Gartner Data & Analytics Summit

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Workshop: Scaling Self-Service Data and Analytics

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Strategic Planning Assumptions

- By 2020, the number of data and analytics experts in the business units will grow at three times the rate of experts in IT departments, which will force companies to rethink their organizational models and skill sets.
- By 2020, augmented analytics will be a dominant driver of new purchases of analytics and BI as well as data science and machine learning platforms, and of embedded analytics.
- By 2025, a scarcity of data scientists will no longer hinder the adoption of data science and machine learning in organizations.
- By 2020, organizations that offer users access to a curated catalog of internal and external data will derive twice as much business value from analytics investments as those that do not.



Self-Service Data and Analytics Framework

- 1. Why Business Extension vs. Business Transformation
- 2. What Measure, Classify, Decide
- 3. Who Centralized, Decentralized, Cross-Functional
- 4. How Prototype, Pilot, Production



Keep the Four Pillars in Mind

Business Outcomes



Information Management Foundation

(Data):

- Data Governance
- EIM
- Information-Driven Enterprise



Organization

(People):

- Business and IT Team Roles
- Individual Skills
- Centralized or Decentralized



Fact-Based Decision Making (Process):

- Information as an Asset
- Instinct vs. Analytics
- Management and Governance



Appropriate Technology Platform

(Technology):

- Integrated Toolset and **Delivery Platform**
- Not Silos of Capability

The Information-Driven Enterprise

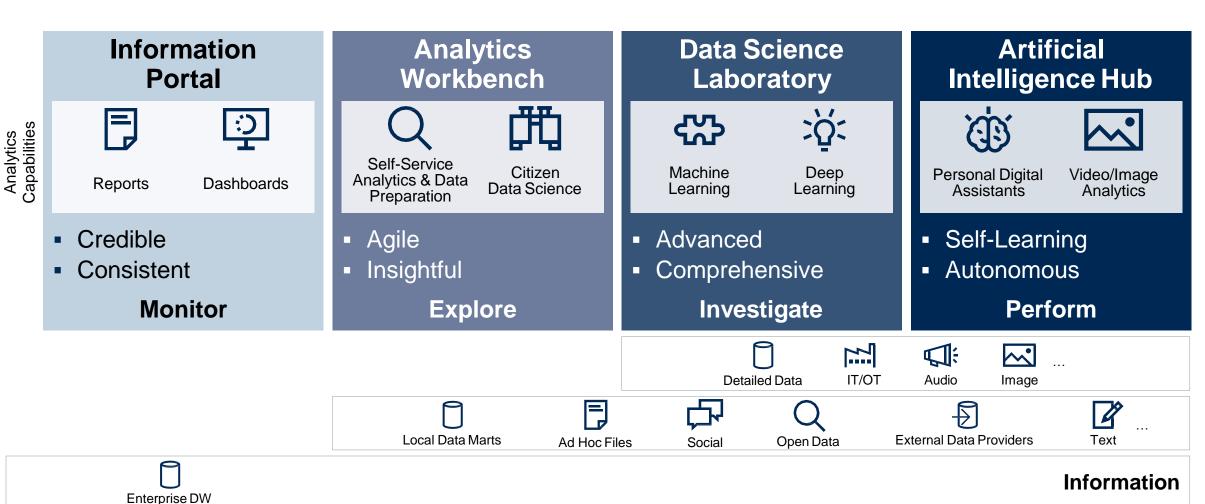


Comprehensive Analytic Process — Where Self-Service Fits

On-Premises Insight Action **Impact** Data Hybrid Acquire Organize Analyze Deliver Measure ✓ Provision and Catalog Internal Leverage Architectural Styles ✓ Leverage Existing Analytics ✓ Operationalize Your Analytics and External Sources ✓ Provide a Common Data ✓ Extend Functionality ✓ Monitor Artifacts **Evolve Toward a Logical Data Access Layer** ✓ Provide Reusable Measure the Value Warehouse ✓ Enable Self-Service Components ✓ Share Your Findings and ✓ Incorporate Data Integration and ✓ Establish a Multitiered BA Approach Management **Data Preparation Environment** ✓ Collaborate, Collaborate, **Build Data Literacy** ✓ Enable Flexible Provisioning Collaborate ✓ Leverage Augmented Data ✓ Leverage Augmented Discovery **Data Preparation** ✓ Leverage Augmented Data Science and Machine Learning

