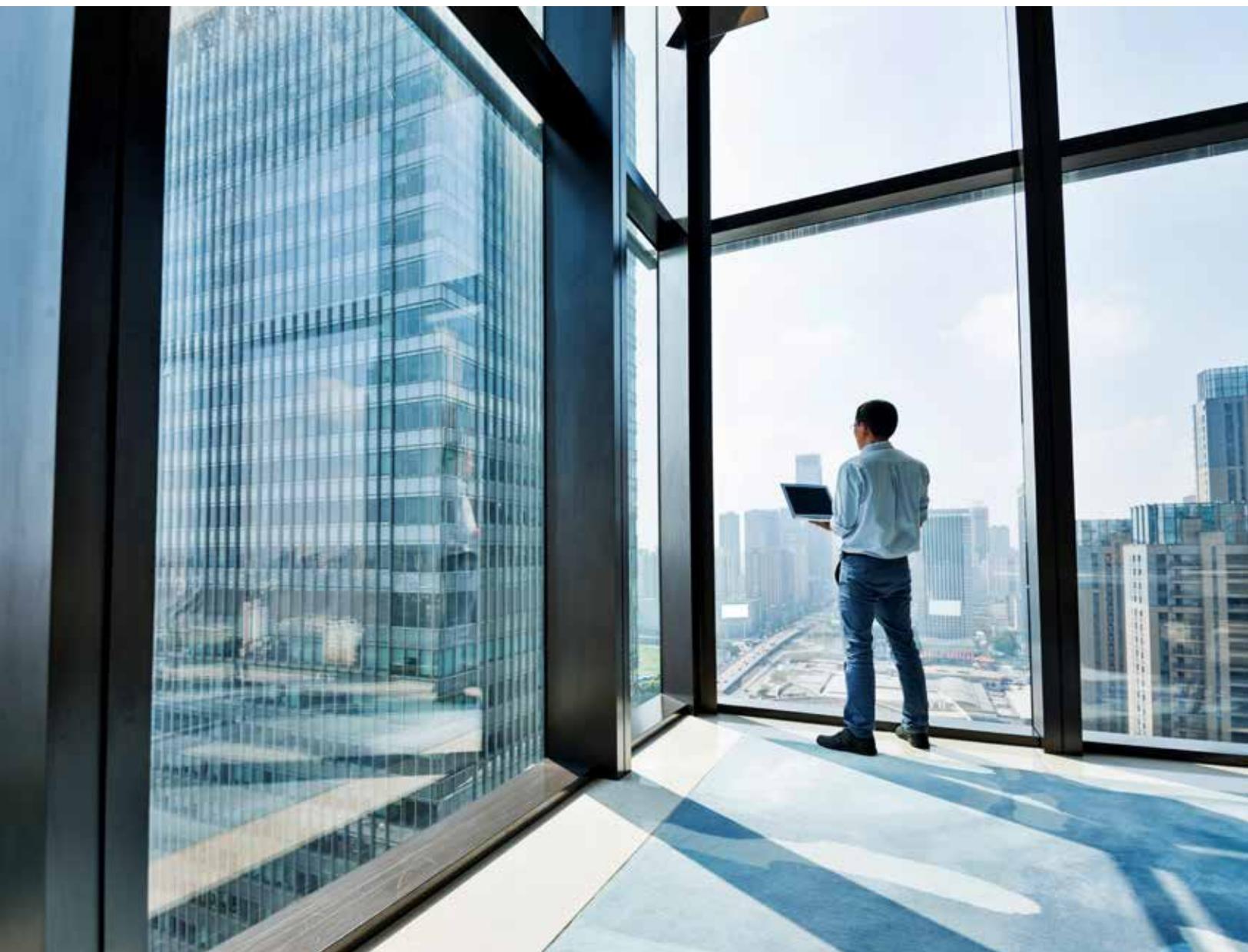


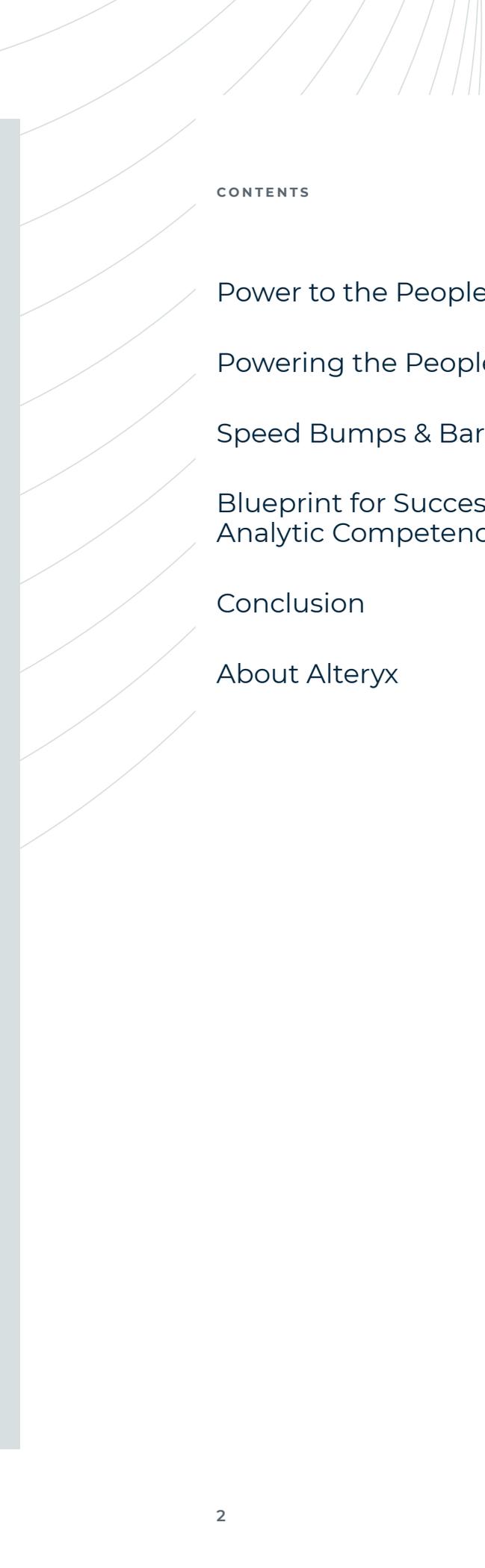
# Building An Enterprise Analytics Competency

Why aren't we doing more with analytics?

When will we unlock the real value hidden in all this data?

How do we get more of our people involved in breaking through our biggest problems?





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## BUILDING AN ENTERPRISE ANALYTICS COMPETENCY

Forward-thinking executives and business leaders at every level of the modern organization are asking these questions right now. The promise of analytics has been pitched again and again, but initiatives flounder and fail to produce results. A data science team may be in place, but their tools are too complex for the rest of the business and their bandwidth is limited.

Despite these challenges, the promise of analytics hasn't been oversold. Companies that get it right build sustained advantages and outpace their competition. How do they do this? What must happen within your organization to harness the power of your data?

Companies that want to win using analytics must develop a true enterprise analytics competency. This competency is the organization's ability to perform meaningful data analysis by department and by individual in a manner that provides analytic freedom to any employee who wishes to participate. It is the enterprise-wide proliferation of self-service analytic proficiency beyond the Information Technology (IT) department or specialized data science teams.

# Why When How

Companies that want to win using analytics must develop a true enterprise analytics competency.

