

Alternative Data and Collective Intelligence Investing: Risks of Adoption



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Alternative data adoption: Risks and rewards for investment management

CAIA – FDP March 8, 2021

Alternative data discussion topics

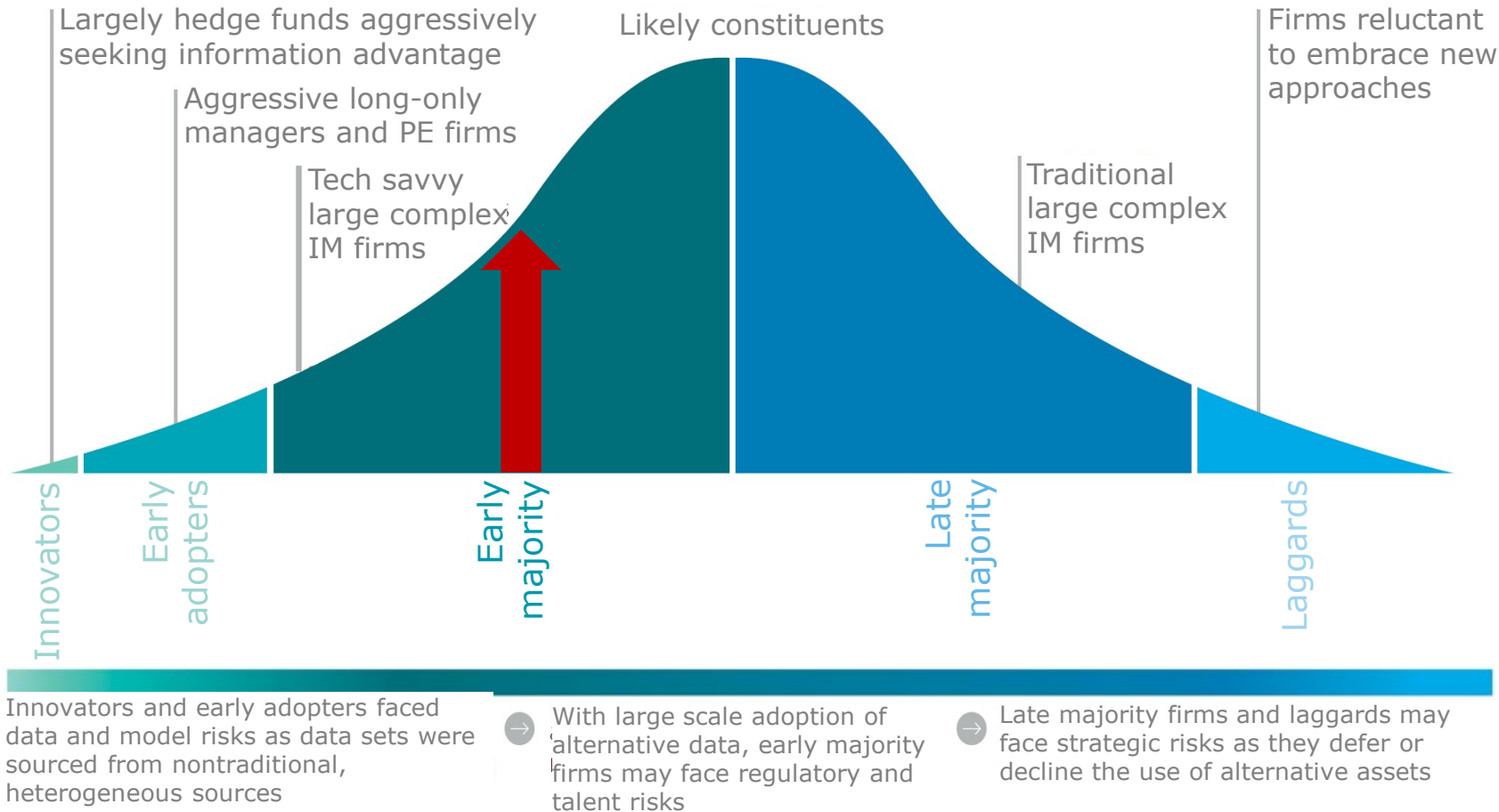
- What is alternative data and its use in adoption and uptake in investment management (IM)
- Risk exposure around alternative data
- Adoption process for alternative data

