



AREGNET

Wholesale and Regulatory Measures Benchmark Report

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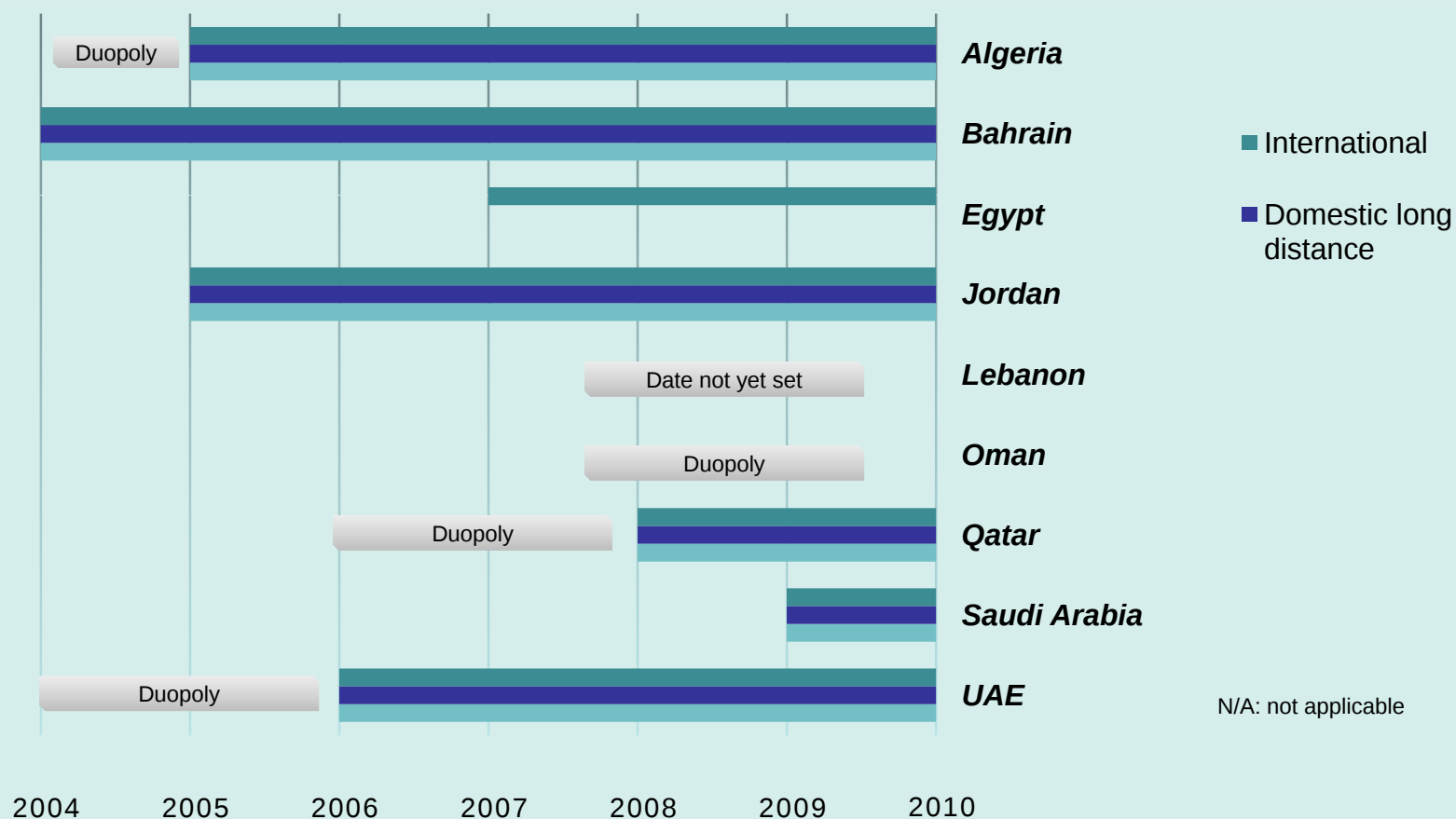
Preliminary remarks - methodology

- The information included in the following slides has been provided by the relevant authorities of the countries which have responded to the questionnaire: Algeria, Bahrain, Egypt, Jordan, Lebanon, Oman, Qatar, Saudi, and UAE.
- Tables were designed by Cullen International (www.cullen.eu) with input from AREGNET participating countries
- Information included in the following table is valid as of June 30, 2008 unless otherwise specified.