## Power to the People

### The Case for the Enterprise Analytics Competency

Developing an analytics competency across the enterprise is no small undertaking. It requires a great deal of self-awareness from a broad cross-section of business units and individual employees. The organization must step outside itself and evaluate how it goes about achieving its mission on a daily basis.

This will be challenging, but worth the effort.

#### **The People Who Understand the Problem Should Be the Ones Solving It**

The hardest part of the analytics process is figuring out the right questions to ask. And functional knowledge is required to get at those really meaningful questions. It's largely ineffective to expect a small analytics team to understand the pressing issues within each department across the organization.

Instead, the process should involved the whole organization. Experienced analysts across all business areas (sales, marketing, operations, finance, and product), should help drive a company forward. These are the people who have real-world and functional knowledge, plus an understanding of the problems and any circumstantial nuances that may arise.

When you empower your front-line analysts, the process won't end when they get their first answer. The answer will lead to a new question, and the hunt will continue.

Traditional analytics support models can stymie insights. When the process is stopped because analysts must take every question to an advanced analytics team, opportunities for exploration and iteration are lost.



Imagine a sales analyst name Laura who wakes up in the morning with an epiphany. She wonders if sales were low in Region D last month because of an unexpected factor. Under a traditional model, she'll get to the office, call someone in IT, and ask them to run a report.

