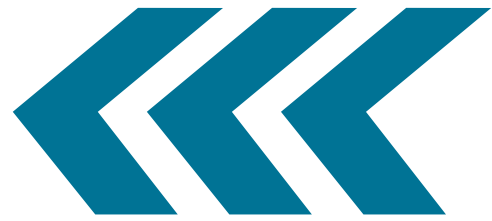# EXTREME FINANCE

Rich Clayton
Vice President Product Strategy
Oracle Analytics
@richardmclayton

SMARTER
FASTER
RICHER

ORACLE

QUESTIONS TO EXPLORE TODAY

- What is opportunity for Machine Learning?

- What is required to become an Extreme Finance leader?

- How can Embedded ML help you work SMARTER?

- What is NLG and how can it power FASTER cycles?

- How can a cloud platform provide RICHER analysis?

- What steps should I take to ready my organization?

Polling Question #1

How would you characterize your organizations proficiency in using data across the enterprise?
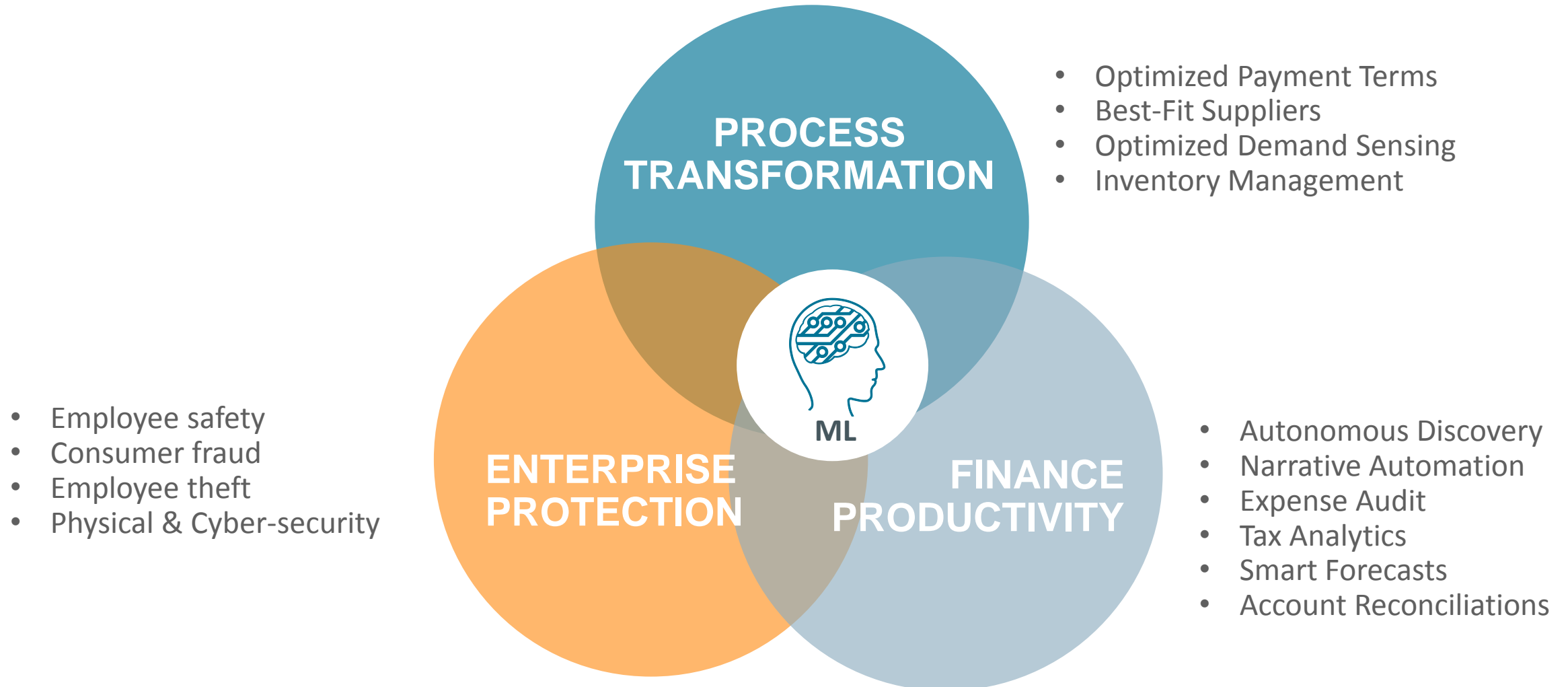
1. Lots of tools with nominal results
2. Departmental success, significant investment
3. Enterprise strategy but suboptimal results
4. Enterprise strategy meeting expectations

McKinsey&Company

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

WELL KNOWN USE CASES FOR ML IN FINANCE

PROCESS TRANSFORMATION

- Optimized Payment Terms
- Best-Fit Suppliers
- Optimized Demand Sensing
- Inventory Management

