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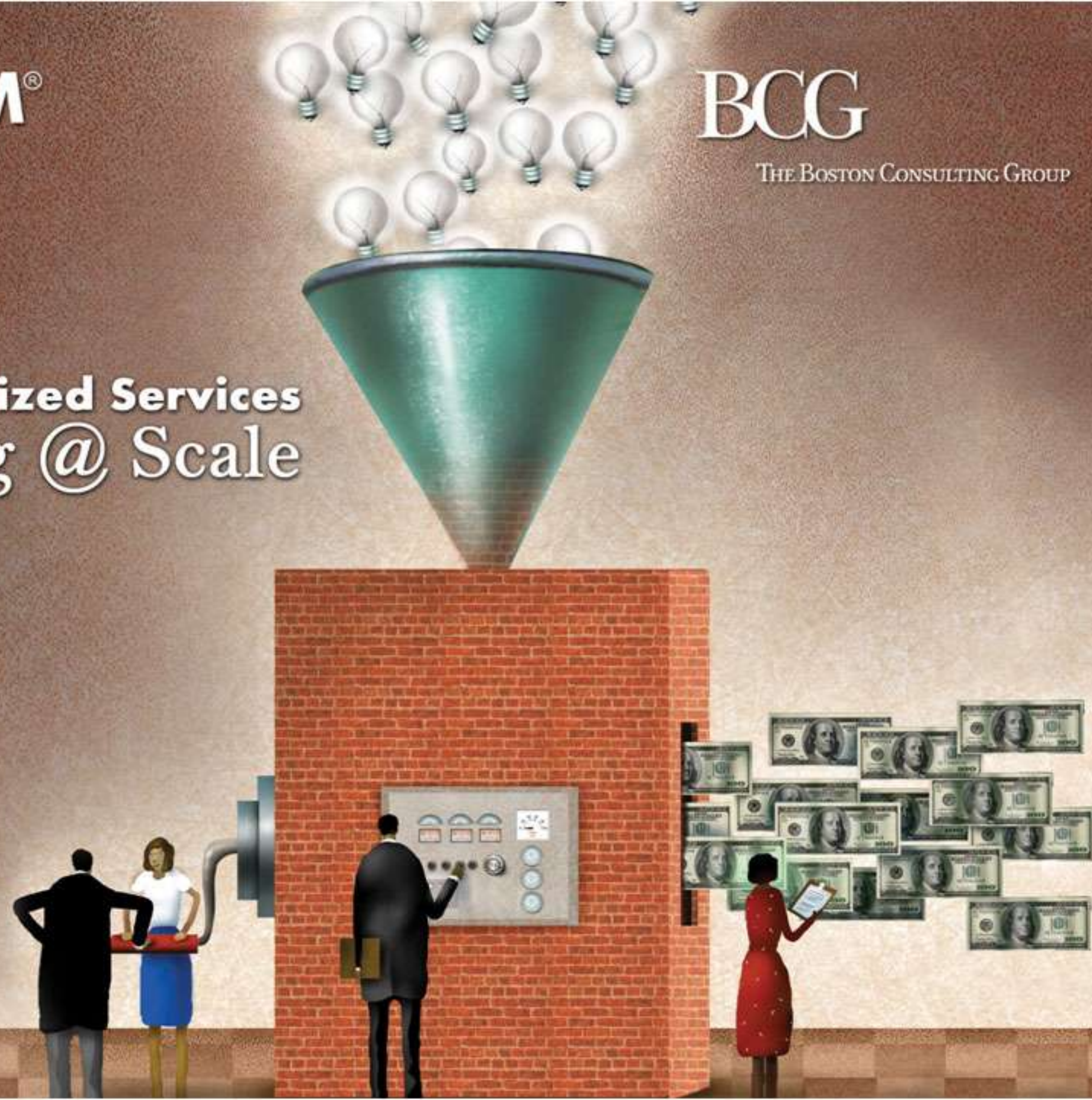
THE BOSTON CONSULTING GROUP

India in Globalized Services
Innovating @ Scale



Foreword

India’s growth story as a global powerhouse in the services space is exceptional and inspirational. Innovation has been at the core of this journey, starting with the creation of the Global Delivery Model. The industry is approaching the USD 150 billion mark, accounting for over half of the market with consistent double digit growth for two decades. With over 3.5 million employees directly serving the industry, it is the largest private sector employer in the country. Over the years, India has emerged as the epicentre of the global services, and it continues to reinforce its position as a partner of choice for customers across the world. India is also now the hub for R&D for a majority of Fortune 500 enterprises.

The industry impact has been all pervasive, across verticals, geographies and customer segments delivering transformation and innovation. This has involved building deep capabilities and competencies and a business strategy to harness investments both within and outside the company. Proliferation of digital technology start-ups and increasing collaboration is leading to India’s emergence as an innovation hub. As a result, customers are increasingly outsourcing business critical operations to India, and this trend is only going to accelerate further as the industry matures.

Customers expect more. The traditional view of value centered on cost arbitrage, process standardization, scale and access to talent. The emerging consensus of value today pivots around effectiveness and business impact which includes the ability to drive innovation, fast track adoption of emerging technologies and enhanced competitive advantage.

NASSCOM and BCG have put in concerted efforts for the better part of a year, to bring you this unique study that first of all captures the rapid shift in customer expectations and the journey of the Indian industry in successfully delivering transformative impact. It also seeks to establish a common framework for assessment of value, given differing views and language. India's continued success in delivering transformative value to become the “partner of choice” for global customers is further accentuated through best-of-breed case studies across verticals and services, included in the study.

