LIBERTY GLOBAL PLC INVESTOR CALL | Q1 2020

May 7th, 2020

“SAFE HARBOR”

Forward-Looking Statements + Disclaimer

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. In this context, forward-looking statements often address expected future business and financial performance and financial condition, and often contain words such as “expect,” “anticipate,” “intend,” “plan,” “believe,” “seek,” “see,” “will,” “would,” “may,” “target,” and similar expressions and variations or negatives of these words. These forward-looking statements may include, among other things, statements with respect to our strategies, future growth prospects and opportunities, results of operations, uses of cash, and other measures that may impact our financial performance; expectations with respect to our rebased OCF decline, our rebased OFCF growth and our Adjusted FCF; our share buyback program; expectations with respect to cost reductions; anticipated headwinds in 2020; our medium-term outlook; expectations with respect to the development, launch and benefits of our innovative and advanced products and services, including gigabit speeds, new technology and next generation platform rollouts or launches; the strength of our balance sheet and tenor of our third-party debt; expectations with respect to our operations models; anticipated benefits and synergies and estimated costs of the proposed transaction with Telefonica S.A. (the “Proposed Transaction”) to form a joint venture between the U.K. operations of Virgin Media and O2 (the “Joint Venture”) and/or other transactions that may have closed prior to the date hereof; and the expected timing of completion of the Proposed Transaction; 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; the effects of the U.K.'s exit from the E.U.; general economic, legislative, political and regulatory factors, and the impact of weather conditions, natural disasters, or any epidemic, pandemic or disease outbreak (including COVID-19); our and our affiliates’ ability to obtain regulatory approval and satisfy regulatory conditions associated with acquisitions and dispositions, including with respect to the Proposed Transaction; 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, including any potential litigation that may be instituted with respect to the Proposed Transaction or other material transactions; that the Proposed Transaction may not be completed on anticipated terms and timing or completed at all; our and Telefonica S.A.’s respective affiliates’ ability to successfully integrate the combined businesses of the Joint Venture and realize anticipated efficiencies and synergies from the Proposed Transaction; the potential impact of unforeseen liabilities, future capital expenditures, revenues, expenses, economic performance, indebtedness, financial condition on the future prospects and business of the Joint Venture after the consummation of the Proposed Transaction; expected financing and recapitalization transactions undertaken in connection with the Proposed Transaction and risks associated such transactions; any negative effects of the announcement, pendency or consummation of the Proposed Transaction; 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; other factors detailed from time to time in our filings with the U.S. Securities and Exchange Commission; and management’s response to any of the aforementioned factors. For additional information on identifying factors that may cause actual results to vary materially from those stated in forward-looking statements, please see our filings with the U.S. Securities and Exchange Commission, including our most recently filed Form 10-Q. 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 2, 2019, we sold our UPC DTH operations, which provide direct-to-home satellite services in Hungary, the Czech Republic, Romania and Slovakia. On July 31, 2019, we sold our operations in Germany, Hungary, Romania and the Czech Republic. Our operations in Germany, Hungary, Romania and the Czech Republic, along with our former UPCDTH operations are collectively referred to herein as the “Discontinued Operations” and have all been accounted for as discontinued operations for the three months ended March 31, 2019, in our March 31,2020 Form 10-Q.

Additional Information Relating to Defined Terms:

Please refer to the Appendix at the end of this presentation, as well as our press release dated February 13, 2020 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. .

EXECUTIVE SUMMARY

FINANCIAL RESULTS

APPENDIX

RESPONSE TO COVID-19

OUR FOCUS

Protect Employees

- Enabled home working
- Following all local safety guidelines
- $4m Employee Relief Fund

Serve Customers

- Speed boosts and increased data
- Additional entertainment
- Enhanced business support

Thoughtful Capital Allocation

- Strong balance sheet
- Investing in Lightning & Digital initiatives

OPERATIONS

Solid Network Performance

- Absorbed increased bandwidth:
  - >20% downstream increase
  - >50% upstream increase

Sales stable; churn reduced

- Broadband sales steady
- Premium video impacted by Sports
- Mobile roaming down; handsets impacted by store closures

Operating Model adapted

- Insourced/repurposed FTEs
- Emphasizing online sales

OUTLOOK

Not changing or suspending guidance today

- Still assessing medium-term impact
- Encouraged by operating prospects
- Expect to update investors at Q2

Q1 2020 HIGHLIGHTS

1 Tackling COVID-19 head on

- Focused on employee safety and well-being
- Keeping our customers connected and entertained
- Anticipating modest operational and financial impact

2 Delivered solid Q1 results

- Stable customer base with positive ARPU growth
- Driving convergence and extending speed leadership with 1 Gig rollouts
- Swiss KPIs encouraging but financials remain under pressure

3 Outlook & Capital Allocation

- Still assessing medium-term impact from COVID-19 on our financial guidance; expect to update investors on our Q2 earnings call
- Repurchased ~$500 million of stock from February 24 to April 30

4 Powerhouse FMC combination in U.K.

- Creation of 50:50 JV by merging Virgin Media & O2
- Fastest broadband network and largest mobile platform
- Attractive transaction multiples and substantial synergies

Q1 2020 (1)

OPERATIONS	ACTUAL	YOY GROWTH
Customer Net Adds	(19k)	(17k)
Fixed Customer Rebased ARPU	$59.59	+0.6%
Fixed Mobile Convergence	23%	+2%

FINANCIALS	ACTUAL	YOY GROWTH
Rebased Revenue	$2.88bn	(0.3%)
Rebased OCF	$1.15bn	(3.6%)
P&E Additions	$654m	$(44m)
Rebased OFCF	$496m	(2.4%)
Adjusted FCF	$(317m)	

(1) Please refer to the Appendix for definitions and non-GAAP reconciliations, where applicable.

VIRGIN MEDIA + O2: TRANSACTION SUMMARY (1)

DEAL SUMMARY

- **50:50 joint venture** with Telefonica; equal governance; rotating Chairman; management agreed by closing
- **Virgin Media valued at £18.7 billion** TEV and transferred into JV with £11.3 billion of debt (2)
- **O2 valued at £12.7 billion** TEV and transferred on a debt free basis (2)
- **Equalization payment** from Liberty to Telefonica of £2.5 billion
- **5x leverage** (3) at closing; total debt of approx. **£18 billion** and new proceeds of approx. £6 billion
- **Net cash to Liberty of £1.4 billion** after equalization payment
- **Expected to close** middle of 2021 and subject to regulatory and financing conditions

LIBERTY GLOBAL BENEFITS

- **Clear convergence champion** with the best fixed & mobile networks, strong brands and significant scale (46 million mobile and fixed subscribers)
- **Premium entry multiple** for Virgin Media of 9.3x OCF (4) and 25x OFCF (2019)
- **Net cash proceeds** at closing, plus 50% of ongoing FCF and recap proceeds
- **50% of synergies** valued at NPV of £6.2 billion

JV FINANCIAL INFORMATION (5)

Year ended 31 Dec 2019 (millions)	VIRGIN MEDIA U.K.	O2 U.K.	TOTAL JV
REVENUE	£4,766	£6,235	£11,001
OCF (6)	£2,042	£1,661	£3,703
OCF (net of shareholder svcs) (7)	£1,917	£1,620	£3,537
OFCF	£751	£819	£1,570