ML

- Employee safety
- Consumer fraud
- Employee theft
- Physical & Cyber-security

ENTERPRISE PROTECTION

FINANCE PRODUCTIVITY

- Autonomous Discovery
- Narrative Automation
- Expense Audit
- Tax Analytics
- Smart Forecasts
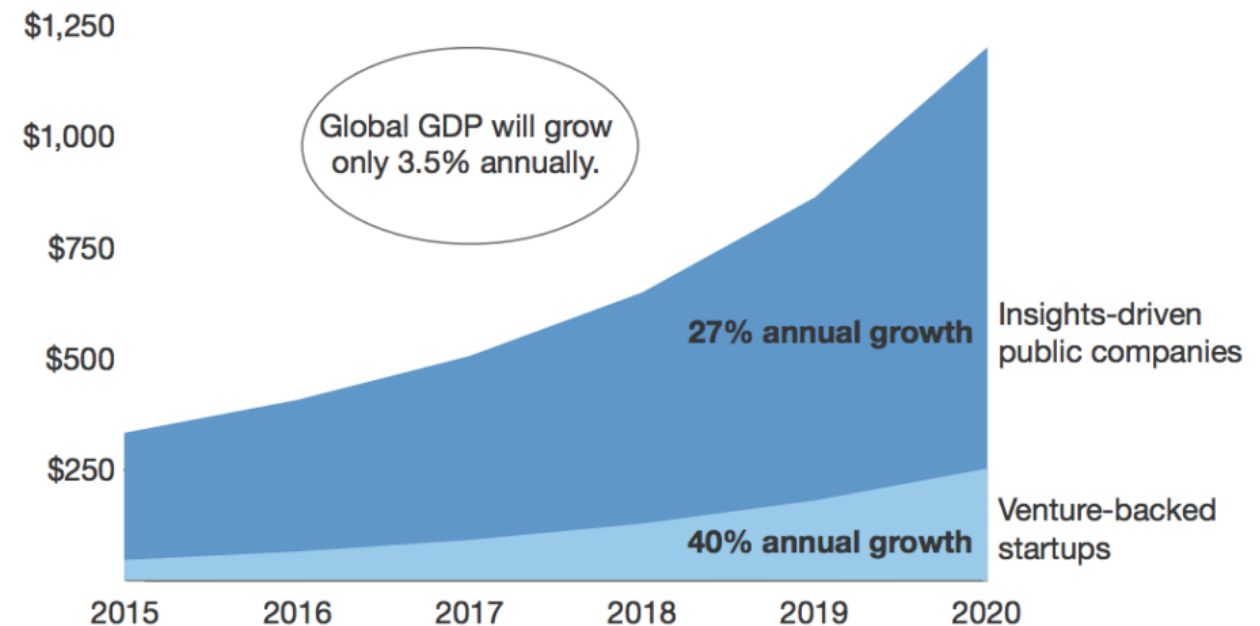- Account Reconciliations

Polling Question #2

On a scale of 1-5, how prepared is your finance organization to embracing the potential of machine learning?

1. Research not yet started
2. Early days, skill gap exists
3. Have skills and started to explore potential
4. Project identified and scoped
5. Using Machine Learning technology today

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EXTREME OPPORTUNITIES FOR INSIGHT-DRIVEN BUSINESSES

Projected Growth to be 7X Global GDP

Revenue forecast of insights-driven businesses
($ billions)

Global GDP will grow only 3.5% annually.

$1,250

$1,000

$750

$500

$250

27% annual growth — Insights-driven public companies

40% annual growth — Venture-backed startups

2015   2016   2017   2018   2019   2020

Note: The data point for public companies in 2015 is actual revenue; all other data points shown are estimates or projected figures.

Source: Economic Intelligence Unit, Morningstar, and PitchBook Data

EXTREME FINANCE | EXTREME PERFORMANCE

NHS

Identified £1.2B in potential savings

Delivers healthcare to 65 million UK citizens

Optimized treatment by reducing use of less effective medical procedures

ORACLE

"

In today's highly competitive business environment, **companies need more from Finance** *than accurate financial statements and reports.* **They need forward-looking, predictive insights** *that can help shape tomorrow's business strategy and improve day-to-day* **decision-making in real time.** *In short, they need finance analytics.*

<<< **ARE YOU STILL DOING THE SAME OLD THING?**

EVERYONE ELSE IS ADAPTING.

43%

of companies fell short of investor expectations

McKinsey

WHO ISN'T BUSY?

Never enough time.

62%

are buried in basic duties with little time for analytical work

Ventana

56%

cannot focus on strategic priorities due to time spent on compliance, controls and costs

EY

51%

cannot focus on strategic priorities due to time spent on operational activities

EY

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WHO'S DATA ISN'T GROWING?
More data than ever.

20%

of finance trade globally will use blockchain by 2020

Gartner

40%

of all compute will revolve around edge computing, IoT and analytics by 2020

IDC

47%

say they lack the right capabilities/skills to meet the needs of strategic priorities

EY

EXTREME FINANCE

SMARTER
FASTER
RICHER

YESTERDAY'S TECHNOLOGY GOT YOU THIS FAR.

ORACLE

SMARTER FINANCE MOVES YOU FORWARD

ADAPTABLE

PROACTIVE

TRUSTWORTHY

FUTUREPROOF

PREDICTIVE

AUTONOMOUS

SELF-DRIVING

58%

need to build a better understanding of digital, smart and sophisticated analytics

EY

SMARTER

EVALUATE MORE BUSINESS DRIVERS

BUILD TRUSTWORTHY PREDICTIONS

CREATE NEW OPPORTUNITIES

Autonomous Analytics

RECOMMENDATIONS TO GUIDE YOU

ADAPTIVE PERSONA DRIVEN KPIS

INFUSE DATA-DRIVEN INSIGHTS INTO DAILY ACTIVITIES

Revenue per Employee
Period: Quarter

$300K ▲

Revenue

Headcount
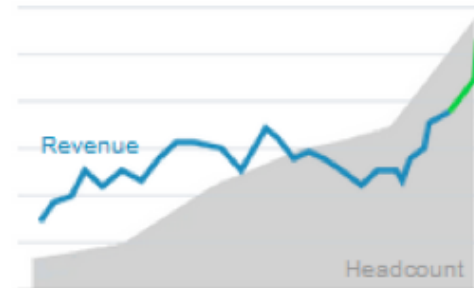
Recommendations (36)
All Columns
Select a column to filter list

Split Employee Name ✓ ✕
Create Employee First...

