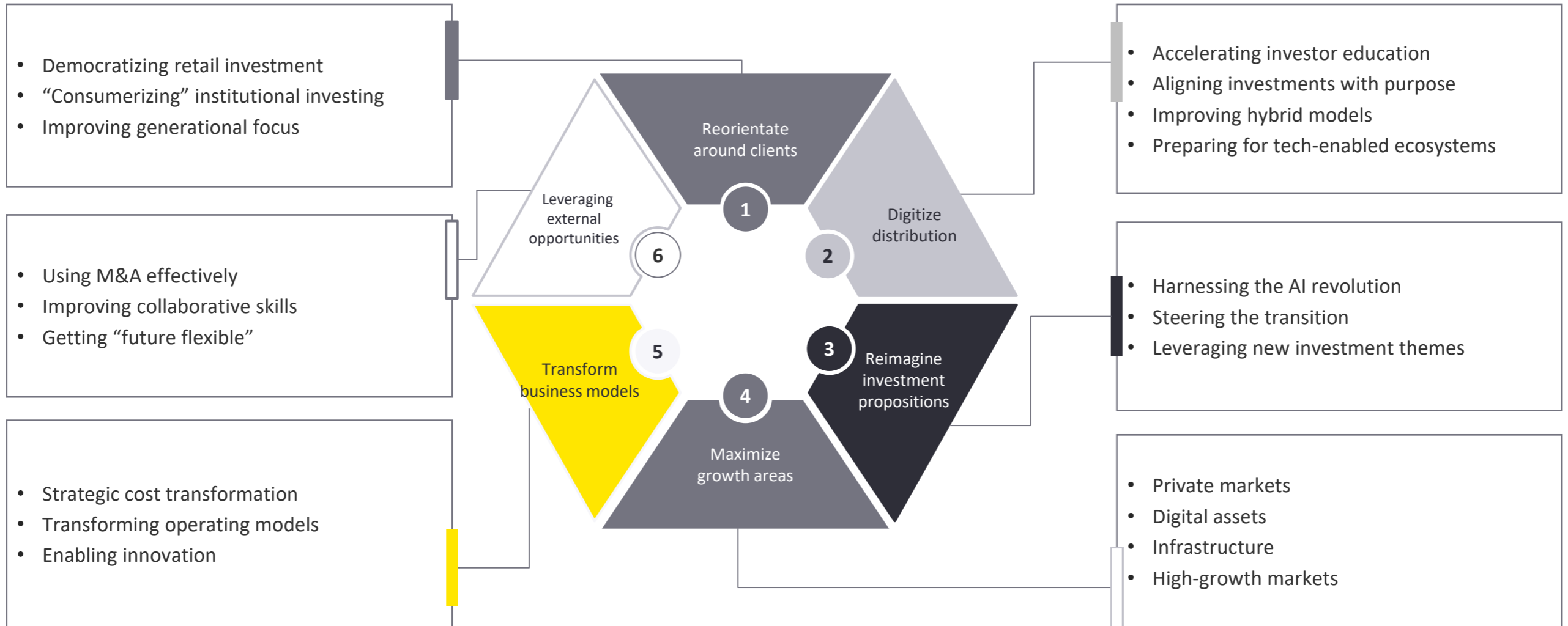




## Han Wee Tan Partner, Wealth & Asset Management Consulting Ernst & Young Advisory

- Vendor selection considerations – integrated solutions vs multiple applications, short-term and long-term considerations
- Planning for a successful implementation
- Cloud hosted solutions – cybersecurity considerations and other potential issues

# A recent EY report on the investment management industry highlights six ways firms can prepare for an uncertain future



Source: EY Report: “Six ways asset managers can prepare for an uncertain future”, February 2023

# Investments in technology, data and automation are now critical for supporting scalable growth in business



## Enhanced investment opportunities

- A mix of in-house portfolio management capability and external fund management relationships – focused on solutions, not products
- Focus on managers' ability to demonstrate value for money and good service
- Improved investment performance reporting, including real-time dashboards, access to raw data and APIs



