R&D Outsourcing as a form of Business Transformation Partnership

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Engineering and R&D Services

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The world we now live in

The world we now live in

The world we now live in

e) 2 Engineering experiences
Acceleration | Value | Technology

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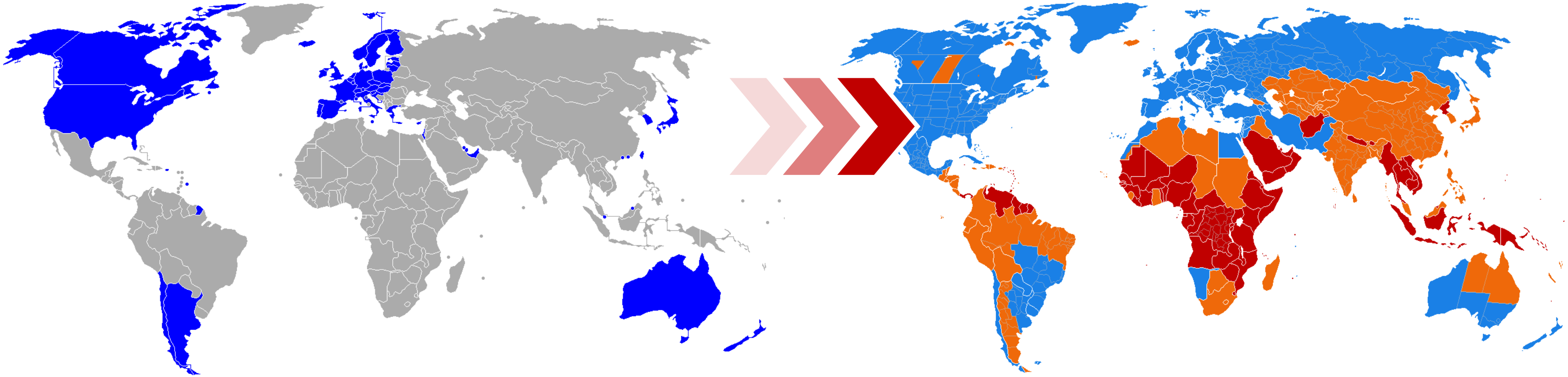
… and the market we are moving towards



- By 2020 there will be a significant shift in the global distribution of economic power to emerging economies
- Of the incremental GDP growth of $26T ; 60% expected to be from emerging economies

Source: Euromonitor International, Bain

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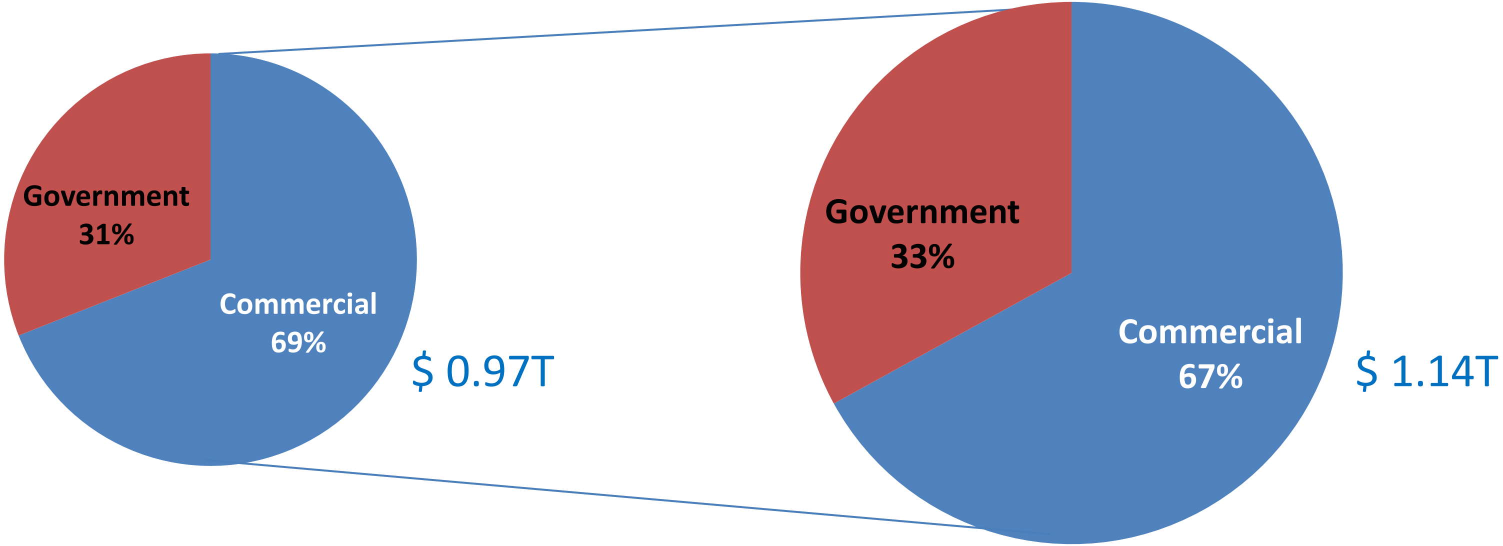
… and the market we are moving towards

- Next Billion Consumers will drive **$10 Trillion** towards global GDP by 2020
- **Additional 1.3 B** people by 2020 as global middle class

