

Summary

Sheet **Description** Subscribers Data relative to subscribers for all types of networks Data relative to volumes of traffic for all types of networks Traffic Data relative to revenue for all types of networks Revenues Network coverage Data relative to the population coverage and area coverage of all types of network Mobile base stations Data relative to the number of sites of mobile operators Mobile network Data relative to the modelling of mobile networks Data relative to the modelling of DSL **DSL** FTTC/VDSL Data relative to the modelling of FTTC/VDSL FTTH/FTTB (GPON) Data relative to the modelling of FTTH/FTTB (GPON) Data relative to the modelling of cable Cable Financial data Financials



BACK TO SUMMARY

HISTORICAL V	ALUES				FORECASTS						
2010	2011	2012	2013	Latest	2014	2015	2016	2017	2018	2019	2020
				historical							
				figure							
•					Note - Please p	rovide the date f	or the latest hist	torical figure (for	example June 2	2014 or Septemb	per 2014)

NOTE

Please indicate the historical values that are relevant to your activities, with the highest possible level of detail.

Whenever the detailed level requested is not available, please provide the aggregate level or any level available

Please provide any forecasts whenever available from a budget perspective or a business plan perspective

For any given category, even partial or aggregated data is welcome (for example for some of the years or for some of the categories)

Retail subscribers at end of period											
FIXED NETWORKS	T					T					
Total fixed broadband											
Total clients											
Residential clients											
Business clients											
Broadband only clients											
Broadband + TV clients											
Broadband + fixed telephony clients											
Broadband + TV + fixed telephony clients											
DSL - Incumbent only											
Total clients											
Residential clients											
Business clients											
DSL - own network only clients											
DSL - own network + TV clients											
DSL - own network + fixed telephony clients											
DSL - own network + TV + fixed telephony clients											
DSL - LLU (Local Loop Unbundling at MDF level)											
Total clients											
Residential clients											
Business clients											
DSL - LLU only clients											
DSL - LLU + TV clients											
DSL - LLU + fixed telephony clients											
DSL - LLU + TV + fixed telephony clients											
FTTC/VDSL - SLU (Sub-local Loop Unbundling)											
Total clients											
Residential clients											
Business clients											
FTTC only clients											
FTTC + TV clients											
FTTC + fixed telephony clients											
FTTC + TV + fixed telephony clients											
DSL - Bitstream											
Total clients											
Residential clients											
Business clients											
DSL - Bitstream only clients											
DSL - Bitstream + TV clients											
DSL - Bitstream + fixed telephony clients											
DSL - Bitstream + TV + fixed telephony clients					L			L			
FTTH/FTTB											
Total clients	-					-			-		├
Residential clients						-			-		
Business clients											
FTTH / FTTB only clients						-			-		
FTTH / FTTB + TV clients											
FTTH / FTTB + fixed telephony clients											
FTTH / FTTB + TV + fixed telephony clients					l			l	L		
Cable broadband - DOCSIS 2.0 or before		1	1	1			1			1	
Total clients						 			 		
Residential clients						 			 		
Business clients						-			-		├
DOCSIS 2.0 only clients						 			 		
DOCSIS 2.0 + TV clients						 			 		-
DOCSIS 2.0 + fixed telephony clients	-										
DOCSIS 2.0 + TV + fixed telephony clients Cable broadband - DOCSIS 3.0					L			L	L		
Cable broadband - DOCSIS 3.0											

	HISTORICAL \	/ALUE0				FORECASTS						
	2010	2011	2012	2013	Latest	2014	2015	2016	2017	2018	2019	2020
	2010	2011	2012	2013	historical	2014	2013	2010	2017	2010	2019	2020
					figure							
						Note - Please n	rovide the date t	or the latest his	torical figure (for	evamnle lune (2014 or Septemb	er 2014)
						Note - Flease p	TOVIGE THE GATE	or the latest fils	iorical ligure (loi	example durie 2	2014 of Septemb	er 201 4)
Total clients												
Residential clients												
Business clients												
DOCSIS 3.0 only clients												
DOCSIS 3.0 + TV clients												
DOCSIS 3.0 + fixed telephony clients												
DOCSIS 3.0 + TV + fixed telephony clients												
Wireless fixed broadband												
Total clients												
Residential clients												
Business clients												
Wireless fixed only clients												
Wireless fixed + TV clients												
Wireless fixed + fixed telephony clients												
Wireless fixed + TV + fixed telephony clients												
Satellite broadband												
Total clients												
Residential clients												
Business clients												
Satellite broadband only clients												
Satellite broadband + TV clients												
Satellite broadband + fixed telephony clients												
Satellite broadband + TV + fixed telephony clients												
Other technology (please specify)												
Total clients										,		
Residential clients												
Business clients												
Other broadband only clients												
Other broadband + TV clients												
Other broadband + fixed telephony clients												
Other broadband + TV + fixed telephony clients												
					•							
MOBILE NETWORKS												
Total mobile networks												
Total clients												
Residential clients												
Business clients												
Mobile - broadband only (dongles, USB keys, EXCLUDING smartphones)												
Total clients												
Residential clients												
Business clients												
Mobile - all types of phones												
Total clients											\Box	
Residential clients											\Box	
Business clients												
Mobile - smartphones												
Total clients											\Box	
Residential clients											\Box	
Business clients												
Mobile - basic handsets (non-smartphones)												
Total clients												
Residential clients												
Business clients												
Yearly churn rate												
FIXED NETWORKS												
Total fixed broadband												
Churn rate for total clients												
Churn rate for residential clients												
Churn rate for business clients												
Churn rate for broadband only clients												
Churn rate for broadband + TV clients												
Churn rate for broadband + fixed telephony clients												
			1				1	1				

	HISTORICAL V	/ALUES				FORECASTS						
	2010	2011	2012	2013	Latest historical	2014	2015	2016	2017	2018	2019	2020
					figure	Note - Please p	rovide the date	for the latest hist	orical figure (for	example June 2	2014 or Septemb	ber 2014)
Churn rate for broadband + TV + fixed telephony clients												
DSL (incumbent, LLU, bitstream)												
Churn rate for total clients												
Churn rate for residential clients Churn rate for business clients												
Churn rate for DSL only clients												
Churn rate for DSL + TV clients												
Churn rate for DSL + fixed telephony clients												
Churn rate for DSL + TV + fixed telephony clients												
FTTC/VDSL - SLU (Sub-local Loop Unbundling) Churn rate for total clients		ı			ı					1		
Churn rate for residential clients												$\overline{}$
Churn rate for business clients												
Churn rate for FTTC only clients												
Churn rate for FTTC + TV clients												
Churn rate for FTTC + fixed telephony clients												\vdash
Churn rate for FTTC + TV + fixed telephony clients FTTH / FTTB		l———			<u> </u>							
Churn rate for total clients												
Churn rate for residential clients												
Churn rate for business clients												
Churn rate for FTTH / FTTB only clients												
Churn rate for FTTH / FTTB + TV clients Churn rate for FTTH / FTTB + fixed telephony clients												
Churn rate for FTTH / FTTB + fixed telephony clients Churn rate for FTTH / FTTB + TV + fixed telephony clients	-											
Cable broadband - DOCSIS 2.0 or before		ı			ı							
Churn rate for total clients												
Churn rate for residential clients												
Churn rate for business clients Churn rate for DOCSIS 2.0 only clients												
Churn rate for DOCSIS 2.0 trily clients Churn rate for DOCSIS 2.0 + TV clients												
Churn rate for DOCSIS 2.0 + fixed telephony clients												
Churn rate for DOCSIS 2.0 + TV + fixed telephony clients												
Cable broadband - DOCSIS 3.0		ı			ı							
Churn rate for total clients Churn rate for residential clients												
Churn rate for business clients												
Churn rate for DOCSIS 3.0 only clients												
Churn rate for DOCSIS 3.0 + TV clients												
Churn rate for DOCSIS 3.0 + fixed telephony clients												
Churn rate for DOCSIS 3.0 + TV + fixed telephony clients Wireless fixed broadband												
Churn rate for total clients		I			I							
Churn rate for residential clients												
Churn rate for business clients												
Churn rate for wireless fixed only clients												
Churn rate for wireless fixed + TV clients Churn rate for wireless fixed + fixed telephony clients												
Churn rate for wireless fixed + TV + fixed telephony clients	-											
Satellite broadband												
Churn rate for total clients												
Churn rate for residential clients												
Churn rate for business clients Churn rate for satellite broadband only clients												
Churn rate for satellite broadband only clients Churn rate for satellite broadband + TV clients												
Churn rate for satellite broadband + fixed telephony clients												
Churn rate for satellite broadband + TV + fixed telephony clients												
Other technology (please specify)												
Churn rate for total clients												\vdash
Churn rate for residential clients Churn rate for business clients												\vdash
Churn rate for other broadband only clients												
Churn rate for other broadband + TV clients												
Churn rate for other broadband + fixed telephony clients												
Churn rate for other broadband + TV + fixed telephony clients		L			L							



