23, 2015. lifecell submitted a bid of UAH 3,355 million (equivalent to TRY 434.3 million as of December 31, 2016) and was awarded the first lot, which is the 1920-1935 / 2110-2125 MHz frequency band. Official notification was received on March 2, 2015 and the license payment was made on March 19, 2015. In May 2015, lifecell has made payment of UAH 358 million (equivalent to TRY 46.3 million as of December 31, 2016) as a first installment for conversion of spectrum from military use and committed approximately UAH 479 million (equivalent to TRY 62 million as of December 31, 2016) for the remaining installments of the conversion. The committed amount will be subject to

change according to the inflation rates at the date of the payments. After winning the tender, lifecell launched 3G services on June 4, 2015, becoming the first operator to offer a 3G+ network in Ukraine, which is available to nearly 26.7 million Ukrainian subscribers as of December 31, 2016 all over the country. lifecell launched 3G+ in Ukraine, a peak of evolution of third generation technology which allows lifecell subscribers to enjoy a speed of up to 63.3 Mbps and 3 month active 3G data users reached 3.3 million.

Since May 2015, lifecell has continued to roll out its 3G + network and officially launched its 3G + network in 24 regions in Ukraine, including such large cities as Lviv, Kyiv, Odesa, Dnipro, Chernigiv, Mykolaiv, Vinnytsa and Kharkiv, with the population over one million inhabitants. Currently 3G+ from lifecell is available

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in more than 5,740 towns and settlements in Ukraine and in more than 2,630 Ukrainian towns and settlements lifecell is the only operator providing the third generation technology. As of December 2016 lifecell became the leader in geographical 3G coverage in Ukraine. Since the beginning of 2016 lifecell has managed to increase data traffic usage four times up to 150 Tb/day and HSDPA throughput up to almost 4 Mbit/s. 3G+ services of the lifecell network can be used by 25 million subscribers as of December 31, 2016. As of December 2016 lifecell is a leader of smartphone penetration in the Ukrainian telecommunication market. The operator has a penetration of 60.2% in its high-speed 3G+ network, which is the highest smartphone penetration.

In December 6, 2016 lifecell signed Letters of Declaration on cooperation in the framework of the development of 5G in Ukraine with Huawei Ukraine and Ericsson. Signing of these Letters in Ukraine by each of the partner companies results from the global Memoranda signed by Turkcell with Ericsson in 2015 and with Huawei in 2016. Representatives of the Ukrainian authorities also supported the introduction of the fifth generation technology in Ukraine. lifecell became the first on the Ukrainian telecom market to declare its intention to develop 5G in Ukraine. lifecell cares about reducing the technological gap with the leading European countries.

In terms of the framework of lifecell strategy targeted at smartphonization of Ukrainian society, in June 2016 lifecell introduced its terminal business direction in its official stores. Since this launch, all current and potential lifecell subscribers are able to buy modern devices from the represented line of brands together with scratch cards, which provide a package of services.

In 2016 lifecell became a technology sponsor of the national football team of Ukraine and a Premium sponsor of the legendary football club Dynamo Kyiv to support the Ukrainian sports along with millions of its fans.

During 2016, lifecell continued to implement socially responsible projects. lifecell was the first among Ukrainian telecommunication companies to implement a program of supporting its subscribers in emergencies abroad and in Ukraine. In 2015, the company launched a special social initiative, Care beyond the borders, aimed at supporting lifecell subscribers roaming in the countries where terrorist attacks, natural disasters and emergencies have happened. During 2016 lifecell supported more than 12 thousand subscribers in ten countries during terrorist attacks in Turkey, Belgium, Iraq, France and natural disasters in Ecuador, New Zealand, Italy, Japan, Indonesia, Trinidad and Tobago, providing more than 175 thousand outgoing and incoming minutes in roaming. In July 2016, lifecell became the first among Ukrainian telecommunication companies to sign a Memorandum with the Ministry of Foreign Affairs of Ukraine on cooperation to support Ukrainian clients of the company abroad.

lifecell universities is the socio-educational program of lifecell, aimed at creating a network of technical laboratories in leading Ukrainian universities. Mobile operator lifecell became the first in the Ukrainian telecommunications, to cooperate with leading technical universities by transferring telecommunication equipment and creating special technical labs for students. On April 2016 the company opened the first technical laboratory in the Institute of Telecommunication Systems (ITS) of the National Technical University s Igor Sikorsky Kiev Polytechnic Institute with an initial cost of UAH 10 million for the transferred equipment. ITS has three departments Telecommunications, Telecommunication Networks and Informational Telecommunication Networks where 471 students are studying. As of today, 102 students of Kyiv Polytechnic Institute are trained in the laboratories of lifecell universities program and gain practical knowledge.

The Ukrainian telecommunications market is regulated by the Cabinet of Ministers of Ukraine (main state policy), the State Service of Special Communication Administration (SSSC) (technical policy aspects) and by the NCCIR controlled by the President of Ukraine and which carries out general telecommunication market regulation and inspection.

In 2016 NCCIR approved an MTR decrease from UAH 0.23 to UAH 0.15 per minute starting from January 1, 2017. A further decrease of MTR rates with asymmetry implementation, reflecting operators cost, is hoped for in the coming years. This will stimulate competition on the Ukrainian market and will bring down competitive barriers, bringing real freedom for subscribers.

The Mobile Number Portability (MNP) Procedure and Technical Requirements have been prepared by the SSSC with the involvement of operators and adopted by state authorities. Tender for an MNP solution provider occurred on January 25, 2016. MNP was not launched in 2016 because the Antimonopoly Committee of Ukraine (AMCU) annulled the result of the UCRF 's initial MNP tender. There were several claims to the court and now

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lawsuits are still in process. Also the technological process of interaction between CDB and telecommunication networks and telecommunication networks between operators is not approved yet. So MNP introduction, intended to make the Ukrainian telecom market more competitive and transparent, was postponed to 2017.

In April 2016 LLC lifecell sold 811 towers to a subsidiary of Turkcell in Ukraine, Ukrtower LLC, and signed a tower lease agreement which allows lifecell to leaseback these assets.

Belarusian Telecom

On July 29, 2008, Beltel Telekomunikasyon Hizmetleri A.S. (Beltel) signed a share purchase agreement to acquire an 80% stake in CJSC Belarusian Telecommunication Network (Belarusian Telecom), which provides services using GSM and UMTS technologies, for a consideration of \$500 million. On August 26, 2008, control of Belarusian Telecom was acquired from Belarus State Committee on Property and \$300 million of the total consideration was paid. An additional \$100 million was paid in December 2009 and another \$100 million was paid in December 2010. An additional payment of \$100 million will be made to the seller when Belarusian Telecom records a full-year positive net income for the first time. For more information, see Note 27 (Other non-current liabilities) to our Consolidated Financial Statements.

At December 31, 2016, Belarusian Telecom had 1.599 million registered subscribers, the majority of which were prepaid, Belarusian Telecom's three-month active subscribers reached 1.214 million as of December 31, 2016 from 1.138 million as of December 31, 2015. Belarusian Telecom had 153 exclusive and 393 non-exclusive sales points. At December 31, 2016, Belarusian Telecom operated 2G and 3G services in all cities with a population of more than 10,000, and provided 2G services on all principal intercity highways and roads of Republic of Belarus, which corresponds to coverage of approximately 99,96% of the entire population of Belarus, or 97,7% geographical coverage.

In line with our strategic priority of improving our balance sheet structure, we have restructured the outstanding debt of Belarusian Telecom in 2015. As part of the restructuring, Belarusian Telecom's total existing intra-group loans were converted into a subordinated loan, provided directly by Turkcell. Following the restructuring, Belarusian Telecom's outstanding debt is BYN 3.3 billion (equivalent to TRY 5.6 million as of December 31, 2016) owed to financial institutions and a 612 million subordinated loan (equivalent to TRY 2,271 million as of December 31, 2016) owed to Turkcell as of December 31, 2016.

As of February 1, 2012, Mobile Number Portability was launched with a donor-initiated mechanism where subscribers who want to port their numbers had to apply to their existing operator, which was in favor of the dominant market players. In April 2014, the mobile number portability procedure was revised to a recipient-initiated mechanism. Popularity of the mobile number portability service has increased with the revision of the procedure. Belarusian Telecom has realized the highest port-in subscribers' count and net-add through Number Portability in 2016 compared to the previous years.

In Belarus, lack of pricing regulations in the wholesale and retail markets to prevent dominant operators' abusive pricing practices continued to have an adverse impact on our business.

In Belarus, the only LTE license is owned by JLLC Belarusian Cloud Technologies (beCloud) and beCloud is the only infrastructure provider for LTE services. All operators are expected to use beCloud's infrastructure to provide LTE services to their customers. beCloud's LTE infrastructure was only existing in Minsk during 2016 and they expanded their network in other oblast in December 2016. Belarusian Telecom provides LTE services on beCloud's infrastructure since August 2016.

Turkcell Kuzey Kibris

Kibris Mobile Telekomunikasyon Limited (Turkcell Kuzey Kibris), a 100% owned subsidiary of Turkcell, was established in 1999. As of December 31, 2016, Turkcell Kuzey Kibris had 0.5 million registered subscribers.

On April 27, 2007, Turkcell Kuzey Kibris signed a license agreement for the installation and operation of a digital, cellular and mobile telecommunication system with the Ministry of Communications and Public Works of the Turkish Republic of Northern Cyprus. The license agreement became effective on August 1, 2007 and replaced the previous GSM-Mobile Telephony System Agreement dated March 25, 1999, which was based on revenue-sharing terms. The new license agreement granted a GSM 900, GSM 1800 and IMT 2000/UMTS

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license, for GSM 900 and GSM 1800 frequencies, while the usage of IMT 2000/UMTS frequency bands was subject to the fulfillment of certain conditions. The license agreement is valid for 18 years from the date of signing. The license fee was \$30 million including VAT and financed by Turkcell Kuzey Kibris through internal and external funds.

On March 14, 2008, Turkcell Kuzey Kibris was awarded a 3G infrastructure license at a cost of \$10 million including VAT, which was paid at the end of March 2008.

In the third quarter of 2010, Turkcell Kuzey Kibris completed and began operating the radio transmission (airlink) project providing direct international voice and data connection to the mainland. The project is the only direct connection in the Turkish Republic of Northern Cyprus, aside from the Telecommunication Authority.

In 2012, Turkcell Kuzey Kibris acquired Internet Service Provider and Infrastructure establishment and operation licenses. Turkcell Kuzey Kibris applied for a right of way to major municipalities and the Ministry of Transportation (formerly known as Ministry of Transportation and Public Works which was separated into two authorities after the third quarter of 2015) in order to establish a national fiber optic infrastructure. On January 24, 2014, a protocol between Turkcell Kuzey Kibris and the Ministry of Transportation was signed for the right of way for highway sides. Total fiber optic infrastructure implementation reached 69 kilometers by the end of 2016.

The National Regulatory Authority started to decrease mobile termination rates gradually in 2014 and the decreases in 2016 which is around 71% from 0.10 TL to 0.03 TL.

The Ministry of Transportation reduced the call charges 41% for off-net calls as of January 1, 2015. These recent price regulations have a substantial adverse effect on our business. According to the requirements of Electronic Communications Law, prepaid lines were registered. In addition, technical infrastructure was completed for IMEI registrations IMEI numbers have been registered and continue to be registered since early 2016.

In the end of 2016, for the first time in communication industry in the world, Turkcell Group and Turkish Republic of Northern Cyprus lifecell, the new digital brand of Turkcell Kuzey Kibris, has transferred all terms of communication, voice and SMS, to its data-only digital world and launched a data -only package with digital services.

Turkcell Europe

Turkcell Europe GmbH (Turkcell Europe) was founded by Turkcell in 2010 as a mobile virtual network provider (MVNO) providing service over the T-Mobile (Deutsche Telekom AG) network. Headquartered in Cologne, Germany, Turkcell Europe commenced activity in March 2011.

Until the end of 2014, Turkcell Europe continued its operation as a MVNO and offered Turkcell s service quality across both Germany and Turkey not only to the people of Turkish origin living in Germany but also those who have close commercial contact with Turkey. Besides providing advantageous offers to those who call Turkey from Germany, Turkcell Europe always aimed to provide its customers in Turkey and Germany with a unique user experience. As of December 31, 2016, Turkcell Europe had 0,3 million registered subscribers.

In order to increase the efficiency of our operations in Germany, we made changes to the business model prior to the termination of the contract with Deutsche Telekom AG, which occurred in August 2014. The wholesale traffic purchase agreement, signed between Turkcell s subsidiary Turkcell Europe GmbH operating in Germany and Deutsche Telekom for five years in 2010, has been modified to reflect the shift in business model to a marketing partnership . The new agreement between our company and a subsidiary of Deutsche Telekom was signed on August 27, 2014. The

transfer of Turkcell Europe subscribers and operations to Deutsche Telekom's subsidiary was executed on January 15, 2015. The Marketing Partnership agreement is valid until January 15, 2018. Turkcell and Deutsche Telekom has a right to terminate or renew the Marketing Partnership after January 15, 2018.

Financell

Financell B.V. (Financell) is incorporated under the laws of The Netherlands and has its registered address in The Netherlands. It is established as an intermediate financing company that is wholly owned by Turkcell. Financell will borrow funds from third party lenders with or without a Turkcell guarantee to fund other Turkcell subsidiaries. The Board of Directors of Turkcell resolved to liquidate Financell on December 21, 2016.

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On October 1, 1999, we established Global Bilgi Pazarlama Danisma ve Cagri Servisi Hizmetleri A.S. (Turkcell Global Bilgi) in order to provide telemarketing, telesales, and call center services, particularly for Turkcell Group. In 2005, Turkcell Global Bilgi completed its transition from call center to contact center as Turkcell Global Bilgi started to manage customer contacts at every channel. Since then, in addition to providing services to Turkcell, Turkcell Global Bilgi started offering customer care services to companies in finance, retail, energy, public sector and the airline industry. In 2016, Turkcell Global Bilgi announced its presence as a Customer Experience Solution Center . By completing its business model transition from Customer Care to Customer Experience, Turkcell Global Bilgi started to analyze customer experiences deeper and gained a vast experience. As of December 31, 2016, Turkcell Global Bilgi employed 11,197 employees, of whom approximately 62% provide us with customer care and retention services, around 31% serve customers of other clients while the remainder work as administrative personnel. We own 100% of Turkcell Global Bilgi.

Turkcell Global Bilgi has owned a 100% share of Global Bilgi LLC since 2008, which operates in Ukraine and provides telemarketing, telesales and call center services. Global Bilgi LLC launched a branch office in Russia in April 2013, in order to maintain a presence in the Russian market by increasing business relations and development activities with current and potential customers.

Turkcell Global Bilgi has owned a 99% share of Global Bilgi FLLC since 2009, which was operating in Belarus to provide call center services. As of October 9, 2014, the liquidation process was finalized for Global Bilgi FLLC, which solely served our subsidiary Belarusian Telecom. Belarusian Telecom continues to perform call center operations in-house.

Inteltek

Inteltek Internet Teknoloji Yatirim ve Danismanlik Ticaret A.S. (Inteltek) offers information and entertainment services. Currently, Turkcell holds 55% of Inteltek through its wholly owned subsidiary Turktell Bilisim Servisleri A.S. (Turktell), while Intralot S.A. Integrated Lottery System and Services, a Greek company, holds 20% and Intralot Iberia Holdings S.A., a Spanish company, holds 25%.

Inteltek s business is currently operated under a contract entered into on August 29, 2008 with Spor Toto Teskilati A.S. (Spor Toto). The current contract is based on specific Turkish legislation relating to gaming enacted in 2008 and was entered into following numerous legal challenges to prior contracts. Under the current contract, Inteltek runs the sport betting business, iddaa, for a period of 10 years, effective as of March 1, 2009 and superseding a prior agreement. No assurance can be given that we will be able to renew this agreement on acceptable terms when it expires. Under this contract, Inteltek guaranteed a TRY 1,500 million turnover for the first year of the contract and has given similar guarantees for future years. The guaranteed turnover for the following years will be computed using producer price indices. Inteltek shall pay the guaranteed turnover difference (after deducting commission income) to Spor Toto if actual turnover is below guaranteed turnover. To date, actual turnover has exceeded that amount. In addition to the foregoing, Inteltek signed a mobile betting dealer agreement with Spor Toto on January 12, 2010, which gives it the right to operate 1,000 mobile terminals.

In the context of evaluating investment opportunities in neighboring countries, Azerinteltek Closed Joint Stock Company (Azerinteltek) was incorporated on January 19, 2010 in Azerbaijan and is 51% owned by Inteltek. Azerinteltek received authorization from the Ministry of Youth and Sport of the Republic of Azerbaijan and signed the Agreement with Azeridmanservis Limited Liability Company set under the Ministry of Youth and Sport of the Republic of Azerbaijan to organize, operate, manage and develop the fixed-odds and parimutuel sports betting

business in Azerbaijan for a period of 10 years. Azerinteltek started its operations, with the brand name Topaz , on January 18, 2011 and reached 476 agents as of December 31, 2016. Since January 1, 2013, Azerinteltek was authorized for the sales of lottery tickets as a main distributor by Azerlotereya.

Inteltek is the domestic market leader and is ranked among the most prominent operators in the international entertainment sector. Inteltek intends to continue to explore business opportunities both in Turkey and abroad in information and entertainment, or adjacent businesses.

According to resolution of Extraordinary General Assembly Meeting of Inteltek held on March 24, 2016, the shareholders resolved a capital decrease in the amount of TRY 20 million, reaching to TRY 10 million. The payment to the shareholders was executed on June 30, 2016.

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Turkcell Superonline

Superonline İletişim Hizmetleri A.S. (Turkcell Superonline) has a Fixed Telephony Services authorization, which allows the company to provide call origination and termination for consumers and corporations, as well as wholesale voice carrying services. It also has authorization to provide satellite communication services, infrastructure operating services, internet services and wired broadcasting services, and mobile virtual network operating services. Currently, the company carries the majority of Turkcell 's traffic, previously carried by Turk Telekom (the incumbent operator). Turkcell Superonline was founded in 2009 through the merger of our subsidiary Tellcom with the Superonline business acquired from the Cukurova Group.

Established to be an innovative telecom service operator and with its extensive international connectivity, Turkcell Superonline offers its international and national clients wholesale voice termination, international leased data lines, internet access, telehouse and infrastructure services. Furthermore, Turkcell Superonline is in the retail broadband market, bringing fiber optics to residences. Turkcell Superonline provides fast communication technology with its own fiber optic infrastructure in Turkey and provides telecommunication solutions to individuals and corporations in the areas of voice, data and TV.

Turkcell Superonline is a telecom operator providing fixed network communication solutions to telecom operators, corporations and households in the areas of data, voice and video. Bringing one of the world 's fastest internet services to Turkey through cooperation with major international operators, we carry on investing in order to transform the Silk Road into a Fiber Road by expanding our own infrastructure across Turkey with a fiber network stretching to every corner of the country. We believe that the group synergy arising from being a 100% subsidiary of Turkcell Group, along with our top quality services and our stated goals above sets Turkcell Superonline as a worthy candidate to become the most preferred service provider of choice .

We believe that Turkcell Superonline differentiates itself through its steadfast commitment to the quality of after-sale services. Turkcell Superonline supplies corporations with industry-leading service-level agreements utilizing its professional technical support personnel and highly qualified team of consultants. Turkcell Superonline has been awarded the ISO 9001:2008 Quality Management System Certificate from Bureau Veritas. Turkcell Superonline aims to become one of the leading innovative telecommunications operators in Turkey and it intends to continue to seize opportunities in the internet and telecommunications markets.

Turkcell Superonline won the tender of BOTAS, Turkey 's state-owned pipeline company, for the indefeasible right to use the capacity of the fiber optic cables already installed by BOTAS for 15 years in 2009, including the right to install additional fiber optic cables and the right to use the capacity of these fiber optic cables during the same period. This transaction has been considered as a finance lease as the lease term is for the major part of the remaining useful life of the fiber optic cables already installed by BOTAS and Turkcell Superonline made a significant investment during the initial period of the lease agreement which is an indicator that the transaction is a finance lease. The recognized cost of the indefeasible right of use as of December 31, 2016 is TRY 46.0 million (December 31, 2015: TRY 42.1 million).

Turkcell Superonline began to provide 1000 Mbps service to homes in May 2011 for the first time in Turkey in line with the Turkcell Group 's strategy to provide state-of-the-art technology for its customers with top-quality service. Turkcell Superonline has rendered Turkey as one of the first five countries in the world where a 1000 Mbps connection is provided to homes thanks to this service option. Turkcell Superonline is the fiber market leader and exceeded 1 million fiber customers as of December 31, 2016.

On August 12, 2011, Turkcell Superonline signed a share purchase agreement to acquire a 100% stake in Global Iletisim, which is specialized in providing internet and telecommunications services. In November 2011, the control over Global Iletisim was acquired from Yildiz Holding A.S. for a consideration of TRY(0.8) million. Turkcell Superonline and Global Iletisim merged on March 30, 2012.

On March 7, 2013, Turkcell Superonline signed a share purchase agreement to acquire a 100% stake in Deksarnet Telekomunikasyon A.S. (Deksarnet) which is an affiliate of Vestel Elektronik San. ve Tic. A.S. Group. In July 2013, the control over Deksarnet was acquired from Vestel Elektronik San. ve Tic. A.S. Group for a consideration of TRY 3.4 million. Turkcell Superonline and Deksarnet merged on December 3, 2013.

On January 31, 2014, Turkcell Superonline signed a share purchase agreement to acquire a 100% stake in Metronet Iletisim Teknoloji A.S. (Metronet). In April 2014, the control over Metronet was acquired from Es

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Mali Yatirim ve Danismanlik A.S. for a consideration of TRY 27 million. Turkcell Superonline and Metronet merged on July 4, 2014. With this acquisition, Turkcell Superonline's fiber in-city coverage increased to 14 cities, up from the existing 12.

