LIBERTY GLOBAL PLC INVESTOR CALL | Q1 2019

May 7, 2019

“SAFE HARBOR”

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 rebased OCF growth, our Adjusted FCF and our P&E additions; the anticipated regulatory approvals, closings and impacts of each of the Vodafone and Sunrise transactions; the expected use of proceeds of our disposal transactions; decisions regarding our capital allocation; expectation with respect to Project Lightning; expectations with respect to the development, launch and benefits of our innovative and advanced products and services; 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, vendors and contractors 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 Form 10-K/A and Form 10-Q. Further, estimated cash proceeds from pending dispositions are inherently uncertain and represent management’s expectations and beliefs and do not take into account the ultimate use of the proceeds or any other changes in our capital structure or tax effects, directly or indirectly related to the pending dispositions. These forward-looking statements speak only as of the date of this release. 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.

Presentation of Continuing & Discontinuing Operations:

On May 9, 2018, we agreed to sell our operations in Germany, Hungary, Romania and the Czech Republic. On July 31, 2018, we sold our operations in Austria. On May 2, 2019, we sold our UPC DTH operations, which provide direct-to-home satellite services in Hungary, the Czech Republic, Romania and Slovakia. Our operations in Germany, Hungary, Romania and the Czech Republic, along with our former UPC DTH operations and operations in Austria are collectively referred to herein as the “Discontinued Operations” and have all been accounted for as discontinued operations in our March 31, 2019 Form 10-Q.

The term “Excluding Switzerland” represents our continuing operations excluding UPC Switzerland and certain holding companies within the UPC Holding borrowing group (together, the “Switzerland Disposal Group”), including the UPC Holding borrowing group’s existing senior and senior secured notes (the “UPC Notes”) associated derivatives and certain other debt items. This is the basis on which analyst consensus estimates for our key performance indicators are currently derived and on which we originally provided our 2019 guidance for OCF, Adjusted FCF and Property and Equipment Additions. We present OCF, OFCF, Adjusted FCF and Property and Equipment Additions on an Excluding Switzerland basis in order to allow readers to track our performance against analyst consensus estimates and our original 2019 guidance as applicable.

The term "Full Company" includes our continuing operations and our Discontinued Operations, which is the basis on which we calculate our respective leverage ratios for debt covenant compliance purposes.

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 6, 2019 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”), Operating Free Cash Flow (“OFCF”), 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.

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Q1 2019 HIGHLIGHTS

- Vodafone transaction on track for summer completion
- Sale of UPC Switzerland on track for Q4 2019 completion
- Recently closed the sale of our DTH business
- Sequential and YoY uplift in UK subscriber volumes
- Green shoots in Swiss turnaround emerging
- Significant YoY reduction in capex & increase in OFCF
- Confirming all 2019 guidance targets

REPORTED BASIS
Continuing Operations including Switzerland

	Q1 2019
RGU Net Adds	25k
Revenue Growth (rebased)	(0.6%)
OCF Growth (rebased)	(0.5%)
Adjusted FCF	($625m)

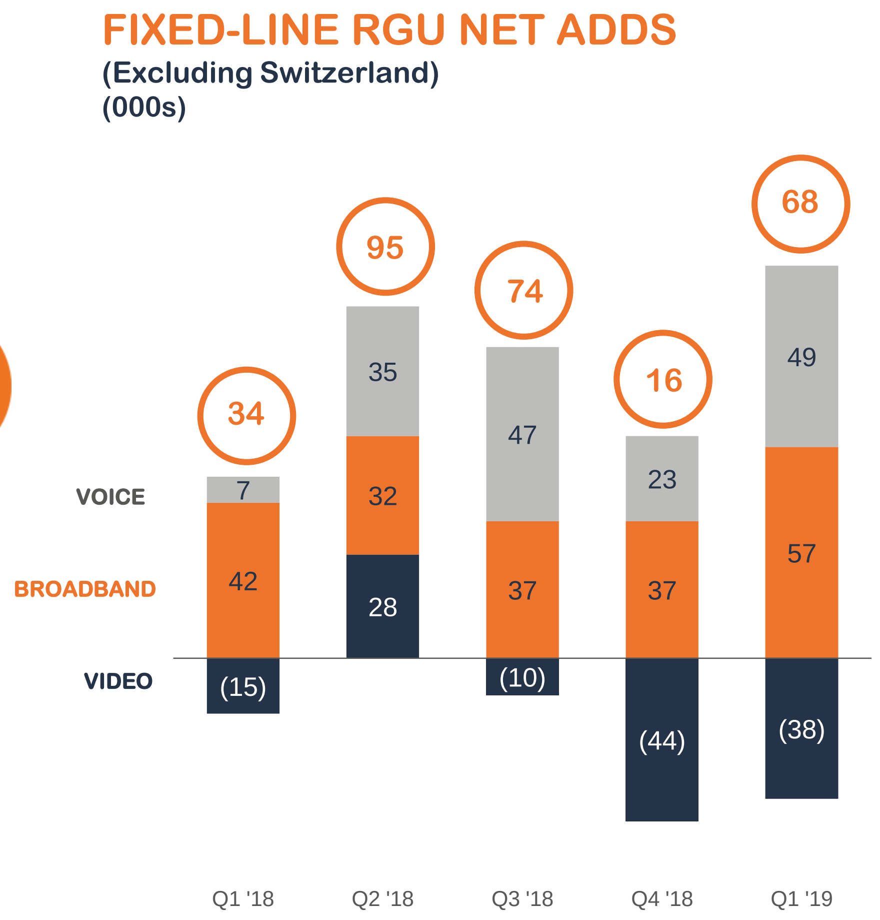
GUIDANCE BASIS
Continuing Operations excluding Switzerland

	Q1 2019
RGU Net Adds	68k
Revenue Growth (rebased)	(0.2%)
OCF Growth (rebased)	0.8%
Adjusted FCF[1]	($622m)

(1) As determined on a pro forma basis, which incorporates our preliminary estimate of (a) assumed interest and related derivative payments that were made by UPC Holding continuing operations during the period and (b) the net cash flows that we would have received from transitional services agreements if the sale of the remaining Discontinued Operations and UPC Switzerland had occurred on January 1, 2019.

