

Safe harbor statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, timing, and pricing of any features or functionality described for Oracle's products may change and remains at the sole discretion of Oracle Corporation.



ORACLE
AI Database

AI Data Platform

Robin J Hazel

Oracle Solution Specialist



Opportunity and Challenges



AI changes everything

Intelligence

AI will act autonomously and needs intelligence at the data layer

Data

All your data should be easily and safely accessible by AI

Infrastructure

AI workloads demand flexibility, elastic scale, and always-on resiliency

Trust

You must defend against new AI threats and address new compliance rules

AI (and human) decisions generate Data

AI-driven Outcomes

Data influences AI (and human) decisions



The Technology must meet the Organisation where they are

There aren't any silver bullets, there isn't a single approach

Immediate and Impactful outcomes?

Intense pressure from business units, executives, and customers to deliver AI capabilities right now.

Or

Broad and Scalable outcomes?

Move beyond isolated pilots to extend and join up AI across finance, HR, supply chain, marketing, manufacturing, and customer service.

Or

Integrated and Cost-Efficient outcomes?

For AI to become pervasive, efficiency becomes critical to avoid spiraling costs and operational complexity.



But data chaos is holding organizations back from being AI-driven

Inconsistent Data

+

Fragmented Data

+

Operational Complexity

“My organization is held back by inconsistent insights from stale data.”

VP Operations in a Fortune 500 manufacturing company

“My data is in multiple locations, it's slowing us down.”

VP Data Analyst in banking sector

“I’m pressured to achieve cost savings and reduce operational complexity.”

CTO of a top 10 telco

Result in Inconsistent, Fragmented, and Complex AI

Now AI can move far faster than humans can, data trust is essential for confident AI decisions (AI can consume bad data at the same rate as good).



If there isn't a single approach, then don't compromise

Immediate and Impactful outcomes

And

Broad and Scalable outcomes

And

Integrated and Cost-Efficient outcomes

that

Reduces inconsistency

that

Reduces fragmentation
Reduces inconsistency

that

Reduces complexity
Reduces fragmentation
Reduces inconsistency

Turn live data into rapid AI-driven business value today

Unite siloed data so AI can scale across every business domain

AI at scale with automated data foundations and without escalating costs

Accelerated real-time intelligence that removes manual effort

Transform disconnected data and AI pilots into connected, enterprise-wide AI

Eliminate complexity with integrated, governed, and optimised AI pipelines

Rapid wins that prove AI impact and build momentum

Drive consistent, trusted decisions everywhere

More AI innovation with less effort, AI value that grows, but the cost curve doesn't



With Oracle there are no compromises

Deliver your AI priorities and address your data chaos challenge simultaneously

Immediate and Impactful Outcomes



Live AI Hub

- Get instant answers on live data across multiple data sources and clouds with zero copy, zero ETL
- Respond to business events in near-real-time with AI Agents
- Maintain governance and security while bringing AI to the data

Broad and Scalable Outcomes



Modern AI Lakehouse

- Transition warehouses and marts to a secure, scalable, high-performance cloud
- Modernize legacy data experience with AI
- Build a new modern AI Lakehouse and AI analytics & apps

Integrated and Cost-Efficient Outcomes



Complete AI Data Platform

- Build pipelines and infrastructure to support AI/ML initiatives
- Enable predictive, prescriptive, and agentic analytics
- Provide developers and data scientists with modern tools and platforms



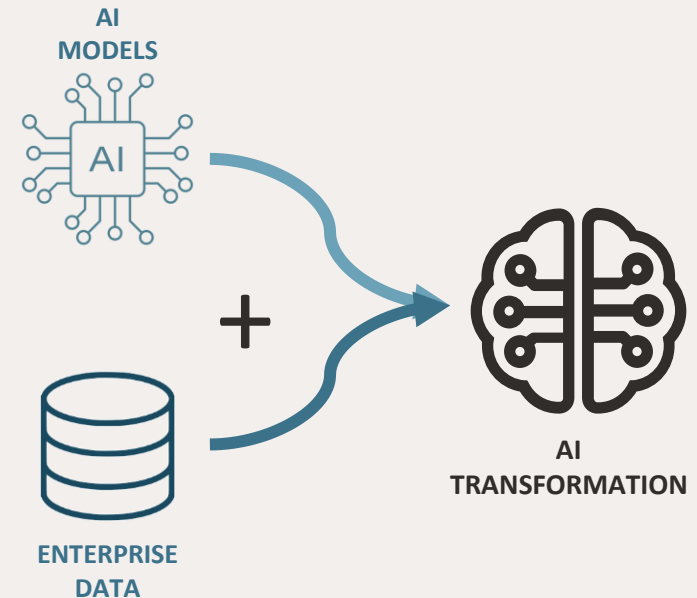
AI Data Platform



The AI Opportunity: Unlocking Enterprise Data

As enterprises transform their business with AI, they face challenges bringing enterprise data and AI together in a way that's secure, compliant & operationally efficient.

- ⊗ Data silos and fragmentation
- ⊗ AI workflows are disconnected and complex
- ⊗ Inconsistent security and access control
- ⊗ Lack of governance and auditability
- ⊗ Generic models lack business context
- ⊗ Deploying AI is operationally complex



What's needed to succeed in AI?

Oracle is uniquely positioned for Enterprise AI

Scalable AI Infrastructure

- OCI high-performance compute (GPUs, CPUs)
- Industry-leading price-performance
- Purpose-built for AI workloads

Unified Data and AI Foundation

- Autonomous AI Lakehouse
- OCI Services for Gen AI, Traditional AI and ML
- Open-source Apache Spark data services

Integration with Business Processes

- Broad application portfolio includes Fusion, Apps Unlimited, NetSuite and Industry Apps

Security, Compliance, and Governance

- Enterprise-grade security
- Global data centers
- Built for regulated industries



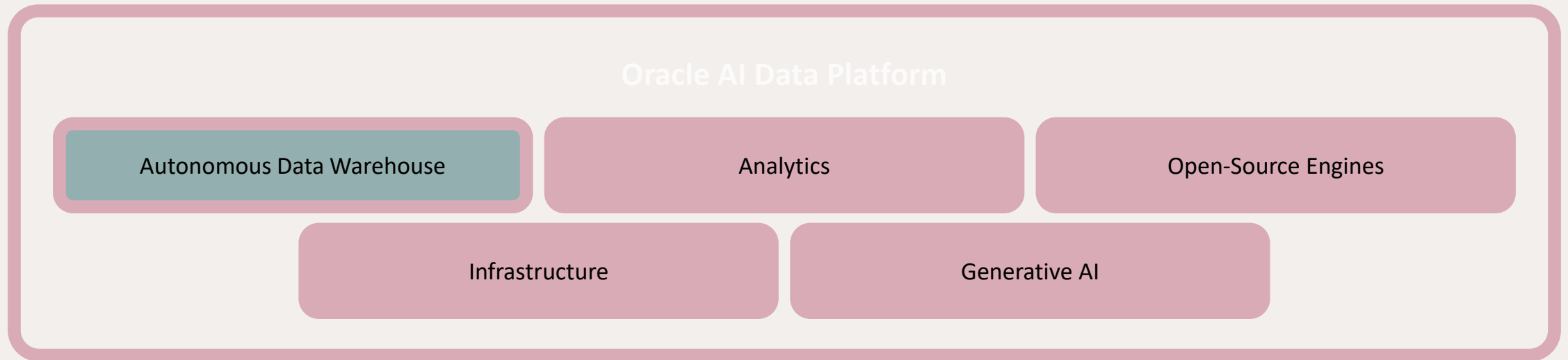
Introducing

Oracle AI Data Platform

Empowering enterprises to build AI Agents and applications by uniting their enterprise data with best-in-class AI models and developer tools - driving innovation, efficiency, and competitive advantage.



Oracle AI Data Platform Services



Seamlessly integrates multiple OCI services, spanning data, AI, analytics, and governance, into a cohesive experience that enables enterprises to build, deploy, and scale AI-powered applications with consistency and ease.