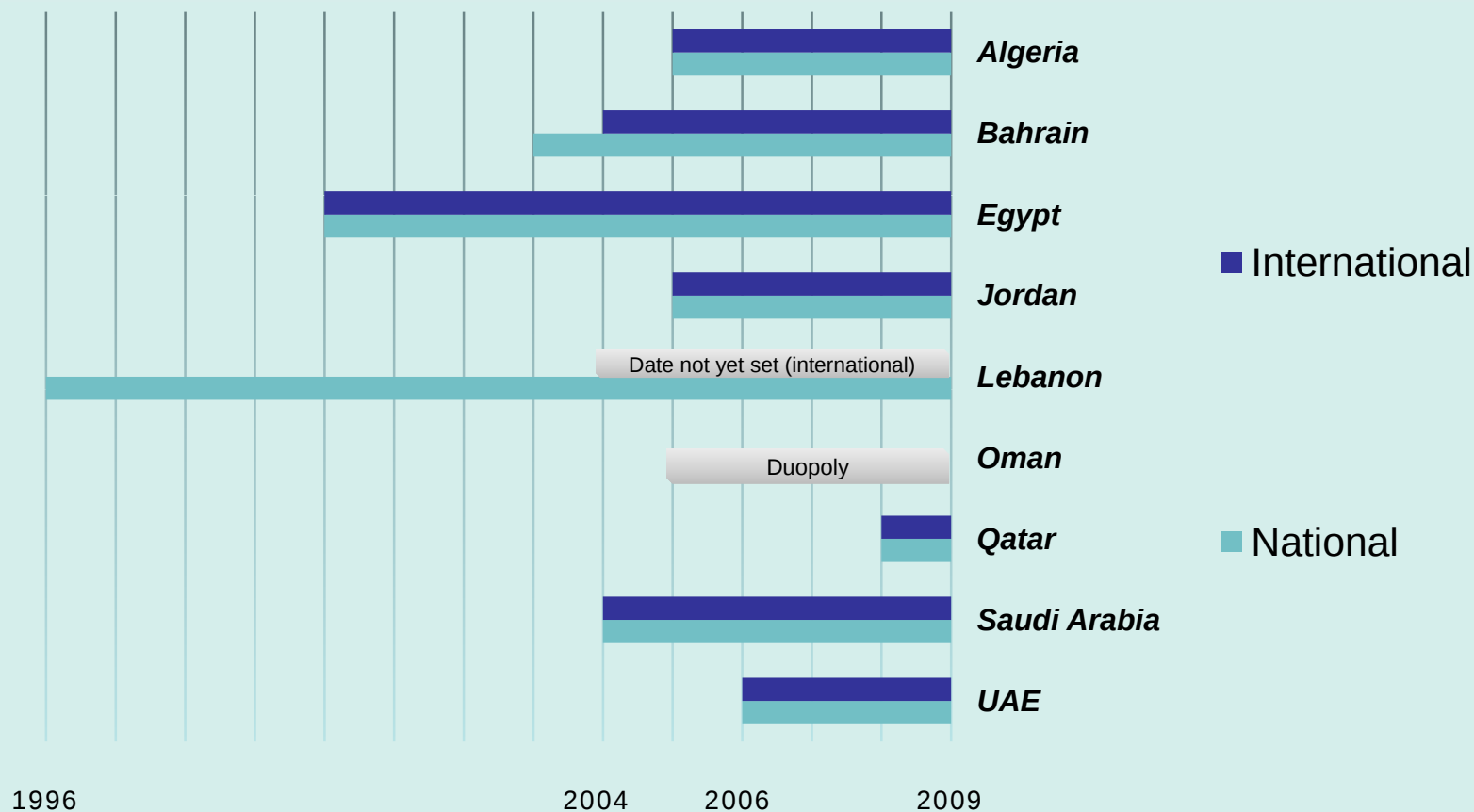
Outline

- Fixed communications
 - Liberalisation milestones
 - CS/CPS & NP
 - Interconnection charges: level and regulation
 - Local loop unbundling
 - Bitstream access
- Mobile communications
 - Liberalisation milestones
 - Rolling out of mobile technologies
 - Mobile Number Portability
 - Mobile Termination Rates
- Cost of capital
- Market analysis process

Liberalisation of fixed telephony services



Liberalisation - data services



Fixed carrier selection (CS) / pre-selection (CPS)

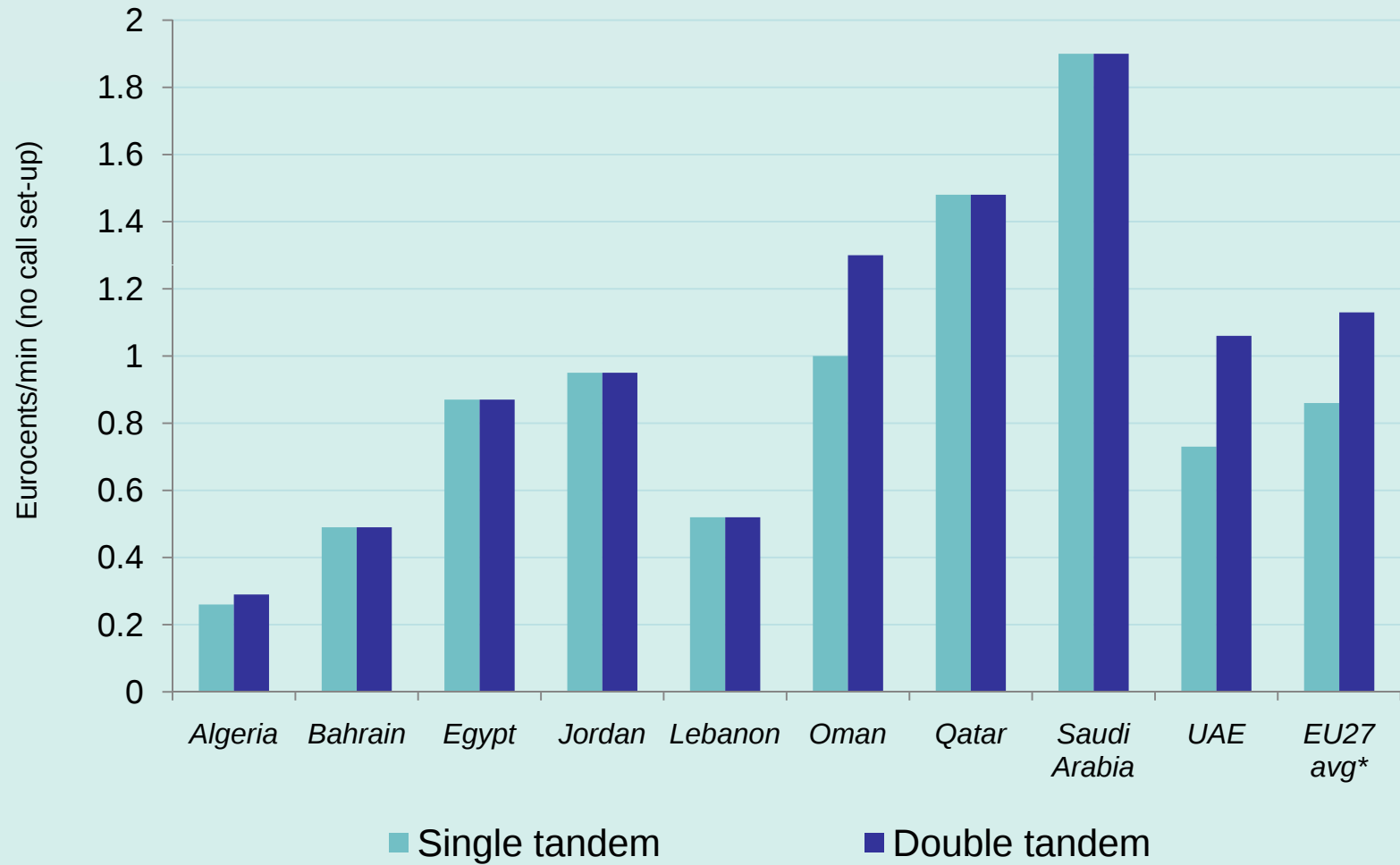
Country	National		International	
Algeria	X		X	
Bahrain	CS (planned 2009)	CPS	CS (planned 2009)	CPS
Egypt	X		X	
Jordan	X		CS	CPS
Lebanon	X		X	
Oman	X		Planned	
Qatar	X		X	
Saudi Arabia	CS (planned 2011)	CPS (planned 2012)	CS (planned 2011)	CPS (planned 2012)
UAE	CS	CPS (*)	CS	CPS (*)

