

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, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

Oracle Analytics Cloud Driving Data Driven Actions

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Oracle Analytics Product Management



Expanding Well-Known Opportunity

- 10X return on analytics investment
- \$430b advantage to those who analyze *all relevant data* and deliver actionable insights
- AI promise to drive productivity gains

Harvard Business Review

DECISION MAKING

How AI Will Change the Way We Make Decisions

The Economist

Theresa May v Brussels

Ten years on: banking after the crisis

South Korea's unfinished revolution

Biology, but without the cells

The world's most valuable resource

McKinsey & Company

MCKINSEY GLOBAL INSTITUTE

THE AGE OF ANALYTICS:
COMPETING IN A
DATA-DRIVEN WORLD

DECEMBER 2016

IN COLLABORATION WITH
MCKINSEY ANALYTICS

HIGHLIGHTS



Organizational challenges

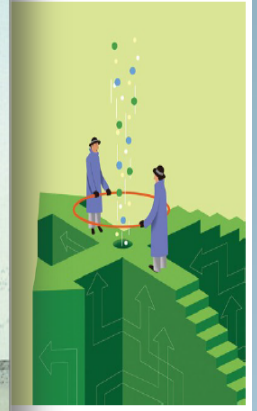


Disruptive business models



Enhanced decision making

MCKINSEY GLOBAL INSTITUTE
CELEBRATING
25 YEARS OF
INSIGHT
25



Trends in Data Analytics

- Data-driven disruption in all industries
- Data savvy workforce is emerging
- AI/ML provides productivity advantage

The New Technology Enabler

Machine Learning
is based on algorithms
that can learn from
data without relying
on rules-based
programming.

McKinsey



A man in a dark suit and glasses is shown in profile, looking thoughtful with his hand near his chin. The background is a blurred office setting with large windows. A large red trapezoidal shape is overlaid on the right side of the image, containing white text.

Vision Statement

Power all actions
to be data-driven

Oracle Analytics Cloud Powers Data-Driven Innovation

Comprehensive, Flexible, Cloud Analytics

- Full range of capabilities, Enterprise BI, Self-Service Data Visualization and Essbase for What-If and Scenario Management
- Self-Service Data Visualization and Essbase is included at every level

The Power You Need When You Need It

- Ability to scale up/down at will
- User controlled API and Dashboard based patching and backup schedule

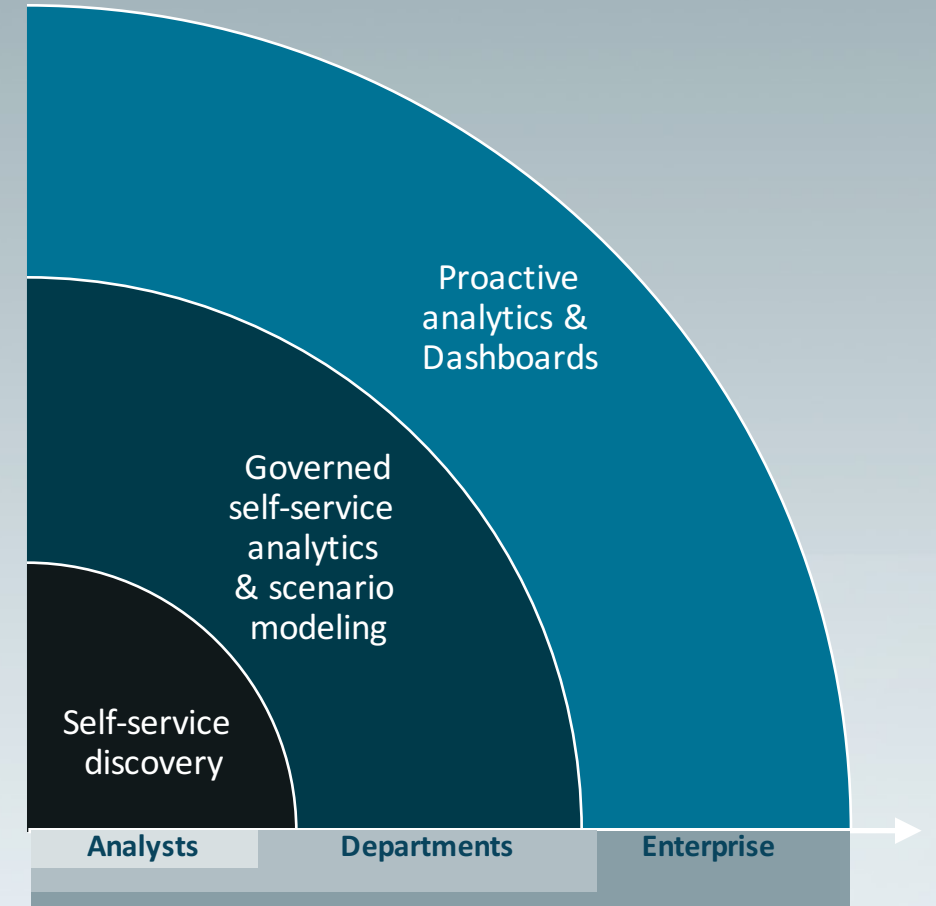
Analytics-as-a-Service

IT



Business

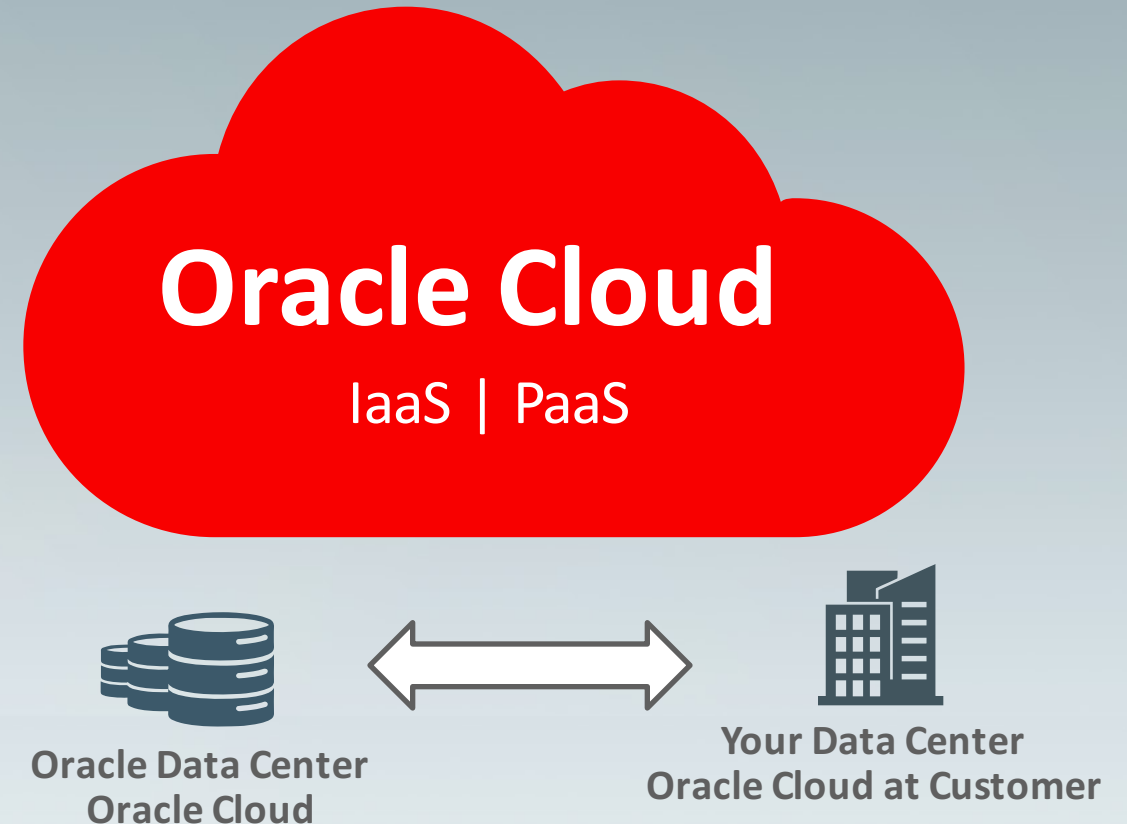
Self-Service



Oracle Cloud Machine

Oracle Cloud Behind Your Firewall

- Same Oracle Cloud
- Same subscription (IaaS, PaaS) and Pay-as-You-Go (PaaS) pricing
- Oracle owns hardware and software; manages the platform remotely
- Leave the stack to Oracle. Focus on using the services
- Single vendor handshake



