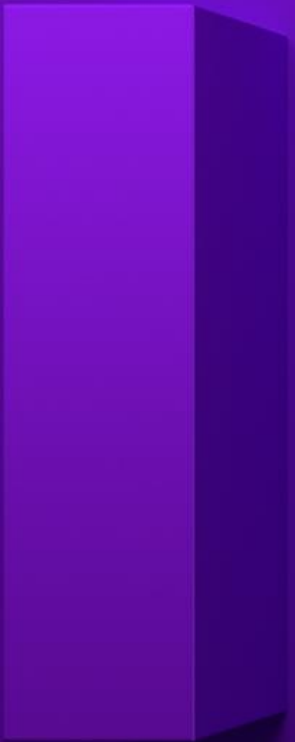# Data Integrity Trends

Melvin Cheong | APAC Sales Engineer

October 2024

"The world is experiencing a level of disruption and business risk not seen in generations...

McKinsey & Company

"…some companies freeze and fail, while others innovate, advance, and even thrive."

McKinsey & Company

Macro forces are impacting your business

Long-term
pandemic impacts

Changing
regulatory and privacy
environment

Volatile
market conditions

Long-term pandemic effects

1 in 5

1 in 5 adults left their jobs in 2021 at the start of the "great resignation," creating skills shortages[1]
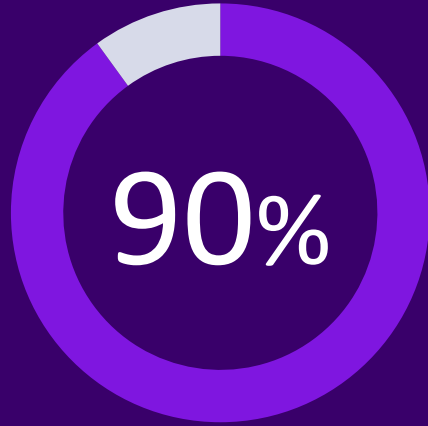
⬆ 43%

E-commerce sales increased 43%, requiring accelerated digital transformation

75%

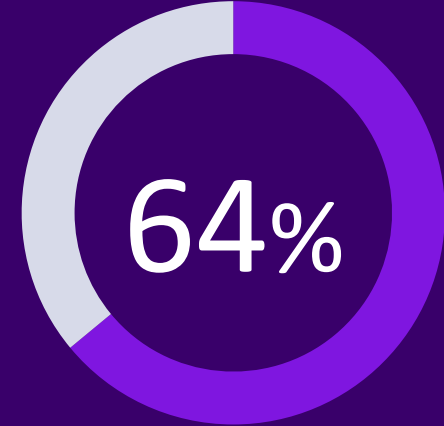75% of consumers report having changed their buying behavior permanently

1. Pew Research Center, 2. US Census Bureau, 3. McKinsey

Changing regulatory and privacy environment

90%

of S&P 500 companies now publish ESG (Environmental, Social, and Governance) reports.

$ 8
Trillion

expected cost of data theft, leaks and breaches in 2023 increases scrutiny

64%

of consumers would like to see legislation preventing the sale of their data

1. Center for Audit Quality, 2. Cybersecurity Ventures, 3. Prosper Insights & Analytics

AI

In a Goldman Sachs' report, Joseph Briggs and Devesh Kodnani, showed that shifts in workflows triggered by AI advances could expose the equivalent of **300 million** full-time jobs to automation.

Boston Consulting Group (BCG) believe that if cost reduction and falling prices are how AI delivers significant productivity growth, then **consumers will be the winners**. Lower prices will boost real incomes that can be spent elsewhere.

AIRS

Artificial Intelligence/Machine Learning Risk & Security Working Group (AIRS).

- Focused on Financial Services, but applicable to most enterprises, identified four categories of risk:

  1. Data Related Risks

  2. AI/ML Attacks

  3. Testing

  4. Trust and Compliance

- Specifically call out that "AI governance frameworks could help organizations learn, govern, monitor, and mature AI adoption. Four core components of AI governance are: **definitions, inventory, policy/standards, and a governance framework, including controls.**"

Enabling Framework/Components. Enabling the Enterprise!

