

ORACLE

# Unlock the value in data with Oracle's Modern Data Warehouse



## Introduction

Accelerate innovation with data

IT leaders are facing aggressive business demands

IT benefits from a modern data warehouse

Why Oracle is the best choice for data management

Modern Data Warehouse use cases – unlock your data

Organizations across industries unlock value from data with Oracle

# Data is the lifeblood of business

Every day more and more businesses are using their data to gain an edge over their competitors. Nearly 66% of high-growth companies already recognize that data is a critical asset to their business and have engaged strategic business consultants for data and analytics.<sup>1</sup> This is good news, because they can prepare now for tomorrow's needs.



<sup>1</sup> Source: Need External Data? Explore the new data landscape, Forrester Research, April 2019

# Accelerate innovation with data

Analysts predict that the amount of data accumulated will increase by 5x between 2020 and 2025 and that there will be more than 6 billion consumers, or 75% of the world’s population, who interact with data every day.<sup>1</sup> Additionally, Gartner predicts that by 2024, 75% of enterprises will adopt AI and machine learning technologies to accelerate business decision-making processes and improve alignment of decisions throughout the organization.<sup>2</sup>

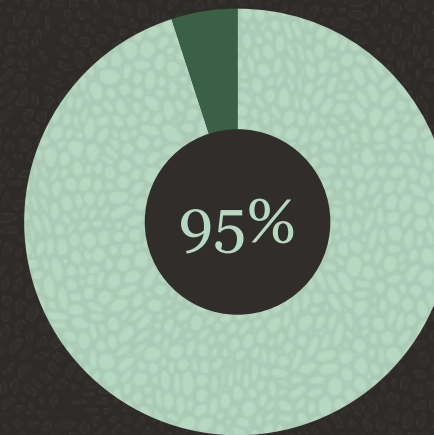
As a result, data and IT leaders are facing unprecedented pressure to help their businesses capitalize on their vast quantities of data. Businesses are demanding that IT empower them with the ability to access, process, and analyze data at increasingly faster rates. But IT teams have their hands full maintaining the systems they already have. How can IT leaders juggle these seemingly competing priorities and help their businesses use their data in new ways?

## Keep reading to learn more about:

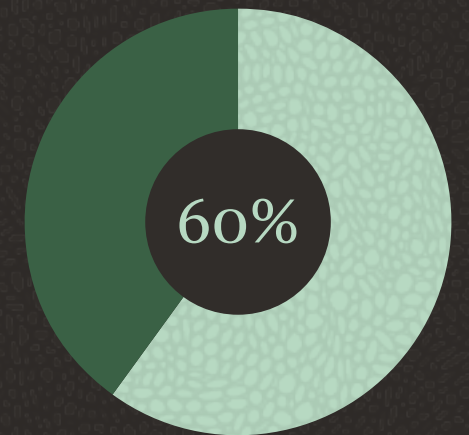
- Biggest challenges facing IT leaders
- The benefits that come with choosing the right solution
- Modern Data Warehouse use cases
- Ways to get started

<sup>1</sup> Source: "The Digitization of the World from Edge to Core." IDC, 2018  
<sup>2</sup> Source: [The Top 10 Trends in Data and Analytics in 2020](#), Gartner, 2020

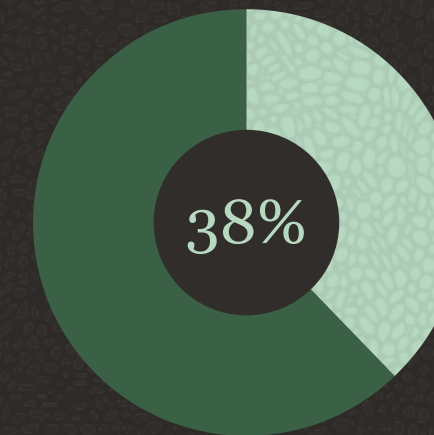
According to a recent Oracle CIO Research report, which surveyed IT professionals about corporate data-warehouse maintenance and use:



