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## CIMdata News

### ***Aras Announces Merger of Minerva Group- a CIMdata Highlight***

11 January 2022

On Tuesday, January 11, [Aras Corporation](#) announced the merger of Minerva Group, one of Aras' leading implementation partners, effective immediately. Minerva develops vertical industry solutions for medical devices and high-tech electronics companies based on the Aras Innovator Platform.

Additionally, Minerva has extensive experience in the automotive, aerospace, defense, and industrial equipment manufacturing industries and has a series of tools and add-ons to speed implementations helping customers to shorten their time-to-value.

[Minerva](#) is a long-time partner that has implemented Aras at nearly 100 companies and has a strong reputation with their clients. Minerva's sales team, product managers, developers, and implementation consultants will join Aras adding both industry specific knowledge and capacity. This is a great addition for Aras, offering better support for out-of-the-box implementations within specific industries and helps increase Aras' top line revenue. In earlier discussions with CIMdata, Minerva noted they had many ideas for additional products to enhance the Aras Innovator platform, so we look forward to seeing additional vertical industry support in the future.

### ***Meaningful Models Improve Risks Mitigation—Capitalizing on Altair's Expertise- a CIMdata Commentary***

12 January 2022

*Key takeaways:*

- Multi-domain simulation models exist at many different levels of abstraction based on the decisions product leaders are making at different stages of the product lifecycle. Keeping the model abstractions coherent with each other is the next innovation needed to assure best decisions can be made in the context of current system performance requirements.
- Pervasive sensing enables massive data collection for product performance analytics. Product usage is measured in near real-time providing valuable insights to designers, engineers, and their management.
- Orchestrating the “as used” product measurements and the corresponding simulation models (i.e., digital twins) as decisions are made improves a products robustness as it is designed.
- Investigating customer complaints improves with coordinated models and measurements and will improve robustness for products already in use at customers.
- Altair's expanding system modeling management combined with their machine learning initiatives to apply measurements to models will advance robust product designs across engineering disciplines: structural, thermal, EMI/EMC, optimization, and controls.

#### **Product Improvements and Complexity Are Increasing**

Products are more complex and are changing more quickly. Different functions in a company contribute to product decisions from different points of view using all types of models. MBSE practices can encourage the right decisions at the right time using abstraction models if they are trustworthy. Models

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are used for earlier product decisions, often based upon models of previous products, but these decisions need confirmation during development as testing measurements become available. Abstracting complexity provides increased transparency through design reviews at any time.<sup>[1]</sup>

Left unmanaged, the various models can become confusing, contradictory, and counterproductive. Orchestration of trade studies becomes complicated as the product performance envelopes evolve when technology choices are applied to the product being designed. Creation and use of reduced order models using computer-based engineering tools is necessary.

Operational product risks and the related safety margins need to take advantage of all usage insights—even if they occur after a product is delivered. Models should continue to adapt as empirical data is collected. Product upgrades are made more confidently when models represent reality: e.g., usage, multi-physics coupling, and material durability.

Staying integrated from the start enables better collaborative decision making using contextual systems models. Traceability from requirements to products and from products back to requirements improves with contextual models. A tools/methods environment providing appropriate model fidelity is needed using reduced order models adequate for the decisions to be made. Managing the workflow from one decision to the next in an organization as decisions are made is needed, especially as it involves several unique roles, see Figure 1.

## Automation from desktop, to department, to enterprise

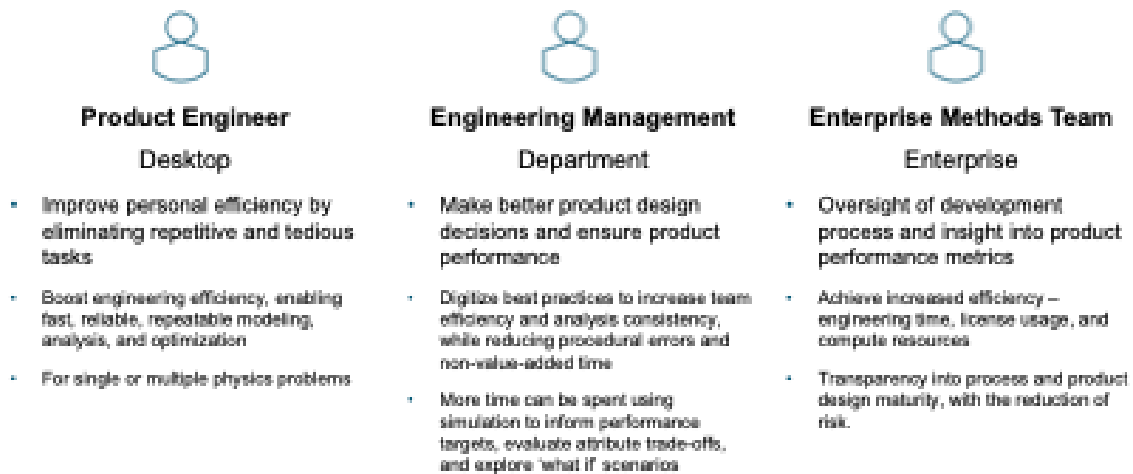


Figure 1—Different Roles Collaborating Need Shared, Trusted Contexts  
(Courtesy of Altair)

### Meaningful Models at Each Decision Point

Addressing the needs of model users—managers, designers, and release engineers who use models when making decisions—is the next frontier. A model is useful when it helps the user, not just the simulation expert, make their next decision. The order of decisions is driven by company processes which evolve to keep an enterprise competitive. As technology and complexity change, the decision progression changes. The orchestration of models at different fidelities and different maturities at different times is needed to keep models meaningful.

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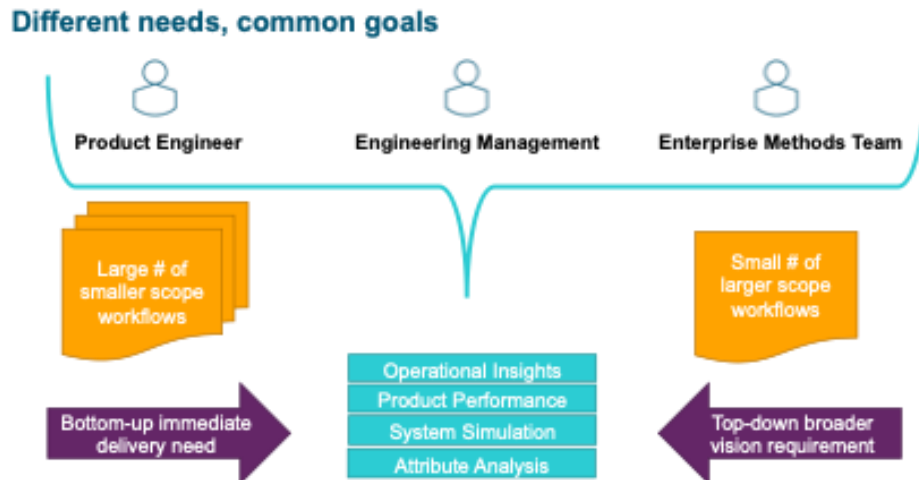


Figure 2—Different Needs, Common Goals  
(Courtesy of Altair)

## Altair's Solutions for Meaningful Models with Automation

While Altair is known primarily for being an engineering modeling and simulation company, they have expanded their product scope and customer base significantly over the past decade into complimentary technologies in material data, conceptual design, manufacturability assessment, scalable high-performance computing, big data analytics, and physics-based simulation enhanced via the application of AI/ML technologies. The use of empirical data, analytics and AI/ML will provide business and engineering insights, improving decisions. What makes Altair unique is their focus on concept workflow exploring the functional and performance envelope producing a robust design.

Simulation driven design has been used extensively in automotive and aircraft design using Altair's modeling and simulation solutions. There are benefits when the physics coupling between vibration, heat, and interferences are seen and resolved together across all physical domains to improve product durability and mass production efficiency. Altair's CAE capabilities provide benefits from a systems context while gaining more insight from data (predictive (simulation) and measured (empirical))—it is more thorough.

Empirical data tunes digital twins that serve the entire enterprise, including not only product development and engineering functions but also business and financial functions as well as manufacturing and in-service operations. Digital twins are becoming instrumental to product development and operations.<sup>[2]</sup> Just a few years ago, most engineers identified a single digital twin as a virtual, static assembly or mockup for design reviews. Now they identify many more types of digital twins supporting all kinds of product decisions, many beyond 3D design. These are clear indicators that digital twins are being enhanced to improve decisions. They do this by constantly improving models, making models meaningful just in time.

Examining performance from a consistent user experience with each critical engineering discipline at each decision point encourages discipline specialists to interact and improve product designs before prototype samples are manufactured. It even provides the basis for quality management focused on consumer insights based on customer product usage. Altair realizes the next step is expanding proven CAE/AI/ML techniques across all engineering disciplines at earlier points in product development—the left-hand side of the systems engineering Vee. They summarized their vision for Requirements to Production as shown in Figure 3.

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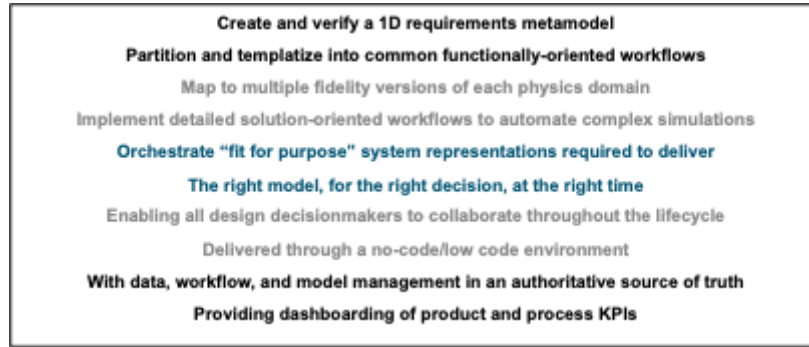


Figure 3—Vision for Requirements to Production  
(Courtesy of Altair)

Removing the administrative work to organize and abstract models, improve them when empirical measurements are received (which is happening more frequently, enabled by IoT), and adjusting decision processes (the order and degree) are the catalyst behind Altair’s solutions. Altair has many core modules including Inspire, Pulse, and Knowledge Studio. Pulse orchestrates better attribute analysis. Activate manages system simulation. Product performance assessments are managed by Altair One. Knowledge Studio manages measurement (empirical) data. They work in concert utilizing a data platform. When assembled they make an application which is focused on the key decisions using trustworthy models. As more empirical data is acquired, the same application encourages exploration of the limits of a design, improving design optimization and risk management.

Altair’s entire spectrum of tools and solutions provides the basis for learning models—meaningful to the next decision. Figure 4 summarizes Altair’s Battery Designer and its use of their core modules: Pulse, SimLab, HyperWorks, and many more.

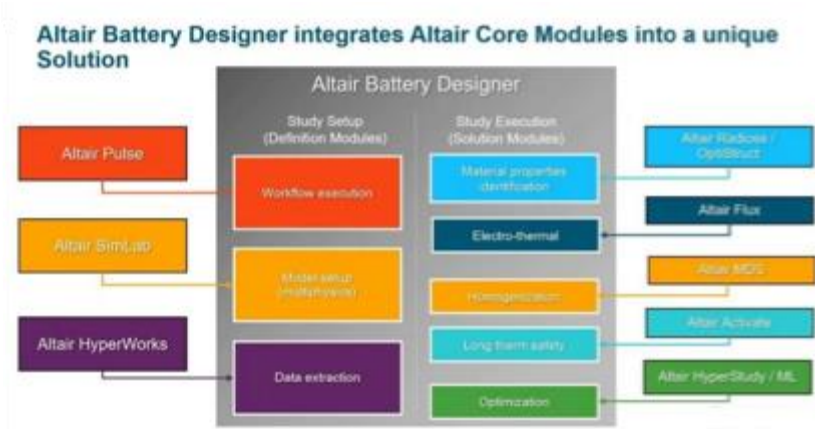


Figure 4—Altair Core Modules Provide Building Blocks Enabling Meaningful Models  
(Courtesy of Altair)

## Product Improvements During Operations

Insights from empirical data are always used by successful enterprises. Many products have histories of small incremental improvements where the manufacturing, service, and use of gained knowledge is basically stable, limited by the ability to survey and consolidate insights. Remote sensing in actual products is speeding the collection of usage data which can be used to improve models making them more trustworthy. Sensing is becoming much more affordable as electronics miniaturization occurs. ML/AI will receive more data to improve learning and simulation models. Sensor placement and Edge

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computing (done at the sensor) are driving more and more mechatronics designs. Presenting empirical measurements using Altair’s Panopticon makes conveying insights easier. Altair’s multi-domain simulation solutions, Panopticon, and their AI/ML focus with CAE are providing additional decision-making capabilities leading to more robust products.

## Customer Testimonial

“We share a common vision on the convergence of AI and engineering to drive significant positive business outcomes. Altair has unique domain expertise and best-in-class, low-code data analytics technology. This collaboration will enable us to bridge the gap between engineering and data science, and empower our engineers to truly be engineers, focused on extracting the benefits of machine learning and AI from our data,” said Dr. Peter Wehle, Head of Innovation and R&T, Rolls-Royce Deutschland. “Ultimately this collaboration will help to democratize our data analytics, enabling our engineers to make better daily data-driven decisions, and transform our business and products.”<sup>[3]</sup>

## Conclusion

Altair understands and fosters the importance of systems simulation driven design and manufacturing. They are expanding their integrated solutions portfolio to address orchestration of models as decisions are made and usage measurements are acquired. This follows their proven journey of mechanical, electronic, and mass production use of models (multi-physics, layout/flow) that Altair has fostered for decades. Altair’s CAE track record and their recent additional focus on data analytics will continue to improve their position to maintain *meaningful models* throughout a product’s life. The notion of *meaningful models*—models which enable timely, earlier decisions, provides a mindset to development applications. Key in this development is the ability to share insights and views across disciplines, even after mass production—maybe leading to new revenue streams with service upgrades. Altair has always had a system of systems view. Sensor miniaturization sets the stage for even more empirical measurements, accelerating data collection leading to improving AI/ML applied to product evolution and upgrades. CIMdata recommends companies consider Altair’s core modules and the application environments they can assemble to further accelerate engineering of products while managing new product development risks. The business challenge is enabling smart people, augmented by the effective use of digital technologies, to achieve the business objectives. Business agility, creativity, and product innovation will always prevail. Altair’s simulation expertise, application of AI/ML, and core modules lead to integrated decision-making environments.

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[1] Research for this commentary was partially supported by Altair.

[2] <https://www.cimdata.com/en/resources/complimentary-reports-research/commentaries/item/17318-technology-convergence-accelerating-for-a-smarter-more-connected-world-commentary>

[3] <https://www.altair.com/newsroom/news-releases/altair-and-rolls-royce-germany-join-forces-to-converge-artificial-intelligence-and-engineering/>

## ***The Passing of Alan Christman, CIMdata’s Chairman Emeritus and Well-Known CAM Authority***

11 January 2022

CIMdata, Inc., the leading global PLM strategic management consulting and research firm, announces that its Chairman Emeritus, Alan Christman, died January 9, 2022, in Boca Raton, Florida, following a short illness. Mr. Christman served as CIMdata’s chairman from 2009 through June 2017.

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Peter Bilello, President & CEO of CIMdata, today issued the following statement: “CIMdata is sad that Alan Christman, a pioneer in CAM and NC programming technologies since the late 1960s and interactive CAD/CAM technology since the late 1970s, has died. Alan was a colleague and friend whose industry insights, innovative thinking, and wisdom will be missed.”

While at CIMdata, Mr. Christman, a global authority on CAM and NC software systems, was the primary author of the CIMdata CAM Software Market Assessment Reports and Compendium of NC Software Product Reviews for many years. After joining CIMdata in 1990, he conducted extensive research in manufacturing engineering, digital manufacturing, and topics related to CAM software usage. Mr. Christman also consulted with end-users of CAM software, major CAD/CAM companies, digital manufacturing suppliers, venture capitalists, and CAM-centric solution providers on strategic marketing and technical subjects.

Before joining CIMdata, Mr. Christman held various positions with Union Carbide Corporation and Control Data Corporation. At Union Carbide, he was an engineering supervisor, Manager of Manufacturing Process Analysis, and Director of Information Systems. At Control Data, his positions included General Manager Product Planning, General Manager of Manufacturing Industry Marketing, and General Manager of CAD/CAM Marketing.

Mr. Christman was on the board of NCGA and chaired the NCGA National Conference. He served on the editorial advisory board of Tooling and Production magazine and wrote the “CAD/CAM Outlook” column for Modern Machine Shop.

Mr. Christman received BS and MS degrees in Chemical Engineering from The University of Michigan and was an avid supporter of the athletics program at the university. Additionally, he was a Ph.D. candidate in Mathematics at the University of Tennessee.

We are happy to forward any messages you wish to send to Mr. Christman’s family. Please email them to [info@CIMdata.com](mailto:info@CIMdata.com).

## ***What's the value of education for PLM professionals?***

12 January 2022

Learn more about this topic in a recent blog posting from industry analyst Jos Voskuil. The blog may be viewed at <https://virtualdutchman.com/2022/01/09/plm-and-education-part-1/>

## **Acquisitions**

### ***Addnode Group acquires British Claytex***

11 January 2022

**Addnode Group announces that it has acquired British company Claytex Services Limited (Claytex). Claytex specializes in advanced simulation and virtual testing, with focus on systems engineering and autonomous vehicles in the automotive and motorsport space. A Dassault Systèmes partner, Claytex has also developed a complimentary portfolio of proprietary software which is marketed directly and through partners.**

Claytex has 15 employees, net sales amounting to SEK 25 million and offices in UK and USA. The company was founded in 1998 and has worked with Dassault Systèmes’ simulation platform for almost 15 years. Claytex will form part of Addnode Group's subsidiary TECHNIA.

*“The Claytex team are in the forefront of simulation and virtual testing. Their technology enables full*

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*system simulation of vehicles, industrial equipment and buildings. They also have a particularly strong position within motorsport and autonomous vehicles. Claytex are highly innovative and have successfully packaged their knowledge in a Software suite that can now be leveraged through our global team and reach,”* says Magnus Falkman, CEO of TECHNIA and Division President Product Lifecycle Management, Addnode Group.

## ***Aras Announces Minerva Merger for Best-in-Class PLM Functionality in Medical Devices and High-Tech Electronics***

11 January 2022

Aras, which provides the most powerful low-code platform with applications to design, build, and operate complex products, announced the merger of Minerva Group, the leading Aras Innovator PLM implementation partner. Minerva brings best-in-class PLM functionality—built on the Aras platform—for medical devices and high-tech electronics companies. The company also brings extensive vertical industry expertise in automotive, aerospace, defense, and industrial equipment manufacturing, and will provide Aras with direct, local representation in the Nordic region and the Netherlands. The merger is effective immediately.