Executive Leadership
★☆☆☆☆

Business Analysts
★★★☆☆

Finance Leadership
★☆☆☆☆

Data Scientists
★★★★☆

Data Governance
★★★★★

Compliance & Legal
★★★☆☆

Sustainability
★★☆☆☆

HR
★★☆☆☆

Procurement
★★★☆☆

Sales & Marketing
★☆☆☆☆

Fulfilment & Logistics
★★★☆☆

IT
★★★★★

Meet Regulatory Challenges and Accelerate Value Delivery Across Your Organisation

Enterprise Challenge

Executive Leadership Team

Business Teams

Data Stewards and Consumers

Top Corporate Objectives ⟷ Business Metrics ⟷ Critical Processes and Performance Measures ⟷ Critical Data ? ⟷ Data Catalogue
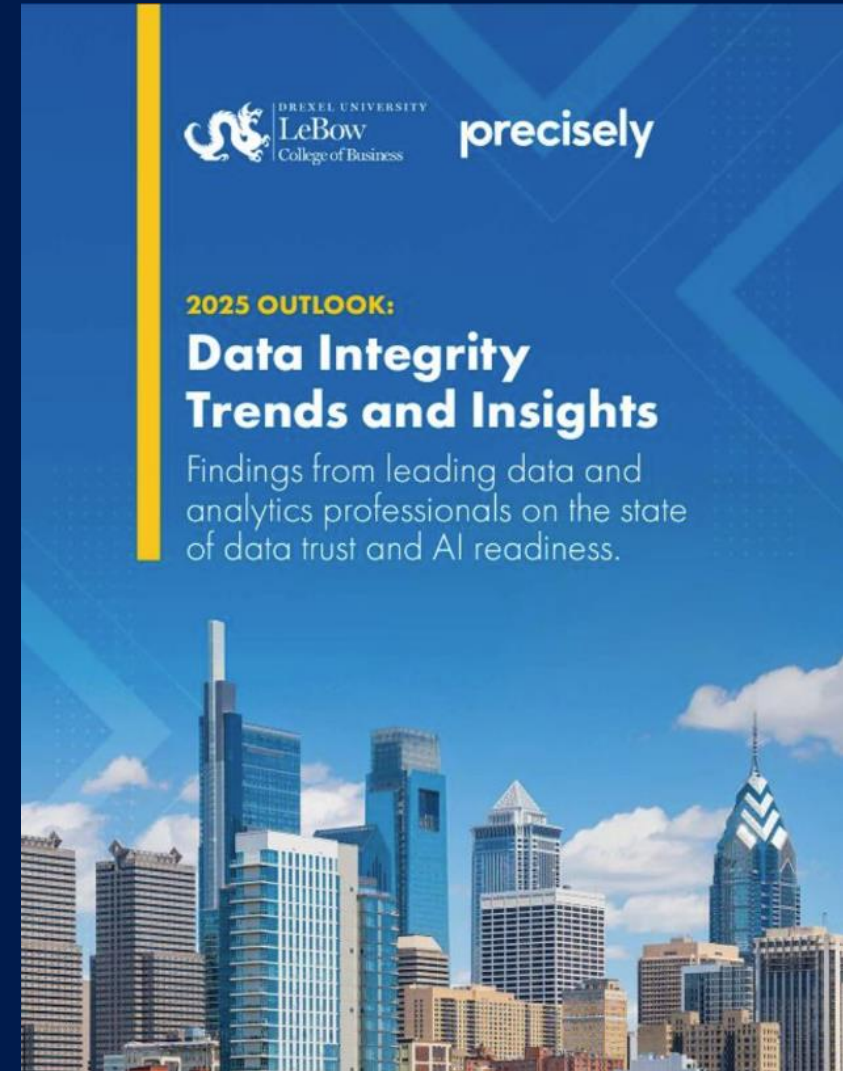
- Annual Report
  - Sustainability
  - Growth
  - Customer Satisfaction
  - Operational Efficiency

Are these relationships understood and actionable?

- Am I applying the right risk profile and/or focus to this client?
- Are there relationships gaps that I am missing and should be considered?
- Are there other opportunities I am missing?

- Where is the data I need?
- Can I access it?
- Can I trust it?
- Is it for (my) purpose?