We trust you will find the report useful and welcome your feedback and comments

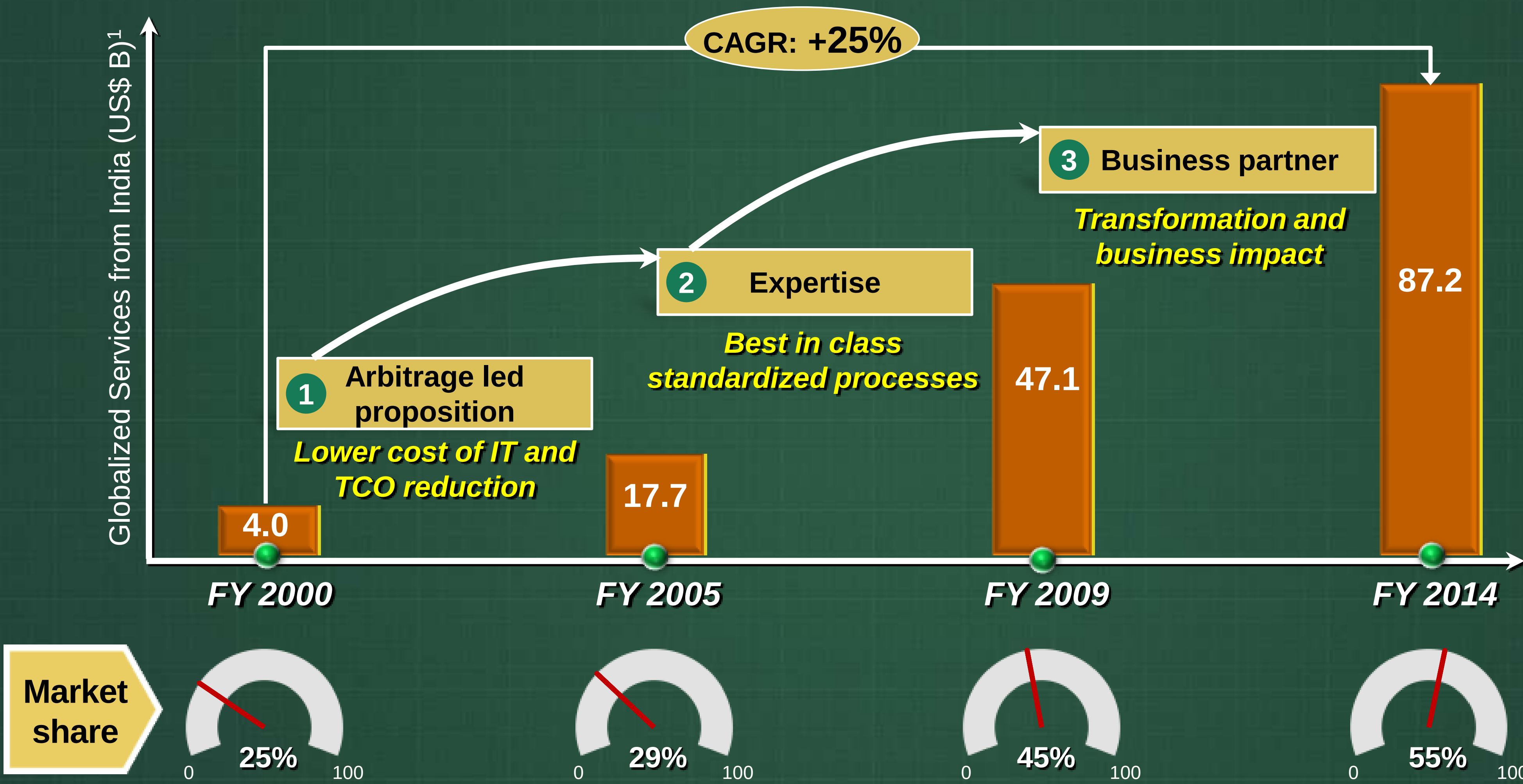
R Chandrashekhar
President, NASSCOM

Neeraj Aggarwal
Senior Partner and Director, BCG

Innovation led to the creation of Globalized Services

Need for technical expertise + **Favorable economics** + **Developments in communication** ► **Global delivery model**

Today, India is at the epicentre of this space



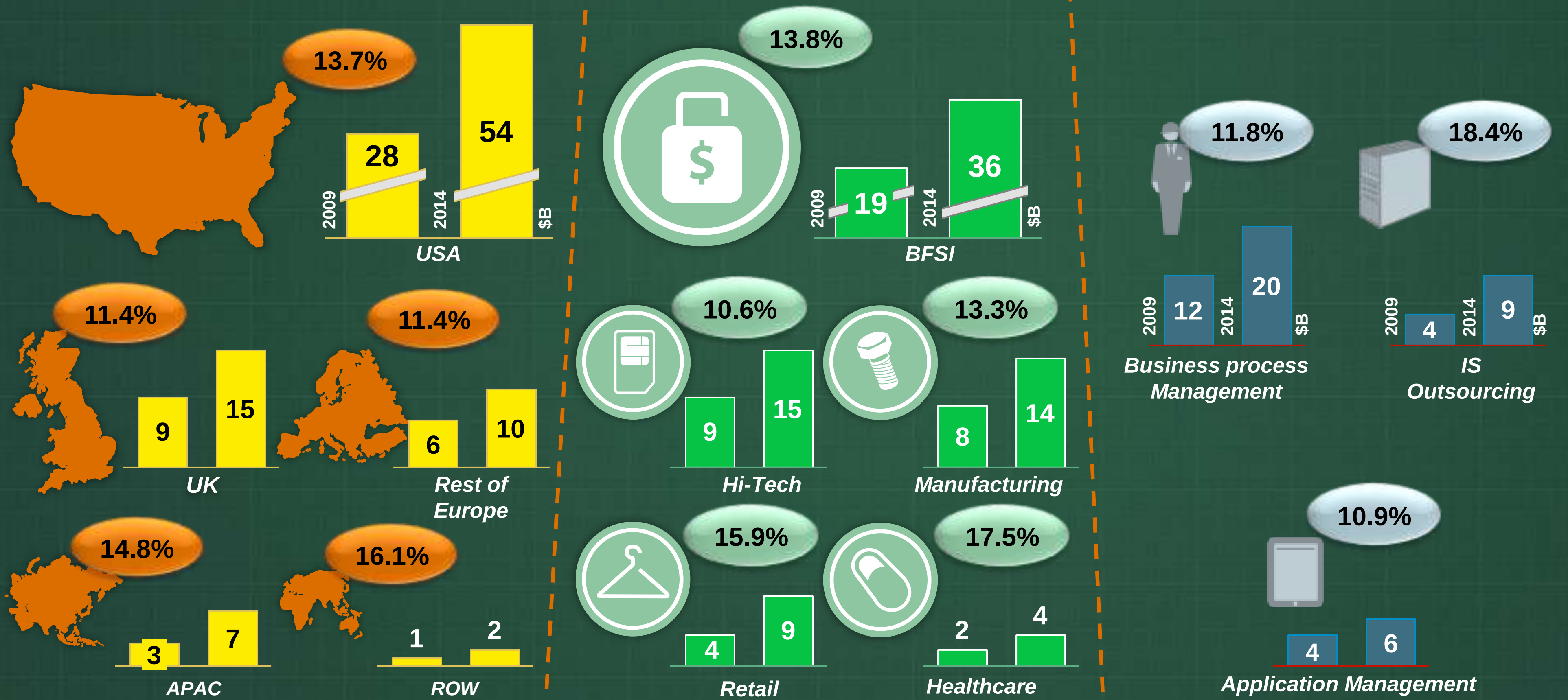
1. Excluding hardware and R&D; Source: NASSCOM

Partnering with enterprises to deliver business needs

Double digit growth from all regions…

…and verticals…

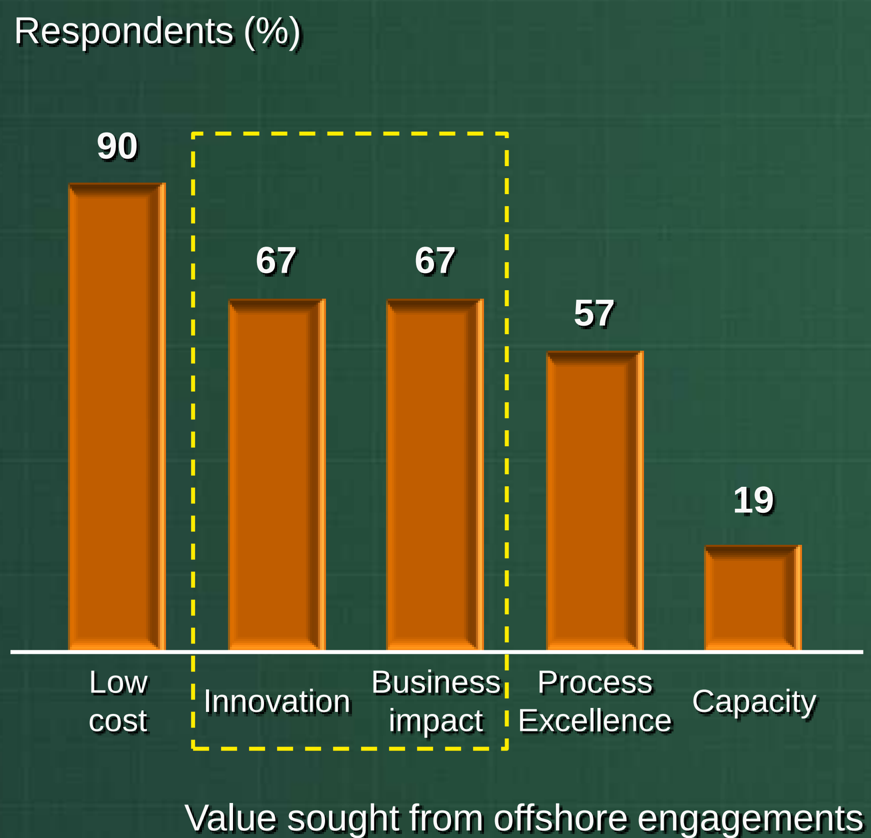
…with critical business operations[1] being outsourced



