

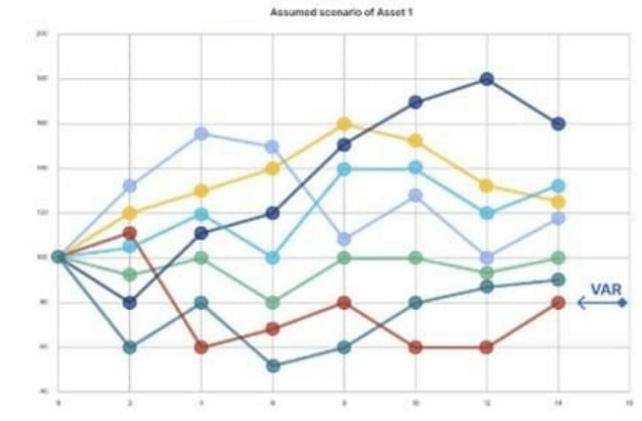


CentArrow  
TRADE SMARTER

# CentArrow Systems



Scenario and Simulation

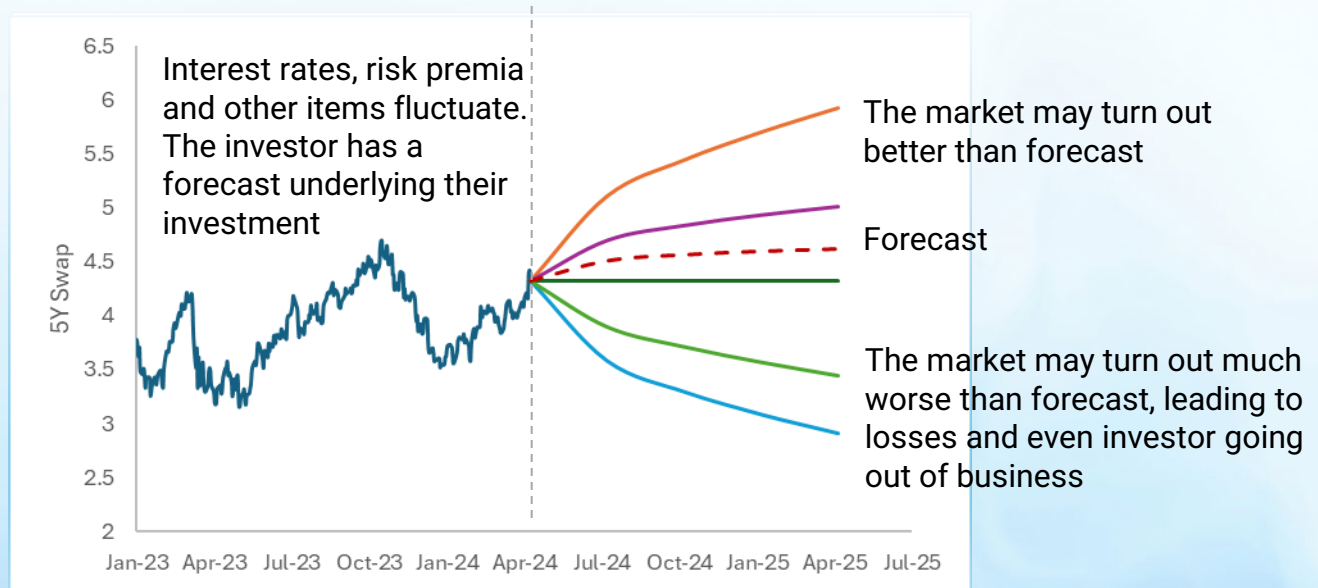


AI and big data driven financial risk management  
for small and medium investors

