DO NOT FORWARD OR SHARE. PROPRIETARY TO URVIN LLC.

Ref#	Section	Field	Question	Response	Followup Question
	Analytical Capabilities	TCA - Internal or 3rd Party in	Is your TCA product created by a third	[Yes/No]	If Yes, please state the
1		Europe (Multiple Choice)	party?		provider
2	Analytical Capabilities	TCA Capabilities in Europe (Multiple Choice)	Select all that apply to your TCA capabilities.	Please select all that apply: [] #1 They are real-time [] #2 They include parent level and child level analysis [] #3 They include routing and venue analysis [] #4 We have a dedicated team focused on TCA that consult with clients [] #5 Our TCA is internally developed [] #6 Our performance data is not aggregated into peer data calculations that is shared with other clients [] #7 We can provide performance reports to clients vs. all the most used trading benchmarks [] #8 We can provide reversion metrics [] #9 We have a proprietary pre-trade cost model [] #10 Third-party pre-trade cost estimates can be included in our performance reports [] #11 We support a portal to manage and view performance [] #12 We have proprietary tools for pre-trade, in-trade, and post-trade [] #13 We can offer EOD and T+1 reports [] #14 We can bucket performance by order attributes such as volatility, spread, market cap [] #15 We can provide outlier analysis [] #16 We can provide mark outs by algo leg	
3	Analytical Capabilities	TCA Post-Trade Analysis in	Do you provide post-trade analysis detailing	[Yes/No]	If No, please explain why
4	Compliance	Europe (Multiple Choice) Aggregation Methodology (Multiple Choice)	the venues you have traded with? Please select all that apply to the general aggregation unit methodology and how it applies to the High Touch / Cash desk, Low Touch / Algorithm desks & Program desks.	Please select all that apply: [] #1 Our aggregation methodology is built into our platform to aggregate orders and execute more efficiently [] #2 We do not aggregate separate client orders to fulfil minimum fill requirements [] #3 Clients may opt-out from executing on venues that aggregate orders [] #4 All orders entered into an automated execution platform are treated independently and processed in the order received [] #5 We may automatically aggregate orders with similar characteristics and execution objectives [] #6 We have a documented aggregation and fair client allocation policy [] #7 We will notify clients if we aggregate orders across two or more clients [] #8 When an aggregated order executes as mixed capacity or has multiple take or provide liquidity tags, we can not provide those details on the fills [] #9 We will only aggregate electronic orders when specifically requested by a client	verity

	Compliance	Testing and Deployment	Select all that apply regarding the method of	Please select all that apply:	
	'	(Multiple Choice)		[] #1 Our technology team has a clear process and procedures for the	
		(development, testing, and deployment of trading technology or trading strategies	
			EU Delegated Regulation 2017/589	[] #2 We have an independent testing team that will sign off on all changes to our	
			20 2010ga104 110ga1411011 20 117000	trading technology or trading algorithms	
				[] #3 We are compliant with all MiFID II regulatory obligations regarding venue	
				conformance testing, pre-trade controls, real-time monitoring, and kill functionality,	
				as addressed in RTS6	
] #4 Material changes to our algorithmic platform are communicated in a timely	
				manner to clients	
				1 #5 There is a clear line of responsibilities of the development and QA teams	
				1 1#6 Once any development has been handed to the QA team, test evidence is	
				documented and peer-reviewed before being approved for production	
				[] #7 A governance and technical committee signs off on final approval of	
				changes to production	
				1 #8 Our testing of changes to our trading technology or trading strategies	
				ensures it will not contribute to disorderly trading conditions and work effectively in	
				stressed market conditions	
				1 1 #9 Other (Put comments in the Explanation section below. DO NOT put web	
5				links/URLs there. Select all other options above that apply)	
	4	Desk Segregation in Europe	How does your firm physically segregate the	Please select all that apply:	
		(Multiple Choice)	personnel servicing High Touch and Low	[] #1 We do not physically segregate	
		,	Touch flows (select all that apply)?	1 #7 We do not physically segregate 1 1 #2 High Touch and Low Touch trading desks are not physically adjacent,	
			Todon nows (sciect all that apply):	however there is no physical barrier	
				1 #3 High Touch and Low Touch traders have a different communication network	
				or channels	
				1 #4 Other (Put comments in the Explanation section below. DO NOT put web	
6				links/URLs there. Select all other options above that apply)	
	1	Decision Making Framework	Select all that apply (+Other if applicable)	Please select all that apply:	
		(Multiple Choice)	regarding the governance and decision-] #1 We have a risk management committee that is responsible for all oversight	
		(Maniple Chelos)		of our risk frameworks and electronic trading activities	
			comply with the EU Delegated Regulation	1 #2 Access to the electronic trading application is restricted, controlled and	
			2017/589	monitored	
			2011/000	[] #3 We segregate activities to critical business processes	
] #4 Our governance committees that oversee our trading systems and trading	
				algorithms meet at least quarterly	
				[] #5 We have a committee that is focused on execution framework governance	
				[] #6 Our governance committees discuss and approve any changes to liquidity	
				sources to the execution framework	
				[] #7 Our governance committees discuss and approve any key changes to the	
				routing logic and operate of the SOR	
				1 #8 All changes to our algorithms are tested and have passed a QA process	
				before moving to the production environment	
				1 #9 We perform rigorous regression testing prior to any new software	
				implemented into production as it relates to our trading suite	
				[] #10 We have dedicated teams overseeing the development of all algorithmic	
				trading solutions	
				1 #11 Other (Put comments in the Explanation section below. DO NOT put web	
7	,			links/URLs there. Select all other options above that apply)	

	Compliance	Compliance Checks in Europe	Select all that apply to your framework	Please select all that apply:	
		(Multiple Choice)	around compliance checks and surveillance	1	
		, ,	practices:	[] #2 We have an incident management procedure	
			ľ	[] #3 We have policies that apply across the full spectrum of our electronic trading	
				operations	
				[] #4 Our risk management and internal control framework adheres to EU	
				standards	
				[] #5 We utilize automated surveillance tools to detect potential market abuse	
				[] #6 We have an internal case management tool that tracks and reviews all our	
				surveillance processes to ensure ongoing robustness	
				[] #7 We have a robust compliance risk management built into our OMS	
				[] #8 We have proprietary monitoring reports in addition to external tools	
				[] #9 Our compliance department regularly reviews our supervisory and control	
				processes	
8				#10 Executions are monitored in real-time by the trade and management	
	Compliance	Walls between Trading Desks	Has your firm considered, or has it currently	[Yes/No]	
	Compilarios	(Multiple Choice)	lowered the wall between High Touch, Low		
		(Manapio Grielos)	Touch and Programs for some clients?		If Yes, please describe
9			Todor and Frograms for some sherts:		how this works.
	Indication of Interest	IOI Default Methodology in	Select all that apply (+Other if applicable)	Please select all that apply:	THE WAR WELLER
	(IOI)	Europe (Multiple Choice)	regarding your IOI generation when the IOI	[] #1 No low touch IOIs are generated unless directed by the client	
	(,		is being generated in response to a client	[] #2 We follow AFME/IA guidelines on IOIs	
			order.	[] #3 By default IOIs are not generated on electronic orders	
				[] #4 IOIs are sent to clients who meet a specified and eligible tier	
				[] #5 IOIs are sent during the day by default	
				[] #6 We have an internal code of conduct on how/when to communicate IOIs	
				[] #7 Algorithmic and DMA flow sent to the electronic trading desk for execution	
				do not generate IOIs	
				[] #8 Orders sent to us through the high touch or program trading desks will be	
				included in IOIs on an automated basis	
				[] #9 Clients can opt out of IOIs on a default basis or can opt out on a per order	
				basis	
				[] #10 We have a proprietary system that sends IOIs to various vendors	
				[] #11 IOIs are an important component to our best execution process	
				[] #12 Only clients who are approved by the head of trading or similar leadership	
				role can decide who receives IOIs	
				[] #13 Other (Put comments in the Explanation section below. DO NOT put web	
10				links/URLs there. Select all other options above that apply)	
	Indication of Interest	Principal IOI Guidelines in	Select all that apply (+Other if applicable) to	Please select all that apply:	
	(IOI)	Europe (Multiple Choice)	the guidelines related to principal or	[] #1 We use the AFME framework and AFME qualifiers for all system generated	
	(101)	Zaropo (Manapio Grielos)	proprietary IOIs:	and FIX communicated IOIs	
				[] #2 We follow the AFME requirements for all principal IOIs, whether manually or	
				systemically generated	
				[] #3 All our principal IOIs are available electronically as actionable IOIs	
				[] #4 We tier IOIs and communicate them to client groups on a selective basis	
				[] #5 We utilize the Bloomberg IOI tagging guidelines	
				[] #6 All IOIs are client driven	
				[] #7 We use the Bloomberg guidelines to identify IOI types by class and subclass	
				[] #8 We have a consistent approach when we communicate IOIs via third-party	
				systems	
] #9 Our high touch desk may manually send IOIs at their discretion (both	
				proprietary and customer-related)	
				#10 We do not send out electronic IOIs	
11				1 1 11 110 40 do not send out electronic tels	
	1	1		1	

