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CIMdata News

Can We Afford the Green Energy Transition?

11 November 2022

Written by [Mark Reisig](#)

Reducing greenhouse gas (GHG) emissions and transitioning to a decarbonized economy is the defining issue of our time. Despite the many pledges from countries and companies, without significant policy changes and technological breakthroughs, we are projected to fall short of what is required to meet the Paris Agreement by 2050 and limit the rise in global temperatures to 1.5 °C above the pre-industrial era. ([EIA, 2021](#)) The emission reduction pledges for 2030 need to be seven times higher to align with the Paris agreement's goal. Currently, there is a huge gap between aspirations and reality with potentially devastating consequences. ([UNFCCC, 2022](#))

By 2050, the planet's population is expected to reach nine billion, with power consumption expected to triple as electrification and living standards grow. The race to achieve "net zero" emissions will accelerate new waves of innovation and create the largest reallocation of capital in history. ([RBC Capital Markets, 2022](#)) As the world transitions, PLM will play a critical role in the many innovations that will be occurring as well as in ongoing sustainable operations.

The world requires more energy, which accounts for over 70% of GHG emissions, and, more specifically, electric power, which is affordable, dependable, consistent, and easily accessible while still meeting the "net zero emission targets. But can we afford it?

Oil and natural gas prices rose in 2021 as we rebounded from the shutdown. Russia's invasion of Ukraine resulted in an energy crisis. This is a separate topic, but being dependent on Vladimir Putin for cheap oil, natural gas, and coal imports has proven to be a poor policy as energy security is concerned. In the short term, this negatively impacts plans to get to "net zero," but long term, this should motivate Europe and the world to accelerate their efforts to transition away from fossil fuels.

Let's review some key factors about our energy mix and its economic viability. Today, around 80% of our global energy comes from fossil fuels. By 2050, fossil fuels are projected to make up 43% of global energy demand. ([McKinsey 2022](#)) When fossil fuel demands will peak depends on whose projections you believe. However, what is consistent is the decrease in fossil fuels based on the projected growth in renewable energy. The real issue is the time it takes to build out renewable sources and a smarter, more flexible, and more distributed grid.

But the wind doesn't always blow, and the sun doesn't always shine, so how do we get a consistent minimum baseload power (24 hours per day) from renewable energy at a reasonable price?

Traditional Baseload

The term "baseload" was first used when the electric grid was originally built over one hundred years ago. Baseload power traditionally comes from power plants that operate at roughly 70 to 90 percent of their capacity and can supply the minimum baseload power 24 hours a day. They only shut down for maintenance. Historically, baseload power came from coal, nuclear, and combined-cycle natural gas power plants. Geothermal and hydro (run-of-the-river) are also used for baseload; however, both are geographically constrained.

In the baseload model, additional "load-following" or "intermediate" plants operate in response to changing demand and run around 30 to 50 percent capacity. They either shut down or curtail their output

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during off hours, such as at night. Historically, this is addressed by either simple cycle gas turbine units, which can be shut down daily if required, some older coal plants, or combined cycle natural gas plants. A combined cycle powerplant recycles the exhaust, versus a simple cycle gas turbine unit that propels hot gas through a single turbine and does not recycle the exhaust.

To avoid blackouts, P&Us will run “peaking units” when demand reaches peak levels, such as on a hot summer day when many people are using air conditioning. Simple cycle gas turbine units typically address this. Gas turbines primarily use natural gas but can use many fuels, including fuel oil and diesel.

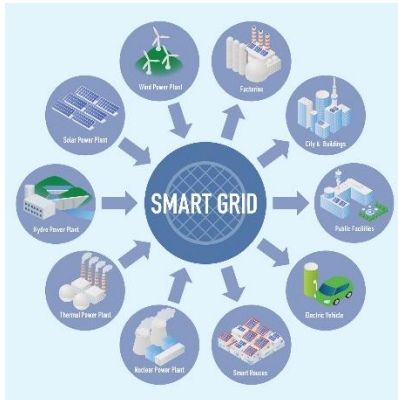
Traditionally, the grid delivers the power from a smaller number of generating facilities mentioned above that are located relatively close to the consumer. These sources distribute electricity over a complex patchwork of public and private grids using high-voltage transmission lines, substations, transformers, and local grids to provide lower voltages to our homes and businesses. This is a top-down or one-way distribution model.

Baseload Model Fallacy

Solar and wind are intermittent. Previously, you couldn’t store or deliver it on demand. However, the baseload model that I described above is pre-renewables. It is based on having fuel in place, so when demand is needed, P&U companies deliver it over a dumb one-way grid, similar in principle to the pipes that deliver water in your home.

Where you have a large amount of renewable energy, the model can be flipped from a centralized model to a more decentralized one, where a smarter, more flexible grid allows operators to adjust their output to meet demand. This will still require natural gas power plants for backup or “intermediate” use, but the peaks won’t be as severe because the grid is becoming more flexible in terms of distribution. Coal and nuclear plants generally run at a steady level, whereas natural gas-fired plants can be dialed up and down, which is important if we’re going to achieve enough electricity from renewable forms of energy.

Smart Grid



The grid and storage are the key to the green transition in the power industry. The existing grid is vulnerable to extreme weather events and cyber-attacks, with power outages costing U.S. businesses around \$150 billion annually. ([Marsh McLennan, 2022](#)) It also suffers from a lack of efficiency. According to the EIA, in the U.S., about 5% of the energy is lost in transmission, worth about \$6 billion to the consumer. The smart grid is the key to enabling lower-cost energy to be used when required. It is based on the premise that the amount of electricity generated for each instance must equal the consumption across the grid. Smart Grid technologies enable grid operators to see and manage electricity consumption in real-time. This greater insight enables the P&U to use

renewable energy sources when applicable, resulting in greater control, reduced outages, and a lower need for peak power. This doesn’t eliminate the need for nuclear or gas turbines, but especially with gas turbines, it provides greater flexibility. Overall, the smart grid distributes power better, provides greater flexibility, better energy security, lower costs, and dramatic reductions in GHG emissions.

The smart grid enables two-way communication between the consumer and the P&U to deliver the correct amount of energy as required. In this way, the consumer will be able to sell power back to the P&U. If you think this is far-fetched, I know people and businesses that have been doing this since the early 1980s, but now with more flexible low-cost solar, it will become more commonplace because an increasing number of people are starting to generate power off the grid already.

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Consumers are also transitioning to using smart appliances, which leads to the smart home that uses smart meters and a home area network (HAN) that can control what and when we use electricity. The HAN can be used to charge EVs and other household appliances, resulting in less demand during peak times, lower utility bills, and greater visibility across the grid.

Renewable Energy is Less Expensive

Why go to the expense of creating a more flexible, robust grid? The answer is that solar, wind, and hydro are the least expensive forms of power. Solar and onshore wind will continue to be more economically viable due to the low cost of production and operation, as well as innovations enabling longer lifespans and, in some cases, improved recycling and reuse.

Even in China, India, and the U.S., the three largest coal consumers, coal demand will continue to drop because the cost of retrofitting a coal plant is already not cost-competitive with a new solar or wind farm for the same energy capacity. By comparison, the most modern coal plant is roughly twice the cost of solar or onshore wind as measured in megawatts per hour (MWh).

China, the world's leading polluter, may not begin reducing coal until 2026, but it is investing heavily in renewable energy to the tune of \$380 billion in 2021. India has the fastest-growing rate of renewable electricity of any major economy.

Power & Utilities (P&Us) are investing in solar and wind. They are also trying to sell off fossil fuel generation assets and shifting their focus to renewables, nuclear, hydrogen, electricity networks, and energy services, including energy storage. ([Power and Utilities Transactions and Trends, Ernst & Young 2021](#))

Since solar and wind are intermittent, P&Us are also investing heavily in decentralized, more resilient, smarter energy grid technology and storage that can store and use renewable energy when required. They are investing in Battery Energy Storage Systems (BESS), thermal storage, which can include compressed air energy storage (CAES), mechanical storage, pumped hydro (the most commonly used today), and green hydrogen, which involves converting electricity via electrolysis to a liquid form to be stored or moved. All the storage technologies are undergoing innovation to improve efficiencies, lower costs, and increase scale. The global energy storage market is expected to attract approximately \$1 trillion in new investments over the next decade, with costs declining by a third over that period.

The Challenge

There will be many technical hurdles to overcome, but the real issues are time and political willpower. Will the grid change quickly enough to meet the 2050 goals of “net zero?” I have my doubts, but it has nothing to do with cost. Every country is balancing short-term realities, such as what is happening in Europe right now, which impacts us all. But of deeper concern are special interests trying to cling to the past. Brazil, for example, consumes over half its energy from renewable generation. Still, this year, due to an upcoming election, their president decided to continue subsidizing their dying coal industry at much higher than market prices through 2040. This move only benefits one state—Santa Catarina—in return for votes.

The good news is there are thousands of projects underway to transform the grid to a smarter, more distributed grid known as “smart grid 2.0.” This will take advantage of new technologies such as 5G networks, AI/ML predictive analytics, digital twins, and IoT, thus enabling the grid to pivot to support a greener, decarbonized economy.

Costs

The U.S. has passed legislation and committed to a net-zero electricity grid by 2035. With this, there

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could be a 31-44% reduction in emissions by 2030 ([Bipartisanpolicy.org, 2022](https://www.bipartisanpolicy.org)) and a flood of private investments in cleaner and more renewable energy, which, in the end, will cost less, not more.

Overall, the costs to meet the 2050 target of net zero has had many projections ranging from \$10 to \$90 trillion dollars. I struggle with that, in general, it appears that those who invest in going green are making great investments in the future. Not unlike early investments in the internet. Many large banks, investors, and private equity firms are investing in Green Energy because it's a great way to make money. For example, the world's largest asset manager, BlackRock, with approximately US\$10 trillion in assets under management, is fully committed to decarbonizing its portfolio. Their CEO, Larry Fink, believes that "Every company and every industry will be transformed by the transition to a net zero world. The question is, will you lead or be led...Engineers and scientists are working around the clock on how to decarbonize cement, steel, plastics; shipping, trucking, and aviation; agriculture, energy, and construction. I believe the decarbonizing of our global economy is going to create the greatest investment opportunity of our lifetime." ([BlackRock Larry Fink CEO Letter 2022](#)) Do you really want to bet on coal?

To me, that's like betting on Blockbuster. All the major energy OEMs are making serious shifts to green energy, which would not make sense unless it was profitable. They either adapt or die.

The faster we transition to clean energy, the less expensive it will be. Green energy technology costs have been falling over the past decade with dramatic increases in use and innovation. It's possible that transitioning to a decarbonized energy system by approximately 2050 could save the world \$12 trillion. ([University of Oxford, 2022](#)) Today renewable energy is really the only energy source that can provide long-term price stability—and in today's inflationary environment, that is what every business and consumer wants. ([The Wall Street Journal, 2022](#))

The cost to the economy by not investing in a decarbonized world, I believe, would be incalculable.

Let me know what you think!

Mark

CIMdata Announces its 2023 PLM Market & Industry Forum Series

9 November 2022

Events offer the first look at CIMdata's analysis of 2022's PLM market results.



CIMdata, Inc., the leading global Product Lifecycle Management (PLM) consulting and research firm, announces the schedule and theme for its 2023 PLM Market & Industry Forum.

The theme for 2023 is "The Digital Thread: Powering Business Transformation." In this industry-leading Forum, CIMdata will frame the topic of the digital thread and discuss the issues faced by industry to best respond to new and evolving requirements.

Drawing on the findings from primary research conducted by CIMdata on behalf of the Aerospace & Defense PLM Action Group and key PLM solution providers in late 2022 and early 2023, we will seek to answer the following questions:

- How is the global PLM Economy responding to the requirements?
- How well are industrial users achieving their digital thread objectives?

