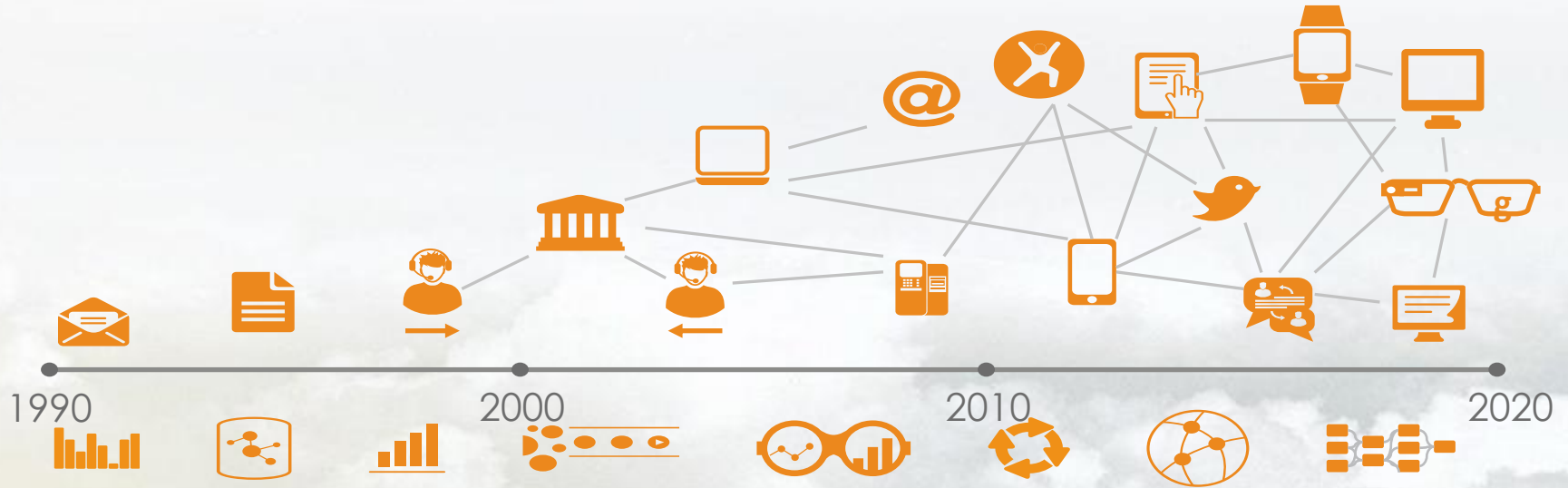# Powering Customer Journeys
Teradata Business Outcome-led Analytical Solutions

The Customer Journey

CMO's #1 Response - Understanding Customer Behavior and Satisfaction

1990   2000   2010   2020

Of the **world's population** of >7bn, **42% are Active Online**

One third of all Internet pages **now served on mobile**

The average **internet user** spends **4.4 hours online**

The world's largest Taxi company, Uber, owns no Taxis...

Digital Sales Growth grew 25.1% in 2015, and if forecast to grow by c.20% p.a through to 2019

91% of Retail Sales are Offline so this remains important

The Connected Customer interacts through multiple channels, **spends 20-30% more** is more loyal, and influences others

70-83% of Business and IT Leaders say they are focused on **using analytics to improve the customer experience**   *Gartner*

60-90% are also focussed on **better targeted marketing**

98% of marketers affirm that **online and offline marketing are merging**   *Gartner*

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Connected Customer Experience…
Where many organisations struggle

CUSTOMER EXPERIENCE WAS POOR

CUSTOMER INTENT IS NOT PICKED UP AND UNDERSTOOD, RECEIVES CREDIT CARD PROMOTION

CUSTOMER ATTEMPTS ONLINE MORTGAGE APPLICATION, GETS FRUSTRATED

THE CUSTOMER DOESN'T RETURN, OR WORSE, TELLS OTHERS ABOUT THE BAD EXPERIENCE

REVENUE LOST FROM THE INCREMENTAL BUSINESS

CUSTOMER SEARCHES MORTGAGE RATES ONLINE

CUSTOMER ABANDONS THE APPLICATION PROCESS

4

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Connected Customer Experience

Teradata's vision for success

CUSTOMER EXPERIENCE IS IMPROVED AS THE JOURNEY IS SIMPLE, QUICK, AND DELIVERS WHAT THE CUSTOMER WANTS

DELIVER MESSAGES AND OFFERS THAT REFLECT CUSTOMER NEEDS AND REMOVE THOSE THAT DON'T

HAPPY CUSTOMERS RETURN, AND RECOMMEND YOU TO OTHERS

HELP THE CUSTOMER AT EVERY STEP OF THE JOURNEY. OPTIMISE THE EXPERIENCE.

ROI IS IMPROVED THROUGH HIGHER SALES, AND LOWERING SPEND ON INEFFECTIVE MARKETING

CAPTURE ALL CUSTOMER INTERACTIONS AND UNDERSTAND THEIR NEEDS

MEET MORE CUSTOMER NEEDS AND FOLLOW UP WHERE THEY ARE LEFT UNRESOLVED

Teradata's Vision for Success

The Customer Journey

- Three pillars of Teradata's strategy:
  - Architecture Expertise, Technology Solutions, **Business Solutions**

- Our approach to deploying Customer Journey focuses on
  - Maximizing client speed to market and ROI
  - Fitting the solution around current client capabilities and strategy
  - Deploying the solution as a series of quick win investments (maximize return, minimise risk)
  - Over time deploying a flexible and strategic capability

- The Customer Journey includes
  - Existing Analytic Applications: **Customer Interaction Manager (CIM), Real Time Interaction Manager (RTIM), Celebrus, Aster**
  - Proven IP such as Customer Pathing, Product Recommendations, CSI, Marketing Attribution, etc.
  - Architecture consulting to exploit open source capabilities
  - Analytic Business Consulting to enable speed to market and maximize ROI from proven use cases

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Customer Journey Solution:

Individual Capabilities Delivered to Maximise ROI and Speed to Market

Customer Journey Solution

CONNECTED DATA

CONNECTED ANALYTICS

CONNECTED INTERACTIONS
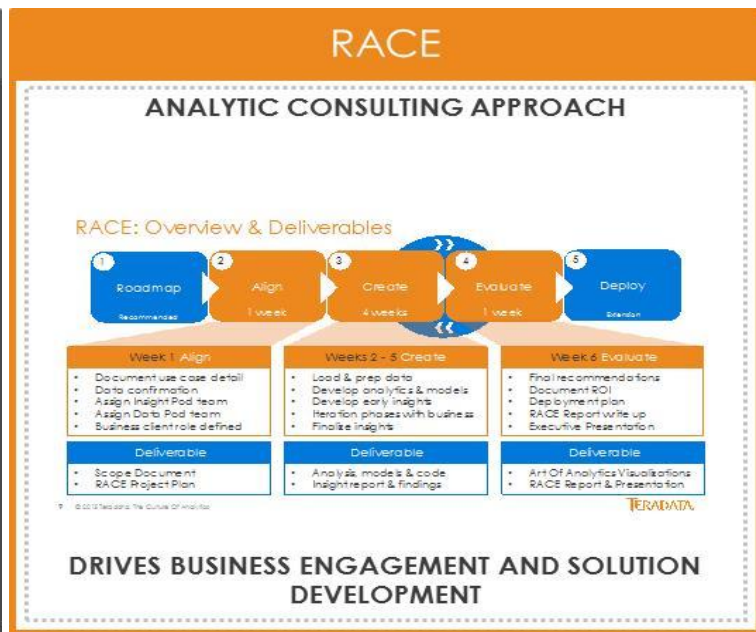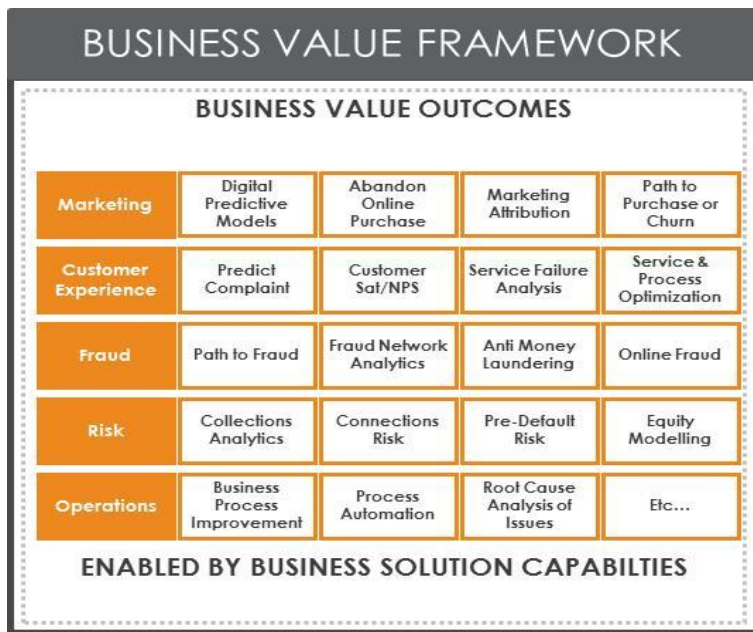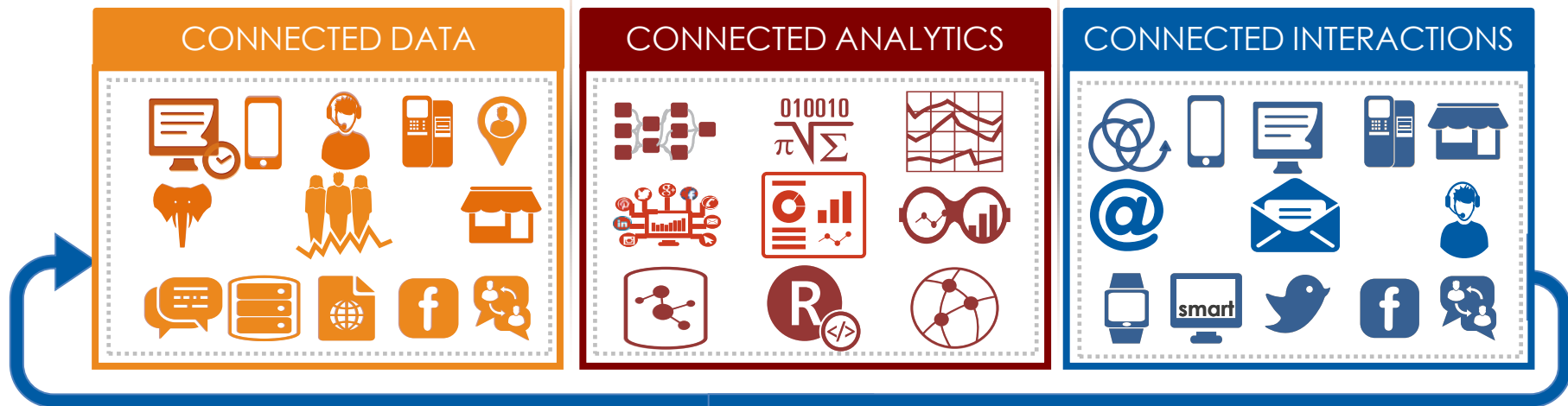
High Impact Business Outcomes

Customer Experience   Revenue Growth   Business Efficiency

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Connected Data
Solving the Challenge of Building true Single Customer View

Creating, maintaining and leveraging a single view of the customer is hard to achieve internally and the required capabilities are not provided by CRM vendors. Many solutions fail to consider the myriad of channels used by customers to interact with organizations

8 Building Blocks of CRM Data & Information, Gartner, July 2016

Master Data, Metadata & Lineage

Real Time & Low Latency Omni-Channel Feeds

Enhanced/Expanded Single Customer View

Event Analytic Repository

Single Interaction View

Customer 360 Flexible Feature Store

Flexible Access Layers

Performance Management Metric Store

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Connected Data

Data from Any Source: Available for Analytics and Marketing Execution

Teradata IDW · **Oracle** · **SQL Server** · **CSV XML Flat File** · **Source Systems** · **ERP** · **Aster** · **Hadoop** · **Analytics** · **Channels**

Customer SCV · **Single Interaction View** · **Customer 360** · **Event Store**

CONNECTED DATA

Connected Data
Connecting Data from key sources

Customer Identity

- Cookie on a device
- Email address
- Customer IDs
- Customer Master
- 3rd party customer attributes
- Reconciled over time

