Insight
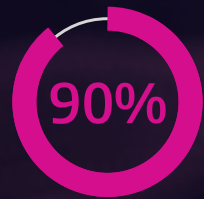
Unlocking the
Power of
Data & AI

The current landscape of data & AI

Industry leaders are tapping into the power of data and AI to push past boundaries and unlock infinite possibilities. According to an Insight-commissioned IDG report:[1]

90% of enterprises expect IT modernization to have either a transformative or significant impact on their organization's long-term growth.
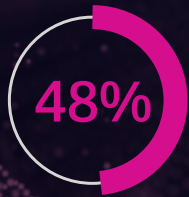
48% say that optimizing data and analytics capabilities (AI, ML, IoT) for innovation is the top enterprise IT goal in 2022. Many enterprises agree that a lack of Data and AI initiatives can have a direct impact on their growth as a company.

39% of study respondents believe that inadequate data analysis capabilities inhibit innovation.

When deployed, data and AI solutions can enable your organization to **innovate faster and at scale, improve efficiency and customer experience, strengthen competitive advantage, cut repetitive tasks and human error, and help inform better business decisions.**

Roadblocks to a successful initiative

Although there are great benefits to launching a data and AI initiative, common roadblocks are ever-present. Many companies struggle with not knowing where to start their journey, how to get past the perpetual prototype stage, the best ways to scale their use cases or creating too many use cases that become unmanageable. For this reason, it is crucial to fully understand each initiative of your journey before diving in.

A holistic approach to data & AI

Always consider the additional aspects that can reinforce the success of your data and AI journey. As our digital landscape evolves, more enterprises are driving digital transformation by focusing on key areas such as <u>Modern Workforce</u>, <u>Modern Apps</u>, <u>Modern Infrastructure</u>, <u>Intelligent Edge and</u> <u>Security</u>. When implemented alongside data and AI, these areas can support your initiative to have a strong, long-lasting impact.

The three key initiatives of your data & AI journey and their real-world implications

