

Directors' Report



To the Members,

The Directors present the Annual Report of Tata Consultancy Services Limited (the Company or TCS) along with the audited financial statements for the financial year ended March 31, 2018. The consolidated performance of the Company and its subsidiaries has been referred to wherever required.

1. Financial results

(₹ crore)

	Unconsolidated		Consolidated	
	Financial Year 2017-18 (FY18)	Financial Year 2016-17 (FY17)	Financial Year 2017-18 (FY18)	Financial Year 2016-17 (FY17)
Revenue from operations	97,356	92,693	1,23,104	1,17,966
Other income (net)	5,803	4,568	3,642	4,221
Total income	1,03,159	97,261	1,26,746	1,22,187
Expenses				
Operating expenditure	69,551	65,604	90,588	85,655
Depreciation and amortization expense	1,647	1,575	2,014	1,987
Total expenses	71,198	67,179	92,602	87,642
Profit before finance cost and tax	31,961	30,082	34,144	34,545
Finance costs	30	16	52	32
Profit before tax (PBT)	31,931	30,066	34,092	34,513
Tax expense	6,690	6,413	8,212	8,156
Profit for the year	25,241	23,653	25,880	26,357
Attributable to:				
Shareholders of the Company	25,241	23,653	25,826	26,289
Non-controlling interests	NA	NA	54	68
Opening balance of retained earnings	65,965	53,576	71,071	56,113
Adjustment with other equity	184	59	208	25
Buy-back of equity shares	(4,999)	-	(4,999)	-
Amount available for appropriation	86,391	77,288	92,106	82,427
Appropriations				
Dividend on equity shares (excluding tax)	9,284	9,162	9,284	9,162
Tax on dividends	1,442	1,785	1,442	1,785
Capital redemption reserve	6	-	6	-
General reserve	-	-	-	-
Statutory reserve	-	-	40	33
Special Economic Zone re-investment reserve	1,579	376	1,579	376
Closing balance of retained earnings	74,080	65,965	79,755	71,071

2. Issue of Bonus Shares

Considering the financial position, the Board of Directors at its meeting held on April 19, 2018, recommended issue of Bonus Shares, subject to approval of Members, in the ratio of one new Equity Share of the Company of ₹1 each, as fully paid-up, for every one existing Equity Share of the Company. The Bonus Shares will be issued, by capitalizing a part of its retained earnings, to those persons who are Members as on the record date.

3. Buyback of Equity Shares

5,61,40,350 equity shares were bought back during the year, at a price of ₹2,850 per Equity Share for an aggregate consideration of ₹16,000 crore. The Offer Size of the Buyback was 21.89% of the aggregate paid-up equity share capital and free reserves of the Company, and represented 2.85% of the total issued and paid-up equity share capital of the Company. The buyback process was completed and the shares were extinguished on June 7, 2017.

4. Dividend

Based on the Company's performance, the Directors are pleased to recommend for approval of the members a final dividend of ₹29 per share for FY18 taking the total dividend to ₹50 per share (previous year ₹47 per share). The final dividend on equity shares, if approved by the members, would involve a cash outflow of ₹6,693 crore, including dividend tax. The total dividend on equity shares including dividend tax for FY18 would aggregate ₹11,377 crore, resulting in a payout of 45.07% of the unconsolidated profits of the Company.

5. Transfer to reserves

The Directors have decided to retain the entire amount of ₹74,080 crore in the retained earnings.

6. Company's performance

On a consolidated basis, the revenue from operations for FY18 at ₹1,23,104 crore was higher by 4.40% over the previous year (₹1,17,966 crore in FY17). The profit after tax attributable to shareholders and non-controlling interests was ₹25,880 crore (₹26,357 crore in FY17). The profit after tax attributable to shareholders was ₹25,826 crore (₹26,289 crore in FY17).

On an unconsolidated basis, the revenue from operations for FY18 was at ₹97,356 crore (₹92,693 crore in FY17). The profit for the year was ₹25,241 crore (₹23,653 crore in FY17).