1. Non discretionary spend; Note : All growth numbers display growth from 2009 to 2014; Bars represent revenue in US$ B; Bubbles represent compounded annual growth rate; Source : NASSCOM

Over the years expectations have shifted beyond efficiency

Top 3 value expectations



Key tenets of transformative value

"It should help us become **competitive and innovative**"

– *Strategy Leader, Global bank*

"We desire **agile and innovative** solutions with **high business impact**"

– *CxO, Health insurance major*

"Thought leadership and **innovative** solutions for **improving core business activities**"

– *CxO, Global telecom major*

"Best in class solutions to increase **business productivity and efficiency"**

– *VP, Technology, Power equipment major*

Source: Customer interviews, Analysts

Focus is on partnering for innovation and transformation

Traditional view

Lower Cost

Access to talent pool

Flexible capacity

Process standardization

Efficiency

Emerging expectations

Innovation for competitive advantage

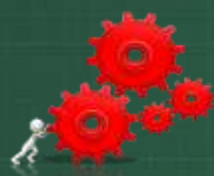
Thought leadership / best in class expertise

Top line & bottom line impact

Operational excellence

Innovation & transformation

India has been stepping up to deliver innovation and impact

	1 Lower cost	2 Operational excellence	3 Business solution	4 Business impact	5 Innovation
					
	"Do it cheaper"	***"Do it better"***	***"Do it differently"***	***"Improve business"***	***"Transform business"***
Characteristics	• Staff augmentation • Arbitrage led • Lift and shift	• Best-in class processes • Consistent quality • Performance SLAs	• Distinctive IP and domain expertise • Redesigned processes	• Business KPIs • Accountability for outputs/ outcomes • Risk transfer	• New business models • Disruptive solutions
	1970...	2000...	2003...	2008...	2010...

Enterprises see India as 'the partner of choice' in this journey

Innovation

“Indian service providers understand our business and meet our requirements of innovative solutions for high business impact”
– CIO, Large UK energy & home service company

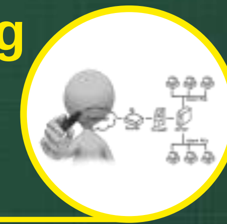
End to end solutions

“It is a true partnership – we have built a relationship on trust for developing end to end solutions”
– Chief Technology Office, State Department, USA

Joint planning

"Our partners helped us lay out a transformative roadmap needed to differentiate ourselves. "
– CMO, Largest Telco in Africa & Middle East

Deep understanding



“Our engagement with Indian service providers has led to deep business impact – our business has acknowledge their role in our growth.”
– Strategy Leader, Global bank

Note: Value delivered analyzed on top 4 - 5 impact delivered in each case; Source: 20+ customer interviews conducted by BCG team (largely from IT and other business stakeholders);

This is fueled by focus on innovation and capability building

Companies' focus on innovation

"World-leader in innovation potential"

India – the entrepreneurial hub

"Booming hub for tech-led start-ups"

Collaboration models

"Collaborative models for building capabilities & driving innovation"

India is increasingly a source for pathbreaking R&D work

R&D spending in India growing at a healthy rate of 8% CAGR

US$ B spent on R&D in India[1]

MNC R&D centers growing at rapid rate of 14.4%

Number of MNC R&D centres in India

Leading companies leveraging potential

GE: Neo destructive evaluation technology

Honeywell: Next gen magnetic sensors, image analysis

SIEMENS: Low-cost, S.M.A.R.T technologies

PHILIPS: Global R&D for lighting

Texas Instruments: Semiconductors and chip design

cadence: Design automation solutions

BOSCH: Design, testing, emission control

CISCO: Products for emerging markets

1. PPP adjusted; Source: Indexmundi, World bank, Economic Intelligence Unit (The Economist), IBEF, Zinnov reports, BCG analysis, press search, company websites;

Cisco is a case in point

Using India to deliver innovation and transformation

Exponential growth in India presence & skill sets...

1995	2000	2007	2010	2014
~10	~600	~1700	~4000	~11000
Technical skills	***Upgraded skills*** routing, switching, software etc.	***Advanced technical skills*** data center, collaboration etc.	***Complete ecosystem*** manufacturing, product marketing etc.	***Product concepts, innovation & design***

...with India becoming vital to Cisco's global strategy & success

IP created

900+ patents filed

5+ marquee products conceptualized in India

Awards for India team

Aegis Graham Bell award for MDS 9250i

NASSCOM Innovation award for ASR 901

IT Innovation award by Express group

ET Innovation award for developing OEM Product

Talent

6500 R&D engineers

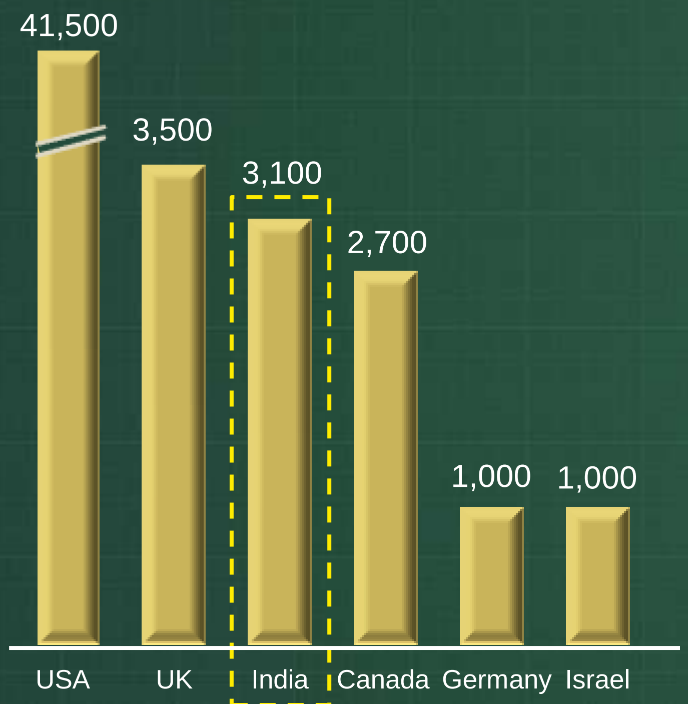
20 Principal engineers[1]

Largest global development center outside of USA

Source: Cisco;

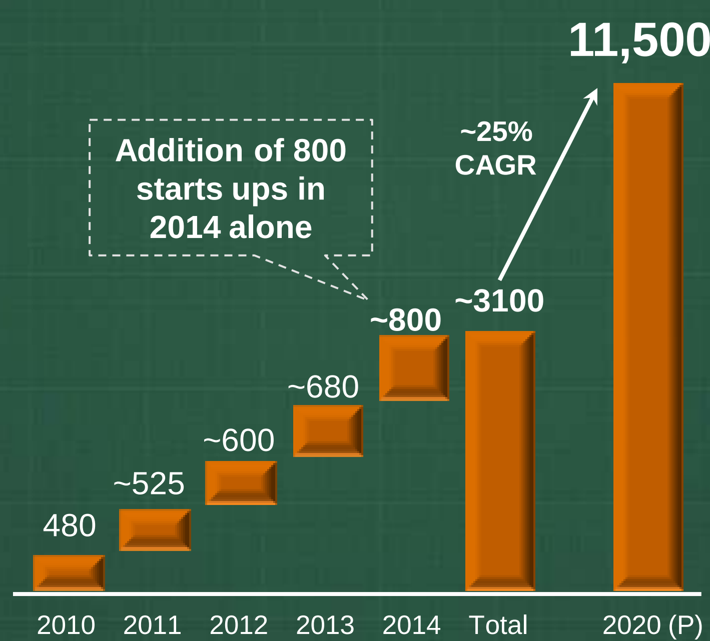
The thriving start up eco-system in India is a big enabler

India has 3rd largest technology start up base...