What is alternative data and its use in adoption and uptake in investment management (IM)

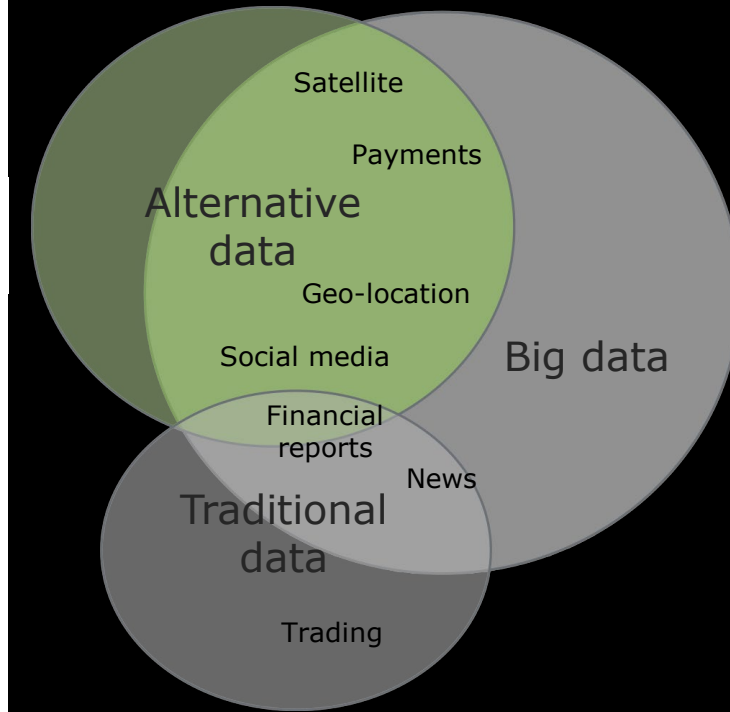
Rising adoption of alternative data

Hedge funds were the innovators in this space, but the technology is reaching a tipping point and may see exponential growth over the next year

Alternative data adoption curve – investment management constituents by phase



Defining alternative data...