As of December 31, 2016, Turkcell Superonline has 37,154 km of fiber backbone covering 79 major cities in Turkey and has 11 border crossings. Turkcell Superonline has fiber in-city coverage in 18 cities and increased its homepasses to around 2.7 million as of December 31, 2016 from around 2.4 million a year ago. We have five border crossings to Europe, offering various diversity options to important European cities through protected and completely diverse routes. With our stable fiber infrastructure and six border crossings to the East, we offer capacity services through Middle-East, CIS and Asia. Our next generation network designed over this strong infrastructure enables us to deliver high quality solutions to telecom operators, multinational and national private corporations and the governmental institutions.

With the target of transforming Silk Road into Fiber Road, Turkcell Superonline has been taking important steps to develop İstanbul into the world's newest Internet base due to its geostrategic location. Accordingly, the company provides a bridge between east and west, which supplies a continuous connection with the partnerships with the Tier-1 operators and strategic partners between Asia, the Middle East and Europe such as RCN (Regional Cable Network). Today, we provide telecom services to more than 70 international operators including Tier-1 companies. Currently, we carry more than 3.5 Terabits of international traffic.

Turkcell Superonline aims to continue to invest in and expand its own fiber optic network and further utilize the group synergy created with Turkcell. The Company intends to continue to take advantage of business opportunities within the broadband industry in 2017.

Turkcell Superonline merged with Turkcell Interaktif Dijital Platform Icerik Hizmetleri A.S. on December 28, 2016 (Turkcell Interaktif). Following the merger, Turkcell Interaktif was deregistered from Istanbul Trade Registry.

Global Tower

Kule Hizmet ve İşletmecilik A.S., (Global Tower) was established in 2006 as a 100% subsidiary of Turkcell and commenced its operations in 2007 to provide infrastructure management by leasing places on towers to private and public entities and institutions. It is the first and only tower company in Turkey and fifth largest tower company in Europe. In addition to Turkey, it has operations in Ukraine, Belarus and the Turkish Republic of Northern Cyprus. Today, it serves not only Mobile Network Operators (MNO) but also broadcasting, ISPs, energy, public institutions and other related industries. Its 100% owned subsidiary in Ukraine, UkrTower LLC, was founded in 2009 and its 100% owned subsidiary in Belarus, Beltower LLC, was founded in 2016.

Global Tower operates a unique portfolio of more than 10,000 towers, 8,000 of which are located in Turkey. In addition to this tower portfolio, it also provides service through over 100 mobile towers. Global Tower provides fast and high-quality service to its customers in collaboration with its business partners.

In April 2016, UkrTower, a 100% subsidiary of Global Tower acquired 811 towers from Lifecell, increasing its tower portfolio in Ukraine to 1,201 (including seven mobile tower units and 14 DAS (in-building systems), and excluding 36 dormant towers in the Crimea region). In addition, in Belarus, on October 3, 2016, Global Tower executed a right of use agreement with Belarusian Telecom, for the right to use regarding 767 towers among the 830 towers owned by Belarusian Telecom. The negotiations for the remaining towers are still ongoing. An assessment processes for a potential sale and lease-back arrangement relating to the towers in Belarus in currently ongoing. In Northern Cyprus, Global Tower executed an agreement with Kibris Telekom for a right-of-use arrangement relating to 115 towers

owned by Kibris Telekom.

In Turkey, Global Tower manages the processes of renting, maintaining and installing towers in 11 structured regions with its 5 solution partnerships. With this structure, the distance between any two service points in Turkey is less than 90 km.

Global Tower helps customers expand their network, peer-to-peer telecommunications and it provides broadcasting field infrastructure solutions, turnkey setup services and professional operation-maintenance services. With its project management, field rental, construction works, telecommunications equipment setup and ready-for use field delivery solutions, it helps private and public institutions reach more customers.

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Global Tower's wide product range consists of:

Shared infrastructure services in tower/rooftop/in house fields

TV-Radio infrastructure solutions

E2E and wind power infrastructure solutions

M2M / Scada / Telemetry Infrastructure Solutions

GSM-R Solutions

Mini Data Centre Infrastructure Solutions

Mobile Tower Solutions

Acclimatized System Room Solutions

Energy infrastructure solutions

Hybrid Systems Solutions (Solar / Wind)

Infrastructure Maintenance and Operation Services

Field Acquisition and Contract Management Services

Beltower, which is 100% subsidiary of Global Tower has been established in Belarus and a right of use agreement has been signed with Belarusian Telecom.

The Turkcell Board of Directors decided to initiate an initial public offering (IPO) of Global Tower's shares in June 2016. However, due to adverse macroeconomic conditions in the markets, the IPO has been postponed.

Turkcell Teknoloji

Turkcell Teknoloji Arastirma ve Gelistirme A.S (Turkcell Teknoloji), a wholly owned subsidiary of Turkcell, commenced operations in 2007 in the TUBITAK Marmara Research Center Technological Free Zone in Kocaeli,

Turkey. In 2015, Turkcell Teknoloji consolidated its operations in Kucukyali Technology Plaza, Maltepe, Istanbul, Turkey. Turkcell Teknoloji's new R&D center employs more than 700 researchers (excluding part-time employees) who have been accredited by the Ministry of Science, Technology and Industry. Turkcell Teknoloji's established team of experts develops a wide range of convenient and reliable solutions with innovative roadmaps. Through integrated intelligence and high-performance core capabilities, (Big Data Analytics, SIM, Network, IoT), Turkcell Teknoloji's comprehensive portfolio addresses the following domains: SIM asset and services management, location-based services, new generation value-added services, roaming solutions, big data processing, business intelligence applications, CRM solutions, sales force solutions, network management, mobile finance, terminal applications, cloud solutions, mobile marketing, internet of things (IOT), revenue management solutions and campaign management solutions.

Turkcell Teknoloji has been continuing to export technology and software to CIS, Europe, Middle East and Africa. The Turkcell Teknoloji Campaign Management System is deployed and used in five countries and Roaming Solutions are used in 10 countries. In 2016, Turkcell continued to expand its customer base, which are spread out in 13 countries, and looked for the new opportunities to implement its product catalogue with newly added products.

To ensure a permanent competitive edge and value for its solutions, Turkcell Teknoloji cooperates with a wide network of national and international R&D companies, universities and research centers and plays an active role in international R&D programs. With the goal of being Turkey's leading R&D and innovation base, Turkcell Teknoloji demonstrates the value it attached to innovation with its increasing number of patents each year. In 2016, the Turkcell Teknoloji R&D Center submitted over 275 new national and 23 international patent applications. As of December 31, 2016, Turkcell Teknoloji has 788 national and 79 international patents applications and 194 granted patents. Turkcell Teknoloji's IPR performance is among the top three in Turkey and it has over 37 TUBITAK (The Scientific and Technological Research Council of Turkey) supported projects, of which 12 are currently running.

Turkcell Finansman A.S.

Turkcell Finansman A.S. (Turkcell Finansman), a wholly owned subsidiary of Turkcell, was established on October 22, 2015 with the approval of the Banking Regulation and Supervision Agency (BRSA -the

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financial institutions regulator in Turkey) in order to provide financial solutions to its customers such as consumer loans. The company has commenced operations in February 2016 after receiving BRSA's operational permission.

Turkcell Finansman was launched nationwide in March 2016 in order to provide effective financing solutions to its customers with a prudent risk management. To ensure a permanent competitive edge and value for its solutions, Turkcell Finansman cooperates with a wide network of Turkcell point-of-sales.

To finance its operations, Turkcell Finansman's first borrowing was made on May 2016. In December 2016, it issued its first debt security, a 174 day commercial paper with a nominal amount of TRY 250 million and on February 27, 2017, Turkcell Finansman issued 179 day commercial paper amounting TRY 150 million. Fitch Ratings has assigned Turkcell Finansman A.S (TFS) BB+ Foreign and Local Currency Long-Term Issuer Default Ratings (IDRs) and AA(tur) National Long-Term Rating. In order to diversify its borrowing portfolio, Turkcell Finansman will also resort to other funding alternatives. It has applied to Capital Markets Board of Turkey (CMB) to issue asset-backed securities for up to TRY 100 million.

Turkcell Finansman's number of customers reached 1.7 million as of December 2016. As of year-end 2016, TRY 2.5 billion of consumer loans had been made.

Turkcell Odeme ve Elektronik Para Hizmetleri A.S.

Turkcell Odeme ve Elektronik Para Hizmetleri A.S. became operational as of March 2015 to create a convenient payment solution for users and to offer them a streamlined shopping experience under the brand name Paycell.

In August 2016 Odeme ve Elektronik Para Hizmetleri A.S has acquired a Payment Service Provider License from the BRSA and became the first MNO subsidiary having this license in Turkey. With its new brand Paycell, Turkcell expanded its merchant network and reached over 2,000 merchants by implementing easy and secure payment methods to new areas such as mobile app stores, restaurant chains, parking lots, transportation services, physical goods and airport fast track services.

Lifecell Ventures

Lifecell Ventures Cooperatief U.A. (formerly named Beltur Cooperatief U.A.) is incorporated under the laws of The Netherlands and has its registered address in The Netherlands. The main objective of the company is to provide, manage, sell or resell any kind of communication services regardless of the media or technology upon which such services are provided and to own, provide, develop, or operate any related software for providing such communication services. Its main mission is to focus on providing over-the-top (OTT) services globally, growing existing Turkcell Group's value added services and making strategic alliances. Lifecell Ventures will provide all types of communication services and cooperates with a wide network of national and international companies in order to provide cutting edge OTT solutions with real experience of connectivity to their customers.

In line with Turkcell Group's strategic priority of improving our business in both international and domestic markets and increasing our regional and global relevance through OTT products and services, Lifecell Ventures is responsible for delivering global OTT services and expanding Turkcell Group's footprint by launching new offerings, accelerating the company's owned OTT activities, growing current services and making strategic alliances.

As of December 31, 2016, Turkcell's integrated communication application BiP, which reached 11 million downloads globally, has started to be listed as a product of Lifecell Ventures Cooperatief U.A. in the application markets.

Turkcell Satis ve Dagitim Hizmetleri A.S.

Turkcell Satis ve Dagitim Hizmetleri AS (Turkcell Satis) offers unique experience to their customers and sell telecommunication and IT products through flagship and also provide wide variety of products via website www.turkcell.com.tr. In 2016 Turkcell Satis started to sell equipment to other entities as corporate sales. In addition, since Turkcell Satis is experienced in the sector, it also acts as an intermediary between producer and distributors to support the determination of products, pricing, amount to be sold, sales support components and management of their inventory.

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Assets Held for Sale

Fintur

Turkcell holds a 41.45% stake in Fintur, which holds interests in mobile operations in Azerbaijan, Georgia, Kazakhstan and Moldova.

Telia Company, which is one of our major shareholders and also our partner in Fintur through a 58.55% stake, announced on September 17, 2015 that it had initiated a process in relation to its Eurasian assets with the ultimate aim of a complete exit. In line with our growth strategy in the region, and as the minority shareholder in Fintur (which includes assets in Kazakhstan, Azerbaijan, Georgia and Moldova), on February 26, 2016, we submitted a binding offer for the remaining 58.55% stake of Sonera Holding B.V. in Fintur that we do not own and Telia Company's 24% direct stake in Kcell operating in Kazakhstan. However, the negotiations were inconclusive. Following an assessment of our strategic options regarding our stake, we have announced our intention to exit from jurisdictions in which Fintur operates and initiated an active program to locate a buyer for our stake. We have classified Fintur as held for sale and reported as discontinued operations.

As of March 2017, Fintur companies include Azercell, Geocell, Kcell and Moldcell.

Equity Accounted Investments

A-Tel

On August 9, 2006, Turkcell acquired 50% of A-Tel's shares. A-Tel was a joint venture. Our whole stake in A-Tel was sold to Bereket Holding A.S. (formerly known as Bilgin Holding) for a consideration of TRY 31 million in 2014.

X. Potential Investments

Our efforts to selectively seek and evaluate new investment opportunities continue. These opportunities may include the purchase of new licenses and the acquisition of existing companies as well as alternative business models such as management contracts, marketing partnerships or other forms of cooperation both inside and outside of Turkey, focusing on communications, technology and adjacent and new business opportunities. In addition, we may provide services in related areas and also consider investing or increasing our investments in business areas outside of the scope of our core business. Our international expansion strategy focuses on key emerging markets, mainly in the C.I.S. Region, Eastern Europe, the Balkans, the Middle East and Africa. Furthermore, we may evaluate expanding into other Western European countries where there is a sizeable Turkish community through wholesale partnerships or alternative cooperative business models.

Our M&A strategy is based on evaluating opportunities in markets where there is cultural and geographical alignment, a balanced portfolio of fixed and mobile infrastructure and EBITDA contribution to Turkcell.

Turkcell has classified Fintur as held for sale and reported as discontinued operations as of October 1, 2016. The Group is committed to plan to exit from Fintur.

XI. Disclosure Pursuant to Section 219 of the Iran Threat Reduction and Syria Human Rights Act of 2012 (ITRA)

Based on our information and the information provided to us by our affiliates, as of the date of this annual report, we believe that certain of our business activities in Iran in 2016, and the business activities of certain of our affiliates, are subject to disclosure pursuant to ITRA Section 219.

During the year ended December 31, 2016, Turkcell and lifecell had international roaming relationships with the following companies in Iran and Syria: MTN Irancell, Taliya Iran, KIFZO and Rightel and Syriatel and MTN Syria. During the year ended December 31, 2016, Turkcell and lifecell had gross revenues of approximately TRY 847,500 attributable to these agreements. Turkcell has developed an OTT product called BiP which is available for download online for free. The Company believes that there have been downloads from within Iran, which have generated no revenue or profits.

Turkcell has voice interconnection agreements with Tadbir Ertebatat-E-Sigma (Sigma LLC). During the year ended December 31, 2016, gross revenues attributable to were approximately TRY 20 million.

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Turkcell Superonline provided Transit IP and leased line services through network interface agreements with Telecom Infrastructure Company of Iran (TIC). During the year ended December 31, 2016, gross revenues attributable to these agreements were approximately TRY 9.1 million. Furthermore, Turkcell Superonline has a business relationship with Teleka Maedeh Co. (Telecom Idea) based in Iran. For the year 2016 the services received from this company generated no revenues.

We have made enquiries of our major shareholders regarding activities in Iran and Syria. TeliaSonera has also informed us that TeliaSonera Region Europe has bilateral roaming agreements with MCI Iran, TCI Mobile Company of Iran, MTN Irancell, KIFZO, Rightel Iran and MTN Syria, Syriatel. During the year ended December 31, 2016, TeliaSonera Region Europe had gross revenues from these relationships that were reported to us of approximately 34,370.

Furthermore, Telia Carrier AB of Sweden provides IP Transit Services via ports located outside of Iran pursuant to a license issued by the Office of Foreign Asset Control, U.S. Department of Treasury, and provides IP Transit Services (i.e., wholesale Internet access) to and exchanges international telephony traffic with the TIC. During the year ended December 31, 2016, gross revenues and net profits attributable to these business relationships were approximately 273,950 and 172,500, respectively.

TeliaSonera has also informed us that certain Fintur companies had revenues under roaming agreements in Iran in 2016 with the following GSM operators: Mobile Company of Iran (MCI), MTN Irancell, Taliya Iran, Telecommunication kish Company (IRNKI), Rafsanjan Industrial Complex (Coop) (IRNRI), Rightel, MTN Syria and Syriatel. During the year ended December 31, 2016, revenue and net profits reported to us by the Fintur companies were of approximately \$138,337.47 and \$59,145.11, respectively. In addition, during the year ended December 31, 2016, we understand that Tcell (Tajikistan) and Ucell (Uzbekistan) had gross revenues totaling approximately \$13,656.37 and net profits of approximately \$13,225.97.

Although it is difficult to do with a reasonable degree of certainty, we have concluded that our Iranian business partners described in this section may be owned or controlled indirectly by the Government of Iran. However, to our knowledge, none of the services provided by Turkcell and our affiliates in Iran described in this section have been used by the Government of Iran to commit serious human rights abuses against the people of Iran. Furthermore, we understand that the U.S. Department of the Treasury s Office of Foreign Assets Control has issued a general license authorizing U.S. persons to engage in certain of the activities described in this section. We, and our affiliates, intend to continue the activities described in this section in 2017.

XII. Regulation of the Turkish Telecommunications Industry**a. Overview**

All telecommunications activity in Turkey is regulated by the ICTA. The Electronic Communications Law No. 5809 (the Electronic Communications Law), which came into force on November 10, 2008, is the principal law governing telecommunications activity in Turkey. The Electronic Communications Law was published to correspond to the rapidly-evolving Turkish telecommunications industry, and all secondary regulations have been updated to be in accordance with this law. The duties of the ICTA, which may be exercised in a manner that is adverse to our operations and our financial results, include those described below.

b. ICTA

The ICTA has the authority to grant licenses and set fees in the electronic telecommunications industry.

According to Article 8 of the Electronic Communications Law, electronic communications services are rendered and/or established (as in the case of an electronic communications network or infrastructure) and operated following the authorization made by the ICTA. Authorization is granted either through notification made in accordance with the principles and procedures determined by the ICTA, in cases where scarce resource allocation is not necessary, or by the granting of usage rights, in cases where scarce resource allocation is necessary (allocation of frequency, satellite position, etc.). Under the Electronic Communications Law, usage rights may be granted for up to 25 years; however, there is no clause relating to the term of notification. According to the Electronic Communications Law, the principles and procedures relating to the notification and granting of usage rights shall be determined by the ICTA through secondary regulations.

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On the other hand, in cases where the quantity of rights of use is limited, Section 9-6(a) of the Electronic Communications Law allows the Ministry of Transport, Maritime Affairs and Communications to determine the criteria, such as (i) the authorization policy regarding electronic communications services which cover the assignment of satellite position and frequency band on a national scale and which need to be operated by a limited number of operators, (ii) the starting date of the service, (iii) the duration of the authorization and the number of operators to serve. While the criteria are determined by the Ministry of Transport, Maritime Affairs and Communications, the authorization is still granted by the ICTA.

Under Article 51 of the Electronic Communications Law, the ICTA was authorized to determine the principles and procedures related to the process of personal data and protection of privacy and has published Regulations on the Protection of Privacy and Processing of Personal Data . With its decision rendered on April 9, 2014 and published in the Official Gazette on July 26, 2014, the Turkish Constitutional Court decided that Article 51 of the Electronic Communications Law is a violation of Article 20(3) of the Constitution, which stipulates data protection as a constitutional measure and that the measures should be regulated by the laws and therefore annulled the aforementioned provision (Article 51). The Article 51 of the Electronic Communications Law, which was repealed by Turkish Constitutional Court, was amended and came into force on April 15, 2015. In the amended Article 51, the main principles of recording and sharing subscribers personal data are defined in general and ICTA is authorized again to determine the procedures and principles related to the process of personal data and protection of privacy; however such regulation has not been published so far.

The Electronic Communications Law establishes legal principles and broad policy lines that the ICTA must follow, some of which are stated below:

Creation and protection of a free and efficient competitive environment.

Protection of consumer rights and interests.

Protection of the objectives of development plans and Government programs as well as the strategies and policies set by the Ministry.

Promotion of implementations that ensure that everyone can benefit from electronic communications networks and services.

Ensuring non-discrimination among subscribers, users and operators under fair conditions.

Ensuring the conformity of electronic communications systems to international norms.

Protection of information safety and communication confidentiality.

The Electronic Communications Law also specifies general rules and principles relating to interconnection between operators. Agreements for interconnection are publicly available, but precautions are taken by the ICTA to protect

commercial secrets of the parties.

The law entitled Universal Services and Amending Some Laws, Law No. 5369, determines the procedures and principles governing the provision and execution of universal service and the procedures and the rules relating to the fulfillment of universal services in the electronic communications sector, a universal public service that is financially difficult for operators to provide (and performance of a universal service obligation in the electronic communications sector). In accordance with Law No. 5369, the scope of universal services is determined periodically by the Council of Ministers, which will not exceed three years.

The legislation designates the following as universal services: fixed-line telephony services, public pay telephones, telephone directory services to be provided in printed or electronic environments, emergency call services, internet services, passenger services to residential areas where access is provided by sea and sea communication and sailing safety communication services.

This law mandates that designated operators must provide universal services and the General Directorate of Communication can demand that operators provide universal services on a national and/or geographical basis. Turk Telekomunikasyon A.S. and the GSM operators are currently designated as universal services providers.

The Cabinet of Ministers Decision No. 27984 and dated July 4, 2011 allowed the use of the universal service fund to extend the mobile GSM network coverage listed in the annex of the decision to uncovered areas with a population of 500 or less. On February 13, 2013, we were appointed as universal service provider after a tender process and the related contract was signed on February 20, 2013. Under the aforementioned contract,

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Turkcell duly carried out its undertakings for installing sufficient infrastructure to cover 1,799 rural locations and the investment and operating expenses are compensated by the universal service fund of the Ministry of Transport, Maritime Affairs and Communications. This contract was recently renewed until December 31, 2018 31.12.2018 and to add mobile broadband services to the existing infrastructure providing GSM services under Universal Service Law and to operate the new and existing networks together.

The Electronic Communications Law also specifies general rules and principles relating to tariffs. Pursuant to the Electronic Communications Law, operators may freely determine the tariffs they apply in compliance with the relevant legislation and the ICTA arrangements. In the event of determination of the significant market power of the operator, the ICTA may determine the method of the approval, tracking and auditing of the tariffs. It may also determine the lower and upper limit of the tariffs and principles and procedures of the application of the same.

The Electronic Communications Law provides basic guidelines for the tariffs and pricing and thus leaves the detailed rules and enforcement to the ICTA. According to the law:

(1) The tariff may be determined as one or more subscription fees, fixed fees, call charges, line rentals, and similar fee items.