Single Interaction View

- Web
- Mobile app
- Call Center
- Digital Advertising
- Branch/ATM
- Social
- Search

Customer Attributes

- Demographics
- Quotes
- Product Ownership
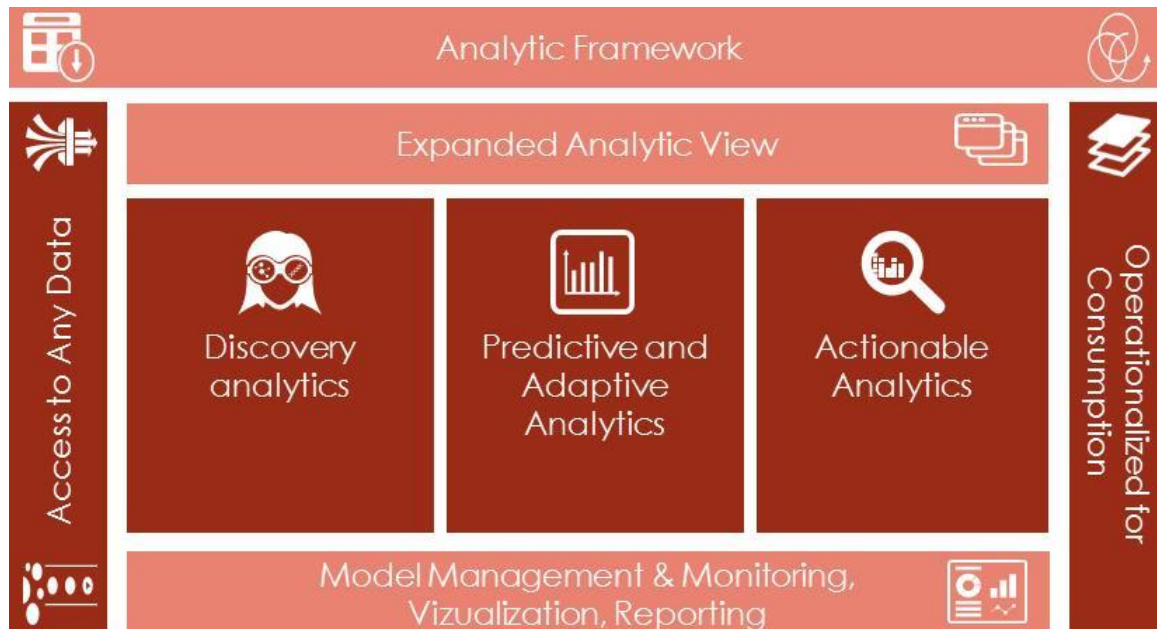- Model Derived (Churn, Lifetime Value)

Single Event View

- Billing/Payments
- Charges/Complaints
- Transaction Events
- Marketing Events
- Service Events
- Life Events
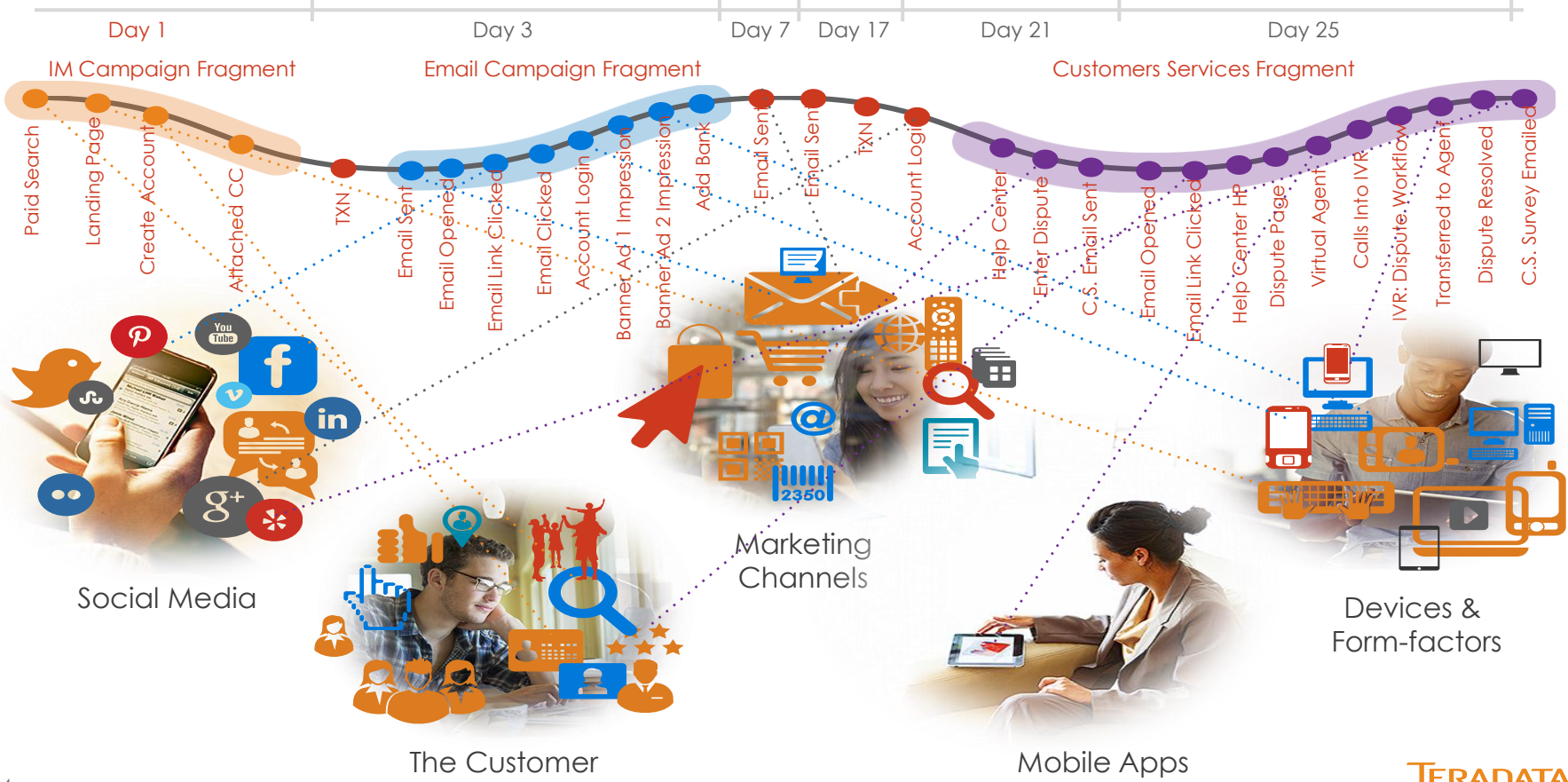
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Connected Analytics
Solving the Challenge of Applying Insight to Deliver Better Outcomes

Organizations struggle to apply relevant customer information and insight to deliver appropriate customer experiences and to drive cross-selling/ upselling and improve customer retention.

