

# The State of Data and Analytics Roles and Organization — From Control to Collaborate

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# The World Is Changing — Time to Rethink

- **Control**
- **Complex**
- **Ownership**
- **Adaptive**
- **Collaboration**



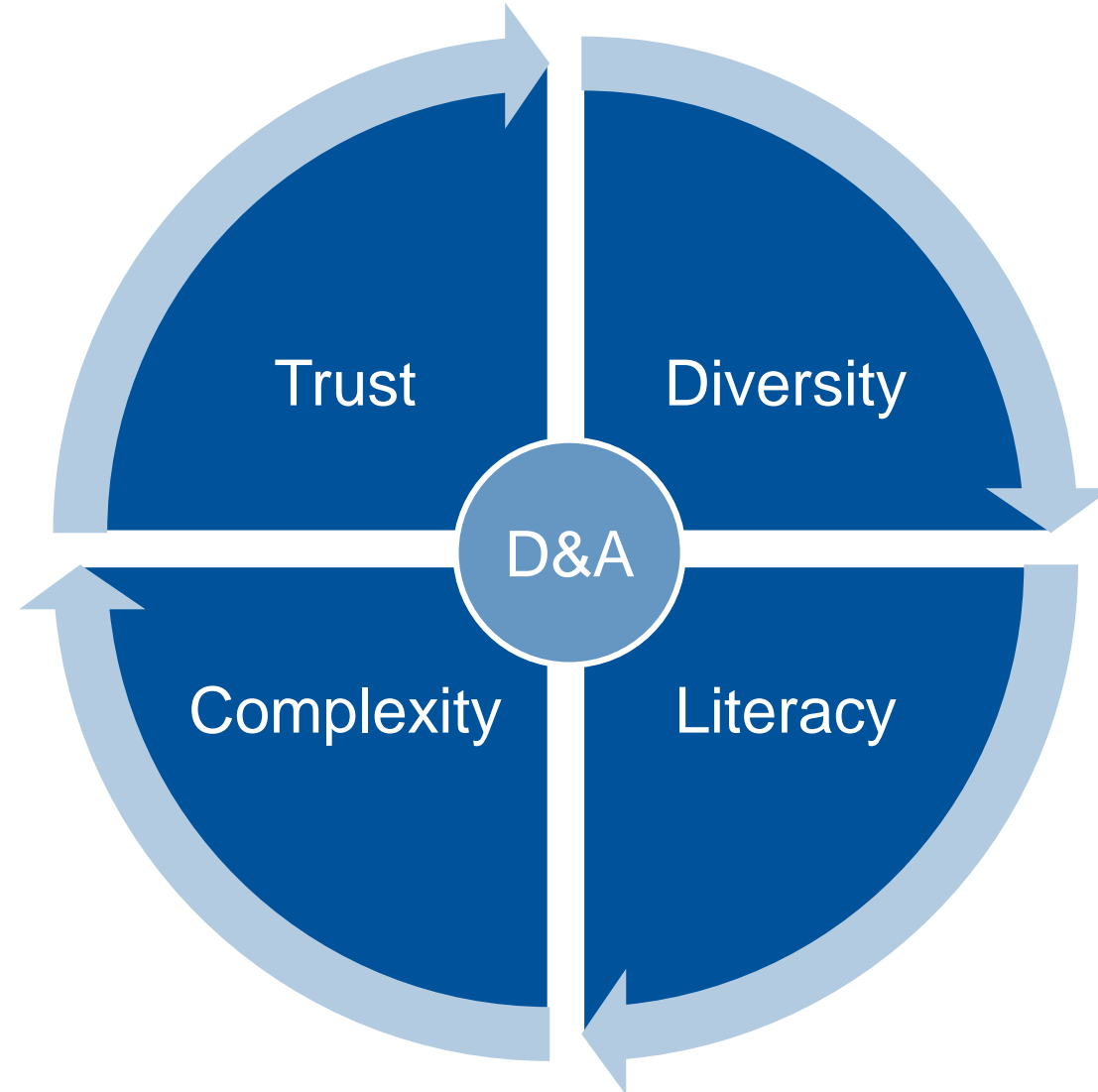
# What is happening?