Oracle AI Data Platform Capabilities

Unified platform for lakehouse foundation, AI Agents, Tools, and business applications — built with enterprise-grade data and AI governance.

Oracle AI Data Platform

Agentic User Experience

Chat

Insights

Workflows

AI Powered Developer Tools

Analytics

AI Agents

Data Engineering

Data Science

Data and AI Foundation

AI Models & Frameworks

Oracle & Open-Source Engines

Data and AI Catalog

Open Lakehouse Architecture

Oracle AI Data Platform

Agentic User Experience

Chat

Insights

Workflows

AI Powered Developer Tools

Analytics

AI Agents

Data Engineering

Data Science

Data and AI Foundation

AI Models & Frameworks

Oracle & Open-Source Engines

Data and AI Catalog

Open Lakehouse Architecture



Oracle AI Data Platform Workbench

Data Integration

Data Engineering

Data Science

Orchestration

Agent Studio

Catalog and Governance



Oracle AI Data Platform Workbench

Data Integration

Data Engineering

Data Science

Orchestration

Agent Studio

Catalog and Governance



Data
Engineer



AI
Developer



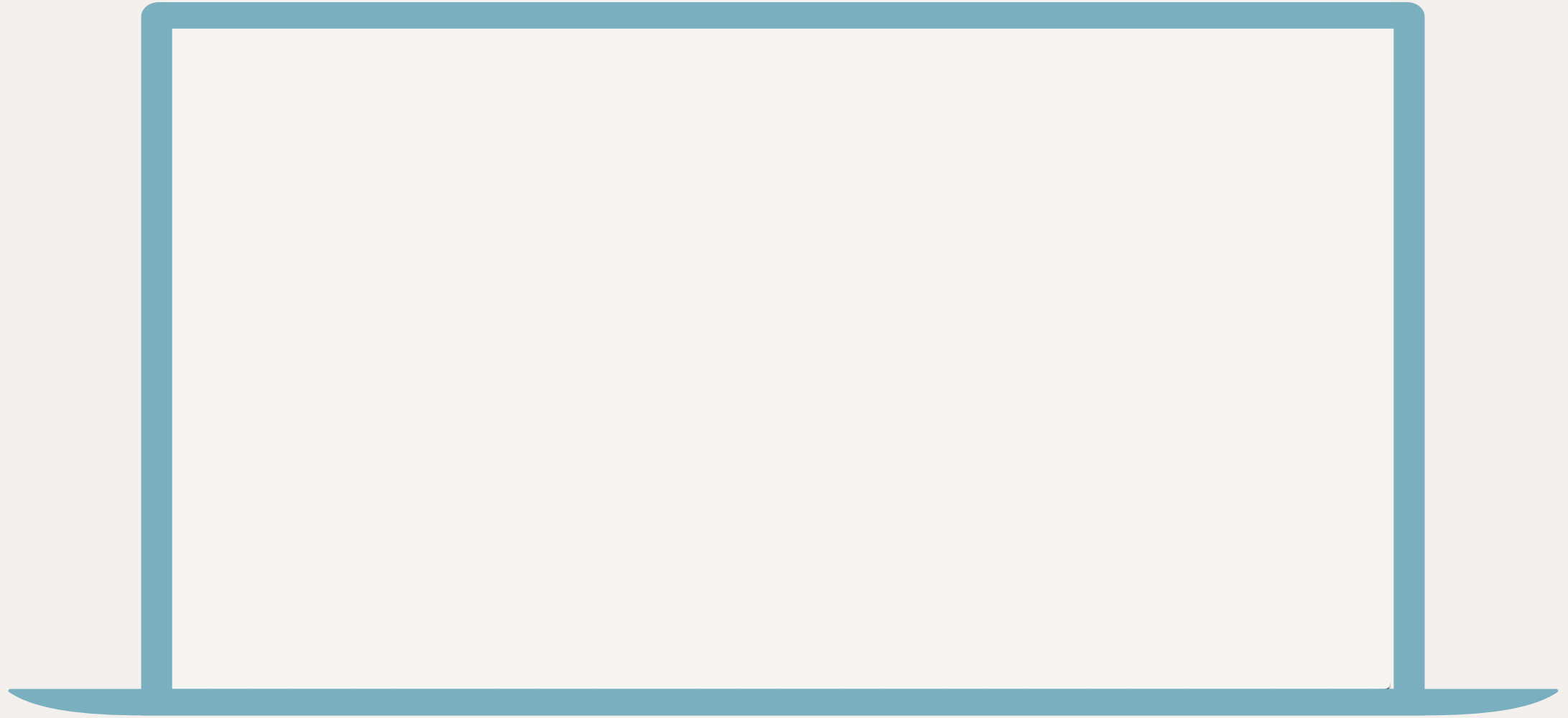
Data
Architect



Data
Scientist

AI Data Platform Workbench is a comprehensive developer environment for **data engineers, data scientists, developers, data stewards** to build and govern lakehouse foundations, AI applications and agents

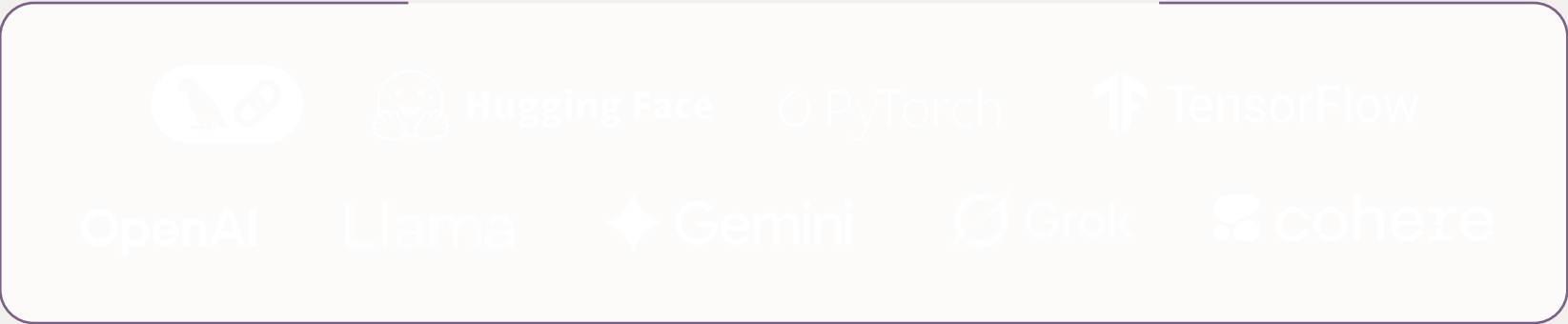
Data for AI



AI for Business

AI Models and Frameworks

Industry-leading AI models and frameworks, running on optimized OCI infrastructure, supporting enterprise-grade AI solutions