12	Indication of Interest (IOI)	IOI Tiering (Multiple Choice)	Do you operate tiering to determine how clients see which IOIs?	[Yes/No]	If Yes, please confirm which tier our firm is currently residing in, provide an overview/description of other tiers and explain your criteria and evaluation period for tiering.
13	Indication of Interest (IOI)	SOR Order Info Transmission in Europe (Multiple Choice)	Does any venue you access receive or transmit order information to other destinations or participants via liquidity indications or IOIs?	[Yes/No]	If Yes, please describe.
13	Indication of Interest (IOI)	Principal IOIs (Multiple Choice)	Does your firm have a platform or process for automatically generating principal or proprietary IOIs?	[Yes/No]	If Yes, are those IOIs available as actionable IOIs and please describe the nature of the platform and how these orders are tagged or categorized separately from client order originated or manual principal and proprietary IOIs.
45		Conflict of Interest Policy (Multiple Choice)	When was your firm's conflict of interest policy last updated?	Please select all that apply: [] #1 Within the past 1 year (please attach the policy) [] #2 Between 1-2 years (please attach the policy) [] #3 More than 2 years ago (please attach the policy)	
15		- Summary (Multiple Choice)	Select all that apply regarding your best execution policy.	Please select all that apply: [] #1 Our best execution policy states that we will reasonably seek to get the most favorable terms under the circumstances for each customer transaction give the customer's instructions [] #2 Our best execution policy considers client instructions, price, size of order, trading characteristics of the security, depth of liquidity, real-time and historic fill rates, speed of execution, price improvement opportunity, and cost of execution [] #3 We have a best execution committee that meets at least quarterly [] #4 We have a best execution committee that meets at least monthly [] #5 We require third parties that may execute on our behalf to provide written affirmation that they will adhere to our best execution expectations [] #6 We regularly review executions and our process to ensure we are achieving best execution [] #7 We do not have a formal best execution policy [] #8 We meet with clients to ensure our definition of best execution aligns with their expectations of best execution	
17	Smart Order Routing	Additional Liquidity (Multiple Choice)	Select all that apply to the process of notifying clients about additional liquidity sources for your SOR:	Please select all that apply: [] #1 Any non-temporary changes (additions/deletions of venues) to our SOR will be communicated to clients at least 1 week before implementation [] #2 Changes will be communicated on a best-efforts-only basis [] #3 We don't have a SOR	

	Smart Order Routing	Execution on a Venue in Europe	Which factors does your SOR consider	Please select all that apply:	
		(Multiple Choice)	when evaluating the likelihood of execution	[] #1 Current market share	
			on a venue (select all that apply)?	[] #2 Historical market share	
				[] #3 Fill rate	
				[] #4 Hit Rate	
				[] #5 Consistency of latency	
				[] #6 Latency	
				[] #7 Mean reversion	
				[] #8 Queue lengths	
				[] #9 Order Size	
				[] #10 Available quote size	
				[] #11 Historic execution speed	
				[] #12 Price improvement	
				[] #13 Estimated time to first fill	
				[] #14 Conditional invitations to trade	
				[] #15 We do not operate a SOR	
				[] #16 We do not utilize a SOR for clients	
				[] #17 Other (Put comments in the Explanation section below. DO NOT put web	
18				links/URLs there. Select all other options above that apply)	
	Smart Order Routing	SOR Best Execution Europe	Select all that apply regarding how your	Please select all that apply:	
		(Multiple Choice)	SOR achieves and monitors best execution	[] #1 Monitors displayed liquidity	
			in both lit and dark venues:	[] #2 Monitors non-displayed liquidity	
				[] #3 Optimizes for order size, liquidity, likelihood of execution	
				[] #4 Minimizes number of fills	
				[] #5 Simultaneous venue routing	
				[] #6 Simultaneous arrival of orders at venues	
				[] #7 Use of limit orders	
				[] #8 Monitors order queue length	
				[] #9 Best execution reports are generated on a daily basis to compare the	
				targeted quotes to the orders routed	
				[] #10 Factors that impact where an order is routed include fees and rebates	
				charges by the venue	
				[] #11 We have a best execution committee that meets at least quarterly	
				[] #12 Our SOR can utilize a minimum execution quantity (MEQ) measure	
				[] #13 Our SOR can dynamically adjust venue allocations during the life of an	
				order based on changing liquidity patterns	
				[] #14 We review each execution venue as part of a monthly best execution	
				analysis and review	
				[] #15 Other (Put comments in the Explanation section below. DO NOT put web	
19				links/URLs there. Select all other options above that apply)	

	Smart Order Routing	Timing Control in Europe	Please select all that apply (+Other if	Please select all that apply:	
	3	(Multiple Choice)	applicable) as it relates to the SOR controls	[] #1 Orders are routed such that they arrive at their respective venues around	
		,	for the timing of child orders sent to multiple	the same time	
			venues:	[] #2 The SOR monitors and measures IOC acknowledgement latency for all	
				markets	
				[] #3 We regularly measure the effectiveness of our routing based on a hit ratio	
				and the number of expected available shares executed	
				1 #4 We measure the delays in which we route to venues based on observed	
				round trip latency on a daily basis	
				[] #5 We regularly evaluate performance of our systems to ensure best execution	
				[] #6 We measure latency metrics to microsecond precision	
				[] #7 We can randomize order timing, sizing, limits, and venue selection in order	
				to reduce gaming	
				[] #8 We will only preference a route that is advantageous to the client	
				[] #9 We can delay routing to venues which are close to our SOR, and these	
				delays are reviewed regularly	
				[] #10 We may route to find non-displayed liquidity prior to routing to public	
				markets	
				[] #11 We do not use a SOR	
				[] #12 Other (Put comments in the Explanation section below. DO NOT put web	
00				links/URLs there. Select all other options above that apply)	
20	Casart Orden Devitina	Market Data Courses (Multiple	Colort all that are applicable so they relate	Diagon palest all that apply	
	Smart Order Routing	Market Data Sources (Multiple Choice)	Select all that are applicable as they relate to market data for your SOR:	Please select all that apply: [] #1 Our SOR uses all available quotes include full depth from direct venue data	
		Choice)	to market data for your SOR.	[] # Four Sor uses all available quotes include full depth from direct vehide data feeds	
				[] #2 We create our own proprietary European Best Bid Offer (EBBO)	
				[] #3 If there is a problem with any of our data feeds, we will remove that venue	
				from our EBBO calculation	
				[] #4 We use multiple low-latency market data providers	
				[] #5 Our SOR can handle a large amount of ticks per second and sustain	
				microbursts without performance degradation	
21				[] #6 We will always use the fastest market data feed if distinctly available	
	Smart Order Routing	SOR Technology (Multiple	Can the SOR be considered a separate	Please select all that apply:	
		Choice)	piece of technology with its own	[] #1 Separate technology	
			functionality, code base, infrastructure, etc.,	[] #2 Integrated platform	
1			or is it integrated into upstream order	[] #3 Other (Put comments in the Explanation section below. DO NOT put web	
22			execution decision-making?	links/URLs there. Select all other options above that apply)	
1	Smart Order Routing		Are there any configuration rules for our	[Yes/No]	If Yes, what venues
		(Multiple Choice)	firm's orders that cause a difference in		does the SOR have
			functionality from the default client rule set?		access but to which
000					our orders are not
23	Consort Order Desition	COD Dehender (Manthinto Ob. 1	And other details on musical to the COD	D/co/Nol	routed?
24	Smart Order Routing	SOR Benavior (Multiple Choice)	Are other details or nuances to the SOR	[Yes/No]	If Yes, please describe more.
	Smart Order Pouting	Pouting Decisions 2rd party	behavior not captured in other questions?	[Vos/No]	If Yes, please explain
25	Smart Order Routing	Routing Decisions - 3rd party decisions (Multiple Choice)	Do you delegate any routing decisions to third parties?	[Yes/No]	in more detail
	Smart Order Routing		Have fair-value mechanics been built into	[Yes/No]	
		(Multiple Choice)	your algo strategies, SOR, and non-		If No, please explain
26		·	displayed liquidity sources?		why
	Smart Order Routing	Number of SORs in Europe	Does your firm operate multiple SORs to	[Yes/No]	If Yes, please indicate
1		(Multiple Choice)	execute our orders (e.g., algorithm and cash		the differences in how
27			desk orders)?		they operate.

	Smart Order Routing	Proprietary SOR in Europe	Is your SOR developed in-house?	[Yes/No]	If No, please explain
	oman oraci recaming	(Multiple Choice)	lo year eer caerelepea iii iidada i	[[]	what customisation (if
		,			any) abilities you are
					able to add to its
					behaviour logic? Do
					you have regular
					discussions with the
					provider on
					performance and
					potential
28	3				improvements?
	FIX Tags	Additional FIX Tags in Europe	Are there additional FIX tags your firm may	[Yes/No]	•
		(Multiple Choice)	populate to a client that indicates any		
		,	information regarding the status of another		If Yes, please explain
29			client's order?		more.
	FIX Tags	FIX Tags - 29, 30, 851 (Multiple	Do you provide industry standard values for	[Yes/No]	
		Choice)	tag 29, 30, and 851 for each child order		If No, please describe
30			execution?		why.
	FIX Tags	MIC Code in Tag 30 (Multiple	If you trade with another firm's SI, do you	[Yes/No]	
		Choice)	provide that MIC Code in Tag 30 rather than		
31			the generic XOFF code?		
	FIX Tags	Customized Algo Tags in	Do you provide customized tags alongside	[Yes/No]	
		Europe (Multiple Choice)	the MIC code in Tag 30 to identify the type		
			of liquidity our client orders have interacted		If Yes, please explain
32	1		with?		in more detail
	Best Execution and	SOR Minimum Fill Size in	Select all that apply (+Other if applicable)	Please select all that apply:	
	Venue Selection	Europe (Multiple Choice)	regarding your minimum fill size protocol:	[] #1 Minimum fill size can be specified as notional amount, multiple of average	
				trade size or multiple lot	
				[] #2 It can be configurable by venue and client	
				[] #3 Clients can customize the minimum execution size	
				[] #4 We have both static minimum value and a dynamic minimum fill size	
				calculation	
				[] #5 Minimum fill size is determined by our proprietary methodology	
				[] #6 We re-evaluate minimum fill size regularly for all venues we connect	
				[] #7 By default we use 100 share minimum execution quantity	
				[] #8 Minimum fill sizes can be applied overall, on the venue level, and a strategy	
				level	
				[] #9 We don't have a default minimum size fill	
				[] #10 We review various statistics by venue (such as mark-outs) to determine	
				minimum size fills per venue	
				[] #11 Minimum fill sizes can be dynamically adjusted based on algo strategy	
				aggression	
				[] #12 We have a proprietary method to determine minimum size constraints	
				[] #13 We can adjust minimum fill size based on performance vs. various	
				benchmarks on a dynamic basis	
				[] #14 Other (Put comments in the Explanation section below. DO NOT put web	
33	3			links/URLs there. Select all other options above that apply)	