(2) Tariffs to be imposed in return for providing any kind of electronic communications services shall be subject to the following provisions:

(a) Operators shall freely determine the tariffs under their possession, provided that they comply with the regulations of the ICTA and the relevant legislation.

(b) If an operator is designated as having significant market power in the relevant market, the ICTA shall be entitled to determine the procedures regarding the approval, monitoring and supervision of tariffs as well as the highest and lowest limits of the tariffs and the procedures and principles for the implementation thereof.

(c) If an operator is designated as having significant market power in the relevant market, the ICTA shall be entitled to make the necessary arrangements to prevent anti-competitive tariffs such as price squeezing and predatory pricing and to supervise the implementation thereof.

(3) Procedures and principles pertaining to the implementation of this article, submission of tariffs to the ICTA and publishing and announcing them to the public shall be determined by the ICTA.

According to this regulation, the ICTA may intervene in the structure of our tariffs or may impose certain criteria relating to the revision of our tariffs. Pursuant to its decision dated December, 2005, the ICTA designated Turkcell as having Significant Market Power in the Mobile Access Call Origination Market while all three operators were designated as having Significant Market Power in Mobile Call Termination Market. As a result of the significant market power designation in the Mobile Access and Call Origination Market, our Company is obliged to provide access and call origination services to other operators such as MVNOs and Directory Services Operators on a cost-based basis, while competitors can set their prices freely on commercial basis. Being an operator designated as having Significant Market Power in the Mobile Access and Call Origination Market may have the effect of reducing the rates that we can charge other operators, such as MVNOs, which would have a material adverse effect on our business and results of operations. We cannot estimate the impact of such designation as there are currently no MVNOs in the market. Based on the ICTA's market analysis for the 2012-2015 period, Turkcell was designated as the only operator with Significant Market Power in the Mobile Access and Call Origination Market. Currently the Mobile Call Termination Market and Mobile Access and the Call Origination Market are being analyzed by the ICTA. Upon

the renewal of market analyses, operators having the Significant Market Power will be determined. Public consultation documents regarding Mobile Market Analyses were published at the end of 2016 and are expected to be finalized within the first quarter of 2017.

c. Regulation on Quality of Service in the Electronic Communications Sector

The ICTA abolished the Regulation On Quality of Service (issued in 2005), and published a new Regulation On Quality of Service in the Electronic Communications Sector, effective as of December 31, 2011 and applicable to all operators that provide service to end users, which sets out the procedures and principles to control the conformity of the services of operators. Mobile telephone operators are required to meet

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new service quality requirements and submit a report based on these requirements every three months to the ICTA. Additional requirements for service quality must be fulfilled. If the operators fail to reach these requirements more than once, this may result in the imposition of penalties. The results of quality measurements can also be made publicly available.

d. Regulation on Administrative Fines, Sanctions and Precautions in the Electronic Communications Sector

The ICTA abolished the Regulation on Administrative Fines to be imposed on the operators (issued in 2004) and published a new Regulation on Administrative Fines, Sanctions and Precautions to be imposed on operators, effective as of February 15, 2014. The ICTA retains the right to impose fines in the event an operator submits incorrect or misleading documents or fails to submit documents as requested by the ICTA; does not submit such documents in a timely manner; does not permit inspection or audits to be made by the ICTA; uses unpermitted equipment or equipment not complying with standards or alters technical features of equipment; or does not pay fees arising from its use of licenses and frequencies; does not meet the regulations regarding numbering, number portability, access and interconnection, end-user tariffs, consumer rights, data protection, national security and public order, service quality and such or does not comply with the provisions of license agreements, telecommunications licenses and general authorizations or the legislation. The ICTA is authorized to impose sanctions and precautions as well as administrative fines.

e. Regulation on Authorization regarding the Electronic Communications Sector

In 2009, the ICTA published the Regulation on Authorization regarding the Electronic Communications Sector , which determines the principles and procedures for the authorization of the companies that seek to provide electronic communication services and/or to install or operate electronic communications networks or infrastructure. In 2016, there have been major amendments to aforementioned Regulation. According to the amendments:

1. The operators authorized with the limited usage right authorization may sell devices, make installations, carry out maintenance or give consultation if it is related to or necessary for its field of activity. As a result of this amendment, Turkcell will be able to sell devices in relation with electronic communication services.
2. The companies which apply to ICTA to be authorized should have paid the minimum amount of paid capital set by ICTA. The operators authorized before the amendment of the Regulation are also liable to meet this condition. According to ICTA, the operators authorized to provide Public Access Mobile Radio Service should have minimum paid capital amounting to TRY 250.000 and the operators granted with other authorization types should have minimum paid capital amounting to TRY 1.000.000.
3. All operators should have the consent of ICTA before the transfer, acquisition or any other transaction regarding 10% or more of their shares. The operators authorized with limited usage right should also notify ICTA within two months at the latest in case of a transfer, acquisition or any other transaction of their shares up to 10%.
4. The operators should provide free call center services, which was not an obligation in the former Regulation.

5. The operators should keep the traffic data of their customers for two years, which was set at one year in the former Regulation.
6. In case of an amendment to the documents regarding the employees of the operators (including employee list) which are submitted previously to ICTA, the operators are liable to notify ICTA of the amendments.
7. ICTA is entitled to decline the applications of authorization and inspect the operators to confirm the accuracy of the information and documents submitted during the application of authorization.

In addition to the amendments of the abovementioned Regulation, the ICTA decision on Procedures and Principles Regarding the Usage of Caller Line Identification (CLI) has been published and the liabilities of the operators have been increased.

f. Regulation on Mobile Number Portability (MNP)

Pursuant to Article 32 of the Electronic Communications Law, operators are required to supply operator number portability.

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MNP allows subscribers to keep their existing telephone number when changing their telephone operator, their physical location or current service plan. These regulations became operational in the fourth quarter of 2008. Since we believe the MNP regulations conflict with our rights under our license agreement, without due compensation, we filed a lawsuit in 2007 for the cancellation of the MNP regulation. While we do not object to the substance of mobile number portability, we do, however, believe that our rights under our license agreement should remain protected or, if they are violated, we should be justly compensated. The Court rejected the case in June 2009 and we appealed the decision. The Plenary Session of the Chambers for Administrative Cases approved the court decision. We applied for the correction of the decision and this process is still pending. In 2009, the ICTA issued a new Regulation on MNP, abolishing the 2007 regulation and amended some Articles of this Regulation in November 2015. For new subscriptions, subscribers of mobile operators cannot port out to another operator in the first three months if the line has not been transferred to another subscriber.

g. Regulation on Security of Electronic Communications

In 2008, the ICTA published the Regulation on Security of Electronic Communication, which determines the principles and procedures for precautions to be taken by the operators for eliminating or derogating the risks caused by threads or weaknesses of (i) the physical area of the operators, data, hardware/software security and reliability, and (ii) sustaining the reliability of human resources. In accordance with the regulation, our Company is required to comply with TS ISO/IEC 27001 or ISO/IEC 27001 standards. Turkcell was the first mobile operator in Turkey to receive the ISO/IEC 27001:2005 certification for its Network Operations function in 2008 covering all operations throughout Turkey. In 2011, Turkcell's IT function was also certified for ISO/IEC 27001:2005 and Turkcell's ISO/IEC 27001:2005 scope became one of the largest among telecommunication operators in Europe. In 2015, the Information and Communications Technology and Network departments successfully passed ISO 27001:2013 audits and were deemed to be in compliance with ISO 27001:2013 version. By having an ISO/IEC 27001:2013 certificate covering telecom infrastructure operations, Turkcell fulfils its regulatory obligations and offers its customers the benefits of an internationally-recognized secure management of operations and services. In July 2014, the ICTA repealed the above regulation and published the Regulation on Security of Network and Information in Electronic Communication Sector which requires the Company to set up and maintain a specialized team to detect, prevent and report all cyber events and work in coordination with the National Cyber Event Reaction Center, in addition to the abovementioned obligations.

h. Turkish Competition Law and the Competition Authority

In 1997, the Competition Law (No. 4054) established a Competition Board. The Competition Board consists of seven members who are appointed for a term of six years and one-third of the Board members are renewed every two years. It is an autonomous authority with administrative and financial independence established to ensure effective competition in markets for goods and services.

The Competition Board can carry out investigations, evaluate requests for exemptions, monitor the market, assess mergers and acquisitions, submit views to the Ministry of Industry and Trade and perform other tasks stipulated by the Competition Law. The ICTA can apply to the Competition Board if it determines that agreements regarding access, network interconnection and roaming violate the Competition Law.

Any person or legal entity may file a complaint with the Competition Board. The Competition Board can take necessary measures to prevent violations and may impose fines on those who are liable for such prohibited practices. The Competition Board may impose fines of up to 10% of the annual gross income of the operators, which is constituted by the end of the previous financial year and determined by the Competition Board. The ICTA and the Competition Board entered into a Protocol on Cooperation in 2002, followed by a new Protocol in 2011. The original

Protocol established a framework whereby the ICTA and the Competition Board can cooperate on legal actions and policies regarding measures, regulations and inspections that affect competition conditions and competition in the telecommunications sector. The new Protocol regulates the mechanisms to improve cooperation between the ICTA and the Competition Board.

i. Regulation on the Establishment of Metropolitan Municipalities in Fourteen Provinces and of Twenty-Seven Districts and Amending Certain Laws and Decree Laws

The Law No. 6360 on the Establishment of Metropolitan Municipalities in Fourteen Provinces and of Twenty-Seven Districts and Amending Certain Laws and Decree Laws was published in the Official Gazette on December 6, 2012 and enacted on March 30, 2014 through municipal elections. The Law, increasing the number of metropolitan cities from 16 to 30, dissolves the legal entity of villages and special provincial administrations

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in cities where there are metropolitan municipalities. By the amendment of the Law for Metropolitan Municipalities, the number of metropolitan municipalities increased and the borders of some metropolitan municipalities were extended. After this amendment, the ICTA increased our coverage obligations, defined in our concession agreement, by its decision, based on this law amendment which requires us to make material capital expenditures. We filed a lawsuit for the stay of execution and cancellation of the ICTA's aforementioned decision. The Council of State granted a motion for the stay of execution of ICTA's aforementioned decision. The ICTA objected to this decision. The objection was also rejected in favor of Turkcell. The case is still pending. Since then the ICTA has been working on a new regulation aligned with the law no. 6360.

j. Regulation on Base Station Implementation in Electronic Communication Sector

In 2012, according to Law no 6360 and Municipality Law No 5393, the Metropolitan Municipalities were authorized to give site selection certificate to the BTS considering the requirements of city and building aesthetics and electronic communication services. In the relevant legislation, the certificate fee to be paid for the site selection certificate. However, the secondary legislation which determines the specific details such as fees and the application process relating the certification has not entered into force. This may lead to additional certificate fees and operational costs, such as permission processes for implementation of base stations, which may take longer.

In the meantime the Ministry of Environment and City Planning has prepared a draft document in order to regulate the implementation of telecommunication infrastructure underground. They will gather comments from the related parties, such as mobile and fixed network operators.

k. Zoning Law and Construction Certificate Requirement of Base Stations

The Supreme Court of Appeals rescinded the regulation regarding the base stations exemption from getting construction permits in the zoning law on October 1, 2009. The existing zoning law in Turkey requires mobile operators to obtain construction certificates for all existing and new base stations, resulting in the shutdown of some stations for which certification cannot be obtained. In Turkey, nearly half of the premises were built illegally without any permission. As a result, some municipalities started taking legal action such as affixing seals to suspend the construction or demolition orders against base stations, negatively affecting our coverage, quality of service and customer experience. We have also taken legal action requesting nullity of those acts. In addition, studies for altering zoning laws regarding procedures for building certifications are being prioritized.

l. Regulation on Waste Electrical and Electronic Equipment

In May 2012, the Regulation related to Waste Electrical and Electronic Equipment was published in the Official Gazette and became effective. Waste Electrical and Electronic Equipment regulations may impose some obligations on our Company and increase our operational costs.

m. Regulation on the Internet

Law no. 5651 for the Regulation of Web Content has been revised by Law no. 6518, which became effective on February 19, 2014. The new law required that all internet access providers, which include all mobile and fixed network operators as well as all internet service providers, would form a Union of Internet Access Providers (UAP) within three months, which was established. After the establishment of the UAP, if any internet service provider or any operator giving internet services fails to become a member of the UAP, it shall also be fined with an amount equal to one percent of the previous year's revenues.

In addition, the new law raises the existing fines for not removing content as requested by the court. The law also introduces URL-based blocking of websites which requires new capital as well as operating expenditures for all internet access providers.

n. *GSM Licensing in Turkey*

The terms of license agreements are governed by the Authorization Regulation, and it provides that the ICTA approve the transfer of licenses to third parties, ensure continuation of services in the event of cancellation of a license and approve the investment plans submitted by licensees.

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A GSM license is subject to the ICTA's right to suspend or terminate operations under the license on the grounds of security, public benefit, and national defense or to comply with the law. However, suspension or takeover of facilities under these circumstances is subject to the payment of compensation to the operator. The ICTA can also inspect such licensee and nullify its license if the licensee has materially failed to comply with the terms of its license. The ICTA may also terminate licenses in cases of gross negligence or non-payment of the authorization fee.

The licensee is responsible for installing telecommunications equipment in conformance with international signalization systems and numbering plans. Furthermore, the licensee is obligated to make the necessary investments to offer the licensed service, including the design of the service, the making of financial investments and the installation and operation of the facility required for the service. Licensees are allowed to determine the prices for services, subject to the regulations of the ICTA. Upon the expiry of a license, including termination, the facilities and immovables of the licensee, in operating condition, will be transferred by the licensee in accordance with the license agreement.

o. Our GSM License Agreement

General

Since April 1998, we have operated under a 25-year GSM license for which we paid an upfront license fee of \$500 million. In 2002, we signed a renewed license agreement for our GSM license which provides that a monthly payment of 15% over our gross revenue paid to the Turkish Treasury shall be subject to the legal interest rate. If such payments are not duly paid twice in any given year, a penalty in an amount equal to triple the last monthly payment shall be payable to the Turkish Treasury. In addition, we must pay annual contributions in an amount equal to 0.35% of our gross revenue to the ICTA's expenses. After the tender relating to the allocation of additional GSM 900 frequency bands, made by the ICTA in June 2008, the license agreement was amended to include the additional frequency band and was signed by Turkcell and the ICTA in February 2009, which made small additional changes in the articles of the license agreement entitled performance bond and allocated frequency bands and then it was signed again in February 2016 with small amendments.

Terms and Conditions

Under the license agreement, we hold a licensed concession to provide telecommunications services in accordance with GSM-PAN European Mobile Telephone System standards in the 900 MHz frequency band. Our license covers 55 channels and allocates telephone numbers between the 530 and 539 area codes in the national numbering plan. Our license also permits us to establish customer service centers, sign contracts with subscribers and market our services to subscribers. Our license was issued with an effective date of April 27, 1998, for an initial term of 25 years. At the end of the initial term, we can renew our license, subject to the approval of the ICTA, provided that we apply between 24 months and 6 months before the end of our license. Our license is not exclusive and is not transferable without the approval of the ICTA.

We paid a license fee of \$500 million to the Turkish Treasury upon effectiveness of our license. On an ongoing basis, we must pay 15% of our gross revenue, defined as of March 2006 to exclude interest charges for late collections from subscribers and indirect taxes such as 18% VAT as well as other expenses and the accrued amounts that are recorded for reporting purposes to the Turkish Treasury. We are required to pay 10% of our existing monthly treasury share to the Turkish Ministry as a universal service fund contribution. Since 2005, we pay 90% of the treasury share to the Turkish Treasury and 10% to the Turkish Ministry as a universal service fund contribution.

Furthermore, under the Regulation on Authorization regarding the Electronic Communications Sector, all kinds of share transfers, acquisitions and actions of the operators which are authorized by a Concession Agreement must be communicated to the ICTA, and such share transfers, acquisitions and actions shall be made with the written approval of the ICTA if they result in a change of control component of such operators. The control component is defined as the rights that allow for applying a decisive effect on an enterprise, either separately or jointly, de facto or legally .

Our license subjects us to a number of conditions. It may be revoked in the event that we fail to meet any of these conditions.

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Coverage

Our license requires that we meet coverage and technical criterias. We must attain geographical coverage of 50% of the population of Turkey (living in cities or towns of 10,000 or more inhabitants) within three years of our license s effective date and at least 90% of the population of Turkey (living in cities or towns of 10,000 or more inhabitants) within five years of the effective date of our license. This coverage requirement excludes coverage met through national roaming and installation sharing arrangements with other GSM systems and operators. Upon the request of the ICTA, we may also be required, throughout the term of our license, to cover at most two additional areas each year. Except in the event of force majeure, we must pay a late performance penalty of 0.2% of the investment in the related coverage area per day for any delay of more than six months in fulfilling a coverage area obligation. As of today, we have met and surpassed all coverage obligations.

Service Offerings

Our license requires that we provide services that, in addition to general GSM phone services, include free emergency calls and technical assistance for customers, free call forwarding to police and other public emergency services, receiver-optional short messages, video text access, fax capability, calling and connected number identification and restrictions, call forwarding, call waiting, call hold, multi-party and three-party conference calls, billing information, and the barring of a range of outgoing and incoming calls.

Service Quality

Generally, we must meet all the technical standards of the GSM Association as determined and updated by the European Telecommunications Standards Institute and Secretariat of the GSM Association. Moreover, we must meet the standards that the ICTA imposes under Regulation on Quality of Service in the Electronic Communications Sector .

Tariffs

The license agreement regulates our ability to determine our tariff for GSM services. The license agreement provides that, after consultation with us and consideration of tariffs applied abroad for similar services, the ICTA sets the initial maximum tariffs in Turkish Lira and U.S. Dollars. Thereafter, our license provides that the maximum tariffs shall be adjusted at least every six months. The license agreement provides a formula for adjusting the existing maximum tariffs. For the adjustment of the maximum tariffs established in Turkish Lira, the formula is: the Turkish Consumer Price Index announced by the Ministry of Industry and Trade for Turkey minus 3% of the Turkish Consumer Price Index announced by the Ministry of Industry and Trade. For the maximum tariffs established in U.S. Dollars, the same method is applied to the USA Consumer Price All Item Index Numbers.

The standard tariffs and the maximum tariffs set by the ICTA have been established in Turkish Lira and the ICTA s schedule of standard tariffs and maximum rates are premised on the TRY/\$ Exchange Rate in effect on the date they were approved by the ICTA. Although we believe the tariff structure in our license will, in most instances, permit adjustments designed to offset devaluations of the Turkish Lira against the U.S. Dollar, any such devaluation that we are unable to offset will require us to use a larger portion of our revenue to service our non-Turkish Lira foreign currency obligations. Additionally, in the event that the ICTA were to establish maximum tariffs at levels below those that would enable us to adjust our rates to offset devaluations, this could have a material adverse effect on our business, consolidated financial condition, results of operations and/or liquidity. However, with a decision rendered in March 2016, ICTA decided that Turkcell has no obligation of applying the maximum tariffs set by ICTA in 2015. We believe that, pursuant to our license agreement, we can determine our tariffs freely, provided that they remain within

the framework of the prohibition of cross subsidy and the principles of reasonable profit and being cost based. However, under Article 13 of the Electronic Communications Law, in the event of determination of the significant market power of the operator, the ICTA may determine the lower and upper limit of the tariffs and principles and procedures of the application of the same. Based on such Article, the ICTA may take a similar decision which will have an effect on our future tariffs. With respect to our retail tariffs, following a board resolution dated March 25, 2009, the ICTA set a lower limit solely for Turkcell's on-net retail tariffs. In the following years our minimum on-net price level was changed several times by the ICTA, and was set at TRY 0.0073 for SMS and TRY 0.0428 for voice for the first two quarters of 2016. However, pursuant to a decision rendered on August 16, 2016, the ICTA removed the

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regulation on lower limit on on-net retail prices and campaigns. These pricing regulations were valid on each and every single voice tariff and campaign, whereas we were obliged to maintain our minimum on-net SMS rate on network base. The table below shows the on-net prices and MTR rates until August 16, 2016:

TRY	Before July 1, 2013	July 1, 2013	
		August 16, 2016	Change %
Minimum on-net voice price	0.0313	0.0428	37%
Minimum on-net SMS price		0.0073	
Voice MTR	0.0313	0.0250	(20%)
SMS MTR	0.0170	0.0043	(75%)

The maximum tariffs set by the ICTA may constitute the highest rates we may charge for the services included in these customized service packages. Generally, the maximum tariffs set by the ICTA for particular services are set higher than the standard tariffs determined by the ICTA for those services. Pursuant to a board decision dated September 28, 2015, price caps for voice were set at 0.4625 TRY/min for voice and TRY 0.332 for SMS. Such caps were in force at the beginning of 2016, until a decision rendered in March 10, 2016 by ICTA annulled the maximum tariffs set by ICTA in 2015

The ICTA has in the past intervened and may again intervene with the charging period, impacting the prices we charge for our tariffs.

Relationship with the ICTA

The license agreement creates a mechanism for an ongoing relationship between us and the ICTA. The ICTA and Turkcell coordinate their activities through a License Coordination Committee (the Committee), which is responsible for ensuring the proper and coordinated operation of the GSM network, assisting in the resolution of disputes under the license agreement and facilitating the exchange of information between the parties.

License Suspension and Termination

The ICTA may suspend our operations for a limited or an unlimited period if necessary for the purpose of public security or national defense, including war and general mobilization. During suspension, the ICTA may operate our business, but we are entitled to any revenues collected during such suspension, and our license term will be extended by the period of any suspension.

Our license may be terminated under our license agreement upon a bankruptcy ruling that is not reversed or dismissed within 90 days, upon our failure to perform our obligations under the license agreement if such failure is not cured within 90 days, if we operate outside the allocated frequency ranges and fail to terminate such operations within 90 days or if we fail to pay our treasury fee.

In the event of termination, we must deliver the entire GSM system to the ICTA.