Q1 NET ADDITIONS

Improved subscriber trends both sequentially and year-over-year for our Continuing Operations



BROADBAND

- Continued speed leadership across our footprint, including the launch of 500 Mbps in the U.K. nationwide, and gigabit speed trials in select cities across our European footprint
- Deployed 6 million Connect boxes in our Continuing Operations footprint
- Launched *Intelligent WiFi* in the U.K., a smart cloud-based, adaptive system designed to significantly improve the in-home WiFi experience

VIDEO

- Announced Amazon's *Prime Video* partnership in the U.K.
- EOS/Horizon 4 being rolled out in all core markets

VOICE

- Focus on bundling IP voice service driven by strong U.K. performance

FIXED-MOBILE CONVERGENCE

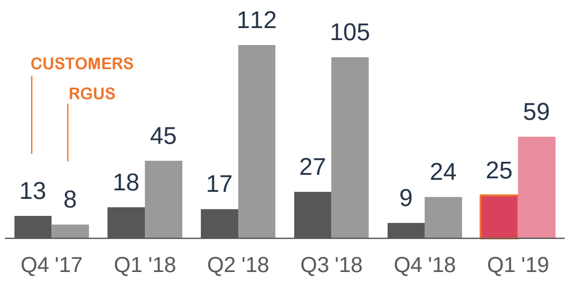
- Over 20% of our Continuing Operations' broadband customer base now converged, led by Telenet at over 40% and Virgin Media at 20%

VIRGIN MEDIA: OVERVIEW

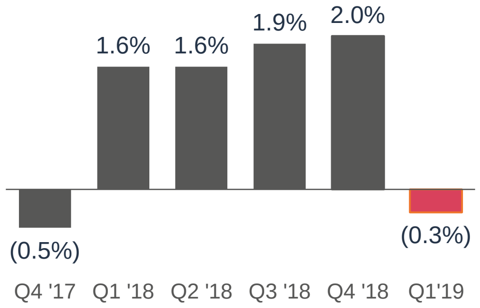
Balancing price and volume to deliver growth; 1.7 million Lightning homes built to date, including 102k in Q1

PRICE / VOLUME

CUSTOMER & RGU NET ADDS (000s)



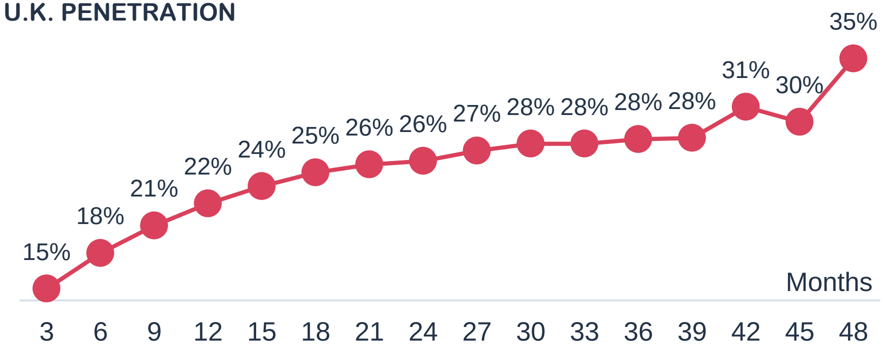
CUSTOMER ARPU REBASED GROWTH YOY



- Customer growth supported by new build, promotions & lower churn
  - 12-month churn down 10 bps YoY
- ARPU growth weaker in Q1'19 due to:
  - Lower install revenues, telephony usage and PPV
  - Increased promotions in response to market dynamics
- Recently launched consumer bundles designed to drive volumes and ARPU growth through upsell and cross-sell
- Product innovations like FMC bundles, Intelligent WiFi and the Horizon4 UI upgrade will improve NPS and underpin pricing power

PROJECT LIGHTNING

U.K. PENETRATION



- Project Lightning ARPU in-line with legacy footprint, once introductory discounts have lapsed
- Cumulative cost per premise of ~£690
  - Including Q1 2019 build costs of ~£660
- Q1 2019 Lightning OCF(1) margins 50%+
- Q1 2019 Lightning OCF(1) growth of >50% YoY
- Project's IRRs continue to be in the mid-20%'s
- On track for 400-500k new homes in 2019

(1) Represents incremental OCF. Please see appendix for further information.