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For 2023, we will host five Forums. The first will occur in Ann Arbor, MI, USA, as a one-day, in-person event at the end of March. This will be followed in early April by a one-day, in-person event for the EMEA region, which will take place in Frankfurt, Germany. We will then host three more events focusing on the PLM Economy in India, China, and Japan.

We will cover the following topics:

- The current state of PLM – market and leading trends
- PLM global market analysis for the 2022 calendar year
- The promise of the digital thread
- The digital thread from the perspective of industrial companies
- The digital thread from the perspective of the PLM Economy

As a leading provider of research on the PLM Economy, CIMdata continually investigates topics of interest to this group. For 2023, the Forum will offer the opportunity to learn more about the following areas of interest:

- Green Energy
- Data Governance

According to Stan Przybylinski, CIMdata’s Vice President, “The notion of the digital thread has been around since almost the inception of the concept of product lifecycle management (PLM). But supporting linkages with a large, heterogeneous information technology landscape was always challenging and did not always achieve the desired results. But today’s solutions, architected and defined to support international and de facto standards are proving more up to that challenge.”

Presentation topics are consistent throughout the Forum series, with slight variations in each geography to account for regional trends. For more information on our agenda, please visit <https://www.cimdata.com/en/education/plm-market-industry-forums/north-american-plm-market-industry-forum-agenda>.

Forum participants will gain a solid understanding of the current and emerging PLM market, its dynamics, and the expectations for its continued evolution. Attendees will also learn more about opportunities and approaches for navigating the PLM Economy in the coming year. To learn more or register for a 2023 PLM Market & Industry Forum, please go to <https://cimdata.com/en/education/plm-market-industry-forums>.

CIMdata to Host Free Webinar on The State of the PLM Economy

8 November 2022

CIMdata, Inc., the leading global PLM strategic management consulting and research firm, announces an upcoming free educational webinar, “The State of the PLM Economy.” The webinar will take place on Thursday, December 8, 2022, at 11:00 a.m. (EST) and last for one hour.

If there is one constant in the PLM Economy, i.e., the collection of software and service providers that serve industrial companies in pursuing their PLM strategies, it is never dull. In this webinar, Stan Przybylinski, CIMdata’s Vice President, will review the significant events to date in the PLM Economy in 2022 and discuss what we might look forward to in 2023 and beyond.

This webinar will help attendees:

- Develop a better understanding of the events of the calendar year 2022 and how they impact the

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market.

- Identify key aspects of market moves that might suggest future actions.
- Better understand the PLM market and the competitive position of the leading PLM solution providers.

According to webinar host Stan Przybylinski, “The global PLM Economy rebounded strongly in 2021 after a tough COVID-19-impacted 2020. The global PLM market grew 11.9% in 2021, beating CIMdata’s forecast, mainly due to strength in some tools segments. It will be interesting to look at the trends we have seen for 2022.”

Mr. Przybylinski has over 35 years of experience developing business-enabling IT solutions for research, engineering, and manufacturing organizations worldwide. He has worked in R&D, marketing, and communications with Fortune 100 companies and small organizations. Stan is responsible for CIMdata’s research agenda, including the CIMdata PLM Market Analysis Report series. He has been directly involved with the selection, consulting, integration, and implementation of large-scale PLM solutions and has worked on projects for both PLM solution providers and end-user organizations in the automotive, aerospace, consumer packaged goods, high-tech, and medical devices industries. He has spoken on PLM-related topics in Europe, North America, and Asia.

This webinar will be useful to product planners and managers, product portfolio managers, PLM team leaders and team members, PLM users, executives interested in a quick way to update themselves on the PLM economy, product managers, IT leaders, solution providers, financial analysts, and anyone who wants to learn about how PLM has progressed in 2022 and how it might move forward in 2023 and beyond.

During the webinar, attendees will have the opportunity to ask questions about the topics discussed. To find out more, visit: <https://www.cimdata.com/en/events/webinars/event/726-webinar-the-state-of-the-plm-economy-2022-beyond>. To register for this webinar, please visit <https://register.gotowebinar.com/register/2111531143547476238>.

UberCloud: Accelerating Innovation Using High-Performance Cloud-Based Simulation and Analytics - a CIMdata Commentary

8 November 2022

Key takeaways:

- The creation of today’s highly complex cyber-physical products, combined with intense global competition and time to market pressures, requires significantly greater use of computer-aided engineering (CAE) to assess, validate, and optimize the functional performance of components and sub-systems, as well as complete systems.
- The expanded use of CAE, the cloud, big data analytics, digital twins, and AI/machine learning is driving the need for ever-increasing access to high performance computing (HPC) resources by significantly more engineers across the global enterprise.
- UberCloud provides enterprises of all sizes with an integrated, engineering computing environment for multi-discipline and multi-domain HPC applications running securely across public, private, or hybrid clouds.
- To provide customers with an easy to configure and highly efficient user experience, UberCloud integrates with major cloud and CAE software products.

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Manufacturers in all industries have been applying digital modeling and simulation technologies since the 1970s but now face new challenges as products continue to become more complex, more functional, and more connected with an ever-increasing amount of embedded software and electronics as part of the Industry 4.0 “systems of systems” world. Industry leaders must leverage new and evolving technologies to digitalize their lifecycle development processes while maximizing and modernizing existing investments as well as competing with emerging start-ups that can digitally design new products faster and from scratch working in the Cloud.

The focus on incorporating simulation-driven design methods for the development of complex cyber-physical systems requires much higher fidelity, multi-disciplinary models (e.g. structural FEA, flow, thermal, combined CFD/thermal, acoustics, electromagnetics, optics, Multidisciplinary Analysis and Optimization (MDAO), design of experiments, etc.) to ensure the validity and accuracy of physics-based “digital twins.” These high-fidelity digital twins can then be used confidently to make critical design tradeoff decisions throughout the product lifecycle. Capabilities for multi-physics simulation, for cross-disciplinary data analytics, and for design optimization including the use of new artificial intelligence (AI) technologies to enable machine learning (ML) are driving the need for ever increasing amounts of high performance computing. The promised business benefits of the cloud and AI/ML have significantly raised the ROI expectations of senior management as well as making the use of these new technologies second nature for the next generation of engineers and technical scientists.

The use of HPC in the cloud (public, private, and hybrid) for product functional performance analysis and design optimization using CAE tools is expanding significantly due to these business realities and the economies of scale and global access provided by the cloud. These overall business trends on the use of the cloud are tracked by market analysts such as CIMdata in PLM market research focused on the engineering and product development markets as referenced in Figure 1, and by Hyperion Research.

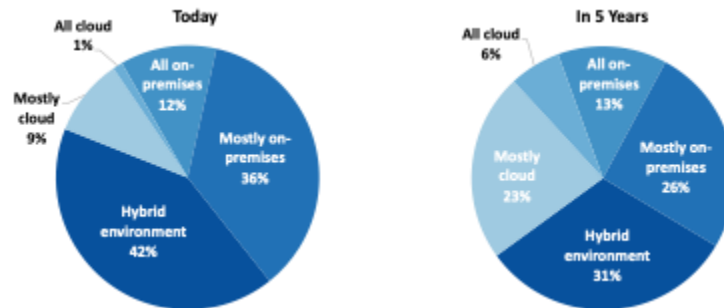


Figure 1—Growth of CAE Cloud Environments Over Next 5 Years
(CIMdata Research on Future of Industry, 2021)

UberCloud: HPC Cloud as a Service

UberCloud is an independent cloud services company headquartered in Sunnyvale, CA, founded in 2012. UberCloud provides enterprises of all sizes with a flexible and scalable HPC cloud environment that runs multi-vendor CAE software applications securely on any Linux machines and in any cloud: public, private, or hybrid (see Figure 2). Companies can run UberCloud on their preferred public cloud provider, or in their own private cloud. With UberCloud’s HPC Cloud platform, engineers can easily scale the size and volume of simulations up and down as the product design and validation workloads require, while IT can control fixed infrastructure costs and manage network performance and security. The benefits of using UberCloud address the varying needs of senior management, IT, and engineering disciplines across the enterprise.

CIO and IT Organization

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- Enterprise Integration—UberCloud’s HPC Cloud containers and its Kubernetes-based automated self-service engineering simulation platform can be fully integrated into the company’s IT environment as part of a company-wide digital transformation initiative.
- Control over Digital Assets—Implementation of the engineering simulation environment in a company’s own cloud account (unlike with many other cloud service providers) enables exclusive control over company CAE software licenses, simulation workflows, and data.
- No Price Markups—UberCloud allows customers to run their simulation environments within the customers’ own cloud subscription. Therefore, UberCloud customers enjoy all price-performance benefits offered by cloud providers without any price markups.

VP Engineering and CAE Managers

- Productivity—Increase in productivity of engineers, enabled by the fully automated self-service simulation platform. According to UberCloud, customers have seen on average a productivity increase factor of 10 in running simulations, with some reporting a factor of up to 40.
- Product Innovation and Quality—Engineers can rapidly evaluate many more design alternatives and discover design flaws and issues early in the design and development process and thus avoid product failures with costly product recall and repair processes.
- Flexibility—Access to the latest state-of-the-art hardware and CAE software technologies with a very good price-performance ratio, because the UberCloud simulation environment is running within the customer’s own cloud subscription.

CAE Analysts and Engineers

- Control—UberCloud’s automated cloud process allows engineers to configure a well-suited, application-adapted cloud resource environment and its interactive and batch use thus keeping the engineer “in the driver’s seat.”
- User-Friendly—“Cloud with one click” through browser-based, highly secure, interactive and batch use of the simulation environment, made possible by UberCloud’s standard “CAE containers” that codify the engineer’s complete simulation workflow, running in the engineer’s own “virtual cloud desktop” within the company’s cloud account.
- Ease of Use and Analyst Productivity—Same look and feel UI across all cloud services minimizes learning curve and enables rapid adoption by new users.
- Analysis Process Productivity—Avoids unnecessarily large data file transfers from cloud to on-premises CPUs by leveraging the integrated remote visualization of results with GPU-accelerated high-resolution images sent over the Internet.

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Figure 2—UberCloud’s “Cloud-Neutral” Engineering Simulation Platform
(Courtesy of UberCloud)

UberCloud Industrial Application Examples

The UberCloud Engineering Simulation Platform has been successfully implemented on AWS, Azure, and Google Cloud since 2018 across a number of industries to enable multi-disciplinary design analysis and optimization. UberCloud focuses on the manufacturing, life sciences, energy, and finance industries and is used by some of the largest companies in the world. Some notable customer applications follow.

Buro Happold: Optimization of Building Designs using Explicit Nonlinear FEA

Headquartered in Bath, United Kingdom, this global firm has a history of building storied projects that push engineering boundaries—unforgettable edifices like the Sydney Opera House and Dubai’s Museum of the Future. The complex buildings combine aesthetics with precision engineering principles and high-performance standards to create buildings that, while beautiful, safe, and comfortable for humans, also ensure a sustainable future for the planet. Buro Happold needs massive computing power to support the engineering simulations that its engineers run to understand and deal with a range of interrelated performance factors as they optimize their designs for each site.

“With UberCloud and HPC on Azure, we’re breaking through the old barriers. We now run simulations in hours that used to take days. We push design boundaries further and further, and that’s exciting,” stated Mr. Gilberto Osornio Nieto, Senior CFD Engineer, Buro Happold.

For more details on Buro Happold’s use of UberCloud’s Engineering Simulation Platform, see <https://customers.microsoft.com/en-us/story/1407081285387890777-buro-happold-professional-services-azure>

FLSmidth: Building Tomorrow’s Sustainable Infrastructure

FLSmidth is a Danish multinational company that focuses on sustainable engineering of infrastructure solutions, services, and equipment for the cement and mining industries. FLSmidth relies on globally dispersed teams serving clients around the world. As part of its digital transformation efforts to optimize its global HPC environments, FLSmidth adopted the UberCloud Engineering Simulation Platform, based on Microsoft Azure. UberCloud and Microsoft collaborated with a blended FLSmidth team, bringing the company’s engineering teams the performance and collaboration gains they need for continuing success.