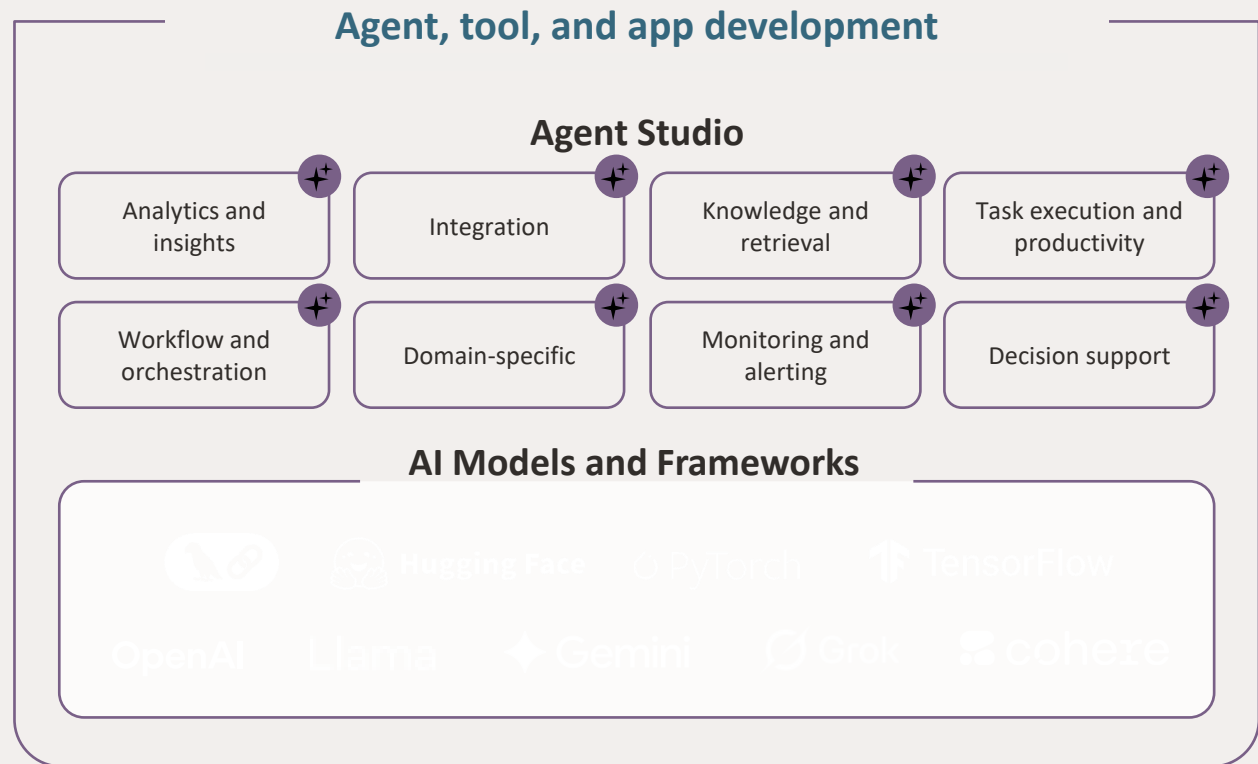


AI for Business

Agents of every kind, powered by any model

Limited Availability

Build workflows, analytics, knowledge, and domain-specific agents to automate tasks, unlock insights, and transform enterprise productivity

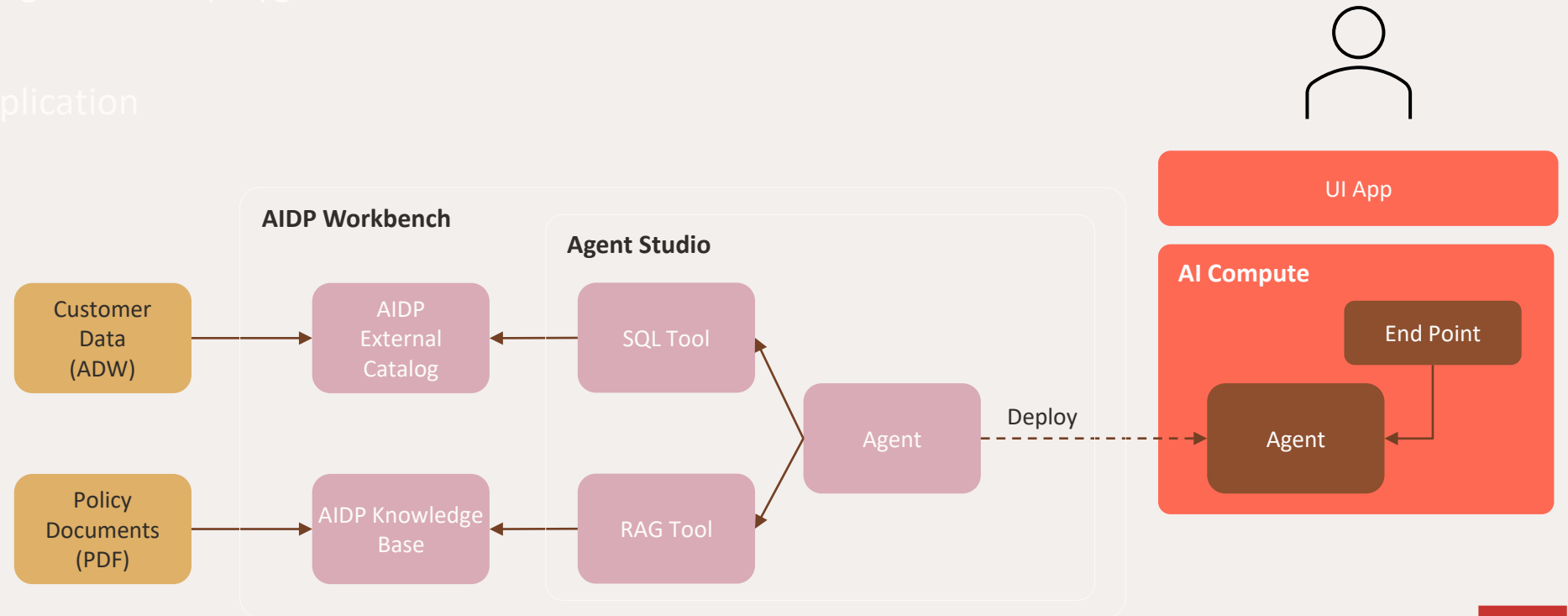


Today: Build A Q&A Agent

Chat agent that is able to answers questions about the customer specific insurance policies and coverage.

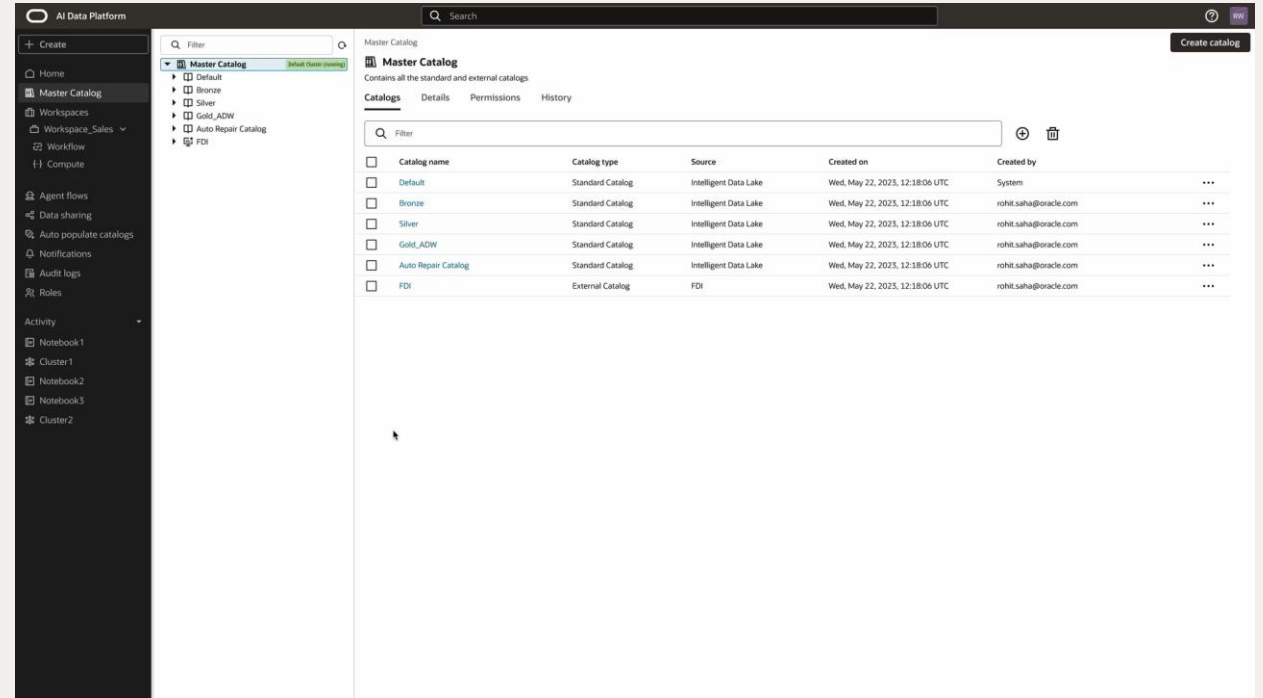
Flow:

1. Connect the agent to AIDP data catalog.
2. Provision and monitor compute resources
3. Test the tools and agent in the playground.
4. Deploy the agent
5. Test in external application



Unified Catalog, Governance and Lineage

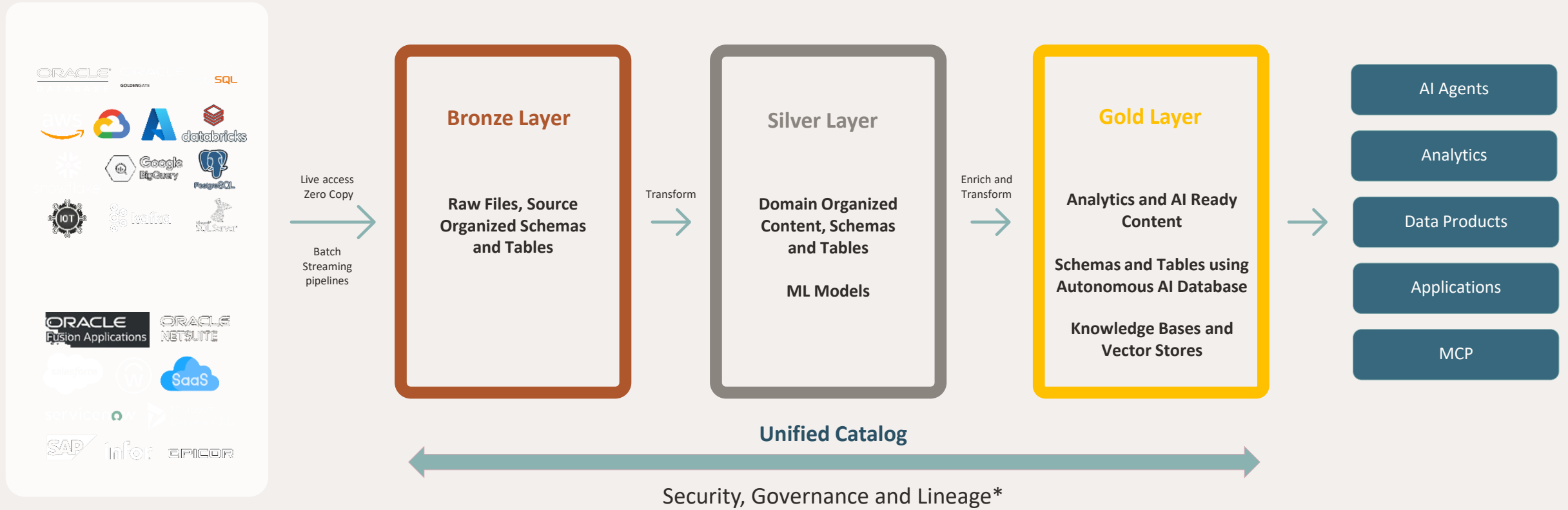
- Centralized Master Catalog
- Support for Medallion Architecture
- Multi-Format Data Support
- Built-In Governance



Demo: Master Catalog

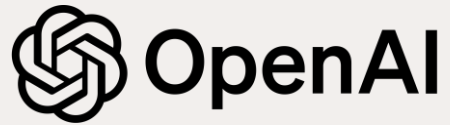


Enterprise Grade Lakehouse Foundation



AI Models & Frameworks

GenAI LLMs



Open Model Libraries



AI Data Platform Workbench | Roadmap Timeline

Q3 2025 - General Availability

Data and ML Developers

- Developer workspaces
- Notebooks & job orchestration
- Apache Spark – Python, SparkSQL
- Notebook Code Assist
- Orchestrate & monitor data pipelines
- Open-source libraries & frameworks
- Compute – Intel, AMD, GPU
- Delta Share

AI Developers

- OCI Gen AI models – Llama, Cohere, OpenAI

Catalog and Governance

- Catalog for data and models
- Object store (Standard Catalog)
- ADB, Exadata, Oracle DB (External Catalog)
- RBAC at table or column level

Integrations

- ADB as a source and target
- OAC – Connect to AIDP Catalog
- FDI – share data/metadata
- Fusion – built-in connector

Q4 2025

AI Developers

- OCI Gen AI models – Llama, Cohere, OpenAI
- Tool Types – RAG, SQL, Vector, LLM
- Low-code agent flow creation
- Agent endpoint deployment
- Agent-flow testing playground
- Observability
- Guardrails

Catalog and Governance

- AI knowledge support

Integrations

- GoldenGate – AIDP lakehouse as Target

2026

Data and ML Developers

- Iceberg support
- Scala
- MLOps
- GIT/CICD

AI Developers

- Multi-Agent support
- MCP server for tools
- Fusion AI Agent Studio integration
- Custom Tools

