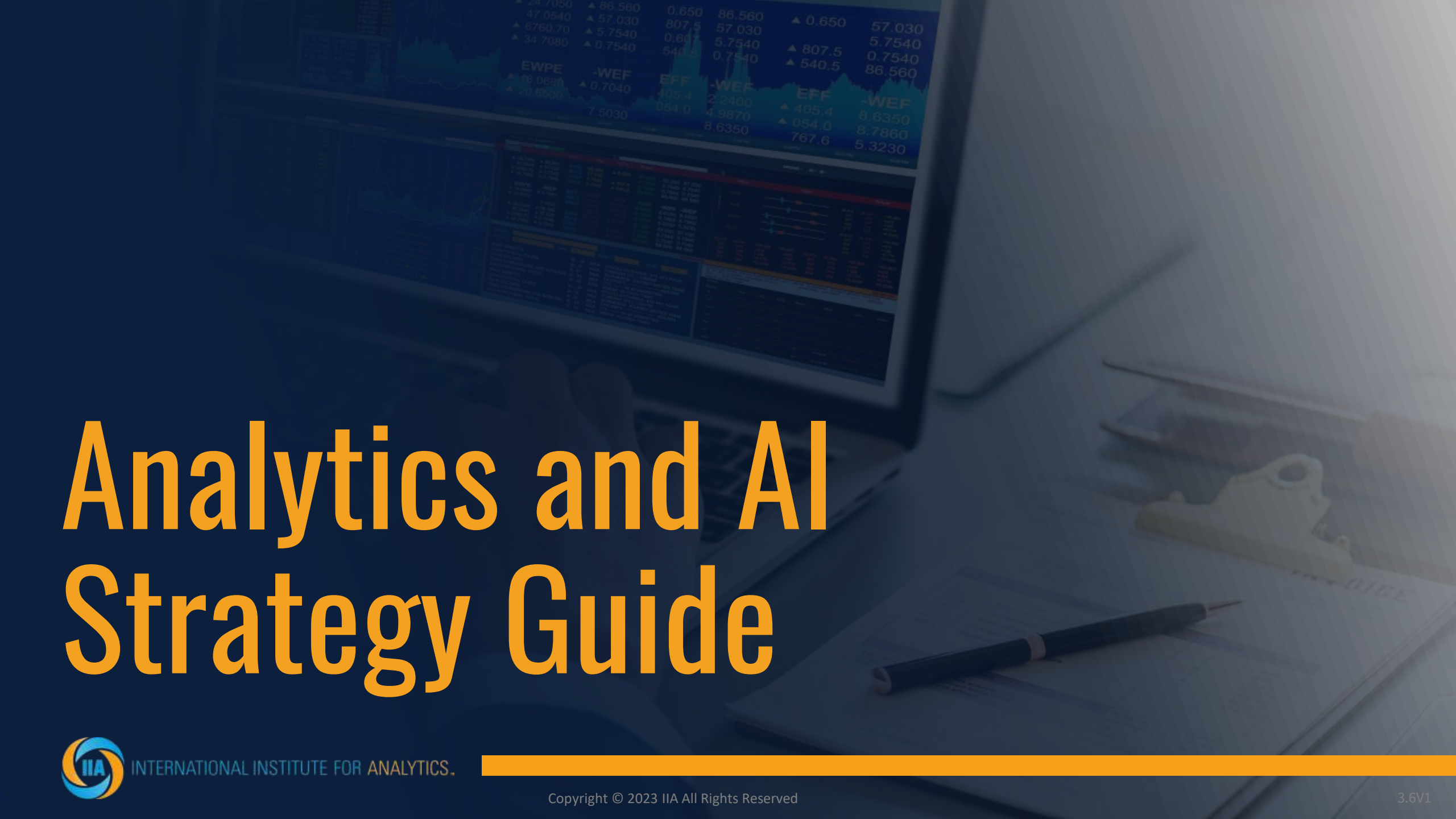

# Analytics and AI Strategy Guide

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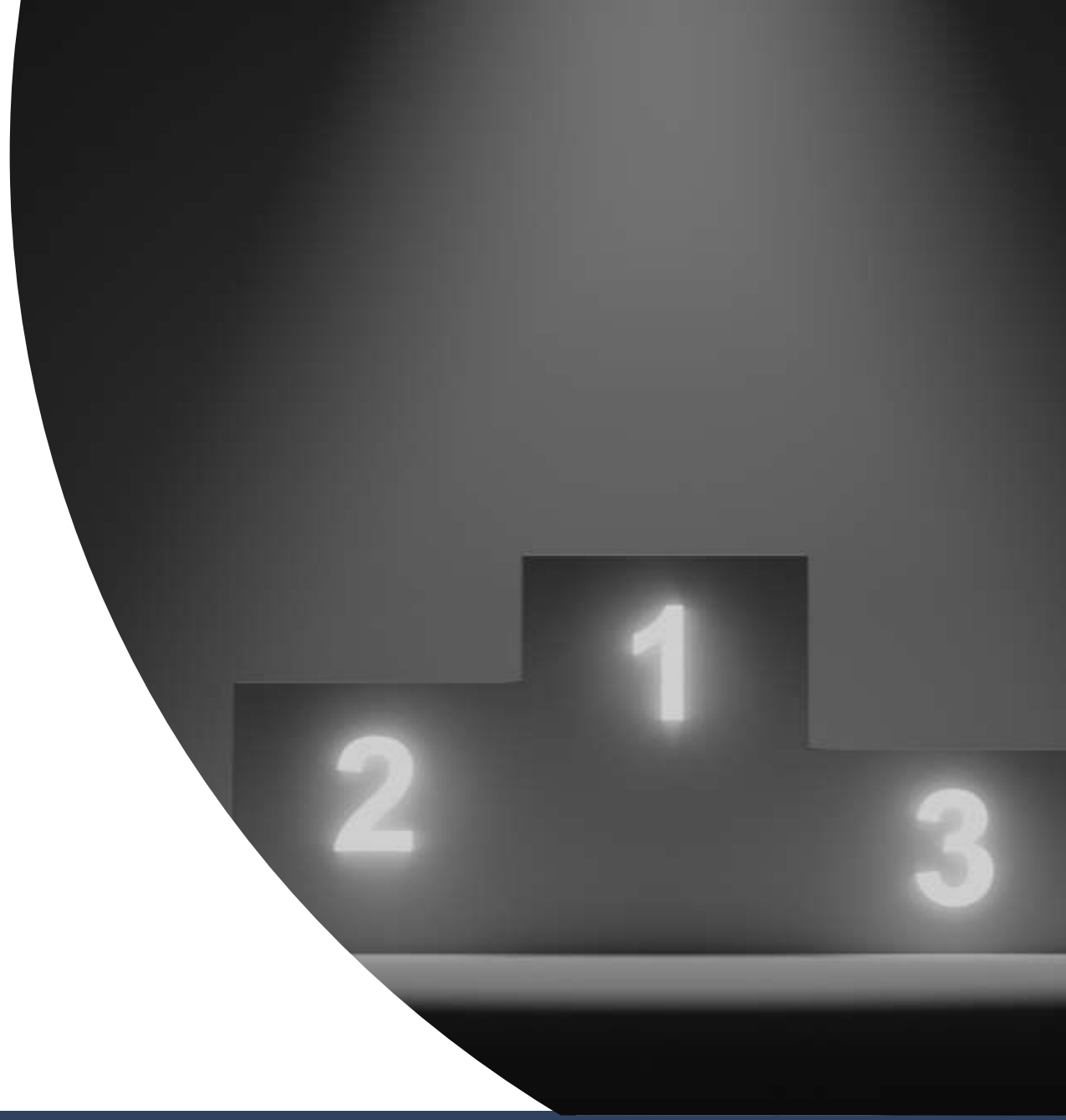
# The Objectives of an Analytics Strategy

There are two primary purposes of an analytics and AI strategy. One is to aid the overall organization in its application of these resources. For this purpose, a strategy would address topics such as what kinds of applications or use cases should be the company's focus; what kinds of talent it needs; and what kinds of data it should have. **Eventually, analytics and AI should be the province of every function** and unit within the organization, and they can all be guided in their AI initiatives by the strategy.

The second purpose is to guide analytical and AI professionals within the organization. An effective strategy could help them build the right use cases; employ the right tools and methods; hire the right staff; work in the right ways with other parts of the organization; and provide the right kinds of value.



