

TABLE OF CONTENTS

04

Preface

05

Introduction

06

How resilient are enterprise software categories?

A closer look

08

Resilience is not a stroke of luck. It is about taking meticulous and timely decisions

A varied recovery cycle for different enterprise software categories

18

Conclusion: Recovery is Step 2. Planning for liquidity and resilience is Step 1.

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Pari Natarajan is the CEO & Co-founder of Zinnov, a global management and strategy consulting firm. He has driven the globalization vision for more than 250 Fortune 500 companies and has helped them transform their businesses across dimensions of revenue enablement, productivity, innovation, market access, growth, and cost efficiencies.

With 20+ years of extensive industry experience, Pari brings in a wealth of expertise in innovation strategies, market creation, and global engineering optimization, which global customers have successfully leveraged to create sustainable competitive advantage. He has also consulted with global Private Equity firms to chart the growth and value creation strategies across their portfolio companies. Pari has orchestrated strategic global M&A deals for Engineering R&D; Technology, Media & Telecommunications; Telecom and Networking firms across global locations.

Pari is a serial entrepreneur and has successfully incubated TalentNeuron, which was acquired by CEB, a Gartner company. He has also co-founded DRAUP, an ML-powered sales and talent intelligence platform.

Prior to heading Zinnov, Pari held management positions at Praja and Centric Software. He holds an M.S. in Industrial Engineering from Iowa State University.

Preface

As a typical "Black Swan" event, the COVID-19 has taken the entire world by surprise. The coronavirus was first seen in Wuhan in Central China on 31st December 2019. As of May 2020, the virus has already infected over 4.8 million people and has led to 300k+ deaths. Over 180 countries are now reporting positive cases of COVID-19 as the virus spreads globally, impacting communities, ecosystems, and businesses.

Orchestrating the recovery from the COVID-19 pandemic will require unprecedented coordination and collaboration across organizations, markets, and the economy at large. Technology once again is expected to play a critical role in helping enterprises sustain and overcome the recessionary ramifications of COVID-19.

COVID-19 has had a mixed impact on the enterprise software market. While solutions such as digital health, online collaboration, EdTech, etc. have become the need of the hour, other segments such as travel and hospitality, automotive software, have taken a major hit.

In our joint study with Persistent Systems, we took a closer look at how the enterprise software market has been impacted, and what the focus areas should be for CXOs to successfully navigate through this crisis. These strategic insights are drawn based on survey of CEOs and Private Equity investors, along with point of views from distinguished industry veterans.

Introduction

The enterprise software market has demonstrated higher resilience than most in the face of the pandemic. We analyzed the S&P 500 companies on their market performance over the past 12-week period and enterprise software companies have performed relatively well as compared to other industries.

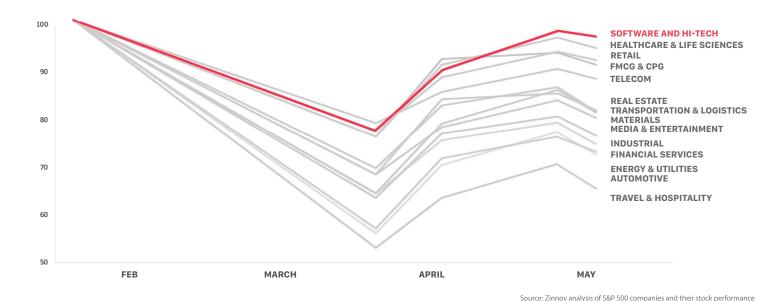


Figure 1: Change in Market Cap of various industry verticals since Feb'20

The chart above shows that while most verticals are trying to recover after the bailout packages were announced by various governments to boost growth at the end of March, the software vertical has remained near the top after a brief fall.

The shift towards subscription revenue models has allowed many to bill customers continuously as compared to a one-time perpetual license fees. SaaS has reduced the overall cost of maintaining various versions of the product, and has helped increase the gross margin in the business with many customers happy to pay upfront for their subscription. This has resulted in a positive cash flow business.