They'll ask why she needs it. She'll say she's just curious. They may ask her for a project code they can charge the request to, or, worse, not have enough time to properly explore her idea.

With that, the door closes. If it's just a hunch, there often aren't project codes. If it's just a hunch, there often isn't time to devote to it.

The more Laura realizes there are roadblocks to pursuing hunches, the less she asks questions. Eventually, she stops.

This surrender is one of the biggest fundamental losses within a company. When your people stop asking questions because they know it's too difficult to get an answer, you're on the road to mediocrity. This lost curiosity may never cause a catastrophic failure, but it will leave you increasingly stagnant and flatfooted, unable to innovate, react, and win in your marketplace.

### **Specialized Analytics Teams Cannot Scale**

No matter how talented your data scientists are, there simply aren't enough of them to support the number of requests that will come from analysts across the business. Under the traditional model, business analysts get frustrated with long report queues, and the data scientists themselves aren't generating value when working on simple requests that don't require specialization to solve.

There's an entire set of elementary and intermediate analytic tasks that can be offloaded to the line of business. This frees up the data scientists to work on the difficult things they've been hired to do, and it gives your business analysts the power to fish for themselves.

### **Jobs Performed in Isolation Reduce Productivity and Put Your IP at Risk**

When business analysts need to build low-level analytics processes in the course of their work, they often do these tasks in isolation. Multiple people end up doing the exact same thing, but because the work is done in spreadsheets or databases with limited access, there's no visibility between teams and nothing is shared.

**When you empower your front-line analysts, **the process won't end** when they get their first answer. The answer will lead to a new question, and the hunt will continue.**

Today's analytics tools no longer require deep coding knowledge or special skill sets. With a small amount of training, you can empower business users to explore the data and search for their own answers.

This duplicated work represents a net productivity loss for the company, and the isolated nature of the work means that the company's intellectual property (IP) is hidden in proprietary spreadsheets across the business. There's no transparency to how results are achieved or what lessons have been learned along the way. When this work is locked up in spreadsheets or databases with limited access, it becomes difficult to pass along to new employees and it gives rise to problems when the person who created or maintained the files decides to leave the company. An enterprise analytic process automation (APA) platform introduces transparency and traceability. The platform allows the organization to capture that IP, easily share it across functions, and quickly ramp new team members when necessary.

#### **Employees Who Don't Feel Trusted Become Disengaged**

There's a legacy belief that analytics are best left to IT personnel or someone with a technical background. This belief persists because early analytics tools were not user-friendly and they required advanced coding knowledge to be of any use. The thought is that people on the business side can't be trusted with the data because they're untrained with the tools and analytic methodologies. They don't know what they're doing, they don't understand the output, and they're going to interpret things the wrong way.

Today's analytics tools no longer require deep coding knowledge or special skill sets. With a small amount of training, you can empower business users to explore the data and search for their own answers. Trusting them with the data creates liberation, and this will free them up to do the job they were hired to do.

## BUILDING AN ENTERPRISE ANALYTICS COMPETENCY

Perhaps most importantly, when you trust your front-line staff and give them the tools they need to do their jobs, you create a culture of engagement. The closer you can bring people to their job, the more engaged they're going to become. The closer they are to being part of the solution, the more value they're going to take from their job.

You hire smart people who want to make a difference. You invest in top-tier talent and then you need to equip them with the tools that empower them to do great things for the business. If you sequester your organization's analytics capability inside an isolated data science vault, your talent on the business side will disengage, stop asking questions, and eventually leave to find a more fulfilling job elsewhere.

Companies that develop an analytics capability across the enterprise have demonstrated that the strategy can pay off in big ways. The individuals within those companies who embrace the program have elevated their careers. The idea of self-service analytics may be new to the majority of employees within your organization, but there are plenty of companies that have proven the concept.



These cases demonstrate the power of giving direct analytic access to the people who understand their own business challenges.

## Powering the People

### National Retail Chain

An analytics champion led the charge to incorporate Alteryx at a national retail chain. His analysis helped save 2% of the annual bottom line for the entire company by optimizing sales, store locations, and internal processes. He won Employee of the Year for his analytics work.

### National Airline

After a national airline deployed Alteryx to their enterprise, an employee on the finance team discovered a more efficient way of predicting which frequent flyer miles would go unused. The company was able to realize an immediate \$60 million write-off and the new prediction process eliminates the need for an astounding 32 weeks of work for 17 FTEs every year.

