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LEANalytics
The LEAN / Agile approach to analytics

An overview

Introduction

Snehal Patel
Snehal is a manager with Deloitte's Information Management & Analytics Technology Consulting practice specializing in Big Data, Analytics, and BIDW. His primary focus is on helping clients unlock the full potential of their enterprise data and use it as an asset to reduce costs, mitigate risk, and drive profitability. Furthermore, Snehal has experience in multiple delivery approaches, including traditional waterfall as well as Lean/Agile. He is a passionate advocate of Lean/Agile for BIDW/analytics and has developed and pioneered the use of Lean/Agile methodology specifically catered for BIDW/analytics projects.

Brian Cowhig
Brian is a senior consultant in Deloitte's Information Management & Analytics Technology practice, and a BI specialist in Oracle and Microsoft technologies. Brian has over 12 years of BI experience, including data architecting, data modeling, multi-dimensional data store development, and report and dashboard building. Brian's Agile BI development experience includes a project at a large bank that involved creating a data mart, from concept to completed product (including reports and daily ETL), in 3 months (and 3 sprints) with 2 developers.
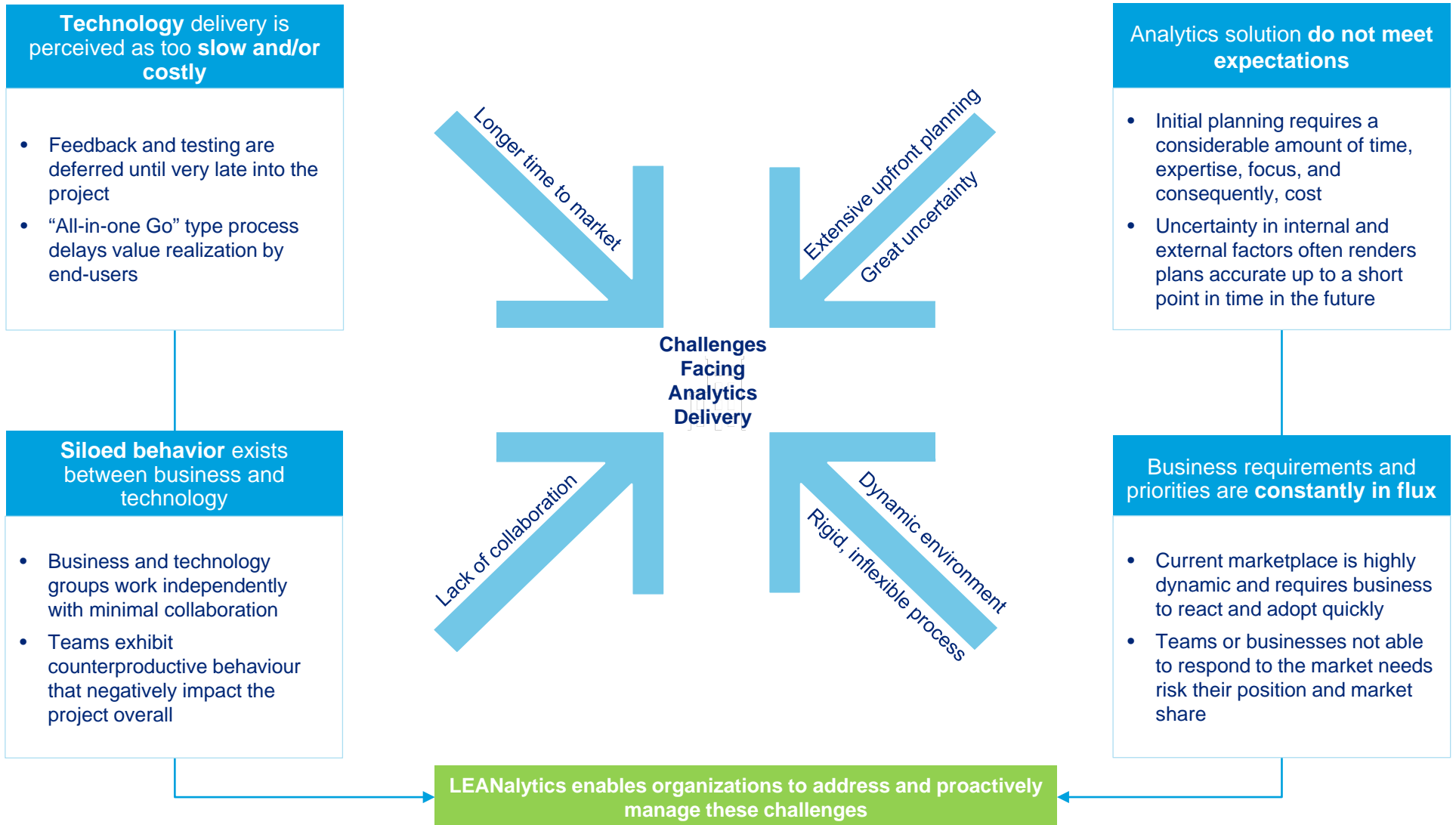
Agenda

