

**NASSCOM®**

# Skilling for Digital Relevance

**20 July 2017**

# The world is changing.....and we are preparing for it



## Technological shifts

- Disruptive technologies and the pace of exponential change
- Data is the new oil
- AI as the disruptor
- The Internet of everything



## Changing geopolitics

- Protectionist sentiments and reversal of Globalization
- BREXIT, Middle East Crisis
- Increased regulatory environment, new laws for digital economy



## Economic volatility

- Currency fluctuations
- Lower GDP growth, rising inflation
- Sector uncertainties – BFSI, Retail

**Tech Shifts are the most profound and reshaping businesses, and how we live.**

# Companies are making big bets on digital business

**Shell (and Others):  
The Digital Oil Field**



**Driving to Transform an Industry:  
The Fully Autonomous Mine**



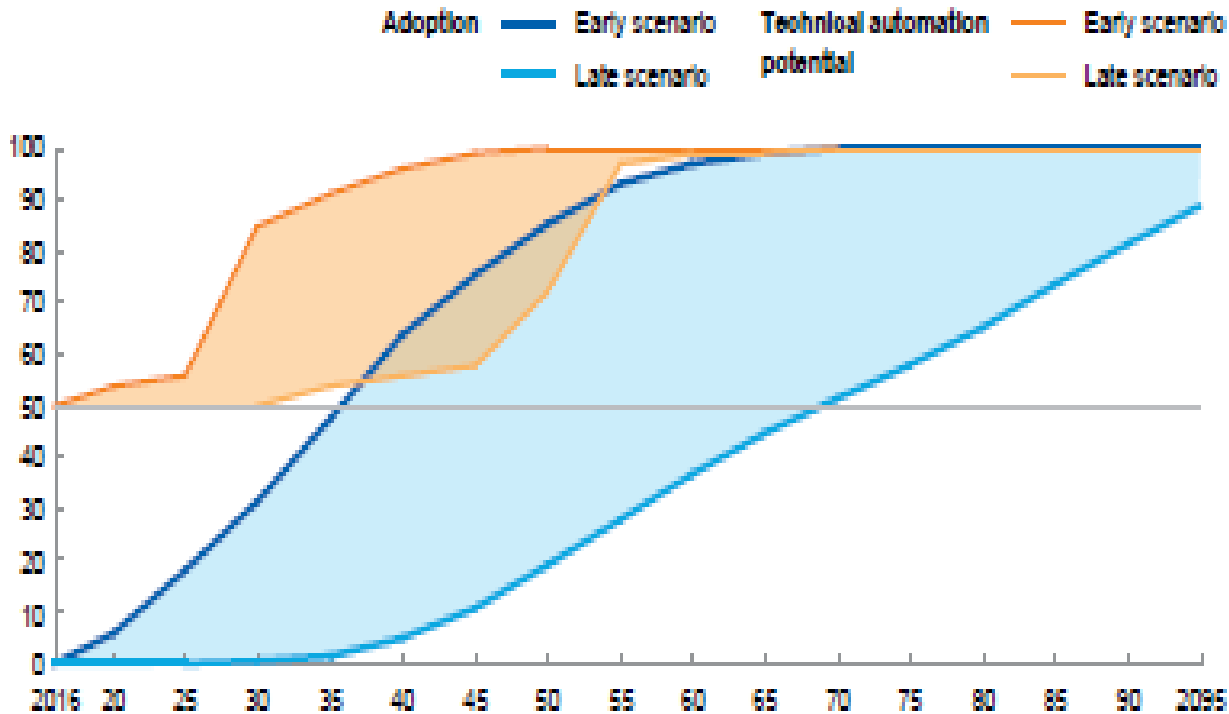
**Boeing Digital Services**



This change is occurring across every sector. IT industry is not only driving these changes, but is itself impacted by it – the move to 'As a Service Economy' is a key shift transforming business models.

# Automation is a global force but adoption will take time

Time spent on current work activities<sup>1</sup>  
%



<sup>1</sup> Forty-six countries used in this calculation, representing about 80% of global labour force.

SOURCE: McKinsey Global Institute analysis

Technology is eliminating jobs but also creating jobs.

Throughout history, it has created many more jobs than it has eliminated.

Pace of change, has accelerated significantly. (As an example, the US loses 21 million jobs every year due to tech and business changes, but creates over 23 million jobs).

Despite aggressive adoption of technology in the US and UK, unemployment levels today are at the lowest levels in recent times.

# Implications for stakeholders



- ❑ Automation means less jobs for the same output.
- ❑ Growth creates more jobs.
- ❑ As long as pace of growth is higher than the rate of reduction of jobs due to automation, net employment will continue to grow.