Global R&D Industry Context

Global R&D Spend : 2011 – 2020, 2.2% CAGR

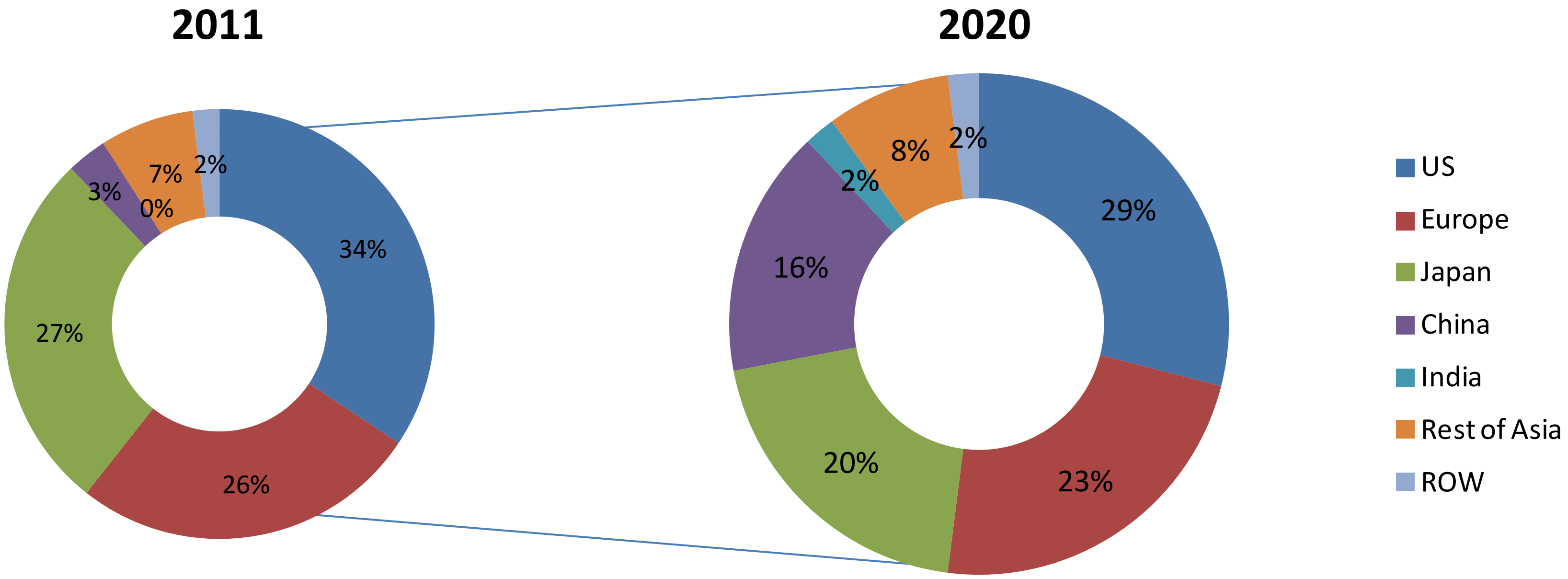


Total $1.4T

Total $1.7T

Source: Bloomberg data/ Booz & Company Database

Global Commercial R&D : Geo



Total $0.97B

Total $1.14T

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Source: Bloomberg data/ Booz & Company Database

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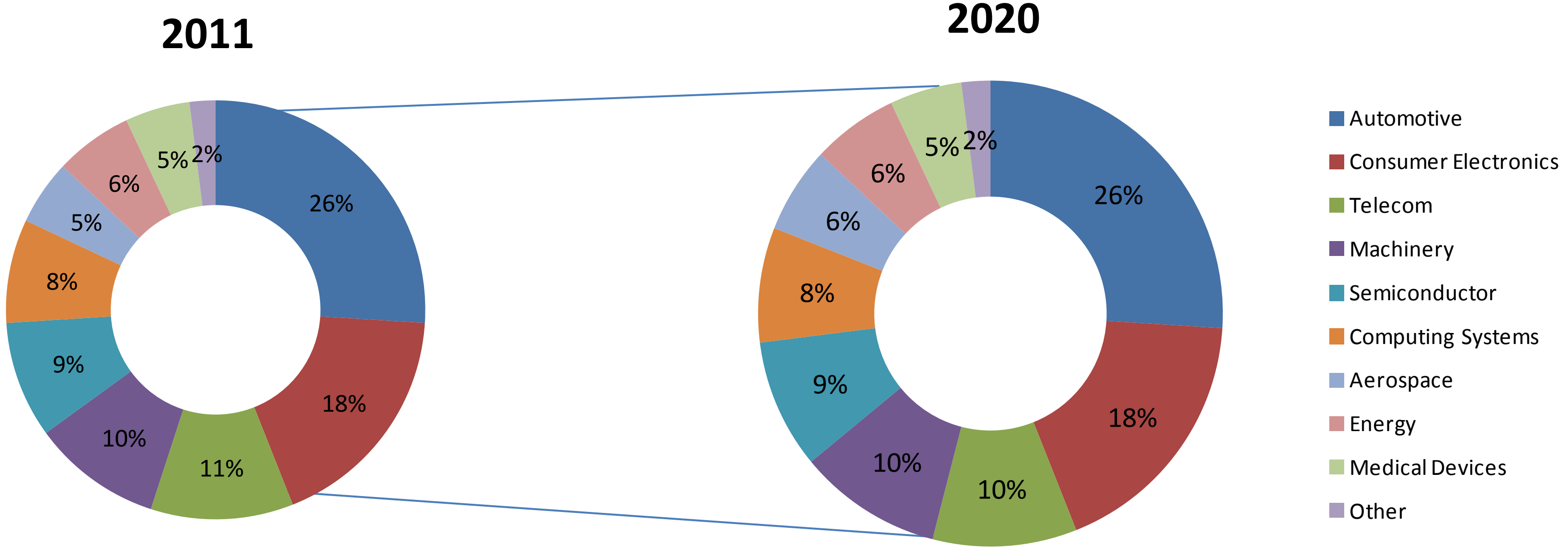
Global Commercial R&D : Industry