Analytics Delivery Challenges

LEANalytics

Benefits Realized

Lessons for Adoption

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Analytics
Delivery Challenges

The traditional delivery approaches present a number of challenges in a constantly changing business and technology environment

Technology delivery is perceived as too **slow and/or costly**

- Feedback and testing are deferred until very late into the project
- "All-in-one Go" type process delays value realization by end-users

Siloed behavior exists between business and technology

- Business and technology groups work independently with minimal collaboration
- Teams exhibit counterproductive behaviour that negatively impact the project overall

Analytics solution **do not meet expectations**

- Initial planning requires a considerable amount of time, expertise, focus, and consequently, cost
- Uncertainty in internal and external factors often renders plans accurate up to a short point in time in the future

Business requirements and priorities are **constantly in flux**

- Current marketplace is highly dynamic and requires business to react and adopt quickly
- Teams or businesses not able to respond to the market needs risk their position and market share

Longer time to market

Extensive upfront planning

Great uncertainty

Challenges Facing Analytics Delivery

Lack of collaboration

Dynamic environment

Rigid, inflexible process

LEANalytics enables organizations to address and proactively manage these challenges

LEANalytics

An innovative approach is required to deliver value from analytics projects in a fast-paced environment

Traditional Delivery Approaches
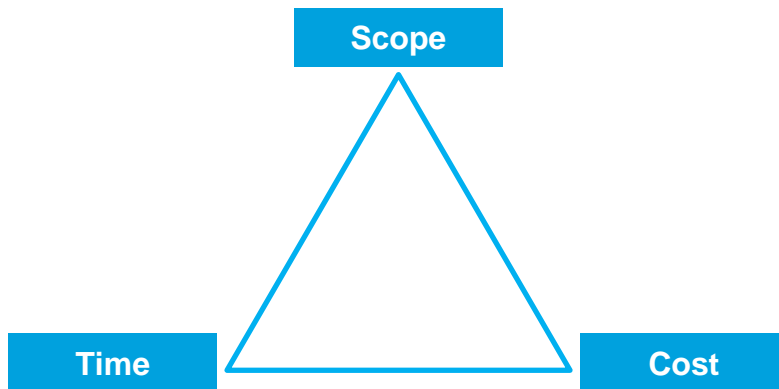
Scope

Time

Cost

- Focus is on delivering scope with varying time and resources
- Process and documentation-oriented, with numerous gates
- Team performance is measured through signed-off documentation
- Cost of change increases exponentially
- Intended for projects where requirements, resources and environment are static

What is the cost and timeline required to realize the given scope?