8 Building Blocks of CRM Data & Information, Gartner, July 2016

The Customer Journey is connected by definition

Day 1 Day 3 Day 7 Day 17 Day 21 Day 25

IM Campaign Fragment

Email Campaign Fragment

Customers Services Fragment

Paid Search
Landing Page
Create Account
Attached CC
TXN
Email Sent
Email Opened
Email Link Clicked
Email Clicked
Account Login
Banner Ad 1 Impression
Banner Ad 2 Impression
Add Bank
Email Sent
Email Sent
TXN
Account Login
Help Center
Enter Dispute
C.S. Email Sent
Email Opened
Email Link Clicked
Help Center HP
Dispute Page
Virtual Agent
Calls Into IVR
IVR: Dispute Workflow
Transferred to Agent
Dispute Resolved
C.S. Survey Emailed

Social Media

The Customer

Marketing Channels

Mobile Apps

Devices & Form-factors

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Machine Learning powers real-time decisioning

Time-series Classification

Day 1 — IM Campaign Fragment
- Paid Search
- Landing Page
- Create Account
- Attached CC

Day 3 — Email Campaign Fragment
- TXN
- Email Sent
- Email Opened
- Email Link Clicked
- Email Clicked
- Account Login
- Banner Ad 1 Impression
- Banner Ad 2 Impression
- Add Banner

Day 7 / Day 17
- Email Sent
- Email Sent
- TXN
- Account Login

Day 21 / Day 25 — Customers Services Fragment
- Help Center
- Enter Dispute
- C.S. Email Sent
- Email Opened
- Email Link Clicked
- Help Center
- Dispute Page
- Virtual Agent
- Calls Into IVR
- IVR: Dispute Workflow
- Transferred to Agent
- Dispute Resolved
- C.S. Survey Emailed
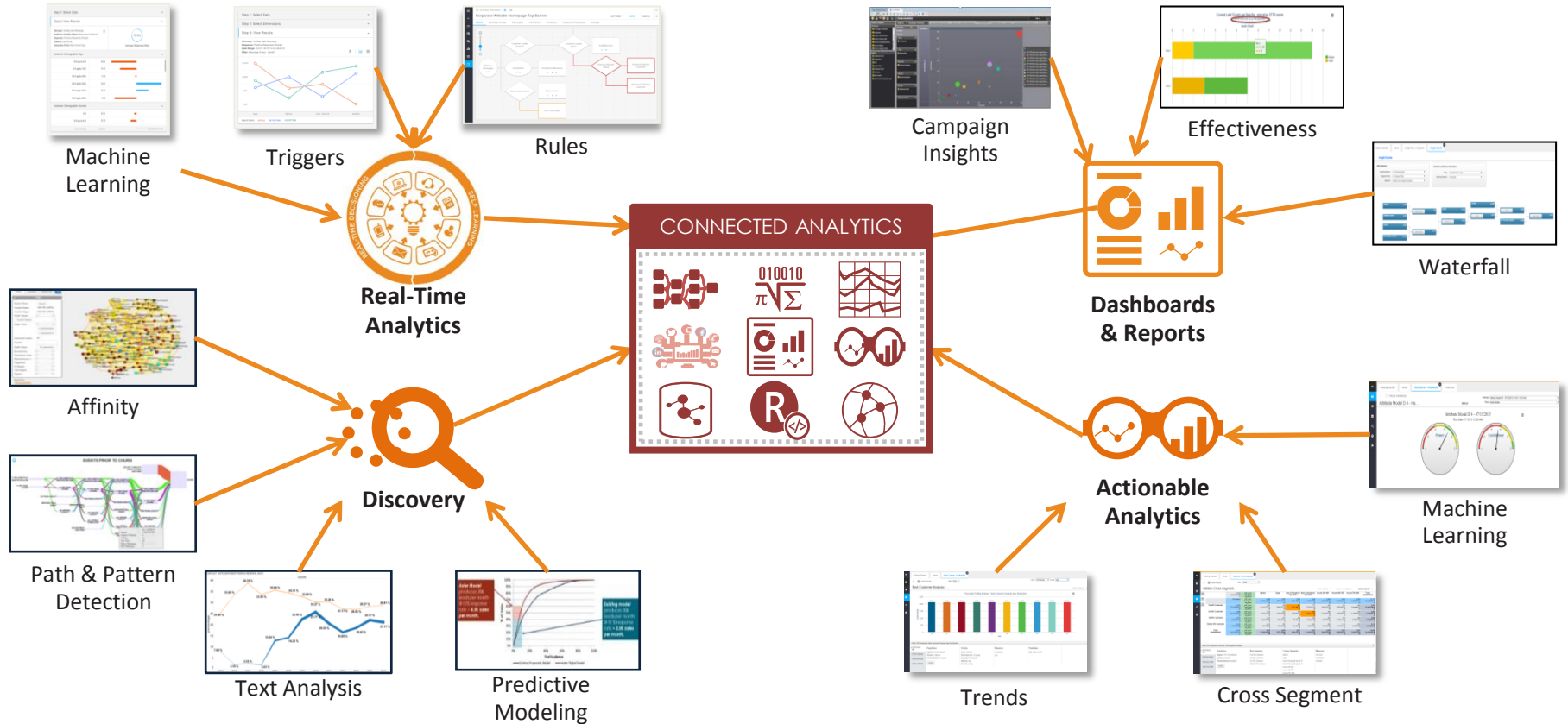
- Production recommendations
- Market Basket Analysis
- Event/Activity/Behavioral Analysis
- Campaign management and optimization
- Market and consumer segmentations

