

# Man vs Machine

How AI is Reshaping the Investment Landscape

July 2023

# Today's presentation

## Show of hands:

How many here trust vaccines?

How many would get into a fully autonomous car?

How many here use ChatGPT?

How many would put your portfolio on full Auto AI mode?

- 01 • Technological Advancements are met with fear and skepticism
- 02 • AI is ALREADY here and helping
- 03 • What are People good at? is AI good at?
- 04 • Man Vs. Machine: A Scorecard
- 05 • Your pain points and how AI will help
- 06 • How can AI be applied to investing?
- 07 • Case Studies: AI performance
- 08 • Case study: Custom Asset Allocation
- 09 • Case study: Custom Long-Short
- 10 • Case study: Custom Low Volatility
- 11 • Not Man vs. Machine but **Man + Machine**
- 12 • What NOW?



We are...



Our clients are **investors, advisors, banks, and institutions** looking to make their investment process more **data-driven, insightful, customized, efficient, and scalable.**



Powered by...



ASSET  
MANAGEMENT  
FACTORY

Specializing in **quantitative/AI investing** since 1987

Mostly data  
scientists, engineers,  
and physicist

Track  
records

For HSBC, Rothschild Bank,  
BNP Paribas, BBV, Intersect,  
EXO, and Lumenai

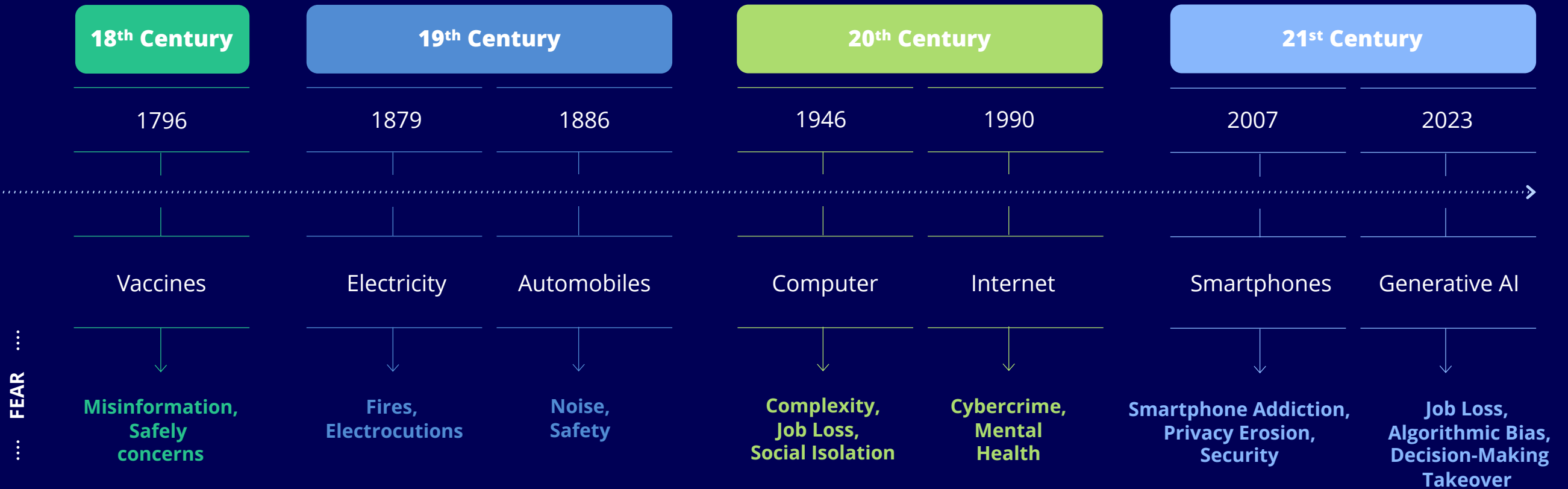
60+ staff

23 Years

\$6B+ AUM



# Timeline of Technological Advances



**Technological Advancements are normally met with fear and skepticism but ultimately propel humanity forward.**

# No Need to Fear, AI is Already Here. And it's making us better.

01

**AI will redefine the financial services industry** with **96% of senior executives** saying AI to have a significant impact on their business within the next two years. **-EY**

02

**75% of investment professionals** acknowledge the positive impact of AI in enhancing their investment processes and decision-making **-CFA Institute**

03

**83% of investment firms** believe AI will be critical to their competitiveness, reshaping the financial services industry within two years **-EY**

AI-powered systems can reduce operational costs by up to 40% and improving risk management effectiveness by up to 70%. **-McKinsey**

AI can improve processing times 20-30%, reduce costs by 15-25%, and increase revenue by 15-20%. **-Deloitte**