- 565 data and analytics professionals surveyed globally

- Drexel is one of only 39 private institutions to receive the prestigious Carnegie R1 classification as a doctoral university with very high research activity

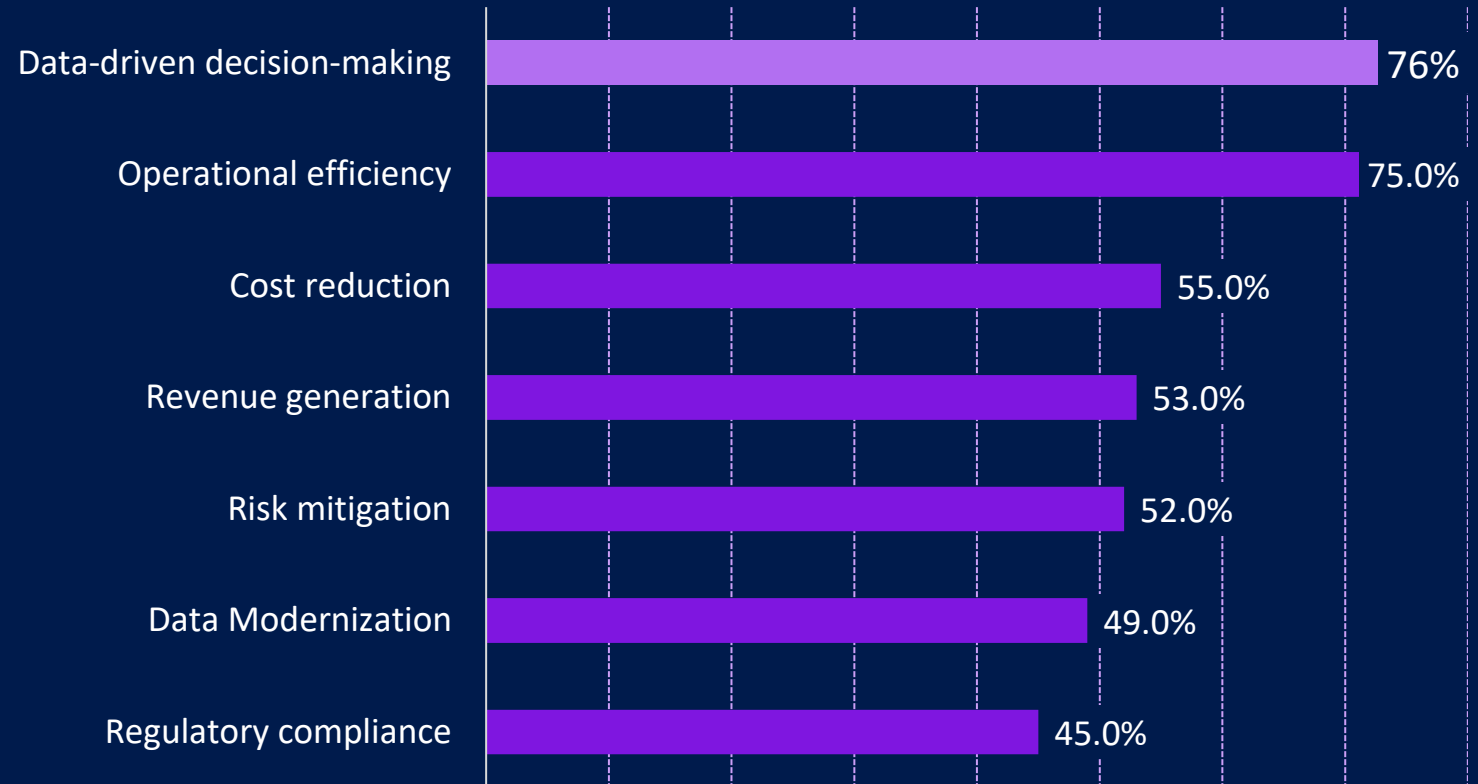- Precisely is partnering with Drexel University on data integrity research.

NOW AVAILABLE

76%

report data-driven decision-making as the top priority for data programs
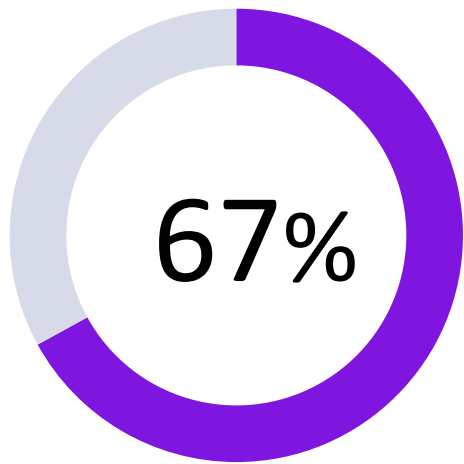
QUESTION:
What are your organization's goals for data programs?