# Evolving an Organizational Structure Over Time

**Areas Addressed**

- *BI*
- *Predictive/Prescriptive Analytics*
- *AI*
- *Automation*
- *Data Strategy*
- *Data Architecture*


**Strategy Process**

- *Formality*
- *Participation*
- *Assessment*
- *Link to Business Strategy*


**Strategy Components**

- *Operational/Org Model*
- *Funding Model*
- *Applications/Use Cases*
- *Service Lines*
- *Technology*
- *Talent*
- *Change Management*

**Disseminate & Monitor**

- *Document Distribution*
- *Briefings/Education*
- *Periodic Monitoring*

# Determining Areas to be Addressed

One essential question is just what kinds of activities are covered by the strategy. “Analytics” is a broad term and may encompass activities ranging from:

- Business Intelligence
- Advanced Analytics
- AI
- Data Infrastructure

Some companies may include, for example, digital or web analytics in an overall strategy, and some may include that category in a separate domain and strategy. Analytics strategy may incorporate operational analytics in manufacturing environments. It’s important to decide and announce not only what areas are included, **but those that are not**.

# The Strategy Process Pt. 1

## 4 Aspects of the Process:

- **Formality** - A strategy can be formal or informal. An informal strategy would involve discussions with senior executives and analytics/AI leaders about objectives, key projects, funding, and so forth. A more **formal approach** with a strategy document captures strategic deliberations in some sort of written text and **makes broad awareness and action on the strategy more likely**.
- **Participation** - This type of strategy development requires marrying deep domain knowledge with extensive awareness of analytics and AI capabilities. Candidates should have the following traits:
  - Knowledge of the most up-to-date analytics and AI practices and how they are used in the business
  - Effectively communicate to managers in non-technical terms;
  - Understand the key issues of the business overall and its current strategic direction
  - Understand design thinking

# The Strategy Process Pt. 2

## 4 Aspects of the Process cont.

- **Assessment** - Since an analytics and AI strategy is generally intended to improve capabilities and outcomes, it is often a good idea to perform an assessment of existing capabilities before starting a strategy effort.

  IIA has extensive experience with **assessments**, and by using its diagnostic tools, companies can compare their existing capabilities with companies in their industry or others. That comparison can provide motivation and insight for an analytics and AI strategy, furnishing the starting point for a detailed roadmap.

- **Link to Business Strategy** - Analytics and AI activities should, at a minimum, reflect and support an organization's business strategy. However, in companies for which data and analytics are considered strategic resources, the link to business strategy may be more direct.

# Operational Models

Operational models are often combined with organizational and funding models. Below are several common (but not exhaustive) combinations:

- Service bureau
- Hub-and-spoke or federal models
- Strategic applications only
- Center of excellence model
- Self-service model
- Outsourced model

The choice of operational and organizational model **is likely to change over time** in most companies. One large retailer, for example, reorganized and changed quickly from a centralized model focused on building important analytics and AI applications and reporting to a chief digital officer on the business side, to a decentralized model reporting to the chief information officer and focused on meeting all needs (service bureau) for analytics and AI services.

# Funding Models

If the operational and organizational model doesn't include a funding model, AI, and analytics strategy should include it to specify the financing of these technologies in the business. Investment in these areas **is on the rise in 92% of firms** in the 2022 NewVantage Partners survey. That survey also found that the same percentage was achieving returns on their data and AI investments, **almost double the percentage reporting returns in 2017**.

Funding model decisions should address where the initial funding for executing the strategy will be obtained; how internal (and in some cases external) customers will be charged for their analytics and AI projects; and how return on investment will be measured.

# Applications/Use Cases

Almost every organization must face the issue of is where in the business to apply analytics and AI. What business problems, issues, or opportunities can benefit from the use of these powerful tools, and what applications or use cases can address them?

Some analytics and AI applications seem to yield more value than others; a 2021 MIT Sloan Management Review survey found that companies that used **AI primarily** to **create new value** were **2.5 times** more likely to feel that AI is **helping their company competitively** compared with those that said they are using AI primarily to improve existing processes. This decision of which use cases to emphasize should largely be driven by business strategy.

# Analytical/AI Service Line

As analytics and AI grow more popular and central to business strategies, there is also a need to produce successful outcomes repeatedly, reliably, and quickly. Analytics and AI groups need to have “service lines” in place.

Service lines are necessary because the customers of analytical groups within organizations need both quick and reliable delivery of analytics/AI, but they also need to be familiar with the possibilities for such work.

A service line should have the following attributes:

- Analysis has been provided before, ideally several times—and it’s achieved a good outcome
- There is some sense of a process that is followed to produce the desired result
- Data is either readily available for the analysis, or it can be found easily
- It’s clear what the likely decision outcomes are for the analysis
- Likely customers for this service within your organization or client have been identified
- There is some degree of marketing material to describe this service and its benefits.