“Azure CycleCloud and the Azure Kubernetes Service (AKS) are user-friendly ways of provisioning HPC resources. That’s why we combined them with our UberCloud Engineering Simulation Platform. It only takes a couple of quick steps for an engineer to set up and access a compute cluster. Within

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minutes, they have new resources available to them—and it dramatically reduces overhead on IT to provision resources,” according to Mr. Wolfgang Gentsch, President UberCloud.

For more details on FLSmidth’s use of the UberCloud Engineering Simulation Platform, see <https://customers.microsoft.com/en-us/story/1417831248134599964-flsmidth-manufacturing-azure>

Freudenberg Technology and Innovation

Freudenberg Technology and Innovation (FTI) is an engineering facility providing expertise and simulation services to the Freudenberg Group, a global technology manufacturer for the automotive, manufacturing, and other industries, with production sites in Europe, Asia, Australia, North and South America, and more than 48,000 employees. FTI faced the challenges of continuously updating the existing simulation environment for best performance and providing tailored hardware to their engineers for each specific simulation workflow.

As part of their digital transformation, FTI decided to migrate their engineering workloads step-by-step to Azure to provide engineers access to their customized simulation workflows on Azure, including a cloud-based engineering workstation. By moving their workflows to the UberCloud Platform on Azure, seamless hardware update, best performance, and tailored hardware configurations for each specific simulation task have been provided.

“Together with UberCloud, we are now using a fully automated, customized, self-service HPC infrastructure providing a highly flexible, and scalable HPC platform for our different software applications, complementing our existing on-premises HPC,” said Mr. Christoph Weiss, Head of Application Development, Corporate R&D, Freudenberg Technology Innovation.

3DT Holdings: Working to Revolutionize Heart-Valve Surgery

To help improve patient outcomes for a specific form of heart-valve disorder, 3DT Holdings is building a decision-support solution that delivers real-time guidance to surgeons in the operating room. As a first step, 3DT Holdings created a model for this surgery and set out to train (optimize) the machine-learning model—iterative simulations—based on as much real-world data as possible. By partnering with HPC experts at UberCloud, 3DT Holdings was able to use a containerized environment on Google Cloud Platform spanning more than 3,000 Kubernetes clusters—all supervised using SUSE Rancher, an open source multi-cluster orchestration platform. The SUSE solution automates repetitive processes, facilitates management and ensures high simulation success rates—all of which minimize operating expenses. This empowered 3DT Holdings to train its new model within budget and move to the next phase in product development.

“Our work with UberCloud and SUSE is playing an important role in developing an innovative solution to heart-valve disorder, one of the healthcare industry’s most pressing challenges. We’re looking forward to launching a new generation of personalized medicine solutions with the potential to improve quality-of-life for millions of people around the world,” stated Mr. Yaghoub Dabiri, Scientist, 3DT Holdings. For more information, see https://www.suse.com/success/3dt_holdings/

Conclusion

The increased use of CAE and data analytics tools is a trend that has been underway for several decades. CIMdata’s forecast is for increasing utilization of CAE and high-performance computing to enable design innovation through rapid and low-cost “digital experimentation,” while also minimizing the cost and time spent on physical prototyping and validation. The HPC Cloud is expected to be the next generation computing environment that enables digital transformation for engineering and product development.

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In CIMdata’s opinion, the UberCloud Engineering Simulation Platform offers an impressive suite of capabilities to enable simulation-driven design by enabling multi-disciplinary analyses and web-based collaboration for globally distributed product development teams. The ability to integrate best-in-class CAE tools and complex simulation workflows from different software vendors and across engineering disciplines can significantly increase engineering productivity and ultimately enable physics-based digital twins for use in R&D, product design, manufacturing, and in-service operations.

CIMdata expects that the clear business impact of implementing HPC Cloud-as-a-Service should lead to significant growth in the use of UberCloud’s HPC Cloud technology.

Please see <https://www.theubercloud.com/how-it-works> and an MIT Technology Article for more information.

Company News

Accenture Names Andrew J.P. Levy Chief Corporate and Government Affairs Officer

3 November 2022

Accenture has appointed Andrew J.P. Levy to the newly created position of chief corporate and government affairs officer. In this newly created role, Levy will lead the company’s geopolitical strategic analysis and its global government relations function, as well as a global network of external strategists and advisors in this area.

Levy has been with Accenture for more than 10 years, most recently serving as the company’s general counsel for Growth Markets, based in Hong Kong and Singapore. Prior to joining Accenture, Levy held other regional and global legal roles for Accenture. Previously, he was an attorney with Paul, Weiss, Rifkind, Wharton & Garrison LLP in New York and Washington, D.C., and served as deputy general counsel for the U.S. Department of Homeland Security.

“Assessing geopolitical trends and working effectively with governments and thought leaders around the world has never been more important,” said Joel Unruch, general counsel and corporate secretary at Accenture. “Andrew’s international experience and political and legal background make him perfectly suited for this new and extremely important role.”

Levy, who is based in Chicago, will report directly to Unruch and work closely with members of Accenture’s Global Management Committee and other senior leadership, as well as the company’s Board of Directors.

Altair Names UniQcus Channel Partner for Denmark

8 November 2022

Altair, a global leader in computational science and artificial intelligence (AI), announced that UniQcus has joined its growing channel partner network. Located in Odense, Denmark, UniQcus will offer Altair’s data analytics solutions to its customers in the Nordic region. UniQcus delivers core experience with SAS programming and has more than a decade of experience in SAS language and World Programming (acquired by Altair) projects.

“We’re very excited to add UniQcus to our channel partner community,” said Joakim Lindholm, managing director, Altair Nordics. “The power of UniQcus’ experience in analytics combined with Altair SLC – our compiler that runs programs written in SAS language syntax without translation and without needing to license third-party products – presents a great opportunity for any company

looking to improve their analytics capabilities.”

“We are proud to have been a World Programming partner since 2008 and see our new partnership with Altair give customers increased flexibility to leverage their decades of investment in the SAS language alongside modern, open-source coding languages, giving them the true power of a hybrid approach,” said Torben Christensen, chief executive officer, UniQcus. “We are impressed with Altair’s robust technology solutions, unique licensing model, and customer-centered approach. We look forward to the exciting times ahead and, most importantly, to offering our customers best-in-class data analytics solutions.”

Dassault Systèmes Endorses Action Declaration on Climate Policy Engagement

9 November 2022

Dassault Systèmes has endorsed the Action Declaration on Climate Policy Engagement, which was launched by Corporate Knights and the Global 100 Council at COP27 in Sharm el-Sheikh, Egypt.

The Action Declaration brings together corporate leaders who are committed to improving public–private policy engagement to move the world to the clean economy needed to address climate change. Already, the initiative has garnered the support of over 50 global companies (representing close to US\$1 trillion in revenues) that are strongly committed to ensuring that their climate policy engagement, and that of their industry associations, are in line with the Paris Agreement.

Corporate Knights primarily invited companies previously included in its Global 100 Most Sustainable Companies and Best 50 Corporate Citizens in Canada rankings to sign the Declaration. Dassault Systèmes, which figures annually in this ranking, places sustainability at the heart of its purpose to harmonize product, nature and life. Its virtual worlds transform how companies create the innovations needed to reinvent a sustainable economy in life sciences and healthcare, infrastructure and cities, and manufacturing.

“At Dassault Systèmes, we are committed to building a more sustainable tomorrow. We are proud of our contribution towards the ambitious 1.5°C target, both in our commitment to science-based emissions reduction targets in our operations, and through the solutions that we offer to support decarbonization, resilience and resource optimization for the industries that we serve,” said Florence Verzelen, Executive Vice President, Industry, Marketing and Sustainability, Dassault Systèmes. “By endorsing the Action Declaration on Climate Policy Engagement, we aim to take this ambition further and commit to championing the Paris Agreement objectives in our policy engagements and within our industry associations.”

Eight “digital reality” start-ups win opportunity to advance manufacturing

3 November 2022

Eight of the most innovative manufacturing start-ups from across the globe have been announced by manufacturing leader Hexagon as the second cohort of the Sixth Sense open innovation platform.

The selected start-ups were invited to pitch by Hexagon’s Manufacturing Intelligence division from more than a hundred creative and forward-looking companies that responded to this year’s challenge searching for solutions in Visualisation & Digital Reality and Intelligence & Automation, and were whittled down to only those who could demonstrate the most innovative solutions.

Each candidate has developed a unique approach to some of the most pressing manufacturing issues of today, targeting skills shortages, inefficiency, and greater sustainability through the challenge’s themes

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of harnessing metaverse-like digital reality and automation. Under Sixth Sense, they will be given access to Hexagon's hard-won market insight, garnered through decades of working with blue chip technology leaders, and through that fast-track their solutions to commercial success.

Hexagon's Manufacturing Intelligence division is a digital reality solutions giant, whose technology touches 95% of all cars, 90% of all aircraft and 85% of all smartphones produced each year. Hexagon set up the Sixth Sense platform earlier in this year to advance some of the cutting-edge technology that is produced by manufacturing start-ups each year; technology that can fail to take off due to lack of opportunity rather than lack of sophistication. Sixth Sense offers them access to business insight, proximity to experts and technologies that can be used to iterate and improve their solutions, as well as exposing them to Hexagon's global customer and partner base, which includes names like Audi, NASA, Microsoft and Boeing.

The eight start-ups are:

- **3YOURMIND, Berlin, Germany**
3YOURMIND enables more agile manufacturing with a software suite that standardises, optimises and automates the entire process chain to enable on-demand part production. Software is designed to efficiently schedule and track manufacturing processes – from the initial order to the finished part.
- **Augmentir, Horsham, USA**
Augmentir provides companies with smart insights to the workforce and processes, from “hire to retire”. The collected data helps to reduce time to productivity, enables targeted reskilling and upskilling, and provides individualised guidance and support at the point of work.
- **Threedly, Darmstadt, Germany**
Threedly provides the visual computing technologies to translate the ever-growing web of 3D, business and process data into highly responsive and interactive 3D applications. Its instant3Dhub technology translates existing 3D data entities into highly interactive experiences while minimising device and infrastructure costs.
- **oculavis, Aachen, Germany**
oculavis develops Visual Assistance software which connects machinery and equipment with experts, technicians and customers worldwide. Intuitive Augmented Reality (AR) annotations in video calls facilitate focused collaboration between technicians and clients.
- **CASTOR, Tel Aviv, Israel**
CASTOR provides automated 3D printing software which analyses thousands of parts simultaneously and offers deep technical analysis of a complete machine design. It enables manufacturers to identify cost reduction opportunities, suggests geometry changes to the part's design, estimates the cost and lead time and connects the manufacturer to a printing service bureau.
- **GelSight, Waltham, USA**
GelSight develops human skin-like tactile sensing technology that provides detailed and rapid surface characterisation, enabling several surface measurement applications and robotic sensing capabilities.
- **JITbase, Montreal, Canada**
JITbase builds smart manufacturing software that uses machine data and information from CNC programmes to calculate the optimal sequence of machinist activities on the shop floor. The Optimal Path System (OPS) is based on algorithms that calculate in real-time what should

happen in production to maximise the availability rate of the fleet of machines.

- **Teratonics, Orsay, France**

Teratonics offers highly automated non-destructive testing, imaging systems and analysis services through the use of ultrashort Terahertz pulses. Users can look into every produced part to uncover internal defects and measure dimensions.

Parth Joshi, Chief Product and Technology Officer of Hexagon's Manufacturing Intelligence division, said: "A truly successful ecosystem needs excellence at all levels and that's what we're trying to achieve here. Today's market is more competitive than ever, and even good ideas can get lost if all the dominos don't line up. Sixth Sense is designed to pinpoint emerging opportunities for greater innovation, and mature it by giving these companies access to resources and customers that they otherwise may not get in time. By making sure the determining factor for growth is quality of idea, not chance, we can progress the industry as whole."