7. Human resource development

Recognising the imperatives of Business 4.0 era, the Company is investing heavily in transforming the workforce at scale, even while simplifying processes and making them more agile to cater to the needs of a predominantly millennial workforce.

In FY18, the Company hired globally, leveraging a completely digitised hiring and onboarding process that harnesses next generation technologies. TCS' workforce of 3,94,998 is dynamic and diverse, with 35.3% women, from 131 nationalities and over 85% belonging to Gen Y. The Company is using digital technologies to gain intelligent insights while designing HR strategies to keep the young workforce engaged and motivated.

The Company continuously explores new approaches to learning and development to keep the workforce relevant in an evolving technology landscape. In addition, the Company continues to invest in leadership development programs at all levels to sustain the Company's growth, while staying true to the core values which underpin TCS' success over the last five decades.

The Company's culture promotes an environment that is transparent, flexible, fulfilling and purposeful. A host of customised initiatives based on a deep understanding of individual needs and aspirations, backed by the power of data sciences, have helped create an engaging workplace that enables individuals to realise their potential.

The Company is driven by passionate and highly engaged workforce. This is evident from the fact that the Company continues to remain the industry benchmark for talent retention. Attrition in FY18 was at 11% for IT Services and 11.8% on an overall basis.

8. Quality initiatives

The Company continues its commitment to the highest levels of quality, superior service management, robust information security practices and mature business continuity management. In FY18, the Company retained its enterprise-wide ISO certification for Quality Management (ISO 9001:2015), IT Service Management (ISO 20000-1:2011), Information Security Management (ISO 27001:2013), and Business Continuity Management (ISO 22301:2012). In addition, the Company was certified under the new ISO Standard for Business Process Outsourcing (ISO 30105:2016). The Company's strong commitment to the environment and occupational health and safety of

its employees and business partners is demonstrated through its enterprise-wide Environmental Management (ISO 14001:2004) and Occupational Health and Safety Management (BS OHSAS 18001:2007) certifications. The Company also maintains domain-specific quality certifications including AS 9100 (Aerospace), TL 9000 (Telecom) and ISO 13485 (Medical Devices).

The Company's Global Network Delivery Model (GNDM™), built on a strong process-driven and customer-centric integrated Quality Management System (iQMS™), continues to deliver outstanding value and experience to our customers. iQMS™ is continually enhanced for emerging service offerings, new delivery methodologies, industry best practices and latest technologies. The Company is committed to transforming itself into an agile enterprise. Towards this, it invests in developing its agile workforce, creating agile offerings, moving into agile workspaces and transforming its customer relationships into agile partnerships.

The Company continues to invest in knowledge management platforms for effective collaboration, learning and sharing. The Company received the prestigious Most Admired Knowledge Enterprise (MAKE) award in the Global Independent Operating Unit (IOU) category for the eighth time and in the Asian and Indian categories for the thirteenth time.

Customer-centricity, rigor in operations, and focus on delivery excellence have resulted in consistent improvements in customer satisfaction levels recorded in the periodic surveys conducted by the Company. This is validated by top rankings in third-party surveys as well.

9. Subsidiary companies

The Company has 50 subsidiaries as on March 31, 2018 (58 subsidiaries as on March 31, 2017). There are no associate companies or joint venture companies within the meaning of Section 2(6) of the Companies Act, 2013 ("Act"). There has been no material change in the nature of the business of the subsidiaries.

Pursuant to the provisions of Section 129(3) of the Act, a statement containing the salient features of financial statements of the Company's subsidiaries in Form AOC-1 is attached to the financial statements of the Company.

Further, pursuant to the provisions of Section 136 of the Act, the financial statements of the Company, consolidated financial statements along with relevant documents and separate audited financial statements in respect of subsidiaries, are available on the website of the Company.