Clustering

Connected Analytics

Machine Learning

Triggers

Rules

Campaign Insights

Effectiveness

Waterfall

Real-Time Analytics

CONNECTED ANALYTICS

Dashboards & Reports

Affinity

Path & Pattern Detection

Discovery

Text Analysis

Predictive Modeling

Actionable Analytics

Machine Learning

Trends

Cross Segment

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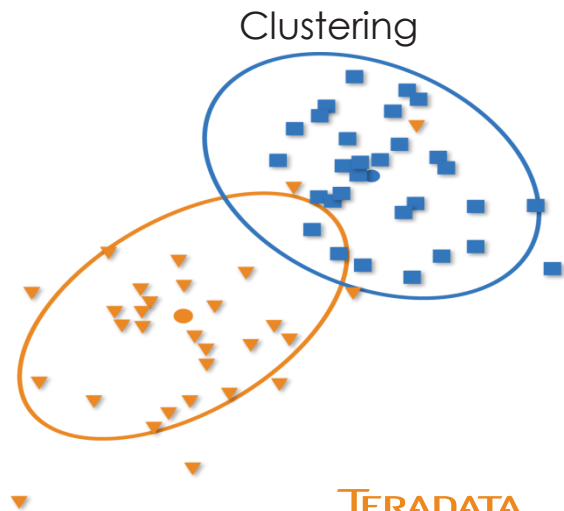
Connected Interactions

Solving the Challenge of Orchestrating Intelligent Conversations

Understanding the customer's behavior and then changing it can occur at any phase of the customer relationship, and in any context, but most efforts focus on acquisition, cross-sell and retention.

Six Styles of Customer Analytics, Gartner, August 2016

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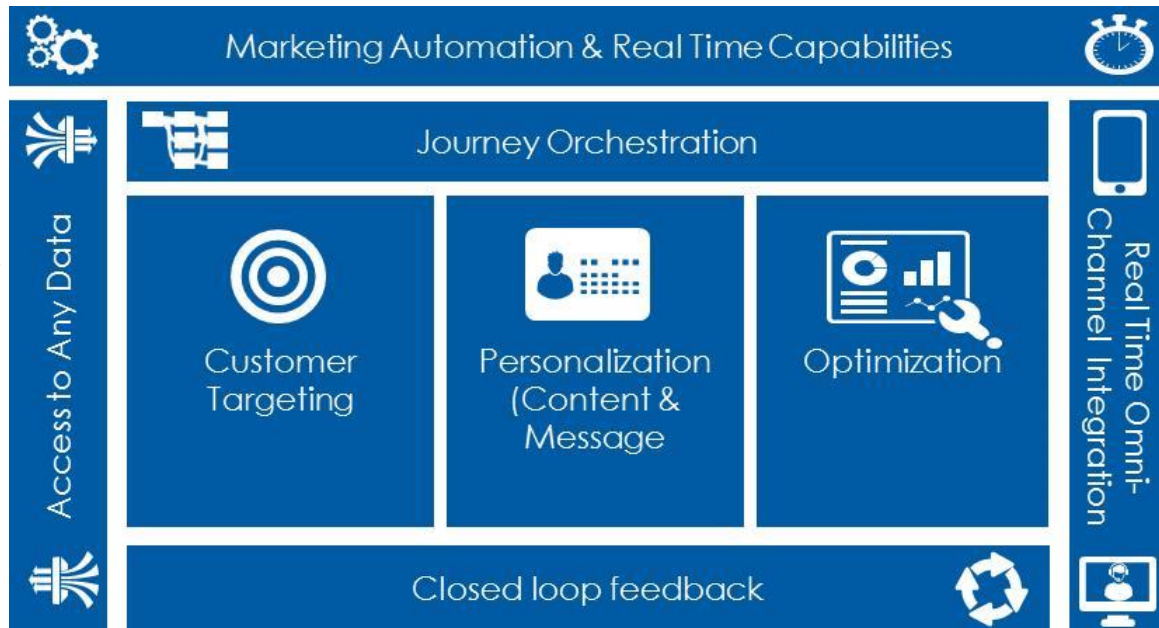
Connected Interactions
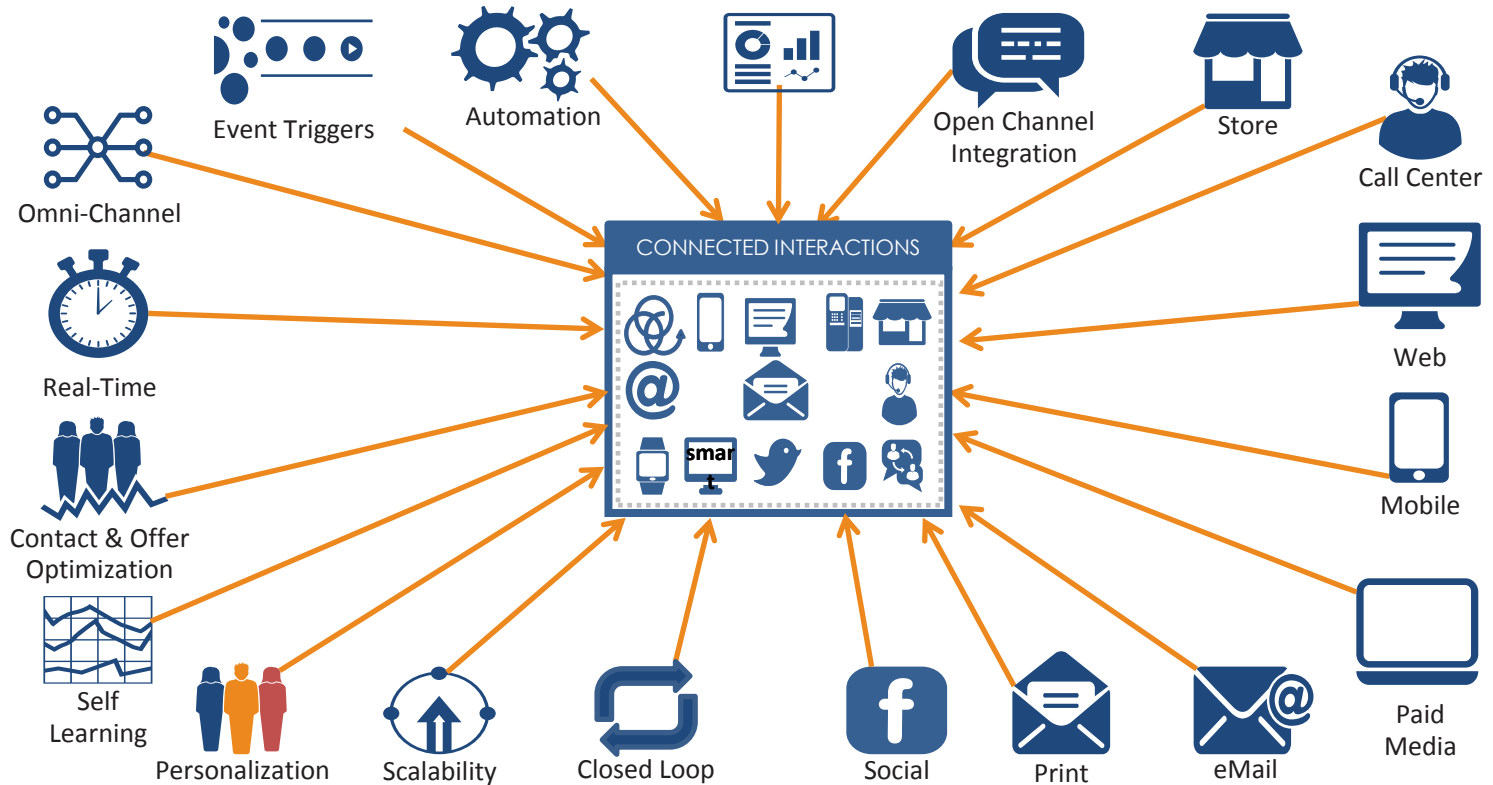
Digital Data Integration
Retail Banking Case Study