(*) Mandated but not yet implemented

Fixed number portability

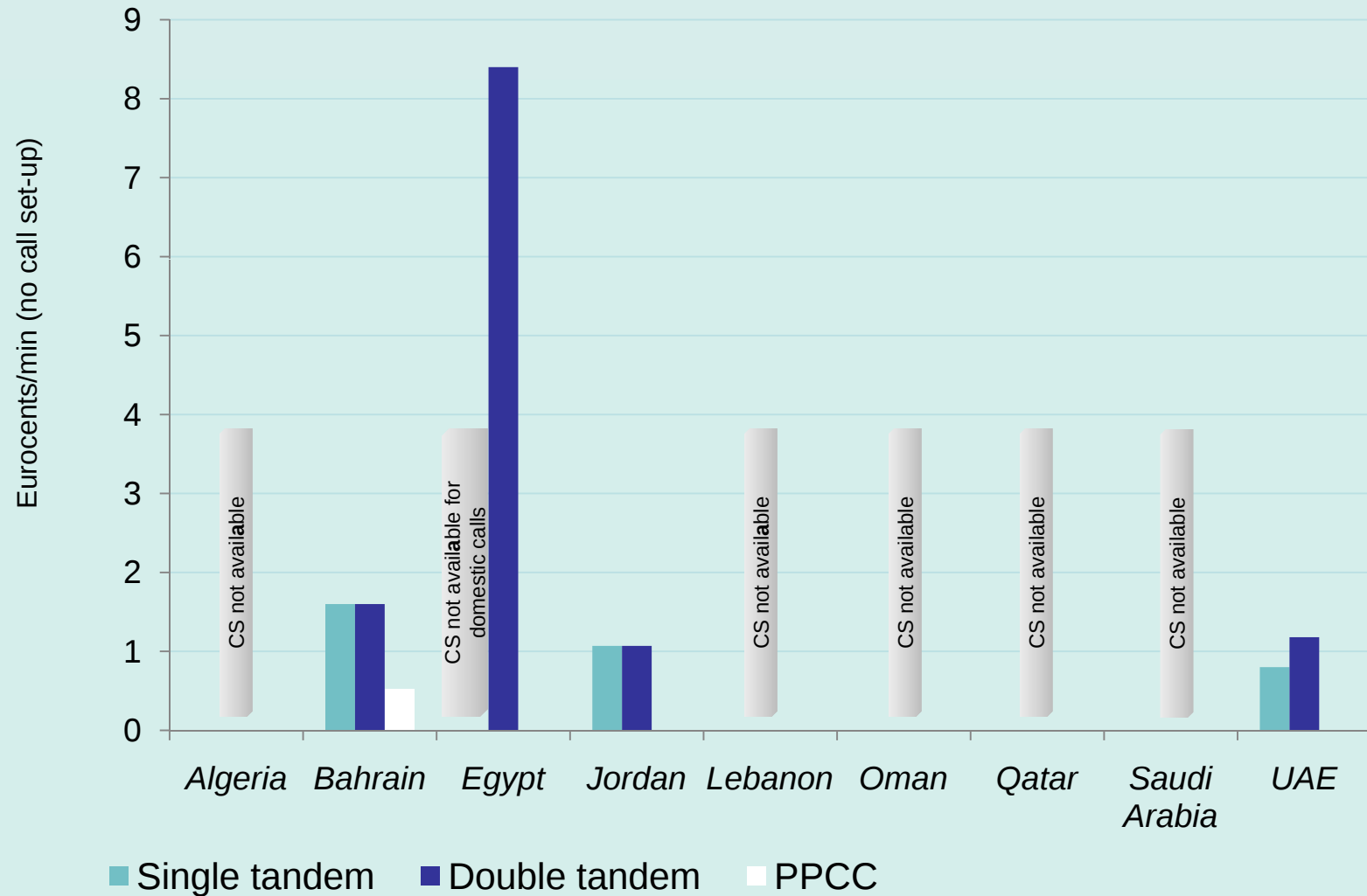
Country	Geographic numbers	Non-geographic numbers
Algeria	X	X
Bahrain	Planned 2009	Planned 2009
Egypt	X	X
Jordan	X	X
Lebanon	X	X
Oman	Planned	Planned
Qatar	Mandated but not yet implemented	Mandated but not yet implemented
Saudi Arabia	Mandated but not yet implemented (planned for 2011)	Mandated but not yet implemented (planned for 2011)
UAE	Mandated but not yet implemented	Mandated but not yet implemented

Fixed termination charges



* From EU Commission 14th implementation report – Annex 2

Fixed origination charges



Interconnection - Pricing regulation

Country	Cost base	Cost standard	Type of model
Algeria	Current	LRIC	Reconciliation
Bahrain	Current	LRIC	Top-down model
Egypt		FDC	-
Jordan	Historic	FAC (LRIC to be implemented)	-
Lebanon	<i>Consultation underway</i>		
Oman	Current	LRIC	Reconciliation (Hybrid)
Qatar	Current (« efficient service provision »)	FDC	<i>To be decided</i>
Saudi Arabia (under development)	<i>Current</i>	<i>LRIC</i>	<i>Bottom-up model</i>
UAE (Apr. 2009)	<i>Current</i>	<i>LRIC</i>	<i>Top-down model</i> (benchmarking if model not available)

