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## **OmniaAI**

Getting to  
insight faster:

Three ways to transform your  
analytics program for greater impact



To accelerate data-driven insights at scale, leading organizations are focusing on automating data access and control processes, democratizing insight generation through self-service, and adopting an agile approach to analytics delivery.

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# Your data is growing exponentially: What now?



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Today's organizations are generating and collecting data at lightning speed, a trend that's expected to grow exponentially in the coming years. But many find it challenging to turn their data into insights quickly enough to generate real and timely results.

Although compliance with data protection and privacy regulations (e.g. GDPR, PIPEDA) is generally well-integrated into organizations' policies, operationalizing these controls can create bottlenecks, which slows the pace of project delivery. Teams may not have the access, tools, or skillsets to rapidly analyze the data. Project management protocols that used to work well can now feel cumbersome and slow.

#### What are the trade-offs you need to make to overcome these challenges?

- **Balancing control with speed:** Managing and governing data access is a multi-faceted challenge. You need to balance considerations at the regional and business-line levels with critical questions about customer consent and governance requirements for appropriate data use. There's a tug of war between privacy and data science teams: one camp would prefer to restrict users from all data access, and the other wants as much data access as possible.

- **User access, tools, and skills:** The rationale for building enterprise-wide data and analytics capabilities is to share data across the organization. Moving from siloed sources to enterprise data platforms requires companies to redefine who should have access to what data. And while doing that, you often realize that the tools and processes of yesterday don't meet the needs of business users with a diverse set of skills.

- **Project management:** Analytics is inherently an agile process—you learn more as you explore and use more data. Teams need to embrace an agile approach in engaging with the business to help them unravel complex problems using data-driven insights.

By identifying key opportunities for making business decisions using data, democratizing data access, and focusing on how teams work together, you can dramatically increase your speed to insight.



# The impetus for change

Dealing with so much data is still a relatively new endeavour, and the forays of most organizations into this new world have been admirable. It's a whole new way of running a business, and most companies have done a good job of diving into it, whether tentatively or wholeheartedly.

But there's no question: many analytics programs are still faced with numerous challenges as they try to rapidly turn all that data into truly valuable, timely business information. These include:



## Slow time to value

Many companies struggle with speed. They've built exceptional capabilities, but they're encumbered by procedural, governance, or organizational bottlenecks. As a result, it routinely takes longer than planned to deliver analytics results. Those who need the analysis sit waiting. This inability to access or analyze data in a timely manner results in stale insights, which are not useful to anybody. Successful organizations are those that find ways to reduce bottlenecks and decrease their time to value.



## High upfront cost and effort

Traditional analytics efforts require extensive cost and effort to set up because of the need to gather every possible requirement up front and to secure extensive approvals. It takes a lot of time to provision environments and obtain the right access. And after all that work, time has often passed and needs have changed, sending teams back to the drawing board—incurring more cost. Finding ways to work more efficiently and put more power directly into the hands of your end users can reduce upfront costs, saving you time and effort in the long run.



### Minimal collaboration

Different teams across an organization often work in isolation, resulting in incompatible solutions, reinvention of the wheel, and duplication of effort. Business users and technical teams often work separately rather than collaborating on a joint goal, which can make it difficult for them to align on a single version of the truth. Analytics teams may have a limited view of business priorities, which can lead them to build solutions that offer little value. Only when your teams are aligned on goals and outcomes do they begin to collaborate to create real results.



### Rigid processes

Business priorities are constantly in flux, and traditional analytics approaches involve rigid processes that have little ability to adapt. This can mean requests are abandoned, or worse, move ahead with an initial plan that hasn't evolved as situations change. The result is a final product that no longer meets the company's needs or wants. This frustrates business users who struggle to navigate complex processes and can't get insights they need right away. Regulatory compliance can be put at risk if procedures are overridden. Flexibility, therefore, is key.