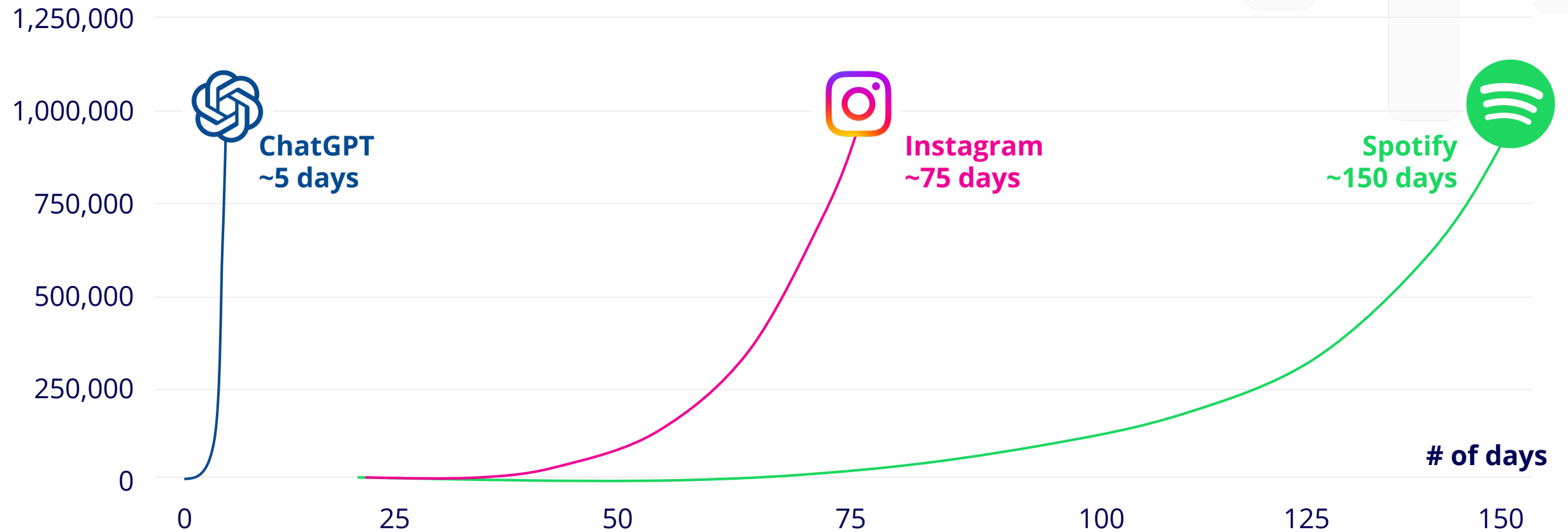
AI portfolio management can generate up to **+2% additional returns** through optimized asset allocation and timely rebalancing **-Deloitte**

**Footnotes:** EY. (n.d.). Why AI will redefine the financial services industry in two years. Retrieved from [https://assets.ey.com/content/dam/ey-sites/ey-com/en\\_gl/topics/innovation/ey-why-a-i-will-redefine-the-financial-services-industry-in-two-years.pdf](https://assets.ey.com/content/dam/ey-sites/ey-com/en_gl/topics/innovation/ey-why-a-i-will-redefine-the-financial-services-industry-in-two-years.pdf). McKinsey & Company. (n.d.). The economic potential of generative AI: The next productivity frontier. Retrieved from <https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/the-economic-potential-of-generative-ai-the-next-productivity-frontier>. Deloitte. (n.d.). AI: The next frontier in investment management. Retrieved from <https://www2.deloitte.com/global/en/industries/financial-services/perspectives/ai-next-frontier-in-investment-management.html>. CFA Institute. AI Pioneers in Investment Management. Retrieved from <AI-Pioneers-in-Investment-Management.pdf> ([cfainstitute.org](http://cfainstitute.org))