# Don't Think Yourself Safe!

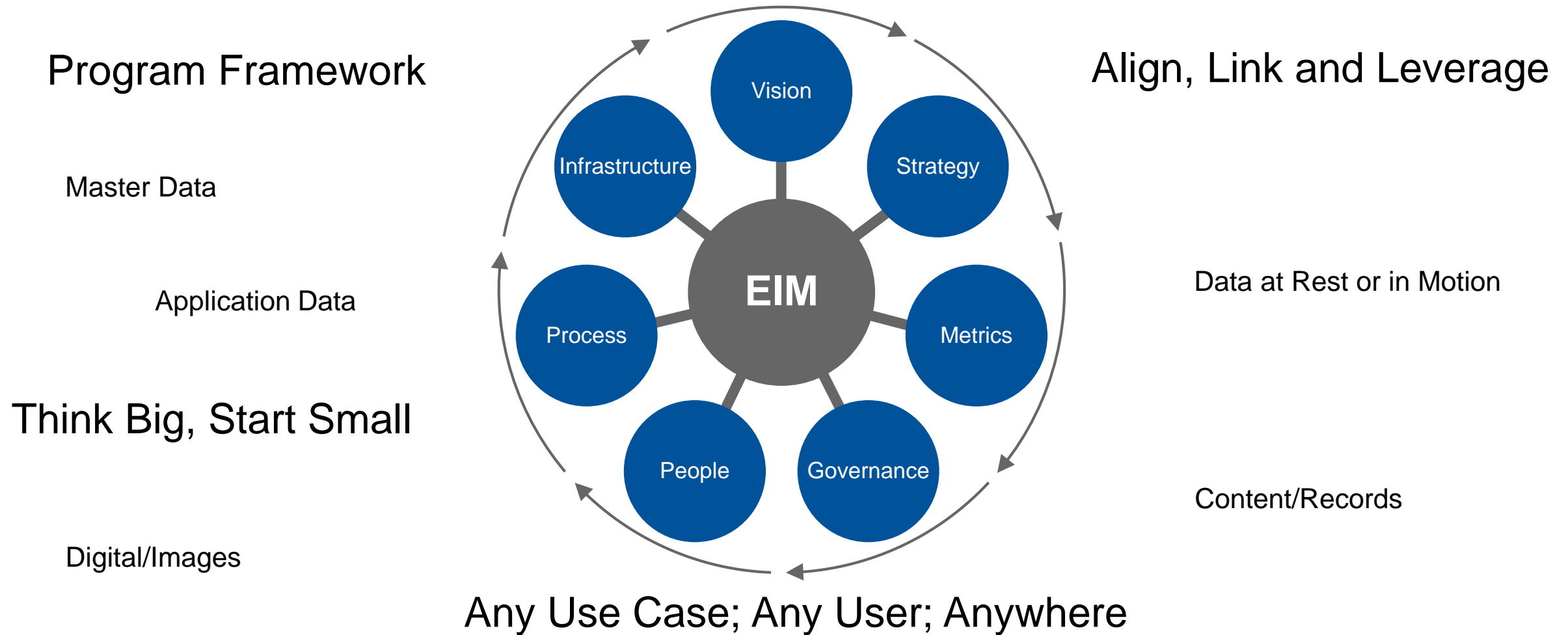
- ✓ The "Business" is my client
- ✓ We have service-level agreements in place
- ✓ We have skills and competences in place



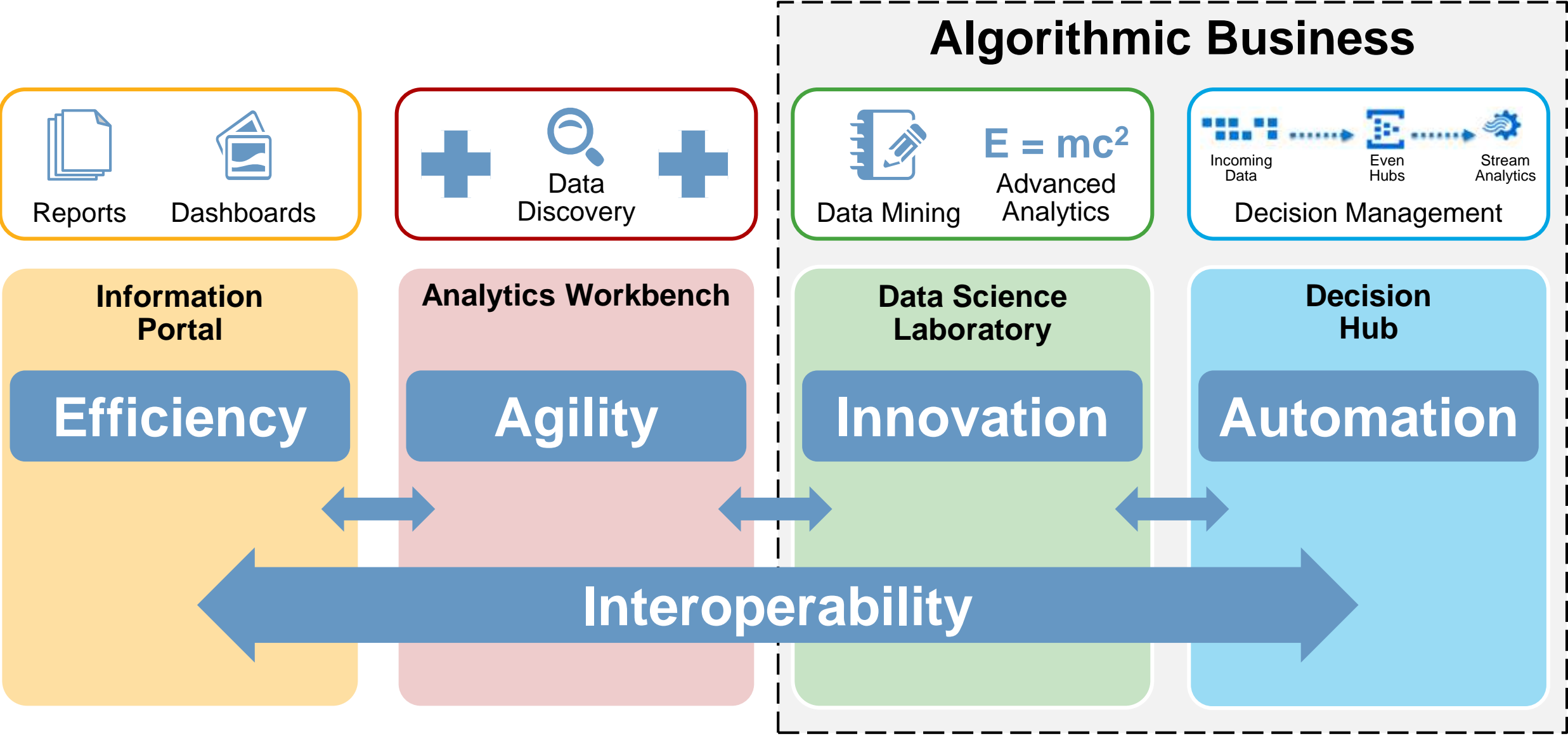
# It Is Time to Scale Data and Analytics While Observing Four Key Dimensions



