

Big Data

Manuel Sevilla, VP, Global CTO | BIM

Jeff Hunter, VP, Business Technology Innovation

Analyst Day 2014

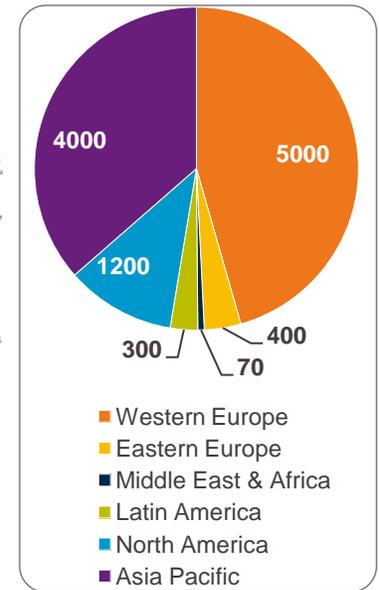
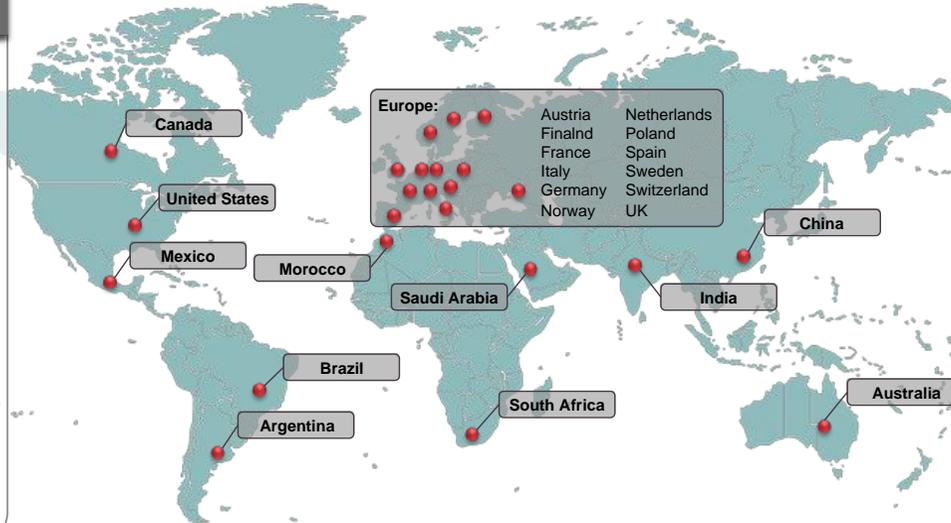
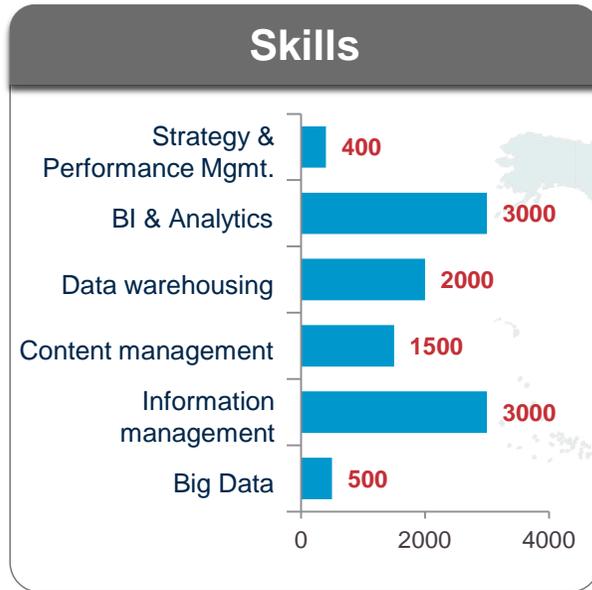
Holborn, May 22



I n n o v a t i o n

People matter, results count.