Challenge & Opportunity
- Large Retail Bank, with millions of customers using their websites
- **Challenge:** Web reporting showed online sales being abandoned but not which individual customers were doing this, or why
- **Opportunity:** Identify and contact customers that abandon a purchase journey, address their questions, then help them complete it

Solution
- Tag free, real time data capture deployed into web (incl Internet Banking).
- Solution structures the data and loads it to the IDW every 2 minutes
- Data are integrated to provide the 360° customer view, and are available to downstream analytical CRM tools
- Solution was deployed in weeks
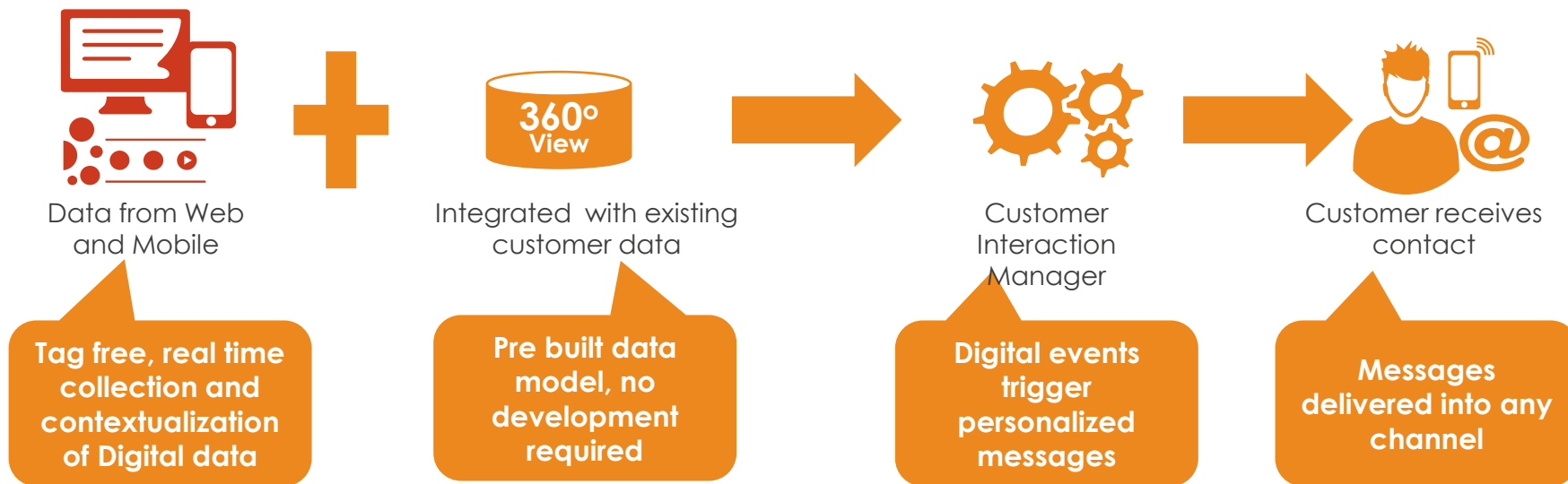
How Used
- Business rules set up to identify customers that abandon a purchase
- Triggers used to generate multi-channel, personalized contacts

Business Outcomes
- $12m dollars of incremental profit in first 12 months, 000's of sales
- Digital data then re-used to address a wide range of Service and Sales process issues, plus Functional gaps in the website

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Real-time Digital Personalization

How we do it

Data from Web and Mobile

360° View

Integrated with existing customer data

Customer Interaction Manager

Customer receives contact

Tag free, real time collection and contextualization of Digital data

Pre built data model, no development required

Digital events trigger personalized messages

Messages delivered into any channel

Actions Triggered & Decisions Enabled Across Channels
- Real-time web personalization • Digital event triggered leads
- Personalized triggered emails • Marketing & lifecycle attribution
- Single customer view creation • Messaging development • Offline personalization

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Customer Pathing: Journey Mapping
Retail Banking Case Study

Challenge & Opportunity
- Retail bank aiming to optimize their omni-channel Customer Journey, focused on Digital
- **Challenge:** Current Web Analytics solution showed volumes for each process, but not actionable insight into how to improve
- **Opportunity:** Identify the Customer Journeys through each process, where and why these fail, and what to do to improve them

Solution
- Detailed digital data and offline data sources (sales, interactions, etc.)
- Multi-Genre analytics capabilities including Customer Pathing
- Initially deployed as a 6 week RACE

How Used
- Data Scientist & Bank's analysts ran Customer Pathing to understand multiple digital and omni-channel sales & service processes
- Business consultant interprets results and business cases for improvement