For most businesses today, organizational workflows are highly dependent on software, with employee skills aligned to the software. In certain cases, software is heavily customized to suit the enterprise needs, making it difficult for a large company to switch software vendors. All of this contributed to making the enterprise software space more resilient as compared to the other verticals.

The COVID-19 pandemic has accelerated key technology trends including digital payments, telehealth, and robotics to help reduce the spread of the coronavirus, while helping businesses stay open.

Telehealth, wearable personal IoT devices which help to track vital signs, and other digital health initiatives have proved to be effective ways to contain the spread of COVID-19 while still providing essential primary care. This has added to the high resilience of the healthcare sector.

For example, Israel had benefitted from its already thriving digital health infrastructure. Maccabi Healthcare Services, Israel's second-largest health maintenance organization (HMO), was able to transfer all of its 5,000 medical staff to remote health services in under two weeks, and conduct 20,000 phone appointments with members after just five days from the migration.

Without a doubt, this crisis will accelerate the investment of governments and healthcare institutions towards innovation and digital health.

How resilient are Enterprise Software categories? A closer look.

While vertical software categories like travel and hospitality, real estate, supply chain management have been negatively impacted by lack of demand, categories like digital health, collaboration, network management and cybersecurity have all experienced unprecedented spikes in usage. These software vendors are actively looking to invest in infrastructure solutions to support the increased demand.

We tracked the top 500 global, publicly traded enterprise software companies across parameters such as layoff announcements, furloughs, financial health, liquidity positions and customer confidence, to assess the impact that COVID-19 has had on their businesses.

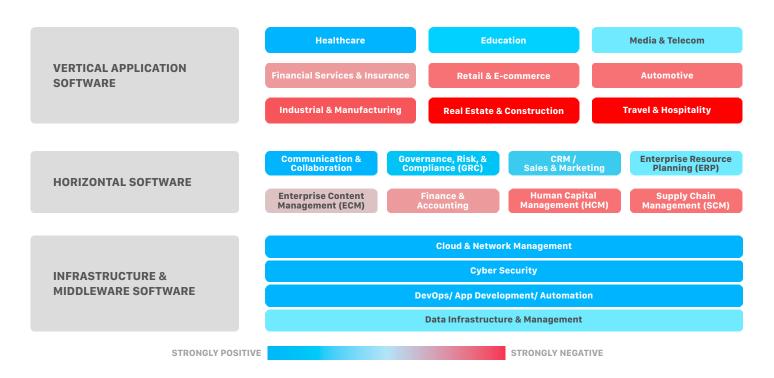
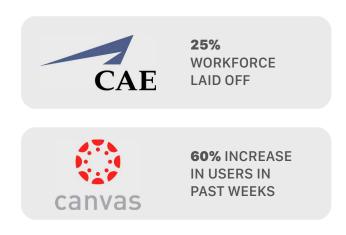


Figure 2: Impact of Covid-19 on various Enterprise Software Verticals

Vertical software companies with high risk concentration in particular industries, have higher exposure to the change in demand brought forth by the lockdowns. While software companies serving healthcare, education, and media & entertainment have witnessed increased demand, software for travel & hospitality, real estate, manufacturing, and automotive are experiencing shrinking demand.



Certain software companies providing solutions to the airline industry with a transaction-based pricing model got impacted quite severely in FY20 Q1 as the ticketing volume came down, causing steep revenue decline and forcing voluntary pay cuts and layoffs.

But health and education technology emerged as two big winners, as the demand for remote access skyrocketed amidst global lockdowns.

In comparison, horizontal application software categories are affected to a lesser degree. With a diverse set of customers, horizontal software companies are better positioned to deal with the risk of demand shortages.

Collaboration software companies have also come up successful, as companies are extensively transitioning to remote working.