Goal	Percentage
Data-driven decision-making	76%
Operational efficiency	75.0%
Cost reduction	55.0%
Revenue generation	53.0%
Risk mitigation	52.0%
Data Modernization	49.0%
Regulatory compliance	45.0%

DREXEL UNIVERSITY
LeBow
College of Business

Trust in data is low...

... and poses challenges

QUESTION:
How would you rate your organization's ability to trust the data being used for decision-making?

67%
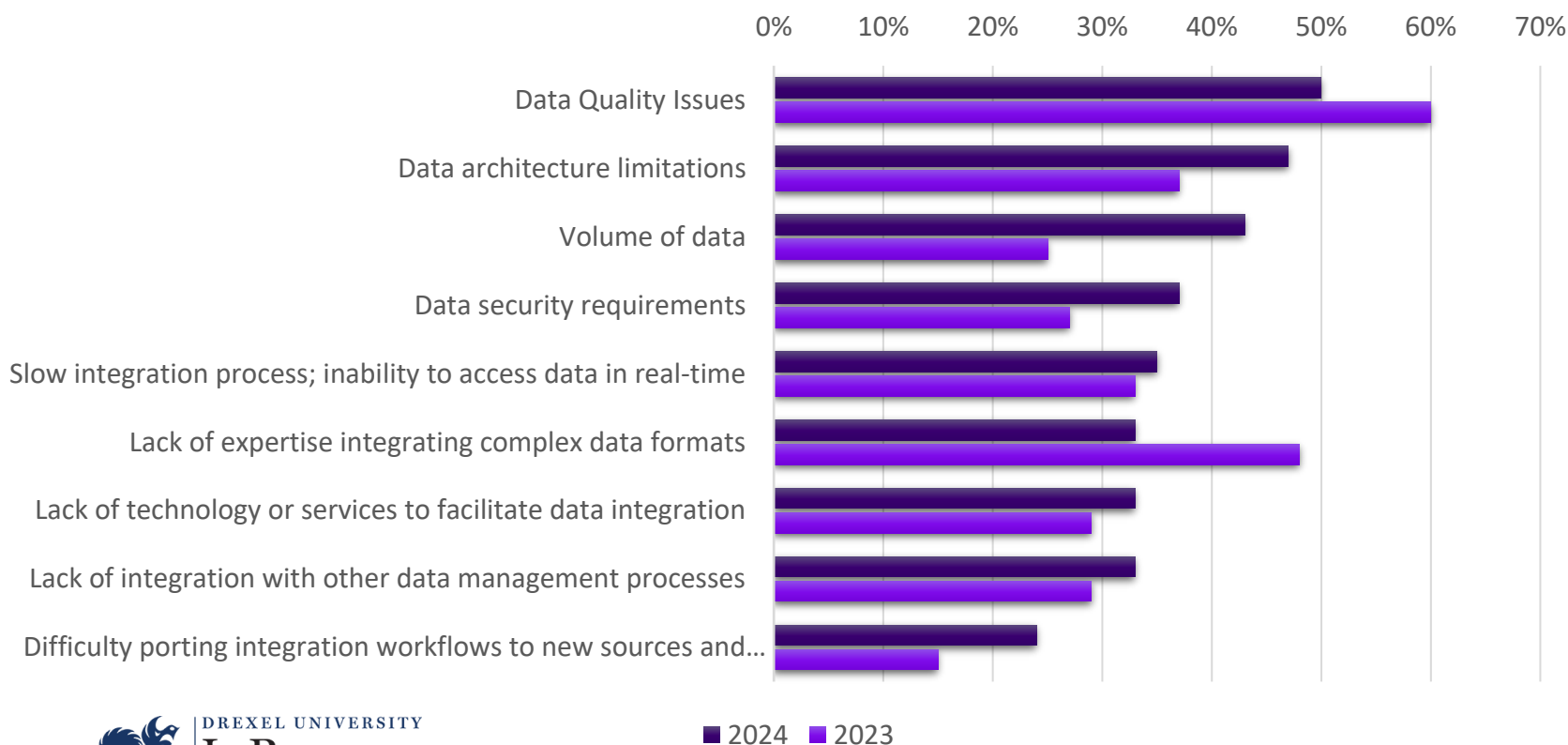
67% do not have high trust in their data for decision-making

