



DIGITAL PEOPLE SUPPLY CHAIN REPORT



Tech in Non-Tech

April, 2023

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FOREWORD



“With increased innovation and widespread digitization, every industry is integrating technology to solve business problems, find tech solutions, and make informed decisions. They are looking to tap into tech talent that can help them automate tasks, improve data analysis, streamline processes and enhance the overall efficiency of non-tech industries.”

Sunil Chemmankotil
CEO, TeamLease Digital

Business practices have undergone such a radical transformation as a result of digitization that no professional organization can continue to operate in the future without integrating digital technology into its operations. The overnight shift to a digital mode of operation triggered the need for more tech talent across non-tech industries. This breakthrough has resulted in a tremendous rise in tech hiring, which has persisted even as the world slowly begins to recover from the pandemic's effects. In striving to remain competitive in the game of productivity and efficiency, the non-tech sector has been actively recruiting experienced tech professionals. There has been a steep hike in tech recruitment within non-tech industries in recent years, amounting to over 1 lakh active openings during the last couple of months. The incremental growth in salary in non-tech industries is higher than in technology-centric companies. This has played a major role in the movement of tech personnel from niche tech industries into non-tech industries. There is also the recent trend of layoffs in the big tech companies to reconcile the overhiring during the pandemic years. The non-tech sectors, which have experienced a constant growth in the hiring of tech workers to react to the changing business climate, benefit from these trends in tech businesses coming from various macroeconomic conditions.

Since there is a significant shortage of technical talent due to the unexpected surge in demand, many non-tech sectors have seen a sharp spike in the number of contract positions. It is estimated that non-tech industries contribute a great amount to the skill pool by expanding its tech workforce and represent 3X growth in a short period of time. Due to increased innovation, use of AI and automation, and process optimization, there has been a rise in demand for IT expertise across non-tech industries. Additionally, the adoption of the 5G network has also created a demand for talent and expertise across industries, including the automotive, semiconductor, startup, and telecom sectors. Cloud computing and improved connectivity have made digitization a crucial aspect of company operations. The road to rich job prospects for aspiring engineers and techies around the world, especially in the non-tech sector, will continue to be paved by this trend, which is here to stay. This report has made an attempt to capture interesting trends on techies in the non-tech space by highlighting the current workforce with growth projections, popular tech job roles with skill requirements, salary ranges across the different job functions in some of the most important non-tech industries and providing various ranges of directions to build their career in these domains.

PREFACE



“The need for tech talent in the non-tech space is going to be a real game-changer. With companies across all sectors relying on technology to operate and compete, the rising demand will make it pivotal to invest in reskilling & upskilling the workforce as job prospects for aspiring techies and engineers are only likely to grow.”

**Munira Loliwala
BU Head - Specialized Staffing,
TeamLease Digital**

The demand for tech talent has increased significantly, positioning India as one of the global tech giants leading the way in the post-pandemic era’s technology revolution. India is at the forefront of technological upheaval, leading the global shift in this direction. The onslaught of the pandemic forced all businesses, tech or non-tech to quickly recalibrate business processes and adopt the online mode of conducting business. In a way, the worldwide catastrophe sparked digital transformation of organizations. Even non-tech businesses including BFSI, healthcare, automotive, manufacturing, and FMCG have increased their hiring of tech personnel as a result of the supercycles of digitalization. This development has led to a phenomenal increase in tech hiring in the non-tech industries.

To examine the tech talent in the non-tech across businesses, the study has considered following business units - BFSI and Consulting, Communication Media and Technology, Retail and Consumer Business, Life Sciences and Healthcare, Engineering Research and Development, and Energy and Resources and evaluated the popular core and sub-skills that are in demand. The report deep dives into the state of tech hiring in the non-tech with some interesting trends and covers insightful topics like popular tech job roles, salaries across the job functions - entry-level, mid-level and the senior and qualifications for each popular tech job roles. The report has also estimated yearly salary growth by assessing the third party data sources, 2023. It has also explored diversity, equity and inclusion and encapsulated skills that women in tech want to build in the future.

Digital People Supply Chain Report - Tech in Non Tech provides valuable data, non-tech hiring trends, analysis and projections to better prepare the future workforce in the right direction.

INTRODUCTION



- The digital transformation buzz has existed for years, but the pandemic has propelled its widespread adoption beyond the tech sector. Today, the non-tech sector in India employs over 7.65 lakh tech professionals and is exhibiting an unprecedented demand for more tech talent. At a frenetic 7.53% CAGR, the non-tech sector is poised to touch 11.15 lakh in tech talent employment by FY 2027-28. Digital People Supply Chain Report - Tech in Non Tech aims to chronicle this developing story and provide a comprehensive outlook for tech job creation in non-tech sectors. This report delves deep into the latest trends and projections, highlighting the skills and expertise in high demand, the most sought-after tech roles, and associated salaries.
- Across six business units – BFSI and Consulting, Communication Media and Technology, Retail and Consumer Business, Life Sciences and Healthcare, Engineering Research and Development, and Energy and Resources – the report analyzes the landscape of tech talent. It delves deeper into 19 verticals and explores the ubiquitous, post-pandemic need for technology talent.
- The report closely examines the linkage of experience levels and skills that serves to meet an increasing adoption of digital technologies by the non-tech sector, the growing importance of data and analytics in business decision-making, and the growing need for technology-enabled products and services in emerging markets. This report presents a comprehensive overview of future growth projections for tech talent in the non-tech sector and the underlying factors driving this growth.
- TeamLease Digital’s mission is to develop our thought leadership into a vital resource of insights into the current and future state of tech talent in the non-tech sector in India for our stakeholders – organizations navigating the rapidly evolving tech talent landscape in the non-tech industry and professionals looking to advance their skills and career prospects in this domain.

REPORT STRUCTURE AND COVERAGE

BFSI & Consulting



- Banking & Fintech
- Insurance & Capital Market
- Consulting

Communication Media and Technology (CMT)



- Telecomm and Media & Entertainment
- Drone
- Gaming
- Edtech

Retail and Consumer Business



- Consumer Goods and Services
- Travel
- Logistics
- E-Commerce

Life Sciences and Healthcare



- Life Science
- Healthcare

Engineering Research & Development (ER&D)



- Manufacturing
- Semiconductors
- Engineering, Construction and Operations

Energy & Resources



- Energy
- Natural Resources
- Utilities

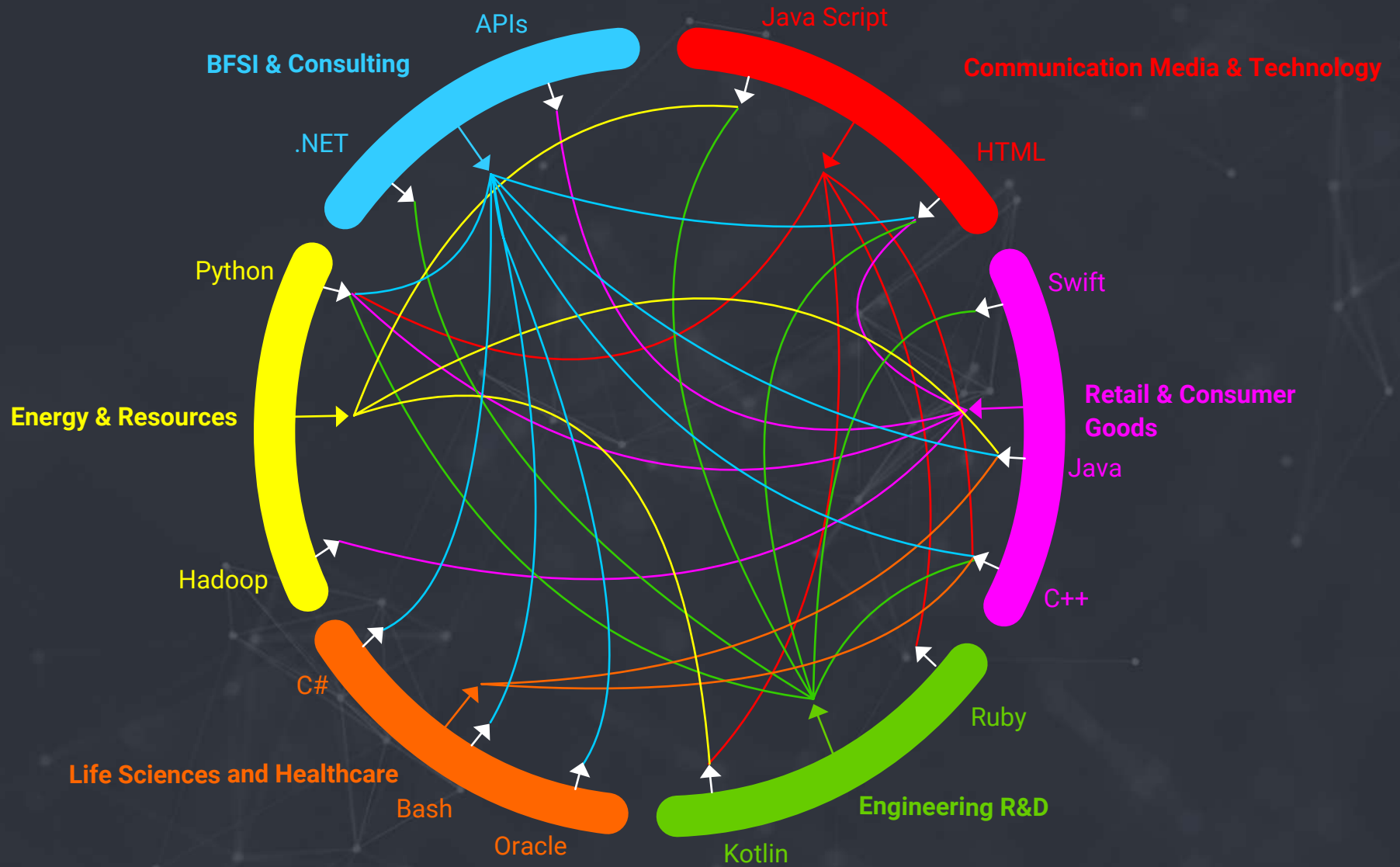
Popular Core and Sub-skills

(Across Verticals)

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MAJOR TECH SKILLS IN NON-TECH SECTOR

