

NASSCOM®

CATALYSING
INDUSTRY GROWTH

TRANSFORMING BUSINESS
TRANSFORMING INDIA



>>>

future skills

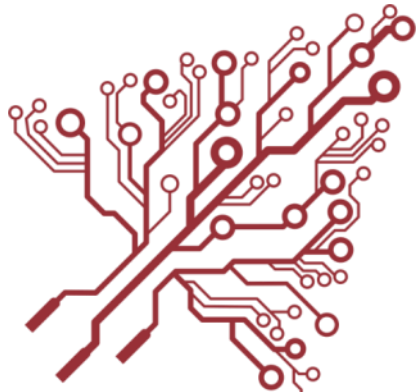
A NASSCOM initiative

NASSCOM VISION AND PRIORITIES



OUR VISION

To help technology products and services industry in India to be trustworthy and innovative industry across the globe



CATALYSE INDUSTRY TRANSFORMATION AND GROWTH



Nurture India's Innovation Quotient



Build Tech Capability and Ecosystem



Grow New Opportunities for Business

WE ARE ENTERING A TIME OF GREAT PROMISE AND PERIL

DIGITAL TRANSFORMATION - \$369.22 Bn. by 2020 - at a CAGR of 19.6%.



**DIGITAL
TRANSFORMATION
TO CONTRIBUTE
USD 154 Bn. TO INDIA'S
GDP BY 2021.**

Source: IDC-Microsoft Report on Unlocking the Economic Impact of Digital Transformation in Asia Pacific- 2018
Research & Markets Report on Digital Transformation Market- Global Forecast to 2020

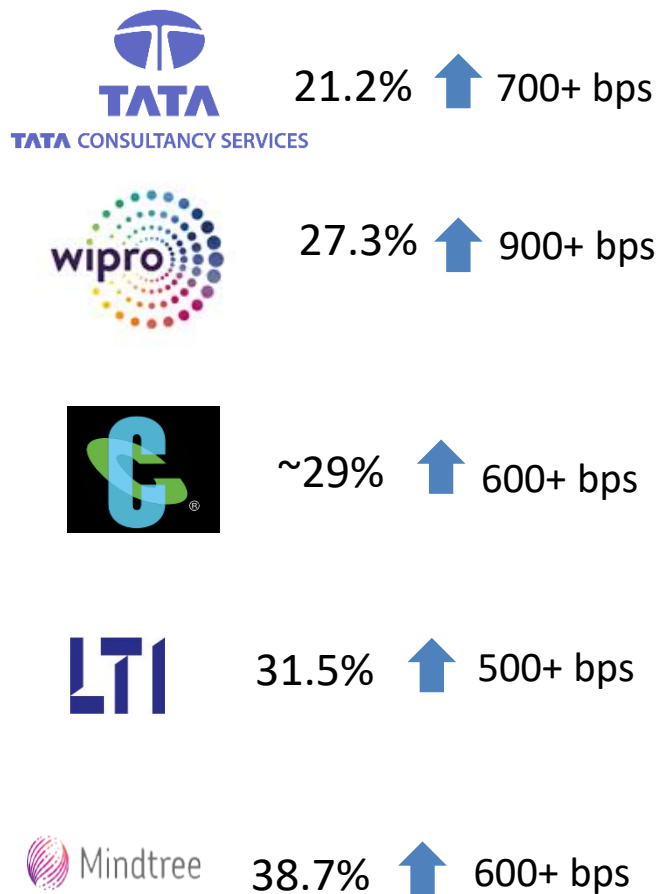
Rising
Generation Z
Reverse Brain Drain
Global Inequality
Climate Change

