Global Consumer Group

Implementing Customer Centricity in Financial Services

…With WebSphere Customer Center (WCC) &

Service Oriented Architecture (SOA) Implementation Approach

Presented by Charles DeFelice

Program Director – Office of the CIO

Customer Information Environment (CIE) Program

Paris, France

Spring 2007

Overview

citigroup

citibank

citi Credit Cards

citi financial

citi mortgage

citi insurance

citigroup corporate and investment banking

PRIMERICA

Banamex citigroup

Diners Club International

citi capital

SMITH BARNEY citigroup

citigroup investment research

citigroup asset management

citigroup private bank
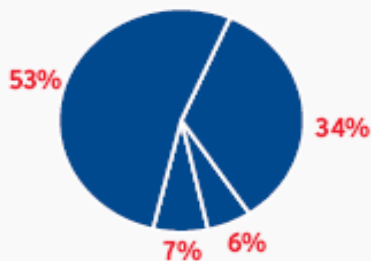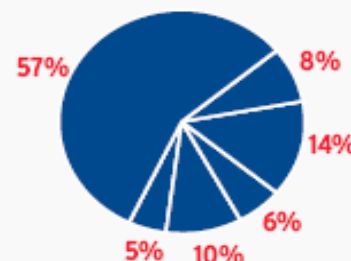
citigroup alternative investments

▸ One of the top ten recognized brands in the world

▸ 2005 Revenue per annual report – **83.6 Billion**

▸ Migrating to a global customer centric model

▸ Seeking consistent customer treatment across lines of business

▸ Analytics offers a significant opportunity for market differentiation and increased revenue

DIVERSIFICATION OF INCOME | A highly diversified base of earnings that provides stability during difficult market conditions.

53%
34%
7%   6%

% By Product*	
Global Consumer Group	53%
Corporate and Investment Banking	34%
Global Wealth Management	6%
Citigroup Alternative Investments	7%

*excludes Corporate/Other and discontinued operations

57%   8%
14%
6%
5%   10%

% By Region**	
U.S.	57%
EMEA	8%
Asia	14%
Japan	6%
Mexico	10%
Latin America	5%

**excludes Citigroup Alternative Investments, Corporate/Other, and discontinued operations

Source of graphic above: 2005 Annual Report

Customer Centricity - *Why Now?*

▸Factors are conspiring to make customer centricity today's relevant business strategy…

- Customer Preferences
  - Customers value innovation more in service quality than in product design
- Corporate Performance
  - Information sharing is well correlated to growth
- Saturated Markets and Irrational Competition
  - Given fewer new customers, focus on less costly sales to existing ones and raise switching costs
- Convergence
  - More product on the shelf to manage
- Compliance
  - Ignorance is no excuse
- Technological Maturity
  - CDI platforms at critical mass, multi-channel delivery now a standard capability
- Extra-industry Best Practices
  - Moving to focus on same-store sales, etc.
- Societal Forces
  - Information liquidity, customer empowerment, loyalty under threat

"Hierarchies are being flattened and value is being created less and less within vertical silos and more and more through horizontal collaboration within companies, between companies and among individuals."

**-- Thomas Friedman,
*The World Is Flat (2005)***
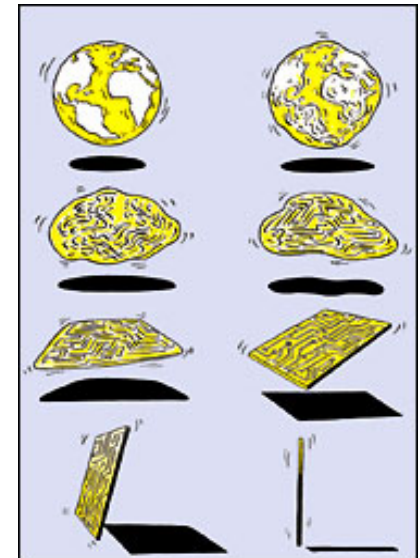
© 2005 The New York Times Co.

Customer Centricity has a global impact :

Integrated workplace

Governance

LoBs vs CIO
Budget management
Who owns core business
process transformation ?