Restructuring of following subsidiaries in Europe was completed during the year:

- a. Alti Switzerland S.A. merged with Tata Consultancy Services Switzerland Ltd effective March 29, 2018.
- b. Alti NV merged with Tata Consultancy Services Belgium (formerly known as Tata Consultancy Services Belgium S.A.) effective March 30, 2018.
- c. Tata Consultancy Services France S.A.S., Alti HR S.A.S., Alti Infrastructures Systemes & Reseaux S.A.S. and TESCOM (France) Software Systems Testing S.A.R.L. merged with Alti S.A., effective March 31, 2018.
- d. Teamlink, a wholly owned subsidiary of Alti NV, was liquidated effective January 31, 2018.
- e. Planaxis Technologies Inc., a wholly owned subsidiary of Alti S.A. was liquidated effective March 31, 2018.

The name of Alti S.A. was changed to Tata Consultancy Services France SA effective March 31, 2018.

10. Directors' responsibility statement

Pursuant to Section 134(5) of the Act, the Board of Directors, to the best of its knowledge and ability, confirm that:

- i. in the preparation of the annual accounts, the applicable accounting standards have been followed and there are no material departures;
- ii. they have selected such accounting policies and applied them consistently and made judgments and estimates that are reasonable and prudent so as to give a true and fair view of the state of affairs of the Company at the end of the financial year and of the profit of the Company for that period;
- iii. they have taken proper and sufficient care for the maintenance of adequate accounting records in accordance with the provisions of the Act for safeguarding the assets of the Company and for preventing and detecting fraud and other irregularities;
- iv. they have prepared the annual accounts on a going concern basis;
- v. they have laid down internal financial controls to be followed by the Company and such internal financial controls are adequate and operating effectively;

- vi. they have devised proper systems to ensure compliance with the provisions of all applicable laws and that such systems are adequate and operating effectively.

Based on the framework of internal financial controls and compliance systems established and maintained by the Company, the work performed by the internal, statutory and secretarial auditors and external consultants, including the audit of internal financial controls over financial reporting by the statutory auditors and the reviews performed by management and the relevant board committees, including the audit committee, the Board is of the opinion that the Company's internal financial controls were adequate and effective during FY18.

11. Directors and key managerial personnel

Dr. Vijay Kelkar, Independent Director and Mr. Ishaat Hussain, Non-Executive Director retired with effect from May 14, 2017 and September 3, 2017, respectively, in accordance with the retirement age policy for Directors. The Board places on record its appreciation for their invaluable contribution and guidance provided by them.

Ms. Aarthi Subramanian relinquished the office of Executive Director for taking up leadership role as Group Chief Digital Officer at Tata Sons Limited and was appointed as Additional Director in non-executive capacity with effect from August 17, 2017.

Dr. Pradeep Kumar Khosla was appointed as an Additional and Independent Director with effect from January 11, 2018.

Mr. N. Chandrasekaran, retires by rotation and being eligible, offered himself for re-appointment.

Pursuant to the provisions of Section 149 of the Act, Mr. Aman Mehta, Mr. V. Thyagarajan, Prof. Clayton M. Christensen, Dr. Ron Sommer, Mr. O. P. Bhatt and Dr. Pradeep Kumar Khosla are Independent Directors of the Company. They have submitted a declaration that each of them meet the criteria of independence as provided in Section 149(6) of the Act and Regulation 16(1)(b) of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 ("SEBI Listing Regulations"). There has been no change in the circumstances affecting their status as an Independent Director during the year.

During the year, the non-executive directors of the Company had no pecuniary relationship or transactions with the Company, other than sitting fees, commission and reimbursement of expenses incurred by them for the purpose of attending meetings of the Company.

The Board appointed Mr. Rajendra Moholkar as the Company Secretary and Compliance Officer, to take over from Mr. Suprakash Mukhopadhyay with effect from April 24, 2017. The Board places on record its appreciation for the outstanding contribution of Mr. Suprakash Mukhopadhyay as Global Treasury Head and Company Secretary.

Pursuant to the provisions of Section 203 of the Act, the Key Managerial Personnel of the Company as on March 31, 2018 are:

Mr. Rajesh Gopinathan, Chief Executive Officer and Managing Director, Mr. N. Ganapathy Subramaniam, Chief Operating Officer and Executive Director, Mr. Ramakrishnan V., Chief Financial Officer and Mr. Rajendra Moholkar, Company Secretary.

