Liberty Global plc Investor Call

Q1 2018 | May 9, 2018

LIBERTY GLOBAL

"Safe Harbor"

LIBERTY GLOBAL®

Forward-Looking Statements + Disclaimer

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including statements with respect to our strategies, future growth prospects and opportunities; expectations with respect to our OCF growth, our Adjusted FCF and our P&E additions, including P&E additions attributable to new build and upgrades; expectations with respect to selling UPC Austria; expectations with respect to our transaction with Vodafone, including the timing and benefits thereof; expectations with respect to Project Lightning; expectations regarding our share buyback program; the strength of our balance sheet and tenor of our third-party debt; and other information and statements that are not historical fact. These forward-looking statements involve certain risks and uncertainties that could cause actual results to differ materially from those expressed or implied by these statements. These risks and uncertainties include events that are outside of our control, such as the continued use by subscribers and potential subscribers of our and our affiliates' services and their willingness to upgrade to our more advanced offerings; our and our affiliates' ability to meet challenges from competition, to manage rapid technological change or to maintain or increase rates to subscribers or to pass through increased costs to subscribers; the effects of changes in laws or regulation; general economic factors; our and our affiliates' ability to obtain regulatory approval and satisfy regulatory conditions associated with acquisitions and dispositions; our and affiliates' ability to successfully acquire and integrate new businesses and realize anticipated efficiencies from acquired businesses; the availability of attractive programming for our and our affiliates' video services and the costs associated with such programming; our and our affiliates' ability to achieve forecasted financial and operating targets; the outcome of any pending or threatened litigation; the ability of our operating companies and affiliates to access cash of their respective subsidiaries; the impact of our operating companies' and affiliates' future financial performance, or market conditions generally, on the availability, terms and deployment of capital; fluctuations in currency exchange and interest rates; the ability of suppliers and vendors (including our third-party wireless network providers under our MVNO arrangements) to timely deliver quality products, equipment, software, services and access; our and our affiliates' ability to adequately forecast and plan future network requirements including the costs and benefits associated with network expansions; and other factors detailed from time to time in our filings with the Securities and Exchange Commission, including our most recently filed Forms 10-K and 10-Q. These forward-looking statements speak only as of the date of this presentation. We expressly disclaim any obligation or undertaking to disseminate any updates or revisions to any forward-looking statement contained herein to reflect any change in our expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.

Effective January 1, 2018, we adopted Accounting Standards Update ("ASU") No. 2014-09, *Revenue from Contracts with Customers* ("ASU 2014-09"), by recording the cumulative effect to our accumulated deficit. Unless otherwise indicated, all prior-year amounts are presented herein on a pro forma basis that gives effect to the adoption of ASU 2014-09 as if such adoption had occurred on January 1, 2017. In addition, on January 1, 2018, we adopted ASU No. 2017-07, *Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost* ("ASU 2017-07") on a retrospective basis. Accordingly, unless otherwise indicated, the operating income and OCF amounts for all prior-year periods presented herein have been restated to reflect the impact of ASU 2017-07. ASU 2014-09 and ASU 2017-07 are collectively referred to herein as "New GAAP."

Additional Information Relating to Defined Terms:

Please refer to the Appendix at the end of this presentation, as well as our press release dated May 8, 2018 and our SEC filings, for the definitions of the following terms which may be used herein, including: Rebased Growth, Operating Cash Flow ("OCF"), Adjusted Free Cash Flow ("FCF"), Revenue Generating Units ("RGUs"), Average Revenue per Unit ("ARPU"), as well as non-GAAP reconciliations, where applicable. Unless otherwise indicated, all Rebased Growth rates are calculated on a New GAAP basis.

[EXECUTIVE SUMMARY]

FINANCIAL RESULTS

APPENDIX

Q1 2018 Highlights

Solid start to the year across multiple fronts

Premium valuation received in deal with Vodafone

Strongest quarterly revenue growth in ~5 years (1)

Virgin Media 5%+ revenue and OCF growth (1)

Confirming all 2018 guidance targets (2)

(1) On a rebased basis
(2) See page 13 for impact of Vodafone transaction on original guidance

Transaction Overview

SUMMARY	Vodafone to acquire Liberty Global's operations in Germany, Hungary, Romania and the Czech Republic Approximately **28%** of Liberty Global's consolidated 2017 OCF[1]
PRICE	**€19.0 billion** ($22.7 billion[2]) total enterprise value (TEV)
VALUATION	Represents TEV[3]/OCF multiples[4] of 2017 OCF: • **11.5x** for all four businesses combined • Implies **12.0x** for Germany
ESTIMATED NET PROCEEDS	**€10.6 billion**[5] ($12.7 billion[2]) estimated net cash proceeds • Liberty Global to retain all cash generated from the four businesses through closing • Use of net proceeds will be determined in due course and will provide significant additional flexibility to optimize growth & shareholder returns
TIMETABLE	Transaction is expected to close **mid-2019** Subject to regulatory approval

See page 15 for detailed footnotes

Strategic Rationale

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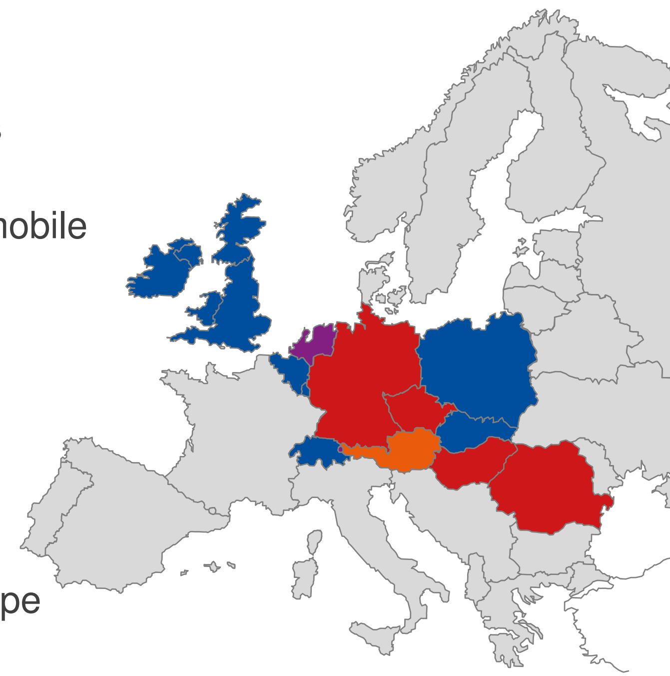
PREMIUM VALUATION — Reflects appropriate premium valuation for Liberty's leading broadband and video operations

