Nasdaq

PureStream on Nasdaq Europe

An Innovative Solution for Volume-Based Trajectory Trading

Executive Summary

PureStream on Nasdaq Europe is a volume-based trajectory trading facility designed to minimize market impact while maximizing liquidity from equal counterparts.

It will be available for European shares and depository receipts.

PureStream matches Indications of Interest (IOIs) on the basis of open-ended liquidity transfer rates. This allows institutional investors to minimize market impact and utilize conditional trade negotiation to automate their parent order execution by trading a percentage of the market's future volume at the market's volume-weighted-average-price (VWAP).

Open-ended streaming batches reduce reliance on single point in time liquidity

Liquidity Transfer Rates to trade a fraction or a multiple of the lit market

European universe on Nasdaq Europe

Proven and successful mechanism in the US and Canada

PureStream

Introduction to the functionality

- PureStream on Nasdaq Europe allows users to match non-actionable indications of interest (IOIs) on the basis of the Liquidity Transfer Rate (LTR), i.e. the percentage of the market's future volume a trader is willing to trade.

- Once a PureStream match is found and members have firmed up their IOIs, a PureStream matching cycle begins.Trades executed on MTFs and Primaries' lit order books are used as benchmark trades. When the aggregated volume executed across the benchmark trades reaches a minimum value threshold set by Nasdaq (*namely MSV*), a PureStream trade is executed:

  - The execution price is the VWAP calculated over the benchmark trades;

  - The execution size is the agreed LTR times the aggregated total volume traded in the benchmark trades.

- These steps are repeated until the full volume is traded, the limit price crosses the price of a benchmark trade, or the order is cancelled.

- A robust reputational scoring mechanism is used to enhance users' experience. Scores will be put in place to monitor users repeatedly breaking established PureStream matches and backing out of firm-up requests.
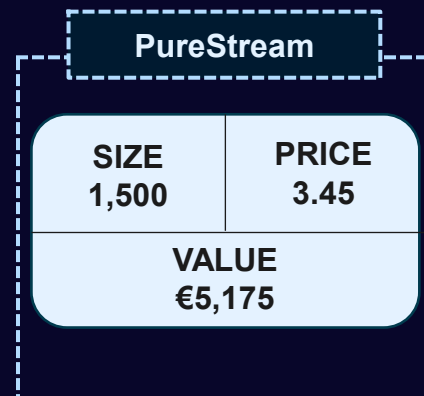
PureStream

Liquidity discovery via PureStream

A

IOIs are matched in PureStream. IOIs must be larger than a min threshold set by Nasdaq (€20,000). In this example the agreed LTR is of 15%.

5-20%
Buy
50,000

15%
LTR

5-15%
Sell
75,000

B Trades executed in lit order books are used as benchmark trades. The volume executed across the benchmark trades is aggregated until the Minimum Stream Value (MSV) is exceeded. Assuming an MSV of €5,000:

Trades executed on lit venues*

SIZE	PRICE
4,000	3.00
VALUE €12,000	

SIZE	PRICE
3,000	3.50
VALUE €10,500	

SIZE	PRICE
3,000	4.00
VALUE €12,000	

15% LTR → 15% LTR → 15% LTR

MSV Calculation €1,800 **+** €1,575 **+** €1,800

In the example, the 3rd benchmark trade results in an aggregated value of €5,175, thus the MSV is exceeded.

C

A PureStream trade is executed at the Volume Weighted Average Price (VWAP) of the benchmark trades. The size of the PureStream trade is equal to the agreed LTR (15%) times the aggregated total volume executed in the benchmark trades.

PureStream

SIZE	PRICE
1,500	3.45
VALUE €5,175	

D Steps B and C are repeated until one of the following:

1 Full volume is traded

2 Limit price of one of the firmed-up IOIs crosses the price of a benchmark trade

3 An IOI is cancelled

PureStream

Streaming into trades

Example 1 – Single Stream with MAQ

- IOI #1 is to sell 2,000 shares, 30-50% LTR

- IOI #2 is to buy 5,000 shares, 15-30% LTR, MAQ of 2,000

=> Stream #1 (after firm-up): IOI #1 is paired with IOI #2 with 30% LTR.

PureStream

Streaming into trades

Example 2 – Single Stream II

- IOI #1 is to sell 6,000 shares, 5-15% LTR

- IOI #2 is to buy 5,000 shares, 15-30% LTR

- IOI #3 is to buy 5,000 shares, 15-30% LTR

=> Stream #1 (after firm-up): IOI #1 is paired with IOI #2 with 15% LTR.

- IOI #1 cannot match the residual (1,000 shares) with IOI #3, as IOI #1 is already streaming at its maximum LTR.

PureStream

Streaming into trades

Example 3 – Parallel Streams

- IOI #1 is to sell 2,000 shares, 5-15% LTR

- IOI #2 is to buy 5,000 shares, 15-30% LTR

- IOI #3 is to sell 5,000 shares, 15-30% LTR

=> Stream #1 (after firm-up): IOI #1 is paired with IOI #2 with 15% LTR.

=> Stream #2 (after firm-up): IOI #2 is paired with IOI #3 with 15% LRT.

- From the combination of the two streams, IOI #2 reaches LTR of 30%

PureStream

Streaming into trades

Example 4 – Parallel Stream II

- IOI #1 is to buy 75,000 shares, 5-15% LTR

- IOI #2 is to buy 50,000 shares, 5-15% LTR

- IOI #3 is to sell 125,000 shares, 5-30% LTR

=> IOI #3 would match with IOI #1 and #2 simultaneously (after firm-up).

=> There would be 2 Streams created, one with IOI #1&3 and one with IOI #2&3. Each Stream would have a LTR of 15% and IOI #3 in aggregate would achieve an LTR of 30%.

![Nasdaq logo]

Contacts:

Matteo Balladori
Director, Sales, European Equities
E-mail: matteo.balladori@nasdaq.com
Phone: +44 7918 493142

Anders Green
AVP, Product Manager, European Equities
E-mail: anders.green@nasdaq.com
Phone: +46 73 449 6752

nasdaq.com/solutions/purestream-on-nasdaq-europe