### International Restaurant Company

A vice president in real estate development for an international restaurant company quickly improved his analytics skills as the company deployed Alteryx. He used the tools to further optimize the locations of new restaurants, and he received the President's Award as recognition of his contributions to the company.

## Speed Bumps & Barriers

### The Challenges of Changing Culture

The benefits of a strong analytics program have been clear for some time now, and this means everyone is thinking about how to best deploy the capability. Executives know at a high level that they need to be getting more value from their data.

In response, companies spend millions of dollars on massive data warehouses, data lakes, or other repositories. They buy the tools and deploy the platforms, but the hoped-for results don't materialize. Executive sponsorship is in place, the money is committed, and the data analytics team doubles in size. But for a company with thousands of employees, the data analytics team will never be big enough. The effort is made to push the analytics capability out to those thousands of employees, but no one is using the tools.

It turns out the biggest challenges when building an enterprise analytics competency are cultural. Even though the tools are in place, employees don't change their behavior to incorporate new processes or capabilities. They choose to stay in spreadsheets. Teams choose to stay isolated within their functional groups instead of sharing data and analysis across the organization.

The reasons for this are as dull as they are predictable: People continue to use Excel because it's the tool they know. They don't have to take time off and learn a new process or a new application. It's much easier to proceed with business as usual. For an established company, changing things on the fly can be very tricky.

This fundamental inertia is not insurmountable, but it does present unique hurdles that organizations must overcome as they pursue the enterprise analytics competency. Here are eight problems that tend to arise during these types of implementations.

### 1. An Over-Complicated Solution

As organizations buy into the case for self-service analytics, it can be very tempting to proceed with the throttle wide open. Past Big Data initiatives were large and expensive, so this one should be, as well. Companies spend millions on Hadoop and a complex, fully governed solution that takes two years to implement.

The project has so many moving parts that at the end of the day, it looks strikingly similar to a Business Intelligence (BI) implementation from 2005. At the end of the project, the company is stuck with a solution that doesn't scale, lacks versatility, and can't support the ad hoc usage patterns the business really needs.

## 2. IT-Driven Requirements

Without a strong collaboration between the business and IT, the requirements for an analytics solution can drift away from what end users want and need. Make a concerted effort to let the business users determine core functionality and needs.

IT has the experience with enterprise-wide deployments, so it's appropriate and wise to have IT involved as a coach and collaborator throughout the process. But don't forget that the objective is an enterprise analytic competency. As such, you need a tool that meets the needs defined by the enterprise users. The hallmarks of this process should be business and IT working together toward the right solution.

## 3. Unclear Success Criteria

Too many times, these types of initiatives have no measurable definition of success. With any change that's meant to alter culture, there will be naysayers and doubters. Those who feel threatened will be questioning the worth of the program. Make sure the project team communicates the success measures to the rest of the organization, and keep the company informed as capabilities come online and as success criteria are met.

Do not forget that timeliness is an important success criterion in itself. If you're spending 6-12 months on an RFP process, your business teams will have already moved on, likely buying the products they need without consent from IT or the analytics program office.

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To help success build upon success, deploy in pockets. Have a managed rollout within the various business units. Let end users get on the platform and use it right away. There will be opportunities to save time and accelerate progress along the way by ignoring requirements that the business users don't actually care about. One such example is the software development methodology the vendor follows. Business users don't care about agile development!

#### 4. It's All About the Data

While business-user requirements should always drive the project, be careful not to ignore the underlying needs of those requirements. For instance, business users ultimately care about the outputs of the analytics, so it's very easy to overemphasize the visualization platform.

Visualization is important, but it's really the last layer of the entire self-service solution stack. Before data can be visualized, it must be validated, prepared, investigated, and modeled. Yes, the communication of the results at the end is important, but you must be able to rely on the data underlying those results.

One common pitfall is to focus on the end result without paying appropriate attention to what needs to happen at each phase in between. Everyone has their eye on the goal of an effective dashboard when it comes time to interact with the data, but there's good hard work to be done as you assemble and deploy everything before the visualization layer. An effective enterprise analytics platform allows users to understand their data at each point in the analytics process, not just at the end.

## 5. It's All About Access to the Data

For an enterprise analytic competency to develop, you must be committed to opening the data vault. Your end users need access to the data if there's to be any return from the endeavor. Just remember that this doesn't mean a lack of data governance. The right platform will allow you to keep the data in a controlled environment while still giving users the access they need.