## Efficiency, scale and speed to market

- Focus on standardising core processes, by using a scalable platform
- Minimising residual manual processes through intelligent automation
- Creation of a single source of trusted data, to reduce duplication
- Use of specific platforms for alternative assets, such as real estate and private assets



## Control, compliance and risk management

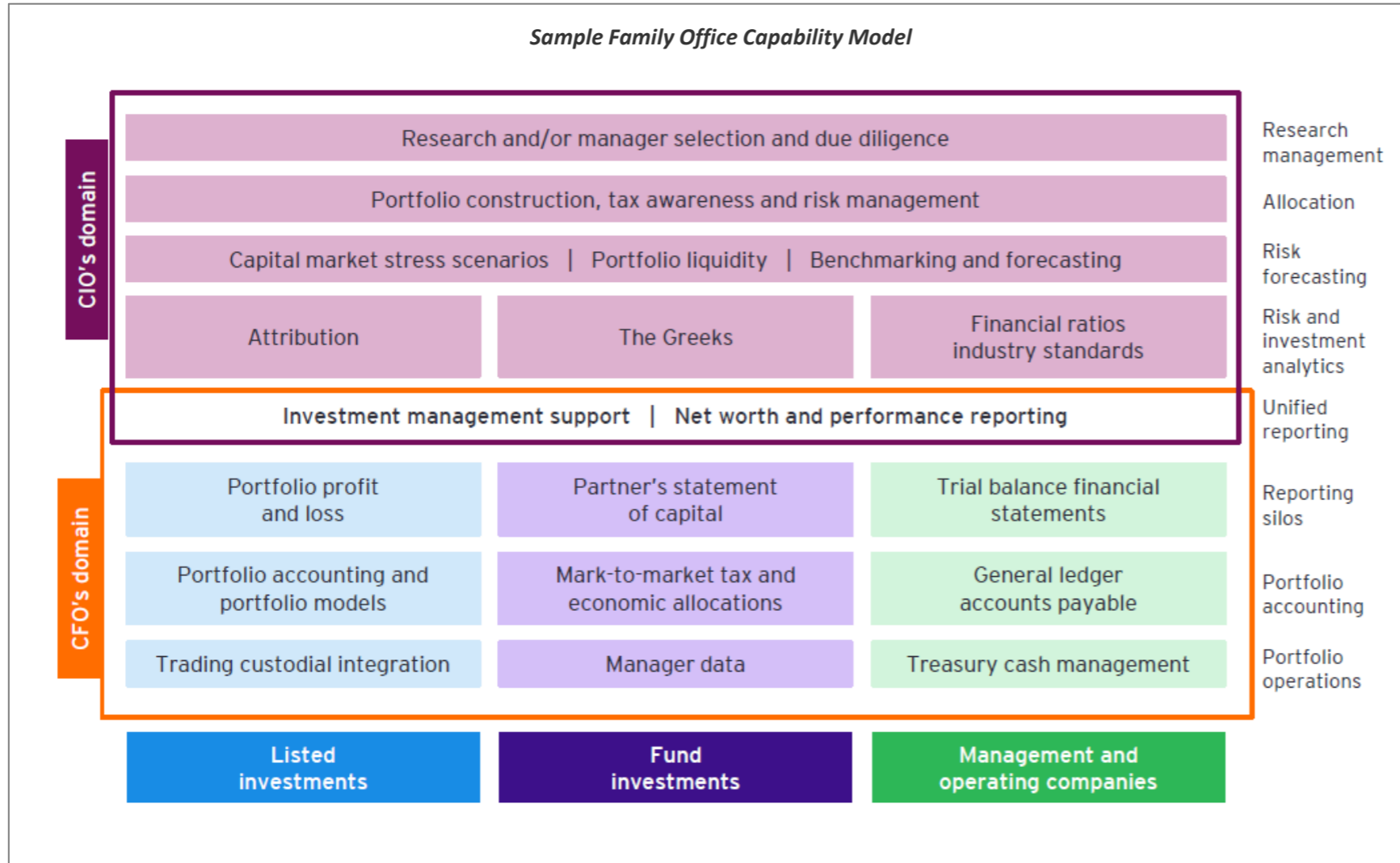
- Requirement for more detailed data for regulatory reporting, as well as risk reporting at enterprise level
- Advanced analytics for risk, compliance and operational monitoring
- Increased regulatory focus on Operational Resilience
- Quality and consistency of investment guidelines for pre and post-trade compliance