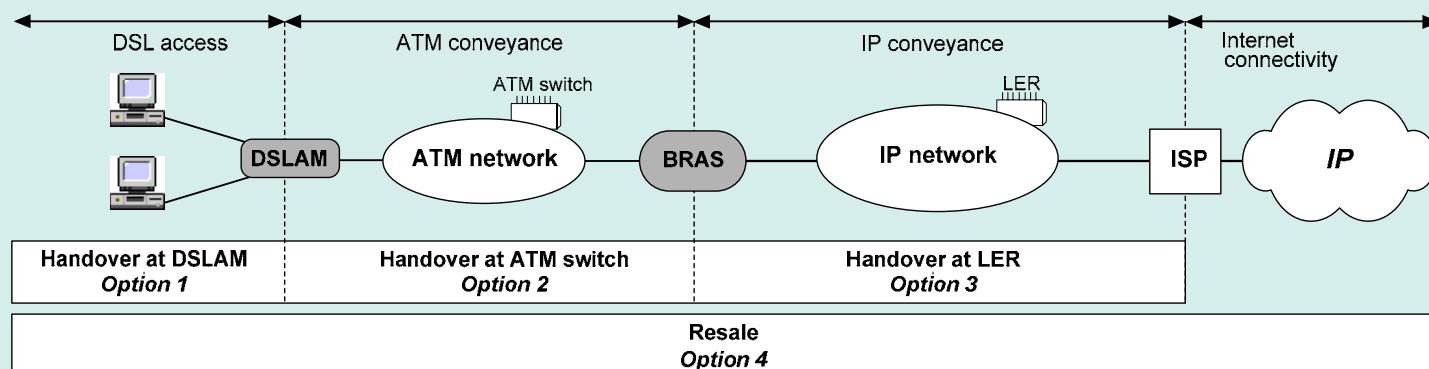
Access - Pricing regulation

Country	Cost base	Cost standard	Type of model
Algeria	Current	LRIC	Reconciliation
Bahrain	Historic	FDC	Top-down model
Egypt		FDC	-
Jordan	Historic	FAC (LRIC to be implemented)	-
Lebanon	<i>Consultation underway</i>		
Oman		LRIC	<i>To be decided by TRA</i>
Qatar	Current (« efficient service provision »)	FDC	<i>To be decided</i>
Saudi Arabia		Benchmarking	
UAE (Apr. 2009)	<i>Current</i>	<i>LRIC</i>	<i>Top-down model (benchmarking if model not available)</i>

Implementation of local loop unbundling – wholesale broadband access

Country	Full LLU	Shared Access	Wholesale broadband
Algeria	X	X	X
Bahrain	Under consultation	Under consultation	✓
Egypt	X	✓ 800,000	X
Jordan	X	X	✓
Lebanon	X	✓	✓
Oman	Draft regulation to be approved		
Qatar	X	X	X
Saudi Arabia	X	✓ But no demand	✓ But no demand
UAE	X	X	✓ But no demand

Implementation of wholesale broadband access

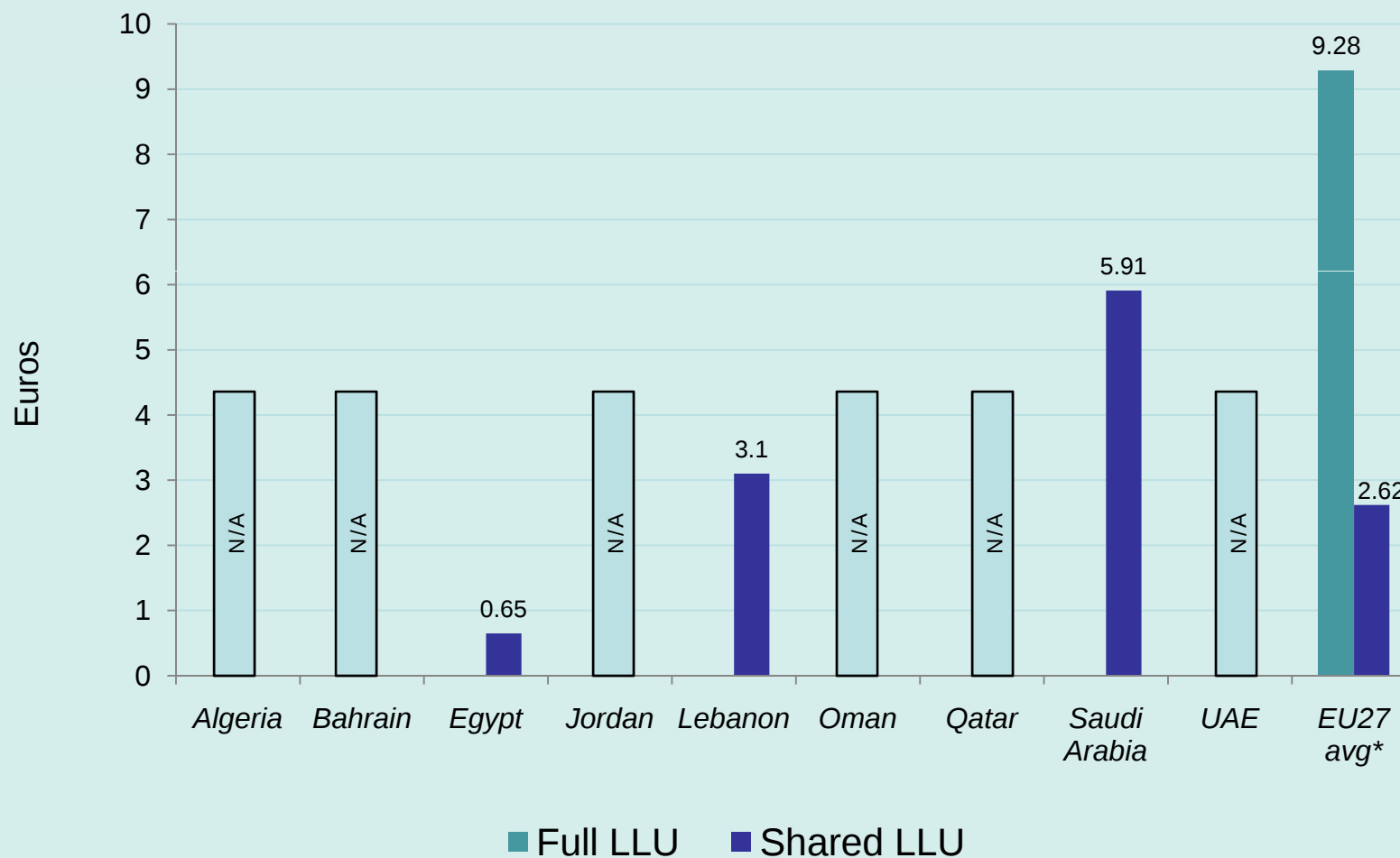


Source: ERG

DSLAM: DSL Access Multiplexer / ATM: Asynchronous Transfer Mode / BRAS: Broadband-Remote Access Server / LER: Router

Country	OPTION 1 DSLAM level	OPTION 2 ATM/Ethernet handover	OPTION 3 IP Handover	Resale
Bahrain	X	✓	X	✓
Jordan	Under way	X	✓	X
Lebanon	X	X	✓	X
Saudi Arabia	X	X	X	✓