Technology starts ups by key countries

...which is likely to grow 4 folds by 2020...



Technology product start ups by inception year

...focusing on big data analytics & ERM

2014 B2B focus split

1. % of start-ups in 2010-14 with focus on B2B; B2C–59%; B2C/B2B-4% 2. Others include Applications/ Web Development, Infrastructure Management Solutions, Content Management, Data Recovery, Gaming, Hardware, Mobility Solutions, Security and Others; Source: NASSCOM

Industry is also investing to pursue the innovation agenda

Corporate venture funds	Infosys	**$500M** for investing in technology start-ups	Wipro	**$100M** initial corpus for venture fund
Co-innovation	Tata Consultancy Services	**31** academic alliances and **21** R&D partners	IBM Innovation Centers	**100** Big Data and Internet of Things startups tie-ups
Mergers & acquisition	Tech Mahindra	**FixStream** Networks for cloud-based data integration & analytics	Cyient	**Rangsons** Electronics for Electronics System Design & Manufacturing[2]
Employee-generated innovation	HCL	**'Value-portal'** and **'MAD Jam'**[1] to foster employee-led ideas	Mindtree	**'5/50 initiative'**[3] to promote in-house disruptive ideas

1. Value portal: Initiative to encourage co-creation of innovative ideas - $264mn value generated till June 2013; MAD Jam campaign: Selects and rewards top innovative ideas from employees;
2. Cyient has signed an agreement to acquire 74% stake in Rangsons; 3. Initiative encourages employees to share business ideas that could generate $50 million in annual revenue over five years;
Note: Wipro also separately funds in-house start up ideas through "Horizon Investment Programme H2H3"; Source: BCG analysis, JP Morgan "India IT Service" 16 Sep 2014, Press search

Overall, customers are endorsing India's evolution...

Changing Indian proposition

Increased Ownership
"End-to-end solution"

" We are now engaging with Indian service providers to run complete value added change management programs "

– ***Senior executive, Global bank***

" India is pushing for increased scope and participating in all phases of the lifecycle (from ideation to implementation) "

– ***CxO, Global bank***

Advanced solutions
"Best in class technology and talent"

" Indian players are investing in capability and infrastructure to offer new emerging technology for best results "

– ***Head IT procurement, Global foods major***

" Expert knowledge and concrete results demonstrated by our Indian partner ... specialist engineering design team is a valuable asset "

– ***VP Technical, Power equipment major***

Increased risk sharing
"New pricing structures"

" Indian players are increasingly adopting fixed/outcome based pricing instead of input based payments "

– ***Senior executive, Global bank***

" Our Indian partners are very entrepreneurial – they offer new engagement models with higher risk sharing ability "

– ***CxO, Global telecom major***

Source: Customer interviews, Analysts;

...to becoming a transformation partner

Changing Indian proposition

Quality linked KPIs
"Output based SLA / KPIs"

" Phase wise KPIs on required service levels were adopted for high impact "
- ***Senior executive, Large telecom major***

" Success of engagement measured on qualitative and quantitative metrics – timeliness, cost effectiveness, quality of outcome, delivery on promises "
- ***CxO, Global bank***

Collaboration
"Co-creating solutions"

" They challenged our thinking and pushed us to aim higher. Their onsite team constantly interacted across levels for ideation "
- ***Senior executive, Large telecom major***

" Indian players are proactive and responsive to customer needs. They need to say no and challenge more if required "
- ***Expert, Partner at major consulting service provider***

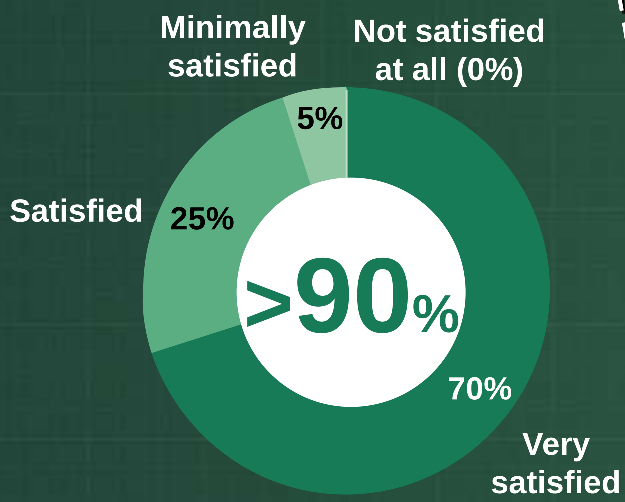
Trusted partners
"Committed relationship"

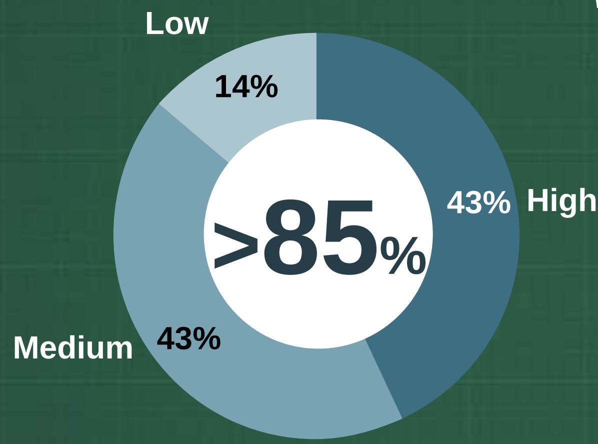
" They regularly interact across the levels – CIO, business heads and day to day operational team for alignment and more trust "
- ***Senior executive, Global bank***

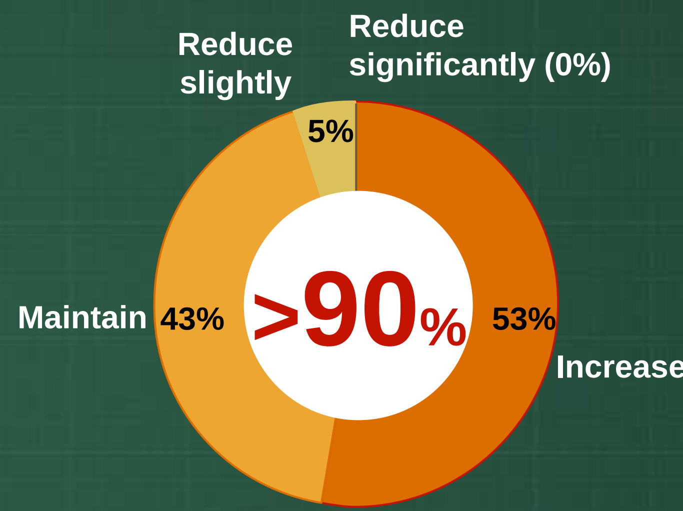
" They adopted a relationship based approach rather than a transaction management – they had our best interests in mind "
- ***CxO, Global telecom major***

Source: Customer interviews, Analysts;

Customers expect and plan to do more with India







customers are ***satisfied*** *with current partnerships in India*

customers believe India ***can deliver*** *transformational value*

customers plan to maintain or ***increase footprint*** *in India*

Source: Customer interviews, Analysts;

Scope, engagement model key to transformation

Engagement scope

"What is the proposition and the extent of impact delivered?"