	HISTORICAL V	/ALUES				FORECASTS						
	2010	2011	2012	2013	Latest historical figure	2014	2015	2016	2017	2018	2019	2020
						Note - Please p	provide the date	for the latest his	torical figure (for	r example June	2014 or Septem	ber 2014)
MARILE METWORKS												
MOBILE NETWORKS Total mobile networks												
			ı		1				1	1	1	ı
Churn rate for total clients												ļ
Churn rate for residential clients												ļ
Churn rate for business clients												
Mobile - broadband only (dongles, USB keys, EXCLUDING smartphones)			ı						1		1	
Churn rate for total clients												
Churn rate for residential clients					1						1	
Churn rate for business clients					1						1	
Mobile - all types of phones												
Churn rate for total clients												
Churn rate for residential clients												
Churn rate for business clients												
Mobile - smartphones												
Churn rate for total clients												
Churn rate for residential clients												
Churn rate for business clients												
Mobile - basic handsets (non-smartphones)		_		_			_		_			
Churn rate for total clients												
Churn rate for residential clients												
Churn rate for business clients												



Data on traffic

BACK TO SUMMARY

HISTORICAL V	ALUES				FORECASTS						
2010	2011	2012	2013	Latest	2014	2015	2016	2017	2018	2019	2020
				historical							
				figure							
					Note - Please pr	ovide the date t	or the latest hist	orical figure (for	example June 2	014 or Septemb	per 2014)

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Average data usage per subscriber per month (Mbytes)											
FIXED NETWORKS											
Total fixed broadband				1							
Average monthly data usage - All subscribers											
Average monthly data usage - Residential subscribers											
Average monthly data usage - Business subscribers											
DSL			,								
Average monthly data usage - All subscribers											
Average monthly data usage - Residential subscribers											
Average monthly data usage - Business subscribers											
FTTC/VDSL - SLU (Sub-local Loop Unbundling)											
Average monthly data usage - All subscribers											
Average monthly data usage - Residential subscribers											
Average monthly data usage - Business subscribers											
FTTH/FTTB	· ·	•	•					•	•	•	
Average monthly data usage - All subscribers											
Average monthly data usage - Residential subscribers											
Average monthly data usage - Business subscribers											
Cable broadband - DOCSIS 2.0 or before											
Average monthly data usage - All subscribers											
Average monthly data usage - Residential subscribers											T
Average monthly data usage - Business subscribers											1
Cable broadband - DOCSIS 3.0											
Average monthly data usage - All subscribers											Т
Average monthly data usage - Residential subscribers											1
Average monthly data usage - Business subscribers											1
Wireless fixed broadband											
Average monthly data usage - All subscribers		1	I	T				1	1	T .	
Average monthly data usage - All subscribers Average monthly data usage - Residential subscribers	-									 	+
Average monthly data usage - Residential subscribers Average monthly data usage - Business subscribers	-									 	+
Satellite broadband			ļ								
Average monthly data usage - All subscribers			ı	T .							
Average monthly data usage - All subscribers Average monthly data usage - Residential subscribers	-									 	+
Average monthly data usage - Residential subscribers Average monthly data usage - Business subscribers											+
				L							
Other technology (please specify)			1	1							
Average monthly data usage - All subscribers											
Average monthly data usage - Residential subscribers											
Average monthly data usage - Business subscribers											
MOBILE NETWORKS											
Total mobile networks											
Average monthly data usage - All subscribers											
Average monthly data usage - Residential subscribers											
Average monthly data usage - Business subscribers											
Mobile - broadband only (dongles, USB keys, EXCLUDING smartphones)	· ·	•	•					•	•	•	
Average monthly data usage - All subscribers											T
Average monthly data usage - Residential subscribers											T
Average monthly data usage - Business subscribers											1
Mobile - all types of phones											
Average monthly data usage - All subscribers											Т
Average monthly data usage - Residential subscribers											1
Average monthly data usage - Business subscribers											T
Mobile - smartphones											
Average monthly data usage - All subscribers			I	I							
Average monthly data usage - All subscribers Average monthly data usage - Residential subscribers		 		1				 	 	 	+
Average monthly data usage - Residential subscribers Average monthly data usage - Business subscribers		 		1				 	 	 	+
Mobile - basic handsets (non-smartphones)				L							
Average monthly data usage - All subscribers			I	T T							_
Average monthly data usage - All subscribers	1 1	1	1	1	1	I	I	1	I	1	1



Data on traffic

	HISTORICAL	VALUES				FORECASTS						
	2010	2011	2012	2013	Latest historical figure	2014	2015	2016	2017	2018	2019	2020
						Note - Please p	rovide the date	for the latest his	torical figure (fo	or example June	2014 or Septeml	per 2014)
					•	•						· ·
Average monthly data usage - Business subscribers												
Average voice usage per subscriber per month (Mbytes)												
FIXED NETWORKS	1											
Total fixed broadband												
Average monthly voice usage - broadband subs with a bundle including voice		1	I	I	T		1	I	1	I	1	
DSL					•							
Average monthly voice usage - broadband subs with a bundle including voice												
FTTC/VDSL - SLU (Sub-local Loop Unbundling)		•										
Average monthly voice usage - broadband subs with a bundle including voice												
FTTH/FTTB		•			•						•	
Average monthly voice usage - broadband subs with a bundle including voice												
Cable broadband - DOCSIS 2.0 or before												
Average monthly voice usage - broadband subs with a bundle including voice												<u> </u>
Cable broadband - DOCSIS 3.0												
Average monthly voice usage - broadband subs with a bundle including voice												<u> </u>
Wireless fixed broadband												
Average monthly voice usage - broadband subs with a bundle including voice												
Satellite broadband												
Average monthly voice usage - broadband subs with a bundle including voice												
Other technology (please specify)			ı	1	1		ı	ı	1		Г	
Average monthly voice usage - broadband subs with a bundle including voice												
MOBILE NETWORKS						-						
Total mobile networks												
Average monthly voice usage - all subscribers												
Average monthly voice usage - residential subscribers												
Average monthly voice usage - business subscribers												
Mobile - broadband only (dongles, USB keys, EXCLUDING smartphones)												
Average monthly voice usage - all subscribers												
Average monthly voice usage - residential subscribers												
Average monthly voice usage - business subscribers												
Mobile - all types of phones												
Average monthly voice usage - all subscribers												
Average monthly voice usage - residential subscribers												
Average monthly voice usage - business subscribers												
Mobile - smartphones					1		1		1	 		
Average monthly voice usage - all subscribers												
Average monthly voice usage - residential subscribers	<u> </u>	+			+					+	-	——
Average monthly voice usage - business subscribers Mobile - basic handsets (non-smartphones)												
Average monthly voice usage - all subscribers		T								T		
Average monthly voice usage - residential subscribers		+			+	 				1		
Average monthly voice usage - business subscribers		 			1	 						
Average monthly voice adage - basiness subscribers		1			1					1	1	



Data on revenues

BACK TO SUMMARY

HISTORICAL V	ALUES				FORECASTS						
2010	2011	2012	2013	Latest	2014	2015	2016	2017	2018	2019	2020
				historical							
				figure							
•					Note - Please p	rovide the date f	or the latest hist	torical figure (for	example June 2	2014 or Septemb	per 2014)

