Pioneering the autonomous high-tech era: SAP & TCS

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To thrive amid disruption, hi-tech firms must embrace the Autonomous Enterprise – powered by AI, automation and cloud innovation from TCS and SAP

The high-tech industry is undergoing a transformative shift, driven by rapid technological advancements, evolving business models and changing customer expectations.

As organisations navigate this complex landscape of disruptions, staying ahead demands a blend of innovation, resilience and strategic foresight.

Consequently, traditional ERP systems are also transforming – not just on the technology front (bring your own models or build by partners options), but also by adopting more flexible and accessible business models (consumption-based to need-based options).

Amid these challenges, companies like Tata Consultancy Services (TCS) are innovating to help companies stay on top, reimagining how enterprise applications can empower businesses to become more agile and resilient.

TCS is leading a new approach to digital transformation that embraces the potential of AI, cloud computing and composable architecture.

Partnering with enterprise software giant SAP, the company's vision extends beyond simple automation to what is described as the "autonomous enterprise" – a business capable of evolving and self-optimising operations through intelligent

PRASHANT SHIRGUR

TITLE: **GLOBAL HEAD, ENTERPRISE SOLUTIONS FOR TECHNOLOGY, SOFTWARE AND SERVICES INDUSTRY**

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Prashant Shirgur, Global Head of Enterprise Solutions for Technology, Software and Services Industry at TCS.

With extensive CXO engagement, he oversees a large international team dedicated to solving business challenges and driving digital transformation across industries and ecosystems.

Prashant excels in crafting sustainable business portfolios through strategic partnerships and domain expertise. His leadership style combines visionary thinking with a startup-like execution approach, enabling him to conceive and implement strategic initiatives that deliver stakeholder value.

Prashant's role is pivotal in TCS's mission to provide innovative enterprise solutions for global technology businesses.

innovations along the way while freeing human talent in the process for more strategic initiatives.

To find out more about the evolving dynamics of the high-tech industry, key trends shaping the future and how organisations can position themselves for success, we spoke to Prashant Shirgur, a distinguished industry veteran, thought leader and Global Head of Enterprise Solutions for the Technology, Software and Services industry at TCS. In his role, Prashant leads initiatives that help high-tech companies navigate complex transformational journeys in an increasingly volatile business landscape, leveraging TCS' 56-year legacy of innovation.

"I head the Enterprise Solutions Unit in TCS for Technology, Software and Services companies," he explains.

"Essentially, this is the segment that comprises the high-tech companies that we service and those partners in the ecosystem."

TCS' approach to accelerated transformation for global, high-tech companies

TCS, primarily an IT services consulting and business solution organisation, has been partnering with many of the world's leading businesses in their transformation journeys for more than 56 years.

"We bring in enterprise applications, a suite of accelerators, domain expertise and our industry innovations to help clients in the high-tech industry to build future-ready, intelligent ecosystems that not only address today's challenges but also anticipate tomorrow's disruptions," Prashant says.

"Enterprises must embrace frictionless autonomous enterprise principles to stay ahead"

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These strategic and technological capabilities are essential for high-tech companies facing challenges like rapid innovation cycles, disruptions in precisely coordinated global supply chains and increasingly complex operations that span from raw material suppliers to manufacturing partners.

"The high-tech industry ecosystem is characterised by rapid technology evolution, intense competition and shifting customer priorities," Prashant explains, describing the landscape his team navigates daily – and his role specifically focuses on helping high-tech companies navigate these challenges.

Industry trends reshaping high-tech operations

As consumer trends alter, so must industry offerings. The high-tech industry is undergoing rapid digital disruption, with new business models reshaping revenue streams.

Addressing High Tech Industry Challenges with SAP Solutions

SAP is addressing challenges in the high-tech sector with industry tailored solutions for cloud adoption such as GROW, RISE and embedded AI

The high-tech sector presents unique challenges for companies at different stages of growth.

Enterprise software providers must adapt their offerings to serve both established firms with legacy systems and scale-ups that require rapid deployment with limited resources.

With over 50 years of expertise and industry best practices, SAP has developed methodologies to help companies harness technology effectively – regardless of their stage of growth.

As Mark Lehew, SAP's VP of Industry Executive Advisory for North America, explains, established firms and scale-ups typically require different solutions.

"Scale-ups tend to be growing rapidly, with limited resources and limited time," he says. "It's all about getting a foundational solution in place to support the business as quickly as possible with as few resources as possible."