Oracle Analytics Cloud - Smart Analytics for Everyone



ANALYSTS AND DATA STEWARDS

- Transforms, enrich and heal data sets in preparation for analysis
- Faster time to insights
- Share and collaborate



BUSINESS USERS

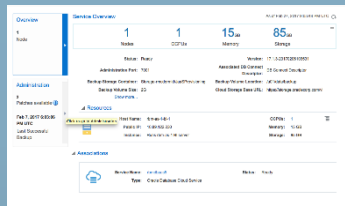
- Easy, timely, proactive business insights
- Empower to go beyond consuming others' findings



DEVELOPERS

- Develop and deploy analytic applications for people to customize and personalize
- Embed analytics in any application context

Oracle Analytics Cloud: Architected for Flexibility



Resource Management

Lifecycle Management

Secure Access

Virtual Networking



Key Features

- **Resource Management:** Run any app at scale with consistency
- **Lifecycle Management:** Provision and manage service environments through a UI or Script via REST API
- **Secure Access:** Security Groups and Access Control to secure network access, SSH access to the VM
- **Virtual Network:** Range of networking options to enable private and faster connections

Benefits

- Predictable Performance
- Speed Innovation & Agility
- Co-Existence & Seamless Migration

How do Analysts view us?

Forrester: Analytic Cloud Platforms



BARC: Enterprise Analytic Platforms





Discover

Liberate Insights from Any Data

Easy access to a variety of data sources

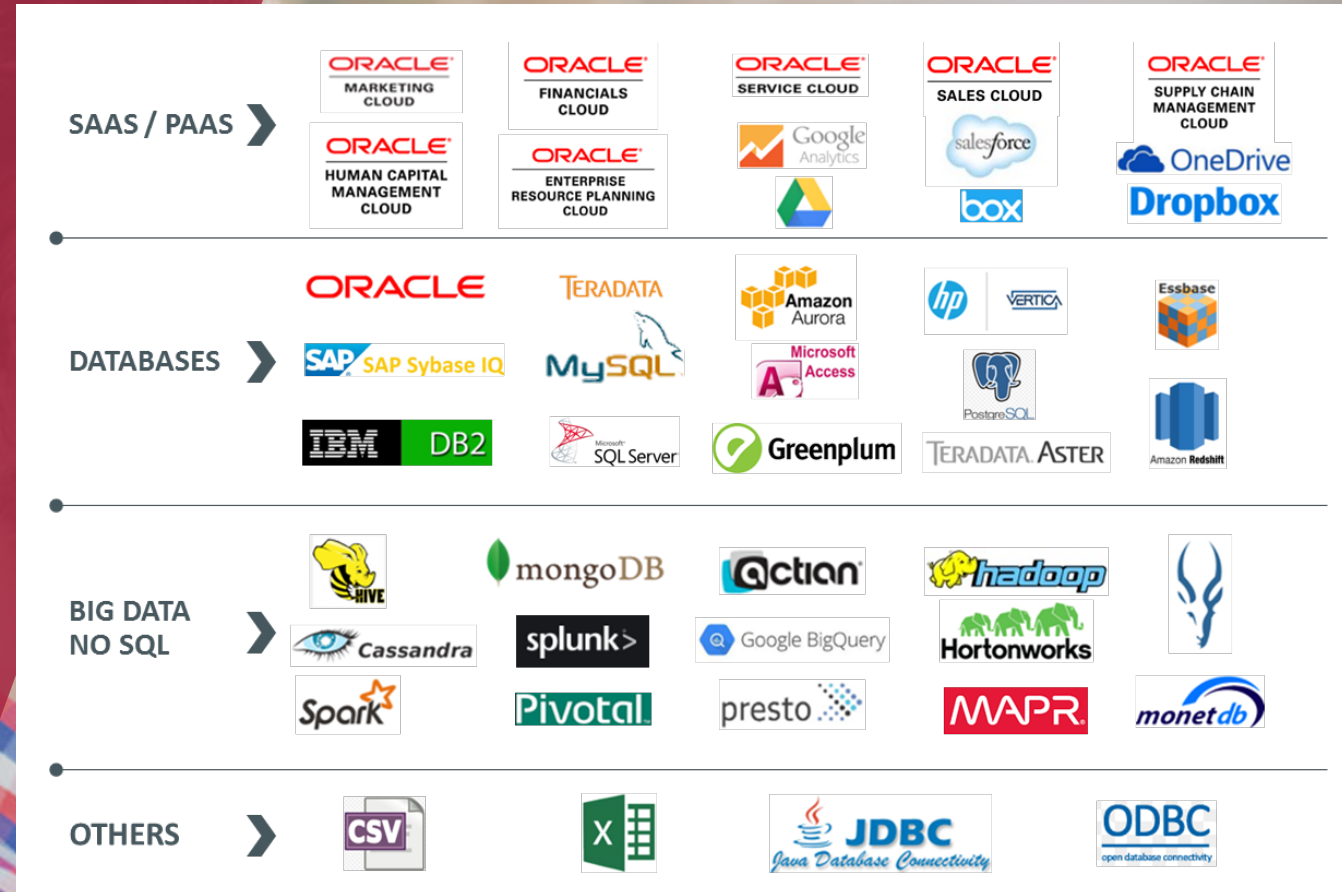
- Few clicks to setup and use
- Vast number of sources supported

Special Oracle SaaS Integration

- Access to business entities, not just tables and columns
- Respects security, business rules, and governance on source systems
- Leverage calculations and business logic in reports

Inline or “Extract-and-Analyze”

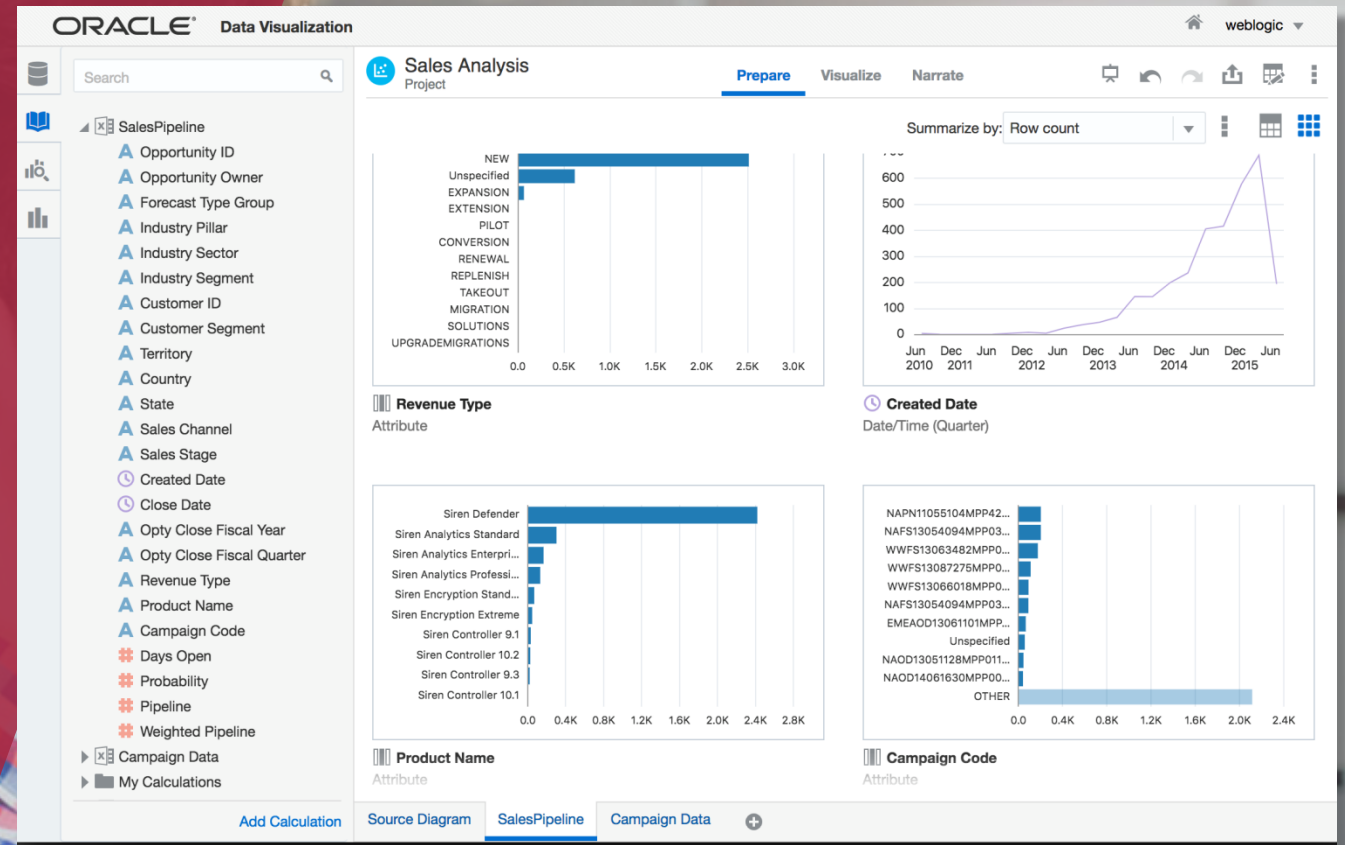
- IP built over two decades in function shipping (source-specific code generation) and internal execution now powers business user self-service