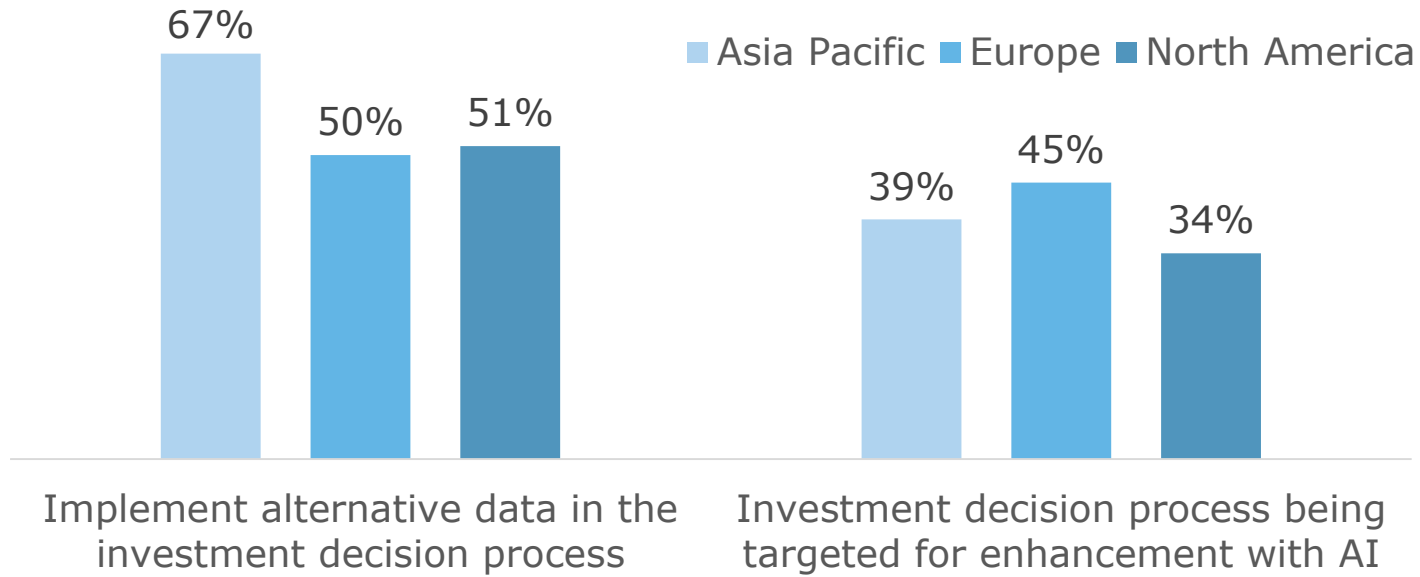


...a subset of big data that comes from traditional often non-financial data in a variety of sources and tendency to be unstructured (text and imagery)

Investment decision process is undergoing quantum leaps forward

Successful firms will likely develop novel investment strategies, optimize portfolios with complex constraints, and generate more accurate forecasts by harnessing alternative data and extracting data insights from large data blocks

Investment decision process improvement actions planned over the next year



Source: The Deloitte Center for Financial Services, 2020 survey of investment management firms

Nowcasting—Ability to sense market activities near real-time

- Many firms not operating at the speed of the markets
- As the pandemic unfolded, several central banks started using “nowcasting” to update models using real time data
- Firms must have the right talent in place to process huge data sets with advanced analytical techniques

53%

Hedge funds are embracing “nowcasting”

Long-only managers and private capital managers are following suit

Source: Casting the Net, How Hedge Funds are Using Alternative Data (AIMA)

Alternative data & investments case studies

Several clear case studies have emerged demonstrating the value of analytics in combination with alternative data applied to the investment process



ON-LINE PRICE = INFLATION

Global FSI Firm employs technology to track prices of 5 million products on-line to understand price shocks and monitor shifts in inflation across 70 countries¹



APP + CREDIT CARD = PERFORMANCE

Hedge Fund looks at combination of alternative data including credit card transactions, geo-location, and app downloads to analyze burger chain performance²



SOCIAL + SEARCH = EARNINGS

\$90B AUM Global Asset Manager mines search engine data combined with social-media data to predict results of corporate events like quarterly earnings³



MOBILE FOOT TRAFFIC = ECONOMY

Hedge Funds using location data pulled from mobile devices to predict outlook on economy and REIT values⁴



SATELLITE + SHIPS = MISPRICED SECURITY

Hedge fund using satellite intelligence on ships and tank levels to identify upcoming impact to oil producers and commodity prices⁵



WEB + TWITTER = MARKET MOVING EVENT

Data provider using 300M Websites, 150M Twitter feeds in combination with analyst presentations and FactSet reports to measure how a story rises up the media food chain (e.g. blogs to newswire) to highlight potentially market moving events⁶

The alternative data universe is growing quickly...

10x

The amount of data generated globally is expected to grow tenfold to 163ZB by 2025*

\$2–3 billion

JP Morgan's estimate of spending by asset managers on alternative data (2017)**

4x

Number of alternative data analysts has more than quadrupled over the last five years

Source: AlternativeData.org

1. Innovative Asset Managers, Eagle Alpha

2. "Foursquare Wants To Be The Nielsen Of Measuring The Real World," Research Briefs, CBInsights, June 8, 2016.

3. Simone Foxman and Taylor Hall, "Acadian to Use Microsoft's Big Data Technology to Help Make Bets," Bloomberg, March 7, 2017.

4. Rob Matheson, "Measuring the Economy With Location Data," MIT News, March 27, 2018.

5. Fred R. Bleakley, "CargoMetrics Cracks the Code on Shipping Data," Institutional Investor, February 04, 2016.

6. Accern website

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What is Collective Intelligence Investing (CII)?