Business Information Management TLI Overview



Major Wins 2013

Partnership with cloudera®

Ask Bigger Questions

Global Partnership: 24th of October 2013

Cloudera proposes the best Hadoop distribution especially in term of :

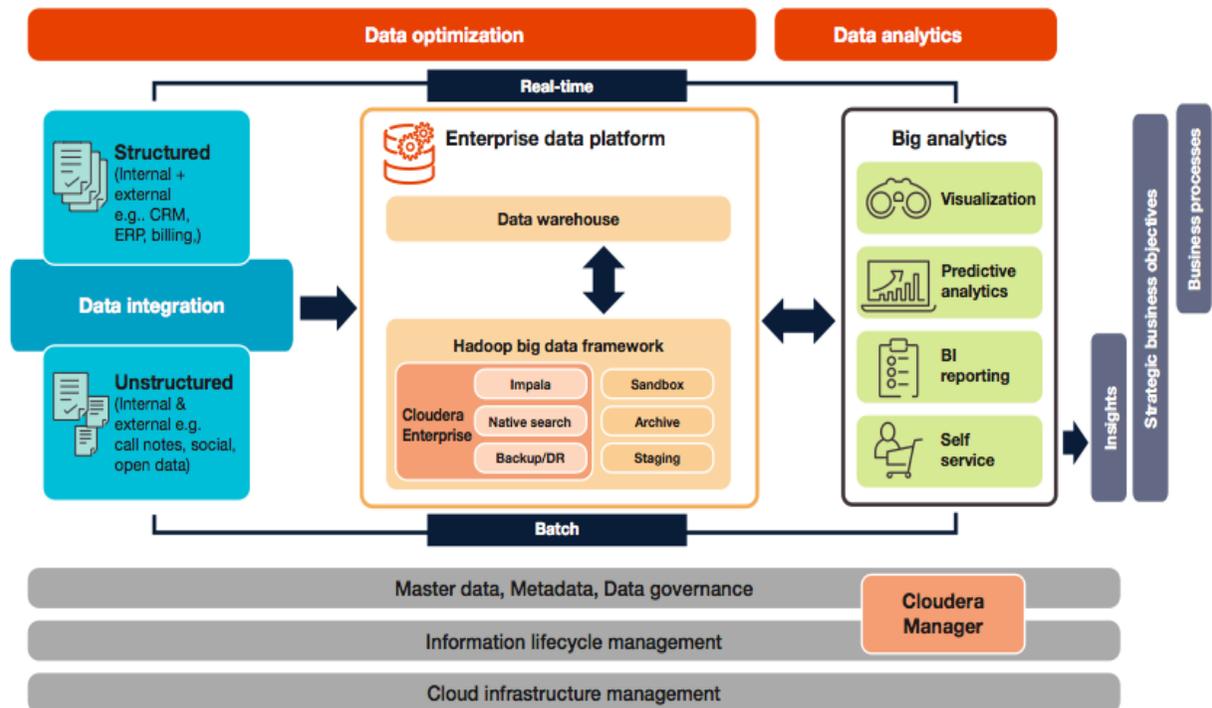
- **Security** (Manager, Sentry...)
- **Performance** (Impala, Spark/ & Shark)
- **Search** (SolR native integration with Hadoop)

Recent investments (esp. Intel) will help making significant improvements (technical + sales)

250+ trained people on Cloudera

40% of Big Data pipeline is with Cloudera (NA, FS, Europe)

Our first Capgemini-Cloudera joint GTM offer : Data Warehouse Optimization



Partnership with Pivotal™

Global Partnership: 4th of December 2013

Pivotal proposes a unique complete Big Data software infrastructure stack with:

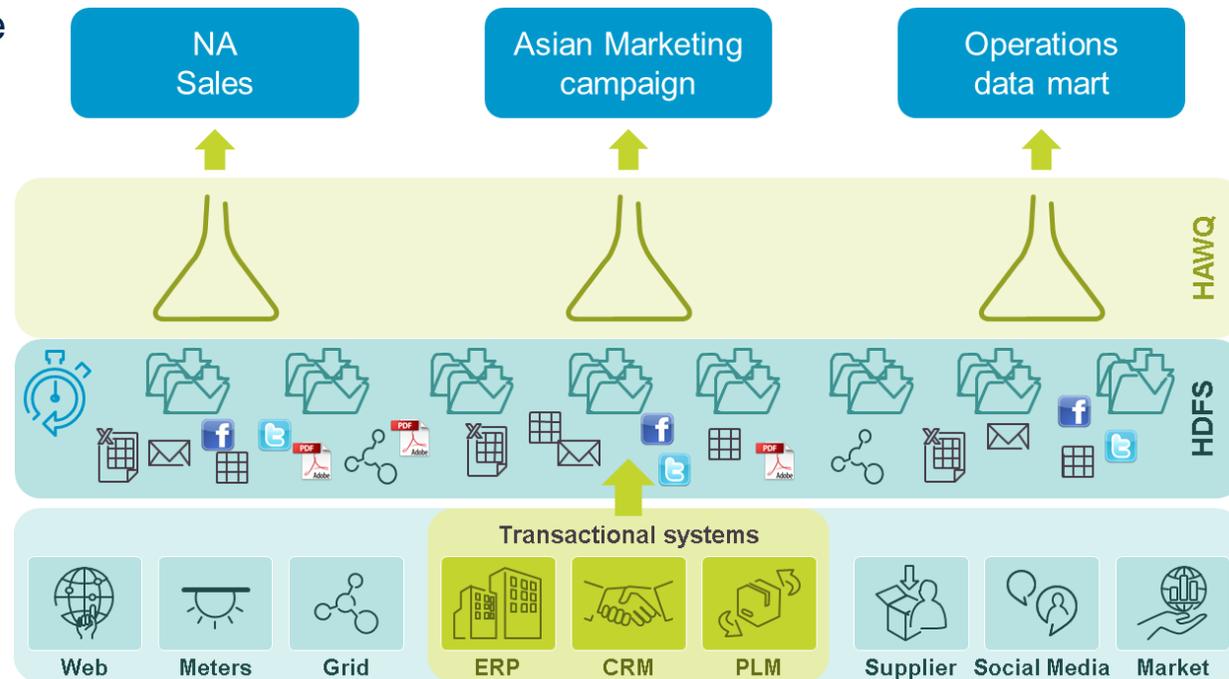
- Pivotal HD (Hadoop)
- Gemfire (event driven + in memory)
- HAWQ & Greenplum (data warehouse with or w/o Hadoop)
- Spring & Cloud Foundry (custom dev)

All this using commodity/VM hardware

Gold Member of Cloud Foundry

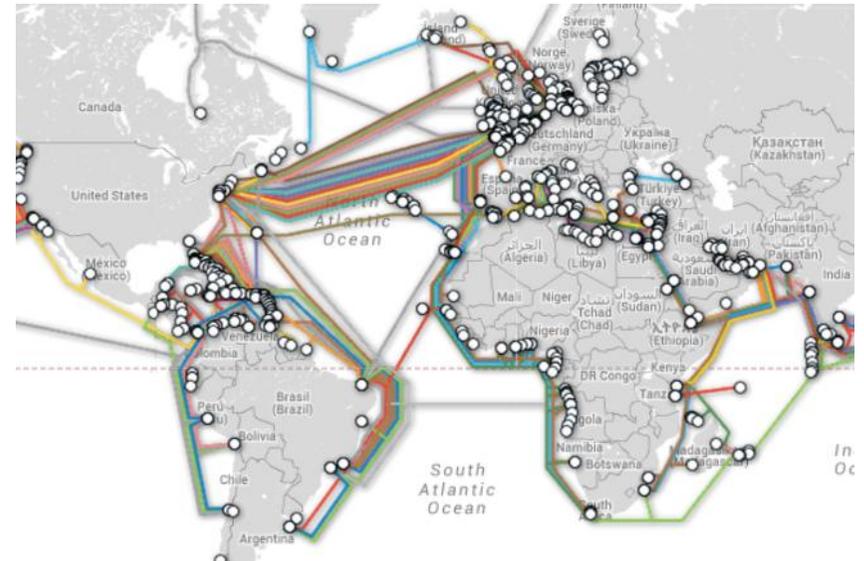
200+ trained people on Pivotal

40% of Big Data pipeline is with Pivotal (NA, FS, Europe)