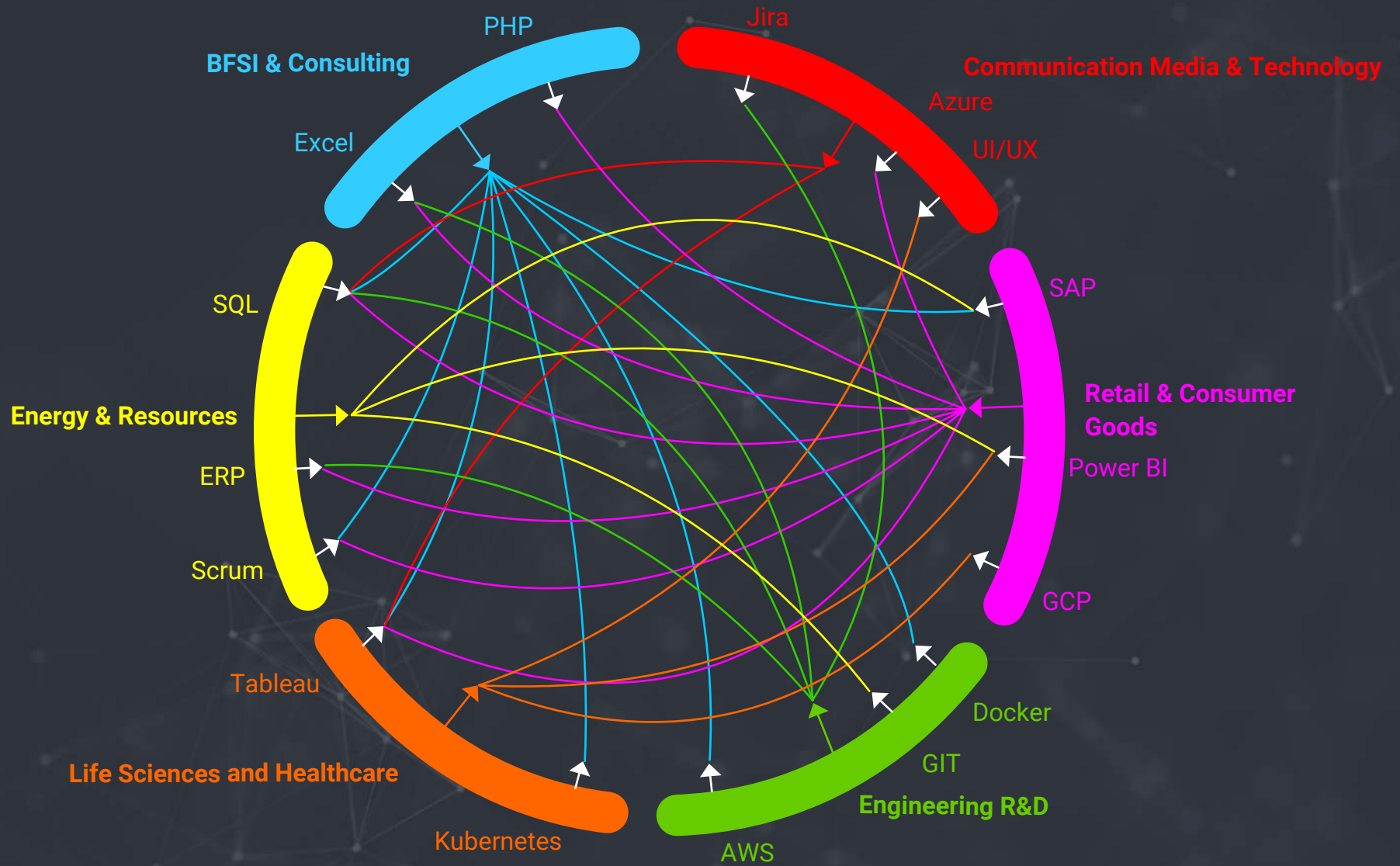
CORE SKILLS



Note: Please refer to the annexure for Data Interpretation

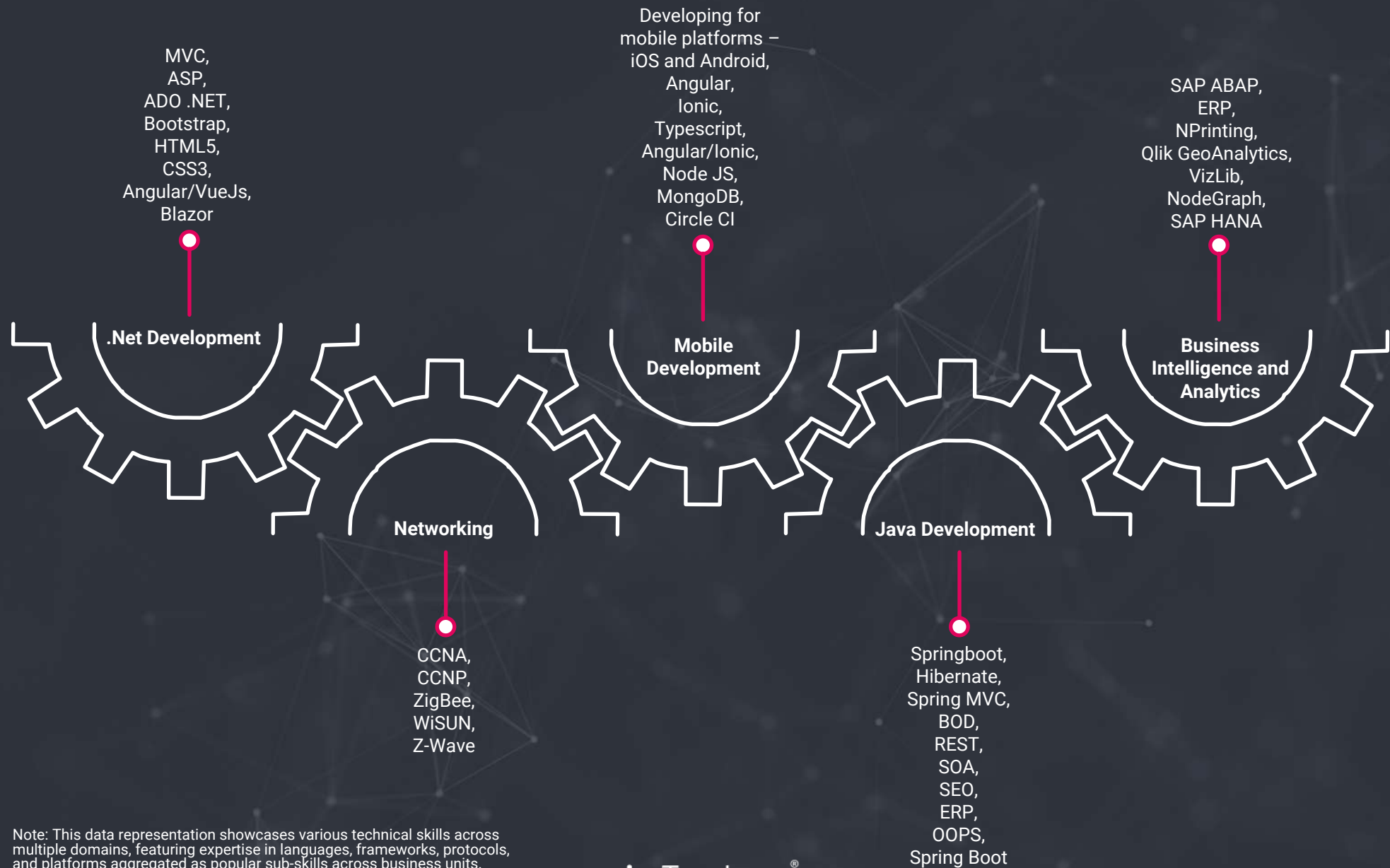
MAJOR TECH SKILLS IN NON-TECH SECTOR

NON-CORE SKILLS



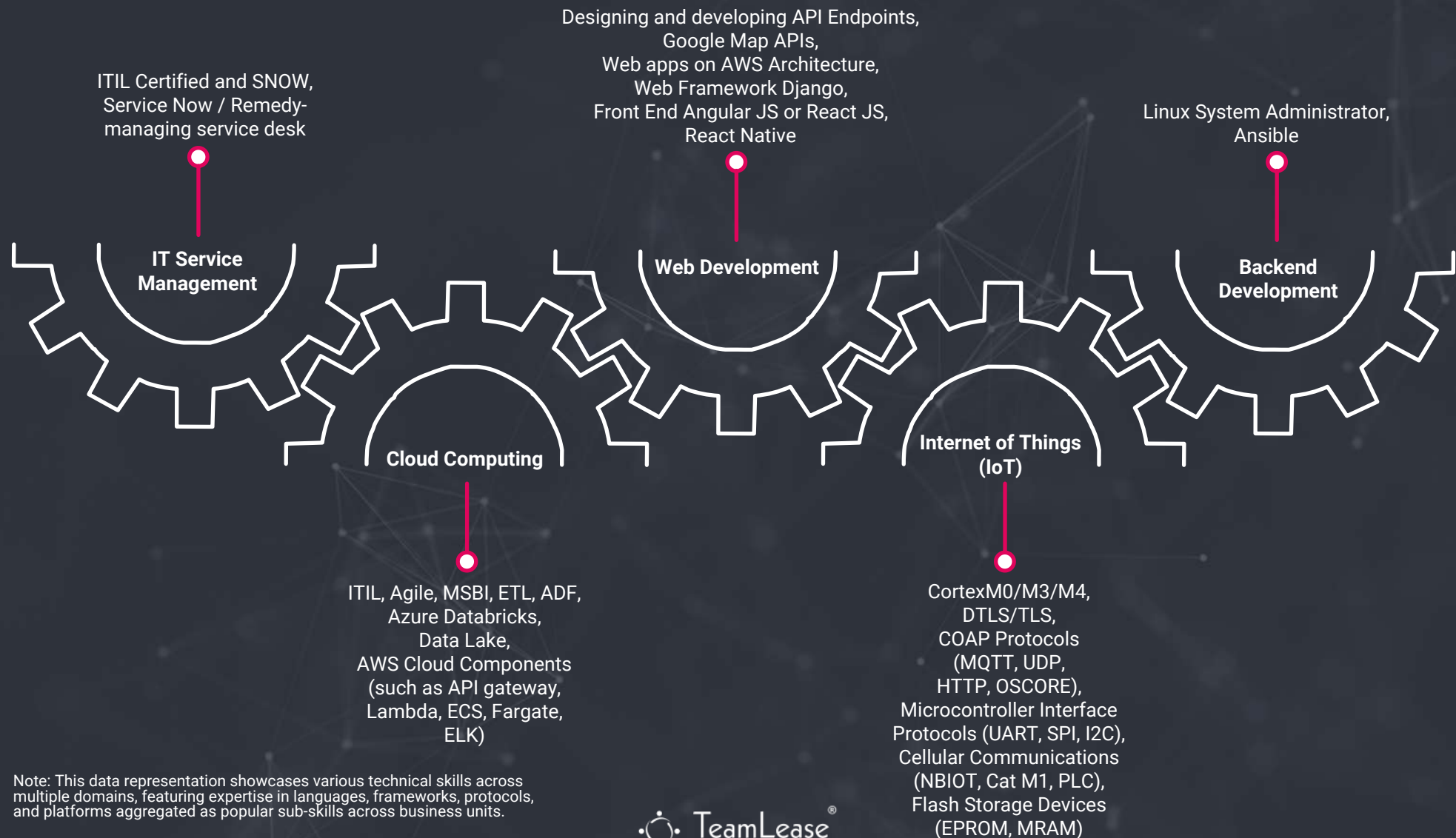
Note: Please refer to the annexure for Data Interpretation

POPULAR SUB-SKILLS IN THE NON-TECH SECTOR



Note: This data representation showcases various technical skills across multiple domains, featuring expertise in languages, frameworks, protocols, and platforms aggregated as popular sub-skills across business units.

POPULAR SUB-SKILLS IN THE NON-TECH SECTOR



Market Taxonomy

Tech Talent in the Non-Tech Sector

FY 22 to FY 27

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(Note: FY 22 refers to the fiscal year 2021-2022, while FY 27 denotes the fiscal year 2026-2027.)

TECH TALENT IN THE NON-TECH SECTOR

Key Trends

The Non-Tech sector's tech talent pool is anticipated to grow at a Compound Annual Growth Rate (CAGR) of 7.53%, expanding from 7.65 lakhs* in FY 22 to approximately 11.15 lakhs* by FY 27. The proportion of contract workers in tech roles within the non-tech sector is expected to rise from the current 20% to around 26% by the conclusion of FY 2027, indicating an increasing reliance on temporary or contract-based tech professionals. Although each business unit constitutes a substantial market, the Energy & Resources unit ranks as the second largest and second fastest-growing segment. The BFSI & Consulting business unit is projected to grow at the fastest pace over the five years in consideration.

Business Unit	Jobs FY 22 (Total Tech Employees In Lakhs) [Estimate]	Jobs (Projected up to FY 27) (Total Tech Employees In Lakhs) [Estimate]	Jobs FY 22 (Contract Employees in Lakhs) [Estimate]	Jobs (Projected up to FY 27) (Contract Employees in Lakhs) [Estimate]	Market Size FY 22 (in INR Lakh Crores) [Estimate]	Market Size FY 27 (in INR Lakh Crores) [Estimate]
BFSI & Consulting	2.0	2.75	0.41	0.70	23.70	47.20
Communication Media and Technology (CMT)	0.90	1.40	0.45	0.80	4.70	7.75
Retail and Consumer Business	1.85	2.90	0.21	0.42	47.35	86.30
Life Sciences and Healthcare	1.05	1.55	0.12	0.25	35.15	66.50
Engineering Research & Development (ER&D)	1.43	1.90	0.33	0.65	89.70	126.60
Energy & Resources	0.42	0.65	0.06	0.12	78.00	152.70

Note: The market size is not additive at the vertical or Business Units (BU) levels. Therefore, the market size statistic for the verticals under a BU cannot be aggregated to arrive at the market. This is so because of possible overlaps between the verticals under a BU and between the six BUs.

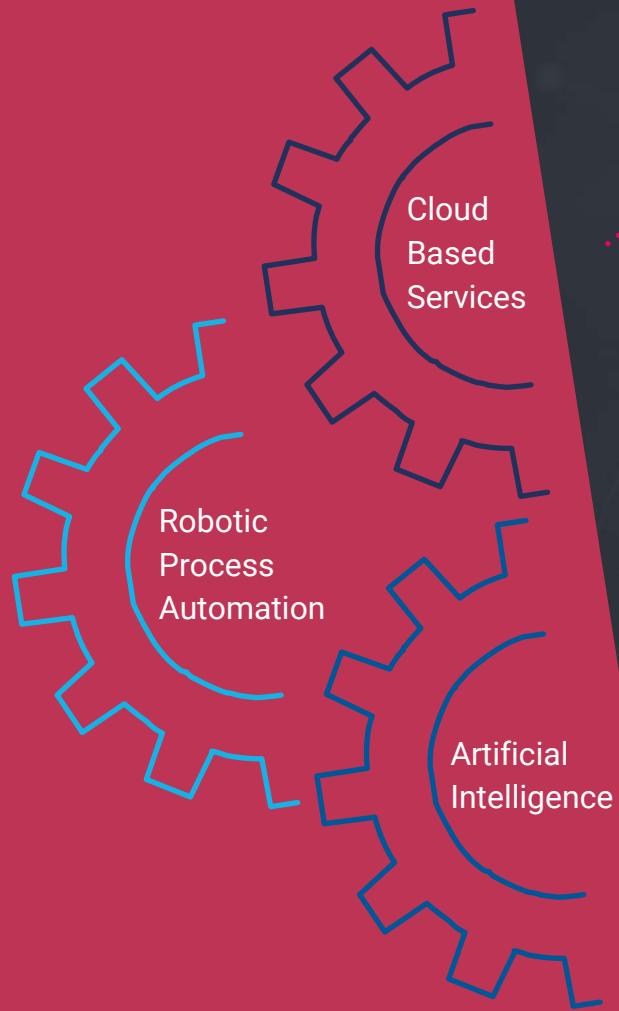
Note: * The figures presented in this report pertain specifically to the business units that were taken into consideration.

Non-Tech Sector Characteristics

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TRENDS

ACROSS TECHNOLOGY BASED JOBS IN NON-TECH INDUSTRY



Industries in the non-tech sector are actively promoting hiring automation specialists with expertise in 5G networks and talent with engineering and semiconductor backgrounds to support the growth of the telecommunications and consumer electronics businesses.



The manufacturing, electric vehicle, and research and development sectors also seek to recruit individuals with these skill sets. As a result of this trend, many non-technical service providers are exploring the use of corporate cloud networks and Software as a Service (SaaS) to diversify their offerings beyond traditional IT and business process outsourcing.