- ❑ The jobs that are lost and the jobs that are created are different, require different and mostly higher, skills.
- ❑ Workforce reskilling is an urgent and massive imperative across sectors



- ❑ Workforce realignment, performance based appraisal and reskilling at scale continue as industry practices consistent with the pace of change



- ❑ Sensitivity, transparency and agility are critical for handling the HR challenges thrown up by the new trends

# Dealing with a changing world..

## FIRMS

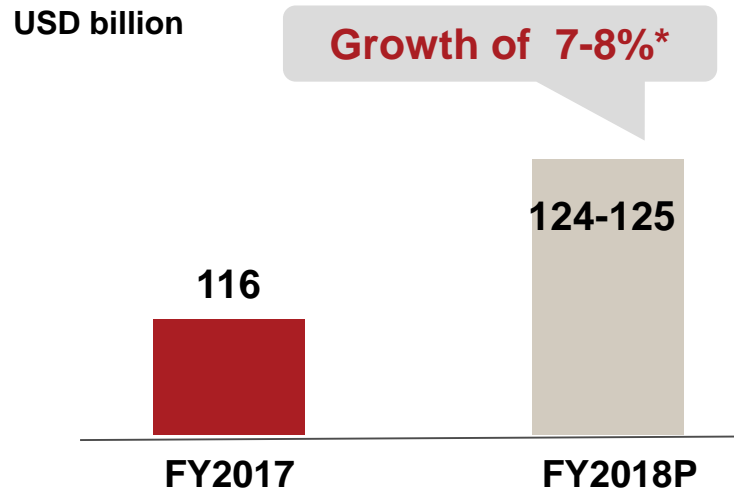
- ❑ Growth has to outpace impact of automation for a net hirer firm. May not happen at every company level, but will happen at an industry level.
- ❑ Re-skilling & Up-skilling top most priority for employee retention and professional growth.
- ❑ Rigorous performance appraisal and Workforce Realignment a necessity. . Failure to do so places all jobs at risk

## WORKFORCE

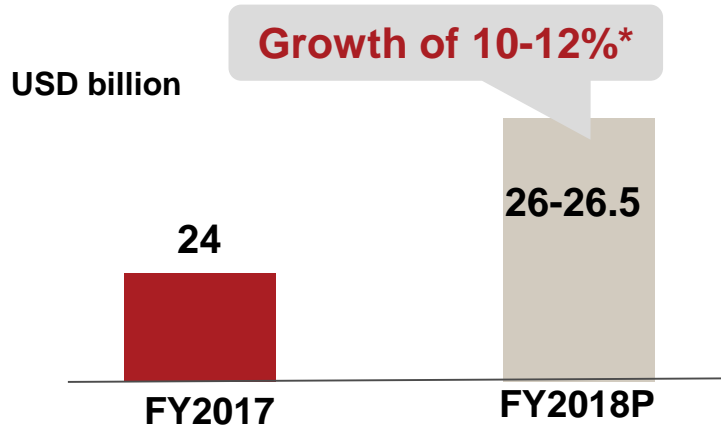
- ❑ Continuous acquisition of new skills. Failure to do so at any level creates risk of job loss.
- ❑ Increasingly, opportunities for technically skilled talent is needed across sectors, where a combination of technology skills and domain (BFSI, Healthcare, etc.) knowledge is needed. This combination is increasingly important even in the IT sector itself.

# Industry Growth Drivers: Technology + Skills + Market

## India IT-BPM Export Revenues\*



## India IT-BPM Domestic Revenues\*



### The Skills Imperative

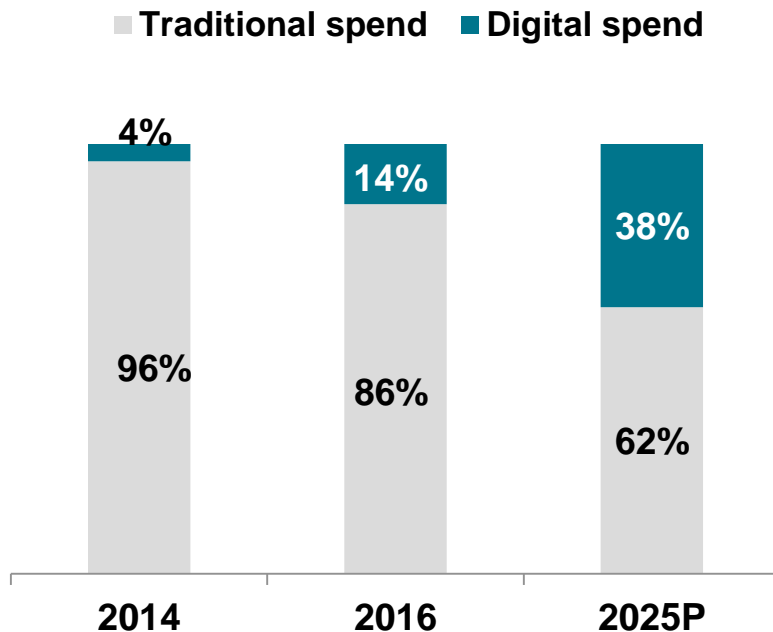
- Net hirer adding 1.3 - 1.5 lakh jobs
- Decoupling of revenue and headcount growth - non linear growth
- Technology skills demand in other sectors to grow at a higher rate
- Focus on reskilling and academic partnerships

\* Excludes hardware  
Source: NASSCOM

\* In constant currency

# Digital skills: Bringing in a new technology order

India IT-BPM share increasingly 'Going Digital' .....