“We are excited to welcome the Minerva team to the Aras family, and to gain industry-specific applications for medical devices and electronics,” said Roque Martin, CEO of Aras. “As an integral part of our partner network for more than a decade, we believe that merging them into our business makes strategic sense and that together we are better able to solve the most complex digitalization challenges our customers face in engineering, manufacturing, and the supply chain.”

Increasing product complexity and competition, combined with frequent changes in supply chains and regulatory requirements, are driving today’s digital transformation initiatives. The ability to digitalize and continuously adapt is critical in helping global enterprises achieve faster time to market, maintain compliance, and deliver high-quality products. Minerva’s business-ready applications, built on the Aras platform, are specifically designed to achieve this powerful agility.

“Our business has been built on customer success through deep industry knowledge and technical skills, and our long-time partnership with Aras has enabled us to deliver unmatched value to customers,” said Asger Thierry, founder and CEO of Minerva Group. “Coming together with Aras will allow us to better serve companies worldwide and further accelerate our growth.”

“Minerva brings a wealth of industry knowledge and PLM domain expertise that Aras and its customers will be able to leverage from day one. Using Aras’ platform, Minerva has built comprehensive PLM solutions for FDA compliance and high-tech electronics contract manufacturing workflows,” said Peter Bilello, President & CEO of CIMdata. “These well-defined industry applications empower companies to deploy quickly, adapt easily, and scale rapidly.”

## ***CareAR, a Xerox Company, Continues Growth with Acquisition of MagicLens, a 3D Visualization and Augmented Reality Platform***

11 January 2022

CareAR, the Service Experience Management market leader announced the acquisition of MagicLens, a 3D visualization and AR-based platform designed to showcase industrial products.

MagicLens leverages computer-aided design (CAD) data to enable 3D content visualization, video simulations for AR-enriched 3D content and high-quality renderings of models. CareAR will bundle in

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rich Augmented Reality content created by MagicLens' advanced 3D toolsets and domain expertise to extend a visual AR experience to any industrial and physical products.

CareAR continues an aggressive cadence of acquisitions further delivering new sets of tools and capabilities that drive a greater service experience. Just last month, CareAR announced its acquisition of CraftAR, a leading AR embedded image recognition platform.

“We are laser-focused on reinventing the service experience by enabling seamless and intelligent user experiences. The ability to visualize any static image or object in action opens up a new world of possibilities,” said Sam Waicberg, president of CareAR. “The MagicLens acquisition further strengthens our ability to provide greater visual service and support capabilities and now extends new offerings into the marketing arena.”

Terms of the transaction were not disclosed.

## ***Chaos and Enscape to Merge, Backed by TA Associates and LEA Partners***

11 January 2022

TA Associates, a global growth private equity firm, and LEA Partners, a technology focused private equity firm, announced today an agreement to merge Enscape, a leading developer of real-time rendering and design workflow technology for the Architecture, Engineering and Construction (AEC) industries, and Chaos, a world leader in photorealistic rendering technology. The merger will establish a global leader in the 3D visualization and design workflow software sectors, with a focus on the AEC, Visual Effects (VFX) and Product Design verticals.

Founded in 2017, Enscape offers solutions that connect directly into modeling software for the AEC industry, integrating design and visualization workflows seamlessly into one. This allows the company to support its customers through the entire design process with unprecedented ease-of-use, enabling faster concept iteration, real-time collaboration and feedback. With its innovative solutions, Enscape has quickly grown since entering the market, establishing its position as a leading provider to the AEC industry.

Chaos, founded in 1997, is widely known as a world leader in visualization and computer graphics, offering an ecosystem of 3D rendering, real-time visualization and simulation software. Chaos' flagship rendering solution, V-Ray, is the go-to visualization tool across multiple industries, supporting everything from architecture, product designs and world-class advertising campaigns to visual effects in film and television. In addition to V-Ray, Chaos provides a broad suite of connected tools, including Phoenix, Cosmos, Vantage, Scans and Cloud, as well as the Corona Renderer.

The newly-combined company, which will retain the Chaos name, aims to develop and strengthen its product portfolio to create a comprehensive end-to-end visualization ecosystem, designed to meet the evolving needs of its customers. All products from both company portfolios will continue to operate and be available under their respective name, including leading products, Enscape, V-Ray, and Corona.

Peter Mitev, CEO and co-founder of Chaos, and Christian Lang, CEO of Enscape, will share the title of co-CEO for the new company. Vladimir Koylazov, co-founder of Chaos and current head of software operations, will also continue to drive R&D and innovation in a leadership position. The joint workforce will total more than 500 employees across the globe, with corporate headquarters in Karlsruhe, Germany and additional offices in Sofia (Bulgaria), Prague (Czech Republic), Tokyo (Japan), Seoul (Korea), Los Angeles (USA) and New York (USA).

“Enscape has seen a period of extraordinary growth, outpacing an already fast-growing market. We are

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thrilled to join forces with Chaos as we seek to further our scale, recognizing that our companies are highly complementary and share an end-to-end product vision. With the support of LEA and TA, we will significantly increase our investment in growth, technology and people,” said Christian Lang.

“Visualization is critical to creating the future—both in the real world and the metaverse,” said Peter Mitev. “We are excited to team up with Enscape, TA, and LEA Partners to bring forth the world’s best 3D visualization ecosystem.”

“Since our initial investment, we have worked closely with the Enscape management team to grow the company into a leading provider for the AEC industry, and this is only the beginning,” said Christian Roth, Managing Partner at LEA Partners. “We find that bringing together Enscape and Chaos offers a unique opportunity to build a tech powerhouse to lead the way in AEC and beyond.”

“We have been impressed by the growth, high-quality product offerings and loyal customer base of both Chaos and Enscape. Together, we believe the company can build on its strong momentum to create a global leader in the 3D visualization and design workflow space. In partnership with LEA, we are excited to invest in the company’s future by deepening product capabilities and growing the breadth of offerings and geography,” said Stefan Dandl, Principal at TA.

The transaction is subject to customary regulatory approvals and is expected to be completed during the first quarter of 2022. Financial terms of the transaction were not disclosed.

## ***EMA Design Automation Expands Operations in Central Europe***

11 January 2022

EMA Design Automation®, a full-service provider and innovator of Electronic Design Automation (EDA) systems solutions, announced it is expanding its global reach with the merger of EMA and FlowCAD, the leading EDA solutions provider in Central Europe for over 18 years. This announcement marks EMA's fourth such expansion in 18 months bringing EMA closer to their vision of providing cutting-edge technology, unparalleled service, and expert support to the entire worldwide EDA market.

“We are very excited to join forces with FlowCAD,” said Manny Marcano, President and CEO of EMA Design Automation. “As our customers continue to globalize, we must be able to meet them where they are across the world. Our partnership with FlowCAD gives us the unique ability to deliver localized services and support to our customers at the scale they need.”

FlowCAD has served as the Cadence channel partner for Central Europe since 2003. The combined strength of both EMA and FlowCAD enables both companies to support the needs of sophisticated, multi-disciplined, and multi-national design teams.

“This partnership is a natural fit for both companies,” said Dirk Mueller, CEO FlowCAD. “Both EMA and FlowCAD have built their businesses and reputations on world-class customer service and support. With our combined resources we will be able to provide customers a level of service that cannot be matched in the industry.”

## ***Fintech Leader Builders Capital Brings Innovative Software Platform To Borrowers Through BIMQuote Acquisition***

7 January 2022

Builders Capital, the nation’s leading non-bank residential construction lender, announced the acquisition of BIMQuote and Customhome.ai this week. These two technology platforms are complementary additions to the Builders Capital product suite, enabling the company’s builder-

# CIMdata PLM Industry Summary

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borrowers to operate more competitively, efficiently, and profitably in their business. Customhome.ai allows for the customization of a 3D digital model of a home and immediately generates a material takeoff as well as site-specific residential designs. While BIMQuote.com offers a full project management and procurement suite, with integrated accounting and automated contracting tools such as lien waivers.

“This acquisition will level the playing field and allow Builders Capital customers to regain market share lost to the public builders over the course of the last decade,” says Robert Trent, chief executive officer of Builders Capital. “This technology represents a suite of tools that will dramatically increase our borrowers’ efficiency and pricing power. We have invested in this technology to continue to deliver on our mission of being the Builders Most Valuable Relationship.”

The new platform gives small to medium-sized homebuilders access to the types of software and buying power that production builders are accustomed to. Builders can customize any feature within a home design and then create an immediate quote of what materials are needed. This will allow builders to work around supply chain issues, navigate fluctuating material costs, and streamline efforts that would otherwise add to the cost of doing business. Later this year, Builders Capital will launch a procurement feature, giving its borrowers the benefit of the massive buying power that Builders Capital brings with nearly ten thousand properties within its portfolio, a number that grows daily.

“Now regional builders can have the design and operational tools, financial products, and very soon the purchasing power of the large public builders,” says Travis Dodge, the founder of BIMQuote and Customhome.ai and the new chief technology officer at Builders Capital. “In this supply chain environment, the sooner you know what you need and when you need it, the better. This innovative technology is going to provide the opportunity to connect with builders at the earliest point in the project. The sooner a borrower connects with Builders Capital, the more strategic design, procurement, and cost savings we can provide to them.”

Builders and borrowers can immediately access the technology at BIMQuote and Customhome.ai. Builders Capital representatives will also be available at the 2022 International Builders Show in Orlando, Fla., February 8<sup>th</sup>-10<sup>th</sup> to walk borrowers through the new technology experience.

## ***HCL Technologies Acquires Hungarian Data Engineering Services Company Starschema***

14 January 2022

HCL Technologies (HCL), a leading global technology company, signed a definitive agreement for the acquisition of Starschema, a leading provider of data engineering services, based in Budapest, Hungary. The strategic acquisition will bolster HCL’s capability in digital engineering -- driven by data engineering -- and increase its presence in Central and Eastern Europe.

Starschema provides consulting, technology and managed services in data engineering to Global 2000 companies in the U.S. and Europe.

The acquisition combines Starschema’s high-value capabilities and data-focused expertise with HCL’s existing presence in industry segments undergoing data-driven transformation. In addition, HCL will strengthen its position in data engineering, which is an integral part of the company’s digital engineering capabilities and next-generation offerings.

“Joining HCL will enable us to keep our strategic focus and expand our data engineering capacity to provide a greater breadth and depth of services to clients,” said Tamas Foldi, Founder and CEO, Starschema. “As part of HCL’s full spectrum of technology services, we will leverage our expertise in

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data engineering and emerging data technologies to solve companies' data challenges, through building fast, scalable solutions that make people more effective and companies more profitable. This strategic move also represents exemplary career growth opportunities for our people.”

“Starschema will strengthen our data engineering capabilities, providing us with the ability to leverage its solutions and talent in Central and Eastern Europe,” said Vijay Guntur, President, Engineering and R&D Services, HCL Technologies. “Starschema’s capabilities will further scale HCL’s data engineering competencies at our integrated delivery centers across the world. Engineering talent will continue to remain in high demand, and Starschema offers a specialized talent pool in a strategic growth area for HCL. Following the acquisition, HCL will be able to offer data engineering consulting and near-shore access to digital engineering services to a wide base of clients.”

The transaction is subject to regulatory clearance from the Hungarian Ministry of Innovation and Technology and is expected to close in March 2022.

## ***Hexagon strengthens its life-of-mine solutions portfolio with the acquisition of Minnovare***

10 January 2022

Hexagon AB, a global leader in digital reality solutions, combining sensor, software and autonomous technologies, announced the acquisition of Minnovare, a leading provider of drilling technology that improves the speed, cost and accuracy of underground drilling.

As surface ore deposits are exploited, mines are increasingly pushing deeper underground for minerals and metals. Minnovare specialises in eliminating the manual, labor intensive, and unproductive processes in underground mining that lead to blast-hole deviation, dilution and downtime. Its advanced hardware and data-capture software combine to deliver drill-data faster and more accurately than ever before—improving the efficiency, productivity and overall profitability of underground drilling operations. Its solution combines sensors, software and data analytics to address deficiencies in existing drilling processes across the resource definition, development and production phases.

“The integration of Minnovare’s innovative mining solutions with our strong, core technical competence is a strategic fit. It will prove invaluable for customers striving to improve the speed, cost and accuracy of underground drilling,” said Hexagon President and CEO, **Ola Rollén**. “Today’s acquisition strengthens our formidable drill and blast portfolio and accelerates our underground development roadmap. We also see opportunities for international expansion of Minnovare’s portfolio throughout Hexagon’s global footprint.”

Founded in Perth, Western Australia in 2012, Minnovare has established a proven track record, with more than 150 contracted systems in over 90 mining operations worldwide, sold as a recurring revenue package. Minnovare will operate as part of Hexagon’s Mining division. The acquisition has no significant impact on Hexagon’s earnings and closed in early 2022.

## ***IBM Acquires Envizi to Help Organizations Accelerate Sustainability Initiatives and Achieve Environmental Goals***

11 January 2022

IBM announced it has acquired Envizi, a leading data and analytics software provider for environmental performance management. This acquisition builds on IBM's growing investments in AI-powered software, including IBM Maximo asset management solutions, IBM Sterling supply chain solutions and

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IBM Environmental Intelligence Suite, to help organizations create more resilient and sustainable operations and supply chains. This acquisition closed on January 11, 2022. Financial details were not disclosed.

Companies are under mounting pressure from regulators, investors, and consumers to progress toward more sustainable and socially responsible business operations – and to demonstrate these measures in a robust and verifiable way. However, the various types of data companies need to understand and report on sustainability initiatives remains highly fragmented and difficult for all relevant parties to access.

Envizi's software automates the collection and consolidation of more than 500 data types and supports major sustainability reporting frameworks. Its user-friendly and easily customized dashboards enable companies to analyze, manage and report on environmental goals, identify efficiency opportunities and assess sustainability risk. Envizi's solutions help streamline the management of these tasks as part of broader Environmental, Social and Governance (ESG) reporting initiatives, while also providing users with valuable sustainability insights to inform business strategy.

By using Envizi with IBM's broader AI-powered software, companies will now be able to automate the feedback generated between their corporate environmental initiatives and the operational endpoints being used in daily business operations – a crucial step in making sustainability efforts more scalable. For instance, Envizi will integrate with:

- IBM Maximo asset management solutions, which help companies extend the life of their critical assets, reduce environmental impact by providing intelligent asset management, monitoring, predictive maintenance and reliability in a single platform.
- IBM Sterling supply chain solutions, which help companies gain supply chain visibility, cut waste by right-sizing inventory, reduce the carbon footprint of shipment and logistics, and ensure responsible sourcing with blockchain-based technology for traceability.
- IBM Environmental Intelligence Suite (EIS), which helps companies increase resiliency by assessing and planning for the impact of environmental conditions on their operations, assets, and supply chains. EIS uses advanced AI and weather technology from IBM.
- IBM Turbonomic and Red Hat OpenShift capabilities, which help companies automate decision making when considering where to run enterprise workloads based on optimization of performance, cost and GHG emissions.

Envizi will also help expand IBM Consulting's growing sustainability practice, which is designed to help clients accelerate progress toward their sustainability commitments.

"To drive real progress toward sustainability, companies need the ability to transform data into predictive insights that help them make more intelligent, actionable decisions every day," said Kareem Yusuf, PhD, General Manager, IBM AI Applications. "Envizi's software provides companies with a single source of truth for analyzing and understanding emissions data across the full landscape of their business operations and dramatically accelerates IBM's growing arsenal of AI technologies for helping businesses create more sustainable operations and supply chains."

Available as a SaaS solution and running in multi-cloud environments, Envizi serves leading brands such as Microsoft, Qantas, CBRE, Uber, abrdn and Celestica, and its software can be applied to activities across a variety of industries.

"As a leader and innovator in AI for business, IBM has decades of experience helping organizations around the world harness the power of their data and act on it," said David Solsky, CEO and Co-Founder, Envizi. "IBM's global reach, depth of resources and breadth of expertise will help us to scale at

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an unprecedented pace. As part of IBM, we feel more confident than ever that we can achieve our goal of providing clients and partners with the world class tools they need to reduce their operational impacts and optimize for the low carbon future."

Beyond its ongoing investments in providing clients the most comprehensive AI software to help them accelerate their sustainability initiatives and support their environmental goals, IBM is also using its software to improve its own operational efficiencies, manage energy consumption and drive GHG emissions reduction. These activities support IBM's commitment to reach net zero GHG emissions by 2030.

## ***Nemetschek Group Expands Leading Position in Massive and Strongly Growing 3D Animation Industry with Maxon's Acquisition of Pixologic***

12 January 2022

The Nemetschek Group announced that its brand Maxon, a leading developer of professional 3D software solutions, has successfully closed the acquisition of Pixologic Inc., Los Angeles, USA. Pixologic are the creators of the Academy Award-winning sculpting and painting software ZBrush. The ZBrush team brings decades of 3D industry expertise to the Maxon organization and also enables Maxon to play an important role in the huge, rapidly growing gaming industry.

ZBrush is used by respected film studios, game developers, designers, advertisers, and illustrators around the world. The industry's top creatives have employed ZBrush for a number of notable movies, such as Dune, Star Wars, Avatar, Game of Thrones and many more. Pixologic is a fast-growing and highly profitable company with an operating margin above the Nemetschek Group average.

After the successful integrations of Redshift and Red Giant, this acquisition is a perfect and logical strategic move that substantially completes Maxon's product line with 3D sculpting and painting expertise. It also firmly positions the company as an industry leader for providing superior creative tools to digital artists to the dynamically growing, €16 billion 3D animation market.

"With this step, we are amplifying the innovative and creative possibilities of our customers," stated David McGavran, CEO of Maxon. "By combining our world-class tools and people, we hope to delight creative artists with an ever-expanding and powerful toolset for their needs. With our enhanced portfolio, we aim to revolutionize the industry while also playing a crucial role in the huge emerging Metaverse market."

"We are excited to start working with the Maxon team," said Ofer Alon, Founder and Visionary of Pixologic. "Our synergies are undeniable – both companies share a great tradition of outstanding products, innovation, and a passion to serve the creative community."

"This is a big step forward for the Nemetschek Group as we are significantly expanding our leadership in 3D software solutions for artists and creative minds. The acquisition is a perfect match, which comes at the right time for us to take advantage of heightened market opportunities in our media segment," said Dr Axel Kaufmann, CFO and spokesman of the Nemetschek Group.

## ***SPARK Business Works Completes Acquisition of Digital Marketing Firm Convergent1***

4 January 2022

SPARK Business Works has acquired Convergent1, a Houston, TX based marketing agency that specializes in providing full-service digital marketing services for high-growth companies in

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construction, oil and gas, manufacturing, and professional services.

Convergent1 has distinguished itself by helping their customers transition to digital marketing with strategic technical services like SEO and paid digital media, delivering customized results through an innovative marketing action planning system.

“Convergent1 presents a great opportunity for SPARK to integrate their service offerings with our existing clients who need help with digital marketing,” said Robert Armbrister, CEO of SPARK Business Works. “We also gain even more momentum in Texas where we have existing clients and have seen growing demand driven by digitization in construction and the need for custom software capabilities in other industrial markets.”