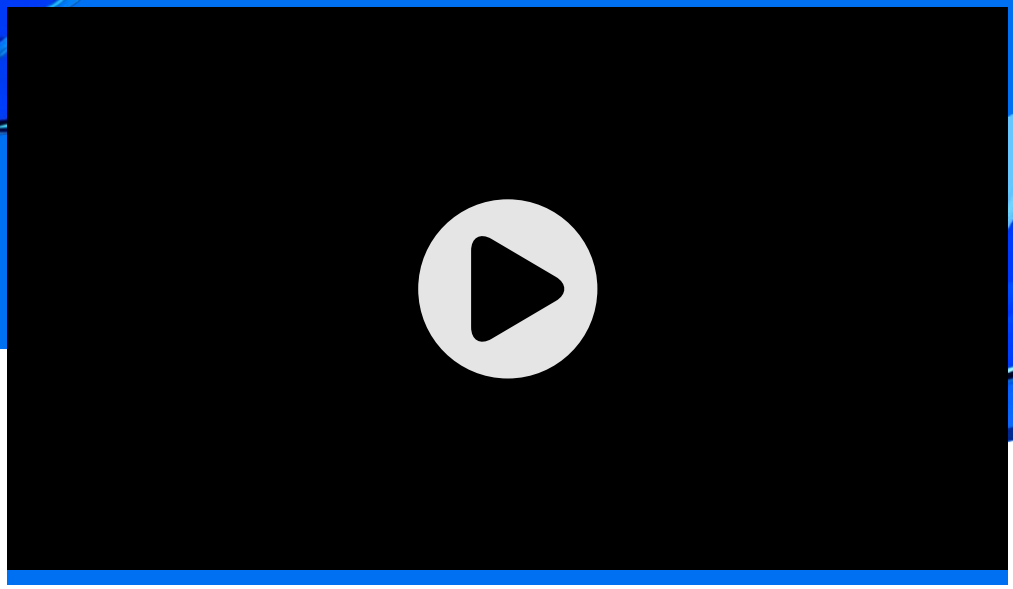
RISE and GROW: How SAP solutions drive growth

For these fast-growing firms, SAP created the GROW deployment methodology, which utilises pre-configured templates with built-in industry best practices – enabling them to quickly implement enterprise software systems to support the essential end to end business process of the industry.

"It's a 'fit to standard' approach, where a customer can go live within as little as three to four months," Mark says. "The beauty is, once you're on the platform, as you continue to grow and get bigger, you can scale into additional capabilities."

For more established firms with existing on-prem deployments, SAP has developed the RISE methodology. "A lot of these customers have been using our solutions since the beginning," Mark says. "Now they're making the move to the cloud."

This move presents two primary challenges: architectural differences between on-premises and cloud solutions and the fact that established firms often have heavily customised their existing systems. RISE takes these factors into account, evaluating current functionality against cloud capabilities. "While the GROW methodology focuses on standardisation and rapid deployment, RISE provides more control for the customer," Mark explains.



The role of rapid innovation and change driving demand for a new enterprise platform

SAP has designed the business suite to reimagine how High Tech businesses operate. Only SAP business suite offers these 3 critical components in the cloud:

1. A foundation of reliable and scalable applications with 50 years of experience connecting and optimizing the mission critical end to end business processes of High Tech companies.

2. Embedded AI and systems of agents that go beyond simple automation, working collaboratively across functions to tackle real-time challenges and drive impactful outcomes.

3. Business Data Cloud which combines unmatched data from SAP and non-SAP sources into a unified semantic layer to unlock insights, advanced analytics, and AI capabilities empowering High Tech businesses to drive intelligent growth and rapid innovation.

"You're not doing independent AI projects in silos – you've got the ability to run this capability end-to-end across the whole organisation via AI agents."

To scale its offerings, SAP relies on implementation partners like Tata Consultancy Services (TCS). "Partners are absolutely critical to SAP," Mark says. "We need partners that truly understand the business processes of an industry."

Global partners such as TCS provide industry expertise, implementation acceleration, supplementary software development and change management support.

"TCS, with their high-tech expertise, are critical for us to deliver to customers. We have 3,100 customers around the world in high-tech – we need TCS and their global reach to address that," he says.

"I don't have to be a deep product expert to transact in or get information from SAP, I simply ask questions or make commands and Joule will take care of that – end to end across the board."

Mark Lehew
VP of Industry Executive Advisory for North America
SAP

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Companies are shifting from product-centric approaches to subscription-based, Everything-as-a-Service (XaaS) models, unlocking new monetisation opportunities.

"The industry is moving beyond conventional sales models," says Prashant.

"Customers demand flexibility, personalisation and outcome-based services. This shift requires organisations to rethink their technology architecture, streamline operations and create agile, scalable business models."