Cloud

Four-Tier Analytic Architecture Supports **Functional Clusters**



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Empower and Enable With Augmented Analytics

Augmented Data Preparation **Prepare Data** Algorithms detect schemas, profile and catalog data, identify data lineage and metadata, and recommend enrichment **Faster** Improved Accuracy **Reduced Bias** Augmented Analytics Share and Operationalize Find Patterns in Data and Building Models Natural language query Insights are narrated in natural language or visualizations to focus user Algorithms find all relevant patterns in data on what is important and actionable Features are autoselected • Embedded in apps or conversational UI Models are autoselected Code is autogenerated Models management is augmented

Emerging Augmented Analytics Workflow

> Augmented Analytics in Analytics and BI Platforms Augmented Data Science and ML

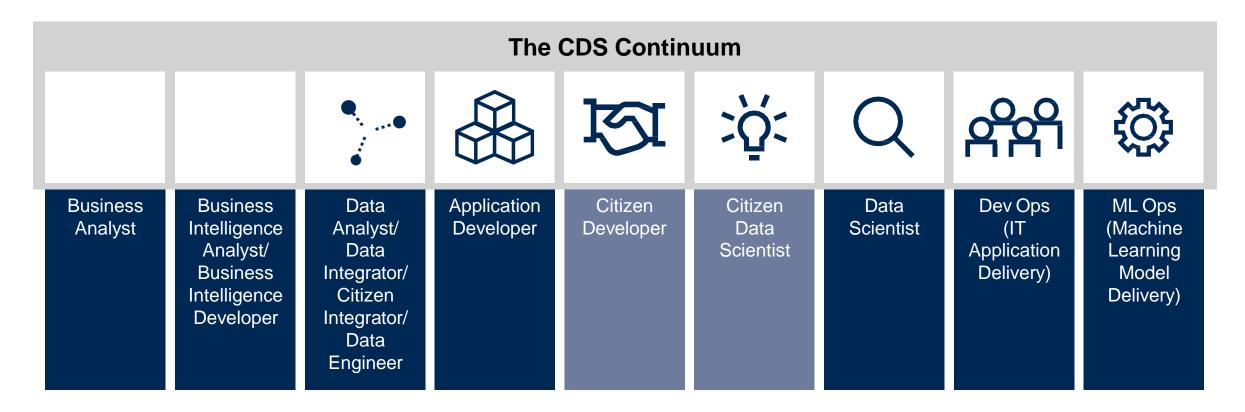




Findings

Citizen Data Science

Roles that Filter into the CDS Continuum





Step by Step

- 1. Think about your organization or case study.
- 2. Devise a self-service approach including:
 - Using the self-service D&A framework.
 - Consider the end-to-end BA process.
- 3. Document your rationale and considerations.
 - Considerations, challenges, approach, priorities and rationale.



Scaling Self-Service for the Data and Analytics **Recommended Approach**

	Why	What	Who	How	Other
Data					
Insight					
Action					
Impact					
Other					



Recommended Gartner Research

- How to Enable Self-Service Analytics and Business Intelligence:
 Lessons from Gartner Award Finalists
 Carlie Idoine and Cindi Howson (G00331768)
- Maximize the Value of Your Data Science Efforts by Empowering Citizen Data Scientists
 Carlie Ideira and Erials Drother aux (COO242722)
 - Carlie Idoine and Erick Brethenoux (G00343732)
- Augmented Analytics Is the Future of Data and Analytics Rita Sallam, Cindi Howson and Carlie Idoine (G00375087)
- Build a Comprehensive Ecosystem for Citizen Data Science To Drive Impactful Analytics
 - Carlie Idoine (G00375359)