SPARK Business Works is a software development firm specializing in custom data integration, apps, dashboards, and workflow tools. SPARK enables clients to translate complex business requirements into effective, user-friendly solutions by providing a business-first approach to designing and building software.

Convergent1's clients will be able to leverage SPARK's capabilities for mobile data collection, automated back office workflows, and custom reporting. “Savvy organizations know that operational efficiency is vital as the demand on manufacturing, distribution, and logistics increases,” said Ben Scardello, President of Convergent1.

The synergy between the services offered by SPARK and Convergent1 will enable a seamless, custom integration for their clients' core business data flow—connecting marketing and sales data with operations, logistics, customer service, or any other function that needs automated based on their unique needs.

“Our team has deep experience with updating legacy systems and connecting data from different workflows to ensure high adoption by a firm's end users,” said Armbrister. “We've invested heavily in user experience design, APIs, business intelligence, digital compliance, and many areas of software that companies in traditional industries don't have in-house experts for.”

## ***Tango Acquires AgilQuest: Combination Creates a Paradigm Shift in Hybrid Workplace Solutions***

12 January 2022

Tango, a leading provider of cloud-based store lifecycle management and integrated workplace management software, announced it has acquired AgilQuest, the leader in flexible and hybrid workplace scheduling. The transaction further extends Tango's position as the global leader in the real estate and facilities management space.

The acquisition brings together the leader in workplace management solutions with the leader in employee engagement and productivity—uniting the Workplace with People—to address the new requirements of hybrid work. The combined business will serve over 300 customers in more than 140 countries. Tango announced in December that it had secured an equity investment from Berkshire Partners to extend the company's leadership position in the market and accelerate both U.S. and international growth.

As the pandemic has shifted how and where people work, companies are seeking agile solutions to help them address the new challenges a hybrid or flexible work environment presents. Organizations need to create safe workplaces that support employee productivity and engagement. They also need to understand and respond to changing space requirements and be prepared for the office of the future.

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“Optimizing the people to space equation in a rapidly changing environment is the new imperative for all companies operating in a hybrid workplace”, said Pranav Tyagi, Tango’s President & Chief Executive Officer. “Doing so improves employee productivity, satisfaction, and retention while delivering bottom-line results through higher space utilization and lower occupancy costs. AgilQuest’s complementary solution provides a strategic extension of Tango’s reservations and resource scheduling capabilities, and collectively delivers an unmatched solution needed by companies of all sizes to address the requirements of a flexible work environment. We are delighted to welcome AgilQuest to the Tango family.”

“We are thrilled to be joining one of the most respected and innovative workplace technology leaders in the industry,” said John Vivadelli, President & Chief Executive Officer of AgilQuest. “Tango and AgilQuest share a common DNA. We’ve both focused on developing solutions that offer the greatest depth and breadth of capabilities in their respective categories, have cultivated highly experienced teams, and have proven, scalable solutions each with a track record of customer commitment. Our customers will benefit from the true end-to-end solution that Tango offers.”

The new company will maintain offices in Dallas, Texas and Richmond, Virginia. Ropes & Gray LLP served as legal advisor to Tango on the transaction. Vaquero Capital served as exclusive financial advisor to AgilQuest in connection with the transaction.

## Company News

### ***Accenture Expands Apprenticeship Hiring to 20% of US Entry-Level Roles***

13 January 2022

Accenture announced that it is expanding its apprenticeship program in the United States to give more people access to digital economy jobs and further advance its equitable approach to hiring, which focuses on skills, experiences and potential.

The company has set a goal to fill 20% of its entry-level roles from its apprenticeship program for its fiscal year 2022, ending Aug. 31 – an increase from 15% in the prior fiscal year. Accenture apprentices receive paid training as they prepare for roles in areas including application development, cybersecurity, data engineering, cloud and platform engineering. These roles are among the nearly half of Accenture entry-level positions in the US that are open to individuals who do not have a four-year college degree.

Since establishing the apprenticeship program in 2016, Accenture has hired more than 1,200 apprentices. The vast majority — 960 people, or 80% — joined the company without a four-year college degree.

“We believe that one solution to breaking down the digital divide is to give more people access to the jobs of the future — digital jobs — and the paid training they need to be successful,” said Jimmy Etheredge, Accenture’s CEO of North America. “We are proud to welcome these remarkable individuals, many from backgrounds not typically seen in technology, who have joined Accenture to serve our clients. It’s clear that a person’s educational credentials are not the only indicators of success, and we are committed to evaluating candidates based on their skills, experiences and potential.”

Accenture’s apprenticeship program is a learn-and-earn model—typically 12 months long—that provides apprentices with market-based wages and comprehensive benefits while building cutting-edge skills needed for a successful career. An overwhelming majority of apprentices who complete the program stay on with Accenture after graduating from it, with continuing opportunities for long-term career growth.

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Accenture launched its apprenticeship program in Chicago in 2016 in collaboration with City Colleges of Chicago and has since expanded it to more than 35 cities in the US. Skilling partners that recruit apprentices include community colleges, tech academies and nonprofits, such as NPower and Year Up.

## ***iBASEt Names Leading SaaS CIO Strategist Ashwin Rangan to Advisory Board***

11 January 2022

iBASEt, the company that simplifies how complex products are built and maintained, announced Ashwin Rangan has joined its Advisory Board as a strategist in the advancement of secure SaaS delivery models for manufacturing industries. Rangan's leadership in high-growth Cloud and SaaS product companies will bring a depth of expertise to help the company profitably scale its SaaS growth. See the company's prior announcement on the formation of this board, [iBASEt Creates Advisory Board to Drive Innovation and Growth](#).

As Senior Vice President of Engineering and Chief Information Officer of ICANN, Ashwin Rangan brings over 20 years of IT leadership experience while serving in progressively senior roles. Widely recognized as a visionary leader and strategist, Ashwin will draw upon his executive leadership, industry, and CIO experience gained while at Rockwell International, Conexant, Walmart, and Edwards Lifesciences to help provide strategic insights for successful accelerated growth at iBASEt.

"We are thrilled to welcome Ashwin to iBASEt's Advisory Board at this pivotal stage of our history," said Naveen Poonian, CEO of iBASEt. "Ashwin is a visionary who brings more than two decades of experience in guiding IT solution selection and innovative delivery models for some of the world's biggest brands. His leadership, management, and strategic vision will be pivotal as we securely accelerate our market expansion."

## ***JDC GROUP IS NOW AN SAP SILVER PARTNER***

13 January 2022

JDC Group, a Consulting Solutions company, announced today that it has achieved SAP silver partner status in the SAP® PartnerEdge® program. This is a clear indication of the high level of quality that JDC Group provides to businesses using SAP solutions.

"Our SAP silver partner status amplifies our collaborative relationship with SAP, enabling us to deliver even greater value and performance," said Greg Beyer, president of JDC Group's SAP Strategic Consulting and Advisory Solutions group. "The recognition further validates our market leadership and supports our proven track record of success in delivering SAP solutions, from strategy through implementation, to our clients across a range of industries."

JDC Group achieved SAP silver partner status as a result of positive customer references, unique offerings for SAP solutions, and an ongoing commitment to providing highly experienced consultants, many with SAP certifications. Customers benefit by having even greater confidence in JDC Group as a qualified, knowledgeable, and experienced partner for driving successful SAP programs.

Earlier this year, JDC Group announced the deepening of its SAP service offerings with the creation of its SAP Strategic Consulting and Advisory Solutions group, which provides extensive consulting and strategic advisory solutions and services to help companies plan, build, and deploy SAP migration and implementation projects. The group is comprised of former SAP employees and leaders who bring an unparalleled level of technology and business expertise to optimize customers' investments in SAP technology.

## ***Kate Bishop Appointed Chief Human Resources Officer At IFS***

10 January 2022

IFS, the global cloud enterprise software company, announces the appointment of Kate Bishop as Chief Human Resources Officer. In her role, Bishop will ensure that all aspects of IFS's HR strategy are future-focused and support the company's growth plans. Bishop joins the IFS Executive Leadership Team in a period of strong organic and inorganic growth and will continue to drive alignment of the HR function to the global business strategy.

As well as focusing on all aspects of the employee lifecycle and shaping the company's vision for diversity and inclusion, Bishop will steer the people strategy to support Merger and Acquisition activities and ensure that IFS continues to deliver amazing Moments of Service™ to its current and future employees and, ultimately, to customers.

IFS has created momentum as an employer of choice, earning multiple Employer of the Year accolades over the years and earning strong ratings on the employee advocacy portal Glassdoor; combined with its twice-yearly employee Heartbeat survey, this evidences IFS's ongoing commitment to employee engagement, a key strategic goal and metric.

Commenting on the appointment, Darren Roos, CEO at IFS, said: "I'm excited to have Kate join us as we continue to grow and evolve IFS. Her experience will be invaluable as we continue to assert ourselves as the leader in asset and service centric software and the war for talent intensifies."

Kate Bishop, Chief Human Resources Officer at IFS, added: "IFS has been through an amazing journey over the last three and half years; what has been achieved is inspirational. It also means there is an opportunity for us to keep building on how IFS team members can contribute to and influence the culture. Together, we can raise this bar even further and make IFS the company everyone wants to join and stay with to grow, learn and further their careers. This goes beyond job roles and salaries and is about listening to our people, encouraging a growth mindset and showing the IFS will invest to help people grow and thrive."

Bishop joins from global wealth management platform FNZ where she was Group CHRO, HR and Marketing, during a period of significant change and high growth. During her tenure, the company successfully managed organic and inorganic expansion and grew the global employee base by over 150%. Bishop also previously held senior HR leadership roles at Pearson and Dell.

## ***LTI Partners with Securonix & Snowflake to Strengthen Cybersecurity Offerings***

11 January 2022

Larsen & Toubro Infotech, a global technology consulting and digital solutions company has partnered with Securonix, a leader in next-gen Security Information and Event Management (SIEM) company, and Snowflake, a leader in secure cloud workload to strengthen its cybersecurity offerings.

The partnership will power LTI's Active eXtended Detection & Response platform (Active XDR) for early detection of internal and external threats, contextualizing and combating threats with advanced intelligence-led hunting operations, and automating incident response time. LTI Active XDR uses a secluded data lake to secure billions of sensitive alerts and records.

Sanjay Jalona, CEO & Managing Director, LTI said, "Guarding against cyber threats has become a top priority for every enterprise. LTI Active XDR, backed by the latest technologies from Securonix and Snowflake will strengthen our ability to combat ever-growing threats, responding to increasing ransomware attacks and phishing campaigns on critical infrastructure, large enterprises, and federal

sector.”

Sachin Nayyar, CEO, Securonix, said, ‘Bring your own Snowflake’ is an ideal managed service program, significantly reducing the costs and complexity of scaling advanced threat detection and response services across multiple customer environments. We look forward to bringing additional solutions to market with LTI that more effectively secure today’s cloud and complex enterprise environment.”

Christian Kleinerman, SVP of Product at Snowflake, said, “Chief Information Security Officers (CISO) are looking for alignment with the CIO to gain richer insights, improve scalability and drive savings. LTI is a strategic partner for Snowflake that has been recognized for its innovation and ability to help customers migrate from legacy solutions. We look forward to extending our partnership into cybersecurity together with industry-leader Securonix and its cloud-native ‘Bring your own Snowflake’ SIEM solution.”

LTI’s approach to cybersecurity is based on ensuring business continuity, brand equity and external compliance management. Equipped with the state-of-the art Cyber Defence Resiliency Centres (CDRCs), a centre-of-excellence (CoE) for cyber security, LTI is responding to the need of the hour and scaling its advanced cyber security managed services to its enterprise customers across the globe.

## ***Project 7 and Touchplan Form Collaboration to address Imbalance in Construction Productivity***

13 January 2022

Project7, a leading Lean transformation & leadership consultancy, and Touchplan, an award-winning collaborative construction planning software, announced a partnership to work together to collaboratively challenge the performance culture within the construction industry and address the imbalance in construction productivity.

Construction teams rarely reach the pinnacles of high performance, and comparing construction job sites to well-drilled, progressive, and flowing manufacturing production lines, we all recognize the work the industry has in front of it. Addressing the imbalance of productivity requires unique innovation and experienced voices. With Touchplan and Project7 combined, the two can provide a holistic software and professional service solution to Infrastructure clients globally.

“Our whole purpose at Project7 is to get ordinary **people** operating to robust **processes** and delivering extraordinary **performance**, and by partnering with Touchplan, we are uniquely positioned to embed this mindset within the Infrastructure market,” said Dan Shakespeare, Infrastructure Market Lead at Project7. “We are in a privileged position to be the custodians of Lean in the 21st Century and must work tirelessly to ensure that Lean principles play their part in the transformation of the construction industry, and by working closely with Touchplan, we can carry out that duty and responsibility”.

According to the book Flatlined by Mark C. Deluzio, **98% of ‘Lean Transformations’ either fail** or do not achieve the desired results. The partnership between Touchplan and Project7 will help organizations bridge the productivity gap and embrace digital technology to enhance performance. The Touchplan/Project 7 collaboration can protect their investment through robust implementation and application of the underpinning principles of Lean, coupled with our vast experience in implementing methodologies like The Last Planner System, Takt Planning [Line Balance], and Performance Management Systems.

We are excited to connect our clients with Touchplan’s performance insights and inspire Leaders and Site Teams to use this data to collaborate, challenge one another and create improvements to drive

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greater productivity and marginal performance gains.

“Working with consulting firms like Project 7 is an exciting proposition,” said Jimmy Suppelsa, Chief Revenue Officer for Touchplan. “We have a tool based on a process that is proven to improve project performance, and they have the roadmap to help teams implement technology and processes. It’s a win-win-win for us, Project7, and our mutual clients.”

## ***Revolution in Simulation Welcomes SimScale as its Newest Sponsor***

12 January 2022

The global simulation industry collaboration and technology alliance *Revolution in Simulation*, created to accelerate innovation through the democratization of engineering simulation, announces SimScale as its newest participating sponsor and collaborator.

SimScale is making engineering simulation technically and economically accessible from everywhere, at any time, and at any scale through a cloud-native approach. The platform handles structural, thermal, and fluid flow analysis with high-fidelity and has enabled over 300,000 engineers worldwide to adopt simulation.

Simscale adds its name to a steadily increasing list of participating sponsors that now includes Aras, ASSESS, BETA CAE, Cadence, Dassault SolidWorks, EASA, EnginSoft, ESRD, Front End Analytics, Future Facilities, Hexagon/MSC, Kinetic Vision, Maya HTT, Modelon, NAFEMS, nTopology, Ohio Supercomputer Center, OnScale, PASS Suite, Phoenix Integration, PTC, Siemens, UberCloud and VCollab.

Each of these simulation leaders are providing expert leadership in the movement to make engineering simulation software more accessible, efficient, reliable, and impactful not just for CAE experts but also for others across the enterprise – what is commonly referred to as the *Democratization of Simulation*. The demand for automated simulation is exploding, resulting in next-generation usage of traditional, expert-driven simulation tools and platforms.

“Broad access to simulation: it’s a matter of competitive edge for engineering teams,” says Valerio Marra, VP of Marketing at SimScale. “With SimScale we made the wide adoption of simulation a reality: accurate, fast, and collaborative CAE tools are available through an inclusive, agile, cloud-native engineering simulation platform. We’re thrilled to contribute to the Rev-Sim initiative to further our shared vision of making simulation accessible at every design stage, throughout the entire R&D cycle, and across an entire organization”, concludes Marra.

Rev-Sim Director of Partnerships, Mike Nieburg said, “Each of our sponsors are working to advance and expand the use and value of engineering simulation software by innovating within their market spaces. We are excited to have Simscale join us demonstrating their revolutionary thought-leadership and technology in a collaborative alliance that benefits all industrial users of engineering simulation.”

## ***TCS Positioned as a Leader in Advanced Analytics and Insights Services by Everest Group***

14 January 2022

Tata Consultancy Services (TCS) has been recognized as a Leader, in the Everest Group PEAK Matrix® for Advanced Analytics and Insights (AA&I) Services.

According to the report, TCS has one of the strongest product strategies among its peers, and has worked extensively in creating a wide portfolio of offerings across horizontals and verticals. The report

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also highlights TCS' strong execution capabilities across the AA&I value chain; it takes an agile, cloud-based, AI, and automation-infused delivery approach through its set of solutions to contextualize solutions and engagement models to client's analytics maturity, industry-specific requirements, and investment appetite.

Key strengths cited in the report include its ability to bring relevant insights to the discussion table and customize its analytics frameworks to address different industry requirements.

*"TCS is working with leading companies to navigate the next normal using a new generation of advanced analytics-based solutions. We are empowering our clients to develop new products and services and turn their ecosystem-wide data into value to provide superior customer experiences,"* said **Dinanath Kholkar, Global Head, Analytics and Insights, TCS**. *"Our leadership position in the report is a recognition of our strategy, deep industry knowledge, good delivery capabilities and customer-centricity."*

TCS helps customers build holistic strategies encompassing people, process, technology, and data to mature their data and analytics portfolio. TCS Datom™ is an advisory framework to develop the right data, analytics and AI strategy aligned to the customer's business goals. TCS Daezmo™ is a data and analytics estate modernization solution framework to modernize the data and analytics estate across decision operations covering EngineeringOps, DataOps and AIOps.

TCS launched a comprehensive portfolio of business service offerings in a Service-as-a-Product model based on the TCS Decision Fabric™ framework, to help customers solve specific business problems and deliver superior customer experience. These include:

- **TCS Workforce Analytics:** An AI-based unified system of engagement, insights and foresight for employees, managers and CXOs, designed to enhance productivity and workforce experience.
- **TCS Risk, Regulatory and Compliance solutions:** Provide a contextual end-to-end solution framework to navigate reputational, financial, and operational risks by leveraging ecosystem data and cutting-edge analytics.
- **TCS' PredictCX:** Part of TCS' digital customer analytics solution that comes with in-built product and service customizations to improve customer experience, enhance loyalty, and reduce churn rate.

TCS also offers industry-specific AI-driven offerings such as TCS Algo Retail™, TwinX™ - a digital twin simulator, Advanced Drug Delivery (ADD) platform, and Neural Manufacturing solutions to drive business transformation for customers across different industries.

*"TCS emerged as a Leader in Everest Group's Advanced Analytics and Insights Services PEAK Matrix® Assessment 2022 due to its agile delivery approach to contextualize its advanced analytics solutions and engagement models to align to the client's analytics maturity, business-specific requirements, and investment appetite,"* said **Vishal Gupta, Vice President, Everest Group**. *"It has also actively invested in strengthening its product portfolio and AA&I offerings across various industries and functions over the years."*

*"Our robust strategy, capabilities, wide range of services, investments in innovation and intellectual property, and unique consulting-led approach make us the preferred partner to customers in the new Business 4.0™ world,"* said **Dinanath Kholkar**.

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## ***Thomas Sweet Joins Trimble's Board of Directors***

13 January 2022

Trimble announced the appointment of Thomas Sweet to its Board of Directors, effective January 15, 2022.