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Revenue per period - MKD												
FIXED NETWORKS						1						
Total fixed broadband												
Total revenue												
Residential revenue												
Business revenue												
Broadband only revenue												
Broadband + TV revenue												
Broadband + fixed telephony revenue												
Broadband + TV + fixed telephony revenue												
DSL - Retail		1			l			l				
Total revenue		1										
Residential revenue		-										
Business revenue												
DSL only revenue												
DSL + TV revenue												
DSL + fixed telephony revenue												
DSL + TV + fixed telephony revenue												
DSL - Wholesale												
Total revenue												
Residential revenue												
Business revenue												
DSL only revenue												
DSL + TV revenue												
DSL + fixed telephony revenue												
DSL + TV + fixed telephony revenue												
FTTC/VDSL - SLU (Sub-local Loop Unbundling)												
Total revenue		1		1	I		1	I			1	
Residential revenue												
Business revenue		-										
FTTC only revenue												
FTTC + TV revenue												
FTTC + fixed telephony revenue												
FTTC + TV + fixed telephony revenue												
FTTH/FTTB												
Total revenue												
Residential revenue												
Business revenue												
FTTH/FTTB only revenue												
FTTH/FTTB + TV revenue												
FTTH/FTTB + fixed telephony revenue												
FTTH/FTTB + TV + fixed telephony revenue												
Cable broadband - DOCSIS 2.0 or before					·			·				
Total revenue											1	
Residential revenue			-			-			-	-		
Business revenue	-	 										
		1			 			 				+
DOCSIS 2.0 only revenue	-	1	-			-			-	-		
DOCSIS 2.0 + TV revenue		1	-			-			-	-		-
DOCSIS 2.0 + fixed telephony revenue												
DOCSIS 2.0 + TV + fixed telephony revenue			L	L	L		L	L		L	L	
Cable broadband - DOCSIS 3.0												
Total revenue												
Residential revenue												
Business revenue												
DOCSIS 3.0 only revenue												
DOCSIS 3.0 + TV revenue												
DOCSIS 3.0 + fixed telephony revenue				İ			İ				İ	
DOCSIS 3.0 + TV + fixed telephony revenue												
Wireless fixed broadband												
THE STOCK THOSE BY CHURCHIN												

Data on revenues

HISTORICAL VALVES 2012 2013 2012 2015 2016 2017 2018 2019 2020 2		LUCTORICAL	(4) 1150				FORECASTS						
This response				2012	2013	Latest		2015	2016	2017	2018	2019	2020
Total inverse Total inverse Witches fined only revenue Seatellis broader					20.0		2011	20.0	20.0	20	20.0		2020
Reaccent revolves Business revolves Wriston Bail of the display revolves Wriston Bail													
Residential revenue							Note - Please p	rovide the date t	or the latest hist	orical figure (for	example June 2	2014 or Septemb	per 2014)
	Total												
Buildes reveals Wickes face of year years Wickes face of year years Wickes face of year years Wickes face of year years Wickes face of year years Wickes face of year years Told reveals Told reveals Sanita browland crys worrus													
Witels field of 17 V Female Information Witels field of 17 V Female Information Witels field of 17 V Female Information Witels field of 17 V Female Information Witels field of 17 V Female Information Witels field of 17 V Female Information Witels field of 17 V Female Information Witels field of 17 V Female Information Witels field Information W													
Weeks field 1 TV revorus Whites field 1 TV revorus Whites field 1 TV revorus Starlies broadbard Total revorus Starlies broadbard Total revorus Burners revolus Starlies broadbard 1 Tw revorus Burners revolus Starlies broadbard 1 field referency revorus Starlies broadbard 1 TV revorus Starlies broadbard 1 TV revorus Starlies broadbard 1 TV revorus Starlies broadbard 1 TV revorus Starlies broadbard 1 TV revorus Starlies broadbard 1 TV revorus Starlies broadbard 1 TV revorus Starlies broadbard 1 TV revorus Starlies broadbard 1 TV revorus Starlies broadbard 1 TV revorus Starlies broadbard 1 TV revorus Starlies broadbard 1 TV revorus Starlies broadbard 1 TV revorus Starlies broadbard 1 TV revorus One broadbard 1 TV revorus One broadbard 1 TV revorus One broadbard 1 TV revorus Notes b													
Winder bad - 1" final blaghony revenue Toll revenue Readerial revenue Satelle broadband only													
Wiseles Seed - TV * Fleet Inchrony reverse													
Statilite foroidand Rumons moniture Rumons moniture Rumons moniture Rumons moniture Rumons moniture Rumons moniture Rumons moniture Rumons moniture Rumons moniture Rumons moniture Rasidated in Productive of the Control of the Contr													
Reactional revenue Saletile broadbard + TV revenue Saletile broadbard + TV revenue Saletile broadbard + TV revenue Saletile broadbard + TV revenue Saletile broadbard + TV revenue Saletile broadbard + TV revenue Saletile broadbard + TV revenue Saletile broadbard + TV revenue Saletile broadbard + TV revenue Saletile broadbard + TV revenue Saletile broadbard + TV revenue Saletile broadbard + TV revenue Saletile broadbard + TV revenue Saletile													
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Sealeth broadcand orly revenue Saleth broadcand + TV entre feel feeting revenue Saleth broadcand + TV entre feet feeting revenue Saleth broadcand + TV entre feet feeting revenue Saleth broadcand + TV entre feet feeting revenue Other technology please specify Total revenue Other troadcand orly revenue Other troadcand orly revenue Other troadcand - TV entre feeting revenue Other troadcand - TV entre feeting revenue Other troadcand - TV entre feeting revenue Other troadcand - TV entre feeting revenue Other troadcand - TV entre feeting revenue Other troadcand - TV entre feeting revenue Other troadcand - TV entre feeting revenue Other foreactions -													
Saletib broaders (* TY revnue													
Saletile broadbard * fince telephory revenue Saletile broadbard * 1 * * * * * * * * * * * * * * * * *													
Satellite locadband + TV + fixed telephory revenue													
Other technology (please specify) Total revenue Resident from the technology (please specify) Resident from the technology (press the technology (please specify) Resident from the technology (please specify													
Total revenue Business revenue Business revenue Business revenue Business revenue Business revenue Chier broadband * 1 Verenue Chier broadband													
Recidental reverue Chie Procedured 19 revenue Ch													
Other broadband only revenue Other broadband + TV revenue Other broadband + TV revenue Other broadband + Seed relightory revenue Other broadband + VV reliable designory revenue	Residential revenue												
Cher broadband + TX evenue													
College Provided Face I deleghory revenue													
College Coll													
MoBILE NETWORKS Total mobile networks Total revenue Business revenue Rescriental revenue Business revenue Rescriental revenue	Other broadband + fixed telephony revenue												
Total revenue	Other broadband + TV + fixed telephony revenue												
Total revenue	MODILE NETWORKS												
Total revenue Residential revenue													
Residential revenue Business revenue Mobile - June 1													
Business revenue Wolfele - Proxide Specify													
Mobile - Ironathand only (fongles, USB keys, EXCLUDING smartphones) Total revenue													
Residential revenue Business revenue Wobile - all types of phones Total revenue Voice revenue Data revenue Other revenue (please specify) Residential revenue Other revenue (please specify) Data revenue Other revenue (please specify) Data revenue Other revenue (please specify) Data revenue Other revenue (please specify) Data revenue Data rev													
Business revenue	Total revenue												
Mobile - all types of phones													
Total revenue													
Voice revenue													
Data revenue (please specify) Residential revenue Voice revenue (please specify) Business clients Voice revenue (please specify) Voice revenue Other revenue (please specify) Residential revenue Other revenue													
Other revenue (please specify) Residential revenue Voice revenue Data revenue Other revenue (please specify) Susiness clients Voice revenue Data revenue Other revenue (please specify) Whother smartphones Total revenue Voice revenue Data revenue Other revenue (please specify) Whother smartphones Total revenue Other revenue (please specify) Other revenue (please specify)													
Residential revenue													
Voice revenue Data revenue Data revenue Other revenue (please specify) Business clients Voice revenue Other revenue (please specify) Data revenue Other revenue (please specify) Nobile - smartphones Total revenue Other revenue													
Data revenue (please specify)													
Business clients Voice revenue Data revenue Data revenue Delta revenue Delta revenue Delta revenue Delta revenue Voice revenue Delta revenue D													
Data revenue Data revenue (please specify)					<u> </u>								
Data revenue													
Other revenue (please specify) Image: content of the property of the p													
Mobile - smartphones													
Total revenue	Other revenue (please specify) Mobile - smartphones					L							
Voice revenue Data revenue Other revenue (please specify) Residential revenue Voice revenue Data revenue Other revenue (please specify) Business clients Voice revenue Data revenue Total revenue Data revenue Data revenue Data revenue Data revenue Data revenue Data revenue Data revenue Data revenue Data revenue Other revenue (please specify) Mobile - basic handsets (non-smartphones) Total revenue Data revenue Data revenue Other revenue(please specify)													
Data revenue Other revenue (please specify) Residential revenue Voice revenue Data revenue Other revenue (please specify) Business clients Voice revenue Data revenue Other revenue (please specify) Business clients Voice revenue Data revenue Data revenue Data revenue Other revenue (please specify) Mobile - basic handsets (non-smartphones) Total revenue Data revenue Other revenue (please specify)													
Other revenue (please specify) Residential revenue Voice revenue Data revenue Other revenue (please specify) Business clients Voice revenue Data revenue Other revenue (please specify) Business clients Voice revenue Data revenue Other revenue (please specify) Total revenue Data revenue Total revenue Data revenue Other revenue(please specify) Nobile - basic handsets (non-smartphones) Total revenue Data revenue Other revenue(please specify)													
Residential revenue Voice revenue Data revenue Other revenue (please specify) Business clients Voice revenue Data revenue Data revenue Total revenue Other revenue(please specify) Total revenue Other revenue													
Voice revenue													
Other revenue (please specify) Business clients Voice revenue Data revenue Other revenue (please specify) Mobile - basic handsets (non-smartphones) Total revenue Data revenue Other revenue Other revenue Other revenue Other revenue (please specify) Total revenue Other revenue	Voice revenue												
Susiness clients													
Voice revenue													
Data revenue Data													\vdash
Other revenue (please specify) Mobile - basic handsets (non-smartphones) Total revenue Voice revenue Data revenue Other revenue (please specify)													\vdash
Mobile - basic handsets (non-smartphones)													
Total revenue													
Voice revenue Data revenue Other revenue (please specify)						I							
Data revenue Other revenue (please specify)													
Other revenue (please specify)													
	Other revenue (please specify)												
	Residential revenue												