Catalog and Governance

- Lineage
- Data Quality

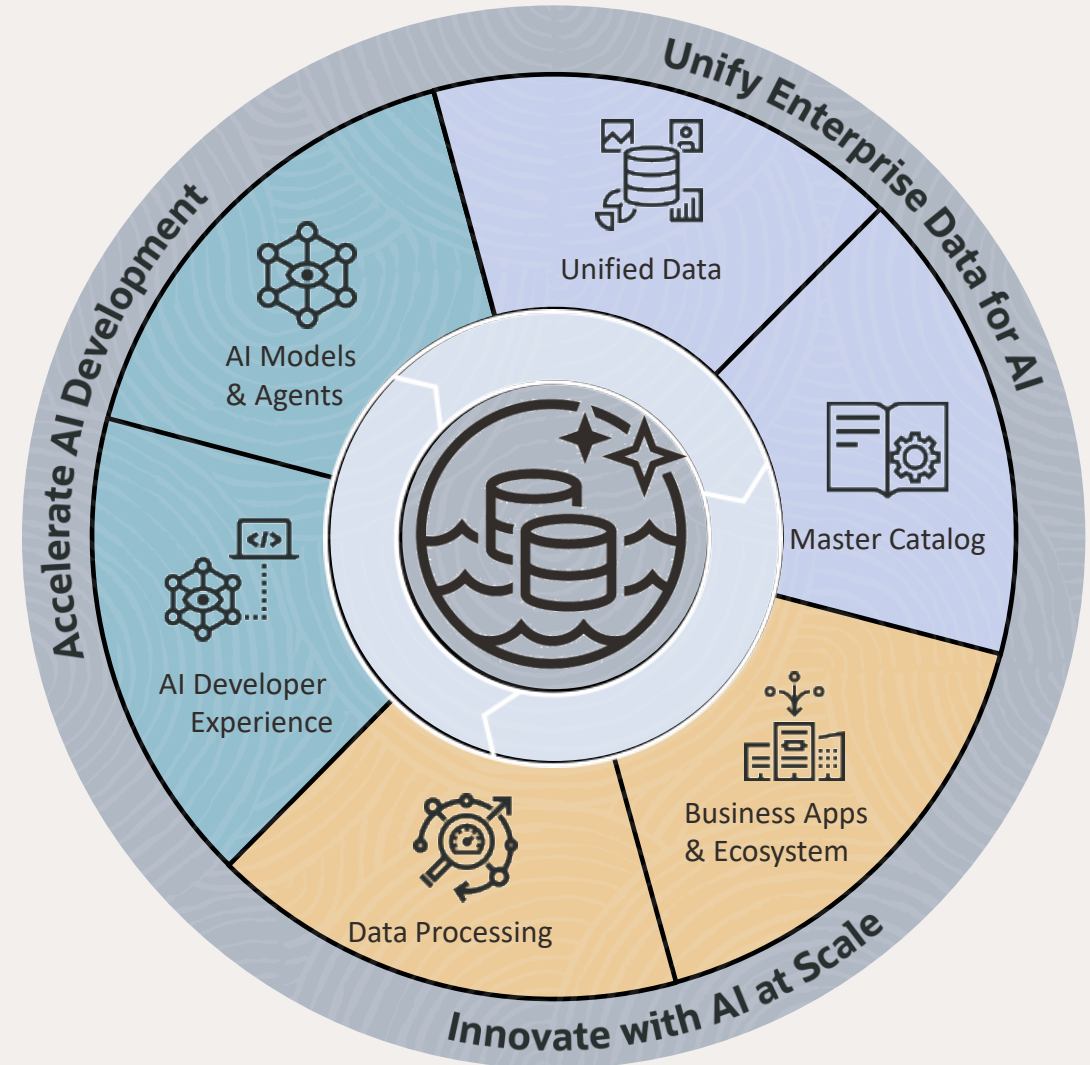
Integrations

- 3P data stores, such Azure Blob



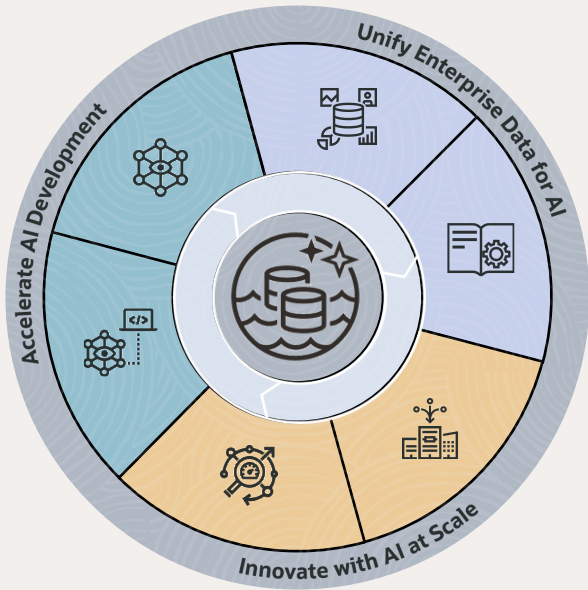
Why Oracle AI Data Platform?

- ✓ Unify data for AI
- ✓ Accelerate AI Development
- ✓ Innovate with AI at Scale



Oracle AI Data Platform

Single Development Experience, many AI Application Use Cases



Data



AI

Data Engineering and Pipeline Automation
AI-Powered Data Pipelines and Insights
Data-Driven Predictive Applications

AI Agents and Copilots
RAG (Retrieval-Augmented Generation) Apps
Multi-Agent Workflows and Orchestration





Oracle Analytics

Modern Analytics Platform Powered by AI

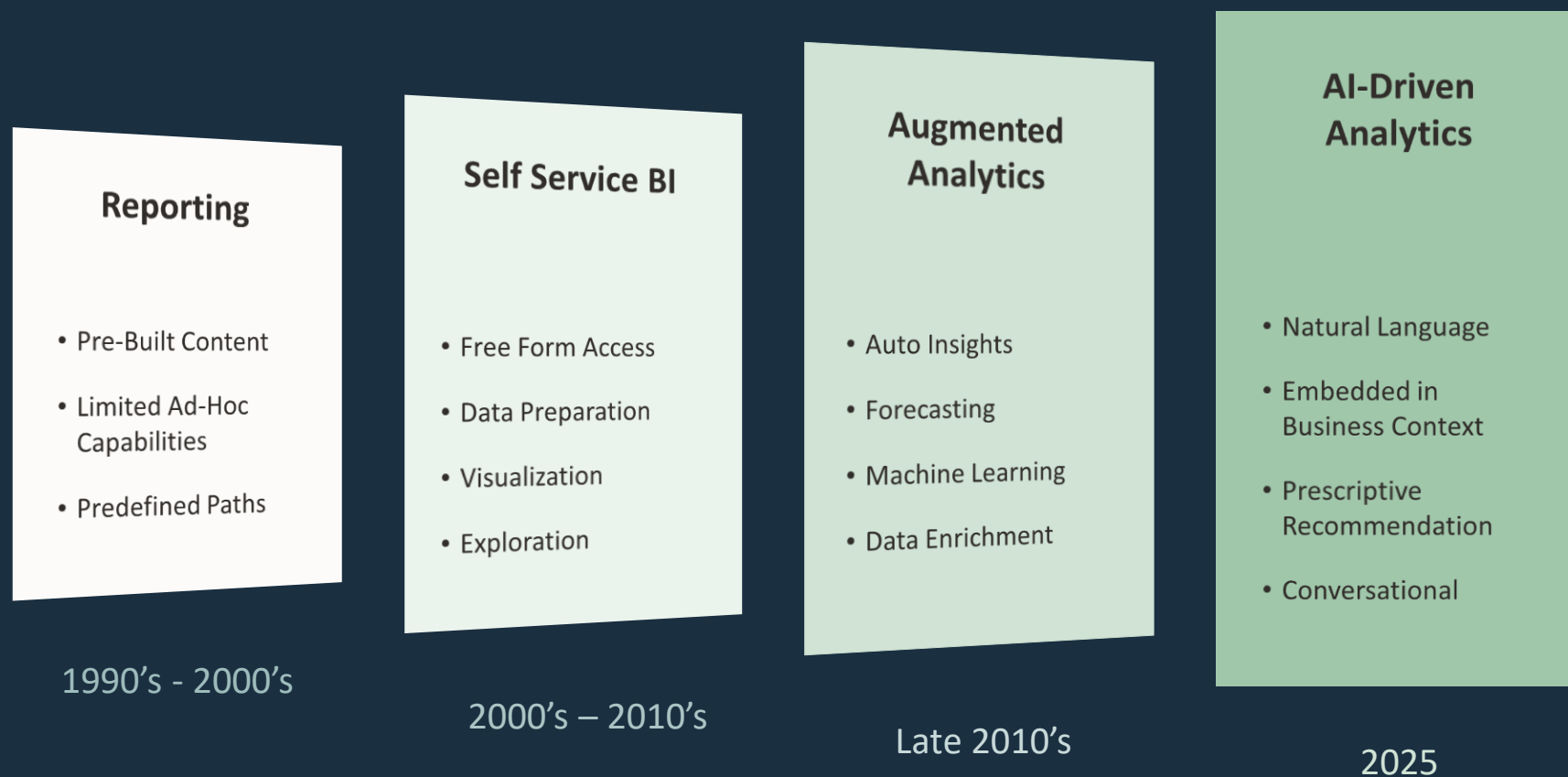
Robin Hazel – Oracle Solution Specialist

Safe harbor statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, timing, and pricing of any features or functionality described for Oracle's products may change and remains at the sole discretion of Oracle Corporation.