	Best Execution and	SOR Latency - Monitoring	Select all that apply (+Other if applicable)	Please select all that apply:	
	Venue Selection	connectivity in Europe (Multiple	regarding how you monitor the latency of	[] #1 We have identified all potential latency in our systems and optimized	
		Choice)	order routing and market data connectivity to		
			exchanges.	[] #2 We have an execution quality team/group than reviews all latency related	
				data on a regular basis (at least quarterly)	
				[] #3 We have real-time monitoring for abnormal latency	
				[] #4 We have monitoring applications that validate market data for latency	
				#4 We make morniously applications that validate market data for laterity	
				[] #6 We have turned a venue off due to latency issues	
				[] #7 We only rely on latency data from the exchanges/venues	
				[] #8 We can de-preference or disable venues based on latency characteristics	
				[] #9 We have multiple routes to most trading venues [] #10 We utilize a third party platform to measure latency	
				[] #10 We dulize a trind party platform to measure laterity	
				#11 We measure latency in finic oseconds of line increments #12 Other (Put comments in the Explanation section below. DO NOT put web	
36					
30	Best Execution and	Venue Selection in Europe - No	Are there venues you do not connect to or	links/URLs there. Select all other options above that apply)	
	Venue Selection	Posting/Taking (Multiple	connect to but where your firm does not post	[Yes/No]	If Yes, please describe
37		Choice)	or take liquidity?	·	why.
31	Best Execution and	Min Fill Opt-out in Europe	Do clients have the option to opt-out of the	[Yes/No]	Wily.
	Venue Selection	(Multiple Choice)	functionality of aggregating orders to fulfill	[165/140]	If Yes, how is the firm
38		(Multiple Choice)	minimum quantity?		treated?
30	Best Execution and	Client Venue Ont Out (Multiple	Do you allow clients to instruct you not to	[Yes/No]	If No, please explain
30	Venue Selection	Choice)	route orders to a particular venue?	[Tes/NO]	why.
39	Best Execution and	Volume Tiers in Europe	Do you change routing preferences to meet	[Yes/No]	Wily.
40	Venue Selection	(Multiple Choice)	volume tiers to reduce your costs?	[Tes/NO]	
40	Best Execution and	Routing Practices in Europe -	Do you have any ownership stakes or	[Yes/No]	If Yes, please list
	Venue Selection	Ownership in Venues (Multiple	interests in trading venues?	[Tes/NO]	venue and percentage
	Veriue Selection	Choice)	linterests in trading venues?		owned. Please attach
		Choice)			a copy of any policies
					designed to prevent
					conflicts-of-interest in
					routing to these
41					venues.
41	Best Execution and	Venue Preference in Europe	Do you preference one venue over another	[Yes/No]	venues.
	Venue Selection	(Multiple Choice)	due to a more favorable outcome to your	[Tes/No]	
	Veriue Selection	(Multiple Choice)	firm (i.e., lower exchange fees,		
					If Yes, please describe
42			shareholdings in specific venues, payment for order flow)?		why.
42	Best Execution and	Routing Practices in Europe -	Do you place any restrictions or caps on the	[Vec/No]	If Yes, what are the
	Venue Selection	Restrictions/Caps (Multiple	percentage of your client flow eligible for	[169/140]	determining factors for
	veriue Selection				those restrictions or
43		Choice)	routing to a particular venue?		caps?
+3	Best Execution and	Venue Selection - Quality	Have you ceased trading on a venue for a	[Yes/No]	If Yes, please explain
	Venue Selection	issues (Multiple Choice)	period of greater than one month in	[103/110]	why, how long you
	VOTIUE DEIECTION	issues (ividitiple Choice)	response to execution quality concerns in		ceased trading, and
			the last year?		what criteria you used
			ine iast year!		to decide to resume
44					trading.
- 44	Best Execution and	Venue Evaluation in Europe	Is internal and external venue evaluation	[Yes/No]	If No, please describe
15	Venue Selection	(Multiple Choice)	consistent?	[169/140]	the differences.
45	Best Execution and	Client Flow - Opt Out in Europe	Is it possible for clients to opt out of trading	[Yes/No]	If Yes, please list the
	Venue Selection			[169/140]	types of flow and
16		(Multiple Choice)	against specific flow types that participate		· ·
46	l	1	within your execution venues?		criteria for inclusion.

1	Best Execution and	Client Tiers (Multiple Choice)	Do you utilize client tiers?	[Yes/No]	If Yes, please describe
	Venue Selection				how you regularly
					maintain analysis of
					client "tiers" and how
					often changes are
47					made.
	Algorithmic Trading	Dark Trading Capture (Multiple	For your liquidity aggregation algorithm,	Please select all that apply:	
		Choice)	what proportion of dark trading (non-	[] #1 0-25%	
			displayed markets) did it capture in the	[] #2 26-50%	
			previous six months in the EEA?	[] #3 51-70%	
				[] #4 71-90%	
48				[] #5 91%+	
	Algorithmic Trading	Trade at Last (Multiple Choice)	Select all that apply (+Other if applicable) in	Please select all that apply:	
			regards to the "Trade At Last" venues:	[] #1 Clients may opt-in to execute in "Trade At Last" phases of primary	
				exchanges	
				[] #2 We allow access to primary exchanges TAL sessions by default	
				[] #3 Other (Put comments in the Explanation section below. DO NOT put web	
49				links/URLs there. Select all other options above that apply)	
	Algorithmic Trading	Primary Or Consolidated Data	Select all that apply (+Other if applicable)	Please select all that apply:	
		in Europe (Multiple Choice)	and are related to using market data in your	[] #1 Upon client request we can use volume feeds from the primary market	
			algorithmic strategies.	[] #2 We use direct exchange feeds with depth of book across the major	
				exchanges	
				[] #3 Client can opt for Primary market data only	
				[] #4 We exclude block trades from POV trade value calculations	
				[] #5 We include odd lot volume in our POV trade value calculations	
				[] #6 We include volume from multiple countries in all calculations in the case of	
				interlisted securities	
				[] #7 Other (Put comments in the Explanation section below. DO NOT put web	
50				links/URLs there. Select all other options above that apply)	
	Algorithmic Trading	Algo Ownership in Europe	Are your algorithmic trading strategies for	[Yes/No]	
		(Multiple Choice)	clients proprietarily developed in-house?		If No, please describe
					in more detail any third-
					party development
					relationships, and how
					often the algorithms
51					are re-evaluated

	Algorithmic Trading	SOR Performance in Europe (Multiple Choice)	Which items are part of maintaining and improving your algorithmic strategy or	Please select all that apply: [] #1 We have a mostly quantitative approach	
		,	SOR's performance (select all that apply)?	[] #2 We have a comprehensive testing and validation process for changes	
			117/	[] #3 We have a thorough risk assessment process requiring high level sign-off of	
				changes	
				[] #4 We have an internal committee that approves changes to our algorithmic or	
				SOR strategies	
				[] #5 We perform back testing on all changes	
				[] #6 We inform clients of all material changes to our algorithms and SOR	
				strategies	
				[] #7 We review performance at least quarterly	
				[] #8 Compliance or regulatory managers review all material changes	
				[] #9 We have a monthly committee or working group that reviews performance	
				[] #10 We communicate all material changes and improvements to clients on at	
				least a quarterly basis	
				[] #11 We test all improvements to our strategies with non-client orders	
				[] #12 We do A/B testing to improve the configuration of our strategies and venue	
				choices	
				[] #13 Other (Put comments in the Explanation section below. DO NOT put web	
52	A1 20 1 T 12	D :: M :: 5		links/URLs there. Select all other options above that apply)	
	Algorithmic Trading	Decision Making Framework in	Select all that apply (+Other if applicable)	Please select all that apply:	
		Europe (Multiple Choice)	concerning physical and electronic security	[] #1 We have a risk management committee that provides oversight of our	
			measures you have in place to protect	defense mechanisms and safeguards	
			against attacks or unauthorized access to	[] #2 We have a cyber risk management program [] #3 We have an information security policy	
			your algorithmic trading platform:	[] #4 Our policies and procedures related to security are reviewed at least	
				annually for required updates	
				[] #5 We have an access control group that manages and ensures only	
				authorized users can gain access to trading applications and client data	
				[] #6 We review the access list regularly to ensure authorized users are always up	
				to date	
				[] #7 We have a third party audit our access controls	
				[] #8 We have completed a third-party penetration test within the past 1 year, and	
				there are no additional disclosures necessary based off the results	
				[] #9 We perform a vulnerability analysis to proactively review our infrastructure	
				and applications for potential weaknesses on a regular basis	
				[] #10 Access to network computers, data centers, and sensitive applications are	
53				controlled by the CTO or similarly high ranking individual	
	Algorithmic Trading	Parent Level Crossing in	Can algorithm orders cross/match at the	[Yes/No]	if Yes, does this
		Europe (Multiple Choice)	parent order level or on a scheduled basis?		happen at the desk-
					level, or is it within a
					Centralized Risk Book
					or similar facility, and
					when/how would that
54	Algorithmia Tradica	Algo Controlo in France	Can your algoe everide COD verve	[Vea/Net]	trigger. If Yes, please describe
	Algorithmic Trading	Algo Controls in Europe	Can your algos override SOR venue	[Yes/No]	and include any ability
		(Multiple Choice)	restrictions or decisions when routing orders?		for the client to control
			loruers?		how algos select
55					venues.
33		ļ		1	venues.