This shift is changing how these companies design their services, create go-to-market models and collaborate with ecosystem partners.

Macro-economic factors are adding complexity to globally distributed supply chains, affecting everything from semiconductor manufacturing regulations to nations competing with each other for dominance.

To navigate these challenges, companies must prioritise resilience, adaptability and trust in their operations.

Moreover, mergers and acquisitions (M&A) are reshaping the competitive landscape, particularly in the semiconductor and electronics segments.

Companies must integrate acquired businesses swiftly while maintaining operational continuity – a challenge that demands a robust enterprise applications strategy.

Therefore, under these conditions, high-tech companies prioritise creating disruptive innovations while building adaptable, resilient operations that can sustain profitable growth.

The complexity extends to hybrid manufacturing models that blend in-house production with subcontracted manufacturing all supported by multi-tier supply chains.

This intricate network of relationships demands seamless information flow and operational efficiency – challenges that TCS addresses through its technology solutions.

"By decoupling core processes from differentiating capabilities, companies can respond faster to market shifts, integrate emerging technologies like AI and Gen AI and continuously evolve their business models"

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To stay ahead, enterprises must embrace a new paradigm – one that eliminates friction, accelerates automation, and enables intelligent, self-driven operations.

"Enterprises must embrace frictionless autonomous enterprise principles to stay ahead," Prashant emphasises.

"TCS and SAP are driving this shift through AI, automation and industry-specific cloud solutions, ensuring agility, efficiency, and continuous innovation."

Through this collaboration, TCS is reshaping how high-tech enterprises adapt, scale and thrive in a world of accelerated transformation.

SAP S/4HANA and TCS Crystallus™: The centrepiece of transformation

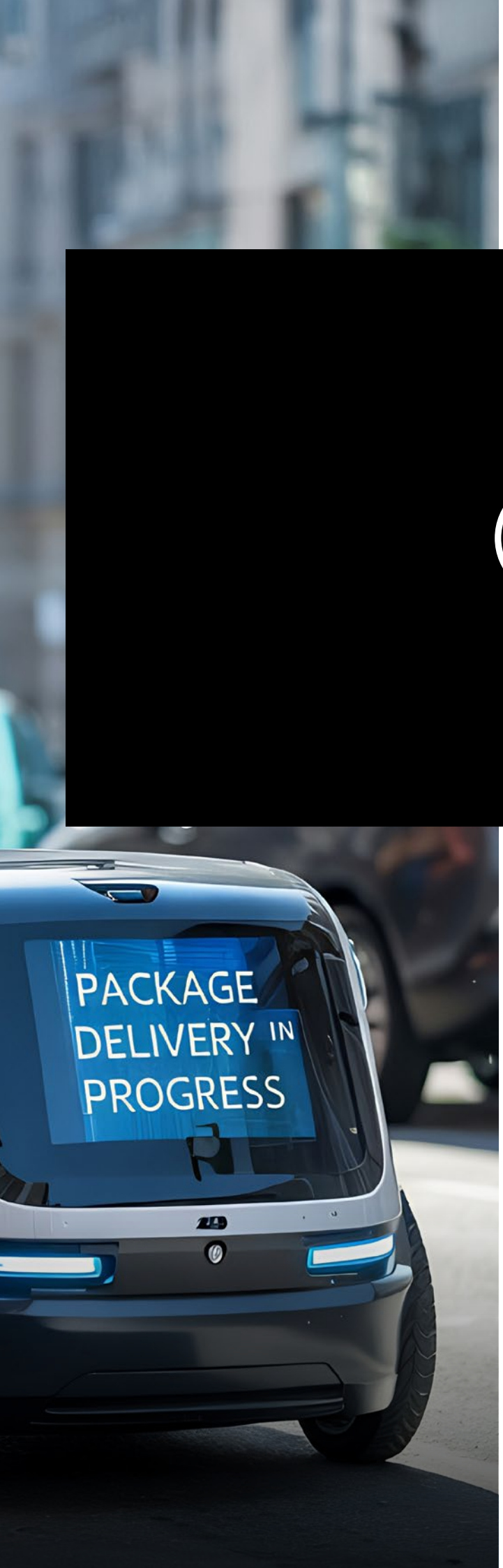
TCS is redefining how high-tech enterprises approach transformation, placing TCS Crystallus™ at the hear of its strategy.

More than just a framework, TCS Crystallus™ serves as a blueprint for business reinvention, combining industry-specific accelerators with the latest SAP innovations to enable seamless, scalable and future-ready enterprise operations.

Prashant describes TCS Crystallus™ as "a set of pre-configured industry accelerators that not only help clients visualize their future-state business processes but also provide a clear execution roadmap for transformation."