Modernizing Analytics



Oracle Analytics

Converged Analytics Platform for all Personas, Workloads, and Data



Data Engineers



Business Analysts



Business Users



Citizen Data Scientists

Governed Analytics

LOB/Self-Service Analytics

Augmented Analytics

Dashboards

Distributed Pixel-Perfect Reports

Data Visualization

Self-Service Data Preparation

Voice & Chatbot

Natural Language

Semantic Models

Query Federation

Storytelling

Direct Connectivity

Data Profiling & Enrichment

Gen AI

Briefing Books

Data Export

Collaboration

Mobile

Automated Insights

Machine Learning

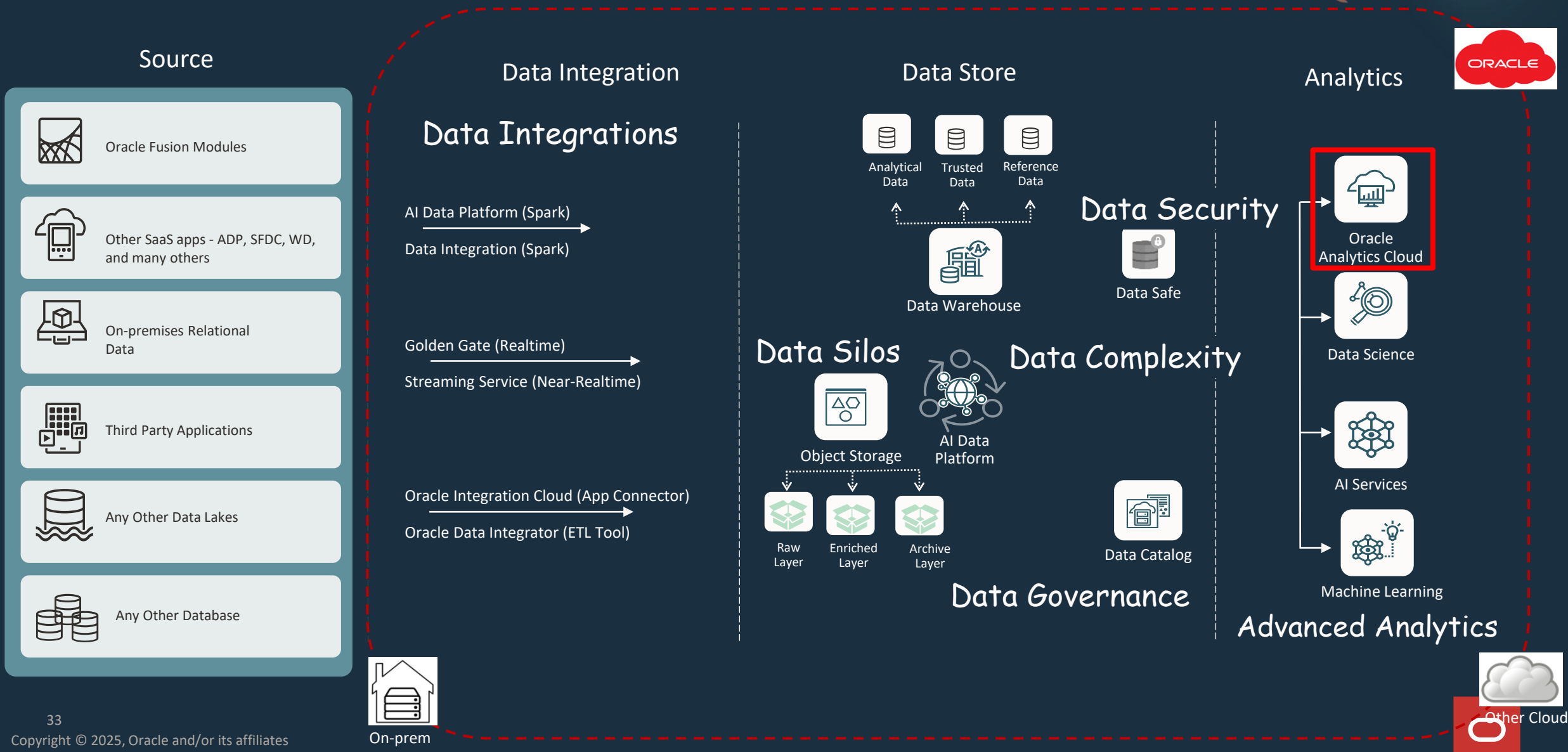
Open Connectivity

Oracle Cloud | Third Party Cloud | On-Premises



Oracle Modern AI Data Platform

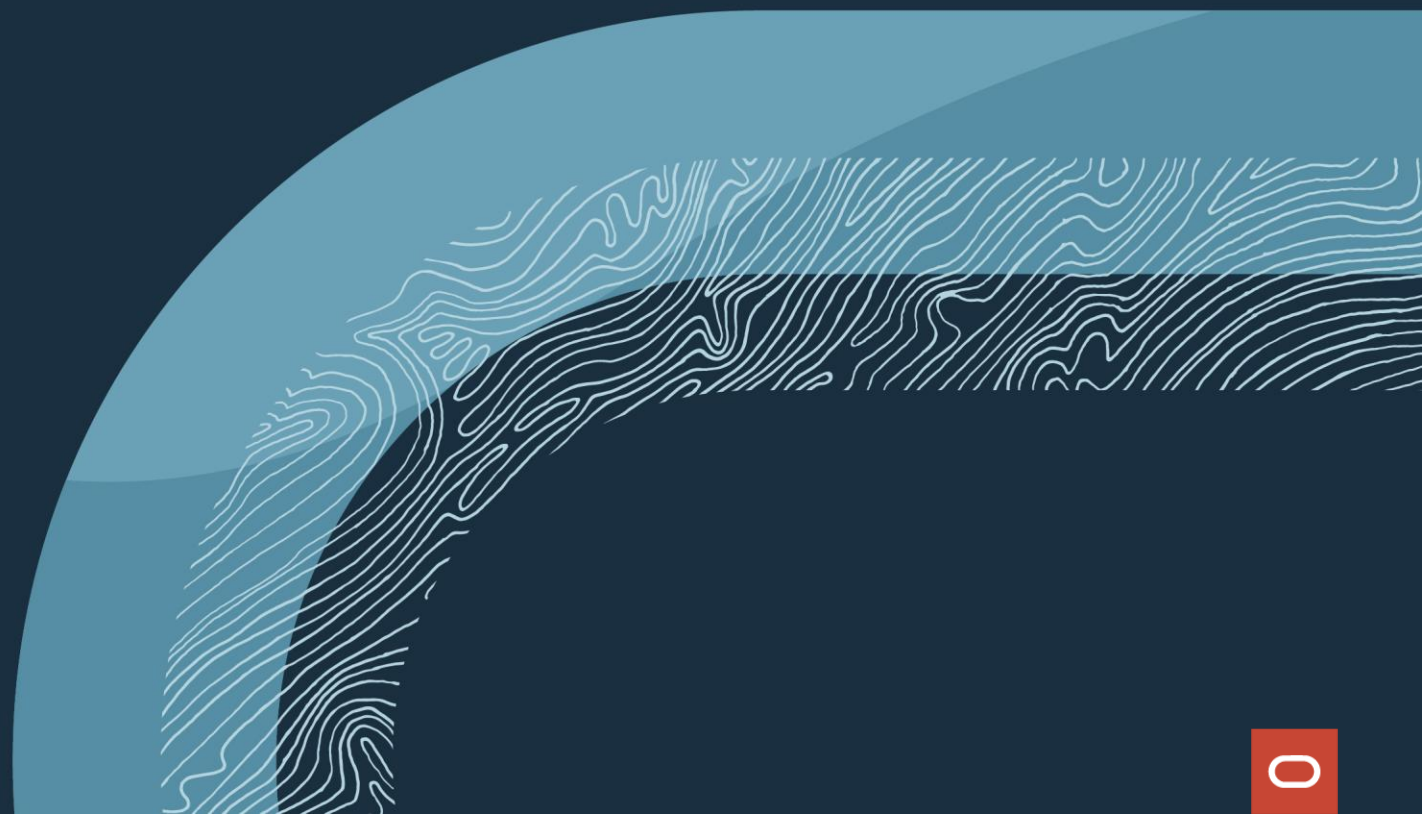
Address Challenges and Implement Data Strategy