- Poor data quality is the #1 challenge to DATA QUALITY for 64% of respondents

- Biggest jump recorded for prioritization for data integrity via DATA GOVERNANCE projects, for 56% of respondents in 2024 compared to 41% in 2023, created by toss-up with Data Quality

- INADEQUATE TOOLS is the #1 challenge among international respondents to achieving optimal data quality levels

DREXEL UNIVERSITY
LeBow
College of Business

"2025 Outlook: Data Integrity Trends & Insights" report, September 2024

Top priorities for data integrity

QUESTION:
What are your organization's top priorities for improving data integrity in 2024?

	2024	2023

"2025 Outlook: Data Integrity Trends & Insights" report, September 2024

#1 focus area in 2024 is improving data quality, followed closely by data architecture limitations.
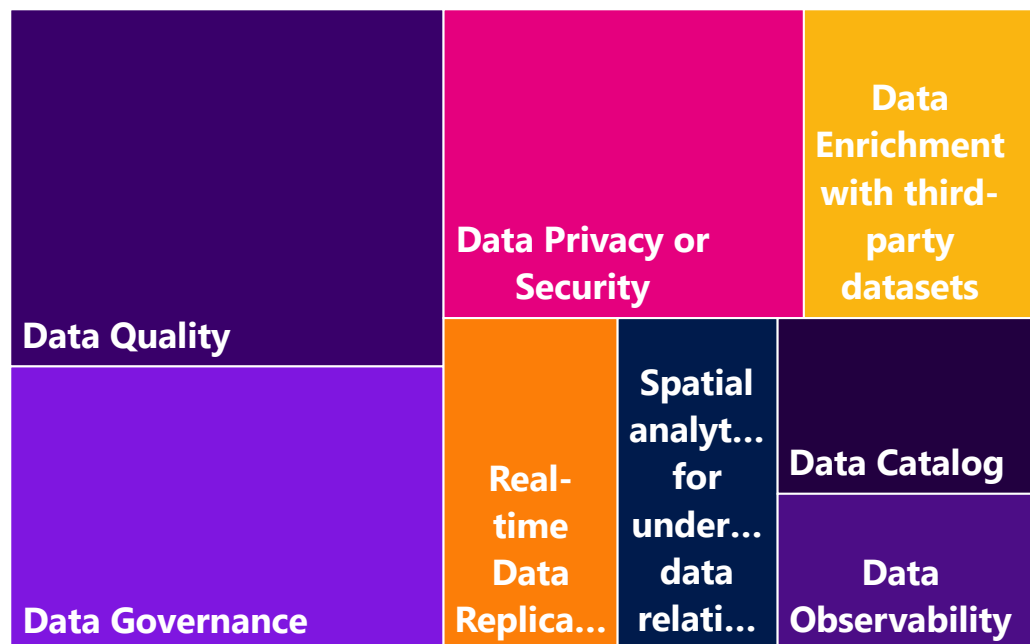
With 71% of respondents reporting that their organization has a data governance program this year
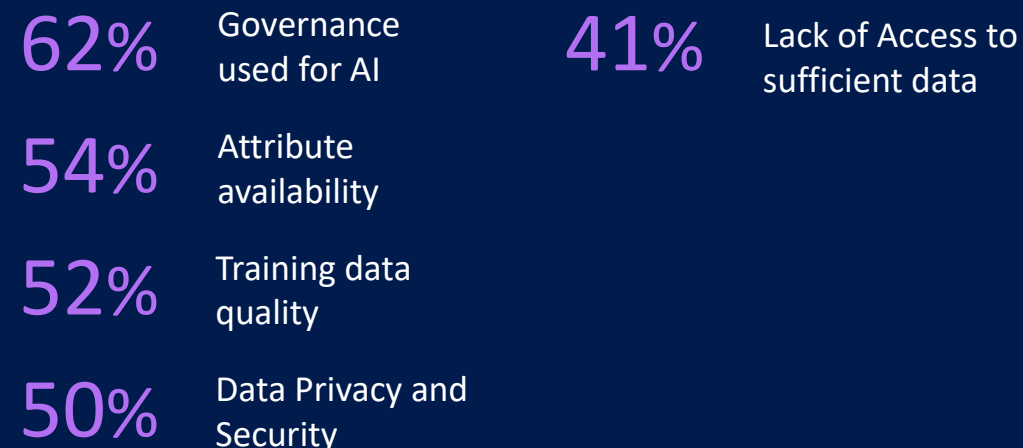
Top Challenges in DI

QUESTION:
What are your organization's top three data integrity challenges?