Infrastructure and middleware software have also been positively impacted. Solutions such as Amazon Web Services, Microsoft Azure and Google Cloud continue to be critical to both professional and personal lives, through applications such as Zoom, Slack and Teams to Netflix and Twitch.

Companies enabling cloud infrastructure have done well for now; an overall recession will impact all sectors in the future.

Enterprises are starting to realize the benefits and value of cloud computing, even beyond the immediate need of remote working. As a result, it is likely that many businesses will begin building more resilient business models by scaling their digital transformation efforts and investing heavily in cloud infrastructure.

Some of the operational changes will become the new normal as certain consumer behaviors become permanent.

Resilience is not a stroke of luck. It is about taking meticulous and timely decisions.

Enterprise software businesses across the globe are deploying different playbooks to combat the current crisis, minimize its impact, adapt to new circumstances and accelerate recovery.

We surveyed over 40 software CXOs and software-focused private equity firms to get their views on key priorities. These include business continuity preparedness and measures being deployed across finance, engineering, sales and IT functions as well as anticipated impact and recovery timelines.

While recovery cycles differ for each company, we believe that a systematic approach towards navigating through these times will be essential. We categorized our findings into various strategies helping software companies to sustain the impact, evolve into the new normal, and then prosper in the future.

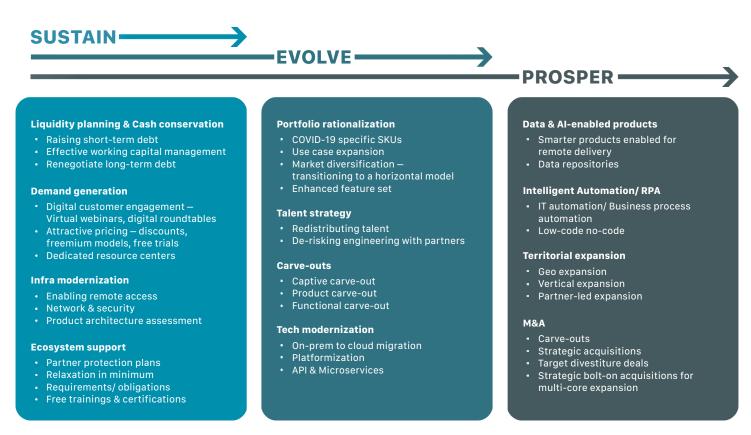


Figure 3: Enterprise Software: Different Levels to navigate through Covid-19 impact

Sustaining Operations to Survive

Enterprises must sustain operations by taking actions for liquidity planning, reassessing demand generation, enhancing tech infrastructure, and by providing the necessary support to their alliance ecosystem. The goal is to align these activities for a highly resilient business model for stronger immunity to future disruptions.

The survey revealed that over 75% of respondents expect more than a 10% decline in revenue, with some expecting even steeper declines. With the demand impacted, companies are facing challenges in meeting working capital requirements.

A number of management teams have indicated that their boards have advised them to conduct resiliency tests to establish the viability of the business in case of revenue declines ranging from 10% to 30% over the next few quarters.

Liquidity Planning

To plan for this unprecedented loss in demand, enterprise software companies must plan for liquidity while ensuring adequate customer engagement.



Figure 4: Key initiatives opted by various enterprise software companies to build liquidity

We are already seeing companies evaluate raising short-term debts as one of their key liquidity planning measures, tapping into existing credit lines or opening new credit lines to ensure working capital. Some companies also indicated that they are looking at monetizing latent assets such as captive centers and non-strategic products in order to shore up their cash positions or pare down debt.

Companies are also looking at severe cost-cutting measures by re-allocating budgets and optimizing operational expenditure. Some companies have revealed that they are looking at options such as moving more work to lower cost locations as an immediate priority, to reduce cash burn. In some cases, sales and marketing roles have been afflicted as well.



While layoffs and furloughs are being witnessed across other industries, some enterprise software companies have turned against the tide, pledging no layoffs while cancelling salary increments.