# The Full Spectrum of Enterprise Information Management



# The Full Spectrum of Analytics



# Impact on organization



# Best of Both: Centralized and Decentralized Organization

- Economies of scale
- Consistent corporate data
- Share best practices



- Fast deployment
- Supplement data
- Business unit reports and dashboards

# Best of Both: IT and Business Responsibilities

## IT

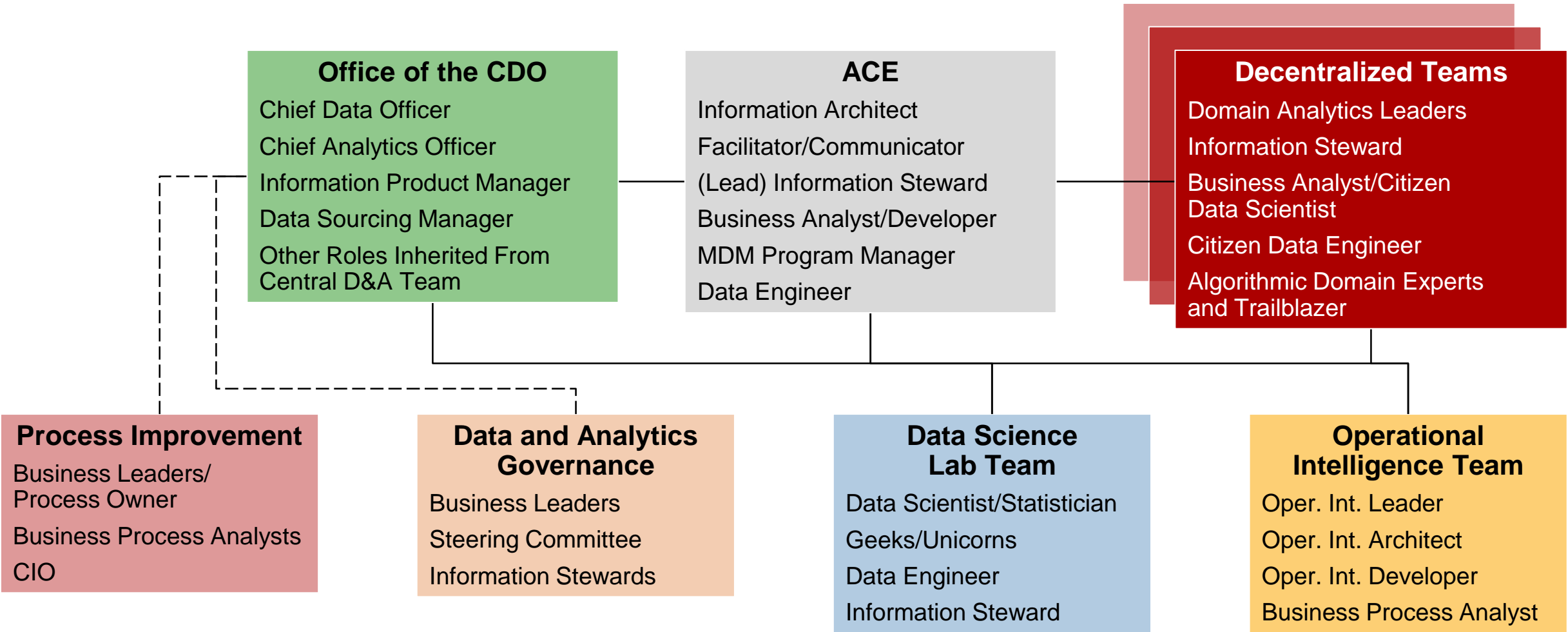
- Partner with the business
- Install, maintain on-premises infrastructure
- Provision data storage, software, data
- Enforce security and governance policies
- Model and author for common requirements
- Sometimes model and author for business
- Consult, teach and evangelize
- Evaluate new technologies