VIRGIN MEDIA: CONSUMER STRATEGY

Product innovation to drive growth while investing in digitization to reduce SAC and increase efficiency

FMC BUNDLES 1

- Early response from April's soft launch encouraging
- New V.VIP bundle includes 500 Mbps broadband tier, unlimited data SIM, robust video offering & unlimited fixed-line calling
- FMC bundles include ~2x broadband speed boosts vs. previous packages
- Enhanced customer service with single FMC invoice, personalized service app and dedicated customer support team

PRODUCT MANAGEMENT 2

- Introduced Personal Picks, a video package enhancement that allows for personalisation of the entertainment bundle
- Launched Intelligent WiFi featuring a cutting-edge Connect app that optimizes the in-home WiFi experience
- To come in 2019: Amazon Prime Video partnership, Gigabit speed tests & V6 set-top UI upgrades

SALES EFFICIENCY 3

- Moving to lower cost sales channels; 35% of all sales now online

DIGITIZATION 4

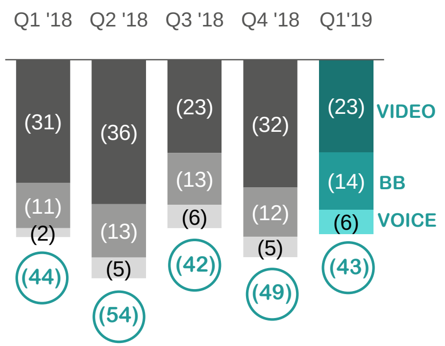
- Simplifying customer touch points through enhanced digital capabilities

UPC SWITZERLAND: OVERVIEW

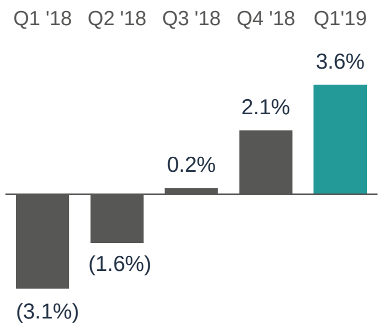
Green shoots emerging but 2019 remains a transition year with significant investment

SUBSCRIBER TRENDS IMPROVING

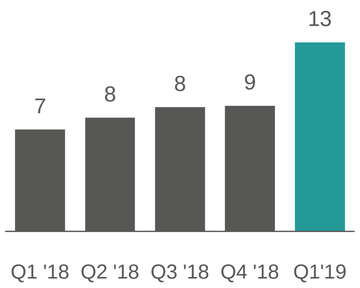
NET RGU LOSSES
(000s)



CUSTOMER ARPU [1]
REBASED GROWTH YOY

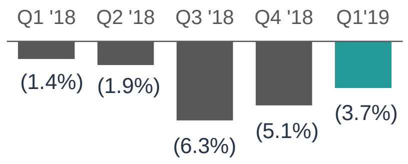


NET MOBILE POSTPAY ADDS
(000s)

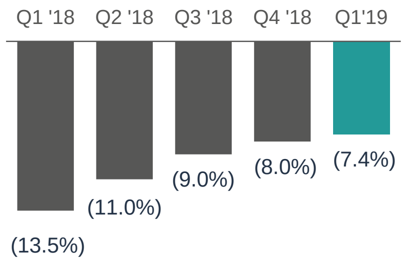


ON TRACK FOR FINANCIAL TURNAROUND IN 2020

REVENUE
REBASED GROWTH YOY[1, 2]



OCF
REBASED GROWTH YOY[1, 2]



KEY INITIATIVES ON TRACK

Initiative	Status
1 NEW VIDEO PLATFORM Deployment of EOS set top box	Commercially launched
2 FIXED MOBILE CONVERGENCE Refreshed product portfolio	Commercially launched
3 CONNECTIVITY 1 Gbps Rollout	Ahead of plan, first launch in 2019
4 DIGITIZATION Increased efficiency & improved customer experience	Ongoing

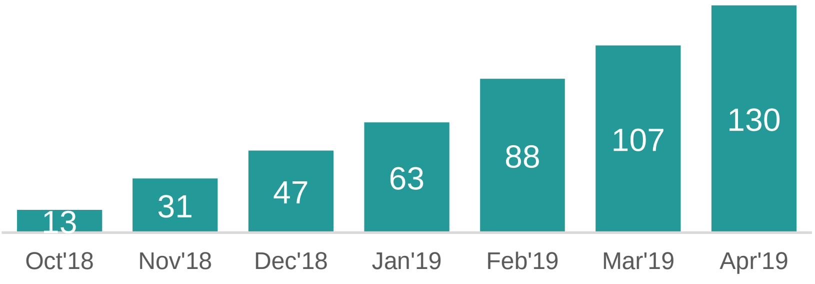
1. In Q1 2018 we recognized an unfavorable impact of CHF4m due to the reversal of revenue that was recognized during prior-year periods. Rebased growth rates for ARPU, Revenue and OCF as presented above are impacted negatively for Q1 2018 and positively for Q1 2019.
2. Our MySports channel was launched in Q3 2017. Rebased Revenue and OCF growth rates were impacted positively and negatively respectively. MySports revenue does not form part of ARPU calculation.

UPC SWITZERLAND: H1 2019 COMMERCIAL INITIATIVES

Encouraging early signs from launch of new video platform and enhanced mobile offers

1 >100,000 "UPC TV" BOXES IN THE FIELD

CUMULATIVE BOXES DEPLOYED (000s)

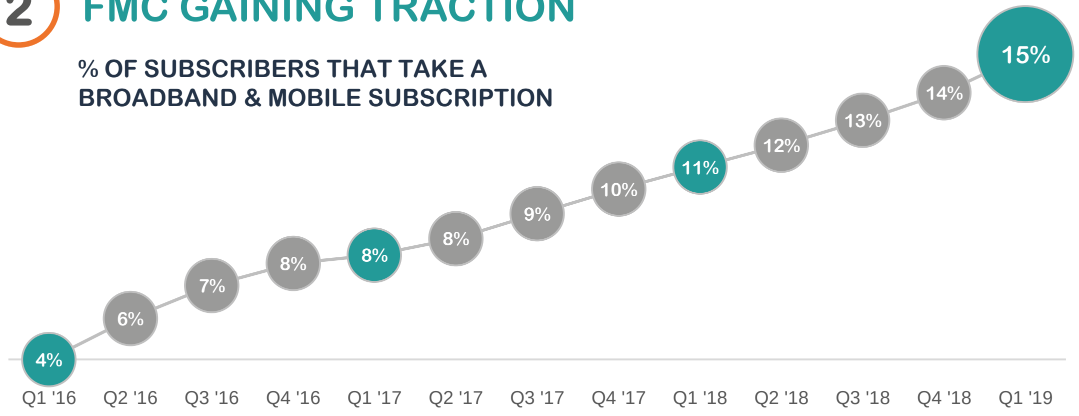


UPC TV IS THE BEST TV EXPERIENCE IN SWITZERLAND

- In recent usability test [(1)], UPC was the clear winner scoring 90 out of 100 points, significantly higher than the Swiss peer average
- Contributed to record customer sales in March, +30% year-over-year
- rNPS score ~30 points higher than legacy product, expected to translate into lower churn
- Operational improvements from lower fault rates contributing to fewer calls & truck rolls