## A platform for future innovation

- Creation of enterprise data platforms that combine client, finance and investment data for increased insights
- Opportunities to use new technologies to enhance research and analytics
- Access to new alternative data sources to support product innovation, including ESG

# For family offices, portfolio management, accounting and reporting are core capabilities that require strong system support

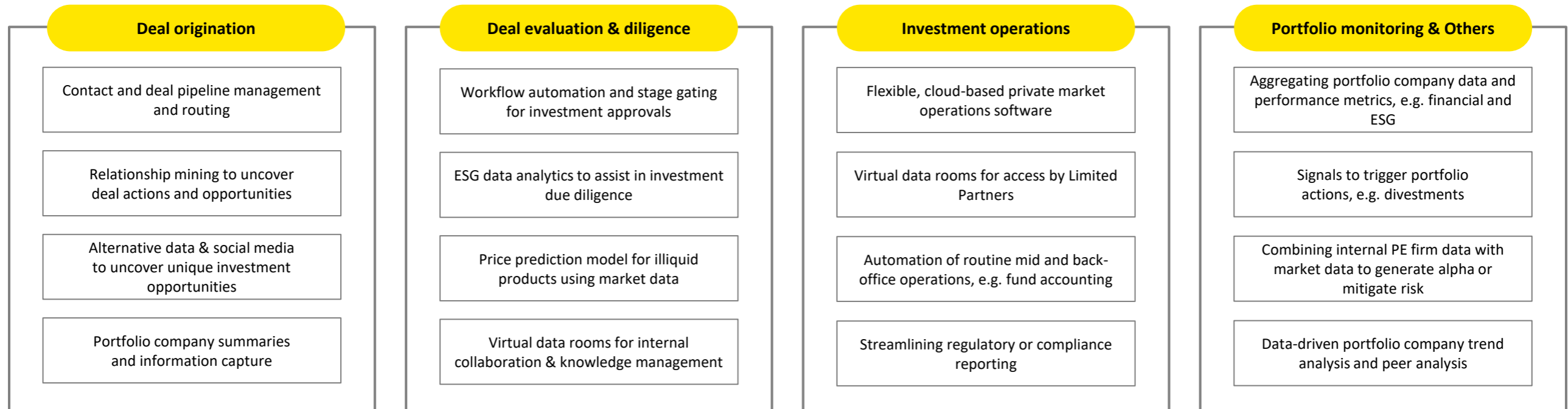


- Sample Accounting / Reporting Considerations*
- Marketable Securities**
    - ▶ Next day aggregation of third party manager data across multiple custodians
  - Illiquid Investments**
    - ▶ Tracking cash flows and other reference data from periodic third party manager statements
  - Partnership**
    - ▶ Allocation of income and investments and accounting attributes through multiple tiers of beneficial owners
  - Financial**
    - ▶ Advanced double entry accounting required to consolidate multiple operating entities, including bill pay and treasury management
  - Tax and Trust**
    - ▶ Adjusting journal entries required to track depreciation and other book/tax differences
    - ▶ Segregation of principal and income cash, modifications related to calculation of assets and liabilities, court reportings

# Within the private markets, technology can also help uncover investment opportunities and improve operational efficiency