# Financial (Market) Risk in Investing

Investors need to generate returns, but also manage their financial risk

↳ Must account for the case where the markets move **against** them

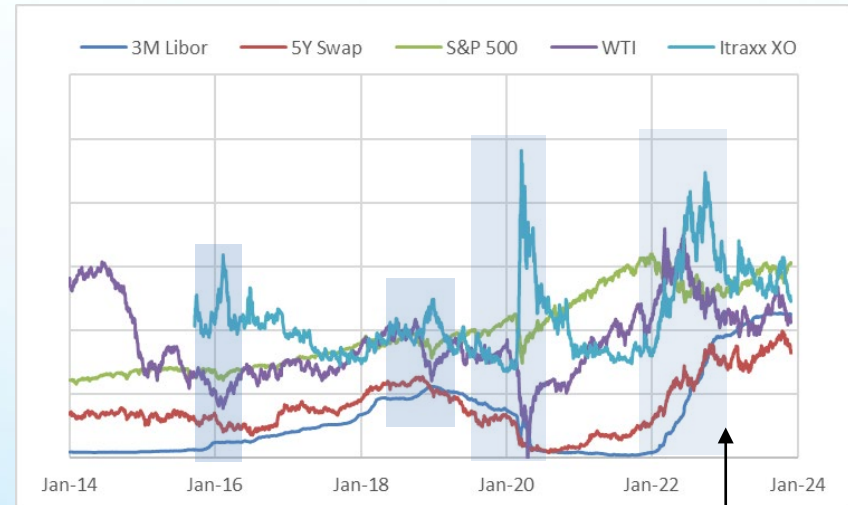


Investors get rated on risk weighted performance (Sharpe Ratio etc), not just performance

**Controlling financial risk and tail events is crucial to investors ability to retain their clients and continue operating**

# Fixed income investors Lack risk management tools

Fixed Income Investors are directly affected by macro variables, more than equity investors



Recent Example – SVB Fails

## In 2016

Credit risk premiums move up and then come back. Rate curves flattened. Long term bonds became less profitable, and funding costs rose.

## In 2018

The rate curve flipped. Another blip in spreads. Carry trades don't work. Funding is better on long term.

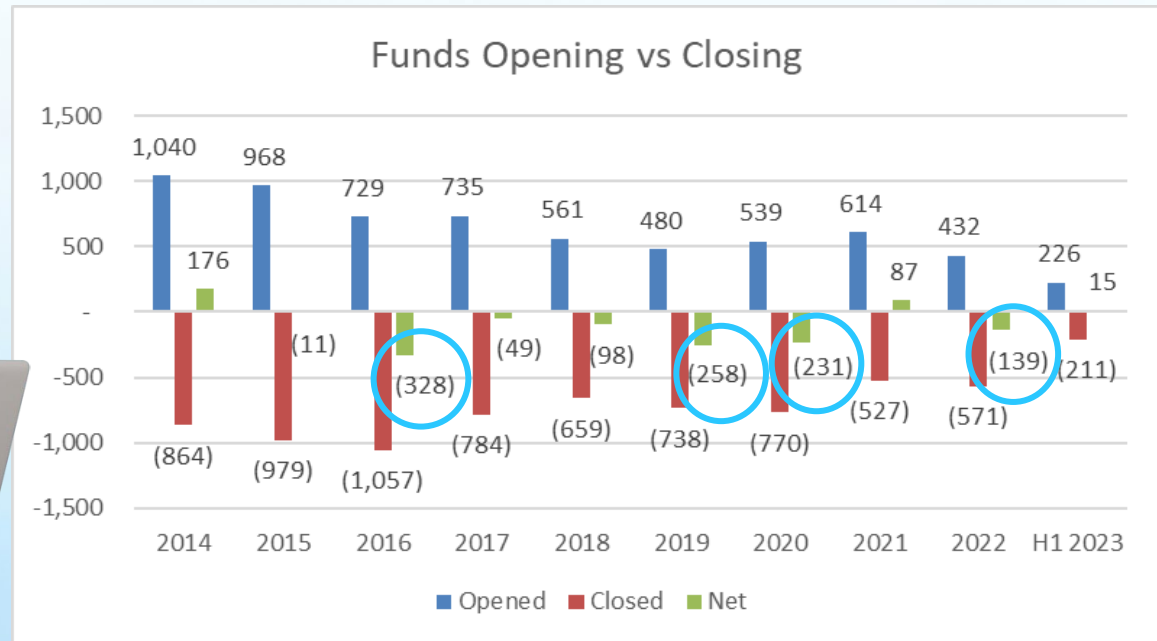
## In 2020

Covid crisis. Rates drop massively and the curve straightens again.

## In 2022

Due to inflation, rates rose quickly and the curve inverted strongly.