It's easy to say you trust your employees with the data, but this is where the rubber meets the road. Be ready to trust that they know what to do with the data. People are going to make mistakes, but they're making mistakes today in Excel anyway. The tool can't prevent mistakes, though certainly you can build protections and parameters around usage.

## 6. Business vs. IT: The Struggle Continues

Depending on internal history and culture, be ready to mediate power struggles between the business and IT. A popular misconception of self-service analytics is that IT isn't needed. In fact, it's quite the opposite.

A primary role of IT is to enable the business with information. With an enterprise analytics capability, this enablement becomes even more important. IT will be responsible for housing and delivering the data even as the business continues to "own" the data itself. IT partners with the business to ensure they have the resources they need to support themselves on the analytic platform. The enterprise analytics competency needs this strong business/IT collaboration to thrive.

**An effective enterprise analytics platform allows users to understand their data at each point in the analytics process, not just at the end.**

## 7. Transparency Can Bring Insecurity

An effective enterprise analytics competency will bring a number of new insights to the business. One of the primary benefits of this type of competency is that the business can develop actionable information about how to improve performance in almost any area.

But this increased transparency can mean a painful adjustment for some. People get uncomfortable when they feel like others will be exposed to what they do. “What if someone finds out that I’ve been doing this all wrong?”

The other side of this coin, of course, is that the business cannot improve outcomes if it doesn’t identify the opportunities for improvement in the first place. Most people don’t look at it this way because they’re guarding themselves and their reputation. It will be important to position analytics and the entire enterprise competency as a positive development for the company as a whole. Embrace and celebrate the discovery of an improvement opportunity rather than using it as an occasion to rehash past missteps. At their best, analytics methods are tools we use to help coach people into better performances at their job, not metrics to expose where they’re wrong.

## 8. But My Title Is “SQL Programmer”

The promise of self-service analytics is the democratization of the analytic capability, and this may threaten those who have the skill set needed for the old way of doing things. This is the hard reality companies need to embrace. With the tools available today, if you’re writing SQL, you’re wasting time. There are better approaches available.

The question from your CEO is never, “How many lines of SQL code did you write?” They don’t care. Instead, the executive will ask, “How long did it take to complete this analysis?” Or worse, “Why isn’t my analysis ready yet?”

Organizational culture change will require adaptation from nearly everyone involved, and those who embrace this change will learn that while the methods may change, the focus remains the same: let’s unlock the answers stored in this data.

## Blueprint for Success: Building the Enterprise Analytic Competency

How, then, shall the organization proceed? The following plan describes steps the business and IT can take together to successfully develop the enterprise analytic competency.

### Phase 1 — Build the Foundation

#### **Business Goals**

Create a self-service analytics lead role that owns complete responsibility for the initiative. Without ownership there can be no accountability, and without accountability, the enterprise competency will never truly develop. This lead should report into the business at the executive level, either to the Chief Data Officer (CDO) if that role exists, or to another strategic officer. The self-service analytics lead should be highly visible across the organization.

As you would do with any program, create a program charter. What’s the mission statement for this project? What do we want to accomplish? What’s the scope and the duration? Who’s involved? This is a formalized project, so treat it just as you would any other highly strategic initiative.

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This initiative is about making the organization better. Build a culture around the project that supports that theme. The “There are no dumb questions” rule must be in place. Avoid an environment of retaliation for past wrongs. This is a major shift for the organization, and we embrace the fact that we will learn about things we’ve been doing wrong. Approach the project with both excitement for the possibilities and sensitivity to those who may be apprehensive.

You must identify a champion within each department. This should include IT and every major functional area within the business. Department champions understand the challenges the initiative will face. They understand how to work with data. They may already be the go-to person for data or analytics within their group. Champions are excited about the initiative and have the political capital and leadership qualities needed to see the program through to completion.

Executive sponsorship is critical. Teams need to know that this program is important. Without visible executive sponsorship, it will be very difficult to gain the momentum and dedication needed from others to make this a success.

Announce the initiative to the organization in a big way. Advertise it internally and get the word out. Think of creative ways to market the program that fits within the company culture.

Finally, come up with a series of goals to measure the success. Identify these Key Performance Indicators (KPIs) and make sure they’re widely known. Make it clear that department champions and project leads will be evaluated against the success metrics.

#### IT Goals

Assess the program goals to be sure IT has the right support structure and capabilities in place.

