## EXTRE//E FILANCE

#### **Rich Clayton**

Vice President Product Strategy Oracle Analytics @richardmclayton

### SMARTER FASTER RICHER





> 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

### **G Machine Learning** is based on algorithms that can learn from data without relying on rulesbased programming.



### WELL KNOWN USE CASES FOR ML IN FINANCE

#### PROCESS TRANSFORMATION

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

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



- 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



### **EXTREME OPPORTUNITIES FOR INSIGHT-DRIVEN BUSINESSES**

### Projected Growth to be 7X Global GDP

**Revenue forecast of insights-driven businesses** (\$ billions) \$1,250 Global GDP will grow \$1,000 only 3.5% annually. \$750 Insights-driven 27% annual growth public companies \$500 \$250 Venture-backed 40% annual growth 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

# EXTREMEEXTREMEFINANCEPERFORMANCE

### NHS

Identified £1.2B in potential savings Delivers healthcare to 65 million UK citizens Optimized treatment by reducing use of less effective medical procedures

**Deloitte.** 



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 5 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

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

47%

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

40%

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



of finance trade globally will use blockchain by 2020 Gartner



# EXTREME STATE

### SMARTER FASTER RICHER



### **VESTERDAY'S TECHNOLOGY GOT YOU THIS FAR.**



### **SMARTER** FINANCE **MOVES YOU FORWARD**

#### **ADAPTABLE**

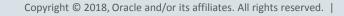
TRUSTWORTHY

ORACLE

### 58%

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