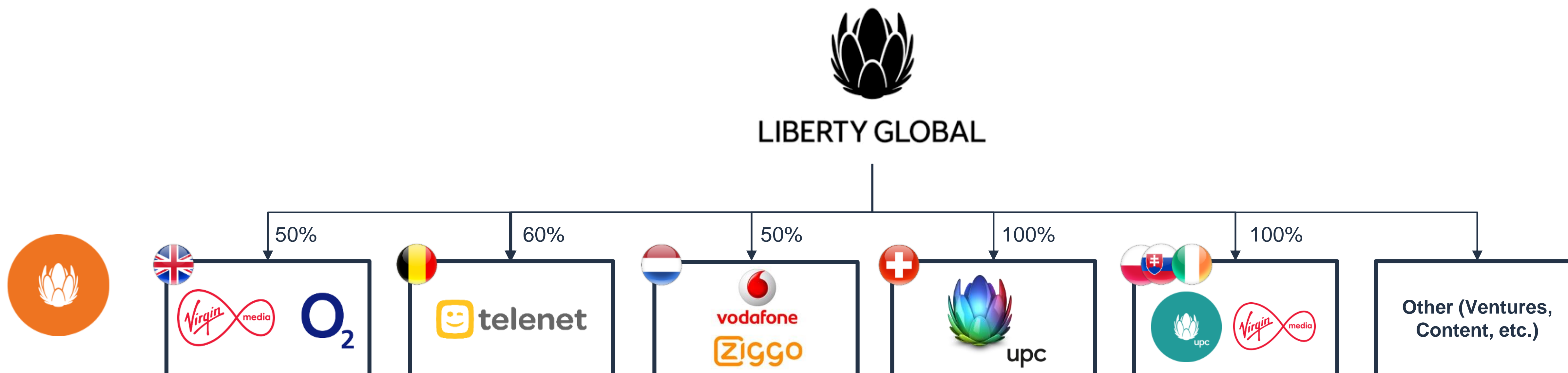
(1) Figures, other than those included in the JV Financial Information table, represent estimated amounts at closing
(2) Virgin Media's £11.3 billion of net debt is based upon third-party net debt and transaction related debt-like adjustments as of December 31, 2019 and is subject to customary closing adjustments. O2 is subject to £0.3 billion of transaction related debt-like and working capital adjustments as of December 31, 2019 and is subject to customary closing adjustments.
(3) Including charges in connection with all Incremental Shareholder Services and liabilities associated with operating leases
(4) Based on Reported OCF of £2,042m less £40m of estimated opex related shareholder charges and excluding £85m of estimated capital related shareholder charges, both of which we expect to be reported in OCF post transaction
(5) Amounts represent the simple aggregation of revenue, OCF and OFCF (as customarily defined by Liberty Global) for the year ended December 31, 2019, based on U.S. GAAP for Virgin Media U.K. and IFRS (pre IFRS-16) for O2 U.K. Presentation is for illustrative purposes and does not reflect the basis of accounting that will be applied subsequent to the closing of the transaction.
(6) Operating income for Virgin Media U.K was £50 million, including depreciation and amortization of £1,672 million, related-party fees and allocations of £190 million and other operating items of £130 million.
(7) Includes estimated shareholder charges as indicated in note 4 for Liberty Global and £41m for Telefonica.

VIRGIN MEDIA + O2: COMBINED GROUP AT A GLANCE

BEST IN-CLASS INFRASTRUCTURE	#1 Uswitch Mobile & Broadband Awards 2020 ✓ UK's largest mobile network	✓ Competitive Spectrum Position	✓ **15mm fixed homes passed** of which 95% are gigabit ready and 13% are launched	Gig1 Fibre ✓ **Significant high speed coverage** with 1Gbps across the UK by 2021
STRONGER, LARGER & MORE DIVERSIFIED GROUP	**32.6 Million** Mobile subscribers (EX. 5.1mm M2M subs)	**£11bn** Revenue (1)	**5.3 Million** Internet subscribers	**£3.7bn** OCF (1) ; **3.6 Million** Pay-TV subscribers
LEADING CONVERGED CHALLENGER	**#1 Mobile Market Share** 38% (O2)	**#3 Broadband Market Share** 20% (Virgin media)	**#2 Pay-TV Market Share** 23% (Virgin media)	
BEST PRODUCT OFFERING IN THE UK	**Premium Brands** Virgin media, O2	**Wide MVNO Offering** Lycamobile, sky, Tesco mobile, giffgaff	**Fiber Backhaul and 5G** 5G, O2 Wifi Fast, easy and reliable.	**Best Entertainment**

(1) Amounts represent the simple aggregation of revenue, OCF and OFCF (as customarily defined by Liberty Global) for the year ended December 31, 2019, based on U.S. GAAP for Virgin Media U.K. and IFRS for Telefonica U.K. Presentation is for illustrative purposes and does not reflect the basis of accounting that will be applied subsequent to the closing of the transaction.

LIBERTY GLOBAL: PRO FORMA GROUP



EUROPEAN FMC SCALE

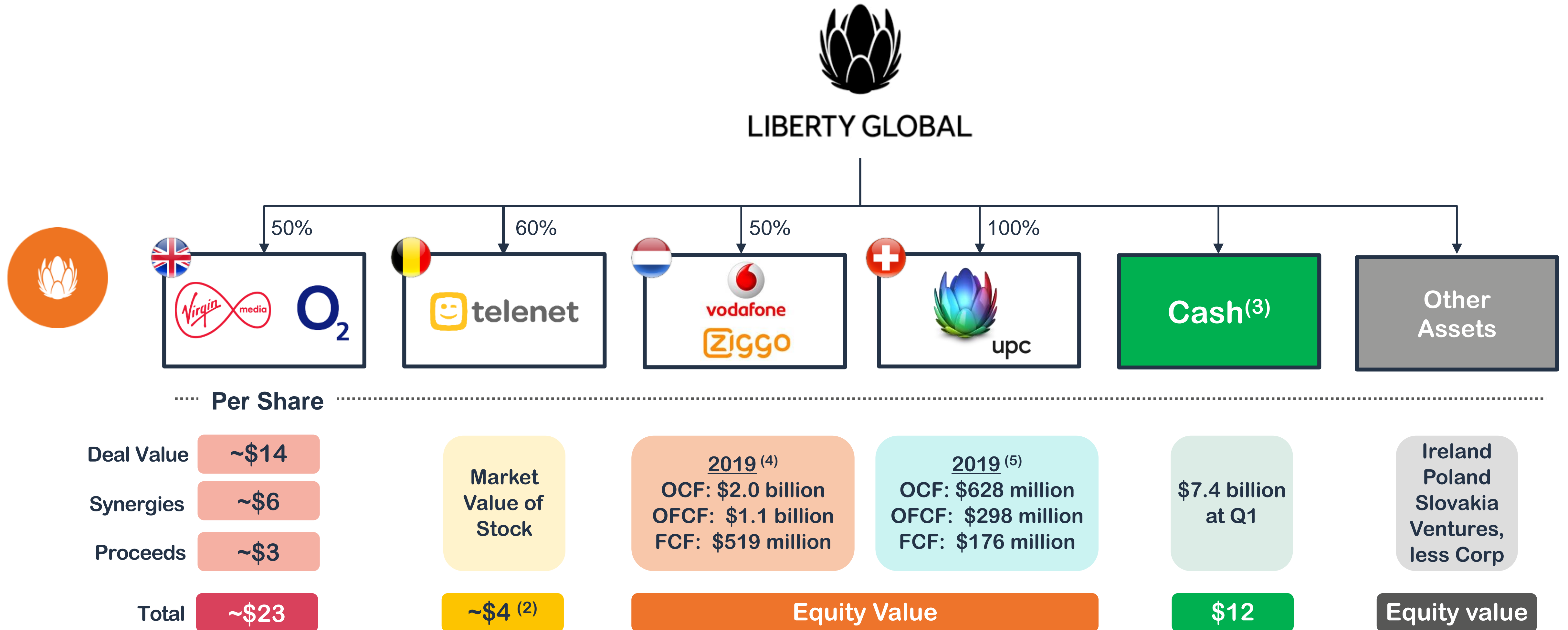
- Best converged assets in the best markets
- 80mm combined fixed and mobile subscribers (RGUs) (1)
- $18bn of JV revenue and ~ $6bn consolidated revenue (2)
- Significant OCF, OFCF and FCF generation (3)

VALUE CREATION STRATEGY

- Creation of national FMC champions
- Focus on FCF growth & yield; potential public listings
- Disciplined consolidation & opportunistic investments
- Levered equity capital allocation

(1) Based on 100% of Vodafone Ziggo JV's, Virgin Media O2 U.K. JV's and Liberty Global's consolidated (ex- Virgin Media U.K.) 2019 RGUs.
(2) Based on 2019 amounts. JV revenue includes 100% of revenue for both the Vodafone Ziggo JV and the Virgin Media O2 U.K. JV. Consolidated revenue excludes 100% of Virgin Media U.K. revenue.
(3) OCF, OFCF and FCF are used as customarily defined by Liberty Global

LIBERTY GLOBAL: SUM-OF-THE-PARTS (1)