### Talent challenges

While companies focus on building analytics processes and technology, the people or culture sides of things tend to be overlooked. Organizations often struggle to embed an analytics mindset outside their data teams, and to establish the data maturity that is required to really drive enterprise-wide change. It can be a big challenge for many to identify the right skillsets to properly capitalize on this new way of working. Providing the right tools, training, and access to teams outside the traditional analytics group can go a long way toward resolving this issue.



### Limited understanding

Data is often copied multiple times to apply specific controls to different user groups or access patterns. This increases the risk of breaches, and it also means there's often limited understanding of who's using what data, and how. Even more critical, many companies haven't defined for their teams how data should be used, so teams are making it up as they go, and struggling. There's minimal guidance about what's allowed and who's allowed to do it, and approval and escalation processes may not be well understood. Making your rules clear and widely known can be a major step forward.





# Addressing these challenges: Supercharging your data analytics program



Challenges are understandable, given the speed at which data has exploded into our business models. But they're not unsurmountable.

Building an analytics culture that will ultimately enable you to become an AI success story is about using effective, collaborative methods to get data into the right hands, quickly enough to derive actionable value. Here, we look at three approaches you can adopt to get closer to that goal:

While each is valuable on its own, these three approaches can also work together for even greater impact. Automating your access and control decisions can pave the way to a smooth self-service culture shift. Once users are able to do some of their analysis on their own, your analytics team can focus on delivering more value-added projects for the entire organization, and using the agile analytics approach will allow them to deliver them more effectively.



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**Data access and control transformation:**

Empowering teams with trusted access to the data they need, while managing risk.



2

**Self-serve analytics:**

Federating analytics capabilities across the enterprise, enabled by centralized governance and tools.



3

**Agile analytics:**

Enhancing effectiveness of analytics teams to enable them to deliver faster insights and drive real business value.



## Data access and control transformation

Many organizations continue to struggle with the basic requirement of efficiently providing controlled data access to the people in their business who need it.

Of course, the risks can't be ignored. Customers expect you to treat their data with utmost sensitivity (86 percent of respondents to a recent Deloitte survey said they'd likely sever ties with a company for unethical data use<sup>1</sup>). Using data appropriately is one of the most critical things you can do to build and maintain customer trust; a single breach can damage your company's reputation forever.

What's important is to strike a careful balance between access to and control of data, maximizing the value your teams can draw from your data while minimizing the risks of data exposure. The most successful organizations will be those that balance these two opposing needs in a way that is sustainable in the long run.

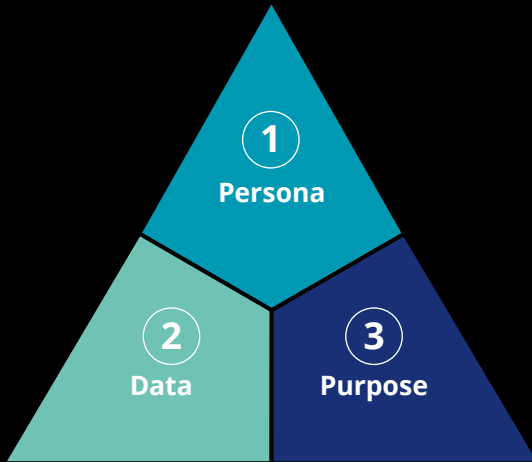
Reducing or eliminating the challenges on both ends of the process can create a culture in which these two "sides" are no longer in conflict, and where colleagues work together toward the same goals.

### Start by defining clear, consistent rules...

Companies often use a fairly manual approach to decide who gets access to what data, relying on local subject matter experts to make decisions on the fly. Some companies use Role-Based Access Control (RBAC) or Access Control List (ACL) approaches, which define permissions based on specific roles or lists of users. Many companies start more or less from scratch for every request, designing a custom model each time. Each of these approaches can lead to unnecessary complexity, redoing work, overly controlled data, inefficient use of resources, and gaps in control.