Explore & Understand Unfamiliar Data

Visual data diagnostics

- Understand the shape and quality of any dataset through automatic visualizations
- Automatically infer data types, logical types (e.g. dimension, metric, geography, time)
- Highlight statistically relevant attributes



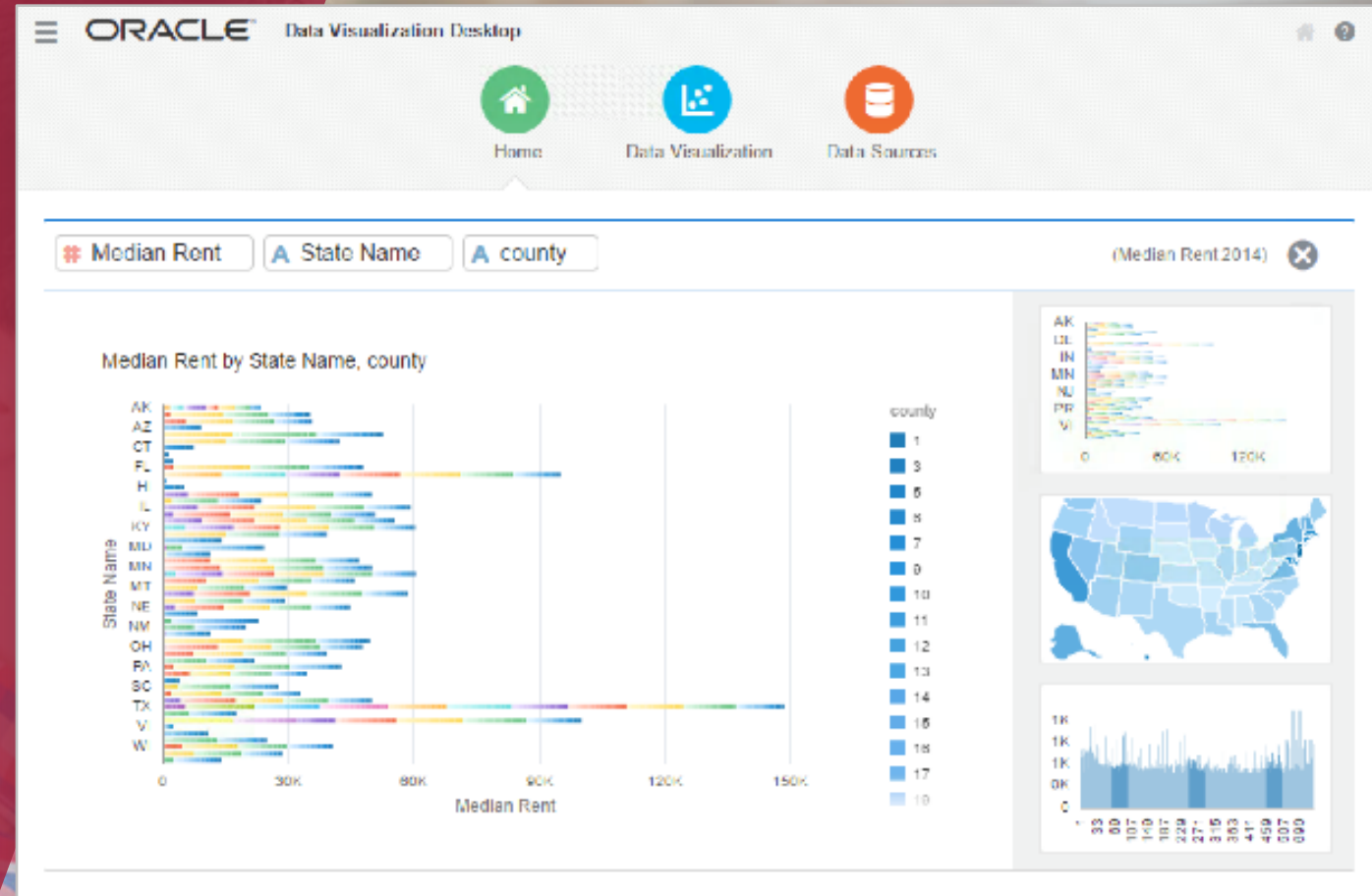
Talk to Your Data with BI Ask

Powerful, intuitive keyword search

- Interprets semantic layer, user private data, expression library and catalog artifacts
- Voice-enabled
- Fuzzy match, stemming, natural language processing
- Generates on-the-fly queries - visualizations are auto-created while user types