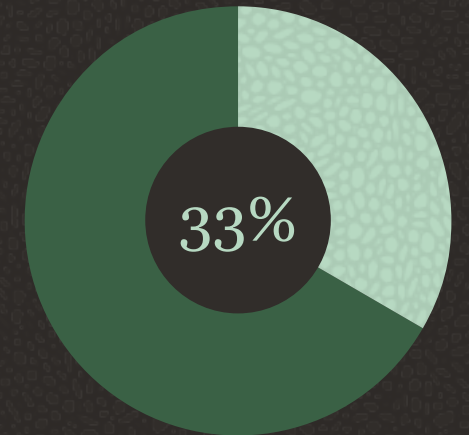
95% respondents admitted that their legacy data warehouses required extensive manual involvement.



60% complained about overall management complexity.



38% said their data warehouses were too costly to acquire and maintain.



33% reported that their data warehouses were too slow to deploy.

Source: "Oracle Cloud Essentials Guide"



# IT leaders are facing aggressive business demands

As companies become more insights driven, IT is called on to help business units analyze their data and implement reporting systems for each department.

## Silos are for storing materials, not data

Traditional enterprise data warehouses are struggling to keep up with increasing volumes of data and the need for data analysis. In an attempt to keep up with demand, businesses have created siloed systems for individual needs. This fragmented approach has increased cost and complexity and compromised performance, availability, security, and governance.

Application development has also become more complex. Developers are increasingly using data-driven technologies, such as graph analytics, machine learning, Internet of Things, spatial processing, blockchain, and real-time analytics to get even more value from data. Building an app that takes advantage of these technologies traditionally required specialized teams to deploy single-purpose databases for each technology and implement distributed execution and data movement across them.

But using a single-purpose database for each data type leads to fragmentation across databases with no direct way to integrate data between them. Each single-purpose database is a different technology with separate management controls, security models, and high availability architectures.

## Top challenges businesses are facing



Large complex data warehouses



Unpredictable management and manual administration costs



High-volume of enterprise data



Limited flexibility, operating errors and performance issues



Cyber threats and privacy leaks



Poor data quality and integration issues



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# IT benefits from a modern data warehouse

- Deployment in minutes—not months
- Consistent, fast, end-user performance regardless of number of users, type of queries, or contention for critical data sets
- Support for third-party integration and analytics tools
- Analytics tools that are powerful and easy to use to enable better customer service and create new revenue streams
- Protection against data breaches, malware injections, DDoS attacks, malicious insiders, advanced persistent threats, insecure APIs, and account hijacking
- The ability to scale as needed to meet changes in demand

[Learn more](#)



Focus on data modeling



Spearhead security and information lifecycle projects



Identify new revenue streams through data



Try new analytics tools



Lead migration and upgrades



Work as data architects instead of administrators



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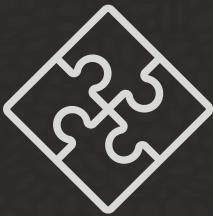
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# Why Oracle is the best choice for data management

Oracle created the modern data warehouse—a single solution that provides a broad set of services, including the self-driving integration, data warehouse, data lakes, analytics services, and data science—to enable organizations to get the most value from their data.

The modern data warehouse simplifies the entire data life cycle, including ingestion, transformation, curation, data discovery, and analysis. With a modern data warehouse, organizations can extract the highest value from their data in order to better serve customers today while enabling business innovation for tomorrow.

## Modern Data Warehouse components



### Integration

Streaming, batch data, both on-premises and in the cloud

[Learn more](#)



### Data Warehouse

Autonomous, self-driving, self-securing, self-repairing

[Learn more](#)



### Data Lake

Object storage-based data lake, integrated access with DW

[Learn more](#)



### Analytics

ML-based analytics and visualization; Automatic narration

[Learn more](#)



### Data Science

Machine learning general purpose and in-database

[Learn more](#)



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# Why Oracle is the best choice for data management

The core of the modern data warehouse, and what makes it truly modern, is the Oracle Autonomous Database built on [Oracle's next-generation cloud infrastructure](#). The Oracle Autonomous Database is a self-driving, self-securing, and self-repairing solution, so organizations can concentrate on their core businesses, worry less about day-to-day operations, and create opportunities for innovation.