Web 2.0 technologies and advanced computing power have enabled investment managers to derive market insights from online communities and crowdsourcing platforms

TYPES OF ONLINE COMMUNITIES AND CROWDSOURCING PLATFORMS SUPPORTING CII			
Community type	Description	Investment – related information	Crowdsourced platform example
Open communities	An open network where any member can contribute investment-related content (mostly unstructured), ideas, and experiences.	<ul style="list-style-type: none">- Stock sentiment- Buy/sell recommendation- Company news- Investment research- Investment strategy / themes	<ul style="list-style-type: none">-Seeking Alpha-eToro-StockTwits
Digital expert contribution networks	A highly qualified group of experts contributes their research, opinion, or advice on the platform.	<ul style="list-style-type: none">- Hedge fund research and views	<ul style="list-style-type: none">-Harvest exchange
Digital expert communication networks	Group of experts use a platform for communicating their research and views, either externally or internally	<ul style="list-style-type: none">- Buy-side professionals	<ul style="list-style-type: none">-SumZero
Crowdsourcing platforms	Open community for gathering specific investment signal inputs to support the investment-decision process. The community-generated information pool is analyzed to derive market insights.	<ul style="list-style-type: none">- Earnings and financial estimates- M&A deals- Algorithmic investment and trading strategies	<ul style="list-style-type: none">-Estimize-Quantopian



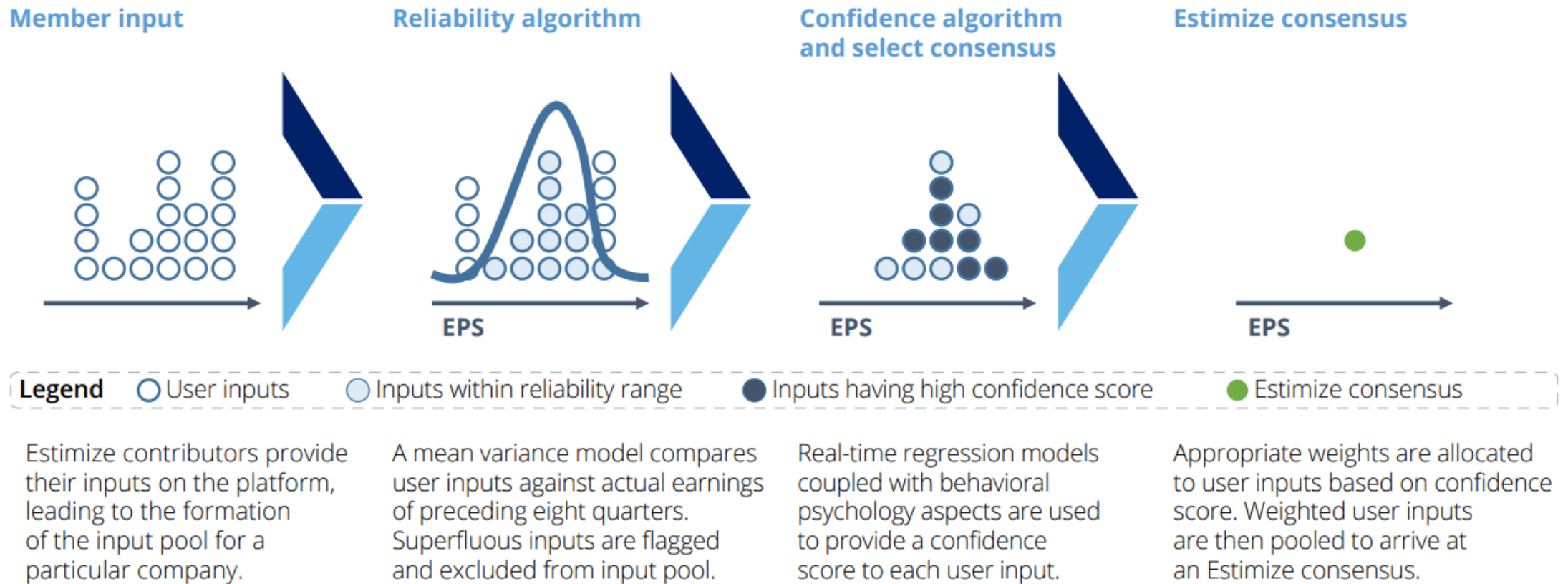
Challenge - *To identify and sort the useful and dependable signals from the noise across different platform types*



Risk exposure – *The impact and priority of each risk type varies with the platform type and unique investment manager attributes*

Crowdsourced input processing and analysis

Estimize uses machine learning algorithms for screening and filtering earnings per share (EPS) estimates



Source: Deloitte Center for Financial Services analysis (based on interview with Leigh Drogen, Estimize founder & CEO).