2 FMC GAINING TRACTION

% OF SUBSCRIBERS THAT TAKE A BROADBAND & MOBILE SUBSCRIPTION



REVAMPING MOBILE PROPOSITION

- Added 13k mobile subs in Q1, base now at ~160k
- Subscriber base successfully migrated to new MVNO
- Launched unlimited data and flexible top-up plans
- Significant NPS uplift resulting in record Q1 sales of 19k
- 4P churn is over 9% points better than 3P churn

(1) Product test run by independent Swiss product experts on behalf of UPC. Tests include functionality, usability and performance benchmarking.

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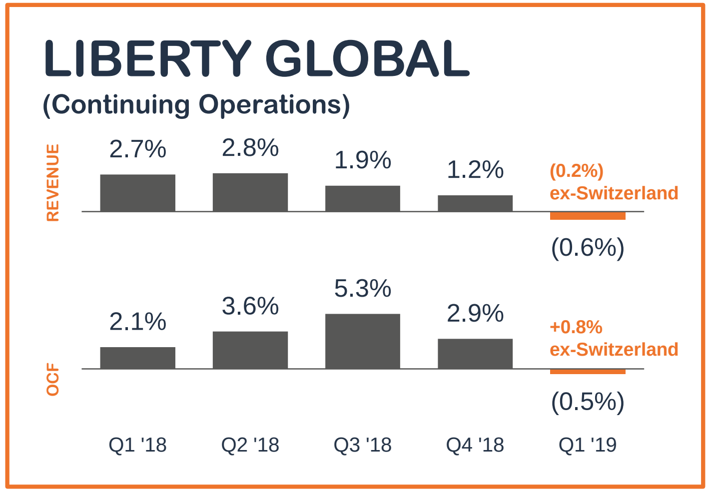
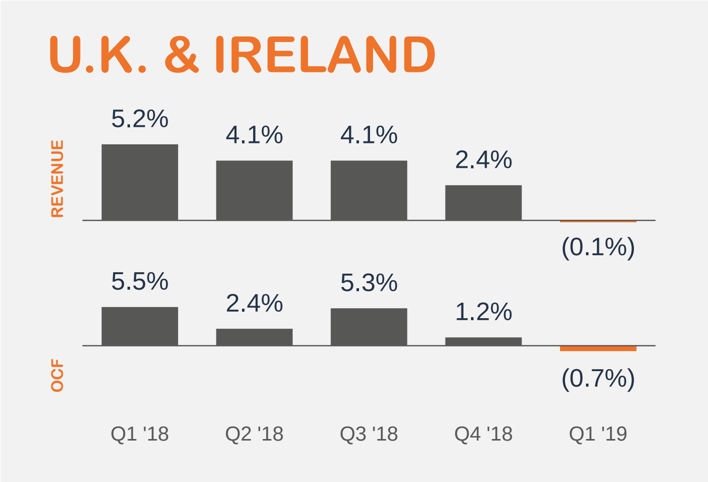
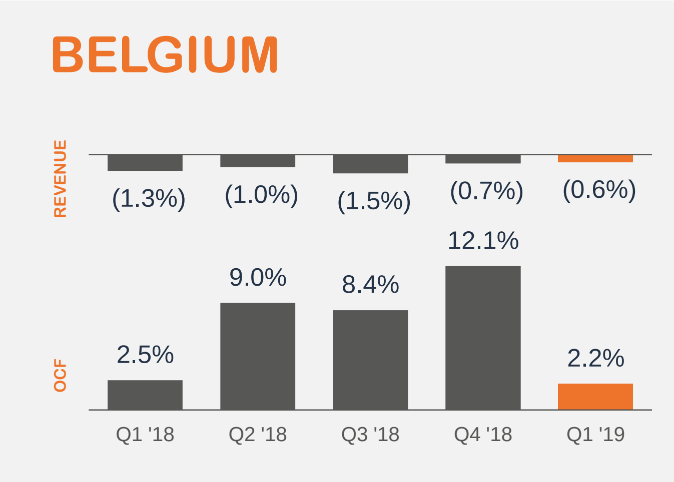
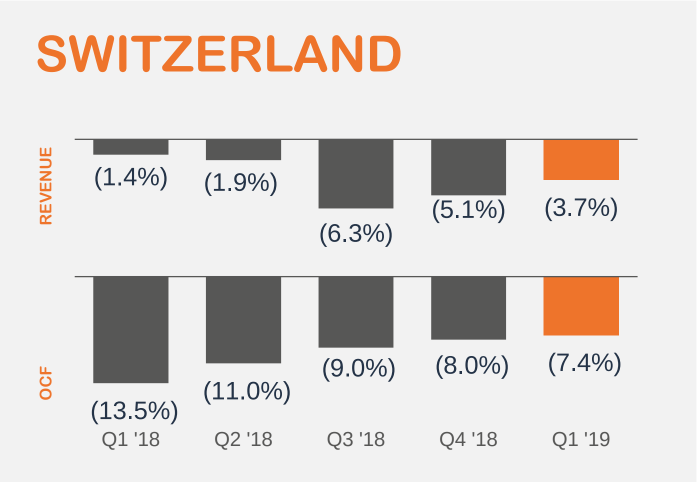
REVENUE & OCF GROWTH: CONTINUING OPERATIONS[1]