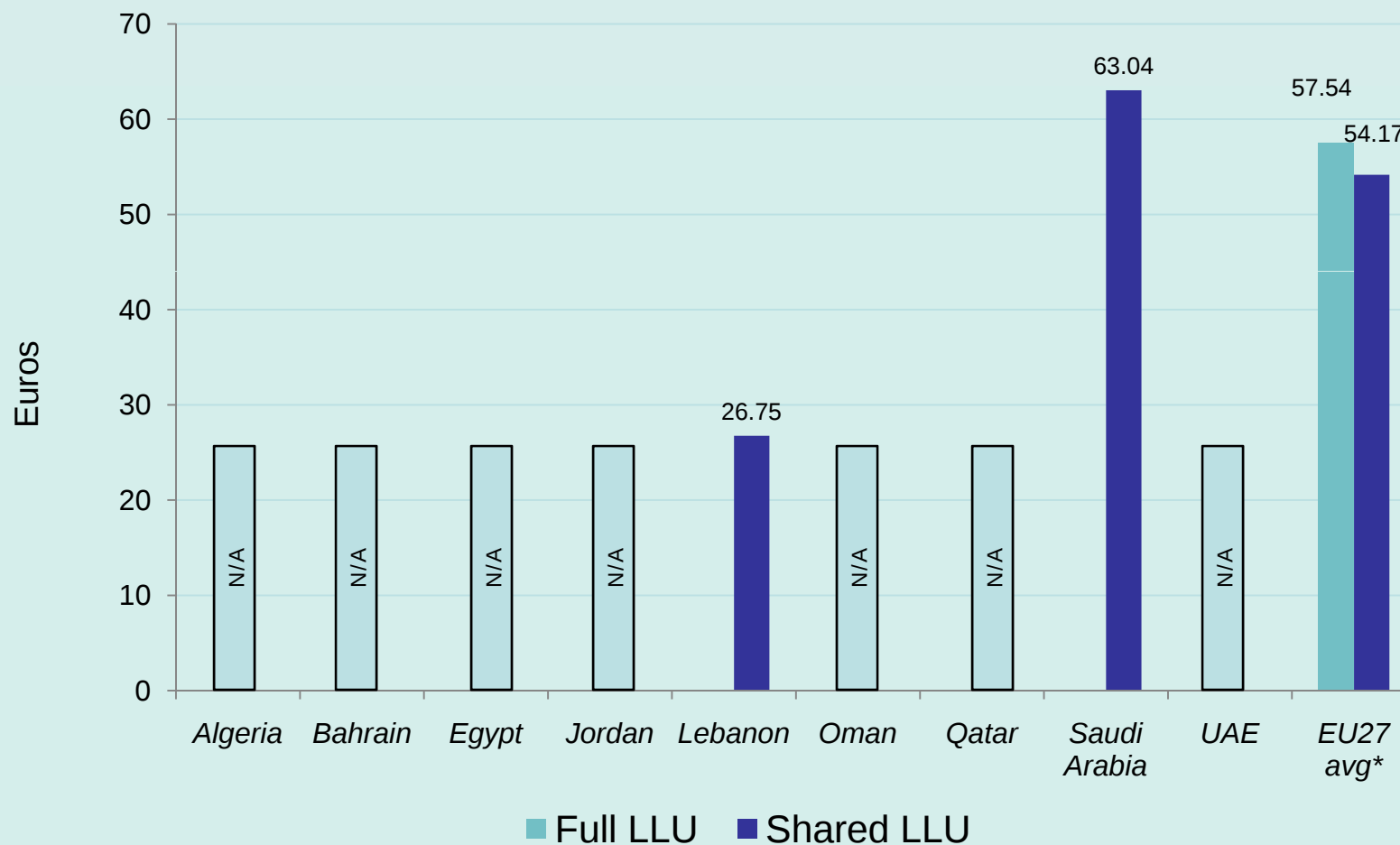
Local loop unbundling – monthly fee



N/A: not applicable

* From EU Commission 14th implementation report – Annex 2

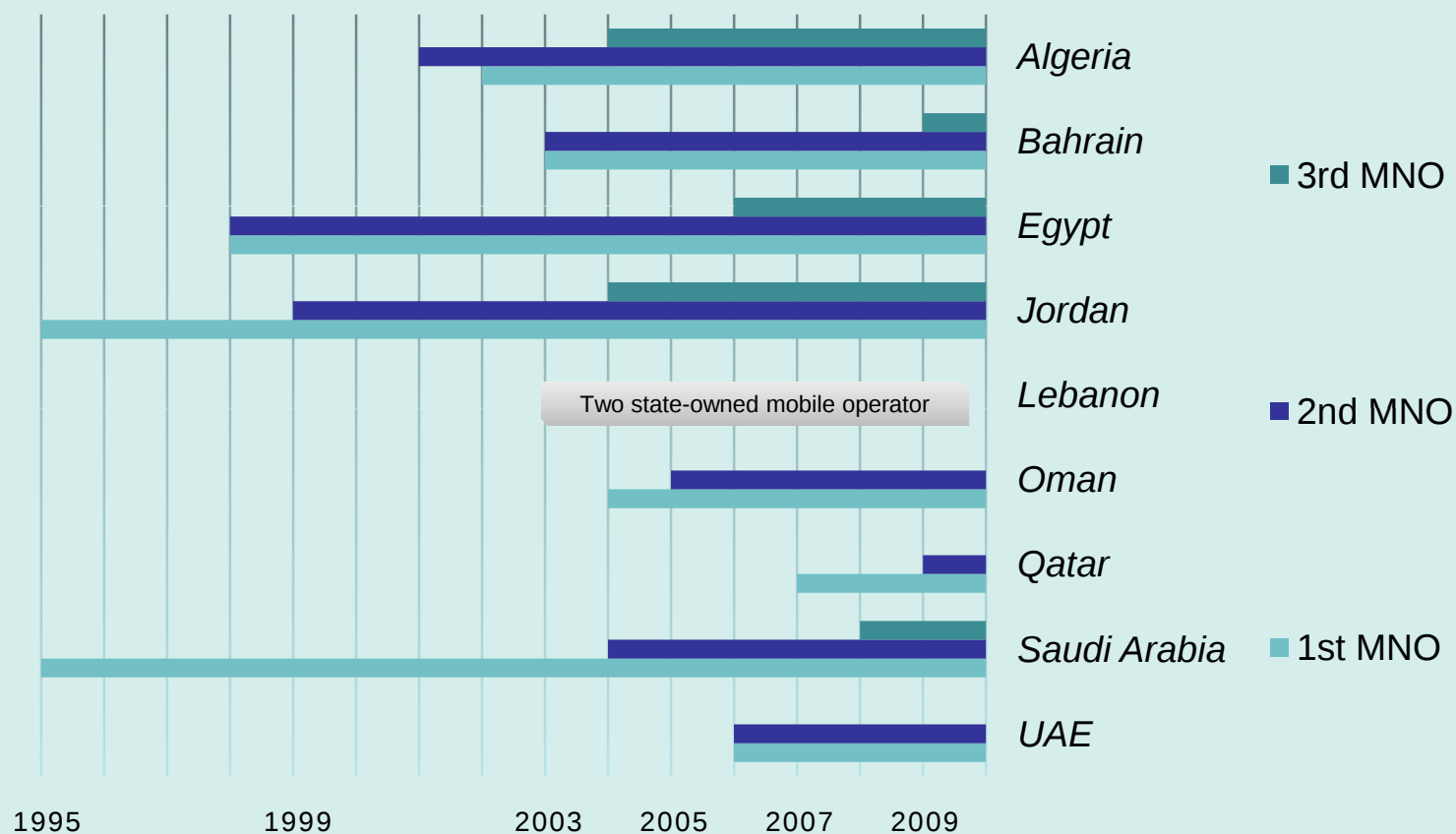
Local loop unbundling – one time fee



N/A: not applicable