There are three components of a data and AI implementation which if deployed correctly, can help companies achieve their desired business outcomes.
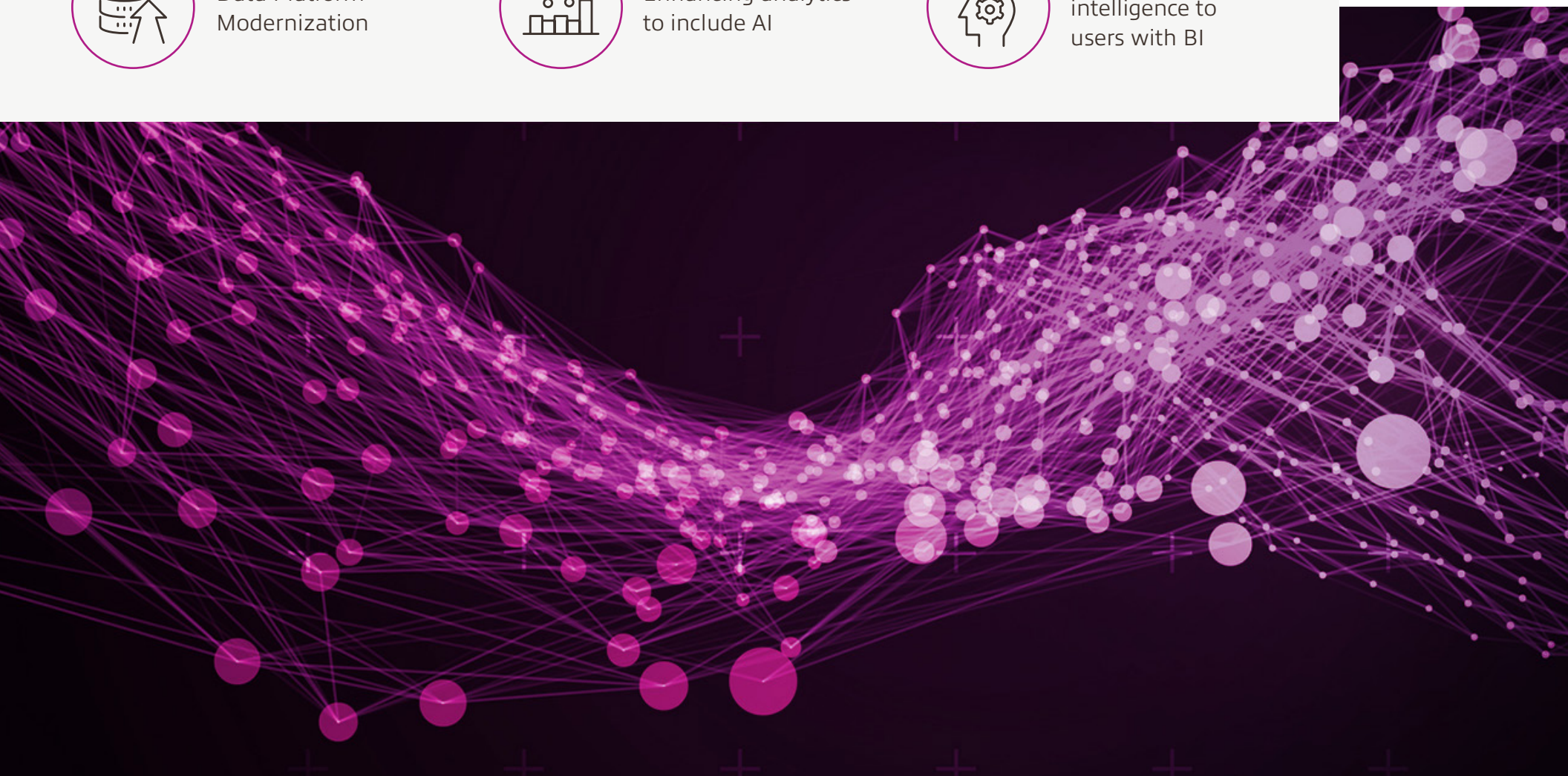
Key initiatives include:

Data Platform Modernization

Enhancing analytics to include AI

Delivering intelligence to users with BI

Data Platform Modernization

Data Platform Modernization lets your company streamline your existing data environment. Modernizing your data estate allows for better analytics, discovery and platforming.

The process of data modernization is varied and unique for every organization but can often include shifting to modern data warehouses for scale, implementing methods to reduce costs and discovering better ways to integrate data.

Enhancing analytics to include AI

As part of a successful data and AI initiative, companies must enhance their analytical capabilities to include responsible AI and ML. Take a moment to envision your most compelling business challenge and identify how an AI/ML solution could address it. Once you have identified the right solution for your business challenge you can begin constructing your AI/ML model.

REAL-WORLD APPLICATION

National Restaurant Chain Commits to Data Modernization

When a divesture-driven migration left a nationally recognized chain restaurant with fractured data and inconsistent reporting, our team built a lean, modern data management system including a new data lake and upgraded data warehouse. This resulted in centralized data ingestion for more accurate reporting and reduced operational costs.

Read the full client story. →

Fire Department Uses Real-Time Data to Improve Emergency Services

A major metropolitan fire department needed to migrate from its existing Oracle® database into a modern cloud platform to better support its real-time and long-term reporting needs.

Insight's Data and AI team worked to develop a real-time reporting dashboard that helped provide real-time AI insights and predictions. The real-time reporting solution has enabled improved staging of 15,000 vehicles and assets and helped to reduce emergency response times.

Read the full client story. →

Delivering intelligence to users with BI

It is equally imperative to deliver intelligence to your users — whether they be your workforce or customers — to ensure your data and AI initiative is a success. Organizations should seek to activate their intelligence with strong BI and Modern Apps (also known as application modernization and innovation). The delivery of this intelligence can be application-driven or notification-driven using an application stack.