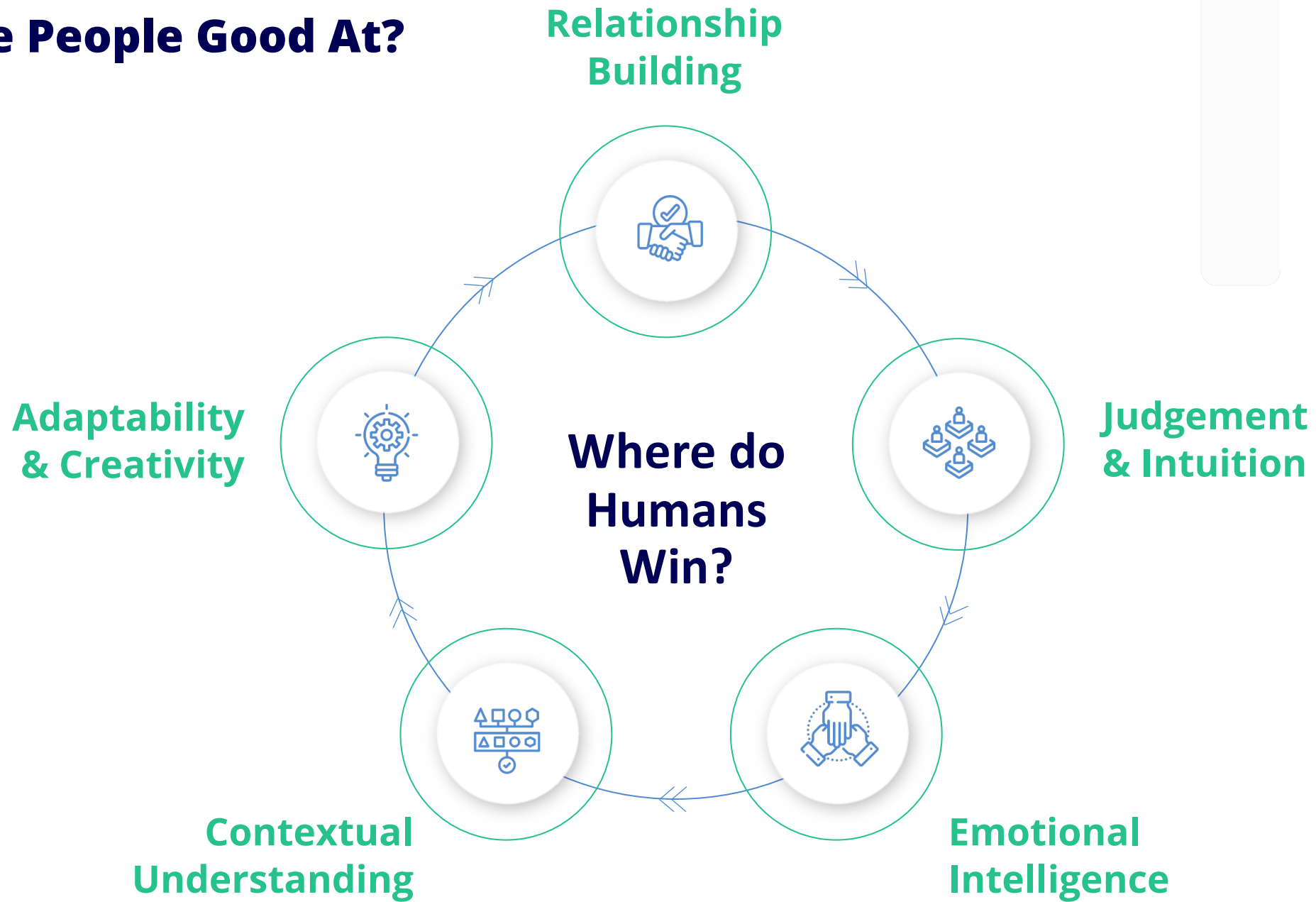
# AI is Mainstream

Generative AI has seen the steepest adoption curves in history

~Path to 1 million users\* (# of days from launch)