Total $0.97B

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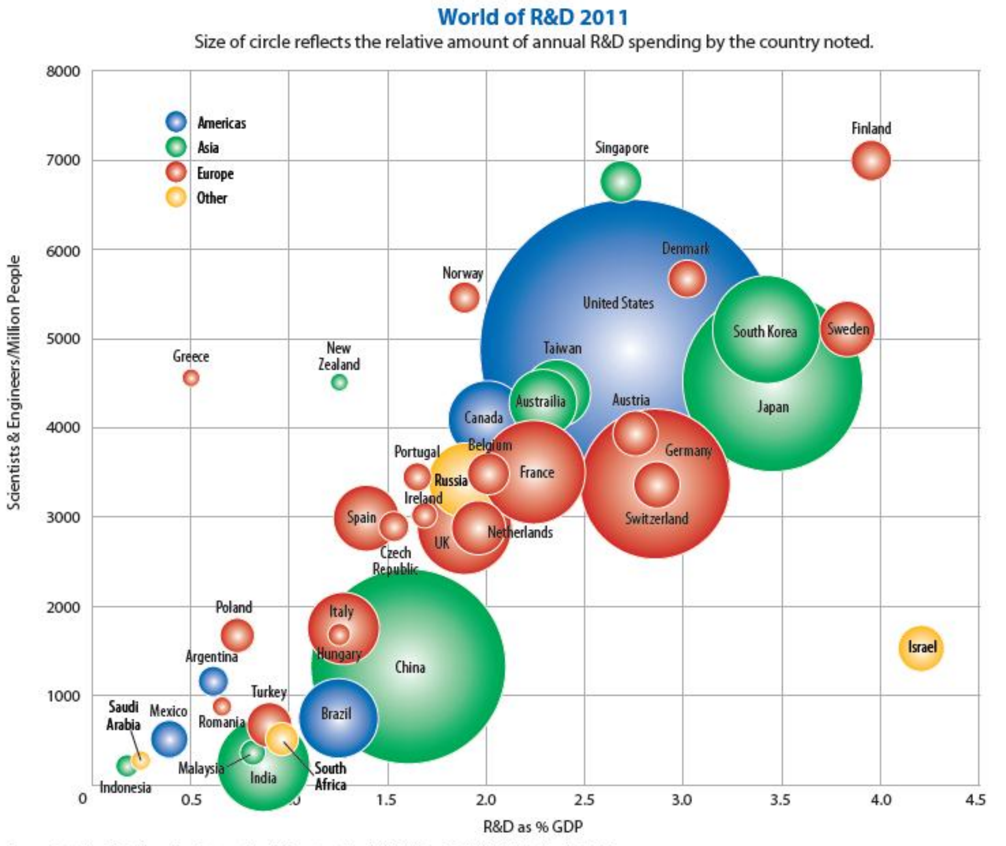
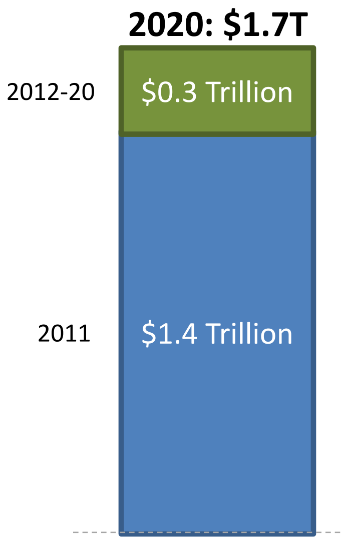
R&D as % GDP : 2011



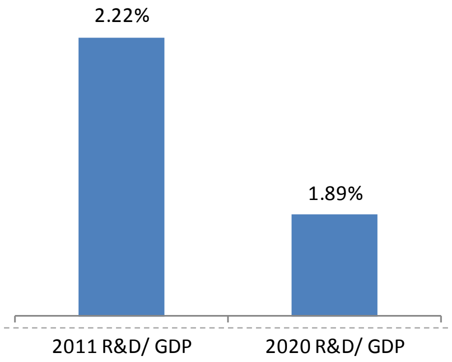
Source: Battelle, *R&D Magazine*, International Monetary Fund, World Bank, CIA World Factbook, OECD

New Normal in Engineering and R&D :
R&D intensity; flat to decline over this decade

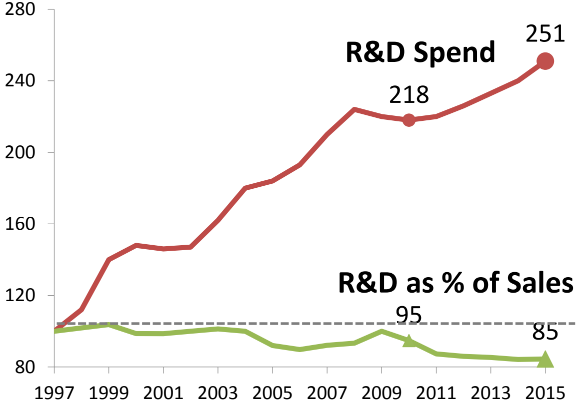


Global R&D Spend

R&D Spend and Intensity as % of Global GDP



Top 1000 Innovators: R&D Spend



1997 : base-lined as 100

- Global R&D spend is flat and will lag GDP addition during the current decade
- R&D Spend growth in Top 1000 Innovation companies will lag business growth
- Product Engg. teams have to address market opportunities with smaller budget increases

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Source: Bain Global Mega Trends Report; NASSCOM Booz Report; Booz Innovation Study 2011

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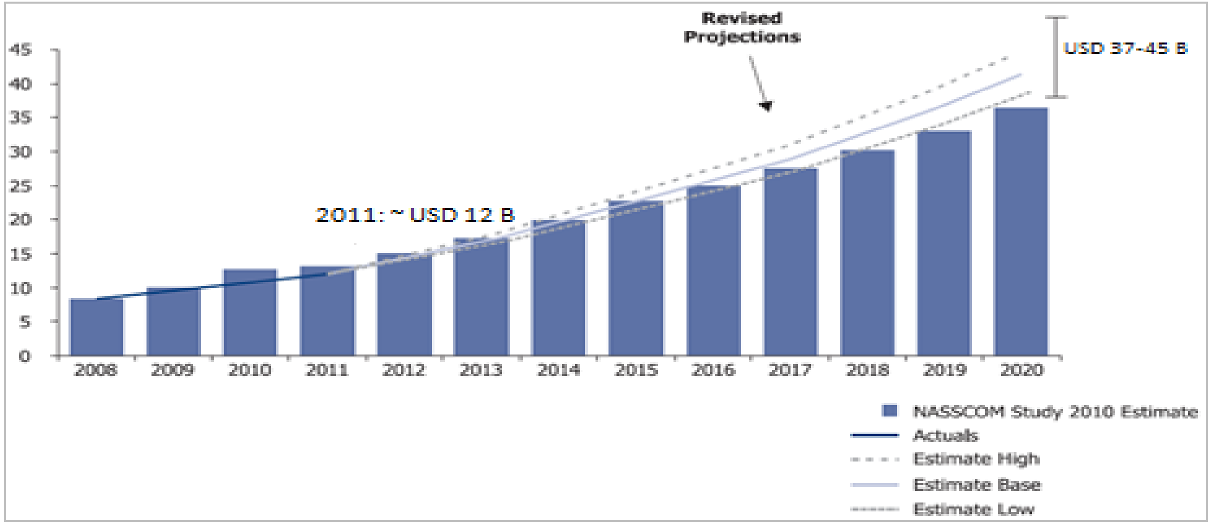
Engineering and R&D : India Context