If our license is terminated as a reason of our failure to perform our obligations under our license, the performance guarantee given by us in an amount equal to 1% of the license fee may be called. The license agreement makes no provision for the payment of consideration to us for delivery of the system on such termination.

In the event of a termination of our license, our right to use allocated frequencies and to operate the GSM system ceases. Upon the expiration of the license agreement, initially scheduled to occur in 2023, without renewal, we must transfer to the ICTA, or an institution designated by the ICTA, without consideration, the network management center, the gateway exchanges, and the central subscription system, which are the central management units of the GSM network. We may apply to the ICTA between 24 and six months before the end of the 25-year license term for the renewal of the license. The ICTA may renew the license, taking into account the legislation then currently in effect.

Applicable Law and Dispute Resolution

Under our license agreement, any dispute arising from scope, implementation and termination of the agreement shall be brought before the License Coordination Committee. If the dispute is not settled within 30

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days before the License Coordination Committee, it shall be referred to the parties. If the dispute is not resolved by the parties within 15 days, then it shall be settled by an arbitral tribunal in accordance with ICC Rules. The governing law of any arbitration is Turkish law and any such arbitration shall be conducted in English. Disputes relating to national security or public policy shall not be subject to arbitration proceedings.

p. Authorization of 3G License

In 2008, the ICTA conducted a tender process to grant four separate licenses to provide IMT 2000/UMTS services and infrastructure. We were granted the A-type license, which provides the widest frequency band, at a consideration of EUR 358 million (excluding VAT). We signed the license agreement relating to 3G authorization on April 30, 2009 and then the agreement was renewed and resigned in February 2016 with small amendments which do not change the core of the service. The license agreement has a term of 20 years.

The 3G License Agreement has provisions that are generally similar to those contained in our license agreement relating to 2G. However, with respect to dispute resolution, while our 2G license provides for arbitration for the settlement of disputes, under the 3G License Agreement, disputes arising between the parties shall ultimately be settled by the Council of State of the Republic of Turkey.

With the 3G License Agreement, we were obliged to meet certain coverage obligations. We are required to cover the population within the borders of all metropolitan municipalities within three years and all cities and municipalities within six years. We are also obliged to cover every region with a population over 5,000 within eight years and population larger than 1,000 within 10 years. Following the amendment of the Law for Metropolitan Municipalities, the number of metropolitan municipalities increased and the borders of some metropolitan municipalities were extended. After this amendment, the ICTA increased our coverage obligations, defined in our concession agreement, by its decision, based on this law amendment. We filed a lawsuit for the stay of execution and the cancellation of this decision. The Council of State accepted our stay of execution request. ICTA objected to this decision. Objection was also rejected in favor of Turkcell. The case is still pending.

With the 3G License Agreement, as opposed to the 2G License Agreement, the Company assumed an obligation related to its electronic communications network investments, such as the obligation to provide at least 40% of its electronic communications investments from suppliers that have a Research and Development Center in Turkey and the obligation to provide at least 10% of its electronic communications investments from suppliers that are Small and Medium Size Enterprises (SME) established in Turkey.

According to the Authorization Regulation, breaches by operators resulting in the termination of the GSM concession agreement for any reason shall also result in the termination of the operator's concession agreement signed for IMT-2000/UMTS service. Also, if the GSM concession agreement is not renewed at the end of its natural expiration, the ICTA may continue to allow the utilization of the needed infrastructure by IMT-2000/UMTS services on terms and conditions to be set by the ICTA itself.

The statutes, rules and regulations applicable to our activities and our 2G and 3G licenses are generally new, subject to change, in some cases, incomplete, and have been subject to limited governmental interpretation. Precedents for and experience with business and telecommunications regulations in Turkey are generally limited. In addition, there have been several changes to the relevant legal regime in recent years. There can be no assurance that the law or legal system will not change further or be interpreted in a manner that could materially and adversely affect our operations.

q. Authorization of 4.5G License

In the IMT- Advanced (4.5G) tender held on August 26, 2015, to grant spectrum usage for 800 MHz, 900 MHz, 1800 MHz, 2100 MHz (FDD,TDD) and 2600 MHz (FDD, TDD), the Company purchased a total of 172.4 MHz, the broadest 4.5G (IMT) spectrum allocation of any operator in Turkey (including widest frequency bands on 1800 MHz, 2100 MHz and 2600 MHz) for 1,623.5 million (excluding VAT and interest payable on the installments).

The tender gave equal opportunity to the operators in the low frequency bands utilized for coverage while enabled competition in higher frequency bands mainly used for capacity. The Company has reached a total frequency bandwidth of 234.4 MHz and our ownership in total bandwidth in the market increased to 43% (234.4 MHz / 549.2 MHz) with the new frequencies acquired. The operators will be able to utilize the new spectrum in a technology neutral way.

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The ICTA granted Turkcell's 4.5G License on October 27, 2015. The 4.5G License is effective for 13 years until April 30, 2029. According to the License, Turkcell started to provide 4.5G services from April 1, 2016.

The 4.5G License Agreement has provisions that are generally similar to those contained in our license agreement relating to 2G and 3G. According to the IMT License Commitments Document, the Company;

- a) must achieve population coverage of 95% of the population of Turkey and coverage of 90% of the population within the borders of all cities and all city districts within eight years,
 - b) must cover 99% of highways, high speed railroads and tunnels with lengths more than one kilometers within eight years, 95% of double roads within six years and 90% of conventional railroads within ten years, and
 - c) is obliged to share actively with other mobile operators, any new 3G or 4.5G site which it will decide to build within settlement areas with population of less than 10.000 and highways, double roads, tunnels, high speed railroads and conventional railroads,
- from the effective date of the License granted to the Company.

While building its infrastructure for 4.5G networks, Turkcell is required to purchase up to 45% of its network related hardware (i.e. base stations, switches, routers and as such) and software from local suppliers, and purchase up to 40% of the network equipment and software from vendors with local research and development centers. The local network related hardware purchase requirement is defined in three periods: 30% for first year, 40% for second year and 45% for the third and following years. Reporting on these requirements should be made to the ICTA on a yearly basis. In case of a projection of a failure to meet the requirement for locally produced hardware and software due to the lack of sufficient local supply and other relevant conditions, the Company shall file an application to the ICTA 6 months before the due date, and request an easing or removal of the obligation. Based on the law, we applied for the removal of the obligation for the first 2015-2016 period.

r. Licenses and Authorizations of our Subsidiaries

In addition to the foregoing, our majority owned subsidiary, Belarusian Telecom, and wholly owned subsidiaries lifecell and Kibris Telekom hold GSM licenses in Belarus, Ukraine and the Turkish Republic of Northern Cyprus, respectively, and all of them have obtained 3G licenses. If lifecell, Belarusian Telecom and Kibris Telekom fail to comply with the terms and conditions of their license agreements, they may incur significant penalties, which could have a material adverse effect on our strategy for international expansion and our business and results of operations. In addition, our subsidiaries Global Tower, Turkcell Superonline, Inteltek and Azerinteltek have licenses to perform their business. Failure to comply with the terms of such licenses may lead to significant penalties and adversely affect their, as well as our, results of operations.

Ukraine License Agreement

lifecell owns twelve activity licenses, for GSM 900, GSM 1800, a technology neutral license issued for 3G, one license for international and long-distance calls and eight PSTN licenses for eight regions in Ukraine. As of December 31, 2016, lifecell owned 27 frequency use licenses for IMT-2000 (UMTS), GSM 900, GSM 1800, CDMA 800 and microwave Radiorelay and Broadband Radio Access, which are regional and national. 3G activity and

frequency licenses were issued in March 2015, reissued due to the company name change, and are valid for 15 years. Additionally, lifecell holds a specific number range three NDC codes for mobile networks, twelve permissions on a number resource for short numbers, eleven permissions on a number resource for SS-7 codes (7 regional and 4 international), one permission on a number resource for Mobile Network Code and nine permissions on a number resource for local ranges for PSTN licenses two permissions on a service codes for alternative routing selection for international and long-distance fixed telephony and one permission on a code for global telecommunication service 800 .

According to the licenses, lifecell must adhere to state sanitary regulations to ensure that the equipment used does not injure the population by means of harmful electromagnetic emissions. Licenses require lifecell to inform authorities of the start/end of operations within four months and changes in the incorporation address within 30 days. Also, lifecell must present all the required documents for inspection by the NCCIR by their request. The NCCIR may suspend the operations of lifecell for a limited or an unlimited period if necessary due to the expiration of the licenses, upon mutual consent, or in the case of a violation of the terms regarding the use of radio frequencies. If such a violation is determined, the Ukrainian Telecommunications Authority will notify lifecell of the violations and will set the deadline for recovery. If the deadline is not met, the licenses may be terminated.

Table of Contents***Belarus License Agreement***

Belarusian Telecom owns a license, issued on August 28, 2008, for a period of 10 years, which was valid till August 28, 2018. However, in accordance with the Edict of the President of the Republic of Belarus dated November 26, 2015, numbered 475, the license is now issued without limitation of the period of validity. Starting from March 1, 2016 the license is valid from the date of the licensing authority's decision on its issue and for an unlimited period. Under the terms of its license, Belarusian Telecom is required to gradually increase its geographical coverage until the end of 2017. As of December, 2016 the number of uncovered settlements is 657 out of a total of 22,552 settlements.

Turkcell Superonline Authorizations

Turkcell Superonline was authorized as a Fixed Telephony Service Provider as of November 19, 2004, Infrastructure Provider as of March 6, 2006, Internet Service Provider as of February 15, 2005, Satellite Communication Service Provider as of March 24, 2009, Cable Broadcast Service Provider as of November 23, 2009, Mobile Virtual Network Operator as of August 9, 2010 and Public Access Mobile Radio Service Provider for the Marmara and Guneydogu Anadolu regions as of January 27, 2007.

The Authorization By-Law for Telecommunication Services and Infrastructure published in the Official Gazette on August 26, 2004 was abrogated with the By-Law on Authorization for Electronic Communications Sector dated May 28, 2009. According to this abrogation, Turkcell Superonline's Authorization on Infrastructure Operating Service, Internet Service Provision and Satellite Communication Service have been changed to Authority on Infrastructure Operating Service, Internet Service Provision, Satellite Communication Service and Cable Broadcast Service. Turkcell Superonline's License on Long Distance Telephony Services License has been changed to Authorizations relevant to the Fixed Telephony Services. Aforementioned Public Access Mobile Radio Service Provider Authorization of Turkcell Superonline was annulled as of December 31, 2015.

In accordance with the new legislation issued by the ICTA, the term of the infrastructure operator authorization of Turkcell Superonline has become indefinite. As a result, Turkcell Superonline revised the expected useful lives of related fixed network equipment from 15 years to 25 years.

Turkcell Superonline was authorized as a Platform Operator and Infrastructure Operator, according to the Radio and Television Supreme Council's decision numbered 24, dated March 26, 2014. Such authorizations have been provided by the Radio and Television Supreme Council, according to the rules of the Media Law and also the Radio and Television Supreme Council By-Law on Broadcasting via Cable Networks. In accordance with the Media Law and its regulations, the Platform Operator Authorization and Infrastructure Operator Authorization are provided annually. Within the scope of the Platform Operator Authorization and Infrastructure Operator Authorization, Turkcell Superonline has the right to operate the platform and infrastructure of TV services.

s. Access and Interconnection Regulation

The Access and Interconnection Regulation (the Regulation) became effective when it was issued by the ICTA on September 8, 2009 and abolished the Access and Interconnection Regulation which was published on May 23, 2003. The Regulation sets forth the rights and obligations of the operators relating to access and interconnection and establishes rules and procedures pertaining to their performance of such obligations. The Regulation primarily sets forth applicable principles, details of access and interconnection obligations, financial provisions, and policies and procedures regarding negotiations and contracts for access and interconnection.

The Regulation is driven largely by the goal of improving the competitive environment and ensuring that users benefit from electronic communications services and infrastructure at a reasonable cost. Under the Electronic Communications Law, the ICTA may compel a telecommunications operator to accept another operator's request for access to and use of its network. All telecommunications operators in Turkey may be required to provide access to other operators. The operators who are compelled to provide access to other operators may be obliged to provide service and information on the same terms and qualifications provided to their shareholders, subsidiaries, and affiliates by the ICTA.

In accordance with Article 7 of the aforementioned Electronic Communications Law, the ICTA may determine the operators that have significant market power in the relevant market as a result of market analysis. After determination of the operators who have significant market power, the ICTA may impose additional

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liabilities for such operators in order to protect the competitive environment. On December 15, 2005, the ICTA designated Turkcell, Vodafone, and Avea as operators holding significant market power in the GSM Mobile Call Termination Services Market and designated Turkcell individually as an operator holding significant market power in the Access to GSM Mobile Networks and Call Originating Markets. According to the new Regulation published in the Official Gazette dated September 1, 2009, numbered 27336, unless otherwise agreed, any decisions taken by the ICTA in the years 2005 and 2006 relating to market analysis were valid and effective until the end of calendar year 2009. Pursuant to its decision dated December 8, 2009, the ICTA designated Turkcell individually as an operator holding significant market power in the Access to Mobile Networks and Call Originating Markets and designated Turkcell, Vodafone and Avea as operators holding significant market power in the Mobile Call Termination Market. Based on the market analysis of the ICTA for the 2012-2015 term, all three operators were declared as operators holding significant market power in the Mobile Call Termination Market and Turkcell is once again recognized as the only operator holding significant power in Access to GSM Mobile Networks and Call Originating Markets. As explained above, renewal of market analysis for both markets was expected to be finalized in 2016. However, public consultation documents were released at the end of 2016; and mobile market analyses are expected to be finalized in the first quarter of 2017.

As a result of the significant market power designation in the GSM Mobile Call Termination Services Market, our company, as well as Avea and Vodafone, is required to provide interconnection services on a cost basis. Consequently, according to the Electronic Telecommunications Law, the ICTA may oblige such operators to provide access and to submit their reference offers for access and interconnection to the ICTA for review, and may require amendments to the offers. Operators are obliged to make the amendments requested by the ICTA in a prescribed manner and within a prescribed period. In addition, the operators are obliged to publish their reference offers for access and interconnection, which have been approved by the ICTA, and to provide access under the conditions specified in their reference offers and interconnection, which have been approved by the ICTA. Please refer to the Interconnection table under the caption Interconnection Rates Turkcell, Vodafone, Avea and Turk Telekom below for the approved interconnection rates. In September 2011, the ICTA decided that national and international mobile terminating call rates should be differentiated. As a result of this, the ICTA decided that operators could start to set their own rates liberally for international mobile terminating calls. As of August 2012, Turkcell has started to set its own mobile termination rates for international calls.

In 2014, SMP operators did not provide any reference offers since the ICTA rearranged the current reference offers by itself aiming to make the reference offers aligned. With a board resolution dated October 2014, reference offers for interconnection operations were announced for Avea, Vodafone and Turkcell. The ICTA has also set the MMS termination rate for all operators that were not previously regulated. We were not obliged to prepare new reference offers for interconnection operations in 2015. The ICTA is currently working on market analysis, and access and interconnection reference offers will be updated following the completion of such analysis.

t. Regulation on Co-Location and Facility Sharing

The ICTA has required operators to share certain facilities with other operators under certain conditions specified in the Electronic Communications Law and to provide co-location on their premises for the equipment of other operators at a reasonable price.

Under the Regulation, operators holding significant market power are required to provide access and services to all operators on equal terms. Operators with significant market power are also required to perform unbundling of their services, which means that they have to provide separate service of, and access to, transmission, switching, and operation interfaces. Furthermore, the ICTA may establish rules applicable to the division of the costs of facilities among parties.

The ICTA published a Communiqué concerning Co-Location and Facility Sharing on December 2, 2010 (which abolished the Regulation published on December 31, 2003). According to the new Communiqué, the ICTA should determine operators to be co-location incumbent if operators do not enable co-location or there is a dispute against competition or end-users. Similarly, the ICTA could set tariffs if the tariffs for co-layout are not determined on a cost basis.

The Communiqué defines the criteria for operators who are incumbents for facility sharing and also states the items which must be considered for determining the Facility Sharing prices.

Subsequently, the provisions that regulate the ICTA approval of the examination fee determined by the Co-Location and Facility Sharing incumbent have been removed, opening up the Co-Location and Facility

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Sharing process to negotiation. In addition, the Facility Sharing incumbent's right to allocate a facility for its own network and investment plans has been reduced to 25% of the facility.

The ICTA published a regulation concerning Cellular System Antenna Facility Design, Set Up and Sharing on March 18, 2011 (which abolished the Regulation published on April 16, 2008). The regulation frames antenna facilities design, set up and sharing to enable base station facility usage by multiple operators. The emission points will not be determined by operators, therefore operators will have to work cellular planning together. Operators must share every base station facility regardless of tower or building-top distinction. Antenna facilities must be set up in certain capacity that at least one more operator can benefit. Some incentives, such as exemptions on some certification fees, will be given if sharing occurs on existing or new sites. Finally, when antenna facility set up and sharing requests are evaluated, if the owner of the facility refuses the request, the requesting operator will be informed of the reason for the refusal. This way, negotiation between parties is supported and ICTA involvement is kept at a minimum level. On December 6, 2016, the ICTA updated the above regulation and The Regulation on the Procedures and Principles of Sharing of Cellular System Antenna Installations and Radio Access Networks came into force. According to this Regulation;

The number of sharing types has increased. The terms and conditions of sharing at highways, railways and within tunnels is now a separate section.

In regions where the population is lower than 10.000, if an operator is unable to use the antenna installations built by another operator before the IMT licensing, the operator must notify the ICTA about the situation and the ICTA may let the operator build a new antenna installation. This operator is obliged to make an installation facilitating the sharing by all types with at least two other operators. The operator cannot turn down any sharing requests involving installations set up after IMT licensing in motorways, high speed and very high speed railways, dual carriage highways, tunnels and conventional railways, except for indoor installations.

In regions where the population is higher than 10.000 at the time of application to the Authority to build a new installation, provided that operator(s) are present and offer the new comer at least three of the possible share types, no wireless usage fee will be charged for the following year. If the antenna installation concerns towers exclusively, type 2 sharings will suffice. This rule will apply until December 31, 2023.

In regions where the population is lower than 10.000, except indoor installations, new antenna installations which were established between the date of the IMT authorization and the issue date of this Regulation, all settlements and motorways, high speed and very high speed railways, dual carriage highways, tunnels and conventional railways must be brought in line with the conditions set by this Regulation.

In the 4.5G Authorization Document, in provinces with a population of less than 10.000 and at sites to cover highways, double roads and railroads, any new 3G or 4.5G site to be built must be shared actively by all operators within this region. Current government officials declared that research and development (R&D) and production & development (P&D) in Turkey for high-tech products and services will be supported and some incentives will be introduced in the near future. One of the biggest local vendors in the defense industry that is already producing telecom equipment for the military declared it is planning to produce a 4.5G base station for commercial networks after 2015. In the 4.5G Authorization Document, usage of locally-produced equipment in network was

obliged, with rates up to 45%. Yet if the lack of such equipment or absence in the demand for production of such equipment is proved by mobile operators, mobile operators will be free of this obligation specifically for the related term. We informed the ICTA that we support any local R&D and P&D, as long as it complies with international technical and financial standards and can be sustainable. However, the 4.5G Authorization Document does not provide details on the compliance with international standards. The ICTA may oblige operators to buy and use the locally produced products, independent of the quality standards, if a local vendor produces sufficient equipment to support the mobile operators' demands. This may cause technical problems in our network. Should such technical problems occur, it could negatively affect our quality of service, leading to increased costs for the 4.5G infrastructure roll-out and could negatively affect our customer experience.

u. Regulation on Consumer Rights in the Electronic Communications Sector

The ICTA published a Regulation on Consumer Rights in the Electronic Communications Sector on July 28, 2010 (which abolished the Regulation published on December 22, 2004) and made some changes to such

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regulation on June 20, 2013. This regulation introduces some radical changes to the electronic communications sector. With this regulation, the ICTA determined new procedures/changes regarding: the process and timing of churn steps, the obligation of operators to keep subscribers informed of services, including, but not limited to, informing customers about amendments of the campaigns and tariffs, the consumer complaints solution mechanism, billing processes and safe internet.

In addition, the ICTA may restrict the conditions under which certain mobile internet and services are provided by third parties. Moreover, the ICTA published a board decision regarding Safe Internet on August 22, 2011, and the service is now offered to subscribers free of charge. Operators must provide Safe Internet Service to subscribers, who request this service, as two separate profiles, the child profile and the family profile, each of which can restrict subscribers from accessing certain internet addresses and content. The subscribers can easily change their profiles or opt-out from the Safe Internet Service.

The ICTA's regulation of these activities could have an adverse effect on our mobile telecommunications business and we may be fined if we do not comply. Furthermore, our compliance with the ICTA's regulations may increase the costs of doing business and could negatively impact our financial results.

v. Regulation on Data Privacy in Electronic Communications Sector

Under Article 51 of the Electronic Communications Law, the ICTA is authorized to determine the principles and procedures related to the process of personal data and protection of privacy. In this manner, ICTA had published Regulations on the Protection of Privacy and Processing of Personal Data . With its decision rendered on April 9, 2014 and published in the Official Gazette on July 26, 2014, the Turkish Constitutional Court decided that Article 51 of the Electronic Communications Law is a violation of Article 20(3) of the Constitution, which stipulates data protection as a constitutional measure and that the measures should be regulated by the laws and therefore annulled the aforementioned provision (Article 51). The Article 51 of the Electronic Communications Law, which was repealed by Turkish Constitutional Court, was amended and came into force on April 15, 2015. In the amended Article 51, the main principles of recording and sharing subscribers' personal data are defined in general. In addition to that, ICTA is also authorized again to determine the procedures and principles related to the process of personal data and protection of privacy; however such regulation has not been published so far.