In order to plan and justify inter-continental fiber deployment

- Broadband connectivity, and voice, satellite, corporate, IP interconnection and mobility services, operating in 30+ countries
- Analyzing granular network data with 5 years of history
- Identify new opportunities by taking into account socio-economic indicators into the predictive analysis of network usage
- Using socio-thermodynamic models for analyzing and generating predictions on network usage on internet traffic in underwater cables
- Vibrating models has revealed links between countries and population



- Cloudera CDH platform on Amazon Web Services Cloud (IaaS) using Impala for SQL querying
- Tableau for reporting
- R for Analytics

cloudera
Ask Bigger Questions

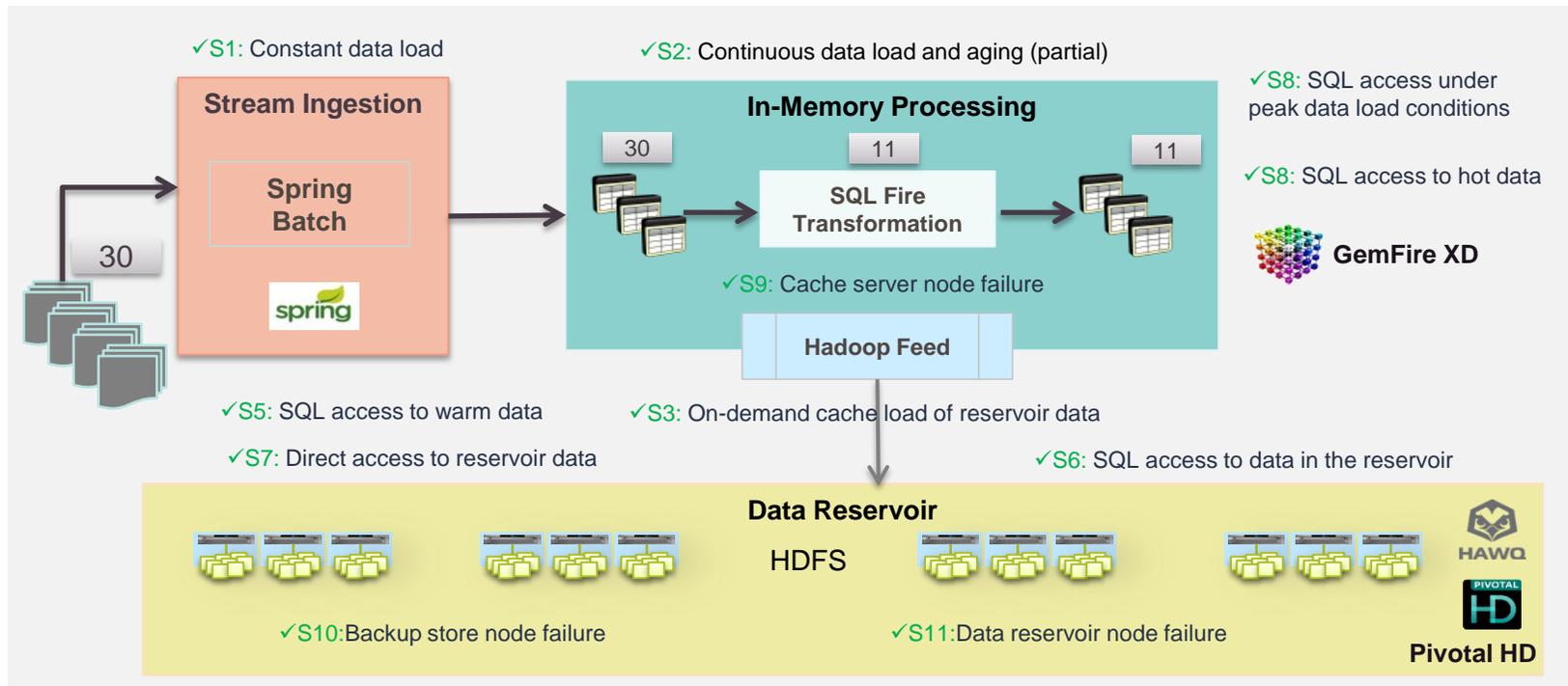
amazon
webservices™

tableau
SOFTWARE



Being aware of the real level of risk exposure in real-time

- Increased regulatory demand and market forces demand retention of large scale granular data and quick access to it