Approximately 39% of companies are also considering renegotiating with the creditors to postpone payments for near-term maturing debt. Raising new debt is also under consideration as the Federal Reserve announced a \$2.3 trillion lending program, offering four-year loans to companies with up to 10,000 employees or revenues under \$2.5 billion.

Demand Generation

Customer success teams not only have to deal with panicking customers but also need to sustain their revenue targets. Empathy is important in this situation, because, everyone is locked down and is clouded with the fear of "What's next?". With uncertainty hanging over, the main thing that enterprises need to do right now is to stay in touch and help their customers.

Enterprise software companies are currently focusing on several initiatives across demand generation.

1	Digital conferences Webinars Virtual Roundtables Remote sales focus	83%	Enterprises are converting their mainstream events to virtual events
2	ATTRACTIVE PRICING Freemium offerings Free trials Discounts	66%	Enterprises are introducing attractive pricing schemes
3	DEDICATED RESOURCE CENTERS Customer resource centers Live COVID-19 updates	43%	Enterprises have created digital resource centers for COVID-related updates

Figure 5: Key initiatives adopted by enterprise software companies to generate demand

With companies being forced to stop operations due to imposed restrictions, bringing their offline business to a halt, some companies have redeployed their sales platform as an online channel to engage with customers virtually and drive online sales.

Having **digital events** in the form of podcasts, webinars, digital conferences etc. can go a long way in driving customer engagement as well as generating new leads. All events including some of the tech world's largest conferences are being converted into digital events. In the survey, 83% of the companies are looking at conducting digital conferences and knowledge sessions to engage customers, drive mindshare and generate new leads.

DICITAL CUCTOMED ENCACEMENT

Enterprise software companies should preempt pushback from customers and track potential churn. These changes should be well handled through creative **pricing models**. Moreover, newer pricing models including feature-based pricing, and freemium models, should be built to boost demand.

Software companies have created dedicated COVID-19 **resource centers** that include industry insights, news updates, free-software versions, and tools for customers and partners to sustain and navigate through this crisis.



Nutanix. NEXT, annual conference has been changed to a digital event



Offering extended free trial of its Vuforia Chalk augmented reality app to assist with physical processes



Free app to help its clients track the spread of COVID-19 among employees and maintain business continuity

Infra Modernization



Ribbon Communications and LogMeIn are working together to ensure unified communications and collaboration services to remote workers during the COVID-19 pandemic.

Enterprise leaders are strengthening IT operations to meet the increased demand for remote infrastructure support, as most people are teleworking for the foreseeable future, globally.

zoom

Zoom is adding servers and increasing capacity at every one of the company's 17 data center locations to meet surge in demand

Some companies that are struggling to meet the demand, are working to augment their infrastructure to increase production and delivery capacities through collaboration with new partners, intense hiring to meet additional demands, and by implementing fast track training programs to deploy the existing talent into other Covid-specific streams.



Adopted **DevOps-powered Work from Home** strategy
to maintain optimal
efficiency and software
quality

Cloud infrastructure service providers have been responding urgently to the surge in consumption by launching emergency plans and partnerships, which involve the addition of new server capacity to data centers, opening new data center regions and additional investments to expand existing cloud business to new regions over the coming years.

Ecosystem Support

FREE TRAININGS & CERTIFICATIONS
Online customer training sessions |
Free knowledge resources | Free certifications

53%

Enterprises are providing free trainings and certifications to partners and customers

PARTNER PROTECTION PLANS
Partner tier protection | Partner support funds |
Support for customer pitches

29%

Enterprises are deploying protection plans to support customers

Figure 6: Key initiatives adopted by enterprise software companies focussed on external ecosystem

Companies are making their training programs free, in order to increase the ecosystem adoption of products. They are offering certification programs for customers and partners as well.