Available on all platforms

- Mobile
- Browser
- Desktop



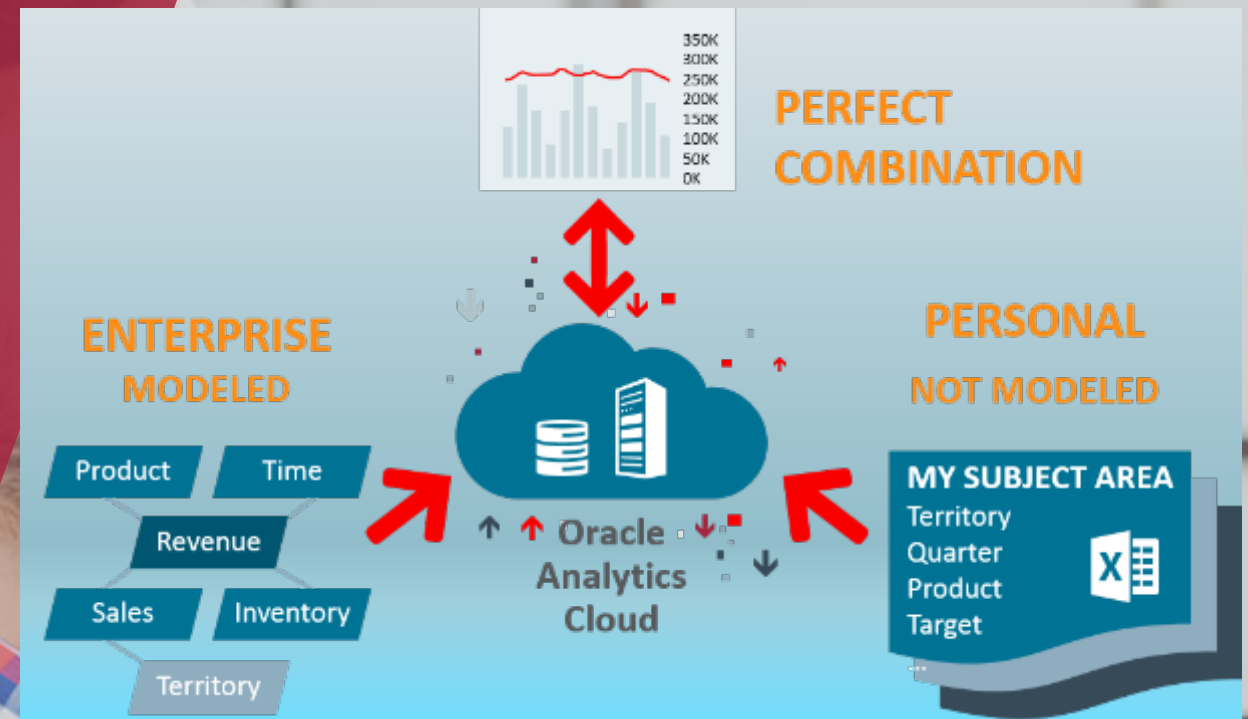


Prepare

Business Agility & Data Reliability

Balance business needs with data governance

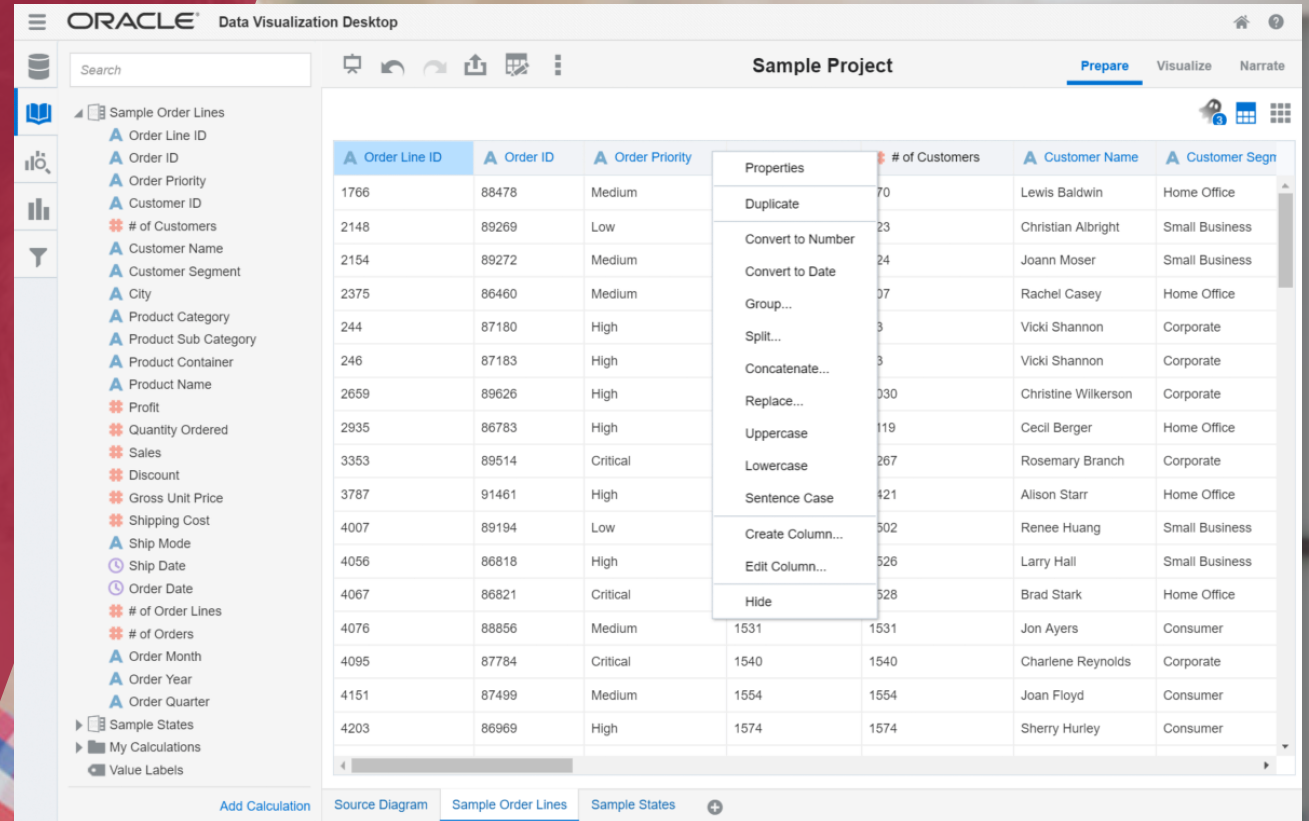
- Combine all relevant information from any data source, managed and self-service
- Stay productive with intelligently optimized queries
- Robust data mashup support – variety of join options and key inference



Quickly Enrich and Prepare Any Data

No coding skills required

- Provides an intuitive user driven data preparation interface
- Standardize inconsistent values, replace null values and remove duplicates
- Create custom groups and expressions



The screenshot displays the Oracle Data Visualization Desktop interface. The main window shows a data table with columns: Order Line ID, Order ID, Order Priority, # of Customers, Customer Name, and Customer Segment. A context menu is open over the 'Order Line ID' column, listing actions such as Duplicate, Convert to Number, Convert to Date, Group..., Split..., Concatenate..., Replace..., Uppercase, Lowercase, Sentence Case, Create Column..., Edit Column..., and Hide. The interface includes a search bar, navigation icons, and a sidebar with a tree view of data sources and calculations.

Order Line ID	Order ID	Order Priority	# of Customers	Customer Name	Customer Segment
1766	88478	Medium	70	Lewis Baldwin	Home Office
2148	89269	Low	23	Christian Albright	Small Business
2154	89272	Medium	24	Joann Moser	Small Business
2375	86460	Medium	07	Rachel Casey	Home Office
244	87180	High	3	Vicki Shannon	Corporate
246	87183	High	3	Vicki Shannon	Corporate
2659	89626	High	030	Christine Wilkerson	Corporate
2935	86783	High	119	Cecil Berger	Home Office
3353	89514	Critical	267	Rosemary Branch	Corporate
3787	91461	High	421	Alison Starr	Home Office
4007	89194	Low	502	Renee Huang	Small Business
4056	86818	High	526	Larry Hall	Small Business
4067	86821	Critical	528	Brad Stark	Home Office
4076	88856	Medium	1531	Jon Ayers	Consumer
4095	87784	Critical	1540	Charlene Reynolds	Corporate
4151	87499	Medium	1554	Joan Floyd	Consumer
4203	86969	High	1574	Sherry Hurley	Consumer

Design & Debug Powerful Data Flows

Full-featured pipeline designer

- Deploy prepared transforms within robust data pipelines
- Blend multiple data sets, aggregate results, define the order of complex data flows