Voice revenue Data revenue

Business clients Voice revenue

Other revenue (please specify)

Data on revenues

HISTORICAL V	ALUES				FORECASTS						
2010	2011	2012	2013	Latest historical figure	2014	2015	2016	2017	2018	2019	2020
		<u> </u>	T		Note - Please p	provide the date	for the latest his	torical figure (for	example June	2014 or Septeml	per 2014)

Voice revenue										
Data revenue										
Other revenue (please specify)										
Calci revenue (picace speany)			1	1		1				
Average Revenue per User per month - MKD										
FIXED NETWORKS										
Total fixed broadband										
Total ARPU										
Residential ARPU										
Business ARPU										
Broadband only ARPU										
Broadband + TV ARPU										
Broadband + fixed telephony ARPU										
Broadband + TV + fixed telephony ARPU										
DSL - retail										
Total ARPU										
Residential ARPU										 <u> </u>
Business ARPU										
DSL only ARPU										1
DSL + TV ARPU										1
DSL + fixed telephony ARPU										
DSL + TV + fixed telephony ARPU			İ	İ		İ				
DSL - wholesale										
Total ARPU		I	1	1				I	1	
Residential ARPU										
Business ARPU										
DSL only ARPU										——
DSL + TV ARPU										
DSL + fixed telephony ARPU										
DSL + TV + fixed telephony ARPU										
FTTC/VDSL - SLU (Sub-local Loop Unbundling)										
Total ARPU										ĺ
Residential ARPU										í
Business ARPU										
FTTC only ARPU										
FTTC + TV ARPU										
FTTC + fixed telephony ARPU										
FTTC + TV + fixed telephony ARPU										
FTTH/FTTB										
Total ARPU		1	ı	I				1		
	-									
Residential ARPU										
Business ARPU										
FTTH/FTTB only ARPU										
FTTH/FTTB + TV ARPU										
FTTH/FTTB + fixed telephony ARPU										1
FTTH/FTTB + TV + fixed telephony ARPU										
Cable broadband - DOCSIS 2.0 or before					•					
Total ARPU										
Residential ARPU										
Business ARPU										
DOCSIS 2.0 only ARPU						†				
DOCSIS 2.0 + TV ARPU										
DOCSIS 2.0 + TV ARPU DOCSIS 2.0 + fixed telephony ARPU										
DOCSIS 2.0 + TV + fixed telephony ARPU										
Cable broadband - DOCSIS 3.0										
Total ARPU										
Residential ARPU										
Business ARPU										
DOCSIS 3.0 only ARPU										ı

Data on revenues

	HISTORICAL V		2010	2012		FORECASTS	2015	2010	2017	2212	2012	2222
	2010	2011	2012	2013	Latest historical	2014	2015	2016	2017	2018	2019	2020
					figure							
					ligure	Note - Please n	rovide the date t	or the latest his	torical figure (for	evamnle lune t	2014 or Sentemb	her 2014)
						i toto i icase p	TOVIGE THE date	or the latest mo	iorical ligare (loi	example durie	2014 Of Ocptoria)Cl 2014)
DOCSIS 3.0 + TV ARPU												
DOCSIS 3.0 + fixed telephony ARPU												
DOCSIS 3.0 + TV + fixed telephony ARPU												
Wireless fixed broadband												
Total ARPU												
Residential ARPU												
Business ARPU												
Wireless fixed only ARPU												
Wireless fixed + TV ARPU												
Wireless fixed + fixed telephony ARPU												
Wireless fixed + TV + fixed telephony ARPU Satellite broadband												
Total ARPU		I			I							
Residential ARPU												
Business ARPU												
Satellite broadband only ARPU												—
Satellite broadband + TV ARPU												
Satellite broadband + fixed telephony ARPU												
Satellite broadband + TV + fixed telephony ARPU												
Other technology (please specify)												
Total ARPU												
Residential ARPU												
Business ARPU												
Other broadband only ARPU												
Other broadband + TV ARPU												
Other broadband + fixed telephony ARPU												
Other broadband + TV + fixed telephony ARPU												<u> </u>
MOBILE NETWORKS Total mobile networks												
Total ARPU		ı			Ι							
Residential ARPU												
Business ARPU												
Mobile - broadband only (dongles, USB keys, EXCLUDING smartphones)		1			l							
Total ARPU		1			I							
Residential ARPU												
Business ARPU												
Mobile - all types of phones												
Total ARPU												
Voice ARPU												
Data ARPU												
Residential ARPU												
Voice ARPU												
Data ARPU												1
Business clients												
Voice ARPU	-											
Data ARPU Mobile - smartphones					L							
Total ARPU		I			T							
Voice ARPU												
Data ARPU												
Residential ARPU												—
Voice ARPU												—
Data ARPU		İ				İ						
Business clients												
Voice ARPU												
Data ARPU												
Mobile - basic handsets (non-smartphones)												
Total ARPU												
Voice ARPU												
Data ARPU												
Residential ARPU												
Voice ARPU												
Data ARPU												
Business clients												



Data on revenues

BACK TO SUMMARY

HISTORICAL V	ALUES				FORECASTS						
2010	2011	2012	2013	Latest historical figure	2014	2015	2016	2017	2018	2019	2020
					Note - Please p	rovide the date t	for the latest hist	orical figure (for	example June 2	2014 or Septemb	er 2014)