- They desire to move from the current 'brittle' DW architecture to a Data Reservoir, with a 'minimalistic' model
- Load data relating to trades, positions, valuations, etc – and classify hot, warm and cold data according to latency of access desired (e.g., hot data represents most recent 5 days data and will reside in memory)
- Real Time Risk assessment
- Warm and cold data will be accessed from the Reservoir via a SQL-like interface.



Helping our customers in identifying Big Data opportunities and Key initiatives to be taken

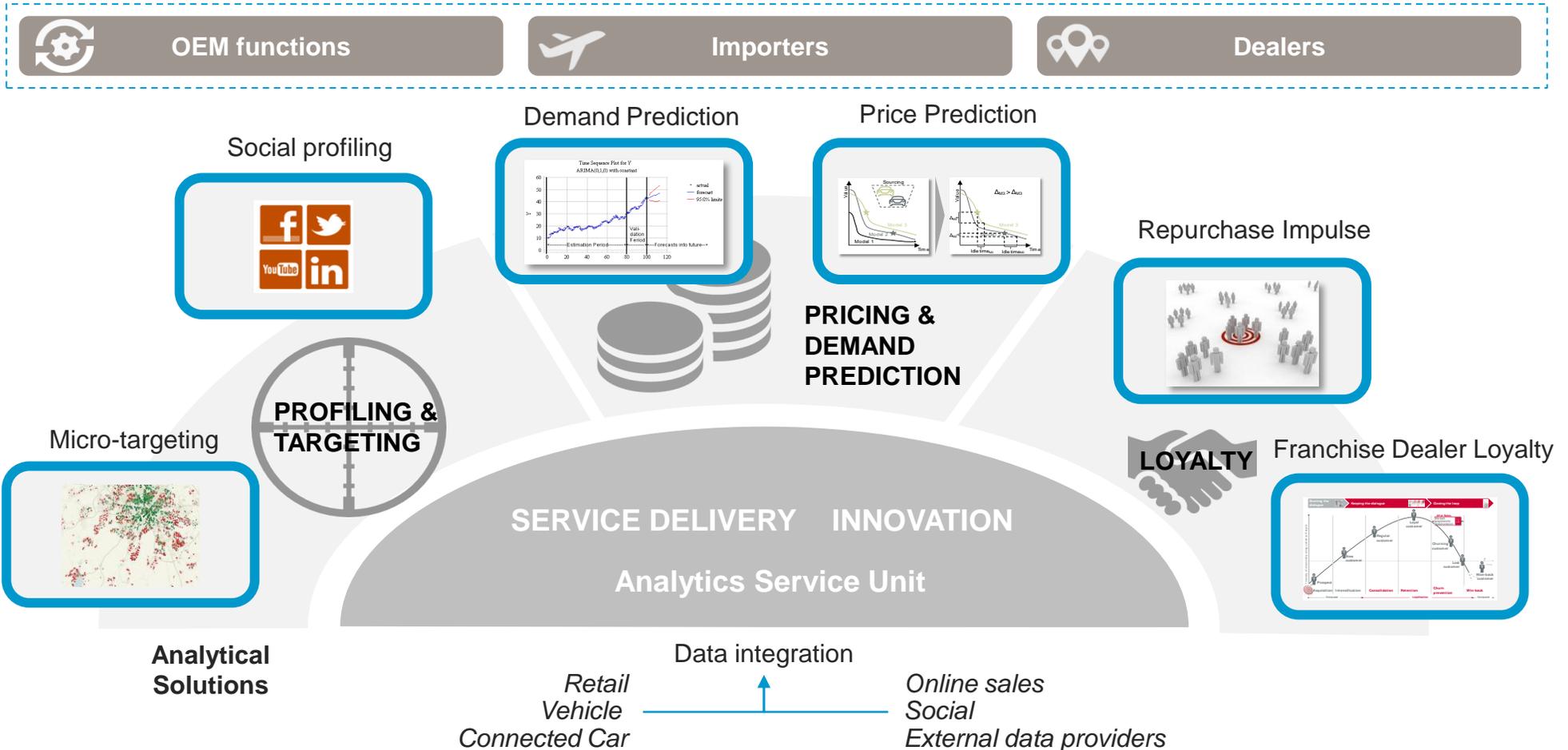
	May			Jun				Jul	
	Week 1	Week 2	22	23	24	25	26	27	
Weekly project meeting	▲	▲	▲	▲	▲	▲	▲	▲	
Business Stream 1 Core Business Reach a new level of operational excellence	Preparation of workshops			◆ WS#1		◆ WS#4		◆ WS#9 ◆ WS#11	
Business Stream 2 User Centric Foster personalization & recommendation					◆ WS#2	◆ WS#5	◆ WS#7		
Business Stream 2 B2B & Market Data New revenue streams (selling data, cross data)							◆ WS#6		
Transverse IT/Infrastructure Technical expertise: Hadoop, ...						◆ WS#3		◆ WS#8	◆ WS#10