Providing free online courses to customers on various relevant topics through Hubspot Academy

Companies should not forget the importance of their indirect sales force in these times. Companies are increasing their credit period and are protecting the partnership levels for many of the channel partners who are small businesses and are struggling with both collection and demand.



Launched Emergency fund of 3 Million Euros and also introduced protection plans for customers

Evolving into the new normal

Enterprises must also evolve in order to balance the impact of the pandemic, by realigning their product portfolio, offloading non-profitable assets or captives, retaining talented employees and by accelerating their digital transformation initiatives.

Enterprises are pursuing different product strategies to tackle the revenue slowdown across their product portfolios, infrastructures or paths to market.

While the need for certain products and services has fallen due to the pandemic, there has been an increase in demand for the others. Some companies are taking advantage of this growing demand by utilizing their existing infrastructure to produce new products and services. Companies which were involved in developing fitness-tracking bands, for example, have shifted their focus to tracking and selling health data to other health tech companies.



Figure 7: Key initiatives adopted by enterprise software companies for portfolio optimization

Companies need to refine their product portfolios to diversify into low risk use cases. Companies are delaying FY20 roadmaps, and are delivering fewer, but focused offerings, to the market.

Enterprises are creating product SKUs and solutions that are specific to the current crisis, and are also planning to re-evaluate their product to carve-out certain existing use cases/products to boost cash flows.

"A Bay Area-based network software company decided to defocus from all their legacy platforms and bet on a single platform for their long-term growth." This **Portfolio rationalization** should be done based on what is expected to be important to customers over the coming years. In some cases, the customers are hesitant to move to newer versions of the product and want to just add extra features to the existing legacy portfolio to support the current crisis. In this scenario, resources must be taken back from the new product. In other cases, companies should accelerate their existing portfolio consolidation efforts.



Plans to increase hiring at lower cost locations to increase workforce efficiency and reduce personnel related expenditures

To complement their strategic business and core workloads, companies need to look at innovative models around tapping global Talent hotspots and optimizing existing engineering teams through agile and DevOps methodologies. For a portfolio that is not core to the organization strategy, companies can look to engage with partners in a managed services, risk-reward, or revenue share model.

"A global network software company offloaded its non-strategic platform to partners"

For non-core products, engineering centers or specific teams/ functions, or in cases where companies may be looking to bolster cash reserves, companies can undertake doing 'carve-outs'. For non-core areas 'carve-outs' are an option to re-allocate resources to more strategic ones.

Companies across the world are making Tech Modernization a priority to safeguard their physical systems, so that they can stay robust and antifragile during the crisis.

CloudSigma

Transitioned its products from desktop applications to web-based to be offered as SaaS offerings

Software leaders are working to add to their digital transformation initiatives: modernizing legacy systems, implementing modern technologies, making sense of business data, and more to support the development of modern-day products using platformization, APIs and microservices.

Prosper into the future

To **prosper** in the future, It is essential for companies to capitalize on digital capabilities like AI, implement intelligent automation to reduce costs and employee bandwidth, diversify to new regions to recognize additional growth opportunities, and pursue M&A for faster multi-core achievement.

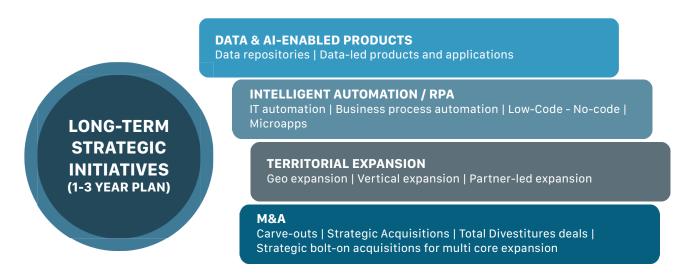


Figure 8: Key initiatives adopted by enterprise software companies

The playbook for success may be significantly redefined in the post-covid era. The need for developing new-age technologies, diversifying market risk, and pursuing inorganic growth can be vital for being successful in the new era.