Voice ARPU Data ARPU



Data on network coverage

BACK TO SUMMARY

NOTE

Please provide the most recent data relative to the footprint of your networks - whenever possible population coverage and land coverage for mobile technologies
This information is more accurate if provided at the most detailed level (i.e. municipality level). If information not available please provide the information at regional and national level
If you plan coverage extension in the future, please indicate it in the forecasts on national level

Network coverage at national level

 Macedonia population (2013)
 2,064,032
 Makstat

 Macedonia land area (km2)
 25,713
 Makstat

	HISTORICAL \	ALUES	FORECASTS -	END OF YEAR					
Share of the national population (or Households for fixed networks) covered	Latest available %	Date for this data (month and year)	Planned coverage - 2014	Planned coverage - 2015	Planned coverage - 2016	Planned coverage - 2017	Planned coverage - 2018	Planned coverage - 2019	Planned coverage - 2020
FIXED NETWORKS									
PSTN (fixed line telephony)									
DSL									
FTTC/VDSL									
FTTH / FTTB									
Analogue cable TV (not broadband-capable)									
Cable broadband - DOCSIS 1.0 or 2.0 (low speed)									
Cable broadband - DOCSIS 3.0 (high speed)									
Wireless fixed broadband									
Satellite broadband									
Other technology (please specify)									
MOBILE NETWORKS									
2G network									
3G network									
4G network									

	HISTORICAL \	/ALUES	FORECASTS -	END OF YEAR					
	Latest	Date for this	Planned	Planned	Planned	Planned	Planned	Planned	Planned
	available %	data (month	coverage -	coverage -	coverage -	coverage -	coverage -	coverage -	coverage -
Share of the national land area covered by the network		and year)	2014	2015	2016	2017	2018	2019	2020
MOBILE NETWORKS									
2G network									
3G network									
4G network								,	

Network coverage at regional level - HISTORICAL VALUES

Note- total area for regions/municipalities is slightly lower than national area due to not counting non FIXED NETWORKS

Source	Makstat	Calculation
Population and area coverage of the network	2013 population	Land area (km2)
Istočen (East)	178,270	3,531
Jugoistočen (South East)	173,383	2,735
Jugozapaden (South West)	220,325	3,278
Pelagoniski (Pelagonia)	232,367	4,723
Pološki (Polog)	317,975	2,467
Severoistočen (North East)	175,711	2,314
Skopski (Skopje)	612,514	1,640
Vardarski (Vardar)	153,487	4,042

PSTN (fixed I	ine telephony)	D	SL	FT	тс	FTTH	/ FTTB		able TV (no band)		band-DOCSIS low speed)		band-DOCSIS h speed)	Wireless fixe
% households	Date for this data (month and year)	% households	Date for this data (month and year)	% households	Date for this data (month and year)	% households	Date for this data (month and year)	% households	Date for this data (month and year)	% households	Date for this data (month and year)	% households	Date for this data (month and year)	% households

Network coverage at municipality level - HISTORICAL VALUES

Note- total area for regions/municipalities is slightly lower than national area due to not counting non FIXED NETWORK

Population and area coverage of the network Makstat statoids.com

Municipality	Region	2013 population	Land area (km2)
Berovo	East	13,137	597
Cheshinovo - Obleshevo	East	7,104	133
Delchevo	East	16,594	423
Karbintsi	East	4,038	231
Kochani	East	38,004	357
Makedonska Kamenitsa	East	7,709	189
Pehchevo	East	5,051	208
Probishtip	East	15,443	326
Shtip	East	48,590	583
Vinitsa	East	19,504	432
Zrnovtsi	East	3,096	52
Kratovo	Northeast	9,654	375

FIXED NETWO	DRKS													
PSTN (fixed I	ine telephony)	D	SL	FT	тс	FTTH	/FTTB		able TV (no lband)	Cable broads 1.0 or 2.0 (oand-DOCSIS low speed)		pand-DOCSIS n speed)	Wireless fixe
%	Date for this	%	Date for this	%	Date for this	%	Date for this	%	Date for this	%	Date for this	%	Date for this	%
households	data (month and year)	households	data (month and year)	households	data (month and year)	households	data (month and year)	households	data (month and year)	households	data (month and year)	households	data (month and year)	households
	and year)		and year)		and year)		and year)		and year)		and year)		and year)	
							1							

Kriva Palanka	Northeast	20,234	482											
Kumanovo	Northeast	108,231	432											
Lipkovo	Northeast	29,605	270											
Rankovtse	Northeast	3,815	240											
Staro Nagorichane	Northeast	4,172	515			ļ					ļ			
Bitola	Pelagonia	92,777 8,555	790 480											
Demir Hisar Dolneni	Pelagonia	13,962	418	_										
Krivogashtani	Pelagonia Pelagonia	5,701	88			†					†			_
Krushevo	Pelagonia	9,559	190											
Mogila	Pelagonia	6,396	255											
Novatsi	Pelagonia	3,246	755			1					1			
Prilep	Pelagonia	75,826	1,198											
Resen	Pelagonia	16,345	549											
Bogovinje	Polog	30,503	141											
Brvenitsa	Polog	16,491	164											
Gostivar	Polog	83,129	375											
Jegunovtse	Polog	10,765	174											
Mavrovo i Rostusha	Polog	8,894	856											
Teartse	Polog	22,840	137											
Tetovo	Polog	90,800	262											
Vrapchishte	Polog	27,224	157			ļ					ļ			
Zhelino	Polog	27,329	201											
Aerodrom Arachinovo	Skopje	76,020 13,192	20	_										
Butel	Skopje Skopje	38.168	38 55		-						-			1
Centar	Skopje	47,942	9											
Chair	Skopje	68,381	53											
Chucher - Sandevo	Skopje	9,744	215			1					1			
Gazi Baba	Skopje	76,310	92											
Gjorche Petrov	Skopje	42.081	63											
Ilinden	Skopje	16,736	97											
Karposh	Skopje	60,550	21											
Kisela Voda	Skopje	60,424	43											
Petrovets	Skopje	8,910	22											
Saraj	Skopje	39,729	230											
Shuto Orizari	Skopje	23,243	6											
Sopishte	Skopje	5,971	223											
Studenichani	Skopje	20,450	276											<u> </u>
Zelenikovo	Skopje Southeast	4,662 8,329	177 114	_										
Bogdantsi Bosilovo	Southeast	14,115	143		-						-			1
Dojran	Southeast	3,344	129											
Gevgelija	Southeast	22,831	484			1					1			
Konche	Southeast	3,596	233											
Novo Selo	Southeast	10,957	257											
Radovish	Southeast	28,915	502											
Strumitsa	Southeast	56,615	311											
Valandovo	Southeast	11,883	331											
Vasilevo	Southeast	12,798	231											
Centar Zhupa	Southwest	6,990	107											
Debar	Southwest	20,527	85											
Debartsa	Southwest	4,185 2,946	423		-	-					1			
Drugovo Kichevo	Southwest Southwest	2,946 30,479	383 48	-		-					-			1
Makedonski Brod	Southwest	6,403	875											
Ohrid	Southwest	52,734	392											
Oslomej	Southwest	10,569	137			1					1			
Plasnitsa	Southwest	4,829	54											
Struga	Southwest	65,060	469											
Vevchani	Southwest	2,473	35											
Vraneshtitsa	Southwest	1,245	109											
Zajas	Southwest	11,885	161											
Chashka	Vardar	7,888	727											
Demir Kapija	Vardar	4,119	312											
Gradsko	Vardar	3,584	291	<u> </u>										
Kavadartsi	Vardar	38,951	998	<u> </u>		-					-			
Lozovo	Vardar	2,616 19.401	166 414		 	-	-		-	-	1	-	-	
Negotino	Vardar Vardar	19,401 4,082	414 133	-	 						 			-
Rosoman Sveti Nikole	Vardar Vardar	4,082 17,968	483	-	 						 			
Veles	Vardar	54,878	518			 					1			1
. 0.00	vardar	54,070	510					 						