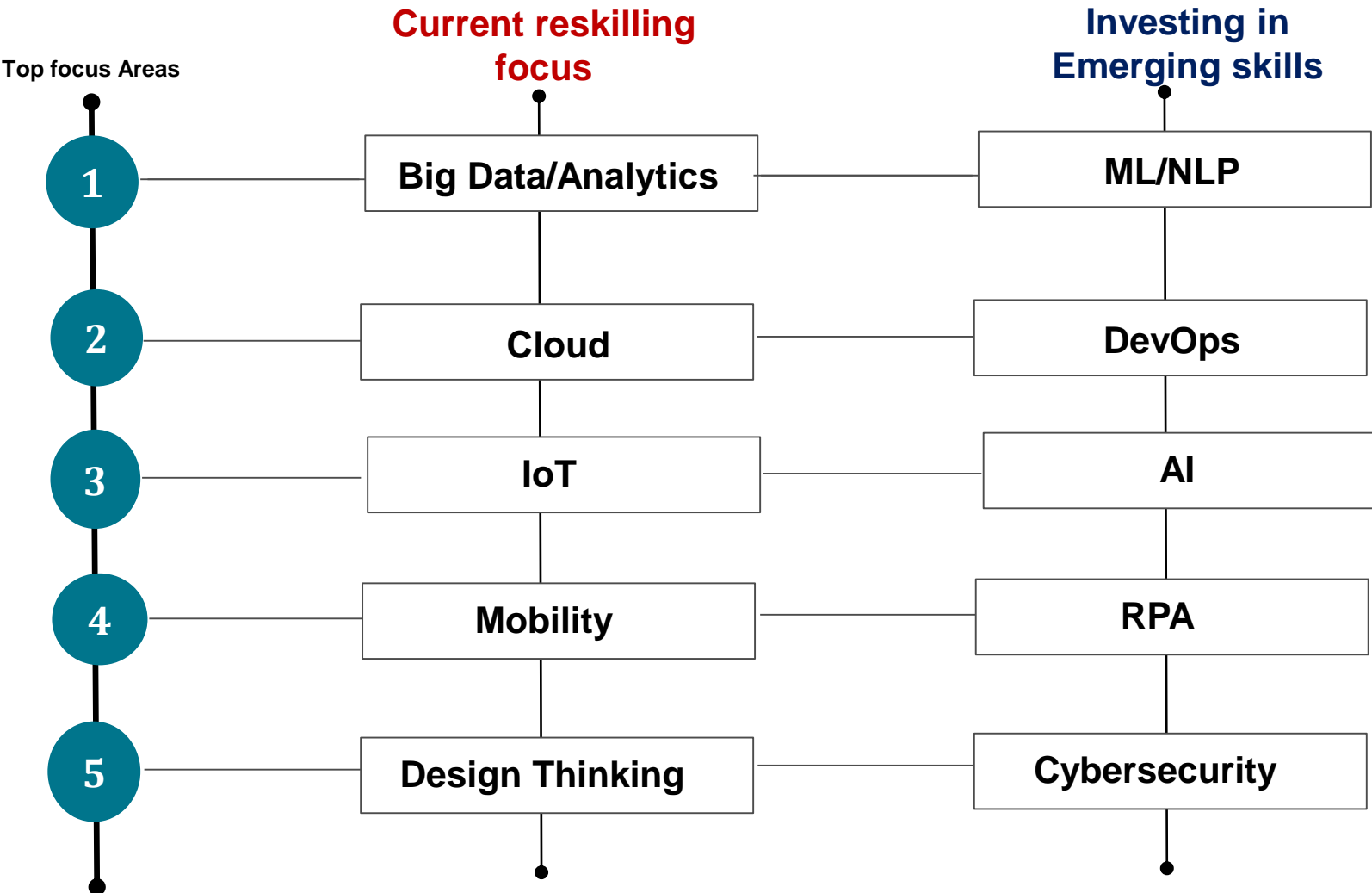


.....leading to new war for talent

- **New talent addition around emerging job roles:** Subject matter experts and hybrid professionals (domain + tech + soft skills)
- **New job roles:** Cybersecurity, mobile app development, new user interfaces, social media, data scientists, platform engineering
- **New skills:** Big data analytics, cloud & cybersecurity services, IoT, service delivery automation, robotics, AI/machine learning/NLP, etc
- **Subject matter experts:** Graphic designers, humanities, sociology, security, finance, payments