Sweet is chief financial officer (CFO) of Dell Technologies, one of the world's leading technology companies. His career at Dell spans 24 years where he held various finance and sales leadership positions before being appointed CFO in 2014.

"Tom brings to the Trimble board decades of experience and insight into the way technology is transforming the world of data," said Rob Painter, Trimble's CEO. "He has helped Dell evolve to become one of the world's most essential technology companies, creating tremendous value for customers and other stakeholders. His expertise will be invaluable as we implement our long-term growth strategy."

"I'm looking forward to joining the board," said Sweet. "Trimble is delivering important industrial technologies that make the world work better. That's exciting, and I'm ready to be part of the team that writes the next chapter in Trimble's growth story."

Sweet also serves on the advisory boards of the McCombs School of Business at the University of Texas at Austin and the Salvation Army of Central Texas. He earned a bachelor's degree in business administration from Western Michigan University and is a Certified Public Accountant.

## ***Uptake Teams up with Cognizant to Unlock Unified Data Management for Energy & Utilities Industries***

11 January 2022

Uptake, the leader in industrial intelligence software-as-a-service, announced its collaboration with Cognizant, a leading professional services company, to enable unified data management for the energy and utilities industries. This partnership brings together Uptake Fusion, which collects, moves, organizes, and curates data in Microsoft Azure to power advanced industrial analytics and asset performance management, with the industry consulting, systems integration, and application services of Cognizant.

"Uptake Fusion raises the value of the investments industrial operators have made in their existing operational technology (OT) data and automation systems. It cost-effectively allows companies to set up data lakes, in addition to enterprise-wide asset monitoring, automated reporting, and digital twins," shared David Cox, Assistant Vice President and Consulting Lead, Energy and Utilities, Cognizant. "With Uptake Fusion, Cognizant strengthens the ability of our customers to realize the value of data intelligence sooner and at scale."

In their enterprise cloud environment, industrial companies can use Uptake Fusion to provide internal and third-party data consumers with the data needed for industrial intelligence. Users can leverage its open APIs as plug-ins with existing non-proprietary tools such as Microsoft Power BI, PowerApps, and Azure Time Series Insights for dashboards, reporting, and monitoring.

"Process companies have their personnel and technical challenges with the availability of industrial intelligence for their maintenance, reliability, financial, and operational teams," said Kayne Grau, CEO, Uptake. "Uptake's partnership with Cognizant widens and accelerates access to Industrial AI while also curating and strengthening the integrity of OT data for broad enterprise use."

Uptake Fusion connects to underlying OT systems that contain time-series data – including but not

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limited to OSIsoft PI System, Rockwell FactoryTalk, Inductive Automation Ignition, among other SCADA, historian, and IIoT sensors – to cost-effectively enable advanced analytics applications. Through secure data movement, storage orchestration, and curation with other enterprise data sets such as SAP, IBM, and Oracle, Uptake provides a rapid, scalable approach to cost-effectively unlock the pent-up demand of AI-enabled industrial intelligence.

Cognizant’s Energy & Utilities (E&U) Consulting Practice operates as a trusted advisory partner to utility and energy leaders, helping them leverage operational value from a digital world. Our business consulting professionals ensure that energy and utilities clients receive exceptional business results from their technology investments and sourcing programs.

Our domain experts leverage data to automate insights in the subsurface evaluation and oil and gas reservoir characterization and improve facets of utility operations by discovering value from data; works with clients to leverage digital technologies to integrate distributed energy resources (DER), create intelligent digital oil fields, adapting to increased customer and stakeholder demands while driving efficiency excellence to deliver on the customer promise; advances energy and utility strategies aligned with their business models, systems and operating assets in controls centers of the future ( EAM, ADMS, APM, AMI ) for grid modernization, real time monitoring well or fields AI, leak detection and prevention on pipelines, incorporation of wind and solar energy sources in our clients’ portfolios, secures rapidly evolving IT and OT systems, and provides thought leadership for AMI2.0 from strategy to deployments.

## Event News

### ***AltiumLive 2022 CONNECT Announces European Summit Dates***

13 January 2022

Altium LLC announces the European dates for AltiumLive 2022 CONNECT, the industry’s leading electronics design conference. The free three-day virtual summit will take place February 2-4, one week after the Americas event. Both conferences will feature the same dynamic educational content and will include live Q & A sessions, interactive design education seminars, and online meet & greets.

Celebrating its fifth year, AltiumLive is the biggest global virtual conference for printed circuit board (PCB) designers. The annual gathering attracts the printed circuit board (PCB) design community’s greatest and brightest, with over 30 technical sessions on five uniquely curated tracks containing valuable educational content that designers can apply regardless of the software tools they use.

“Last year, PCB designers from more than 90 countries attended AltiumLive virtually, and we’re anticipating record attendance at this year’s events,” said Ted Pawela, Chief Ecosystem Officer at Altium. “With virtual summit options for both the Americas and Europe, designers have the opportunity to learn, connect, and get inspired, no matter where they are in the world and all for free.”

AltiumLive attendees get to immerse themselves in every facet of the PCB design to the manufacturing process. This year’s educational tracks include Design Principles and Practices; Simulation, Test & Measurement; Supply Chain; Manufacturing; and Training on Altium Designer and Altium 365.

Registration for the European summit is now open, so don’t miss out on this amazing event!

### ***Zemax -Join us at Photonics West to discuss the latest photonics innovations***

10 January 2022

# CIMdata PLM Industry Summary

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Photonics West, the world's premier lasers, biomedical optics, and optoelectronics event, is right around the corner and we cannot wait to see you in person at this one of a kind event! Stop by booth 1843 to learn more about the newest Zemax product releases and get a sneak peek at what is coming later in the year.

And don't miss our OpticStudio STAR Module demonstration to learn more about the SPIE and Photonics Media Prism Award Finalist.

## **OpticStudio STAR Module Product Demonstration: From Concept to CubeSat: Design and Iterate Faster with Zemax Software**

Tuesday, 25 January 2022

1:30 PM - 2:00 PM PST

Demo Area 1 (Hall ABC)

Arriving in San Francisco early? Check out the SPIE AR | VR | MR Conference and catch Sanjay Gangadhara's presentation:

## **The Role of Simulation in Developing the Next Generation of Mixed Reality Systems**

### **SPIE AR | VR | MR Conference**

25 January, 2022

9:50AM PST

Moscone Center, Level 2 West,

AR | VR | MR Stage

San Francisco, California, United States

We hope to see you in a few weeks at Photonics West!

## Financial News

### ***Atos announces preliminary 2021 financial figures below objectives***

10 January 2022

Referring to EU regulation No. 596/2014, which provides that issuers shall inform the public as soon as possible of inside information directly relevant to them, Atos announces today that the objectives communicated to the market on July 12, 2021 will not be met due to several significant effects described herein below.

The figures in this press release, including the revenue growth at constant currency, operating margin rate and free cash flow for the year 2021, are not finalized at this stage nor audited. The detailed full year figures for 2021, including potential impairment further to the assessment of the recoverable amount of assets, will be published as planned on February 28, 2022 (after market close).

**Rodolphe Belmer**, Atos CEO, said: *“I joined the Company last week, at the time when the figures were being collected and consolidated. The current state of financial insight leads us to the obligation to issue a profit warning today due to the significant variance in the financial KPIs. However, most of the items underlying this severe gap are non-recurring. In particular, the large gap in Free Cash Flow mostly stems from working capital.*

*I am convinced that the Company has the necessary assets and all the talents to operate a swift turnaround. In this context, I will present at the end of February a new organization to the Board of Directors, and in Q2 a plan that will demonstrate the drivers of this turnaround and the focus on profitable growth and value creation.”*

# CIMdata PLM Industry Summary

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## Revenue growth

Revenue in 2021 reached c. € 10.8 billion, a decrease of c. -2.4% at constant currency.

The variance compared to the full-year objective of “stable” revenue came from:

- The unexpected reassessment of the cost to go on transformation, replatforming and operations of a financial services BPO contract, signed in 2018 for 15 years with a large UK financial institution, leading to a major revision of the completion rate on the project, at the end of December 2021, and therefore translating into a negative revenue impact in 2021. Impact on full-year revenue growth: c. 70 bps;
- Big Data/HPCs and Unified Communications & Collaboration project slippages from end of 2021 to 2022 due to supply chain challenges as well as to customer postponements in Public Sector & Defense in the Netherlands and the UK. Impact on full-year revenue growth: c. 90 bps;
- Delay to 2022 of final agreements with several large customers to get compensated for extra work performed in 2021. These amendments, expected to be signed in December, would have led to additional revenue in 2021. Impact on full-year revenue growth: 30 bps; and
- The reduced level of low margin hardware and software resale in December 2021. Impact on full-year revenue growth: c. 50 bps.

## Operating margin

Operating margin amounted to c. 4% of revenue in 2021. The variance compared to the objective of c. 6% came mostly from:

- The reduction of the revenue booked and additional costs in 2021 on the large BPO contract in the UK mentioned above. Impact on operating margin rate: c. 90 bps;

Additionally, the run phase of the BPO contract on the remaining next 12 years requires the provision of c. € 65 million for future losses under “Other Operating Income and Expenses”.

- Project slippages to 2022 due to supply chain challenges as well as to customer postponements. Impact on operating margin rate: c. 30 bps;
- Delay to 2022 of final agreements with several large customers as mentioned above to get compensated for extra work performed in 2021. Impact on operating margin rate: c. 30 bps; and
- Higher costs than anticipated in 2021 on settlements to close disputes with several customers at year-end. Impact on operating margin rate: c. 40 bps.

## Free Cash Flow

Free Cash Flow is estimated at c. €-420 million. The variance compared to the objective of positive free cash flow is mostly due to working capital and in particular to:

- € 200 million from accelerated supplier payments at the end of 2021, as a result of unforeseen pressure from critical suppliers and subcontractors in the final weeks of 2021;
- € 150 million of customer collections postponed from end of 2021 to 2022 due to the late acceptance of projects by several customers which ultimately prevented collection by year-end;
- € 60 million, of which € 30 million related to advance payments from customers and € 30 million impact from the large BPO contract in the UK mentioned herein above; and
- € 30 million from the lower level of sales of receivables.

# CIMdata PLM Industry Summary

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As a reminder, the full year Free Cash Flow figure of €-420 million also comprises the impact of the German turnaround plan for €-180 million and a reduction of advance payments from customers for €-200 million, as communicated on July 12, 2021.

The Net Debt at the end of December 2021 is expected to be at c. €-1.2 billion leading to a Net Debt on OMDA (under IFRS) ratio of c. 1.1. Taking into account the Worldline shares covering the Optional Exchange Bond, Net Debt on OMDA ratio is estimated at c. 0.8.

The objectives for 2022 will be published on February 28, 2022 at the occasion of the full-year 2021 results release.

## Appendix

	2021 Objectives	2021 Provisional figures
Revenue growth at constant currency	Stable	<b>c. -2.4%</b>
% Operating Margin to revenue	c. 6%	<b>c. 4%</b>
Free Cash Flow	Positive	<b>c. €-420 million</b>

## Conference call

The Management of Atos invites you to an international conference call, on **Monday, January 10, 2022 at 08:00 am** (CET – Paris) chaired by Rodolphe Belmer, CEO.

After the conference, a replay of the webcast will be available on atos.net, in the Investors section.

## Forthcoming events

- February 28, 2022 (After Market Close) Full Year 2021 results
- April 27, 2022 (Before Market Opening) First Quarter 2022 revenue
- May 18, 2022 Annual General Meeting
- July 27, 2022 (Before Market Opening) First semester 2022 results

## ***DXC Technology to Report Third Quarter 2022 Results on Wednesday, February 2, 2022***

12 January 2022

DXC Technology announced that it will release financial results for the third quarter of fiscal 2022 on Wednesday, February 2, 2022, at approximately 4:15 p.m. Eastern Daylight Time (EDT).

DXC Technology senior management will host a conference call and webcast on the same day at 5:00 p.m. EDT. The dial-in number for domestic callers is 888-330-2455. Callers who reside outside of the United States should dial +1-240-789-2717. The passcode for all participants is 4164760. The webcast audio and any presentation slides will be available through a link posted on DXC Technology's Investor Relations website.

# CIMdata PLM Industry Summary

A replay of the conference call will be available until February 9, 2022 at 800-770-2030 for domestic callers and at +1-647-362-9199 for international callers. The replay passcode is 4164760. A transcript of the conference call will be posted on DXC Technology's Investor Relations website.

## ***Infosys - Results for the Third Quarter ended December 31, 2021***

12 January 2022

Infosys, a global leader in next-generation digital services and consulting, delivered strong Q3 performance with sequential growth of 7.0% in a seasonally weak quarter and year-on-year growth of 21.5% in constant currency. Growth remained broad-based and deal momentum robust, with digital transformation rapidly scaling across verticals and regions. Large deal wins accelerated with TCV of \$2.53 billion in Q3. Operating margin for the quarter was healthy at 23.5%, with Free Cash Flow conversion at 92.6%. Our talent strategy continued to be a key focus area marked by efforts to further strengthen employee skilling and well-being while nurturing our workforce to fulfil client requirements.

"Our strong performance and market share gains are a testament to the enormous confidence our clients have in us to help them in their digital transformation. This stems from four years of sustained strategic focus on areas of relevance for our clients in digital and cloud, continued re-skilling of our people, and deep relationships of trust that our clients have with us. This is reflected in an upgrade in our revenue guidance to 19.5%-20.0% for FY22. We expect the healthy technology spend to continue with large enterprises progressing on their digital transformations," **said Salil Parekh, CEO and MD**. "I am immensely proud of the relentless commitment of our employees during these challenging times and grateful for their extraordinary efforts in delivering success for our clients", he added.

<b>42.6% YoY</b>	<b>21.5% YoY</b>			
CC Digital growth	7.0% QoQ CC Revenue growth	<b>23.5%</b> Operating margin	<b>13.1% YoY</b> Increase in EPS (INR terms)	<b>\$2.53 bn</b> Large deal signings

### **1. Key highlights:**

#### **For the quarter ended December 31, 2021**

- Revenues in CC terms grew by 21.5% YoY and 7.0% QoQ

- Reported revenues at \$4,250 million, growth of 20.9% YoY

- Digital revenues at 58.5% of total revenues, YoY CC growth of 42.6%

- Operating margin at 23.5%, decline of 1.9% YoY and 0.1% QoQ

- Basic EPS at \$0.18, growth of 11.2% YoY

- FCF at \$719 million, YoY decline of 6.9%; FCF conversion at 92.6% of net profit

#### **For nine months ended December 31, 2021**

- Revenues in CC terms grew by 19.3% YoY

- Reported revenues at \$12,031 million, growth of 20.9% YoY

- Digital revenues at 56.3% of total revenues, YoY CC growth of 42.1%

- Operating margin at 23.6%, decline of 1.0% YoY

- Basic EPS at \$0.52, growth of 16.1% YoY

- FCF at \$2,294 million, YoY growth of 5.5%; FCF conversion at 103.6% of net profit

# CIMdata PLM Industry Summary

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"Despite the cost escalations driven primarily by supply side challenges, we delivered another quarter of healthy margins, with improved cost optimization, continued operating leverage and a stable pricing environment," said **Nilanjan Roy, Chief Financial Officer**. "We continue to prioritize investments in talent acquisition and development and have further increased our global graduate hiring program to over 55,000 for FY22 to support our growth ambitions", he added.

## 2. Client wins & Testimonials

- Infosys accelerated Daimler's transition to sustainable mobility by transferring its High Performance Computing (HPC) workloads used to design vehicles and automated driving technologies to one of Europe's greenest data centers, Lefdal Mine Datacenter, in Norway. Infosys provided 'Green Data Center as a Service', part of Infosys Cobalt, to facilitate Daimler's journey to net zero. **Jan Brecht, Chief Information Officer, Daimler and Mercedes-Benz**, said, "A large proportion of our IT energy consumption comes from our data centers which require significant power for computing and cooling. That's why we're transforming our data centers with the support of our partner Infosys, bringing particularly the high-performance computing into one energy efficient solution at Lefdal Mine Datacenter. Not only will we benefit from natural cooling thanks to the cold weather, our operations will also be run on 100% green energy. This initiative marks another important milestone on our journey to becoming CO<sub>2</sub> neutral."
- Infosys integrated its flagship human-centric digital commerce platform, Infosys Equinox, with Packable IQ (Packable's proprietary e-commerce platform) to help strengthen Packable's ability to offer its brand partners an engaging, innovative, and agile Direct to Consumer platform (D2C): "D2C-in-a-box." **Andrew Vagenas, Chief Executive Officer, Packable**, said, "We're thrilled to partner with Infosys. This exciting partnership marks another milestone in the execution of Packable's strategy of augmenting our D2C platform ecosystem to accelerate brand partners' revenues and profitability across e-commerce channels. As we continue our journey to becoming a public company, we're diligently looking for partnerships to help bring the highest-quality services to customers, and this agreement with Infosys Equinox allows us to do just that."
- Infosys and bp agreed to develop and pilot an energy as a service (EaaS) solution, which will aim to help businesses improve the energy efficiency of infrastructure and help meet their decarbonization goals. **Sashi Mukundan, President, bp India and Senior Vice President, bp Group**, said, "At bp, we set out to provide solutions to enable cities and hard to abate industries decarbonize. Integrating advances in energy, mobility and digital technologies and services has huge potential to accelerate the progress towards a more sustainable and resilient future. By bringing together our complementary capabilities, products, and services from bp's different joint ventures in India, bp and Infosys can help each other – and our customers – achieve energy and sustainability goals faster."
- Infosys extended its strategic collaboration with Proximus, Belgium's leading digital services and communications solutions provider, to digitally transform, develop, and maintain their IT applications with leading AI and automation solutions. **Antonietta Mastroianni, Chief Digital & IT Officer, Proximus**, said, "As we continue on this journey to elevate our digital initiatives, we were looking for a partner that could understand and provide strength to our digital vision. IT services companies play an imperative role during these times of transformation. Infosys continues to be our strategic partner to drive efficiency in our IT landscape and support us in our digital transformation journey. Having shared a bond with Infosys for over 24 years, its knowledge of the existing landscape and skilled resources will help ensure the success of our

# CIMdata PLM Industry Summary

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initiative. We are happy to extend this collaboration with Infosys and are looking forward to a successful journey together."