LEANalytics

Time

Cost
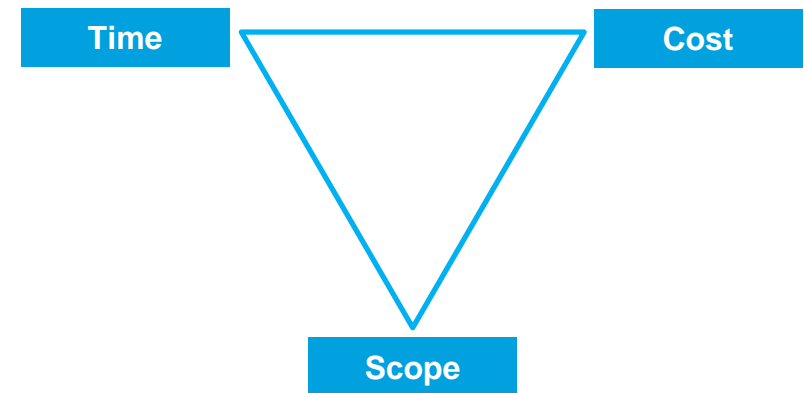
Scope

- Priority is delivering business value within set timeframes
- Objective is to decompose scope and deliver in short, frequent cycles
- Team performance is measured through completed work
- Continuous improvement culture improves delivery process and quality
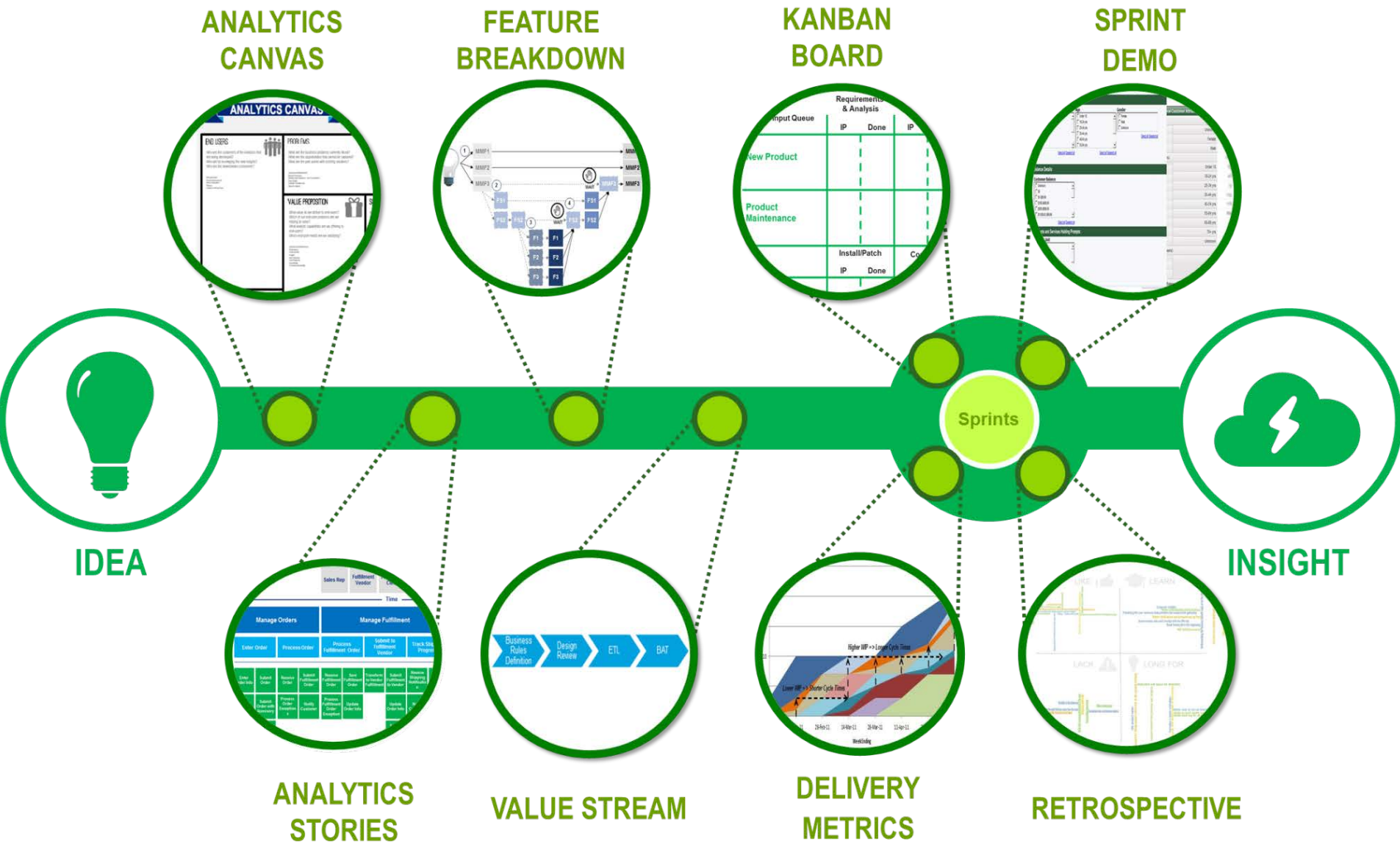- Designed to deliver value in an uncertain and changing environment