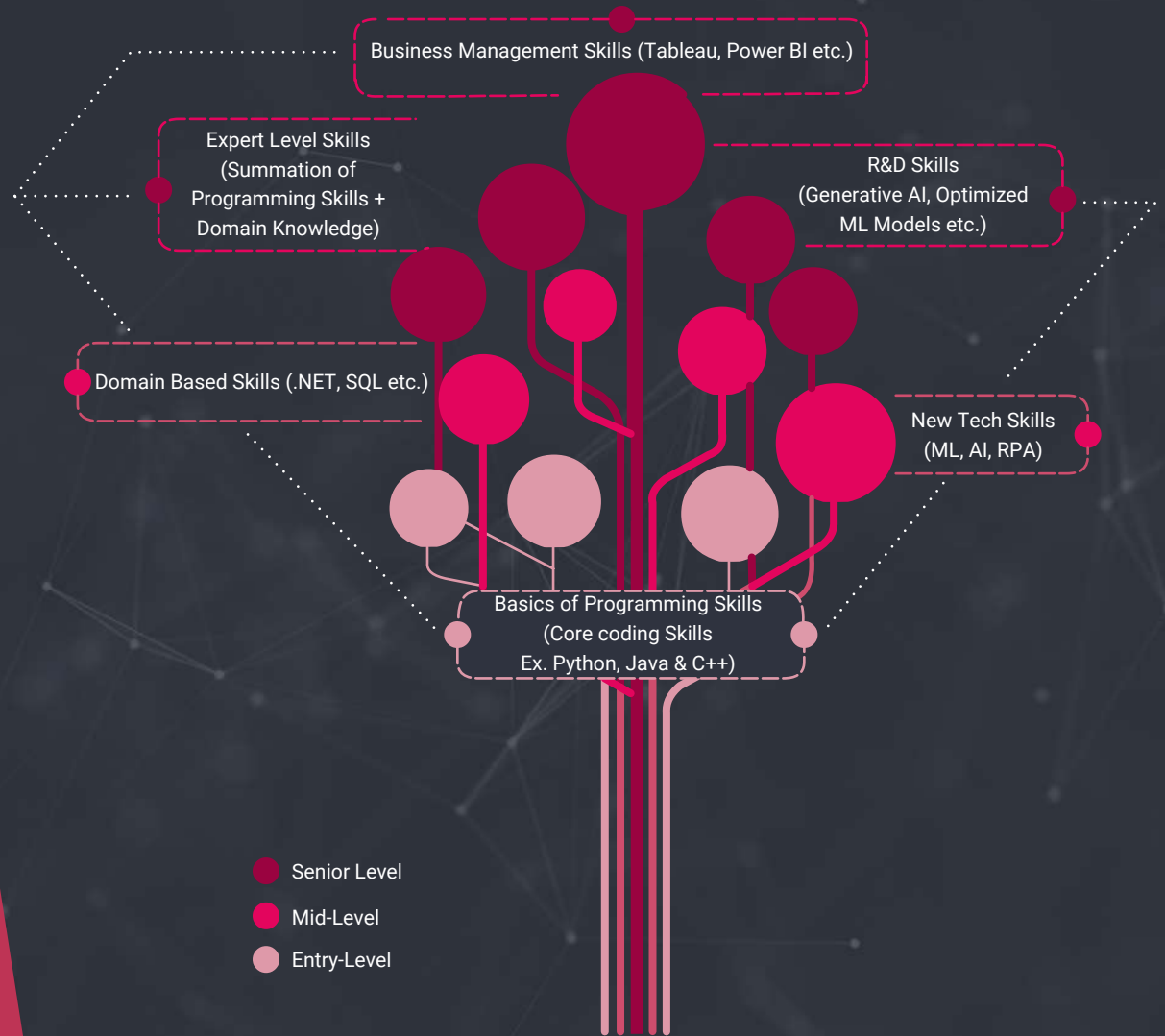
Consequently, there is an increasing need for IT specialists who possess knowledge and expertise in these technologies and can implement them in various industrial applications. The demand for data analysts and cyber security specialists is rising outside the technology industry as companies seek to improve their online operations and protect sensitive customer data.

SKILL-BASED EXPERIENCE LEVELS:

EXPERTISE AS THE FOCUS

Entry-level experience: For tech talent in non-tech sectors, entry-level positions typically require basic technical skills such as proficiency in Microsoft Office Suite, basic knowledge of programming languages such as HTML and CSS and experience with content management systems. The current pool of talent with these skill sets is abundant, and future demand growth is expected to be moderate as companies continue to invest in digital platforms and technologies.

Mid-level experience: Intermediate experience levels demand skills that include knowledge of more advanced programming languages such as Python or Java, proficiency in data analysis and visualization tools, and experience with cloud computing platforms such as Amazon Web Services or Microsoft Azure. These skills are relatively harder to find compared to those for entry-level talent. As companies invest in data analytics and automation, future demand growth is expected to be high.



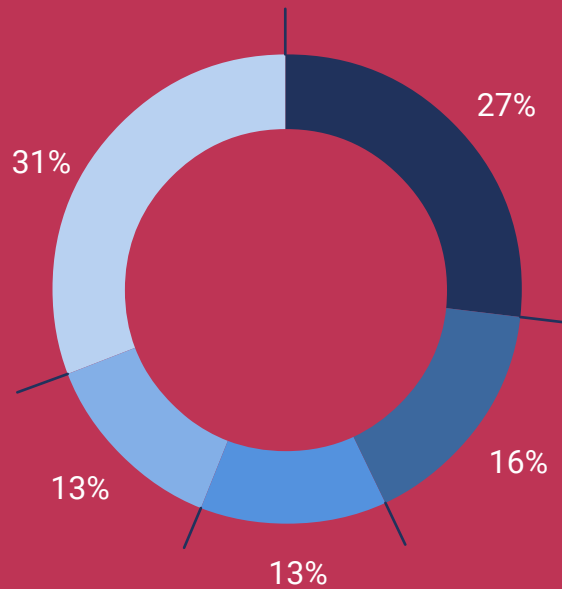
Senior-level experience: Experience with artificial intelligence and machine learning, blockchain technology, and cybersecurity are in vogue for the senior level. There is, currently, limited supply of this level of talent and future demand-supply dynamics are expected to be skewed.

PAY OUTS - FOR POPULAR TECH JOB ROLES IN NON-TECH SECTOR AND FUTURE GROWTH PROJECTIONS

BUSINESS UNIT	POPULAR TECH JOB ROLES	SALARY (INR LPA) (EST.) (FY 22)			EST. YEARLY SALARY GROWTH FOR FY22-24
		ENTRY-LEVEL (0-3 years)	MID-LEVEL (3-8 years)	SENIOR-LEVEL (Above 8 years)	EST. AVERAGE HIKE %
BFSI & Consulting	Data Engineer	7.5	17.5	33	15
	Solutions Architect	8	17	31	13
	Dot Net Developer	7.5	14	21	10.5
Communication Media and Technology (CMT)	Embedded Developer	11	19.5	28	13
	DevOps Engineer	7	14	29	15
	Game Developer	6.5	10	22	13
Retail and Consumer Business	Fullstack Developer	8	14.5	33	15
	UX designer	5	13	30	13
	Security Architect	7	14	24	13
Life Sciences and Healthcare	Data Scientist	9.5	18.5	27.5	15
	Cyber Security Specialist	10	20.5	27	10.5
	Java Developer	8.5	15.5	25	10.5
Engineering Research & Development (ER&D)	Applications Engineer	4	10	22	13
	Automation Engineer	5	10	20	13
	Embedded Software Engineer	4	9	15.5	13
Energy & Resources	Big Data Analyst	6.5	12	25	15
	Information Security Manager	6	13	24	13
	Integration Architect	8	11	23	13

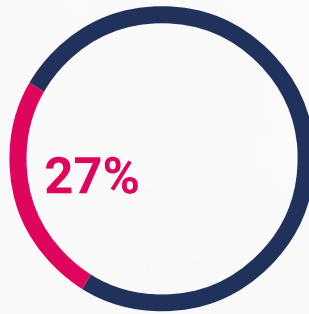
Note: 1. The salaries mentioned are estimated values and subject to market anomalies.
2. Hike % for Entry-level and Senior level are (+/-) 3% of average numbers.

POPULAR TECH JOB ROLES PAYOUT SWEET SPOTS

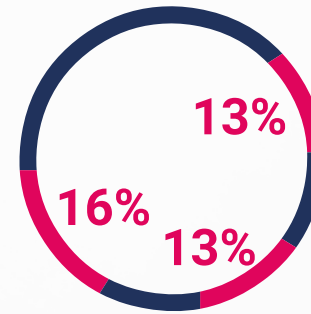


- Bangalore
- Hyderabad
- Delhi
- Pune
- Others

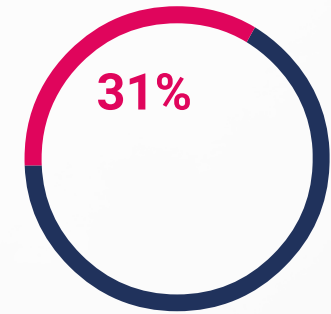
Highest Paying Cities for Popular Tech Job Roles in Non-Tech Industries



Bangalore dominates the payout scene for tech roles in the non-tech sector, with **27%** of all popular tech roles being paid the highest in the city.



Hyderabad (**16%**), Delhi (**13%**) and Pune (**13%**) – the other cities that pay top salaries – each do so for a far lower proportion of the popular tech roles.



A significant **31%** of all popular tech roles are paid top salaries by a range of other cities across India.

BFSI & Consulting

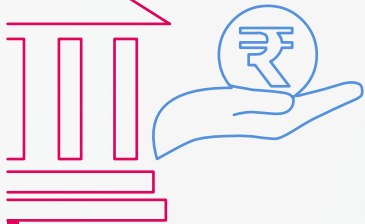


BFSI comprises Banking & Fintech, Insurance & Capital Market, and Consulting. These sectors manage funds, mitigate risks and provide expert advice to businesses and individuals. Tech skills and talent are becoming crucial in BFSI and Consulting as the industry rapidly transforms and adapts to digital solutions. Leveraging technology effectively is crucial to remain competitive and meeting customer demands.

EXECUTIVE SUMMARY

Tech Talent in the BFSI and Consulting Industry: Current Workforce and Growth Projections

The fast growing digital economy, led by the FinTech juggernaut, has led to the fastest pace of growth of tech talent in the non-tech sector – in the BFSI and Consulting business unit. The tech skills in demand in the business unit include data analysis, software development, and project management. In the consulting vertical, the number of tech employees is projected to increase from 0.9 Lakhs to 1.35 Lakhs – the highest as compared to the other verticals.



Business Unit	Verticals	Jobs FY 22 (Total Tech Employees In Lakhs) [Estimate]	Jobs (Projected up to FY 27) (Total Tech Employees In Lakhs) [Estimate]	Jobs FY 22 (Contract Employees in Lakhs) [Estimate]	Jobs (Projected up to FY 27) (Contract Employees in Lakhs) [Estimate]	Market Size FY 22 (in INR Lakh Crores) [Estimate]	Market Size FY 27 (in INR Lakh Crores) [Estimate]
BFSI & Consulting	Banking & Fintech	0.85	1.10	0.10	0.20	14.57	27.50
	Insurance & Capital Market	0.25	0.30	0.06	0.10	8.70	19
	Consulting	0.90	1.35	0.25	0.40	0.43	0.70

Note: The market size is not additive at the vertical or Business Units (BU) levels. Therefore, the market size statistic for the verticals under a BU cannot be aggregated to arrive at the market. This is so because of possible overlaps between the verticals under a BU and between the six BUs.

SALARIES ACROSS POPULAR TECH JOB ROLES

Analysis of high-paying roles and salaries based on experience levels

- The BFSI & Consulting business unit pays disproportionately high salaries at higher experience levels. Nearly all popular tech roles double payouts from entry through senior levels of experience.
- The conventional Dot Net Developer and the relatively newer RPA Developer are marginally less indicative of this trend of disproportionality.
- Data-centric and analytical roles such as Data Engineer, Business/Data Analyst, and Cyber Security Analyst and mission critical and cutting edge roles such as Solutions Architect, Blockchain Developer are notable examples of the trend.



Banking & Fintech



Insurance & Capital Market






Consulting

VERTICALS	POPULAR TECH JOB ROLES	SALARY (INR LPA) (FY 22)		
		ENTRY-LEVEL (0-3 years)	MID-LEVEL (3-8 years)	SENIOR-LEVEL (Above 8 years)
Banking & Fintech	Data Engineer	7.5	17.5	33
	Business Analyst/ Data Analyst	8.5	12	25
	Solutions Architect	8	17	31
Insurance & Capital Market	Cyber Security Analyst	5	10	19
	DotNet Developer	7.5	14	21
Consulting	Blockchain Developer	5	8.5	20
	Technical Lead	5	11	20
	RPA Developer	6	9	17

TOP CITIES FOR TECH ROLE PAYOUTS

- Bengaluru, with 33%, stands out as the city offering higher pay for the most tech job roles such as Data Engineer, Business Analyst/Data Analyst, Solutions Architect, Blockchain Developer and RPA Developer.
- Delhi (22%) and Hyderabad (22%) offered competitive salaries for roles like Business Analyst/Data Analyst, Cyber Security Analyst, Dot Net Developer and Technical Lead.
- Chennai, accounting for 17%, is another city known for higher compensation in roles including Data Engineer, Blockchain Developer and Solutions Architect.
- Gurgaon, Noida, Pune (11% respectively), and Mumbai (6%) also offer higher pay in roles like Data Engineer, Cyber Security Analyst, Dot Net Developer, Solutions Architect, Technical Lead and Blockchain Developer, reflecting the growth and diversification of the non-tech industry across various cities in India.

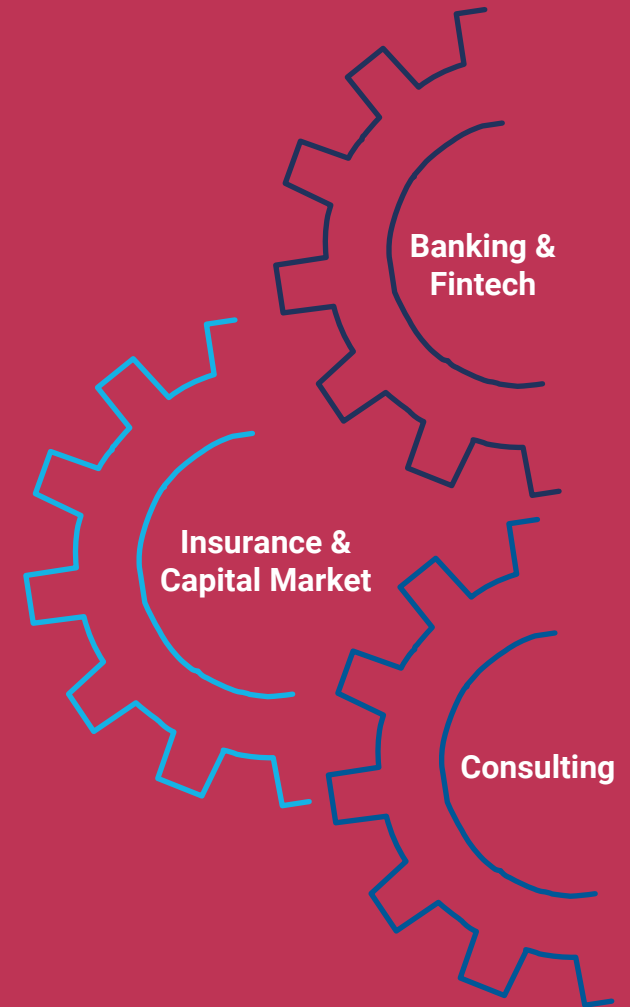
Top 3 ranked cities for the highest paid popular tech job roles

VERTICALS	POPULAR TECH JOB ROLES	HIGHEST PAYING CITIES		
		Rank 1	Rank 2	Rank 3
 Banking & Fintech  Insurance & Capital Market  Consulting	Data Engineer	Chennai	Bengaluru	Gurgaon
	Business Analyst/ Data Analyst	Delhi	Bengaluru	Hyderabad
	Solutions Architect	Bengaluru	Hyderabad	Pune
	Cyber Security Analyst	Hyderabad	Noida	Delhi
	DotNet Developer	Mumbai	Delhi	Bengaluru
	Blockchain Developer	Chennai	Bengaluru	Pune
	Technical Lead	Noida	Gurgaon	Hyderabad
RPA Developer	Delhi/ Noida	Chennai	Bengaluru	

QUALIFICATIONS ACROSS POPULAR TECH JOB ROLES

List of qualifications for each popular tech job role:

Data Engineer	BE/BTECH in Data Engineering, Computer Science Bachelors/Masters in Mathematics, Statistics or a related field Certifications in Hadoop, Spark and Cloud Computing
Business Analyst/ Data Analyst	UG/PG in Math, Statistics, Economics, Computer Science, or another quantitative field Certification in Data Analysis/Data Science
Solutions Architect	UG/PG in Information Technology, Computer Science, or Software Information Certifications in Cloud Computing, Network Design and Software Architecture
Technical Lead	UG/PG/Engineering in CS or IT or related field.
Cyber Security Analyst	UG/PG/Engineering in Computer Science, IT or Cybersecurity Certification in Cyber Security/Ethical Hacker Certification
DotNet Developer	UG/PG/Engineering in CS, IT or related field Dot Net Certification Course
Blockchain Developer	PG/UG/Engineering in Blockchain, CS or IT Strong experience in programming languages such as C++, Python and JavaScript
RPA Developer	UG/PG/Engineering in CS, IT, Robotics Engineering, or related field Strong experience in Software Development, programming languages such as Java and C# Knowledge of RPA



Communication Media and Technology (CMT)



CMT is a business unit comprising four verticals: Telecommunications, Media & Entertainment, Drones, Gaming, and EdTech. These industries are essential for modern communication, entertainment, education and innovation

EXECUTIVE SUMMARY

Tech Talent in the CMT Industry: Current Workforce and Growth Projections

The Telecommunications, Media and Entertainment vertical is anticipated to experience moderate growth in technology-related employment, with an estimated rise from 0.5 lakh to approximately 0.55 lakh tech jobs over the five-year period. Edtech is slated to be the better performer as far as growth in job creation is concerned (a three-fold increase), followed by the Drone vertical (a 100% increase) and Gaming (75% increase).