**Balancing data access and control requires a significant shift in the approach used to solve the challenges**

A three-pronged triangulation approach to data access and control, however, ensures the right data is available to the right users for the right purpose in a timely manner. This model ensures that every data-access decision considers the answers to three questions:



- 1 Who are you?**  
What is your role in the organization, in the analytics group, or in the project you're working on?
- 2 What data do you need?**  
What data sets will allow you to deliver on your mandate?
- 3 Why do you need access?**  
What are the expected outcomes of your project or request?

**...then automate them.**

With balanced rules defined, you can then operationalize the model using a **metadata-driven policy engine** that enforces the agreed-upon policies to control access in real time.

Use this six-step process to build a balanced culture of access and control:

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<p><b>Design</b> a set of transparent, easily understood policies and processes, keeping exceptions to a minimum.</p>	<p><b>Create</b> standardized data and metadata catalogues for easier search and consumption of data.</p>	<p><b>Encode</b> the access policies and metadata into a policy engine.</p>	<p><b>Integrate</b> the policy engine with your existing identity access management (IAM) infrastructure to answer the question "who are you?"</p>	<p><b>Direct</b> all user queries through the policy engine, which automates access and logs all activity.</p>	<p><b>Centralize</b> all usage-monitoring data and develop real-time activity reporting and notifications in a single platform.</p>

Automating your access and control decisions allows the two competing needs (access and control) to stay in balance and meet the needs of all sides, contributing to a collaborative culture in which all teams understand and respect each other's needs—ensuring compliance with regulations while providing access to much-needed insights and value.





## Self-serve analytics

Given the wide availability of data to inform personal day-to-day choices, it can be frustrating for users to not have the same access to information in a professional setting.

This can make teams feel stifled in their ability to perform and innovate; they don't feel ownership over their own success. On the flip side, analytics teams are overburdened with requests. Analytics and data science teams spend up to 80 percent of their time finding, cleaning, and organizing data to ensure it's of high quality,<sup>2</sup> leaving little time for them to support the business in uncovering trends and insights. Organizations estimate they're only analyzing 12 percent of their data.<sup>3</sup> It can be a lose-lose situation.

What can help many companies is a self-service approach that empowers teams through governed access to curated data sets created for specific usage scenarios. This allows business teams to develop insights much faster as needs for data-driven decisions arise. A self-service approach supports organization-wide behaviour change, enabling cross-collaboration, knowledge sharing, and asset re-use. Self-serve tools have become

increasingly mature and easy to use, providing drag-and-drop functionality for tasks that used to be difficult and technical, such as preparing data or developing analytical models. This further empowers business users to develop insights independently. Providing the structure for business users to develop these skills and increase their data and analytics maturity, backed by the right governance and control protocols, will be paramount for companies as they evolve their data and analytics capabilities.

Self-service is not just a tool, and it goes well beyond just making data available to the right people. It's a strategic choice to structure your organization through an optimized delivery model with a blend of technology, governance, operating cadence, and talent maturity to enable users to analyze data on their own, leading to more rapid and timely decisions than ever before.



**Getting self-serve analytics right**

The primary goals of any self-serve analytics initiative should be fostering a culture of data democratization,<sup>4</sup> creating company-wide awareness of what data is available and where, and enabling business users to create insights through trusted and timely access to data.

**Take a holistic approach:**

Look beyond tools and technology to support change with an evolution in culture, structure, and governance.

**Deploy capabilities across the company:**

Align the approach to the entire organization's needs to drive value across the business. Organization-wide adoption makes business users more likely to take ownership.

**Build self-serve into the culture:**

Create opportunities for sharing outcomes, and establish centres of excellence to support new users.

**Align self-serve initiatives to data and analytics literacy programs:**

Integrate end-user knowledge development into the tools, technology, and organizational changes involved with establishing self-serve capabilities.

**Support behaviour change:**

Create or update your processes for data access, analytics asset development, insights sharing, and governance, and support them with a clear risk-management approach.