# Technology

Analytics and AI are not one technology, but a collection of them—including data management tools, business intelligence tools, visual analytics, statistical machine learning, neural networks, natural language processing and generation, and robotic process automation.

In order to make **wide-reaching technology decisions**, an organization needs not only a clear idea of **what business objectives it wants to accomplish** but also what specific analytical and AI **methods it needs to use** to solve them. In order to ascertain the right technology to build or buy, a company needs to involve not only executives but also expert analysts, IT professionals, and data scientists.

# Talent

The choices for talent strategy are similar to those for technologies: **buy, build, or rent**. To **buy** people is to hire those who already possess the needed skills. Hiring talent will be particularly **difficult** if your company is **not located** in **large** East Coast or West Coast cities, and it is not willing to pay large compensation figures.

To "**build**" people is to train them in the needed skills. This will be much less difficult if the candidates for such training already have basic statistical and data management skills. It is relatively **rare for companies to engage in substantial efforts to train** or retrain their employees in analytics and data science skills, but it **should be more common** as companies have had great success when undertaking large retraining programs.

A third basic option is to "**ren**t" an analytically-informed workforce, which is to hire consultants or vendors to deliver services. This strategy is widely practiced by companies that don't have the in-house expertise to build analytics and AI applications.

# Change Management

Projects employing analytics and AI are not just about technical change, but also about changes in organizational culture, behavior, and attitudes. Change management is one of the **most important components** in a successful analytics and AI program; **without it**, models and systems may be developed, but **not successfully deployed**. Typical change management approaches include stakeholder management, frequent communications, training and upskilling, and careful planning for deployment.

Change management techniques may or may not be a formal component of strategy. Approaches to change management have not changed much over the years, and there is not much debate about their key elements. Change management initiatives may only need to be called out in an analytics and AI strategy if they are not well understood or followed.

# Disseminate and Monitor

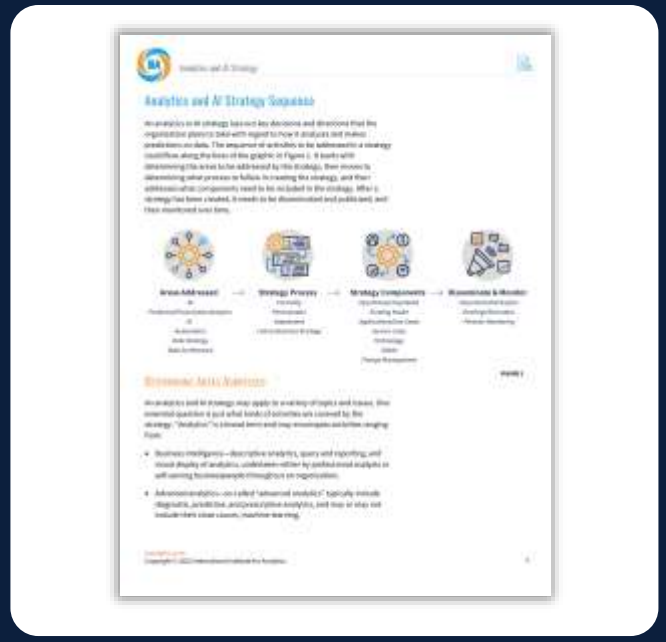
## 3 Aspects of the Process:

- **Documentation Distribution** - An executive summary and in-depth strategy document are necessary for adoption among key stakeholders and analytics/AI personnel respectively.
- **Briefings/Education** - More effective dissemination approaches usually involve one-on-one or small group meetings with senior executives, seminars, and webinars. The **stakeholders for a strategy include** not only **senior executives**, but also members of analytics and AI groups, all employees of an organization, and in some cases **even external customers and suppliers**.
- **Periodic Monitoring** – There are three approaches to analyzing the effectiveness of the strategy:
    1. Simply create and monitor a set of KPIs tied to the objectives. This would include a description of which use cases have been successfully developed and deployed, funding used, returns on investment, etc.
    2. Regularly survey key stakeholders for the strategy and assess their satisfaction.
    3. Record what key decisions were made on the basis of it, including directions and actions not taken.

# Become an IIA Client to Access the Full Brief

- IIA clients get access to the full *Analytics and AI Strategy* research brief online and as a PDF which contains examples of each strategy piece and a walkthrough on how to plan your organization's path forward.

- Research & Advisory Network (RAN) clients have direct access to the experts that developed this content and other frameworks through on-demand inquires.

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