## Business

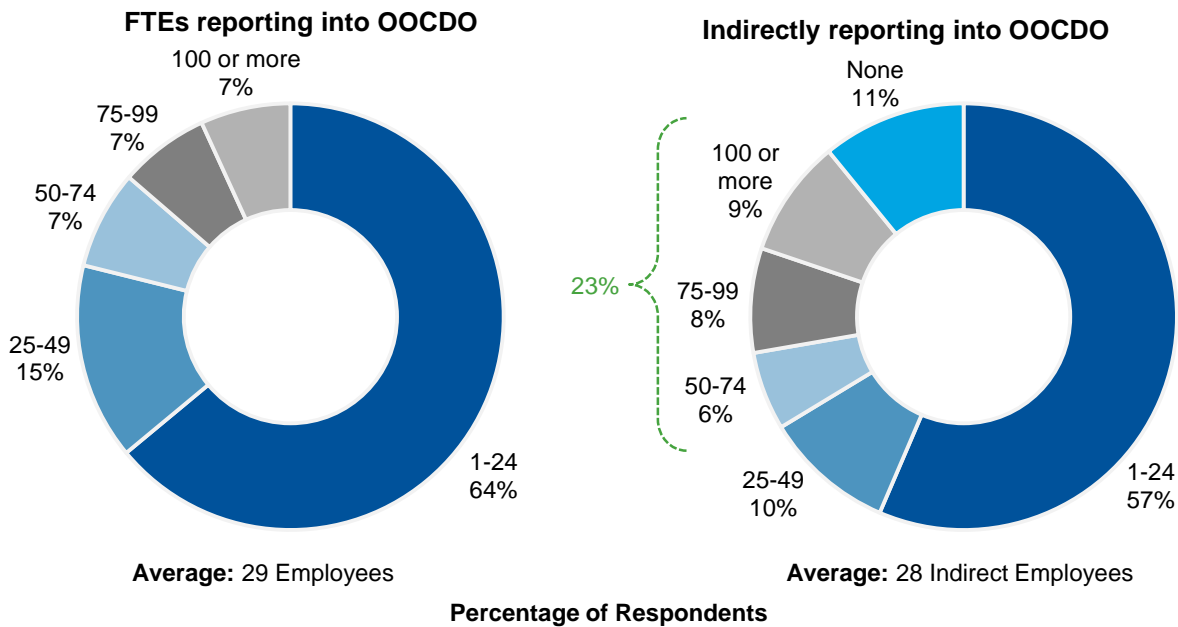
- Partner with IT
- Acquire, explore new data sources
- Set policy and acceptable risk
- Rapid data modeling
- Author reports, dashboards for business-specific content
- Focus on business value