**Update governance mechanisms:**

Adopting a self-service analytics approach requires a new way of thinking and working, which includes embedding controls to manage the ethical and trusted use of data.

**Involve a diverse set of stakeholders:**

Start with a broad understanding of end-user needs. This will have long-term benefits in how data is used and leveraged across the enterprise.

**Becoming a self-service organization**

You can start to move toward faster time to insight by taking a pragmatic approach to self-serve analytics:

1. **Work** across the enterprise to understand the right value proposition for self-serve analytics. Some teams may cite trusted data access as their most pressing need, while others want the ability to visualize insights. Uncovering business users' key challenges will allow you to target specific outcomes.
2. **Catalogue** your existing data and technology assets and the current challenges with enabling access. Developing a common understanding of the current state across business and technology teams will allow you to determine the best path forward.
3. When setting out your objectives for self-serve, make business value the priority. **Focus** on maximizing both external and internal opportunities, all from the perspective of creating the most value.
4. **Deploy** standard tools, technologies, and insight-development methods across the organization. Establishing common expectations early on will allow business teams to plan for talent and maturity-building activities that will help them adopt self-serve quickly. This will also ensure the entire enterprise is aligned when it comes to tooling and data-flow requirements.
5. **Redefine** your risk-mitigation processes to strengthen data-access and provisioning controls. Make governance activities transparent to reduce uncertainty and support rapid innovation and faster decision-making.
6. **Encourage** a culture of data-driven innovation by building data literacy. Raise every team's awareness of the art of the possible—combined with tangible methods, tools, and training—to foster a sense of creation and ownership everywhere in the company.



## Agile analytics

Finally, to fully engage with analytics, it's important to go beyond advanced tools and models. A complete analytics transformation requires changing how your teams work and engage with each other, making systemic changes that impact delivery time, effort/cost, team collaboration, and process flexibility.

Originally inspired from the worlds of software development, Lean production/manufacturing, Six Sigma, and operations research, Deloitte's agile approach is extremely well-suited to many of the challenges involved in analytics deployments.

### Why go agile?

Agile development is both incremental and iterative. Teams work in sprints to rapidly develop and deploy solutions, and they test, collect feedback, and refine requirements after each one. In every sprint, the development team is focused on a narrow scope that drives value and moves the team toward the ultimate objective.

Consider, for example, a project to create a model to populate a set of dashboards for a particular business need. Traditionally, an analytics team would work on the entire model as a project, finalizing it and handing it over to the business after a certain performance benchmark or threshold was met. With agile, however, each sprint might focus on delivering one component of the model or one particular dashboard. A cross-functional team involving both business users and data scientists works collaboratively on various iterations, and can begin using them right away instead of waiting for the final model. Engaging other downstream teams such as technology, marketing, or distribution earlier in the process can also reduce the total time required for deployment.

Each sprint follows its own cycle of a predetermined length and delivers a testable product upon completion, reducing risk and decreasing time-to-deploy. The self-contained nature of the sprints allows the development team to adapt to new or changing business requirements. Each one follows the same steps:

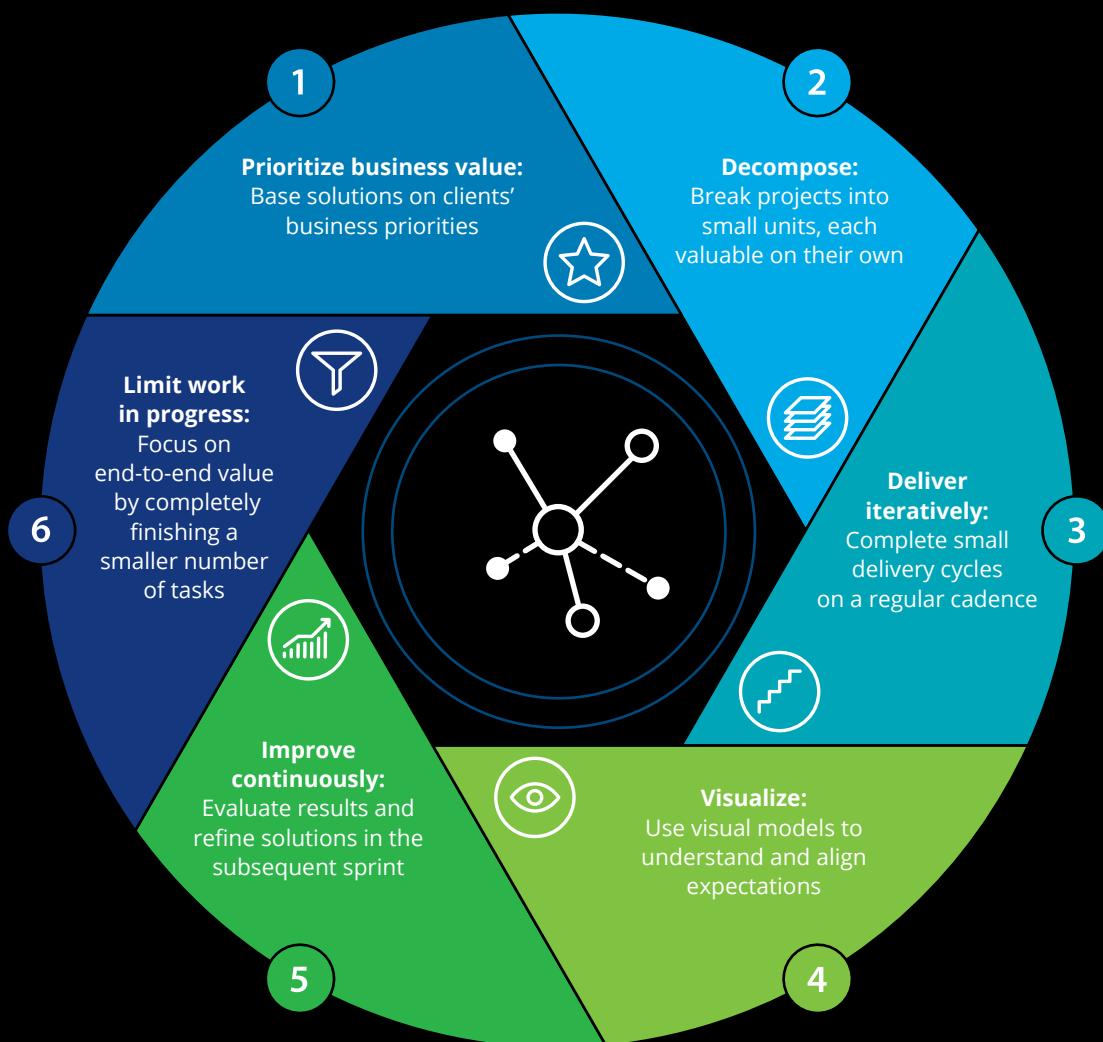
- 1. Plan:** Refine the backlog, hold daily stand-up meetings and sprint retrospectives
- 2. Design:** Design solutions according to user stories (e.g., using wireframes)
- 3. Build:** Develop products following the design specifications
- 4. Test:** Have the product owner or end-user test the product (this may include training)
- 5. Deploy:** Promote the product to the staging or production environment

Where a traditional approach asks, "What is the cost and timeline required to realize the given scope?" an agile one asks, "What can we accomplish given the available time and budget?"



### A new set of imperatives

In adopting agile methods, analytics teams refocus their priorities on a new set of imperatives:



An agile analytics approach allows you to quickly get to the heart of the issue at every point in a project, identifying critical issues and constantly adapting, to successfully deliver analytics solutions that bring timely, actionable value to your business.