MOBILE NETWORKS

d broadband	Satellite b		Other technospec	cify)	% population	2G network	Date for this	% population	3G network	Date for this	% population	4G network	Date for this
data (month and year)	households	data (month and year)		data (month and year)		77	data (month and year)		,,	data (month and year)		,,	data (month and year)
							1						
							-						
							†						

MOBILE NETWORKS

d broadband	Satellite b	roadband	Other techno			2G network			3G network			4G network	
Date for this data (month and year)	% households	Date for this data (month and year)	% population	Date for this data (month and year)	% population	% area	Date for this data (month and year)	% population	% area	Date for this data (month and year)	% population	% area	Date for this data (month and year)

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Data on mobile sites

Date for this

BACK TO SUMMARY

Please provide data relative to the number of mobile sites of your network

For the avoidance of doubt:

- a "site" refers to a physical site (tower or rooftop) where antenna and active equipment are installed - one physical site can hold a 2G BTS and a 3G NodeB, for example - a "base stallor" refers to a BTS or NodeB or eNodeB depending on the technology

At national level, please provide us some details regarding the frequencies used on your sites and the number of multi-technology sites

At regional and municipal level, less detail is necessary but it would be useful to know the number of sites and base stations

Number of mobile sites - national level

National number of mobile sites	of sites	data (month and year)	Note - this refer	rs to a physical s	site (tower or roo	oftop) - one phys	sical site can hol	d a 2G BTS and	a 3G NodeB, fo	or example			
	Total sites - 2G only	2G sites - 900MHz only	2G sites -	2G sites - 900MHz and 1800MHz		3G 900MHz only	3G 2100MHz only	3G 900MHz and 3G 2100MHz	Total sites - 4G only	4G 800MHz only	4G 1800MHz only	4G 800MHz and 1800MHz	Date for this data (month and year)
National number of sites with only one technology per site													
	Total sites - 2G and 3G	2G and 3G 900MHz only	2G and 3G 2100MHz only		1 otal sites -	2G and 4G 800MHz only	2G and 4G 1800MHz only	2G and 4G 1800MHz and 800MHz	Total sites - 3G and 4G	3G and 4G 800MHz only	3G and 4G 1800MHz only	3G and 4G 1800MHz and 800MHz	Date for this data (month and year)
National number of sites with two technologies on the same site													
National number of sites with three technologies on the same site		4G 800MHz	2G + 3G and 4G 1800MHz only	2G + 3G and 4G 800MHz & 1800MHz	Date for this data (month and year)								
reactional number of sites with three technologies on the same site		<u> </u>	1			1							

Number of base stations - national level

National number of base stations (BTS or Node B or eNodeB)

Number of sectors - national level

Total number of sectors Average number of sector per base station

Number of mobile sites - regional level

Mobile sites by region

Istočen (East)
Jugoistočen (South East)
Jugozapaden (South West) Pelagoniski (Pelagonia) Pološki (Polog) Severoistočen (North East) Skopski (Skopje) Vardarski (Vardar)

Number of base stations - regional level

Mobile sites by region

Istočen (East) Jugoistočen (South East) Jugozapaden (South West) Pelagoniski (Pelagonia) Pološki (Polog) Severoistočen (North East) Skopski (Skopje) Vardarski (Vardar)

2G (BTS)	3G (NodeB)	4G (eNodeB)	Date for this data (month and year)
•			

2G sectors	3G sectors	4G sectors	Date for this data (month and year)	

Total number of sites	Total sites - 2G only	Total sites - 3G only	Total sites - 4G only	Total sites - 2G and 3G	Total sites - 2G and 4G	Total sites - 3G and 4G	Total sites - 2G, 3G and 4G	Date for this data (month and year)
		1	1					
		1	1					

	2G (BTS)	3G (NodeB)	4G (eNodeB)	Date for this data (month and year)
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Number of mobile sites and base stations - municipality level

Number of mobile sites and base stations - municpality level													ı
					Mobil	e sites					Base stations		L
Municipality	Region	Total number of sites	Total sites - 2G only	Total sites - 3G only	Total sites - 4G only		Total sites - 2G and 4G	Total sites - 3G and 4G	Total sites - 2G, 3G and 4G	2G (BTS)	3G (NodeB)	4G (eNodeB)	Date for this data (month and year)
Berovo	East				I		I		10				,
Cheshinovo - Obleshevo	East												
Delchevo	East												
Karbintsi	East				ļ		ļ						
Kochani Makadanaka Komanitaa	East												
Makedonska Kamenitsa Pehchevo	East East				1		1						
Probishtip	East				1		†						
Shtip	East												
Vinitsa	East												
Zrnovtsi	East												
Kratovo	Northeast												
Kriva Palanka	Northeast												
Kumanovo Lipkovo	Northeast Northeast	-											——
Rankovtse	Northeast												
Staro Nagorichane	Northeast												
Bitola	Pelagonia												
Demir Hisar	Pelagonia												
Dolneni	Pelagonia												——
Krivogashtani Krushevo	Pelagonia Pelagonia				 		 						
Mogila	Pelagonia	<u> </u>	 	 	 		 	 			 		
Novatsi	Pelagonia		t	t	1	t	1	t			t		
Prilep	Pelagonia		i e	i e		i e		i e			i e		ſ
Resen	Pelagonia												
Bogovinje	Polog												
Brvenitsa	Polog												
Gostivar	Polog	-	-	-	 	-	 	-			-		
Jegunovtse Mavrovo i Rostusha	Polog Polog	-											
Teartse	Polog				1		1						
Tetovo	Polog												
Vrapchishte	Polog												
Zhelino	Polog												
Aerodrom Arachinovo	Skopje Skopje												
Butel	Skopje												
Centar	Skopje												
Chair	Skopje												
Chucher - Sandevo	Skopje												
Gazi Baba	Skopje				ļ		ļ						
Gjorche Petrov Ilinden	Skopje Skopje	-			†		†						
Karposh	Skopje				1		1						
Kisela Voda	Skopje												
Petrovets	Skopje												
Saraj	Skopje												
Shuto Orizari	Skopje												
Sopishte Studenichani	Skopje Skopje				1		1						
Zelenikovo	Skopje												
Bogdantsi	Southeast												
Bosilovo	Southeast												
Dojran	Southeast												
Gevgelija Konche	Southeast Southeast	<u> </u>	-	-	 	-	 	-			-		——
Novo Selo	Southeast		 	 	1	 	1	 			 		
Radovish	Southeast												
Strumitsa	Southeast												
Valandovo	Southeast												
Vasilevo	Southeast Southwest				ļ		ļ						
Centar Zhupa Debar	Southwest	-					-						——
Debartsa	Southwest												
Drugovo	Southwest												
Kichevo	Southwest												
Makedonski Brod	Southwest Southwest												
Ohrid Oslomej	Southwest												
Plasnitsa	Southwest												
Struga	Southwest												
Vevchani	Southwest												
Vraneshtitsa	Southwest												
Zajas	Southwest												<u> </u>
Chashka Demir Kapija	Vardar Vardar	-	-	-	 	-	 	-			-		
Gradsko	Vardar Vardar	<u> </u>	 	 	 		 	 			 		
Kavadartsi	Vardar												
Lozovo	Vardar												
Negotino	Vardar												
Rosoman Custi Milada	Vardar		-	-	1	-	1	-			-		
Sveti Nikole Veles	Vardar Vardar	<u> </u>		 	 		 	 					
y CICO	varudi		<u> </u>	<u> </u>		<u> </u>		1			1		

Data on mobile network

BACK TO SUMMARY

NOTE

This information is useful to model mobile networks rollout more accurately

We would be interested in actual data based on your current operations

For the avoidance of doubt, "capex" refers to the one-off buying cost and "opex" refers to the annual cost for maintenance and operation of an asset Cost trend is the expected yearly evolution of capex (i.e. how much will the cost of an asset evolve in percentage every year)