Building of artificial intelligence capabilities in existing products as well as development of Al-enabled products, is expected to pick up pace in the post-covid era; because, better integration of Al into the public health response will help with predicting and modelling pandemic outbreaks. Product leaders should evaluate modern-day use cases and transition existing products to more relevant business propositions.



Enterprises should also consider developing data analytics solutions to deliver real-time predictive modelling, and simulation tools for customers to cost-effectively manage, protect and enhance their workforce's productivity, along with having supply chains efficiencies, and critical network infrastructure optimisation.



Adobe was able to realize 82% reduction in manual efforts for its contract creation process

Companies need to accelerate the use of robotic process automation (RPA) to improve time to market, speed of customer services, as well as realize cost savings. The speed of adoption of RPA as well as ancillary services such as use case discovery, and process mining, is expected to drastically increase in the post-covid era.

De-risking by expanding its customer base to multiple industries, geographies, as well as customer sizes is expected to be one of the top priorities for enterprise software leaders.



Expanded to United Kingdom, releasing new suite of features targeted at business needs in the region

As businesses face financial distress, opportunities to acquire and invest in assets to drive product innovation and market expansion will also increase.



Acquired One2Many for mobile mass alerting technology amid Covid-19 Pandemic

"Focus in Pre-COVID conditions was towards efficiency, and now it is shifting towards resilience."

CEO, Enterprise Software Company focusing on Unified Commerce Enablement

A Varied Recovery Cycle for Different Enterprise Software categories

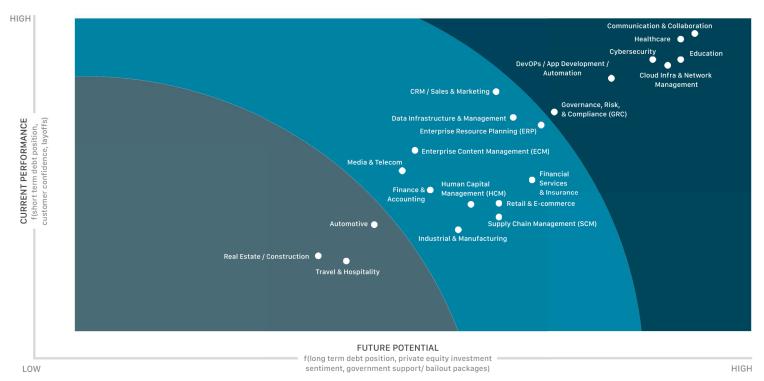


Figure 9: Impact of Covid-19 across industry verticals

Enterprise software leaders should understand that the companies need to build the "new normal" that its customers are going to live by, and accordingly make changes within their products, GTM, as well as growth strategies. Zinnov and Persistent analyzed the behavior of different companies across various enterprise software categories, that are battling to emerge successful from the current crisis. We mapped the performance of these companies during the current crisis against the future potential of the companies.



Figure 10: Matrix for prioritizing dikes to be built for accelerating revenue recovery (illustrative)

Companies that serve industry verticals such as healthcare, education, telecom and media along with horizontal software-focused companies in areas such as digital workplace, collaboration and security will emerge stronger from this crisis, and will have to navigate the current crisis in such a way that they continue to invest in the future roadmap, so that they are able to consistently gain market share during and post the crisis.

A majority of the firms are anticipating that the recovery might take 2-3 quarters. Companies that are slow to emerge from the crisis will have to relook at their customer segments, product portfolio, business model, and carry out planning with respect to the **new work environment, transparency, flexibility and empowerment.**

Despite the immense challenges CEOs are managing today, now is the time to act. In fact, we've seen that the reduction in time spent in traveling, has given CEOs and their top teams more time to focus on new initiatives. We believe that this is the time for true leaders to emerge and build the necessary dikes for enduring the repercussions of the coronavirus, and channeling them towards positive outcomes.