Business Outcomes
- $10m dollars incremental profit from two sales process changes for 1 product
- Identified cause of 80% failure rate for a service process
- Identified >40 business opportunities including follow up marketing triggers, process changes, and online banking feature enhancements

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Customer Journey Detection (Pathing Analytics)

How we do it

Data from Web
Mobile, Branch,
Call Center etc

Customer Pathing
Data Science, Business
Consulting

Aster Customer
Journey Insights

Customer receives
contact

Interaction data gathered from all channels

Customer Pathing applied to Sales and Service Processes

Breaks, Inefficiencies, lost sales, service failures identified

Processes optimized, Customer journey interactions identified (eg, abandoned sale triggers)

Actions Triggered & Decisions Enabled Across Channels
• Customer churn triggers • Complex sales triggers • Service Failure identification
• Fraud pattern detection • Process improvement • Activity migration
• Campaign & lifecycle attribution

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Real Time Marketing
Retail Banking Case Study

References: Available on request
Owner: Tony Brown

Challenge & Opportunity
- Retail bank with millions of customers interacting through it's web sites on a daily basis
- **Challenge:** All customers get the same offers, messages and experience, regardless of need. Only very broad segmentation applied to offering.
- **Opportunity:** Build the digital experience around individual customers, optimize sales and service messages based on real time insight

Solution
- Real time Digital Data capture & integration with offline customer profile
- Real time interaction management capability
- Integration with Digital and Offline channels for omni-channel decisioning

How Used
- >1000 messages available, many personalized, arbitrated in real time
- Sophisticated messaging strategy with real time rules and machine learning
- Sales, Service and Informational messages presented based on relevance to Customer Journey

Business Outcomes
- Up to 6m real time personalized messages delivered per day
- Click rates on messages >50x higher than untargeted messages (10-20% RR)
- Deployment time for new digital messages reduced by 80%

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Customer Journey Management

How we do it

Data from Web and Mobile

Tag free, real time collection and contextualization of Digital data

Customer Data & Messages

Customer profile data plus existing event triggered messages

Real Time Interaction Manager

Select best message based on real time rules and machine learning

Personalized Experience

Personalized messages delivered to web page in milliseconds, plus all other channels
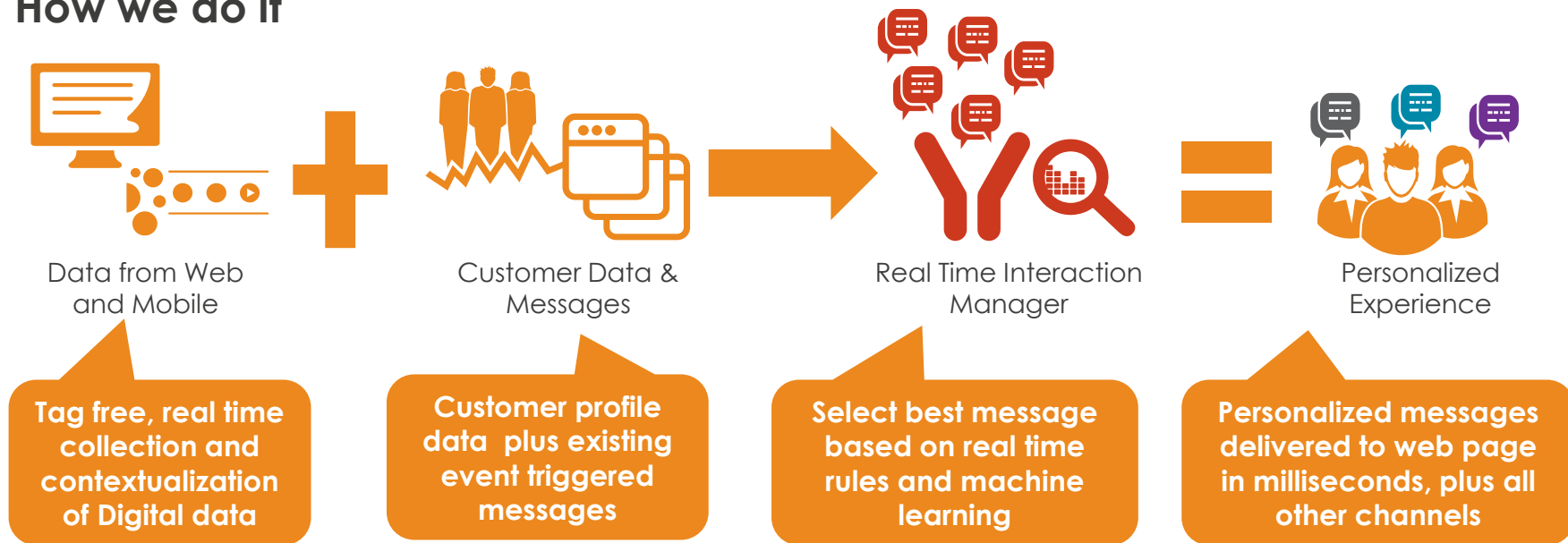
Actions Triggered & Decisions Enabled Across Channels

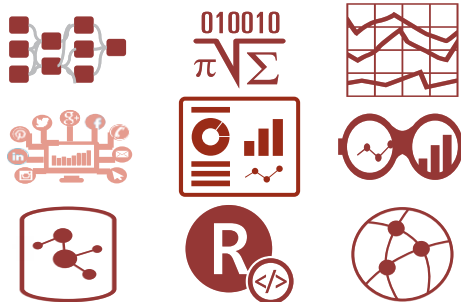• Personalized sales messages • Personalized service messages • Information messages
• Pass alerts to offline channels • Synchronized messaging across channels• Alerts
• Strategy balancing

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High Impact Business Outcomes