Business Process Flexibility

Channel integration
Product integration
Business transformation

Alignement of Business & IT

Compliance and risk management
Performance management

Committed to Customer Focus

Product-Centric
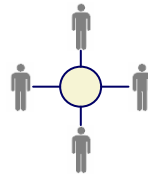
Customer-Centric
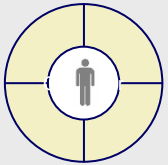
	Product-Centric	Customer-Centric
Business Objective	▸ Improve short-term product profits through increased fees and sales of features/functions	▸ **Maximize lifetime commensurate value exchange between our Customers and Citigroup**
Business Approach	▸ "Build it and they will come"	▸ "Provide solutions based on where the customer is today and where they want to be as well as their values"
Offerings	▸ Lines of Business Products/Services	▸ Integrated, cross-product/service solutions
Service delivery approach	▸ Vendor/customer	▸ Partnership (diagnosis, prescription, health check, diagnosis…)
Customer Relationship	▸ "I buy x from Citi" (Vendor/buyer)	▸ "My family will stay with Citi forever – I trust them as a committed partner that will help us on our journey to reach our aspirations"
Value Exchange	▸ "Why am I paying for that feature which I don't need"	▸ "This is worth the price"

Building a Customer-Centric View of Customers

	Product-Centric View of Customers	**Customer-Centric View of Customers**
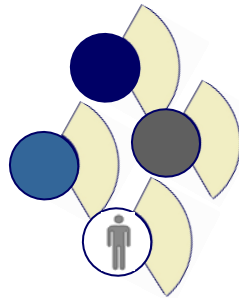
Sources	▶ Individual Line of Business databases	▶ All Citi sources
		  – Transaction processing platforms
		  – Customer touch points
		  – Acquisition platforms
		  – Self-service tools

Information	▶ Demographics ▶ Behavior ▶ Transactional data ▶ Some enhanced data	▶ Behavior ▶ Demographics ▶ Personal attributes ▶ Financial needs ▶ Aspirations ▶ Goals
Relationships	▶ Ad-hoc identification of connections between accounts	▶ Cross-account relationships (personal and corporate) ▶ Cross-customer relationships
Value	▶ General value of account to Line of Business	▶ Value of customer to Citi – historic, present and future potential
Preferences (Contact, etc.)	▶ Partially captured in each Line of Business (mostly in unstructured notes)	▶ Comprehensive, structured cross-Line of Business view of customer preferences

Multi-business customers have a significant number of contacts with Citigroup. These need to be better coordinated and integrated.

Multi-business Customer Touch Point Profile
(Cards, RDG, Smith Barney example)

Illustrative

Citi calls Joe 14 times a year

Joe visits a branch 21 times a year

Joe HNW uses approximately 4-6 telephone numbers to contact Citi

Joe calls Citi 29 times a year – 11 Card, 13 CBNA and 5 Smith Barney*; additional calls to Relationship Manager

Joe visits the ATM 44 times a year

Citi sends mail to Joe 97 times a year

Citi emails Joe 15 times a year

Joe sends mail to Citi 5 times a year

Joe emails Citi 4 times and visits the website 44 times a year

"Joe" High net-worth

250+ LOB-based contacts. We need to assess opportunity to improve coordination/integration

* Relationship Manager volume not captured; 15 live calls and 14 IVR; all Smith Barney calls live. Assumes multi-business customers touches with each individual business equal the overall average; Source: Touchpoint template data collected from LOBs

Competitive Landscape

Customer Data Integration

- ▶ Recognizing a customer and its relationships at any touch-point
  - – Aggregating, managing and harmonizing accurate, up-to-date knowledge about that customer
  - – Delivering it in an actionable form just-in-time to touch-points

- ▶ Comprised of processes and technologies

Top 5 Business Drivers for Financial Services
(33 Financial Services IT Organizations - June 2005)

Forecast and increase retention	Reduce costs of manual customer data management	Increase customer satisfaction via end-to-end business processes	Integrate customer DBs to support M&A business continuity	Provide compliance and transparency for C-level execs
98%	95%	89%	67%	58%

Technology Challenges Facing Financial Service Providers in CDI Endeavors

- ▶ Demand for "near-real-time" data linkage to support audit and compliance measures

- ▶ Requirement for hacker-proof customer data protection

- ▶ Support for high-RAS (reliability, availability, scalability) due to nature of the mission-critical CDI infrastructure

The "ICEBERG" Effect…

Citigroup's challenge:

• **We needed to understand our customers from a TRUE 360 degree perspective… but WITHOUT   "Boiling the Ocean" - because the "Law of Large Numbers" applies at Citigroup**

Linked customer information:

• **We needed a "Index" to find our way across the silos**

▸**Un-linked customer information:**

• **We can pull or push data "above or below" the water line (using this metaphor) on a real time, as needed basis…**

• **We have PETABYTES of information about our customers, within product silos… but each business holds their own customer data and identifies these customers differently**

5%

95%

Common data

Silo data
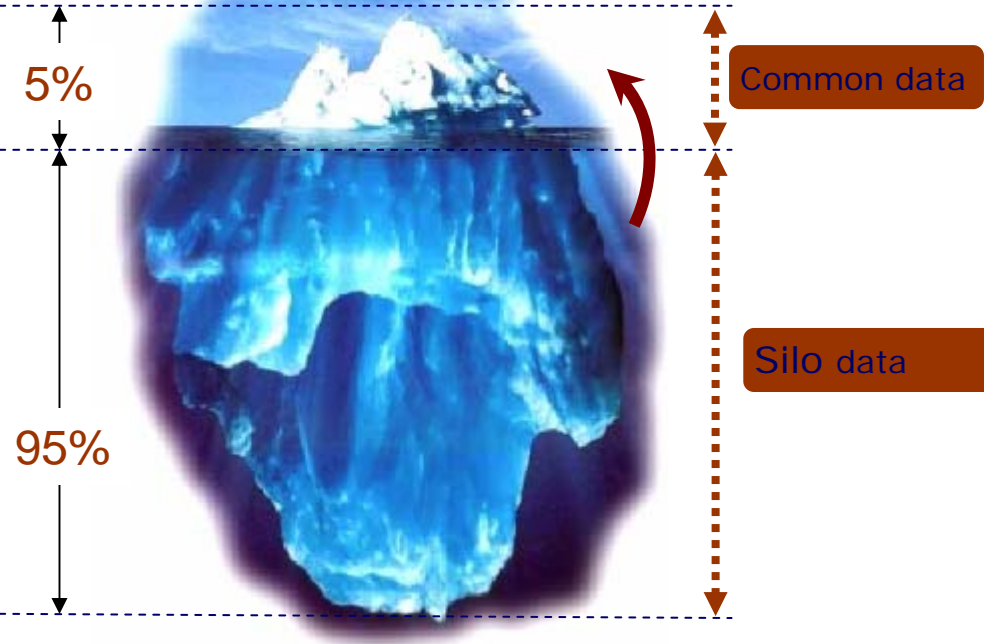
Less than 5% of customer data is stored in the index – only data that is germane across multiple lines of business.

Approach

- ▶ The Customer Information Environment (CIE) Program is a global customer-centric initiative

- ▶ Understanding past & current events to better serve future customer needs

- ▶ Follow a "One mile wide & one inch thick" methodology

- ▶ Utilize the best available talent, best practices and technology in the market

- ▶ Partner with vendors & business units as part of the project team

- ▶ Provide a real-time Recommendation Engine to all channels, marketing analysts/campaign managers etc.

CIE is a "Global Index" of all CitiGroup's customers and their product relationships across all lines of business (LOB)

It is designed to support LOBs in the development of their own customer-centric, market "differentiating" initiatives by providing a unique view of Citi's customers

Cross-Business	**Operations-Oriented**	**Real-Time**

▶ Designed to collect and publish customer information across Citigroup and channels

▶ Targeted to support not only customer analytics but actual business operations

– Integration with customer-touching systems

– Recommendations based on real-time information and delivered to customer point of contact

– Management of risk (e.g. AML)

▶ Enables real-time capture, integration and dissemination of actionable customer information

– Existing data

– Potentially new data such as a customer's financial goals and objectives, life stage, disposition, etc.

CIE provides existing line of business systems with access to several key capabilities

Unique Customer Identifier	Citigroup-Wide View of the Customer	Common Set of Supporting Services

- ▶ Unique cross-LOB customer ID
  - – The ability to uniquely identify each customer across all businesses

- ▶ Centralized, Citigroup-wide customer profiles containing:
  - – Basic demographic customer information (name, address, phone number, etc.)
  - – Customer preferences (privacy, channels, etc.)
  - – Customer and account relationships (husband, wife, trust beneficiary, business affiliations, etc.)
  - – Customer lifestyle information (married, children, birthdays, etc.)
  - – Customer interactions across channels

- ▶ Services to manage data and its access
  - – Data cleansing/resolution process (resolve conflicts between LOB data)
  - – Mechanism for all businesses to access data