(1) Calculations based on 605,968,770 basic ordinary shares outstanding at April 30, 2020 as disclosed in the Liberty Global form 10-Q
(2) Based on our ownership of 66.3 million shares at current market price of €35.72
(3) Includes SMAs
(4) NL JV operating income of $120 million
(5) CH operating income of $187 million

VIRGIN MEDIA: Q1 2020 OPERATING UPDATE

HIGHLIGHTS

WINNING AND RETAINING CUSTOMERS

- Fixed customers held stable
- Record Q1 postpaid adds +72k
- SoHo customer base +7% YoY
- Significant wholesale contract wins

DRIVING UPSELL AND CROSS-SELL TO GROW ARPU

- FMC gaining traction, +2.5% YoY
- 95% of BB base taking 100+ Mbps following speed boost for 1m subs

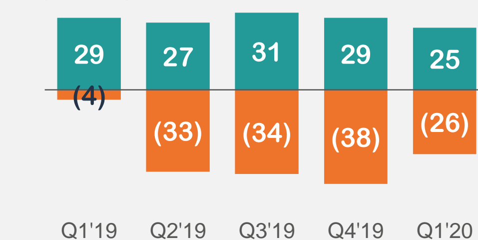
EXTENDING SPEED LEADERSHIP

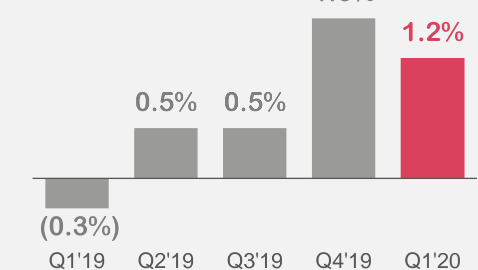
- On-track for network-wide coverage by end 2021, delivering >50% of UK Government national ambition 4 years early

DRIVING EFFICIENCY

- Digitalization transforming care and sales capabilities

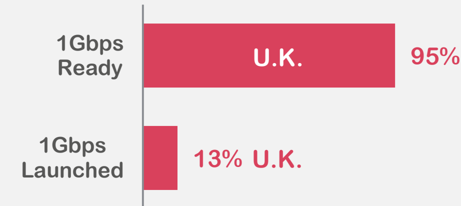
GROWING ARPU WHILE HOLDING CUSTOMERS STABLE





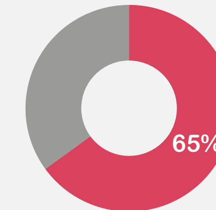
SPEED LEADERSHIP (3)

Average UKIE base speed: 140Mbps



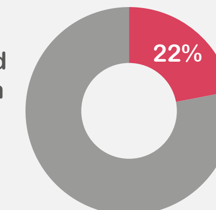
ENTERTAINMENT (3)

U.K. V6 box penetration / total video base



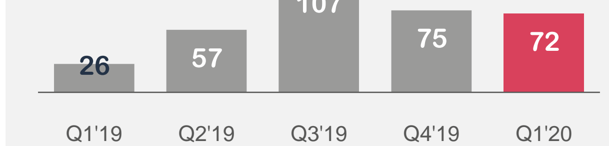
FMC

% broadband subscribers that also take a postpaid mobile subscription

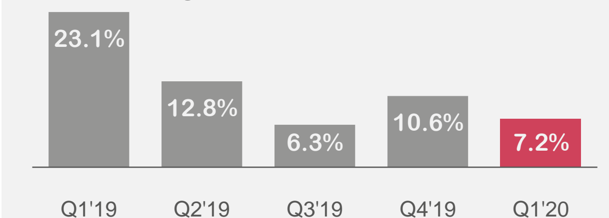


GROWING POSTPAID MOBILE

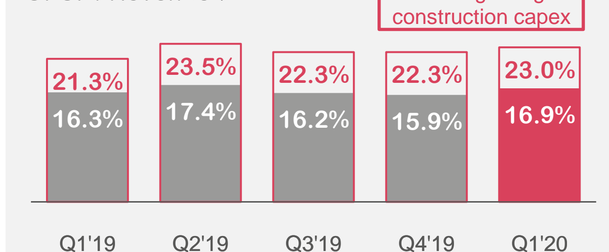
Total Postpaid subscribers: 3.1m



GROWING SOHO



OPTIMIZING OFCF MARGINS



(1) Total revenue including non-subscription and mobile
(2) Includes Centrally attributed P&E Additions, see Appendix for more details
(3) 1Gbps and EOS rollouts in Ireland are due to commence later in 2020

EXECUTIVE SUMMARY

FINANCIAL RESULTS

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DIVISIONAL OVERVIEW

Strong OFCF conversion post Centrally-held P&E attributions

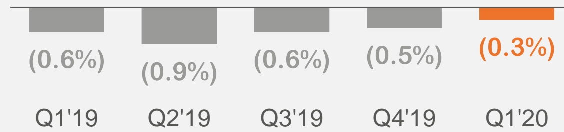
In millions, except %s	U.K. & IRELAND		BELGIUM		SWITZERLAND		50-50 DUTCH JV (3,4)	
	Q1' 19	Q1' 20	Q1' 19	Q1' 20	Q1' 19	Q1' 20	Q1' 19	Q1' 20
REVENUE	$1,661	$1,621	$712	$718	$316	$317	$1,094	$1,097
Rebased revenue growth		*(0.6%)*		*(0.4%)*		*(2.7%)*		*3.3%*
OCF (1)	$692	$655	$339	$332	$156	$134	$494	$503
Rebased OCF growth		*(3.5%)*		*0.6%*		*(16.0%)*		*4.9%*
% Revenue	42%	40%	48%	46%	49%	42%	45%	46%
OFCF pre Lightning Construction Capex (2)	$354	$372	$197	$187	$89	$55	$302	$258
% Revenue	21%	23%	28%	26%	28%	17%	28%	24%
Lightning Construction Capex (5)	$84	$99						
OFCF (2)	$270	$273						
	16%	17%						

(1) 2019 based on our updated definition of segment OCF which, effective from Q4 2019, now includes Centrally allocated opex. For information on centrally-held operating cost allocations, see the appendix.
(2) Includes Centrally attributed P&E Additions. For information on our centrally-held P&E attributions, see the appendix included in our Q1 2020 Liberty Global earnings release
(3) Represents 100% of the non-consolidated Dutch JV
(4) OCF for the Dutch JV as shown in the table above includes $28 million of FSA charges from Liberty Global with the corresponding amount recognized as revenue within our Central segment.
(5) Lightning Construction capex includes construction Capex only. Excludes Customer Premises Equipment

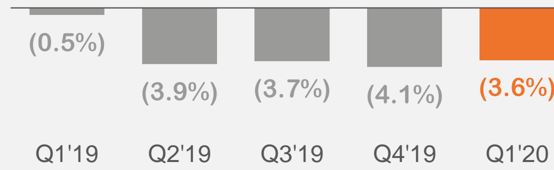
GROUP OVERVIEW

Stable top line; OCF growth impacted by COVID-19; ~$10bn of total liquidity

REVENUE GROWTH[1]

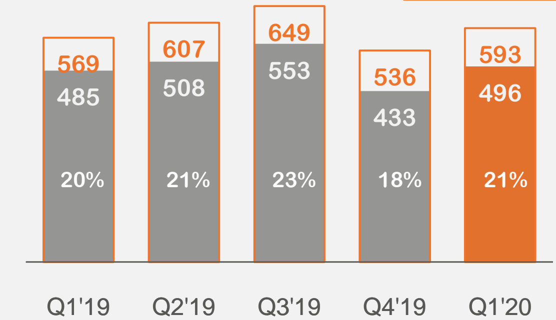


OCF GROWTH[1]

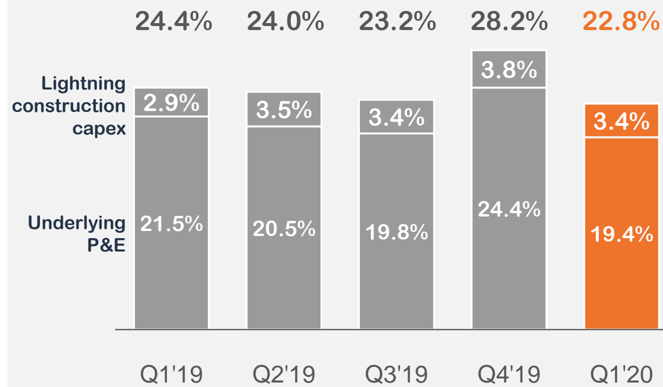


OFCF[1] ($m and % of Revenue)