ILLUSTRATIVE

## Technology In Action Across The Investment Value Chain



## Technology Enablers

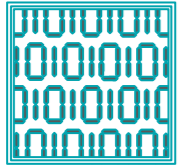


# Technology transformation is anchored on a number of key levers



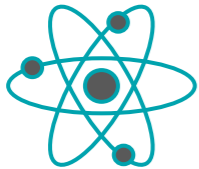
## Platform change

- ▶ Key development and differentiation areas include cloud provision, alternative asset coverage, and global rules libraries



## Data as an asset

- ▶ Some managers are building their own data lakes (often in-cloud), others are relying on service providers to deliver this



## Rise of FinTechs

- ▶ Leading managers are increasingly partnering with FinTech vendors to transform client-facing offerings, risk management, operations, and investment management



## Analytical Insight

- ▶ Analytical capabilities are being used to enhance stock selection and identify arbitrage. Analytical monitoring enables Risk and Compliance to protect the business and meet regulatory requirements



## Intelligent Automation

- ▶ RPA enhanced with machine learning and AI can significantly reduce the cost of highly-manual processes, mitigate risk, enhance operational efficiency and deliver investment and business insight

# A sample 3-part technology transformation plan

ILLUSTRATIVE

## PART 1



### TECHNOLOGY STRATEGY & ARCHITECTURE

- ▶ Current State Analysis – identify pain points and opportunities
- ▶ Target State Design – develop design principles, target state technology architecture and identify solution components
- ▶ Implementation Roadmap - prioritize list of technology initiatives and develop implementation roadmap

## PART 2



### VENDOR SELECTION

- ▶ Mobilization & Market Scan
- ▶ Project planning and vendor market scan
- ▶ Shortlisting of vendors
- ▶ Compile requirements (business, technical, vendor profiles) and RFP document
- ▶ Vendor evaluation criteria and scorecards
- ▶ Vendor demonstrations
- ▶ Vendor selection and recommendations