Engineering and R&D Services from India : the road ahead @ 16.2% CAGR

2011 : Engineering and R&D was 19% of Indian IT Exports
2020 : ER&D ~3X in scale of 2011



India Engg. Services Market Forecast

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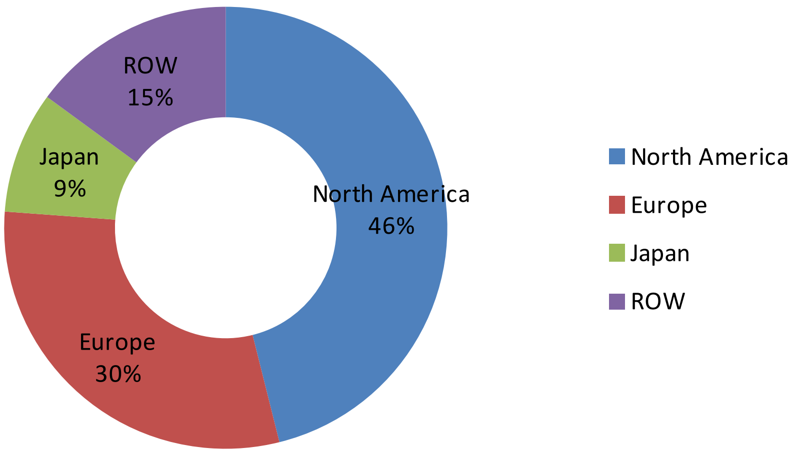
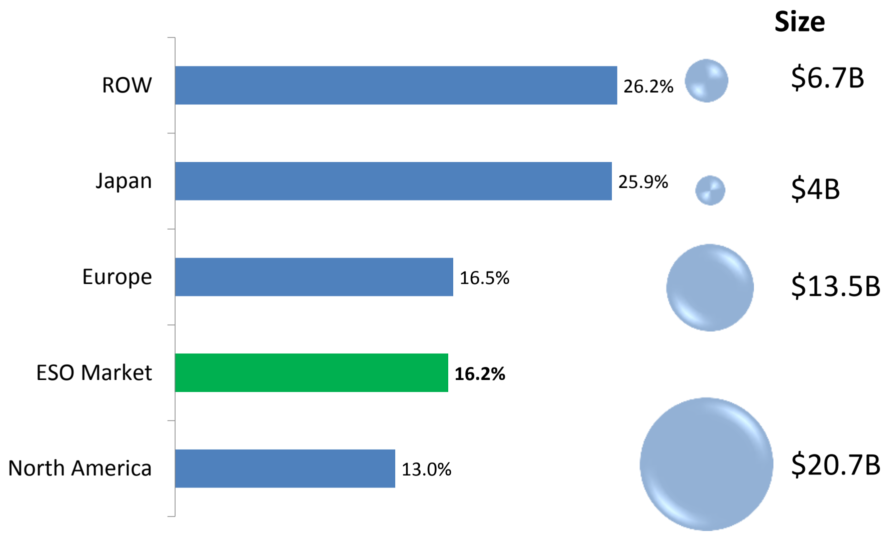
Engineering Services Market :
Geo wise growth

2020 ES market: Size & Growth by GEO

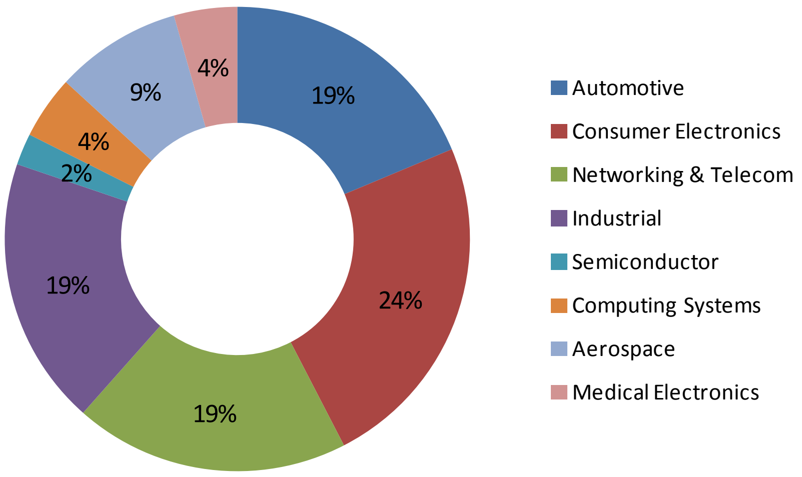


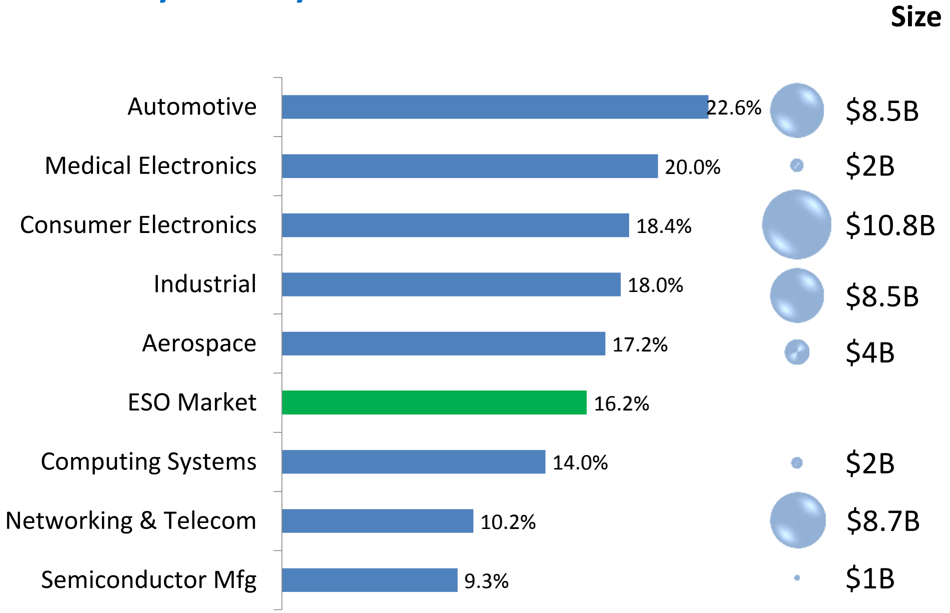


Source: NASSCOM Booz Report

Engineering Services Market :
Industry wise growth

2020 ES market: Size & Growth by Industry





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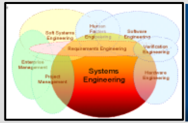
8 key themes for ESO growth