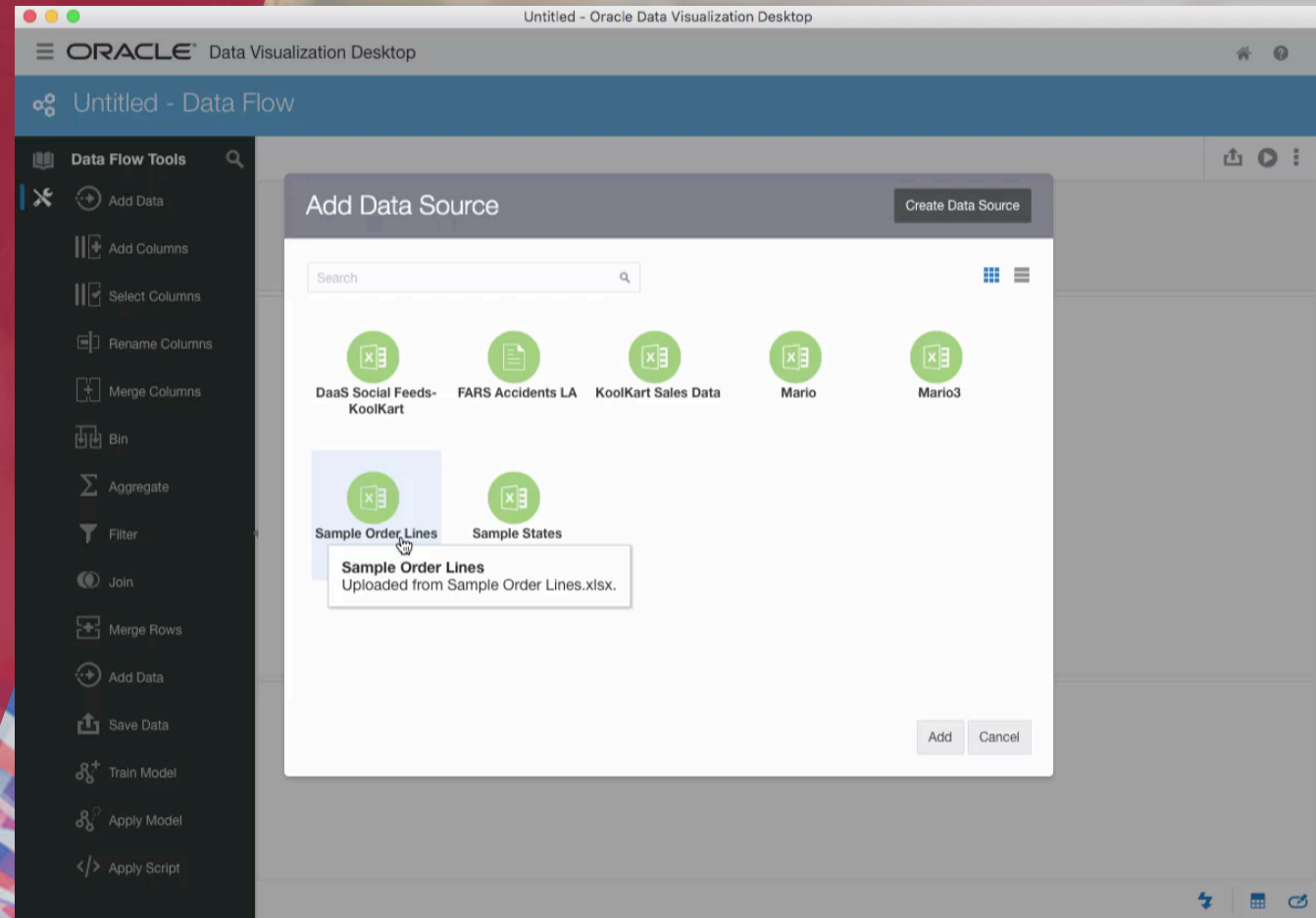
The screenshot shows the Oracle Data Visualization pipeline designer interface. The top bar displays 'ORACLE Data Visualization' and 'Sales and Marketing Data Flow'. The main workspace shows a pipeline with the following steps: SalesPip..., Campaign..., Join, Filter, Add Columns, Aggregate, and Save Data. A 'Calculate' panel is open, showing a formula 'Pipeline by Days Open' and a table of data.

Opportunity ID	Opportunity Owner	Forecast Type Group	Industry Pillar	Industry Sector	Industry Segment	
4BPN4	Rolf Grier	Upside	Manufacturing, Distribution, HighTech	Automotive	Supplier	100
4TVFF	Talbot Chen	Pipeline	Services, Transport & Construction	Professional Services	Staffing	100
3B93Z	George Maguire	Pipeline	Public Sector & Education	Education Research	Research Institutions	100
4SK2W	Sonja Diehl	Pipeline	Financial Services & Insurance	Insurance	Life	100
4YNMG	Dudng Luu	Pipeline	Public Sector & Education	Public Sector	Federal National Government	100

Powerful Data Flows and Enrichment

Self Service Data Preparation

- Sharable and traceable business data transformations
- Avoids Excel clutter and empower analysts to enhance data with no coding skills required
- Group values, join data sets, sub-select rows/columns, aggregate, calculated fields etc.



Simple Data Flows can replace operations that users are doing in Excel today, or can even run at scale to transform volumes of data.

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Analyze

Interactive Visual Composition

Best Data Visualization Capabilities

- Rich palette of chart types, combo charts of lines, areas, bubbles, and more
- Smart Chart advisor automatically selects best fit visualization based on selected attributes
- Trellising for every visualization; customizable color palette
- Brushing – highlight correlations within data across visualizations, all auto-wired to work/update in unison, leveraging in-memory cache/execution layer



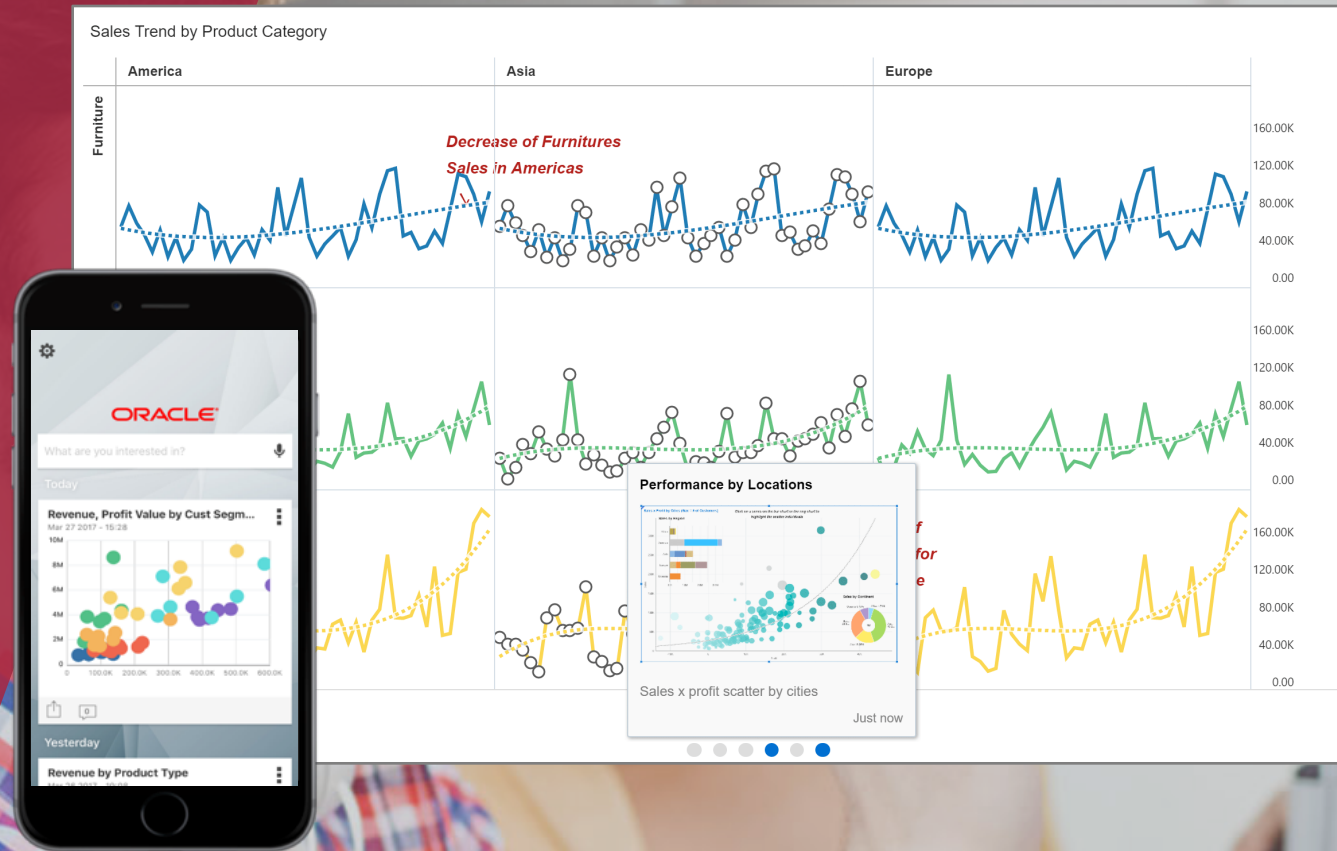
Tell Better Stories with Your Findings

Interactive data storytelling

- Evaluate each story point, “kick the tires” and validate conclusions
- Presentation mode enables focus on the story point, while offering complete interactivity
- Freeform text and images enable in-place discussions

Consume anywhere

- Mobile, desktop and browser
- Native integration with mobile platforms to enable seamless hand-offs, screen-shares, and more