Inventory data assets and identify key data sources. This inventory will be an important input as IT helps the business users define their requirements.

Review the data access strategy and understand how that may change with the new analytics platform. Be prepared to open up the data vault in a way that maintains the integrity and security of the data itself. Consider a single point of entry for the data and information assets that both IT and the business can use.

**This initiative is about making the organization better. Build a culture around the project that supports that theme.**



## Phase 2 — Build the Baseline Team

### **Business Goals**

Identify 2-5 people within each functional area who will be part of the baseline team. These people have strong analytical skills in the existing tools (spreadsheets, databases) and will help identify key use cases.

Define use cases for the future-state analytic capability. Think about what types of data will be accessed. Identify a handful of early wins in each department that can demonstrate the capability and build momentum.

Don't try to boil the ocean, but also don't do something that's overly simplistic. Be smart in the projects you choose to approach. Find opportunities that have clear value for the business, and be sure to involve people who will ultimately be using the tool.

### **IT Goals**

Work to understand use-case requirements and address any data-access modifications or other special needs from the team.

Now is the time to collaborate with the business and set the tone for a positive program deployment. Lessons learned from past IT deployments may help the business as they identify the right pilot projects.

## Phase 3 — Leverage Self-Service Technology

### **Business Goals**

Build a training program for those who will be involved. Assess training needs for various levels of users and capabilities. Identify any major gaps in the organization's technical abilities and define a plan to address those gaps.

When evaluating a technology, stick to short evaluations. Be wary of letting a drawnout RFP process kill the momentum you've developed. Find a tool that works well enough, and run with it. The tool is just the enabler to build the capability; it should not be a hindrance to getting started. Do not let perfection become the enemy of the good.

Build out the use cases identified in Phase 2 and determine the ROI for the project. Present these results to executive management to develop continuous buy-in and support.

### IT Goals

Support the business as they evaluate possible tools. IT can help enable a rapid selection process by relentlessly bringing the focus back to the core set of end-user requirements.

Begin installation of the chosen tool for project leads and teams. Monitor usage and help guide the business users to success.

## Phase 4 — Expansion

### Business Goals

Determine creative ways to roll out ROI results and communicate new solutions. This can be exciting! The goal is to grow usage and get more people involved. Recruit new participants who want to engage with the program. Create an analytics competition to showcase the new capabilities. Be sure to include a heavy executive presence to help drive awareness.

### IT Goals

Continue scaling the servers needed to support growth. Deploy solution components as needed and support the new business users as they learn to use the tools. Monitor usage for feedback to the business regarding utilization. Develop version control policies for analytic workflows to ensure stability. Review disaster recovery policies and infrastructure.

**Determine creative ways to roll out ROI results and communicate new solutions. This can be exciting! The goal is to grow usage and get more people involved.**



## Phase 5 — Deploy Analytics

### **Business Goals**

Build an analytics committee with one representative from each functional area and department. This committee should meet once a month to discuss overall progress and program needs.

Identify key use cases for the enterprise. Choose workflows that have the biggest impact on the business.

### **IT Goals**

Manage the testing environment prior to full enterprise deployment. Continue engagement with the business users to ensure support as the tools roll out to the rest of the enterprise.

Engage with the business analytics committee. Now is the time for the project to present a solid front to the rest of the enterprise. Business and IT can achieve great things when working collaboratively toward a common goal.

## Phase 6 — Ongoing Management

### **Company Goals**

Perform regular reviews of success and highlight these successes. Provide continued training as needed.

Gather feedback from the organization. Find out what's working and where people are struggling.

**Empower everyone in the organization to push together and experience breaking through the company's biggest challenges.**

## Conclusion

The modern analytics era offers the promise of sustained high performance for the enterprise that can effectively harness its data. The platforms and methodologies are easier to use and more accessible than ever before, so the time for tool-based excuses has passed. Leaders that help deploy to the right cultural and mindset shifts can expect to achieve astounding results as they empower everyone in the organization to push together and experience breaking through the company's biggest challenges.

[Build It Now](#)



alteryx

## About Alteryx

As a global leader in analytic process automation (APA), Alteryx unifies analytics, data science and business process automation in one, end-to-end platform to accelerate digital transformation.

Organizations of all sizes, all over the world, rely on the Alteryx Analytic Process Automation Platform to deliver high-impact business outcomes and the rapid upskilling of their modern workforce.

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