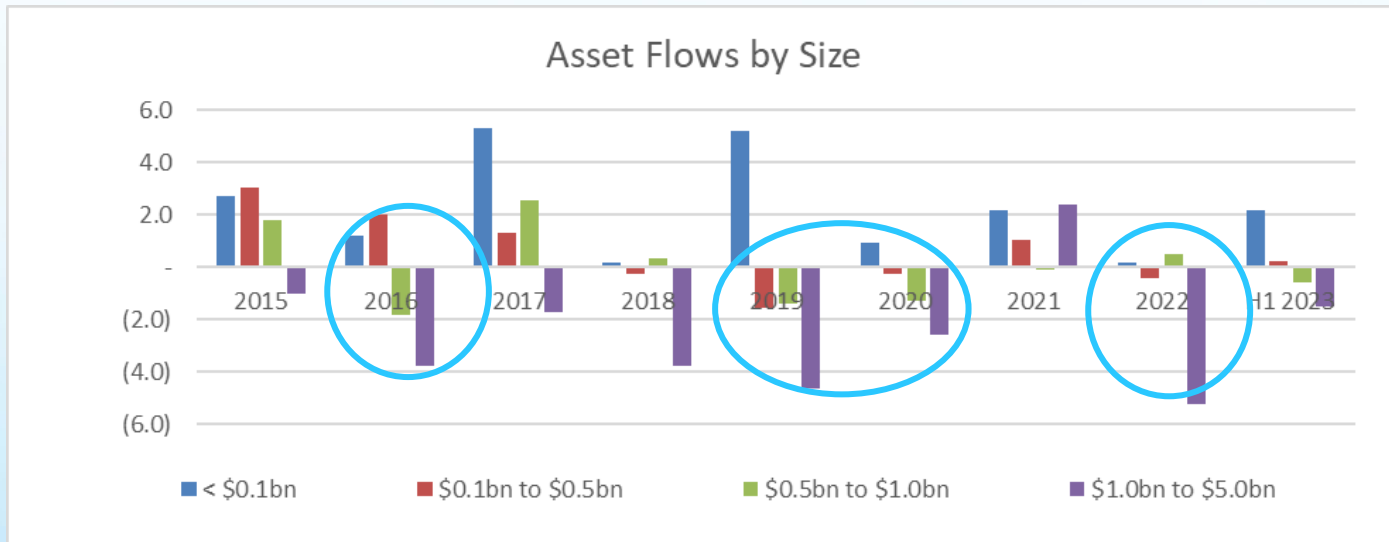
# Suboptimal Risk Management Leads to Net Fund Closures



Higher fund closures at above mentioned fixed income turbulence points

\* Source – HFR Quarterly hedge fund review Q32023

# Flows to Mid Sized Funds Are Negative on Most Years



\* Source – HFR Quarterly hedge fund review Q32023. Excluding funds with >\$5bn AUM

# What do Investors do?

## Risk Management By Available Means



### Really Large Investors:

- Build multi-million \$ risk management systems
- Create Risk Management Departments with designated professionals, costing \$millions



### Large Investors:

- Buy risk management systems costing \$200k-\$mm per year
- Have small groups of quants and risk professionals, costing ~\$m



### Small to Medium Investors:

- Load durations from Bloomberg. Put into an excel
- Make up some scenarios that the CIO / CRO believes and check them on the durations. ➡ **MARKET OPPORTUNITY**



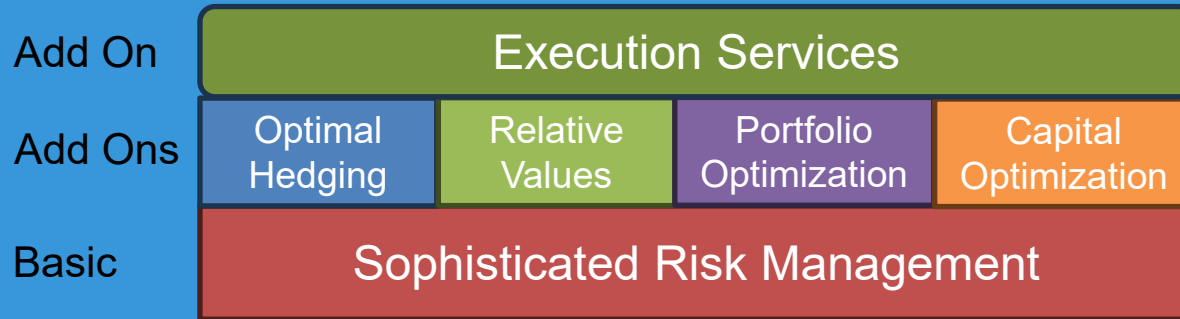
# CentArrow platform: Small and mid sized risk management tool