Mask SSN
1234

Type SSN
As Social Security Number

Enrich Zip Code
Lorem ipsum dolar sit

R(x) Extract Street from Address
Create Street

R(x) Extract Year from Hire Date
Create Hire Date Year

R(x) Extract City from Address
Create City

Natural Language Processing

SINGLE SEARCH ACROSS ANY DATA

NON-AUTHORED DYNANMIC VISUALIZATIONS

VOICE AND MOBILE ENABLED
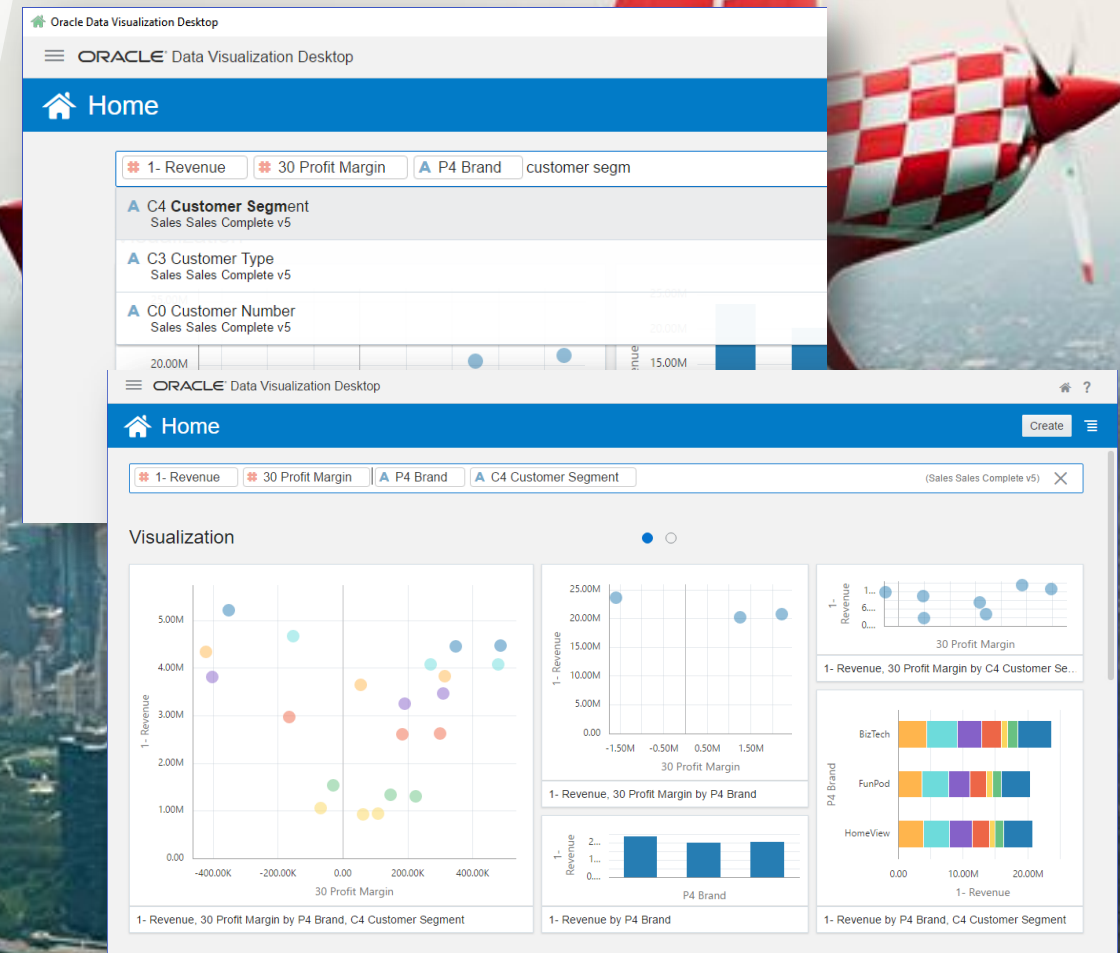
Polling Question #3

What % of financial analysis queries do you think will be executed using voice in the next 12 months?

1. 0% - tech isn't ready
2. 20% - maybe for the simple stuff
3. 50% - semantics are there
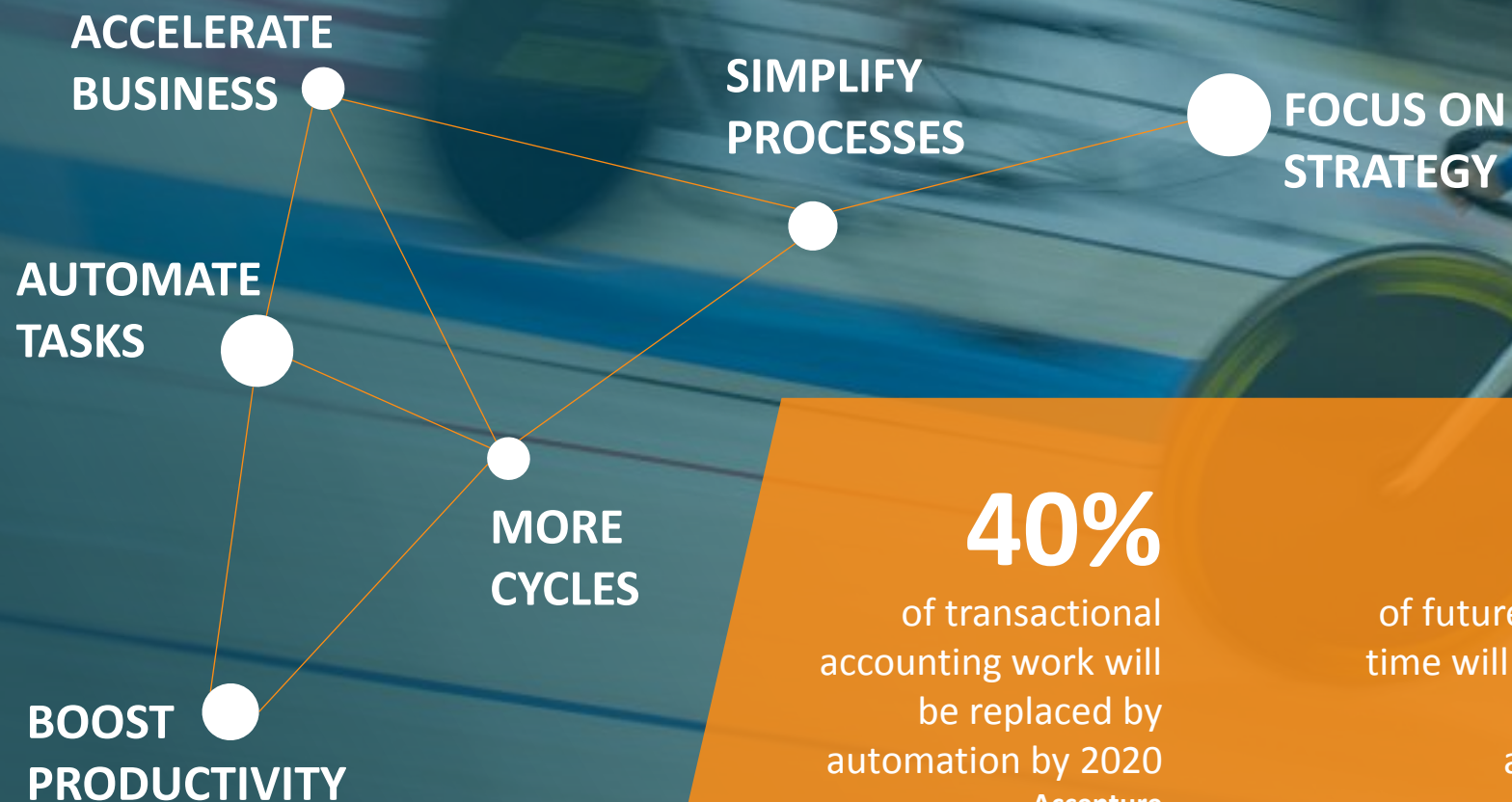4. 80% - will follow path of consumer tech

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EXTREME FINANCE

SMARTER
FASTER
RICHER

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CURRENT ANALYTICAL PROCESSES MISS DEADLINES.