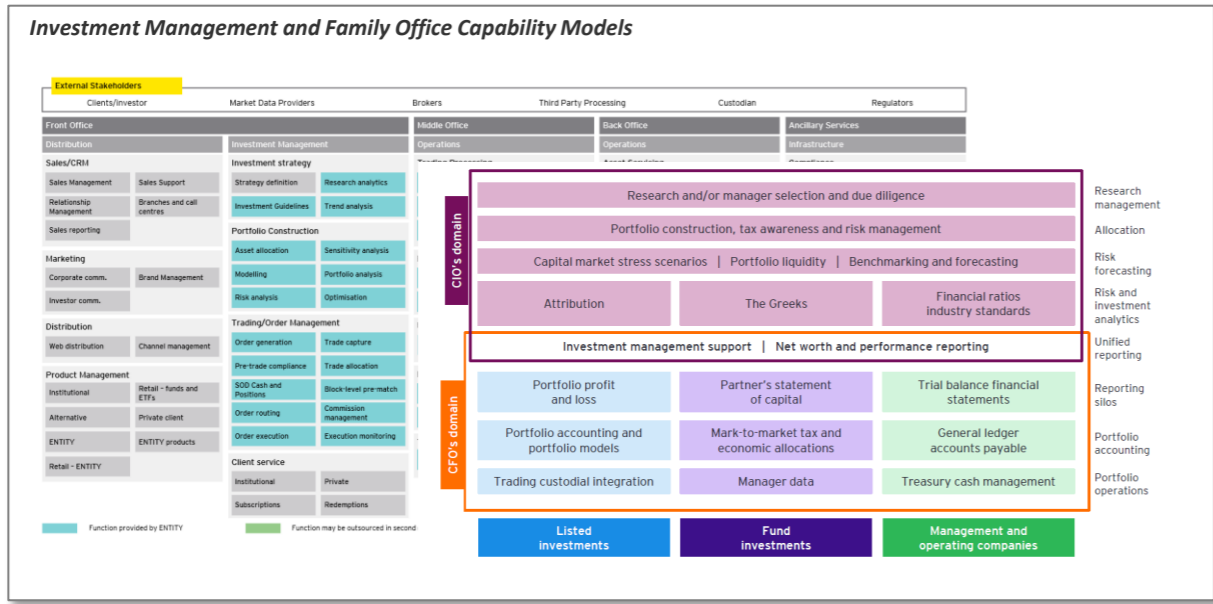
## PART 3



### SOLUTION IMPLEMENTATION

- ▶ Agile project mobilization, develop product and spring backlogs
- ▶ Requirements analysis and user stories
- ▶ Design and development
- ▶ Test strategy, planning, execution
- ▶ System deployment and go-live

# Investment management and family office capability models and toolkits can help accelerate solution implementation

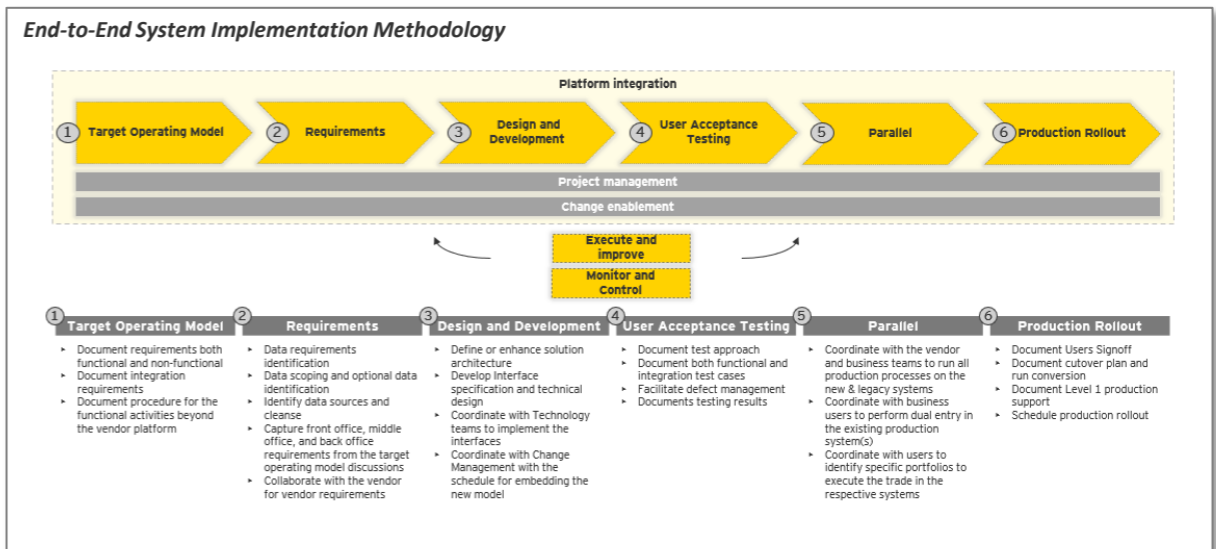


- ### Investment Management System Selection - Key Questions To Ask
1. Would you prefer to run all your asset classes on a single platform?
  2. Do you have multiple global locations requiring differing start-of-day data?
  3. Is having an IBOR a high priority?
  4. Do you envisage outsourcing your middle/back office operations?
  5. Do you have any concerns with using a competitor's platform?
  6. Do you envisage using cloud/external/ASP infrastructure?
  7. Do you envisage outsourcing your reference (security, issuer, price) data?
  8. Do you see value in bespoke investment processes?
  9. How highly do you rate the need to define your own requirements for a new version of the system?
  10. How complex would you say your compliance rule requirements are?
  11. How important is a consistent source of data for client reporting?
  12. What is your level of concern about the costs of reconciliation, trade errors and other trouble shooting?
  13. How highly do you rate the involvement/engagement of the vendor in supporting implementations and enhancements?