- ▶ Services to support cross-business customer management
  - – Entitlements engine (cross-business data entitlement rules engine for use by all businesses)
  - – Privacy engine (privacy preferences for use by all businesses)
  - – Recommendation engine (customer needs-based recommendations)

Approach – Have an in-depth understanding of the Landscape

▶ **Our approach . . .**

– **Provide a consistent brand experience for every customer**

– **Understand and respond to market pressures instantly**

– **Understand and anticipate the individual needs of every customer**

– **Repeat the above for 200 Million (and growing) customers (!)**

▶ **Customer Management Design Patterns:**

– **Product/offer evolution**

  • **Non-structure**

  • **Federation**

  • **Consolidation**

– **Customer evolution**

  • **Generic product offer**

  • **Tailored customer management**

  • **Negotiated customer relationship – anticipated customer needs**

▶ **Consistent customer experience requires centralized, consistent, high powered, real-time analytics**

CIE is a core enabling platform that will support a variety of benefits.

Measurable Benefits

Revenue Lift
- Increase Product Sales
- Increase New Customer Acquisition
- Reduce Higher-Value Customer Attrition
- Increase Customer Assets

Cost Reduction
- Improve Marketing Efficiency
- Improve Call Center Efficiency
- Improve IT Efficiency
- Improve Service Segmentation
- Improve Credit Decision-Making

Cost Avoidance
- Avoid Future Regulatory Costs
- Avoid Future Redundant Systems
- Reduce Future M&A Integration Cost

CIE
- Unique Customer Identifier
- Citigroup-Wide View of the Customer
- Common Set of Supporting Services

Qualitative Benefits

Enhance Core Product/ Service Value
- Collect Richer Data for Feature Design
- Identify Value Added Feature Enhancements
- Enhance Consistency of Brand Message
- Offer More Attractive Value Added Services

Enhance Customer Interaction Value
- Provide Channel Consistency
- Personalize Communications
- Improve Complaint Resolution

Raise Barriers for competitors
- Raise Service Experience Expectations
- Raise Customer Stickiness
- Increase Service Effectiveness

Improve Management Insight
- Improve Quality of Decision Data
- Improve Speed of Access to Decision Data

Building the Customer-Centric Technology Platform

	Platform Requirements		WCC

Ease of Integration
- ▶ Numerous legacy systems and data sources across business divisions need to be connected quickly and easily

▶ ▶ ▶ Supports JMS compliant messaging
▶ 400+ packaged API's
▶ Extension/Addition wizards

Flexibility
- ▶ Platform needs to handle technology, vendor and business changes

▶ Highly customizable
▶ Provides 360° customer view without sacrificing account view

Real-Time
- ▶ Information needs to be available in real-time to support customer interactions

▶ Provides high-performance solution that is capable of handling high-volume, quick-response requirements

Scalability
- ▶ Technology needs to handle high data volumes and rapid growth

▶ Vertical and Horizontal
▶ Benchmarked in excess of 2,000 WCC transactions/sec.

Availability
- ▶ Customer-facing interfaces require constant availability

▶ Highly reliable solution intended to support 24x7 access

Support
- ▶ Skilled support when it's needed to build and operate the platform

▶ Committed Professional Services support

High-Level Architecture

▸ Provide capability for businesses to access and share customer information, behaviors and preferences

▸ Enable implementation of key cross-business functionality

| Deposit Data | Deposit Systems | | Credit Data | Credit Systems | | Investment Data | Investment Systems |