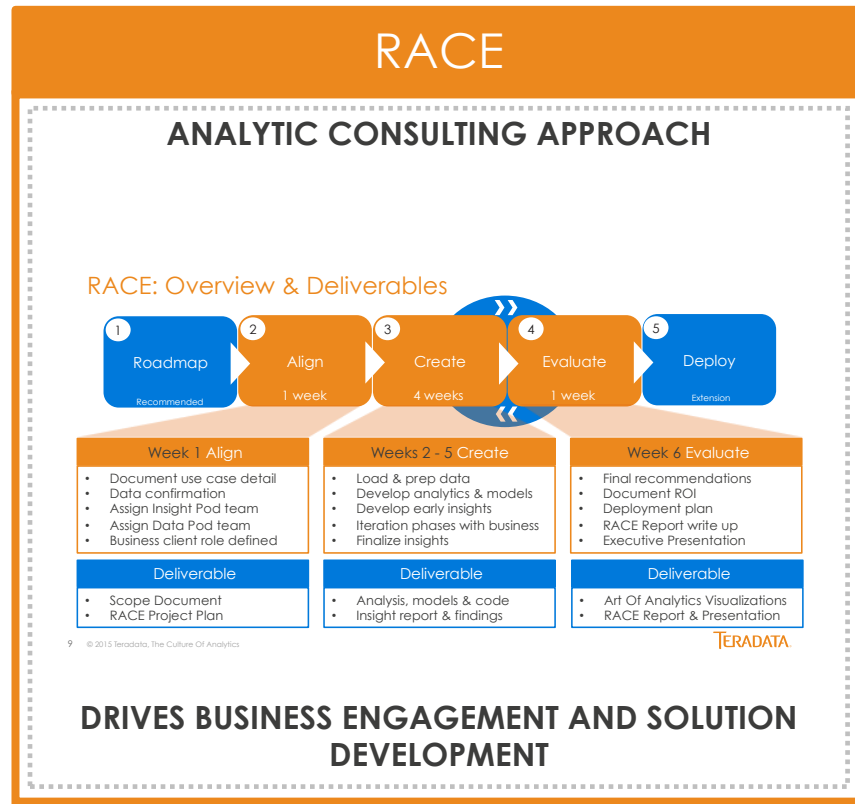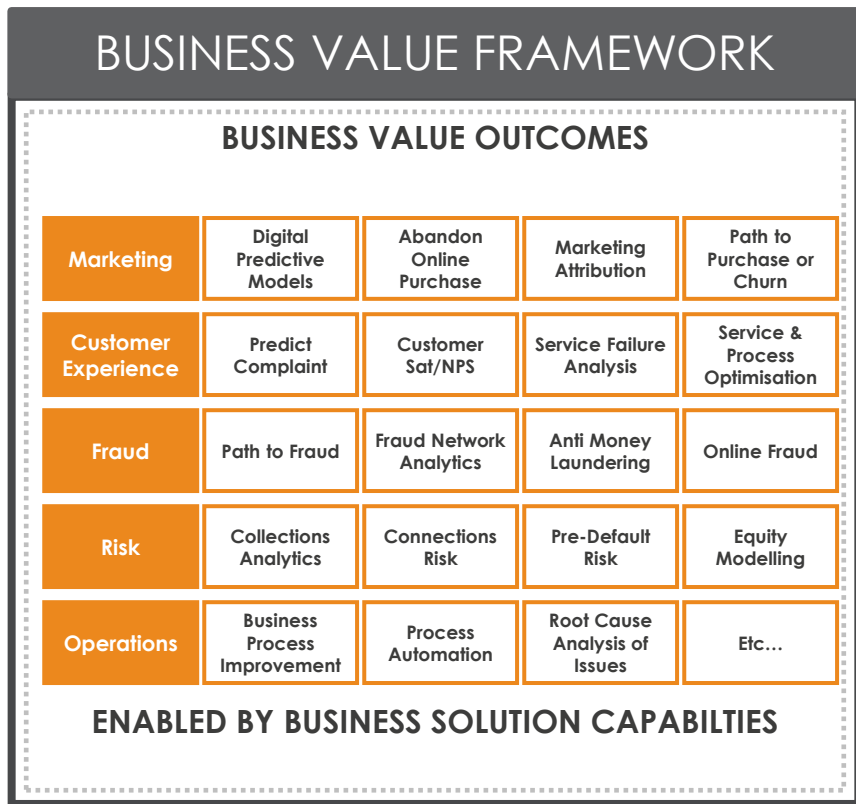**CONNECTED DATA** | **CONNECTED ANALYTICS** | **CONNECTED INTERACTIONS**

Customer Journey Solution +Business Value Framework
= High Impact Business Outcomes

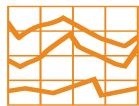TERADATA

Business Consulting Led Approach

BUSINESS VALUE FRAMEWORK

BUSINESS VALUE OUTCOMES

Marketing	Digital Predictive Models	Abandon Online Purchase	Marketing Attribution	Path to Purchase or Churn
Customer Experience	Predict Complaint	Customer Sat/NPS	Service Failure Analysis	Service & Process Optimisation
Fraud	Path to Fraud	Fraud Network Analytics	Anti Money Laundering	Online Fraud
Risk	Collections Analytics	Connections Risk	Pre-Default Risk	Equity Modelling
Operations	Business Process Improvement	Process Automation	Root Cause Analysis of Issues	Etc…

ENABLED BY BUSINESS SOLUTION CAPABILTIES

RACE

ANALYTIC CONSULTING APPROACH

RACE: Overview & Deliverables

1 Roadmap (Recommended)	2 Align (1 week)	3 Create (4 weeks)	4 Evaluate (1 week)	5 Deploy (Extension)

Week 1 Align	Weeks 2 - 5 Create	Week 6 Evaluate
• Document use case detail • Data confirmation • Assign Insight Pod team • Assign Data Pod team • Business client role defined	• Load & prep data • Develop analytics & models • Develop early insights • Iteration phases with business • Finalize insights	• Final recommendations • Document ROI • Deployment plan • RACE Report write up • Executive Presentation
Deliverable	**Deliverable**	**Deliverable**
• Scope Document • RACE Project Plan	• Analysis, models & code • Insight report & findings	• Art Of Analytics Visualizations • RACE Report & Presentation

9   © 2015 Teradata, The Culture Of Analytics

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DRIVES BUSINESS ENGAGEMENT AND SOLUTION DEVELOPMENT

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Customer Journey Solution Capabilities
Solution Teradata Client Needs

Digital Data Collection	Event & Interaction Views	Customer Identity Registry (SCV)	360° Customer View (MDM)
Actionable Analytics	Guided Analytics	Predictive & Adaptive Analytics	Visualization & Reporting
Personalized Messaging	Customer Journey Orchestration	Omni Channel Choreography	Contextual & Real Time Decisioning

Deployment Options: On premise, SaaS or Hosted

Connected Data

Connected Analytics

Connected Interactions

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