Milan Kocić, Head of Sixth Sense, Hexagon's Manufacturing Intelligence division, said: "Following on from the success of our first cycle, I am excited to see how this cohort will develop over the next ten weeks. Digital reality and automation are our bread and butter, but part of the Sixth Sense mission is to function as a mutual exchange of value. We are looking forward to learning as much from these nimble young companies as they will from us – with our market know-how and technical heritage, and their agility and dare-to-fail culture, I think we can create real magic."

Each company will now undergo 10 weeks of mentoring, product refinement and focus group opportunities with key experts. The programme will close with a pitching competition in February 2023, which will see each start-up pitch their company and progress made under Sixth Sense to a panel of judges representing tech-specialists, investors and Hexagon experts. Two or more winning start-ups will be selected and receive access to Hexagon's customer base to help improve their processes, whilst globalising their advanced solutions.

HPE and VMware advance partnership to drive digital transformation with integrated hybrid cloud experience

8 November 2022

For more than two decades, Hewlett Packard Enterprise and VMware, Inc. have been at the leading-edge of driving digital transformations, working with more than 200,000 mutual customers. At VMware Explore 2022 Europe, the companies announced the next phase of this partnership with HPE GreenLake for VMware, bringing together HPE GreenLake and VMware Cloud to deliver a fully integrated solution with a simple pay-as-you-go hybrid cloud consumption model.

"Today's announcement with VMware represents the next step in the expanding partner ecosystem of HPE GreenLake, which offers a differentiated edge-to-cloud solution that resonates with customers and partners," said Antonio Neri, president and chief executive officer, HPE. "Together, HPE and VMware will give organizations greater choice and flexibility with a fully integrated hybrid cloud offering designed to accelerate innovation and data first modernization."

"Organizations are looking to evolve from a state of cloud chaos where cost and complexity reign, to a more cloud smart approach," said Raghu Raghuram, chief executive officer at VMware. "VMware Cloud is the trusted platform for enterprise workloads on private and public clouds that gives customers the flexibility and choice to become cloud smart. VMware and HPE will enable customers to combine VMware's state-of-the-art multi-cloud software with HPE GreenLake's cloud operating model and consumption economics to support any workload on a modern hybrid cloud."

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Modern Hybrid Cloud Made Fast and Simple

Many organizations today seek the simplicity of a turnkey hybrid cloud that integrates leading software, infrastructure, and services from the vendors of their choice, all delivered from a single strategic partner as a cloud service. This approach accelerates deployment and simplifies operational complexity to enable customers to quickly deploy their hybrid cloud.

HPE GreenLake for VMware will provide customers with a fully integrated and modern hybrid cloud experience. Customers will benefit from a true cloud experience coupled with the benefit of purchasing only the amount of infrastructure they require through a pay-as-you-go cloud consumption model. Customers will also have the flexibility to determine the best environment for operating their hybrid cloud. VMware Cloud can be fully integrated across the HPE GreenLake portfolio including HPE GreenLake for Private Cloud Enterprise and customers will be able to deploy on-premises, in colocation facilities or at the edge, all managed by HPE GreenLake.

The HPE GreenLake edge-to-cloud platform provides customers and partners with a unified experience, and easy access to more than 70 cloud services. Today, HPE GreenLake supports more than 120,000 users, powers more than two million connected devices, and manages more than one exabyte of data with customers worldwide. Among the top 100 HPE customers, nearly 80 percent have already adopted the HPE GreenLake platform. Organizations benefit from one platform from which to automate, orchestrate, and run their hybrid cloud strategy.

VMware Cloud delivers a modern multi-cloud infrastructure on any cloud, with built-in Kubernetes, integrated security and the best possible TCO. VMware Cloud makes modern application development and deployment faster, easier, and less expensive by making Kubernetes part of the core infrastructure platform. VMware Cloud is more secure by design, enabling micro-segmentation to stop modern lateral threats that move within and across cloud and data center environments. HPE GreenLake customers will be able to extend VMware Cloud environments to a variety of colocation and edge environments, bringing cloud capacity to the places where distributed applications need it most.

Hybrid Cloud Delivered by Trusted Leaders in Enterprise Innovation

With a history of co-engineered solutions, customers can be confident deploying an enterprise hybrid cloud designed, managed, and supported by HPE and VMware. HPE and VMware share the industry's largest virtualized server footprint, and collectively have more than 100,000+ global partners and 25,000+ solution experts. As joint collaboration partners within the expanding HPE GreenLake ecosystem, HPE and VMware will continue to accelerate the pace of co-innovation, such as industry-first support for VMware vSphere on DPUs.

Availability

HPE GreenLake for VMware is expected to be available in the first half of calendar year 2023.

iBASEt promotes Scott Baril to Chief Operating Officer

2 November 2022

iBASEt, the company that simplifies how complex products are built and maintained, announced the appointment of Scott Baril as Chief Operating Officer. In this role, he will focus on aligning operations and product development to meet the needs and expectations of customers during a period of growth.

“As a software as a service company, iBASEt is continuously investing in speeding value delivery and product innovation to bring direct value to our customers. At this time, our momentum of growth has afforded iBASEt the opportunity to recommit to developing solutions that address the voice of our customers and ensure that our operations and direction is laser-focused on directly addressing their

CIMdata PLM Industry Summary

needs,” said Baril, COO, iBASEt. “I look forward to working closely with Sung Kim, our Chief Product and Technology Officer, and the whole of the iBASEt product development team to drive higher quality and performance for our customers.”

“The quality and value of a product is determined by the customer that uses it. At iBASEt, Scott has worked hand-in-hand with our customers. He understands where customers excel, where their pain points exist, and how we can continue to deliver the best possible service,” said Naveen Poonian, CEO, iBASEt, “We are proud to appoint Scott to this role, and we are confident in his ability to align product development and services to meet the needs of our customers and help guide the company to its next level of growth.”

Baril has held leadership positions at iBASEt since 2018, recently serving as Chief Customer Officer, and previously as Vice President of Professional Services. During this time, he helped the organization improve professional services, customer service, and led internal restructuring efforts leading to a marked increase in revenue, time to value, and customer satisfaction.

Prior to iBASEt, Baril worked for Kinaxis, an advanced planning and digital supply chain software company. At Kinaxis, Baril most recently served as Vice President of Consulting Services. During his time there he helped the company transition product offerings from on-prem to SaaS solutions leading to a successful IPO in which he helped lead company operations to meet the shifting demands of the company’s new and existing customer base.

Informatica Expands Cloud-Native Master Data Management to Asia with Microsoft Azure

8 November 2022

Informatica, an enterprise cloud data management leader, announced that the company is expanding its Software-as-a-Service (SaaS) version of multidomain Master Data Management (MDM) to Asia with Microsoft Azure, serving broader Asia Pacific and Japan markets as customer demand for multitenant cloud MDM solution increases.

In a recent Forrester Consulting APAC and Japan study commissioned by Informatica, the study found over 80% of the 250 companies surveyed across Australia, Hong Kong, Japan, Mainland China, Malaysia, and New Zealand, have already implemented or plan to implement master data management in the next 12 months. Majority of the survey respondents prefers to adopt automated, agile, and intelligent approaches to data management, with data governance and privacy at its core to comply with local and cross-border regulations for data sharing, while focusing on improving data quality and consistency for better customer experience as top priority.

From public sector, financial services, automotive to retail sector across Asia Pacific and Japan, Informatica is serving demands in these key verticals that are looking to create golden records of data to promote accurate reporting and make better-informed decisions, as part of their cloud modernisation strategy.

Manouj Tahiliani, GVP & GM for Master Data Management and 360 Applications at Informatica, commented, “There is market appetite for our MDM SaaS offering across key verticals as we see more and more companies looking to adopt a next-generation multidomain MDM SaaS to improve all domain data to drive data accuracy and consistency across their organisation. We are very excited about the growth opportunity, together with the expanded reach with Microsoft Azure in the region, we look forward to helping companies in Asia use cloud-native MDM to drive key initiatives and attain better business outcomes.”

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“Microsoft is pleased to be deepening our global relationship with Informatica. We are bringing Informatica’s Master Data Management SaaS to Microsoft Azure Asia Pacific and Japan regions, offering our joint cloud capabilities to customers looking to unlock the value of data for their business transformation,” said Paul Carvouni, General Manager, Solution Sales, Microsoft Asia Pacific.

With the SaaS version of Informatica’s multidomain MDM, customers can create and manage a centralised single view of their data to provide consistent, trusted data on their customers, products and suppliers in a modern cloud experience, which in turn enables them to increase productivity, improve profitability while reducing total cost of ownership, accelerate business outcomes and delighting their end customers.

Informatica’s multidomain MDM manages all domains of master data in a single SaaS solution as a service of Informatica’s Intelligent Data Management Cloud (IDMC) is available on Microsoft Azure Marketplace.

Infosys and Northwestern’s Kellogg School of Management Collaborate to Accelerate Artificial Intelligence Education and Workforce Development

8 November 2022

Infosys, a global leader in next-generation digital services and consulting, announced a global collaboration with Northwestern University’s Kellogg School of Management (Kellogg).

Through this collaboration, Infosys and Kellogg will collaborate to accelerate Artificial Intelligence (AI)-centered education for Infosys employees. Infosys and Kellogg have signed a three-year agreement to upskill more than 600 Infosys employees working on AI-related projects with advanced AI frameworks through the ‘AI Applications for Growth’ course, with a vision to add real-time value to client projects.

‘AI Applications for Growth’ is a customized and immersive eight-week course that will upskill Infosys employees globally, while bolstering their capabilities to both identify and solve client problems in an agile and innovative manner. The course will be conducted in two modules every year, and will include capstone projects, peer learning discussions, live and interactive teaching, hands-on exercises, active feedback sessions, and weekly assignments based on real-time client engagements. The program covers AI frameworks such as AI radar, AI Canvas, and AI capability maturity model across more than 20 industries and will offer a certificate from Kellogg School of Management.

Prof. Mohan Sawhney, the Associate Dean for Digital Innovation and the McCormick Foundation Professor of Technology at Kellogg, said, “This collaboration represents the future of executive education and capability development in two ways. First, it is a true omnichannel learning experience that blends asynchronous and synchronous modalities. Second, it combines the benefits of an open enrollment executive program where participants can learn from peers from other industries, with the benefits of custom executive education through the Infosys-specific live sessions and capstone projects overseen by Kellogg faculty. We are excited to co-create this innovative initiative with Infosys.”

Commenting on the collaboration, **Balakrishna D. R (Bali), Executive Vice President – Global Head AI and Automation and ECS, Infosys**, said, " We are delighted to commence this engagement with the Kellogg School of Management. Improving outcomes and future-ready solutions require collaboration and communication between educational institutions and corporates. We saw convergence in thinking between Infosys and Kellogg school of management which led to our incredible partnership where, Kellogg provides a customized course to our employees helping them build frameworks and tools to help organizations adopt AI in an accelerated manner across the enterprise.”

Jama Software® Receives SOC 2 Type 2 Attestation

8 November 2022

Jama Software®, the leading requirements management and traceability solution provider announced that it has completed its SOC 2 Type 2 audit, performed by KirkpatrickPrice. This attestation provides evidence that Jama Software has a strong commitment to security and to delivering high-quality services to its clients by demonstrating that they have the necessary internal controls and processes in place.

A SOC 2 audit provides an independent, third-party validation that a service organization’s information security practices meet industry standards stipulated by the AICPA (American Institute of Certified Public Accountants). During the audit, a service organization’s non-financial reporting controls as they relate to security, availability, processing integrity, confidentiality, and privacy of a system are tested. The SOC 2 report delivered by KirkpatrickPrice verifies the suitability of the design and operating effectiveness of Jama Software’s controls to meet the standards for these criteria.