Business Unit	Verticals	Jobs FY 22 (Total Tech Employees In Lakhs) [Estimate]	Jobs (Projected up to FY 27) (Total Tech Employees In Lakhs) [Estimate]	Jobs FY 22 (Contract Employees in Lakhs) [Estimate]	Jobs (Projected up to FY 27) (Contract Employees in Lakhs) [Estimate]	Market Size FY 22 (in INR Lakh Crores) [Estimate]	Market Size FY 27 (in INR Lakh Crores) [Estimate]
Communication Media and Technology (CMT)	Telecomm, Media & Entertainment	0.50	0.55	0.40	0.70	4.20	6.50
	Drone	0.10	0.20	0.01	0.02	0.10	0.26
	Gaming	0.20	0.35	0.03	0.06	0.14	0.40
	Edtech	0.10	0.30	0.01	0.02	0.26	0.60

Note: The market size is not additive at the vertical or Business Units (BU) levels. Therefore, the market size statistic for the verticals under a BU cannot be aggregated to arrive at the market. This is so because of possible overlaps between the verticals under a BU and between the six BUs.

SALARIES ACROSS POPULAR TECH JOB ROLES

Analysis of high-paying roles and salaries based on experience levels

- Almost all popular tech roles in the CMT business unit exhibit near 100% increments in payouts between the entry-, mid- and senior-level roles.
- The Embedded Developer and DevOps Engineer roles have the highest salary and salary growth across the hierarchy. The Embedded Developer job role is also rewarded with the highest salary at the entry level compared to other job roles (INR 11 LPA).
- Cloud-based roles like Cloud Solutions Architect have relatively consistent salaries across all experience levels.

VERTICALS	POPULAR TECH JOB ROLES	SALARY (INR LPA) (FY 22)		
		ENTRY-LEVEL (0-3 years)	MID-LEVEL (3-8 years)	SENIOR-LEVEL (Above 8 years)
 Telecommunications and Media  Drone  Gaming  Edtech & Platform services	UI/UX Designer	4	7	14
	Fullstack Developer	6	15	23
	Game Developer/ Programmer	6.5	10	22
	DevOps Engineer	7	14	29
	Android Developer	4	7.5	18
	Data Analyst	6.5	12	25
	Cloud Solutions Architect	7	12	21
	QA Tester	3.5	8	17
Embedded Developer	11	19.5	28	

TOP CITIES FOR TECH ROLE PAYOUTS

- Bengaluru, with 24%, is the city offering the highest pay for the most tech jobs, such as UI/UX designer, Full Stack Developer, DevOps Engineer, Android Developer, Data Analyst and Cloud Solutions Architect.
- Pune (20%) providing competitive salaries for roles like Full Stack Developer, DevOps Engineer, Cloud Solutions Architect, QA Tester and Embedded Developer in verticals such as Telecommunications and Media, Drone, Edtech & Platform Services.
- Chennai (12%), Delhi (12%), Gurgaon (12%), and Hyderabad (12%) also offer higher pay for various job roles like Game Developer/Programmer, Android Developer, Data Analyst, Cloud Solutions Architect, QA Tester and Embedded Developer, indicating a well-distributed tech industry across these cities.



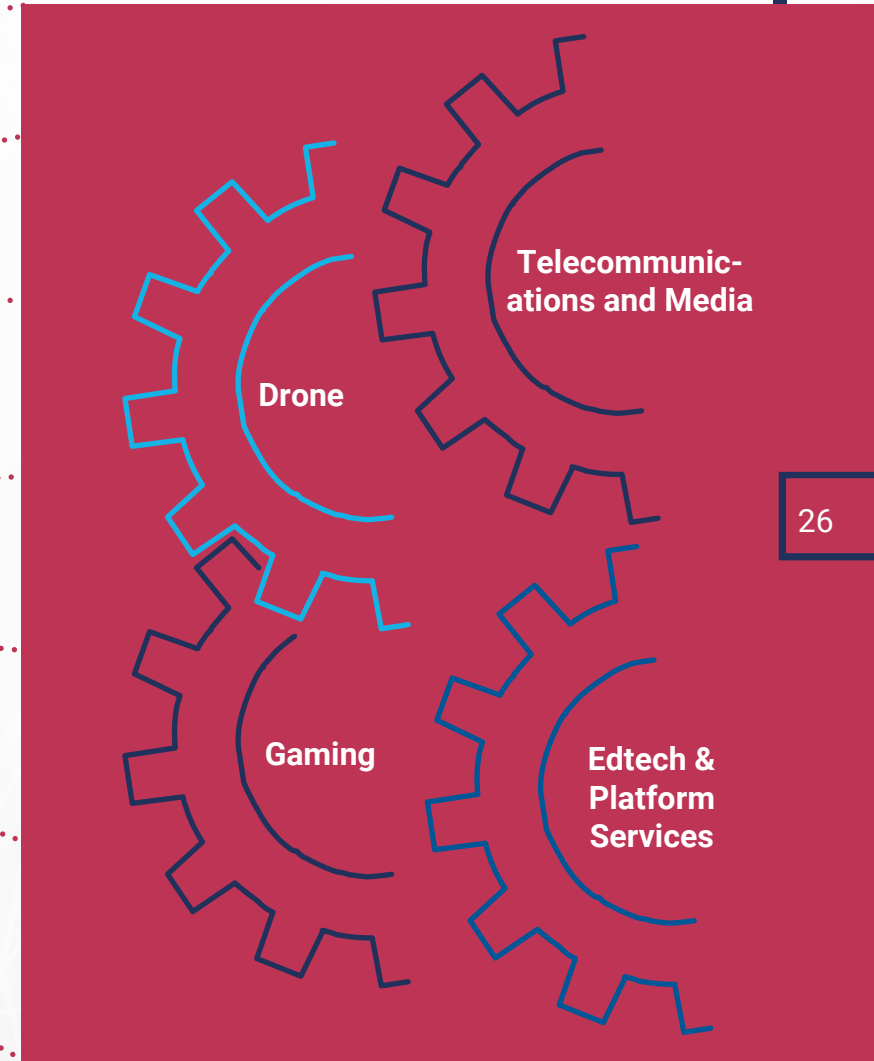
Top 3 ranked cities for the highest paid popular tech job roles

VERTICALS	POPULAR TECH JOB ROLES	HIGHEST PAYING CITIES			
		Rank 1	Rank 2	Rank 3	
Telecommunications and Media	UI/UX Designer	Bengaluru	Delhi	Mumbai	
	Fullstack Developer	Pune	Gurgaon	Bengaluru	
	Game Developer/Programmer	Gurgaon	Delhi	Chennai	
	Drone	Pune	Mumbai	Bengaluru	
	Gaming	Hyderabad	Bengaluru	Chennai	
	Edtech & Platform services	Data Analyst	Delhi	Hyderabad	Bengaluru
		Cloud Solutions Architect	Pune	Gurgaon	Bengaluru
		QA Tester	Bengaluru	Chennai	Pune
Embedded Developer		Pune	Hyderabad	Bengaluru	

QUALIFICATIONS ACROSS POPULAR TECH JOB ROLES

List of qualifications for each popular tech job role:

UI/UX Designer	<ul style="list-style-type: none"> Degree in UI/UX or CS Knowledge of Graphic Design Software (Adobe Creative Suite, Sketch, Azure)
Fullstack Developer	<ul style="list-style-type: none"> Degree in CS, IT, or related field Proficiency in HTML, CSS, JavaScript and server-side scripting languages (PHP, Ruby, Python)
DevOps Engineer	<ul style="list-style-type: none"> UG/PG/Engineering in CS with DevOps/Cloud Technology or IT Certification in DevOps/Cloud Technology Knowledge of Cloud Computing, Automation Tools (Ansible, Puppet) and Scripting Languages (Python, Bash)
Game Developer/Programmer	<ul style="list-style-type: none"> UG/PG/Engineering in Graphics, Gaming, Animation, CS, or Game Development Proficiency in Programming Languages (C++, C#, Java) and Game Engines (Unity, Unreal Engine)
Android Developer	<ul style="list-style-type: none"> UG/PG/Engineering in CS or IT Certification in Android Development Knowledge of Java, Android SDK and Android Studio
Data Analyst	<ul style="list-style-type: none"> UG/PG in Math, Statistics, Economics, Computer Science, or another quantitative field Certification in Data Analysis/Data Science
Cloud Solutions Architect	<ul style="list-style-type: none"> UG/PG/Engineering in CS with Cloud Technology or IT Certification in Cloud Technology Knowledge of Cloud Computing Technologies (AWS, Azure, Google Cloud Platform), Architecture Design and Deployment
Embedded Developer	<ul style="list-style-type: none"> UG/PG/Engineering in CS, IT, or related field Experience in Software Development and Architecture Design Knowledge of multiple Programming Languages and Technologies



Retail and Consumer Business



Retail and Consumer Business has four important verticals: Consumer Goods and Services, Travel, Logistics, and E-commerce. The industry relies heavily on technology, and skilled professionals with tech skills are becoming increasingly essential to its success. New technologies, digital marketing, data analysis and artificial intelligence are all critical to remain competitive and meeting consumer demands.

EXECUTIVE SUMMARY

Tech Talent in the Retail & Consumer Business Industry: Current Workforce and Growth Projections

The Consumer Goods and Services vertical represents an estimated 0.65 lakh tech employment, projected to increase by 1.7 times in the next five years. The market size for this vertical in FY 22 is INR 12.30 lakh crores and is projected to reach INR 23.70 lakh crores in FY 27. The tech skills required in this sector include data analytics, digital marketing, and e-commerce platform development. The tech jobs in this sector include data analysts, digital marketers, and e-commerce platform developers. With the increasing demand for online shopping and logistics, the e-commerce vertical is expected to see the highest growth in tech employees and market size within this business unit.







Business Unit	Verticals	Jobs FY 22 (Total Tech Employees In Lakhs) [Estimate]	Jobs (Projected up to FY 27) (Total Tech Employees In Lakhs) [Estimate]	Jobs FY 22 (Contract Employees in Lakhs) [Estimate]	Jobs (Projected up to FY 27) (Contract Employees in Lakhs) [Estimate]	Market Size FY 22 (in INR Lakh Crores) [Estimate]	Market Size FY 27 (in INR Lakh Crores) [Estimate]
Retail and Consumer Business	Consumer Goods and Services	0.65	1.10	0.1	0.2	12.30	23.70
	Travel	0.25	0.30	0.01	0.02	7.10	10.20
	Logistics	0.30	0.40	0.03	0.05	20.00	33.80
	E-Commerce	0.65	1.10	0.07	0.15	7.95	18.60

Note: The market size is not additive at the vertical or Business Units (BU) levels. Therefore, the market size statistic for the verticals under a BU cannot be aggregated to arrive at the market. This is so because of possible overlaps between the verticals under a BU and between the six BUs.

SALARIES ACROSS POPULAR TECH JOB ROLES

Analysis of high-paying roles and salaries based on experience levels





- The Retail and Consumer business unit displays stupendous growth in payouts especially between the mid- and the senior-levels.
- The Fullstack Developer role is an exemplary case of this uptrend with a greater than 100% growth in salary at senior-levels of experience.
- Even at the low end of the payout spectrum in the business unit, a Graphic Designer and an MIS Executive make handsome gains at the senior levels.
- The job roles with the highest growth in salary across all levels of experience are Fullstack Developer, UX Designer and DevOps Engineer.

VERTICALS	POPULAR TECH JOB ROLES	SALARY (INR LPA) (FY 22)		
		ENTRY-LEVEL (0-3 years)	MID-LEVEL (3-8 years)	SENIOR-LEVEL (Above 8 years)
 Consumer Goods and Services  Travel  Logistics  E-commerce	Graphic Designer	3	6	14
	Data Scientist	8.5	14	22
	Fullstack Developer	8	14.5	33
	App Developer	4.5	11	20
	UX Designer	5	13	30
	DevOps Engineer	4	13.5	29
	Web Developer	3	7	14.5
	Security Architect	7	14	24
	Salesforce Consultant	4	9.5	18
	MIS Executive	3	5.5	13

TOP CITIES FOR TECH ROLE PAYOUTS

- Bengaluru, with 22%, leads in offering higher pay for several tech job roles like Data Scientist, Fullstack Developer, UX Designer, Web Developer, IT Engineer, Security Architect and .NET Developer in the Consumer Goods and Services, Travel, Logistics and E-commerce verticals.
- Gurgaon and Hyderabad (both at 16%) follow, providing competitive salaries for roles such as Graphic Designer, Data Scientist, App Developer, IT Engineer, Security Architect, Salesforce Consultant and .NET Developer.
- Chennai (9%) and Pune (9%) are known for higher compensation in roles like Fullstack Developer, DevOps Engineer, Web Developer and .NET Developer.