# What Are People Good At?



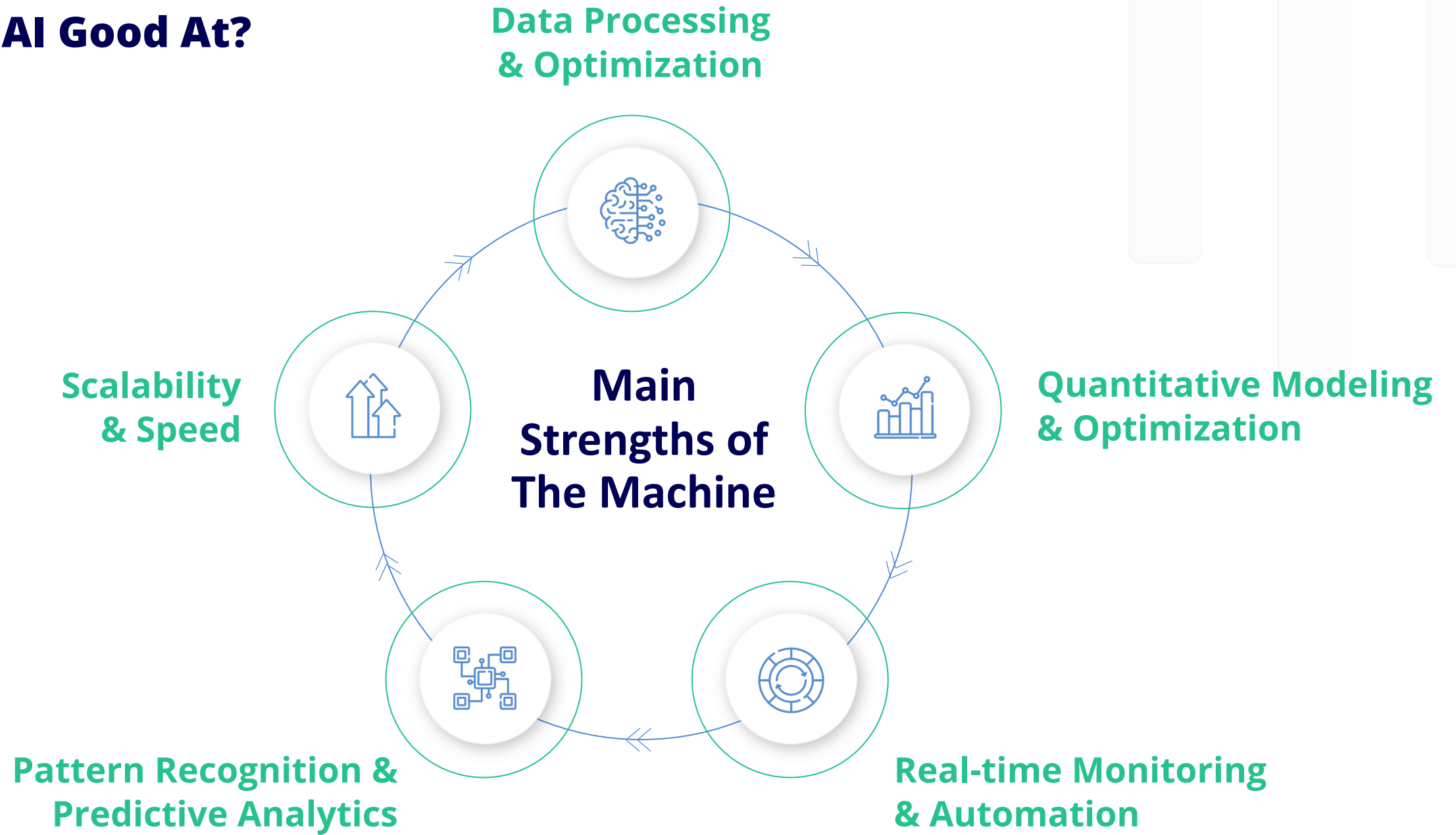
# Your Challenges and How AI Will Help



- **Universal Pain Points**
- Information Overload and Analysis
- Alpha Generation and Pro-Active Risk Mitigation
- Personalization vs. Efficiency
- Portfolio Monitoring and Evaluation
- Automating Regulatory Compliance
- Behavioral Biases / Emotional Decision-Making