CONVERGENCE OPPORTUNITY — Customers to benefit from scaled national fixed-mobile challengers to incumbent telecom operators

REBALANCING EUROPE — Successful track record of rebalancing assets at the right time and right valuations

PRO FORMA LIBERTY — After this transaction (and the pending sale of Austria), Liberty Global will continue to be the leading cable TV and broadband provider in Europe



- OPERATIONS TO BE SOLD TO VODAFONE
- OPERATION TO BE SOLD TO DT
- LIBERTY GLOBAL RETAINED OPERATIONS
- VODAFONEZIGGO JOINT VENTURE

LIBERTY GLOBAL

EXCLUDING VODAFONEZIGGO JV	YE 2017	OPERATIONS TO BE SOLD + AUSTRIA[6]	CONTINUING OPERATIONS
COUNTRIES	11	5	6
CUSTOMERS (MM)	22	11	11
RGUs (MM)	46	20	26
REVENUE (BN)	$15	$4	$11
OCF (BN)	$7	$2	$5

See page 15 for detailed footnotes

Track Record of Value Creation

German Case Study

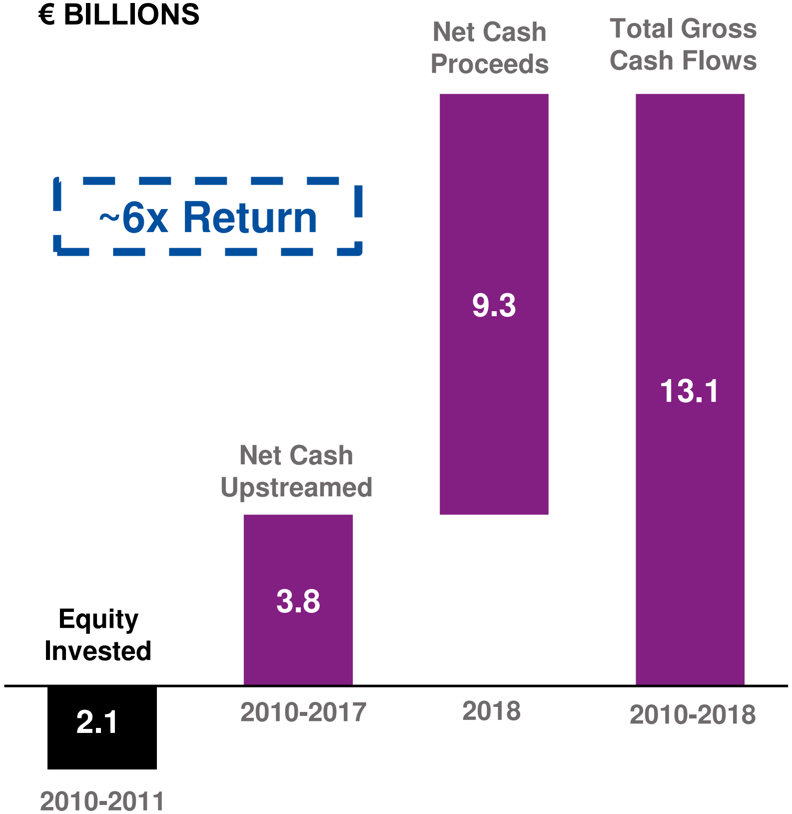
Operational Execution (DE)

KEY KPI's (EU-IFRS)

	PF 2010	YE 2017	% GROWTH[10]
RGUs[7] (MM)	9.6	13.1	35%
ARPU PER CUSTOMER[8]	€16.46	€25.24	53%
REVENUE (BN)[9]	€1.5	€2.4	60%
ADJUSTED SEGMENT EBITDA (BN)[9]	€0.8	€1.5	82%

Value Creation (DE)

€ BILLIONS



See page 15 for detailed footnotes

Organic Growth Drivers

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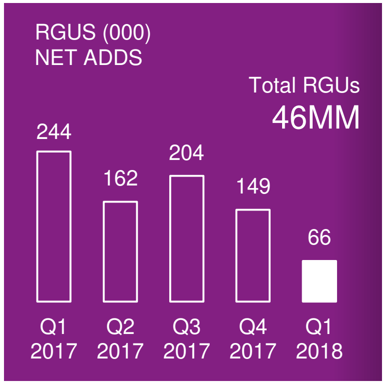
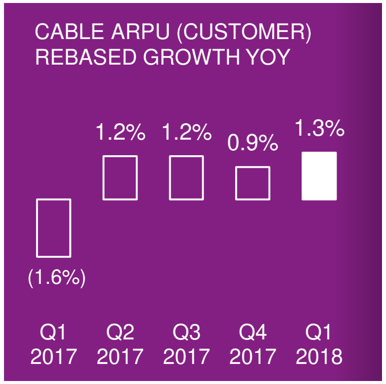
SUBSCRIBERS

- UK/IE (+45k) driven by Lightning additions
- Germany (+29k) impacted by price rise churn
- Seasonality a factor in lower volumes in CEE (+49k)
- Losses in Belgium (-22k) and CHAT(-35k) due to competition