During the year, Ms. Aarthi Subramanian ceased to be a Key Managerial Personnel of the Company with effect from August 17, 2017.

12. Number of meetings of the Board

Six meetings of the Board were held during the year. For details of meetings of the Board, please refer to the Corporate Governance Report, which is a part of this report.

13. Board evaluation

The Board of Directors has carried out an annual evaluation of its own performance, board committees, and individual directors pursuant to the provisions of the Act, SEBI Listing Regulations and the Guidance Note on Board Evaluation issued by the Securities and Exchange Board of India on January 5, 2017.

The performance of the board was evaluated by the board after seeking inputs from all the directors on the basis of criteria such as the board composition and structure, effectiveness of board processes, information and functioning, etc.

The performance of the committees was evaluated by the board after seeking inputs from the committee members on the basis of criteria such as the composition of committees, effectiveness of committee meetings, etc.

In a separate meeting of independent directors, performance of non-independent directors, the Chairman of the Company and the board as a whole was evaluated, taking into account the views of executive directors and non-executive directors.

The Board and the Nomination and Remuneration Committee reviewed the performance of individual directors on the basis of criteria such as the contribution of the individual director to the board and committee meetings like preparedness on the issues to be discussed, meaningful and constructive contribution and inputs in meetings, etc.

In the board meeting that followed the meeting of the independent directors and meeting of Nomination and Remuneration Committee, the performance of the board, its committees, and individual directors was also discussed. Performance evaluation of independent directors was done by the entire board, excluding the independent director being evaluated.

14. Policy on directors' appointment and remuneration and other details

The Company's policy on directors' appointment and remuneration and other matters provided in Section 178(3) of the Act has been disclosed in the Corporate Governance Report, which is a part of this report.

15. Internal financial control systems and their adequacy

The details in respect of internal financial control and their adequacy are included in the Management Discussion and Analysis, which is a part of this report.

16. Audit committee

The details pertaining to the composition of the audit committee are included in the Corporate Governance Report, which is a part of this report.

17. Auditors

Pursuant to the provisions of Section 139 of the Act read with Companies (Audit and Auditors) Rules, 2014, as amended from time to time, B S R & Co. LLP, Chartered Accountants (Firm Registration No. 101248W/W-100022), were appointed as statutory auditors from the conclusion of the twenty-second Annual General Meeting (AGM) held on June 16, 2017 till the conclusion of the twenty-seventh AGM of the Company in 2022, subject to the ratification of their appointment at every AGM, if required under law. Accordingly, necessary resolution for ratification of appointment of auditors is included in the Notice for this AGM.

18. Auditor's report and secretarial audit report

The auditor's report and the secretarial audit report do not contain any qualifications, reservations, or adverse remarks. Secretarial audit report is attached to this report.

19. Risk management

The Board of Directors of the Company has formed a Risk Management Committee to frame, implement and monitor the risk management plan for the Company. The committee is responsible for reviewing the risk management plan and ensuring its effectiveness. The Audit Committee has additional oversight in the area of financial risks and controls. The major risks identified by the businesses and functions are systematically addressed through mitigating actions on a continuing basis.

The development and implementation of risk management policy has been covered in the Management Discussion and Analysis, which forms part of this report.

20. Particulars of loans, guarantees and investments

The particulars of loans, guarantees and investments have been disclosed in the financial statements.

21. Transactions with related parties

None of the transactions with related parties fall under the scope of Section 188(1) of the Act. The information on transactions with related parties pursuant to Section 134(3)(h) of the Act read with Rule 8(2) of the Companies (Accounts) Rules, 2014 are given in **Annexure I** in Form No. AOC-2 and the same forms part of this report.

22. Corporate social responsibility

The brief outline of the corporate social responsibility (CSR) policy of the Company and the initiatives undertaken by the Company on CSR activities during the year are set out in **Annexure II** of this report in the format prescribed in

the Companies (Corporate Social Responsibility Policy) Rules, 2014. For other details regarding the CSR Committee, please refer to the Corporate Governance Report, which is a part of this report. The policy is available on <https://www.tcs.com/investors>.