# What IS AI Good At?



# Man vs Machine Investment Scorecard

## Competency

Humans

Machines

Advising investors & understanding needs



Drafting a portfolio strategy



Establishing risk management policy and limits



Identifying market patterns



Portfolio construction, rebalancing, and selection



Actively managing risk



Generating alpha



Enhancing operational efficiencies

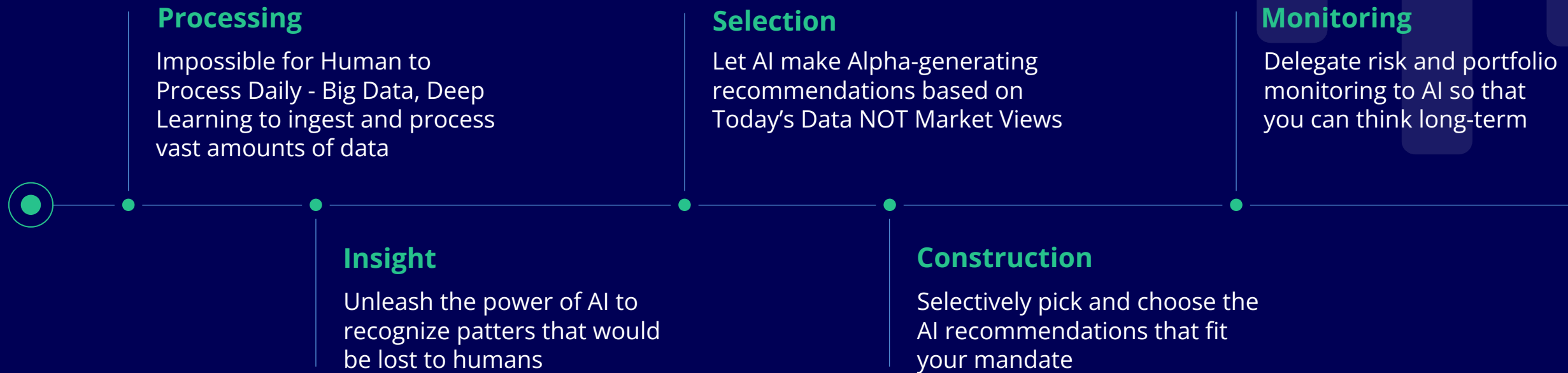


Monitoring portfolios and holdings



# How can AI be Applied to Investing?

By leveraging the strengths of AI and leaving the rest to humans



**AI makes the investment process easier, more efficient, scalable, and cost effective, enabling investors to create their own personalized portfolios that take less time to manage, while targeting maximum risk-adjusted returns and alpha, and actively managing risk.**

# Case Studies: Custom AI Portfolios

## About Lumenai

Lumenai is a transformative investment service that uses artificial intelligence and data science designed to make sophisticated investing more personalized, simple, and efficient than ever before.



