Intellectual capital

Intellectual capital is core to Wipro's strategy. It creates value for the customers and drives sustained growth, differentiation, non-linearity, and profitability for Wipro.

Wipro's Intellectual Capital comprises of domain and technology Business Solutions that are powered by IPs built by its R&D teams leveraging partners, academia, and start-up ecosystem.

Wipro has been awarded CII Industrial Innovation Awards 2021 under the category "Special Recognition - Large Enterprise in Service Sector".

Wipro was evaluated for its capabilities around innovation offerings and IP management maturity.

One of the five strategic priorities for our organization is, to lead with Business Solutions by focusing beyond the IT office and by leveraging our industry and technology expertise. In alignment to this priority, Wipro has a comprehensive portfolio of Business Solutions, that spans across industries and technologies with implementation success stories across geographies. Targeted to solve specific business challenges of our customers, these solutions are composites that have IP-based assets at their core and are packaged along with our people-based expertise and capabilities from our partners, start-ups and alliances. Our Business Solutions are easily consumable and are offered in flexible and simplified outcome-based and as-a-service commercial constructs.

Wipro has a separate funding program called Horizon Funding Program. As a part of this, we identify and incubate disruptive business ideas, thereby helping to drive significant growth and differentiation for Wipro from a 2-3 year horizon standpoint. The key objective of this program is to build disruptive solutions with focus on building platforms, products and solutions of the future; and also to develop competencies through co-innovation.

Wipro runs an idea-hunting program called 'The Great Blue Heron' (The bird – Great Blue Heron is a great fisher and fishing is used as a metaphor for idea hunting) for capturing high-potential opportunities across customers, domains and technologies. The Great Blue Heron's HaBBIT Framework is then leveraged to add the solution to the portfolio. Through HaBBIT, the solutions can be incubated using any of the five ways - Harvest & co-Innovate (E.g. Wipro Nuage), Build IP

(E.g. Wipro virtuadesk), Buy IP (E.g. ITI), Invest through Wipro Ventures and Technology Enablement by acquisitions (Capco - Digital and technology consulting provider for BFSI, Edgile - Cybersecurity consulting provider).

Some of the assets from our Business Portfolio are - Health Plan Services, Digital Workplace (virtuadesk), Medicare Advantage 360, Digital Lending with NetOxygen, Topcoder (Talent Cloud), ITI Products (CADfix, CADIQ, DEXcenter), Wipro Holmes and Wipro FullStride Cloud Studio.

The assets newly added to our portfolio of Business solutions are: Wipro VisionEDGE (Video & Digital content display and signage solution), Wipro SearchNxt (Cloud Native Knowledge Management platform), Wipro Nuage (Smart on-prem & multi-cloud orchestrator for HPC Workloads using AI/ML), Digital Value Accelerator (End to end automation lifecycle management platform), ModerniZ (Legacy to cloud application modernization).

Intellectual property

We believe that IP is increasingly a strong driver of business competitiveness and profits, especially in a knowledge intensive industry. Our IP portfolio is key to our strategy to drive non-linearity, and we believe that our IP will differentiate our products and services, introduce new benefits, reduce costs and improve products and services quality. We rely on a combination of patent, copyright, trademark and design laws, trade secrets, confidentiality procedures, adherence to Wipro IP policy, and contractual provisions to protect our IP.

We have invested in developing IP across business solutions, products, platforms and service accelerators. This IP development enables us to provide standardized solutions to our customers and obtain significant time-to-market advantage over the general preference for customized solutions that entail higher cost and longer timelines. Using our IP, we are able to offer innovative commercial models in delivering services. We own and retain such IPs and majorly engage in licensing such IPs to our customers. Whereas our clients usually own the IP in the software deliverables (customizations, specific application development) that we specifically developed for them under a contract.

As of March 31, 2022, we have 1,092 granted patents in various countries. We have filed 41 patents during the year ended March 31, 2022, and currently have approximately 982 patent applications pending grant in various jurisdictions across the world.

As of March 31, 2022, we held 366 registered trademarks including registered community trademarks in India, Japan, the United States, Malaysia and over 70 other countries. Over 13 trademark applications are pending for registration in various jurisdictions across the world.

We require employees, independent contractors and, whenever possible, vendors to enter into confidentiality agreements upon the commencement of their relationships with us. These confidentiality agreements generally provide that any confidential or proprietary information being exchanged or developed by us or on our behalf be kept confidential. These agreements also provide that any confidential or proprietary information disclosed to third parties in the course of our business be kept confidential by such third parties.

While we invest resources in developing, maintaining and protecting our IP, we deeply respect the IP held by our customers, vendors and other business partners.