23. Extract of annual return

As per the requirements of Section 92(3) of the Act, the extract of the annual return is given in **Annexure III** in the prescribed Form No. MGT-9, which is a part of this report.

24. Particulars of employees

The information required under Section 197 of the Act read with Rule 5 of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014, are given below:

- a. The ratio of the remuneration of each director to the median remuneration of the employees of the Company and percentage increase in remuneration of each Director, Chief Executive Officer, Chief Financial Officer and Company Secretary in the financial year:

Name	Ratio to median remuneration	% increase in remuneration in the financial year
Non-executive directors:		
Mr. N. Chandrasekaran	-	-
Mr. Aman Mehta	50.91	13.21
Mr. V. Thyagarajan	33.94	11.11
Prof. Clayton M. Christensen	25.45	11.11
Dr. Ron Sommer	35.64	10.53
Dr. Vijay Kelkar*	^	^
Mr. Ishaat Hussain**	^	^
Mr. O. P. Bhatt	33.94	17.65
Ms. Aarthi Subramanian***	-	-
Dr. Pradeep Kumar Khosla****	^	^
Executive directors:		
Mr. Rajesh Gopinathan	211.99	^^
Mr. N. Ganapathy Subramaniam	157.78	^^
Chief Financial Officer		
Mr. Ramakrishnan V.	-	^^
Company Secretary		
Mr. Suprakash Mukhopadhyay @	-	-
Mr. Rajendra Moholkar @@	-	^^

* Retired as Independent Director w.e.f. May 14, 2017 in accordance with the retirement age policy for Directors.

** Retired as Director w.e.f. September 3, 2017 in accordance with the retirement age policy for Directors.

*** Relinquished the office of Executive Director and appointed as an Additional Director in non-executive capacity w.e.f. August 17, 2017. The remuneration is for part of the year and is not comparable and hence, not stated.

**** Appointed as an Additional and Independent Director w.e.f. January 11, 2018.

@ Relinquished the office of Company Secretary and Compliance Officer w.e.f. April 24, 2017.

@@ Appointed as Company Secretary and Compliance Officer w.e.f. April 24, 2017.

^ Since the remuneration is only for part of the year, the ratio of their remuneration to median remuneration and % increase in remuneration is not comparable and hence, not stated.

^^ Remuneration received in FY18 is not comparable with remuneration received in FY17 owing to change in role/designation and hence, not stated.

- b. The percentage increase in the median remuneration of employees in the financial year: 0.57%, reflecting an improvement in the overall employee pyramid.
- c. The number of permanent employees on the rolls of Company: 3,94,998.
- d. **Average percentile increase already made in the salaries of employees other than the managerial personnel in the last financial year and its comparison with the percentile increase in the managerial remuneration and justification thereof and point out if there are any exceptional circumstances for increase in the managerial remuneration:**
The average annual increase was around 5-6% in India. However, during the course of the year, the total increase is approximately 7%, after accounting for promotions and other event based compensation revisions. Employees outside India received a wage increase varying from 2% to 5%. Increase in the managerial remuneration for FY18 is not comparable with FY17 owing to change in role/designation and hence, not stated.
- e. **Affirmation that the remuneration is as per the remuneration policy of the Company:**
The Company affirms that the remuneration is as per the remuneration policy of the Company.
- f. The statement containing names of top ten employees in terms of remuneration drawn and the particulars of employees as required under Section 197(12) of the Act read with Rule 5(2) of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014, is provided in a separate annexure forming part of this report. Further, the report and the accounts are being sent to the members excluding the aforesaid annexure. In terms of Section 136 of the Act, the said annexure is open for inspection at the Registered Office of the Company. Any shareholder interested in obtaining a copy of the same may write to the Company Secretary.

25. Disclosure requirements

As per SEBI Listing Regulations, the Corporate Governance Report with the Auditors' Certificate thereon, and the Management Discussion and Analysis are attached, which forms part of this report.