Lumenai has designed and launched multiple AI strategies for individuals, advisors, and institutions.

We will discuss three examples:

01

### **Self-Adapting Asset Allocation**

Active allocation across stocks, bonds, credit, and commodities.

02

### **Custom NASDAQ Long-Short**

NASDAQ equity long-short, pure stock-picking alpha, zero beta.

03

### **Low Volatility Balanced Portfolio**

Actively risk-managed portfolio of stocks, bonds, and credit.



# Case Study 1: Self-Adapting Asset Allocation

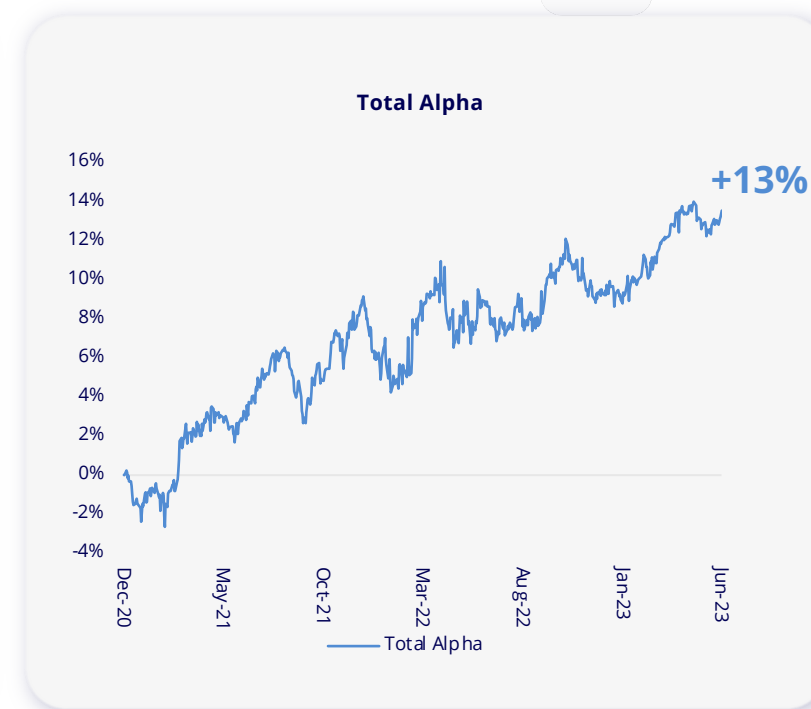
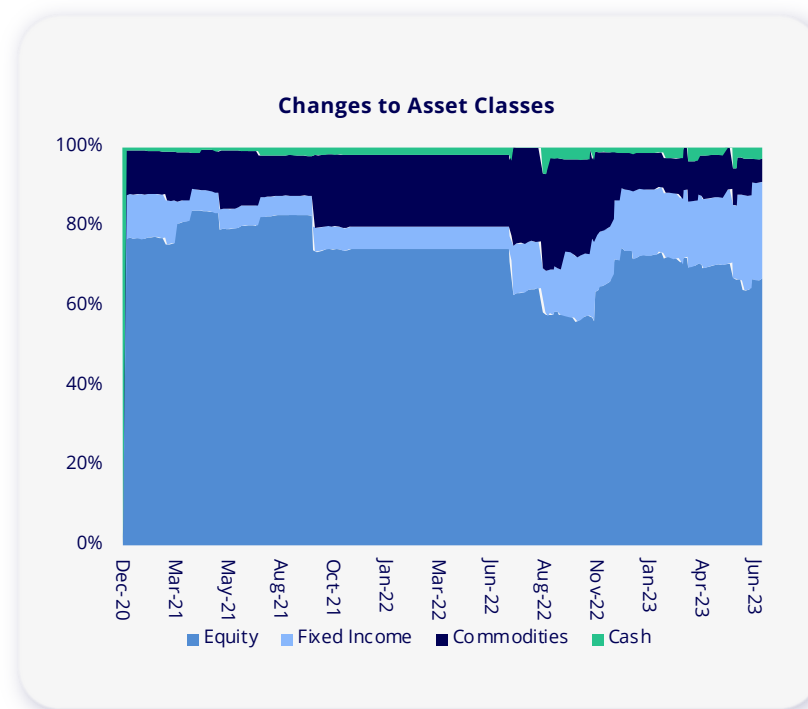
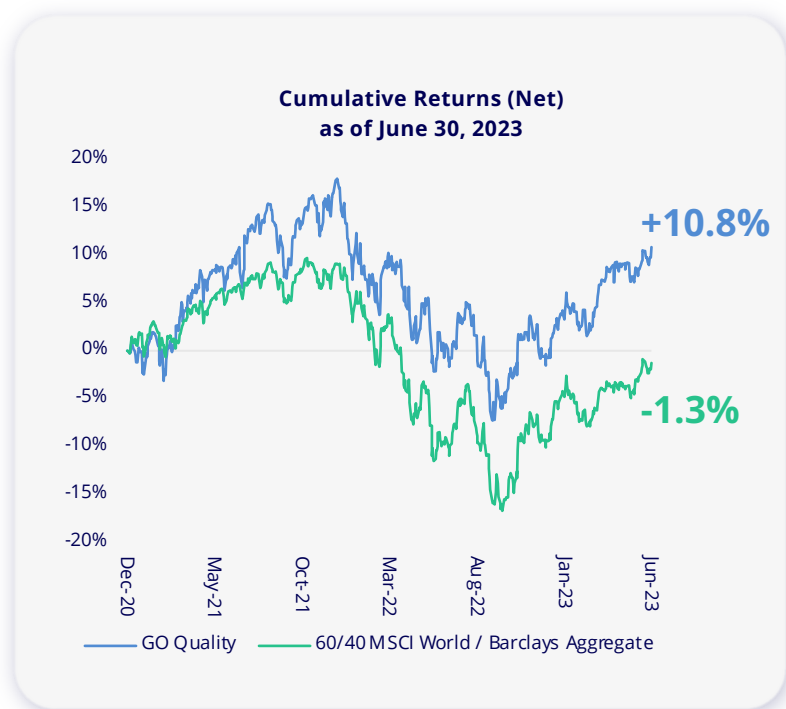
**Objective:** An actively managed Multi-Asset portfolio investing dynamically across Quality stocks, bonds, credit, commodities, and cash. The portfolio was created for an experienced hedge fund executive and is designed to outperform a 60/40 stock/bond benchmark with similar volatility.