Enterprise Services Bus

CIE Customer IDs & Profiles | **Privacy Engine** | **Entitlement Engine (Security Architecture)** | **Recommendation Engine**
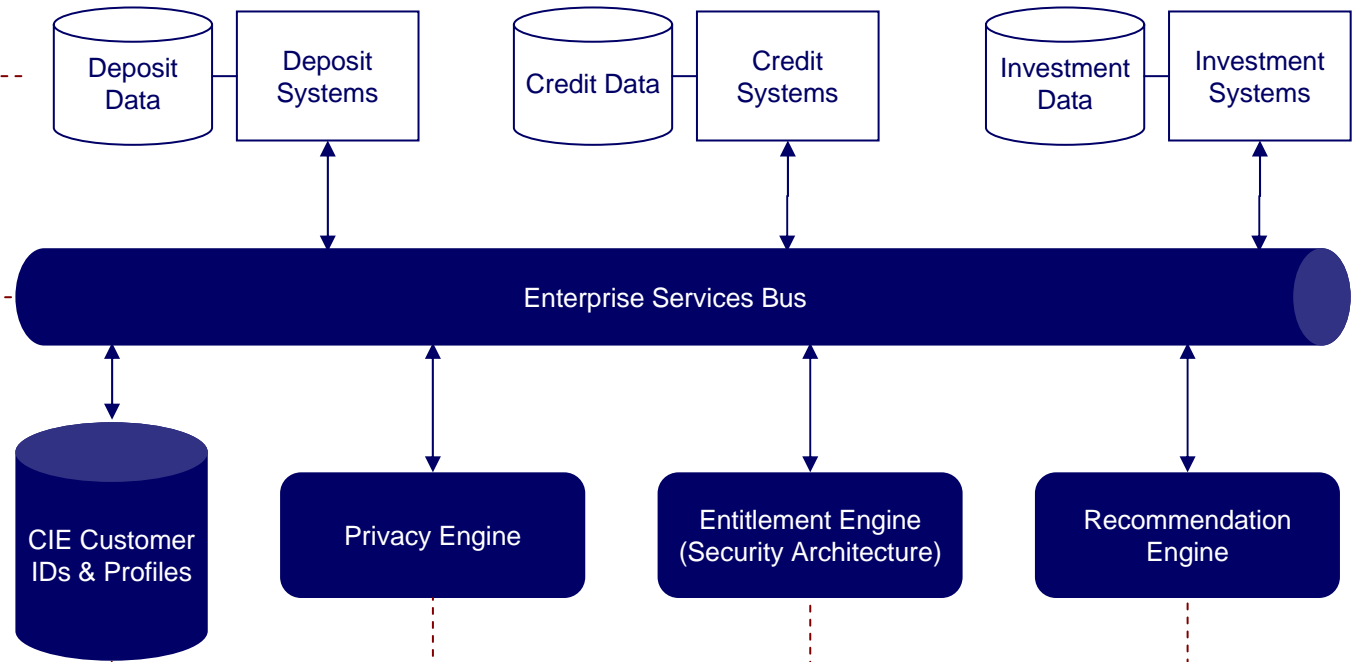
▸ Provide a unique customer number which allows us to identify a customer once and only once across all LOBs

▸ Establish and maintain the centralized and consistent copy of customer profiles

▸ Allow customer privacy preferences to be applied specifically and consistently across all LOBs

▸ Determine who can see customer/account information based on organization, geography, product, etc.

▸ Enable consistent, holistic identification of customer needs and relevant offers

And interacts with other significant SOA projects :

Objectives:

– Enable best of breed account opening process that will be shared across multiple product lines

Financial Management
(SOX Compliance)

Actions:

– Shared SOA-enabled process across organization

– Aligned Business and IT on new process models

– Develop a new differentiated capability for creating an account

– Move to simpler, faster, secure digital account creation

Results:

85% reduction in transaction time required for customers
30% reduction in cost and time to deliver new business