Advanced AI, Data Driven  
Analytics



Simple to Use, based on  
Sophisticated Analytics



**Giving small and medium sized investor firms the risk  
management tools of large corporates.**



# Technology



- **Technology Readiness Level**  
TRL6/TRL7 based on client demos performed
- **AWS Cloud based calculations**  
async allowing for quick analytics for Client data
- **Confidentiality**  
Calculations are done per asset on our cloud models but are oblivious to the identity of the client and to the size of the portfolio. This allows us to maintain client confidentiality
- **Advanced AI for Simulation and Sensitivity Analytics**  
require significant quantitative and product know how and are difficult to replicate

**Creating such a platform requires a team with a rare interdisciplinary blend of technical, analytical and financial experience.**



# Team



**Adi Shafir**  
Founder and CEO

Adi is a quant with 15+ years experience heading quant teams in tier 1 investment banks in London



Morgan Stanley



**Dimitri Offengenden**  
Founder and Board Member

Dimitri is a veteran quant with 30 years experience as a Managing Director on Wall Street



**Alon Ein Eli**  
Quant

Alon has experience as an algorithmic trader and analyst at Barak Capital.



**CMO**  
TBD

Chief Marketing Officer will be hired using funds from the capital raise.

# What Makes Our System Special

## Aggregated Sensitivities

Full Sensitivity Suite

Industry	RatePV01	RatePV10%	SpreadPV01	SpreadPV10%	Exposure	2Y	5Y	10Y	30Y
Borrowing	3,461,837.36	135,956,933.56	3,454,183.06	-12,292,799.30	-18,965,000,000.00	2,429,839.78	926,178.65	107,118.89	0.00
CRE	-601,442.91	-22,322,471.95	-1,141,681.92	-22,906,676.47	2,583,000,000.00	-348,227.63	-143,448.92	-101,376.95	-8,555.55
Corporate	-446,047.78	-16,155,192.20	-446,096.53	8,677,311.70	703,000,000.00	-233,472.16	-212,660.27	0.00	0.00
Deposit	2,849,924.94	136,613,768.11	15,197,272.91	-98,885,033.20	-173,109,000,000.00	2,849,924.94	0.00	0.00	0.00
Early Stage	-50,113.45	-2,756,795.58	-496,391.65	-15,402,717.78	1,950,000,000.00	-39,901.98	-142.00	-69.60	0.00
Finance	-198,249.38	-9,622,595.00	-299,617.33	7,997,000.00	6,000,000,000.00	-198,249.38	0.00	0.00	0.00
Foreign Gov	-668,302.92	-24,160,463.24	-668,760.56	9,830,954.53	1,088,000,000.00	-336,145.71	-332,292.94	0.00	0.00
Global Fund Banking	-1,045,383.70	-30,065,394.25	-2,634,741.25	-80,500,909.19	41,269,000,000.00	-1,044,892.54	-329.81	-161.64	0.00
Special Class	174,174.00	7,407,073.00	1,100,737.37	35,364,500.00	4,763,000,000.00	188,134.81	17,324.80	4,464.75	0.00