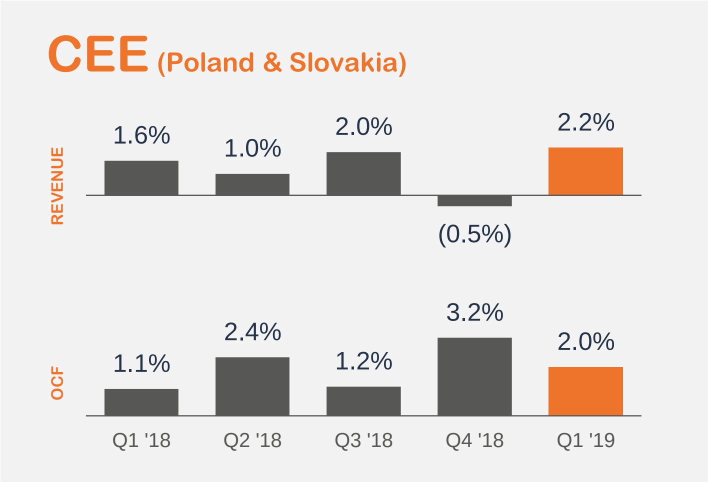
Mixed rebased OCF performance as known headwinds in the U.K. were partially offset by Belgian result

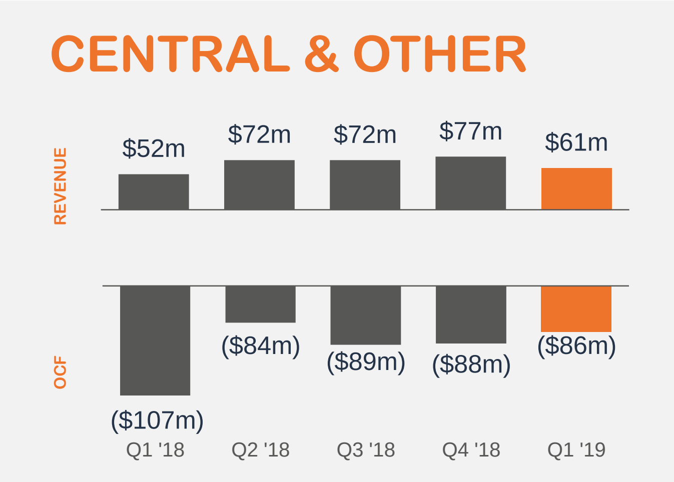










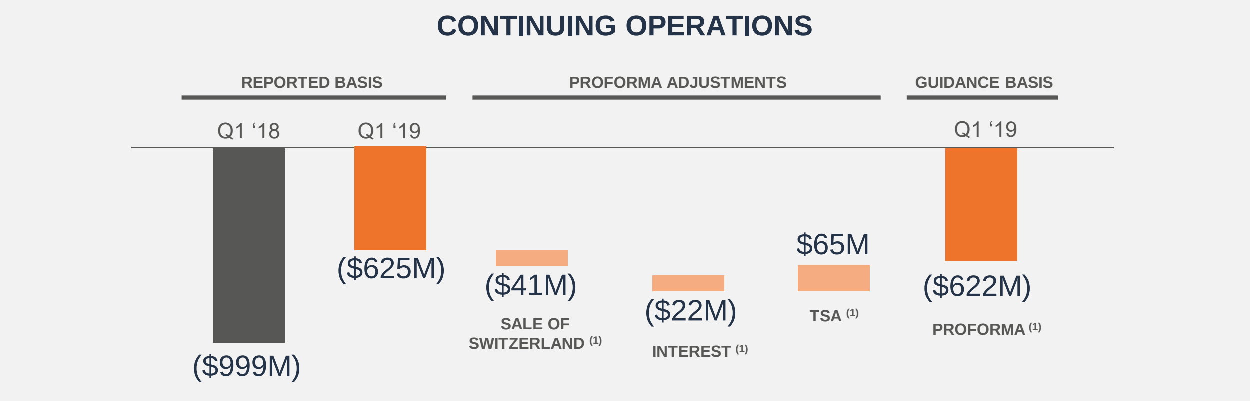


(1) Revenue & OCF growth rates presented on a rebased basis

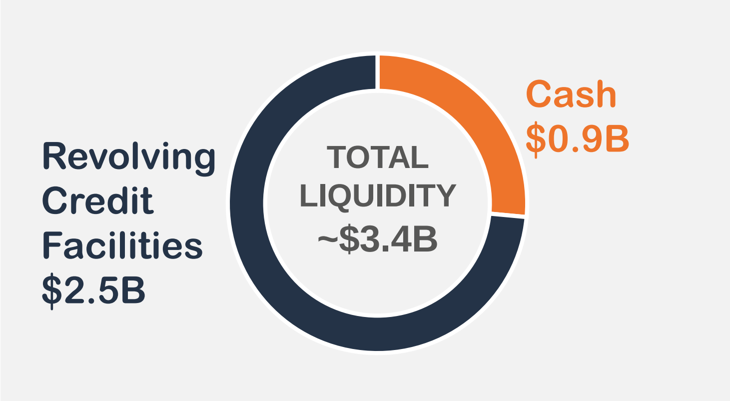
CASH, LEVERAGE AND LIQUIDITY

Over $200 million of equity repurchased in Q1 and over $3 billion of available liquidity