Customer Experience Management	Social CRM
Predictive Maintenance	Social Listening
Data API offer	Open Data
B2B2C services	
Data selling	Data reports selling
Cross data / value creation (3rd parties)	
Hadoop Expertise	Analytics services
Target Big Data reference architecture for Telco	Privacy Management

Data Driven Customer Experience

Car
Manufacturer

Data Driven Customer Experience in Automotive



Predictive Modeling for Corporate Planning and Forecasting

Predictive Sales Forecast Model Based on External Market Indicators

Situation

- Client had significant issues with the accuracy of sales forecasts
- This led to credibility concerns when providing guidance to equity analysts and in business decision making

Objective

- Client desired a demand forecast model based on external market indicators
- The goal was to improve ability to derive insights and provide longer-term visibility into strategic direction of key markets

Capgemini Approach

1 Interviewed Business Stakeholders to Define Demand Drivers

End Market Applications	Potential Indicators	Sample Indices
<ul style="list-style-type: none"> Water Heaters/Tanks Barbeques & Grills Oven Interiors 	<ul style="list-style-type: none"> Per capital disposable income Demand for semi-durable goods Consumer Confidence Index 	<ul style="list-style-type: none"> IPI Microwaves IPI Non-Durable Goods

Matched demand drivers to market indices

4 Developed Predictive Forecast Formulae and Values



Generated granular and consolidated forecast views

2 Assessed Data Providers and Recommended Data Vendor

Data Provider	Breadth	Depth	Frequency	Cost
Oxford Economics	●	●	●	Setup - \$1,000 Recurring - \$15,000
IHS	●	●	●	Recurring - \$60,000
FactSet	●	○	●	\$15,000 per year