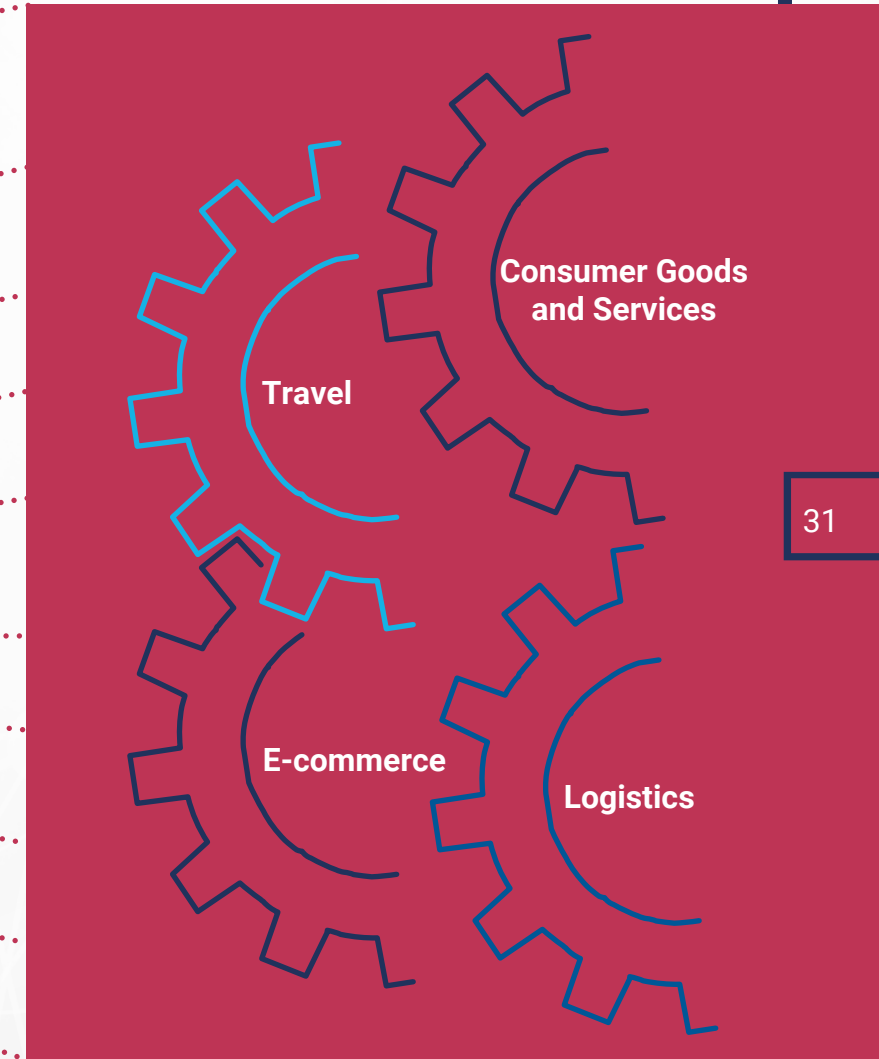
Top 3 ranked cities for the highest paid popular tech job roles

VERTICALS	POPULAR TECH JOB ROLES	HIGHEST PAYING CITIES		
		Rank 1	Rank 2	Rank 3
 Consumer Goods and Services  Travel  Logistics  E-commerce	Graphic Designer	Gurgaon	Bengaluru	Mumbai
	Data Scientist	Bengaluru	Chennai	Gurgaon
	Fullstack Developer	Chennai	Bengaluru	Gurgaon
	App Developer	Gurgaon	Bengaluru	Pune
	UX Designer	Bengaluru	Hyderabad	Thiruvananthapuram
	DevOps Engineer	Pune	Mumbai	Bengaluru
	Web Developer	Bengaluru	Pune	Delhi
	IT Engineer	Gurgaon	Hyderabad	Bengaluru
	Security Architect	Hyderabad	Bengaluru	Noida
	Salesforce Consultant	Hyderabad	Chandigarh	Noida
.NET Developer	Bengaluru	Chennai	Hyderabad	
MIS Executive	Bengaluru	Gurgaon	Delhi	

QUALIFICATIONS ACROSS POPULAR TECH JOB ROLES

List of qualifications for each popular tech job role:

Graphic Designer	Any UG/PG Certification in Graphic Designing or related field
Data Scientist	BE/BTECH/ME/MTECh in Data Engineering or Data Science UG/PG in Computer Science, Engineering, Mathematics, Statistics, or related field Certification in Data Science
Fullstack Developer	Degree in CS, IT, or related field Proficiency in HTML, CSS, JavaScript, and a server-side Scripting Language (e.g., PHP, Ruby, Python)
App Developer	UG/PG/Engineering in CS or IT Certification in Application development
UX Designer	UG/PG/Engineering in UI/UX or CS Certification in UI/UX, Graphic Designing, or Web Designing
Web Developer	UG/PG/Engineering in CS, IT, or related field Certification in Web Designing, Graphic Designing, or UI/UX
IT Engineer	UG/PG/Engineering in CS, IT, or related field
Security Architect	UG/PG/Engineering in Computer Science, IT, or Cybersecurity Certification in Cyber Security/Ethical Hacker Certification
Salesforce Consultant	UG/PG/Engineering in CS, IT, or related field Salesforce Consultant certification program
.NET Developer	UG/PG/Engineering in CS, IT, or related field Dot Net Certification Course
MIS Executive	UG/PG in Math, Statistics, Economics, Computer Science, or another quantitative field Certification in Data Analysis/Data Science



Life Sciences and Healthcare



Life Sciences and Healthcare are essential industries that prioritize human health. Life Sciences explores research, and Healthcare delivers medical services and products to patients. Technology has become increasingly vital in both verticals, resulting in growing demand, and advancements in AI, ML and data analytics have improved the accuracy and speed of diagnosis and treatment.

EXECUTIVE SUMMARY

Tech Talent in the Life Sciences and Healthcare Industry: Current Workforce and Growth Projections

The pandemic fuelled large-scale investments into the Life Sciences and Healthcare business unit and, as a fallout, increased R&D spend on technology. The market size for Life Science will increase to INR 23.3 lakh crores, while Healthcare will reach INR 43.2 lakh crores by FY 27. The tech skills required for these positions will likely include data analysis and management, digital health and software development.





Business Unit	Verticals	Jobs FY 22 (Total Tech Employees In Lakhs) [Estimate]	Jobs (Projected up to FY 27) (Total Tech Employees In Lakhs) [Estimate]	Jobs FY 22 (Contract Employees in Lakhs) [Estimate]	Jobs (Projected up to FY 27) (Contract Employees in Lakhs) [Estimate]	Market Size FY 22 (in INR Lakh Crores) [Estimate]	Market Size FY 27 (in INR Lakh Crores) [Estimate]
Life Sciences and Healthcare	Life Science	0.65	0.85	0.07	0.15	11.45	23.30
	Healthcare	0.40	0.70	0.05	0.10	23.70	43.20

Note: The market size is not additive at the vertical or Business Units (BU) levels. Therefore, the market size statistic for the verticals under a BU cannot be aggregated to arrive at the market. This is so because of possible overlaps between the verticals under a BU and between the six BUs.

SALARIES ACROSS POPULAR TECH JOB ROLES

- The average salary for a DevOps Engineer in the Life Sciences and Healthcare business unit is highest at the senior level, at INR 28.7 LPA.
- A notable salary growth can be observed for Java developers as they progress from entry-level to senior-level roles, with compensation increasing from INR 8.3 Lakhs to INR 25 Lakhs.
- Entry-level Data Scientist payouts in the healthcare vertical are the highest among all job roles, at INR 10.5 LPA.
- The average wages for a QA Engineer, Web Developer, and Technical Support Engineer increase significantly from entry-level to senior-level, from INR 4 LPA to INR 17 LPA.



Analysis of high-paying roles and salaries based on experience levels

VERTICALS	POPULAR JOB ROLES	SALARY (INR LPA) (FY 22)		
		ENTRY-LEVEL (0-3 years)	MID-LEVEL (3-8 years)	SENIOR-LEVEL (Above 8 years)
 Life Science	Data Scientist	9.5	18.5	27.5
	Java Developer	8.5	15.5	25
	QA Engineer	4	9	17
 Healthcare	DevOps Engineer	7	13.5	29
	Cyber Security Specialist	10	20.5	27
	Web Developer	4.5	8	14.5
	Technical Support Engineer	4.5	9.5	15

TOP CITIES FOR TECH ROLE PAYOUTS

- Bengaluru, with 25%, leads in offering higher pay for the most tech job roles in the Life Science and Healthcare verticals, including Data Scientist, Java Developer, QA Engineer and Web Developer.
- Hyderabad, accounting for 20%, offers competitive salaries for roles such as Java Developer, QA Engineer, Cyber Security Specialist and Technical Support Engineer.
- Pune, with 15%, is another city known for higher compensation in roles like QA Engineer, DevOps Engineer and Web Developer.
- Chennai (10%), Delhi (10%), Gurgaon (10%), Mumbai (5%), and Noida (5%) also offer higher pay in various tech job roles, reflecting the growth and diversification of the tech industry in the Life Science and Healthcare sectors across different cities in India.

Top 3 ranked cities for the highest paid popular tech job roles

VERTICALS	POPULAR TECH JOB ROLES	HIGHEST PAYING CITIES		
		Rank 1	Rank 2	Rank 3
 Life Science	Data Scientist	Bengaluru	Chennai	Gurgaon
	Java Developer	Bengaluru	Chennai	Hyderabad
	QA Engineer	Bengaluru	Hyderabad	Pune
 Healthcare	DevOps Engineer	Pune	Mumbai	Bengaluru
	Cyber Security Specialist	Hyderabad	Noida	Delhi
	Web Developer	Bengaluru	Pune	Delhi
	Technical Support Engineer	Hyderabad	Bengaluru	Gurgaon

QUALIFICATIONS ACROSS POPULAR TECH JOB ROLES

List of qualifications for each popular tech job role:

Data Scientist	BE/BTECH/ME/MTECH in Data Engineering or Data Science UG/PG in Computer Science, Engineering, Mathematics, Statistics or a related field Certification in Data Science
Java Developer	UG/PG/Engineering in CS, IT or a related field Certification in Java
QA Engineer	UG/PG/Engineering in a related field
DevOps Engineer	UG/PG/Engineering in CS with DevOps/Cloud Technology or IT Certification in DevOps/Cloud Technology
Cyber Security Specialist	UG/PG/Engineering in Computer Science, IT or Cybersecurity Certification in Cyber Security/Ethical Hacker Certification
Web Developer	UG/PG/Engineering in CS, IT or related field Certification in Web Designing, Graphic Designing, or UI/UX
Technical Support Engineer	UG/PG/Engineering in CS, IT or related field

Life Science

Healthcare

Engineering Research & Development (ER&D)

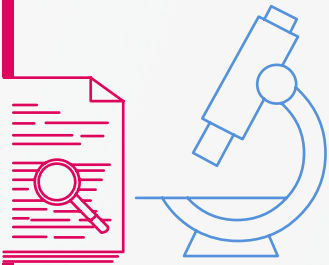


Engineering Research & Development (ER&D) is a critical business unit with three verticals: Manufacturing, Semiconductors, Engineering, Construction, and Operations. These verticals are essential for innovation, process improvement, and project management. In today's technological landscape, having the right tech skills and talent is crucial for ER&D's success, especially with the increasing use of AI, Machine Learning and Automation.

EXECUTIVE SUMMARY

Tech Talent in the Engineering Research & Development Industry: Current Workforce and Growth Projections

The ER&D business unit operates in three verticals: Manufacturing, Semiconductors and Engineering, Construction and Operations. The tech skills required for this business unit include expertise in engineering, research, development and knowledge of the latest technologies in the semiconductor and manufacturing industries. The tech jobs available in this unit include engineers, researchers, developers and operations and construction professionals. Currently, the Engineering, Construction and Operations vertical has an estimated 1.3 lakh tech employees, which is projected to increase to 1.7 lakhs in the next five years. The market size for this vertical in FY 22 is INR 31.50 lakh crores and it is expected to reach INR 47 lakh crores by FY 27.






Business Unit	Verticals	Jobs FY 22 (Total Tech Employees In Lakhs) [Estimate]	Jobs (Projected up to FY 27) (Total Tech Employees In Lakhs) [Estimate]	Jobs FY 22 (Contract Employees in Lakhs) [Estimate]	Jobs (Projected up to FY 27) (Contract Employees in Lakhs) [Estimate]	Market Size FY 22 (in INR Lakh Crores) [Estimate]	Market Size FY 27 (in INR Lakh Crores) [Estimate]
Engineering Research & Development (ER&D)	Manufacturing	0.10	0.15	0.02	0.03	55.60	73.90
	Semi-conductors	0.03	0.05	0.01	0.02	2.60	5.70
	Engineering, Construction and Operations	1.30	1.70	0.30	0.60	31.50	47.00

Note: The market size is not additive at the vertical or Business Units (BU) levels. Therefore, the market size statistic for the verticals under a BU cannot be aggregated to arrive at the market. This is so because of possible overlaps between the verticals under a BU and between the six BUs.

SALARIES ACROSS POPULAR TECH JOB ROLES

- The ER&D business unit exhibits a doubling of payout growth across the three hierarchical levels for nearly all popular tech roles.
- Most popular tech roles in the business unit are modestly paid at the entry-level, but are slated to grow more than three-fold in the run up to the senior levels.
- The DevOps Engineer role is a significant exception, with a 7-fold growth in salary between the entry and senior levels.




Analysis of high-paying roles and salaries based on experience levels

VERTICALS	POPULAR TECH JOB ROLES	SALARY (INR LPA) (FY 22)		
		ENTRY-LEVEL (0-3 years)	MID-LEVEL (3-8 years)	SENIOR-LEVEL (Above 8 years)
 Manufacturing	Embedded Software Engineer	4	9	15.5
	CAD Engineer	3	4.5	10
	Automation Engineer	5	10	20
 Semiconductors	Applications Engineer	4	10	22
 Engineering, Construction & Operations	Quality Control Engineer	3.5	6.5	14
	Design Engineer	3.5	8	16
	DevOps Engineer	4	13.5	29
	IT Network Engineer	3.5	6.5	14

TOP CITIES FOR TECH ROLE PAYOUTS

- Pune, Hyderabad, Gurgaon and Mumbai, each with 16%, are the leading cities offering higher pay for tech job roles in Manufacturing, Semiconductors and Engineering, Construction & Operations sectors, such as Automation Engineer, Applications Engineer, Quality Control Engineer, Design Engineer and DevOps Engineer.
- Bengaluru, Chennai and Noida, accounting for 12% each, also provide competitive salaries for roles like Embedded Software Engineer, CAD Engineer, Applications Engineer, Design Engineer and IT Network Engineer.
- The demand for popular tech roles in these sectors is distributed across various cities, reflecting the growth and diversification of the technology industry in different regions of India.