# Living in a Hybrid and Distributed Reality



# The Office of the CDO Is Real

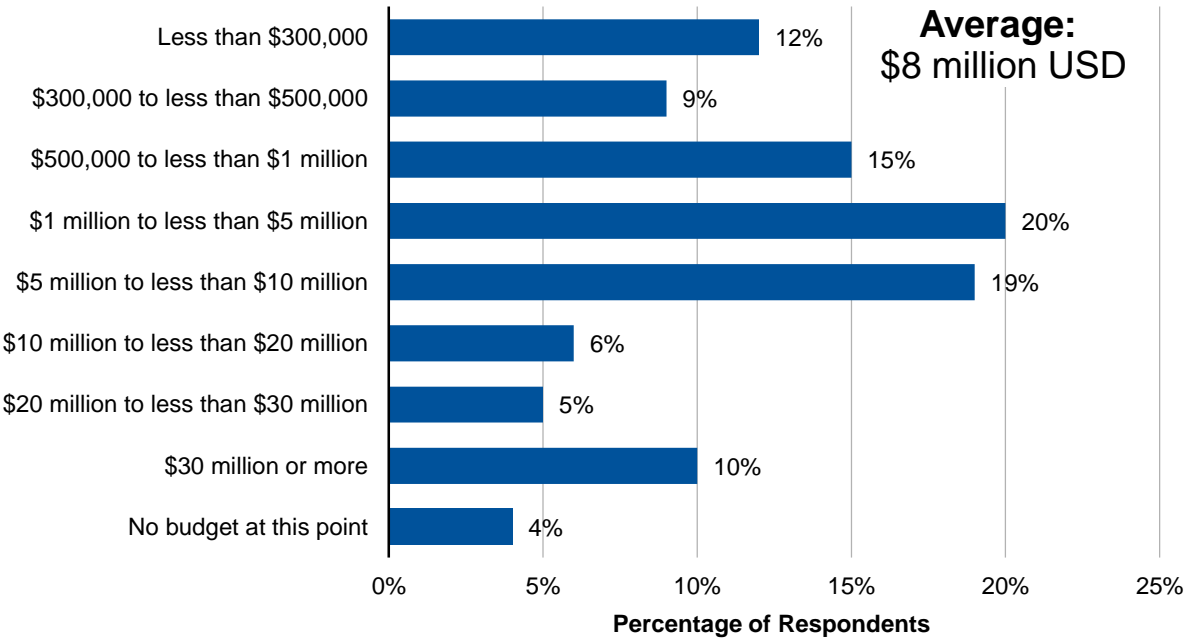
## Employees in Office of the CDO



Base: Full/Partial office of CDO, n = 161

Q. How many full-time employees staff the office of the CDO?  
Q. And how many additional full-time employees do you estimate indirectly report into the office of the CDO?  
"Survey Analysis: Third Gartner CDO Survey — How Chief Data Officers Are Driving Business Impact" (G00332689)

## Annual Budget of Office of the CDO



Base: Full/Partial office of CDO, Excluding Unsure, n = 153

Q. What is the annual budget of the office of the CDO?

Note: Statistics are approximations calculated from range midpoints

"Survey Analysis: Third Gartner CDO Survey — How Chief Data Officers Are Driving Business Impact" (G00332689)

## BICC

- Acquire and model the data
- Create data warehouses
- Create semantic models
- Author reports
- Grant access

## ACE

- Provision, certify data, enable access
- Innovation lab
- Identify common requirements
- Consult on new projects
- Provide pool of experts
- Evangelize best practices, success stories
- Facilitate training and skills advancement