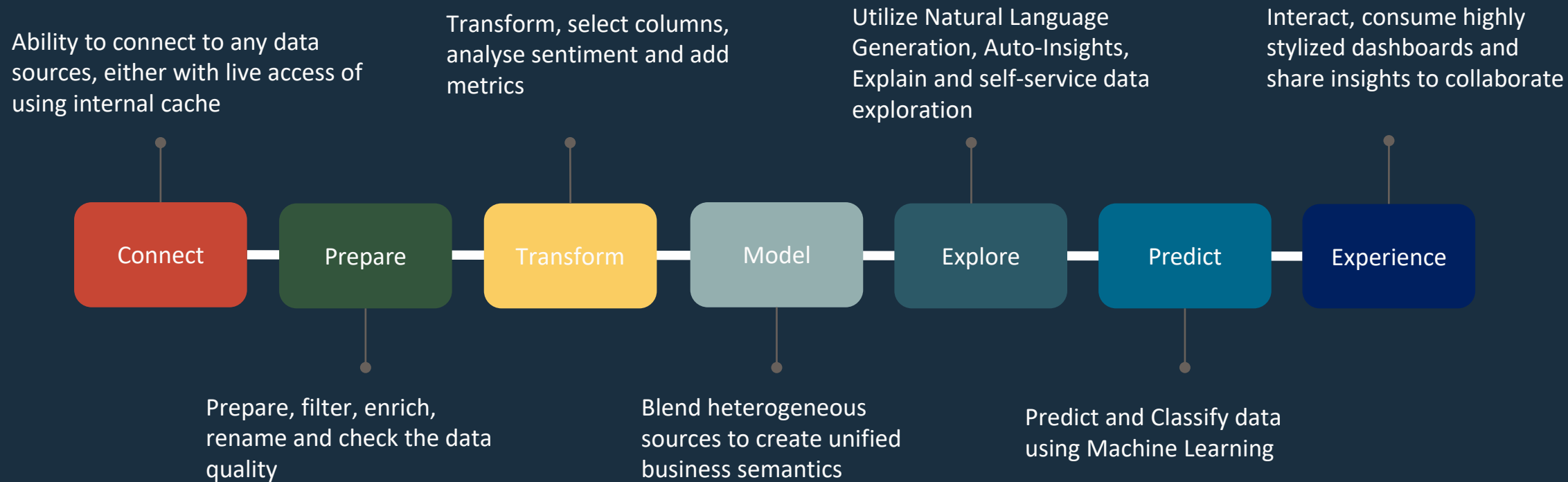
Oracle Analytics Cloud

Native Features

- Statistics
- Machine Learning
- Natural Language
- Integrated LLM
- AI Assistant

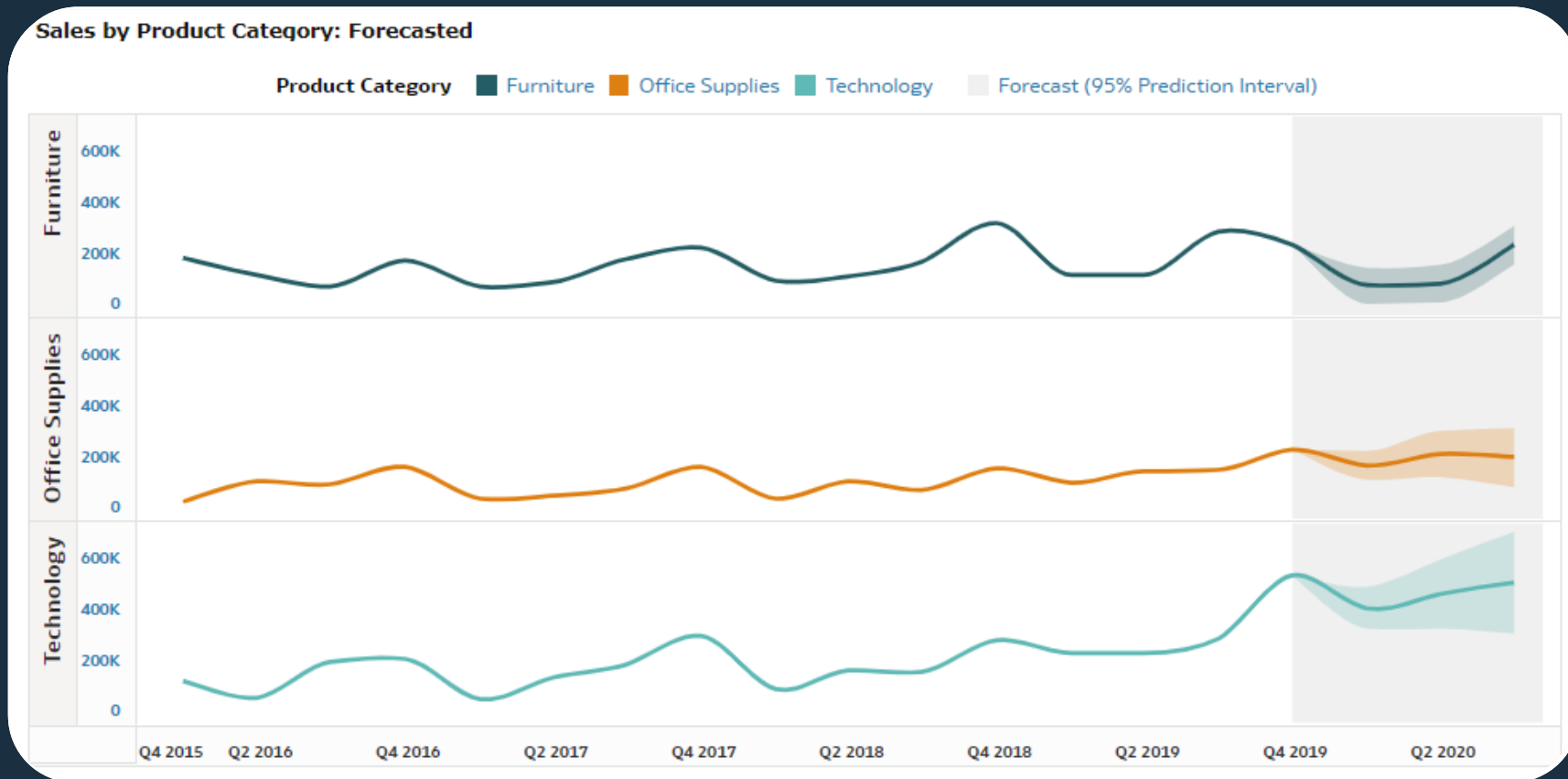


Single Analytics Journey



One-Click Statistics

- ✓ Forecasting
- ✓ Clustering
- ✓ Outliers
- ✓ Trending



Augmented Features

- ✓ Explain
- ✓ Auto-Insights
- ✓ Natural Language Generation (NLG)
- ✓ Natural Language Processing (NLP)
- ✓ OAC AI Assistant



Machine Learning Features

- ✓ Drag and Drop Machine Learning
- ✓ Multiple ML prebuilt algorithms
- ✓ Train, test and tune your model
- ✓ Register certified models & Auto-ML
- ✓ Execute models with scenarios
- ✓ Linear regression, Clustering,
- ✓ Neural Network, CART and more








The screenshot displays the 'New Data Flow' interface in Oracle Data Cloud. On the left, a sidebar lists various data processing actions, with 'Train Numeric Prediction' highlighted. The main area shows the configuration for adding the 'Employee Attrition' dataset. The 'Columns' section lists 30 columns, with several selected for display: Name, Business Unit Name, Department Name, Grade Code, and Action Reason. Below this, a preview table shows the first few rows of data.

Business Unit Name	Department Name	Grade Code	Action Reason	Action Name	Action Type
US1 Business Unit	Sales North US	PROF04	Compensation	Resignation	Terminate Work Relationship
US1 Business Unit	Sales Central US	PROF04	Compensation	Resignation	Terminate Work Relationship
US1 Business Unit	Sales Central US	PROF04	No Advancement Potential	Resignation	Terminate Work Relationship
US1 Business Unit	Sales Central US	PROF04	No Advancement Potential	Resignation	Terminate Work Relationship
US1 Business Unit	Sales Central US	PROF04	Better Opportunity	Resignation	Terminate Work Relationship
US1 Business Unit	Sales Central US	PROF04	Compensation	Resignation	Terminate Work Relationship















Database Analytics (available using OAC Data Flows)






Data Ingestion

-  **Add Data**
Add 100+ data source types
-  **Join**
Join datasets using matching or all rows
-  **Union Rows**
Union all, unique or common rows
-  **Filter**
Filter dataset or add an expression filter
-  **Aggregate**
Aggregate and group by columns
-  **Save Dataset**
Save data to object storage or database
-  **Create Essbase Cube**
Save data to a new Essbase Cube