* From EU Commission 14th implementation report – Annex 2

Liberalisation – mobile telephony



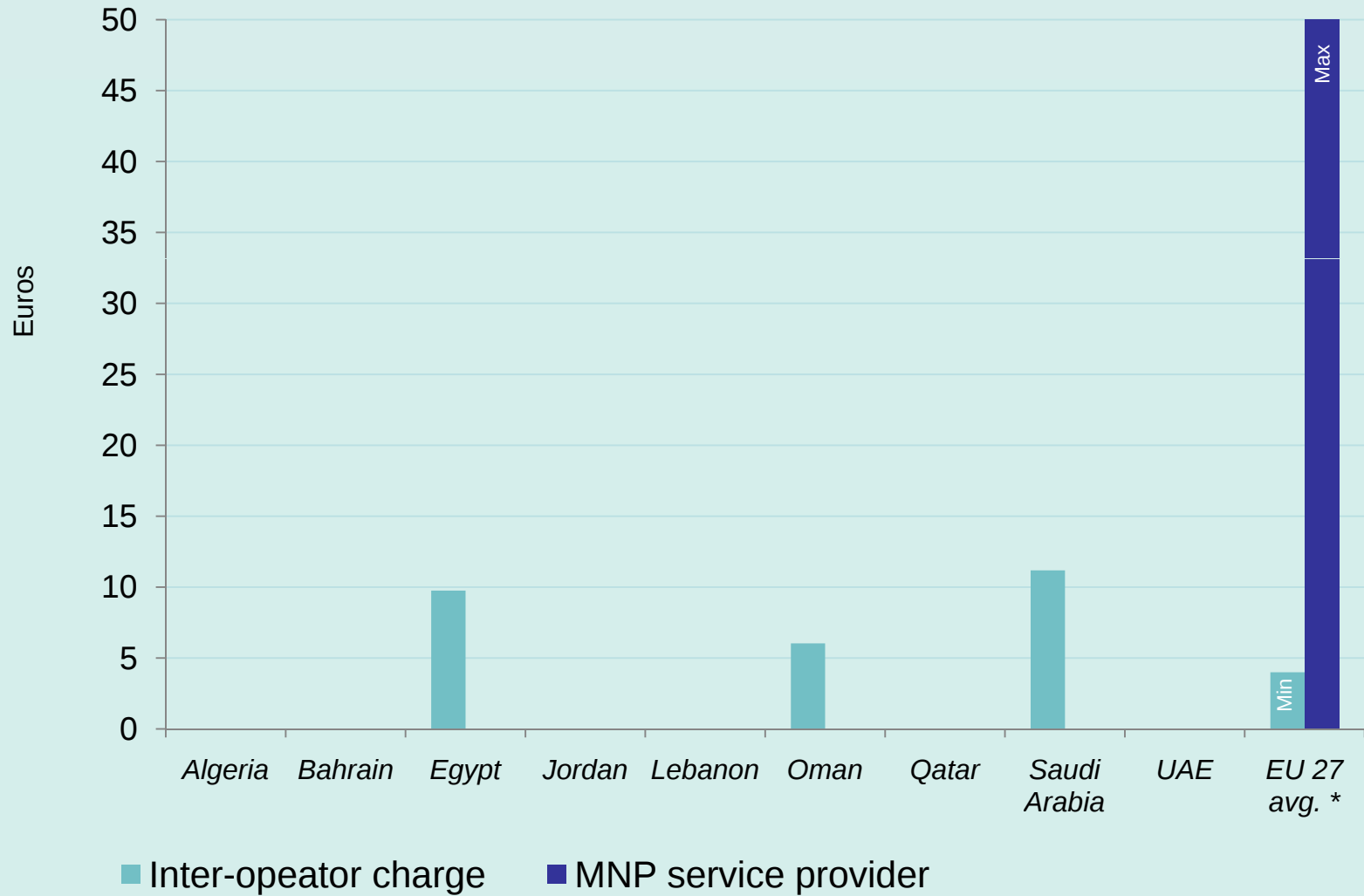
Rolling out of mobile technologies

Country	GSM 900-1800	UMTS
Algeria	✓	X
Bahrain	✓	✓
Egypt	✓	✓
Jordan	✓	X
Lebanon	✓	X
Oman	✓	X
Qatar	Technology neutral	
Saudi Arabia	✓	✓
UAE	✓	✓