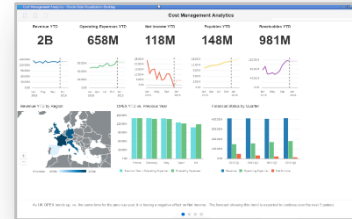
Role-based Visualization Content Packs

Pre-built data visualization content

- Included with Oracle Data Visualization Platform
- Extends OTBI insights with pre-built data visualization sample content
- Targets specific line-of-business personas
- Identifies difficult-to-spot business opportunities, innovations and patterns
- Blends data across business functions, lines of business and applications
- Quick ad-hoc exploration of OTBI and other data with intuitive business user interface
- Near real-time access to data from OTBI and other Oracle application sources

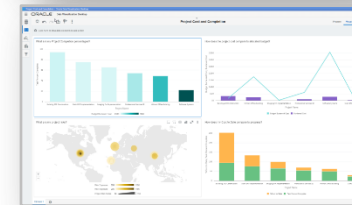
Finance Manager

- Revenue Overview
- Revenue and Headcount Analysis
- Cost Management



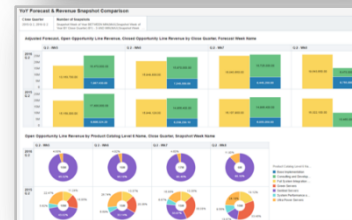
Project Manager

- Campaign performance
- Campaign cost



Sales VP

- Top deals in Play
- Sales review
- Pipeline trend
- Revenue trend



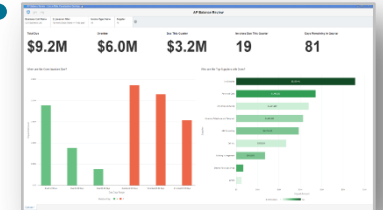
Marketing Analyst

- Campaign performance
- Campaign cost



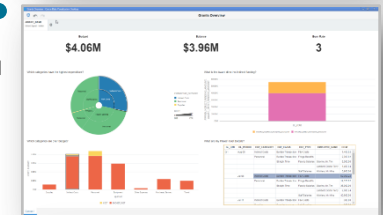
Payables Manager

- AP Balances
- AP Holds
- AP Overdues



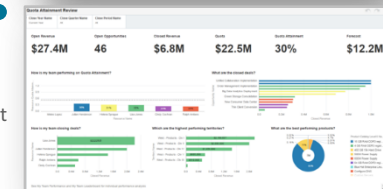
Grants Manager

- Budget vs. Actual
- Award Cost Details
- Award Encumbrance Details



Sales Manager

- Team performance
- Quota attainment
- Pipeline review
- Demand generation



Service Manager

- Open incidents
- Closed incidents
- Team performance



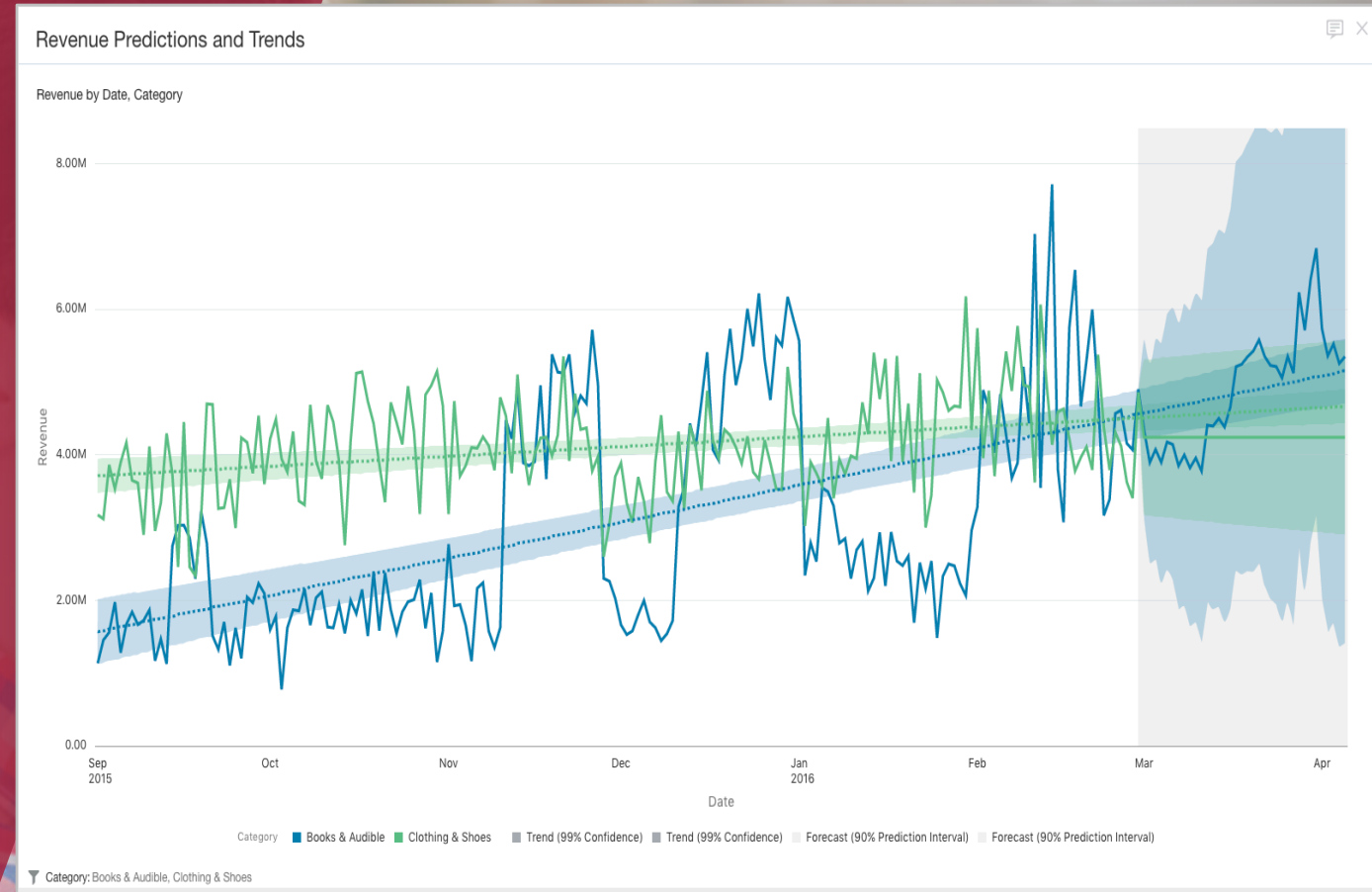


Predict

Predictive Analytics

Visualize Predictive Factors

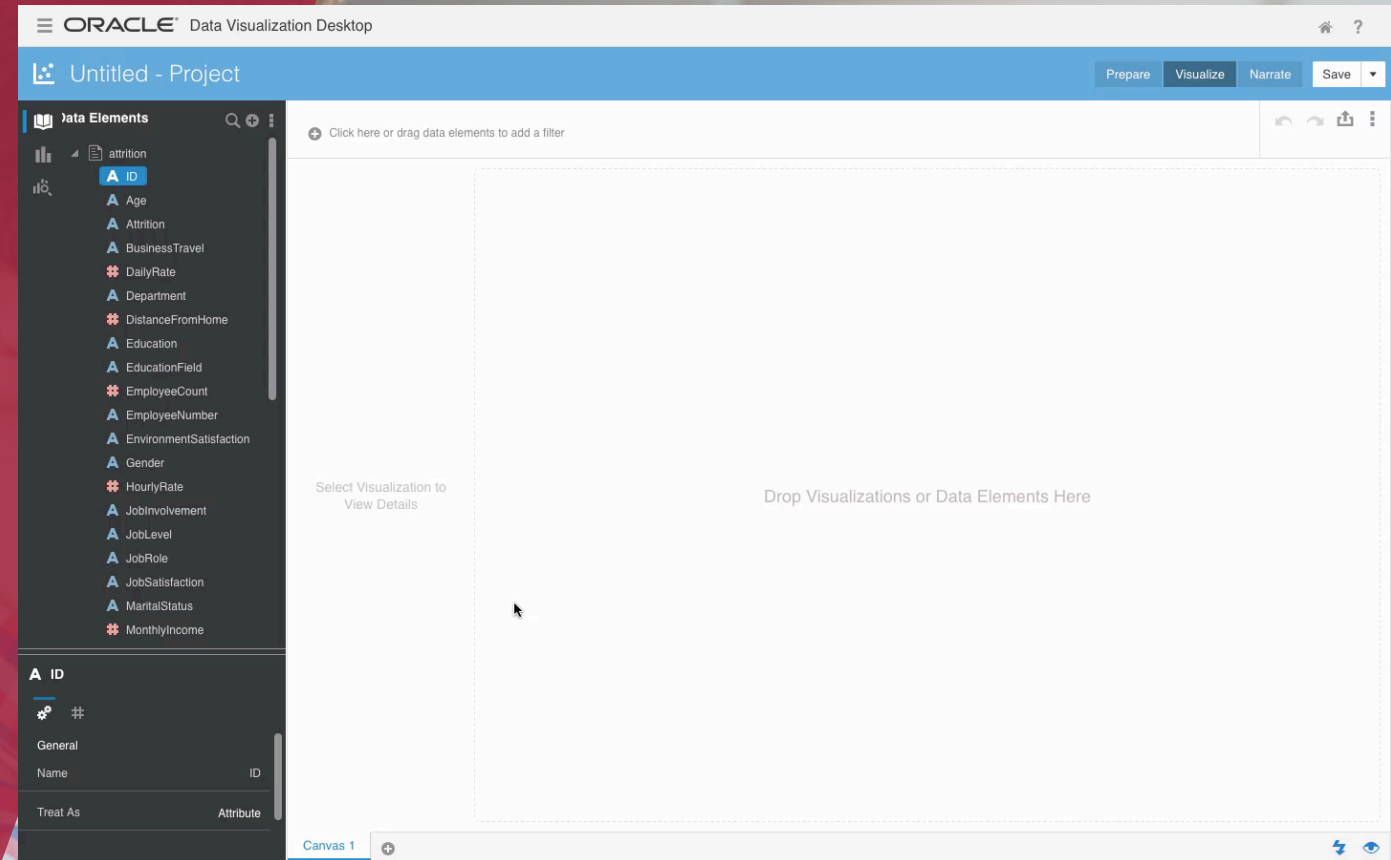
- Drag-and-drop clustering and outlier detection
- Single-click trending and forecasting
- Enable easy incorporation of template-driven statistical, predictive and textual (feature extraction) models which can then be used for scoring with data sets



Identify What Drives Your Business

Machine Learning for the Business

- Have OAC Auto ML analyze and explain any attribute
- Uncover what drives your results
- Identify and analyze key segments of behavior
- Discover anomalies where data is not aligned with expected patterns
- Interact with the outcome and collaborate with others



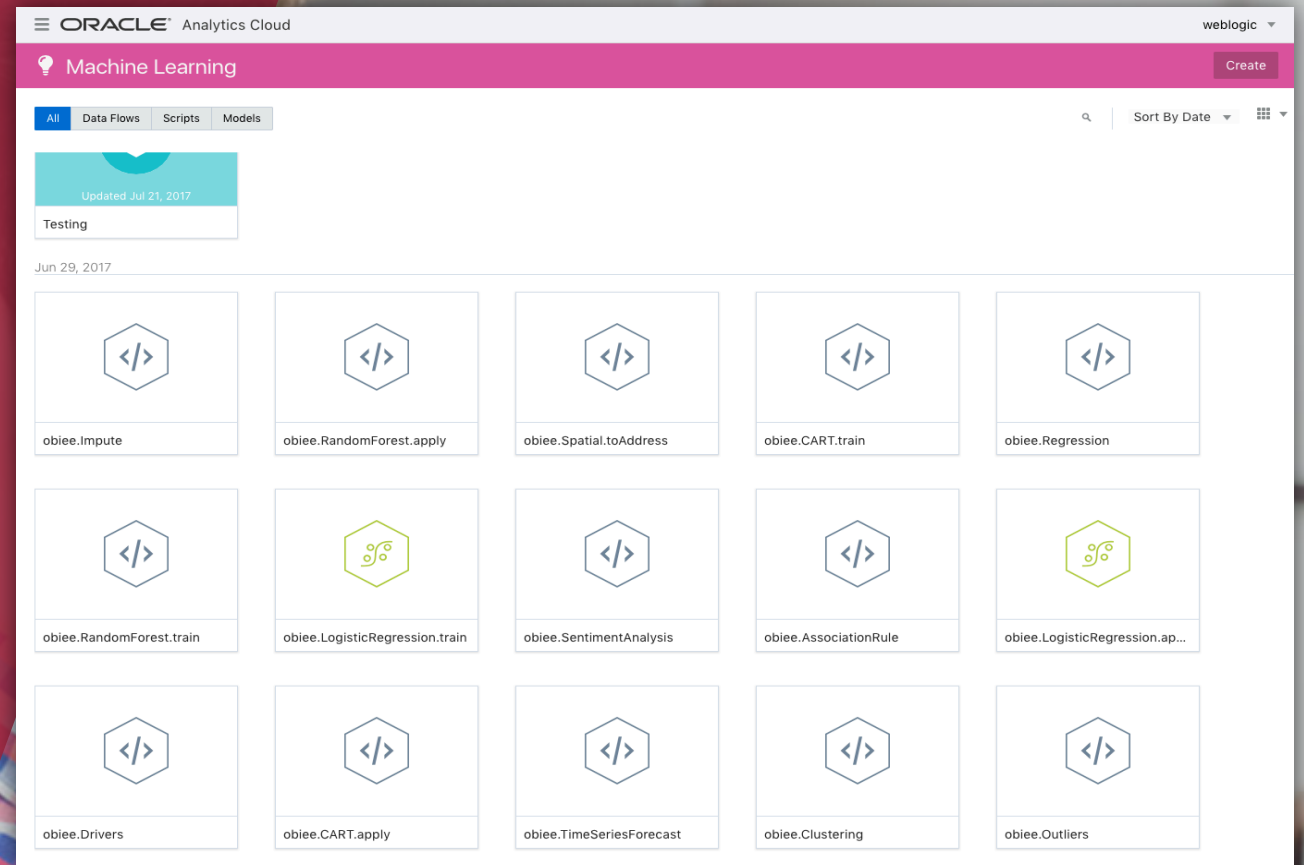