- Infosys extended its digital innovation partnership with the Australian Open (AO) until the end of 2026. **Craig Tiley, CEO of Tennis Australia and Australian Open Tournament Director** said, "We are excited to extend our partnership with Infosys until 2026 as part of our ongoing journey of innovation. We look forward to working together to continue to change the way fans, players, coaches and audiences around the world engage with the Australian Open and our sport."
- Infosys and ATP recently launched a suite of exciting match stats and analysis tools designed to bring fans, coaches, and media closer to the action of men's professional tennis through digital innovation. **Daniele Sano, ATP Chief Business Officer**, said: "As an organisation we are constantly looking for new ways to make the experience of our sport more compelling. Tennis is incredibly data-rich, and Infosys has both technological expertise and passion for tennis to bring it to life in an intuitive way. We are excited for fans to interact with these new features and look forward to future digital innovation together with Infosys."
- Infosys and Financial Times collaborated to enhance immersive journalism. Infosys will leverage digital innovation to support the latest creative and engaging data-led storytelling experiences for FT's readers. **James Lamont, Director of Strategic Partnerships, Financial Times**, said: "Our readers expect the best from the FT, and we are experimenting with exciting digital ways to bring stories and features to a wider audience. With Infosys' help, we can use technology better and faster to deliver editorial features in more enterprising and eye-catching ways. The expertise Infosys provides to these newsroom projects will help foster a spirit of innovation and reader service that supports our mission to delight and inform the FT's audience."
- Infosys recently became the official digital innovation partner of Madison Square Garden (MSG) Sports and MSG Entertainment "Madison Square Garden welcomes millions of people each year and one of our most important priorities is finding new ways to deliver a world-class experience to each and every one of them, down to the smallest detail – this Infosys partnerships helps us do just that," said **Andrew Lustgarten, president and CEO of MSG Sports and president of MSG Entertainment**. "Infosys shares our vision for using data and analytics to improve the guest experience, and we couldn't be more excited that they are joining us in such a significant and integrated partnership."

### 3. Recognitions

- Infosys won Platinum Award at The Asset ESG Corporate Awards 2021, and won awards for Best Initiative in Diversity and Inclusion and for the Best Investor Relations Team
- Infosys recognized as a Top Employer in the 2021 India Workplace Equality Index (IWEI), won Silver for LGBT+ Inclusion
- Infosys recognized among Top 50 India's Best Workplace for Women 2021 by Great Place To Work in the large companies' category
- Infosys recognized as Exemplars of Inclusion in Working Mother & AVTAR Most Inclusive Companies Index 2021
- Infosys recognized among Top 10 Working Mother and AVTAR Best Company for Women in India in 2021
- Accredited as a Disability Confident Recruiter by the Australian Network on Disability (AND)

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for 2020-21

## ***Invitation to presentation of Addnode Group's Year-end Report January – December 2021***

12 January 2022

Addnode Group is pleased to invite investors, analysts and media to a presentation where President and CEO Johan Andersson and CFO Lotta Jarleryd will present the Year-end Report January – December 2021. After the presentation, there will be an opportunity to ask questions.

Date: Friday February 4, 2022

Time: 09:30 am CET

Link to Audiocast: <https://financialhearings.com/event/41521>

The presentation will be held in English.

The report will be published at 08:30 am CET the same day.

The full report, presentation and link to the audiocast will be available on [www.addnodegroup.com](http://www.addnodegroup.com)

## ***Invitation to presentation of Hexagon's Year-End Report on 2 February***

12 January 2022

Hexagon will release its Year-End Report for 2021 on Wednesday 2 February at approximately 08:00 CET. A combined telephone conference and live webcast concerning the report will be presented by President and CEO Ola Rollén on the same day at 10:00 CET.

Please call +46 (0) 8 566 426 51 (SWE), +44 (0) 333 300 0804 (UK), +1 631 913 1422 (US) (code: 56300347#) to participate in the telephone conference or visit [hexagon.com](http://hexagon.com) to access the webcast.

The presentation material will also be available for viewing on the Company's website on-demand.

## ***PTC to Announce Fiscal Q1'22 Results on Wednesday, January 26th, 2022***

12 January 2022

PTC will release its fiscal 2022 first quarter results on Wednesday, January 26<sup>th</sup> after the stock market closes. Senior management will host a live webcast and conference call to review the results on Wednesday, January 26<sup>th</sup> at 5pm Eastern Time. The earnings press release, accompanying earnings presentation, and financial data tables will be accessible prior to the conference call and webcast on the Investor Relations section of the Company's web site.

**What:** PTC Fiscal Q1'22 Conference Call and Webcast

**When:** Wednesday, January 26<sup>th</sup>, 2022 at 5:00pm (ET)

**Webcast** Register <https://event.on24.com/wcc/r/3577812/AE0D3D3A50965540210C3D2D6382C>  
:  
409

**Replay:** To access the replay via webcast, please visit the Investor Relations section of the Company's web site.

Please note that statements made on the conference call and webcast are as of the date of the conference call and webcast and PTC does not assume any obligation to update any statements made live or the archived call. Matters discussed may include forward-looking statements about PTC's anticipated financial results and growth, as well as about the development of products and markets, which are based

# CIMdata PLM Industry Summary

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on current plans and assumptions. Actual results in future periods may differ materially from current expectations due to a number of risks and uncertainties, including those described from time to time in reports filed by PTC with the U.S. Securities and Exchange Commission, including PTC's most recent reports on Form 10-K and 10-Q.

## ***Rockwell Automation to Report First Quarter Fiscal 2022 Results***

13 January 2022

Rockwell Automation, Inc. is scheduled to report its first quarter fiscal 2022 results on Thursday, Jan. 27, before the market opens. The release will be posted on the Rockwell Automation Investor Relations website.

A conference call to discuss the quarterly results will be held at 7:30 a.m. CST on Jan. 27. This call will be audio webcast and accessible on the Rockwell Automation website. Presentation materials will also be available on the website prior to the call.

Interested parties can access the conference call by dialing the following numbers: +1 (888) 330-2022 in the U.S. and Canada; +1 (646) 960-0690 for other countries. Use the following passcode: 5499533. Please dial in 10 minutes prior to the start of the call.

Both the presentation materials and a replay of the call will be available on the Investor Relations section of the Rockwell Automation website through Feb. 28.

## ***Stellar Q3 Helps TCS Hit \$25 Bn in Annual Revenue***

12 January 2022

Tata Consultancy Services reported its consolidated financial results according to Ind AS and IFRS, for the quarter ending December 31, 2021.

### **Highlights of the Quarter Ended December 31, 2021**

- Revenue at **\$6.524 billion**, +14.4% YoY; +15.4% CC YoY
- Industry-Leading Operating Margin at **25%**; -1.6% YoY
- Net Income at **\$1.303 billion**, +10.5% YoY | Net Margin at **20%**
- Strong Client Addition: **10** New \$100Mn+ Clients (total: **58**); **21** new \$50Mn+ clients (total: **118**)
- Net Cash from Operations at **111.1%** of Net Income
- Net headcount addition of **28,238** | Workforce strength: **556,986**
- Diverse and Inclusive: Women Employees Exceed **200,000**; +68% growth in number of senior women executives during 2016-21 | **156** Nationalities in the workforce
- Building a G&T workforce: **100K+** market relevant skills gained in Q3 | **38K+** Contextual Masters identified
- LTM IT Services attrition rate at **15.3%**; lowest in the industry
- Board recommends a buyback of shares to the tune of **₹18,000 Cr** at **₹4,500** per share
- Dividend per share: ₹7.00 | Record date **20/01/2022** | Payment date **07/02/2022**

**Rajesh Gopinathan, Chief Executive Officer and Managing Director**, said: *“Our continued growth momentum is a validation of our collaborative, inside-out approach to our customers’ business transformation needs. Customers love our engagement model, our end-to-end capability, and our can-*

# CIMdata PLM Industry Summary

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*do approach to problem solving. While mapping out their innovation and growth journeys, we are also helping them execute new-age operating model transformations to support those journeys.”*

**N Ganapathy Subramaniam, Chief Operating Officer & Executive Director,** said: *“We continued our focus on growing organically and on developing the talent, methodologies, and toolkits for an ever-evolving technology landscape. This, coupled with our contextual knowledge and the passion and commitment of thousands of TCSers enabled us to deliver cutting-edge solutions during the quarter, and help our clients realize speed to value. We are also delighted to cross another important milestone in our journey, hitting the \$25 billion revenue mark in CY 2021.”*

**Samir Seksaria, Chief Financial Officer,** said: *“Our sustained investment in our talent has helped us power strong growth despite a challenging supply environment. We remain focused on long term talent development as well as on tactical measures to mitigate the talent churn. We have exercised various operating levers in Q3 to mitigate the higher costs and manage our employee expense.”*

## **Q3 Segment Highlights\*\***

**Industries:** All verticals grew in the mid to high teens. Growth was led by Retail and CPG (**20.4%**), BFSI (**+17.9%**) and the Manufacturing vertical (**+18.3%**). Technology & Services grew **+17.7%**, Life Sciences and Healthcare grew **+16.3%** and Communications & Media grew **+14.4%**.

**Markets:** Among major markets, growth was led by North America (**+18%**) and Continental Europe (**+17.5%**) while UK grew **+12.7%**. Among emerging markets, growth was led by Latin America (**+21.1%**) and India (**+15.2%**), followed by Middle East & Africa (**+6.9%**) and Asia Pacific (**+4.3%**).

**Services:** Q3 witnessed a clear trend of enterprises investing confidently in technology initiatives for longer term growth. There was broad-based growth across all services, led by Cloud, Cyber Security, Consulting & Services Integration and IoT & Digital Engineering.

- **Consulting & Services Integration:** C&SI continues focus on growth & transformation initiatives for clients with proactive propositions combining TCS contextual knowledge, technology & domain expertise integrating multiple services across our practices. Cloud Strategy & Transformation, Customer Experience, Finance & Shared Services transformation led growth in the quarter.
- **Cloud Platform Services:** Accelerated cloud adoption by enterprises drove growth in application transformation, IT landscape modernization, shift to hybrid cloud, and data modernization on cloud. TCS won the AWS 2021 Rising Star Partner of the Year (GSI, for USA) & AWS Application Transformation and Migration Partner of the Year (for ANZ) awards.
- **Digital Transformation Services:** Key G&T themes which saw traction in Q3 include connected enterprise, product innovation, customer experience transformation and security services. Engineering and IoT services are enabling customers to gain complete traceability of products across the value chain, manage assets, innovate products, re-design plants and improve predictability & operational efficiency. This drove growth in Intelligent devices, GIS and Plant Solutions & Services. IoT, Engineering and Analytics services are also helping customers in their sustainability journey, a critical business priority. We are enabling clients on their digital ERP journey leveraging TCS Crystallus™ to empower enterprise digital transformation and drive business value. Oracle Cloud and Niche SaaS transformations led growth this quarter. TCS' Cyber Defence Suite and globally distributed Threat Management Centers steered growth during the quarter with agile, localized, regulatory compliant security services across ransomware protection, cloud security and managed security services with strong market resonance.

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- **Cognitive Business Operations:** Demand was propelled by customers seeking to outsource IT and business operations to drive business agility, operational resilience, and cost efficiency. Growth in Q3 was led by Enterprise BPS, Infrastructure transformation and automation services. MFDM™ and Cognix™ continue to demonstrate strong market relevance and deliver customer delight.

*\*\* Year on Year Growth in Constant Currency terms*

## Research and Innovation

As on **December 31, 2021**, the company has applied for **6,396** patents, including **227** applied during the quarter, and has been granted **2,201** patents.

## Human Resources

TCS crossed a new milestone in its diversity journey in Q3, with the number of women in its workforce crossing **200,000**. The company added **28,238** employees on a net basis, taking the total number of employees to **556,986** as on December 31, 2021. Its policy of hiring local talent across the world has resulted in a globally distributed workforce comprising **156** nationalities.

The company continued to invest in organic talent development. Over **100,000** market-relevant deep skills were gained by TCSers in Q3. **32.3%** of open positions were fulfilled through up-skilling/cross-skilling. Over **38,000** Contextual Masters identified across the organization represent a large, internally groomed cadre of specialists powering the company's expanding foray into the growth and transformation opportunity.

Sustained investment in organic talent development, progressive workplace policies and a vibrant culture that empowers individuals and fosters creativity, have resulted in a long-term track record for best-in-class talent retention. IT Services attrition rate (LTM) in Q3 was **15.3%**.

*"The ability to attract and retain top quality talent across the world has been central to TCS' business success and a source of competitive differentiation. We continue to set new records in talent acquisition. In addition to the 43,000 freshers we hired in H1, we onboarded 34,000 fresh graduates in Q3 – which is higher than our full year fresher hiring numbers in prior years. On the talent retention side, we continue to be the industry benchmark. By continuing to invest in our people, giving preference to internal candidates for the most exciting open positions, providing global deployment opportunities, fast track career paths linked to learning, and promotions to over 110,000 employees, we have been able to retain our best talent and overcome supply side challenges,"* said **Milind Lakkad, Chief HR Officer**.

## Awards and Recognition

### Business Leadership:

- Named a **UK Superbrand** for the seventh consecutive year in recognition of TCS' exceptional business growth, its position as the top strategic IT player by revenue in the UK, its number one ranking in customer satisfaction, and its community initiatives.
- Recognized as a **Superbrand** in Singapore for its strong market reputation, digital initiatives and business growth.
- Awarded two Diamond awards at the **2021 ITSMA Marketing Excellence Awards** in the categories – **Embedding ABM Programs** and **Orchestrating Executive Engagement**.
- Won 3 awards at the **2021 LinkedIn Talent Awards India** in the categories: **Best Employer Brand on LinkedIn**, **Best Culture of Learning**, and **Diversity Champion**
- Won 5 awards at the **Economic Times Human Capital Awards**, in the categories: **Excellence**

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**in Communication Strategy, Excellence in Creating a Culture of Continuous Learning and Upskilling, Excellence in Fostering Innovation and Design Thinking, Excellence in HR Digital Transformation and Excellence in Recruitment of Professionals.**

- Won the **World Leadership Congress Award** for world-class operations at the All-Women Business Process Services and IT Center in Riyadh, Saudi Arabia.
- Won the **2021 Economic Times Best Brand of UAE** award for brand reputation in the Middle East region.

## **Innovation and IP:**

- Recognized for **Best Patents Portfolio** in the Large Enterprise category at the **Confederation of Indian Industry Industrial Intellectual Property Awards 2021**.
- Won the **2021 ASSOCHAM IP Excellence Award** for pioneering efforts in facilitating innovations and creating a healthy intellectual property (IP) ecosystem.
- Awarded the **Enterprise Blockchain Award 2021** by the Blockchain Research Institute.
- Won two awards at the **IoT Global Awards 2021**: for **TCS DigiFleet™** in the Automotive, Transport and Travel category and for **TCS Smart Store** in the Retail, Marketing and Hospitality category.
- TCS ADD Regulatory platform won the **India Pharma Awards 2021** in the category of **Excellence in Ancillary Pharma Services**.
- Two TCS-built solutions featured in the **2021 ISG Digital Digital Case Study Awards**: TCS' **Digital Twin Platform for Saipem** won the Energy and Utilities Standout Award as well as the Southern Europe regional standout award; the TCS' **digital transformation work for Shell** won the ANZ regional standout award.
- Won 2 Silver Awards at the **2021 Brandon Hall Group Excellence in Technology Awards** in the categories Best Advance for Leading Under a Crisis (TCS Vaccination Solution) and Best Advance in Time and Labor Management (TCS Timesheet App)

## **Partner:**

TCS won the following awards from technology alliance partners:

- **Application Transformation and Migration Partner of the Year** at the AWS Partner Awards in Australia and New Zealand.
- **IFS Solutions Partner of the Year** and **IFS Services Partner of the Year (Enterprise Category)** at the 2021 IFS Partner of the Year Awards
- **BMC Partner of the Year Award – Cognitive Automation** at the BMC Service Provider eXchange (SPeX).
- **2021 Partner of The Year Award** by Smart Message
- **Strong Growth – Identity and Access Management Partner of the Year 2021** by CyberRes, a Micro Focus line of business.
- Solutions implemented by TCS for SAIL and Trent won the **SAP ACE Awards 2021** in the **Manufacturing Transformation** and **Game Changer** categories respectively.
- **Top Performing - GSI Partner** and **Game Changer - Enterprise Business category** in India and South Asia at the Red Hat Partner Awards

## ***Wipro Limited Announces Results for the Quarter ended December 31, 2021 under IFRS***

12 January 2022

Wipro Limited announced financial results under International Financial Reporting Standards (IFRS) for the Quarter ended December 31, 2021.

### **Highlights of the Results**

#### **Results for the Quarter ended December 31, 2021:**

- Gross Revenue was Rs 203.1 billion (\$2.7 billion<sup>1</sup>), an increase of 3.3% QoQ and 29.6% YoY
- IT Services Segment Revenue was at \$2,639.7 million, an increase of 2.3% QoQ and 27.5% YoY
- Non-GAAP<sup>2</sup> constant currency IT Services Segment Revenue increased by 3.0% QoQ and 28.5% YoY
- IT Services Operating Margin<sup>3</sup> for the quarter was at 17.6%, a decrease of 19 bps QoQ
- Net Income for the quarter was Rs 29.7 billion (\$399.1 million<sup>1</sup>), increase of 1.3% QoQ
- Earnings Per Share for the quarter was at Rs 5.43 (\$0.07<sup>1</sup>), an increase of 4.2% YoY
- Operating Cash Flow was at Rs 30.1 billion (\$404.2 million<sup>1</sup>), which is 101.3% of Net Income
- Our closing strength of employees for IT Services was at 231,671, an increase of 41,363 employees on a net basis YoY. We added 10,306 employees during the quarter
- Wipro declared an interim dividend of Rs 1 (\$0.013<sup>1</sup>) per equity share/ADS

#### **Performance for the quarter ended December 31, 2021**

**Thierry Delaporte, CEO and Managing Director, said,** "Wipro has delivered a fifth consecutive quarter of strong performance, both on revenues, and margins. Order bookings have been strong too, and we have added seven new customers in the more than \$100 Mn revenue league, in the last 12 months. Our strategy and improved execution continue to serve us well, and we are confident of building on this momentum. We are also excited to have completed the acquisitions of Edgile and LeanSwift Solutions in the quarter, both of which will add to our capabilities significantly."

**Jatin Dalal, Chief Financial Officer, said,** "We delivered robust operating margins after absorbing substantial investments on salary increases, owing to continued improvement in operating metrics. We also improved our working capital, by reducing our Days Sales Outstanding. This has resulted in strong operating cash flow conversion, of 101.3% of net income. Additionally, we have declared an interim dividend of Rs 1 per equity share."

#### **Outlook for the quarter ending March 31, 2022**

We expect Revenue from our IT Services business to be in the range of **\$2,692 million to \$2,745 million\***. This translates to a sequential growth of **2.0% to 4.0%**.