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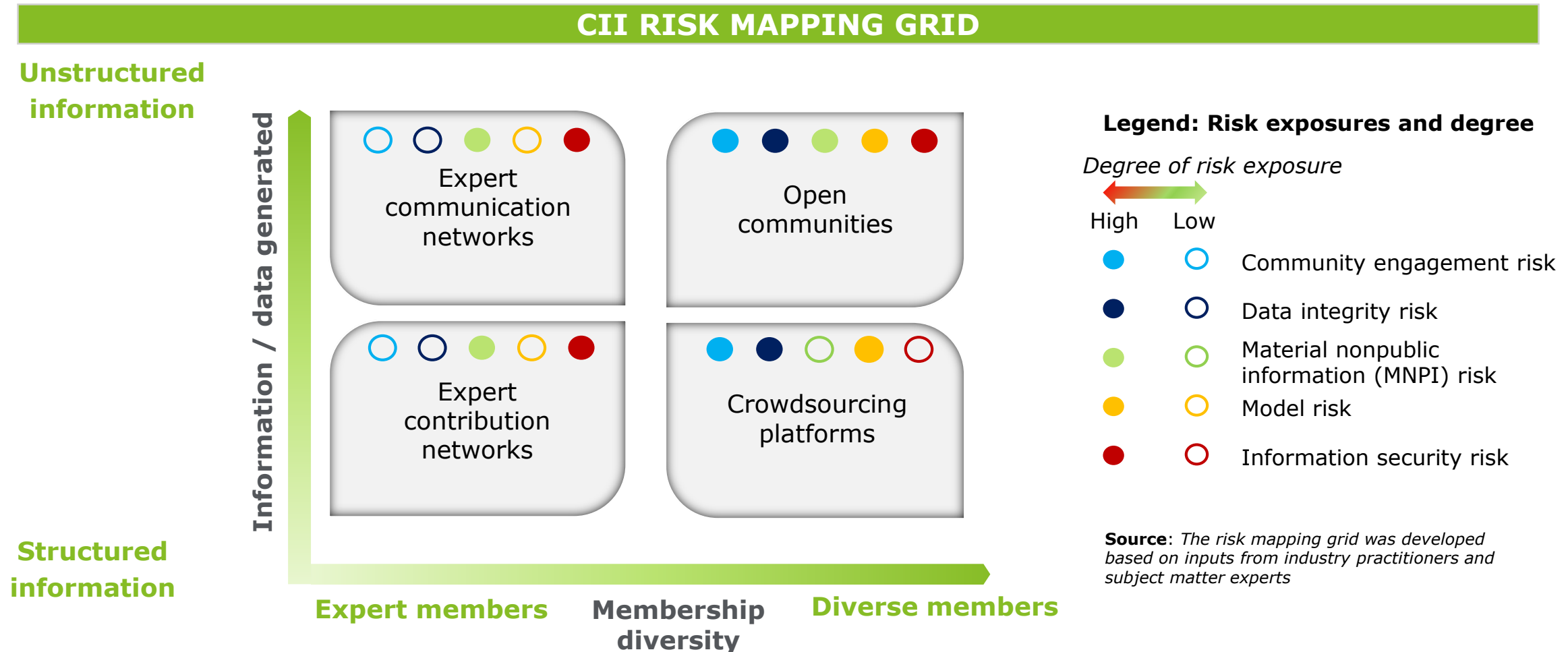
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Risk exposure around alternative data

Risk exposures across different CII platforms

Investment managers and CII platform providers are exposed to traditional and non-traditional risk types of varying degrees

*In addition to investment, reputational, and cyber risk, investment managers and CII platform providers are exposed to five key risks – **community engagement, data integrity, material nonpublic information, model and information security risks***