FASTER FINANCE BEATS DEADLINES

ACCELERATE BUSINESS

SIMPLIFY PROCESSES

FOCUS ON STRATEGY

AUTOMATE TASKS

MORE CYCLES

BOOST PRODUCTIVITY

40%
of transactional accounting work will be replaced by automation by 2020
Accenture

25%
of future FP&A users' time will be dedicated optimization and efficiency
Argyle

48%
CxOs will take action in the next year to automate admin & low skill roles

ORACLE®

FASTER

MODEL MORE SCENARIOS

AUTOMATE VARIANCE ANALYSIS

EXPAND AT YOUR PACE

Agile Scenario Modeling

TIME TO PRODUCE AND ADJUST

FINANCIAL **INTEGRITY** OF SCENARIO

CAREFULLY SELECTED **DRIVERS**

STAKEHOLDER **ALIGNMENT**

CLEAR **FEEDBACK** LOOP

EASY TO GRASP

Business Modeling Cloud Platform

ACCELERATE FP&A ACTIVITIES

CENTRALIZED DATA FOR CONSISTENCY

ENHANCED COLLABORATION AND SHARING
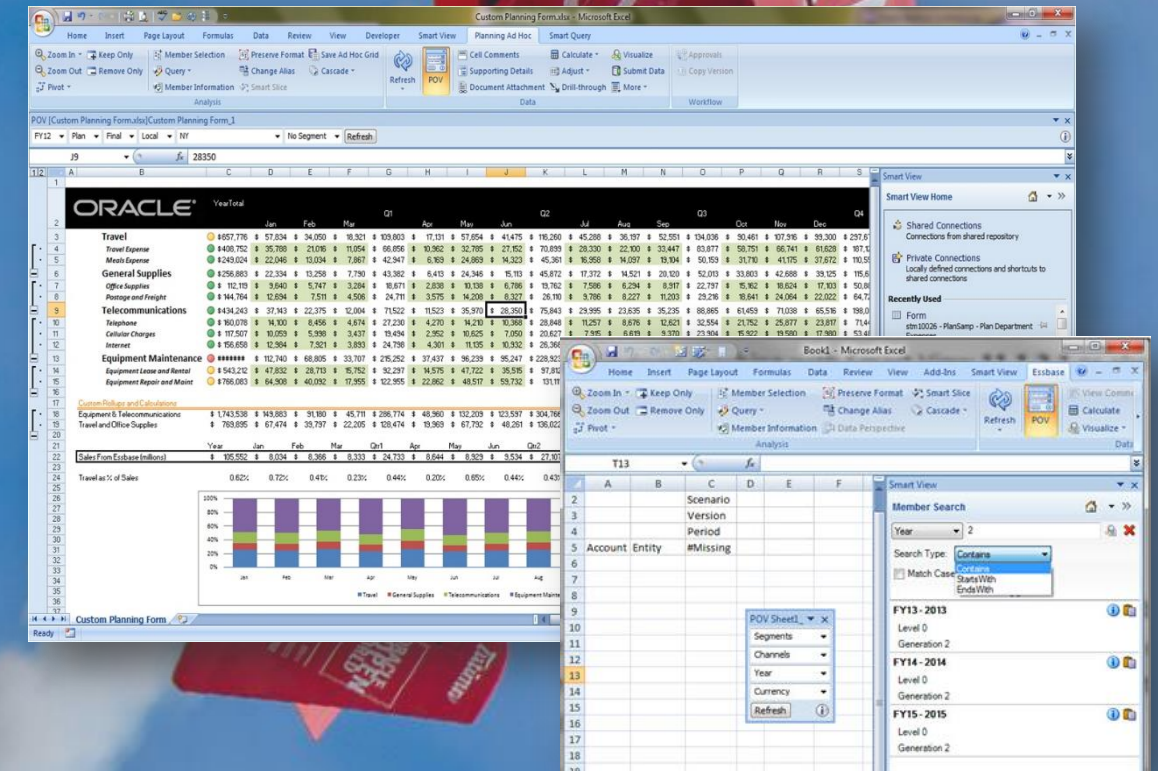
3D Business Modeling