" The **value proposition** and the business case define the value to be delivered "
– CEO and Head, Global Technology Center, Leading bank

" Supplier's role and ownership is important; need to leverage them as per capability. **– Director, Pharma major**

" We value **global solutions/ platforms** over single/ isolated pieces "
– SVP, Hospitality chain

" Value is directly impacted by what **solution we offer** to the client "
– Senior VP, Large service provider

"End-to-end **responsibility** offers better opportunity for higher impact"
– Head, Large service provider

"We are keen to deliver integrated solutions for all related BUs of the client"
– Senior VP, Large service provider

Engagement model

"How are you engaging with the client?"

" **Risk and profit sharing models** change the construct of an offshore relationship "
– Strategy Leader, Global bank

" **SLAs** are key to track performance of vendors for achieving expected results "
– Strategy Leader, Power equipment major

" We need to think more strategically and involve suppliers in all phases of lifecycle "
- **Ex CxO, US food chain**

" We now explore new pricing models to engage deeper with our clients "
– CEO, Large service provider

" We now have similar goals and business metrics as the IT function of the client organization "
– Head, Large service provider

" It is important that we talk to the right decision makers at the client side "
– CEO, Large service provider

Source: Customer interviews, Analysts;

These can be assessed across eight key attributes

		Attribute	Increasing maturity for each attribute			
Engagement scope	1	Supplier asset	Capacity	Tools	Platform	Innovation
	2	Talent profile	Trainable pool	Technical Experts		Business Experts
	3	Supplier role	Operations management	Design and development		Concept to implement (End-to-end)
	4	Business / process coverage	Targeted			Comprehensive
Engagement model	5	Pricing structure	Input based	Output based		Outcome linked
	6	SLAs / KPIs	No SLAs	TAT / performance linked SLAs		Business KPIs / BLAs
	7	Client sponsor	Sourcing / Procurement managed	Function managed		Business managed
	8	Collaboration	Ad-hoc / limited to reviews	Structured / joint governance		Joint planning

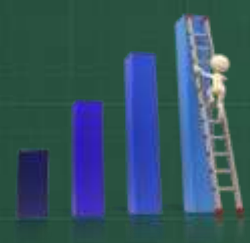
Opportunity

Key questions as you think about your engagement with India

INNOVATION

01

Are you truly harnessing the innovation opportunity for your business?



VALUE

02

Are your global services partners delivering the maximum value for your business?

PARTNERSHIP

03

How should you engage with the Indian service providers to embark on a transformation journey?

Innovation and transformation stories from India

DIGITAL MANUFACTURING
BIG DATA FOR LOYALTY SALESFORCE MOBILITY
UNIFIED MEDIA PLATFORM SINGLE SERVICE INTERNET PORTAL
INTEGRATED TRANSACTION PLATFORM CONFIGURABLE TMS
PREDICTIVE PAYMENT MODEL WATER NETWORK MANAGEMENT
CATASTROPHE RISK MODELING FUND ACCOUNTING TRANSFORMATION
LOSS EXPENSE OPTIMIZATION HYBRIDCONVERSION B2B PAYMENTS PLATFORM
LEAN IT SERVICE DELIVERY NEXTGEN ENGINE DESIGN
DIGITAL MARKETING REMOTE HEALTH MONITORING
STATE AGENCY AUTOMATION INTEGRATED HUB MANAGEMENT
AUTOMATED TRAFFIC MONITORING SMART SPORTS DELIVERY
AUTO DEMAND FORECASTING M-COMMERCE SOLUTION
MULTI STANDARD TELECOM SUPPORT TRADE VIRTUAL CAPTIVE CENTER
CUSTOMER ACQUISITION TRANSFORMATION COMPLIANCE AUTOMATION
SMART SALESFORCE

Source: Service providers

1

Field service delivery improvement through mobility solution

"Business solution"

Vertical: Telecom (Mobile telecommunication)

Client Geo: N. America

Partner: CGI

Solution

Mobility based field service delivery solution

- Optimal matching of field agents to job requirement basis resource skill, location etc.
- Real time tracking of orders and services
- Automated payment system
- Real-time collaboration among resources

Engagement approach

Complete end-to-end solution

- Including application development, testing, maintenance etc.

Strong collaboration and co-investment

- Program driven by CIO and BU heads
- Fixed price based on performance guarantees

Value delivered

- **30% increase in service delivery due to increased lead generation**
- **Impact to operational cost eliminated**
- **Faster time to market across locations**
- **Better customer satisfaction**

Customer speak

"The mobile technology solution will represent a true incremental area of investment growth over the next 3-5 years. CGI's success on this program bodes well for involvement in future programs around workforce dispatch and mobile technology areas." –Client CIO

2

Improved customer service via new B2B fuel card platform

"Business impact"

Vertical Oil & Gas (Oil & Gas major)

Client Geo Confidential

Partner CGI

Solution

Single integrated fuel card processing platform

- Enhanced analytics and reporting
- Real-time transaction processing and automation
- Future-proof platform – able to process next-gen card products
- Integrated platform for national and international businesses

Engagement approach

Single end-to-end solution for global operations across 40 countries

Strong collaboration and joint planning

- Interactions at strategic, tactical and operational levels
- Outcome linked pricing model with business KPIs

Value delivered

Improved cross-selling , up-selling and retention sales

Better customer service & experience

Lower cost due to simplified customer & pricing set-up with reduced errors in reconciliation

Faster time to market

Customer speak

"CGI deliver, they do what they say they are going to do, and they are very easy to work with."
- Client CIO

3

Higher efficiency by reshaping transportation management

"Business solution"

Vertical

Manufacturing
(Packaging Manufacturing)

Client Geo

Partner

Cognizant

Solution

SAP transportation management solution
- Configurable, rule-based automated transport planning and optimization
- Dynamic linkage between SAP ERP and TM solution to enable customer order changes
- Real-time alerts and reports with enterprise-wide transportation data storage facility

Engagement approach

Integrated solution across customer, manufacturing facilities and vendors
- Implemented across 20 countries and 110 plants

Collaborative approach by a global team
- Cognizant's TM and SAP technicians located both onsite and offshore
- Risk sharing via fixed pricing based on performance guarantee

Value delivered

Increase in order fulfillment

Significant cost savings due to efficient automation

Increased compliance to routing guide
- Increased flexibility to adapt to seasonality and other variability

Developed strategic relationship with preferred clients & vendors

4

Predictive payment model and smart contact strategy to increase premium collection

"Business impact"

Vertical — **BFSI** (Insurance player)

Client Geo —

Partner — CONCENTRIX
A SYNNEX Corporation Company

Solution

Developed a predictive propensity-to-pay model

- Model deployed in tandem with a smart customer contact strategy
- Implemented for life insurance customers
- Premium collection risk score cards to identify high risk cases early on
- Design and distribution of new products based on insights on geography, seasonality and customer demography

Engagement approach

End to end solution

- Entire premium collection cycle including customer retention

Strong domain expertise

- Analytics specialists, outbound dialler specialist, customer care executives

Co-ownership of outcomes

- SLA based model measured on percentage of due amount collected

Value delivered

Uplift of 11% in first 3 months of analytical solution deployment

Premium collection effort advanced by 10 days; significant increase in system agility