By offering an experiential journey, TCS allows customers to see, interact with and refine their business transformation approach before full-scale implementation – minimising value.

"We are one of the very early adopters of the SAP high-tech template," Prashant reveals, highlighting a North American print and digital



services company that is leveraging the high-tech template complemented by TCS Crystallus™ to transform its operations.

Beyond implementing SAP's core solutions, TCS collaborates with SAP on co-innovation initiatives, addressing industry-specific gaps with a composable ERP architecture, ensuring that high-tech enterprises can optimise complex business models without unnecessary customisation in the core.

TCS Crystallus™ is built on three trategic layers, ensuring agility while maintaining a clean digital core.

The digital core on SAP S/4HANA provides a standardised, future-ready ERP foundation.

The composable ERP on SAP Business Technology Platform (BTP) extends core capabilities with modular, cloud-based enhancements.

The industry-specific innovation layer integrates AI, Gen AI and analytics to drive differentiation, resilience and adaptability.

This structured approach empowers enterprises to run lean, keep their core clean, and shift differentiating solutions to the edge – ensuring continuous evolution in an increasingly dynamic industry landscape.

With TCS Crystallus™ and SAP S/4HANA, enterprises are not just transforming; they are future-proofing their business models for the digital/AI-first era.

Building an agile, future-ready enterprise

"In an era of continuous disruption, enterprises must strike a balance between standardisation and differentiation to remain competitive," Prashant points out.

A rigid, heavily customised ERP limits agility, making upgrades costly and innovation slow.

To overcome this, organisations are embracing a strategy that keeps the core ERP standardised and adaptable while extending differentiation to the edge through modular, cloud-based applications leveraging composable architecture.

The clean core philosophy ensures that enterprises can upgrade seamlessly, reduce technical debt and accelerate innovation without compromising flexibility.

"By decoupling core processes from differentiating capabilities, companies can respond faster to market shifts, integrate emerging technologies like AI and GenAI, and continuously evolve their business models."

"Success requires collaboration and to integrate seamlessly to create frictionless workflows"

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Prashant says, With TCS Crystallus™ and SAP S/4HANA, businesses are not just modernising their technology – they are creating an agile foundation for sustained growth and competitive advantage in a digital-first world.

Gen AI is driving the autonomous enterprise vision.

Looking to the future, Prashant articulates a vision of the "autonomous enterprise" – a concept that sits at the heart of TCS' strategy.

"TCS envisions an autonomous enterprise powered by a combination of AI, cloud and analytics that ensures frictionless operations," he explains.

The journey toward autonomy involves integrating Gen AI and agentic AI, where intelligent systems make decisions and execute workflows with minimal human intervention.

Unlike traditional, rule-based AI, these advanced models process context and data to make nuanced decisions.

"Rather than just deterministic AI chatbots, there's the possibility to bring in AI agents that can make decisions and execute workflows," Prashant elaborates.

Furthermore, the autonomous enterprise concept represents "a journey, not an end state," according to Prashant, who emphasises the evolutionary nature of this transformation.

This evolution allows employees to focus on more strategic work while routine processes function autonomously, enhancing both efficiency and innovation capacity.

TCS is already implementing these concepts with leading clients, leveraging Gen AI to analyse operational data, identify process inefficiencies and pinpoint areas requiring manual intervention.

As enterprises advance toward autonomy, Gen AI and agentic AI will play a central role in reshaping business operations.

This journey begins with stablishing a clean digital core, ensuring ERP deployments remain agile and optimised.

From there, companies build composable solutions that extend their core capabilities, followed by the progressive integration of AI-driven intelligence.

"Organisations need an ERP landscape that allows them to run core processes seamlessly while enabling continuous innovation at the edge," Prashant explains.

By embracing this approach, businesses can drive frictionless operations, accelerate decision-making, and uture-proof their enterprises in an era of rapid digital evolution.

TCS HAS BUILT ITS TCS CRYSTALLUS™ OFFERING WITH THREE KEY LAYERS:

- A digital core based on SAP S/4HANA
- Composable ERP offerings on the SAP Business Technology Platform
- Industry-specific solutions incorporating AI capabilities

TCS and SAP: Driving ecosystem innovation with TCS Crystallus™ and TCS Pace Ports™

Innovation thrives at the intersection of technology, industry expertise and collaboration. TCS has embraced this philosophy through TCS Pace Ports™.

TCS Pace Port™s are creative spaces at marquee locations across the globe that provide easy access to TCS' innovation ecosystem.