Data Quality

Data Governance

Data Privacy or Security

Data Enrichment with third-party datasets

Real-time Data Replica...

Spatial analyt... for under... data relati...

Data Catalog

Data Observability

"2025 Outlook: Data Integrity Trends & Insights" report, September 2024

... influences challenges in AI

QUESTION:
What data challenges inhibit your organization's progress in relation to AI initiatives??

62% Governance used for AI

54% Attribute availability

52% Training data quality

50% Data Privacy and Security

41% Lack of Access to sufficient data

62% growth in respondents turning to location intelligence and spatial analytics to improve data integrity initiative success

The bottom line

Data is more important than ever for your business initiatives

Trust in your data impacts your ability to thrive and survive

Quality and architecture is the primary issue affecting data programs

Architecture and infra design juggle between quality and compliance

For all the details, download

2025 OUTLOOK:
Data Integrity Trends and Insights
Findings from leading data and analytics professionals on the state of data trust and AI readiness
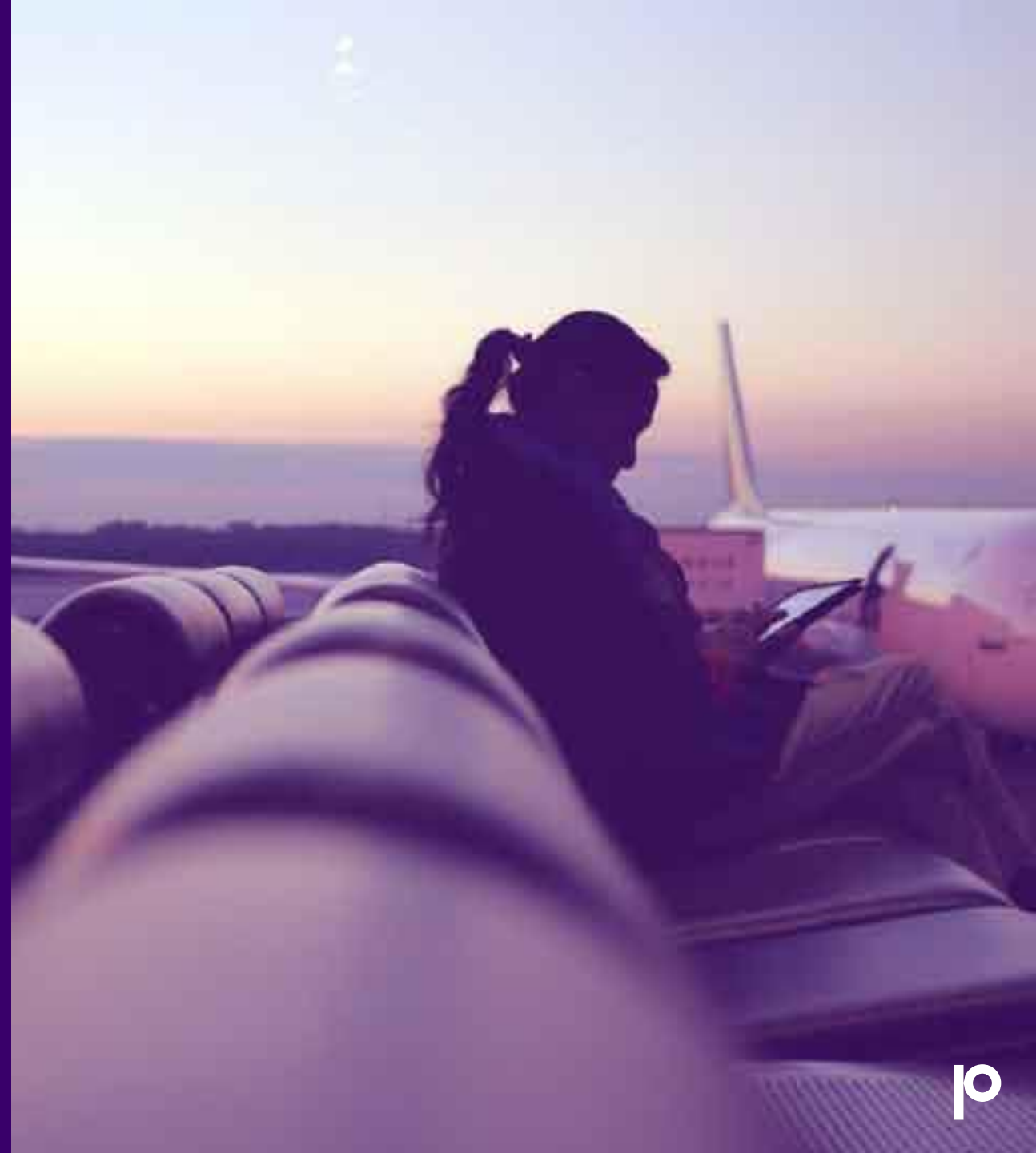
ASK US FOR A COPY!