Open innovation

Our Open Innovation programs further enrich our innovation capabilities by co-opting an extended innovation ecosystem of start-up partners, academia and expert networks. During the year ended March 31, 2022, we signed partnership agreements with University of Haifa and IIT Roorkee for jointly working on identifying possible quantum computing approaches to complicated business problems. Wipro's research teams work with the University of Texas at Austin, IIT Bombay, IIT Madras, IISc Bangalore, , IIT Patna, Tel Aviv University and the Institute of Wood Sciences, Bangalore, among others, on various topics in AI, Natural Language Processing (NLP), encryption, 5G, blockchain, autonomous vehicles, Computer Vision (CV) and other critical new technologies. We also continued to incubate new innovative start-up partnerships and scale existing relationships through joint engagements.

Our innovation centres, the Technovation Centre at Bengaluru, India and the Silicon Valley Innovation Center in Mountain View, California are state of the art innovation incubation centres that build technology-led innovations to realize the 'art of the possible' in emerging business environments for our enterprises around the world. These centres bring together an innovation ecosystem, a set of best practices, IP and research and development resources to help our clients develop successful initiatives. To overcome the constraints created by the COVID-19 pandemic we created digital 'twins' of our innovation centres and became truly virtual, through which we hosted a number of our customers and other visitors over the last year and showcased our best technologies and solutions. Additionally, the Technovation Centre has developed human-free and autonomous industry solution concepts at the convergence of information technology, operations technologies, engineering technologies and industrial game technologies. These are rendered into the CAVE and holographic systems, which are both room scale VR environments. Business technology needs, such as hybrid augmented intelligence, Augment Virtuality, intelligent mechatronics and an integrated approach to simulation and modelling are driving research activities.

Our Advanced AI Research Center works at the cusp of ongoing research in the field of AI and its applications. The team focuses on diverse research areas such as Responsible AI, AI for security, AI for hyper automation, Generative AI etc. The team is collaborating with academic institutions, such as UT-Austin, IIT-Patna, and IIIT-Delhi on some of the research areas. Some of the accelerators the team is working on are a self-supervised approach for document segmentation using less training data, curb fake news and hate speech in social media, CodeMix language modelling to create intelligent mixed languages conversational engine and explaining emotions in speech and answering questions with information spread across paragraphs using multi Hop

QA We have also ventured towards the goal of making AI transparent by focusing on model explainability and data privacy using homomorphic encryption. The research lab created proof of concept for one of our large logistic services clients to improve text extraction accuracy by 70% for invoice processing. Other client engagements include developing document classification algorithms for accurate key value entity extraction, utility infrastructure drawing extraction and technical manual translation from German to English using machine translation.

Robotics

In Robotics we are developing 3 platforms; Wooden utility pole inspection, drone-based stock-take and AMR based material transportation. For wooden utility Pole inspection, we have developed an AI based internal defect detection and localized algorithm at an accuracy of 92%. Pilot testing of this with a customer is in progress. We are currently testing our custom drone-based warehouse stock take platform in a warehouse setup. We have developed multi AMR based order servicing in collaboration with a research institute in Germany as part of AMR based transportation platform. One of the IPs developed has been deployed in production with a logistics customer in USA. This is currently helping customer to classify non-standard packages at an accuracy of 95%.

Blockchain

The blockchain capability at Wipro has been consistently ranked in the Leader segment by global industry analysts such as Everest Group, IDC and Avasant. We have helped organizations realize value from blockchain initiatives by offering services in the areas of creating new markets, re-distributing markets, and streamlining existing processes. Our strategy is to create a Minimum Viable Ecosystem to help our customers to jump start their blockchain innovation journey. In the blockchain advisory and consulting space we help customers create their roadmap for their blockchain journey and identify expected ROI from blockchain initiatives. We offer smart contract and distributed application development services amongst others in our application services offering. We have created three platforms – the Supply Chain, Digital Assets and Decentralized Identity platforms – to help customers accelerate founder-led networks. To accelerate our progress, we have partnered with leading technology and business consortia such as Hyperledger, Enterprise Ethereum Alliance, Hedera Hashgraph, Energy Web Foundation, Blockchain in Transportation Alliance, among others. Over the years, we have helped organizations create new revenue streams through a peer to peer energy trading consortium, have enabled redistribution of existing market operations and have built traceability platforms for our customers.

Quantum computing

Quantum computing has disruptive possibilities in areas like encryption, optimization problems, and simulations for the pharmaceutical, oil and gas and health industries. Quantum computing is a hotbed for research and experimentation is currently led by big technology vendors, academia and start-ups. At Wipro, we have formed a 'center of excellence' to research applications of quantum computing in the areas of ML and optimization. We have also built collaborations with leading academic institutions and have an active quantum computing community. We have launched a dedicated quantum computing practice in our Engineering Research and Development ('ER&D') department to accelerate go-to-market, and have had proactive conversations with banks and oil and gas customers. Our existing practices, including Cloud Infrastructure Services, Wipro Digital, and ER&D have been built capabilities on various market platforms and pursuing industry use cases that can be best solved by quantum computing.