Scale and automate using Mature Ops

Organizations must implement Mature Ops to ensure the automation and scale of the above key initiatives. These include DataOps (data operationalization), MLOps (machine learning operationalization), and BIOps (business intelligence operationalization) which are distinct but related fields. DataOps, MLOps, and BIOps are the mature practice of continuously delivering value for AI, BI, and data platforms.

Advance the 3 key initiatives simultaneously to drive the most value

The ideal data and AI journey starts with a data governance program that lays the groundwork for creating a modernized data platform. From there organizations can launch robust AI and BI initiatives. However, many organizations attempt to take these initiatives in order but doing so results in a long and often unsustainable process. This approach creates multiyear data rationalization efforts that wind up failing because that level of scale is nearly impossible to manage. And organizations find themselves falling farther behind the competition with the speed at which others are launching AI projects.

Instead, once companies have aligned on their long-term data and AI strategy, best practices recommend targeting key portions of their strategy that align to each phase of data and AI initiatives simultaneously. By developing a Minimum Viable Product (MVP) for particularly high-value use cases, organizations can quickly bring those into their business ecosystems to demonstrate value at a smaller, more manageable scale, while setting the organization up to extend to new value cases and continue to advance their data and AI journey.

For example, if a CEO of a company were asked to modernize data and AI, they should find and start simultaneously:

A Data Platform project	A BI project	An AI project

This is because each initiative of the Data and AI project feeds into one another. You cannot make large investments to fix a Data Platform issue if you do not have a use case that proves it demonstrates value. And to demonstrate that value, you need to show AI and BI success.

So, this CEO should aim to run three small projects concurrently that demonstrate the value of larger initiatives, and then iterate into maturity.

The importance of ongoing security, governance, infrastructure, cloud and responsible AI

Companies who race to implement the key initiatives of their data and AI journey often overlook the practical components that should be examined from day one:

 Security

 Governance

 Infrastructure

 Cloud

 Responsible AI

Wherever you are on your journey, think about the governance requirements, security, cloud, infrastructure and ethical implications of AI for your current stage.

What is responsible AI?

The type of decision support that AI provides is new and powerful, so it is easy to have some unintended adverse consequences due to the bias of the underlying data or the bias of the people using the information.

Responsible AI is the **practice of designing, developing, and deploying AI** with good intentions to empower employees and businesses, and fairly impact customers and society.[2]

Learn about responsible AI practices. →

Risks of inconsistent application

Leaders who consider security, governance, infrastructure, cloud and responsible AI sometimes stop implementing them after their AI models have reached production. However, ignoring these components after production increases the likelihood of security breaches and rising technical debt.

For example, consider the impact new features added to your AI model can have on your initiative.

☐ Is your model still safe from cyber risk **after the deployment of the new feature?**

☐ Has the **new feature compromised the security of the other features** within the model?

☐ What **updated governance and documentation** is now required?

☐ What are the **implications of the feature addition** on your infrastructure, or your cloud spend?

☐ Have we implemented processes and procedures **to ensure our AI models are responsible?**

The fastest way to see ROI

Today, modern organizations drive both the technical and practical aspects of their data and AI implementations forward using mature frameworks and industry best practices to assure all efforts will align. **Executing these aspects concurrently is one of the fastest ways to see a return on your investment.** Without both components, your organization is left susceptible to risk, overspending, and will lack the ability to scale cost-effectively.

Common roadblocks in the data & AI journey

Although deploying a data and AI initiative can be incredibly beneficial to an organization, various barriers can make this process challenging and even discourage companies from completing their journey.

Many have trouble getting their prototypes into production — and once the prototypes reached production, organizations may find it impossible to significantly scale or manage their new data estate.

A failed data and AI deployment can even cause your company to lose its position in the market. As companies fail to launch AI, they become very susceptible to their competitors that do succeed in AI implementation.

In AI and analytics,
a 1% improvement to your top or bottom line
can have a considerable influence
on your company and would differentiate you in the market.

Most organizations run on single-digit margins so successful implementation can make an enormous difference in the market.