% exclude Lightning capex

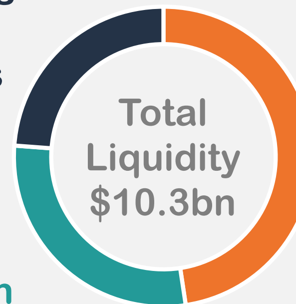


P&E ADDITIONS (as % of Revenue)



LIQUIDITY[2]

Revolving Credit Facilities $2.9bn

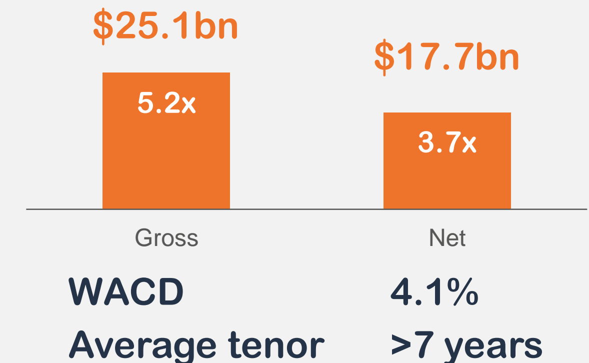


SMAs $2.0bn

Cash $5.4bn

LEVERAGE[3]

(LTM basis)



WACD	4.1%
Average tenor	>7 years

(1) Revenue, OCF and OFCF growth rates presented on a rebased basis after internal recharges. See appendix for definitions and reconciliations of non-GAAP measures, as applicable.
(2) Liquidity refers to our consolidated cash and cash equivalents, investments held under separately managed accounts (SMAs), plus the maximum undrawn commitments under our subsidiaries' borrowing facilities without regard to covenant compliance calculations
(3) Debt balances presented on swapped basis, taking into account derivative positions.

ADJUSTED FCF

Q1 outflow driven by interest payments; consistent with prior years

$m	FY 2019	Q1 2020	Comments
OCF	$4,949	$1,150	
P&E pre-Lightning Capex	(2,490)	(555)	
OFCF pre-Lightning Capex	$2,459	$595	
NET INTEREST	(1,118)	(579)	• Payments in Q1 and Q3
CASH TAX	(358)	5	• FY20 expected to be lower than FY19
VODAFONE ZIGGO JV [1] (Dividend & Interest)	214	11	• FY20 upstream €200-250m expected H2
	$1,197	$32	
WORKING CAPITAL [2]	(37)	(250)	• Targeting broadly flat again in FY20
ADJUSTED FCF pre-Lightning Capex	$1,160	($218)	
LIGHTNING CAPEX	(390)	(99)	• Construction capex only
ADJUSTED FCF	$770	($317)	

(1) 2019 loan repayment of €100m not included within FCF
(2) Includes working capital, operational finance (vendor finance) and restructuring

OUTLOOK

Maintaining 2020 Guidance; revisiting at Q2

- Still assessing medium-term impact from COVID-19
- Expect to update investors on our Q2 earnings call
- Encouraged by operating prospects
- No current need to change or suspend full-year guidance

FY 2020 (1)	Original Guidance	Comments
Rebased Revenue	Not guided	Negative impacts expected on handset sales and premium video, both low margin
Rebased OCF	Mid-single digit decline	Assumptions: • Lock-downs lifted from Q2 • Gradual economic recovery occurs thereafter
Rebased OFCF	Mid-single digit growth	
Adjusted FCF (2)	~$1 billion Including Lightning Construction Capex	

(1) Quantitative reconciliations to operating income (including operating income growth rates) and cash flows from operating activities for our OCF and adjusted free cash flow guidance cannot be provided without unreasonable efforts as we do not forecast (i) certain non-cash charges including depreciation and amortization and impairment, restructuring and other operating items included in operating income, nor (ii) specific changes in working capital that impact cash flows from operating activities. The items we do not forecast may vary significantly from period to period.

(2) Based on EUR/USD 1.13; GBP/USD 1.33

EXECUTIVE SUMMARY

FINANCIAL RESULTS

APPENDIX

VIRGIN MEDIA: PROJECT LIGHTNING UPDATE

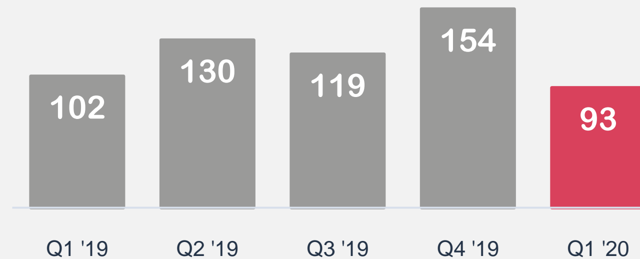
HIGHLIGHTS

- Government allowing construction to continue however some COVID-19 delays
- Driving attractive returns:
  - ARPU in line with core business post-discounts
  - Pre-SAC OCF margins estimated ~60%
  - Cumulative CPP stays flat at ~£670
- Exploring potential for greenfield expansion via Liberty Networks

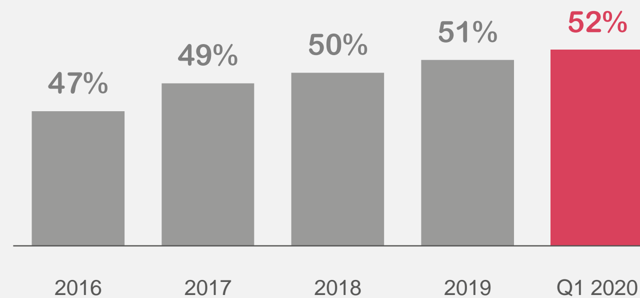
CONSTRUCTION ACTIVITY

PREMISES CONSTRUCTED (000s)

Lightning to date: 2,182k

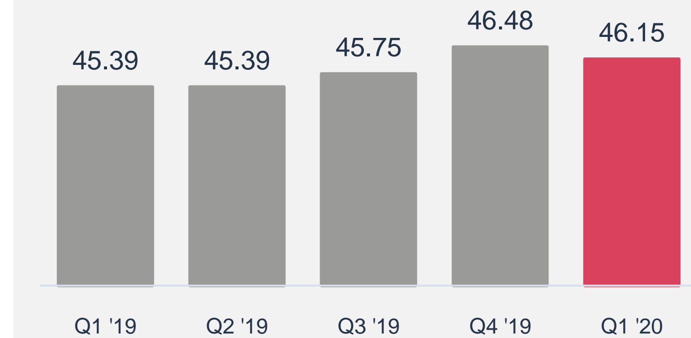


NATIONAL FOOTPRINT COVERAGE

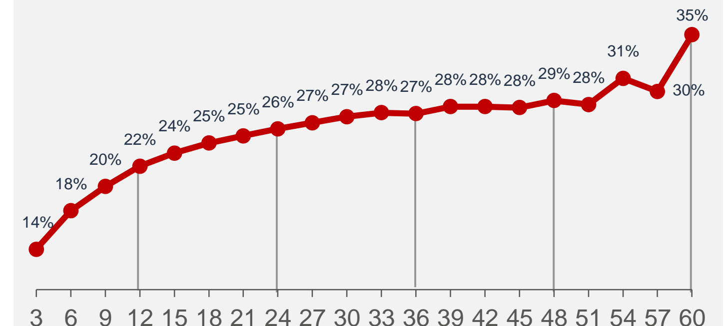


KPIs

ARPU £



U.K. PENETRATION



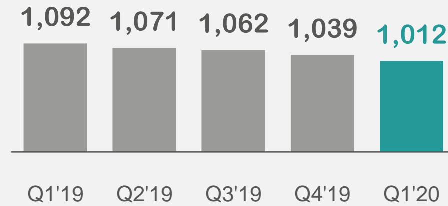
UPC SWITZERLAND: Q1 2020 OPERATING UPDATE