Compliance with this regulation will involve operational expenses and may make it harder to process the customer data and provide segmented offers to our customers. Furthermore, non-compliance with this Regulation may result in the imposition of monetary fines, which could have a negative impact on our financial condition and reputation.

w. Law on the Protection of Personal Data

Turkey, as a part of its legislative reforms to align with the EU legislations, has adopted an extensive data protection regime. The Law on the Protection of Personal Data (the Law), which came into force on April 7, 2016, regulates personal data of real persons and its protection, process and transfers.

The Law introduced several obligations for processing and transferring the personal data including fair and lawful processing, protection of personal data, consent requirement, providing notice of processing, and registration with the Data Protection Authority (the DPA). According to the Law, the DPA is authorized to impose sanctions and precautions as well as administrative fines which are determined in the Law.

The Law also determines the rights of the person whose data is processed, such as the right to apply to the Data Controller to learn whether the personal data has been processed, to learn if it is being used properly according to the

purpose of the processing, to know the third parties to which the personal data is transferred in the country or abroad, to request the personal data to be erased or destroyed and the third parties to be notified of that.

Data processing activities of electronic communications providers had already been regulated under the electronic communications legislation and the regulation introduced by the Law has similarities with the regulations in the electronic communication legislation which Turkcell and Superonline had been doing their best to comply with. Turkcell and Superonline are currently testing their systems in order to evaluate compliance with the Law and to begin remedial actions if such tests reveal any issues. Such remedial actions, if required, may imply costs and may also hinder the way in which we presently access and use such data.

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x. Regulation on Electronic Commerce

Law No. 6563 on the Regulation of Electronic Commerce published in the Official Gazette on November 5, 2014, amended Article 50 of the Electronic Communications Law, providing that without the prior consent of the subscribers, unsolicited electronic communications for the purposes of direct marketing or messages with adult content is prohibited. An opt-in mechanism has been adopted for electronic messages; however, this provision does not apply retroactively to the databases which were established by taking the data subjects' consent before the Law No. 6563 on Regulation of Electronic Commerce entered into force on May 1, 2015.

The Electronic Commerce Law and Commercial Communications And Commercial Electronic Messages Regulation published in accordance with this law exclude the messages that are sent to subscribers and users of the operators about their own products and services and these messages are regulated in The Principles And The Procedures Regarding The Communication With The Purposes Of Advertising And Marketing which was published by the ICTA on July 9, 2015. According to this legislation, these messages are also subject to the prior consent of the subscribers and users. Violation of this legislation may result in an administrative fine.

Some of the companies that previously used Turkcell's permission database in high volumes may shift to global social media channels which may not be subject to government regulation. Law No. 6563 on the Regulation of Electronic Commerce will not only affect the permission database business of Turkcell, but also bulk SMS business. More companies may prefer to use the bulk SMS enablers that operate abroad because those enablers are not subject to regulation by the Turkish government.

Additionally, the new regulation may have a negative impact on Turkcell's corporate business as a whole because the permission database and bulk SMS services are among Turkcell's most effective services for acquiring corporate subscribers.

y. Registered Email Service Regulation

Registered Electronic Mail Service was started in July 2012. Mobile operators cannot provide registered electronic mail service; however, the service may create a new mobile business area with new bundled mobile products, which are able to service our subscribers.

z. Turk Telekom, Vodafone and Avea Interconnection Agreements

(i) General

We have interconnection agreements with Turk Telekom, Vodafone, Avea and Fixed Telephony Service Operators whereby they allow us to connect our networks with theirs to enable the transmission of calls to and from our mobile communications system.

The interconnection agreements establish understandings between the parties relating to various key operational areas, including call traffic management, and the agreements contemplate that we and the other parties will agree on the contents of various manuals setting forth additional specifications concerning matters that are not specifically covered in the interconnection agreement, such as quality and performance standards and other technical, operational and procedural aspects of interconnection.

The interconnection agreements specify that the parties shall comply with relevant international standards, including standards adopted by the GSM Memorandum of Understanding, the Telecommunications Standards Bureau of the

International Telecommunications Union, and the European Telecommunications Standards Institute. In the absence of applicable international standards, the interconnection agreements provide that the parties will establish written standards to govern their relationship.

The interconnection agreements outline the applicable interconnection principles and provide the technical basis and rationale for technical specifications and manuals to be agreed to by the parties.

In addition, the parties agree to provide the other party with information that is necessary to enable the performance of their interconnection obligations, the provision of services, or the utilization of equipment and/or buildings as contemplated in the interconnection agreement.

We had ongoing disputes with Turk Telekom, Vodafone and Turk Telekom over these agreements and with the ICTA regarding its decision related to these agreements. On December 30, 2015, Turkcell Group and Turk

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Telekom Group reached an agreement to mutually settle the ongoing lawsuits, enforcement procedures and disputes between Turkcell companies including Turkcell Iletisim Hizmetleri AS, Superonline Iletisim Hizmetleri AS, Kule Hizmet ve Isletmecilik AS and Turk Telekom Group companies including Turk Telekomunikasyon AS, Avea Iletisim Hizmetleri AS and TNet AS. In this regard, we made a payment of TRY 225 million to Turk Telekom Group which is the net of rights, receivables and claims of both parties (excluding VAT and special communication tax, including all other tax and financial obligations and interest) on January 14, 2016. See Item 8.A. Consolidated Statements and Other Financial Information Note 32 .

(ii) Interconnection Rates Turkcell, Vodafone, Avea and Turk Telekom

In accordance with the relevant articles of the Electronic Communications Law and subsequent Access and Interconnection Ordinance, the ICTA regulated both fixed and mobile interconnection rates. In previous years, the interconnection rates have substantially decreased with the interventions of the ICTA.

Current interconnection rates are based on the ICTA's decision on the Interconnection Tariffs issued in April and June 2013. New interconnection rates were published in October 2014 and remain in force with no change in existing rates. However, the Authority published MMS interconnection rates for the first time. The evolution of interconnection rates for voice calls between Turkcell, Vodafone, Avea, Turk Telekom and Alternative Fixed Line Operators is summarized in the table below.

	VOICE (TRY Kurus)						Alternative Fixed Line Operators
	TURKCELL	VODAFONE	AVEA	Local	Single	Double	
01/10/2004	15.60	15.60	15.60		4.10	5.90	
01/01/2005	14.80	14.80	14.80		3.40	5.10	
01/10/2005	14.00	14.00	14.00		2.00	3.70	
01/01/2007	14.00	15.20	17.50		2.00	3.70	
01/03/2007	13.60	14.50	16.70		1.89	3.00	
01/04/2008	9.10	9.50	11.20		1.71	2.70	
01/05/2009	6.55	6.75	7.75	1.39	1.71	2.70	
01/04/2010	3.13	3.23	3.70	1.39	1.71	2.24	3.2
01/07/2013	2.50	2.58	2.96	1.39	1.71	2.24	3.2
31/10/2014	2.50	2.58	2.96	1.39	1.71	2.24	3.2

* In September 2011, the ICTA amended its Regulation on mobile termination rates by removing the restriction on the rates applicable to calls originating from international operators. After reaching commercial agreements with Turk Telekom and alternative fixed-line carriers, we began to charge higher termination rates for international calls effective August 1, 2012.

Effective from July 2013, Turkcell is paid TRY 0.0043 per SMS for SMS termination in its network. Respective rates for Vodafone are TRY 0.0043 per SMS and for Avea TRY 0.0047.

SMS (TRY Kurus)			
TURKCELL	VODAFONE	AVEA	TURK TELEKOM

01/04/2010	1.70	1.73	1.87	1.70
01/07/2013	0.43	0.43	0.47	1.70
31/10/2014	0.43	0.43	0.47	1.70

MMS (TRY Kurus)
TURKCELL VODAFONE AVEA

31/10/2014	0.86	0.86	0.94
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Effective from October 2014, Turkcell is paid TRY 0.0086 per MMS for MMS termination on its network. Respective rates for Vodafone are TRY 0.0086 per SMS and for Avea TRY 0.0094.

z. Agreements Concluded with the Fixed Telecommunication Services Operators

(i) Interconnection/Call Termination Agreements

Turkcell, as an operator holding significant market power, entered into interconnection/call termination agreements with fixed telecommunication service operators that applied to Turkcell for an agreement. Interconnection rates are regulated by the ICTA. Turkcell pays fixed-line operators TRY 0.0320 per minute and fixed-line operators pay Turkcell TRY 0.0250 per minute for national voice call traffic.

Table of Contents***(ii) International Transit Traffic Services Agreements***

Turkcell entered into International Traffic Carrying Services Agreements with operators who applied to Turkcell for an agreement. Under these Agreements, we may carry calls to these operators' switches for onward transmission to their destinations and these operators should provide the termination of these calls on the relevant network. These operators charge us at various prices identified within the scope of the agreement for the calls directed to numerous networks around the globe. The operators may modify their rates upon a fifteen day advanced written notice and such rates will become applicable upon our approval.

(iii) SMS Termination Agreements

During 2011, Turkcell entered into SMS Termination Agreements with alternative operators who applied to Turkcell for an agreement. In accordance with the ICTA regulations on SMS Termination Rates in Turkcell's network, Fixed Telephony Service Operators pay Turkcell TRY 0.0043 per SMS.

aa. MVNO Services

The ICTA has designated Turkcell as the operator having significant market power in the mobile access and call origination markets, which has implications such as mandatory MVNO access and cost-oriented call origination and termination rates. In its decision regarding the Reference Access Offer of Turkcell, the ICTA determined the call origination and termination fees for voice as TRY 0.0250 per minute, wholesale on net voice call fee as TRY 0.0428 per minute, origination and termination fees for SMS as TRY 0.0043 per SMS and wholesale on net SMS fee as TRY 0.0073 per SMS, origination and termination fees for video calls as TRY 0.0775 per minute and wholesale on net video calls fee as TRY 0.1325 per minute to be applied to the MVNOs.

Highly competitive market conditions and heavy tax burdens have discouraged potential MVNOs from entering the market for years. Nevertheless, both commercial negotiations and conciliation processes by the ICTA with certain MVNO candidates are in progress and we expect to see some MVNO presence in the market in the coming years.

The ICTA has determined call origination and termination fees for Type-2 and Type-3 (Full MVNO) but not determined fees for Type-1 (Light MVNO) model. Commercial negotiations which will be viable and commercially beneficial are the main subjects to be handled in MVNO consultations between Turkcell and the potential MVNOs.

bb. Agreements Concluded with Directory Service Providers

Turkcell entered into agreements relating to the provision of directory services with 13 Directory Service Providers, which are licensed to provide directory services by the ICTA. The aforementioned agreements determine the principles and procedures related to the access of companies to the Turkcell database, the provision of directory services to the subscribers and the clearing procedure of the parties. Such agreements are valid and binding for a term of one year. However, if neither party notifies the other party one month before the expiration of the agreement of its request to terminate, the agreement will automatically be renewed for another one-year term.

cc. Agreements Concluded with Operators Licensed to Provide Satellite Services

We have executed agreements with Globalstar Avrasya Uydu Ses ve Data Iletisim A.S. and Teknomobil Uydu Haberlesme A.S., operators licensed to provide satellite services. The scope of such agreements is the interconnection between the networks of the parties and the determination of the principles and procedures of the methods of network operation and clearance.

dd. *Prospective Legislation and Regulations*

The Electronic Communications Law provides that current telecommunications legislation shall be revised and amended. The revision and amending processes are still ongoing. However, during this period, all regulations and communiqués that were effective prior to the publication of the Electronic Communications Law will still be valid and binding, on the condition that they are not contrary to the provisions of the Electronic Communications Law.

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4.C Organizational Structure

The following chart lists each of our key subsidiaries (including our ownership interest in Fintur) and our proportionate direct and indirect ownership interest as of March 10, 2017:

- (1) The legal name of Astelit was changed to lifecell LLC as at February 2, 2016.
- (2) On December 19, 2016, Beltower LLC was incorporated under the laws of the Republic of Belarus.
- (3) On December 28, 2016, Turkcell Interaktif Dijital Platform ve Icerik Hizmetleri A.S. merged with Superonline Iletisim Hizmetleri A.S. and was deregistered from Istanbul Trade Registry.
- (4) On December 30, 2016, Euroasia Telecommunications Holding B.V. merged with Lifecell Ventures Cooperatief U.A. which was formerly known as Beltur Cooperatief U.A..
- (5) On December 21, 2016, the Board of Directors resolved to liquidate Financell B.V..
- (6) On February 20, 2017, Turkcell Enerji Cozumleri ve Elektrik Satis Ticaret Anonim Sirketi has been incorporated to carry out activities of electricity energy trade, wholesale and retail electricity sale.
- (7) On February 20, 2017, the legal of the company Turkcell Odeme Hizmetleri A.S. has changed to Turkcell Odeme ve Elektronik Para Hizmetleri A.S.

We have announced our intention to exit from jurisdictions in which Fintur operates and initiated an active program to locate a buyer. Fintur is now classified as held for sale and reported as discontinued operations.

For information on the country of incorporation of our key subsidiaries, see [Item 4.B. Business Overview](#) .

4.D Property, Plant and Equipment

As of December 31, 2016, we operated 77 facilities including network data centers, of which 55 were located in Turkey, the rest in Northern Cyprus, Belarus, Ukraine and Azerbaijan.

We have our own and leased buildings in Istanbul, including our headquarters, mobile switching centers, network data centers, customer service offices and warehouses. Our buildings in Turkey and outside of Turkey are used for the purposes of administration, sales and other service centers as well marketing and operation of mobile switching centers and network data centers.

In September 2015, our headquarters moved to Kucukyali from Beyoglu bringing internal functions and group companies Turkcell Technology and Turkcell Superonline together in Istanbul, generating operational efficiencies.

As of December 31, 2016 we also had 146 owned and 1,220 leased vehicles, used for operational purposes and provided as benefits to our employees.

Table of Contents***a. Core Network Infrastructure***

Our core network consists of three site Geographically Redundant Next Generation Home Location Register Home Subscriber Server (NG HLR / HSS), a combined Number Portability Switch Relay Function (SRF) and Number Portability Database and Signal Transfer Point (STP), Diameter Routing Agent (DRA). The Core Network is common for 2G, 3G, 4.5G radio networks and carries voice over IP, with combined Mobile Switch Centers/Visitor Location Registers (MSC/VLR), Media Gateways (MGW), Charging Control Node (CCN) and Virtual Private Network (VPN).

We have IMS based VoLTE (Voice over LTE) network. We are planning to converge Core Voice and IMS Networks. With convergence of the networks, the telco based fixed and mobile services and (OTT based) application services will be given easier and faster.

Our core packet switching network combined of SGSNs/MME s (Serving GPRS Support Node, Mobility Management Entity) and GGSNs/SGW/PGWs (Gateway GPRS Support Node, Serving and PDN Gateway) providing GPRS/EDGE, and HSPA/HSPA+ (High Speed Packet Access) capability for mobile packet traffic and also Policy and Charging Rules Function (PCRF) for subscriber policies. In addition, we already deployed Data Optimization equipment for customer experience.

We have switches in Istanbul, Ankara, Izmir, Adana, Bursa, Diyarbakir, Erzurum, Gaziantep, Hatay, Kayseri, Kocaeli, Malatya, Mersin, Mugla, Samsun, Trabzon, and Van.

In addition, we own switch buildings in different cities in Turkey, such as Istanbul (Mahmutbey, Kartal, Maltepe), Mugla, Izmit, Diyarbakir, and Erzurum. Switch buildings are where the network switching equipment, such as MSC, MGW, BSC and RNC, is located.

b. Access Network Infrastructure

Our Access Network consists of Base Station Controllers (BSC) and Radio Network Controllers (RNC) at Network Data Centers (NDC) and BTS, Node-Bs and eNode-Bs located on rooftops or towers. Since 2014, we have been calling our OMCs (Operation Maintenance Centers) as NDCs (Network Data Centers). BTSs are the fixed transmitter and receiver equipment in a cell, or coverage area of a cluster of antennas, for a 2G mobile network that communicates by radio signal with mobile devices. Similarly, Node-Bs are the corresponding equipment for 3G, connected to and controlled by RNC in order to realize 3G and HSPA+ coverage for 3G /HSPA-equipped mobile phones and eNode-Bs are the equipment that carry out equivalent functionalities for 4.5G with the important difference that they are directly connected to 4.5G Core Network.

At the end of December 2016, we owned over 48,500 base stations (2G+3G/HSDPA+4.5G (LTE-A)) and leased the land underlying such base stations.

In 2009, the ICTA resolved that operators may transfer the right of use of their towers to third parties. In accordance with this resolution, we transferred the rights of some towers to Global Tower.

c. Transmission Network Infrastructure

Turkcell s mobile backhaul utilizes various transport technologies to provide for an efficient, resilient and cost effective transmission network. Connectivity between sites is provided using Microwave Radio Links and leased lines carried over Synchronous Digital Hierarchy (SDH) and Ethernet over Dense Wavelength Division Multiplexing

(DWDM) where appropriate. Cell sites with site connectivity are mostly served by point-to-point microwave radio links owned and managed by Turkcell, make up more than 90% of our network. Interconnections with other Public Land Mobile Networks (PLMN), Public Switched Telephone Networks (PSTN), Long Distance Telephony Services (LDTS) and small operator companies are realized through leased line connections. More than 90% of our leased line network connectivity is currently provided by our subsidiary Turkcell Superonline . The rest of the leased lines are provided by the incumbent Telekom operator Turk Telekom . With the growth of data usage and in preparation for 4.5G , fiber optic connectivity to cell sites has also become a part of our network topology. As a result the overall infrastructure capacity usage is fully optimized and a high grade of availability is achieved through topology resiliency and packet base IP mobile backhaul network infrastructure.

ITEM 4A.UNRESOLVED STAFF COMMENTS

None.

Table of Contents**ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS**

The following discussion and analysis of our management with regard to our financial condition and the results of our operations should be read together with the Consolidated Financial Statements included in this annual report. In addition to historical information, the following discussion contains forward-looking statements based on current expectations that involve risks and uncertainties. Actual results and the timing of certain events may differ significantly from those projected in such forward-looking statements due to a number of factors, including those set forth in Item 3.D. Risk Factors and elsewhere in this annual report.

I. Overview of the Turkish and International Economy

2016 saw divergent developments in different country groups. There has been a stronger than expected pickup in growth in advanced economies, mostly due to a reduced drag from inventories and some recovery in manufacturing output. In contrast, it is matched by an unexpected slowdown in some emerging market economies, mostly reflecting idiosyncratic factors. The slowdown was accompanied by a further drop in commodity prices and volatility in financial markets. However in the second half of 2016 the picture for emerging market and developing economies (EMDEs) remained much more diverse. The growth rate in China was a bit stronger than expected, supported by continued policy stimulus. But activity was weaker than expected in some emerging markets, such as Argentina and Brazil, as well as Turkey, which faced a sharp contraction in tourism revenues. The Turkish economy contracted by 1.8% in the third quarter of 2016 after having grown for twenty seven quarters in a row. Based on market estimates, the year-on-year GDP growth in Turkey is expected to be at around 3.0% in 2016 and forecast at 3.0% in 2017. The July failed coup attempt heightened the spectrum of political uncertainty and Russian sanctions have also negatively affected confidence. Turkey's credit rating was downgraded by Fitch and Moody's to below investment grade, with S&P's rating remaining one notch below investment grade. 2017 is expected to be an even more challenging year globally due to high volatility from differing monetary policies in developed markets. Advanced Economies monetary policy is set to remain rather accommodative, as policy rates would remain very low in 2017, while average balance sheets would still expand significantly due to ongoing large asset purchases by the Bank of Japan and the European Central Bank. On the U.S. side, the Federal Reserve (FED) has increased its policy rate for the second time in 2016 and after Donald Trump's victory in the presidential election, US rates are expected to rise further due to fiscal stimulus. Market players expect two rate hikes from the FED in 2017. The European Central Bank has extended the maturity of its quantitative easing program to December 2017 and is expected to provide further easing if needed.

The TRY depreciated by 21.0% against the U.S. Dollar in 2016, and in 2017 has depreciated by 6.6% as of March 10, 2017. Market players continue to expect further devaluation in the TRY in 2017. The annual inflation rate decreased to 8.5% by the end of 2016 from 8.8% at the end of 2015. The rise in inflation increased after July led by an increase in food prices and pass through effects due to the TRY depreciation along with political uncertainties and geopolitical risks. The latest CBRT expectations survey, as of February 13, 2017, indicated that inflation is expected to be at 8.9% at the end of 2017. The current account deficit remains sizeable, as the decline in tourism offsets savings from low energy prices. Progress on structural reforms has been slow. Potential capital outflows due to a decrease in global USD liquidity and rising U.S. interest rates may have a negative impact on the Turkish economy if not counterbalanced by the European Central Bank and the Bank of Japan actions.

Turkey will hold a referendum for constitutional change regarding its presidential system on April 16, 2017 which has also contributed to the political uncertainties in the country.

II. Taxation Issues in the Telecommunications Sector

Under current Turkish tax laws, there are several taxes imposed on the services provided by telecommunications operators in Turkey. These taxes are charged to subscribers by mobile operators and remitted to the relevant tax

authorities. They may be charged upon subscription, on an annual basis or on an *ad valorem* basis on the service fees charged to subscribers.

The following are the most significant taxes imposed on our telecommunications services:

a. *Special Communications Tax*

The Turkish government imposed a special 25% communications tax on mobile telephone services as part of a series of new taxes levied to finance public works required to respond to the earthquakes that struck Turkey's Marmara region in 1999. This tax is paid by mobile users and collected by mobile operators. As of August 2004 other telecom services (i.e., fixed lines and TV/radio transmission) are also included within the scope of special communication tax.

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Under Law No. 5838, which became effective on March 1, 2009, wired, wireless and mobile internet service providers are subject to a special 5% communications tax (previously such tax was 25% on mobile, 15% on fixed lines). Other than mobile internet services, all mobile telecommunication services are subject to a special 25% and other telecommunication services (i.e., fixed lines and TV/radio transmission) are subject to 15% tax rate. The tax collected from subscribers in one calendar month is remitted to the tax authorities within the first 15 days of the following month.