[Learn more](#)

*“The strategic insights that we gain from implementing Oracle Autonomous Data Warehouse can help our business tremendously. We can easily examine media spend on behalf of our advertisers and show them how their investment would perform better by shifting spend to outdoor. It helps us achieve maximum results for our customers, which in turn grows our business.”*

Derek Hayden  
Vice President, Data Strategy and Analytics, OUTFRONT Media



Watch this [video](#) to learn how OUTFRONT MEDIA is innovating sales with Oracle Autonomous Database.



# Top benefits of selecting Oracle for your dynamic business needs

## 1. Complete, integrated solution

Oracle Modern Data Warehouse provides a complete, integrated, machine learning solution, including data warehouse, integration, ETL, data lake, data science, and analytics services.

With these services you can:

- Ingest any data, batch, streaming, or real-time
- Store data in a data warehouse or data lake
- Visualize and analyze data, no integrations are required
- Build and deploy machine learning solutions
- Leverage security policies across the data warehouse and data lake
- Take advantage of the built-in support for multi-model data and multiple workloads—such as analytical SQL, ML, graph, and spatial—in a single database

[Get started using Oracle Autonomous Database for analytics and data warehousing](#)

## 2. Autonomous operations

As part of the Oracle Modern Data Warehouse, Oracle's autonomous services enable organizations to run high-performance, highly available, and secure data warehouses while eliminating administrative complexity and reducing costs.

- Automates provisioning, configuring, securing, tuning, scaling, backing-up, and repairing of the data warehouse
- Auto-scales elastically and provides complete data security
- Provides granular access controls, sensitive data controls and risk assessments, and database firewalls

[Get started using Oracle Autonomous Database](#)

## 3. Consistent, fast queries

Oracle Autonomous Database provides automated tuning and runs on Exadata for the fastest NVMe storage and RDMA network. Oracle is the only vendor with automated tuning which:

- Automatically creates/drops data summaries for analytics
- Creates/drops columnar vector-processing formats
- Automatically parallelizes workloads to keep queries running fast

[Learn more about customer experiences with Oracle Autonomous Database for analytics and data warehousing](#)

## 4. Easy-to-use analytics tools

In addition to its own analytics capabilities, Oracle Modern Data Warehouse provides easy integration with Oracle Analytics Cloud and support for other popular [BI tools](#) and services to build and deploy machine-learning models.

[Learn more about how autonomous solutions are crucial for business success](#)



# Modern Data Warehouse use cases – unlock your data

## Departmental data warehouse

Consolidate data from multiple spreadsheets and other flat-file data sources into a trusted, maintainable, and query-optimized source. Load and optimize data from multiple sources into a centralized data warehouse so departments can analyze the data and gain actionable insights.

Learn more about a departmental data warehouse for [consolidating spreadsheets](#), and see [EBS integration](#) reference architecture examples.

## Integrated data lake

Combine the abilities of a data lake and a data warehouse to process streaming data and a broad range of enterprise data resources. Leverage that data for business analysis and machine learning.

Learn more about an [integrated data lake](#) reference architecture example.