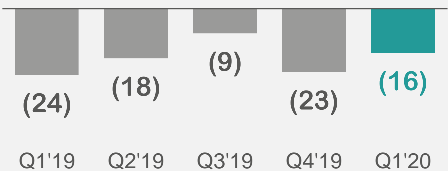
Operating trends encouraging but pricing pressure continues

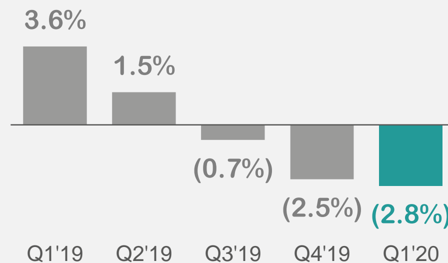
HIGHLIGHTS

- Turnaround initiatives progressing well, contributing to improved digital churn
  - Positive 1Gbps take-up
  - FMC % +5% YoY
  - EOS nps +21pts vs legacy video platform
- Financials pressured:
  - Competitive market depressing consumer and SOHO ARPU, however B2B continues to grow
  - Higher share of lower margin mobile revenue and higher MVNO costs from increased usage
  - CHF2m OCF impact from accelerated Ice Hockey cost recognition
  - Cost optimization impacts from Q2 onwards
  - OFCF impacted by higher CPE inventory & new build / B2B projects

GROWING ARPU WHILE HOLDING CUSTOMERS STABLE





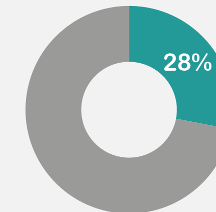


SPEED LEADERSHIP

Average base speed: 310Mbps

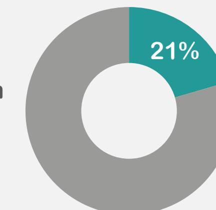
ENTERTAINMENT

EOS box penetration / total video base



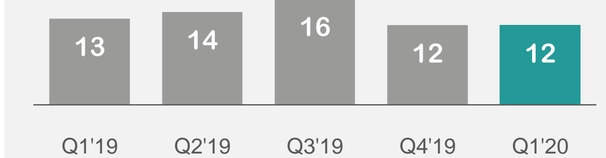
FMC

% broadband subscribers that also take a mobile subscription

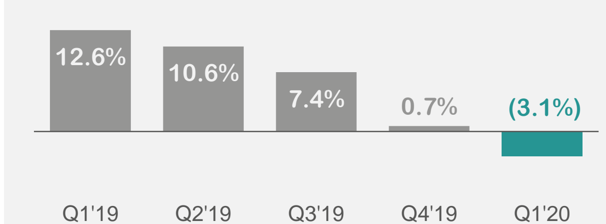


GROWING POSTPAID MOBILE

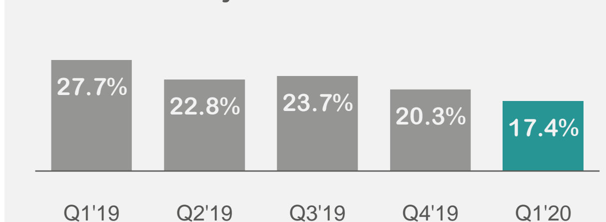
Total Postpaid subscribers: 213k



GROWING SOHO



OPTIMIZING OFCF MARGINS



(1) Total revenue including non-subscription and mobile
(2) Includes Centrally attributed P&E Additions, see Appendix for more details

TELENET: Q1 2020 OPERATING UPDATE

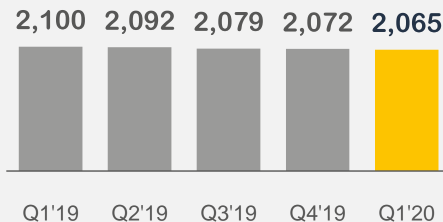
Executing against all key strategic drivers

HIGHLIGHTS

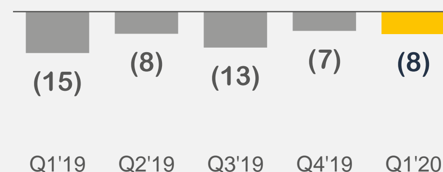
- Draft wholesale pricing notified to EC for review
- Lower handset sales & advertising revenue due to COVID-19.
- €10m of prepaid sports costs written off in Q1 due to fixture disruption
- Digitization initiatives delivering underlying opex benefits
- Local IFRS guidance updated for COVID-19:
  - Rebased revenue growth -2% (previously broadly stable)
  - Rebased OFCF growth 1-2% (previously ~2%)
  - Lower end of previous €415-435m Adjusted FCF range

GROWING ARPU WHILE HOLDING CUSTOMERS STABLE

Fixed Line Customers (000s)



Net Fixed Line Customer Adds (000s)



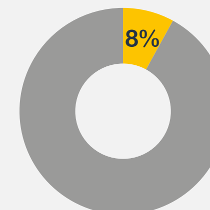
Customer ARPU Rebased Growth YoY

SPEED LEADERSHIP

Average base speed: 202Mbps

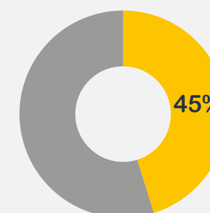
ENTERTAINMENT

EOS box penetration / total video base



FMC

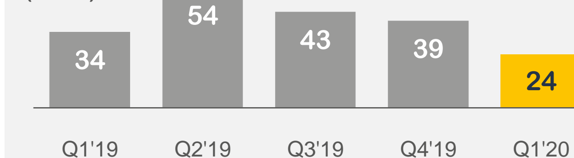
% broadband subscribers that also take a mobile subscription



GROWING POSTPAID MOBILE

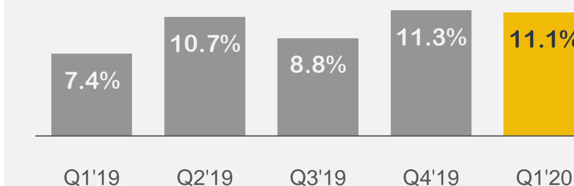
Total Postpaid subscribers: 2.1m

Postpaid Net Adds (Consumer) (000s)



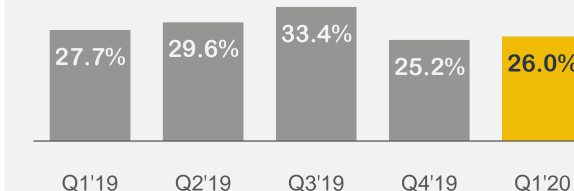
GROWING SOHO

SOHO Revenue (1)
Rebased YoY Growth %



OPTIMIZING OFCF MARGINS

OFCF / Revenue % (2)
Includes Centrally attributed P&E



(1) Total revenue including non-subscription and mobile
(2) Includes Centrally attributed P&E Additions, see Appendix for more details

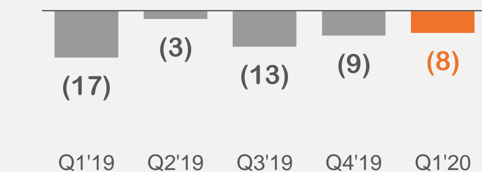
VODAFONE ZIGGO: Q1 2020 OPERATING UPDATE[1]

Operating momentum continues in Q1 2020

HIGHLIGHTS

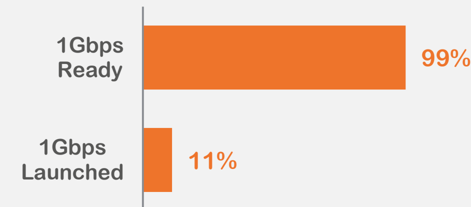
- Regulated access requirement annulled
- Targeting 1Gbps rollout by end of 2021
- First operator to launch 5G network
- ~90% of €210m synergy target realized
- Local JV guidance updated for COVID-19:
  - Stable to modest OCF growth (previously 2-3%)
  - €400-500m of cash available for potential shareholder distributions (no change)