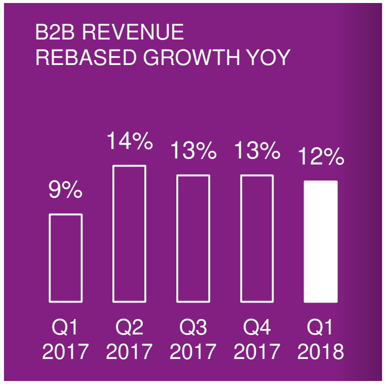
PRICE[1]

- U.K. & Ireland up 1.6% from price rises in Q4'17 & Q1'18, respectively
- Belgium up 1.3%, despite lack of 2018 price increase
- CHAT down 2.3% due to tier-mix and spin-down



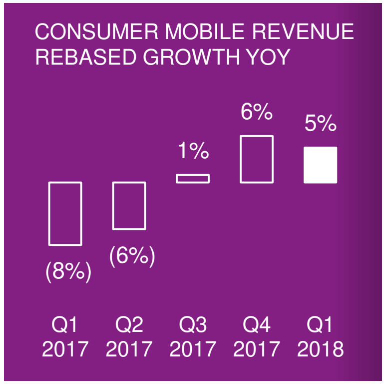
B2B[1,2]

- B2B momentum continues with growth in all markets
- Supported by revenue growth in SOHO[2] (+20%) and SME (+8%)
- Led by strong performances in Germany, CEE and Belgium



MOBILE[1]

- Postpaid net adds of 101k
- U.K. continues to underpin growth, handset sales drive 18% mobile growth in UK/IE
- Belgian ARPU under pressure but OCF impact partially offset by MVNO synergies



(1) 2017 quarterly rebased growth rates are presented as originally reported under U.S. GAAP in effect for such periods. Q1 2018 rebased growth rates are presented under New GAAP
(2) Rebased figures include upsell from B2C to SOHO

Virgin Media Operating Update

Strong first quarter as price rise lands well and churn declines

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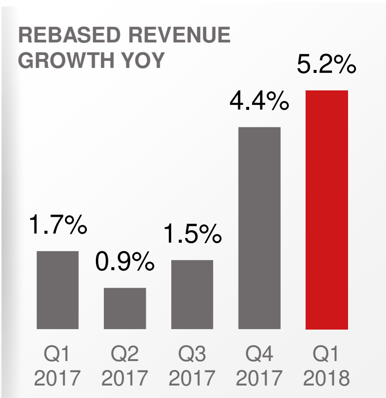
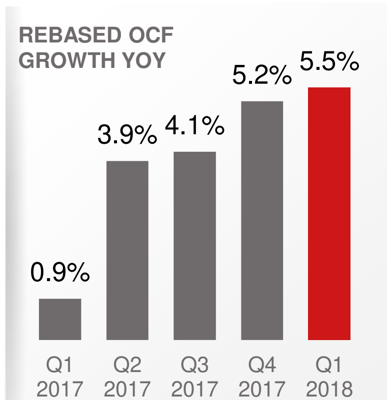
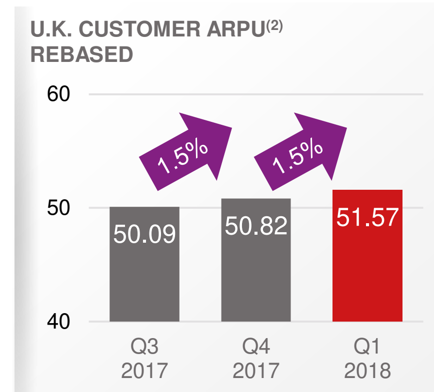
REVENUE AND OCF PROGRESSION[1]





NOVEMBER 2017 U.K. PRICE RISE

- Impact of Q4 price rise now fully reflected
- Achieved 3.0% U.K. ARPU increase vs. Q3'17
- Second successive quarter of sequentially lower churn

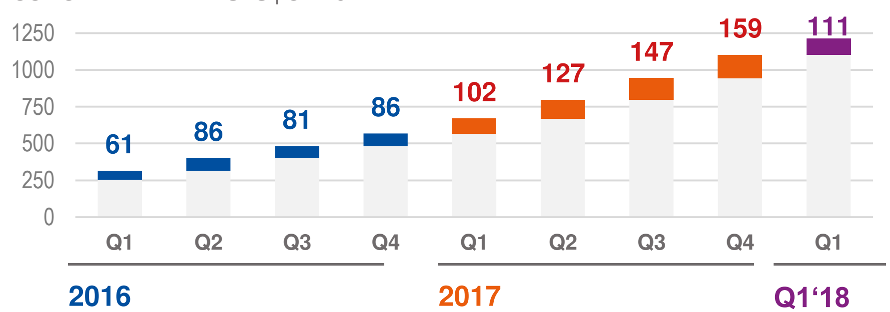


IMPROVING NETWORK & PRODUCT QUALITY

- Strong uptake for V6 upgrade, over 500k boxes deployed in Q1
  - 41% of our U.K. TV customers now have a V6 box
  - Driving improved NPS and increased engagement
- Best-in-class WiFi router used by 57% of our broadband base
- New 350 Mbps speed available to 95% of our U.K. footprint

PROJECT LIGHTNING UPDATE

CUMULATIVE PREMISES | U.K. & IRELAND



- 1.2 million premises released to marketing
- 34% penetration of connected premises after 36 months
- ARPU excluding time limited discounts ~£50
- Key metrics continue to support attractive IRRs

(1) 2017 quarterly rebased growth rates are presented as originally reported under U.S. GAAP in effect for such periods. Q1 2018 rebased growth rates are presented under New GAAP

(2) ARPU growth rates are rebased to include the impacts of New GAAP

EXECUTIVE SUMMARY

[FINANCIAL RESULTS]

APPENDIX

Q1 2018 Financial Results[1]