Open source

Open source is the dominant technology model today. Every technology innovation is open source or open source-based; from cloud computing to digital transformation to AI and 5G. Global enterprises are adopting, contributing to, and creating open source at a dramatic pace trying to leverage its strategic, technological, operational and financial benefits. As more and more enterprises attempt to redefine themselves as technology companies, they are identifying open source technologies and methods as a way to drive transformation and become a more innovative and agile organization. As more organizations recognize that open source is a strategic asset, they require the needs of a partner with broad and deep open source experience and offerings to be able to manage potential risks and realize the full benefits. Wipro is ideally placed with a set of offerings that assist organizations throughout their open source journey; from our unique strategy and technical consulting and maturity model, to best-of-breed open source solutions delivering accelerated time to market automated provisioning, observability and monitoring. Wipro's Unified Monitoring and Observability Solution provides a contextualized end-to-end blueprint for complete aggregation of systems and software enhanced by AI. Our PaaSForge solution offers accelerated automated provisioning of a contextualized, curated, pre-integrated open source-based PaaS solution. Wipro's investments in upskilling thousands of resources, engaging deeply in the open source ecosystem and building unique services have made us the trusted open source partner for organizations across the globe.

Talent cloud

We have invested in crowdsourcing through Topcoder, a Wipro Company, the world's largest technology network and on-demand digital talent platform with more than 1.5 million developers, designers, data scientists, and testers around the globe. Topcoder empowers organizations to leverage the flexibility of its key enterprise offerings around Enterprise Crowdsourcing (Design, QA, Dev, Data Science), TaaS, and Workforce Transformation (Strategic Consulting). Our community and our customers come together on the Topcoder platform to collaborate and build enterprise grade digital assets. Enterprises distribute work through the platform where community members develop innovative solutions, win money, gain experience, and earn recognition. Topcoder became a part of Wipro Limited in November 2016.

Topcoder has worked with about 470 customers, developing IP for them across the spectrum of design, development, and data science. This spans over 2,100 projects and 34,000 challenges/tasks that the Topcoder community helped produce deliverables and IP.

We are also investing in TopGear, our social learning and crowdsourcing platform. TopGear is a powerful learning platform, focusing on workforce transformation in Digital and "in-demand" skills. It consists of over 2,000 learning assignments and case studies across 200 skills in addition to live projects. It provides hands-on experience to employees on emerging digital skills that enable them to become customer-deployable on those skills. Employees can self-select projects that interest them and prepare themselves for future projects. TopGear also enables workforce transformation through structured learning paths aligned to business-specific needs.

Metaverse

Internet Revolution driven by Metaverse will disrupt the entire business model. There will be a paradigm shift in the way consumers, suppliers, partners & employees would interact to create, buy, sell, spend, learn & collaborate in the new boundless creator economy controlled by user communities who will be the value creators in the Metaverse economy. This will also foster an open innovation culture and create significant opportunities for the new generation crowd (Gen X/Gen Y) for entrepreneurship where they own the creation of digital assets (content/3D Designs/Models) and brands will have to adopt to the new change by being a value exchange entity to market and sell their product in the creator economy.

While the initial adoption of Metaverse is across Media & Entertainment, Consumer, Sports, Virtual Events, Learning & Development, it will evolve, and other industry sectors can be seen embarking on the journey soon. As the first step, forward looking companies are investing in enabling technologies which includes immersive (3D Design, AR.VR.MR.BCI, XR) , Headless Commerce, Digital Twin, Block Chain, Networks(5G/Edge), Cloud & AI (for synthetic media) to adopt , be relevant & sustain in the creator economy.

Wipro has full-fledged solutions on AR and VR which are transforming the information sharing process, field force training, upskilling, modernizing, on-job support and on time support processes for enterprises and consumers. Our four industrial transformation platforms, Connect, connect+, Coalesce and Cicerone, are improving workers performance, efficiency and compliance for a new generation of workers by enabling field service teams and subject matter experts to collaborate in real time, providing augmented information on physical products, providing novel ways of training and also provide directions to people in places without GPS connectivity. We have also developed multiple proof of concepts in the field of AR/VR/Mixed Reality out of our innovation labs focusing on field assistance, worker training, and spatial experiences for high value purchases. Our CAVE Industrial VR setup enables us to collaborate with multiple stakeholders at the same time and operate remote command centres demonstrating the future of work in complex industrial environments.

Further, the adoption trends in digital identities, commerce (increase in brands adoption to headless commerce), crypto currencies, tokenization (NFT) & crowdsourcing will create more opportunities and enable Metaverse to be the mainstream. Enterprises who have developed capabilities across these technologies will have an edge & find a seamless acceptance as a value creator in the creator economy. This will bring businesses to a new world where the constant, enhanced interactions between the users and the products will drive more engagement and adherence to brands while progressively changing the way we live and communicate. With increasing customer interests in the metaverse, Wipro is striving to bridge the gap between physical reality and the digital world and open a doorway to a whole new world.