Business Need

Technology Need


Combine Local with India


Full System Development


Digitization


Mobility


Embedded and Smart


New Product Launches

Accelerated Product Development


Engineering Efficiency

… delivered at an incredible **Value**


Technology and Industry Convergence

… & enabled by the latest **Technologies**

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Most of the World's best known brands

leverage India in Engineering Services

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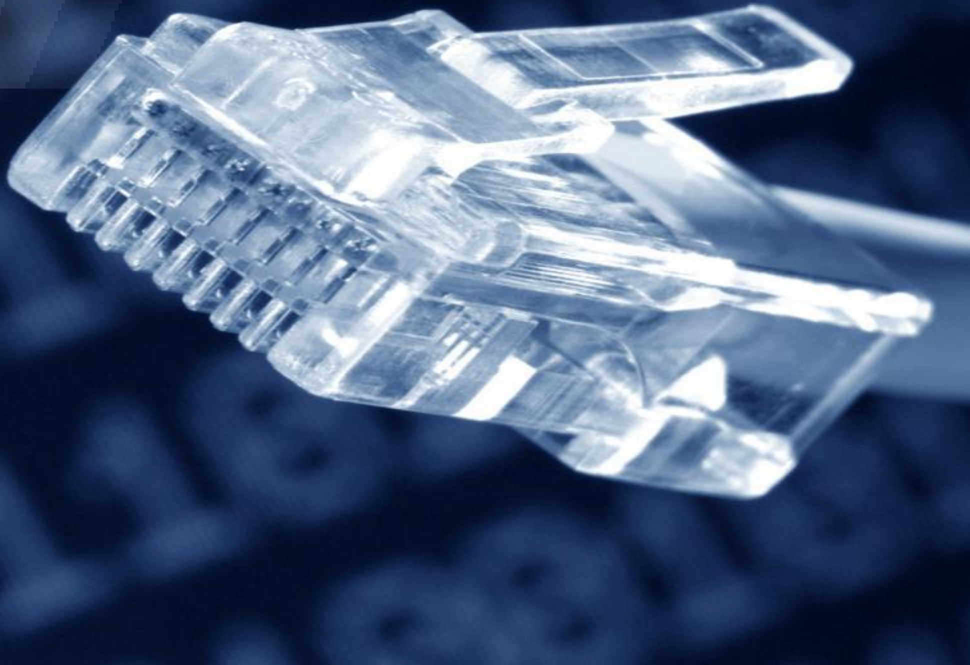
Medical Devices

- Class II and III devices
- Diabetes, Renal, Dialysis, Implantable drug delivery, Ortho, Women health, Cardiovascular, Surgery, Urology
- Designed for care, quality, diagnostics

Failure is not an option…

Telecom

- 75% of the products, platforms, devices, tools
- Core network, SDN, Video, Analytics, Mobility, Converged and self healing network, IPV6, M2M
- SW, Embedded, Value Engineering, Test & Certification
- One of the largest global engagements in ESO



Office Automation

- 3 COEs ; High speed data analytics, Imaging, Control Systems
- Design, Development and Life cycle management of 8 products complete end-2-end
- Cloud based Apps for new segment, emerging market

Consumer

- Picture quality so lifelike it's like looking through a window
- 4K LCD Panel, 4 X ultraHD
- Apps and connect to the world through Entertainment Network
- Imaging and SW, All screen development
- Platform, Devices, Embedded, Mobile, Quality