Charting Tools For Risk Aggregation



# What Makes Our System Special

## Future Scenarios

Simulation /  
Scenario  
Tool

Assumed Scenario							
Asset 1		S&P 500	Type	Values between	5%	to	10%
		+ Add asset					
Time		08/23/2024	Tail %	95	Pivot Name	Apply	
Name	Current Distribution			Scenario			
	Expected Value	5% Best Case	95% Worst Case	Expected Value	5% Best Case	95% Worst Case	
Joe Co	9,907,188.0	10,000,000.0	10,000,000.0	9,905,765.0	10,000,000.0	10,000,000.0	
Jill Co	14,011,758.0	15,106,654.0	9,851,400.0	14,025,492.0	15,103,753.0	9,851,400.0	
Jack Co	13,269,981.0	14,000,000.0	4,659,200.0	13,271,630.0	14,000,000.0	4,659,200.0	
Jemma Co	12,542,131.0	13,000,000.0	4,326,400.0	12,541,719.0	13,000,000.0	4,326,400.0	
Jeff Co	8,718,843.0	8,732,025.0	8,720,569.0	8,718,386.0	8,731,464.0	8,720,363.0	
Jane Co	8,736,261.0	9,724,559.0	4,627,100.0	8,886,641.0	9,729,119.0	4,627,100.0	
Joseph Co	4,657,123.0	4,931,112.0	4,183,377.0	4,706,079.0	4,933,823.0	4,401,398.0	
Jocelyn Co	3,821,418.0	3,964,892.0	2,000,000.0	3,825,730.0	3,966,107.0	2,000,000.0	
James Co	6,887,134.0	7,185,887.0	6,595,940.0	6,903,804.0	7,191,798.0	6,640,676.0	
Jemima Co	12,215,263.0	12,372,918.0	12,090,283.0	12,207,629.0	12,361,225.0	12,086,367.0	
Diversification		-769,334.0	19,778,194.0		-713,798.0	19,853,030.0	
<b>Total</b>	<b>94,767,128.0</b>	<b>98,248,713.0</b>	<b>86,832,463.0</b>	<b>94,992,872.0</b>	<b>98,303,491.0</b>	<b>87,165,934.0</b>	

Economic  
Scenario  
Overlay

# What Makes Our System Special

## Back Testing in Different Markets

Back Testing  
Engine

MaxDropdown Timeframe:

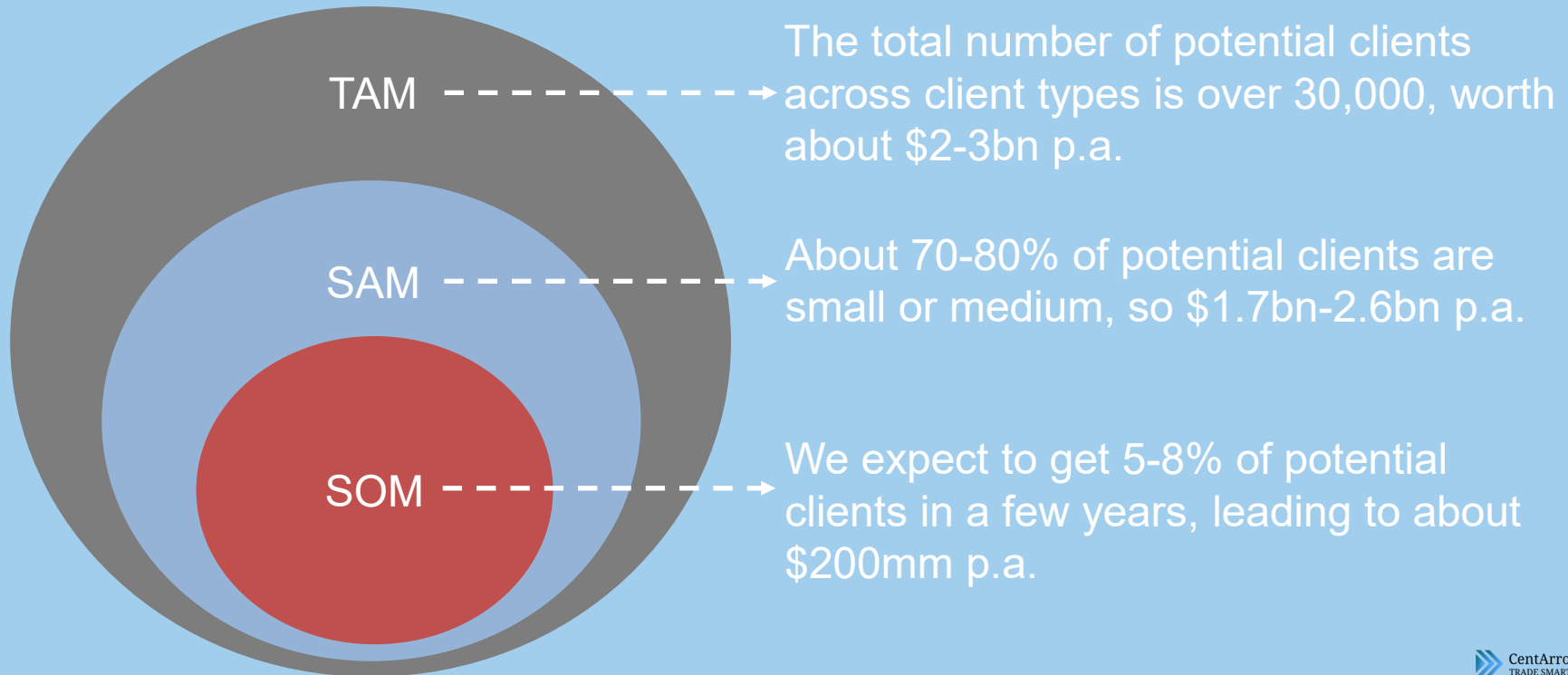
Name  Dropdown Time  Percentile  Over

Start Date  End Date

Seniority	Industry	Portfolio			Max Dropdown Over 1 Month		95.0 Worst Case Over 3 Month%	
		Current Value	Change%	Date	Change %	Date		
Senior	TMT	772,744.54	(10.0)%	2009-01-10	(17.0)%	2009-01-10		
	Industrial	1,521,830.59	(8.0)%	2020-03-15	(17.5)%	2020-03-15		
	Financial	1,215,351.88	(30.0)%	2008-09-13	(40.0)%	2008-08-13		
	Materials	7,100.74	(31.0)%	2017-02-01	(36.0)%	2016-12-21		
	Utilities	754,026.22	(7.0)%	2011-03-11	(9.0)%	2011-01-17		
	Diversification							

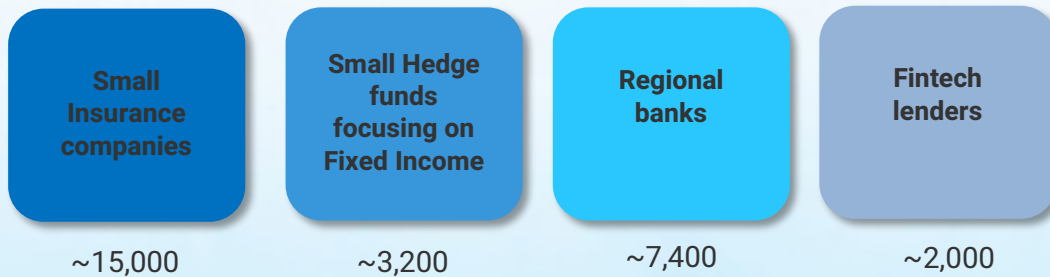
# The Market Size

## Global – US Market Is First Stage



# The Small and Mid Sized Fixed Income Market

## 1. Target Customers:



2. TAM for the basic product is 27,600 clients.

3. Market Size at our pricing market total revenue is between \$2bn-\$3bn per year



# Business Model

- **B2B Platform and API**
- **Software as a Service Model**
  - Basic Package for Risk
  - Add Ons for Optimization and Analytics
  - Execution



# GTM Strategy

- **Target Audience** - Smaller funds, banks and insurance companies.
- Clients saw recent market turmoil and know that they need better RM
- **Connections**
- **Targeted Marketing (LinkedIn)**
- **Content Marketing**
- **Resellers**





# GTM Strategy – Packages and Pricing

## Risk Package– H1 24:

### Pricing: \$60k p.a.

- Analytics and Risk Engine
- Basic Package

Annual Revenue to  
CentArrow in 10Y – 50mm

## Add Ons / Optimization Packages – H1 25:

### Pricing: \$30k p.a.

- Quant portfolio, RV, Hedging,  
Capital
- Sold to a subset of Package 1  
clients

Annual Revenue to CentArrow  
in 10Y – 10-50 mm

## Execution Package – H1 26:

### Pricing per Volume

- Allowing to act on the items  
found in previous packages
- Click to Trade

Annual Revenue to CentArrow  
in 10Y – 50 mm

# Competitive Landscape

Simple to Use



**CentArrow offers a reasonably priced solution for small and medium Investors with all relevant functionality.**

# Milestones / Roadmap

Item	2023	2024	2025	2026
New Product Release	80% Done on Risk Package	MVP Release Risk Package	Revenue and Optimization Package	Execution Package
Trials		20-30	50-100	100
Additional Clients		2-5	10-25	50-100
Profitability		Loss	Loss or Breakeven	30% Margin

# Growth strategy

## YEAR 1

**OBJECTIVE:** Initial client acquisition

**KPI TARGET:** 2-5 signed clients (10-15% conversion rate)

**STRATEGY:** personal and professional networks

**LOCATION:** mostly US

**CLIENT FOCUS:** Fintechs, Funds

**WORTH NOTING:** 2 fintech clients already taking some of the analyses and serving as design partners

The expectation is at least one of them will be converted into a contractual agreement soon