The screenshot displays the Oracle Data Visualization Desktop interface. The top navigation bar includes the Oracle logo, the text "Data Visualization Desktop", and a search icon. Below this, the current project is titled "Untitled - Project". The interface is divided into several sections:

- Top Bar:** Contains buttons for "Prepare", "Visualize", "Narrate", and "Save".
- Data Elements Panel (Left):** A list of data elements with icons indicating their type (e.g., attribute, measure). The elements include: attrition, ID, Age, Attrition, BusinessTravel, DailyRate, Department, DistanceFromHome, Education, EducationField, EmployeeCount, EmployeeNumber, EnvironmentSatisfaction, Gender, HourlyRate, JobInvolvement, JobLevel, JobRole, JobSatisfaction, MaritalStatus, and MonthlyIncome.
- Canvas (Right):** A large area for creating visualizations. It contains the text "Click here or drag data elements to add a filter" and "Drop Visualizations or Data Elements Here".
- Bottom Panel:** Shows details for the selected "ID" element, including its name and the option to "Treat As" an attribute.

Unlock the Full Potential of Machine Learning Capabilities

Train and User Predictive Models

- Train Model using Data Flow
- Bring your own script or choose from a selection of built-in scrips
- Create and manage models in the OAC Catalog
- Use Models to predict data in Data Flows or as part of the Analysts experience



The screenshot displays the Oracle Analytics Cloud (OAC) Machine Learning interface. The top navigation bar includes the Oracle logo, 'Analytics Cloud', and a user profile 'weblogic'. Below this is a 'Machine Learning' header with a 'Create' button. A filter bar shows 'All', 'Data Flows', 'Scripts', and 'Models'. A search bar and 'Sort By Date' dropdown are also present. The main content area shows a grid of model cards, each with a code icon and a name. The models listed are: obiee.Impute, obiee.RandomForest.apply, obiee.Spatial.toAddress, obiee.CART.train, obiee.Regression, obiee.RandomForest.train, obiee.LogisticRegression.train, obiee.SentimentAnalysis, obiee.AssociationRule, obiee.LogisticRegression.ap..., obiee.Drivers, obiee.CART.apply, obiee.TimeSeriesForecast, obiee.Clustering, and obiee.Outliers. A date filter 'Jun 29, 2017' is visible above the grid.