	Algorithmic Trading	Automatic Speed Logic in	Do different clients have access to different	[Yes/No]	
	3	Europe (Multiple Choice)	(e.g., lower latency, higher throughput)		
		1 (1 - /	market data feeds or order entry		
			gateways/links depending on the client type,		If Yes, please explain
56			commission paid, or volume traded?		in more detail
	Algorithmic Trading	High Touch Only Algorithms	Do high-touch traders use the same algos	[Yes/No]	If No, please explain
57	3	(Multiple Choice)	when executing clients' orders?		the differences.
	Algorithmic Trading	SOR and Algo Separation in	Is there a clear separation between the	[Yes/No]	If No, please describe
	o o	Europe (Multiple Choice)	algorithm and SOR functionality, code base,		how the different parts
		,	infrastructure, etc.?		of the system interact
			,		and make execution
58					decisions.
	Non-Displayed	MTF Governance Framework	If you operate an MTF, select all that apply	Please select all that apply:	
	Liquidity Sources	(Multiple Choice)	regarding the governance framework:	[] #1 Our MTF has its own separate management structure	
				[] #2 Our MTF outsources our technology to a third-party	
				[] #3 We have an MTF governance committee	
				[] #4 Our MTF governance committee meets at least quarterly	
				[] #5 Our MTF operates their own real-time monitoring and surveillance	
59				[] #6 We do not have an MTF	
	Non-Displayed	LIS Process (Multiple Choice)	Select all that apply (+Other if applicable)	Please select all that apply:	
	Liquidity Sources		regarding your process to facilitate agency	[] #1 We facilitate crossing below LIS through our SI	
			crossing below Large In Scale:	[] #2 We facilitate crossing below LIS on an ad hoc basis	
				[] #3 We facilitate crossing below LIS in periodic auction facilities	
				[] #4 Other (Put comments in the Explanation section below. DO NOT put web	
60				links/URLs there. Select all other options above that apply)	
	Non-Displayed	MTF Restrictions (Multiple	Do you restrict trading at the firm- or desk-	[Yes/No]	If Yes, which metrics
	Liquidity Sources	Choice)	level in your MTF based on execution quality		are you monitoring,
			concerns?		and how often are you
					calculating and
					reviewing them? At
					what point would you
					communicate these
61					concerns to clients?
	Non-Displayed	Client Collocation in Europe	Can your clients collocate close to your non-	[Yes/No]	If Yes, what are the
62	Liquidity Sources	(Multiple Choice)	displayed liquidity sources?		advantages?
	Non-Displayed	MTF Minimum Order Size	Can clients specify a minimum acceptable	[Yes/No]	1657
	Liquidity Sources	(Multiple Choice)	quantity (MAQ) on your MTF?		If Yes, please describe
					how your MTF's
					minimum order size
63	0" + 0 = 5 : :: ::	louni i - i i i i			functionality works?
	Client Confidentiality	SI Disclosure - External SIs	Select all that are applicable as it relates to	Please select all that apply:	
		(Multiple Choice)	information disclosed to external SIs:	[] #1 Client identifying data is not sent to external SIs	
				[] #2 We do not share any profiling information to external SIs	
				[] #3 No information about the parent order is sent to external SIs	
64				[] #4 We don't access SIs	

Client Co	onfidentiality	Client Confidentiality in Europe	Select all that apply regarding client	Please select all that apply:	
		(Multiple Choice)	anonymity:	[] #1 Client anonymity is ensured through an alphanumeric ID system that can't	
				easily identify the client	
				[] #2 Systems between the electronic and high touch trading teams are different	
				[] #3 No client information is disclosed to external SIs or other trading venues	
				[] #4 We utilize a range of physical and procedural information barriers across	
				various lines of business	
				[] #5 Information is generally shared only on a need-to-know basis within the firm	
				[] #6 Client order information is limited to account coverage and supervisors	
				[] #7 Compliance, legal, risk management, and other senior leaders have	
				additional access and oversight	
				[] #8 We have policies and procedures designed to safeguard confidential	
				information of clients, including all trading activities	
				[] #9 We have information barriers in place to ensure confidential information is	
				not shared inappropriately	
				[] #10 All client data is managed on a "need to know" basis	
				[] #11 All clients are coded with non-identifiable identifiers to additional anonymity	
				[] #12 Operations personnel have access to our trade information for settlement	
				and clearing purposes only	
				[] #13 Any breaches in confidentiality outside of internal policies and procedures	
				are communicated swiftly to clients	
				[] #14 Clients are not coded, but can be upon request	
65					
	onfidentiality	Internal Communication -	Who has information about client electronic	Please select all that apply:	
	,	Approach (Multiple Choice)	orders and intra-day trading activity (select	[] #1 Principal traders	
		,	all that apply)?	[] #2 Data vendors	
			11 37	[] #3 IOIs	
				[] #4 Research personnel	
				[] #5 Cash sales traders	
				[] #6 Electronic sales traders	
				[] #7 Other (Put comments in the Explanation section below. DO NOT put web	
66				links/URLs there. Select all other options above that apply)	
Client Co	onfidentiality	Internal Transparency -	Select all that apply (+Other if applicable)	Please select all that apply:	
1 1		Department access (Multiple	regarding transparency of orders within the	[] #1 We have information barriers in place that keep client confidential	
		Choice)	electronic trading channel:	information in the electronic trading team	
				[] #2 At a client's request, we can make their order flow visible between the	
				electronic and high touch salestrader channels	
				[] #3 Electronic trading and high touch trading operate in separate order	
1 1				management systems	
1 1				[] #4 The electronic trading team sits in materially different area that the high	
1 1				tough trading team	
1 1				[] #5 We have robust controls to ensure information is properly protected	
				[] #6 Our algorithmic development team has access to client attributed electronic	
				trading data	
				[] #7 Electronic trading management has full access to client attributed electronic	
				trading data	
1 1				[] #8 By default, electronic trading flow is not shared with groups other than the	
1 1				electronic trading group	
				[] #9 All trading data is only available on a need-to-know basis	
67				[] #10 Other (Put comments in the Explanation section below. DO NOT put web	
07				links/URLs there. Select all other options above that apply)	

	Client Confidentiality	Affiliate Controls in Europe	Do you execute orders with any affiliates?	[Yes/No]	If Yes, what additional
	,	(Multiple Choice)	,		controls do you have
		, ,			in place to ensure
					conflicts are
					managed? What
					information is
					disclosed to these
					affiliates on an
					aggregated and order-
68					by-order basis?
	Risk Controls	Pre-trade Controls (Multiple	What order entry pre-trade controls have	Please select all that apply:	
		Choice)	been implemented by your firm to meet the	[] #1 Controls to mitigate a flash crash	
			requirements under European Union	[] #2 Controls if a stock is suspended	
			Delegated Regulation 2017/589 (select all	[] #3 Volume checks	
			that apply)?	[] #4 Minimum execution size (MES) parameters in non-displayed venues	
				[] #5 Implementation of fair value logic	
				[] #6 Client circuit breakers outside of defined parameters	
				[] #7 Order checks on notional size on an absolute and relative to ADV basis	
				[] #8 Algo throttling	
				[] #9 Order disablement when spreads widen	
				[] #10 Market order restrictions outside of auction hours	
				[] #11 Intra-day price checks	
				[] #12 Market abuse surveillance	
				[] #13 Unusual market behaviour	
				[] #14 Duplicate order checks	
				[] #15 Other (Put comments in the Explanation section below. DO NOT put web	
69				links/URLs there. Select all other options above that apply)	
	Risk Controls	Anti-Gaming Logic in Europe	What metrics does your firm's anti-gaming	Please select all that apply:	
		(Multiple Choice)	logic include (select all that apply)?	[] #1 Fair value price models to set limit prices	
				[] #2 Randomization of size and timing of orders	
				[] #3 Order sizes smaller than BBO size	
				[] #4 Venue specific minimum fill quantities	
				[] #5 Venue specific order size quantities	
				[] #6 Security specific order size quantities	
				[] #7 Monitor adverse price movement	
				[] #8 Monitor suspicious fill patterns	
				[] #9 Randomization techniques	
				[] #10 It overlays the entire algo suite	
				[] #11 It is algorithm specific	
				[] #12 It utilizes dynamically adjusted child limit prices	
				[] #13 It uses minimum fill sizes	
				[] #14 It can be configured by the client	
				[] #15 Other (Put comments in the Explanation section below. DO NOT put web	
70				links/URLs there. Select all other options above that apply)	