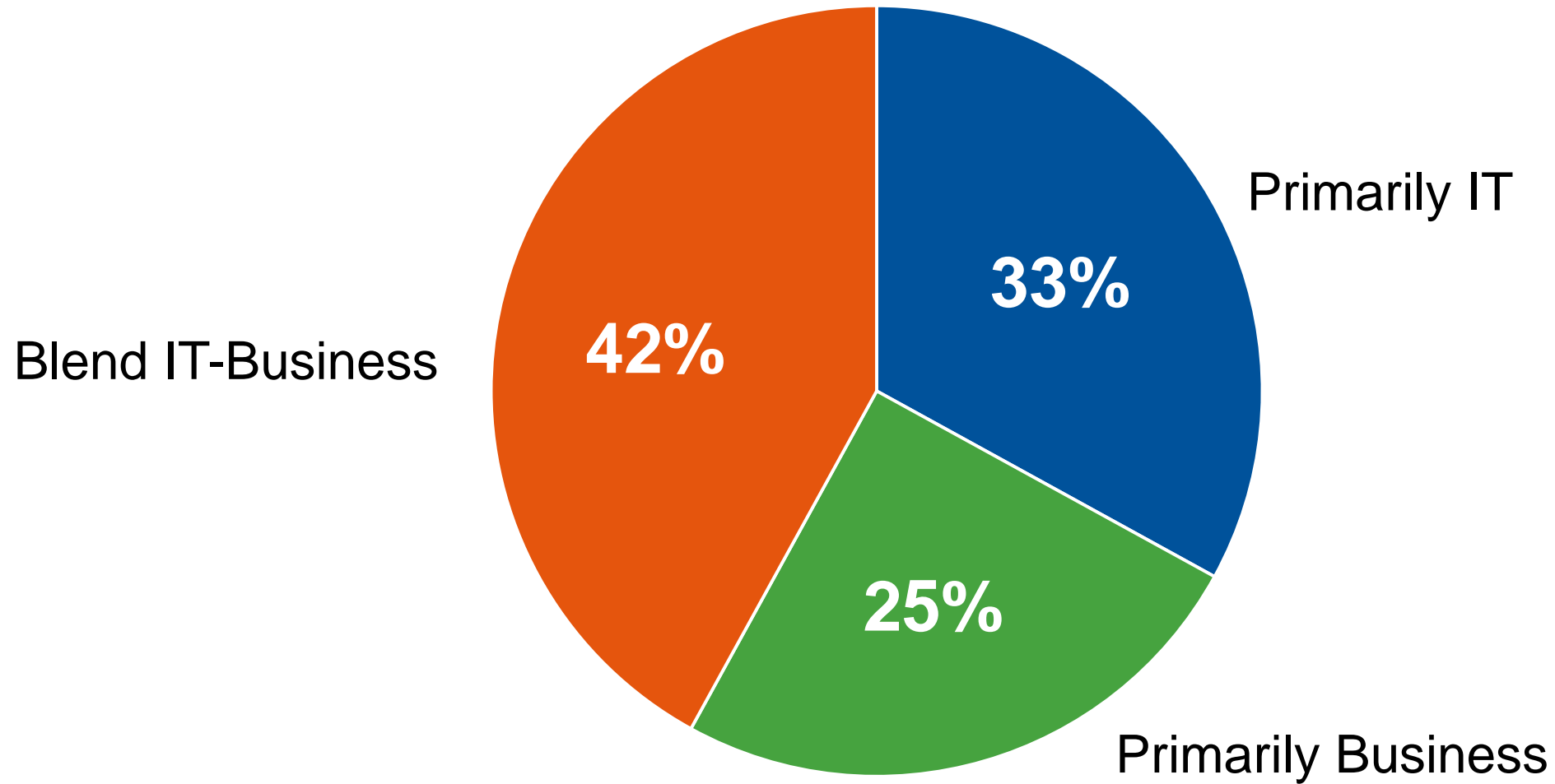
# Moving From Control to Collaborate

- Strategic Alignment
- Centralized and Federated
- Adaptive Mixed teams
- Cross Functional Skills
- Create Your Own Guiding Principles



# Impact on roles

# A New Hybrid World



n = 1,945

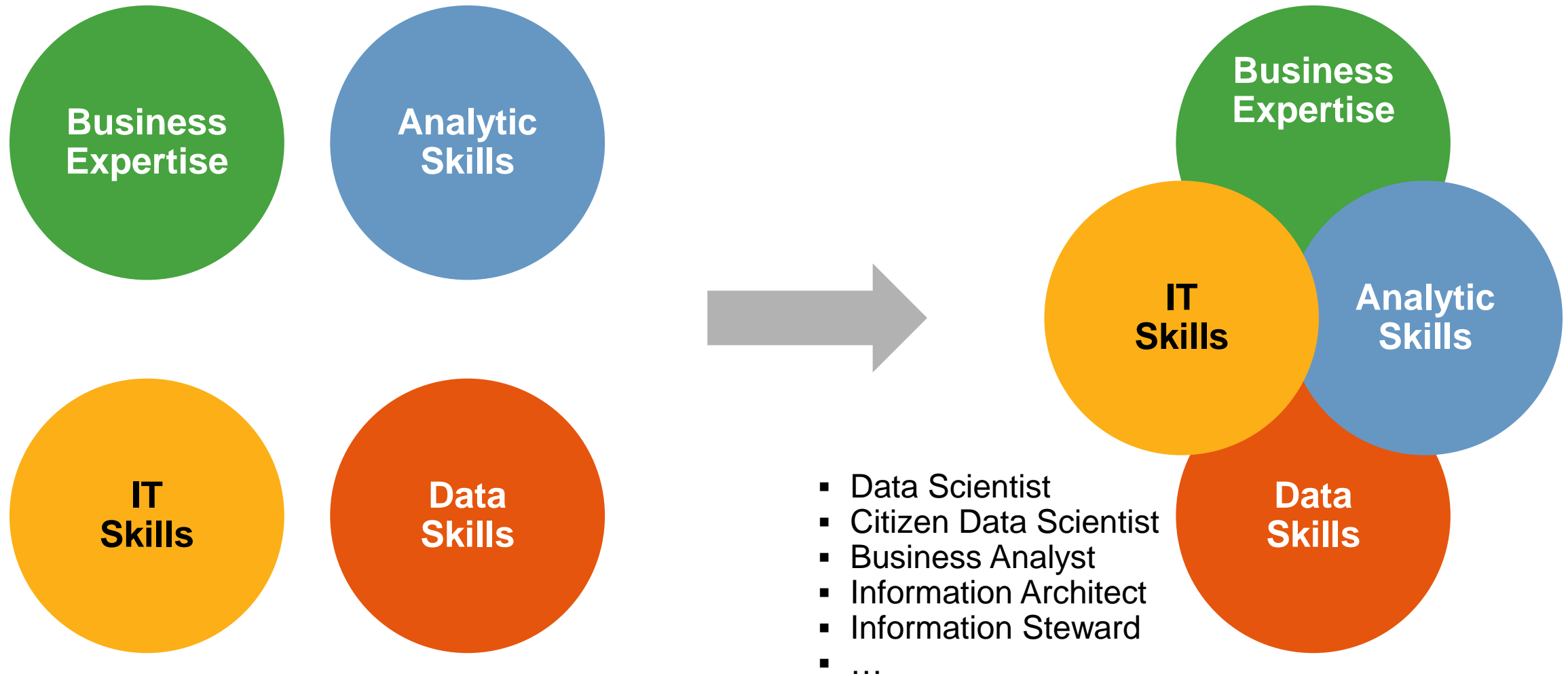
Source: 2016 Gartner Magic Quadrant BI and Analytics Platform Customer Survey

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**Gartner**



# Mixed Skills Lead to Hybrid "IT and Business" Roles



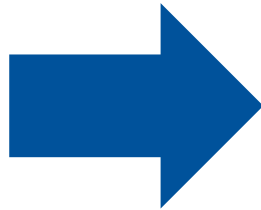
# Balance Centralized and Decentralized Experts

- Solution architect
  - DBA
  - Data integration lead
  - **Data engineer**
  - BI platform lead
  - **Report/Dashboard author**
  - Trainer
  - Business sponsor
  - **Business analyst**
- Embed small BI teams into business units, networked with ACE**
- With easier, self-service data preparation tools, users with domain expertise can rapidly explore and model new datasets. These may or may not be promoted to governed areas.
- Report writers and dashboard designers are experts in using a particular tool to build reports for specific requirements.
- This role is embedded in the business unit. The analyst has a fundamental understanding of the business requirements and has the expertise to build analytical models to deliver on those requirements.