### Investment Management System Selection – Toolkit and Templates

This section provides a toolkit for system selection, including:

- Functional Requirements Checklist:** A table listing various functional requirements such as Client Management, Deal Management, and Risk Management, with columns for Vendor A, Vendor B, and Vendor C scores.
- Non-Functional Requirements Checklist:** A table listing non-functional requirements like Security, Usability, and Migration, with columns for Vendor A, Vendor B, and Vendor C scores.
- RFP Response Scores:** Two radar charts showing RFP response scores across functional and non-functional requirements for three vendors (Vendor A, Vendor B, Vendor C).







**ETON**  
SOLUTIONS

Administrative  
Family Office



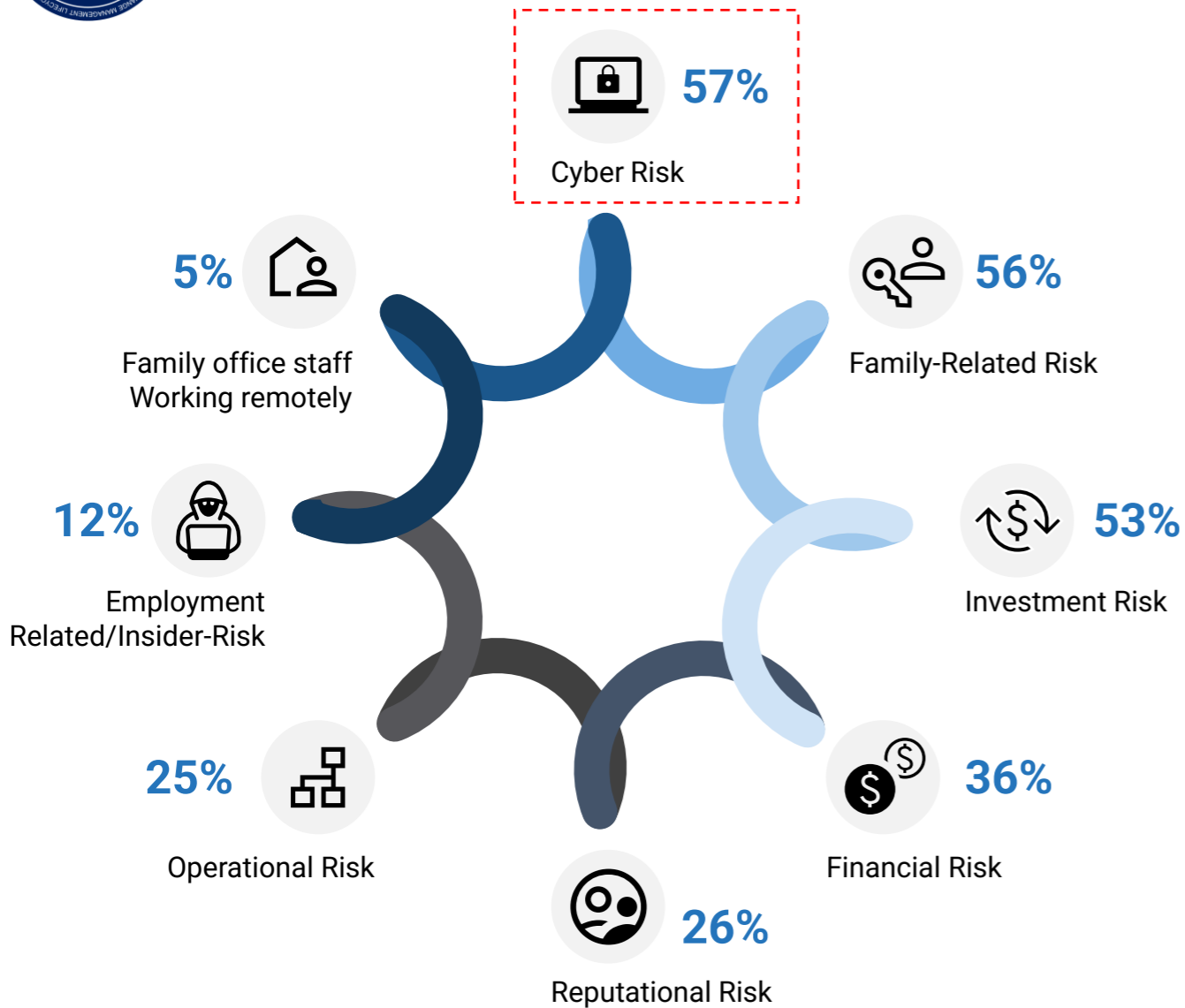
**Murali Nadarajah**

Chief Information Officer

**Managing Technology  
Challenges for Family Offices:**  
Vendor selection, Implementation and  
Cybersecurity considerations



# The Risk Landscape



**Family Office survey respondents say cyber risk is the leading risk.**

Boston Private (2022), Family Office Exchange (2021) and Northern Trust (2018) surveys identified cybersecurity as the No. 1 concern for family offices.

Over 50% of ultra-high-net-worth family wealth is managed through Family Offices. Yet even the largest Family Office cannot match the security resources of most banks and large corporations.\* This makes them a huge target for cyber criminals.

- Security breach types:
- Employee or family member impersonation
  - Blackmail or extortion
  - Damage reputation
  - Market manipulation
  - Industrial espionage

Ref: Boston Private | Surveying the Risk and Threat Landscape to Family Offices