	Risk Controls	Standard Hard Reject (Multiple	Select all hard reject checks included in your	Please select all that apply:	
		Choice)	pre-trade risk controls:	[] #1 Limit price	
				[] #2 Percentage limit from previous close	
				[] #3 Order size to ADV	
				[] #4 Percentage from EBBO	
				[] #5 Daily client limit	
				[] #6 Individual client order size limit	
				[] #7 Authorized trader ID	
				[] #8 Order types	
				[] #9 Order shares limits	
				[] #10 Other (Put comments in the Explanation section below. DO NOT put web	
71				links/URLs there. Select all other options above that apply)	
	Risk Controls	Kill Functionality in Europe	Select all that apply (+Other if applicable)	Please select all that apply:	
		(Multiple Choice)	regarding the "kill functionality" within your	[] #1 There is ability to immediately cancel all unexecuted orders to any and all	
			algorithmic trading platform.	venues for any and all clients	
				[] #2 There are fully documented roles and responsibilities and escalation paths	
				to trigger kill switches	
				[] #3 It meets compliance with MiFID requirements	
				[] #4 It has the ability to prohibit new orders from routing to any and all venues as	
				needed	
				[] #5 Kill functionality can be initiated if there is unusual market conditions	
				[] #6 The kill switch functionality is tested at least annually	
				[] #7 Our kill functionality must be approved by the head of the trading desk or	
				senior management in order to be activated	
				[] #8 Any front-office member can activate a kill switch	
				[] #9 Operations staff in charge of monitoring the trading system health and/or	
				market activity can activate a kill switch	
				[] #10 We notify clients immediately if a kill switch is initiated with a follow up	
				regarding the issue and impact as soon as practically possible	
				[] #11 We have invoked the kill switch functionality during live trading within the	
1				past year	
				[] #12 Other (Put comments in the Explanation section below. DO NOT put web	
72				links/URLs there. Select all other options above that apply)	

	Risk Controls	Algorithm Safeguards in Europe	Select all that apply (+Other if applicable)	Please select all that apply:	
		(Multiple Choice)	regarding any safeguards or protections	[] #1 We have a committee that approves all controls, such as those that are	
		(Manapie Grieles)	around algorithm execution for limit prices	related to ADV, notional value, order quantity, and intra-day price movements	
			away from the market, extreme security	[] #2 We have pre- and intra-trade controls to prevent the entry of orders that	
			price moves, etc.	exceed pre-set parameters	
			price mevee, etc.	[] #3 We have a kill switch for our algorithms	
				[] #4 All algorithmic orders are sent with price limits	
				[] #5 Clients have the capability to automatically pause orders (child or parent	
				level) that move a percentage away from the arrival price or other types of	
				benchmarks	
				[] #6 Clients have the ability to set up customized circuit breakers across their	
				orders	
				[] #7 We utilize volatility collars to manage orders	
				[] #8 We can systematically avoid sending orders that would violate the current	
				clearly erroneous guidelines	
				[] #9 We use of a fair value model	
				#10 We use of static risk checks	
				#11 We can disable an aggressive algo when the spread appears high	
				[] #12 We can disable market orders outside of auction market hours	
				[] #13 We can Disable algos during high security specific relative volatility	
				[] #14 We utilize size and price checks on high ADV orders	
				[] #15 Other (Put comments in the Explanation section below. DO NOT put web	
73				links/URLs there. Select all other options above that apply)	
		,	Select all that apply (+Other if applicable) as		
		Arrangements in Europe	they relate to business continuity	[] #1 We have BCP locations in the European region	
		(Multiple Choice)	arrangements that support the algorithmic	[] #2 We have BCP locations outside the European region	
			trading platform:	[] #3 We have redundant server rooms in our data center	
				[] #4 We have a hot standby data center located away from our main data center	
				[] #5 We have matching engines and client connectivity in an alternative location	
				[] #6 We have a dedicated business continuity team responsible to the trading	
				function	
				[] #7 In a business continuity situation, we can operate fully as normal	
				[] #8 All our traders and essential personnel can work from home if needed	
1				[] #9 Clients are immediately notified if we move any of our operations due to an	
				event that requires a business continuity action	
				[] #10 We have a crisis management plan that was reviewed within the past year, and found no areas of improvement	
] #11 We have a crisis management plan that was reviewed within the past year,	
				and found areas of improvement	
				and round areas or improvement	
74					
<u> </u>	1	l .		1	

75		Post-Trade Controls in Europe (Multiple Choice)	Please select all that apply to post-trade controls that will ensure algorithmic strategies perform as intended:	Please select all that apply: [] #1 We have a governance framework in place [] #2 We have real-time monitoring that compares trading activity and relevant statistics to historical averages [] #3 We monitor and review exceptions created throughout the trading session [] #4 We have a best execution committee that meets at least quarterly to review the performance of our strategies [] #5 We regularly compare our trading costs relative to historic norms and other benchmarks to ensure continued and consistent expected performance [] #6 We have a robust post-trade TCA process that measures latency, IOC success rates, market impact, and price reversion [] #7 We regularly monitor the trading capacity of our platform to ensure our infrastructure is scaling properly [] #8 Other (Put comments in the Explanation section below. DO NOT put web links/URLs there. Select all other options above that apply)	
76	Risk Controls	Annual Self-assessment (Multiple Choice)	When did you last complete your annual self- assessment and stress testing of your algorithmic trading platform as required under European Union Delegated Regulation 2017/589?	Please select all that apply: [] #1 Within the past 6 months (Please attach latest testing results) [] #2 Between 6 months and 1 year (Please attach latest testing results) [] #3 More than 1 year ago (Please attach latest testing results)	
77	Risk Controls	(Multiple Choice)	Do you have a team dedicated to real-time monitoring of the algorithmic trading platform and strategy execution?	[Yes/No]	If Yes, please describe and include: (a) what groups are responsible for real-time monitoring, and what are their responsibilities (e.g., surveillance, pre-trade risk controls, client risk exposure, etc) (b) what tools are used to monitor the algorithmic trading platform and strategy execution real-time (c) what is the escalation path if issues arise
78			Has your firm had any regulatory breaches or fines in the past one year related to trading services?	[Yes/No]	If Yes, please describe.
79		Soft Hold Checks in Europe (Multiple Choice)	Select all the apply (+Other if applicable) regarding standard soft hold checks:	Please select all that apply: [] #1 All checks are done manually [] #2 We apply soft rejects rules for DMA and DSA separately [] #3 We soft reject orders when they breach out internal risk limits [] #4 Clients are informed immediately upon reject [] #5 We have risk management controls in place that are designed to ensure compliance with market access rules [] #6 We have soft rejects related to order size relative to ADV [] #7 We have soft rejects related to total notional size of an order [] #8 Other (Put comments in the Explanation section below. DO NOT put web links/URLs there. Select all other options above that apply)	

	Record Keeping	Client Reports (Multiple Choice)	Client trading data and reports are (select all	Please select all that apply:	
		, ,	that apply):	[] #1 Governed by a uniform process of creating, managing, securing, and	
			11 37	disposing of all trading related records Not printed, and only maintained in	
				electronic format	
				[] #2 Maintained in accordance with regulatory requirements and subject to	
				comprehensive data security and retention policies	
				[] #3 In compliance with MiFID III record retention obligations	
				[] #4 Governed by policies that protect the confidential information of clients and	
				is disposed of according to records management policies	
				[] #5 Destroyed using a secure document destruction service	
80				links/URLs there. Select all other options above that apply)	
- 00	Systematic Internalizer	Maximize Fill Rates (Multiple	Select all applicable factors you consider	Please select all that apply:	
	Cystematic internalizer	Choice)	when evaluating SIs to maximize execution	[] #1 Available prices	
		Grioloc)	quality:	[] #2 Speed of execution	
			quanty.	[] #3 Likelihood of execution	
				[] #4 Size of order	
				[] #5 Market volatility	
				[] #6 Overall cost of execution	
				[] #7 Fill rates	
				[] #8 Tick to trade latency	
				[] #9 We don't access SIs	
				#9 We don't access sis	
81				links/URLs there. Select all other options above that apply)	
01	Systematic Internalizer	SI - Information Disclosure	Select all that are applicable as it relates to	Please select all that apply:	
	•	(Multiple Choice)	information disclosed to your SI:	[] #1 Client identifying data is not sent to our SI	
		(Multiple Choice)	Illionnation disclosed to your St.	[] #2 We do not share any profiling information to our SI	
				[] #3 No information about the parent order is sent to our SI	
82				[] #4 We do not have or run a SI	
02	Systematic Internalizer	SI - External routing (Multiple	What statements apply to orders being	Please select all that apply:	
	Cysternatic internalizer	Choice)	routed to an external SI:	[] #1 Clients are automatically opted-in to access external SIs as part of the	
		Grioloc)	Touted to an external of.	default access set-up	
				[] #2 Our SOR will route to an external SI if the venue is enabled and the price is	
				the same or better as a the public market price	
				[] #3 We always route to an SI on a Fill or Kill basis	
				[] #4 We will not sweep an SI and lit markets at the same time	
				[] #5 We will not route to an SI if we believe it will compromise the quality of the	
				residual order, if there will be one	
				[] #6 Our SOR will not blindly ping an SI or any other liquidity sources	
				[] #7 External SI performance is monitored real-time and reviewed at least	
				quarterly	
				[] #8 If one SI can satisfy the order quantity, we will route the entire order to that	
				1 #6 if one St can satisfy the order quantity, we will route the entire order to that	
] #9 If more than one SI can satisfy the order quantity, we will utilize historical	
				performance data to determine where the order will be routed	
83				[] #10 We don't route to an SI	
- 55		Latency Arbitrage (Multiple	How confident are you that clients are not	Please select all that apply:	
		Choice)	risking latency arbitrage by utilizing external	#1 Confident	
			SI operators?	[] #2 Very Confident	
			or operators:	[] #3 100% sure	
84				[] #4 We don't access external SIs	
04				#4 We don't access external ais	

