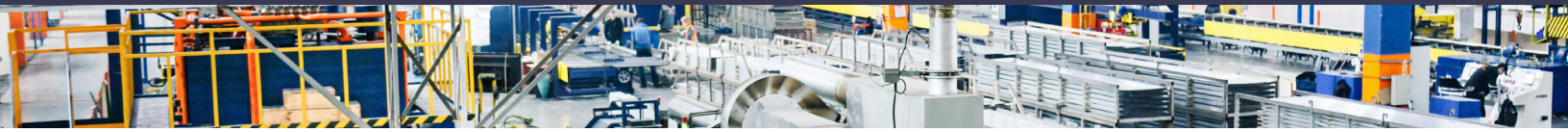




# SUSTAINABILITY

a PCG blog space



## Seven Keys to Successful Business Intelligence Projects

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### Introduction

Business analytics projects represent an important milestone in a business. First, they are an acknowledgement that standardized reporting and spreadsheets are no longer able to keep up. And, second, they become the bridge between information, as the largest business asset, and better decision making and actions that propel the business forward.

This paper discusses the seven keys to ensuring that your next business intelligence project is a success.

### 1. Identify an Analytics Strategy

This is your North Star—a vision beyond the current project and the one after that. You need to know the destination to navigate the journey (the projects) successfully. A good analytics strategy should align with the goals of your business while providing the platform to help make data-driven decisions and gain a competitive edge. Here are some steps to create an analytics strategy for your business:

**Step 1:** Define Business Objectives - This could increase revenue, improve customer satisfaction, reduce costs, optimize operations, save the planet, etc.

**Step 2:** Identify Relevant Data Sources – You need to know what data you have available, where it is stored, and the quality of the data. Typical systems include CRM, ERP, financial systems, spreadsheets on a laptop, and so on. You can also consider external data sources useful to your business, such as carbon emissions, weather, competitor figures, etc.

**Step 3:** Choose Tools – An analytics system is complex and usually contains several tools; a data lake, an ETL tool, a data viz tool, potentially an AI tool, etc. Make sure you do your homework, solid architecture does not guarantee success, but poor choices here can make life difficult. It is worthwhile to reach out to a consultancy in the analytics space to gain insight into this. Better still, choose a tool-

agnostic consultancy for impartial advice. In most cases, you can get this help without spending money or signing anything.

**Step 4:** Choose the Team – You could argue that this step should come before choosing the tools. It would be best to have a mixture of highly skilled people in different groups. (See part 3 – Assemble the best team).

### 2. Define Project Requirements

Ensure the project requirements align with your analytics strategy, business processes, budget, and timeframes! Each analytics requirement should connect to a business benefit. A common mistake we see is simply replicating what already exists without questioning if it is still the best solution.

A good habit to get into here is to add the benefit next to each requirement. If you cannot think of one, is it a requirement worth keeping?

When starting an analytics project, it is essential to gather requirements to ensure that the final solution meets the needs of the stakeholders. Here are some ways to gather requirements for an analytics project:

- **Interviews:** Conduct interviews with stakeholders to understand their needs, pain points, and goals to identify specific requirements and provide insights into the project's objectives.
- **Surveys:** Create and distribute surveys to collect quantitative data on stakeholder needs and preferences. Surveys can provide a broad overview of requirements and help identify patterns and trends.
- **Focus Groups:** Conduct focus groups with stakeholders for more in-depth feedback on specific topics or features. Focus groups can also help identify potential roadblocks or issues during the project.

- **Prototyping:** Create a prototype or proof-of-concept to demonstrate the potential solution to stakeholders to gather feedback and refine requirements based on stakeholder reactions.
- **Observation:** Observing stakeholders in their environment to understand how they work and interact with data to gain insights into the project context and help identify requirements that might not have been apparent otherwise.
- **Documentation Review:** Review existing documentation, such as reports, business plans, and user manuals, to understand the current state of the project and identify potential requirements.
- **Benchmarking:** Compare the project to similar projects or industry standards to identify best practices and potential requirements so that essential needs are covered.

By combining these methods, you can gather comprehensive requirements that will help ensure the success of your analytics project.

### 3. Assemble the Best Team

People do projects, and great people do great projects. An analytics project requires a lot of different skill sets, some of which are incredibly technical and difficult to master. The difference between a highly experienced solution architect and a novice can make or break a project, so do not overlook this step. See below for a breakdown of the different skilled areas:

#### BI & Technology Experts—

At the heart of an analytics solution is the technology that underpins it. These are skills specific to the tools that your business is using. Technology knowledge is essential but should be secondary to BI knowledge. Becoming an expert in a tool may take less than a year, and becoming an expert in BI will take a decade or more. BI experts use tools to understand tasks behind the scenes and their design. A non-BI expert will only understand cause and effect. If I change X, Y will happen.