GROWING ARPU WHILE HOLDING CUSTOMERS STABLE



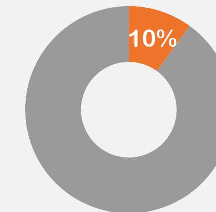
SPEED LEADERSHIP

Average base speed: 180Mbps



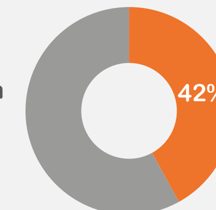
ENTERTAINMENT

Mediabox Next penetration / total video base



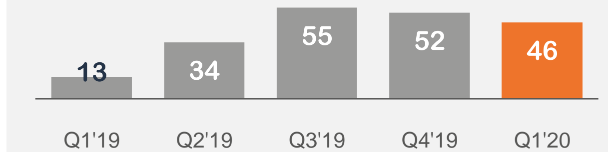
FMC

% broadband subscribers that also take a mobile subscription

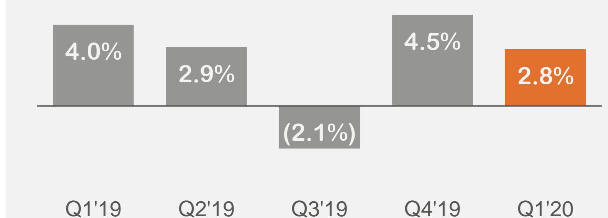


GROWING POSTPAID MOBILE

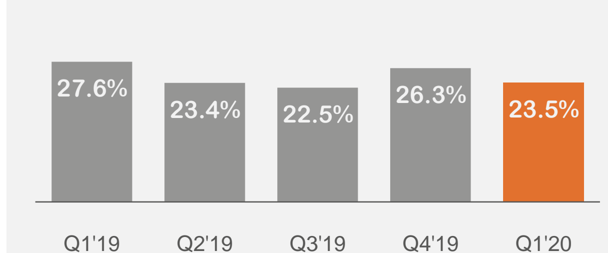
Total Postpaid subscribers: 2.8m



GROWING SOHO



OPTIMIZING OFCF MARGINS



(1) We own a 50% non-controlling interest in the VodafoneZiggo JV in the Netherlands and all results are as disclosed and as reported by the JV. Results are not consolidated by Liberty Global.
(2) Total revenue including non-subscription and mobile

REBASE INFORMATION

For purposes of calculating rebased growth rates on a comparable basis for all businesses that we owned during 2020, we have adjusted our historical revenue, OCF and OFCF for the three months ended March 31, 2019 to (i) include the pre-acquisition revenue, OCF and P&E additions of entities acquired during 2019 in our rebased amounts for the three months ended March 31, 2019 to the same extent that the revenue, OCF and P&E additions of these entities are included in our results for the three months ended March 31, 2020, (ii) include revenue and costs for the temporary elements of transitional and other services provided to the VodafoneZiggo JV, Vodafone, Deutsche Telekom (the buyer of UPC Austria), Liberty Latin America and M7 Group (the buyer of UPC DTH), to reflect amounts related to these services equal to those included in our results for the three months ended March 31, 2020 and (iii) reflect the translation of our rebased amounts for the three months ended March 31, 2019 at the applicable average foreign currency exchange rates that were used to translate our results for the three months ended March 31, 2020. We have reflected the revenue, OCF and P&E additions of these acquired entities in our 2019 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, OCF and OFCF 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, OCF and OFCF that would have occurred if these transactions had occurred on the dates assumed for purposes of calculating our rebased amounts or the revenue, OCF and OFCF 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 2019 amounts to derive our rebased growth rates for our continuing operations:

	Three months ended March 31, 2019		
	Revenue	OCF	OFCF
		in millions	
Acquisitions	$ 31.3	$ 0.9	$ 0.9
Dispositions[i]	35.5	33.1	33.1
Foreign Currency	(50.9)	(23.4)	(10.3)
Total increase	$ 15.9	$ 10.6	$ 23.7

(i) Relates to rebase adjustments for agreements to provide transitional and other services to the VodafoneZiggo JV, Vodafone, Liberty Latin America, Deutsche Telekom and M7 Group. These adjustments result in an equal amount of fees in both the 2020 and 2019 periods for those services that are deemed to be temporary in nature.

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 that we assumed in connection with certain acquisitions), with each item excluding any cash provided or used by our Discontinued Operations, as applicable. 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 our Adjusted Free Cash Flow that excludes the Discontinued Operations, we also present Adjusted Free Cash Flow on a pro forma basis for the three months ended March 31, 2019 as if the sale of the Discontinued Operations had been completed on January 1, 2019.

	Three months ended March 31, 2020	2019
	in millions	
Continuing operations:		
Net cash provided by operating activities	$ 449.8	$ 306.3
Cash payments for direct acquisition and disposition costs	0.5	12.4
Expenses financed by an intermediary[(i)]	722.8	564.0
Capital expenditures, net	(347.8)	(331.3)
Principal payments on amounts financed by vendors and intermediaries	(1,121.0)	(1,162.8)
Principal payments on certain finance leases	(21.3)	(13.1)
Adjusted FCF	$ (317.0)	(624.5)
Pro forma adjustments related to the sale of the Discontinued Operations:		
Interest and derivative payments[(ii)]		26.9
Transitional services agreements[(iii)]		38.9
Pro forma Adjusted FCF[(iv)]		$ (558.7)

i. 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.

ii. Represents the estimated interest and related derivative payments made by UPC Holding associated with our discontinued UPC Holding operations in Hungary, Romania and the Czech Republic during the applicable period. These estimated payments are calculated based on Hungary, Romania and the Czech Republic'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 this adjustment to interest and related derivative payments results in a reasonable estimate of the annual ongoing interest and related derivative payments that will occur in relation to the continuing UPC Holding operations, no assurance can be given that the actual interest and derivative payments will be equivalent to the amounts presented. No pro forma adjustments were required with respect to Unitymedia's interest and derivative payments as substantially all of Unitymedia's debt and related derivative instruments were direct obligations of the entities being disposed. As a result, the interest and related derivative payments associated with such debt and derivative instruments of Unitymedia are included in discontinued operations.

iii. Represents our preliminary estimate of the net cash flows that we would have received from transitional services agreements if the sale of the Discontinued Operations 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 Discontinued Operations, less the estimated incremental costs that we expect to incur to provide such transitional services. As a result, the pro forma adjustments during the year ended March 31, 2019 include $38.2 million related to our discontinued operations in Germany, Hungary, Romania and the Czech Republic and $0.7 million related to our discontinued DTH business.

iv. Represents the Adjusted FCF that we estimate would have resulted if the sale of the Discontinued Operations 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.

GLOSSARY

ARPU: Average Revenue Per Unit is the average monthly subscription revenue per average cable customer relationship or mobile subscriber, as applicable. ARPU per average fixed-line customer relationship is calculated by dividing the average monthly subscription revenue from residential cable and SOHO services by the average number of fixed-line 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 release is considered to be ARPU per average cable customer relationship or mobile subscriber, as applicable. Fixed-line 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, fixed-line customer relationships, mobile subscribers and RGUs, as applicable, to reflect acquisitions, dispositions and FX 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.

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.

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.

Fixed-Line Customer Relationships: the number of customers who receive at least one of our internet, video or telephony services that we count as RGUs, without regard to which or to how many services they subscribe. Fixed-Line 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 Fixed-Line Customer Relationships. We exclude mobile-only customers from Fixed-Line Customer Relationships.

Fixed-Mobile Convergence (FMC): Fixed-mobile convergence penetration represents the number of customers who subscribe to both a fixed broadband internet service and postpaid mobile telephony service, divided by the total number of customers who subscribe to our fixed broadband internet service.

Homes Passed: homes, residential multiple dwelling units or commercial units that can be connected to our networks without materially extending the distribution plant. 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.

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 debt and net debt ratios defined as total debt and net debt, respectively, divided by OCF of the last twelve months (LTM OCF). Prior to December 31,2019, we presented our debt and net debt ratios under an annualized OCF approach using the OCF from the most recent quarter. Net debt is defined as total debt less cash and cash equivalents and investments under separately managed accounts. 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.

Liquidity refers to cash and cash equivalents, investments held under separately managed accounts and the maximum undrawn commitments under subsidiary borrowing facilities, without regard to covenant compliance calculations.

Lightning premises: includes homes, residential multiple dwelling units and commercial premises that potentially could subscribe to our residential or SOHO services, which have been connected to our networks as a part of our Project Lightning network extension program in the U.K. and Ireland. Project Lightning infill build relates to construction in areas adjacent to our existing network.