At these dedicated experience centres clients, startups, academia, and technology partners converge to co-innovate and tackle real-world business challenges.

"These are not just innovation labs; they are business transformation hubs where C-suite leaders, domain experts and co-innovation partners work together to translate abstract ideas into actionable strategies," says Prashant.

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At TCS Pace Ports™, the art of the possible comes to life.

Emerging technologies like Gen AI, automation and cloud-native architectures are explored in the context of tangible industry applications.

By rapidly prototyping solutions and validating their business impact, enterprises can move from concept to execution with confidence.

The centers bring together global expertise and blend it with local knowledge to provide inspirational experiences and collaborative problem-solving to help organisations become ‘future ready.’

This methodology is exemplified in TCS Crystallus™ engagements, where strategic SAP S/4HANA deployments have been instrumental in driving enterprise-wide transformation.

At SAP’s Sapphire conferences in Orlando and Barcelona, TCS showcased case studies featuring a semiconductor manufacturer and a telecom equipment leader pioneering 5G services – both leveraging TCS Crystallus™.

These initiatives not only established a strong digital core but also laid the foundation for broader transformation, demonstrating the power of SAP and TCS’ combined expertise.

This means that TCS is positioning itself as blending “the art of consulting with the science of execution,” Prashant says, bringing together strategic vision with practical implementation expertise and ensuring that business transformation is continuous, adaptable and scalable.

Through this combination, TCS aims to guide clients on a journey of “perpetual transformation” that continually adapts to changing market conditions and drive growth, enhance resilience and unlock new market opportunities.

The ultimate end goal is to create what Prashant calls “frictionless workflows” throughout the enterprise ecosystem – streamlining operations across internal departments and external partners alike.

As high-tech companies navigate an increasingly complex world, TCS’ combination of technology expertise, deep industry knowledge, and innovative collaboration models positions it as a leader in enabling autonomous enterprises of the future.

“The real value lies in how organisations collaborate, co-innovate, and integrate seamlessly within their ecosystems,” Prashant concludes.

“This is what enables perpetual transformation, where businesses don’t just adapt to change but thrive in an era of constant disruption.”

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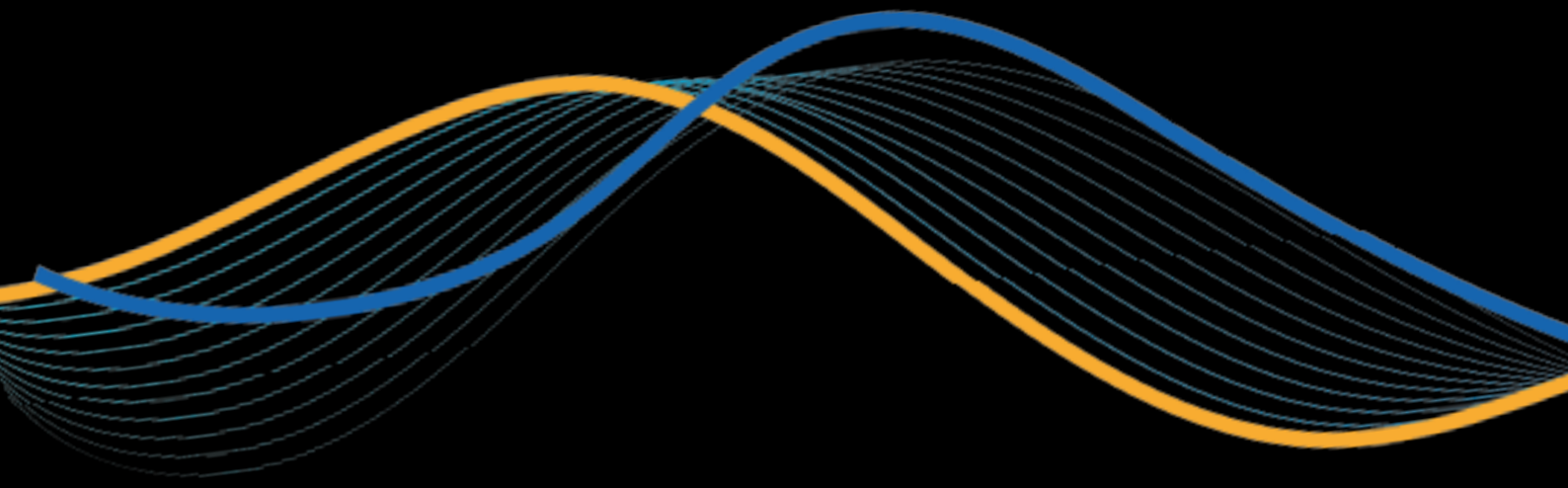

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