Under Law No. 6322, effective July 1, 2012, new mobile subscriptions for Machine to Machine (M2M) simcards are not subject to the special communication tax levied upon new subscriptions.

The special communications tax on new mobile subscriptions was TRY 46, TRY 44 and TRY 40 in 2016, 2015 and 2014, respectively. As of January 1, 2017, the special communications tax on new subscriptions levied is TRY 47. The tax has had a correlative negative impact on mobile usage.

b. Value Added Tax (VAT)

Like all services in Turkey, services provided by GSM operators are subject to VAT, which is 18% of the service fees charged to subscribers. We declare VAT to the Ministry of Finance within 24 days and remit VAT paid by our subscribers within the first 26 days of the month following when the tax was incurred, after the offset of input VAT incurred by us.

VAT for roaming services was, until November 3, 2009, calculated solely on the mark-up amount on subscribers invoices for roaming services. Following the Ministry of Finance's declaration of a change in its position regarding roaming charges, we began imposing VAT and the special communications tax on the entire amount of roaming charges, starting from November 3, 2009, to comply with this change in position.

Reverse charge VAT is calculated on the invoices issued by foreign GSM operators.

c. License and Annual Utilization Fees

According to Article number 46 of the Electronic Communications Law, subscribers registered in the system are subject to both license and annual utilization fees. GSM operators are charged with the duty of collecting these fees.

The license fee is paid once on the subscription per subscriber. The license fee was TRY 18.95, TRY 17.95 and TRY 16.30 in 2016, 2015 and 2014, respectively. As of January 1, 2017, the license fee is TRY 19.68.

The payment of the annual utilization fee to the government depends on whether a subscriber is postpaid or prepaid. For postpaid subscribers, the monthly utilization fee was TRY 1.58, TRY 1.50 and TRY 1.36 in 2016, 2015 and 2014, respectively, and is charged to subscribers monthly. For prepaid subscribers, the annual utilization fee is calculated by multiplying the number of registered prepaid subscribers at the previous year end by the annual utilization fee and the calculated bulk annual utilization fee is paid by mobile operators the following year on the last business day in February. As of January 1, 2017, the monthly utilization fee is TRY 1.64. We decided to collect utilization fees from most of our prepaid subscribers starting from June 2011 and we are collecting since then.

d. Special Consumption Tax

The Special Consumption Tax (SCT) is a tax on prescribed goods, which includes mobile phones. The SCT is charged on mobile phones either when they are imported or when they are sold by Turkish manufacturers. The SCT rate on mobile phones (mobile phones are legally defined as transmitter/receiver cellular phones) was set at 20% prior to October 13, 2011, and the SCT calculated in accordance with the 20% rate must not fall below TRY 40 per cellular phone device (Temporary Article 6 of Special Consumption Tax Code).

The SCT rates were raised on some motor vehicles, mobile phones, alcoholic beverages and tobacco products by a decision of the Board of Ministers, which was published in the Official Gazette on October 13, 2011. The SCT rate over cellular phones was increased from 20% to 25% and the minimum SCT amount to be calculated was increased to TRY 100 (previously the minimum SCT amount was TRY 40) effective from October 13, 2011.

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The SCT rates on some motor vehicles, mobile phones and alcoholic beverages were raised by a decision of the Board of Ministers, which was published in the Official Gazette on January 1, 2014. The minimum SCT amount to be calculated over cellular phones was increased to TRY 120 effective from January 1, 2014. By a decision of the Board of Ministers, which was published in the Official Gazette on January 1, 2016, the minimum SCT amount to be calculated over cellular phones was increased to TRY 160 effective from January 1, 2016. The said decision of the Board of Ministers has been cancelled in 2016 by the Supreme Court. Finally a new article has been added to the Special Communication Tax Law (Temporary Article 6) on September 9, 2016 and the minimum SCT amount to be calculated over cellular phones was set at TRY 160 effective from September 9, 2016. There is a possibility that such tax may increase in the near future.

e. Tax disputes

Changes in the Ministry of Finance's interpretation of the taxation codes, especially changes regarding consumption taxes (Value Added Tax and Special Communication Tax), may adversely affect consumer prices. In addition to the prospective financial impact of such changes, unanticipated tax liabilities and fines may also be levied against our financial results in prior years since a Turkish company's operations in the previous five years may be subject to financial investigation. Regulations that became effective July 1, 2010, however, have strengthened our rights with regards to this risk, particularly with regards to the following:

Tax inspectors shall not issue tax audit reports that contradict Decrees, Public Acts, Statutory Rules, General Communiqués and Circulars promulgated;

In the event that the tax authority differentiates previous interpretations of taxation codes via promulgated General Communiqués and Circulars, the new interpretation shall not be applied to previous transactions;
and

Transactions that are compliant with rulings taken from the Tax Office shall be relieved from both tax penalty and overdue interest. Such shelter is valid only for a taxpayer that has applied for the ruling.

For a description of various tax related disputes to which we are party, see Item 8.A. Consolidated Statements and Other Financial Information Legal Proceedings .

III. Critical Accounting Policies

Our discussion and analysis of our financial condition and results of operations are based upon our Consolidated Financial Statements, which have been prepared in accordance with IFRS as issued by the IASB. The preparation of these financial statements requires us to make estimates, judgments and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities at the date of the financial statements and for the period then ended. On an ongoing basis, we evaluate the estimates used. We base our estimates on historical experience, actuarial estimates, current conditions and various other assumptions that we believe to be reasonable under the circumstances. These estimates form the basis for making judgments about the carrying values of assets and liabilities and are not readily apparent from other sources. Actual results may differ from these estimates. Our critical accounting policies are disclosed in Note 3 (Significant Accounting Policies) to our Consolidated Financial Statements in this Form 20-F.

IV. Reportable Segments and Reporting Currency

Our operations are aggregated under two main reportable segments, Turkcell Turkey and Turkcell International:

The Turkcell Turkey segment comprises mainly our telecommunication and technology services activities in Turkey and includes the operations of Turkcell, Turkcell Superonline, Turkcell Satis, group call center operations of Turkcell Global Bilgi, Turktell, Turkcell Teknoloji, Turktell Interaktif, Global Tower, Rehberlik, Turkcell Odeme and Turkcell Gayrimenkul.

The Turkcell International segment comprises mainly our telecommunication and technology services activities outside of Turkey and includes the operations of lifecell, Belarusian Telecom, Kibris Telekom, Eastasia, Lifecell Ventures, Euroasia, Beltel, UkrTower, Global LLC, Turkcell Europe, Lifetech LLC, Beltower and Fintur.

Our Other reportable segment is comprised mainly of information and entertainment services in Turkey and Azerbaijan, non-group call center operations of Turkcell Global Bilgi and consumer financing service operations of Turkcell Finansman. The accounting policies of our reportable segments are the same as those described in the summary of significant accounting policies.

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As of October 1, 2016, the Group announced its intention to exit from jurisdictions in which Fintur operates and initiated an active program to locate a buyer. Fintur has since been classified as held for sale and discontinued operations. See Note 17 to our audited Consolidated Financial Statements included in Item 18. Financial Statements of this annual report on Form 20-F.

Our financial statements are presented in TRY only, the currency in which we recognize the majority of our revenues and expenses.

5.A Operating Results

Our audited Consolidated Financial Statements as at December 31, 2016 and December 31, 2015 and for each of the years in the three-year period ended December 31, 2016 included in this annual report have been prepared in accordance with IFRS as issued by the IASB.

I. Overview of Business

Turkcell, a joint stock company organized and existing under the laws of the Republic of Turkey, was formed in 1993 and commenced operations in 1994. We operate under a 25-year GSM license (the 2G License) and a 20-year GSM license (the 3G License). We were granted the 2G License in April 1998 upon payment of an upfront license fee of \$500 million. On April 30, 2009, we signed a license agreement with the ICTA, which provides authorization for providing IMT 2000/UMTS services and infrastructure. We acquired the A-type license providing the widest frequency band for a consideration of EUR 358 million (excluding VAT). The 3G License is effective for 20 years starting from April 30, 2009. Pursuant to the agreement, we started to provide IMT 2000/UMTS services as of July 30, 2009.

We believe that the build-out of our network in Turkey is substantially completed. As of December 31, 2016, our network covered 100% of Turkish cities with a population of 1,000 or more and the majority of Turkey's tourist areas and principal intercity highways (according to the Turkish Statistical Institute 2012 Census). We currently meet the coverage requirements of our 2G license in all material respects.

In accordance with our 3G license agreement, we are required to cover the population within the borders of all metropolitan municipalities and within the borders of all cities and municipalities in three and six years, respectively. Moreover, we are required to cover the population in all settlement areas with a population higher than 5,000 and 1,000 in eight and ten years, respectively, following the date of the agreement. As of December 31, 2016, we had reached 96.04% population coverage.

In the 4.5G auction held on August 26, 2015, we agreed to purchase the use of 172.4 MHz, the largest amount of spectrum of any operator, for 1,623.5 million (excluding VAT and interest payable on the installments). The license fee is being paid in four equal semi-annual installments. We agreed to purchase the use of widest frequency bands on 1800 MHz and 2600 MHz. We believe that these will allow us to offer high quality 4.5G services. We commenced offering 4.5G services from April 1, 2016. The 4.5G License is effective for 13 years until April 30, 2029.

Under our 2G, 3G and 4.5G licenses, we pay the Undersecretariat of the Treasury (the Turkish Treasury) a monthly treasury share equal to 15% of our gross revenue. Of such fee, 10% is paid to the Ministry of Transport, Maritime Affairs and Communications of Turkey (Turkish Ministry) for the universal service fund.

Other than our 2G, 3G and 4.5G licenses, we also operate under interconnection agreements with other operators that allow us to connect our networks with those operators to enable the transmission of calls to and from our mobile

communications system through existing digital fixed telephone switches. For example, we have an interconnection agreement with Turk Telekom that provides for the interconnection of our network with Turk Telekom's fixed-line network. Under our agreement with Turk Telekom, as amended, we pay Turk Telekom an interconnection fee per call based on the type and length of the call for calls originating on our network and terminating on Turk Telekom's fixed-line network, as well as fees for other services. We also collect an interconnection fee from Turk Telekom for calls originating on their fixed-line network and terminating on ours. We also have interconnection agreements with Vodafone and Avea pursuant to which we have agreed, among other things, to pay interconnection fees to them for calls originating on our network and terminating on theirs, and they have agreed to pay interconnection fees for calls originating on their networks and terminating on our networks.

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Our subscriber base has grown substantially since we began operations in 1994. At year-end 1994, we had 63,500 subscribers, and by year-end 2016, that number for the Group had grown to 50.1 million including subscribers of subsidiaries.

In 2015, Turkcell Turkey has positioned itself as a converged player in the total telecommunication market in line with our new strategic priorities. We shifted to a new organizational structure with the aim of increasing efficiency and simplification in our business processes, as well as strengthening our position as a provider of converged communications and technology services. Through our merged sales channels and integrated technical platform, we have generated efficiencies. Meanwhile, customer services have become a separate focus area.

Going forward, we will monitor our market share in terms of total telecom revenues as a converged player instead of mobile only revenues, or subscribers. In this regard, positioned as the second player in the converged market, our priority will be to increase our 37.4 % share (including financial services revenue) within this market through differentiating our services and solutions, while remaining attuned to profitability.

We provide high-quality mobile and fixed voice, data, TV and other services over our network. We will continue to focus on our customer-oriented approach and our ability to provide quick and differentiated solutions to meet customers' needs through lifestyle segments.

In the mobile segment, we increased our postpaid subscriber base from 49% in 2015 to 53% in 2016 due to our focus on value. As of December 31, 2016, we had approximately 15.7 million prepaid subscribers and 17.4 million postpaid subscribers, compared to approximately 17.4 million prepaid subscribers and 16.6 million postpaid subscribers as of December 31, 2015.

Our average MoU in Turkey increased 9.2% to 323.9 minutes in 2016 from 296.6 minutes in 2015, as a result of high bundle packages utilization. Our mobile average revenue per user in Turkey increased to TRY 26.8 in 2016 compared to TRY 24.5 in 2015 mainly driven by our upsell strategy, favorable change in customer mix, focus on high value customer groups, and increased package penetration.

Our revenues are generated in large part from interconnection fees and retail tariffs. Regulatory decisions have had and may continue to have the effect of decreasing interconnection rates and imposing minimum and maximum prices on our retail tariffs. For a more detailed discussion of these factors, please see Item 4.B. Business Overview Regulation of the Turkish Telecommunications Industry and Item 5.D. Trend Information .

Churn rate is the percentage calculated by dividing the total number of subscriber disconnections during a period by the average number of subscribers for the same period. For these purposes, we define average number of subscribers as the number of subscribers at the beginning of the period plus one half of the total number of gross subscribers acquired during the period. Churn refers to subscribers that are both voluntarily and involuntarily disconnected from our network. In 2016, our churn rate for mobile operations in Turkey decreased to 24.6% from 27.3% in 2015.

In the fixed segment, we increased our subscriber base from 1.5 million for the year ended December 31, 2015, to 1.9 million for the year ended December 31, 2016. 56% of the subscriber base are fiber customers (1,044 thousand subscribers).

We have an allowance for doubtful receivables in our Consolidated Financial Statements for non-payments and disconnections that amounted to TRY 974.5 million and TRY 816.4 million as of December 31, 2016 and 2015 respectively, which we believe is adequate. The main reason for the increase in allowance for doubtful receivables is an impairment loss recognized amounting to TRY 211.4 million which was netted off with a write-off

of overdue receivables amounting to TRY 58.3 million.

II. International and Other Domestic Operations

In addition to our businesses in Turkey, we have telecommunications operations in Ukraine, the Turkish Republic of Northern Cyprus, Belarus and Germany. We also operate in other countries through Fintur. For a description of, and additional information regarding, our international and other domestic operations, see Item 4.B. Business Overview .

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III. Revenues

Revenues include voice, data, messaging, services and solutions, wholesale and other revenues. Other revenues mainly consist of revenues from our retail business, call center business, information and entertainment services, tower business and financial services.

IV. Operating Costs

a. *Direct Cost of Revenues*

Direct cost of revenues includes treasury shares, transmission fees, base station rent and energy expenses, billing costs, cost of goods sold, depreciation and amortization charges, funding costs for financial services, repair and maintenance expenses directly related to services rendered, roaming charges paid to foreign mobile communications operators for calls made by our subscribers while outside Turkey, interconnection fees mainly paid to Turk Telekom, Vodafone and Avea, handset costs where the Company is the principal in the sale of the handsets, and wages and salaries and personnel expenses for technical personnel.

b. *Administrative Expenses*

Administrative expenses consist of fixed costs, including company cars, office rental, office maintenance, travel, insurance, consulting, collection charges, wages, salaries and personnel expenses for non-technical, non-marketing, and non-sales employees, and other overhead charges. Our administrative expenses also include bad debt expenses of our subscribers and customers.

c. *Selling and Marketing*

Selling and marketing expenses consist of dealer and distributor commissions, advertising, uncharged prepaid frequency usage fees, wages, salaries and personnel expenses of sales and marketing related employees, and other expenses, including travel expenses, office expenses, insurance, company car expenses, and training and communication expenses.

Table of Contents**d. Results of Operations**

The following table shows information concerning our consolidated statements of operations for the years indicated:

	For the years ended December 31,		
	2016	2015	2014
	(in TRY millions)		
Revenues	14,100.9	12,769.4	12,043.6
Direct cost of revenues	(9,166.4)	(7,769.5)	(7,383.9)
Gross profit from non-financial operations	4,934.5	4,999.9	4,659.7
Revenue from financial operations	184.7		
Direct cost of revenues from financial operations	(70.2)		
Gross profit from financial operations	114.5		
Gross profit	5,049.0	4,999.9	4,659.7
Administrative expenses	(721.8)	(625.3)	(562.7)
Selling and marketing expenses	(1,910.9)	(1,901.9)	(1,974.6)
Other income/(expense), net	(234.2)	(225.9)	(76.3)
Results from operating activities	2,181.9	2,246.8	2,046.1
Finance costs	(1,237.6)	(799.5)	(1,247.0)
Finance income	1,064.8	756.1	955.4
Net finance (costs)/income	(172.8)	(43.4)	(291.6)
Monetary gain			205.1
Share of profit of equity accounted investees			4.5
Profit before income taxes	2,009.1	2,203.3	1,964.0
Income tax expense	(423.2)	(667.1)	(730.4)
Profit from continuing operations	1,586.0	1,536.2	1,233.6
Profit/ (loss) from discontinued operations	(42.2)	367.3	202.8
Profit for the year	1,543.8	1,903.6	1,436.5
Attributable to:			
Equity holders of the Company	1,492.1	2,067.7	1,864.7
Non-controlling interest	51.7	(164.1)	(428.2)
Profit for the year	1,543.8	1,903.6	1,436.5

The following table shows certain items in our consolidated statement of operations as a percentage of revenue:

	For the years ended December 31,		
	2016	2015	2014
Statement of Operations Data (% of revenue)			
Revenues	100.0	100.0	100.0
Direct cost of revenues	(64.7)	(60.8)	(61.3)

Gross margin	35.3	39.2	38.7
Administrative expense	(5.1)	(4.9)	(4.7)
Selling and marketing expenses	(13.4)	(14.9)	(16.4)
Other operating income/(expense), net	(1.6)	(1.8)	(0.6)
Results from operating activities	15.3	17.6	17.0

V. Segment Overview

Our operations are aggregated under two main reportable segments, Turkcell Turkey and Turkcell International:

The Turkcell Turkey segment comprises mainly our telecommunication and technology services activities in Turkey and includes the operations of Turkcell, Turkcell Superonline, Turkcell Satis, group call center operations of Turkcell Global Bilgi, Turktell, Turkcell Teknoloji, Turktell Interaktif, Global Tower, Rehberlik, Turkcell Odeme and Turkcell Gayrimenkul.

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The Turkcell International segment comprises mainly our telecommunication and technology services activities outside of Turkey and includes the operations of lifecell, Belarusian Telecom, Kibris Telekom, Eastasia, Lifecell Ventures, Euroasia, Beltel, UkrTower, Global LLC, Turkcell Europe, Lifetech LLC, Beltower and Fintur.

Our Other reportable segment is comprised mainly information and entertainment services in Turkey and Azerbaijan, non-group call center operations of Turkcell Global Bilgi and consumer financing service operations of Turkcell Finansman. The accounting policies of our reportable segments are the same as those described in the summary of significant accounting policies.

As of October 1, 2016, the Group announced its intention to exit from jurisdictions in which Fintur operates and initiated an active program to locate a buyer. Fintur has since been classified as held for sale and discontinued operations. See Note 17 to our audited Consolidated Financial Statements included in Item 18. Financial Statements of this annual report on Form 20-F.

	Turkcell Turkey		Turkcell International		Other		Intersegment Eliminations		Consolidated	
	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015
	(in TRY millions)									
Consumer segment revenue	10,216.0	9,127.3							10,216.0	9,127.3
Corporate segment revenue	2,191.5	2,031.7							2,191.5	2,031.7
Other Turkcell Turkey revenue	380.1	321.9							380.1	321.9
Turkcell International revenue			874.7	856.1					874.7	856.1
Other revenue					661.9	458.6			661.9	458.6
Eliminations							(38.6)	(26.2)	(38.6)	(26.2)
Total revenue	12,787.6	11,480.9	874.7	856.1	661.9	458.6	(38.6)	(26.2)	14,285.6	12,769.4
Reportable segment Adjusted EBITDA*	4,160.9	3,759.6	235.3	246.0	222.8	134.5	0.5	0.5	4,619.5	4,140.5
Depreciation and amortization	(1,986.7)	(1,457.0)	(202.1)	(200.8)	(13.7)	(10.2)	(0.9)	0.2	(2,203.4)	(1,667.8)
Capital expenditure	3,144.4	7,751.7	336.7	770.2	13.8	14.3	(0.3)		3,494.7	8,536.2
	(195.5)	(188.0)	(6.0)	(8.3)	(10.0)	(0.3)			(211.4)	(196.6)

Bad debt
expense

	Turkcell Turkey		Turkcell International		Other		Intersegment Eliminations		Consolidated	
	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014
	(in TRY millions)									
Consumer segment revenue	9,127.3	8,282.3							9,127.3	8,282.3
Corporate segment revenue	2,031.7	1,907.4							2,031.7	1,907.4
Other Turkcell Turkey revenue	321.9	290.5							321.9	290.5
Turkcell International revenue			856.1	1,137.9					856.1	1,137.9
Other revenue					458.6	457.8			458.6	457.8
Eliminations							(26.2)	(32.4)	(26.2)	(32.4)
Total revenue	11,480.9	10,480.2	856.1	1,137.9	458.6	457.8	(26.2)	(32.4)	12,769.4	12,043.6
Reportable segment Adjusted EBITDA*	3,759.6	3,326.4	246.0	281.0	134.5	154.6	0.5	(0.2)	4,140.5	3,761.8
Monetary gain				205.1						205.1
Depreciation and amortization	(1,457.0)	(1,311.6)	(200.8)	(319.2)	(10.2)	(8.8)	0.2	0.2	(1,667.8)	(1,639.4)
Capital expenditure	7,751.7	1,982.3	770.2	158.0	14.3	4.5			8,536.2	2,144.8
Bad debt expense	(188.0)	(141.5)	(8.3)	(14.5)	(0.3)	0.0			(196.6)	(155.9)

* For a definition of adjusted EBITDA, please see footnote 9 of the table in Item 3.A. Selected Financial Data .

Table of Contents**Turkcell Turkey*****a. 2016 compared to 2015***

Total revenues generated by Turkcell Turkey increased 11.4% to TRY 12,787.6 million in 2016 from TRY 11,480.9 million in 2015, mainly due to a 56.3% growth in data revenues driven by the increase in mobile data and fixed data revenues impacted by increased smartphone penetration, higher user numbers and a rise in data consumption; a 94.6% increase in services revenues which was partially offset by a 26.6% decrease in voice revenues. For a more detailed discussion of the factors affecting our revenues, please see Item 4.B. Business Overview Regulation of the Turkish Telecommunications Industry and Item 5.D. Trend Information .