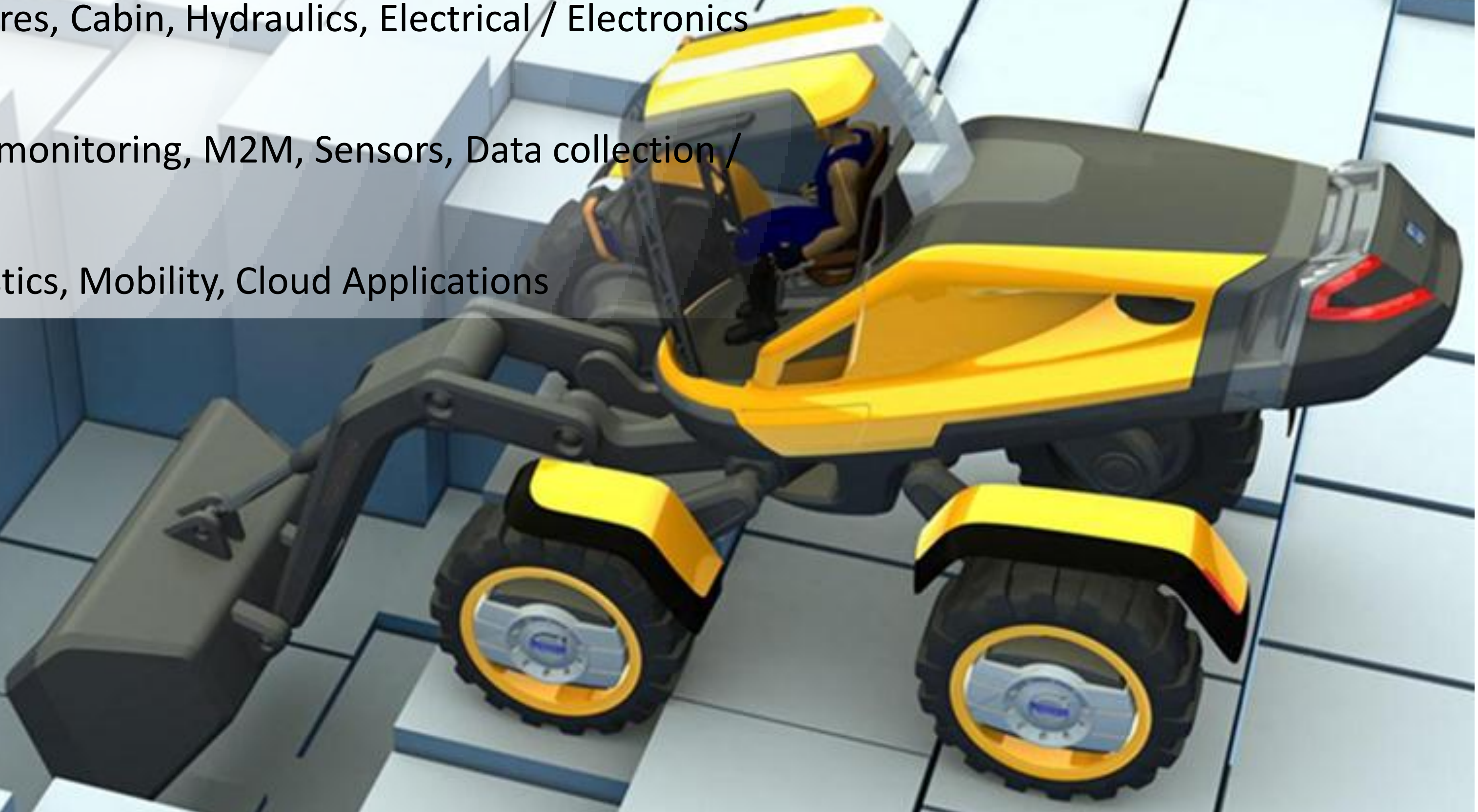
Automotive

- Embedded systems in car have 40+% of R&D spend
- Hybrid / Electric, Battery Management Systems
- Communication, Entertainment, Safety, Telematics
- V2V, V2I, Connected cars, Integrated ecosystem
- User Experience, Localization, Environmental

Auto : ~25% of Global ER&D

Industrial / Heavy Machineries

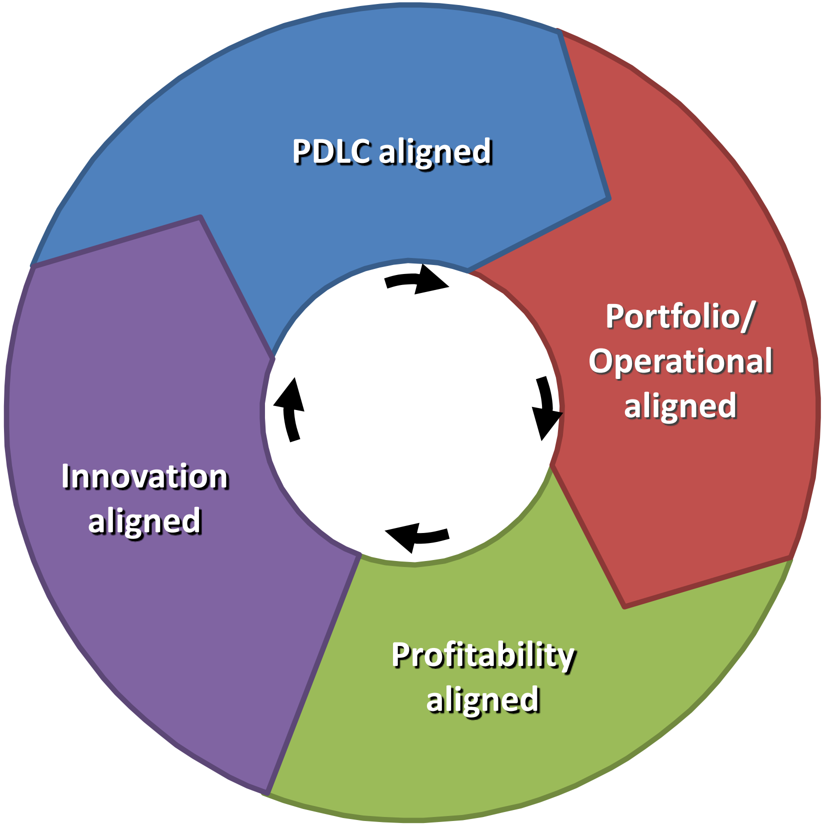
- Powertrain, Structures, Cabin, Hydraulics, Electrical / Electronics systems
- Device control and monitoring, M2M, Sensors, Data collection / analytics
- Telematics, Diagnostics, Mobility, Cloud Applications



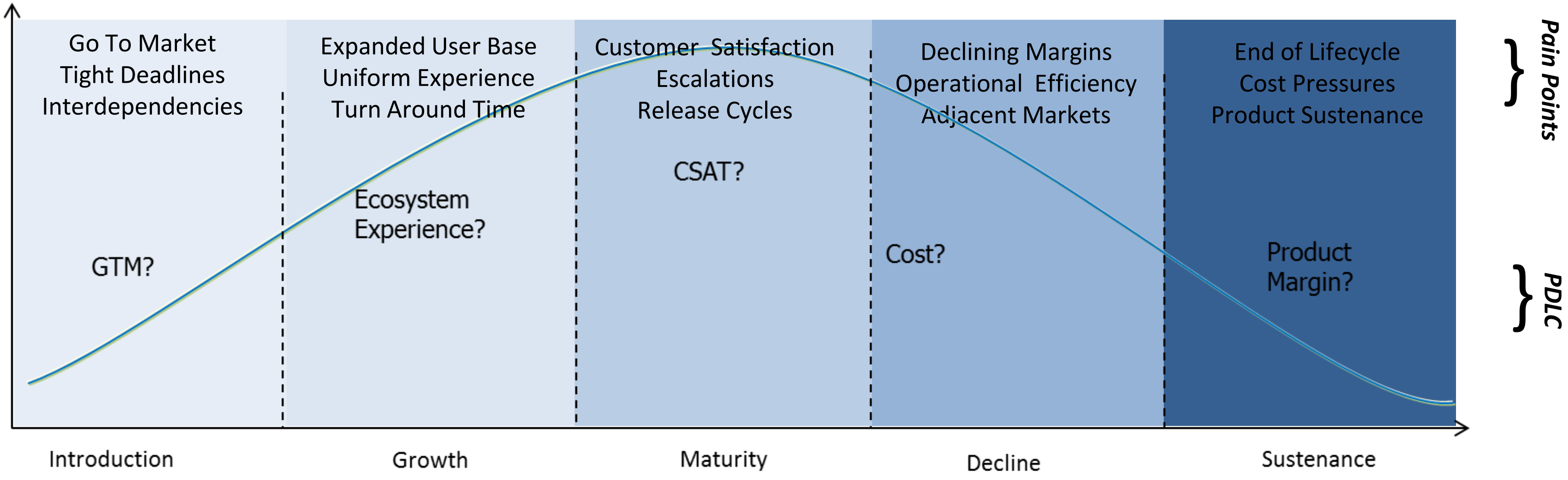
Industrial ESO growth 18% CAGR; same as Consumer