PROACTIV

15

### **SMARTER**

#### **EVALUATE MORE BUSINESS DRIVERS**

#### **BUILD TRUSTWORTHY PREDICTIONS**

#### **CREATE NEW OPPORTUNITIES**



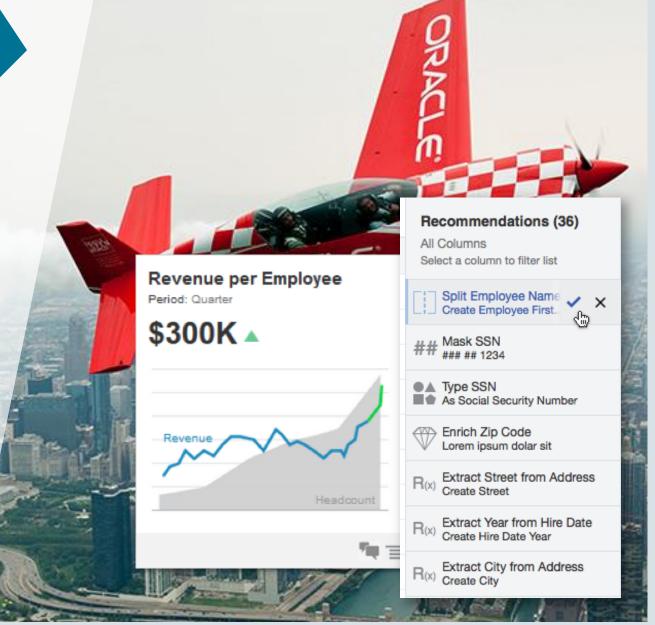
ORACLE

### Autonomous Analytics

#### **RECOMMENDATIONS TO GUIDE YOU**

#### **ADAPTIVE PERSONA DRIVEN KPIS**

#### **INFUSE DATA-DRIVEN INSIGHTS INTO DAILY ACTIVITIES**



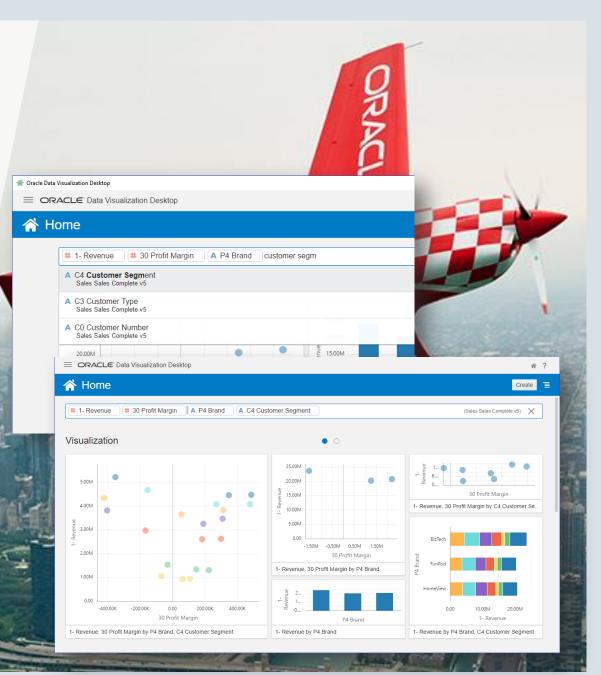


### Natural Language Processing

#### **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



# EXTREME ENARCE

### *SMARTER FASTER RICHER*



### CURRENT ANALYTICAL PROCESSES MISS DEADLINES.



### FASTER FINANCE BEATS DEADLINES

SIMPLIFY

**PROCESSES** 

ACCELERATE BUSINESS

AUTOMATE TASKS

> MORE CYCLES

BOOST O PRODUCTIVITY 25%

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

40%

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

#### ORACLE

**FOCUS ON** 

STRATEGY

48%

CxOs will take action

in the next year to

automate admin

& low skill roles



### Agile Scenario Modeling

TIME TO PRODUCE AND ADJUST FINANCIAL INTEGRITY OF SCENARIO CAREFULLY SELECTED DRIVERS STAKEHOLDER ALIGNMENT CLEAR FEEDBACK LOOP EASY TO GRASP



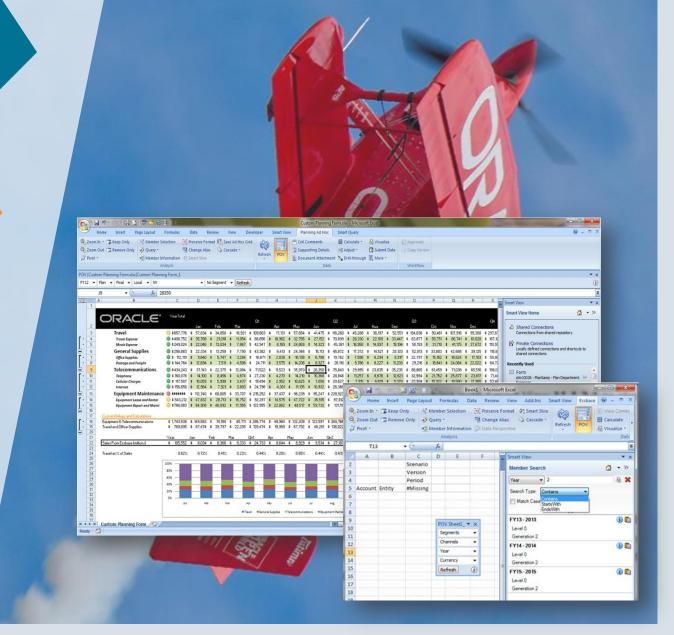


### Business Modeling Cloud Platform

#### **ACCELERATE FP&A ACTIVITIES**

#### **CENTRALIZED DATA FOR CONSISTENCY**

#### ENHANCED COLLABORATION AND SHARING



### **3D Business Modeling**

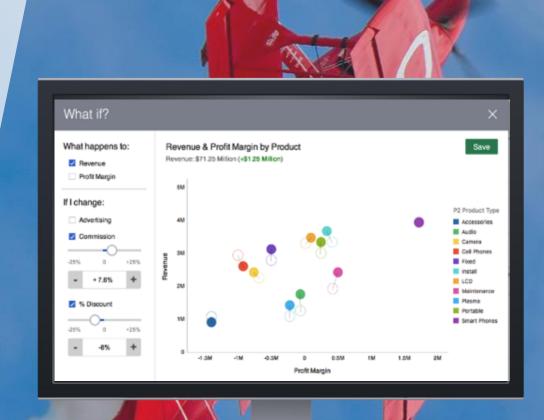
#### **MULTI-DIMENSIONAL BY DESIGN**

**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

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### 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



### 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

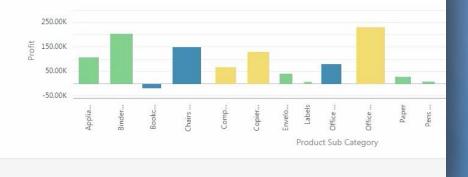
#### **GENERATE DYANMIC CONVERSATIONAL NARATIVE**