As per Regulation 34 of the SEBI Listing Regulations, a Business Responsibility Report is attached and is a part of this Annual Report.

As per Regulation 43A of the SEBI Listing Regulations, the Dividend Distribution Policy is disclosed in the Corporate Governance Report and is uploaded on the Company's website.

The Company has devised proper systems to ensure compliance with the provisions of all applicable Secretarial Standards issued by the Institute of Company Secretaries of India and that such systems are adequate and operating effectively.

26. Deposits from public

The Company has not accepted any deposits from public and as such, no amount on account of principal or interest on deposits from public was outstanding as on the date of the balance sheet.

27. Conservation of energy, technology absorption, foreign exchange earnings and outgo

Conservation of energy:

Retaining the momentum on our energy and carbon management programs, the Company achieved its 2020 target to reduce the specific carbon footprint by 50%, in FY18 – 2 years ahead of the timeline. Green buildings, efficient operations, green IT and the use of renewable energy have been the key enablers in our journey of carbon and energy performance improvement. As the Company grows, it would add more green buildings to its campuses. The TCS Remote Energy Management and Control program witnessed rapid scaling up and achieved further maturity during the year. Internet of Things (IoT) platform was leveraged to acquire asset (chillers, air handling units, etc.) level data and analysed to improve asset efficiency and operations. Renewable energy used in the Company's offices increased to 8.5% as compared to 7.3% in the last year. During the year, Company added 2.05 MW of solar rooftop system across four locations, taking the total installed capacity to 3.55 MW. On data center power management, Company successfully reduced the Power Utilization Efficiency (PUE) of 13 data centers to the target of 1.7. The average PUE across 23 key data centers is at 1.7. These initiatives collectively resulted in the Company's energy consumption reducing by 4.5% over the prior year, on a per FTE basis.

Technology absorption, adaption and innovation:

The Company continues to adopt and use the latest technologies to improve the productivity and quality of its services and products. The Company's operations do not require significant import of technology.

Research and Development (R&D): Specific areas in which R&D was carried out by the Company

TCS Research and Innovation (R&I) activities and outcomes were aligned to the Company's focus areas (personalization, new value creation models, ecosystems leverage, a mindset to embrace risk and abundance) enabled by technologies and appropriate processes (Intelligence, Agility, Cloud and Automation). Teams in Research, Incubation, Innovation and the Co-Innovation Network, have worked on the 'Ideas to Execution' process, and delivered value to business and to social causes as well.

Some examples of such work are presented here.

The Conversational Systems that emerged from the Company's research enabled mass personalisation for its associates. For instance, the chatbot created for HR answers queries from associates on leave policies; several bots enable personalisation in Fresco - our collaboration platform.

Many research programs have enabled a step change in processes creating exponential value for customers. The Physical Sciences research team was effective in building a "Digital Twin" for thermal plants; Using the rich data such plants already have, creating models and simulation technologies, our research enabled lowering risk in plant functions, increasing agility and creating savings. The research team worked closely with the retail business unit to build a dynamic pricing model for retailers, taking into account millions of Stock Keeping Units (SKUs), demand patterns and competitive pricing by e-commerce channels. This enabled to help retail customers cut costs and also forecast sales with accuracy. The TCS Connected Universe Platform team along with the engineering and manufacturing business units won prestigious engagements. The drones program created interest across business units and several projects are in progress.

Organisations today need intelligent and automated tools to manage risk. Automated Compliance to identify regulatory changes, data privacy with fine-grained consent management and lightweight encryption research projects made progress. The TCS Blockchain solution has been integrated with the TCS BaNCS platform. TCS MasterCraft Tools team launched a General Data Protection Regulations (GDPR) Compliant edition as part of its MasterCraft Data Plus suite. The TCS MasterCraft trial version was tried by over 1,000 customers in the last 6 months. MasterCraft added 30 new customers this year.