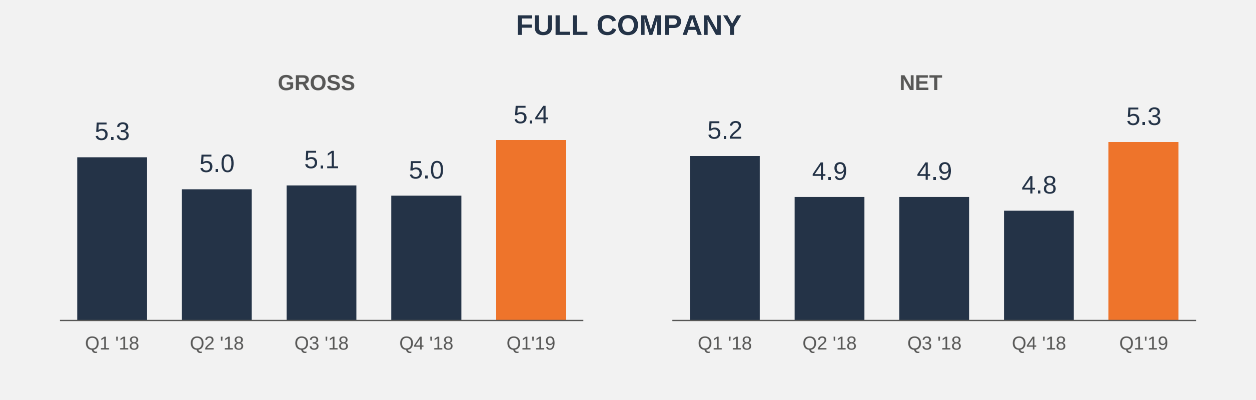
ADJUSTED FCF



LIQUIDITY (2)



LEVERAGE RATIOS (3)



SHARE REPURCHASES (4)

(1) Pro forma Adjusted FCF excludes the Adjusted FCF of the Switzerland disposal group, including 100% of the interest and related derivative payments made during the applicable period relating to the UPC notes. It also incorporates our preliminary estimate of (a) assumed interest and related derivative payments that were made by UPC Holding continuing operations during the period and (b) the net cash flows that we would have received from transitional services agreements if the sale of the remaining Discontinued Operations and UPC Switzerland had occurred on January 1, 2019. For additional details, see the information and reconciliation included within the glossary.
(2) Liquidity refers to our consolidated cash and cash equivalents plus the maximum undrawn commitments under our subsidiaries' borrowing facilities without regard to covenant compliance calculations.
(3) Consistent with how we calculate our leverage ratios under our debt agreements, these ratios are presented on a basis that includes the debt and OCF of both our Continuing and Discontinued Operations.
(4) $500m increase to our share repurchase program was funded by UPC Austria sale proceeds. Please note that this $500m can be used at any point until July 2019.

Q1 P&E ADDITIONS / OPERATING FREE CASH FLOW

Continuing operations 29% lower than Q1 2018; significant year-over-year OFCF growth

		P&E Additions			Operating Free Cash Flow	
		Q1 2019	% Revenue	vs 2018	Q1 2019	vs 2018
BY SEGMENT (% local revenue)	U.K. & IRELAND	$395m	23.8%	(29%)	$313m	+54%
	BELGIUM	$142m	19.9%	(24%)	$197m	+14%
	CEE	$22m	18.2%	(43%)	$35m	+46%
	CENTRAL	$81m	n.m.	(45%)	($167m)	+35%
	TOTAL (GUIDANCE BASIS)	$640m	25.1%	(31%)	$378m	+162%
	SWITZERLAND	$59m	18.5%	+11%	$105m	(22%)
	TOTAL (REPORTED BASIS)	$699m	24.4%	(29%)	$483m	+74%

		Q1 2019	% Revenue	vs 2018
BY DRIVER (% total revenue)	CPE	$229m	8.0%	(23%)
	NEW BUILD & UPGRADE[1]	$142m	5.0%	(24%)
	CAPACITY	$73m	2.5%	(43%)
	PRODUCT & ENABLERS	$127m	4.4%	(39%)
	BASELINE	$128m	4.5%	(23%)
	TOTAL (REPORTED BASIS)	$699m	24.4%	(29%)

- Targeting ~20% reduction in capital intensity for full-year 2019
- Significant YoY reduction in U.K. due to V6 phasing, lower CPP and one-off project spend
- Belgium reverting to normalized levels following 2018 completion of network upgrades
- Roll out of EOS box in Switzerland

(1) New Build & Upgrade driver category also includes B2B capex.

PRO FORMA FCF [1]

Guidance Basis (Continuing Operations excluding Switzerland)

		Q1 2019	
OCF (Pro forma)		$1,082m	• Pro forma for TSAs: VOD $40m, Sunrise $24m, DTH $1m
P&E ADDITIONS		(640)	
OFCF (Pro forma)		442	• Includes ~$75m negative incremental OFCF contribution from Lightning
INTEREST / DERIVATIVES (Pro forma for UPC Continuing Ops, -$22m)		(561)	• Interest payments are made semi-annually in Q1 and Q3
CASH TAX		(181)	• Payment of Telenet 2017 tax liability
VODAFONE ZIGGO JV (Dividend & Interest)		-	• No upstreams in Q1
		(300)	
Working Capital	(270)		• Step down in P&E spend from Q4 2018 & various UK supplier cycle impacts
Operational Finance	(17)		
Restructuring & Other	(35)		
		(322)	• Aim to keep these three working capital categories flat YoY for FY 2019
ADJUSTED FCF (Pro forma)		$(622m)	

(1) Adjusted FCF on a pro forma basis incorporates our preliminary estimate of (a) assumed interest and related derivative payments that were made by UPC Holding continuing operations during the period and (b) the net cash flows that we would have received from transitional services agreements if the sale of the remaining Discontinued Operations and UPC Switzerland had occurred on January 1, 2019. For additional details, see the information and reconciliation included within the glossary.