“We take great pride in being the first and only multi-tenant, pure-SaaS offering in our space. And now, with SOC 2 compliance, Jama Connect customers have additional validation and confidence that they are getting unparalleled best-in-class security, business continuity, and can further mitigate risks and scale with compliance,” said Marc Osofsky, Chief Executive Officer of Jama Software.

“The SOC 2 audit is based on the Trust Services Criteria,” said Joseph Kirkpatrick, President of KirkpatrickPrice. *“Jama Software delivers trust-based services to their clients, and by communicating the results of this audit, their clients can be assured of their reliance on Jama Software’s controls.”*

Nemetschek Group announces Louise Öfverström as new CFO

7 November 2022

The Nemetschek Group announced that the Supervisory Board has appointed Louise Öfverström as Chief Financial Officer (CFO) with effect from January 1, 2023. She will take over the role from Dr. Axel Kaufmann, who is leaving the company amicably after a three years’ period in order to pursue a new opportunity. Louise Öfverström will further optimize the Group's financial processes, expand synergies and be responsible for IT and Legal.

Louise Öfverström brings more than 20 years of experience from leadership roles in the fields of finance and controlling, accounting, risk management, business excellence, and business transformation to the Nemetschek Group. Most recently, she was CFO at Rolls- Royce Power Systems AG. Prior to that, Öfverström held leading financial positions at thyssenkrupp Steel Europe AG, Clariant International Ltd. and in the Linde AG. From 2007 to 2014 she held various international leadership roles in finance in the MAN SE, including CFO of MAN Finance International GmbH. Öfverström studied business administration at Lund University in Sweden and in Freiburg, Germany, and began her career as a consultant for KPMG in Munich in 1999.

The Supervisory Board firmly believes that Ms. Öfverström – as an experienced leader in global finance – is the right person to continue to drive value as she enhances the financial processes, systems and steering at the Nemetschek Group. At the same time, the Supervisory Board and Executive Board would like to thank Dr. Axel Kaufmann for his successful contribution over the last three years.

“On behalf of the entire company and the Executive Board, I would like to thank Axel and extend a warm welcome to Louise Öfverström,” said Yves Padrines, CEO of the Nemetschek Group. *“Thanks to her international and extensive expertise in finance and experience in harmonizing internal processes within large business units as well as her focus on transformations and enhanced value generation across*

different industries, she is the perfect addition to the Executive Board team”, Padrines continued.

“The Nemetschek Group represents one of the most impressive growth stories in the international software industry and has the potential to keep growing strongly. I am excited to become a part of this success story and to be part of the Nemetschek Team. With the Group’s growing size and complexity, it will be important to actively organize the financial structure and steering in a way that provides optimal support for Nemetschek’s future growth and value generation,” said Louise Öfverström.

Oracle Appoints Stuart Levey Executive Vice President and Chief Legal Officer

10 November 2022

Oracle announced that Stuart Levey has been named executive vice president and chief legal officer.

“Stuart has one of the sharpest legal minds in the country,” said Oracle CEO, Safra Catz. “His depth of experience in technology, finance, and national security make him a perfect fit to lead our legal team as it navigates changing policies, complex regulations, and our rapidly growing cloud business.”

Levey has more than three decades of leadership in both the private and public sectors. From 2012 until 2020, he worked for global banking giant HSBC Holdings. There, as Chief Legal Officer he managed a department of more than 900 lawyers worldwide.

Prior to HSBC, he was named the nation’s first Under Secretary for Terrorism and Financial Intelligence at the Treasury Department by President George W. Bush. He stayed on in that role at the request of President Barack Obama.

Levey has also held several senior positions at the United States Department of Justice.

Most recently, Levey served as CEO of the Diem Association. He was also a senior fellow at the Council of Foreign Relations.

Levey is graduate of Harvard College and Harvard Law School.

Procore Launches in Germany to Expand Growth Across Europe

9 November 2022

Procore Technologies, Inc., a leading global provider of construction management software, announced its launch in Germany as it expands its international footprint.

The launch signifies Procore’s continued investment and commitment in Europe, the Middle East and North Africa, following its successful **expansion into MENA** in 2021 and **France** in 2022. With this latest launch, Procore advances the opportunity for its unified, connected platform to support construction professionals in Germany and neighbouring countries by empowering them to operate more efficiently. The Procore platform accelerates collaboration, streamlines communication and improves decision making and visibility of performance based on accurate, accessible data, which is updated in real-time.

Procore’s regional operations will be led by Senior Director for Germany and Central Europe, Wolfgang Soelch. Bringing considerable expertise, Soelch will build operations with customer touchpoints across sales, marketing, IT, finance, implementation, customer success and more.

“Data-driven technology in the region is accelerating rapidly as the industry seeks new ways to optimise performance and improve productivity, whilst also navigating skilled labor shortages, supply-chain disruptions and price hikes,” comments Wolfgang Soelch, senior director for Germany and Central Europe at Procore.

CIMdata PLM Industry Summary

"What's unique about Procore is that we live and breathe construction: our software is developed by construction experts, for construction experts. Our approach has always been to partner with the industry to understand their challenges and, in return, provide solutions that can improve the everyday working lives of everyone in construction. We are very pleased to now be able to support the construction industry in Germany and Central Europe as they leverage the full potential of construction technology."

Today, Procore is the world's most widely used construction management software with over 13,000 customers running over 1 million projects around the world. Procore connects information and teams on a single, powerful and easy-to-use platform that is purpose-built for construction; enabling owners, general contractors and specialty contractors to enhance collaboration, communication and visibility of project performance. Moreover, it also empowers construction firms to transform their approach to management and decision making by unlocking the power of their data to optimise growth and business outcomes.

"For the past 20 years, our mission has been to connect everyone in construction on a global platform," explained Tooley Courtemanche, founder and CEO of Procore. "Today's launch is an important milestone in helping us realise our long-term goal to be the single platform which supports construction professionals across the world. Procore is currently used in over 150 countries, including customers in German-speaking countries. By officially entering this market, we can now be the best partner for local construction companies and their clients."

Procore's first major public appearance in Germany will be as an Executive Partner at the **BIM World** trade fair in Munich from 22-23rd November. In his keynote speech, Product Marketing Manager for Germany and Central Europe at Procore, Andreas Steyer will address the importance of working together on a common platform for future technologies such as Building Information Modelling (BIM). Visitors to BIM World will be able to try Procore for themselves at the exhibition stand (Booth #47).

Tango partners with Crestron Electronics to offer integrated digital solutions for the evolving hybrid workplace

7 November 2022

Tango, a leading provider of integrated workplace management system (IWMS) software, announced a strategic partnership with workplace technology leader Crestron Electronics. This partnership enables businesses to improve employee engagement and collaboration, while increasing data collection for office space optimization through Tango's Reserve by AgilQuest solution. When Tango Reserve by AgilQuest is integrated with Crestron Flex Scheduling Panels, there is greater visibility to onsite room availability, enabling easy authentication and interaction.

"In this time of rapid workplace change, companies need to create inviting and productive spaces to increase employee engagement, collaboration, and facilitate better space utilization," said Pranav Tyagi, CEO of Tango. "Integrating Crestron's solutions with Tango Reserve by AgilQuest is a natural partnership that will improve employee workplace satisfaction and productivity, while collecting space utilization data to make smarter workplace and real estate decisions."

"In addition to Crestron Flex Scheduling Panels, Crestron has several solutions targeting the hybrid workplace including occupancy sensors, personal communication devices, and video conferencing solutions that tackle even the largest of spaces to ensure equity among all participants. Partnering with Tango to offer another innovative layer to our suite of workplace solutions is a great benefit to our joint hybrid-focused customer base," said Bob Bavalocco, Director, Technology Partner Programs at Crestron

Electronics.

The partnership follows Tango's recent acquisition of AgilQuest, an industry leader in enterprise workspace hoteling, meeting reservation, and employee experience technology. The acquisition brought together the leader in workplace management solutions with the leader in employee engagement and productivity—uniting People with Place—to address the new requirements of hybrid work.

Trimble and Hilti Announce Product Integration to Help Contractors Streamline Tool Tracking and Job Cost Allocation

8 November 2022

Trimble and the **Hilti Group**, a global leader providing innovative tools, technology, software, and services to the commercial construction industry, announced that the Hilti ON!Track asset management system will integrate with Trimble **Viewpoint Vista**, an ERP solution within the **Trimble Construction One** suite.

The announcement was made at **Trimble Dimensions+ Conference**.

The integration is Hilti's first North American integration with an enterprise resource planning (ERP) solution, and provides a solution for unified tool tracking and more accurate, automatic job allocation, giving contractors one source of truth for tracking and managing their tools and equipment.

Now instead of having to manually look, call or guess where tools are or how much to invoice based on their use, contractors can more easily track their tools and equipment in one place and automatically know how much—and where—they were used so that an accurate amount of equipment time can be invoiced. This eliminates the need to spend clerical time manually in putting utilization data, and even manually tracking it in the field.

“Our research shows that each jobsite loses on average one day per month of productivity due to workers searching for tools. In addition, the contractors end up spending up to 90 hours per month tracking tools: in essence, productivity loss for both workers and contractors due to lack of an effective asset/tool management platform,” said Michael McGowan, region head and CEO of Hilti North America. “Hilti ON!Track, the world leading asset management solution, helps eliminate this by tracking tools using field-ready active and passive tags, Bluetooth technology and Gateways. An integration between ON!Track and Viewpoint Vista maximizes the benefits of asset/tool tracking data by automatically providing contractors the information they need to track, allocate, bill and estimate for accurate tool and equipment use.”

The tracking of tools and equipment use and costs in one centralized place better prevents equipment loss and theft. It also eliminates the need to manually enter tool use and costs, which are often subject to double entry and human error.

“We know that contractors have a lot to manage already, and that equipment is one of their most important assets,” said Lawrence Smith, vice president and general manager of construction management solutions at Trimble. “This integration is yet another way we are automating and connecting data for contractors, which streamlines workflows and helps contractors more efficiently deploy their people and assets to build profitable projects.”

“Tracking small tools—whether in repair status, on location or with employees and the associated costs—is one of the most ineffective parts of accounting and internal controls in a construction company,” said Maria Lumke, CFO of Waterline Industries, a New Hampshire-based civil general contractor. “We have tried many things, including inventorying vans, assigning tools to employees and

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assigning tools to jobs – to no avail. The product Trimble and Hilti have developed will be a revolutionary step for internal controls and accountability of tools in a construction company.”

“Hilti ON!Track has greatly reduced the ‘run to the store and buy what you need’ when we already own and have tools nearby,” said Keeley O’Brien, president and CEO of O’Brien Co., an Oregon-based general contractor. “It takes mere seconds to transfer tools in the field, eliminating excuses about not having the right tools because no one knows where they are. It’s made it very easy to inventory, track history, and locate tools and equipment.”

Connecting Hilti ON!Track to Trimble Construction One is another way Trimble serves stakeholders across the entire construction lifecycle, providing visibility into true project costs and correct resource allocations so they get the right information at the right time to make the right decisions.

Trimble and HP Collaborate to Explore the Use of Robotic Technology for Autonomous Indoor Construction Layout

7 November 2022

Trimble and HP are collaborating on the integration of Trimble’s latest robotic total station with HP’s new SitePrint robotic layout solution. The solution focuses on transforming the layout process for indoor construction projects.

The announcement was made at the **Trimble Dimensions+ Conference**, where HP and Trimble are demonstrating the technology.

The construction industry faces a variety of challenges including the shortage of skilled workers and productivity. HP and Trimble can address these challenges with an integration of HP SitePrint and the recently introduced Trimble® Ri total station. The integrated solution can deliver an autonomous layout workflow that empowers efficiency and productivity on the job, while delivering layouts faster than traditional methods. Augmenting the contractors’ work, SitePrint can avoid obstacles and print lines and complex objects with pinpoint accuracy and consistent repeatability. In addition, text printing capabilities bring additional data from the digital model to the construction site to prevent errors.