What can we accomplish given the time and cost?

LEANalytics offers value across multiple aspects of project delivery, especially in projects with fast-changing priorities
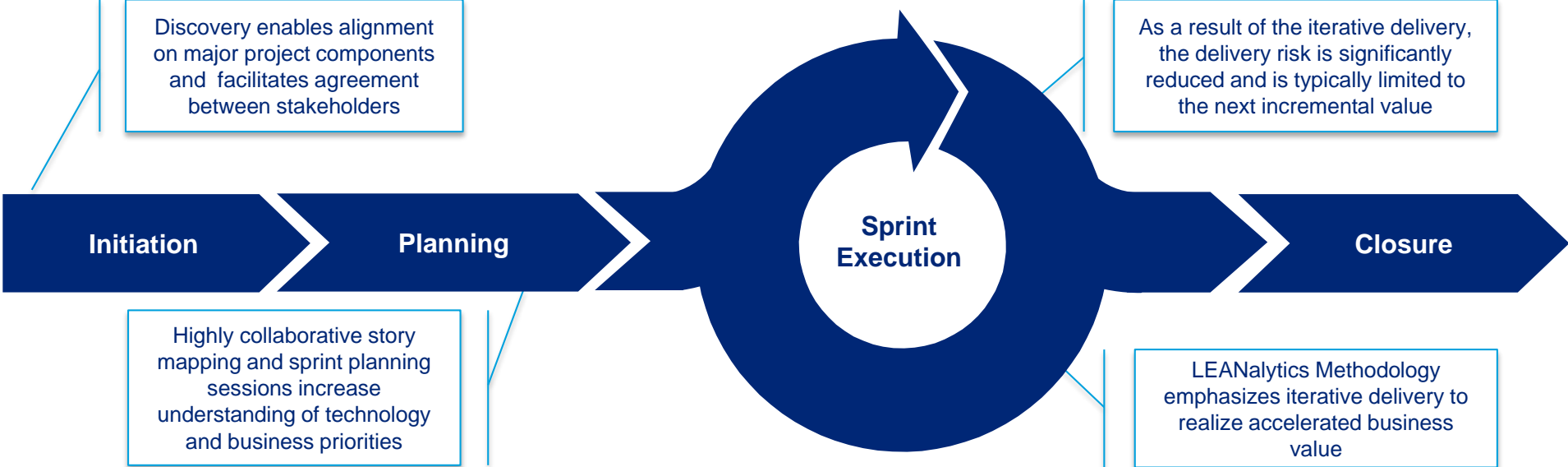
LEAN / Agile Principles

Prioritize Business Value delivered within set timeframes
Techniques: Story Mapping, Feature Prioritization, Value-based Sprint Planning and Delivery

Decompose projects into small, but business valuable units
Techniques: Story Mapping, Sprint-based delivery

Iterative Execution with smaller delivery cycles and activities completed at a regularly scheduled cadence
Techniques: Kanban, Sprint Cycle, Iterative lifecycle

Visualize work and align expectations explicitly
Techniques: Kanban, Feature mapping

Limit Work-In-Progress to balance capacity with demand and focus on the value velocity
Techniques: Value stream, Kanban

