

Class of Instrument	Equities - Shares & Depositary Receipts (T12) No				
Notification if <1 average trade per business day in the previous year					
Top five execution venues ranked in t erms of trading volumes (descending o rder)	Proportion of volume trad ed as a percentage of tot al in that class	Proportion of orders exec uted as percentage of tot al in that class	Percentage of pass ive orders	Percentage of aggres sive orders	Percentage of dire cted orders
Lisbon Stock Exchange XLIS	46.84 %	22.47 %	5.00 %	50.00 %	0.00 %
Bolsa de Madrid XMAD	36.00 %	26.97 %	16.67 %	50.00 %	0.00 %
TOWER RESEARCH CAPITAL EUROPE LTD TRS	6.10 %	11.24 %	0.00 %	100.00 %	0.00 %
Deutsche Börse XETA XETA	2.70 %	4.50 %	50.00 %	25.00 %	0.00 %
BATS Europe Dark Pool BATD	1.83 %	3.37 %	0.00 %	66.67 %	0.00 %
Interaction	Execution				
Report provided by LiquidMetrix					



Class of Instrument	Equities - Shares & Depositary Receipts (T34)				
Notification if <1 average trade per business day in the previous year			No		
Top five execution venues ranked in t erms of trading volumes (descending o rder)	Proportion of volume trad ed as a percentage of tot al in that class	Proportion of orders exec uted as percentage of tot al in that class	Percentage of pass ive orders	Percentage of aggres sive orders	Percentage of dire cted orders
Bolsa de Madrid XMAD	48.76 %	21.03 %	47.59 %	35.29 %	0.00 %
Aquis Exchange AQXE	7.61 %	16.54 %	8.84 %	82.99 %	0.00 %
CHI-X Europe CHIX	6.58 %	13.50 %	46.67 %	42.50 %	0.00 %
Lisbon Stock Exchange XLIS	6.55 %	1.57 %	21.43 %	7.14 %	0.00 %
CITADEL CONNECT EUROPE - SYSTEMATIC I NTERNALISER CCEU	4.49 %	7.65 %	0.00 %	100.00 %	0.00 %
Interaction	Execution				
Report provided by LiquidMetrix					



Class of Instrument	Equities - Shares & Depositary Receipts (T56)				
Notification if <1 average trade per business day in the previous year	No				
Top five execution venues ranked in t erms of trading volumes (descending o rder)	Proportion of volume trad ed as a percentage of tot al in that class	Proportion of orders exec uted as percentage of tot al in that class	Percentage of pass ive orders	Percentage of aggres sive orders	Percentage of dire cted orders
Bolsa de Madrid XMAD	28.42 %	10.47 %	63.73 %	25.49 %	0.00 %
CHI-X Europe CHIX	8.86 %	14.68 %	67.48 %	27.97 %	0.00 %
London Stock Exchange XLON	7.53 %	0.46 %	55.56 %	0.00 %	0.00 %
Paris Stock Exchange XPAR	7.14 %	1.64 %	59.38 %	9.38 %	0.00 %
Deutsche Börse XETA XETA	6.97 %	1.23 %	66.67 %	4.17 %	0.00 %
Interaction	Execution				
Report provided by LiquidMetrix					



Class of Instrument	Other instruments				
Notification if <1 average trade per business day in the previous year	Yes				
Top five execution venues ranked in t erms of trading volumes (descending o rder)	Proportion of volume trad ed as a percentage of tot al in that class	Proportion of orders exec uted as percentage of tot al in that class	Percentage of pass ive orders	Percentage of aggres sive orders	Percentage of dire cted orders
Bolsa de Madrid XMAD	73.50 %	25.00 %	0.00 %	66.67 %	0.00 %
Aquis Exchange AQXE	14.45 %	25.00 %	0.00 %	83.33 %	0.00 %
CHI-X Europe CHIX	11.05 %	16.67 %	0.00 %	75.00 %	0.00 %
Turquoise MTF TRQX	0.52 %	16.67 %	0.00 %	100.00 %	0.00 %
BATS Europe BATE	0.48 %	16.66 %	25.00 %	50.00 %	0.00 %
Interaction	Execution				
Report provided by LiquidMetrix					



Class of Instrument	Exchange traded products (Exchange traded funds, exchange traded notes and exchange traded commodities)				
Notification if <1 average trade per business day in the previous year	Yes				
Top five execution venues ranked in t erms of trading volumes (descending o rder)	Proportion of volume trad ed as a percentage of tot al in that class	Proportion of orders exec uted as percentage of tot al in that class	Percentage of pass ive orders	Percentage of aggres sive orders	Percentage of dire cted orders
Paris Stock Exchange XPAR	32.22 %	33.33 %	25.00 %	50.00 %	0.00 %
Frankfurt Floor XFRA	28.10 %	16.67 %	0.00 %	0.00 %	0.00 %
Deutsche Börse XETA XETA	17.88 %	16.67 %	50.00 %	50.00 %	0.00 %
Borsa Italiana (MTAA) MTAA	16.90 %	16.67 %	50.00 %	50.00 %	0.00 %
Swiss Stock Exchange XSWX	2.64 %	8.33 %	0.00 %	100.00 %	0.00 %
Interaction	Execution				
Report provided by LiquidMetrix					