All key metrics broadly in line with expectations

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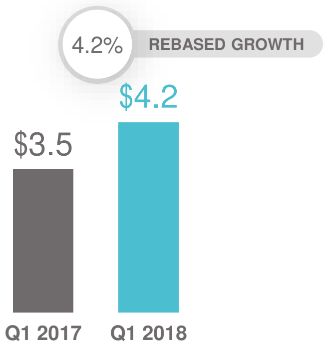
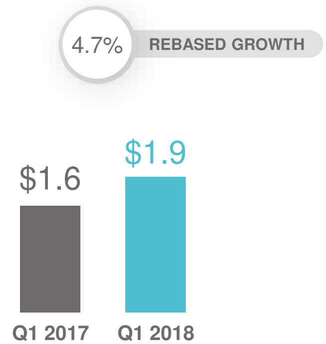
REVENUE

USD BN



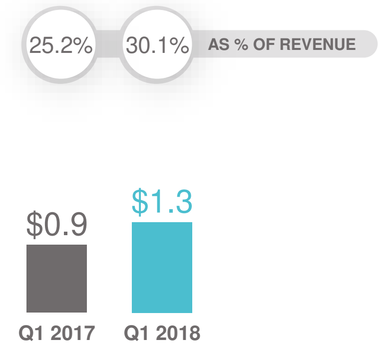
OCF

USD BN



P&E ADDITIONS

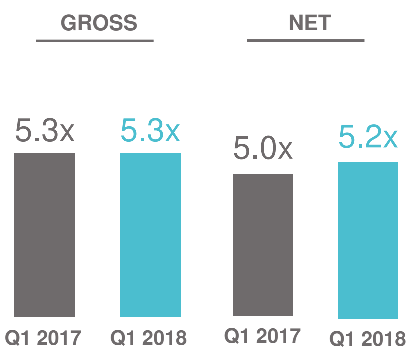
USD BN



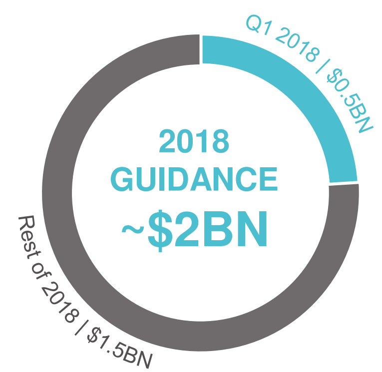
ADJUSTED FCF

USD BN

LEVERAGE RATIOS



SHARE REPURCHASES



(1) Dollar amounts represent reported numbers.

Results by Segment[1]

Switzerland remains a significant headwind to OCF growth

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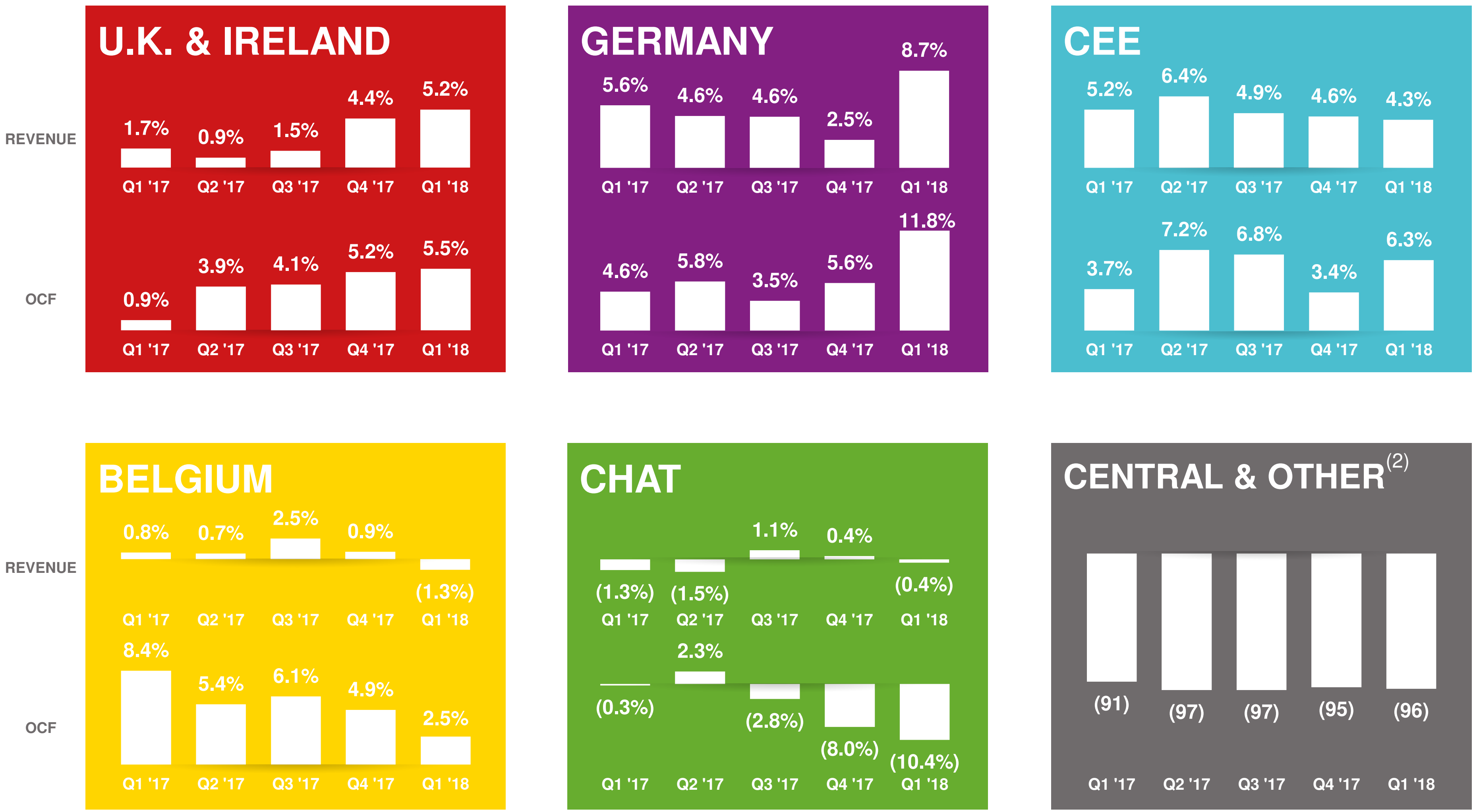

(1) 2017 quarterly rebased growth rates are presented as originally reported under U.S. GAAP in effect for such periods, Q1 2018 rebased growth rates are presented under New GAAP

(2) Figures shown in USDm, 2017 as reported. Represents net costs after including revenue from the Vodafone Ziggo JV.