precisely   DREXEL UNIVERSITY LeBow College of Business

Challenges we hear…

- How (and where) do I even get started?

- I am struggling to articulate the value of our Data Program and make any additional investments.

- How do I prioritize initiatives?

- How do I establish and sustain business relevance (how do I get management to care and invest)?

- What's the right organization design for my data program? How are others doing it?

- There is a cultural resistance to owning data issues and we struggle to get the business engaged.

How We Help

Strategic Support

- Data Program design, implementation, and optimization
- Business Case Development
- Data Strategy, Lineage and Risk Assessments
- Data Architectural Design
- Data Organizational Design
- Process Optimization
- Data Analytics

Operational Support

- Data Project Leadership and Project Management
- Data Process Design and Implementation
- Data Governance Strategy and Execution
- Data Migration Leadership and Implementation
- Data Application Leadership and Implementation
- Data Profiling and Cleansing

Team Augmentation

- Data Leadership Roles
- CDO / Data Steward Coaching
- Data Architecture & Modelling
- Data Application Support
- Data Governance Roles
- Master Data Management
- Change Management
- Managed Services

In all cases, we offer resources with varying levels of expertise to meet client requirements and provide domain, functional, application, and industry level expertise as required to support specific client needs.

Words from our Customers

"After all these years, it feels good to be able to finally quantify our value and justify our data investments."

"I was skeptical that you would be able to get us there as quickly as you professed but seeing is believing."