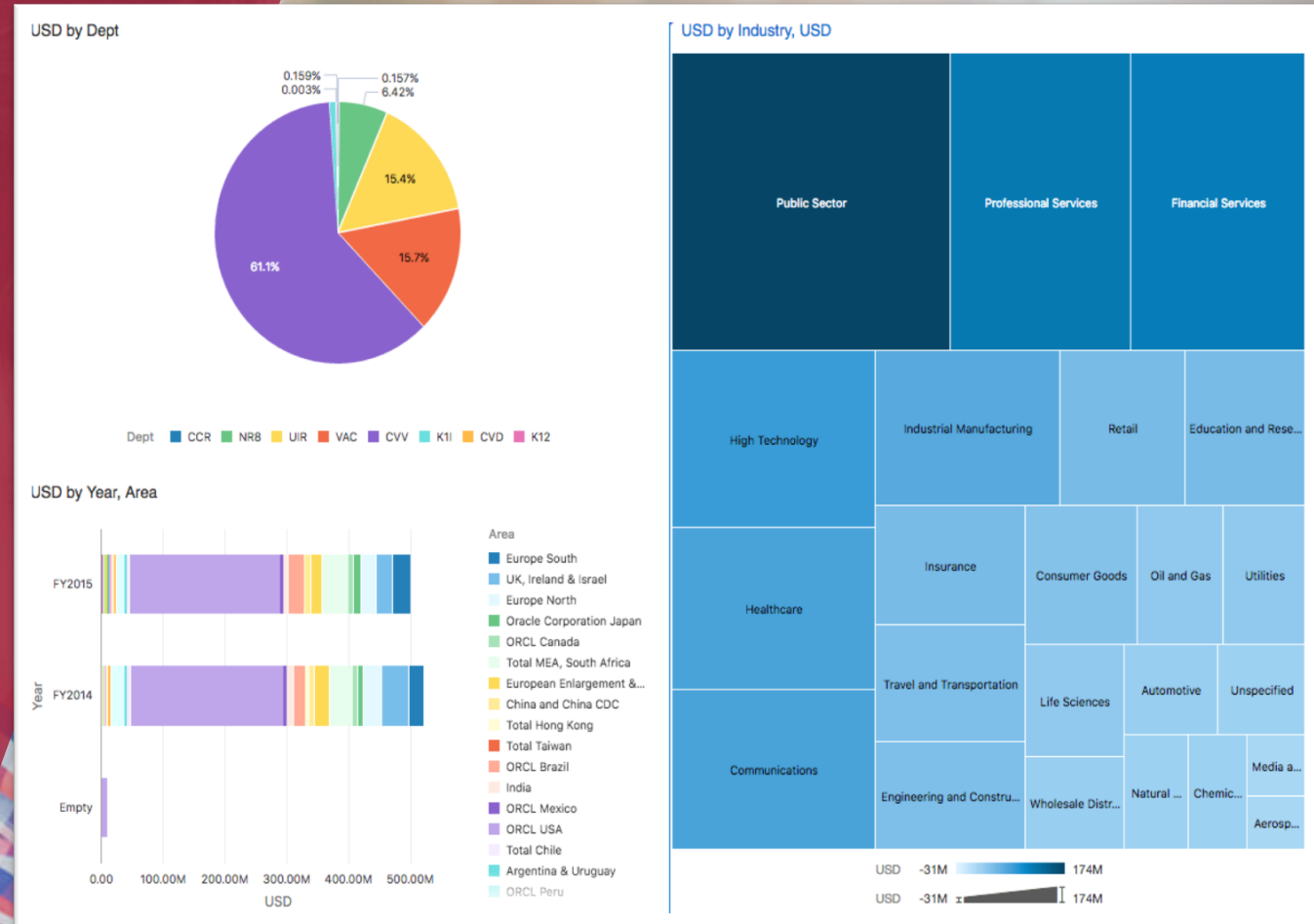
What-if, Collaboration & Workflow

Modernized architecture for Cloud

- Personal to enterprise business modeling
- New enterprise grade capabilities such as user session recoverability, parallel security refresh, hot backup
- REST API

Full Essbase Capabilities

- User scripting support with MAXL and a new CLI
- Access to custom optimization and configuration
- New capabilities for Sandboxing and scenario management
- Wide-range of business modeling and management reporting applications



Build Collective Intelligence with Day by Day

Anticipates questions through self-learning

- Infuse data-based insights into daily activities
- Get customized feeds based on what you are interested in, when and where you are interested in it, and who you collaborate with
- Anticipates your needs and delivers appropriate information to help you make better informed decisions throughout the day
- Use your device's voice capabilities to obtain answers



Extensible by App Developers

Visualization SDK

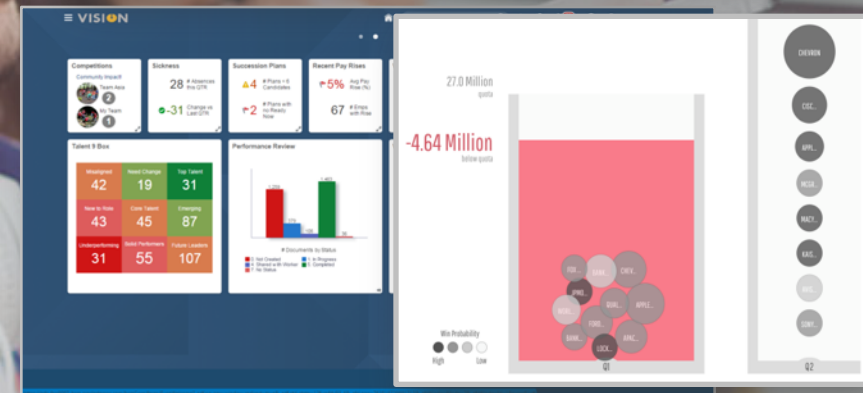
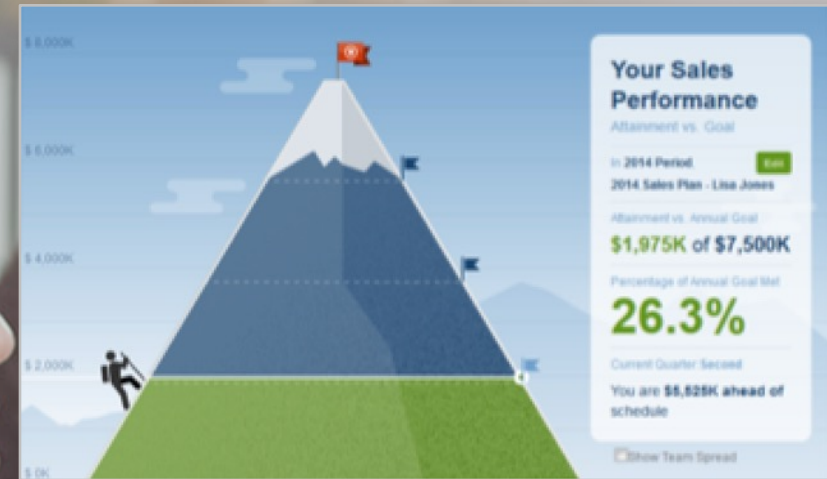
- Develop custom visualizations with Javascript/D3
- 100% functional, LCM parity with native visualizations

Function extensibility

- Extend the expression library with custom functions (e.g., stats, machine learning or textual functions)
- Leverage custom functions anywhere – Visual discovery, Data Prep, and more

Full Embedding SDK

- Full ability to natively embed visualizations and stories with native interaction





Demo

Oracle Analytics Cloud

Discover

Liberate all data and connect to more than 50 different data sources

Powerful tools for auditable and traceable data blending, wrangling, and cleansing

Intuitive and rich exploration with self-service data visualization

Anticipate questions through self learning and build collective intelligence by socializing insights across the organization

Prepare

Analyze

Predict



Next Steps

- ▶ See a demo
- ▶ Download DV Desktop
- ▶ Start your 30 day trial
- ▶ Analytics Library
- ▶ Analytics YouTube Channel

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