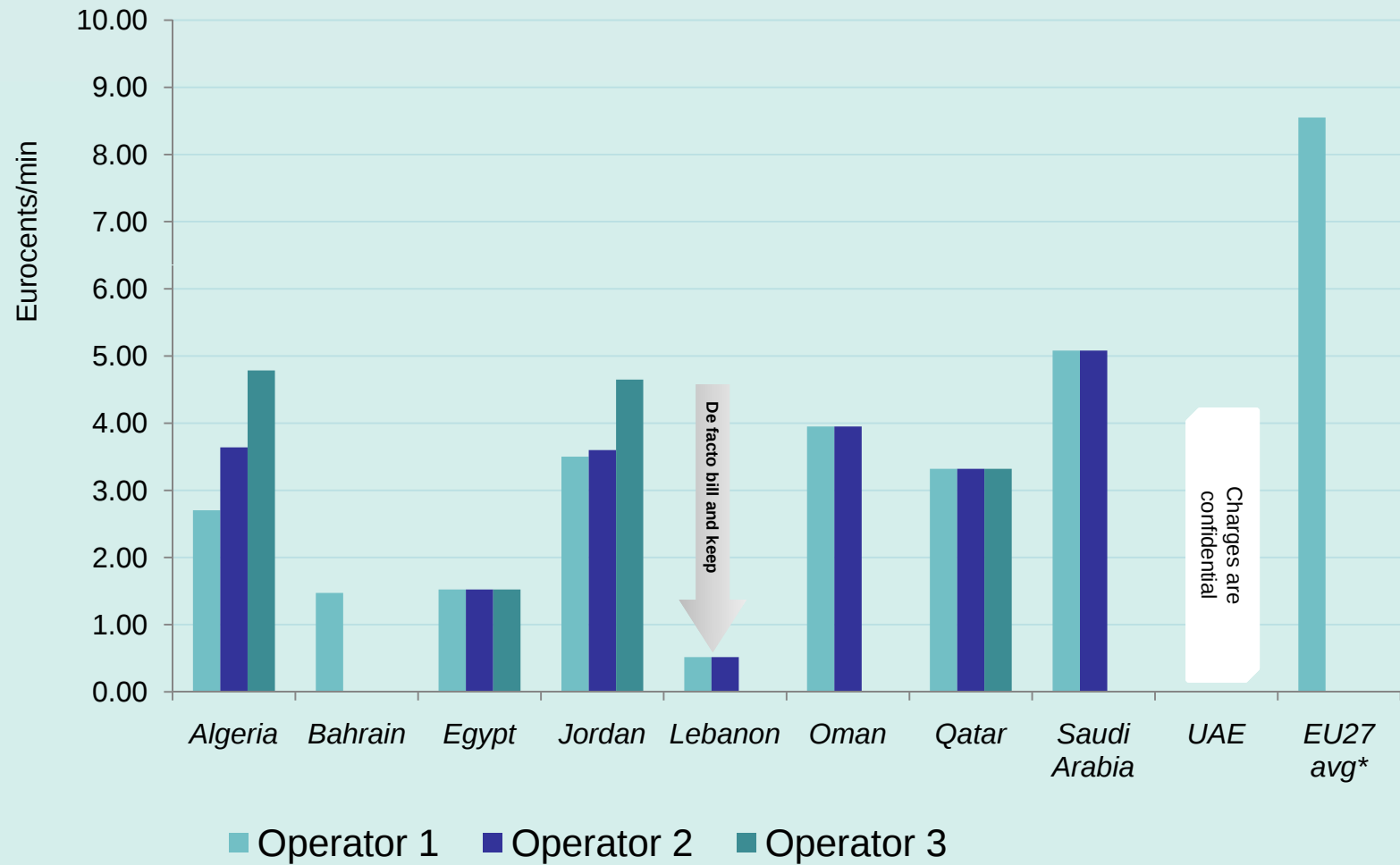
Mobile number portability (MNP)

Country	MNP implemented ?	Technical solution
Algeria	X	X
Bahrain	Planned in 2009	
Egypt	2008 25,000 numbers ported	Direct routing, ACQ
Jordan	X	X
Lebanon	X	X
Oman	August 2006 20,915 numbers ported	Onward routing
Qatar	Mandated but not yet implemented	Mandated but not yet implemented
Saudi Arabia	Nov. 2008 182,074 numbers ported	Direct routing, ACQ
UAE	Mandated but not yet implemented	Mandated but not yet implemented