	Systematic Internalizer	Client Order Information	Select all that are applicable as it relates to	Please select all that apply:	
	,	(Multiple Choice)	information passed to your CRB:	[] #1 No client information is passed	
		,	i i	[] #2 Only security, quantity, price, and side are disclosed	
				[] #3 No client profiling information is disclosed	
				[] #4 We do not have or run a CRB	
				## We do not have or failed only	
				[] #6 Clients must opt in for order to orders accessing our CRB (no access by	
85					
00	Custometic Internalizar	SI Priority (Multiple Choice)	Select all that are applicable in regards to	default) Please select all that apply:	
	Systematic internalizer	31 Priority (Multiple Choice)			
			routing priority if my firm opts into external	[] #1 Our SOR does not preference any liquidity source	
			SIs:	[] #2 Routing to external Sis is integrated into our core routing logic	
				[] #3 We will route to an SI before lit markets if enabled for that specific client	
				[] #4 We will only route to the SI if the price is at the same or better price as the lit	
				market and for a size that is greater or equal to the quantity we wish to trade	
				[] #5 We will attempt to trade with internal liquidity before routing to a external SI	
				[] #6 Routing priorities will always depend on the execution objectives and client	
				preferences	
				[] #7 We have policies and procedures in place that identify and prevent conflicts	
				of interest	
86					
	Systematic Internalizer	SI Policy - Quoting (Multiple	Select all that apply in regards to your SIs	Please select all that apply:	
		Choice)	quoting policy for size and price:	[] #1 The price and size we offer is subject to the risk profile of our risk function	
				[] #2 We comply with minimum quote obligations within MiFID II	
				[] #3 We will provide firm quotes to reflect prevailing market conditions in sizes up	
				to the relevant security SMS	
87				[] #4 We do not have an SI	
	Systematic Internalizer	Internal Source Access	The internal sources of liquidity accessible	Please select all that apply:	
		(Multiple Choice)	by your SOR include (select all that apply):	[] #1 The SOR doesn't access internal liquidity	
		,	, , , , , , , , , , , , , , , , , , , ,	[] #2 Our SI	
				[] #3 Our CRB	
				[] #4 Our MTF	
				[] #5 Our Inventory	
				[] #6 Other (Put comments in the Explanation section below. DO NOT put web	
88				links/URLs there. Select all other options above that apply)	
30	Systematic Internalizer	Internal Conflicts - SI (Multiple	Within your SI, you manage conflicts of	Please select all that apply:	
	-	Choice)	interest by (select all that apply):	[] #1 A governance committee	
			interest by (boroot an indicapply).	[] #2 Policies and procedures designed to identify and prevent conflicts of interest	
				lunder MiFID II	
				[] #3 Physical, electronic, and procedural information barriers set up relating to	
				order handling within our SI	
89				[] #4 Other (Put comments in the Explanation section below. DO NOT put web	
09	Systematic Internalizer	Oversizing in SIs (Multiple	Select all that apply in regards to oversizing	links/URLs there. Select all other options above that apply) Please select all that apply:	
		Choice)	to external SIs:	[] #1 We don't oversize orders to SIs	
		0110100)	to external org.] #2 We send orders to external SIs on a Fill or Kill basis	
				[] #3 We will oversize when we believe it is reasonable chance additional liquidity	
				is available to be executed	
				[] #4 We may oversize orders to external Sis	
000				[] #5 Other (Put comments in the Explanation section below. DO NOT put web	
90				links/URLs there. Select all other options above that apply)	