The typical technical roles on an analytics project would be:

- **Solution Architect:** This role requires expert BI knowledge and communication skills. They are responsible for designing the entire system. They need to understand clearly the business requirements, where the data is stored, the data

format, how the data needs to flow to the data warehouse, and the most optimal way of keeping that data to be used for the reporting requirements of the business.

- **Developer:** This role requires specific technical expertise and strong communication skills.

#### Subject Matter Experts—

Business SMEs are critical to the success of any BI project. They provide valuable insights into business processes, data quality, and analytical requirements. Business SMEs can help the technical team develop an effective data model that accurately reflects the business environment and provide insights into the data relevant to the business.

#### Data Experts, IT & Security—

Subject matter experts work with the BI architect to define the business requirements. A data architect will translate this business information into the data items required. Data experts identify data items within the data structures and source systems. IT and security then must provide access to those systems, strictly adhering to governance guidelines.

#### Project Management—

A BI project requires effective management to ensure on-time and on-budget delivery. The right team should have a project manager overseeing the project and ensuring it progresses as planned.

#### Training and Support—

Upon completion of the BI project, a support team should be in place to fix any system issues and provide end users with information and training.

### 4. Have a Great Design

They say good design can be expensive, but poor or no design will be far more. Design is like an insurance policy for a project. The more detailed the design, the less risk the project carries.

At a minimum, you should have a high-level dashboard design, including the reports and filters. In addition to this, the solution architect should provide a high-level data model and data-lineage document.

These designs offer several benefits:

- Helps Agree on Scope & Success: Having insight into the final solution can allow stakeholders, business users, project management, and the delivery team a set of documents clearly defining success criteria and project scope.
- Improves Communication: Design helps enhance communication between different project stakeholders. By creating a blueprint outlining a project's objectives and goals, the team can communicate its vision to others effectively, ensuring that everyone is on the same page and understands their roles and responsibilities.
- Reduces Risks: Design helps identify potential risks and challenges the project may face. By addressing these risks in the design phase, the project team can develop strategies to mitigate them effectively to reduce the likelihood of project failure and ensures that the project stays on track.
- Allows for Iterative Development: Design allows for iterative development of the analytics project. By creating a well-thought-out plan, the project team can develop the project in stages, each building upon the previous one to ensure that the project is produced systematically and allows for feedback and modifications along the way.

Examples of design documents are:

- Quality assurance (QA) Plan: describes the testing process and criteria for ensuring the accuracy and validity of data and reports.
- Security Design Document: outlines the access controls and permissions for different users and groups within the BI system.
- Report Design Document: describes the layout and formatting of reports and dashboards, including charts, graphs, and other visualizations.
- ETL Design Document: outlines the process for extracting, transforming, and loading data into the data warehouse.
- Data Model Design Document: defines the structure of the data warehouse, including tables, columns, and relationships.

The business requirements document outlines the

business goals and objectives the BI solution should support.

## 5. Project Plan

A project plan is vital to any successful business intelligence (BI) initiative. It is a detailed roadmap that outlines the project's objectives, timelines, resources, and deliverables.

Here are some reasons why a project plan is essential in BI:

1. Provides a clear understanding of project goals and objectives - This ensures that all stakeholders clearly understand the project's expectations and results. It also helps to align the project with the organization's overall business strategy.
2. Helps to manage project resources (both human and material) effectively - This ensures that the right resources are available at the right time, which helps to control costs and avoid delays.
3. Protects project timelines - This helps ensure the project is completed on time and within budget.
4. Provides a basis for monitoring and controlling project progress - This helps to identify potential risks and issues early on and take corrective action before they become significant problems.
5. Facilitates communication and collaboration - It helps ensure everyone is on the same page and working towards the same goals.

## 6. Testing

Testing is often left until the last minute and is usually not done thoroughly.

First, expect issues, and don't be upset when problems arise—this is what testing is for! However, finding issues after testing, be upset about those!

Good testing helps to ensure accuracy, identify flaws in the model, ensure consistency, and validate the results. By investing time and resources into testing, organizations can be confident that their analytics projects deliver accurate and reliable results.

Ensure that all insights are trusted and that sound decisions are the result. As such, testing is an essential part of any analytics project.

But what types of testing are available for analytics projects? Several types of testing can ensure that the project delivers accurate and reliable results. These include unit testing, integration testing, and system testing.