If some data is not available, please provide us with an estimate

Mobile network parameters

motorio motorio parametro.					
Average base station loading (%)	Note - this is th	e ratio between	the capacity act	ually used on a	base station and its theoretical maximum capacity
2G		1			
3G]			
4G]			
Maximum bandwidth per sector	Note - this is th	e maximal capa	icity that could b	e reached in ide	al conditions
3G (mbit/s per sector)		1	,		
4G (mbit/s per sector)		1			
,		•			
Average coverage radius of a mobile site (km)					
	At national	In urban		In rural areas	Note - Please provide the definition you use for urban, suburban and rural areas
800MHz	level	areas	areas	T	1
900MHz					
1800MHz					
2.1GHz					1
		•		•	•
Type of backhaul used for mobile sites				_	
	% of sites	% of sites	% of sites		
	with fibre	with	with leased		
	backhaul	microwave	line backhaul		
		backhaul			
Average at national level]	
Average for 2G only sites					
Average for 3G and 2G+3G sites					
Average for sites having 4G				J	
Busy hour parameters					
Voice traffic					
Busy hour days per month		1			
Busy hour traffic as % of busy day traffic		1			
Data traffic		_			
Busy hour days per month]			
Busy hour traffic as % of busy day traffic]			
• • • • • • • • • • • • • • • • • • • •					
Spectral efficiency (bit/s per Hz per cell)					

Distribution of mobile sites

Share of sites on rooftops (%) Share of sites on towers (%)

Reuse of mobile sites

Share of sites that can be reused to install 4G

Mobile network costs

Construction of a new mobile site

Cost of a tower (civil work)
Cost of a rooftop (civil work)

Cost of an antenna per sector

2G antenna

3G antenna

4G antenna

Cost of the active equipment per mobile site

2G BTS

3G NodeB

4G eNodeB

Cost of new fibre backhaul link

Fibre link - average

Fibre link - urban areas

Fibre link - suburban areas

Fibre link - rural areas

Cost of new microwave backhaul link

Microwave link - average

Microwave link - urban areas

Microwave link - suburban areas

Microwave link - rural areas

Average rental cost per site per year average rental in urban areas average rental in suburban areas average rental in rural areas Operation and Maintenance cost per site per year

Total sites	Urban sites	Suburban sites	Rural sites

Total sites	Urban sites	Suburban sites	Rural sites

Note - Costs can be provided in any currency (e.g. EUR or USD) but this should be highlighted

Capex (MKD)	Opex (% of capex per year)		Capex cost trend (% change per year)
		1	
		J I	
Opex (MKD)			Opex cost
Open (IIII(D)			trend (%
			change per
			year)

Cost of adding 4G to an existing 2G mobile site				
	Capex (MKD)	Opex (% of		Capex cost
		capex per		trend (%
		year)		change per
				year)
Cost of antenna upgrade				
Cost of civil work upgrade (tower)				
Cost of civil work upgrade (rooftop)				
Cost of backhaul upgrade				
Cost of active equipment upgrade				
Cost of adding 4G to an existing 3G mobile site				
	Capex (MKD)	Opex (% of		Capex cost
		capex per		trend (%
		year)		change per
			•	year)
Cost of antenna upgrade				
Cost of civil work upgrade (tower)				
Cost of civil work upgrade (rooftop)				
Cost of backhaul upgrade				
Cost of active equipment upgrade				



Data on DSL

NOTE

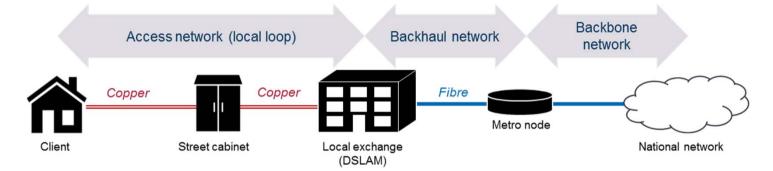
This information is useful to model DSL rollout more accurately

We would be interested in actual data based on your current operations

For the avoidance of doubt, "capex" refers to the one-off buying cost and "opex" refers to the annual cost for maintenance and operation of an asset Cost trend is the expected yearly evolution of capex (i.e. how much will the cost of an asset evolve in percentage every year)

If some data is not available, please provide us with an estimate

Network parameters



Access

Number of existing copper lines in the country

Number of existing copper lines eligible to DSL

Average length of the DSL line (Local exchange to home) - km

average length in urban areas - km

average length in suburban areas - km

average length in rural areas - km

From access to street cabinet

Number of existing street cabinets in the country

Average number of lines per street cabinet

Typical capacity of a street cabinet (# lines)

% of lines between premises and street cabinet that are in ducts

% of lines between premises and street cabinet that are on poles (aerial)

% of ducts between premises and street cabinet that are reusable to rollout fibre

Average distance between street cabinet and premise - km

average length in urban areas - km

average length in suburban areas - km

average length in rural areas - km

Note - Please provide the definition you use for urban, suburbar



Data on DSL

From street cabinet to local exchange

Number of existing local exchanges in the country

Average number of lines per local exchanges

Typical capacity of a DSLAM (# lines)

% of links between street cabinet and local exchanges that are in ducts

% of links between street cabinet and local exchanges that are on poles (aerial)

% of ducts between local exchanges and street cabinets that are reusable to rollout fibre

fibr	e	

Network costs

Note - Costs can be provided in any currency (e.g. EUR or USD) but this should be highlighted

Cost to set up a local exchange (civil work)
Cost to set up a street cabinet (civil work)
Cost of a DSLAM
Cost to activate a new line
Cost of a CPE (Customer Premise Equipment)

Capex (MKD)	Opex (% of capex per year)

Capex cost trend (% change per year)



Data on FTTC/VDSL

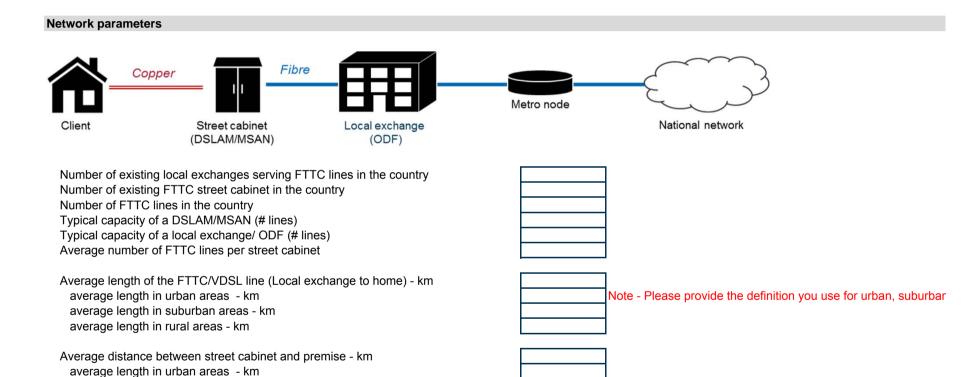
NOTE

This information is useful to model FTTC/VDSL rollout more accurately

We would be interested in actual data based on your current operations

For the avoidance of doubt, "capex" refers to the one-off buying cost and "opex" refers to the annual cost for maintenance and operation of an asset Cost trend is the expected yearly evolution of capex (i.e. how much will the cost of an asset evolve in percentage every year)

If some data is not available, please provide us with an estimate



average length in suburban areas - km average length in rural areas - km



Data on FTTC/VDSL

Network costs

Note - Costs can be provided in any currency (e.g. EUR or USD) but this should be high	ighted			
	Capex (MKD)	Opex (% of capex per year)		Capex cost trend (% change per year)
Cost of an ODF				your
Cost to set up a street cabinet (civil work)				
Cost of a DSLAM/MSAN				
Dig cost per metre (to install new ducts) between local exchange and street cabinet				
Fibre cable cost per metre				
Fibre install cost per metre				
			Ī	
Cost of a CPE (Customer Premise Equipment)				
Connection cost per line at client premises				



Data on FTTH / FTTB (GPON)