## YEAR 2

**OBJECTIVE:** Build a sustainable pipeline

**KPI TARGET:** 10-25 signed clients (20-25% conversion rate)

**STRATEGY:** focus on resellers and distributors

**LOCATION:** mostly US

**CLIENT FOCUS:** Regional Banks, Insurances

**WORTH NOTING:** In the process of selecting the best partners

## YEAR 3

**OBJECTIVE:** International expansion and brand awareness

**KPI TARGET:** 50-100 signed clients (50-80% conversion rate)

**STRATEGY:** online and live marketing and events

**LOCATION:** US, UK, EU, EMs

**CLIENT FOCUS:** Fintechs, Funds, Regional Banks, Insurances

# Financials Projections

Activity (\$k)	2023	2024	2025	2026	2027
Revenue	576(Consulting)	300 (Product)	1055	5,399	10,769
COGS	462	732	1460	2320	3967
SG&A	42	245	510	1178	1899
EBITDA	72	-678	-915	1900	5459
Net income	88	-613	-814	1580	4333
IRR					22% (2027) 84% (2033)
EV/Revenues	4.6	14.3	7.5	2.5	1.6
EV/EBITDA	37.2	-6.3	-8.7	7.1	3.4

# Fundraising

## Raising \$600,000 seed round to reach MVP after 6 Months.

- Current Valuation at **\$2.5mm pre-money**, consistent with a 409A valuation performed recently
- The equity giveaway for the total amount is **19,35%**
- Investors above **\$100,000** will be investing directly, while smaller ones will have the opportunity to be pooled within a vehicle setup for the purpose

## Key assumptions

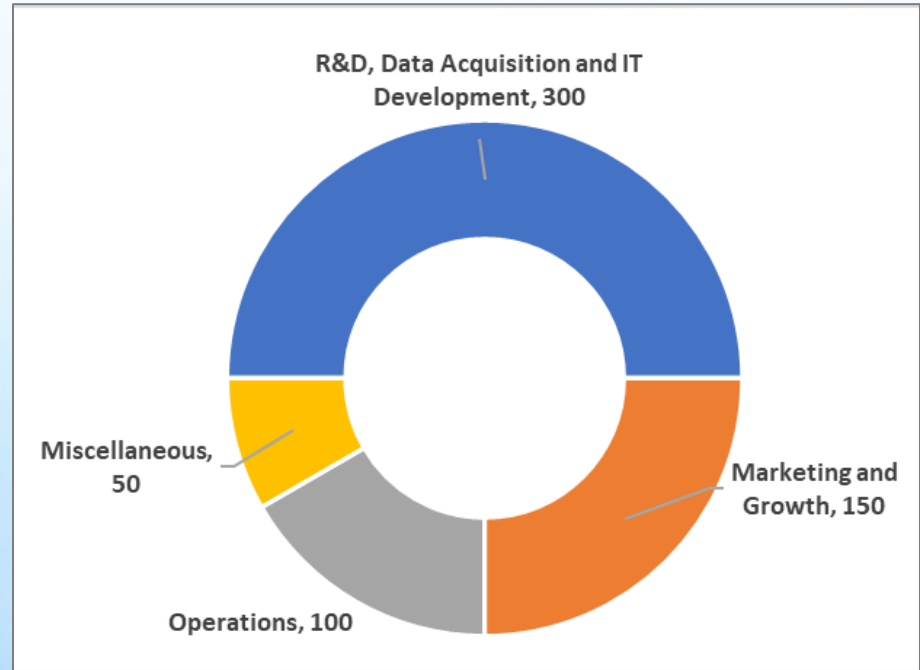
- The MVP will be with all Stage 1 developments operational
- We will have 1-5 trial clients working with our software by MVP. We intend to get 30 more during the year
- We expect 2-5 paying clients by the end of the year

# Use of Funds

## Key highlights

- Data cost: \$150k
  - Non-sensitive TRACE-eligible market data for actual trades
  - Used to expand historical analysis of additional 10+ years
- IT development cost: \$100k
  - Building the UI
- Marketing/growth cost: \$150k
  - Building a sales funnel through distribution and reseller channels

## Planned spend in 6-12 months





# CentArrow – Trade Smarter

Adi Shafir – CEO

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