Technology industry is increasing investments in digital

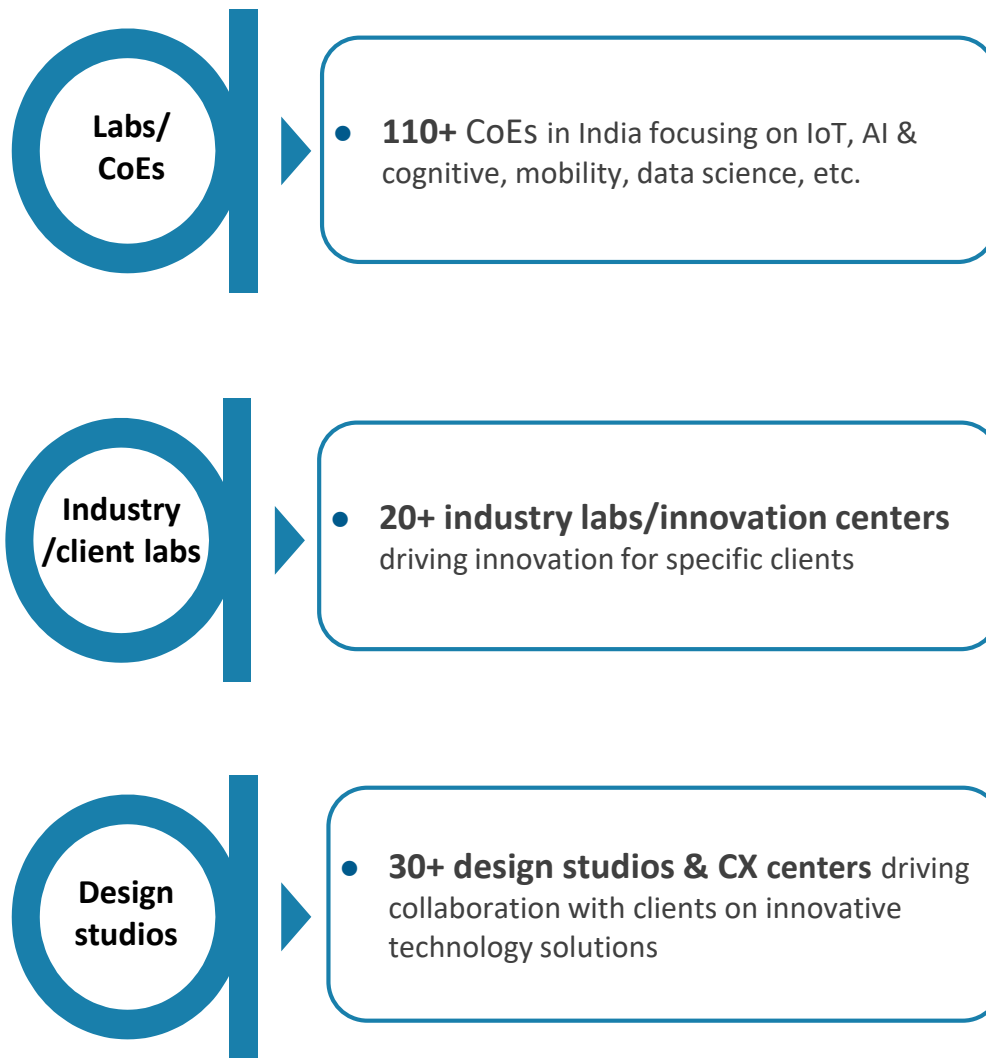
INDICATIVE

Revenue share in Digital

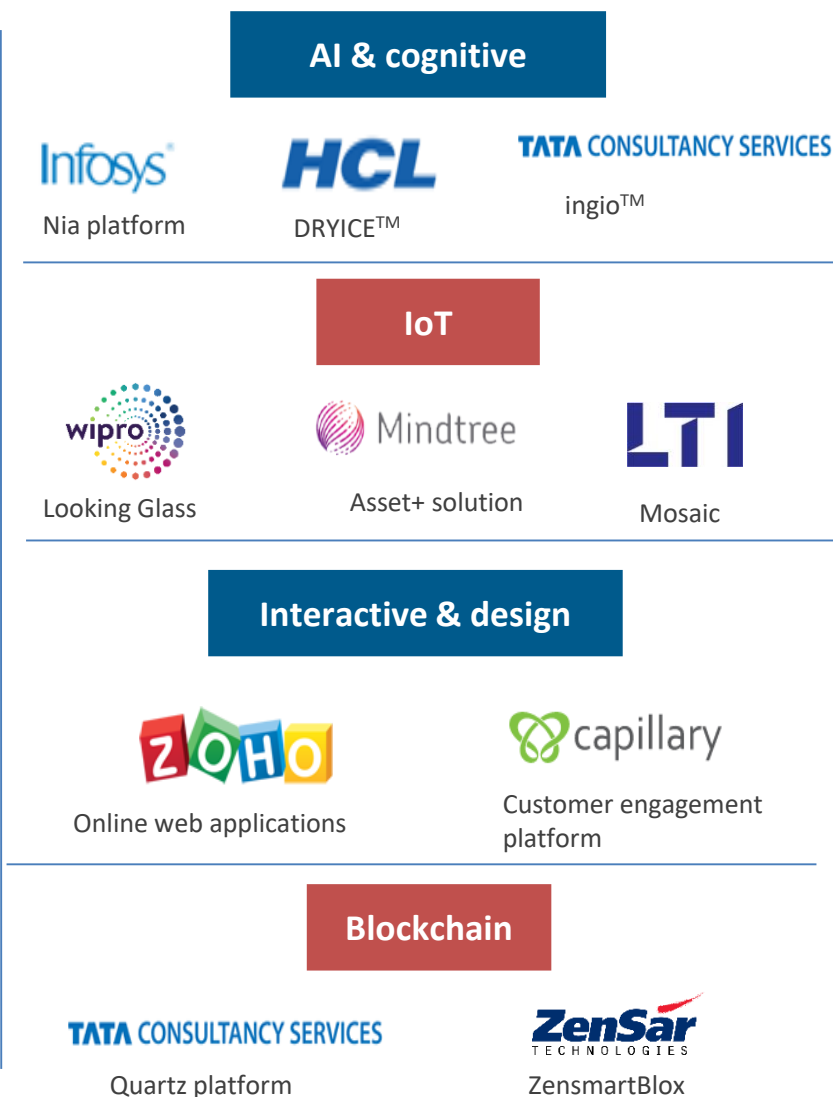
FY2018 against FY2016



Digital Infrastructure



Digital Platforms



Global shortage of tech talent – A new paradigm for skilling

Skills Shortage

- Capgemini study revealed that 55% of organizations acknowledged that not only was there a **huge gap** for STEM skills but it is **widening**
- Gartner estimates that even by 2020 - **30% of tech jobs will be unfulfilled** owing to unavailability of relevant talent in digital.
- **40%** of employers report difficulties in finding skilled talent as per survey by leading agency
- 1.4 million person gap in 2020 between software development jobs and qualified U.S. applicants

Niche Skills in Demand

- Demand for **181k** people globally with deep analytical skills in 2018
- **77%** of IT decision-makers lack required skills for IoT; **47%** of IT leaders said their firm had no IoT skills
- **3 million** cybersecurity professionals over next 3 years

If you look at the jobs of the future, high-tech skills are in demand and will continue to be in demand.