**Results:**

**Returns vs. Benchmark**  
**+10.8% vs. -1.3%**  
 Cumulative net

**Self-Adapting Exposures**  
**84% to 56%**  
 Allocation to stocks

**Annual Alpha**  
**5%**  
 Consistent across time



# Case Study 2: Custom NASDAQ ESG Long-Short

**Objective:** A Long / Short strategy designed for an asset management firm to outperform the NASDAQ over the long-term while adhering to an ESG mandate. The portfolio is tightly risk-controlled with near zero Beta and pure stock-picking Alpha.

**Results:**

**Annual Returns vs. NASDAQ**

**+13% vs. -8%**

Annualized net

**Annual Alpha**

**12.7%**

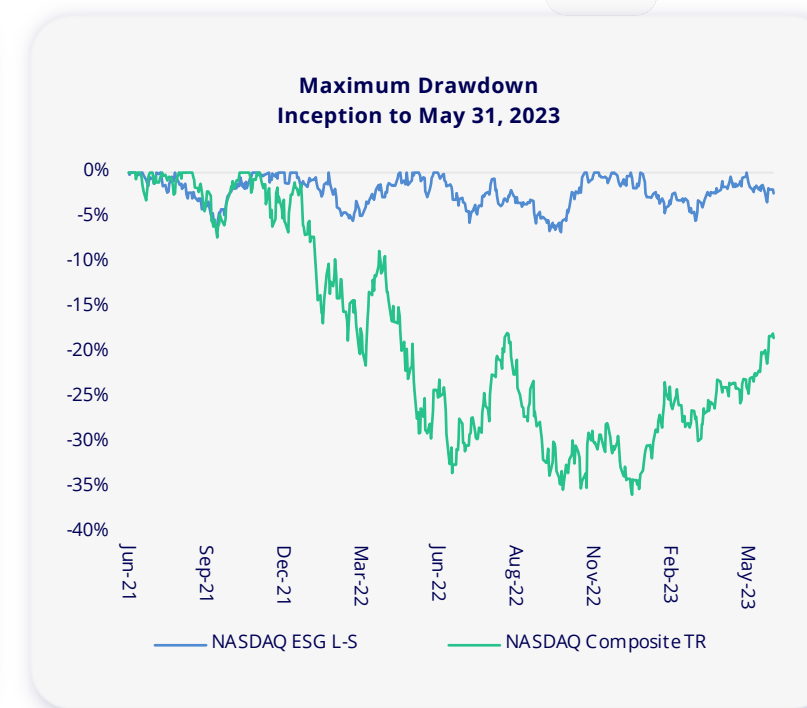
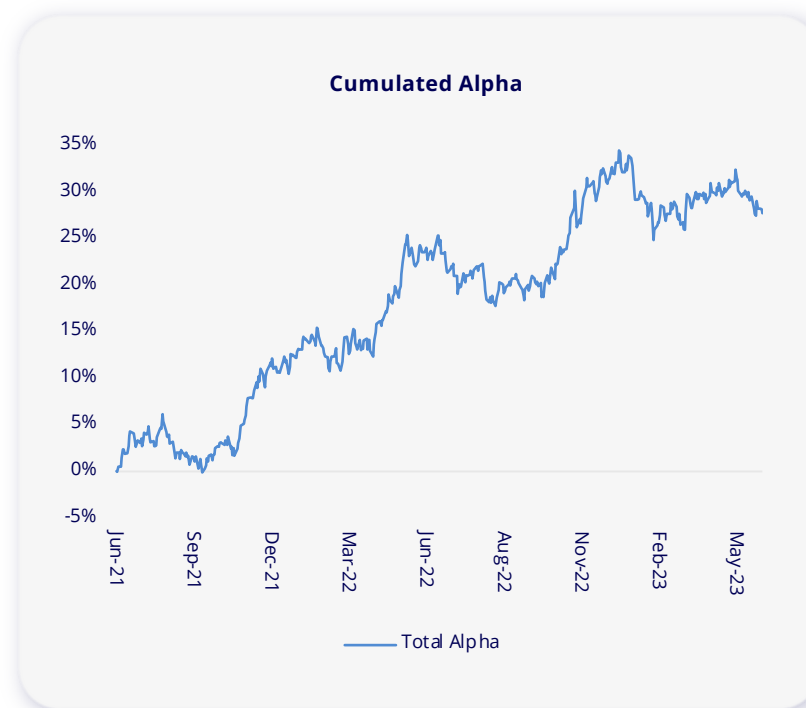
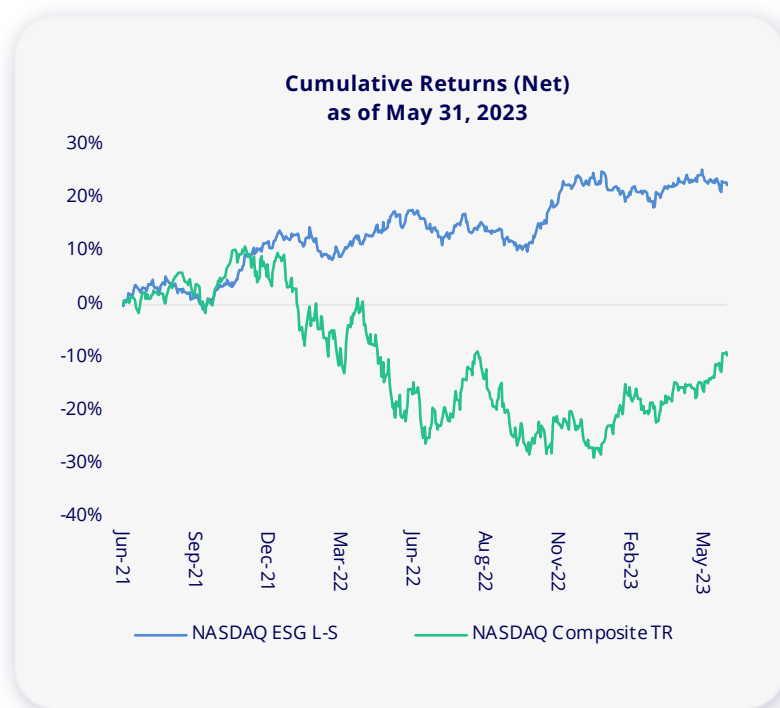
Almost entirely from stock picking