CONCLUSIONS

Operations performing in-line with expectations

- Transactions with Vodafone & Sunrise remain on track
- Robust U.K. subscriber growth
- Switzerland beginning to show green shoots of turnaround plan
- Declining capital intensity drives strong OFCF growth year-over-year
- Confirming all 2019 guidance targets:

Continuing Operations (excluding Switzerland)

Rebased OCF	P&E Additions[1]	Adjusted FCF[1, 2]
Flat to down	~$2.7 billion at guidance FX	~$550-$600 million Pro Forma basis

(1) Based on EUR/USD 1.13; GBP/USD 1.30

(2) Guidance of $550-$600 million incorporates our preliminary estimate of (a) assumed interest and related derivative payments that were made by UPC Holding continuing operations during the period and (b) the net cash flows that we would have received from transitional services agreements if the sale of the remaining Discontinued Operations and UPC Switzerland had occurred on January 1, 2019. For additional details, see the information and reconciliation included within the glossary. A reconciliation of our Adjusted FCF guidance for 2019 to a U.S. GAAP measure is not provided as not all elements of the reconciliation are projected as part of our forecasting process, as certain items may vary significantly from one period to another.

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REBASE INFORMATION

For purposes of calculating rebased growth rates on a comparable basis for all businesses that we owned during 2019, we have adjusted our historical revenue and OCF for the three months ended March 31, 2018 to (i) include the pre-acquisition revenue and OCF of entities acquired during 2018 in our rebased amounts for the three months ended March 31, 2018 to the same extent that the revenue and OCF of these entities are included in our results for the three months ended March 31, 2019, (ii) exclude the revenue and OCF of UPC Austria to the same extent that the revenue and OCF of UPC Austria is excluded from our results for the three months ended March 31, 2019, and to exclude the revenue and OCF of entities disposed of during 2018, (iii) include revenue and costs for the temporary elements of transitional and other services provided to the VodafoneZiggo JV, Deutsche Telekom (the buyer of UPC Austria) and Liberty Latin America, to reflect amounts related to these services equal to those included in our results for the three months ended March 31, 2019 and (iv) reflect the translation of our rebased amounts for the three months ended March 31, 2018 at the applicable average foreign currency exchange rates that were used to translate our results for the three months ended March, 2019. We have reflected the revenue and OCF of these acquired entities in our 2018 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 entities 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 businesses during the pre-acquisition periods, no assurance can be given that we have identified all adjustments necessary to present the revenue and OCF of these entities 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 2018 amounts to derive our rebased growth rates:

	Three months ended March 31, 2018	
	Revenue	OCF
	in millions	
Continuing operations:		
Acquisitions	$ 16.3	$ 1.6
Dispositions[(i)]	12.6	9.8
Foreign Currency	(208.5)	(83.9)
Total decrease	$ (179.6)	$ (72.5)
Discontinued Operations:		
Dispositions	(101.3)	(54.3)
Foreign Currency	(86.3)	(51.9)
Total decrease	$ (187.6)	$ (106.2)

(i) Includes rebase adjustments related to agreements to provide transitional and other services to the VodafoneZiggo JV, Liberty Latin America and UPC Austria. These adjustments result in an equal amount of fees in both the 2019 and 2018 periods for those services that are deemed to be temporary in nature. The net amount of these adjustments resulted in increases in revenue and OCF of $12.6 million and $11.2 million, respectively, for the three months ended March 31, 2018.

GLOSSARY

10-Q or 10-K: As used herein, the terms 10-Q and 10-K refer to our most recent quarterly or annual report as filed with the Securities and Exchange Commission on Form 10-Q or Form 10-K, as applicable.

Adjusted Free Cash Flow (FCF): 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 finance 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 a reconciliation of our net cash provided by operating activities from continuing operations to Adjusted Free Cash Flow for the indicated periods. In addition, in order to provide information regarding the changes to our Adjusted Free Cash Flow that we expect will occur following the sale of the remaining Discontinued Operations and the Switzerland Disposal Group, we also present Adjusted Free Cash Flow on a pro forma basis for three months ended March 31, 2019 as if the sale of the remaining Discontinued Operations and the Switzerland Disposal Group had been completed on January 1, 2019.

	Three months ended March 31,			
	2019	2018	2019	2018
	Continuing operations		Discontinued Operations (i)	
	in millions			
Net cash provided by operating activities	$ 306.3	$ 670.3	$ 459.1	$ 609.0
Cash payments for direct acquisition and disposition costs	12.4	1.6	—	—
Expenses financed by an intermediary(ii)	564.0	507.3	138.8	50.5
Capital expenditures, net	(331.3)	(484.2)	(110.6)	(161.8)
Principal payments on amounts financed by vendors and intermediaries	(1,162.8)	(1,675.9)	(209.6)	(120.9)
Principal payments on certain finance leases	(13.1)	(18.0)	(2.7)	(3.0)
Adjusted FCF	(624.5)	$ (998.9)	$ 275.0	$ 373.8
Pro forma adjustments related to the sale of the remaining Discontinued Operations and the Switzerland Disposal Group:				
Sale of the Switzerland Disposal Group(iii)	(40.9)			
Interest and derivative payments(iv)	(21.5)			
Transitional services agreements(v)	64.8			
Pro forma Adjusted FCF(vi)	$ (622.1)			

(i) For the 2019 period, our Discontinued Operations include Germany, Hungary, Romania and the Czech Republic and our DTH business. For the 2018 period, our Discontinued Operations also include our former operation in Austria through July 31, 2018.