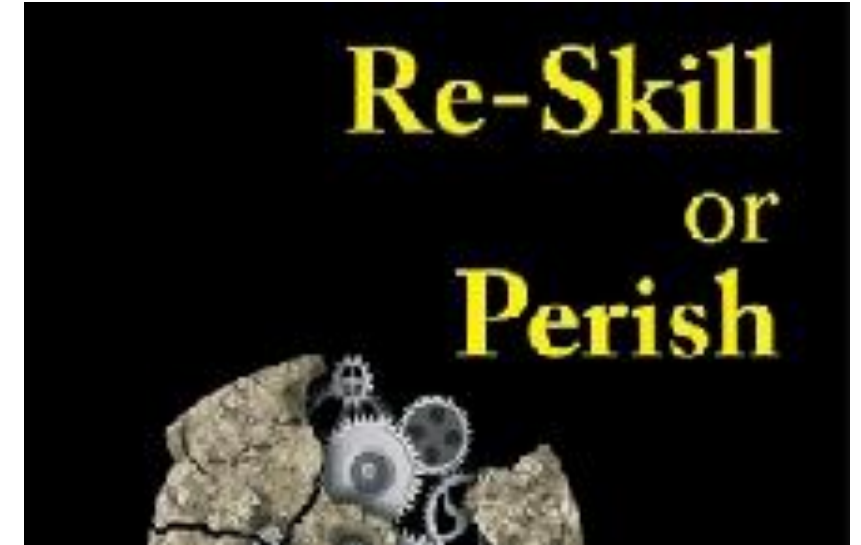
Can India be the technology skills hub for the world?

The only skill that will be important
in the 21st century is the skill of
learning new skills. Everything else
will become obsolete over time.

— Peter Drucker —

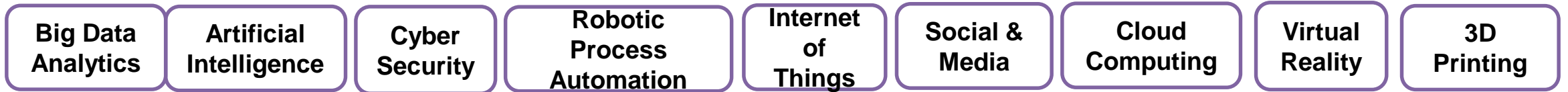
Reskilling: Our Topmost Priority

- Industry is in the **middle of a massive disruption**. Of the 4 million jobs in the industry today, the nature of 60-65% is likely to change over the next 5 years. Jobs will change and **new jobs will emerge**
- Demand is increasing rapidly for emerging technologies like **Big Data Analytics, AI/ML, Cybersecurity, IoT and Robotics**. **Our Goal is to Position India as the talent hub for the new emerging technologies.** For that , we need to build a talent pipeline for the future and enable existing workforce to get reskilled.
- **Every company will need to navigate this change -** Need a collaborative industry level response. **This industry driven learning eco-system is “FutureSkills”.**



FutureSkills: An Industry Response

- **FutureSkills:** an industry utility for skills development. Accessible both on web and mobile. Industry is both a consumer and a contributor to the platform
- **Goal:** Discovery → Continuous Learning → Deep Skilling
- **Objective:** Re-skill/ up-skill a total of about 2 million employees over a period of 5 years
- **9 – 66 – 155:** 9 emerging technologies, 66+ Job Roles, 155+ Skills



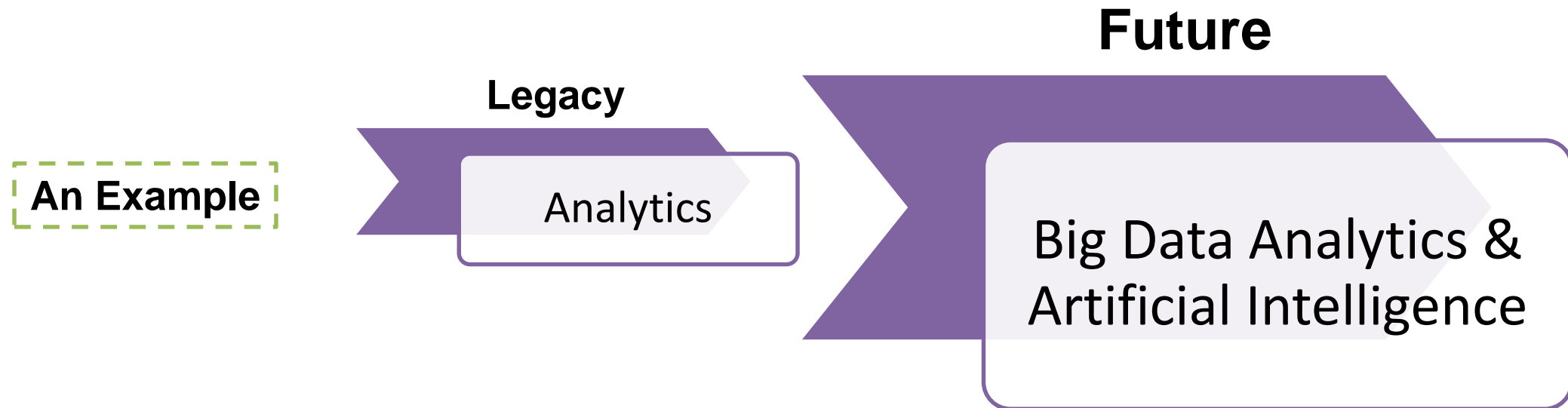
** Blockchain to be added by October 2018*