MULTI-DIMENSIONAL BY DESIGN

BUILT FOR **BUSINESS**

EXTREME **PRODUCTIVITY**

GOVERNED CALCULATIONS

FAST AND SECURE

Excel to Essbase in 60 Seconds

DO EVERYTHING IN THE CLOUD

ONE CLICK PROVISIONING, NO IT

ZERO LEARNING CURVE

NEW DESIGN TOOLS

DO IT ALL IN EXCEL

PRIMARY MODELING TOOL

DOZENS OF PREBUILT TEMPLATES

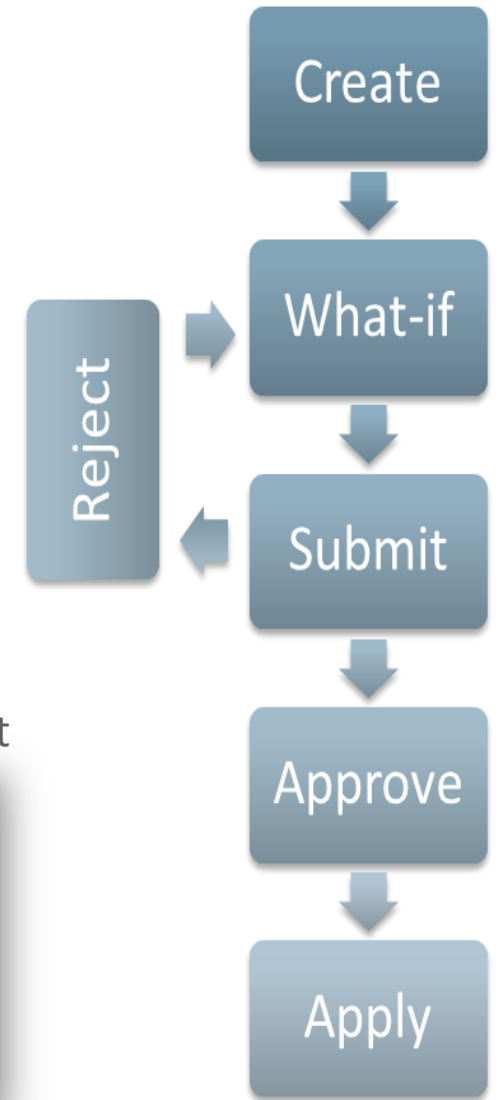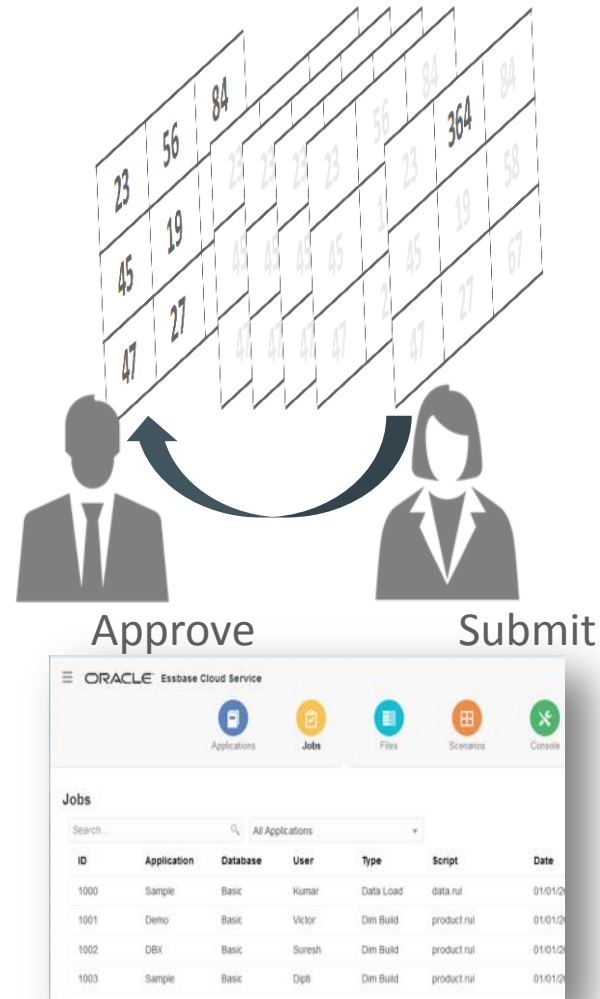EXPORT CUBES TO EXCEL FORMAT

Scenario Sandbox

EXTREME AUTOMATION

CREATE PRIVATE COPY OF DATA FOR WHAT-IF AND SENSITIVITY ANALYSIS

REFRESH BASE DATA AND MERGE INTO SANDBOX

ONLY DELTA ENTRIES ARE SAVED

APPROVAL FLOWS SUBMISSION BACK TO BASELINE

Approve   Submit

Polling Question #4

The extent of our scenario modeling in our company is:

1. Manual and done using Excel
2. Partly automated but still many macros
3. Forecasting is automated but not iterative scenario modeling
4. Enterprise can easily re-plan and model new scenarios

Natural Language Generation

GENERATE DYANMIC CONVERSATIONAL NARATIVE

SUMMARIZE SALIENT POINTS

SIMPLIFY VARIANCE ANALYSIS
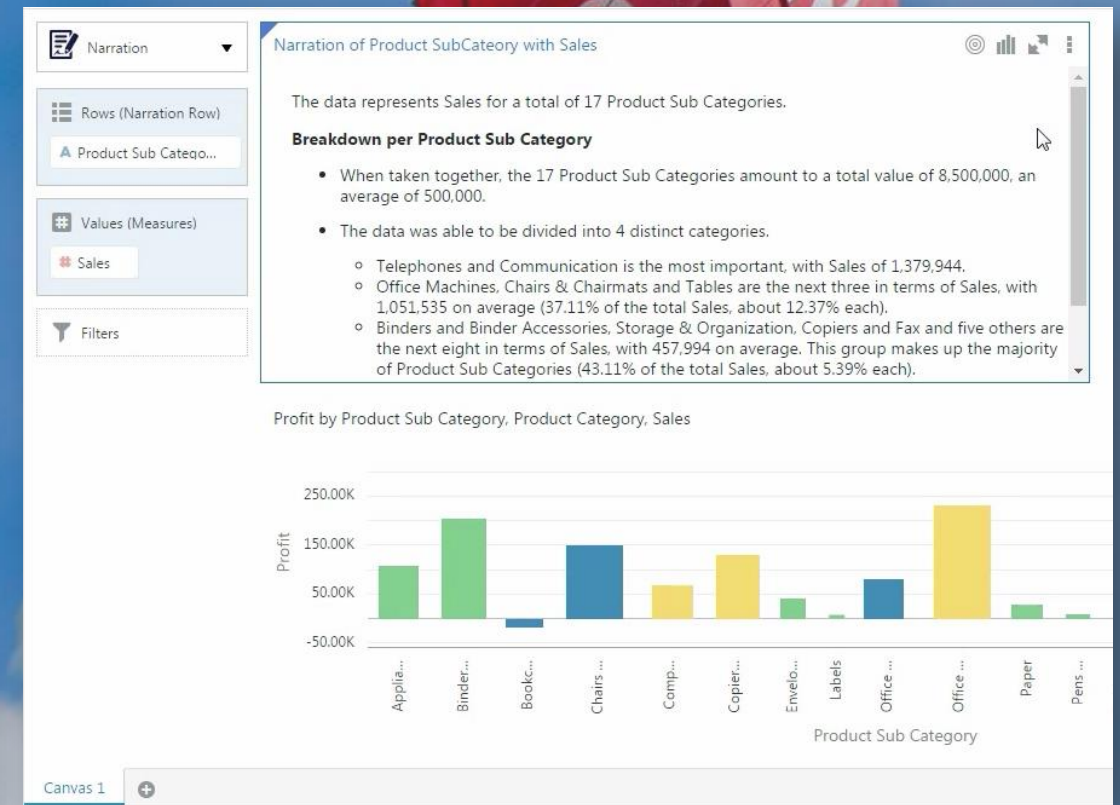
Polling Question #5

What % of management reporting and/or variance analysis do you believe could be automated using natural language generation?