Let's take a closer look at each of these types of testing:

- **Unit Testing:** Unit testing is a type of testing that focuses on testing individual pieces of code to ensure that they are functioning correctly. Developers typically perform this type of testing can be automated to save time.
- **Integration Testing:** Integration testing is a type of testing that focuses on testing how different pieces of code work together. Critical to analytics projects, multiple components often need to work together seamlessly to generate accurate results.
- **System Testing:** System testing is a type of testing that focuses on testing the entire system as a whole. Typically performed by quality assurance professionals, and is designed to ensure that the system is functioning correctly and delivering accurate results.
- **Stress Testing:** When dealing with huge data volumes and many users, the system's demands can be intense. It's essential to ensure the system can handle the peak demands of the business. Stress testing is a way of simulating this load to see if and where any bottlenecks exist. It's also helpful to go beyond the peak demand to know where the system will break. If this is far beyond what you are forecasting for the system, then you know you are good to go.

By incorporating these types of testing into their analytics projects, organizations can be confident that their projects deliver accurate and reliable results.

## 7. Training

Analytics solutions are powerful tools that provide organizations with valuable insights into their operations, customers, and market opportunities. The full benefit of a BI solution happens as the organization fully adopts the solution. To gain adoption, you must train users to use the system confidently. More skilled users will lead to better decision-making, increased productivity, and improved business performance.

Several types of training can increase the adoption of a BI solution. These include:

1. **Basic:** Basic training is designed for users new to the BI solution who only wish to view dashboards. This training covers the basics of using the solution, such as navigating the interface, creating reports, and accessing data.
2. **Super User:** This training is for power users who wish to dig deeper into the data and create personalized reports and visualizations. They may also be responsible for providing access to users etc.
3. **Developer:** Super users can create analytics based on the data available in the data mode. But what if you have a different or more detailed analysis in mind? Developer training is technical and will involve building and adding to a data warehouse.

In any BI project, Basic and Super User training must be completed. If you have data-savvy team members, then Developer might also be a consideration. Otherwise, there are lots of consultancies providing expertise in these areas.

## Who is PCG?

PCG is a trusted provider of tailored end-to-end IT solutions that consistently and predictably deliver business sustainability. PCG is a company built on relationships, partnerships, and experiences. We offer a single point of accountability.

With the technical expertise of highly trained engineers, we have tremendous resources and capabilities to care for every aspect of a customer's technology environment—from the back office to edge apps to the cloud and across the entire supply and demand chain.

Whether it's enterprise application cloud and hosting solutions, enterprise application (ERP) implementation and management, or great analytics, we are your partner in success.

## About PCG Actualize™ Analytics

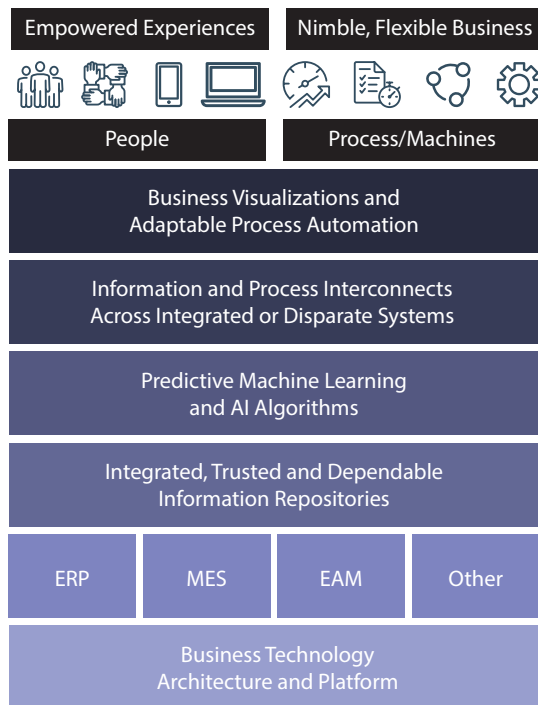
PCG's Actualize™ solutions leads the industry in allowing businesses to harness the power of business data, information, processes and automation to bring the optics you need for quicker and more accurate decision making.

You actualize your business data, processes, machines,

reporting, devices, partners, customers, and experiences to advance your business.

PCG Actualize™ Solutions peacefully co-exists in virtually any technology environment to:

- Gather trusted data from across the business
- Unify information into a single repository for easy access
- Weed out bad information to decision grow confidence
- Implement consensus-based definitions
- Pull out deep AI-driven insights and predictive actions
- Integrate machine data and machine learning
- Mobilize and secure company information to deliver it to users wherever they may be
- Deliver best-in-class visualizations



## How to Get Started

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