Compared data providers to select vendor

3 Ran Multivariable Regressions



Synthesis of historical sales and economic data

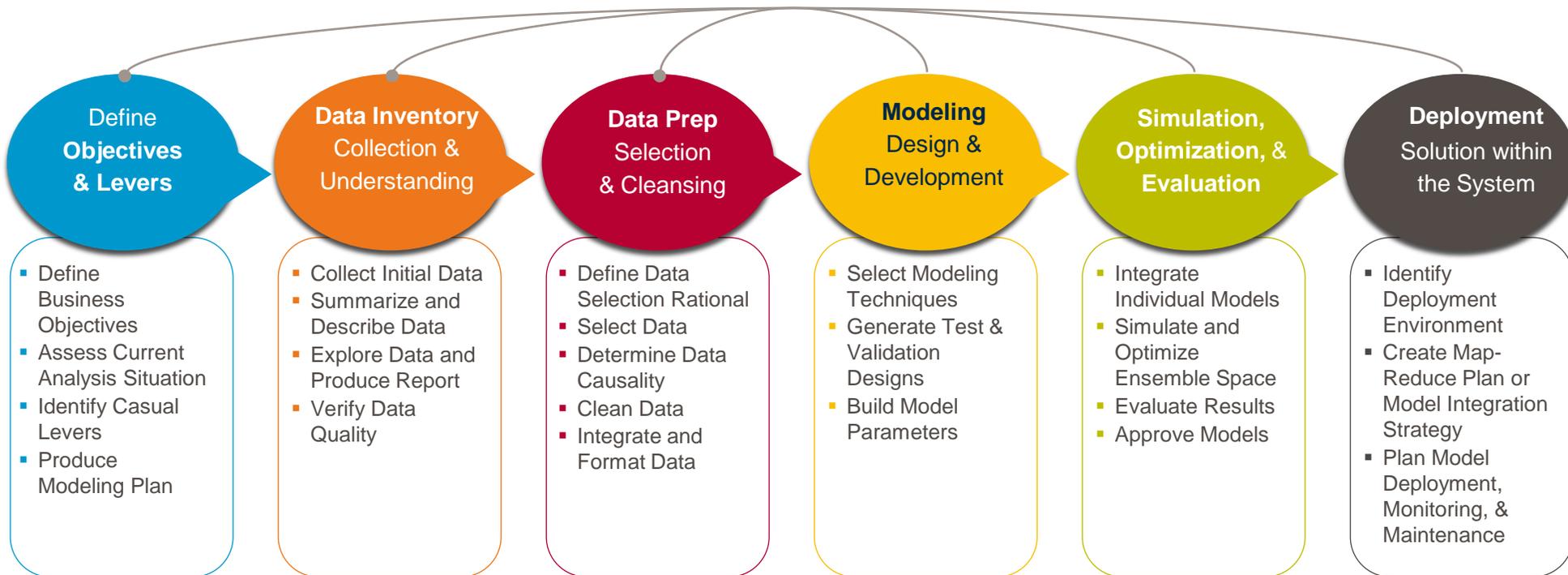


Data Science as a Service

“Data Science is the organic and systematic practice of transforming hypotheses and data into actionable predictions”

Capgemini’s **Data Science & Analytics as a Service** provides many options for identifying and realizing value from your enterprise data. These services range from providing seasoned data scientist with **deep data exploration and visualization** experience within specific industries, to providing management consultants capable of defining effective data monetization strategies and value realization roadmaps.

Since enterprise information management is critical to enabling an efficient **data monetization strategy**, Data Scientist Insights can also assist you in growing your existing enterprise architecture and information services to be inclusive of those capabilities needed for enterprise-level, and **data science-based value generation**. Due to our deep expertise in extracting value from disparate data sources (enterprise, IT, and social), proven enterprise architectural capabilities, and ability to program manage the integration of new complex capabilities into existing organizations, we are able to provide an end-to-end source for realizing tomorrow’s value from today’s data.





About Capgemini

With more than 130,000 people in over 40 countries, Capgemini is one of the world's foremost providers of consulting, technology and outsourcing services. The Group reported 2013 global revenues of EUR 10.1 billion.

Together with its clients, Capgemini creates and delivers business and technology solutions that fit their needs and drive the results they want. A deeply multicultural organization, Capgemini has developed its own way of working, the Collaborative Business Experience™, and draws on Rightshore®, its worldwide delivery model.



www.capgemini.com