As businesses face unparalleled levels of ambiguity, leaders must enable agile ways of working and orchestrate business transformation, to outperform competition and alleviate the impact of the pandemic.



Figure 11: Step-wise guide for enterprise software business leaders

Business leaders should be ready to play offense and defense at the same time by stabilizing the organization on the one hand while looking for opportunities in these tough times on the other hand.

Leaders should be able to take their decisions on the pillars of emotional intelligence. It is crucial that everyone from the organization stays in the loop and is provided the right guidance and tools.

Finally, leaders must keep a farsighted vision and prepare for the long-term impact of the pandemic by understanding the duration and seriousness of the pandemic and its associated economic scenario.

Conclusion:

Recovery is step 2.

Planning for liquidity and resilience is Step 1.

One must stay cautiously optimistic in the current crisis and pay heed to the Stockdale Paradox of balancing realism with optimism, that was popularized by Jim Collins, former vice-presidential candidate, naval officer and Vietnam prisoner of war –

"One must retain faith that you will prevail in the end, regardless of difficulties at the same time one must confront the most brutal facts of your current realities."

We are currently unaware of the time when it will become business as usual, or what 'usual' will be, but we have witnessed that anything is achievable by working together and thinking differently

The patience and co-operation extended by people by staying at home in order to curb the spread, the businesses and unions working together to keep people employed, and manufacturers switching production to life-saving ventilators, are some of the acts that keep the hope alive.

The current crisis and its aftermath should motivate companies to align their business strategies to the new reality. Enterprises globally will reinvent themselves by putting software, data and AI at the core of their organizations. Enterprise software leaders should carefully work through these uncertain times to capitalize on this new normal.

Once offices are ready to be opened again, enterprises will need to refine the product portfolio, realign the positioning and streamline GTM and sales teams, while ensuring the safety and well-being of employees and their families through guidelines for social distancing, rules and regulations, and special working hours if required.

We believe that this pandemic might strike in the form of multiple waves, and therefore each company needs to critically evaluate themselves to build their own dikes and formulate strategies to overcome the crisis.

Enterprises must act along the framework of sustaining the impact, ensuring business continuity by driving adoption of remote working, evolving into the new normal in order to optimize ways of working, and prospering into the future by enhancing the effectiveness of remote work, maintaining employee well-being, and upskilling teams on remote collaboration to guarantee key milestones.

About Persistent Systems

With 11,000 employees around the world, Persistent Systems (BSE & NSE: PERSISTENT) is a global solutions leader, delivering digital business acceleration and enterprise modernization for organizations across industries and geographies. Amongst a range of other services and solutions, Persistent specializes in Digital Product Engineering for ISVs and Enterprise Software at the core of digital transformation.

For more information, please visit: www.persistent.com

About Zinnov

Founded in 2002, Zinnov is a global management and strategy consulting firm, with presence in Santa Clara, Houston, Bangalore, Gurgaon, and Paris. With a team of experienced consultants, subject matter experts, and research professionals Zinnov assists Software companies, Global System Integrators, Enterprises, and Private Equity firms in developing actionable insights that help them create value — across dimensions of both revenue and optimization. Over the past 18 years, Zinnov has successfully consulted with over 250+ Fortune 500 companies by:

- Structuring and implementing Digital Transformation levers enabled by technologies like AI/ML, Cloud, IOT, and RPA;
- Advising global PE firms in asset shortlisting and target evaluation, commercial due diligence, and value creation;
- Helping global companies outline and drive their open innovation programs, design and operate accelerator programs, and enable collaboration with start-ups across specific use cases and predefined outcomes;
- Enabling global companies to develop and optimize a global engineering footprint through center setups, and technology and functional accelerators to achieve higher R&D efficiencies, innovation, and productivity;
- Growing revenue for companies' products and services in newer markets through account intelligence, market entry, and market expansion advisory.

Zinnov serves clients from across multiple industry verticals in the US, Europe, Japan, and India.

For more information, visit: www.zinnov.com