ESO and Business Transformation : Engagement Context

Engg. Services Outsourcing and Business Transformation



PDLC alignment



Product launch & Acc.
- Solutions
- Product Mgmt.
- Architecture
- System Engg.

Platform build & Acc.
- Platform Engineering
- I18N/L10N
- Performance engineering

Product Q&C
- Test Automation
- Release Management
- Process Management

Value Engineering
- BOM optimization
- Supply Chain Mgmt.
- Emerging Market Addressal

Product Sust. & Support
- Cost of quality
- Cost of sustenance
- Maintaining Product Margin

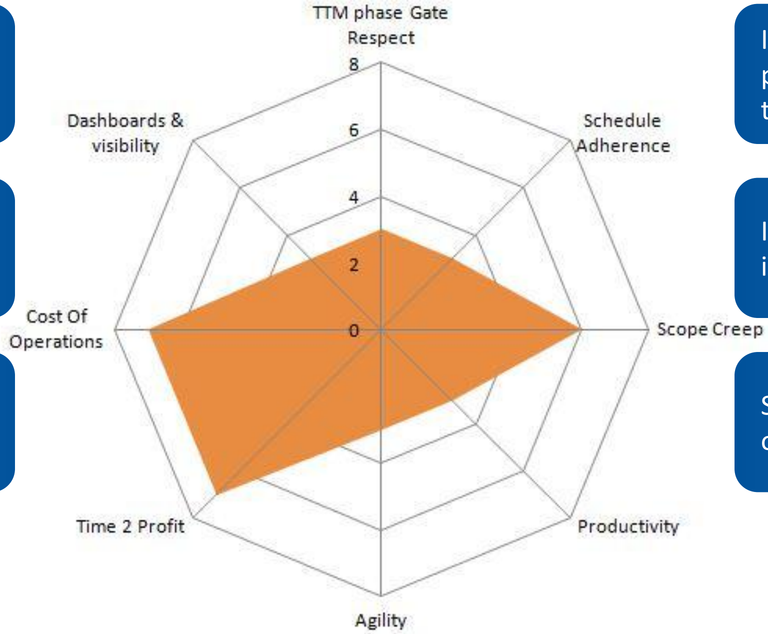
Solution

Portfolio / Operational alignment

Most product companies with 10+ years of history have multiple products, releases, diverse teams, silo operations ..

Diversified customer portfolio with respect to: businesses, industries & geographies

Engineering processes are geared for medium - long product launch cycles



Installed base is the main contributor to profits, Maintenance contracts contribute to large share of revenue and profits

Investments need to be unlocked and put into newer products

Significant cost pressure from engg. operations

Profitability alignment

BCG matrix; low growth and low market share products cause significant drain

Market Growth

Question Mark

New Technology, New Segment / Market

- *Solutions / core engg. expertise*
- *Flexible Engineering Capacity @ Scale*

Star

Mature Product, Huge Customer Base

- *Platform Engineering for Uniform Customer Experience @ Scale*
- *Test Automation and rapid release management*
- *Addressing extended and adjacent markets with localized solutions*

Dogs

End of Lifecycle, Legacy Technology, Cannibalized by next gen Products

- *Reduce cost of operations and make the product profitable*
- *Free up experienced resources*
- *Extend Life of Product, ensure smooth transition for next gen products*

Cash Cows

Mature Product, Huge Customer Base

- *Test Automation & Cycle time reduction*
- *Agile & Rapid Release Management*
- *Incidence Management and Customer Satisfaction*