GLOSSARY

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 for our continuing operations is presented in the following table:

	Three months ended March 31,	
	2020	2019
	in millions	
Operating income	$ 280.6	$ 105.5
Share-based compensation expense	55.2	67.3
Depreciation and amortization	783.5	939.6
Impairment, restructuring and other operating items, net	31.0	70.9
Total OCF	$ 1,150.3	$ 1,183.3

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

OFCF: As used herein, Operating Free Cash Flow or "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.

A reconciliation of our total OCF to total OFCF for our continuing operations is presented in the following table:

	Three months ended March 31,	
	2020	2019
	in millions	
Total OCF	$ 1,150.3	$ 1,183.3
Property and equipment additions	(654.4)	(698.6)
Total OFCF	$ 495.9	$ 484.7

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.

Rental ARPU: subscription ARPU less out-of-bundle telephony usage and pay-per-view

RGU: A Revenue Generating Unit is separately a Basic Video Subscriber, Enhanced Video 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, 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.

GLOSSARY

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.

U.S. GAAP: Accounting principles generally accepted in the United States.

YoY: Year-over-year.

APPENDIX

Q1 HIGHLIGHTS

Liberty Global (continuing operations)	Q1 2020	Q1 2019	YoY Growth (reported)	YoY Growth (rebased)
Financial *(in millions, except percentages)*				
Revenue	$ 2,875.8	$ 2,868.0	0.3%	(0.3%)
Operating income	$ 280.6	$ 105.5	166.0%	
OCF	$ 1,150.3	$ 1,183.3	(2.8%)	(3.6%)
P&E additions	$ 654.4	$ 698.6	(6.3%)	
OFCF	$ 495.9	$ 484.7	2.3%	(2.4%)

APPENDIX

CENTRALLY-HELD OPERATING COST ALLOCATIONS

During the fourth quarter of 2019, we changed the presentation of certain operating costs related to our centrally-managed technology and innovation function. These costs, which were previously included in Central and Corporate, are now allocated to our consolidated reportable segments. This change, which we refer to as the “Centrally-held Operating Cost Allocations”, was made as a result of internal changes with respect to the way in which our chief operating decision maker evaluates the OCF of our operating segments. Segment information for the three months ended March 31, 209 has been revised in our reported U.S. GAAP disclosures to reflect this change. The following table provides a summary of the impact on the OCF of our consolidated reportable segments and Central and Corporate that resulted from the Centrally-held Operating Cost Allocations.

	Three months ended March 31,	
	2020	2019
	in millions	
Increase (decrease) to OCF:		
U.K./Ireland	$ (12.1)	$ (16.1)
Switzerland	(4.8)	(6.8)
CEE	(2.5)	(3.5)
Central and Corporate	19.4	26.4
Total Liberty Global	$ —	$ —

APPENDIX

CENTRALLY-HELD P&E ATTRIBUTIONS / ATTRIBUTED OFCF

Property and equipment additions presented for Central and Corporate include certain capital costs incurred for the benefit of our operating segments. Generally, for purposes of the consolidated financial statements of our borrowing groups, the expense associated with these capital costs is allocated and/or charged to our operating segments as related-party fees and allocations in their respective statements of operations over the period in which the operating segment benefits from the use of the Central and Corporate asset. Related-party fees and allocations are excluded from the reported OCF metric of these borrowing groups. These amounts are based on (i) our estimate of its share of underlying costs, (ii) our estimate of its share of the underlying costs plus a mark-up or (iii) commercially-negotiated rates. These charges and allocations differ from the attributed OFCF approach, as further described below.

For internal management reporting and capital allocation purposes, we evaluate the OFCF of our operating segments on an "attributed" basis, whereby we estimate and attribute certain capital costs incurred by Central and Corporate to our operating segments as if that operating segment directly incurred its estimated share of the capital costs in the same period the costs were incurred by Central and Corporate. These capital costs represent assets that are jointly used by our operating segments. In the context of evaluating our operating segments, we believe this non-GAAP approach, which we refer to as the "Centrally-held Property and Equipment Attributions", is a meaningful measure as it represents a transparent view of what the estimated capital spend for our operating segments might be if they were to operate as a stand-alone business (excluding, among other considerations, any impact from lost economies of scale) and allows us to more accurately (i) review capital trends by operating segment, (ii) perform benchmarking between operating segments and (iii) drive alignment and accountability between Central and Corporate and our operating segments with respect to our consolidated capital spend. The amounts attributed to each operating segment are estimated based on (a) actual costs incurred by Central and Corporate, without any mark-up, and (b) each respective operating segment's estimated use of the associated assets.

A reconciliation of our OCF to attributed OFCF, including Centrally-held Property and Equipment Attributions, consistent with our internal management reporting approach, of (i) our operating segments and (ii) consolidated continuing operations is presented in the following table. This presentation is for illustrative purposes only and is intended as a supplement to, and not a substitute for, our U.S. GAAP presentation of the property and equipment additions of our reportable segments.

	Three months ended March 31, 2020					
	U.K. & Ireland	Belgium	Switzerland	CEE	Central & Corporate	Total
	in millions					
OCF	$ 655.4	$ 331.6	$ 134.1	$ 54.3	$ (25.1)	$ 1,150.3
Property & equipment additions	(346.6)	(141.6)	(69.2)	(18.9)	(78.1)	(654.4)
Centrally-held P&E Attribution	(34.9)	(3.1)	(10.1)	(6.9)	55.0	-
Attributed OFCF (including attribution of Centrally-held P&E)	$ 273.9	$ 186.9	$ 54.8	$ 28.5	$ (48.2)	$ 495.9

APPENDIX

ADJUSTED ATTRIBUTED FREE CASH FLOW

We define adjusted free cash flow as 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 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 that we assumed in connection with certain acquisitions), with each item excluding any cash provided or used by our Discontinued Operations, as applicable.

The following table provides a reconciliation of our net cash provided by operating activities from continuing operations to Adjusted Free Cash Flow. In addition, in order to provide information regarding our Adjusted Attributed Free Cash Flow, which is used for internal management reporting and capital allocation purposes and is consistent with the way in which our chief operating decision maker evaluates our operating segments, we have provided a reconciliation of our Adjusted Free Cash Flow to our Adjusted Attributed Free Cash Flow, which incorporates adjustments related to (i) interest on an intercompany loan, (ii) the allocation of interest within the UPC Holding borrowing group, (iii) the Centrally-held Operating Cost Allocation and (iv) the Centrally-held Property and Equipment Attribution, each as further described below. The Adjusted Attributed Free Cash Flow for the year ended December 31, 2019 is also presented on a pro forma basis as if the sale of the Discontinued Operations had been completed on January 1, 2019. We believe that our presentation of Adjusted Free Cash Flow and Adjusted Attributed Free Cash Flow provides useful information to our investors because these measures can be used to (a) gauge our ability to service debt and fund new investment opportunities and (b) in the case of our Adjusted Attributed Free Cash Flow, provide additional pro forma information for our operating segments to show what the adjusted free cash flow of our operating segments might look like were they to operate on a stand alone basis. Adjusted Free Cash Flow and Adjusted Attributed 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 these amounts. Investors should view Adjusted Free Cash Flow and Adjusted Attributed Free Cash Flow as supplements to, and not substitutes for, U.S. GAAP measures of liquidity included in our consolidated statements of cash flows.