Conclusions

A solid start to 2018 across multiple fronts

- Transformational deal reinforces value creation strategy
- Improving U.K. ARPU as price rise fully kicks in
- B2B delivers another quarter of double-digit growth
- Strong quarter for U.K. mobile; Belgian market challenging
- Continuing to deploy capital in new build & customer experience

GUIDANCE CONFIRMED[1]

FULL YEAR 2018

- Around 5% rebased OCF growth
- $1.6 bn of Adjusted FCF[2]
- P&E additions of $5.1 bn, including $1.2 bn of new build & upgrade[2]
- Share buybacks of $2 bn

POST-TRANSACTION GUIDANCE

EXCLUDING ASSETS TO BE SOLD

- Around 4% rebased OCF growth[3]
- $1.6 bn of Adjusted FCF[2,4]
- P&E additions of $4.0 bn, including $0.8 bn of new build & upgrade[2]
- Share buybacks of $2 bn

1. All 2018 guidance metrics includes all countries we currently own for which our 2018 guidance was previously provided
2. USD amounts translated at February 13, 2018 rates
3. Includes only our continuing operations, therefore excludes Austria, Czech, Germany, Hungary and Romania. Beginning with our Q2 2018 reporting, Liberty Global expects to treat the assets being sold to Vodafone, as well as its Austrian business that is being sold to Deutsche Telekom, as discontinued operations for accounting purposes.
4. Remains $1.6 billion and includes FCF from continuing and discontinued operations

EXECUTIVE SUMMARY

FINANCIAL RESULTS

[APPENDIX]

Vodafone Transaction - Footnotes

1. Please see Glossary for definitions and reconciliations
2. Convenience translation at USD/EUR of 1.1950
3. Total enterprise value calculated on a U.S. GAAP basis and does not include any outstanding indebtedness of the UPC Holding borrowing group
4. For the purpose of the purchase price multiple calculations, the U.S. GAAP 2017 Segment OCF of Germany (€1,493 million) has been reduced by €26 million and the combined U.S. GAAP 2017 Segment OCF of Unitymedia, UPC Hungary, UPC Czech Republic and UPC Romania (€1,714 million) has been reduced by €58 million, with each reduction representing the allocable estimated net amount of transitional services (excluding amounts related to costs expected to be capitalized by Liberty Global) to be provided by Liberty Global during the first year following closing. Segment OCF represents the portion of Liberty Global's consolidated OCF that is attributed to the applicable business and gives pro forma effect to the adoption of Accounting Standards Update ("ASU") No. 2014-09, *Revenue from Contracts with Customers*. The Germany purchase price multiple calculation is based on our estimate of the total enterprise value that is attributable to Germany
5. The net cash proceeds represent the estimated cash proceeds to be received by Liberty Global for the sale of all four businesses after adjustments for the debt of Unitymedia and other debt-like items (based on December 31, 2017 balances). Includes Unitymedia, UPC Austria, UPC Hungary, UPC Czech Republic and UPC Romania.
6. Pro Forma 2010 amount represents combined Unitymedia (acquired January 2010) and KBW (acquired December 2011)
7. Pro Forma 2010 amount represents weighted average of Unitymedia & KBW 2010 ARPU per cable customer
8. Pro Forma 2010 amounts represent pro forma combined data for Unitymedia & KBW under International Financial Reporting Standards, as adopted by the European Union (EU-IFRS)
9. The growth percentages are based on the pro forma combined 2010 revenue and Adjusted Segment EBITDA of Unitymedia (acquired 2010) and KBW (acquired 2011), as compared to the corresponding figures of Unitymedia for 2017, with all figures based on EU-IFRS. Adjusted Segment EBITDA, as customarily defined by Unitymedia for purposes of separate reports it issues in connection with the reporting requirements of its debt agreements, is defined and reconciled in the Glossary
10. The net cash proceeds represent our estimate of the allocable estimated cash proceeds to be received by Liberty Global from the sale of Unitymedia after adjustments for the debt of Unitymedia and other debt-like items (based on December 31, 2017 balances)