**Max Drawdown vs. NASDAQ**

**-6.6% vs. -36%**

Annualized net

	NASDAQ ESG L-S	NASDAQ Composite TR
<b>Annualized Return</b>	12.70%	-8.22%
<b>Total Return</b>	24.42%	-14.50%
<b>Annualized Volatility</b>	9.26%	26.52%
<b>Sharpe Ratio</b>	1.34	-0.19
<b>Max Drawdown</b>	-6.6%	-35.8%
<b>Beta</b>	0.05	
<b>Alpha</b>	12.65%	



# Case Study 3: Low Volatility Balanced Portfolio

**Objective:** A custom Low-Volatility Strategy for a Large Global Family Office designed to mimic and improve the internal strategy they have been running for ten years. The benchmark is 25% stocks and 75% bonds and credit, and the portfolio cannot have a decline large than 10% in any calendar year.

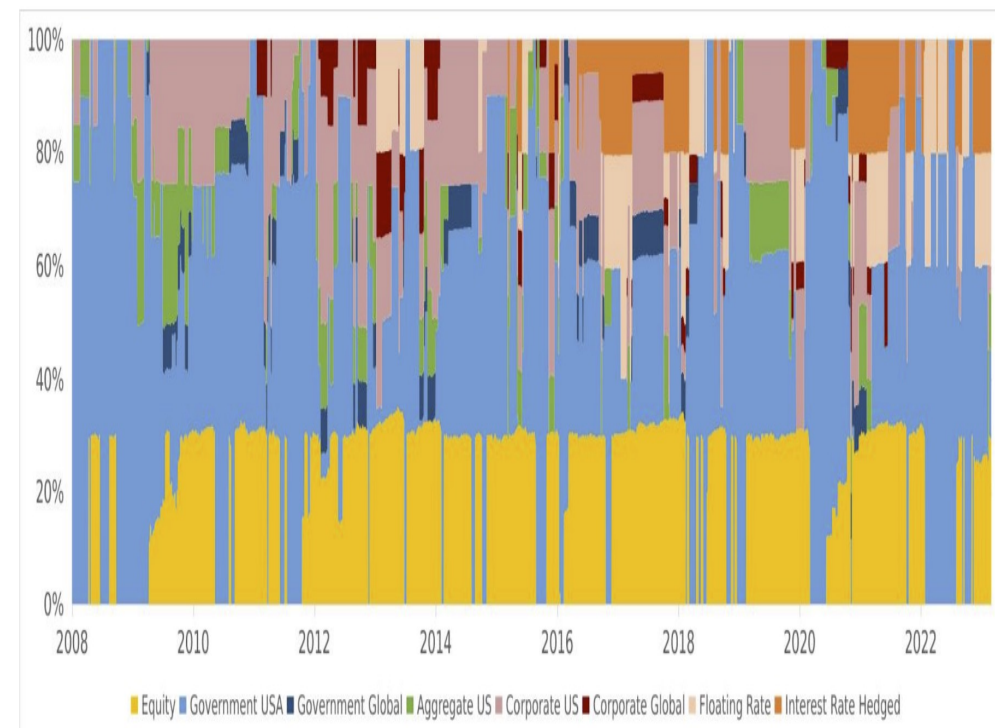
5% Target | ~5% Vol | 25% Stocks | 75% Bonds

**Forecast:**  
5.6% Return | 6.3% Vol | 0.9 Sharpe | 0.77 Benchmark





















	Proposal	Benchmark
<b>Annualized Return</b>	5.58%	3.86%
<b>Annualized Volatility</b>	6.28%	5.07%
<b>Maximum DD</b>	-12.60%	-15.72%
<b>Sharpe Ratio</b>	0.89	0.77
<b>Turnover</b>	6.03	-
<b>Number of lines</b>	9.20	-

Returns	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023*
<b>Proposal</b>	1.88%	5.30%	10.66%	10.15%	6.07%	3.42%	11.35%	-4.64%	6.31%	10.91%	-0.59%	15.99%	8.36%	5.18%	-4.74%	2.85%
<b>Benchmark</b>	-9.01%	13.48%	7.05%	1.91%	6.42%	7.39%	3.99%	1.44%	4.69%	5.96%	-0.04%	11.54%	8.02%	5.99%	-8.41%	6.61%



# It's not Man vs. Machine, but Man PLUS Machine

Competency	Humans	Machines	Man + Machine
Advising investors & understanding needs			
Drafting a portfolio strategy			
Establishing risk management policy and limits			
Identifying market patterns			
Portfolio construction, rebalancing, and selection			
Actively managing risk			
Generating alpha			
Enhancing operational efficiencies			
Monitoring portfolios and holdings			



# Illumenai

## What Now?

Whether you embrace AI or ignore it, it will change the investment landscape you are operating in.

**Embrace Man + AI**

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