Using optical technology, the precise positioning and navigation of HP SitePrint robot is driven by the Trimble Ri total station. Equipped with automatic level detection, self-calibration, and Trimble VISION™ technology for advanced tracking, the Trimble Ri enables the HP SitePrint robot to achieve autonomous, high-accuracy indoor layout work.

“The integration of Trimble Ri and HP SitePrint can transform the layout process on complex construction sites with pinpoint accuracy, and in a fraction of the time,” said Aviad Almagor, vice president of Technology Innovation, Trimble. “This is an opportunity for layout contractors to improve accuracy and productivity and handle more projects with the same size of team.”

“Technology adoption and increased digitization can help construction firms bridge this productivity gap,” said Daniel Martínez, vice president and general manager, HP Large Format Printing. “HP has played a key role in bridging digital and physical worlds with print solutions for architects and engineers over the last thirty years. With the integration between HP SitePrint and Trimble Ri, we can make it easier than ever for layout professionals to bring an idea to life on site, while also enabling increased digitization of the construction industry as a whole.”

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Trimble Announces 2022 Viewpoint Construction Award Winners

9 November 2022

Trimble announced the winners of the annual Trimble Viewpoint Construction Awards, which honor the technological achievements of North American contractors as exhibited through the growth and improvements of their projects, people and processes over the past year.

Honors were given in three categories: most outstanding project; most impressive human resource achievement; and the best use of Trimble Construction One technology, which speaks to how contractors have leveraged technology solutions to create more data-driven, connected construction businesses. The announcement was made today at the **Trimble Dimensions+Conference**.

“While project demand has been high, inflation, supply chain volatility and high material prices have forced many contractorsto become more innovative and creative in order for their projects to be completed on time and on budget,” said Lawrence Smith, vice president and general manager of Trimble Construction Management Solutions. “For our construction award winners, technology proved to be the best way to gain the agility and flexibility needed to respond to today’s ever-changing business conditions. As a result, they didn’t just improve on processes momentarily but developed new workflows and efficiencies that will help them scale and grow for many years to come.”

The 2022 Constructions Award Winners are:

Most Outstanding Project: O'Brien & Company — *Updating and expanding the Nestucca Valley K-8school; Cloverdale, Oregon*

At the start of the Covid-19 pandemic, O'Brien & Company, a design and build contractor that works throughout the state of Oregon, began updating and expanding the Nestucca Valley K-8 school. The project was driven by higher student enrollment, an aging water system and the community’s desire for anemergency meeting place should a natural disaster occur. By August 2021, O'Brien & Company finished the school expansion three months early and three million dollars under budget, which it largely credited to early stakeholder buy-in and the adoption of technology. **Viewpoint Team** provided project teams with a collaboration hub to communicate RFIs, submittals, drawings, change orders and daily logs to monitor jobsite issues, which included Covid-related health forms. **Viewpoint HR Management** was also instrumental in onboarding, timesheets and for posting the company’s Covid bulletins for remote employees. **Watch O'Brien & Company talk about the award here.**

Most Impressive HR Achievement: Mario Sinacola & Sons Excavating, Inc.— *Hiring and onboarding 1,000 new employees in under two years; Dallas, Texas*

Mario Sinacola & Sons Excavating, Inc., implemented **Viewpoint HR Management** in February 2021, replacing an in-house app that required new hires to come into the HR office to complete their paperwork in person – a clunky and error-prone process. Switching to Viewpoint HR Management enabled Mario Sinacola to streamline and expedite the onboarding process. Now, new hires can submit their paperwork via the online portal ahead of time, which is then proofread and checked by HR staff, enabling workers to begin working on the jobsite immediately. Viewpoint HR Management also enabled Mario Sinacola to customize its profiles by providing both English and Spanish forms. As a result, the company has hired and onboarded almost 1,000 employees since February 2001, enabling the HR team to better meet the needs of the growing business. **Watch Mario Sinacola & Sons talk about the award here.**

Best Use of Trimble Construction One Technology: Western Specialty Contractors — *Creating a custom human resources information system (HRIS); St. Louis, Missouri*

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With 30 offices across the US, Western Specialty Contractors is the nation's largest contractor specializing in masonry, concrete restoration, waterproofing and facade restoration. The company has used **Trimble Construction One** to centralize and streamline many of their workflows, including the development of a custom HRIS that supports everything from safety training to performance management. This includes a compensation dashboard that provides an accessible view of each employee's salary history with built-in workflows and notifications for approvals/rejections. The dashboard has helped streamline the merit increase process and allows managers to see a consolidated salary view as they prepare their budgets. What used to take weeks now takes only a few minutes. **Watch Western Specialty Contractors talk about the award here.**

The Trimble Viewpoint Construction Awards are open to all North American contractors. This year's judges included select Trimble Construction executives, along with Manohar Damle of Basic Resources, Inc. who won last year for 'Best Use of Technology.'

Wipro Appoints Christopher Smith as Managing Director, Australia and New Zealand

7 November 2022

Wipro Limited, a leading global information technology, consulting and business process services company, announced the appointment of Christopher Smith as the Managing Director for Australia and New Zealand (A/NZ).

Christopher has over two decades of IT and Telecommunications experience in USA, Europe, Asia, and Australia. He joins from Telstra, where he was the Group Owner of Telstra Purple, the largest Australian owned technology Services Company.

"Chris has joined us during an exciting phase of transformation in the APMEA growth journey. He will focus on Wipro's ambition to help our clients, people, and communities in A/NZ realize their boldest ambitions in an inclusive and purpose-driven way. I am confident that his global experience, deep local market knowledge, impressive track record in hyper growth, and client relationships will position Wipro strongly," said **Anis Chenchah, member of the Wipro Executive Board and Chief Executive Officer, APMEA (Asia Pacific, Middle East, and Africa), Wipro Limited.**

Commenting on his appointment, **Christopher Smith** said, "The combination of Wipro's purpose, based on deep social impact and strategy to be a global leader in technology with local capabilities, is the perfect foundation to build and grow our business locally. Bringing world-class capabilities to clients in our region is what excites me, and it is a privilege to lead Wipro in Australia and New Zealand."

Christopher holds a Bachelor of Electrical Engineering from the University of New South Wales (UNSW) and an Executive MBA from the Australian Graduate School of Management (AGSM).

Wipro has been operating in Australia for over 20 years and focused on delivering sustained long-term value for our clients, partners, employees and the broader communities in which we operate.

Wipro appoints Simmi Dhamija as Chief Operating Officer, APMEA

9 November 2022

Wipro Limited, a leading global information technology, consulting and business process services company, announced the appointment of Simmi Dhamija as the Chief Operating Officer of the Asia Pacific, Middle East and Africa (APMEA) strategic market unit.

Dhamija will lead delivery and operations of the strategic market unit across its different regions and effectively support its profitable growth ambitions. She is a seasoned leader with over two decades of

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experience in the technology industry. She joins Wipro from Tech Mahindra, where she was the Chief Transformation Officer leading strategic initiatives across digital transformation, M&A synergy, profit improvement, delivery modernization, key customer engagements, and managing 360-degree relationships with partners and ecosystem stakeholders. Prior to that, she has held various global leadership roles in strategy, delivery, operations, and talent development.

“I am glad to have Simmi on board to drive our ambitious agenda across APMEA. She has a critical mission – to lead the evolution of our operating model towards maximizing client centricity and employee empowerment, while continuously improving our financial performance and bringing simplicity, agility and efficiency to the way we work. She has all the professional skills and personal traits to succeed in this mission brilliantly,” said **Anis Chenchah, member of the Wipro Executive Board and Chief Executive Officer, APMEA (Asia Pacific, Middle East and Africa), Wipro Limited.**

“I deeply admire Wipro’s long-standing commitment to its values and purpose, and am honoured to be a part of this organization, especially the dynamic and innovative leadership team of APMEA. I am energized to help our clients in accelerating their digital transformation journeys, and lead APMEA to its next phase of innovation and operational excellence,” said **Simmi Dhamija.**

Dhamija is an industry thought leader, sought-after speaker, and the recipient of many awards and accolades. She also serves on the advisory board of the Pinkishe foundation, a non-government organization focused on the development, well-being, pride, and happiness of girls and women. She is a part of the FICCI – WISE Council. Dhamija holds a management degree from IMT Ghaziabad, India.

Wipro appoints Warren Zambelli as the Managing Director, Africa

9 November 2022

Wipro Limited, a leading global information technology, consulting and business process services company, announced the appointment of Warren Zambelli as the Managing Director for Africa.

Warren has over 20 years of experience spanning capital markets, banking, insurance, telecom and retail. His formative years were spent in various front-office environments affording him context for how products and services are consumed, post which he entered professional services, partaking in the build of new practices and where he held various roles in leadership professionalising and expanding businesses whilst aiding clients to setup, transform and optimise across Africa. He joins from Mastercard where he was the Advisors Division Lead and member of the OpCo across Sub-Saharan Africa.

“Our ambition is to be the leading and most responsible organization of our industry in Africa, and Warren’s coming onboard is an important step towards realizing this. His vast consulting and services experience in the African markets and in key growth sectors such as financial services and retail, positions him ideally to lead our sustainable growth. I wish him all the best in this exciting journey,” said Anis Chenchah, member of the Wipro Executive Board and Chief Executive Officer, APMEA (Asia Pacific, Middle East and Africa), Wipro Limited.

“It is a privilege to be entrusted with the Wipro people and business in the Africa markets that offer such a promising future. We are conscious of our purpose, eagerly anticipate further partnerships with clients to accelerate the realisation of their objectives, and are passionate to deliver on our commitment to social good affording collective growth,” said Warren Zambelli.

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He holds numerous undergraduate certifications in business management including a bachelor's degree with specialisation in (financial and general) management from the University of South Africa (UNISA), and an executive postgraduate development program from Wits Business School (WBS).

Wipro invests in new dedicated VMware Business Unit

8 November 2022

Wipro Limited, a leading technology and consulting services company, and VMware, Inc. announced an extended collaboration to help mutual customers accelerate their digital journey and maximize their VMware Cloud investments.

As part of this expanded relationship, Wipro will launch a new dedicated VMware-focused business aligned to Wipro's broader strategy of driving growth through strategic partnerships. The unit will focus on the power of Wipro FullStride Cloud Services' in-depth expertise across industries along with VMware Cross-Cloud services to help enterprises drive enhanced agility, speed, and innovation. The goal will be to streamline VMware implementations and accelerate deployment of applications, leading to better, faster ROI.

"Multi-cloud, modern applications and anywhere workspace strategies are increasingly more critical to enterprise success," said **Monty Bhatia, Vice President, Global Systems Integrators, VMware**. "We are thrilled to join forces with Wipro to tap into our collective strengths and help make adoption of digital transformation strategy easier for large enterprises. Together, we look forward to providing enterprises with the Cloud Smart solutions and services they need to achieve value from technology investments faster, compete more effectively, and operate their businesses more efficiently and securely."

Wipro's new business unit will work with VMware on deepening the companies' collaboration on deploying VMware solutions, including VMware Anywhere Workspace, which allows employees to work from anywhere with more secure and frictionless experiences. All solutions will be implemented with an eye toward sustainability and reduced carbon footprint as a key business outcome.

"The innovative solutions we have created with VMware thus far enable enterprises to accelerate the development and deployment of more secure modern apps and empower their global workforce while dramatically simplifying the management of a multi-cloud infrastructure," said **Jason Eichenholz, Senior Vice President, Global Head of Ecosystems & Partnerships, Wipro Limited**. "We are thrilled to expand our partnership with VMware to help clients realize better, faster value from cloud investments."