\*Outlook is based on the following exchange rates: GBP/USD at 1.34, Euro/USD at 1.13, AUD/USD at 0.73, USD/INR at 75.73 and CAD/USD at 0.79

1. For the convenience of the readers, the amounts in Indian Rupees in this release have been translated into United States Dollars at the certified foreign exchange rate of US\$1 = Rs 74.39, as published by the Federal Reserve Board of Governors on December 31, 2021. However, the realized exchange rate in our IT Services business segment for the quarter ended December 31, 2021 was US\$1 = Rs 76.12
2. Constant currency revenue for a period is the product of volumes in that period times the average actual exchange rate of the corresponding

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comparative period

3. IT Services Operating Margin refers to Segment Results Total as reflected in IFRS financials

## IT Services

Wipro continued its momentum in winning large deals with our customers as described below:

- A US-based healthcare company has awarded Wipro a business process and platform services contract spanning claims processing and setting up a customer service center using Wipro's proprietary healthcare platform. Wipro will enable the client to expand its product offerings and go-to-market strategies and grow in this business segment.
- A leading US-based student-aid organization has awarded Wipro a multi-million dollar engagement to manage and streamline their mainframe operations to support their mission critical platform and help enhance end-user experience.
- Wipro has won a multi-million dollar engagement with a US-based industrial manufacturing company to drive workplace transformation that delivers best-in-class end-user experience with an effective approach for mergers and acquisitions integrations.
- Wipro has won an engagement with a leading US-based retail brokerage for a large integration program that includes modernizing and scaling applications across its multiple lines of business.
- A technology-driven travel marketplace has selected Wipro as its strategic partner to modernize its core travel platform and help set up a capability hub in Mexico. The modernized platform will significantly enhance customer experience and help generate new revenue streams for the customer.

## Digital Services Highlights

We continue to see increasing traction in digital oriented and other strategic deals as illustrated below:

- A large, Brazil-based water and waste management company has awarded Wipro a strategic engagement to transform their internal processes, improve operational efficiency, and enhance competitiveness leveraging Wipro FullStride Cloud Services.
- A leading US-based Cloud Security and Identity Governance solutions provider has selected Wipro to develop demanding functionalities and enhancements to support their core Product Development function. Wipro will help the customer meet growing demands, enable a quicker time to market and scale their software business globally.
- A leading US-based financial advice firm has selected Wipro and Capco as strategic partners to deliver multiple digital transformation programs. Together with Capco, Wipro will lead an innovation program to facilitate greater adoption of new technologies to accelerate the company's digital transformation journey.
- Wipro has won an engagement with a US-based multi-state healthcare organization to deliver modernized member services. Wipro will leverage a new cloud-based, globalized contact center service delivery model to digitally transform and optimize stakeholder experience and ensure cost savings, quality, compliance and growth for the customer.

## IT Products

- IT Products Segment Revenue for the quarter was Rs 1.8 billion (\$23.8 million<sup>1</sup>)
- IT Products Segment Results for the quarter was a profit of Rs 0.1 billion (\$1.3 million<sup>1</sup>)

## India business from State Run Enterprises (ISRE)

# CIMdata PLM Industry Summary

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- India SRE Segment Revenue for the quarter was Rs 1.6 billion (\$21.8 million<sup>1</sup>)
- India SRE Segment Results for the quarter was a profit of Rs 0.1 billion (\$1.8 million<sup>1</sup>)

Please refer to the table at the end for reconciliation between IFRS IT Services Revenue and IT Services Revenue on a non-GAAP constant currency basis.

## **About Non-GAAP Financial Measures**

This press release contains non-GAAP financial measures within the meaning of Regulation G and Item 10(e) of Regulation S-K. Such non-GAAP financial measures are measures of our historical or future performance, financial position or cash flows that are adjusted to exclude or include amounts that are excluded or included, as the case may be, from the most directly comparable financial measure calculated and presented in accordance with IFRS.

The table at the end provides IT Services Revenue on a constant currency basis, which is a non-GAAP financial measure that is calculated by translating IT Services Revenue from the current reporting period into U.S. dollars based on the currency conversion rate in effect for the prior reporting period. We refer to growth rates in constant currency so that business results may be viewed without the impact of fluctuations in foreign currency exchange rates, thereby facilitating period-to-period comparisons of our business performance. Further, in the normal course of business, we may divest a portion of our business which may not be strategic. We refer to the growth rates in both reported and constant currency adjusting for such divestments in order to represent the comparable growth rates.

This non-GAAP financial measure is not based on any comprehensive set of accounting rules or principles and should not be considered a substitute for, or superior to, the most directly comparable financial measure calculated in accordance with IFRS and may be different from non-GAAP measures used by other companies. In addition to this non-GAAP measure, the financial statements prepared in accordance with IFRS and the reconciliation of these non-GAAP financial measures with the most directly comparable IFRS financial measure should be carefully evaluated.

**Results for the quarter ended December 31, 2021, prepared under IFRS, along with individual business segment reports, are available in the Investors section of our website.**

## **Quarterly Conference Call**

We will hold an earnings conference call today at 07:15 p.m. Indian Standard Time (08:45 a.m. U.S. Eastern Time) to discuss our performance for the quarter.

An audio recording of the management discussions and the question-and-answer session will be available online and will be accessible in the Investor Relations section of our website.

## **Implementation Investments**

### ***Accenture Helps Tokio Marine Kiln Transform Its Finance and HR Functions in the Cloud with Workday***

11 January 2022

Accenture has collaborated with Tokio Marine Kiln (TMK), a leading international insurer, to transform its finance and human resources (HR) functions in the U.K. and Singapore by digitizing and consolidating multiple systems onto Workday.

Previously, TMK's HR, payroll, finance and procurement functions were split across multiple systems, with heavy reliance on manual input. With Workday Financial Management and Workday Human Capital Management (HCM), TMK's employees are now able to complete, record, and track

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transactions and business processes with greater speed, accuracy and ease, freeing them up to spend more time on business-critical functions.

Workday was deployed virtually in just seven months across four functions. Accenture, Workday, and TMK focused on digitizing key tasks such as:

- HR activities including the management of the full employee lifecycle: onboarding, compensation, learning, absence and payroll.
- End-to-end finance processes including procurement, supplier accounts and contracts, customer accounts and billing, banking, settlement and cash reconciliation, business assets, accounting and financial reporting.

“TMK is driving an exciting strategy of system and process change to deliver a new target operating model, of which Workday is a key element,” said Nick Hutton-Penman, TMK’s deputy CEO. “TMK selected Accenture to ensure strong delivery across our London and Singapore offices, whilst drawing on Accenture’s London market experience.”

Jamie Althorp, Insurance lead for Accenture in the U.K. and Ireland, said: “It’s more important than ever for key players in the insurance sector to embrace change and accelerate the cloud-first transformation of legacy technology to support business-critical functions. We are pleased to have collaborated with TMK on this critical journey to transform its finance and HR functions with Workday, creating new operational efficiencies whilst empowering their people with technology, and we look forward to building on this relationship.”

Carolyn Horne, president, EMEA, Workday, said: “Forward-thinking companies like Tokio Marine Kiln recognize that resilience and innovation don’t have to be a trade-off. Workday is a proven investment in building a culture of agility, data-driven decision-making, and automation that’s vital now and into the future. To deploy virtually with Workday Financial Management and Workday Human Capital Management in just seven months is testament to the flexibility of the Workday system, and the great partnership we have with Accenture.”

## ***AlphaSTAR Awarded Phase II DoD Program Focused on Design of New Alloys for Additive Manufacturing Applications***

6 January 2022

AlphaSTAR is pleased to announce a DoD Phase II program award by the Defense Logistics Agency (DLA) for design of new alloys in Additive Manufacturing entitled ‘Grain Boundary Engineering for Additive Manufacturing’. This effort is in collaboration with GE Research: the hub of innovation for GE, University of Southern California (USC) Viterbi Center for Advanced Manufacturing, University of Michigan (UoM) Aerospace Engineering and Quadrus Corporation. The award will continue Phase I efforts in the development of technologies which can predetermine the microstructure of AM metal parts with optimal grain boundaries, resulting in predictable mechanical properties, including mode of failure for enhanced AM fabrication.

AM technology is relatively new to manufacturing and has hurdles to overcome before universal adoption as a replacement to traditional manufacturing. Due to the variability in the mechanical properties of additively manufactured metal parts, understanding the microstructure development & evolution during the AM process of metallic alloys is an important precondition for the optimization of parameters to achieve desired mechanical properties in AM builds.

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Director of Technical Operations at AlphaSTAR, Dr. Rashid Miraj, explains “Metallic alloys consist of individual crystallites commonly referred to as grains. Individual grain connections (grain boundaries) are formed through recrystallization during metal part fabrication and heat treatment. A grain boundary is the interface between two grains, or crystallites. Grain boundaries influence the mechanical properties of the metal; hence, certain grain boundaries are preferred over others. Grain boundary engineering (GBE) in additive manufacturing refers to methodologies and technologies associated with the build process or post-build heat treatments that drive and generate preferred microstructure outcomes associated with an AM fabricated part. At its simplest, AM GBE may be achieved through variation of the build process that address both heating and cooling and triggers nanoprecipitation and material transformation”. According to Dr. Miraj, “This technology will result in significant advancements related to the design of new parts and the repair of old parts associated with DoD supply chain. GBE for AM has the potential to increase the flexibility, scalability, and capability of AM produced parts.”

The ultimate objective of this Phase II program is to establish material performance screening, selection and improvement of AM driven legacy parts. Furthermore, it will continue to improve the developed ICME software, GENOA 3DP, which reduces trial & error in the AM process, and accelerates the cycle time for part qualification and materials development.

Continued development of this critical technology will apply to all DoD sectors looking to improve the quality and reliability of AM parts to assist our Warfighters.

### ***Atos develops video system for Dassault Aviation’s “Falcon Albatros”, future surveillance aircraft of France’s Navy***

10 January 2022

**Atos announces that it is supporting Dassault Aviation to develop and produce the inflight video system for its “Falcon Albatros”. The latter is the future maritime surveillance and intervention aircraft of the French Naval Aviation. The “Albatros” is set to be commissioned in 2025 as part of the AVSIMAR program led by the French Armament General Directorate (Direction Générale de l’Armement, DGA). The aircraft will leverage the capabilities of the French Navy (Marine nationale), delivering homeland maritime protection and defense.**

The AVSIMAR program provides a response to the challenges of French government action at sea. These include fighting pollution and trafficking, border surveillance and exclusion zones as well as search and rescue at sea. Spearheading the program, the Albatros is equipped with a next-generation mission system and high-performance sensors. The aircraft features a multifunction radar, multispectral optronic turret, observation windows, a Search & Rescue (SAR) kit release system and dedicated communication systems. Combined, these sensors enable **HD video and data streams, producing real-time analysis and fully enhancing tactical situation awareness.**

Atos will manage the **design and production of the inflight video system**, which ensures the compression, distribution and transmission of various data and tactical videos on board while taking into account IT security issues. As such, Atos will ensure that the system meets strict security requirements by **verifying the integrity and authenticity of data software and by providing secure data and video interconnections.**

Atos’ solution is focused on key foundational issues of Maritime Surveillance Aviation. To this end, the Group will successfully consolidate mission-critical, secure, and reliable data while supporting the development of military aircraft. The solution guarantees optimal performance in all of the French Naval Aviation’s missions and within a secure technology environment.

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*“We are proud to assist Dassault Aviation in preparing the Falcon Albatros aircraft which will support the French government in its maritime surveillance and intervention missions.”* said **Cyril Dujardin, SVP, Head of ‘Digital Security’ at Atos.** *“Through this strategic project, we are strengthening our long-standing relationship with Dassault Aviation with a focus on inflight systems. In doing so, we are also applying our expertise to deploy security mission systems and fiber optic HD videos.”*

## ***Atos’ energy-efficient supercomputer expands HPC system at Technische Universität Dresden***

13 January 2022

Atos announces that it has been awarded a new contract to supply and install a new supercomputing cluster at Technische Universität Dresden (TU) in Germany. The supercomputer will be used for data intensive HPC tasks and data analysis at the Center for Information Services and High-Performance Computing (ZIH). Based on Atos’ powerful BullSequana XH2000 architecture, researchers at TU Dresden will use the new supercomputer for computational tasks in environmental research, life sciences, materials sciences and engineering, as well as for basic research in physics, chemistry and mathematics. It is scheduled to start operations in autumn 2022.

*“We are pleased to continue to support TU Dresden with HPC expertise via our BullSequana XH2000 installation and to continue to enable cutting-edge research. The new system is extremely energy efficient thanks to our patented and world leading warm water cooling solution,”* says **Dr. Martin Matzke, Senior Vice President Big Data & Security at Atos Central Europe.**

*“In addition to the innovative hot water cooling, which will lead to an encouraging increase in the energy efficiency of the system, the balanced architecture and the exceptionally powerful infrastructure for the fast input/output of data are to be highlighted, which sustainably advance important research fields of ours such as modeling, simulation, and data analytics,”* explains **Prof. Dr. Wolfgang E. Nagel, TU Dresden/ZIH.**

### **HPC energy-efficiency to support ecological sustainability**

The new supercomputer features Atos’ water-cooled patented Direct Liquid Cooling (DLC) solution, which uses 35°C warm water to cool the system. This feature enables TU Dresden to minimize the energy consumption of the cooling and at the same time benefit from processors with the highest compute performance. The lost heat from the BullSequana XH2000 systems will be used to heat surrounding buildings and thus has a positive contribution towards the ecological sustainability on TU Dresden’s campus.

This new HPC installation includes more than 600 nodes of Intel's upcoming CPU generation "Sapphire Rapids" with large main memory and high memory bandwidth. TU Dresden will thus be able to perform high-quality data analyses and simulations in a timely and flexible manner.

Atos and TU Dresden have been working together since 2013 when Atos delivered and installed the "Taurus" HPC system at ZIH and then the expansion of the system in 2015, whose energy efficiency has also been the subject of scientific research. The new HPC system will replace the Taurus.

## ***Fender chooses Lemongrass to lead its SAP to Cloud growth initiative***

14 January 2022

**Lemongrass**, the “SAP in the Cloud” company, announces the completion of a project to migrate [Fender Musical Instruments Corporation \(FMIC\)](#) to Amazon Web Services (AWS) and the

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ongoing management of FMIC's SAP landscape in the Cloud.

Since 1946, Fender has revolutionized music and culture as one of the world's leading musical instrument manufacturers, marketers and distributors. FMIC, whose portfolio of owned and licensed brands includes Fender®, Squier®, Gretsch® guitars, Jackson®, EVH®, Charvel®, Bigsby® and PreSonus®, follows a player-centric approach to crafting the highest quality instruments and digital experiences across genres. Since 2015, Fender's digital arm has introduced a new eco-system of products and interactive experiences to accompany players at every stage of their musical journey. This includes innovative apps and learning platforms designed to complement Fender guitars, amplifiers, effects pedals, accessories and pro audio gear and inspire players through an immersive musical experience.

Demand for FMIC's physical and digital products and services has been steadily growing in recent years with a massive surge the past two years as the industry welcomed nearly 16 million new players in the U.S. alone. However, the SAP systems and the hardware on which they were running required additional support to accommodate the company's growth. Some systems, including aged hardware, had limitations and required updates, making ongoing change and maintenance challenging for the business.

In 2020, FMIC made the decision to upgrade its SAP systems to the latest version of SAP ERP Central Component, re-platform the application to SAP Suite on HANA, and move it to AWS. Doing so would improve its reliability while allowing for greater scalability, security, flexibility and innovation. FMIC selected Lemongrass to lead the initiative.

Lemongrass is a leader in the planning, migration, operation and innovation of SAP in the Cloud. It's been an AWS Premier Consulting Partner for over a decade and has 6,000+ SAP servers and 300,000+ users under management. Lemongrass regularly helps clients overcome constrained infrastructure and technical debt. Its work with FMIC would be a two-step process that would allow FMIC to continue operating its SAP systems while at the same time Lemongrass would be migrating them to AWS. Lemongrass ran multiple practice runs to ensure that the downtime could confidently fit into the allowed window. The project was a success, and Lemongrass is now handling the ongoing management of FMIC's systems.

"We chose Lemongrass due to the company's wealth of experience and proven track record migrating and running SAP on AWS," said Michael Spandau, CIO at FMIC. "Straight away we noticed how much faster everything runs on AWS, which is allowing our business users to get through their work more quickly and efficiently. In the future, we will look to connect our SAP data to broader initiatives to drive insight and further value to the business."

"Working with FMIC has been terrific," said Eamonn O'Neill, co-founder and chief customer officer at Lemongrass. "It's a first-class organization from the top down. The IT organization truly understands how the Cloud not only improves the performance of SAP but creates opportunities for innovation, too. Lemongrass is honored to have been selected to handle the migration and management of FMIC's SAP systems on AWS. We look forward to a long and mutually beneficial partnership between our companies."

## ***GoI Selects TCS to Drive Next Phase of Passport Seva Program***

7 January 2022

Tata Consultancy Services (TCS) has been selected by the Ministry of External Affairs (MEA), Government of India for the second phase of the immensely popular Passport Seva Program, the country's largest mission-critical e-governance program till date, following its successful

implementation of the first phase.

Launched in 2008, the Passport Seva Program saw TCS transforming the delivery of passport-related services, digitizing the processes, and setting global benchmarks in timeliness, transparency, and reliability. The world-class experience delivered at the TCS-run Passport Seva Kendras (PSK) across the country made the service immensely popular and a source of national pride. Accessibility was further enhanced by extending the service through designated post offices and through Indian missions and posts across the world.

In the next phase of the program, TCS will refresh existing facilities and systems, and develop innovative new solutions to enable the issuance of e-passports and further enhance the citizen experience using technologies such as biometrics, artificial intelligence, advance data analytics, chatbots, auto-response, natural language processing, and the cloud.

*“TCS has been playing a vital role in building a Digital India, driving transformation programs of national importance. Our partnership with MEA over the last decade has become a benchmark in public-private partnership for citizen services. We are pleased to be selected for the next phase of the Passport Seva Program and look forward to driving further innovations and improving citizen experiences using our contextual knowledge and digital technologies,”* said **Tej Bhatla, Business Unit Head, Public Sector, TCS.**

## ***Marel digitizes product data with CONTACT Elements***

10 January 2022

**Marel is a leading global provider of advanced food processing equipment, systems, software and services to the poultry, meat and fish industries. With around 7,000 employees located in over 30 countries, the company enables its customers to increase yield and throughput, ensure food safety and traceability, and improve sustainability in food production.**

With CONTACT Elements, the company ensures end-to-end traceability of product master data for its highly configurable products, generating company-wide added value.

Back in 2020, Marel began the Digital Product Highway project as a cornerstone in its revamped IT architecture to improve access to key product data across the lifecycle and to streamline operational processes. “For an innovative company like Marel, product data is the core,” explains Marcel Triepels, Enterprise Architect at Marel. “That’s why we invest a lot to keep increasing the availability and quality of data.”

The rapidly growing company faces the challenge of connecting its diversified IT systems and strategic business application across domains and locations and avoiding data silos. With Elements as its central IT platform, Marel now benefits from a smooth interaction of its systems, processes and actors along its value networks. All relevant product data are available at the required location at all times and are automatically synchronized with the ERP and third-party systems. This creates transparent and consistent data records for faster and more efficient delivery and production of products.

“With the modular CONTACT Elements platform, we leverage the potential of the Digital Thread throughout the lifecycle of our products and bring company-wide added value,” says Triepels.