Turkcell Turkey's Adjusted EBITDA increased 10.7% to TRY 4,160.9 million in 2016 from TRY 3,759.6 million in 2015, mainly due to an increase in revenues which was partially offset by an increase in direct cost of revenues and administrative expenses. The increase in the direct cost of revenues mainly resulted from an increase in treasury share expenses, interconnection cost, wages, salaries and personnel, handset costs and network related expenses. The increase in administrative expenses mainly resulted from an increase in bad debt expenses, consultancy expenses and wages, salaries and personnel expenses.

Depreciation expense increased 36.4% to TRY 1,986.7 million in 2016 from TRY 1,457.0 million in 2015 mainly as a result of an increase in capital expenditures.

b. 2015 compared to 2014

Total revenues generated by Turkcell Turkey increased 9.5%, to TRY 11,480.9 million in 2015 from TRY 10,480.2 million in 2014, mainly due to a 38.1% growth in data revenues driven by the increase in mobile data and fixed data revenues impacted by increased smartphone penetration, higher user numbers and a rise in data consumption; a 38.5% increase in services revenues which was partially offset by a 2.7% decrease in voice revenues. For a more detailed discussion of the factors affecting our revenues, please see Item 4.B. Business Overview Regulation of the Turkish Telecommunications Industry and Item 5.D. Trend Information .

Turkcell Turkey's Adjusted EBITDA increased 13.0% to TRY 3,759.6 million in 2015 from TRY 3,326.4 million in 2014, mainly due to an increase in revenues which was partially offset by an increase in direct cost of revenues and administrative expenses. The increase in the direct cost of revenues mainly resulted from an increase in treasury share expenses, interconnection cost, wages, salaries and personnel and network related expenses. The increase in administrative expenses mainly resulted from an increase in bad debt expenses and wages, salaries and personnel expenses.

Depreciation expense increased 11.1% to TRY 1,457.0 million in 2015 from TRY 1,311.6 million in 2014 mainly as a result of an increase in the capex additions.

Turkcell International***a. 2016 compared to 2015***

Total revenues generated by Turkcell International increased by 2.2%, to TRY 874.7 million in 2016 from TRY 856.1 million in 2015 mainly due to currency devaluation in Ukraine and Belarus against the Turkish Lira in 2015. The annual growth rates, in terms of local currency, of our major subsidiaries, lifecell and Belarusian Telecom were 8.1% and 19.4% respectively. The revenue growth in lifecell, which operates in Ukraine, was mainly driven by the

increase in the three-month active subscriber base to 10.6 million from 9.2 million and also 14.4% higher blended ARPU (three-month active) due to higher mobile broadband usage. The revenue growth in Belarusian Telecom, which operates in Belarus, was mainly due to expansion of the subscriber base along with increased voice, mobile services revenues and terminal sales.

Turkcell International's Adjusted EBITDA decreased by 4.3% to TRY 235.3 million in 2016 from TRY 246.0 million in 2015 due to the negative impact of currency devaluation in Ukraine and Belarus against the Turkish Lira. The majority of the segment Adjusted EBITDA is driven by lifecell which decreased by 8.6% in terms of local currency in 2016 compared to 2015 due to higher network related costs resulting from the 3G+ roll-out and operational leasing expense post tower related sale and leaseback transactions, as well as higher marketing expenses.

b. 2015 compared to 2014

Total revenues generated by Turkcell International decreased by 24.8%, to TRY 856.1 million in 2015 from TRY 1,137.9 million in 2014 mainly due to currency devaluation in Ukraine and Belarus against the Turkish Lira

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in 2015. The annual growth rates, in terms of local currency, of our major subsidiaries, lifecell and Belarusian Telecom were 10.5% and 6.2% respectively. The revenue growth in lifecell, which operates in Ukraine, was mainly driven by the increase in three-month active subscriber base to 10.6 million from 10.3 million and also 2.9% higher blended ARPU (three-month active) due to higher mobile broadband usage. The revenue growth in Belarusian Telecom, which operates in Belarus, was mainly due to expansion of the subscriber base along with increased voice, mobile broadband and mobile services revenues.

Turkcell International's Adjusted EBITDA decreased by 12.5% to TRY 246.0 million in 2015 from TRY 281.0 million in 2014 due to the negative impact of currency devaluation in Ukraine and Belarus against the Turkish Lira. The majority of the segment Adjusted EBITDA is driven by lifecell which grew by 20.0% in terms of local currency in 2015 compared to 2014 due to effective cost management and better revenue mix.

VI. Year Ended December 31, 2016 Compared to the Year Ended December 31, 2015

We had 33.0 million mobile subscribers in Turkey, including 15.7 million mobile prepaid subscribers, as of December 31, 2016, compared to 34.0 million mobile subscribers in Turkey, with 17.4 million mobile prepaid subscribers, as of December 31, 2015. During 2016, we recorded a decrease of 966 thousand Turkish mobile subscribers.

In the fixed segment, we increased our subscriber base from 1.5 million, of which 899 thousand were fiber customers, for the year ended December 31, 2015, to 1.9 million, of which 1,044 thousand were fiber customers, for the year ended December 31, 2016.

In Ukraine, we had 12.4 million and 13.5 million registered subscribers as of December 31, 2016 and 2015, respectively. During 2016, we lost approximately 1.1 million Ukrainian registered subscribers, similarly 3 months active subscribers decreased from 10.6 million to 9.2 million. This was primarily due to decreasing multiple SIM card usage.

a. Revenues

Total revenues for the year ended December 31, 2016 increased 11.9% to TRY 14,285.6 million in 2016 from TRY 12,769.4 million in 2015.

Total revenues generated by Turkcell Turkey increased 11.4%, to TRY 12,787.6 million in 2016 from TRY 11,480.9 million in 2015, mainly due to a 56.3% growth in data revenues driven by the increase in mobile data and fixed data revenues impacted by increased smartphone penetration, higher user numbers and a rise in data consumption; a 94.6% increase in services revenues which was partially offset by a 26.6% decrease in voice revenues.

Postpaid subscriber usage is generally higher than prepaid subscriber. In Turkey, during 2016, we maintained our focus on the postpaid segment, with newly launched campaigns, offers and promotions to switch customers from the prepaid to the postpaid segment. We focus on postpaid subscribers because there is, in general, higher average revenue per postpaid subscriber and a lower churn rate. In 2016, postpaid average revenue per user excluding M2M subscribers was TRY 44.0 whereas prepaid average revenue per user was TRY 13.9. These figures indicate that postpaid average revenue per user is approximately 3.2 times the prepaid average revenue per user. Therefore, the increase in the number of postpaid subscribers has a positive effect on blended average revenue per user.

Total revenues generated by Turkcell International increased by 2.2%, to TRY 874.7 million in 2016 from TRY 856.1 million in 2015 mainly due to growth in Ukraine and Belarus business. The annual growth rates, in terms of

local currency, lifecell and Belarusian Telecom were 8.1% and 19.4% respectively.

Other subsidiaries' revenues and intersegment eliminations, mainly comprised of our revenues from information and entertainment services, call center services and financial services, grew by 44.2% to TRY 623.3 million in 2016 from TRY 432.4 million in 2015. The increase in revenue is mainly attributable to the commencement of Turkcell Finansman in February 2016.

b. *Direct cost of revenues*

Direct cost of revenues, including depreciation and amortization, increased by 18.9% to TRY 9,236.6 million in 2016 from TRY 7,769.5 million in 2015, due to an increase in depreciation and amortization charges, treasury shares and universal funds paid, network related expenses, wages, salaries and personnel expenses, funding costs for financial services and other items.

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Depreciation and amortization charges (including impairment charges) increased by 32.1%, to TRY 2,203.2 million in 2016 from TRY 1,667.8 million in 2015. The amortization expense for our GSM license and other telecommunication operating licenses was TRY 445.1 million in 2016 mainly attributable to our 4.5G license and TRY 125.3 million in 2015.

Treasury shares and universal funds paid to the Turkish Treasury and Ministry of Transport, Maritime Affairs and Communications (Turkish Ministry) increased 5.1%, to TRY 1,683.5 million in 2016 from TRY 1,601.2 million in 2015 which was mainly due to the increase in mobile revenues.

Interconnection and termination costs increased 7.0% to TRY 1,420.2 million in 2016 from TRY 1,327.0 million in 2015 mainly due to the increase in off-net interconnection traffic.

Transmission costs increased by 22.6% to TRY 139.2 million in 2016 from TRY 113.6 million in 2015. Furthermore, radio costs increased by 16.0%, to TRY 1,057.6 million in 2016 from TRY 911.4 million in 2015 mainly due to the cumulative investment impact and increased costs such as rent and energy.

Wages, salaries and personnel expenses for technical personnel increased 16.9% to TRY 859.1 million in 2016 from TRY 734.7 million in 2015, mainly due to the periodic increase in wages and salaries and the increase in number of personnel.

Roaming expenses increased 18.8%, to TRY 128.4 million in 2016 from TRY 108.1 million in 2015, mainly due to depreciation of the TRY against the EUR and overall traffic increase.

Billing and archiving costs decreased 15.9% to TRY 61.6 million in 2016 from TRY 73.3 million in 2015, mainly due to the increase in the usage of the electronic and SMS invoices for billing.

Funding costs for financial services amounting to TRY 67.2 million were recognized in 2016 due to the commencement of Turkcell Finansman in February 2016.

Other costs in direct cost of revenues increased 31.2% to TRY 1,616.4 million in 2016 from TRY 1,232.3 million in 2015 due to increased contribution of our subsidiaries to our revenues, particularly in the fixed broadband and retail businesses.

As a percentage of revenues, direct cost of revenues increased 3.8 pp to 64.7% in 2016 from 60.8% in 2015, mainly as a result of increases in depreciation and amortization expenses of 2.4 pp, retail sales related to device costs of 1.5 pp and funding costs from financial services of 0.5pp as opposed to a decrease in interconnect costs of 0.5 pp.

Gross profit margin decreased 3.8 percentage points from 39.2% in 2015 to 35.3% in 2016.

c. Administrative expenses

Administrative expenses increased 15.4%, to TRY 721.8 million in 2016 from TRY 625.3 million in 2015, mainly due to an increase in wages, salaries and personnel expenses, rent expenses, consultancy expense together with the increase in bad debt expenses resulting from the increase in assigned contracted receivables. As a percentage of revenues, general and administrative expenses increased to 5.1% for the year ended December 31, 2016, from 4.9% for the year ended December 31, 2015.

Wages, salaries and personnel expenses for non-technical and non-marketing employees increased 15.5%, to TRY 277.4 million in 2016 from TRY 240.3 million in 2015, primarily due to periodic increases in wages and salaries and the increase in number of personnel.

Bad debt expenses increased 7.5%, to TRY 211.4 million in 2016 from TRY 196.6 million in 2015, mainly due to the increase in allowance for receivables from financial services.

We provided an allowance of TRY 974.5 million and TRY 816.4 million for doubtful receivables for the years ended December 31, 2016 and 2015, respectively, depending on the likelihood of recoverability of trade and other receivables based on the aging of the balances, historical collection trends and general economic conditions.

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Other administrative expenses, including collection and consulting expenses, increased 23.7% to TRY 233.0 million in 2016 from TRY 188.4 million in 2015.

d. Selling and marketing expenses

Selling and marketing expenses increased 0.5%, to TRY 1,910.9 million in 2016 from TRY 1,901.9 million in 2015, primarily due to a decrease in selling expenses and wages, salaries and personnel expenses partially offset by an increase in marketing expenses. As a percentage of revenues, selling and marketing expenses decreased from 14.9% for the year ended December 31, 2015 to 13.4 % for the year ended December 31, 2016.

Selling expenses, which consist of distributor and dealer commissions and other selling expenses decreased 3.2%, to TRY 757.9 million in 2016 from TRY 783.2 million in 2015, mainly due to our value focused customer acquisition strategy.

Marketing expenses, which consist of advertising, market research and sponsorships expenses, increased 20.9%, to TRY 518.4 million in 2016 from TRY 428.6 million in 2015.

Wages, salaries and personnel expenses for selling and marketing employees decreased 7.1%, to TRY 354.4 million in 2016 from TRY 381.6 million in 2015, mainly due to decrease in number of personnel partially offset by periodic increase in wages and salaries.

Prepaid subscribers uncharged frequency usage fee expenses decreased 2.5%, to TRY 186.5 million in 2016 from TRY 191.4 million in 2015.

e. Other operating income/(expense)

Other net operating expenses increased to TRY 234.2 million in 2016 from TRY 225.9 million in 2015, mainly due to fixed asset sales gain, reversal of legal provisions, commercial agreements termination expenses, donations and litigation expenses as explained in Note 37 (Commitments and Contingencies, Legal Proceedings) to our Consolidated Financial Statements in this Form 20-F.

f. Results from operating activities

Results from operating activities decreased by 2.9% to TRY 2,181.9 million in 2016 from TRY 2,246.8 million in 2015. As a percentage of revenues, results from operating activities also decreased from 17.6% in 2015 to 15.3% in 2016 mainly due to a decrease in selling and marketing expenses as a percentage of revenues.

g. Net finance income/cost

Net finance cost improved to a TRY 172.8 million net expense in 2016 from a TRY 43.4 million net expense in 2015, due to an increase in finance cost to TRY 1,237.6 million in 2016 from TRY 799.5 million in 2015, which was partially offset by the increase in finance income to TRY 1,064.8 million in 2016 from TRY 756.1 million in 2015.

Finance income increased by 40.8% to TRY 1,064.8 million in 2016 from TRY 756.1 million in 2015, mainly due to gain from changes in the fair value of derivative instruments partially netted off with the decrease in interest income on bank deposits.

Finance cost increased by 54.8% to TRY 1,237.6 million in 2016 from TRY 799.5 million in 2015, mainly due to the increase in foreign exchange losses on borrowings, 4.5G payables and bonds issued partially netted off with foreign exchange gain from main operations and increase in financing cost of borrowings and 4.5G payables. Net foreign exchange losses increased from TRY 489.3 million in 2015 to TRY 782.5 million in 2016.

Finance cost the for year ended 31 December 2015 is mainly attributable to foreign exchange losses in Belarusian Telecom operating in Belarus and foreign exchange losses in lifecell operating in Ukraine. Foreign exchange losses from Belarusian Telecom and lifecell exclude foreign exchange losses arising in the foreign operations individual financial statements which have been recognized directly in equity in the foreign currency translation differences in the consolidated financial statements in accordance with accounting policy for net investment in foreign operations.

Table of Contents***h. Income tax expense***

Income tax expense decreased 36.6% to TRY 423.2 million in 2016 from TRY 667.1 million in 2015.

The effective tax rate was 21.5% and 26.0% for the years ended December 31, 2016 and 2015, respectively.

Our domestic tax rate is 20%. Differences between the effective tax rate and our domestic tax rate include, but are not limited to, the effect of allowance for deferred tax assets, tax rates in foreign jurisdictions, dividend income from investment in associates subject to certain tax exemptions (including Fintur), tax-exempt income and non-deductible expenses. The high effective tax rate in 2016 and 2015 is mainly due to the fact that since it is not probable that taxable profit will be available against which the unused tax losses or unused tax credits of lifecell and Belarusian Telecom can be utilized, no deferred tax asset is recognized on any loss incurred in lifecell and Belarusian Telecom.

i. Profit/ (loss) from discontinued operations

We have announced our intention to exit from jurisdictions in which Fintur operates and initiated an active program to locate a buyer. Fintur is now classified as held for sale and reported as discontinued operations (Note 17). Fintur is now therefore disclosed separately on a single line as discontinued operations in our Consolidated Financial Statements in this Form 20-F. Comparative periods in the Consolidated Financial Statements are restated to reflect the classification of Fintur as discontinued operations.

Loss from discontinued operations is TRY 42.2 million in 2016, whereas profit from discontinued operations was TRY 367.3 million in 2015 from Fintur from October 1, 2016 on the basis of our 41.45% stake in Fintur.

j. Non-controlling interests

Non-controlling interests in the net profit of our consolidated subsidiaries is classified separately in the consolidated financial statements of operations under non-controlling interests. Loss allocated to non-controlling interests amounted to TRY 164.1 million for the year ended December 31, 2015, compared to a TRY 51.7 million gain for 2016.

Loss allocated to non-controlling interests from lifecell's net loss amounted to TRY 209.3 million in 2015. There is no effect in 2016 since we acquired minority shares of Euroasia in July 2015. In addition, profit allocated to non-controlling interests from net profit generated by Inteltek for the years ended December 31, 2016 and 2015 amounted to approximately TRY 39.3 million and TRY 38.4 million respectively.

k. Profit for the year attributable to equity holders of the Company

Profit for the year attributable to equity holders of the Company decreased to TRY 1,492.1 million in 2016 from TRY 2,067.7 million in 2015, mostly due to decrease in results from operating activities and loss from discontinued operations, higher foreign exchange losses recorded, the decrease in interest income earned on time deposits, which was partially netted off with gain from changes in the fair value of derivative financial instruments.

VII. Year Ended December 31, 2015 Compared to the Year Ended December 31, 2014

We had 34.0 million mobile subscribers in Turkey, including 17.4 million mobile prepaid subscribers, as of December 31, 2015, compared to 34.6 million mobile subscribers in Turkey, with 19.4 million mobile prepaid subscribers, as of December 31, 2014. During 2015, we recorded a decrease of 624 thousand Turkish mobile

subscribers.

In the fixed segment, we increased our subscriber base to 1.5 million, of which 899 thousand were fiber customers for the year ended December 31, 2015 from 1.2 million of which 735 thousand were fiber customers for the year ended December 31, 2014.

In Ukraine, we had 13.5 million and 13.9 million registered subscribers as of December 31, 2015 and 2014, respectively. During 2015, we lost approximately 0.4 million Ukrainian registered subscribers although we increased our 3 months active subscribers from 10.3 million to 10.6 million. This was primarily due to successful regional strategy, effective regional tariffs and campaigns.

Table of Contents**a. Revenues**

Total revenues for the year ended December 31, 2015 increased 6.0% to TRY 12,769.4 million in 2015 from TRY 12,043.6 million in 2014.

Total revenues generated by Turkcell Turkey increased 9.5%, to TRY 11,480.9 million in 2015 from TRY 10,480.2 million in 2014, mainly due to a 38.1% growth in data revenues driven by the increase in mobile broadband and fixed broadband revenues impacted by increased smartphone penetration, higher user numbers and a rise in data consumption; a 38.5% increase in services revenues which was partially offset by a 2.7% decrease in voice revenues.

Postpaid subscriber usage is generally higher than prepaid subscriber. In Turkey, during 2015, we maintained our focus on the postpaid segment, with newly launched campaigns, offers and promotions to switch customers from the prepaid to the postpaid segment. We focus on postpaid subscribers because there is, in general, higher average revenue per postpaid subscriber and a lower churn rate. In 2015, postpaid average revenue per user excluding M2M subscribers was TRY 42.7 whereas prepaid average revenue per user was TRY 12.4. These figures indicate that postpaid average revenue per user is approximately 3.4 times the prepaid average revenue per user. Therefore, the increase in the number of postpaid subscribers has a positive effect on blended average revenue per user.

Total revenues generated by Turkcell International decreased by 24.8%, to TRY 856.1 million in 2015 from TRY 1,137.9 million in 2014 mainly due to currency devaluation in Ukraine and Belarus against the Turkish Lira in 2015 and decline in Turkcell Europe revenues due to change in its business model. The annual growth rates, in terms of local currency, of our major subsidiaries, lifecell and Belarusian Telecom were 10.5% and 6.2% respectively.

Other subsidiaries revenues and intersegment eliminations, mainly comprised of our information and entertainment services and call center revenues, grew by 1.6% to TRY 432.4 million in 2015 from TRY 425.5 million in 2014.

b. Direct cost of revenues

Direct cost of revenues, including depreciation and amortization, increased by 5.2% to TRY 7,769.5 million in 2015 from TRY 7,383.9 million in 2014, due to an increase in depreciation and amortization charges, treasury shares and universal funds paid, network related expenses, wages and salaries and other items.

Depreciation and amortization charges (including impairment charges) increased by 1.7%, to TRY 1,667.8 million in 2015 from TRY 1,639.4 million in 2014. The amortization expense for our GSM license and other telecommunication operating licenses was TRY 125.3 million in 2015 and TRY 116.0 million in 2014.

Treasury shares and universal funds paid to the Turkish Treasury and Ministry of Transport, Maritime Affairs and Communications (Turkish Ministry) increased 7.4%, to TRY 1,601.2 million in 2015 from TRY 1,491.4 million in 2014 which was mainly due to the increase in mobile revenues.

Interconnection and termination costs increased 0.8% to TRY 1,327.0 million in 2015 from TRY 1,316.6 million in 2014 due to the decrease of interconnection traffic of lifecell and revised operational structure of Turkcell Europe which was partially offset by the increase in off net traffic of Turkey operations.

Transmission costs increased by 6.7% to TRY 113.6 million in 2015 from TRY 106.4 million in 2014. Furthermore, radio costs increased by 9.9%, to TRY 911.5 million in 2015 from TRY 829.7 million in 2014 mainly due to the cumulative investment impact and increased taxes and costs, such as rent and energy.

Wages, salaries and personnel expenses for technical personnel increased 12.0% to TRY 734.7 million in 2015 from TRY 655.7 million in 2014, mainly due to the periodic increase in wages and salaries and the increase in number of personnel.

Roaming expenses increased 17.3%, to TRY 108.1 million in 2015 from TRY 92.2 million in 2014, mainly due to depreciation of the TRY against the EUR and increased traffic.

Billing and archiving costs decreased 11.2% to TRY 73.3 million in 2015 from TRY 82.5 million in 2014, mainly due to the increase in the usage of the electronic and SMS invoices for billing.