Continuous Improvement to gather feedback and evolve on a regular basis
Techniques: Sprint-based retrospectives

Benefits

✓ Enables faster delivery of business results by prioritizing highest value activities

✓ Enhanced flexibility and agility enables rapid response to changing business needs

✓ Addresses uncertainty and risk with a system designed to embrace variability

✓ Improves team collaboration, alignment and effectiveness

✓ Increases transparency through visualization to drive better decisions

✓ Enhances delivery performance by focusing on system throughput

✓ Encourages ongoing team performance improvement through continuous feedback

✓ Improves delivery quality through better collaboration and alignment on results

The LEANalytics methodology and techniques have been applied to a wide variety of projects where there is a need to decrease time to value and increase agility

LEANalytics journey includes all stages from initial ideation through to analytical insight with multiple tools and techniques to realize LEANalytics principles and benefits

ANALYTICS CANVAS

FEATURE BREAKDOWN

KANBAN BOARD

SPRINT DEMO

IDEA

Sprints

INSIGHT

ANALYTICS STORIES

VALUE STREAM

DELIVERY METRICS

RETROSPECTIVE

LEANalytics is the process of applying LEAN / Agile principles to analytic projects in order to maximize project value

Discovery enables alignment on major project components and facilitates agreement between stakeholders

As a result of the iterative delivery, the delivery risk is significantly reduced and is typically limited to the next incremental value

Initiation

Planning

Sprint Execution

Closure

Highly collaborative story mapping and sprint planning sessions increase understanding of technology and business priorities

LEANalytics Methodology emphasizes iterative delivery to realize accelerated business value

Objectives

- Initiate project activities by defining and aligning stakeholders on key components of the initiative such as strategic direction, objectives, partners etc.
- Understand target users and the key needs to be addressed by analytics

- Establish requirements at the appropriate level of detail using highly collaborative techniques to enable business value prioritization and sprint planning
- Develop a plan for and determine components of sprint execution including business value delivery, visualizations and cadences

- Deliver incremental business value through completion of sprints – focused on answering the most impactful business questions first
- Identify and respond to new project requirements or issues
- Demo analytics deliverables to align with business users & gather feedback
- Perform end of sprint activities to update business priority, scope, and timelines

- Deploy completed product to production for use by end-users, if not already done so in sprint execution
- Develop and conduct training for product use, if required.
- Consider maintenance and support of the solution

LEANalytics offers various benefits at each stage of an analytics project

Benefits Realized

LEANalytics projects have yielded significant benefits to organizations across variety of industries

Delivery Timeline

- One major Canadian bank realized a 50% reduction in delivery timeline
- Another major Canadian bank saw a 3x increase in velocity
- A global industrial supply got a 20-40% increase in project velocity

Overall Cost

- One major Canadian bank realized a 50% reduction in overall cost
- Another major Canadian bank realized a 21% reduction in cost

Agility

- One major Canadian bank achieved significant enhancement to the group's ability to address variability and scope changes
- Risk and quality metrics remained constant
- A major oil & gas company significantly enhanced its demand management capabilities in order to respond to changing requirements

Lessons for Adoption

Learnings from past LEANalytics projects can be used to introduce and accelerate the adoption of the methodology

Start small and evolve

- "Perfection is the enemy of progress" - It's important for organizations to begin their journey using pilots, and then build upon its success instead of waiting for a fully defined enterprise model
- Continuously improve the process with retrospectives

Agile is more than a process

- Agile development is not just a SDLC or IT process
- Agile is a mindset that requires organizational change
- Requires redefining success, work interaction, and other elements

Customize agile approach

- Agile development works for different organizations in different ways
- Adapt the approach based on feedback from teams of what works

Develop a different mindset

- Team members may need to get used to working with a more adaptable plan of what will be implemented for future sprints

Collaborate and coordinate often

- Development of inter-dependent components across platforms may require additional planning and coordination in order to ensure that all required parts are in place when needed
- Sprint planning, scrums and blockers can help with this

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