# Technology Advancements and Innovations Disrupt "Traditional" Roles

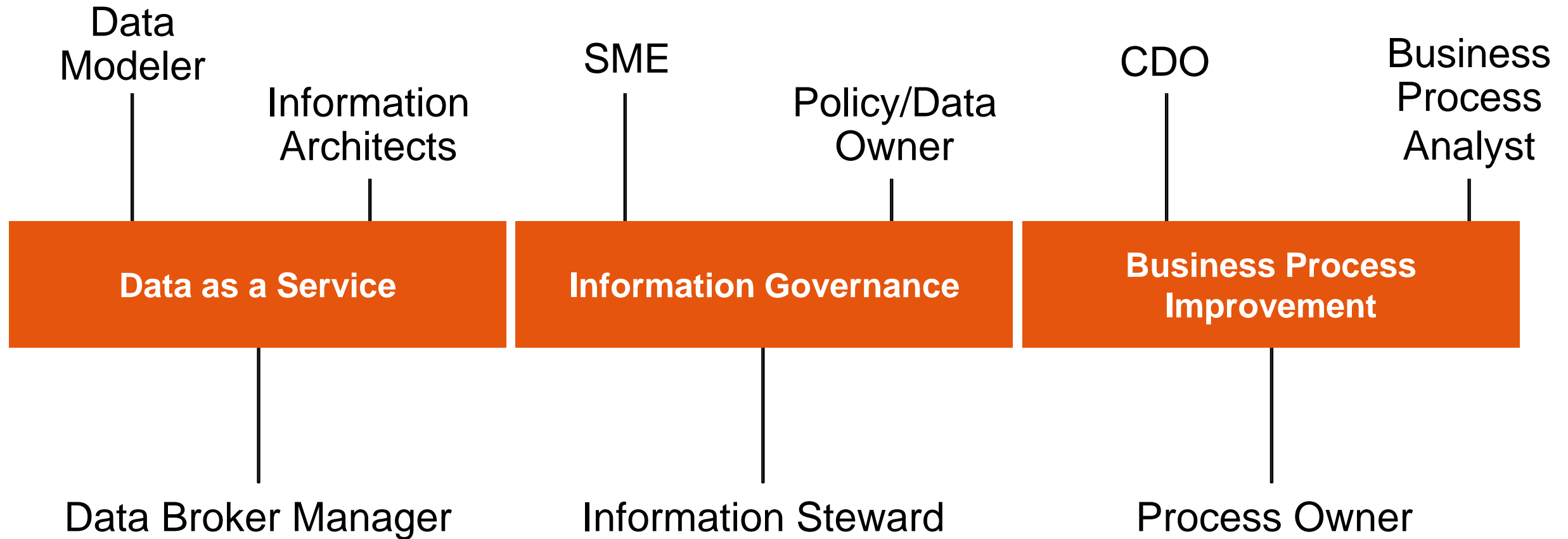
By 2019, citizen data scientists will surpass data scientists in the amount of advanced analysis produced.

- Self-service data prep.
- Modern analytics and BI platforms
- Augmented analytics
- Data as a service