## ***Oklahoma City Selects Aurigo Masterworks Cloud to Deliver Quality Water to 1.4 Million Residents***

11 January 2022

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Aurigo Software, North America's leading capital planning and construction management software company, announced it has entered into a multiyear, multimillion-dollar contract to deliver quality water to 1.4 million Oklahoma City residents by modernizing the City's capital program lifecycle. The Oklahoma City Water Utilities Trust (OCWUT) maintains more than 7,000 miles of water and wastewater pipelines, including the 100-mile Atoka pipeline, and treats and delivers an average of 100 million gallons of water per day at two major water treatment plants.

"We are excited to partner with Oklahoma City to digitally transform its water infrastructure growth and ensure safe, high quality, and reliable water distribution for generations to come," said Balaji Sreenivasan, CEO and founder of Aurigo Software. "Aurigo looks forward to helping water and wastewater agencies across America build a better tomorrow by optimizing the \$55 billion in funding set aside by the recently-passed Infrastructure and Investment Jobs Act."

For many years, City leaders have worked diligently to establish a robust and sustainable water supply that spans more than 250 miles across Oklahoma. The system comprises seven reservoirs, including Lake Hefner, Lake Stanley Draper, and Lake Overholser, which was the City's first water reservoir, completed in 1918. OCWUT undertakes a variety of capital improvements, including new construction, pipeline maintenance, and treatment plant upgrades.

The City began a formal Request for Proposal process in February 2020 to identify a Program Management Information System that would support their capital planning and construction management activities. The solution would also integrate with other enterprise systems to streamline the ongoing operations and maintenance of the City's water infrastructure.

Aurigo Software was selected as the most qualified partner to support the City's goals and priorities. Aurigo's flagship product suite, Masterworks, will provide a single source of truth for OCWUT's capital program data, improving their decision-making capabilities and the ability to track the true value of their investments. The system will also speed up program approval and delivery by automating key business processes relating to the planning, construction, and operations of the City's capital assets. Additionally, Masterworks will facilitate data sharing across OCWUT's range of stakeholders, from internal staff to external consultants and contractors.

Aurigo has implemented capital program solutions for agencies such as Tampa Bay Water District, Portland Water Bureau, and Coachella Valley Water District. The firm is the only construction technology company listed on the StateRAMP Authorized Vendor List and has been available on the Federal Risk and Authorization Management Program (FedRAMP) marketplace since 2020.

## ***Pentland Brands Goes for Supply Chain Gold with Infor***

12 January 2022

Infor, the industry cloud company, today announced that Pentland Brands Limited, owners of the Speedo, Berghaus, Canterbury of New Zealand, Endura, ellese, SeaVees and Mitre brands, has adopted the Infor Nexus supply chain platform. The technology will help Pentland Brands improve visibility of inventory, enhancing collaboration with suppliers, automating the vital procure-to-pay process, and accelerating the onboarding of new suppliers and partners.

The Pentland Brands UK businesses are already live on the platform, with the US-based businesses going live at the end of 2021. Now its entire supplier network across China, East Asia and Europe is connected to Infor Nexus, with standardised best-practice processes for all interactions.

Following a thorough review of the market, Infor Nexus was chosen based on its capability to combine both the physical and financial supply chain processes. This helps provide:

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- Real-time supply forecast and order collaboration.
- Digital shipping processes to help streamline both carton scanning and transport booking.
- Automation of the procure-to-pay process, including invoice generation, auto-approval, and settlement. This will help reduce costs and provide real-time cashflow visibility to both suppliers and Pentland Brands.
- Enhanced visibility, enabling Pentland Brands to respond quickly to production issues and changes in available quantities, as well as tracking the process of all goods in transit.

As the system of engagement, Infor Nexus was also chosen because of its complete integration with Pentland Brands' enterprise resource planning (ERP) system. This helps synchronise orders generated in the ERP, order change requests, supplier pack lists, advance shipping notices (ASNs), estimated time of arrival (ETA), and payment authorisation back to the ERP. This helps extend the visibility across the Pentland Brands supply chain and reduces supply and capital costs.

Looking to the future, Pentland Brands is also assessing the predictive estimated time of arrival (PETA) capabilities of Infor Nexus.

“For brands, especially those linked to the sports, outdoor and lifestyle markets, efficient operations and speed to market are critical,” said Abhy Thomas Joseph, Pentland Brands president of Asia Pacific & CIO. “The enhanced collaboration, connection and visibility provided by Infor Nexus gives us a competitive advantage with our suppliers and also allows us to on-board new partners faster.”

“Modern brand management is just as much about ensuring a world-class supply chain as it is ensuring you have the best creative talent,” said Sam Keers, Pentland Brands global sourcing and planning director. “We have hundreds of suppliers across the globe, and we’re now able to deliver a standardised set of best practices that will mean we’re more agile across all of our markets.”

“Combining supply chain, operational and financial aspects into cohesive processes enables faster, more controlled growth,” said Mark Illidge, Infor vice-president and general manager for supply chain in EMEA. “As brands look to re-engage with a drastically changed retail market, the ability to be agile, fast and responsive throughout the supply chain will be key to success, and technology such as the Infor Nexus platform will be a vital part of that.”

## ***Qatar Airways Gains Business Advantage in Moving Financial Planning to Oracle Cloud***

12 January 2022

Oracle has announced that Qatar Airways has implemented Oracle Fusion Cloud Enterprise Performance Management (EPM) as the multiple award-winning airline transitions through the pandemic and embarks on a major global expansion. With Oracle Cloud EPM, Qatar Airways financial teams gain the transparency and flexibility needed for more accurate planning, budgeting, and forecasting. The improved processes are helping the airline increase agility, improve insights and enhance business decision-making across the organisation.

As one of the world's fastest-growing airlines Qatar Airways serves over 140 destinations, operating a fleet of more than 200 aircraft from its global hub at Hamad International Airport in Doha, and employing more than 40,000 people. As the airline embarked on a major global expansion in the last decade, its existing systems and manual processes could not scale to keep pace with the company's growth. The airline needed to automate and streamline its financial and planning processes to more effectively control and manage resources and investments, improve reporting capabilities, and align the

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organisation behind its ambitious expansion plans. As the commercial aviation sector recovers from the pandemic in the second half of 2021, Qatar Airways is quickly returning to its pre-pandemic network of 180 destinations and resuming its expansion program.

“While the pandemic had a significant impact on the aviation sector, the ability of Qatar Airways to remain resilient and reliable for its customers, and respond quickly to these unforeseen challenges, has been critical to maintaining our business competitiveness. The foundation we have built with Oracle Cloud EPM for our financial processes has enabled us to adapt quickly, especially as we plan for the transition out of the pandemic and the resumption of our growth plans. We have been able to model scenarios to increase efficiency, reduce risk, and provide our leaders with the correct information to allow them to make informed decisions,” said Daniel Ho, Chief Financial Officer, Qatar Airways.

Oracle Cloud EPM enables Qatar Airways to better connect operational and financial data across HR, finance, supply chain and sales to improve management insights, accelerate decision-making, and enhance the company’s business modelling and planning. Moving business processes to Oracle Cloud EPM has also enabled the company to eliminate manual processes in financial reporting to improve the speed, accuracy and insights of reports.

“The airline sector is facing a unique challenge as it navigates recent disruptions and rapidly changing recovery,” said Leopoldo Boado Lama, Senior Vice President, Business Applications, ECHEMA, Oracle. “With Oracle Cloud EPM, Qatar Airways will gain a competitive edge by always having access to the latest innovations and emerging technologies. With Oracle, Qatar Airways will be able to gain real-time business insights and accurately forecast revenues to make better business decisions in a dynamic market. While highly relevant in the current business context, these capabilities will also improve productivity and ensure the airline can respond to future challenges in what is a continually evolving business environment.”

Oracle Consulting is the implementation partner for this initiative.

## ***Siemens’ Capital software from Xcelerator Portfolio selected by Airbus for next generation electrical/electronic (E/E) systems development***

10 January 2022

Siemens announced that Airbus, a leading aircraft manufacturer, has selected Capital™ electrical/electronic (E/E) systems development software from Siemens’ Xcelerator portfolio to accelerate the development of commercial aircraft.

The Capital platform’s comprehensive digital thread and openness were key elements that drove this selection, as this facilitates integration within the broader engineering enterprise. Siemens’ strong support along with technical workshops will help to accelerate new process design and adoption.

Capital delivers a true, configuration controlled, E/E system digital twin, supported by a comprehensive digital thread throughout the E/E system development, manufacturing and operational life cycle. Additionally, the open IT architecture and multi-domain integrations within Capital enable straightforward deployment into Airbus’ Lean PLM (Product Lifecycle Management) environment and provides the backbone for E/E systems design and electrical harness manufacturing engineering across its multi-country development team.

E/E groups will work in a highly unified design environment that facilitates faster product development, optimized manufacturing of electrical systems, improved first-time-right electrical harness quality and smoother supply chain integration to generate architecturally-optimized design proposals, wiring and service documentation.

# CIMdata PLM Industry Summary

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“Capital enables customers to establish digital continuity within the electrical domain to compress development cycle time and deliver significant cost reductions,” stated Martin O’Brien, senior vice president of Siemens Integrated Electrical Systems business group. “This is a game-changer in an industry looking to recover quickly from unprecedented challenges. By realizing the benefits of a model-based development process, Capital helps world-class companies like Airbus reduce complexity, lower risk and boost overall productivity.”

## ***Sud Express Optimizes Purchasing Process by 30% with Centric PLM™***

13 January 2022

Sud Express, the French women’s apparel retailer, has adopted Centric Software’s Product Lifecycle Management (PLM) solution. Centric Software provides innovative business solutions for the planning, design, development, procurement and distribution of products – including apparel, footwear, sports equipment, furniture, home furnishings, beauty products, food and beverage, and luxury goods – that enable companies to achieve their strategic and operational goals for digital transformation.

Founded in 1977 by Patrick Bellaïche, Sud Express is a premium brand serving multiple generations of active and modern women. Sud Express has revenues of just under 50 million Euros a year, 350 employees, 140 shops based mainly in France and franchises abroad. Wholesale and trade represent a small part of its business, which is now dominated by digital channels.

The retail omnichannel revolution led Sud Express to adopt a global strategy to transform its technology infrastructure. Sud Express implemented a new ERP system, changed its Internet platform, outsourced logistics, introduced new tablets in their shops and deployed a more sophisticated human resources management software solution. They also created a digital team, a supply chain department and are offering new services for their customers.

“The acquisition of a PLM solution was part of an overall process of completely overhauling our information system,” explains Christophe Lecrest, Supply Chain Director with Sud Express.

Sud Express was looking for a digital solution to unify stock management, increase the availability of its products and drive sales. They knew they needed to streamline production, enhance their purchasing management process and improve communication between departments.

“During our research, we found that the other PLM solutions on the market offered tools that were essentially focused on production monitoring. We wanted to cover a much broader spectrum, including our collection and buying processes,” explains Lecrest.

Thierry Letrilliart, Sud Express’s Associate Operational Director, shares why they chose Centric PLM, “Centric is the market leader in the fashion world. No competitor can boast such a strong presence in this sector. Centric is also an asset for recruitment because the candidates we interview know the Centric ecosystem.”

Sud Express implemented Centric PLM in just three months. “When I was told that the implementation timeframe was so short, I was skeptical,” says Lecrest. “But the collaboration between the Sud Express and Centric teams were a real strength for the project and everything went perfectly within the projected timeframe.”

“The buying process, coupled with our ERP, quickly enabled us to achieve productivity gains of around 30% according to our analysis,” adds Letrilliart. “All of the manual and time-consuming order entry tasks have been eliminated. The teams spend more time analyzing the data and there are fewer data entry errors.”

# CIMdata PLM Industry Summary

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The first collection to be produced entirely using Centric PLM will be released in the summer of 2022. Sud Express plans to update and enhance Centric PLM across the organization as its needs evolve.

“We are extremely pleased to have Sud Express as part of the Centric family,” says Chris Groves, President and CEO of Centric Software. “Sud Express is a highly responsive and innovative apparel brand that has achieved excellent results in 2020, despite the COVID-19 pandemic. We are proud to support Sud Express in accelerating its omnichannel capabilities and increasing its agility.”

## ***Touchplan and Alberici-Flintco Complete Enterprise Agreement***

11 January 2022

Touchplan, an award-winning collaborative construction technology platform that enhances efficiency and improves construction project certainty, signed a 3-year enterprise-wide agreement with Alberici Constructors, Inc., and sister company Flintco, LLC.

The agreement provides the two North American construction firms and their trade partners unlimited use of Touchplan’s intuitive daily planning software. Along with collaboration capabilities that link a construction project’s master schedule to the team’s daily plan anywhere, anytime, Touchplan delivers unique jobsite data and analytics through its planning software platform and API capabilities to increase overall project efficiency for construction teams and more certainty for owners.

The diversified Alberici-Flintco enterprise is known for delivering superior construction quality and customer service for clients in multiple sectors, including commercial, heavy/light industrial, civil, healthcare, higher education, aerospace, multifamily, manufacturing, water/wastewater, and automotive. With operations in the U.S., Canada, and Mexico, Alberici-Flintco offers general contracting, construction management, and design-build solutions with self-perform capabilities including steel fabrication, concrete, and other key scopes of work.

“Alberici-Flintco is always looking for opportunities to innovate and to deliver best value for our clients,” said Aaron Geiger, CTO, Alberici Group. “Several of our project teams are using Touchplan and sharing their success on how the technology has enhanced effective planning, collaboration, and communication. Touchplan has proven to be a force multiplier for our unique and innovative approach to Lean construction, which has made the process more collaborative and inclusive for all stakeholders. For us, it just made sense to deploy the technology on all our projects.”

Touchplan’s innovative daily project planning and analytics platform is trusted by more than 46,000 design and construction professionals around the world. To date, more than 3,300 project teams have used Touchplan successfully to optimize delivery of more than \$55.4 billion in construction.

“Our goal at Touchplan is to provide our clients with the tools they need to deliver every project within budget and to exceed quality expectations,” said Jimmy Suppelsa, Chief Revenue Officer at Touchplan. “We are excited to be working with companies like Alberici-Flintco as they continue to enhance their construction operations by utilizing technology to identify the root causes of uncertainty by capturing and analyzing valuable jobsite data.”

## **Product News**

### ***6SigmaET by Future Facilities Launches the 16th Version of its Thermal Simulation Software for the Electronics Industry, Release 16.***

10 January 2022

# CIMdata PLM Industry Summary

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6SigmaET by Future Facilities launches its latest software version, Release 16, which introduces an array of new and improved features and functionality, including Enhanced View Photorealistic Models, faster Joule Heating, faster PCB Import, optimized 1D Flow Network, and 6SigmaCommander AI Automation.

Release 15 of 6SigmaET emphasized the importance of powerful solving and accuracy to thermal engineers. Release 16 builds on these important functionalities with the addition of streamlined PCB Imports, photorealistic models in reports, powerful simulations — faster model creation, faster grid generation, and faster solve times — accelerating complex model simulations, and improved automation of model builds, edits, solves, and results generation.

6SigmaET Release 16 utilizes the NVIDIA CUDA Toolkit and AmgX library to accelerate the Joule Heating solver. This GPU-acceleration enables solutions times that are 325 times faster on a single NVIDIA A100 Tensor Core GPU compared to a CPU-based run, thereby reducing the solve time for complex models from hours to seconds. Additionally, the radiative heat transfer calculations now use the Monte-Carlo method with GPU-accelerated ray tracing using the NVIDIA OptiX engine/API. OptiX and CUDA libraries help accelerate and optimize the performance of the ray-tracing algorithm, resulting in a speed-up of 140 times on an A100 GPU when compared to a CPU. The tremendous performance boost achieved with NVIDIA GPUs will enable faster turnaround times for advanced thermal simulations in electronics without having to sacrifice complexity or accuracy when making design related decisions.

Thermal engineers also have more control with significantly faster (25 times faster), streamlined PCB imports and the ability to decide the level of import detail for each PCB layer.

The 1D Flow Network has been optimized to deliver fast and accurate thermal flow analysis of electronic systems and servers. As a result, the junction temperature of components and the heat transfer between liquid-cooled elements can be predicted within a single network.

Additionally, a representation of IT equipment can be modeled as a 1D Flow Network within 6SigmaET and then used in a 6SigmaRoom data center simulation to provide more detailed information on server operating conditions.

Finally, powerful automation functionality in Release 16 using 6SigmaCommander to create or edit models, run the solver and extract results enables optimization and AI interaction.

Commenting on the new release, Tom Gregory, Product Manager at 6SigmaET, said, “Thermal engineers operate in a market that is constantly in flux. With the speed at which electronics and their associated uses are evolving, thermal engineers need to be able to rely on software that can keep pace with the demands of their job and the electronics industry.

“We listened to our customers’ feedback, and I’m delighted with what our team has achieved with 6SigmaET Release 16. With high-quality modeling to powerful simulations, customizable and collaborative reporting, time and cost savings, and fast and accurate performance, 6SigmaET Release 16 empowers thermal engineers and helps organizations in the electronics industry to stay ahead.”

## ***CGS Releases TeamworkAR™ – Enterprise-ready Augmented Reality Training and Collaboration Platform***

11 January 2022

CGS, a global provider of business applications, enterprise learning and outsourcing services, announced the worldwide launch and availability of its enhanced, patented TeamworkAR™ platform –

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an augmented reality solution designed for out-of-the box use by enterprise organizations.

Amid the continued pandemic disruption, companies evolved much of their customer service strategy to address heightened consumer needs; some accelerating the implementation of technology support as an option. Our recent research found that 35 percent of workers said they need or desire technology/tools training. As businesses continue to have a dispersed workforce in which employees remain remote or are in a hybrid situation, learning and development (L&D) and customer experience (CX) have become critical to business survival.

The latest edition of TeamworkAR provides enterprise-wide businesses with an easy-to-use platform on any mobile device and wearable for step-by-step guides, real-time coaching, experiential learning, custom onboarding and training, among other business requirements. Through a mixed reality experience, TeamworkAR enables employees and leaders to address and solve complex problems, collaborate and share expertise efficiently and effectively.

“With the AR tooling, our technicians have increased hands-on experience and retention that provides an improved service delivery performance,” said Brian Osborne, client delivery executive at Toshiba Global Commerce Solutions. Toshiba implemented TeamworkAR solution in 2020.

## **DISRUPTING TRADITIONAL TRAINING METHODS TO TRANSFORM CX**

A Centre for Economic Research study found that teams that used AR saw a 60 percent increase in learning effectiveness and 150 percent better performance than teams using paper-based training materials. Implementing AR for field service organizations will enable businesses to upskill, retain and cultivate award-winning customer experience programs and talent.

“If you’ve worked in field services, it’s safe to say you’ve experienced ineffective training that hasn’t prepared you for the real-world job,” said Steven Petruk, president, Global Outsourcing division, CGS. “It is not just frustrating; it can be potentially unsafe for technicians or representatives, and it produces a less-than-quality customer experience when it comes to resolving issues.”