1. None – requires complete human cognitive skills
2. 20% - perhaps a small fraction
3. 50/50 – lots of opportunities
4. 80/20 – majority of data collection and analysis could be automated

SKANSKA

ENTERING NEW MARKETS

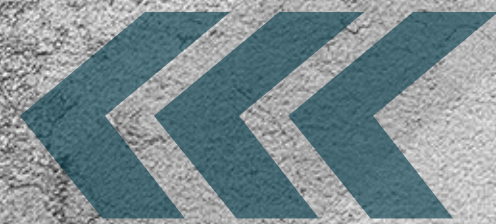Centralized on a single cloud environment for **management reporting** worldwide

Today information is ready in 7 minutes for executives to analyze and annotate

Completed implementation in 17 days

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SMARTER
FASTER
RICHER

DISCONNECTED SYSTEMS FOSTER INACCURACY AND COST YOU.

RICHER FINANCE IS A UNIFIED PLATFORM

ALL DATA

VISUALIZATION

SELF-SUFFICIENT

DATA-PREPARATION

TRUSTWORTHY

GOVERNED & COMPLIANT

39%
of future CFOs recognize big data and advance analytics as critical for strategic "decision-making
EY

24%
of future FP&A users' time will be dedicated to leveraging data and analytics
Argyle

57%
of CFOs believe that delivery of data and advanced analytics is a critical capability of tomorrow's finance
EY

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RICHER

GAIN AUTONOMY FOR ROOT CAUSE ANALYSIS

ACCESS ALL TRANSACTIONS
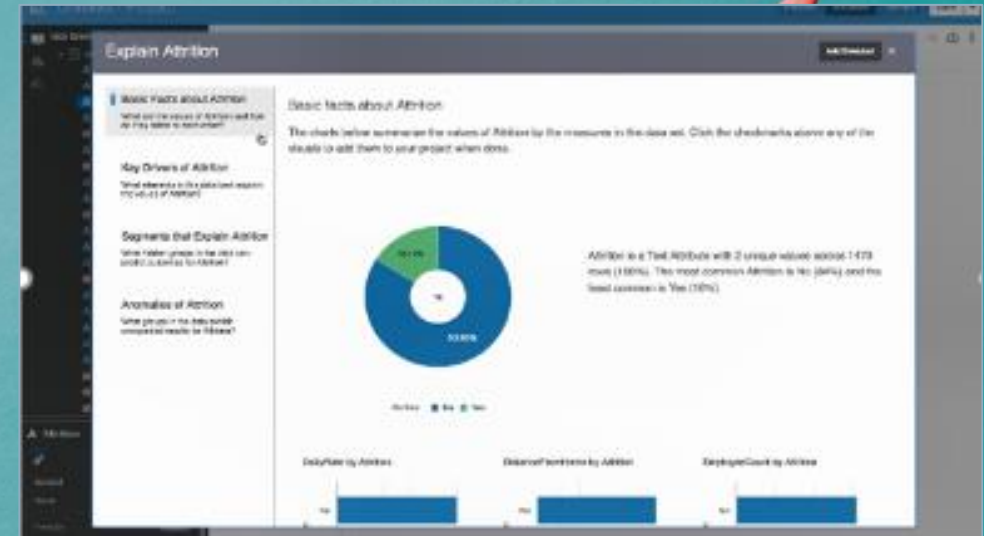
TRUST YOUR NUMBERS