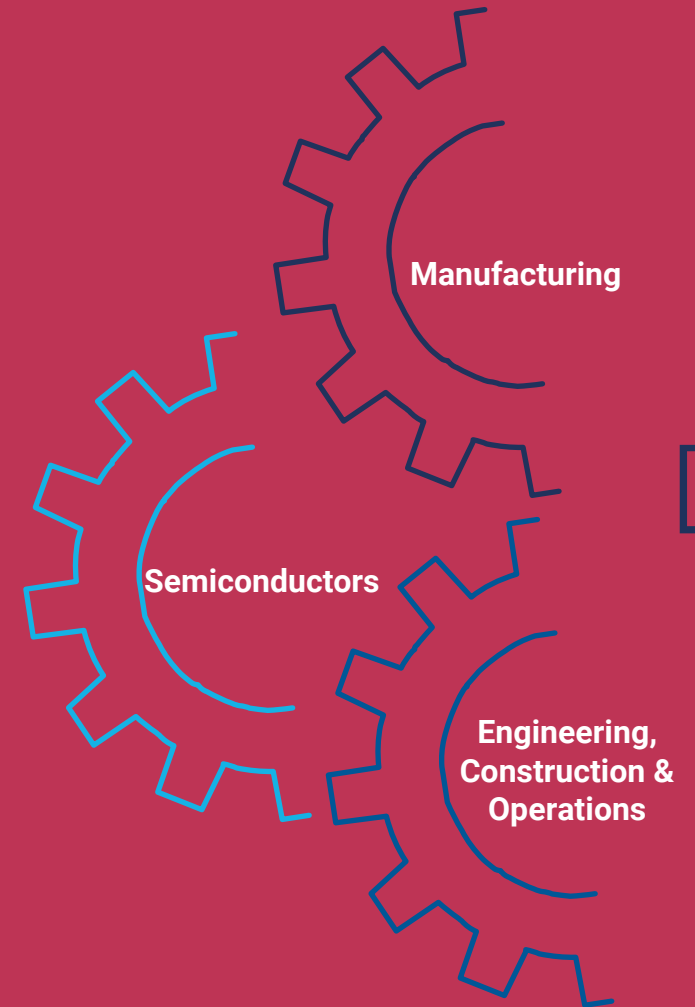
Top 3 ranked cities for the highest paid popular tech job roles

VERTICALS	POPULAR TECH JOB ROLES	HIGHEST PAYING CITIES		
		Rank 1	Rank 2	Rank 3
 Manufacturing  Semiconductors  Engineering, Construction & Operations	Embedded Software Engineer	Chennai	Pune	Hyderabad
	CAD Engineer	Noida	Gurgaon	Mumbai
	Automation Engineer	Pune	Hyderabad	Chennai
	Applications Engineer	Bengaluru	Pune	Chennai
	Quality Control Engineer	Hyderabad	Gurgaon	Mumbai
	Design Engineer	Gurgaon	Noida	Bengaluru
	DevOps Engineer	Pune	Mumbai	Bengaluru
IT Network Engineer	Bengaluru	Noida	Gurgaon	

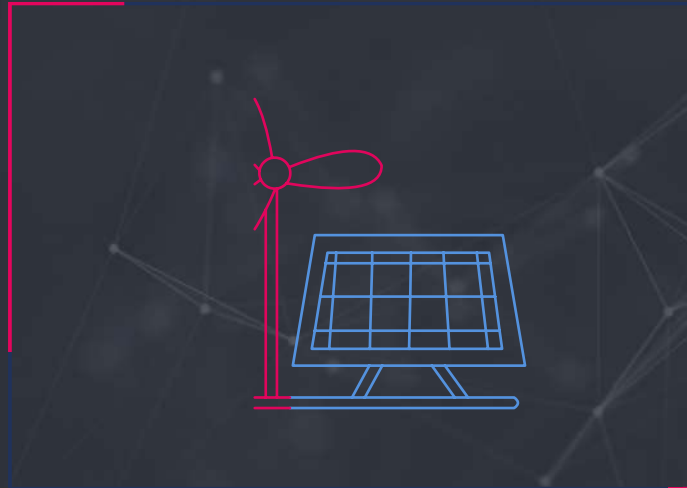
QUALIFICATIONS ACROSS POPULAR TECH JOB ROLES

List of qualifications for each popular tech job role:

Embedded Software Engineer	UG/PG/Engineering in CS or related technical field
	Certificate in Embedded & Real-Time Systems Programming
CAD Engineer	UG/PG/Engineering in Design Engineering or related field
	Certificate in Computer-Aided Design
Automation Engineer	UG/PG/Engineering in CS, IT, Robotics Engineering, or related field
	Certification in RPA
Applications Engineer	UG/PG/Engineering in CS, IT, or related field
Quality Control Engineer	UG/PG/Engineering in a related field
Design Engineer	UG/PG/Engineering in Design Engineering or related technical field
DevOps Engineer	UG/PG/Engineering in CS with DevOps/Cloud Technology or IT
	Certification in DevOps/Cloud Technology
IT Network Engineer	UG/PG/Engineering in CS or IT



Energy & Resources

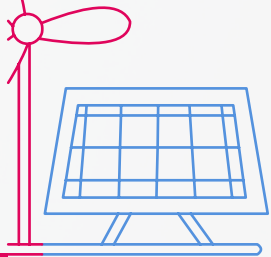


Energy & Resources is a business unit focusing on three verticals: Energy, Natural Resources, and Utilities. These sectors are essential for providing necessities and supporting economic growth and are constantly evolving. The industries require a skilled workforce with tech skills in automation, Data Analytics, Cybersecurity and Renewable Energy technologies to stay competitive and sustainable.

EXECUTIVE SUMMARY

Tech Talent in the Energy & Resources Industry: Current Workforce and Growth Projections

The Energy & Resources business unit is comprised of three verticals: Energy, Natural Resources and Utilities. The Utilities vertical observes an approximate two-fold growth in the tech talent numbers over the period of five years until FY 27. Natural Resources consist of Agriculture, Coal & Minerals and hence they have the most significant market size of all three. Utilities, on the contrary, have a relatively minuscule market size. The required tech skills for these jobs include data analysis, software development and technical expertise in specific industries such as energy and natural resources.






Business Unit	Verticals	Jobs FY 22 (Total Tech Employees In Lakhs) [Estimate]	Jobs (Projected up to FY 27) (Total Tech Employees In Lakhs) [Estimate]	Jobs FY 22 (Contract Employees in Lakhs) [Estimate]	Jobs (Projected up to FY 27) (Contract Employees in Lakhs) [Estimate]	Market Size FY 22 (in INR Lakh Crores) [Estimate]	Market Size FY 27 (in INR Lakh Crores) [Estimate]
Energy & Resources	Energy	0.07	0.1	0.02	0.04	6.30	9.20
	Natural Resources	0.20	0.25	0.03	0.06	71.70	143.50
	Utilities	0.15	0.30	0.01	0.02	0.0035	0.0045

Note: The market size is not additive at the vertical or Business Units (BU) levels. Therefore, the market size statistic for the verticals under a BU cannot be aggregated to arrive at the market. This is so because of possible overlaps between the verticals under a BU and between the six BUs.

SALARIES ACROSS POPULAR TECH JOB ROLES

Analysis of high-paying roles and salaries based on experience levels

VERTICALS	POPULAR TECH JOB ROLES	SALARY (INR LPA) (FY 22)		
		ENTRY-LEVEL (0-3 years)	MID-LEVEL (3-8 years)	SENIOR-LEVEL (Above 8 years)
 Energy  Natural Resources  Utilities	Big Data Analyst	6.5	12	25
	IT Infrastructure Engineer	5	10	16
	Software Developer	5	9.5	20
	Web Developer	3	7	14.5
	Information Security Manager	6	13	24
	Solution Architect	8	17	31
	Integration Architect	8	11	23
	UX/UI Designer	3.5	7.5	14
	ERP Manager	5	12	24

- While there is a smart doubling of payout growth from the entry to the mid-level for most popular tech roles in the Energy & Resources business unit, the mid-level to senior-level payout growth does not quite keep pace.
- Big Data Analyst, Software Developer, Web Developer, Solution Architect and ERP Manager are the roles that have consistent 100% increases in salaries across the hierarchy.
- The Solution Architect role displays the highest growth rates at the entry to mid levels and at the mid to senior levels amongst all the popular tech roles.
- Big Data Analysts (entry-level INR 8 LPA) and Solution Architects (senior-level INR 31 LPA) are also in high demand and have the highest salary range across all levels.

TOP CITIES FOR TECH ROLE PAYOUTS

- Hyderabad, with 22%, leads in offering higher pay for roles such as IT Infrastructure Engineer, Software Developer, Solution Architect and Integration Architect in the Energy, Natural Resources and Utility verticals.
- Bengaluru (19%) offers competitive salaries for roles like Data Analyst, Web Developer, Information Security Manager, Solution Architect, Integration Architect and UX/UI Designer.
- Chennai (12%), Delhi, Gurgaon, Mumbai and Pune (the rest all at 11% respectively) offer higher pay for various roles, including Data Analyst, IT Infrastructure Engineer, Software Developer, Web Developer, Information Security Manager, Solution Architect, Integration Architect, UX/UI Designer and ERP Manager, reflecting the diverse opportunities in these cities.



Energy

Natural Resources

Utilities

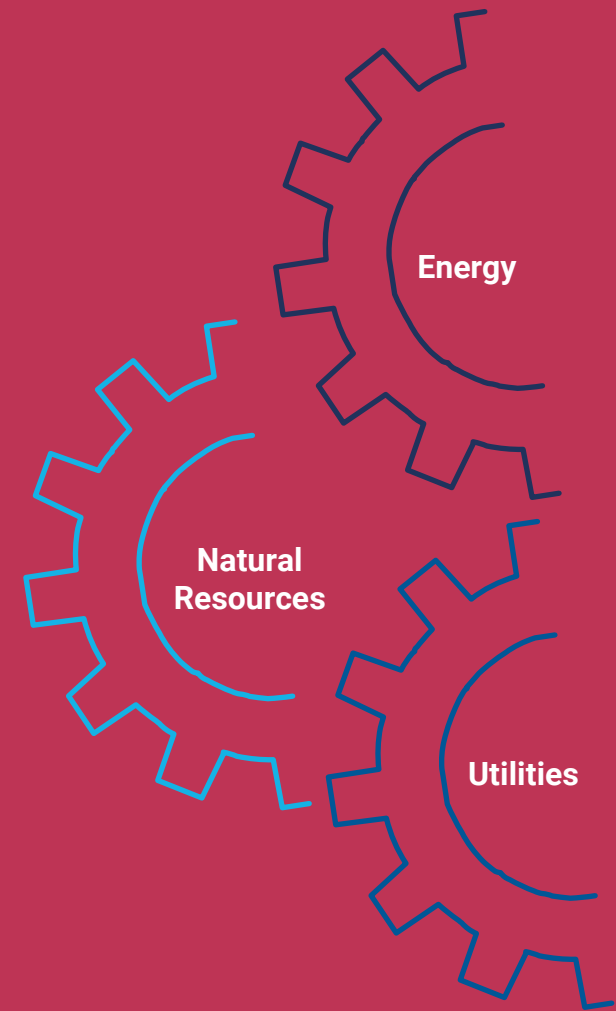
Top 3 ranked cities for the highest paid popular tech job roles

VERTICALS	POPULAR TECH JOB ROLES	HIGHEST PAYING CITIES		
		Rank 1	Rank 2	Rank 3
	Big Data Analyst	Delhi	Hyderabad	Bengaluru
	IT Infrastructure Engineer	Hyderabad	Mumbai	Chennai
	Software Developer	Gurgaon	Hyderabad	Bengaluru
	Web Developer	Bengaluru	Pune	Delhi
	Information Security Manager	Bengaluru	Gurgaon	Hyderabad
	Solution Architect	Hyderabad	Bengaluru	Pune
	Integration Architect	Hyderabad	Gurgaon	Bengaluru
	UX/UI Designer	Bengaluru	Delhi	Mumbai
	ERP Manager	Pune	hmedabad	Chennai

QUALIFICATIONS ACROSS POPULAR TECH JOB ROLES

List of qualifications for each popular tech job role:

Data Analyst	UG/PG in Math, Statistics, Economics, Computer Science, or another quantitative field Certification in Data Analysis/Data Science
IT Infrastructure Engineer	UG/PG/Engineering in CS or IT Certified training for Infrastructure Engineer
Software Developer	UG/PG/Engineering in CS, IT, or Software Engineering
Web Developer	UG/PG/Engineering in CS, IT, or related field Certification in Web Designing, Graphic Designing, or UI/UX
Information Security Manager	UG/PG/Engineering in Computer Science, Cybersecurity, or IT Certification in Cyber Security/Ethical Hacker Certification
Solution Architect	UG/PG in Information Technology, Computer Science, or Software Information
Integration Architect	UG/PG/Engineering in Computer Science, Artificial Intelligence, Software Engineering, Information Technology, or related fields
UX/UI Designer	UG/PG/Engineering in UI/UX or CS Certification in UI/UX, Graphic Designing, or Web Designing
ERP Manager	UG/PG/Engineering in CS, IT, or related field Certification courses in ERP



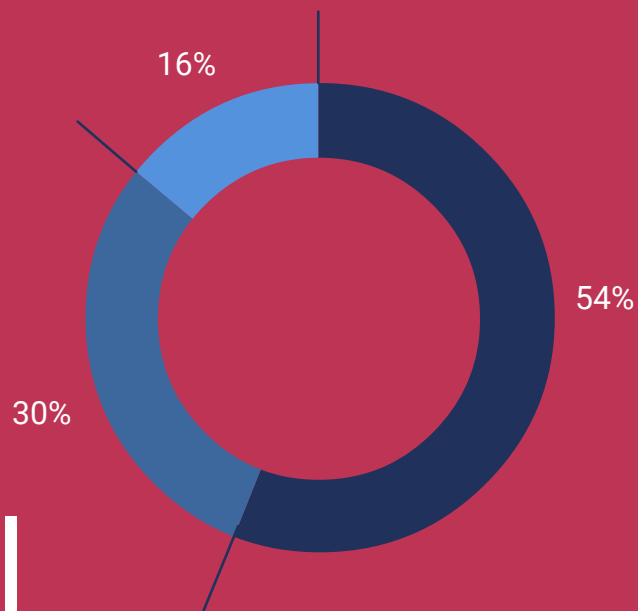
Addressing Demand Supply Gap

Tech Talent in the Non-Tech Sector

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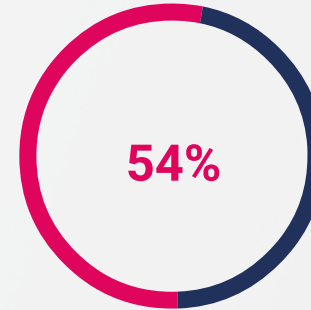
TECH TALENT IN THE NON-TECH SECTOR

Hiring mode analysis for tech jobs in non-tech sector



Permanent
Contract
Mixed

Survey Findings—Hiring Modes Analysis



The non-tech sector does not place a lot of emphasis on hiring for tech roles on its own payrolls. Although technology is being seen as a necessary growth driver, hiring permanent employees is not all too prevalent.