NOTE

This information is useful to model FTTH / FTTB (GPON) rollout more accurately

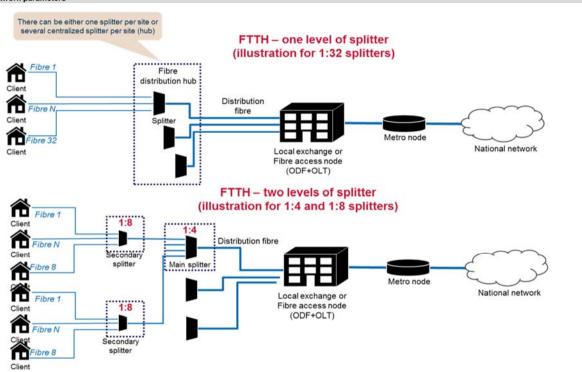
We would be interested in actual data based on your current operations

For the avoidance of doubt, "capex" refers to the one-off buying cost and "opex" refers to the annual cost for maintenance and operation of an asset

Cost trend is the expected yearly evolution of capex (i.e. how much will the cost of an asset evolve in percentage every year)

If some data is not available, please provide us with an estimate

Network parameters



Number of local exchanges serving FTTH/FTTB lines in the country Number of ODF serving FTTH/FTTB lines in the country Number of lines connected to FTTH/FTTB in the country Typical capacity of an ODF (# fibres)
Typical capacity of an OLT (# ports)

If you use one level of splitters

Typical capacity of the splitters (# fibres/premises)

Average distance between the local exchange and the splitters average length in urban areas - km average length in suburban areas - km average length in rural areas - km

Average distance between splitters and premises average length in urban areas - km average length in suburban areas - km average length in rural areas - km average length in rural areas - km

Typical number of splitters centralized in a fibre distribution hub

Note - Please provide the definition you use for urban, suburban and rural areas

Note: if you do not centralize your splitter in shared street cabinets/manholes, use " 1 " here



Data on FTTH / FTTB (GPON)

If you use two levels of splitters Number of main splitters in the country Number of secondary splitters in the country Typical capacity of the main splitters (# fibres) Typical capacity of the secondary splitters (# premises) Average distance between the local exchange and the primary splitters average length in urban areas - km average length in suburban areas - km average length in rural areas - km Average distance between the primary splitters and secondary splitters average length in urban areas - km average length in suburban areas - km average length in rural areas - km Average distance between secondary splitters and premises average length in urban areas - km

average length in suburban areas - km average length in rural areas - km

Note - Costs can be provided in any currency (e.g. EUR or USD) but this should be highlighted

Note - Costs can be provided in any currency (e.g. EUR or USD) but this should be nighli	gntea			
	Capex (MKD)	Opex (% of capex per year)		Capex cost trend (% change per year)
Cost of an ODF				
Cost of an OLT				
Cost of a splitter (1:4)				
Cost of a splitter (1:8)				
Cost of a splitter (1:32)				
Cost of a splitter (1:64)				
			i	
Dig cost per metre (to install new ducts) between local exchange and splitter site				
Dig cost per metre (to install new ducts) between splitter site and premises				
Fibre cable cost per metre Fibre install cost per metre				
rible ilistali cost per filetie				
Cost of CPE (Customer premise equipment)				
Connection cost per line at client premises				
·			1	
Cost to set up a main splitter site (civil work)				
Cost to set up a secondary splitter site (civil work)				



Data on cable

NOTE

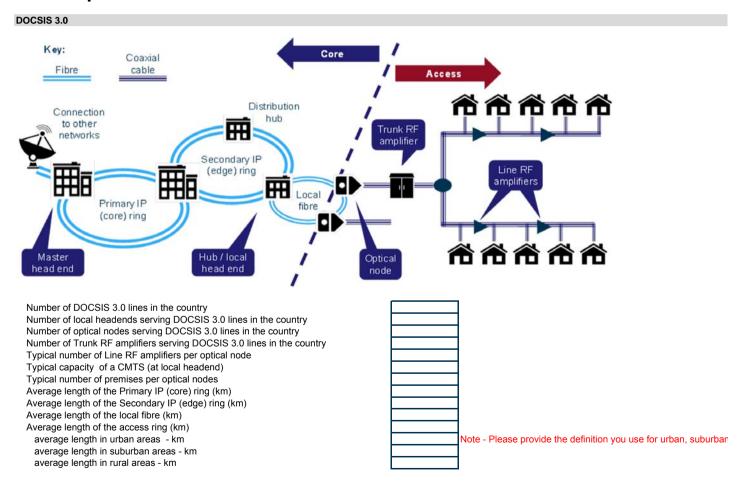
This information is useful to model cable rollout more accurately

We would be interested in actual data based on your current operations

For the avoidance of doubt, "capex" refers to the one-off buying cost and "opex" refers to the annual cost for maintenance and operation of an asset Cost trend is the expected yearly evolution of capex (i.e. how much will the cost of an asset evolve in percentage every year)

If some data is not available, please provide us with an estimate

Network parameters



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	•	mas	

Data on cable

DOCSIS 1.0 or 2.0

Number of DOCSIS 1.0 or 2.0 lines in the country

Number of local headends serving DOCSIS 1.0 or 2.0 lines in the country

Number of optical nodes serving DOCSIS 1.0 or 2.0 lines in the country

Number of Trunk RF amplifiers serving DOCSIS 1.0 or 2.0 lines in the country

Typical number of Line RF amplifiers per optical node

Typical capacity of a CMTS (at local headend)

Typical number of premises per optical nodes

Average length of the Primary IP (core) ring (km)

Average length of the Secondary IP (edge) ring (km)

Average length of the local fibre (km)

Average length of the access ring (km)

average length in urban areas - km

average length in suburban areas - km

average length in rural areas - km

Analogue cable

Number of analogue cable lines in the country

Number of local headends serving analogue cable lines in the country

Network costs

Note - Costs can be provided in any currency (e.g. EUR or USD) but this should be highlighted

Cost of upgrading an analogue cable network to DOCSIS 3.0

Cost to upgrade the national core network
Cost of a CMTS
Cost of a digital multiplexer (at local headend)
Cost of a digital edge-QAM (at local headend)
Cost of an optical node
Cost of a Trunk RF amplifier
Cost of a Line RF amplifier
Cost of a network tap
Fibre cable cost per metre
Fibre install cost per metre
Cost of a CPE (Customer Premise Equipment)
Connection cost per line at client premises

Capex (MKD) Opex (% of capex per year)

change per year)

Capex cost

Cost of upgrading a cable network from DOCSIS 1.0 or 2.0 to DOCSIS 3.0

Cost to upgrade the national core network
Cost of a CMTS
Cost of an optical node
Cost of a Trunk RF amplifier
Cost of a Line RF amplifier
Cost of a network tap
Cost of a CPE (Customer Premise Equipment)
Connection cost per line at client premises

Capex (MKD)	Opex (% of capex per year)

trend (% change per year)



Financial data

BACK TO SUMMARY

Note - Financials can be provided in any currency (e.g. EUR or USD) but this should be highlighted

Revenue	(MKD)	
Revenue	(IVIND)	

Retail revenue Wholesale revenue

Other revenue (please specify)

Opex (MKD) Interconnection costs Other wholesale costs Fixed network opex Mobile network opex IT opex Sales and marketing Personnel costs General and administration Other costs (please specify)

EBITDA (MKD)

EBITDA margin (%)

Capex (MKD)

Fixed network capex Fixed access network capex of which civil work/buildings for access of which network equipment for access Fixed core network capex Other fixed capex (please specify) Mobile network capex Mobile access network capex of which civil work/buildings for access of which network equipment for access Mobile core network capex Other mobile capex (please specify) Non-network capex of which buildings of which IT of which others

ghted											
hted HISTORICAL V	/ALUES				FORECASTS						
2010	2011	2012	2013	Latest historical figure	2014	2015	2016	2017	2018	2019	2020
					Note - Please p	rovide the date t	for the latest hist	orical figure (for	example June 2	2014 or Septemb	per 2014)



Financial data

BACK TO SUMMARY

Typical lifetime of assets (for	depreciation - in year
Fixed access network capex	
Civil work	
Network equipment	

Fixed core network capex

Fixed other capex (please specify)
Mobile access network capex

Civil work Network equipment

Mobile core network capex
Mobile other capex (please specify)

Non-network capex

Buildings IT

Others

Analysys Mason - Data request to operators 2014 11 10 : Financials

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