Operational Use Case - CIE dip during account opening to get a cross LOB customer view prior to underwriting
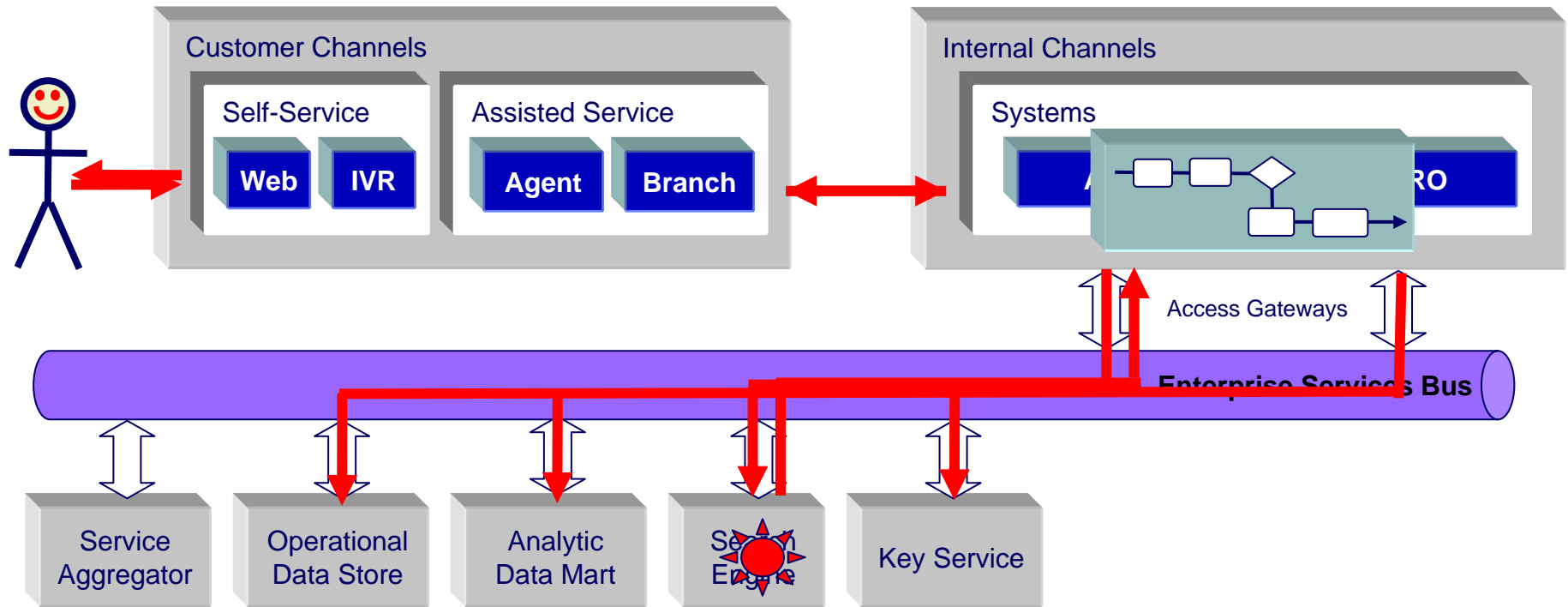
Customer account opening experience improved with information from pervious Citigroup relationships

Agent experience enhanced through decreased manual intervention

Analytics Use Case - Use of CIE relationship keys in existing NA Consumer systems

Process used for Bain study took 4 months to complete

**CIE enhanced process will takes less that 7 days
for a 90% improvement in time to market**

Enterprise Services Bus

Service Aggregator

Operational Data Store

Analytic Data Mart

Search Engine

Key Service

ETL

ADM Portal

Output File

Split Process

Lists

Analytic Systems

TBD Work Area

3. Interaction Model

Interaction Model

Business Executives	▶ Provide strategic direction	**Executives**	*Strategic Needs*
Business Review Community	▶ Ensure alignment with strategic direction and priorities ▶ Evaluate and prioritize initiatives	**Business Review Community**	
Business Stakeholders	▶ Assist in identifying initiatives ▶ Help implement initiatives	**Customer Experience** / **Risk Management** / **Financial Management**	
Business Integration Leads	▶ Establish relationships with business stakeholders ▶ Coordinate development of business objectives, business case and initiative details ▶ Define high-level business requirements	**Business Integration Leads**	*Business Requirements*
Initiative Team Leads	▶ Develop detailed requirements to support strategic capabilities and initiative execution ▶ Coordinate CIE technology implementation team interactions with business groups	**Business Initiative Leads***	
CIE Technology Implementation Teams	▶ Develop detailed functional and technical specifications ▶ Develop and execute projects to support roadmap	**Implement. Team 1** / **Implement. Team 2** / **Implement. Team x**	*Implementation*

* Depending on the effort, the initiative team lead could be business or technology

High-Level ROI Approach CIE will build benefits over time through its support of various initiatives supporting our objective of becoming more customer-centric

Framework for Quantifying CIE Benefits

Defined during funding process ← | → *To be defined with actual business stakeholders of CIE's capabilities*

Hurdle benefits for positive returns

$YM

Initiative n

Initiative 5

Initiative 4

Initiative 3

Initiative 2

Initiative 1

Investment

$XM

Potential Benefits

Estimated Marginal Benefits Identified by and Committed to by Business

▸ CIE's estimated costs have been defined

▸ Initial, potential benefits have been determined to be large enough that positive returns will certainly be achieved by CIE

▸ Specific benefits will be identified collaboratively by CIE and the business partners leveraging CIE's capabilities

▸ Benefits analyses will be rigorous and structured to support consolidation at the CIE program level

▸ Benefits assessments should be structured and thorough enough to drive budget and performance measure commitments from the businesses

▸ Given complexities of cost allocation and timing associated with cross-business, emerging capabilities, the ROI will be determined at the overall program level