Lower cost due to process optimization and automation

5

Automated train controls and rail-to-rail signalling system to improve productivity

"Business impact"

Vertical: Railways (Control System)

Client Geo: Europe

Partner: CYIENT

Solution

Rail traffic monitoring systems using transmission based train controls

- Installed Thales Seltrac S40 rail signaling system on two main underground lines
- Moving block systems with vehicle on-board controls on both ends of the train for direct control
- Met all safety regulations through strict testing in phase-wise implementation

Engagement approach

End to end solution encompassing the entire product design lifecycle

Strong domain expertise

- Signaling engineers with licenses from Institute of Railway Signaling Engineers
- Centre of Excellence set up in offsite location

Ownership of Business KPIs

- Benchmark of 30% increase in traffic

Value delivered

12,500 more commuters per hour

30 more trains per hour during peak hours; 18% reduction in journey time; 2 min average reduction in train journey

Helped complete the projects six months in advance

6

Designing an extremely successful Next-Gen Aero engine in less than half the typical cycle time

"Innovation"

Vertical: Design (Aero Engine)

Client Geo: Confidential

Partner: CYIENT

Solution

Partnered in the design & development of next gen aero engine within half of the normal product development cycle time

- Paradigm shift from conventional engines by introducing an uncoupled fan & low pressure compressor for optimum efficiency

Engagement approach

Contributed about 22% of design and development effort in a collaborative manner with the OEM

- Ownership for system level engineering of secondary flow components & lube system
- Prediction of dynamic behavior & various acting loads
- Deliver weight savings on several cold section static structural components

Value delivered

- **Co-created 10 patents with ~100 design concepts**
- **Type certification with 5500 engine order pipeline**
- **40% reduction in design development time**
- **Annual Savings of $1Mn via process improvements**
- **16% more fuel efficiency & 75% lesser noise**

7

Reduced risk and increased compliance through robust governance mechanism

"Business solution"

Vertical: Consumer Goods (Fortune 200 CPG Major)

Client Geo: USA

Partner: GENPACT

Solution

Reduced Foreign Corrupt Practice Act (FCPA) risk and increased compliance by building a robust compliance and governance mechanism

- Mechanism for evaluating new or existing vendors for FCPA compliance
- Risk assessment to identify and mitigate corruption risk across processes
- Monitoring of high risk spends, T&E expenses, and promotional products

Engagement approach

Strong collaboration with business unit

- Identified root causes and reported control gaps for key processes
- Formulated guidelines to mitigate corruption risks based on findings from risk assessment and data analytics

Extensive business expertise

- MBA/ GARP certified Financial Risk Manager with 7+ Yrs. experience

Value delivered

Reduced corruption (FCPA) and non compliance risk; Robust compliance and governance framework adopted across countries

Project completed ahead of schedule

Integrated solution for multi-asset trade across 23 countries

"Business impact"

Significant increase in throughput and business volumes

Vertical — BFSI (European Bank)

Client Geo — Europe

Partner — GENPACT

Solution

Single, efficient multi-asset trade processing solution

- 'Virtual Captive Centre' for back office trade processing, cash management and general ledger work
- Niche, high end platforms like Calypso, Summit, Kondor+ and Intellimatch to deliver results from an offshore location

Engagement approach

End to end solution provided globally

- New business model across 23 countries

Strong domain expertise

- Experienced technology and implementation project teams with capital markets knowledge

Co-ownership of outcomes

- SLA based model, cost spread over the duration of the program allowing linear reduction in TCO

Value delivered

33% more business users & geographies supported

600% increase in trade throughput capacity; 100% higher batch operations; 90% more support tickets processed

One time savings of 40% through offshoring; 20% savings over 3 yrs from process optimization

9

Developed integrated digital manufacturing solution for automotive assembly line to accommodate new car variant

"Business solution"

Vertical: Manufacturing (Automobile)

Client Geo: Confidential

Partner: Geometric

Solution

Integrated digital solution for accommodating a new car variant in the existing auto framing line without interrupting production

- Updated the entire framework of existing work cells to match new scenario; for e.g. robot/tool location, robot configuration, existing and new sequence

Engagement approach

Extensive business expertise

- Strong domain expertise and deep understanding of the client's manufacturing line

Rigorous testing method and joint planning

- 35 stations & 150 robots used in simulation of framing line
- Line balancing through appropriate spot distribution

Value delivered

Reuse of existing equipment and setup, resulting in ~30% cost saving

Increased quality and manufacturing accuracy by removing bottlenecks

~70% reduction in lead time from design to production

10

Increased revenue through demand forecasting solution to improve accuracy and higher product availability

"Business solution"

Vertical: Retail (e-commerce player)

Client Geo: Confidential

Partner: GIC[1] of Hi-Tech product player

Solution

Standalone automated forecasting solution (with more than 30 statistical time series models)

- Conducted business process and root-cause analysis and identified process gaps
- Conceptualized an Advanced Statistical Forecasting Tool which enabled outlier correction, auto-fit model selection, batch run, etc.

Engagement approach

Strong collaboration with business unit

- Collaborated with multiple stakeholders to design and develop the solution (Marketing, Operations, Finance, Top Resellers)

Extensive business expertise

- Strong domain expertise and deep understanding of client's way of working

Value delivered

Inventory reduction, by ~ US$ 14M

Forecasting accuracy improvement by 13%; product availability improvement by 4%

Better customer experience

1. Global In-House Captive;

11

Improved sales operations by making field force more efficient using the new sales platform

"Business solution"

Vertical — **Consumer Goods** (Fortune 200 CPG major)

Client Geo — 

Partner — iGATE

Solution

Developed a robust sales platform

- Comprehensive suite – with modules for planning, ordering, account management, field sales "call" etc.
- Consolidated report generation & monitoring with field force centric view

Integrated with smart devices

- Power packed "Call" app on smart devices

Engagement approach

End-to-end ownership

- Complete solution from design to implementation

High risk sharing appetite

- Fixed Price with penalty as a % of non-compliance

Active collaboration model

- Alignment with senior management on scope and outcome
- Joint planning to offer better solutions and approach

Value delivered

Increase in selling time by 30% in store—directly impacted revenue

US$ 6M cost savings estimated

Faster and accurate payment processing

Reduced time to market due to faster implementation of business process changes

12

Creating new digital consumer connections through an integrated digital marketing platform

"Business impact"

Vertical — Consumer Goods (Beverages major)

Client Geo — UK

Partner — Infosys

Solution

Integrated digital marketing platform

- Central repository of 300+ digital assets and over 3 million consumer records
- Single platform deployable across 180 global markets
- Consumer analytics for targeted marketing
- Capability to re-use digital assets

Engagement approach

Complete ownership

- Service, infrastructure and application development

High level of engagement & collaboration

- Scope defined by joint planning and collaboration committee
- Scope linked to business outcome

Value delivered

- **1st integrated platform for digital asset reusability**
- **Up to 30% less digital marketing development spend**
- **Website concept to creation in <24hrs**
- **80% satisfaction rate amongst users**
- **Increased re-usability & customer reach**

Customer speak

"The global platform that Infosys provides enables us to produce world class digital marketing programs. It saved us hundreds of thousands of dollars in advertising cost. We can drive and shape the platform to fit our future digital needs and to meet our brand objectives"

– VP and Global Marketing BRM

13

Deeper customer analytics to provide competitive advantage to loyalty programme operator

"Business impact"

Vertical — Retail (Customer loyalty program)

Client Geo — Canada

Partner — Infosys

Solution

Big data for personalized marketing & retail decisions

- Analysis of transaction history, loyalty card, products and discounts
- Drive brand, product, basket size, store visits