- **Emerging Job Roles:** Some sample new job roles
 - Big Data Analytics – Data Scientist; Data Architect; Data Administrator; Analyst BI
 - Artificial Intelligence – Data Architect; Applied Scientist; ML Speech Vision; Analyst BI; DevOps Engineer
 - Cyber Security – Analyst Application Security ; Consultant Networking Security

Where are we now?

- **Pioneer Companies:** Futureskills launched with a mix of different types of member firms to solve for different kinds of use cases. Some of the ‘The Pioneers’ include :
 - Wipro and Tech Mahindra (**IT Services**) | Cyient (**Engineering Services**) | Genpact & WNS (**BPM**) | CGI (**Global Capability Center**) | Purpletalk (**Products**) | Dev-IT and Kellton (**SMEs**).
- **User Base: 200,000+ committed users from signed up member firms**
- **Partner Ecosystem: 30+ partners have signed up**, including best in class product firms (Microsoft) the best MOOC companies (EdX); Innovative smaller companies (VideoKen). **Over 30,000 content pieces fuelling the platform**
- **Subject Matter Experts:** A key differentiator. Industry experts contribute relevant and current learning content. On-boarding in progress
- **Technologies Enabled:**
 - Goal 1 (Discovery) - enabled for all 9 Technologies.
 - Goal 2 & 3 (Continuous Learning & Deep Skilling) enabled for AI, Big Data, RPA. Rest by Sep '18.

One Example of a Transition: From Legacy to Future



Most companies today generate and use huge amount of data. Therefore Big Data Analytics and Artificial Intelligence will have propensity to impact many sectors.

**Deep Dive undertaken on demand supply gap on
Big Data Analytics and AI in India**

Demand Analysis: The total demand for AI & Big Data / Analytics roles for 2018 is ~510,000

		AI & Big Data / Analytics		
		2018	CAGR	2021
India Demand in 2018		~510,000	~16%	~800,000
1	Employed Talent	~370,000	~15%	~570,000
	→ GCC	~90,000		
	→ Service Providers	~230,000		
	→ Start-Ups & Small Enterprises	~24,000		
	→ Others (Includes Indian enterprises across – BFSI, Retail, Oil and Gas, Pharma, Telecommunications, Industrial, etc.)	~26,000		
2	Total Job Openings (Un-Met Demand)	~140,000	~18%	~230,000

Sources: Job portals/ platforms include Indeed, LinkedIn, Naukri, Monster, Kaggle & HackerEarth

The Road Ahead

- **Continued Focus on Phase 1 in 2018-19 – B2B**
 - Continue to Roll out to NASSCOM member companies in 2018-19 . Industry has a huge priority on reskill their employees in the new emerging technologies.
- **Prepare for Phase 2 – Launch B2C in 2019**
 - Make futureskills available to Universities and Colleges in next year.
 - MOU with MeitY focused on extending the Futureskills platform to individuals
- **Goals for next 5 years : 1 million** professionals to be reskilled and **1 million** potential employees and students to be skilled in the new emerging technologies !

**Fantastic opportunity for India to become talent hub for emerging technologies..
Requires a team India effort !**

THANK YOU