These roadblocks can be difficult, costly, and time-consuming. Your company should aim to have the right tools and partners in place to resolve these challenges and get your data and AI initiative back on track.

Not knowing how to get started

Businesses often struggle to align their first AI efforts with clear success. Building this foundation is critical to winning confidence and future investment from stakeholders. Properly understanding the problem space can be challenging as well. It is important to identify and document the business problem you are intending to solve with data and AI solutions and understand the ROI of solving that business problem.

Ask questions like:

- How big is the business problem?
- If we were to ignore this problem, what would happen?
- If we were to solve this problem, what would happen?

To address this challenge effectively, many companies invest in foundation-building exercises. Businesses facing this roadblock often see success with **Data and AI ideation sessions**, which help educate teams on potential solutions, and create a launchpad plan to fill in-house skills gaps, align key stakeholders and outline data-backed AI solutions in more depth.

An ideation session can help your team understand the art of the possible, brainstorm ways to integrate AI into your business, triage the AI ideas based on ROI and time to value and outline a solution to delivery for your most compelling business challenge.

Prototypes are not turning into production

Having a clear definition of the problem space and the benefits of solving that problem will substantially increase the likelihood that products will go into production. Companies that have not identified a significant business problem or the ROI of solving the problem wrestle with taking their prototypes to the finish line. Since no inherent value of the solution has been discovered in the early phases of the initiative, there is little motivation to take the AI models into production. Thus, the models remain in the prototype or Proof of Concept (POC) stage. Additionally, deploying AI into your reporting and app infrastructure is a different skillset from data science or traditional SDLC, or DevOps. Leaders must clearly define their problem and solution to avoid getting caught in this perpetual prototype phase.

Organizations looking to cross this threshold can leverage solutions such as MLOps accelerator and Insight Lens™ accelerator.

An **MLOps accelerator** can take your ready AI and analytics models and get them in the hands of business deciders to drive better, smarter business decisions using secure, maintainable best practices.

An **Insight Lens accelerator** automates the challenges companies face when building a modern data platform. Typically, it would take several weeks to add new data to a data environment.

With this automation tool, you can deploy your data environment on day one — taking you from several weeks to several minutes.

Trouble scaling

Once you have identified a significant problem, understood the impact of the solution, and successfully launched it into production, you are ready to scale. Unfortunately, this is also where several companies get stuck. To address this issue, leaders must ask scale and operationalization questions in the initial stages of their data and AI journey.

Ask questions like:

- What does scaling mean for our company?
- Are we scaling regionally or globally?
- What infrastructure do we currently have in place?
- Do we have skilled DataOps, MLOps, and BIOps teams in place to maintain and build AI models?

Companies must have these conversations before they can begin to build a prototype. Asking these questions will help you understand your gaps early on and help you scale faster.

Leaders can resolve this challenge by implementing solid DataOps to ensure the ongoing maintenance of their data platform while leveraging **third-party managed services** and staff augmentation, so your company has the right resources and people in place to enable cost-effective scaling.

Trouble managing

Another common challenge companies face when deploying their data and AI initiative is trouble managing the new environments. Many build AI, BI, and Data Platform ecosystems that quickly become large, complicated, and difficult to sustain. The use cases may develop at a high rate and can easily become unmanageable. This often results in escalating maintenance costs and makes your company susceptible to cyber security risks.

Discover if your company can manage your AI, BI and Data Platform ecosystems by asking questions like:

- Are we able to manage our current data estate?
- Do we feel we are paying too much for our data components?
- Do we need help getting our arms around escalating costs and security risks?

This issue can be solved by rationalizing your data estate and putting it under strong governance. **You can remedy the cost challenges with a few cost optimization options — cloud cost optimization, BI and SQL license rationalization, data estate rationalization or data estate migration.** You can also address security challenges by taking a security assessment to understand the risk implications of your current data estate.

No matter what stage you are at in the data & AI journey, it is essential to have the right partner to better support your business outcomes and drive real value.

At Insight, we have trained experts that collaborate with clients to solve these challenges and more.

Contact us today to get started.

Insight