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Other costs in direct cost of revenues increased 5.3% to TRY 1,232.3 million in 2015 from TRY 1,169.9 million in 2014 mainly due to the increased contribution of our subsidiaries to our revenues, particularly in the fixed broadband, and retail businesses.

As a percentage of revenues, direct cost of revenues decreased 0.5 percentage points to 60.8% in 2015 from 61.3% in 2014, as a result of decreases in interconnection and termination expenses of 0.5 pp and depreciation and amortization expenses of 0.6 pp as opposed to a rise in the operational expenses of certain subsidiaries.

Gross profit margin increased 0.5 percentage points from 38.7% in 2014 to 39.2% in 2015.

c. Administrative expenses

Administrative expenses increased 11.1%, to TRY 625.3 million in 2015 from TRY 562.7 million in 2014, mainly due to an increase in wages and salary expenses arising from periodic increases in such figures, together with the increase in bad debt expenses resulting from the increase in assigned contracted receivables. As a percentage of revenues, general and administrative expenses increased to 4.9% for the year ended December 31, 2015, from 4.7% in 2014.

Wages, salaries and personnel expenses for non-technical and non-marketing employees increased 13.6%, to TRY 240.3 million in 2015 from TRY 211.6 million in 2014, primarily due to periodic increases in wages and salaries.

Bad debt expenses increased 26.1%, to TRY 196.6 million in 2015 from TRY 155.9 million in 2014, mainly due to the increase in assigned receivables.

We provided an allowance of TRY 816.4 million and TRY 727.7 million for doubtful receivables for the years ended December 31, 2015 and 2014, respectively, depending on the likelihood of recoverability of trade and other receivables based on the aging of the balances, historical collection trends and general economic conditions.

Other administrative expenses, including collection and consulting expenses, decreased 3.5% to TRY 188.4 million in 2015 from TRY 195.2 million in 2014.

d. Selling and marketing expenses

Selling and marketing expenses decreased 3.7%, to TRY 1,901.9 million in 2015 from TRY 1,974.6 million in 2014, primarily due to a decrease in selling expenses and marketing expenses partially offset by an increase in wages and salary expenses. As a percentage of revenues, selling and marketing expenses decreased from 16.4% for the year ended December 31, 2014 to 14.9 % for the year ended December 31, 2015.

Selling expenses, which consist of distributor and dealer commissions and other selling expenses decreased 8.8%, to TRY 783.2 million in 2015 from TRY 858.8 million in 2014, mainly due to value focused approach of our customer acquisition strategy.

Marketing expenses, which consist of advertising, market research and sponsorships expenses decreased 5.0%, to TRY 428.6 million in 2015 from TRY 451.4 million in 2014.

Wages, salaries and personnel expenses for selling and marketing employees increased 6.5%, to TRY 381.6 million in 2015 from TRY 358.3 million in 2014, mainly due to periodic increase in wages and salaries.

Prepaid subscribers uncharged frequency usage fee expenses increased 2.8%, to TRY 191.4 million in 2015 from TRY 186.2 million in 2014.

e. Other operating income/(expense)

Other net operating expenses increased to TRY 225.9 million in 2015 from TRY 76.3 million in 2014, mainly due to commercial agreements termination expenses and litigation expenses as explained in Note 34 (Commitments and Contingencies, Legal Proceedings) to our Consolidated Financial Statements in this Form 20-F.

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Results from operating activities increased by 9.8% to TRY 2,246.8 million in 2015 from TRY 2,046.1 million in 2014. As a percentage of revenues, results from operating activities also increased from 17.0% in 2014 to 17.6% in 2015 mainly due to a decrease in direct cost of revenues and selling and marketing expenses as a percentage of revenues.

g. Net finance income/cost

Net finance cost improved to a TRY 43.4 million net expense in 2015 from a TRY 291.6 million net expense in 2014, due to a decrease in finance cost to TRY 799.5 million in 2015 from TRY 1,247.0 million in 2014, which was partially offset by the decrease in finance income to TRY 756.1 million in 2015 from TRY 955.4 million in 2014.

Finance income decreased 20.9% to TRY 756.1 million in 2015 from TRY 955.4 million in 2014, mainly due to a decrease in interest earned on time deposits due to declined cash balance.

Finance cost improved 35.9% to TRY 799.5 million in 2015 from TRY 1,247.0 million in 2014, mainly due to the decrease in net foreign exchange losses from TRY 1,110.8 million in 2014 to TRY 489.3 million in 2015. Net foreign exchange loss decreased mainly due to debt restructuring in lifecell and Belarusian Telecom, foreign exchange losses recognized directly in the foreign currency translation reserves in equity as part of net investment in foreign operation accounting and lower devaluation of the UAH against USD in 2015 compared to 2014 which is partially offset by higher devaluation of the BYN against USD in 2015 compared to 2014. Foreign exchange losses in 2015 and 2014 were mainly attributable to our net foreign exchange position in our foreign operations.

Foreign exchange gains and losses arising from payables to foreign operations as a part of debt restructuring of lifecell and Belarusian Telecom and the settlement of which is neither planned nor likely in the foreseeable future, are considered to form part of a net investment in a foreign operation and are recognized directly in equity in the foreign currency translation. In 2015, the Company has recognized net foreign exchange losses net of tax amounting to TRY 62.3 and TRY 200.2 resulting from net investment in lifecell and Belarusian Telecom respectively, in foreign currency translation differences in the consolidated financial statements in accordance with accounting policy for net investment in foreign operations.

h. Monetary gain

No monetary gain was recognized in 2015, as hyperinflationary accounting ceased in Belarus starting from January 1, 2015. Monetary gain was TRY 205.1 million in 2014.

i. Share of profit of equity accounted investees

The Company accounted its joint venture A-Tel by applying equity method accounting until August, 27 2014. Our share of profit of equity accounted investees was TRY 4.5 million as of December 31, 2014.

j. Income tax expense

Income tax expense decreased 8.7% to TRY 667.1 million in 2015 from TRY 730.4 million in 2014.

The effective tax rate was 26.0% and 33.7% for the years ended December 31, 2015 and 2014, respectively.

Our domestic tax rate is 20%. Differences between the effective tax rate and our domestic tax rate include, but are not limited to, the effect of allowance for deferred tax assets, tax rates in foreign jurisdictions, dividend income from investment in associates subject to certain tax exemptions (including Fintur), tax-exempt income and non-deductible expenses. The high effective tax rate in 2015 and 2014 is mainly due to the fact that since it is not probable that taxable profit will be available against which the unused tax losses or unused tax credits of lifecell and Belarusian Telecom can be utilized, no deferred tax asset is recognized on any loss incurred in lifecell and Belarusian Telecom.

k. Profit/ (loss) from discontinued operations

Profit from discontinued operations increased 81.1% to TRY 367.3 million in 2015 from TRY 202.8 million in 2014, mainly due to a higher net income contribution from Fintur. In 2014, due to non-cash charges in the

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Fintur financials, stemming from the write-down of operational assets and impairment charges relating to goodwill and fixed assets, our financials were impacted negatively by TRY 116 million on the basis of our 41.45% share in Fintur.

l. Non-controlling interests

Non-controlling interests in the net profit of our consolidated subsidiaries is classified separately in the consolidated financial statements of operations under non-controlling interests. Loss allocated to non-controlling interests amounted to TRY 428.2 million for the year ended December 31, 2014, compared to a TRY 164.1 million for 2015.

Loss allocated to non-controlling interests from lifecell's net loss amounted to TRY 209.3 million in 2015 and TRY 479.7 million in 2014. In addition, profit allocated to non-controlling interests from net profit generated by Inteltek for the years ended December 31, 2015 and 2014 amounted to approximately TRY 38.4 million and TRY 36.1 million respectively.

m. Profit for the year attributable to equity holders of the Company

Profit for the year attributable to equity holders of the Company increased to TRY 2,067.7 million in 2015 from TRY 1,864.7 million in 2014, mostly due to increase in results from operating activities and share of profit of equity accounted investees, lower foreign exchange losses recorded, which was partially netted off with the decrease in interest income earned on time deposits, rise in interest expense and other expense items.

VIII. Effects of Inflation

The annual inflation in Turkey were 8.5%, 8.8% and 8.2% for the years ended December 31, 2016, 2015 and 2014, respectively, based on the Turkish consumer price index. Depreciation of the Turkish lira, tax adjustments and the partial rise in unprocessed food prices have been effective in this development. The current inflation target set by the CBRT in its January 31, 2017 Inflation Report is 8%, with a 70% confidence interval between 6.6% and 9.4% for 2017. The most recent CBRT expectations survey, dated February 13, 2017, indicates that consumer inflation will be around 8.9% by the end of 2017, which is above the CBRT's target. Administrative price hikes introduced at the beginning of year and minimum wage increase both attributed to the negative expectations on inflation in 2016. For additional information, see Item 3.A. Selected Financial Data Exchange Rate Data and Item 3.D. Risk Factors.

Inflationary pressures in Belarus improved through 2016, with tighter fiscal and monetary policies during much of 2015-16 have helped support macroeconomic stabilization. The exchange rate has now stabilized. Since the shift to a more flexible exchange rate regime in early 2015, reserves have stabilized and, in recent months, begun to rise. Headline inflation has slowed towards the end of 2016 dropping to 10.6% from 12% in 2015. Macroeconomic stability is still fragile due to the country's reliance on Russian economy. Key domestic risks to the outlook include the pace of implementation of the policy reform agenda. On the external side, key risks include disruptions in energy price arrangements with Russia. Corporate and bank balance sheets and household confidence remain sensitive to any significant exchange rate movements, owing to high dollarization, currency mismatches, limited access to foreign exchange liquidity, and significant annual gross external financing requirements.

The fixed exchange rate regime (revised to floating exchange regime in early 2015) and the recession caused a persistent deflation in Ukraine. Ukraine experienced deflation until May 2012 when the political and economic tensions with Russia began to escalate and the rise in inflation continued even after the annexation of Crimea in April 2014. After the freeze of political tensions in eastern region and consumer confidence and economic growth improving, annual inflation decreased to 12.4% in December 2016 from 43.3% at the end of 2015. Annual inflation

came in close to National Bank's target of 12%. A moderate growth of raw food prices made a significant contribution to the slowdown in inflation. Also core inflation moderated to 5.8% in 2016 from 34.7% in 2015. The National Bank of Ukraine lowered its policy rate from 22% to 14% through 2016 on back of disinflationary progress.

IX. Foreign Currency Fluctuations

We conduct our business in several currencies other than functional currencies of each of our locations. As a result of our exposure to foreign currency, exchange rate fluctuations have a significant impact, in the form of both translation and transaction risks, on our Consolidated Financial Statements.

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Exchange rate movements impact our assets and liabilities denominated in currencies other than TRY, Ukrainian Hryvnia (UAH), Belarusian Rubles, Euro and Azerbaijani Manat for our operations in Turkey, Ukraine, Belarus, Germany and Azerbaijan, respectively. We hold some of our cash portfolio in foreign currency to manage our non-TRY denominated liabilities in Turkey. Additionally, derivative financial instruments such as forward contracts, swap contracts and options are used.

The foreign exchange risks in Turkey as the result of purchases and borrowings in U.S. Dollars and Euros have been manageable, as there is a developed market enabling the hedging of such risk; however, in Belarus and Ukraine, there are no tools to hedge foreign exchange rate risks effectively due to restricted, thin and underdeveloped financial markets. In Belarus, no international bank offers hedging instruments and local banks are too undercapitalized to be able to enter into transactions.

In Ukraine, the only hedging tool seemed to be non-deliverable forwards (NDF) which are a cash settled product in U.S. Dollars, a short term forward contract on a non-convertible foreign currency which could not be delivered offshore. However, with the National Bank of Ukraine forbidding any NDF settlement, the already liquidity-thin market has become virtually non-existent. As of December 31, 2016, with improving outlook for the economy on back of real growth returning to positive territory, IMF financial aid package tranches, fiscal and macro reforms being implemented, downtrend in inflation and build up in FX reserves Ukrainian Hryvnia depreciated against the U.S. Dollar by 13.3% in 2016 compared to 52.2% in 2015.

In the current economic environment and considering the aforementioned fragile economic conditions, there is a possibility of further devaluations in Ukraine and Belarus.

Our foreign currency risk management policy is focused on hedging foreign currency exposure arising from non-TRY denominated liabilities and purchase commitments. See Item 11. Quantitative and Qualitative Disclosures about Market Risk .

X. Interest Rate Hedging

Monitoring and examining financing opportunities to improve our financial flexibility and performance has been a continuous process for us. Depending on the availability in both domestic and international debt/capital markets, we continuously monitor new financing alternatives for contingency purposes as well as to fund potential new investments or acquisitions. We are exposed to interest rate risk as part of our total debt portfolio is based on floating rates. We also closely monitor various hedging alternatives to hedge our interest rate risk with a minimum cost. Through June 2016 and August 2016, a significant portion of our floating FX debt portfolio was hedged and converted to fixed TRY liability through cross currency swaps.

a. New Accounting Standards Issued

See Note 3 (Significant accounting policies, new standards and interpretations) of our Consolidated Financial Statements in this Form 20-F.

5.B Liquidity and Capital Resources

a. Liquidity

We require significant liquidity to finance capital expenditures for the expansion and improvement of our mobile communications network, for operational capital expenditures, for working capital, and to service our debt

obligations. A summary of our consolidated cash flows for the years ended December 31, 2016, 2015 and 2014 is as follows:

	2016	2015	2014
	TRY million		
Net cash generated by operating activities	607.1	1,901.3	1,990.8
Net cash used in investing activities	(2,976.7)	(3,563.0)	(1,350.1)
Net cash generated by/(used in) financing activities	4,839.0	(4,887.4)	65.1
Net cash increase/ (decrease) in cash and cash equivalents	2,469.5	(6,549.1)	705.8
Effects of foreign exchange rate fluctuations on cash and cash equivalents	664.1	436.0	197.7

Net cash provided by our operating activities was TRY 607.1 million in 2016 and TRY 1,901.3 million in 2015.

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The decrease in profit amounting to TRY 360 million compared to 2015 has a negative impact on net cash generated by operating activities. We consider the subtotal after the adjustments for profit for the period in order to analyze the increase in cash from operating activities. Since these lines are adjusting in nature, they are to be excluded from net cash from operating activities, as they either do not have any effect on net cash from operating activities or they have an offsetting effect on the changes in working capital. As a result, the trend in cash from operating activities should be correlated with the trend in results from operating activities, income tax expense and dividends received. The corresponding subtotal, after adjustments, increased to TRY 4,409 million in 2016 from TRY 4,127.0 million in 2015. Furthermore, the increase in interest paid to TRY 434.5 million in 2016 from TRY 153.5 million in 2015, the increase in changes in receivables from financial operations, the decrease in trade and other payables, partially netted off with the decrease in changes in trade receivables and income tax paid to TRY 135.9 million in 2016 from TRY 751.1 million in 2015 resulted in a 68.1% decrease in net cash provided by our operating activities.

Net cash used by investing activities decreased to TRY 2,976.7 million in 2016 from TRY 3,563.0 million in 2015. The change in net cash used by investing activities is mainly due to the decrease in capital expenditures. For the year ended December 31, 2016, we spent approximately TRY 2,572.4 million on acquisition of property, plant and equipment compared to TRY 2,135.4 million in 2015 while we spent approximately TRY 855.1 million on acquisition of intangible asset compared to TRY 2,461.6 million in 2015.

Net cash provided by our financing activities for the year 2016 amounting to TRY 4,839.0 million, whereas net cash used was TRY 4,887.4 million for 2015. The change is mainly attributable to the proceeds from new loan agreements and issuance of bonds which partially netted off with dividends paid and repayment of borrowings. In 2016, dividend paid amount was TRY 51.4 million, compared to dividend paid in 2015 amounting to TRY 4,025.5 million, with respect to the years ended December 31, 2010, 2011, 2012, 2013, 2014 and 2015. In addition, we repaid TRY 4,932.8 million of our loans and borrowings in 2016, compared to TRY 6,551.0 million in 2015. The cash generation from the issuance of bonds decreased to TRY 167.5 million in 2016 from TRY 1,440.0 in 2015. The cash generation from issuance of loans and borrowings increased to TRY 9,381.3 million in 2016 compared to TRY 4,866.4 million in 2015.

b. Sources of Liquidity

We had applied to the Capital Markets Board and, on September 15, 2015, obtained its approval of an issuance certificate to issue bonds, commercial paper or any other debentures with an amount up to \$1 billion (or its equivalent in another currency) to real and legal persons domiciled outside of Turkey through private placement and/or sales to qualified investors without a public offering. On October 2015, we issued a Eurobond with an aggregate principal amount of \$500 million, 10-year maturity, a redemption date of October 10, 2025 and coupon rate of 5.75% based on a 5.95% reoffer yield to qualified investors domiciled outside of Turkey. The bond issuance was completed and the proceeds of the issue were transferred to the Company's account on October 15, 2015 and the notes are now listed on the official list of the Irish Stock Exchange.

On September 16, 2015, we signed a club loan facility with a group of international banks with a U.S. Dollar tranche in the maximum amount of \$500 million and a Euro tranche in the maximum amount of 445 million. The facility has a maturity of five years, with principal amortization during the last three years of the loan. Interest is payable semi-annually. The facility is unsecured with an interest rate of three-month LIBOR/EURIBOR +2.0% per annum. As of December 31, 2016 the company has utilized the full amount of the facility.

On October 23, 2015 we signed a loan agreement package with China Development Bank (CDB) for an amount of up to EUR500 million available for two years, to refinance certain of the Group's existing loans, and for an amount of up to EUR750 million available for three years, to finance certain of our procurement requirements from Chinese

suppliers in relation to certain of our infrastructure investments. The total loan package has a final maturity of 10 years, with principal amortization during the last seven years of the loan and will be paid back in equal installments. The annual interest rate of the loan is EURIBOR +2.20%. As of December 31, 2016 an amount of 500 million has been utilized.

Turkcell Finansman has a significant portion in Turkcell group debt balance in line with the growing funding need of the company. Turkcell Finansman mainly relies on loans from local and international banks as a core funding so far. As of December 31, 2016, TFS loan portfolio was TRY 1,524 million, and only small portion of this portfolio is in foreign currency (TRY 92.7 millions)

Turkcell Finansman also had applied to the Capital Markets Board and, on November 30, 2016, obtained its approval of an issuance of domestic debt securities to qualified investors and without a public offering, within a

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period of one year for up to TRY 1,500 million. On December 16, we issued 174-day commercial paper to qualified investors without a public offering has been completed. The issue size is nominal TRY 250 million with the maturity date of June 8, 2017 and an annual simple interest rate of 10.7%.

In order to diversify its debt portfolio, Turkcell Finansman will also resort other funding alternatives, as such it is applied to Capital Markets Board of Turkey (CMB) for the issuance certificate of asset-backed securities with an amount of up to TRY 100 million within one year on January 2017.

Our loans from financial institutions consist of local and international bank borrowings and finance lease obligations with either fixed or floating interest rates. A significant portion of our bank borrowings is utilized to finance our consolidated subsidiaries financing needs and acquisition of GSM licenses. All of our loans are denominated in U.S. Dollar, BYN, EUR, HRV or TRY. The floating interest rates vary from Libor + 2.0% and Libor + 2.6% for the loans denominated in U.S. Dollars. The fixed interest rates vary from 5.8% to 28.0% for the loans denominated in U.S. Dollars, from 10.4% to 12.6% for the loans denominated in TRY, from 12.0% to 16.0% for the loans denominated in BYN, from 13.5% to 18.6% for the loans denominated in HRV and the floating interest rates vary from Euribor + 1.2% and Euribor 2.2% for the loans denominated in EUR. The fixed interest rate for Euro loans are 3.4%. The loans are payable over the period from 2017 to 2025.

The ratio of our loans and borrowings to equity is 61% as of December 31, 2016, compared to 29% as of December 31, 2015. We have been able to maintain our leverage at a satisfactory level and well in line with our targets. For more information, see Note 28 to our Consolidated Financial Statements.

The auction for the 4.5G license was held on August 26, 2015 and the capital expenditure required in connection with our 4.5G build-out is expected to be material. The tender price of the 4.5G license amounting to EUR 1,623.5 million (equivalent to TRY 5,158.7 million as at December 31, 2015) (excluding VAT of 18%) is being paid in four equal installments amounting to EUR 1,655.3 million (equivalent to TRY 5,259.9 million as at 31 December 2015) including interest and excluding VAT of 18%. On October 26, 2015, we made the payment amounting to TRY 1,321.9 million for the original amount of EUR 413.8 million (including interest) as first installment and total VAT amounting to TRY 933.4 million for the original amount of EUR 292.2 million in cash. The second installment of 413.8 million was paid on April 25, 2016. The third installment of 413.8 million was paid on October 25, 2016. The last installment will be paid on April 27, 2017. We may choose to pay the last installment in Euro or in Turkish Lira converted at the buying exchange rate announced by Central Bank of the Republic of Turkey on January 2, 2017.

We are continuing our efforts to selectively seek out and evaluate new investment opportunities. These opportunities could include the purchase of licenses and acquisitions in markets inside and outside of Turkey.

Under the current assumptions and circumstances, we expect to generate adequate levels of cash to maintain a positive cash position in the future and to have positive cash flow related to our communications and technology activities in Turkey. According to our current business plan for the operations in Turkey, we believe that we will be able to finance our current operations, capital expenditures, and financing costs and maintain and enhance our network through our operating cash flow existing credit facilities and other available credit lines. However, we continue to experience difficult pricing and competitive conditions in our markets, which we expect will continue. In addition, the increase in the volume of assigned contracted receivables may continue to result in higher working capital requirements. The working capital requirements related to terminal financing and bad debt expenses are planned to be managed by our consumer finance company, which commenced operations in 2016. We are also facing increased capital needs to finance our technological and geographic expansion, which may increase our net cash used for investing activities. These pressures have reduced, and may continue to reduce, our liquidity and may lead