Rebase Information

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For purposes of calculating rebased growth rates on a comparable basis for all businesses that we owned during 2017, we have adjusted our historical revenue and OCF for the three months ended March 31, 2017 to (i) include the pre-acquisition revenue and OCF of an entity acquired during 2017 in our rebased amounts for the three months ended March 31, 2017 to the same extent that the revenue and OCF of this entity is included in our results for the three months ended March 31, 2018, (ii) include revenue and certain operating and SG&A expenses associated with the framework services agreement with the VodafoneZiggo JV to reflect an amount equal to the framework services agreement amounts included in our results for the three months ended March 31, 2018, (iii) exclude the revenue and OCF of four small disposals made in Belgium during 2017 to the same extent that the revenue and OCF of these disposed businesses is excluded from our results for the three months ended March 31, 2018, (iv) include revenue for the temporary elements of the Split-off Agreements with Liberty Latin America as if the Split-off Agreements had been in place at the beginning of 2017, (v) to reflect the January 1, 2018 adoption of the new revenue recognition standard (ASU 2014-09, Revenue from Contracts with Customers) as if such adoption had occurred on January 1, 2017 and (vi) reflect the translation of our rebased amounts for the three months ended March 31, 2017 at the applicable average foreign currency exchange rates that were used to translate our results for the three months ended March 31, 2018. We have included SFR BeLux in whole or in part in the determination of our rebased revenue and OCF for the three months ended March 31, 2017. We have reflected the revenue and OCF of this acquired entity in our 2017 rebased amounts based on what we believe to be the most reliable information that is currently available to us (generally pre-acquisition financial statements), as adjusted for the estimated effects of (a) any significant differences between U.S. GAAP and local generally accepted accounting principles, (b) any significant effects of acquisition accounting adjustments, (c) any significant differences between our accounting policies and those of the acquired entity and (d) other items we deem appropriate. We do not adjust pre-acquisition periods to eliminate nonrecurring items or to give retroactive effect to any changes in estimates that might be implemented during post-acquisition periods. As we did not own or operate the acquired business during the pre-acquisition periods, no assurance can be given that we have identified all adjustments necessary to present the revenue and OCF of this entity on a basis that is comparable to the corresponding post-acquisition amounts that are included in our historical results or that the pre-acquisition financial statements we have relied upon do not contain undetected errors. The adjustments reflected in our rebased amounts have not been prepared with a view towards complying with Article 11 of Regulation S-X. In addition, the rebased growth percentages are not necessarily indicative of the revenue and OCF that would have occurred if these transactions had occurred on the dates assumed for purposes of calculating our rebased amounts or the revenue and OCF that will occur in the future. The rebased growth percentages have been presented as a basis for assessing growth rates on a comparable basis, and are not presented as a measure of our pro forma financial performance.

The following table provides adjustments made to the 2017 amounts to derive our rebased growth rates:

	Revenue	OCF
	Three months ended March 31, 2017	Three months ended March 31, 2017
	in millions	
Acquisitions	$ 17.3	$ 9.6
Revenue Recognition (ASU 2014-09)	(9.8)	(7.6)
Dispositions*	(8.6)	(4.4)
Foreign Currency	472.4	215.2
Total increase	$ 471.3	$ 212.8

* Includes rebase adjustments related to agreements to provide transitional and other services to the VodafoneZiggo JV and Liberty Latin America. These adjustments result in an equal amount of fees in both the 2018 and 2017 periods for those services that are deemed to be temporary in nature. The net amount of these adjustments resulted in decreases in revenue and OCF for the three months ended March 31, 2017 of $0.9 million and $0.7 million, respectively.

Glossary

Adjusted Segment EBITDA: the primary measure used by Unitymedia's management to evaluate Unitymedia's performance. Adjusted Segment EBITDA is also a key factor that is used by Unitymedia's internal decision makers to evaluate the effectiveness of Unitymedia's management for purposes of annual and other incentive compensation plans. Unitymedia defines EBITDA as earnings before net finance expense, income taxes and depreciation and amortization. As Unitymedia uses the term, Adjusted Segment EBITDA is defined as EBITDA before share-based compensation, provisions and provision releases related to significant litigation, impairment, restructuring and other operating items and related-party fees and allocations. Other operating items include (i) gains and losses on the disposition of long-lived assets, (ii) third-party costs directly associated with successful and unsuccessful acquisitions and dispositions, including legal, advisory and due diligence fees, as applicable, and (iii) other acquisition-related items, such as gains and losses on the settlement of contingent consideration. Unitymedia's internal decision makers believe Adjusted Segment EBITDA is a meaningful measure because it represents a transparent view of Unitymedia's recurring operating performance that is unaffected by Unitymedia's capital structure and allows management to readily view operating trends and identify strategies to improve operating performance. Unitymedia believes the Adjusted Segment EBITDA measure is useful to investors because it is one of the bases for comparing its performance with the performance of other companies in the same or similar industries, although its measure may not be directly comparable to similar measures used by other companies. Adjusted Segment EBITDA should be viewed as a measure of operating performance that is a supplement to, and not a substitute for EBIT, net earnings (loss), cash flow from operating activities and other EU-IFRS or IASB-IFRS measures of income or cash flows. A reconciliation of net loss to Adjusted Segment EBITDA is as follows:

	Year ended December 31,	
	2010 (a)	2017
	in millions	
Net loss	€ (245.0)	€ (4.0)
Net financial and other expense	515.0	417.1
Income tax expense (benefit)	(57.8)	58.5
Earnings before interest and taxes	212.2	471.6
Depreciation and amortization	560.4	795.5
Impairment, restructuring and other operating items, net	36.3	9.1
Share-based compensation expense	—	7.4
Related-party fees and allocations, net	23.8	234.3
Adjusted Segment EBITDA	€ 832.7	€ 1,517.9

(a) Pro forma combined data for Unitymedia and KBW.

Glossary

Adjusted Free Cash Flow: net cash provided by our operating activities, plus (i) cash payments for third-party costs directly associated with successful and unsuccessful acquisitions and dispositions and (ii) expenses financed by an intermediary, less (a) capital expenditures, as reported in our condensed consolidated statements of cash flows, (b) principal payments on amounts financed by vendors and intermediaries and (c) principal payments on capital leases (exclusive of the portions of the network lease in Belgium and the duct leases in Germany that we assumed in connection with certain acquisitions), with each item excluding any cash provided or used by our discontinued operations. We believe that our presentation of Adjusted Free Cash Flow provides useful information to our investors because this measure can be used to gauge our ability to service debt and fund new investment opportunities.

Adjusted Free Cash Flow should not be understood to represent our ability to fund discretionary amounts, as we have various mandatory and contractual obligations, including debt repayments, which are not deducted to arrive at this amount. Investors should view Adjusted Free Cash Flow as a supplement to, and not a substitute for, U.S. GAAP measures of liquidity included in our condensed consolidated statements of cash flows.