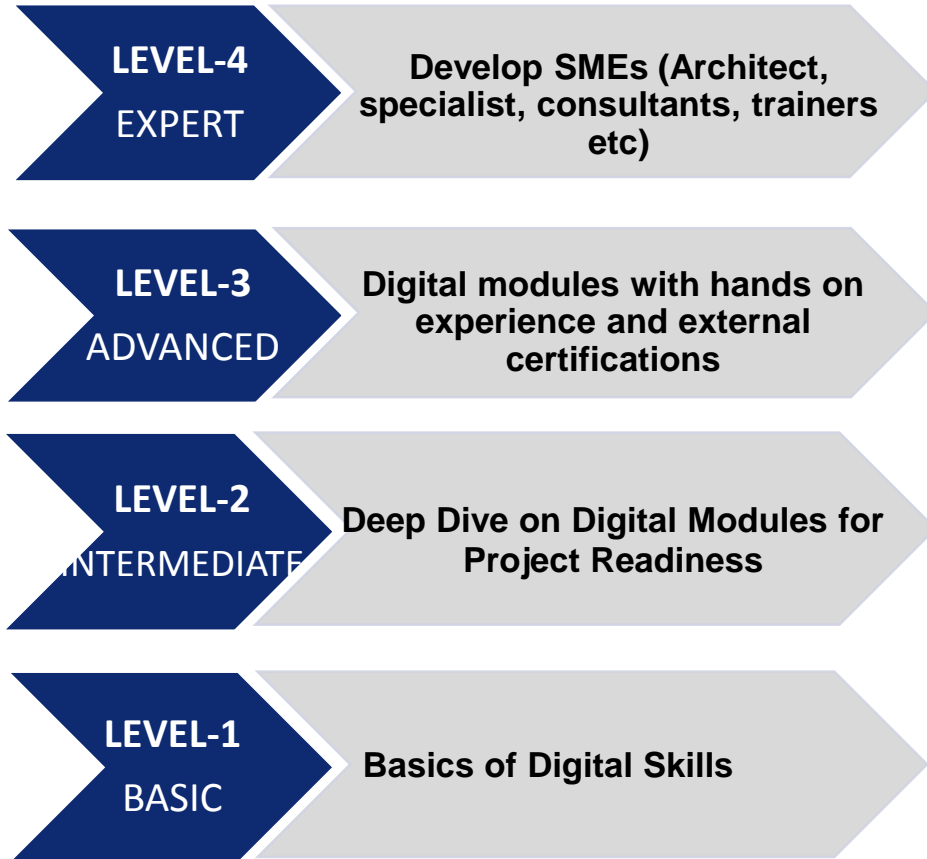


# Re-skilling the workforce: An industry imperative



# Structured Digital Skilling programs

## DIGITAL SKILLING TRAINING LEVELS



## % OF WORKFORCE TRAINED

- Large sized firms >50%
- Medium sized firms ~33-35%
- Small sized firms 38%

# Disrupting learning with investment in digital platforms

## Traditional platforms

Physical classroom training

Text-book based

Instruction-led

Internal certifications

Seminars, conferences, workshops

- Need-based learning
- Employee's interest /priority dependent
- Time consuming

## New-age platforms

Virtual classrooms, e-learning, self-learning

Cloud-based & app-based platforms

Mentoring, CoEs

MOOC Courses, Tie-ups with Global Universities

Hackathons, Gamifications, Techtalks

- Digital skilling platforms for the digital era
- Thrust on full stack professionals at all levels
- Institutionalized continuous learning

# Re-skilling: Unfolding new opportunities and outcomes

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## EXTERNAL

Company examples\*

2% increase in **average revenue per employee**

Diversified and added **new offerings** around AI/ML, microservices in existing areas

3 **IPs** developed from IoT labs, 80+ proactive digital **propositions**

20% increase in **digital customers**; 20+ **solutions developed**

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## INTERNAL

**Bench duration** down by 18% due to faster deployment

Increase in **internal resource fulfilment** from 50% to 62% in open positions

Increase in **resource utilization** by 5%

**Positive career progression** by training non-tech personnel to become data analysts

# NASSCOM DIGITAL SKILLS AWARD 2017: WINNERS

**NASSCOM®**



**Reimagine Digital Career Progression Framework**



**Learning and Innovation @HSC**



**Embracing a Digital Culture: People + Process + Platform**



**Digital Academy**



*L&T Technology Services*

**Project Unity: Transformation Program for Digital Re-skilling**



**Digital Engineer of Tomorrow**



**Digital Skills Development Program**

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**Thank you**