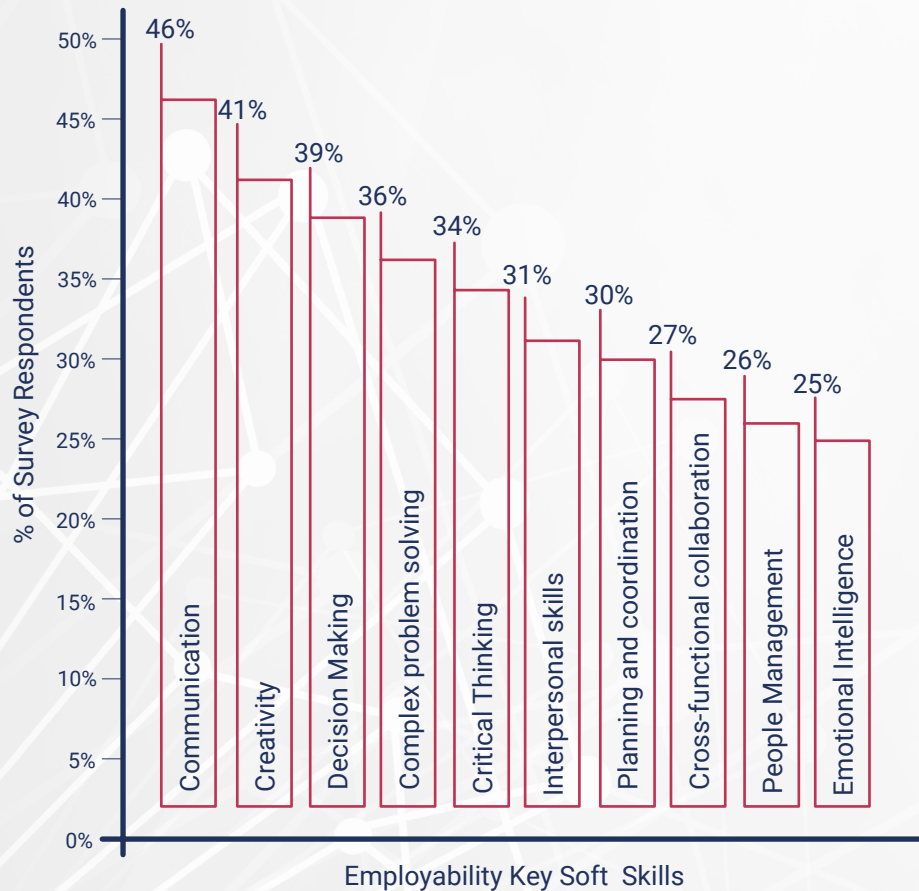
With slightly greater than half of all employers having a preference for a permanent employment hiring mode, a substantial 46% look at other, relatively flexible modes.

The “contract” and “mixed” modes of hiring allow non-tech sector employers to be agile with respect to changing trends in technology and scale their tech teams upward or downward based on needs and seasonality.

TECH TALENT IN THE NON-TECH SECTOR

Soft Skills in Demand in the Order of Employability

Soft Skills in Demand



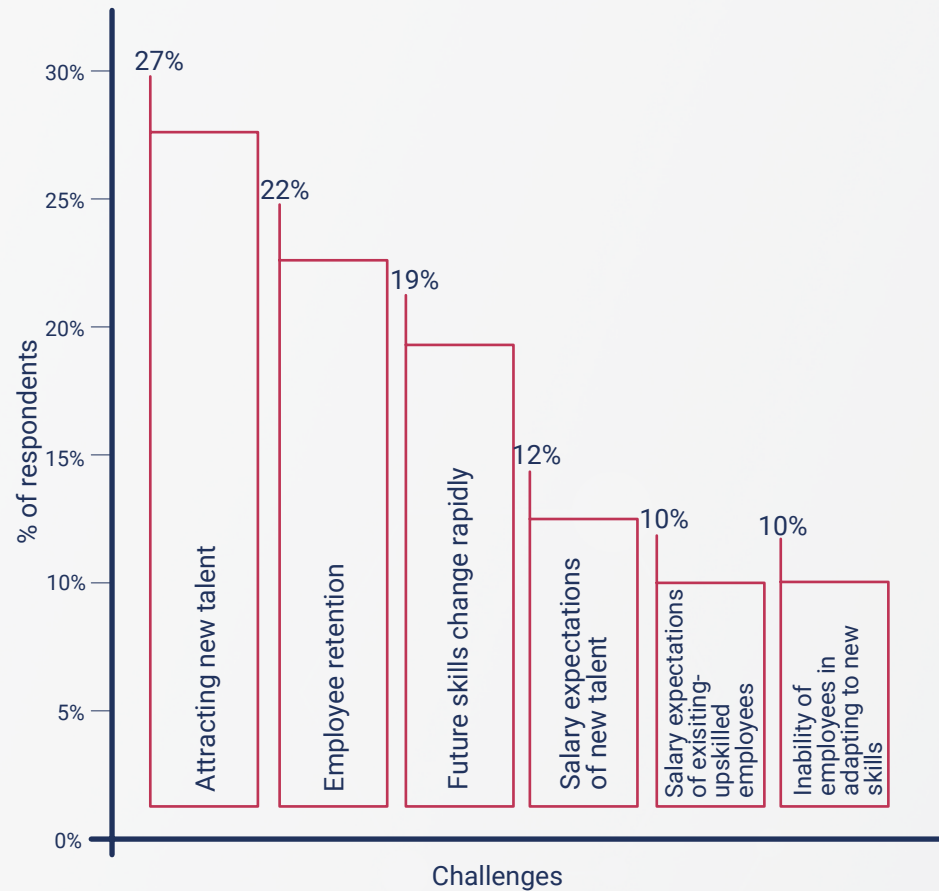
- The soft-skills sought by the non-tech sector among tech talent is of a rather routine nature. The sector seems more focused on basic soft-skills in its tech workforce and is not intent on more sophisticated behavioural traits.
- A majority of respondents rate Communication (46%), Creativity (41%) & Decision Making (39%) as the most sought-after behavioral skills.
- 36% highly preferred Complex Problem Solving & 34% rated Critical Thinking – as a skill that helps with employability.

Higher-order non-technical employability skills such as Interpersonal Skills, Planning, and Coordination, Cross-Functional Collaboration, People Management & Emotional Intelligence are rated lower than the remaining behavioural skills.

TECH TALENT IN THE NON-TECH SECTOR

Significant Challenges in Minimizing the Skill Demand & Supply Gap

Challenges in Minimizing Skill Demand & Supply Gap



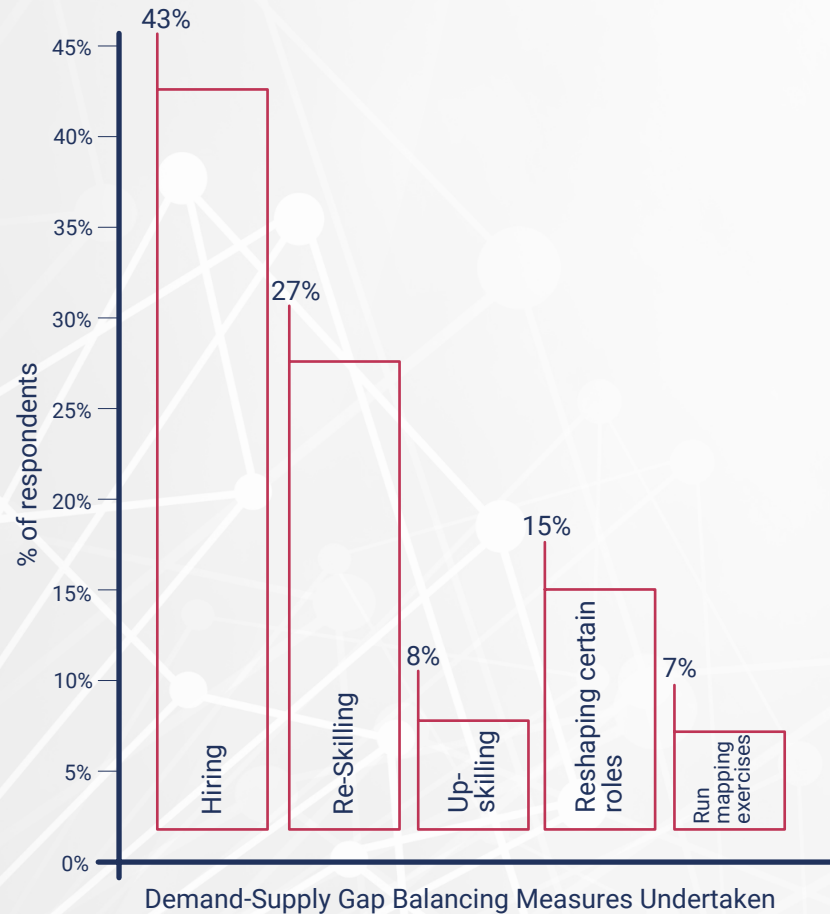
- In a predominantly talent acquisition-retention mode, half of all non-tech employers face challenges related to these two aspects. Accordingly, 'Attracting new talent' (27%) and 'Employee retention' (22%) are the most critical challenges in minimizing skill demand & supply gaps.
- 19% of respondents think 'Future skills change rapidly' is a concern for addressing new project challenges.
- Around two out of three respondents have said salary expectations and inability to adapt to new skills is a more significant task to solve these skill demand and supply gaps.

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TECH TALENT IN THE NON-TECH SECTOR

Measures Taken to Balance Demand-Supply Gaps

Balancing Demand-Supply Gap



- 43% of respondents have reported that 'hiring' new talent is the best option to counter demand-supply gaps.
- The second-best option, reported by 27% of respondents, is 're-skilling' existing employees to adjust the requirements of professional tech talent.
- 15% said 'reshaping certain roles' is an advantage to balance out project requirements and efficiently handle the gaps.
- Approximately one out of six respondents have said 'up-skilling' & 'run mapping exercises' will solve the issue.

TECH TALENT IN THE NON-TECH SECTOR

Software Engineers



Data Scientists

Cyber Security
Professionals

Cloud Architects

Hiring growth across tech job roles

Most Sought After Tech Jobs in Non-Tech Sectors by FY 2027

In India, the number of job postings for data scientist roles has been experiencing a substantial annual growth of 29%. Furthermore, the analytics industry recorded a substantial increase of 34.5% on a year-on-year basis in 2022, with the market value reaching USD 61.1 billion.

Cybersecurity professionals will be highly sought-after in non-tech sectors due to data-driven decision-making and heightened regulatory scrutiny on data privacy. Revenue is expected to show an annual growth rate (CAGR 2022-2027) of 13.9%, resulting in a market volume of USD 4.14 billion by 2027.

The rapid growth of cloud computing in India, with a projected CAGR of 24.1% until 2025, will lead to a USD 10.8 billion public cloud market and generate over 2 million job opportunities, as reports. High demand for cloud architects across industries like manufacturing, agriculture and logistics is expected as organizations adopt cloud solutions for enhanced efficiency, scalability and cost-effectiveness.

Key Trends

Accelerating the Demand for Tech Talent in Non-Tech

ELECTRIC VEHICLES & GREEN ZONE SECTORS BOOST THE TECH TALENT DEMAND

Future Sectors with High-Tech Job Potential in Green Business



- Green Hydrogen Energy
- Floating Solar Power Plants
- Off Shore Wind Power Plants
- Wind-Solar Hybrid and other Renewable Energy Systems
- Biomass/Biofuels/Bio CNG production and Supply Chain
- Large Size Energy Storage
- EV Charging through Solar Energy Plants
- Pollution Prevention and Control Network
- E-waste Management
- De-Carbonisation of Energy Intensive Sectors

In 2022, the total employment in the energy sector expanded by 1.3 million. It is projected to grow by 6% in the fiscal year 2023-24. The energy employment landscape in 2022 consisted of three primary segments. One-third of the workforce was involved in fuel supply, including coal, oil, gas and bioenergy. Another third participated in power generation, transmission and distribution.

The remaining employees worked in end-user services like vehicle production and energy efficiency initiatives for buildings and industrial facilities. The clean energy sector predominantly drives the growth in energy employment.

Approximately 16 million employed by the energy sector may switch to roles concerning clean energy, per the calculated scenario.

ELECTRIC VEHICLES & GREEN ZONE SECTORS BOOST THE TECH TALENT DEMAND

Future Tech Job Roles in EV & Green Zone Sectors

Green Hydrogen

Job Roles like Green Hydrogen Production Tech, Green Hydrogen Application Analysts, etc.

EV Charging and Clean Transportation

Job Roles like Solar Charging Operators, etc.

Make In India for the World

Job Roles like Solar PV Manufacturing Engineers, Wind Turbine Manufacturing Technicians, etc.