The following table provides the reconciliation of our net cash provided by operating activities to Adjusted Free Cash Flow for the indicated periods:

	Three months ended, March 31, 2018	Three months ended, March 31, 2017 (i)
	in millions	
Net cash provided by operating activities of our continuing operations	$ 1,279.3	$ 904.4
Cash payments for direct acquisition and disposition costs	1.6	1.8
Expenses financed by an intermediary(ii)	557.8	297.8
Capital expenditures	(646.0)	(500.4)
Principal payments on amounts financed by vendors and intermediaries	(1,796.8)	(1,014.2)
Principal payments on certain capital leases	(21.0)	(20.4)
Adjusted FCF	$ (625.1)	$ (331.0)

(i) Adjusted free cash flow for the three months ended March 31, 2017 has been restated to reflect our January 1, 2018 adoption of ASU 2016-18, *Restricted Cash.*
(ii) For purposes of our condensed consolidated statements of cash flows, expenses financed by an intermediary are treated as hypothetical operating cash outflows and hypothetical financing cash inflows when the expenses are incurred. When we pay the financing intermediary, we record financing cash outflows in our condensed consolidated statements of cash flows. For purposes of our Adjusted Free Cash Flow definition, we add back the hypothetical operating cash outflow when these financed expenses are incurred and deduct the financing cash outflows when we pay the financing intermediary.

Glossary

ARPU: Average Revenue Per Unit is the average monthly subscription revenue per average cable customer relationship or mobile subscriber, as applicable. Following the adoption of ASU 2014-09, subscription revenue excludes interconnect fees, channel carriage fees, mobile handset sales and late fees, but includes the amortization of installation fees. Prior to the adoption of ASU 2014-09, installation fees were excluded from subscription revenue. ARPU per average cable customer relationship is calculated by dividing the average monthly subscription revenue from residential cable and SOHO services by the average number of cable customer relationships for the period. ARPU per average mobile subscriber is calculated by dividing residential mobile and SOHO revenue for the indicated period by the average number of mobile subscribers for the period. Unless otherwise indicated, ARPU per cable customer relationship or mobile subscriber is not adjusted for currency impacts. ARPU per RGU refers to average monthly revenue per average RGU, which is calculated by dividing the average monthly subscription revenue from residential and SOHO services for the indicated period, by the average number of the applicable RGUs for the period. Unless otherwise noted, ARPU in this presentation is considered to be ARPU per average cable customer relationship or mobile subscriber, as applicable. Cable customer relationships, mobile subscribers and RGUs of entities acquired during the period are normalized. In addition, for purposes of calculating the percentage change in ARPU on a rebased basis, we adjust the prior-year subscription revenue, cable customer relationships, mobile subscribers and RGUs, as applicable, to reflect acquisitions, dispositions, FX and the January 1, 2018 adoption of the new revenue recognition standard (ASU 2014-09, Revenue from Contracts with Customers) on a comparable basis with the current year, consistent with how we calculate our rebased growth for revenue and OCF.

ARPU per Mobile Subscriber: Our ARPU per mobile subscriber calculation that excludes interconnect revenue refers to the average monthly mobile subscription revenue per average mobile subscriber and is calculated by dividing the average monthly mobile subscription revenue (excluding handset sales and late fees) for the indicated period, by the average of the opening and closing balances of mobile subscribers in service for the period. Our ARPU per mobile subscriber calculation that includes interconnect revenue increases the numerator in the above-described calculation by the amount of mobile interconnect revenue during the period.

Basic Video Subscriber: a home, residential multiple dwelling unit or commercial unit that receives our video service over our broadband network either via an analog video signal or via a digital video signal without subscribing to any recurring monthly service that requires the use of encryption-enabling technology. Encryption-enabling technology includes smart cards, or other integrated or virtual technologies that we use to provide our enhanced service offerings. We count RGUs on a unique premises basis. In other words, a subscriber with multiple outlets in one premises is counted as one RGU and a subscriber with two homes and a subscription to our video service at each home is counted as two RGUs.

B2B: Business-to-Business.

Cable Customer Relationships: the number of customers who receive at least one of our video, internet or telephony services that we count as RGUs, without regard to which or to how many services they subscribe. Cable Customer Relationships generally are counted on a unique premises basis. Accordingly, if an individual receives our services in two premises (e.g., a primary home and a vacation home), that individual generally will count as two Cable Customer Relationships. We exclude mobile-only customers from Cable Customer Relationships.

Customer Churn: the rate at which customers relinquish their subscriptions. The annual rolling average basis is calculated by dividing the number of disconnects during the preceding 12 months by the average number of customer relationships. For the purpose of computing churn, a disconnect is deemed to have occurred if the customer no longer receives any level of service from us and is required to return our equipment. A partial product downgrade, typically used to encourage customers to pay an outstanding bill and avoid complete service disconnection, is not considered to be disconnected for purposes of our churn calculations. Customers who move within our cable footprint and upgrades and downgrades between services are also excluded from the disconnect figures used in the churn calculation.

DTH Subscriber: a home, residential multiple dwelling unit or commercial unit that receives our video programming broadcast directly via a geosynchronous satellite.

Enhanced Video Subscriber: a home, residential multiple dwelling unit or commercial unit that receives our video service over our broadband network or through a partner network via a digital video signal while subscribing to any recurring monthly service that requires the use of encryption-enabling technology. Enhanced Video Subscribers are counted on a unique premises basis. For example, a subscriber with one or more set-top boxes that receives our video service in one premises is generally counted as just one subscriber. An Enhanced Video Subscriber is not counted as a Basic Video Subscriber. As we migrate customers from basic to enhanced video services, we report a decrease in our Basic Video Subscribers equal to the increase in our Enhanced Video Subscribers.