Data Preparation

-  **Add Columns**
Add new column using 100+ functions
-  **Select Columns**
Select columns to keep in the dataset
-  **Rename Columns**
Rename all columns at once
-  **Transform Column**
Transform column with 100+ functions
-  **Merge Columns**
Merge multiple columns using delimiters
-  **Split Columns**
Split columns using delimiters and parts
-  **Bin**
Create bins for a measure
-  **Group**
Group values in a dimension
-  **Branch**
Branch the dataset in multiple datasets
-  **Cumulative Value**
Calculate cumulate values by measure
-  **Time Serie Forecast**
Forecast data using ETS, Arima, S Arima
-  **Analyze Sentiment**
Analyze emotion from text data

Machine Learning

-  **Train Numeric Prediction**
Train a model using 4 algorithm scripts
 - CART
 - Linear Regression
 - Elastic Net Linear Regression
 - Random Forest
-  **Train Multi-Classifer**
Train a model using 5 algorithm scripts
 - SVM
 - Neural Network
 - Naive Bayes
 - Random Forest
 - CART
-  **Train Clustering**
Train a model using 2 algorithm scripts
 - K-Means
 - Hierarchical Clustering
-  **Train Binary Classifier**
Train a model using 6 algorithm scripts
 - SVM
 - Neural Network
 - Naive Bayes
 - Logistic Regression
 - Random Forest
 - CART
-  **Apply Model**
Apply an Analytics or Database model

Database Analytics

-  **Database Analytics**
Use Oracle Database Analytics Functions
 - Dynamic Clustering
 - Time Series
 - Sampling Data
 - Un-pivoting Data
 - Dynamic Anomaly Detection
 - Frequent Itemsets
 - Text Tokenization
-  **Graph Analytics**
Use Oracle Database Graph Functions
 - Sub Graph
 - Clustering
 - Shortest Path
 - Node Ranking

Oracle Database Run ANY Database Function

- ✔ **Feature Extraction**
 - Principal Comp Analysis (PCA)
 - Non-negative Matrix Factorization
 - Singular Value Decomposition (SVD)
 - Explicit Semantic Analysis (ESA)
- ✔ **Text Mining Support**
 - Principal Comp Analysis (PCA)
 - Non-negative Matrix Factorization
 - Singular Value Decomposition (SVD)
 - Explicit Semantic Analysis (ESA)
- ✔ **Statistical Functions**
 - Basic Statistics: min, max, median, stdev, t-test, F-test, Peason's, Chi-Sq, ANOVA, etc.
- ✔ **Attribute Importance**
 - Minimum Description Length
 - Principal Comp Analysis (PCA)
 - Unsupervised Pair-wise KL Div
 - CUR decomposition for row & AI
- ✔ **Associating Rules**
 - A priori/ market basket
- ✔ **Predictive Queries**
 - Predict, cluster, detect, features
- ✔ **SQL Analytics**
 - SQL Windows
 - SQL Patterns
 - SQL Aggregates

Any many more...see glossary for additional functions



Autonomous OML

- ✓ Register OML Models
- ✓ Auto-ML

Select a Model to Register

Type	Name	Last Modified
	ATTRITION_REVIEW	May 22, 2023
	DT_58C5EBC9E7	May 22, 2023
	GLMR_74E9625FB6	May 22, 2023
	GLM_6D178D1121	May 22, 2023
	NB_6869F55631	May 22, 2023
	NN_EE1F4522A9	May 22, 2023
	RF_1A52F687E6	May 22, 2023
	SVMG_3FD8B3AD63	May 22, 2023
	SVML_8A847D4DE9	May 22, 2023

Name:

Description:

Model Info

Model Class	CLASSIFICATION
Algorithm	GENERALIZED_LINEAR_MODEL
DB Model Name	ATTRITION_REVIEW
DB Model Description	
DB Model Owner	AUTOML_REVIEW
Created On	May 22, 2023
Target	ATTRITION

▶ Input Columns

▶ Output Columns

▶ Parameters

OCI Data Science

- ✓ Register Models
- ✓ Modify Compute Shape

Select a Model to Register

Type	Name
	ExampleOAC
	Financial Fraud Model
	Financial Fraud Model2
	XGBoost Model

Name

Description

Model Info

- Model Name: Financial Fraud Model
- Model Description:
- Use Case: Binary classification
- Algorithm: LogisticRegression
- Conda Environment: generalml_p38_cpu_v1
- ▶ Input Columns
- ▶ Output Columns
- ▶ Parameters

Enter Resource Parameters

Financial Fraud Model

Staging Bucket Compartment

Staging Bucket

Compute Shape

OCPUs Memory (GB)

Storage (GB)

Use default networking

VCN Compartment

VCN

Subnet Compartment

Subnet

Enable Logging

Log Group Compartment

Log Group



OCI Vision AI

✓ Register pre-trained models

Image Classification

Image Text Detection

Object Detection

✓ Register custom models

✓ Custom (visual) extension

AI Vision Demo
Click here to add a filter

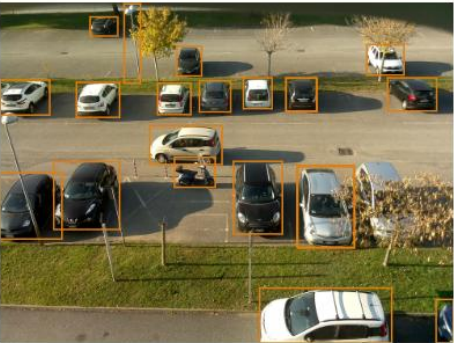
1
21
21
5

Image Files and Object Breakdown

Image File from Bucket: ... +1

Image Name	Object Name	Images Found
2015-11-12_0916.jpg	Car	15
	Land vehicle	3
	Motorcycle	1
	Person	1
	Street light	1
Grand Total		21

AI Vision - Object Detection



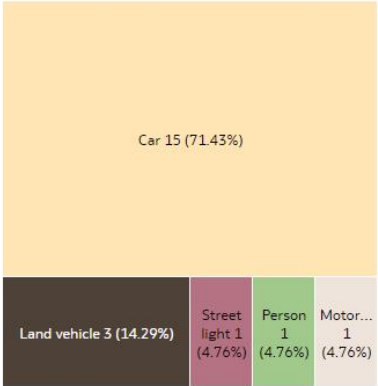











Image Files



OCI Language AI

✓ Register pre-trained models

Key Phrase Extraction

Language Detection

Named Entity Recognition

Sentiment Analysis

Text Classification

PII Identification

✓ Custom (visual) extension

Employee ID

1,147

By Document

Analysis Level	Sentiment	Positive Score	Negative Score	Neutral Score	Mixed Score
Document	Positive	0.55	0.09	0.10	0.26

By Sentence

Analysis Level	Sentiment Text	Sentiment
Sentence	I feel I had a productive year in 2022.	Neutral
Sentence	I was handed additional responsibilities which had a higher visible across the organization.	Neutral
Sentence	With the new responsibilities, I was able to grow by learning new processes and working with several new business units.	Positive
Sentence	The exposure of new work products and working with new colleagues was very exciting and I'm grateful for the opportunity.	Positive
Sentence	Most of my projects were delivered on time and with praise from several members of leadership.	Positive
Sentence	I was not as successful with the payments project.	Mixed
Sentence	This was the largest project I ever managed and I had some difficulties aligning all the people resources while learning and executing the company's vision.	Mixed
Sentence	Management was supportive while I had more lessons learned than I can count.	Mixed
Sentence	Due to this stretch assignment, I've grown personally and professionally.	Positive
Sentence	I achieved 100% of my targeted goals which included achieved several technical certifications and well as attending some leadership classes.	Positive
Sentence	I continue wanting to be stretched in my current and future assignments to contribute to the overall success	

Sentences

11

Sentiment Breakdown by Sentence

Sentiment

- Positive
- Mixed
- Neutral

45.45%
27.27%
27.27%



OCI Document Understanding AI

✓ Register pre-trained models

Document Classification

Document Key Value Extraction

Receipts

Invoices

Drivers License

Passport

✓ Custom (image) extension

Extracted Data

Boston Logan Airport
One Harborside Drive, Suite 2005 East Boston, MA 02128
(617) 561-1673
2023-10-19 00:00:00+00:00
23:48:16
96.00
IMG_6176.png

Receipt Image



Questions