Multiple Choice) performance and potential venue/countermances and that apply): 91 Systematic International Livingue Livingue In Jungue Livingue In Venue Choice) Systematic International Chicago International Chic		Systematic Internalizer	Market Maker Review in Europe	Our governance process around market	Please select all that apply:	
wemencounterparry toxicity includes (select of all that apply): all that apply): all that apply): 3						
all that apply): pope on our customers 3 kW oc conduct reviews at least on a quarterly basis 3 kW oc conduct reviews at least on a quarterly basis 3 kW oc conduct reviews at least on a quarterly basis 3 kW oc conduct reviews at least on a quarterly basis 3 kW oc conduct reviews at least on a quarterly basis 3 kW oc conduct reviews at least on a quarterly basis			(manupie energy	ļ. ·	,	
1 87 We conduct reviews at least on a quarterly basis 1 44 We review mit-point use, fill rates, quote stability, hit rates, noute efficiency, price improvement and other metrics 1 85 OF All abcurations to make the makers are on an op-in basis only 2 8 Systematic Internalizer				. , , , , , ,	1	
Systematic Internalizer (Multiple Choice) Systematic Internalizer (S. F. Fili Types (Multiple Choice) Systematic Internalizer (Multiple Choice) Systematic Internalizer (S. F. Fili Types (Multiple Choice) Systematic Internalizer (S.				an that apply).	l'	
Systematic Internalizer Systematic Internalizer Onice) Systematic Internalizer Systematic Internaliz						
Systematic Internalizer (Multiple Choice) Systematic Internalizer (Choice) Systematic Internalizer (Multiple Choice) Systematic Internalizer (Multiple						
Systematic Internalizer (Multiple Choice) Select all that apply regarding how your first evaluates execution quality by individual market makers: Select all that apply regarding how your first evaluates execution quality by individual market makers: 18 We conclude that apply: 18 We conclude that apply: 18 We compare order sizes: 18 We evaluated this rates: 18 We evaluated bit sizes:						
Systematic Internalizer Chique Liquidity in Europe Multiple Choice Multiple Choice Select all that apply regarding how your firm evaluation arket makers: 1 #1 We explain reversion 1 #2 We calculate fill rates 1 #3 We compare short sizes 1 #4 We calculate fill rates 1 #4 We calculate price improvement 1 #5 We calculate price improvement 1 #5 We calculate price improvement 1 #6 We calculate price improvement 1 #6 We calculate price improvement 1 #6 We calculate shippings to Mid May WWAP 1 #6 We want when the work of the May WWAP 1 #6 We want when the William 1 #	01				1	
Multiple Choice evaluates execution quality by individual market makers: 1 #2 We calculated fill rates 1 #2 We cance quote profiles 1 #3 We compare order sizes 1 #4 We calculated fill rates 1 #4 We calculated fill rates 1 #4 We canced quote profiles 1 #4 We calculated price improvement 1 #5 We create quote profiles 1 #5 We create quote profiles 1 #6 We assure reversion to close 1 #4 We calculated price improvement 1 #5 We create quote profiles 1 #6 We assure reversion to close 1 #6 We assure reversion 1 #6 We assure revers	31	Systematic Internalizer	Unique Liquidity in Europe	Select all that apply regarding how your firm		
market makers:		Systematic internalizer		, ,	1	
1 3 3 3 3 3 3 3 3 3			(Multiple Choice)		1	
I ## We calculate price improvement ## We calculate price improvement ## We calculate price improvement ## We calculate slippage to full day VWAP				illarket illakers.		
Systematic Internalizer						
Systematic Internalizer Choice) Are you sware of and understand, each market maker's unwind policy and and start with a sport of a special content of the systematic Internalizer Choice) Systematic Internalizer Choice Choice) Systematic Internalizer Choice Choic					1	
Systematic Internalize Systematic Internalize Choice Systematic Internalize Choice Systematic Internalize Choice Systematic Internalize Systematic Intern					1 1	
1 #8 We calculate slippage to full day VWAP 1 #9 We measure reversion to close 1 #10 We evaluate hit rates 1 #10 We will not versize an outbound order to an external Size 1 #10 We will not versize an outbound order to an external size 1 #10 We will not versize an outbound order to an external					1	
1 # 90 We reason to close # 1 # 90 We reason to close # 1 # 90 We reason to close # 1 # 90 We reason to close # 1 We reason to close					1	
92 Systematic Internalizer Choice) Systematic Internalizer Choice) Systematic Internalizer Choice) Systematic Internalizer Choice) Market Makers (Multiple Choice) Please select all that apply: Systematic Internalizer Implementation Model (Multiple Choice) Systematic Internalizer Unwind Policy (Multiple Choice) Systematic Internalizer Unwind Policy (Multiple Choice) Systematic Internalizer Systematic Internal					1. 0	
Systematic Internalizer Market Makers (Multiple Choice) If your SOR only sweeps some market makers, select all that apply (+Other if applicable) as it relates to your selection process: If We set price and size constraints on external SIs applicable) as it relates to your selection process: If We will not oversize an outbound order to an SI relative to a quote received If We will not oversize an outbound order to an SI relative to a quote received If We will not oversize an outbound order to an SI relative to a quote received If We will not oversize an outbound order to an SI relative to a quote received If We will not oversize an outbound order to an SI relative to a quote received If We will not oversize an outbound order to an SI relative to a quote received If We will not oversize an outbound order to an SI relative to a quote received If We will not oversize an outbound order to an SI relative to a quote received If We will not oversize an outbound order to an SI relative to a quote received If We will not oversize an outbound order to an SI relative to a quote received If We will not oversize an outbound order to an SI relative to a quote received If We will not oversize an outbound order to an SI relative to a quote received If We will not oversize an outbound order to an SI relative to a quote received If We will not oversize an outbound order to an SI relative to a quote received If We will not oversize an outbound order to an SI relative to a quote received If We will not oversize an outbound order to an Size possible If We will not oversize an outbound order to an Size possible If We will not oversize an outbound order to an Size possible If We will not oversize an outbound order to an Size possible If We will not oversize an outbound order to an Size possible If We will not oversize an outbound order to an Size possible If We will not oversize an outbound order to an Size possible If We will not oversize an outbound order to an Size possible If					1	
Systematic Internalizer Choice) Systematic Internalizer Implementation Model (Multiple Choice) Systematic Internalizer Unwind Policy (Multiple Choice) Systematic Internalizer Unwind Policy (Multiple Choice) Systematic Internalizer						
Choice) makers, select all that apply (+Other if applicable) as it relates to your selection process: 1	92					
applicable) as it relates to your selection process: 34 Statemal Sis must be opted-in by each cilent 34 Statemal Sis must complete out due diligence questionnaire 34 Statemal Sis must complete our due diligence questionnaire 34 Statemal Sis must complete our due diligence questionnaire		Systematic Internalizer	` .		1	
process: [] #3 External Sis must be opted-in by each client] #4 We will attempt to fill an order with as few market makers as possible] #5 Market share and unique liquidity are important to the onboarding process for an SI #6 We don't have a SOR #7 Other (Put comments in the Explanation section below. DO NOT put web limbs/URLs there. Select all other options above that apply) Systematic Internalizer Implementation Model (Multiple The process and implementation model for adding a new SI to your SOR include (select all that apply): We will only trade with our proprietary orders on any new SI or venue at first, to determine execution quality #2 All Sis added to our SOR must complete our due diligence questionnaire #3 We will only trade with our proprietary orders on any new SI or venue at first, to determine execution quality on a new SI for a period of at least 1 month before introducing client orders for execution #5 We have a best execution committee that approves all new venues Systematic Internalizer Unwind Policy (Multiple Choice) Are you aware of and understand, each market maker's unwind policy and internalization rates? Yes/No] Yes/No]			Choice)		1	
3 3 3 4 4 4 4 4 4 4				, ,	1	
Systematic Internalizer Systematic Inter				process:	1	
Systematic Internalizer Implementation Model (Multiple Choice) The process and implementation model for adding a new SI to your SOR include (select all that apply): Please select all that apply connect to all SIs that or venues that offer meaningful inquidity #2 All SIs added to our SOR must complete our due diligence questionnaire #3 We will only trade with our proprietary orders on any new SI or venue at first, to determine execution quality #2 All SIs added to our SOR must complete our due diligence questionnaire #3 We will only trade with our proprietary orders on any new SI or venue at first, to determine execution quality #4 All SIs added to our SOR must complete our due diligence questionnaire #3 We will only trade with our proprietary orders on any new SI or venue at first, to determine execution quality #4 All SIs added to our SOR must complete our due diligence questionnaire #3 We will only trade with our proprietary orders on any new SI or venue at first, to determine execution quality #4 All SIs added to our SOR must complete our due diligence questionnaire #3 We will only trade with our proprietary orders on any new SI or venue at first, to determine execution quality #4 All SIs added to our SOR must complete our due diligence questionnaire #4 All SIs added to our SOR must complete our due diligence questionnaire #4 All SIs added to our SOR must complete our due diligence questionnaire #4 All SIs added to our SOR must complete our due diligence questionnaire #5 All SIs added to our SOR must complete our due diligence questionnaire #6 All SIs added to our SOR must complete our due diligence questionnaire #6 All SIs added to our SOR must complete our due diligence questionnaire #6 All SIs added to our SOR must complete our due diligence questionnaire #6 All SIs added to our SOR must complete our due diligence questionnaire #6 All SIs added to our SOR must complete our due diligence questionnaire #7 All SIs added to our SOR must complete our due dilige						
Systematic Internalizer Implementation Model (Multiple Choice) The process and implementation model for adding a new SI to your SOR include (select all that apply): #2 All SIs added to our SOR must complete our due diligence questionnaire 1 #3 We will only trade with our proprietary orders on any new SI or venue at first, to determine execution quality 1 #4 We review execution quality 1 #4 We review execution quality 1 #5 We have a best execution committee that approves all new venues If No, please describe why. Wes/No]					[] #5 Market share and unique liquidity are important to the onboarding process	
Systematic Internalizer Implementation Model (Multiple Choice) Systematic Internalizer Implementation Model (Multiple Choice) The process and implementation model for adding a new SI to your SOR include (select all that apply): [] ## We will promptly connect to all SIs that or venues that offer meaningful liquidity [] ## We will promptly connect to all SIs that or venues that offer meaningful liquidity [] ## We will promptly connect to all SIs that or venues that offer meaningful liquidity [] ## We will promptly connect to all SIs that or venues that offer meaningful liquidity [] ## We will promptly connect to all SIs that or venues that offer meaningful liquidity [] ## We will promptly connect to all SIs that or venues that offer meaningful liquidity [] ## We will promptly connect to all SIs that or venues that offer meaningful liquidity [] ## We will promptly connect to all SIs that or venues that offer meaningful liquidity [] ## We will promptly connect to all SIs that or venues that offer meaningful liquidity [] ## We will promptly connect to all SIs that or venues that offer meaningful liquidity [] ## We will promptly connect to all SIs that or venues that offer meaningful liquidity [] ## We will promptly connect to all SIs that or venues that offer meaningful liquidity [] ## We will promptly connect to all SIs that or venues that offer meaningful liquidity [] ## We will promptly connect to all SIs that or venues that offer meaningful liquidity [] ## We will promptly connect to all SIs that or venues that offer meaningful liquidity [] ## We will promptly connect to all SIs that or venues that offer meaningful liquidity [] ## We very execution quality on a new SI for a period of at least 1 month before introducing client orders for execution quality on a new SI for a period of at least 1 month before introducing client orders for execution quality on a new SI for a period of at least 1 month before introducing client orders for execution quality on a new SI for a period of at least 1 month before introdu					for an SI	
Systematic Internalizer Choice Implementation Model (Multiple Choice) The process and implementation model for adding a new SI to your SOR include (select all that apply): 1#1 W will promptly connect to all SIs that or venues that offer meaningful liquidity 1#2 All SIs added to our SOR must complete our due diligence questionnaire 1#3 We will only trade with our proprietary orders on any new SI or venue at first, to determine execution quality on a new SI for a period of at least 1 month before introducing client orders for execution 1#5 We have a best execution committee that approves all new venues 1 f No, please describe why. 1 f No, please describe w					[] #6 We don't have a SOR	
Systematic Internalizer Choice) Systematic Internalizer Implementation Model (Multiple Choice) Systematic Internalizer Implementation Model (Multiple Choice) Systematic Internalizer Internalizer Systematic Internalizer Systematic Internalizer Systematic Internalizer Internalizer Systematic Internalizer Internalizer Systematic Internalizer Internalizer Internalizer Internalizer Systematic Internalizer Internalizer Internalizer Internalizer Systematic Internalizer Internalizer Systematic Internalizer Internalizer Internalizer Internalizer Systematic Internalizer Internalizer Systematic Internalizer Internalizer Systematic Internalizer Internalizer Internalizer Systematic Internalizer Internalizer Systematic Internalizer Internalizer Internalizer Internalizer Systematic Internalizer Internalizer Internalizer Internalizer Internalizer Internalizer Systematic Internalizer Internalizer Internalizer Internalizer Internalizer Internalizer Systematic Internalizer In					[] #7 Other (Put comments in the Explanation section below. DO NOT put web	
Systematic Internalizer Implementation Model (Multiple Choice) The process and implementation model for adding a new SI to your SOR include (select all that apply): # We will promptly connect to all SIs that or venues that offer meaningful liquidity # We will only trade with our proprietary orders on any new SI or venue at first, to determine execution quality # We review execution quality # We review execution quality # We have a best execution committee that approves all new venues # We have a best execution committee that approves all new venues # We have a best execution committee that approves all new venues # We have a best execution committee that approves all new venues # We have a best execution committee that approves all new venues # We have a best execution committee that approves all new venues # We have a best execution committee that approves all new venues # We have a best execution committee that approves all new venues # We have a best execution committee that approves all new venues # We have a best execution committee that approves all new venues # We have a best execution committee that approves all new venues # We have a best execution committee that approves all new venues # We have a best execution committee that approves all new venues # We have a best execution committee that approves all new venues # We have a best execution committee that approves all new venues # We have a best execution committee that approves all new venues # We have a best execution committee that approves all new venues # We have a best execution committee that approves all new venues # We have a best execution committee that approves all new venues # We have a best execution committee that approves all new venues # We have a best execution committee that approves all new venues # We have a best execution committee that approves all new venues # We have a best execution committee that approves all new venues # We have a best execution committee that app					links/URLs there. Select all other options above that apply)	
Choice) adding a new SI to your SOR include (select all that apply): 3	93					
all that apply): Iquidity #2 All Sls added to our SOR must complete our due diligence questionnaire #3 We will only trade with our proprietary orders on any new SI or venue at first, to determine execution quality on a new SI for a period of at least 1 month before introducing client orders for execution		Systematic Internalizer	Implementation Model (Multiple	The process and implementation model for	Please select all that apply:	
Systematic Internalizer Unwind Policy (Multiple Choice) Are you aware of and understand, each market maker's unwind policy and internalization rates? Systematic Internalizer Systematic Inter			Choice)	adding a new SI to your SOR include (select	[] #1 We will promptly connect to all SIs that or venues that offer meaningful	
3 3 3 3 4 3 4 4 5 5 5 5 5 5 5 5				all that apply):	liquidity	
by to determine execution quality [] #4 We review execution quality on a new SI for a period of at least 1 month before introducing client orders for execution [] #5 We have a best execution committee that approves all new venues Systematic Internalizer Unwind Policy (Multiple Choice) Are you aware of and understand, each market maker's unwind policy and internalization rates? Systematic Internalizer SI Profiling (Multiple Choice) Are you separating the flow you send to SIs into profiles, such as toxic/benign, short/long duration flow, and beginning/end of parent order? Systematic Internalizer SI - Fill Types (Multiple Choice) Does your SI fill both passive and aggressive orders? Systematic Internalizer Systematic Internalizer Interaction Suspension (Multiple Choice) Has your firm ever had any cause to suspend interactions with any SI's? Systematic Internalizer Systematic Internalizer Interaction Suspension (Multiple Choice) Systematic Internalizer Systematic Internalizer Interaction Suspension (Multiple Choice) Systematic Internalizer Systematic Internalizer Interaction Suspension (Multiple Choice) Interaction Sus					[] #2 All SIs added to our SOR must complete our due diligence questionnaire	
Systematic Internalizer Unwind Policy (Multiple Choice) Are you aware of and understand, each market maker's unwind policy and internalization rates? Systematic Internalizer Unwind Policy (Multiple Choice) Are you aware of and understand, each market maker's unwind policy and internalization rates? If No, please describe why. If No, please describe why.					[] #3 We will only trade with our proprietary orders on any new SI or venue at first,	
Systematic Internalizer Unwind Policy (Multiple Choice) Are you aware of and understand, each market maker's unwind policy and internalization rates? Systematic Internalizer Unwind Policy (Multiple Choice) Are you aware of and understand, each market maker's unwind policy and internalization rates? If No, please describe why. If No, please describe why.					to determine execution quality	
Systematic Internalizer Unwind Policy (Multiple Choice) Are you aware of and understand, each market maker's unwind policy and internalization rates? Systematic Internalizer Systematic Inter					' '	
Systematic Internalizer Unwind Policy (Multiple Choice) Are you aware of and understand, each internalization rates? Systematic Internalizer Systemat						
Systematic Internalizer Unwind Policy (Multiple Choice) Are you aware of and understand, each market maker's unwind policy and internalization rates? Systematic Internalizer	94					
market maker's unwind policy and internalization rates? Systematic Internalizer SI Profiling (Multiple Choice) Are you separating the flow you send to SIs into profiles, such as toxic/benign, short/long duration flow, and beginning/end of parent order? Systematic Internalizer SI - Fill Types (Multiple Choice) Systematic Internalizer Systematic Internalizer Internalizer Systematic Internalizer Systematic Internalizer Internalizer Systematic Internalizer Systematic Internalizer Systematic Internalizer Interaction Suspension (Multiple Choice) Systematic Internalizer Systema	<u> </u>		Unwind Policy (Multiple Choice)	Are you aware of and understand, each		
95 Systematic Internalizer SI Profiling (Multiple Choice) Are you separating the flow you send to SIs into profiles, such as toxic/benign, short/long duration flow, and beginning/end of parent order? Systematic Internalizer SI - Fill Types (Multiple Choice) Does your SI fill both passive and aggressive orders? Systematic Internalizer Internalizer Choice) Systematic Internalizer Choice) Interaction Suspension (Multiple Choice) Systematic Internalizer Choice) Systematic Internalizer Choice) Interactions with any SI's? Systematic Internalizer Choice) Interactions with any SI's? Systematic Internalizer Choice) SI - Fill Types (Multiple Choice) Interactions with any SI's? Systematic Internalizer Choice) Interactions with any SI's?	1	,	(If No. please describe
Systematic Internalizer SI Profiling (Multiple Choice) Are you separating the flow you send to SIs into profiles, such as toxic/benign, short/long duration flow, and beginning/end of parent order? Systematic Internalizer SI - Fill Types (Multiple Choice) Systematic Internalizer SI - Fill Types (Multiple Choice) Systematic Internalizer Internalizer Choice) Systematic Internalizer Internalizer Choice) Systematic Internalizer Choice) Systematic Internalizer Choice) Are you separating the flow you send to SIs into profiles, such as toxic/benign, short/long duration flow, and beginning/end of parent order? [Yes/No] [Yes/No] If Yes, please name the SI, why they were suspended and for	95			, ,		• •
into profiles, such as toxic/benign, short/long duration flow, and beginning/end of parent order? Systematic Internalizer SI - Fill Types (Multiple Choice) Does your SI fill both passive and aggressive orders?	30		SI Profiling (Multiple Choice)		[Yes/No]	
duration flow, and beginning/end of parent order? Systematic Internalizer SI - Fill Types (Multiple Choice) Does your SI fill both passive and aggressive orders? Systematic Internalizer Interaction Suspension (Multiple Choice) Has your firm ever had any cause to suspend interactions with any SI's? Systematic Internalizer Interaction Suspension (Multiple Choice) If Yes, please name the SI, why they were suspended and for		Systematic internalizer	Cit is iming (Manapie Citoloc)		1.	
96 Order? Why. Systematic Internalizer 97 Systematic Internalizer SI - Fill Types (Multiple Choice) Does your SI fill both passive and aggressive orders? Systematic Internalizer Internalizer Choice) Interaction Suspension (Multiple Choice) Suspend interactions with any SI's? [Yes/No] If Yes, please name the SI, why they were suspended and for				1 ' '		If No please describe
Systematic Internalizer SI - Fill Types (Multiple Choice) Does your SI fill both passive and aggressive orders? Systematic Internalizer Internalizer Choice) Interaction Suspension (Multiple Choice) Systematic Internalizer Choice) Interactions with any SI's? [Yes/No] If Yes, please name the SI, why they were suspended and for	96					
97 aggressive orders? Systematic Internalizer Interaction Suspension (Multiple Choice) Has your firm ever had any cause to suspend interactions with any SI's? [Yes/No] If Yes, please name the SI, why they were suspended and for	30		SL - Fill Types (Multiple Choice)		[Ves/No]	
Choice) suspend interactions with any SI's? the SI, why they were suspended and for	97			aggressive orders?	•	
suspended and for	1	Systematic Internalizer	Interaction Suspension (Multiple		[Yes/No]	· · ·
	1		Choice)	suspend interactions with any SI's?		, , ,
	1					
98 how long.	98					how long.