"This new Wipro business unit will accelerate our clients' journey to the cloud, helping drive innovation, resilience, and agility," said **Jo Debecker, Senior Vice President & Global Head, Cloud and Infrastructure Services, Wipro Limited**. "Wipro's VMware-dedicated Business Unit will be an important vehicle for clients across every major industry to maximize the transformative power of hybrid/public clouds to deliver new experiences, new solutions and innovations to their end users."

Wipro will offer a full portfolio of digital transformation services in collaboration with VMware across industries, with major focus on Banking & Financial Services, Healthcare, and Consumer and Retail. The unit will leverage Wipro's 10,000+ domain experts in these verticals including the expertise acquired through acquisitions like Capco and Designit. Wipro will be significantly scaling the technical competency in VMware Cross-Cloud services for multi-cloud infrastructure, modern apps, anywhere workspace, networking, and security, and will have 5,000 cross-trained professionals for these areas over next two years.

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The Wipro and VMware collaboration will be truly global, covering the Americas, Europe, Middle East, Africa, and Asia Pacific, and will involve multi-million-dollar investments across sales, alliances, and delivery resources in each of these regions. The delivery will be executed through Wipro FullStride Cloud Studios in US, Europe, and India.

Event News

Blackline Safety to Participate in Upcoming November Investor Conferences

2 November 2022

Blackline Safety Corp., a global leader in connected safety technology, announced it will attend the [11th Annual Roth Technology Event](#) on November 16, 2022 in New York City and the TD Securities Technology Conference on November 21 – 23, 2022 in Toronto.

At the events, management will be available to meet with institutional investors to discuss its disruptive connected safety technology solutions, attractive hardware-enabled software-as-a-service business model, path to profitability, growth opportunities and track record.

Institutional investors wishing to attend the conferences and schedule meetings with management should contact their Roth and TD representatives to register.

Roth's 11th Annual Technology Event

Roth's 11th Annual Technology Event is being held at The Yale Club in New York City on Wednesday, November 16, 2022. The invitation-only conference provides investors the opportunity to meet with executive management teams of public and private companies in the technology sector. The conference will consist of one-on-one and small group meetings.

TD Securities Technology Conference

The 2022 TD Securities Technology Conference is being held at the TD Tower in Toronto November 21 – 23, 2022. The three-day conference will consist of private company presentations and public company fireside chats. Blackline will participate in a fireside chat at 13:25 EST on Tuesday, November 22 and also be available for one-on-one meetings.

A replay of the fireside chat will be available [here](#) and on the [Investor Relations](#) section of Blackline Safety's website.

DATADVANCE at NAFEMS FRANCE Regional Conference 2022

8 November 2022

DATADVANCE will become a Gold sponsor of the [NAFEMS FRANCE Regional Conference 2022](#) that will be held on **November 23-24 at CETIM Senlis, France**.

For more than 15 years, NAFEMS conferences have become a must-attend event for engineers, managers, representatives of the academic world, solution and service providers, and experts in digital simulation for engineering.

As usual, it will be an opportunity to review technological advances, new solutions and methods in all disciplines of simulation. We will also give the floor to experts who will talk about the future of the field.

We are also glad to invite you to our in the Gold Sponsor space and introduce you capabilities of pSeven, a cloud-native low-code collaborative platform.

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Don't miss it! If you haven't registered yet, now is the time!

[To NAFEMS FRANCE Regional Conference 2022](#)

DIGITAL INTERSECT EVENT OBTAINS PLATINUM SPONSORSHIP FROM PROSTEP, INC.

7 November 2022

PROSTEP, the industry leading partner for PLM integration, migration, and data exchange for manufacturers, partners with Digital Enterprise Society with an exclusive Platinum sponsorship for its Digital Intersect event on November 17, 2022, in Troy, MI.

The Digital Intersect event assembles leaders in technology and engineering focused on the tools, people, and processes to further the transformation of product development. Customers and industry leaders will discuss lessons learned, demonstrate best practices, and offer roundtable discussions on the latest technological developments to encourage collaboration and engagement.

Adam Specht, President of Digital Enterprise Society adds: “Our goal with this conference is to share experience and learn from experts to address the many new challenges facing design and manufacturing companies. We will focus on collaborative design with a globally distributed workforce and managing a cohesive digital thread in multi-vendor environments. I fully expect attendees to come away with actionable strategies that can help create positive change at their individual companies, and a revitalized network of peers to continue the collaborative discussions long after the conference.”

The Digital Intersect event will spotlight its strategy on three tracks: collaborative design, team culture, and digital thread. Key leaders from CIMdata, SIEMENS, PROSTEP and more will speak about

- Trends in Transforming the Digital Enterprise
- State of the Industry: PLM’s Enablement of Digital Transformation
- Enabling Digital Threads in Heterogenous Landscapes

Says Paul Downing, President and CEO of PROSTEP, Inc.: “We are excited to lend our expertise and experience to Digital Intersect. As more people gather for in-person shows, we’re excited to meet with current and future leaders in enabling an integrated digital enterprise.”

With 30+ years of industry experience, PROSTEP experts will provide exclusive thought leadership with a presentation and roundtable. PROSTEP’s leading presenter at Digital Intersect, Director of Technical Presales Brian Schouten, will share insight and technical knowledge on the growing trend of enabling an integrated digital enterprise. His expertise in connecting disparate systems for end-to-end visibility is highlighted in his presentations:

- Building the Digital Thread in a Vendor Agnostic Environment
- You Already Pay for the Integration/Migration You Haven’t Started: A Roundtable Discussion on the Risks of Postponing Digital Integration and Transformation.

You may request a copy of the [PROSTEP presentations here](#).

The Digital Intersect Event, hosted by The Digital Enterprise Society occurs on November 17, 2022 at the Detroit Marriott Troy in Troy, Michigan. The event offers a full day of presentations, networking, and a vendor fair from 8 am through 6 pm. Registration and event details can be found [here](#).

Informatica to Present at Upcoming Investor Conferences

7 November 2022

Informatica, an enterprise cloud data management leader, announced that management is scheduled to present at the following investor conferences:

RBC Capital Markets Global Technology, Internet, Media and Telecommunications Conference in New York, NY

Date: Tuesday, November 15, 2022

Time: 5:50 a.m. PT/ 8:50 a.m. ET for approximately 30 minutes

6th Annual Wells Fargo TMT Summit in Las Vegas, NV

Date: Tuesday, November 29, 2022

Time: 10:00 a.m. PT/ 1:00 p.m. ET for approximately 30 minutes

Credit Suisse 26th Annual Technology Conference in Scottsdale, AZ

Date: Wednesday, November 30, 2022

Time: 9:35 a.m. MT/ 11:35 a.m. ET for approximately 30 minutes

UBS Global Technology, Media and Telecommunications Conference in New York, NY

Date: Tuesday, December 6, 2022

Time: 9:30 a.m. PT/ 12:30 p.m. ET for approximately 40 minutes

Barclays Global Technology, Media and Telecommunications Conference in San Francisco, CA

Date: Thursday, December 8, 2022

Time: 9:15 a.m. PT/ 12:15 p.m. ET for approximately 30 minutes

The webcasts for each event will be accessible on Informatica's investor relations website at investors.informatica.com.

Lantek Sheet Metal Solutions to Showcase Expert Automated Tools at Fabtech 2022

7 November 2022

Sheet metal Industry leader Lantek will showcase its latest CAD/CAM and MES/ERP solutions at Fabtech 2022, November 8-10 in Atlanta, Georgia in Booth B6332 at the Georgia World Congress Center.

Fabtech is North America's largest metalworking event and a hub for the latest metal forming, fabricating, welding, and finishing developments. As the global leader in sheet metal manufacturing solutions, Lantek will demonstrate the newest features of its proven Lantek Expert 2D CAD/CAM nesting system.

Fully integrated with the Lantek Integra ERP system, Lantek Expert is a 2D CAD/CAM nesting system that provides users with a litany of supportive features, such as a Parametric Parts Library, an Open Database for streamlined information management, and a Floating License option to allow multiple users access. Expert's intelligent import and export functions allow linking to the most common CAD systems in today's industry (DXF, DWG, IGES, DSTV, etc.).

The nesting function within Lantek Expert products maps out part arrangements on metal sheets to use the maximum amount of material available and to manufacture the most parts possible. There are also semi-automatic and manual options. Expert even tracks remnants and prioritizes their use before new sheets, extending material life and reducing waste. Before cutting begins, the system checks the design and manufacturing code for any errors and automatically flags or fixes them.

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“Lantek Expert Cut’s CAM tools also include Nesting, which efficiently lays the parts on sheets for better Sheet Utilization,” noted Anupam Chakraborty, Commercial Director, Lantek Sheetmetal Solutions U.S.A.

Lantek Expert features several tools for specific applications. Expert Cut is designed to ensure seamless, efficient programming of CNC oxy-cut, plasma, laser, and waterjet sheet metal cutting machines. It provides its own CAD tools specially crafted for creating 2D parts. Similar to its cutting counterpart, Expert Punch generates code to direct CNC punching machines in drilling, threading, stamping, punch forming, embossing, and rolling. It also supports shearing and combination machines.

In order to eliminate the guesswork in programming for HVAC ductwork, Expert Duct, offers a substantial parametric figure library containing the most common duct shapes, all of which follow DIN and SMACNA regulations. Duct allows the definition of the type of neutral axis with which to make calculations, the type of joints used for the parts, the number of sections, the type of engraving for cutting machines, the seams and connections, and the insulators.

Every solution in the Lantek Expert family has been specially designed and fine-tuned to be the absolute best tool for its application. Visit Booth B6332 at Fabtech or [www. https://www.lantek.com/us](http://www.lantek.com/us).

Record Number of Customer-Led Sessions to be Delivered at AVEVA World In San Francisco

8 November 2022

[AVEVA](#), a global leader in industrial software, driving digital transformation and sustainability, brings its flagship business event, AVEVA World, to San Francisco between November 14 and 17, 2022, with a record number of in-person customers sharing successes.

More than 2,500 international business leaders will converge on Moscone West Convention Center to hear how industries are connecting people across ecosystems, sharing data to drive insights that increase value, and drive agility and sustainability. Together, they will learn how leaders are taking a new approach to breaking down data silos and building shared networks with partners, suppliers and customers in the cloud.

Under the theme “Spark Your Ingenuity,” AVEVA World features over 100 industry speakers from companies including Shell, Saudi Aramco and ExxonMobil, Nestle, Pfizer, Rio Tinto, Worley, Wood, Covestro and ENEOS.

After an action-packed week of keynote sessions, industry panels, success stories and hands-on technical labs, business leaders will be empowered with practical strategies to tackle new market pressures, sustainability regulations, and mounting worker expectations. An international exhibition is onsite highlighting not only AVEVA solutions for major themes such as energy transition, digital twin and industrial artificial intelligence but also showcasing the company’s wide-ranging ecosystem of vendors and partners.

Alongside customer stories, AVEVA’s CEO Peter Herweck and Caspar Herzberg, Chief Operating Officer, will lay out how AVEVA’s comprehensive software portfolio which includes the AVEVA [PI System](#), AVEVA E3D Design, AVEVA Operations Control and more, supports the creation of a profitable, efficient and sustainable future for industry.

Peter Herweck, CEO of AVEVA, said: “In the face of extraordinary business changes, an advanced data platform enables companies to aggregate and share engineering, operations, and sustainability data. Enhanced with insight from expert applications, this data-centric approach is giving industries resilience

CIMdata PLM Industry Summary

and agility so that they can grow and scale their profitable enterprises, even in challenging times.

“I very much look forward to welcoming our customer and partner community to San Francisco to showcase how organizations are already using industrial information and end-to-end applications to drive higher insights and value.”

AVEVA's Rob McGreevy, Chief Product Officer, and Kim Custeau, Executive Vice President of Portfolio, will spotlight AVEVA's latest software innovations and the company's vision for integrated software that serves as a digital thread, breaking down silos and sparking industrial ingenuity.