The Company leveraged both the Academic Research Ecosystem and the Emerging Tech ecosystem for collaborative research as part of its Co-Innovation (TCS COIN™) Program. Your Company has comprehensive Memorandum of Understanding (MoU) for joint research projects with the Indian Institute of Science Bangalore, all five of the older IITs, and Indian Statistical Institute, Kolkata. There are focused projects also with other leading academic research institutes in India. The Company's R&I continues its collaboration with leading universities in North America, Europe and Asia Pacific in a number of areas including genomics, materials, digital manufacture, data analytics, cyber security, smart cities, intelligent infrastructure and digital health.

The Company also leveraged its internal ecosystem - the problem solving capability of its associates. Innovation events such as ideathons and hackathons happened every week. These put forth customer problems; associates offered ideas and created prototypes to solve them. The response to these events was overwhelming. Internal teams and customers gained immensely from them. The TCS Innovista competition attracted over 1000 entries across the Company.

The Company remained closely connected to customers through events in different geographies. TCS Innovation Forum was held in New York City, London, Medellin and Sao Paulo, attracting 700+ customers, partners and technology experts. TCS hosted "The TCS Slush Experience", a curated pitching session, to connect customers to some breakthrough technology companies (at "Slush", the biggest start-up event in Europe). TCS Innovation Days and workshops continue to be held for customers in various geographies. Several pilot and proofs of concept implementations resulted from these connects.

The Company was honoured by the Fortune magazine as one of the 50 companies that "Changed the World" based on its digital farming Innovation, "mKRISHI". The Company won the Physionet Challenge 2017 for ECG Analytics. Researchers from TCS and IIT Kanpur stood 4th in the Amazon Robotics Challenge. TCS Accessibility Practice won the International Federation for Information Processing (IFIP) Technical Committee on Human-Computer Interaction's Accessibility Award for 2017. The Company won four awards at the Tata Innovista 2017 competition. Several

researchers won individual honours for presenting papers and by winning competitions. Three Researchers from the Company have been mentioned in JFG's Global AI Talent Report 2018.

Researchers from the Company presented 250+ papers in premier conferences, have written books and book chapters. As of March 31, 2018, the Company has applied for 3916 patents, including 522 applied during the year. Till date, the Company has been granted 654 patents.

Future plan of action

Digital reimagination of industry and society, and industrialisation of software and computing will both continue to be the focus of TCS R&I. Engagement with all its businesses with its Co-Innovation Network, and with society at large will continue.

Expenditure on R&D

TCS' Innovation Labs are located in India and other parts of the world. The R&D centers, certified by Department of Scientific & Industrial Research (DSIR), Government of India, function from Pune, Chennai, Bengaluru, Delhi-NCR, Hyderabad, Kolkata and Mumbai.

Expenditure incurred in the R&D centers and innovation centers during FY17 and FY18 are given below:

(₹ crore)

Expenditure on R&D and innovation		Unconsolidated		Consolidated	
		FY18	FY17	FY18	FY17
a.	Capital	-	1	-	1
b.	Recurring	295	281	298	281
c.	Total R&D expenditure (a+b)	295	282	298	282
d.	Innovation center expenditure	1,079	878	1,202	996
e.	Total R&D and innovation expenditure (c+d)	1,374	1160	1,500	1,278
f.	R&D and innovation expenditure as a percentage of total turnover	1.4%	1.2%	1.2%	1.1%

Foreign exchange earnings and outgo

Export revenue constituted 92.22% of the total unconsolidated revenue in FY18 (92.41% in FY17).

(₹ crore)

Foreign exchange earnings and outgo		FY18	FY17
a.	Foreign exchange earnings	92,258	86,370
b.	CIF Value of imports	768	561
c.	Expenditure in foreign currency	33,014	31,553

28. Acknowledgements

The Directors thank the Company's employees, customers, vendors, investors and academic partners for their continuous support.

The Directors also thank the Government of India, Governments of various states in India, Governments of various countries and concerned Government departments and agencies for their co-operation.

The Directors appreciate and value the contribution made by every member of the TCS family.

On behalf of the Board of Directors

N. Chandrasekaran
Chairman

Mumbai, April 19, 2018