Market Share

Innovation alignment

a

Product innovation

Patentable ideas
Supplier sourced Innovation

c

Business model innovation

Outcome based Risk reward / Revenue share

b

Process innovation

Injection of Intelligence
Operational Efficiencies

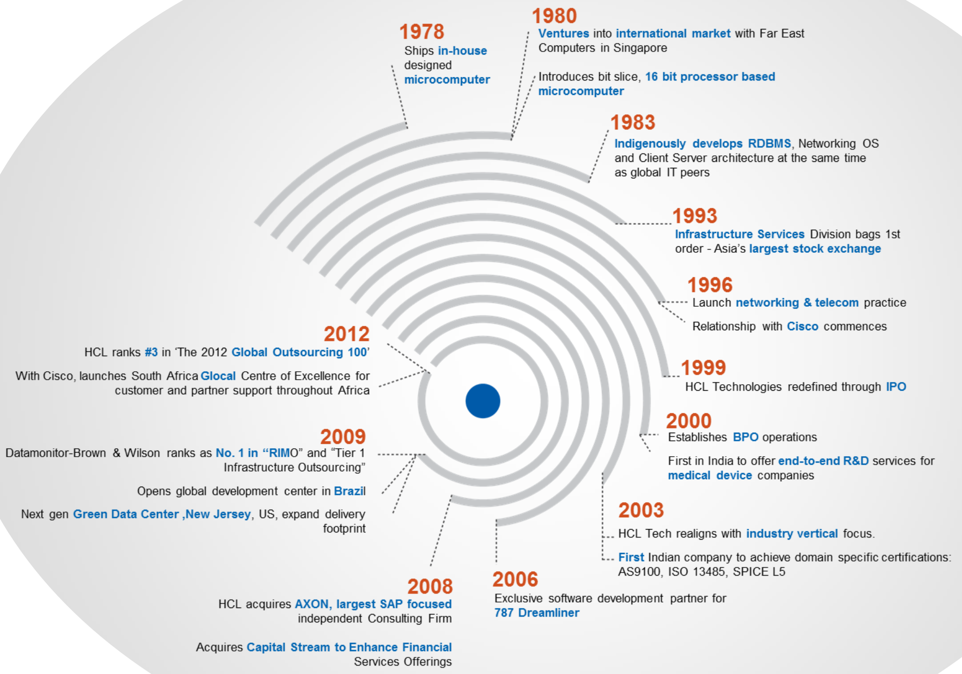
d

New market ideas

Product adjacencies
Industry / technology convergences

HCL Technologies, an introduction

About HCL



- $ 6.2 B Enterprise
- 90,000 Employees
- 31 Countries

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HCL Japan

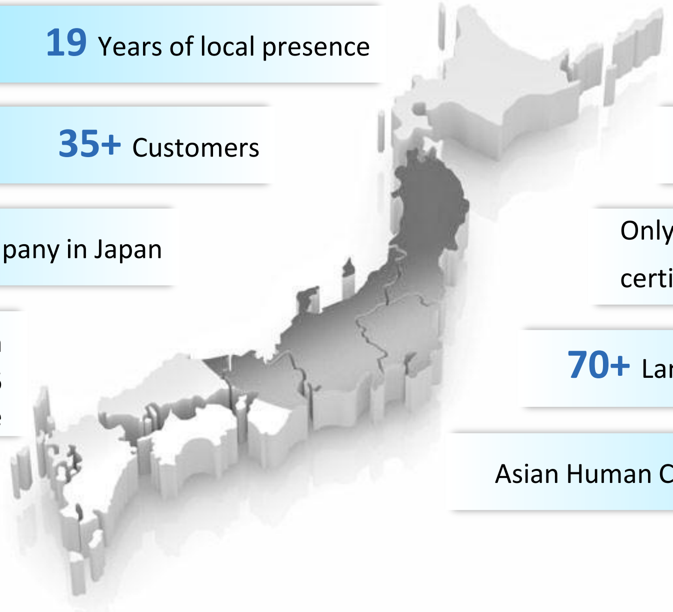
19 Years of local presence

35+ Customers

#1 Indian services company in Japan

500+ Engineers skilled in Japanese language including 56 Native Japanese

$8B+ Product revenue enabled



8 of 32 Top 150 R&D companies are HCL's Customers

2000 Employees across Japanese projects

Only Indian Service Provider to be certified by **VCCI** Japan

70+ Language support experts

Asian Human Capital **Award** 2011

- Absolute Market Leadership in Engineering Services
- Largest Engineering Outsourcing by a Japanese Company
- Local Multi-Lingual Employees 30% Local Hires
- Industry Best in Class CSAT 100% Contract Renewals

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HCL ERS : creating business impact for our customers across the globe everyday

North America

225+ customers

$40 B+ product revenue enabled

3 US based Engineering Development Centers with 50% local employees / 20+ Offices

- by 18,500 HCL ERS engineers across 4 continents; 3000 outside India
- for 300+ active engineering customers
- at 75 active Offshore Development Centers with dedicated labs, 22 shared labs

Japan

25+ customers / Focus industry verticals: CE, Medical & Office Automation; Auto and Industrial

Japan dedicated, Multi-lingual engg. / engagement teams / 2 Offices, Tokyo and Osaka

Europe

50+ customers / 4 Regions in Europe

15 of 50 Top Tier R&D companies are HCL's Customers

1 Europe Development Center, 80% local employees

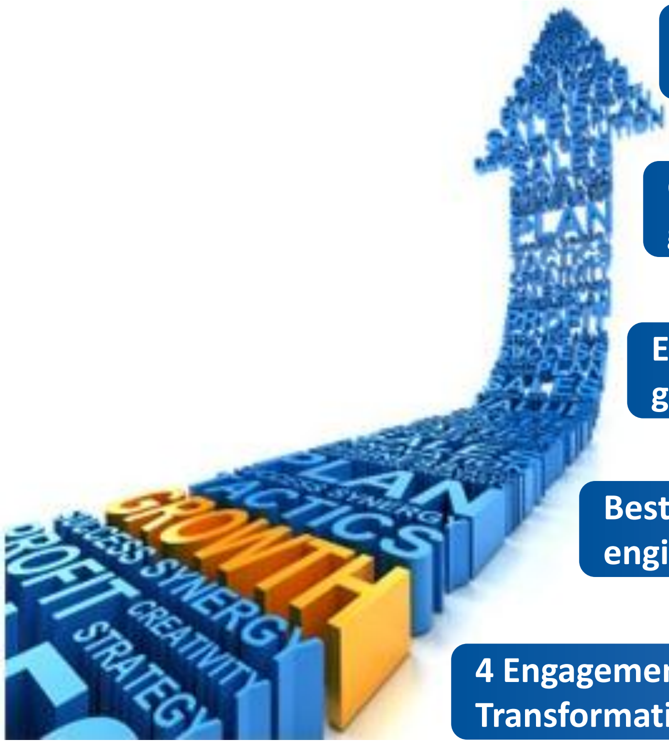
India

$25+ M investment in engg. labs

~ 100 development centers, dedicated and shared

6 locations, 15,500+ engineers, among the largest engg. strength globally

Lets recap …



- The world we live in has changed …..
- Global R&D investment will lag global GDP growth over this decade ….
- Engg. and R&D Services from India will grow 8 times faster than global R&D ….
- Best known global brands leverage India's engineering and design ….
- 4 Engagement contexts of ESO and Business Transformation …..

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http://www.hcltech.com/engineering-rd-services/overview

http://ers.hclblogs.com

https://www.facebook.com/HCLTechnologies

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http://www.linkedin.com/pub/hcl-ers/24/204/930

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Thank You