	Systematic Internalizer	Tick Sizes (Multiple Choice)	If you are an SI operator, do you adhere to the requirements of the MiFID II tick size regime?	[Yes/No]	If Yes, please explain your handling of tick sizes within the SI
			i egime.		Regime (sub and on
					ticks, LIS sizes, SOR
99					amendments, controls etc)
99	Systematic Internalizer	Systematic Internalizer (Multiple	If your firm operates its own Systematic	[Yes/No]	If Yes, please explain
	Cystematic internalizer	Choice)	Internalizer (SI), is this preferenced before		why your firm believes
			external market makers?		this is beneficial to
100					your clients?
	Systematic Internalizer	External Market Makers	Is your firm connected to, or are you	[Yes/No]	If No, please explain
101		(Multiple Choice)	evaluating external market makers?		why not?
		Operational Issues (Multiple	Have all trading and/or operational issues	[Yes/No]	If No. wloose symbols
102		Choice)	between your firm and any SI been documented?		If No, please explain why.
102	Systematic Internalizer	SI - Separate Lines (Multiple	If an algo makes a determination to use an	[Yes/No]	wily.
	Oysternatio internalizer	Choice)	SI, either internal or external, do you have	[TOS/NO]	
		S.1.5.155)	separate lines with any SIs that identify the		If Yes, please explain
103			algo type or alpha profile of the strategy?		in more detail.
	Audit	Audit Date in Europe (Multiple	Please select all that apply in regards to	Please select all that apply:	
		Choice)	your internal/external auditor:	[] #1 We had an external audit of our trading function within the past year	
				[] #2 We do not have an external auditor	
				[] #3 We have material findings from an external or internal auditor we can share	
				with you if requested	
				[] #4 The findings in our internal and external audits are confidential [] #5 We performed an internal audit of our trading function within the past year	
104					
	Audit	Independent Auditor in Europe	Does your firm have any independent	[Yes/No]	If Yes, please describe
		(Multiple Choice)	auditor statements or reports regarding the		the findings and the
			segregation of information between different		name of the external
105			areas?		auditor.
	Surveillance		What are the key attributes and functionality		
		Europe (Multiple Choice)	of your automated surveillance system for	[] #1 Monitors for fictitious orders t [] #2 Monitors for Market Price manipulation	
			apply):	[] #3 Monitors for Market Price manipulation	
			арргу).	[] #4 Includes a dedicated team to investigate alerts	
				[] #5 Monitors market data issues (i.e. bid price larger than offer price)	
				[] #6 Monitors rapid or excessive cancellation or placement of orders	
				[] #7 We use a third party tool to detect manipulative and deceptive activity in the	
				markets	
				[] #8 We use a combination of proprietary and third party systems to detect	
				suspicious trading activity	
				[] #9 Alerts for a monitoring system are sent automatically to supervision or compliance staff at our firm	
				[] #10 Our algorithms are designed and tested to avoid misleading or	
				manipulative behavior	
				[] #11 Unusual behavior will automatically will cause an cancellation of the order	
				back to the trader	
				[] #12 Our surveillance team has both automated and manual procedures for	
				detecting market abuse	
400				[] #13 Other (Put comments in the Explanation section below. DO NOT put web	
106				links/URLs there. Select all other options above that apply)	

	Surveillance	Dark Pool Surveillance in	If you operate a dark pool, what features do	Please select all that apply:	
		Europe (Multiple Choice)	you use for surveillance to prevent gaming	[] #1 We conduct market surveillance in accordance with MAR (15c3-5)	
			or reverse engineering (select all that	requirements	
			apply)?	[] #2 We do not operate a dark pool	
				[] #3 We carry out real-time monitoring and historical surveillance, including	
				market abuse as defined by the FCA Handbook	
				[] #4 We can terminate, suspend, and restrict Member access at our full	
				discretion	
				[] #5 We have a separate governance structure for our MTF	
				[] #6 We have a group/committee that monitors subscriber activity, and if a	
				subscriber's behavior deviates from expected, it is addressed accordingly	
				[] #7 Our compliance department monitors for all activity to ensure each	
				participant and their usage of our system does not harm other users	
				[] #8 We monitor our system to ensure users are utilizing our system for trading	
				and not to gather information on other users' trading interests	
				[] #9 We ensure that external liquidity providers have established policies and	
				procedures in place that meet our expectations	
				[] #10 We use third-party surveillance tools in our dark pool	
				[] #11 Other (Put comments in the Explanation section below. DO NOT put web	
107				links/URLs there. Select all other options above that apply)	

DO NOT FORWARD OR SHARE. PROPRIETARY TO URVIN LLC.