#### **SUMMARIZE SALIENT POINTS**

#### **SIMPLIFY VARIANCE ANALYSIS**

•	Narration of Product SubCateory with Sales	
Row)	The data represents Sales for a total of 17 Product Sub Categories.	-
ao	Breakdown per Product Sub Category	
40	<ul> <li>When taken together, the 17 Product Sub Categories amount to a total value of 8,500,000, an average of 500,000.</li> </ul>	
;)	The data was able to be divided into 4 distinct categories.	
	<ul> <li>Telephones and Communication is the most important, with Sales of 1,379,944.</li> <li>Office Machines, Chairs &amp; Chairmats and Tables are the next three in terms of Sales, with 1,051,535 on average (37.11% of the total Sales, about 12.37% each).</li> <li>Binders and Binder Accessories, Storage &amp; Organization. Copiers and Fax and five others are the next eight in terms of Sales, with 457,994 on average. This group makes up the majority of Product Sub Categories (43.11% of the total Sales, about 5.39% each).</li> </ul>	-





Canvas 1 😯

Narration

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### 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







### **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

# EXTREME ENARCE

### SIARTER FASTER RICHER



### **CONVECTED SYSTEMS FOSTER INACCURACY AND COST YOU.**



### RICHER FINANCE IS A UNIFIED PLATFORM

**ALL DATA** 

#### VISUALIZATION

DATA-PREPARATION

#### TRUSTWORTHY

### **57%**

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

### 24%

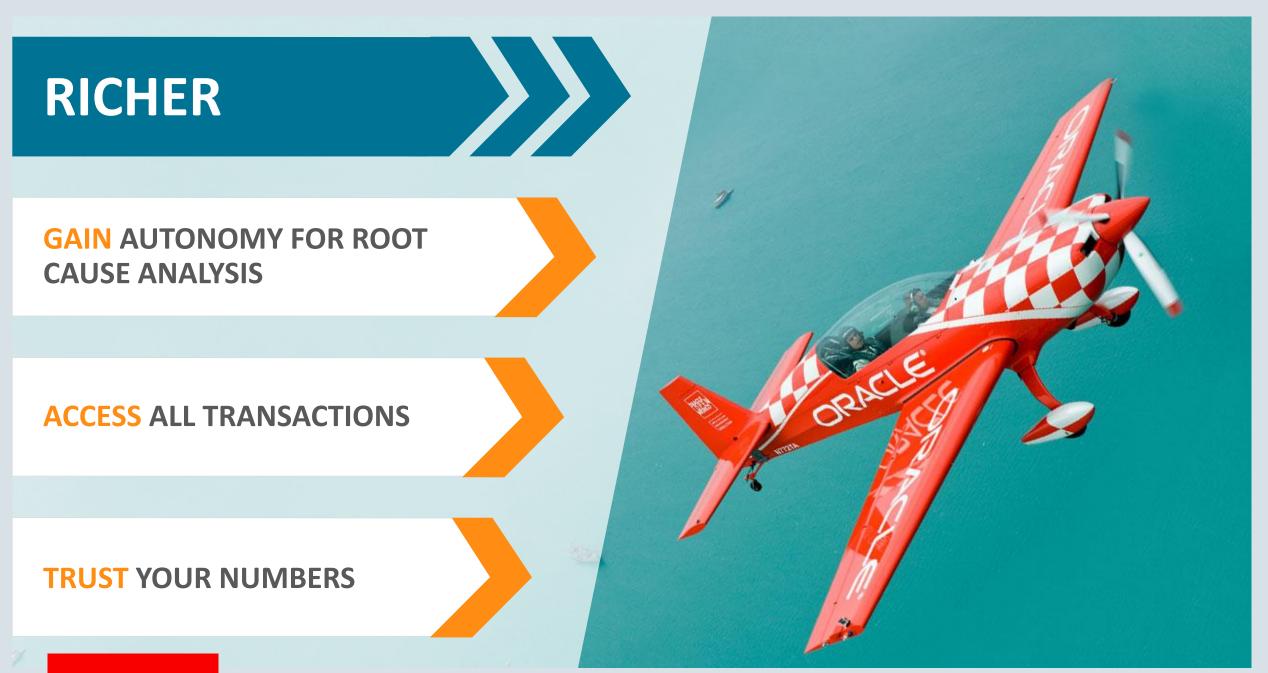
of future FP&A users' time will be dedicated to leveraging data and analytics Argyle