(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.

(iii) The Switzerland Disposal Group is included within our Continuing Operations Adjusted FCF. In connection with the pending disposition, Sunrise will acquire the Switzerland Disposal Group, the UPC Notes, associated derivatives and certain other debt items. As a result, this pro forma adjustment represents the Adjusted FCF of the Switzerland Disposal Group, including 100% of the interest and related derivative payments made during the applicable period related to the UPC Notes.

(iv) Represents the estimated interest and related derivative payments that have been made by UPC Holding in relation to the continuing UPC operations in Poland and Slovakia during the applicable period. These estimated payments are calculated based on Poland and Slovakia’s pro rata share of UPC Holding's OCF and UPC Holding's aggregate interest and derivative payments during the applicable period. Although we believe that these estimated payments represent a reasonable estimate of the annual interest and related derivative payments that will occur in relation to the continuing operations in Poland and Slovakia, no assurance can be given that the actual interest and derivative payments will be equivalent to the amounts presented. No pro forma adjustments are required with respect to Unitymedia's interest and derivative payments as substantially all of Unitymedia’s debt and related derivative instruments are direct obligations of entities within the Vodafone Disposal Group. As a result, the interest and related derivative payments associated with such debt and derivative instruments of Unitymedia are included in discontinued operations.

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(v) Represents our preliminary estimate of the net cash flows that we would have received from transitional services agreements if the sale of the remaining Discontinued Operations and the Switzerland Disposal Group had occurred on January 1, 2019. The estimated net cash flows are based on the estimated revenue that we expect to recognize from our transitional services agreements during the first 12 months following the completion of the sale of the remaining Discontinued Operations and Switzerland Disposal Group, less the estimated incremental costs that we expect to incur to provide such transitional services. As a result, this pro forma adjustment includes \$39.7 million related to our discontinued operations in Germany, Hungary, Romania and the Czech Republic, \$24.4 million related to the Switzerland Disposal Group and \$0.7 million related to our discontinued DTH business.

(vi) Represents the Adjusted FCF that we estimate would have resulted if the sale of the remaining Discontinued Operations and the Switzerland Disposal Group had been completed on January 1, 2019. Actual amounts may differ from the amounts assumed for purposes of this pro forma calculation. For example, our Pro forma Adjusted FCF does not include any future benefits related to reductions in our corporate costs as a result of our operating model rationalization or any other potential future operating or capital cost reductions attributable to our continuing or discontinued operations.

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.

Blended fully-swapped debt borrowing cost: the weighted average interest rate on our aggregate variable- and fixed-rate indebtedness (excluding finance leases and including vendor financing obligations), including the effects of derivative instruments, original issue premiums or discounts and commitment fees, but excluding the impact of financing costs.

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.

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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: Consistent with how we calculate our leverage ratios under our debt agreements, we calculate our debt ratios on a Full Company basis, with the gross and net debt ratios defined as total debt and net debt, respectively, divided by 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 and Lions Gate Entertainment Corp. We have not presented leverage ratios on a continuing operations basis as we believe that such a presentation would overstate our leverage and would not be representative of the actual leverage ratios that we will report once all dispositions are completed. For additional information, see note 4 to the condensed consolidated financial statements included in our 10-Q.

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.

OCF: As used herein, OCF has the same meaning as the term "Adjusted OIBDA" that is referenced in our 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,			
	2019		2018	
	Continuing operations	Discontinued Operations	Continuing operations	Discontinued Operations
	in millions			
Operating income	$ 105.5	$ 504.1	$ 117.6	$ 375.5
Share-based compensation expense	67.3	3.5	42.7	3.1
Depreciation and amortization	939.6	—	1,040.7	255.7
Impairment, restructuring and other operating items, net	70.9	9.3	60.7	2.9
Total OCF	$ 1,183.3	$ 516.9	$ 1,261.7	$ 637.2

OFCF: As used herein, OFCF represents OCF less property and equipment additions. OFCF is an additional metric that we use to measure the performance of our operations after considering the level of property and equipment additions incurred during the period. For limitations of OFCF, see the definition of OCF.

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

Property and equipment additions (P&E Additions): includes capital expenditures on an accrual basis, amounts financed under vendor financing or finance lease arrangements and other non-cash additions.

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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 RGU counts exclude our separately reported postpaid and prepaid mobile subscribers.

SAC: Subscriber Acquisition Cost

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.

APPENDIX - LIGHTNING

The presentation of OCF growth and OCF margins for UKIE's Project Lightning represents "Incremental OCF", which is supplemental non-GAAP information that has a different meaning than the OCF we report for our operating segments that are used by our chief operating decision maker to evaluate segment operating performance.

As we use this term, Incremental OCF includes only the revenue and expenses directly associated with the homes built under Project Lightning since its launch in the third quarter of 2015. The direct and incremental expenses associated with Project Lightning include certain non-capitalizeable customer installations, programming (on a per subscriber basis when above the overall minimum guaranteed contractual amount across our consolidated subscriber base), third party network traffic, billing and collections, certain call center and other operating costs related to personnel dedicated to Project Lighting. Incremental OCF excludes significant costs incurred that would otherwise be included if the UKIE's Project Lightning was operated as a standalone segment or operating entity and excludes indirect costs related to functions required to support Project Lighting. Specifically, among other expenses, Incremental OCF excludes allocations of broadband network taxes, general corporate costs and administrative, general network operations, information technology, facilities, commercial, and general sales and marketing costs.