## **NEXT STEP IN CX – DRIVE ROI FOR FIELD SERVICES**

A majority (53.5 percent) of respondents to our latest AR survey said that use of remote or guided repair, service, maintenance technology is the "new normal" for field service. Additionally, 58 percent expect to increase investment in technologies for this service.

TeamworkAR’s patented, collaboration-forward interface allows for field service connection and functionality. TeamworkAR helps companies benefit from the latest features:

- Enhancing training with a collaboration-forward interface: interact with 3D annotation
- Elevating customer experience through remote trouble shooting – increasing first-time problem resolution, reducing support calls, costs and no fault found, while enhancing customer experience (CX) and net promoter score (NPS)
- Collaborating made easier and more dynamic – place and interact with a digital twin technology model

“Industry leaders adopting technology such as TeamworkAR will be ready to meet the pace of change in the coming years and set themselves up for operational excellence,” said Doug Stephen, president, Enterprise Learning and TeamworkAR™ divisions, CGS. “We are seeing the future of business in the hands of many of our clients and their employees who are using the solution. Leaders can experience the power these technologies can have on their teams. Empowering workforces with a collaborative tool like TeamworkAR can open up endless possibilities and game-changing growth potential.”

## NEXT STEPS

In Spring 2022, CGS will launch the second phase of TeamworkAR, which will allow organizations to digitize their own assets using TeamworkAR's object capture to combine their own best practice enterprise learning curriculums with mixed reality. The third and final phase to be released in Summer 2022 will see the launch of the Experiences Authorizing module. It will allow TeamworkAR clients to create and scale their own real-world scenarios enhanced with computer-generated objects and perceptual information with full control.

## ***Clinical Labs are Integrating Tecsys' Elite™ Healthcare Software to Automate Inventory Management***

11 January 2022

Tecsys Inc., an industry-leading supply chain management software company, announces another important milestone for its end-to-end Elite™ Healthcare supply chain execution platform with the commercialization of its automated inventory management and management insights solution for the clinical lab environment. By leveraging the robust Elite™ Healthcare software platform, this software solution builds on clinical supply chain best practices and process optimization while helping clinical labs to tackle the most common inventory challenges.

With clinical lab inventory management implementations live at over 70 labs across more than 20 countries, Tecsys' software already has a solid footprint in the industry with a demonstrated capacity to cater to the regulatory and compliance requirements unique to different jurisdictions and markets.

Tecsys' automated inventory management for clinical labs is an intuitive technology solution designed to track, monitor, and report inventory levels and consumption within a lab environment. The solution provides unparalleled efficiency and transparency across lab-specific inventory management activities, equipping organizations to streamline workflows and optimize inventory levels while restoring clinical time spent on supply-related activities back to clinical duties. Architected to existing lab environments and site-specific conditions, the solution can be deployed across workstation and mobile interfaces, as well as leverage barcode and RFID technology.

"Tecsys software has been employed in clinical labs for a number of years in multiple locations around the world via our white-label partners," says Cory Turner, senior director, Healthcare Strategy at Tecsys. "We have been working diligently behind the scenes in partnership with these organizations to test the mettle of our offering in real world settings and an intuitive and integrated component of a broader healthcare supply chain platform. What we bring to the market in this space is not only a benchmark for clinically integrated supply chain operations, but also one that has been stress-tested over the past half decade."

In addition to automating usage capture and demand triggers, the solution provides real-time track and traceability, automated expiry and waste management, patient specimen tracking and robust inventory optimization tools. It is built on a common platform with Tecsys' other Elite™ software products which offer complementary functionality within the broader healthcare supply chain ecosystem.

"We design technology for the healthcare industry that simplifies the user experience and reduces the supply chain-related burden on clinical personnel, while empowering supply chain teams to perform at the highest level," adds Turner. "Those core tenets apply equally to our clinical lab offering, where efficiency, accuracy and high cost of error are fundamental to an effective operation."

## ***Corecon Technologies Announces DocuSign eSignature Integration with its Cloud-***

## ***Based Construction Software Suite***

11 January 2022

Corecon Technologies, Inc. announces a new integration with DocuSign eSignature for use within Corecon’s cloud-based construction estimating, project management and job cost software suite. This new feature allows Corecon subscribers to securely obtain and track electronic signatures on construction documents along with other construction project information in one secure location.

The process for utilizing the new electronic signature feature is quick and easy. After enabling e-signature in Corecon Settings and authenticating the account, the DocuSign eSignature integration can be turned on or off for estimate proposals, client contracts, changes, invoices and all procurement related transactions such as POs, subcontracts, SCOs and subcontractor invoices.

Documents that are generated and saved in Corecon can then be designated for the eSignature workflow process where specified individuals are sent email notifications requesting signatures. Email and eSignature templates are also available and customizable, allowing for multiple signatures and personalized communication. In addition, signers are automatically set based on the Corecon document type (e.g., change order | owner and contractor contacts).

For tracking purposes, the e-sign document is color coded based on the completion status. Once the signatures are obtained, details of when the document was signed and by whom are accessible in the Linked File Details view.

“The Corecon integration with DocuSign eSignature is another feature we’ve added to our software suite that is convenient, quick and efficient,” said Corecon Technologies President Norman Wendl. “Because these important documents are encrypted and a complete audit trail is maintained, this process is also more secure than traditional paper and delivery methods, and all documentation is stored and retrievable within the Corecon platform.”

The DocuSign eSignature integration is free and available immediately for all Corecon subscribers. Learn how to begin using this new feature in Corecon’s Knowledge Base.

## ***Elysium - Release Announcement of CADfeature 17.0***

12 January 2022

Elysium has released CADfeature 17.0.

Key Enhancement

Support New CAD Version

CAD	Versions added in 17.0	Supported Versions
NX	1980 Series, 2007 Series	1847 Series – 2007 Series
Creo Parametric	8.0	3.0 – 8.0
SOLIDWORKS	2022	2018 – 2022

## *Intelliwave Releases SiteSense Integration for Oracle's Primavera Unifier*

12 January 2022

**Intelliwave Technologies**, a global leader in providing digital solutions for construction materials management, and a member of Oracle PartnerNetwork (OPN), announced SiteSense® can be integrated with **Oracle's Primavera Unifier** and is available on **Oracle Cloud Marketplace**. Oracle Cloud Marketplace is a centralized repository of enterprise applications offered by Oracle and Oracle partners. Intelliwave Technologies was formed in 2007 to provide new solutions in the construction industry to help increase "Time on Tools" for craft labor and improve site safety. The result was the creation of a revolutionary web and mobile-based software solution in one encompassing brand, SiteSense.

The integration between SiteSense and Oracle's Primavera Unifier allows construction professionals to make informed decisions about upcoming scheduled activities and constraint analysis by the real-time access to materials management and workforce planning data from SiteSense, in combination with the contract and purchase order management, equipment records and installation work package data from Primavera Unifier. This integration will be explored, tested, and validated at the **Oracle Industries Innovation Lab** enhancing both platforms and helping improve the delivery of projects globally.

The SiteSense integration with Primavera Unifier adds valuable insights and functionality to create a connected ecosystem for our mutual customers allowing for:

- Reduction of administration costs by 10%
- Craft labor productivity improvement by up to 16%
- Reduction in material bulk purchases by up to 40%

"The two-way integration between Intelliwave SiteSense and Oracle's Primavera Unifier provides considerable value to our shared clients," stated Dale Beard, CEO of Intelliwave. "Intelliwave's participation in Oracle Cloud Marketplace further extends our commitment to the Oracle community and enables customers to easily reap the benefits of SiteSense. We look forward to leveraging the power of Oracle Cloud to continue to enhance and expand our integrations as well as provide support for the Oracle Industries Innovation Lab to showcase construction productivity gains via the fully integrated market-leading products."

The integration includes three major benefits for SiteSense and Oracle's Primavera Unifier customers, keeping their field and office workflows connected in a single ecosystem:

- **Digital Delivery Verification:** Approved Purchase Orders created through the Contract Manager in Primavera Unifier sync to SiteSense to create Purchase Orders. Field users can process digital receiving reports for materials and equipment from a mobile device, setting material status, location and verifying actual received quantities against the Purchase Order.
- **Automated Invoice Creation:** From the completion of the digital delivery receipt, field users can post the transaction triggering an invoice to be created in Primavera Unifier for the received quantities, removing the need to manually create invoices.
- **Equipment and IWP Constraint Analysis:** Equipment records connected to Installation Work Packages (IWP) from Primavera Unifier sync to SiteSense to create a Material Need. SiteSense Users can forecast equipment availability and upcoming constraints comparing scheduled installation dates against Purchase Order and Vendor estimated delivery dates allowing for proactive mitigation of risks to projects.

"At our Oracle Industries Innovation Lab we explore, test and validate technologies that enhance our

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overall platform and improve the delivery of projects globally,” said Geoff Roberts, director of energy industry strategy, **Oracle Construction and Engineering**. “By integrating Intelliwave with Oracle’s Primavera Unifier, it can help provide organizations with an enhanced digital data asset that brings the ability to manage and track construction materials from procurement to installation.”

Intelliwave technologies are available on **Oracle Cloud Marketplace**. The Oracle Cloud Marketplace is a one-stop shop for Oracle customers seeking trusted business applications offering unique business solutions, including ones that extend Oracle Cloud Applications. Oracle Cloud is an enterprise cloud that delivers massive, non-variable performance and next generation security across a comprehensive portfolio of services including SaaS, application development, application hosting, and business analytics. Customers get access to leading compute, storage, data management, security, integration, HPC, artificial intelligence (AI), and Blockchain services to augment and modernize their critical workloads. Oracle Cloud runs Oracle Autonomous Database, the industry’s first and only self-driving database.

## ***KAUTEX TESTS NEW OPENPDM INTEGRATION TO POLARION***

12 January 2022

PROSTEP AG has expanded its PLM integration platform OpenPDM to include a new connector to Polarion, the application lifecycle management (ALM) system from Siemens Digital Industries Software. The software and consulting company is thus improving capabilities for integrating ALM systems, which are becoming increasingly important as a result of the high proportion of software in products. The first customer to evaluate the new connector will be the automotive supplier Kautex. The company's aim is to use the OpenPDM platform to synchronize ALM data with its development partners.

The ALM solution Polarion is used to manage requirements tasks, tests and release versions in software development. As Mirko Theiß, OpenPDM product manager, explains, this information must be combined with product data from mechanical and E/E (electrical/electronic) development to create an end-to-end digital thread that ensures traceability across system and domain boundaries. "That's why the integration of ALM with other enterprise applications such as PLM or ERP plays an important role, especially for the manufacturers of mechatronic and smart products."

In order to meet customer requirements, PROSTEP is expanding the world's leading PLM integration platform OpenPDM in the direction of ALM. The new Polarion connector makes it possible to synchronize or link information from Polarion with other ALM systems as well as PLM and ERP systems. The integration platform supports different scenarios in this context, depending on the use case involved. Thanks to the OpenPDM OSLC provider, the new Polarion connector, like all the other connectors, makes it possible to link data across different systems.

Kautex, an automotive supplier belonging to the Textron Group, will be the first to use the new connector. With over 6,000 employees at more than 30 locations in 14 countries, it is one of the 100 largest automotive suppliers in the world. Kautex develops and manufactures innovative fuel tank systems, battery systems, camera and sensor cleaning systems, and camshafts for all the major carmakers. The company also manufactures a wide range of standard and customized plastic packaging solutions.

Kautex intends to use the new OpenPDM connector to synchronize information about issues between two Polarion instances. One of the instances is located at Kautex, while the other is used by development partners. In conjunction with OpenPDM's process engine, the new connector ensures the bidirectional synchronization of information.

## ***Opcenter Quality 13 has been released!***

10 January 2022

January 10, 2022 brings a post by Alessandro Ceresto on the Siemens Opcenter blog describing the newest updates to Opcenter Quality. Updates in Opcenter Quality 13 include improvements to inspection data acquisitions, FMEA Enhancements, Audits executable offline, a new supplier portal and more. To read the full story go to the Opcenter Blog. <https://blogs.sw.siemens.com/opcenter/opcenter-quality-13-has-been-released/>

## ***progeCAD 2022 Milestone AutoCAD Alternative Released on CADDIT.net***

3 January 2022

**CADDIT Announces the release of progeCAD 2022 on CADDIT.net for Australia and New Zealand.** progeCAD is an advanced general-purpose 2D and 3D CAD package with similar commands to AutoCAD but with perpetual license and lower price. CADDIT has been supporting progeCAD users in the Australia/New Zealand region for almost fifteen years. Now, after months of thorough testing, the CADDIT team is happy to announce their official release of this milestone product version.

progeCAD 2022 from CADDIT Australia offers a dramatic feature update over previous versions. **2D Drafting now includes a fully-implemented and hugely improved interface for drawing text and data TABLES**, including improved cell support and a full list of FIELD types. Data cell selection now seamlessly brings up a full text editor. DIESEL fields are now properly implemented and real-time spell checking has been added for text. MTEXT likewise has new support for clear and strike-through formatting, as well as better symbol- sub- and super-script support. progeCAD 2022 now offers the much-anticipated SHEET SET MANAGER displays, publishes and manages sheet sets, a named collection of drawing sheets. Each sheet in a Sheet Set is a layout in a drawing (DWG) file.

**A new geometry solver improves reliability for almost *all* drawing commands** like Trim, Chamfer, Fillet, Hatch etc. General performance improvements have also been made to FILE open speeds, REGEN, SAVE, AUTOSAVE as well as the end user's experience in OSNAP, LAYOUT and many other commands. General interface improvements have been made to the program's START page, VIEW MANAGER, SETTINGS window, CUI customization dialog and the ARRAY command. Feature GROUP handling is now offered in progeCAD via the new GROUPEDIT command, complete with visualization grips. Several new tools will save estimators time in progeCAD, such as the new TOTALAREA command which gives the sum total of multiple selected closed entities, the new ATTSYNC command which updates attributes for all block instances (useful for updating material lists) or IMPOINT which automates the creation of new points, polylines or splines from coordinates in a text file. TPNAVIGATE has also been added for palette navigation, which can be helpful for users who create or use multiple tool palettes.

progeCAD 2022 now supports all new Spacemouse and CADmouse models from 3DConnexion. This can be an absolute boon for end users doing a lot of 3D design in progeCAD. 3D Solids now fully support the use of GRIPS for direct editing. a new 3D STEEL library for quick 3D weldment design in progeCAD has also been added.

## ***Siemens extends mechanical performance prediction leadership with Simcenter 3D 2022.1***

11 January 2022

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Siemens Digital Industries Software has announced the latest update to Siemens' Simcenter™ 3D software, part of Siemens' Xcelerator portfolio of software and services. It enables engineers to tackle the complexity of product development and innovation with advanced simulation. Among the new capabilities, Simcenter 3D offers increased support for turbomachinery modeling, a dedicated drop test application for handheld devices, tightly integrated topology optimization with the NX Design environment, and a new acoustic solution method that is up to 10 times faster than standard methods.

“This release of Simcenter 3D brings together our combined expertise and experience across a wide range of industry sectors, capabilities and physics,” said Willy Bakkers, vice president of solution domain product management, simulation and test division at Siemens. “Our customers are finding bold new ways to make use of complex physics simulation to drive innovation across industries. Our job is to make sure they have the best-in-class tools available when they need them.”

Siemens' Simcenter 3D 2022.1 release focuses on helping engineers overcome challenges in four key areas:

**Model the complexity:** The ability to model and understand complex physical phenomena is at the forefront of this Simcenter 3D release. Simcenter 3D's industry-leading solution for the turbomachinery industry has been extended with additional thermal multiphysics, rotordynamics and thermal fatigue capabilities to more accurately capture the complex physics happening within these machines. A new dedicated set of tools to simulate spiral bevel gears, as often found in automotive differentials, enables accurate, system-level NVH analysis on these mechanisms to reduce gear whine. Additionally, a new dedicated application simplifies and streamlines the drop-test simulation process for electronic and other handheld devices for engineers who are not simulation experts.

**Explore the possibilities:** Acoustics auralization capabilities allow engineers to not only simulate but also listen to the acoustics/sound within the context of the end-user's experience. Engineers can now mix all contributing sounds and listen to the combined acoustics results to answer questions such as “What will a loudspeaker sound like when you put it in a car and combine it with background noise from the engine, HVAC, wind and road?” In this release, topology optimization is now more tightly integrated with the NX Design environment so that simulations are ‘replayable’ and become easier for designers to create lightweight, yet structurally capable designs.

**Go faster:** Two core updates enable our customers to break new ground more quickly than ever before. The new high-performance boundary element method with adaptive order solution (BEMAO) used for acoustics simulation is up to 10 times faster compared to the standard boundary element method, while new load case filtering for aerostructures allows engineers to quickly determine the final critical list of load cases from the thousands of load cases experienced in an airframe.

**Stay integrated:** Simcenter 3D now connects with Xcelerator Share for Xcelerator as a Service (or XaaS) subscribers. The Xcelerator Share collaborative cloud environment helps users or distributed workgroups seamlessly share files and communicate results to aid ad-hoc collaboration.

Finally, engineers can now launch simulations remotely to any workstation or HPC cluster right from their desktop.

## ***Superior Sensor Technology enhances digital customer experience with 3D CAD configurator for pressure sensors***

13 January 2022

**Pressure sensor manufacturer releases interactive sensor configurator powered by CADENAS**

Pressure sensor manufacturer Superior Sensor Technology, Inc. has released a 3D CAD configurator to

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enhance the digital customer experience for design engineers. The configurator's 3D previews and native formats allow Superior Sensor to further revolutionize the pressure sensor market. By integrating these sensors into a 3D CAD configurator with filter assistants and over 150 native and neutral formats, Superior Sensor has made it easier than ever for engineers to design-in these critical components.

"Before the configurator, customers would have to contact us via phone or email to request files, and then we would send them the basic STEP file via email," said Anthony Gioeli, VP of Marketing at Superior Sensor Technology. "Now they can download 3D models right from our website in their preferred native formats, making the engineers' design process frictionless and less time consuming, which is a big plus."

### **More qualified leads through quick & easy online service**

"With the new configurator, we've started seeing companies we've never interacted with design us in, increasing our qualified leads," Gioeli said. "Engineers can go on our website, get the models and data sheets they need, and get right back to work. As a young company our goal is to make it as easy as possible for someone to design us in. We know if Superior Sensor Technology is easier to do business with, then it gives customers another incentive to work with us."

Superior Sensor specializes in programmable, application-specific pressure sensors that marry pressure sensor technology with Silicon Valley ingenuity. Typically found in industrial, medical, and HVAC systems, these sensors use the company's proprietary NimbleSense™ architecture to significantly improve sensor performance and provide modular building blocks that offer customizable features. One of the most innovative blocks is the company's Multi-Range™ Technology that enables a single sensor to be calibrated to support a wide range of pressures without any degradation in performance. This eliminates the complexity of working with multiple sensors, ensuring engineers always have an optimized sensor for their application.