	Year ended December 31, 2019					
	U.K./ Ireland	Belgium	Switzerland	Continuing CEE	Central and Corporate (a)	Total Continuing Operations
	in millions					
Adjusted Free Cash Flow:						
Net cash provided (used) by operating activities	$ 2,602.7	$ 1,066.0	$ 649.6	$ 225.4	$ (829.6)	$ 3,714.1
Cash payments for direct acquisition and disposition costs	—	1.3	0.8	(1.0)	(14.6)	(13.5)
Expenses financed by an intermediary	1,557.4	310.0	80.4	16.3	207.3	2,171.4
Capital expenditures	(548.1)	(391.0)	(212.1)	(115.4)	23.5	(1,243.1)
Principal payments on amounts financed by vendors and intermediaries	(2,895.1)	(514.1)	(126.1)	(34.7)	(364.7)	(3,934.7)
Principal payments on certain capital leases	(8.7)	(28.8)	(4.6)	(1.0)	(19.8)	(62.9)
Adjusted Free Cash Flow	708.2	443.4	388.0	89.6	(997.9)	631.3
Adjustments to reconcile to Attributed Adjusted Free Cash Flow:						
Interest on an intercompany loan (b)	(347.9)	—	—	—	347.9	—
UPC Holding interest allocation (c)	—	—	(126.8)	(71.6)	198.4	—
Centrally-held Operating Cost Allocation (d)	(66.6)	—	(33.0)	(14.7)	114.3	—
Centrally-held Property and Equipment Attributions (e)	(136.5)	(11.3)	(52.1)	(26.9)	226.8	—
Transitional services agreements (f)	—	—	—	—	89.2	89.2
Interest and derivative payments (g)	—	—	—	—	49.6	49.6
Total Attributed Adjusted Free Cash Flow	$ 157.2	$ 432.1	$ 176.1	$ (23.6)	$ 28.3	$ 770.1

APPENDIX

ADJUSTED ATTRIBUTED FREE CASH FLOW

(a) Includes intersegment eliminations.

(b) Represents interest on an intercompany loan that we eliminate for purposes of this presentation as intercompany interest income/expense does not impact our leverage calculations in our consolidated results or our subsidiary borrowing groups.

(c) Represents the third-party interest and related derivative payments made by UPC Holding (a parent entity included in Central and Corporate) in relation to its continuing operations during the applicable period. This interest is allocated to each of the respective operating entities in the UPC Holding group's continuing operations based on our estimates of the composition of the underlying debt and swap portfolio and applicable interest rates within each country.

(d) During the fourth quarter of 2019, we changed the presentation of certain operating costs related to our centrally-managed technology and innovation function. These costs, which were previously included in Central and Corporate, are now allocated to our consolidated reportable segments. This change, which we refer to as the "Centrally-held Operating Cost Allocations", was made as a result of internal changes with respect to the way in which our chief operating decision maker evaluates the OCF of our operating segments. For purposes of our Attributed Adjusted Free Cash Flow presentation and consistent with our internal management reporting, we assume the allocations to our operating segments are cash settled in the period they are incurred. As a result, any working capital or other free cash flow benefit or detriment related to the actual timing of payments are reported within Central and Corporate.

(e) Central and Corporate incurs certain capital costs for the benefit of our operating segments. Generally, for purposes of the consolidated financial statements of our borrowing groups, the expense associated with these capital costs is allocated and/or charged to our operating segments as related-party fees and allocations in their respective statements of operations over the period in which the operating segment benefits from the use of the Central and Corporate asset. These amounts are based on (i) our estimate of its share of underlying costs, (ii) our estimate of its share of the underlying costs plus a mark-up or (iii) commercially-negotiated rates. These charges and allocations differ from the attributed OFCF approach used for internal management reporting. For internal management reporting and capital allocation purposes, we evaluate the OFCF of our operating segments on an "attributed" basis, whereby we estimate and attribute certain capital costs incurred by Central and Corporate to our operating segments as if that operating segment directly incurred its estimated share of the capital costs in the same period the costs were incurred by Central and Corporate. These capital costs represent assets that are jointly used by our operating segments. The amounts attributed to each operating segment are estimated based on (a) actual costs incurred by Central and Corporate, without any mark-up, and (b) each respective operating segment's estimated use of the associated assets. For purposes of our Attributed Adjusted Free Cash Flow presentation and consistent with our internal management reporting, we assume the attributions to our operating segments are cash settled in the period they are incurred. As a result, any working capital or other free cash flow benefit or detriment related to the actual timing of payments are reported within Central and Corporate.

(f) Represents our preliminary estimate of the net cash flows that we would have received from transitional services agreements if the sale of the Discontinued Operations 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 Discontinued Operations, less the estimated incremental costs that we expect to incur to provide such transitional services.

(g) Represents the estimated interest and related derivative payments made by UPC Holding associated with our discontinued UPC Holding operations in Hungary, Romania and the Czech Republic during the applicable period. These estimated payments are calculated based on Hungary, Romania and the Czech Republic'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 this adjustment to interest and related derivative payments results in a reasonable estimate of the annual ongoing interest and related derivative payments that will occur in relation to the continuing UPC Holding operations, no assurance can be given that the actual interest and derivative payments will be equivalent to the amounts presented. No pro forma adjustments were required with respect to Unitymedia's interest and derivative payments as substantially all of Unitymedia's debt and related derivative instruments were direct obligations of the entities being disposed. As a result, the interest and related derivative payments associated with such debt and derivative instruments of Unitymedia were included in discontinued operations.

APPENDIX

ADJUSTED ATTRIBUTED FREE CASH FLOW – ALTERNATE VIEW

$m	U.K. & Ireland	Belgium	Switzerland	Poland / Slovakia	Central [2]	Liberty Global	50-50 Dutch JV [3,4]
OCF [1]	$2,801	$1,386m	$628m	$215m	($81m)	$4,949	$1,988
P&E pre-lightning capex [5]	(1,325)	(548)	(330)	(134)	(153)	(2,490)	(888)
OFCF pre-lightning capex	$1,476	$838	$298	$81	($234)	$2,459	$1,100
Net Interest	(722)	(237)	(130)	(73)	44	(1,118)	(547)
Cash Tax	9	(182)	(15)	(18)	(152)	(358)	-
Vodafone Ziggo JV (Dividend & Interest)	-	-	-	-	214	214	-
	$763	$419	$153	($10)	($128)	$1,197	$553
Working Capital [6]	(216)	13	23	(13)	156	(37)	(34)
Adj Attributed FCF pre-lightning capex	$547	$432	$176	($23)	$28	$1,160	$519
Lightning capex [7]	(390)					(390)	
Adj Attributed FCF	$157					$770	

(1) 2019 based on our updated definition of segment OCF which, effective from Q4 2019, now includes Centrally allocated opex. For information on centrally-held operating cost allocations, see the appendix.
(2) Includes intersegment eliminations
(3) Represents 100% of the non-consolidated Dutch JV
(4) OCF for the Dutch JV as shown in the table above includes $28 million of FSA charges from Liberty Global with the corresponding amount recognized as revenue within our Central segment.
(5) Includes Centrally attributed P&E Additions. For information on our centrally-held P&E attributions, see the appendix included in our Q1 2020 Liberty Global earnings release
(6) Includes working capital, operational finance (vendor finance) and restructuring
(7) Lightning Construction capex includes construction Capex only. Excludes Customer Premises Equipment

APPENDIX

VODAFONEZIGGO JV FREE CASH FLOW (JV FCF)

JV FCF is defined as net cash provided by the operating activities, plus (i) expenses financed by an intermediary and (ii) interest payments on shareholder loans, less (a) capital expenditures, (b) principal payments on amounts financed by vendors and intermediaries and (c) principal payments on finance leases. We believe that the presentation of Adjusted Free Cash Flow provides useful information to our investors because this measure can be used to gauge VodafoneZiggo's ability to service debt, distribute cash to parent entities and fund new investment opportunities. JV FCF, which is a non-GAAP measure, should not be understood to represent VodafoneZiggo's ability to fund discretionary amounts, as it has various mandatory and contractual obligations, including debt repayments, that are not deducted to arrive at this amount. Investors should view free cash flow as a supplement to, and not a substitute for, GAAP measures of liquidity included in VodafoneZiggo's condensed consolidated statements of cash flows within its bond report. For purposes of its standalone reporting obligations, VodafoneZiggo prepares its consolidated financial statements in accordance with accounting principles generally accepted in the U.S. (GAAP).

Adjusted Free Cash Flow is a non-GAAP measure as contemplated by the U.S. Securities and Exchange Commission. A reconciliation of JV FCF for 2019 is provided below.

	Year ended December 31, 2019	
	in millions	
Net cash provided by operating activities	$	1,462.1
Expenses financed by an intermediary		729.7
Interest payments on shareholder loans		100.7
Capital expenditures, net		(359.5)
Principal payments on amounts financed by vendors and intermediaries		(1,402.7)
Principal payments on finance leases		(10.9)
Adjusted FCF	$	519.4