# The benefits of getting it right

Change won't happen overnight, but your journey to transform data access and control, build a self-service culture, or become an agile analytics company—or, ideally, all three—is well worth it. Companies that get these elements right will see tremendous benefits, as our client examples show:

- **Decreased time to value:** Giving teams timely access to data, letting them analyze it themselves, and/or using a sprint-based approach will all lead to quicker insights and more immediate business results:
  - By implementing the triangulation approach to data access and control, one company was able to reduce the time to fulfill a typical access request from two to six months to **less than one week**.
  - Through self-serve, the marketing team for a federal organization was able to create curated data models for its internal and third-party data, with data-flow patterns from multiple sources, in **less than a month**.
  - Adopting an agile analytics approach allowed a Canadian bank cut its time-to-market for advanced analytics by **30 percent**.
- **Increased collaboration:** Through these approaches, teams better understand each other's priorities and roles, leading to better performance, alignment, and effectiveness:
  - A large retailer with a traditional siloed, individual approach to data implemented agile analytics, and now its multiple business units cross-collaborate on data management.
  - By defining a self-serve analytics operating model, a regional bank was able to clearly articulate the interactions between data and technology support teams and business teams to drive business insights.
  - Through agile analytics, a public-sector company realized a strategic vision of greater information sharing across the organization.
- **Reduced overall cost:** These approaches require less setup time for a given analytics request, minimal startup effort, and reduced reliance on cumbersome and costly processes:
  - At one major Canadian bank, agile analytics led to a **20 percent reduction** in the overall cost of an analytics project, and at another major Canadian bank, it led to a full **40 percent reduction in the cost of end-to-end delivery**.
- **A stronger, more mature analytics culture:** Automated approvals keep users motivated and engaged, and a culture of self-service and increased data literacy allows the whole business to tap into the benefits of data analytics:
  - A financial services institution increased the ownership of data assets through collaboration forums, enabling the sharing of best-in-class assets and design methods.
  - A regional bank, through self-serve analytics, defined a structured maturity model for data literacy and put business users onto digital training platforms to grow the enterprise's maturity.





- **Greater flexibility:** Business teams are able to rapidly respond to evolving priorities and iteratively “play” with trusted, always-available data to solve the problems they’re faced with:
  - By creating transparency of data and visibility of underlying metadata, a client’s marketing team was able to iteratively create a next-best-offer analytical model through digital channel interactions in less than eight weeks.
  - Using an agile analytics approach, a major oil and gas company significantly enhanced its demand-management capabilities to respond to changing requirements.

- **Common understanding:** Each of these approaches—data access and control transformation, self-serve analytics, and agile analytics—bring more transparency to your analytics program, especially if all three are employed together. Rules are clear, people are trained, and teams are working together toward a shared goal.

When you clarify and automate the decisions on data access and control, your teams feel respected and safe in their data use. When you build a culture of self-service, your people feel empowered and liberated. When Agile analytics becomes the very heart of how your analytics team operates, you enable them to contribute effectively to the overall success of your organization.





# AI, Deloitte, and you

Many organizations are committed to using data to drive decisions, and yet the journey to becoming an insight-driven organization can feel daunting. To go from “we collect a lot of data” to “we are effectively using our data to enable our business through advanced artificial intelligence techniques” may feel like a huge leap to make.

But it doesn't have to. Deloitte's Omnia AI team can help you build a culture of data enablement, in which teams across your business—through automated approvals and controls, self-service capabilities, and agile analytics techniques—are empowered to use data to its full advantage.

With our Canadian team, supported by Deloitte's vast global network, Omnia AI is a leader in capitalizing on the full breadth and depth of AI. Our cross-functional team of strategists, designers, AI evangelists, and data scientists bring extensive multi-industry experience and vast experience with Canadian organizations large and small, at all points along the data maturity spectrum. We can help guide you through complex changes to strategy, people, process, culture, technology, and governance, to ensure a smooth transition to becoming an AI-enabled organization.

## Endnotes

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