Mobile number portability – Inter-operator charge

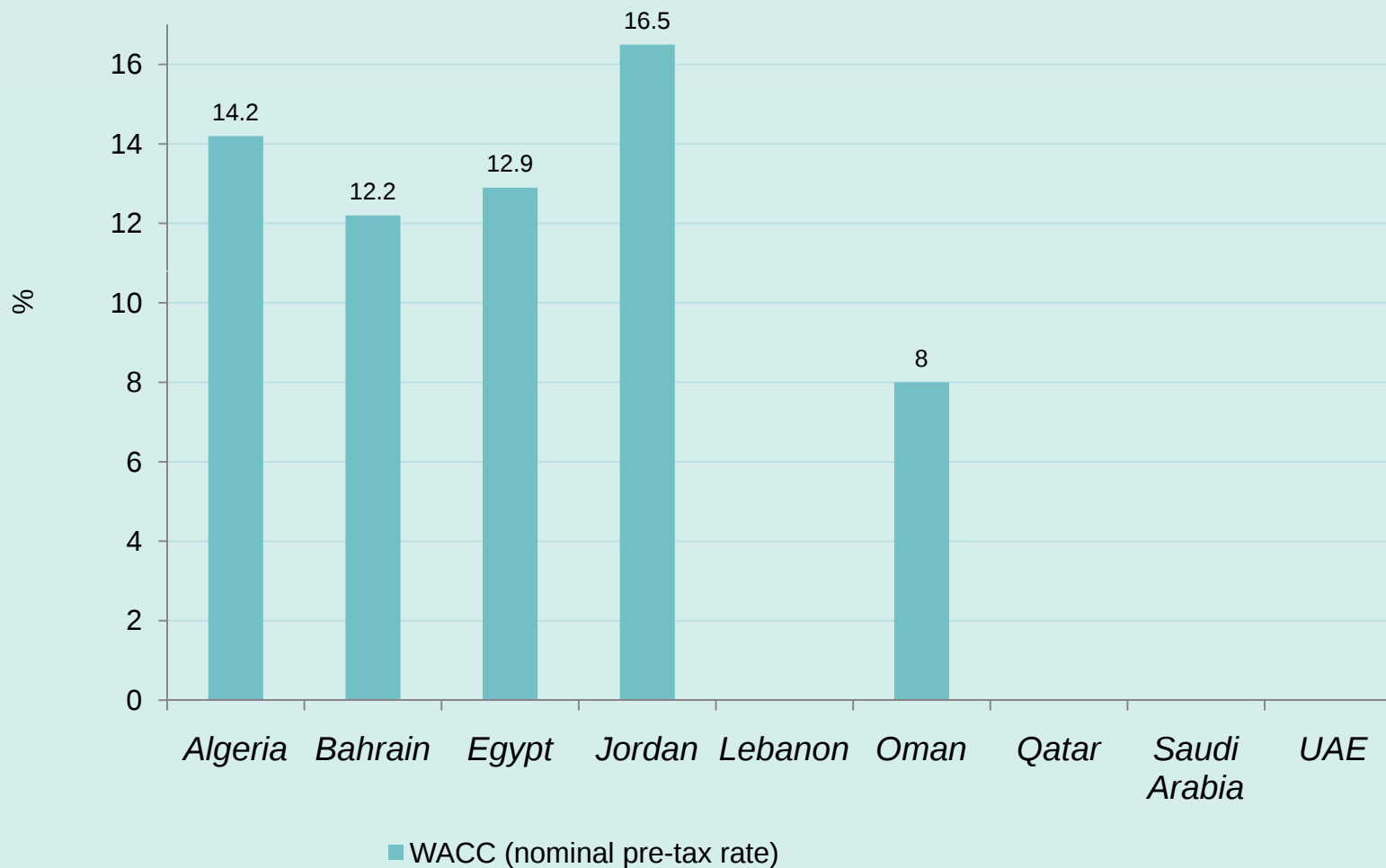


Mobile termination rates



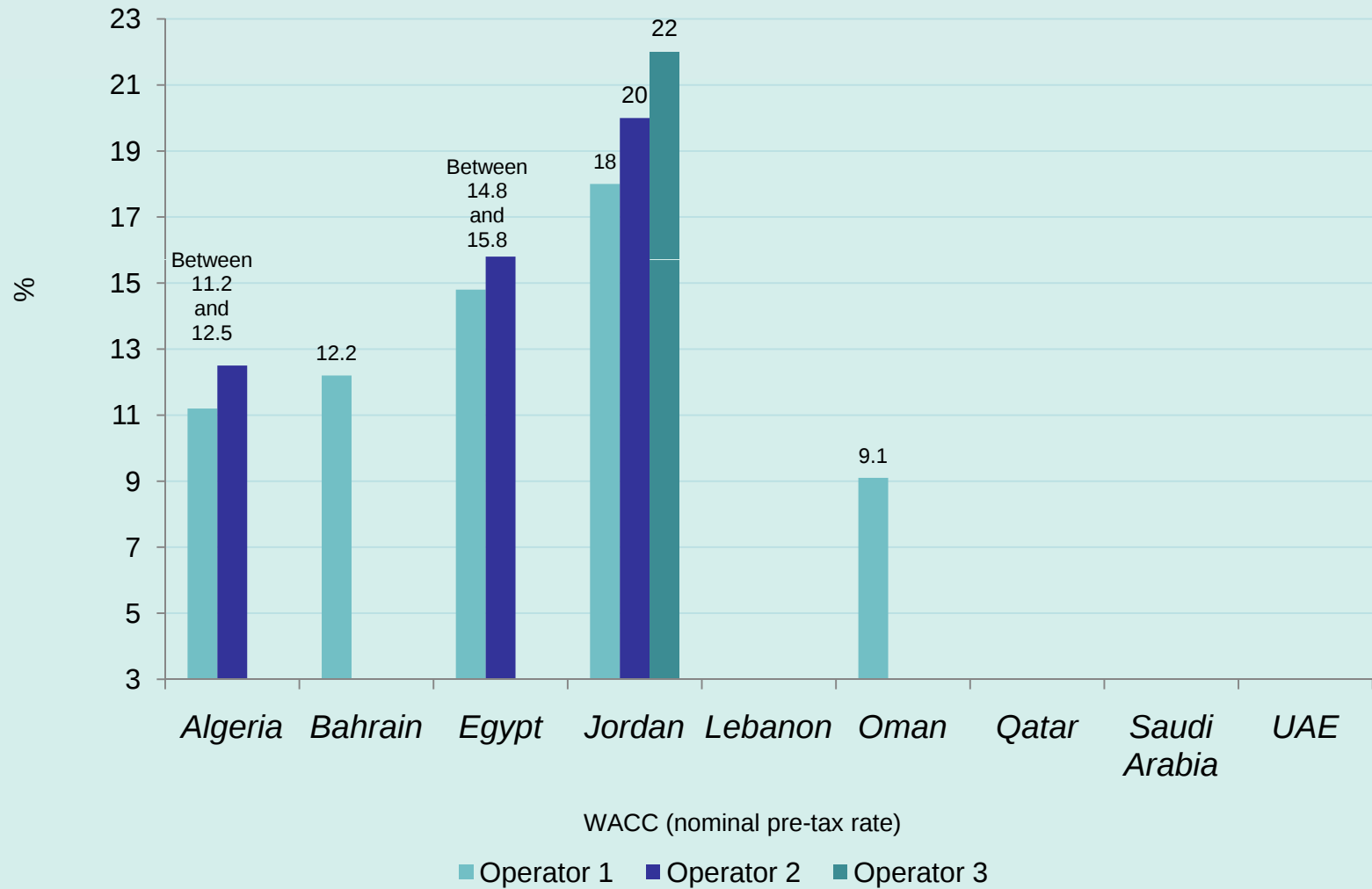
* From EU Commission 14th implementation report – Annex 2

Weighted average cost of capital (WACC) – Fixed telephony



Note that in countries without corporate tax, the pre-tax and post-tax WACC are the same. Thus reporting WACC rates on a pre-tax basis makes them look artificially low in those countries.

Weighted average cost of capital (WACC) – Mobile telephony



Market analyses – four steps

	Power to collect info	Market definition: NRA or predefined	Threshold for SMP or dominance	Obligations: standard menu or discretionary	Time horizon
Algeria	No info		> 50%		
Bahrain	✓	NRA	25 % (indicative – competition principles)	Standard	Discretionary
Egypt	No info	No info	No info	No info	No info
Jordan	✓	NRA	25% (retail) 40% (wholesale)	Standard	Discretionary
Lebanon	✓	NRA	Not yet defined	Standard	Discretionary
Oman	X	NRA	No info	Standard	No info
Qatar	✓	NRA	Competition law principles	Mixed	Discretionary
Saudi Arabia	✓	NRA	40%	Mixed	Discretionary
UAE	✓	Regime under preparation			

Exchange rates

	Currency	Exchange rate
Algeria	DZD	0.01
Bahrain	BHD	1.95
Egypt	EGP	0.13
Jordan	JOD	1.04
Lebanon	LBP	0.00049
Oman	OMR	1.91
Qatar	QAR	0.20
Saudi Arabia	SAR	0.197
UAE	AED	0.20



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