Risk exposure - For firms that act early

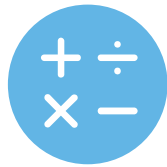
Alternative data carry greater risk than traditional data and these datasets may also introduce newer risk types

Risk exposure due to early adoption of alternative data



Data risk: Firms may face these types of data risks due to immature risk control processes at data providers

- **Data provenance risk:** Violation of the terms and conditions from the data originator while scraping websites
- **Accuracy/validity risk:** Data may prove unreliable or produce an inaccurate trading signal
- **Privacy risk:** Personally identifiable information could be included in a dataset received from a source
- **Material non-public information (MNPI) risk:** Receipt of a dataset containing MNPI could result in risk events



Model risk: The potential of new data sources to impact the investment models and perhaps decision making, if:

- The data is incorporated in the model incorrectly
- The trading signal generated is irregular or inconsistent under certain conditions
- The output of the model is improperly linked to the trading process



Talent risk: IM firms may face the following risks due to the rise in demand for data science and advanced analytical skills to process alternative data:

- Loss of intellectual capital through talent turnover
- Impact on alternative data utilization ability due to delayed training for existing employees



Regulatory risk: Regulations governing the use of alternative data are still in the early stages of maturity. There are open questions about acceptable practices with respect to the use of alternative data

Risk exposure – For firms that act late

The risk impact and vulnerability for late majority firms and laggards may be much higher as compared to early adopters of alternative data

Risks exposure due to late adoption of alternative data



Strategic positioning risk: Late adopters may not be well positioned to create value for their clients because:

- The “wait and see” approach is likely to create an information disadvantage
- They may mistakenly see alternative-data-driven price changes as opportunities



Strategic execution risk: Firms that choose to delay the adoption may find it difficult to execute the strategy because:

- Securing the already scarce talent could have adverse consequences
- Firms that have the right talent, capabilities, and infrastructure in place can stay a step ahead of the late adopters



Strategic consequence risk: The strategic consequences of not using alternative data as an input for investment decision could include:

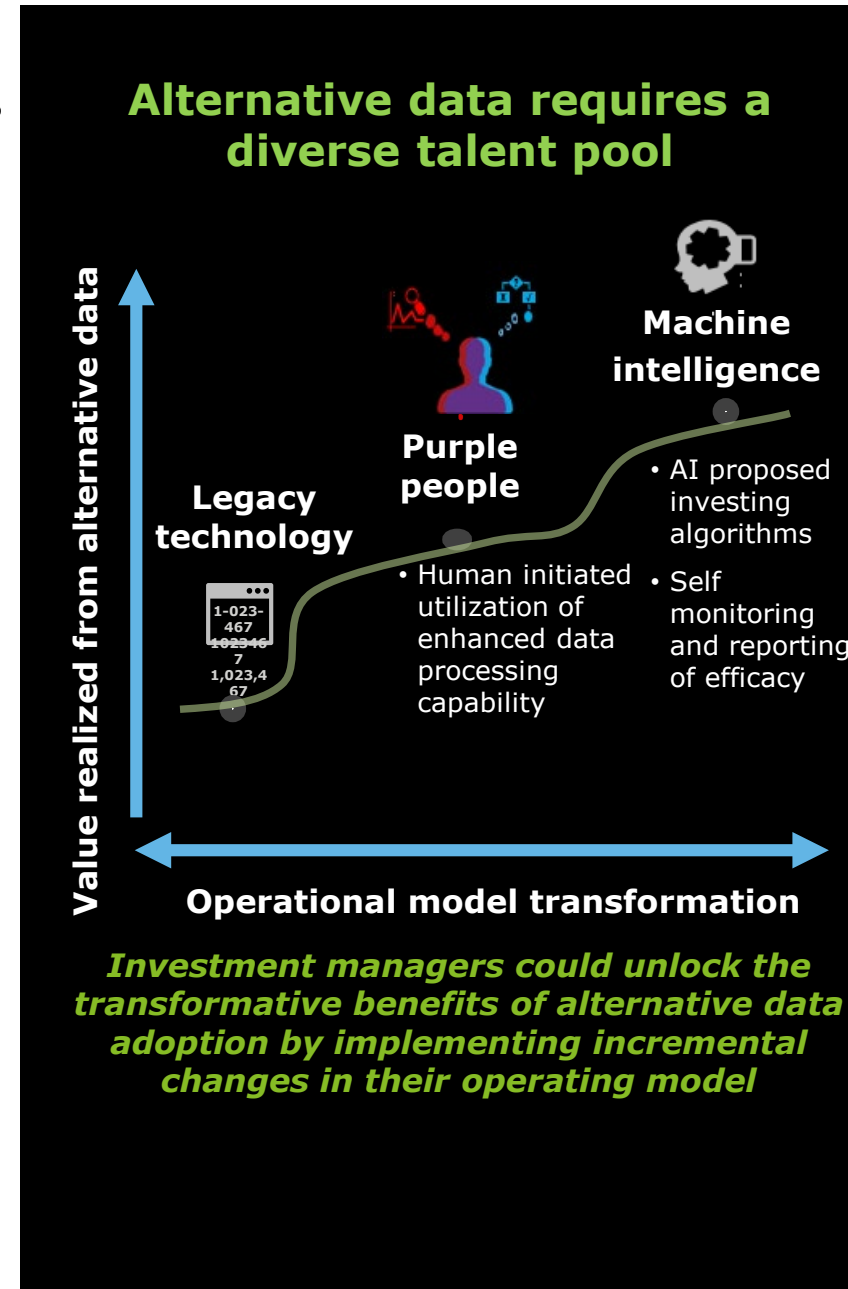
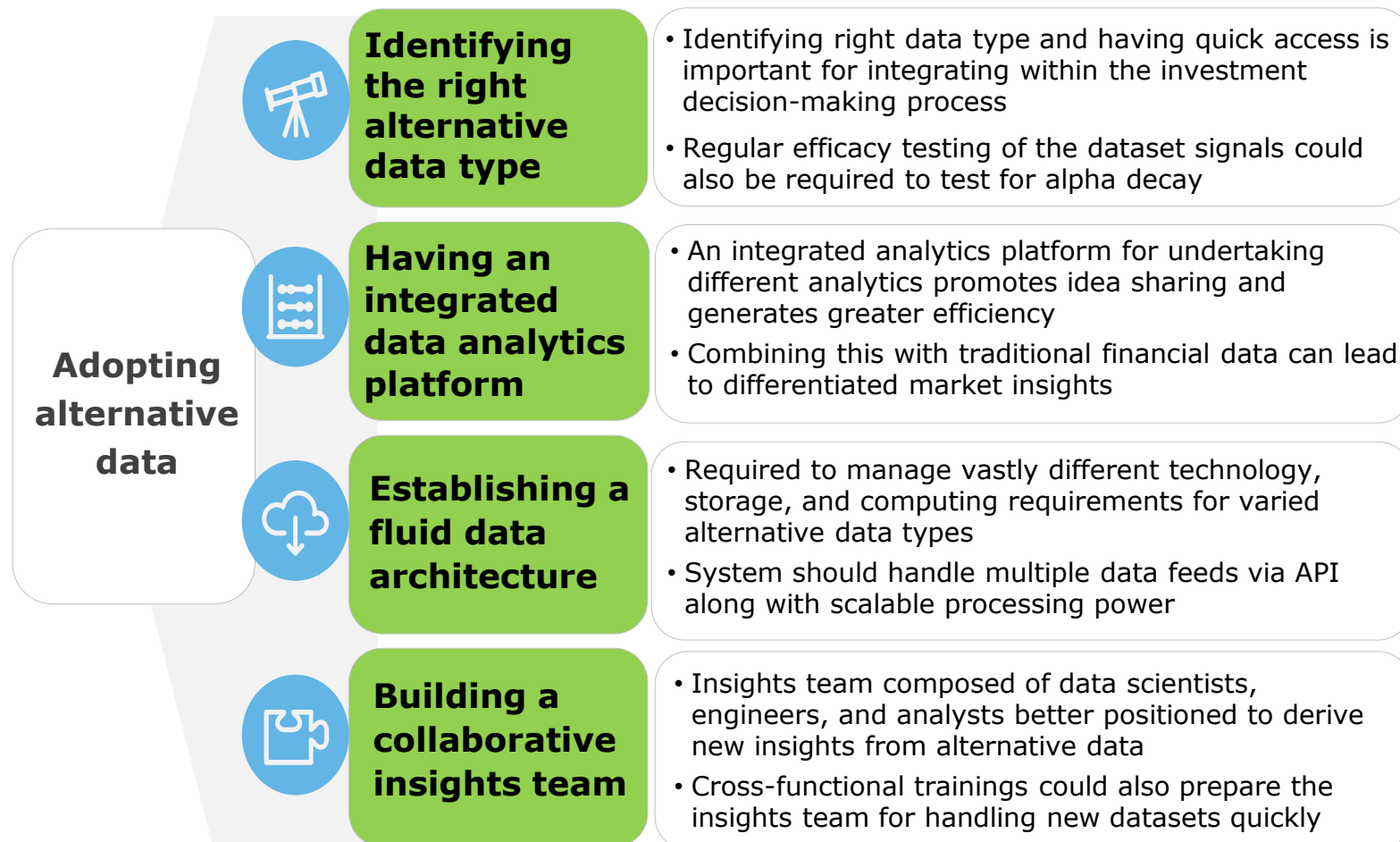
- Inability to keep up with the innovation and getting outmaneuvered by peers with the alternative data edge
- Reputational risk
- Capital flight as a result of tarnished reputation