SELF-SUFFICIENT

### 39%

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



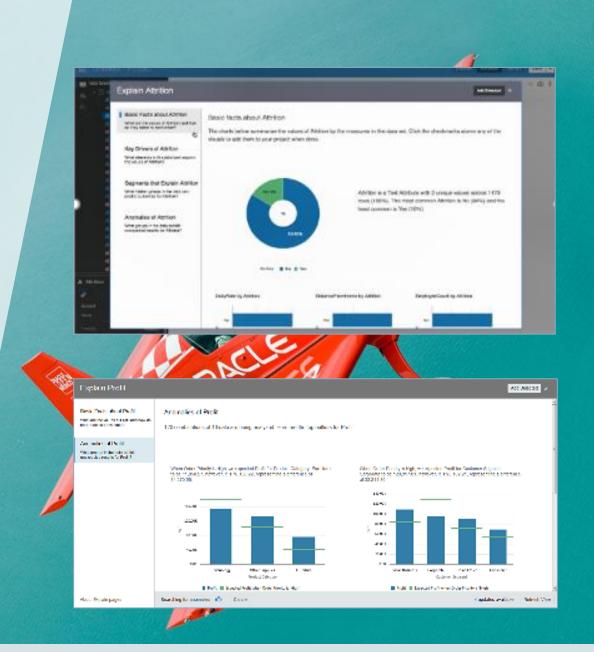


### Discover Deeper Patterns

### ML ANALYZES AND EXPLAINS ALL ATTRIBUTES

#### AUTOMATICALLY DETECTS OUTLIERS AND DRIVERS

#### EASILY IDENTIFIES KEY SEGMENTS



### **Data Blending**

#### **CONNECT DATA INTELLIGENTLY**

#### **CONSIDER** ALL RELEVENANT INFORMATION

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#### **REDUCE RISK AND EXCEL TIME**



### Autonomous Data Enrichment

#### **ML DRIVEN TRANSFORMATIONS**

#### **PREDEFINED SEMANTIC TYPES**

#### **SMART SAAS CONNECTORS**

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### 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

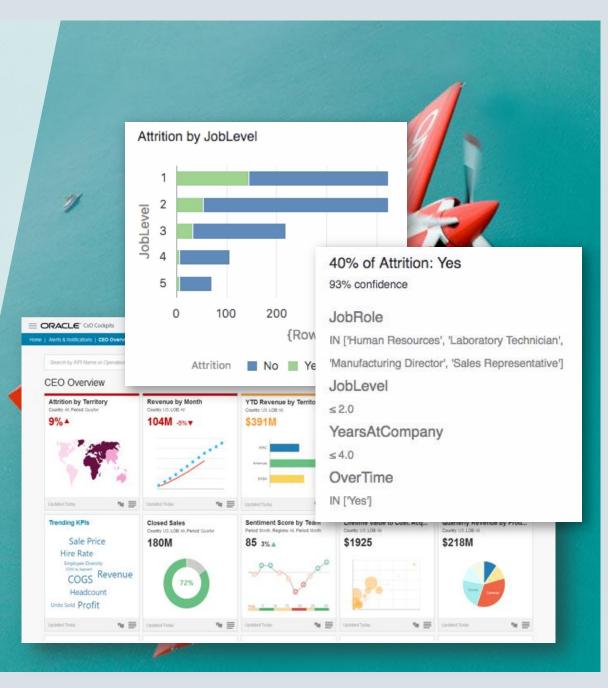


### Smart Visualizations

#### **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**

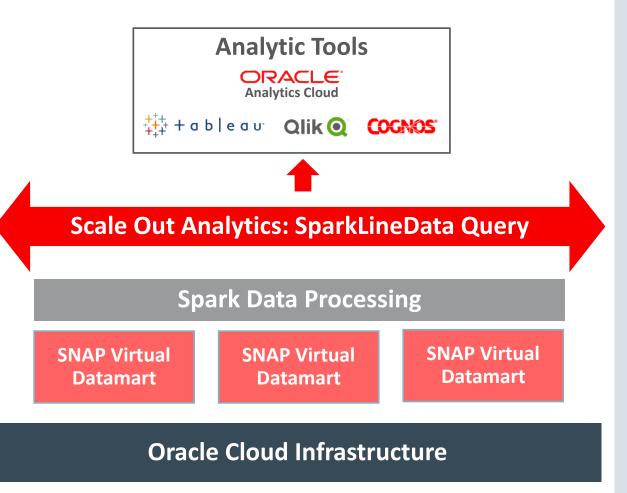
#### **LEVERAGE MORE DATA FOR RICHER ANALYSIS**



ORACI

#### 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



### 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



EXTRE//F

#### **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

# EXTREME FINANCE

### ORACLE SMARTER BUSINESS FASTER ANALYTICS RICHER