Homes Passed: homes, residential multiple dwelling units or commercial units that can be connected to our networks without materially extending the distribution plant, except for DTH homes. Certain of our Homes Passed counts are based on census data that can change based on either revisions to the data or from new census results. We do not count homes passed for DTH.

Internet Subscriber: a home, residential multiple dwelling unit or commercial unit that receives internet services over our networks, or that we service through a partner network. Our Internet Subscribers do not include customers that receive services from dial-up connections.

Leverage and Liquidity: Our gross and net debt ratios are defined as total debt and net debt to annualized OCF of the latest quarter. Net debt is defined as total debt less cash and cash equivalents. For purposes of these calculations, debt is measured using swapped foreign currency rates, consistent with the covenant calculation requirements of our subsidiary debt agreements, and excludes the loans backed or secured by the shares we hold in ITV plc, Sumitomo Corporation and Lions Gate Entertainment Corp.

Liquidity refers to cash and cash equivalents plus the maximum undrawn commitments under subsidiary borrowing facilities, without regard to covenant compliance calculations.

MDU: Multiple Dwelling Unit.

Mobile Subscriber Count: the number of active SIM cards in service rather than services provided. For example, if a mobile subscriber has both a data and voice plan on a smartphone this would equate to one mobile subscriber. Alternatively, a subscriber who has a voice and data plan for a mobile handset and a data plan for a laptop would be counted as two mobile subscribers. Customers who do not pay a recurring monthly fee are excluded from our mobile telephony subscriber counts after periods of inactivity ranging from 30 to 90 days, based on industry standards within the respective country. In a number of countries, our mobile subscribers receive mobile services pursuant to prepaid contracts.

MVNO: Mobile Virtual Network Operator.

NPS: Net Promoter Score.

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OCF: As used herein, OCF has the same meaning as the term "Adjusted OIBDA" that is referenced in our Form 10-Q. OCF is the primary measure used by our chief operating decision maker to evaluate segment operating performance. OCF is also a key factor that is used by our internal decision makers to (i) determine how to allocate resources to segments and (ii) evaluate the effectiveness of our management for purposes of annual and other incentive compensation plans. As we use the term, OCF is defined as operating income before depreciation and amortization, share-based compensation, provisions and provision releases related to significant litigation and impairment, restructuring and other operating items. Other operating items include (a) gains and losses on the disposition of long-lived assets, (b) third-party costs directly associated with successful and unsuccessful acquisitions and dispositions, including legal, advisory and due diligence fees, as applicable, and (c) other acquisition-related items, such as gains and losses on the settlement of contingent consideration. Our internal decision makers believe OCF is a meaningful measure because it represents a transparent view of our recurring operating performance that is unaffected by our capital structure and allows management to (1) readily view operating trends, (2) perform analytical comparisons and benchmarking between segments and (3) identify strategies to improve operating performance in the different countries in which we operate. We believe our OCF measure is useful to investors because it is one of the bases for comparing our performance with the performance of other companies in the same or similar industries, although our measure may not be directly comparable to similar measures used by other public companies. OCF should be viewed as a measure of operating performance that is a supplement to, and not a substitute for, operating income, net earnings or loss, cash flow from operating activities and other U.S. GAAP measures of income or cash flows. A reconciliation of our operating income to total OCF is presented in the following table:

	Three months ended March 31,	
	2018	2017
	in millions	
Operating income	$ 493.1	$ 419.5
Share-based compensation expense	45.8	33.4
Depreciation and amortization	1,296.4	1,128.3
Impairment, restructuring and other operating items, net	63.6	11.8
Total OCF	$ 1,898.9	$ 1,593.0

	Year ended December 31, 2017
	in millions *
Operating income	$ 1,947.5
Share-based compensation expense	173.9
Depreciation and amortization	4,857.0
Impairment, restructuring and other operating items, net	107.2
Total OCF	$ 7,085.6

* 2017 as reported

OCF margin: calculated by dividing OCF by total revenue for the applicable period.

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Property and equipment additions: includes capital expenditures on an accrual basis, amounts financed under vendor financing or capital lease arrangements and other non-cash additions.

RGU: A Revenue Generating Unit is separately a Basic Video Subscriber, Enhanced Video Subscriber, DTH Subscriber, Internet Subscriber or Telephony Subscriber. A home, residential multiple dwelling unit, or commercial unit may contain one or more RGUs. For example, if a residential customer in our U.K. market subscribed to our enhanced video service, fixed-line telephony service and broadband internet service, the customer would constitute three RGUs. Total RGUs is the sum of Basic Video, Enhanced Video, DTH, Internet and Telephony Subscribers. RGUs generally are counted on a unique premises basis such that a given premises does not count as more than one RGU for any given service. On the other hand, if an individual receives one of our services in two premises (e.g., a primary home and a vacation home), that individual will count as two RGUs for that service. Each bundled cable, internet or telephony service is counted as a separate RGU regardless of the nature of any bundling discount or promotion. Non-paying subscribers are counted as subscribers during their free promotional service period. Some of these subscribers may choose to disconnect after their free service period. Services offered without charge on a long-term basis (e.g., VIP subscribers or free service to employees) generally are not counted as RGUs. We do not include subscriptions to mobile services in our externally reported RGU counts. In this regard, our March 31, 2018 RGU counts exclude our separately reported postpaid and prepaid mobile subscribers.

SIM: Subscriber Identification Module

SOHO: Small or Home Office Subscribers

Telephony Subscriber: a home, residential multiple dwelling unit or commercial unit that receives voice services over our networks, or that we service through a partner network. Telephony Subscribers exclude mobile telephony subscribers.

Two-way Homes Passed: homes passed by those sections of our networks that are technologically capable of providing two-way services, including video, internet and telephony services.

U.S. GAAP: United States Generally Accepted Accounting Principles.

YoY: Year-over-year.