Quick and easy to use

- Report generated in <3minutes

Engagement approach

End-to-end ownership

- Service, infrastructure and application development

Extensive expertise

- Team with knowledge of consumer goods industry, & marketing expertise

Co-creation of solution to align with business realities

Value delivered

Flagship product for loyalty analytics

5% increase in sales for retail and CPG co.; Solution adopted by 150+ retail and CPG companies

High customer satisfaction due to ease of use and deep insight generation

Customer speak

"Infosys knows our language, knows our business and understands our domain. Like a glove in hand, they fit very neatly into our day to day operations. They provide development acumen, architecture acumen and implementation support 24X7 around the globe"

– Chief Marketing Officer, EMEA

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Revolutionary product developed to convert existing vehicles to fuel efficient hybrids within 4-6 hours

"Innovation"

Vertical: Manufacturing (Automobile)

Client Geo: Confidential

Partner: KPIT

Solution

Developed REVOLO – an innovative product to instantly convert existing vehicles to fuel efficient hybrids

- Leveraged in-house knowledge to drive path-breaking innovations in
  - Embedded software
  - Control algorithms
  - Intelligent driving pattern recognition
  - Battery management systems

Engagement approach

Complete solution impacting entire emission system

- Innovative solution in battery management, motor, control algorithm, assembly and power transmission

Strong domain expertise

- Combined strong knowledge and technical skills from its parent company, Cummins to design key automotive subsystems

Value delivered

- **14 patents on product innovation in fuel efficient hybrid vehicle**
- **Tested and approved by the Automotive Research Association of India**
- **Complete hybrid conversion for less than US$ 2,000**
- **40-50% increase in fuel efficiency; 30-35% reduction in emissions**

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Overhaul transfer agent account system for smoother operations and lower cost of operations

"Business solution"

Vertical — BFSI (Financial services)

Client Geo — North America

Partner — Mastek

Solution

Modernization of the legacy transfer agent accounting system

- Transformed the entire accounting system—including trading, consolidation, reconciliation, publishing and reporting
- Overall >28 business processes impacted with 15 major complex ones
- "Incremental addition" strategy for creating new functionality within the existing platform

Engagement approach

Complete ownership

- From ideating to development and implementation

Strong collaboration with client

- Partnered with the client from the earliest stages of project

Co-investing for successful engagement

- Risk sharing via fixed pricing
- Secured and dedicated offshore development center

Value delivered

Significant reduction in maintenance and operational cost

Reduced time-to-market

- Configuring new funds and new agents through parameters and eliminating the manual approval process

Quick tracking and resolution of process exceptions

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Enhanced risk assessment capability for better property investments

"Business impact"

Vertical — **BFSI** (Insurance provider)

Client Geo

Partner — Mindtree

Solution

Developed global solution for catastrophic events risk assessment for property investment

- Automated on-demand modeling capability to price individual risks and specific scenarios
- Compliance with risk management/exposure management guidelines from regulators and rating agencies

Engagement approach

Complete ownership

- From ideating and consulting, to design and implementation

In-depth business expertise

- Deep expertise in insurance and risks management
- Catastrophe modeling experts with knowledge of leading risk solutions

Co-creation of solution

Value delivered

Increase in accurately priced premiums to reflect higher risk undertaken

Reduced reinsurance costs; Claims due to catastrophic losses better assessed

Business focus decisions and risk transfer strategies based on enterprise wide exposure accumulation

17

Business transformation for improving the client's leadership position amongst the top 4 insurers

"Business solution"

Vertical — BFSI (Insurance provider)

Client Geo — UK

Partner — Mphasis (Unleash the Next)

Solution

Cost optimization across the claims life cycle
- Optimized claims function to control indemnity spend

Business process standardization to improve customer response time
- Simplified processes to drive efficiencies across the board

Engagement approach

Complete ownership of cross functional solutions
- Implementation post sign off; support through an ongoing change control and service order mechanism

Business linked KPIs
- End customer satisfaction on top 2 box score

Value delivered

15% increase in sales conversion

~US$ 26.5M of cost savings

Customer satisfaction > 92%; Client ranked in UK top 4 on end to end claims handling

Customer speak

"Mphasis is one of the few suppliers who really managed to become a true partner. A partner where mutual respect, understanding and successful service delivery to our customers has been key and is today the cornerstone of our relationship".

– Chief Operating Officer

18

Faster transshipment through unique cargo ground handling hub management solution

"Business impact"

Vertical: Aviation (Air cargo terminal)

Client Geo: Asia

Partner: NIIT technologies

Solution

Complete cargo ground handling system

- In line with the terminal's Just in time processes & hub-based design
- Real-time tracking to ensure SLA adherence

New system integrated with local operations

- Working in accordance with regional regulations

Engagement approach

End-to-end solution for client's unique products

Strong collaboration

- Joint management and implementation with client teams

Co-investment for success

- Fixed price model to share cost overrun risk
- Domain specialist provided

Value delivered

Transshipment time reduced from 8 to 5-6hours

Extended cutoff time; last minute cargo acceptance

Significant top line & bottom line impact

High customer satisfaction

Customer speak

"I am very pleased with the successful implementation of WOS at Cathay Pacific Cargo Terminal. It provides a total solution to facilitate cargo operations in our terminal and the transition of operations for the customers went smoothly. We highly appreciate NIIT's professionalism and dedication to help support the development of this advanced system over the past few years."

- Client CEO

Unified media platform to increase digital stream revenue

"Business impact"

Vertical — Media (Communication and Publishing)

Client Geo — 

Partner — NIIT technologies

Solution

Consolidated advertisement production and content management platform for 12 newspapers

Developed and deployed an integrated media platform (Newspapers, Magazines, Cable & Radio Markets)

- Conceptualized and executed campaigns
- Technology transformation through asset refresh – impacted, HR operations, payroll system etc.

Engagement approach

Complete ownership

- Infrastructure Managed Services, Application Development and Maintenance, Creative, Business Services and Customer Care

Strong governance model

- Regular review meetings with senior client leadership
- SLAs defined for each service line
- Customer satisfaction ratings monitored

Value delivered

High customer satisfaction through superior service

40% operational cost savings

25% reduction of payment application process cycle time; 10% decrease in monthly reconciliation cycle time

Global transaction service model for providing a single window for all trade, cash and payment transactions

"Business impact"

Vertical BFSI (Financial conglomerate)

Client Geo Confidential

Partner POLARIS live your dream

Solution

Integrated global transaction banking portal

- State of the art solution with a comprehensive range of offerings for customers
- Multi-lingual, Multi-country support – 28 languages and 130 currencies
- Highly flexible application which utilizes Service Oriented Architecture (SOA)

Engagement approach

Complete ownership

- End-to-end solution and Program Management
- Global implementation strategy adopted for quick roll out

Extensive business expertise

- Onsite team with BFSI domain expertise and implementation experience

Value delivered

- **Client became early trend setter of single service internet portal**
- **Unmatched customer growth across locations**
- **US$ 12M annual savings by legacy upgrade**
- **10X increase in throughput and file handling capabilities**
- **Quicker roll outs in new locations**

Developed world's first integrated global transaction platform to optimize cash flows and liquidity

"Innovation"

Vertical BFSI (Middle East bank)

Client Geo

Partner POLARIS live your dream

Solution

Centralized fully integrated solution to automate and streamline the entire cash management function

- Automated functions covering Trade Finance, Payments, and Liquidity Management
- Anytime-Anywhere access to information
- Seamless integration with the core banking solution
- Multicountry/ Multilanguage capability - 5 countries & 2 languages (English, Arabic)