**\*Eton Solutions AFO matches the best security solutions across many industries**










# Cyber Resilience: What does "GOOD" look like?

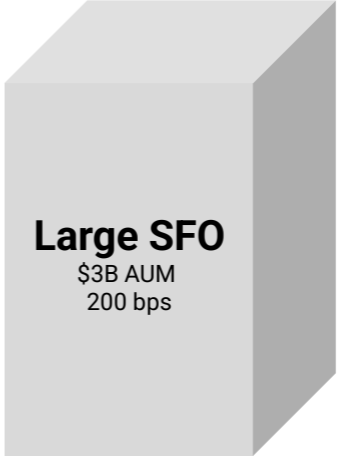
People, Process, Technology and Data



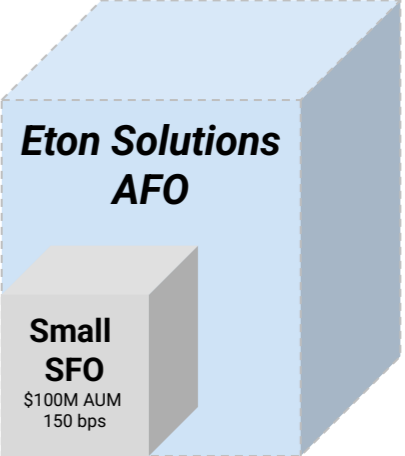
# Raising the bar for small family office security

Now small Family Offices can access the same services initially only available from large institutions.

|   | Large SFO > \$3B AUM | Small SFO > \$100M AUM | Small SFO + Eton AFO |
|---|----------------------|------------------------|----------------------|
|  Active 24x7 Monitoring                    | 65%                  | 15%                    | 100%                 |
|  Industry Accredited Operations            | 85%                  | 25%                    | 100%                 |
|  Security First Staffing                   | 65%                  | 35%                    | 100%                 |
|  Fort Knox Security                        | 55%                  | 25%                    | 100%                 |
|  Trust No One                            | 35%                  | 9%                     | 100%                 |
|  Active Asset Control and Management     | 45%                  | 5%                     | 100%                 |
|  Business Continuity & Disaster Recovery | 65%                  | 17%                    | 100%                 |



The large SFO has the budget to create and develop a broad range of services.



Eton Solutions AFO allows the small SFO to match the breadth and dept of services that the large financial institutions can offer.

Eton Solutions has economies of scale that also benefit small family offices.

Cobbling together a suite of third-party security solutions leaves SFOs highly vulnerable. Eton's AFO approach bolsters SFO security to world-class levels.