Discover Deeper Patterns

ML ANALYZES AND EXPLAINS ALL ATTRIBUTES

AUTOMATICALLY DETECTS OUTLIERS AND DRIVERS
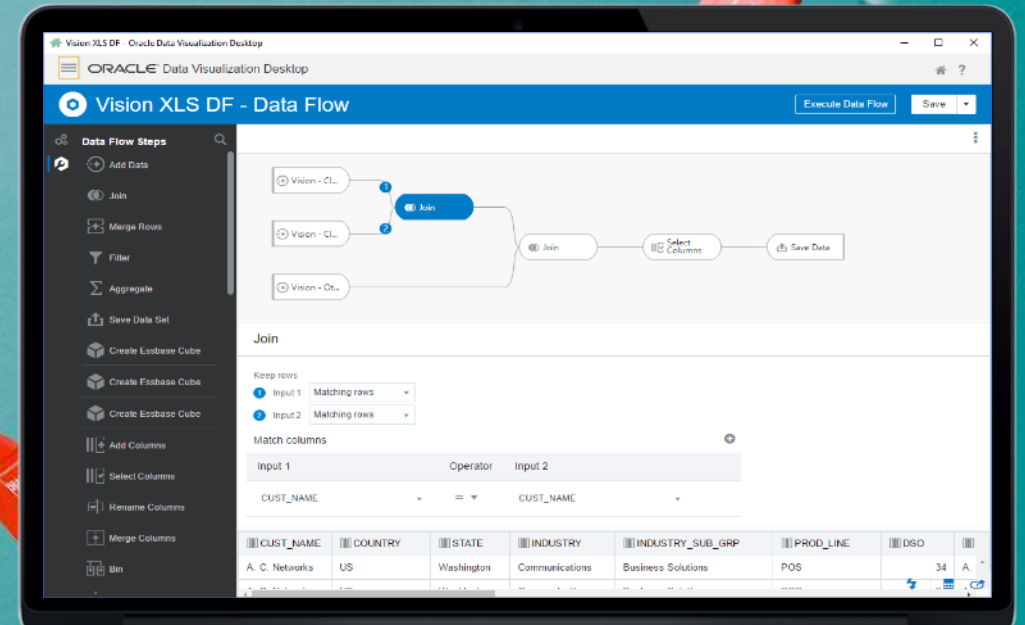
EASILY IDENTIFIES KEY SEGMENTS

Data Blending

CONNECT DATA INTELLIGENTLY

CONSIDER ALL RELEVENANT INFORMATION
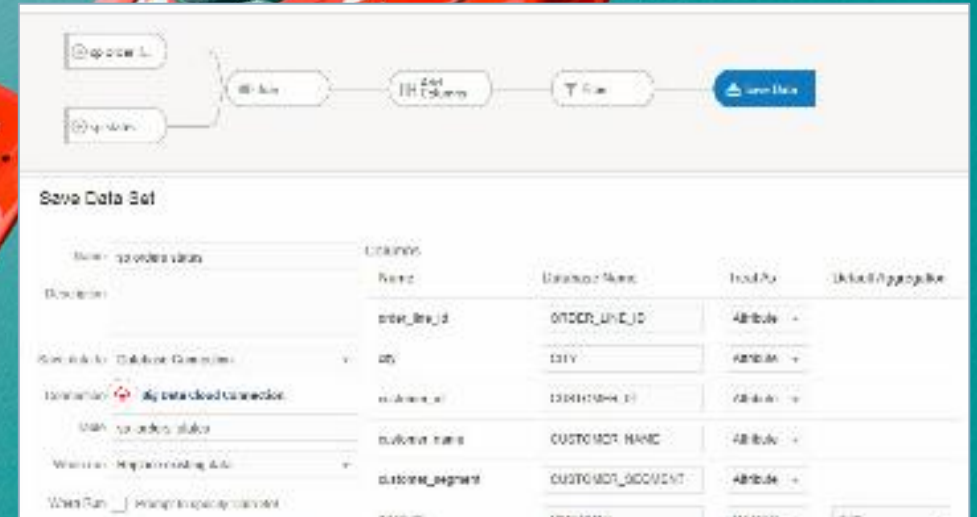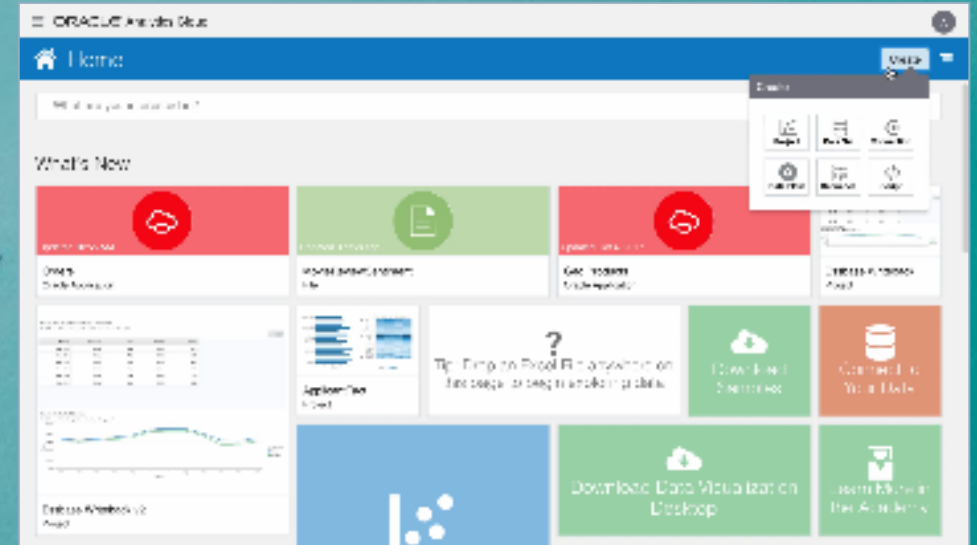
REDUCE RISK AND EXCEL TIME

Autonomous Data Enrichment

ML DRIVEN TRANSFORMATIONS

PREDEFINED SEMANTIC TYPES

SMART SAAS CONNECTORS

Polling Question #6

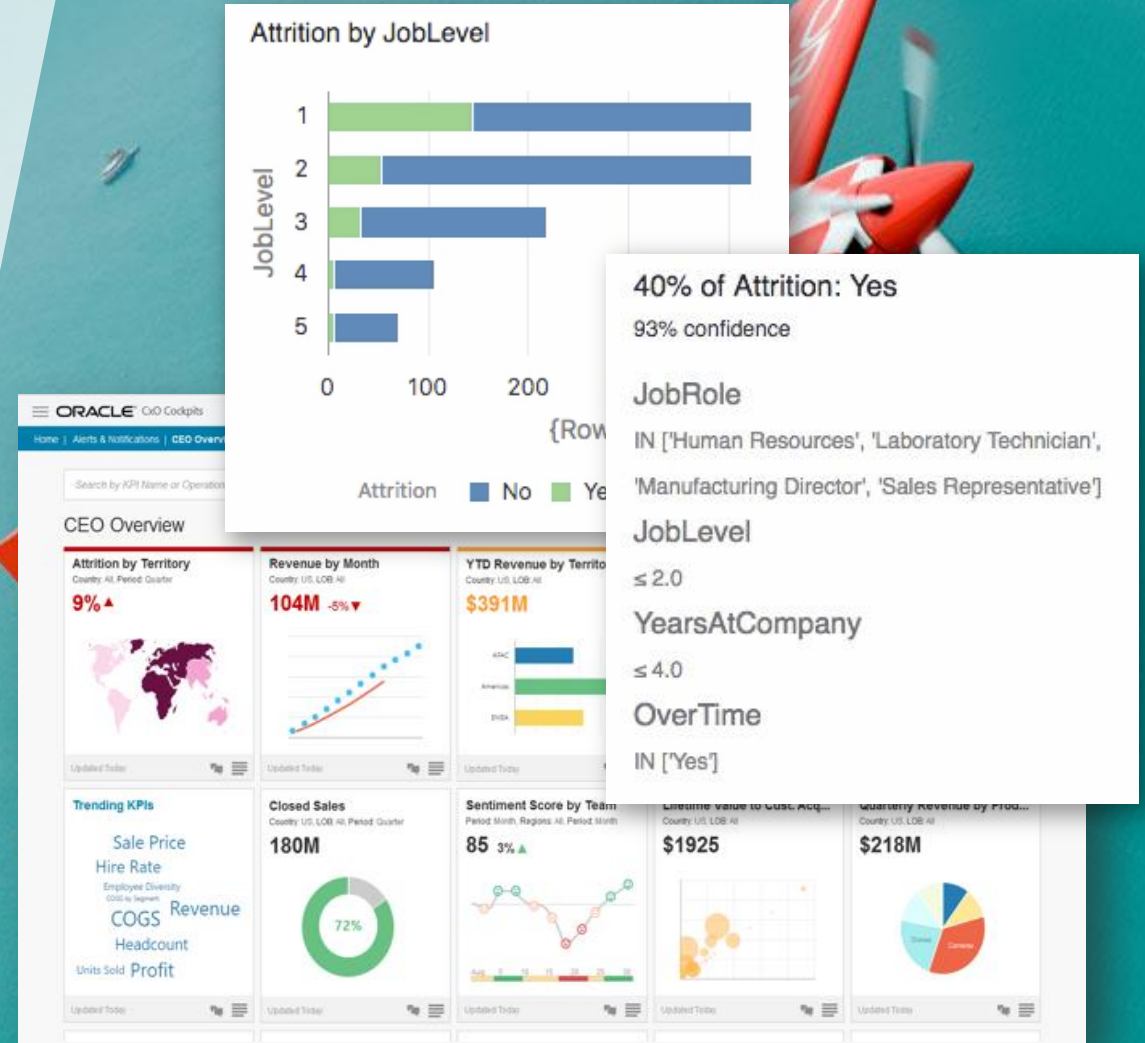What % of your analysts time do they spend combining, fixing and preparing data?