Engagement approach

End-to-end ownership

- Ownership of the entire product development lifecycle, from Requirements Gathering to Warranty

Single version customized for all global locations

Relevant business expertise

- Onsite team with BFSI domain expertise and implementation experience

Value delivered

- **World's 1st integrated global transaction banking platform**
- **3X increase in transaction operations**
- **10% lower technology cost year on year; 51% lower production support cost**
- **14% increase in ops productivity over two years**
- **Reduced time to market**

Lean improvement program to improve quality, productivity and delivery of IT service

"Business solution"

Vertical: BFSI (Global bank)

Client Geo: Europe

Partner: TATA CONSULTANCY SERVICES

Solution

Improvement program for IT service management process in capital markets and retail banking

Deployed innovative 5D framework for each project
- Incident and service request management
- Test environment management
- Deployment management

Engagement approach

Complete change management solution

'Plug n Play' model adopted
- Key learnings and best practices used in other projects to reduce effort

Co-investing for success
- Fixed pricing and use of KPI for desired outcome

Value delivered

62% improvement in turn around time & 46% in response time

69% reduction in service escalations & 30% in back-log

AMCF award for operational performance

Customer speak

" I am very pleased by the way TCS has run the Lean program. The Lean designates from the Global Consulting Practice of TCS brought vitality and energy to the program."

- Client Director and Global Head of Lean Program

Improved service level to citizens through upgraded Unemployment Insurance (UI) system for a US state agency

"Business impact"

Vertical: Government (Dept. of Employment Security)

Client Geo:

Partner: Tata Consultancy Services

Solution

Comprehensive and integrated web-based UI system

- Overpayment prevention by claimant profiling
- Customer Quick Response – Users given secure direct access to their information
- Automated overpayments & fraud detection

Engagement approach

End-to-end solution

- Owned entire lifecycle from requirements to support and maintenance

Active collaboration

- Open ended RFP to allow service providers to suggest innovative solutions
- 100% onshore development with state team

Value delivered

- **Most comprehensive and integrated system in the USA**
- **Awarded at NASWA conference for state agency automation**
- **Reduction of ~10,000 person hours per annum**
- **Better service levels to citizens**

Customer speak

" Our state will be one of the first to pay the EUC Tier III. The repayments are where the actual value add is. We are able to handle 3 times the volume with same or less staff all because of new UI solution designed by TCS"

– Project Manager

Best in class digital sports experience for customers

"Business impact"

Vertical — **Media** (Leading sports broadcaster)

Client Geo —

Partner — Tech Mahindra

Solution

Integrated digital sports platform for delivering 'TV Everywhere'
- Simultaneous access to over 14 different sports
- Cloud based mobile testing platform – MATE (Mobile Application Testing Ecosystem)

Deeper customer analytics for targeted sales approach
- Intelligent preference monitoring for customer profiling; big data analytics on cloud

Engagement approach

Complete ownership
- Integrated solution across businesses (digital media, ad sales, content rights & broadcasting) & channels

Joint planning and collaboration
- Interacted with different business units around user experience, integration & analytics needs

Co-investment for success
- Domain expertise in user experience, digital design
- Shared risk via fixed price

Value delivered

30% increase in subscription and advertising revenues

50% faster time-to-market in new product /channel launch

First time right delivery increased RoI, lower redundancies

High customer satisfaction

Best in class remote healthcare monitoring driving core sales

"Innovation"

Vertical: **Healthcare** (Medical device company)

Client Geo:

Partner: Tech Mahindra

Solution

Set up HIPAA compliant Clinical Process management facility
- State of the art audio visual technologies to monitor & analyze patient data and report directly to doctor / patient
- Qualified and experienced medical professionals

Rapidly scalable model applicable across a multi-lingual and multi-geography base

Engagement approach

Turnkey operation of entire monitoring facility
- End-to-end integrated IT solution, facility infrastructure, paramedics, training & ISO certification

Shared business vision and strong collaboration
- Business KPIs benchmarked against high quality clinical interpretation
- Shared risk via joint investment in facility/technology

Value delivered

Pioneered remote healthcare monitoring

Increased device sales due to lower healthcare cost

High patient satisfaction
- Reduced stay
- High quality health-care at lower cost

24x7 health monitoring
- Faster turn around
- Better report quality
- Higher efficiency

Real time analytics for accurate water demand forecasting and leakage reduction

"Business impact"

Vertical — **Utility** (Water service provider)

Client Geo —

Partner — WIPRO

Solution

Transformation of control operations by delivering Asset and Operations Real Time Analytics (AORTA) program

- Predictive analysis based on 20 years historic data
- Consolidated view of the water network via 500 schematics
- High volume data analytics using 15 min interval data from across the water network

Engagement approach

End- to-end solution implemented via phased approach

- Aligned to business priorities, with focus on early benefits realization
- Effective dependency management for on-time delivery

Joint planning & collaboration

- Shared vision with strong executive sponsorship
- Delivered as a business change initiative

Value delivered

Energy savings across the top 25 water sites

- 20–25% savings of chemical usage

Included in IDC Energy Insight report as best practice for a water utility

Increased visibility

- Faster decision making & single view of operation

High customer satisfaction

"Business impact"

Differentiated product offering in Micro BTS solution space

Vertical: **Telecom** (Telecom equipment provider)

Client Geo:

Partner: WIPRO

Solution

Multi-standard base station solution to enhance product lines

- First complex BTS (Base Transceiver Station) project undertaken by client
- Covered all aspects of the product, i.e., Hardware, Software
- Continuous automation and integration of the BTS software
- Quick turn around factory model for BTS carrier frequency variants

Engagement approach

Turnkey development partnership

- Responsible for feasibility study, development, testing

Extensive expertise

- Domain experts in BTS architecture, board development, etc.

Performance linked pricing

- Rewards / penalties for schedule adherence
- Quality KPIs established for overall BTS evaluation

Value delivered

- **First multi-model BTS solution to enhance product lines**
- **Lower R&D and product dev cost**
- **Faster time to market advantage across geographies**
- **Developed long lasting strategic partnership; Rated 6/7 for excellent service delivery**

Transformation of Offline Revenue Channel to boost client's overall offline revenues by 50%

"Business impact"

Vertical — **Travel** (Leading Travel agency)

Client Geo

Partner — WNS Extending Your Enterprise

Solution

Transformation of customer acquisition process:

- Analytics-led diagnostics
- Customer acquisition & retention strategy development
- Deployment of a robust technology framework
- Functional optimization of the sales channel

Engagement approach

Proprietary Sales Center of Excellence (CoE) model used for transformation

Extensive business expertise

- Deep expertise in multi-channel customer service environment
- Long -standing experience in the travel and hospitality industry

Value delivered

20 % increase in revenue per call

50 % increase in overall offline revenue; 77 % increase in gross offline sales in comparison to the previous year

150 % increase in sales conversion rate

World class m-commerce solution to increase customer base

"Business solution"

Vertical — **Retail** (e-commerce player)

Client Geo — Africa

Partner — ZenSar Technologies

Solution

Plan, prioritize and execute m-commerce strategy

- Mobile website with device detection mechanism – pages rendered according to customer preferences
- Hybrid app with cross platform support
- Dynamic personalized content, responsive web design

Engagement approach

End to end ownership

- End to end mobility implementation supporting all popular platforms like iOS, Android, Blackberry

Collaborative approach for successful engagement

- Recommended adding Mobility Channel to take advantage of vast penetration of mobile users
- Fixed cost for project for risk sharing

Value delivered

Increase in customer base due to improved customer services

Cost savings due to improved efficiency

Cross platform support, ease of operation, performance

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