Approach for adoption of alternative data

Alternative data adoption requires operating model changes

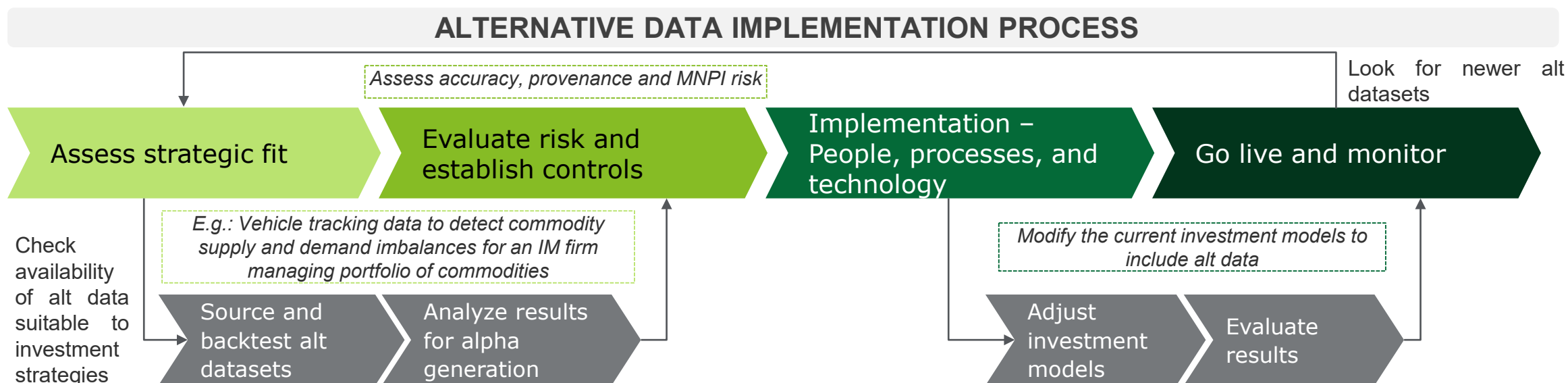
An ongoing talent and technology race is on for alternative data implementation as IM firms see the rewards of implementation

Points to consider while adopting alternative data



Alternative data – Path to successful adoption

Alternative data adoption requires revamping of processes and infrastructure across business functions of an IM firm



KEY ACTIVITIES

- Analyze investment strategies to assess the effectiveness of alternative data usage
- Identify appropriate alt data sources

- Assess data risks
- Evaluate model risks for alignment with investment policy statements
- Analyze regulatory risks

- Implement technology infrastructure to incorporate alt data
- Hire the right talent for creatively analyzing and visualizing alt data

- Evaluate augmented investment model results, and go live
- Continuously monitor the models for performance



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