1. 20%
2. 40%
3. 60%
4. 80%
5. Unsure

Smart Visualizations

SURFACE UNSEEN PATTERNS

UNDERSTAND YOUR BUSINESS

FORESEE THE FUTURE

Transforming at Scale

Innovative retail company looking to streamline financial reporting while increasing governance and audit controls

Incorporated new data and saved 5-7 days for financial reporting

Data Lake

COMPLEMENTARY TO SYSTEMS OF RECORD

REDUCE COST OF STORING DATA
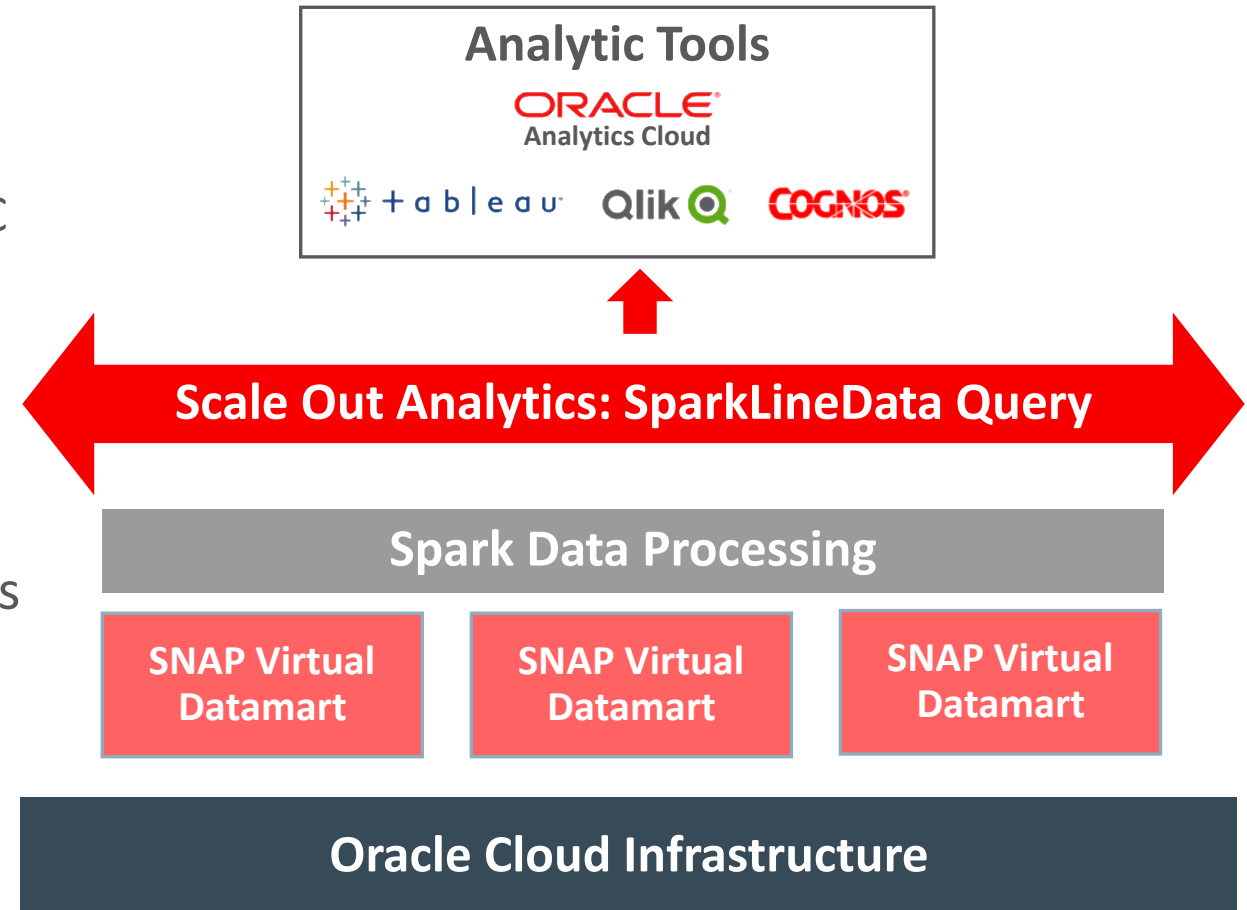
LEVERAGE MORE DATA FOR RICHER ANALYSIS

Data Lake Analytics: SparkLineData
Brings Interactive Query to Data Lakes Built on Cloud Storage

- Scale Out Data Lake Analytic Query Engine
  - For all BI tools: Tableau, Qlik, Cognos, BI EE, OAC

- Built on Standard Open Source Spark
  - Same APIs, Same Operational Model

- Enables Subject Area Data Marts on Data Lakes
  - High Performance Cubes for SQL Based Analytics

- Run Traditional BI Directly On Entire Data Lake

Analytic Tools

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Analytics Cloud

+tableau   Qlik Q   COGNOS

Scale Out Analytics: SparkLineData Query

Spark Data Processing

| SNAP Virtual Datamart | SNAP Virtual Datamart | SNAP Virtual Datamart |

Oracle Cloud Infrastructure

ORACLE

Polling Question #7

What is your finance team's experience in using Data Lakes?

1. None
2. Researching
3. Pilot Project
4. Data Lake in Production

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EXTREME FINANCE

DIGITIZE AND SAVE ALL DATA

EMBRACE CLOUD; IT'S FASTER!

FORM DATA ETHICS COMMITTEE

CREATE DATA LAB FOR EXPERIMENTATION

BUILD MACHINE LEARNING COMPETENCIES

ACTION PLAN

ORACLE®