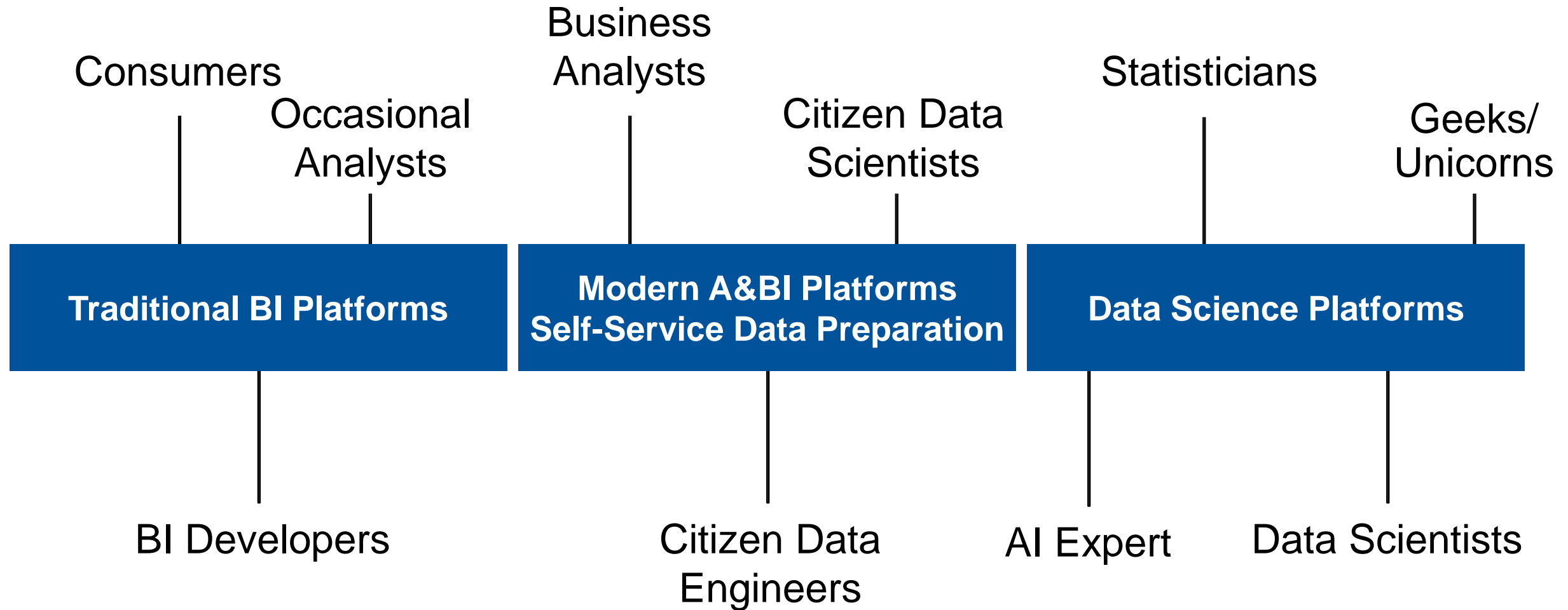


- "Citizen" data engineer
- "Citizen" analyst
- "Citizen" data scientist
- "Citizen" steward

# The Emerging Spectrum of Data Roles



# The Emerging Spectrum of Analytics Roles



# Spectrum



## Traditional:

- Report builder
- DWH manager
- ETL builder
- Data modeler
- Etc.

## Current and emerging:

- Citizen "whatever"
- Product manager
- CDO
- Facilitator, orchestrator
- Information steward
- Etc.

## Future:

- Ethicist
- Data coach
- Evangelist
- Algorithmic trailblazer
- Chief privacy officer
- Etc.

# Moving From Control to Collaborate

- Hybrid Roles
- Leverage "Citizen" Roles
- Balance Traditional and Emerging
- Strategic Alignment With ACE and Office of CDO
- Build Your Own Guiding Principles



# Recommendations: Move From Control to Collaborate

- ✓ Analyze your current organizational setup against these best practices and develop your own set of guiding principles.
- ✓ Work with domain and business unit leads to develop your hybrid and distributed organizational structure.
- ✓ Inventory your current roles, skills and competencies develop a plan to close skills gaps together with your business stakeholders.
- ✓ Plan for the new roles and associated skill sets that will be needed for the next three to 18 months.
- ✓ Work with HR to build a workforce development plan based on your data and analytics strategy.



# Recommended Gartner Research

- ▶ [Must-Have Roles for Data and Analytics, 2017](#)  
Thomas W. Oestreich and Andrew White (G00309273)
- ▶ [Why You Need to Rethink Your Data and Analytics Roles Now](#)  
Thomas W. Oestreich and Frank Buytendijk (G00308242)
- ▶ [Organizing for Effective Data Management in Digital Business](#)  
Roxane Edjlali (G00315253)
- ▶ [Staffing Data Science Teams](#)  
Alexander Linden, Lisa Kart and Others (G00270087)
- ▶ [Organizing Your Teams for Modern Data and Analytics Deployment](#)  
Mark A. Beyer (G00280461)
- ▶ [The 30 Capabilities That Your Analytics Center of Excellence May Be Lacking](#)  
Douglas Laney, Jamie Popkin and Others (G00323119)

For information, please contact your Gartner representative.

# Recommended Gartner Research (continued)

- ▶ [Leading Upskilling Initiatives in Data Science and Machine Learning](#)  
Peter Krensky, Shubhangi Vashisth and Douglas Laney (G00334219)
- ▶ [Create a Centralized and Decentralized Organizational Model for Business Intelligence](#)  
Kurt Schlegel, Frank Buytendijk and Dan Sommer (G00261728)
- ▶ [Must-Have Roles for Data and Analytics, 2017](#)  
Thomas W. Oestreich and Andrew White (G00309273)
- ▶ [Business Intelligence Teams Need to Change With the Times](#)  
Alan D. Duncan (G00270899)
- ▶ [CDO Reporting Relationships Can Make or Break Your Information Management Program](#)  
Debra Logan and Joe Bugajski (G00274153)
- ▶ [How and When to Use a Center of Excellence](#)  
Ewan McIntyre and Kirsten Newbold-Knipp (G00294055)

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