Green Buildings

Job Roles like Energy Efficient Building Designers

Circular Economy

Job Roles like Manager-Circular Economy Product and Packaging Developers

Renewable Power Generation

Job Roles like RE Installation and Technical Engineers, Clean Energy Researchers

Energy Storage

Job roles like Battery Management System Designers, Storage System Developers

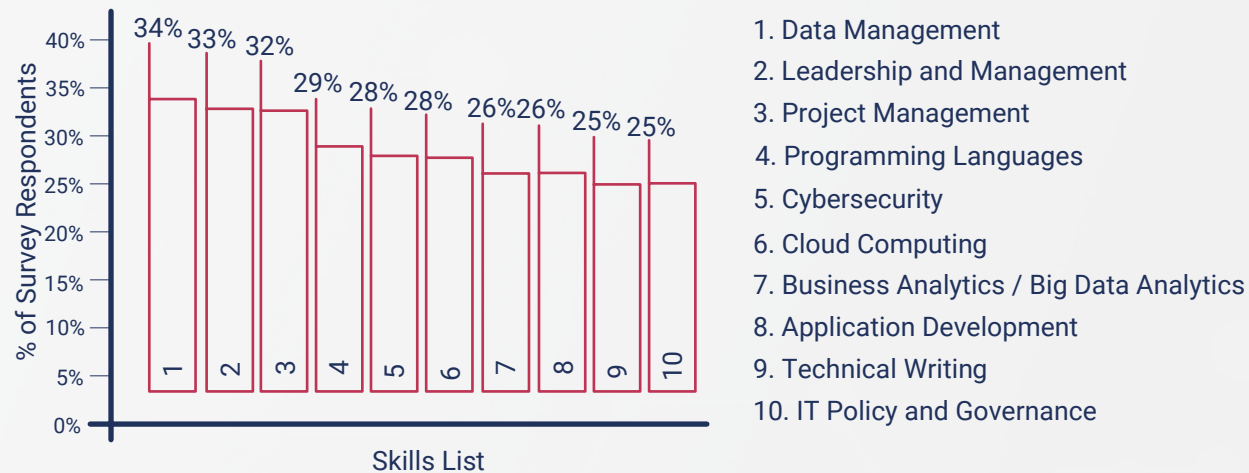


- The Government of India's Green Energy and Energy Independence vision is a massive opportunity for new job creation in multiple sectors. The Green Business Sectors include Renewable Energy, Water, Waste Management, Green Buildings, Smart Cities, Green Transportation, Circular Economy and resources & energy efficiency across sectors.
- The Indian government's efforts, such as the FAME India Scheme, Production Linked Incentive Scheme (PLI), Green Mobility Zones, Smart Cities Mission and National Mission on Transformative Mobility and Battery Storage, have promoted electric vehicles and green zones across the country. These initiatives collectively drive the demand for tech talent in non-tech domains, emphasizing the role of EVs and green zones in boosting the tech talent in the Indian non-tech sector.

WOMEN IN TECH IN THE NON-TECH INDUSTRY

- Women in STEM leading to tech roles: Out of 5 million (direct jobs) tech workforce in India, 1.8 million are women. Globally, India ranks second in the number of female online learners. Approximately 4 million female online learners have enrolled in STEM courses.
- STEM courses/fields such as Computer Programming, Web Development, Analytics, AI and ML, Cybersecurity and User Experience (UX) Design are most preferred by women.
- Women are increasingly enrolling in STEM courses intending to acquire technical skills that can help them advance their careers and secure leadership and management positions.

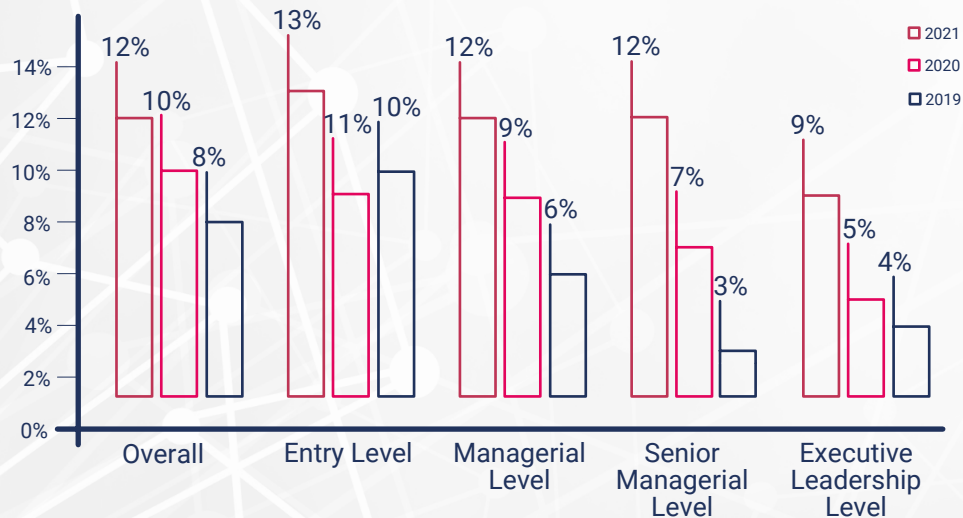
Skills That Women In Tech Want To Build In The Future



WOMEN IN TECH IN THE NON-TECH INDUSTRY

- A significant majority (80%) of women working in tech roles are employed by non-tech companies, while only 21% of the tech workforce in IT services is comprised of women.
- There's a great demand for technology skills. This is a significant opportunity for women to expand into this area, where they have been historically underrepresented.
- Six of every ten new hires in the EV sector are women skilled in business modelling, design redevelopment, e-mobility and renewable energy management.

Women's Representation in the Manufacturing Sector



CONCLUSION

The technology sector is experiencing slowdowns and massive layoffs, but tech talent is still in demand, and non-tech sectors are stepping in to fill the void. Despite the fact that non-tech companies will focus on their core strengths, the use of technology is becoming increasingly crucial, particularly in sectors like BFSI, retail, energy, healthcare, etc. In non-tech businesses, the overnight shift to a digital mode of operation has increased the demand for tech personnel. This breakthrough has resulted in a tremendous rise in tech hiring, which has persisted even as the world slowly begins to recover from the pandemic. The non-tech industry has been actively hiring seasoned tech talent in an effort to maintain its competitiveness in terms of productivity and efficiency. The number of tech jobs available and salaries in non-tech businesses have increased tremendously in recent months. This has played a major role in the movement of tech personnel from specialized tech industries into non-tech areas. Additionally, the unexpected surge in demand for technical expertise has resulted in a huge gap between supply and demand, which in turn has sharply increased the number of positions in a variety of non-tech industries. Organisations continue plans of building Global Shared Services and Captives that will boost hiring and develop potential tech talent in FY 24. It is obvious that the tech industry's large layoffs have given other non-tech industries an opportunity to tap the required talent from the rich and diverse talent pool. Companies should evaluate the specific tech skills and experience needed for the respective businesses to maximise the opportunity. Both from the perspective of the employer and employee, they should take into account organizational culture fit in addition to job fit. Organisations must also consider the preferences of tech talent, who prefer working for non-tech companies that are focused on and driven by technology. Before making hiring decisions in this quickly shifting job market, organizations must take into consideration all the relevant factors.

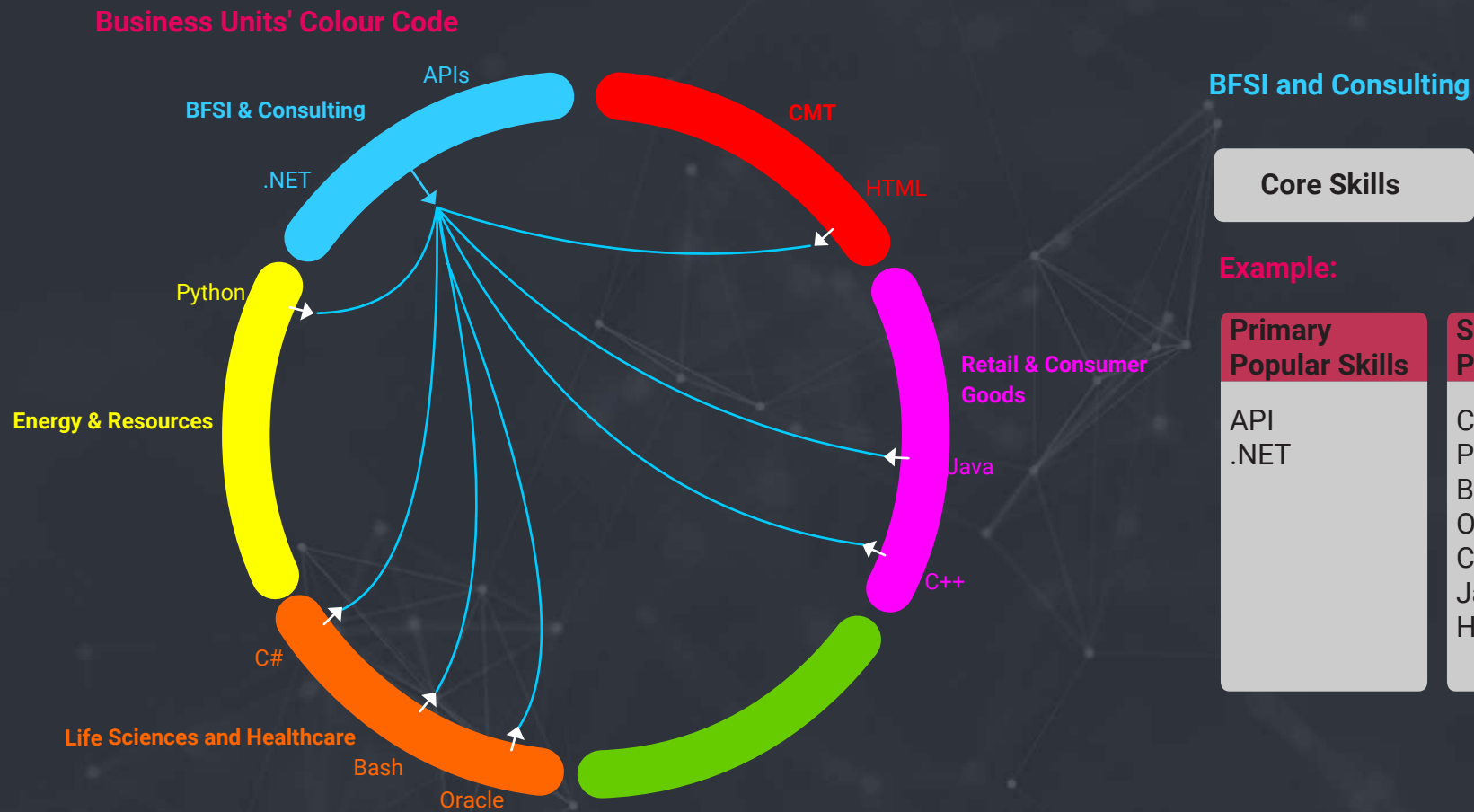
Annexure

Data Interpretation, Methodology
Overview, Sample Design and
Bibliography

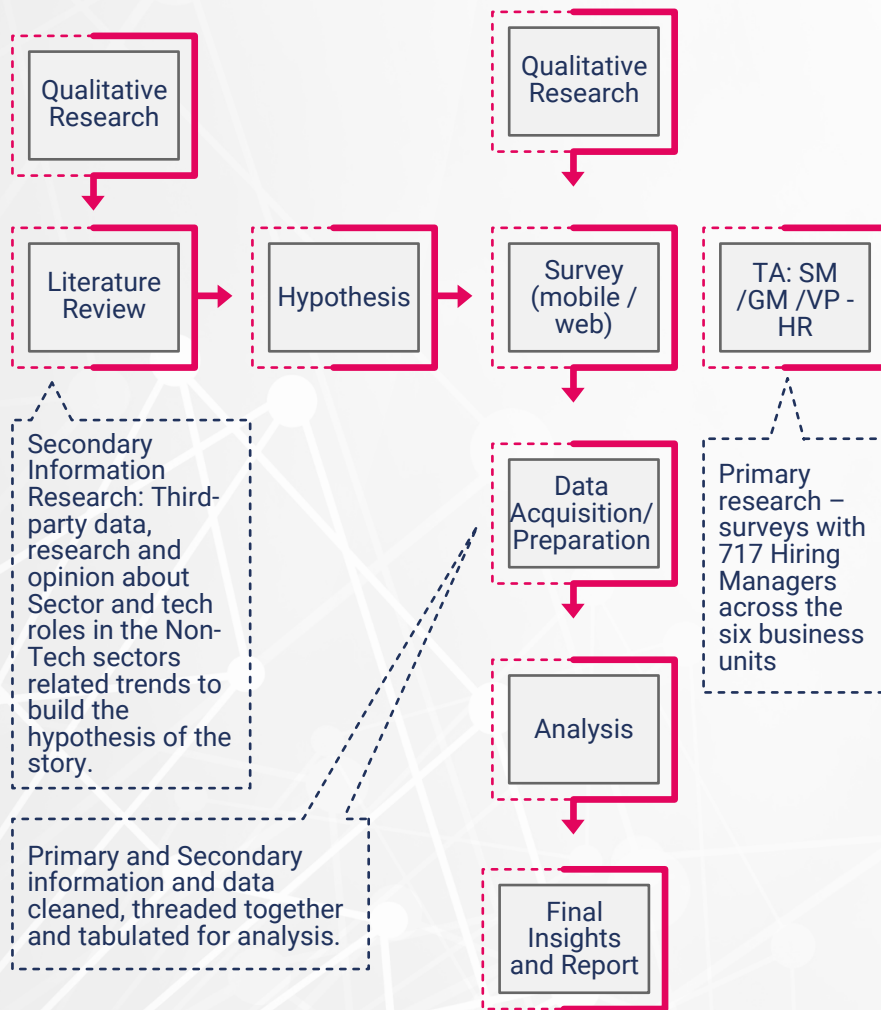
Correlogram: Core Skills & Non-Core Skills

Major Tech skills in the Non-Tech Sector

Correlogram Interpretation



METHODOLOGY OVERVIEW and SAMPLE DESIGN



SECTORS	TOTAL RESPONDENTS	CITIES	TOTAL RESPONDENTS
BFSI & Consulting	206	Ahmedabad	45
Communication Media and Technology (CMT)	141	Bangalore	133
Retail and Consumer Business	103	Chandigarh	37
Life Sciences and Healthcare	111	Chennai	101
Engineering Research & Development (ER&D)	87	Delhi	91
Energy & Resources	69	Hyderabad	56
Total	717	Kolkata	63
		Mumbai	115
		Pune	76
		Total	717

BUSINESS SIZE	TOTAL RESPONDENTS
Small [10 to 49 employees]	341
Medium [50 to 249 employees]	235
Large [250 employees or more]	141
Total	717

Total Employer Respondents = 717
Report Timeline: FY 22 to FY 27

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Definition of different Hierarchical Levels

Entry Level 0-3 years of experience	Mid Level 3-8 years of experience	Senior Level Above 8 years of experience
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