## Enterprise data warehouse

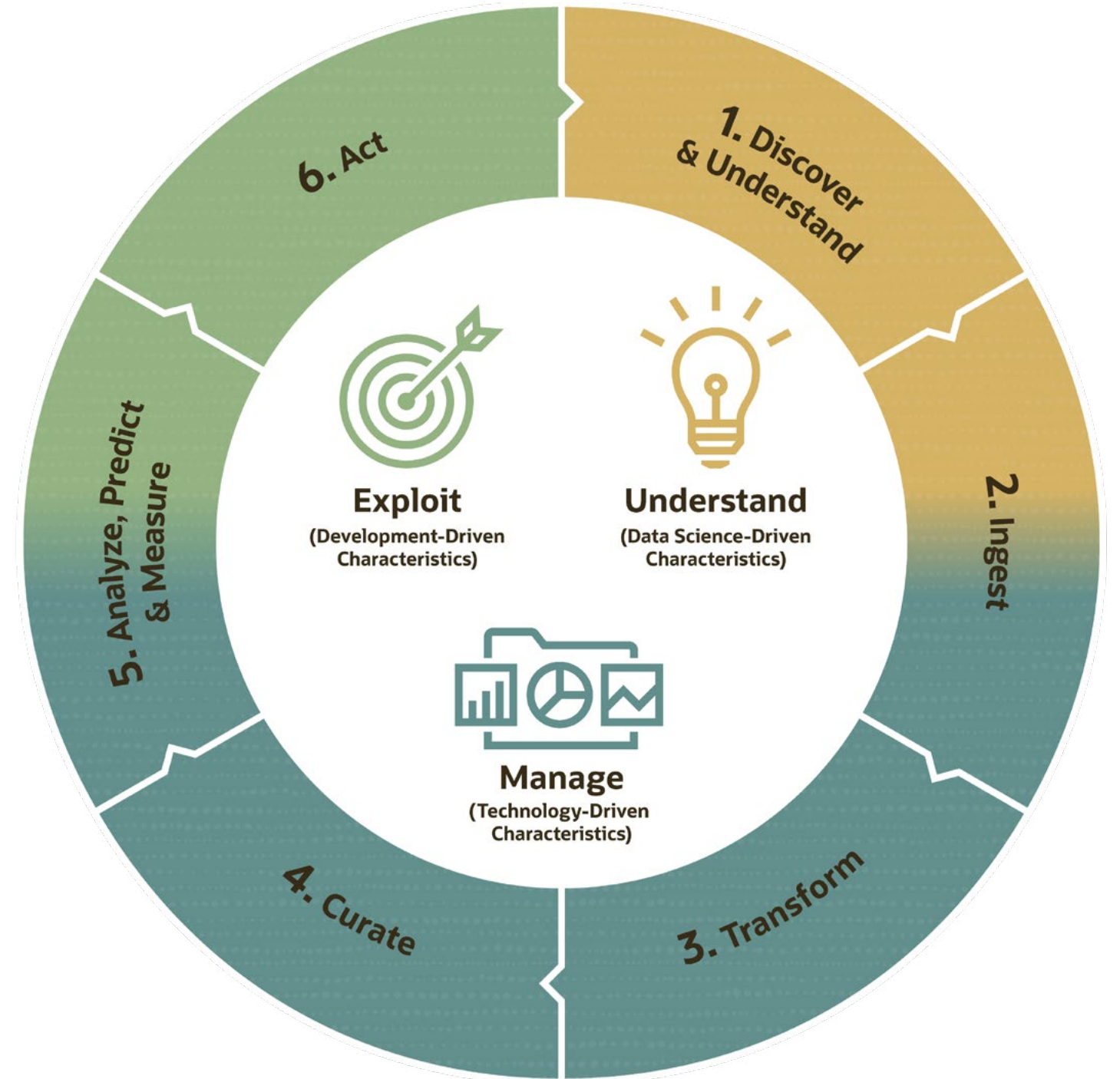
Enterprise data is often distributed in multiple systems across the enterprise and can't easily be integrated and analyzed to produce actionable insights. Enrich enterprise application data with raw data and event data to produce predictive insights.

Learn more about [enterprise data warehouse](#).

## Machine learning

Process streaming event and log data for predictive maintenance. Apply advanced analytics and data science capabilities to understand the context for an actionable event, gain insights, and create a response.

Learn more about a [predictive maintenance](#) architecture example.



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## OUTFRONT/

### OUTFRONT Media accelerates sales innovation

Outdoor media company uses Oracle Autonomous Data Warehouse to advise customers on where to spend their ad dollars.

[Learn how](#)

## AgroScout

Detection Done Right

### AgroScout fights hunger with next generation technology

AgroScout's machine-learning algorithms use Oracle Cloud to analyze drone-captured images of farm fields.

[Learn how](#)

## Get started today

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