"The team always knew the data challenges we face and value we bring, but finally having the business understand is a game changer."
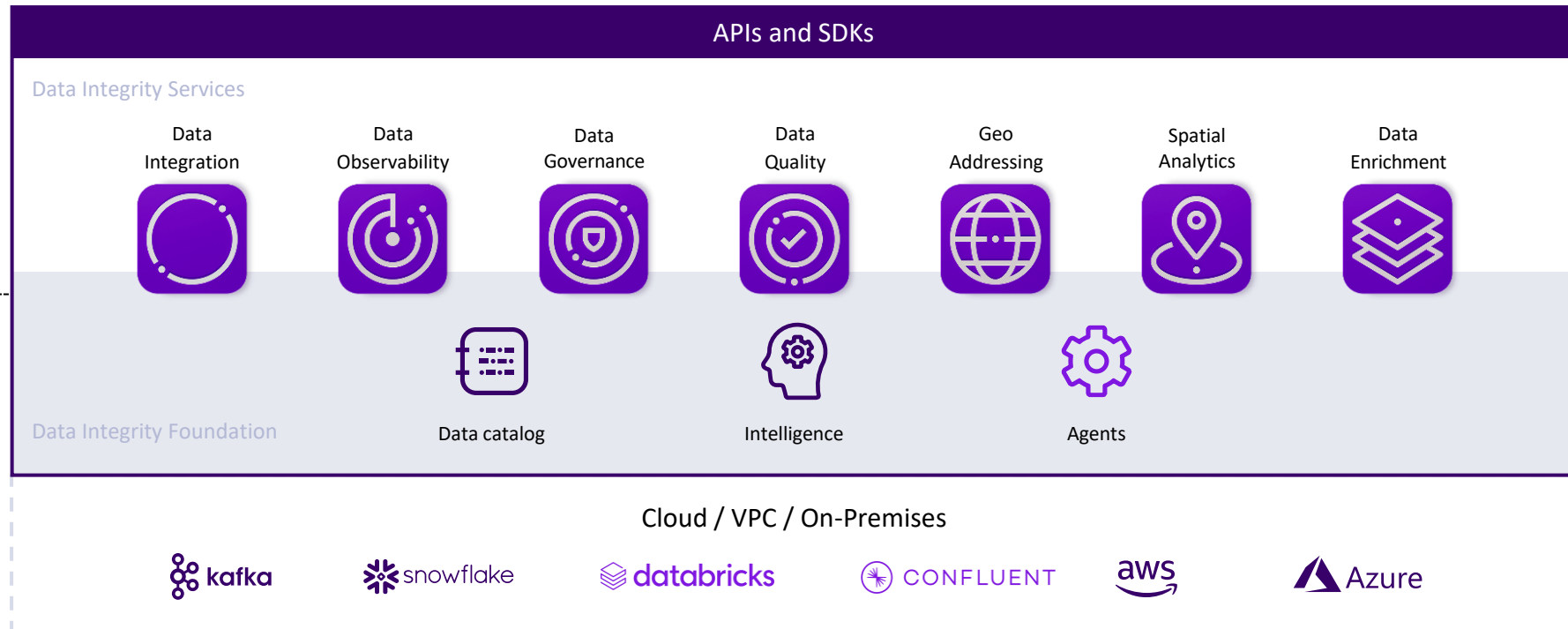
"We always knew there wasn't a technology silver bullet that would solve our problems, but we never knew what was missing until we followed your approach"

Data Integrity Suite

APIs and SDKs

Data Integrity Services

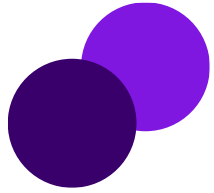| Data Integration | Data Observability | Data Governance | Data Quality | Geo Addressing | Spatial Analytics | Data Enrichment |

Enterprise Data Sources

- Business Intelligence
- CRM
- Workforce mgmt.
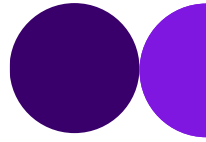- Data warehouse
- ERP
- Billing

Enterprise Business Systems

- Enterprise apps
- Analytics tools
- Precisely industry apps
- BI dashboards
- AI/ML

Data catalog

Intelligence

Agents

Data Integrity Foundation

Cloud / VPC / On-Premises

kafka   snowflake   databricks   CONFLUENT   aws   Azure
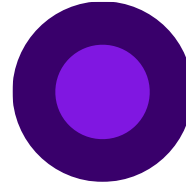
The Data Integrity Approach

Integrate

Modernize your infrastructure for the cloud, eliminate data siloes, and automate business processes

Verify

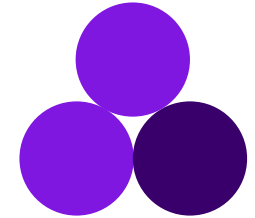Build data governance and quality into your data-centric processes to ensure accuracy and consistency

Locate

Leverage the location information inherent in your data for more sophisticated analytics and actionable insights

Enrich

Complement your core business data with expertly curated datasets to add critical context and increase value

Engage

Create seamless, personalized and omnichannel communications on any medium, anytime

Common Data Integrity Suite Use Cases

Replicate and Observe

Data Integration   Data Observability

- Replicate requested data into the data cloud
- Catalog metadata while integrating
- Observe for changes and anomalies

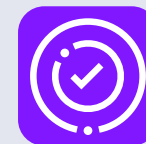## Cleanse and Enrich

Data Quality   Geo Addressing   Data Enrichment

- Identify and remediate data quality issues
- Geocode and attach a PreciselyID
- Enrich address data in data quality pipelines

Govern and Monitor

Data Quality   Data Governance   Data Observability

- Standardize and verify data in the cloud
- Link data to governance rules and policies
- Monitor critical data assets for issues

Precisely data governance customers

…some companies freeze and
fail, while others innovate,
advance, and even thrive."

McKinsey
& Company

Thank You