New phenomenon - the Connected Industrial Economy

At the event, business leaders from Fortune 500 companies will share success stories from the frontlines of a new “connected industrial economy,” with an industry expert exclusively revealing why data is the future currency of value.

“As industries share data and become more interconnected, we see the development of what we're calling the connected industrial economy – a new kind of collaboration across teams, suppliers, partners and customers to transform value chains into agile, profitable, sustainable networks,” **said Peter Herweck, AVEVA's CEO.**

During the plenary, Shell Digital Project Leader Bart-Jan Ruules will reveal how the world's most comprehensive [digital twin](#) drives higher business value, while Joe Bonnet, Group Director of Engineering at Worley, will speak about building an integrated digital backbone and their data-sharing partnership with AVEVA and Shell. Pfizer's Marylène De Winter, Director Global Automation Engineering, and Peter Barry, Director – Pfizer Digital, will share how a data-centric approach to operations enabled innovation at lightspeed to deliver the world's first mRNA vaccine in record time, saving billions of lives during the pandemic.

Peter Herweck will bring together Roque Martin, CEO of Aras, and David Bartolo, Head of Asset Intelligence at AGL Energy, to discuss how connecting engineering and operational data enables industries to engineer smarter and operate better, while ensuring responsible use of our world's resources.

Roque Martin, CEO of Aras, said: “We have entered a strategic partnership with AVEVA to help organizations transform, manage their information across both the asset lifecycle and industry ecosystems, and develop well-defined and reliable digital twins. At AVEVA World, we will feature the first solution prototype of the partnership.”

On day three, Sheri Williams, Managing Director of Accenture, will look at the role of collaboration and talent diversity, and discuss how automation and robotics bridge the gap between demand and execution within a short timeframe.

The most hotly anticipated session will be the “Networks of the Future” panel, where some of the most original thinkers look at how the industries of the future will be connected in new ways. This will include how the digital twin is the foundation of the industrial metaverse. AVEVA's Chief Technology Officer Andrew McCloskey joins Barbara Frei, Executive Vice President Industrial Automation at Schneider Electric; Çağlayan Arkan, Vice President, Manufacturing Industry at Microsoft Corp.; Samuel Paul of Gwinnett County Water Authority and Mike Kazmiecik, Digital Transformation lead at Suncor during this final panel.

Delegates unable to travel to San Francisco for AVEVA World can follow along online through virtual live streams.

[Register for AVEVA World today](#)

TRACE SOFTWARE TAKES PART IN FORUM ENERGAÏA 2022 IN MONTPELLIER

8 November 2022

Trace Software takes part in the [16th Forum EnerGaïa](#), essential meeting point for the **renewable energies market**, which will be held in the **Parc des Expositions of Montpellier from 7 to 8 December 2022**. The team will welcome you on **booth C88**, in the **hall B2**.

For 16 years the Forum EnerGaïa has been supporting the professionals of the **renewable energies** sector and showcasing many solutions to the current environmental issues. In 2021, the Forum registered a real success by gathering more than **7 500 professionals, experts and decision-makers** such as more than **230 exhibitors**. The Forum is returning this year with round tables, conferences and other workshops and is ready to welcome more than **300 stakeholders**. What is coming up in 2022? The latest innovations, forward-looking projects, sector trends, new regulations and other relevant topics related to renewable energies.

Where are we?

📍 Hall B2, booth C88

Our software suite for photovoltaic design

During these two days Trace Software will be showcasing its software suite for the **design and sizing of solar power systems** in their entirety: from 3D modelling and layout of solar modules to normative control and calculation of the installation, including yield and profitability simulation.

archelios™ Suite – Complete management of solar power systems

archelios™ Suite helps you design the entirety of a photovoltaic installation project from the feasibility study, bankability, 3D design, to the compliance and calculation notes, right up to the operation and maintenance management, with the **utmost precision**. **archelios™ Suite** is composed of **archelios™ PRO** and **archelios™ CALC**.

archelios™ PRO

archelios™ PRO is a web application to **design and simulate** all kind of photovoltaic projects from **few kWp to several MWp**: rooftop PV system, PV carport or solar park. This tool offers many functionalities such as **3D modelling, profitability and feasibility study, yield calculation or shadows simulation**.

archelios™ CALC

archelios™ CALC is a software to **calculate and size** a solar power system according to the **applicable standards**. This tool presents a global view of the photovoltaic installation, from the photovoltaic modules to the connection to the public power network.

Xometry To Participate In RBC Capital Markets 2022 Technology, Internet, Media And Telecommunications Conference

3 November 2022

Xometry, Inc., the global online marketplace connecting enterprise buyers with suppliers of manufacturing services, announced that CEO Randy Altschuler and CFO Jim Rallo will attend and present at the RBC Capital Markets 2022 Technology, Internet, Media and Telecommunications Conference.

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A webcast of the presentation will be accessible within the [Investor Relations section](#) of Xometry's website. An archived replay of the webcast will be available following the live presentation.

Financial News

3D Systems Reports Third Quarter 2022 Financial Results

8 November 2022

3D Systems Corporation announced its financial results for the third quarter ended September 30, 2022.

Third Quarter Highlights

- Revenue of \$132.3 million decreased (15.3)% compared to Q3 2021; Q3 non-GAAP revenue excluding divestitures and on a constant currency basis⁽¹⁾ increased 2.7%, reflecting solid demand in both the Industrial and Healthcare segments, despite supply chain and macroeconomic challenges and lower sales to certain dental market customers
- Net loss of \$(37.4) million, diluted loss per share of \$(0.30), and diluted non-GAAP loss per share⁽¹⁾ of \$(0.05)
- Adjusted EBITDA⁽¹⁾ of \$(0.3) million reflects inflationary impacts on input costs and continued investments in growth areas of our business and product portfolio
- Cash & short-term investments of \$609.4 million position the company for future growth investments.
- Fiscal year 2022 outlook updated to tighten revenue range and to improve the outlook for non-GAAP operating expenses

Summary Comments on Results

Commenting on the results, President and CEO Dr. Jeffrey Graves said, "Our third quarter results were consistent with our recent expectations. We are seeing steady demand for our industry-leading suite of additive manufacturing solutions in core end markets such as energy, commercial space, precision micro-castings, and medical devices. However, as we had expected, the difficult global macroeconomic and geopolitical environment has put pressure on consumer discretionary spending, which led to significantly lower sales to key dental market customers during the quarter."

Dr. Graves also noted, "Regarding our broader business, recent actions we have taken to control operating costs and to streamline our manufacturing and inventory management processes had a positive impact on the company's profitability metrics during the third quarter. These actions are allowing us to better navigate ongoing supply chain pressures and more efficiently deliver additive manufacturing solutions that solve our customers' most challenging production needs."

"Over the last two and a half years, our entire team of talented employees has worked very hard to re-make 3D Systems into a provider of end-to-end additive solutions focused on high-growth applications for industrial and healthcare markets. With this transformation largely complete, our priorities are on operational execution and prudent investments in our broad product line of 3D printing technologies and software applications. In doing so, we are focusing on profitability and cash performance, while laying the foundation for the company to advance in exciting new directions to drive value for our customers and shareholders. An important milestone in this regard was our announcement during the third quarter that 3D Systems has formed a new internal biotech company called Systemic Bio that will apply advanced additive manufacturing techniques to accelerate drug discovery and development."

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Dr. Graves summarized, “Although the challenging macro environment has led to slower growth in certain key end-markets such as dental, I am confident that the long-term fundamentals remain very positive for additive manufacturing, in general, and for 3D Systems in particular. Our focus on operational execution to capitalize on our past investments remains our highest priority, while our strong balance sheet positions us well to continue investing in high margin, high growth areas of our businesses. With new opportunities for large-scale adoption of additive manufacturing opening before us, and entirely new markets being created in bioprinting, we believe we are very well positioned to deliver on our commitment to become a \$1 billion revenue company in five years.”

Summary of Third Quarter Results

Revenue for the third quarter of 2022 decreased (15.3)% to \$132.3 million, primarily due to divestitures of non-core businesses during 2021. Non-GAAP revenue excluding divestitures and on a constant currency basis grew 2.7% over the same period last year. The growth of non-GAAP revenue excluding divestitures and on a constant currency basis reflects continued solid product and service demand across both business segments, offset by lower sales to select dental customers due to macroeconomic factors that are negatively impacting the market for elective dental procedures.

Industrial revenue decreased (14.6)% to \$68.1 million compared to the same period last year, however, non-GAAP revenue excluding divestitures and on a constant currency basis increased 9.0% year-over-year. Healthcare revenue decreased (16.0)% to \$64.2 million, compared to the same period last year, and non-GAAP revenue excluding divestitures and on a constant currency basis decreased (3.5)% year-over-year.

Gross profit margin in the third quarter of 2022 was 39.8% compared to 41.2% in the same period last year. Gross profit margin decreased primarily due to input cost inflation, divestitures, and unfavorable product mix.

Operating expenses increased 6.0% to \$86.4 million in the third quarter of 2022, compared to the same period a year ago. The higher operating expenses reflect spending in targeted areas to support future growth, including expenses from acquired businesses, research and development, and investments in corporate infrastructure, as well as a \$9.0 million increase in legal and other settlement costs, partially offset by the absence of expenses from divested businesses. Non-GAAP operating expenses increased from \$49.3 million in Q3 2021 to \$58.3 million in Q3 2022. The higher non-GAAP operating expenses reflect spending in targeted areas to support future growth.

Revising FY 2022 Guidance

3D Systems is updating its FY 2022 guidance to significantly tighten the revenue range and to improve the outlook for reduced non-GAAP operating expenses. These changes to FY 2022 guidance are based on improved visibility into likely revenue performance during the fourth quarter of 2022 as well the impact of cost-efficiency actions.

FY 2022 Guidance as of:

	August 9, 2022	November 9, 2022
Revenue:	\$530 - \$570 million	\$535 - \$545 million
Non-GAAP Gross Profit Margin:	39% - 41%	39% - 41%
Non-GAAP Operating Expenses:	\$245 - \$250 million	\$240 - \$245 million

Our revised FY 2022 guidance assumes no significant additional changes in the macroeconomic environment that could negatively impact our business demand or disrupt our supply chain, such as a

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resurgence of business and/or travel restrictions related to COVID-19, geopolitical events, recession, or foreign exchange rate fluctuations.

Financial Liquidity

As of September 30, 2022, the company had cash and short-term investments on hand of \$609.4 million. Cash and short-term investments have decreased \$180.3 million since December 31, 2021, driven primarily by \$84.7 million paid for acquisitions and equity investments, cash used in operations of \$52.4 million, capital expenditures of \$17.1 million, and other cash used for financing activities of \$13.0 million.

Q3 2022 Conference Call and Webcast

3D Systems will host a conference call and simultaneous webcast to discuss these results tomorrow morning, which may be accessed as follows:

Date: Wednesday, November 9, 2022

Time: 8:30 a.m. Eastern Time

Listen via webcast: www.3dsystems.com/investor

Participate via telephone: 201-689-8345

A replay of the webcast will be available approximately two hours after the live presentation at www.3dsystems.com/investor.

Bechtle continues its very dynamic growth

10 November 2022

Bechtle AG continued its successful performance in the third quarter of 2022. Germany's largest IT system house continues to gain market share, especially in international business with corporate groups. Revenue growth maintained the high level seen in the previous quarter and rose very significantly by 14.6% to €1,463.9 million. Business volume actually grew by 20.5% to €1,803.4 million. The pre-tax result (EBT) increased by 1.3% to €88.2 million. EBT margin was 6.0%. As of 30 September 2022, Bechtle employed 13,789 people, which is 1,045 more than in the same quarter of the previous year. In September, 256 young people started their vocational training or dual study programme at Bechtle, more than ever before. Bechtle currently employs a total of 815 trainees.

Revenue growth was particularly striking in the foreign markets where Bechtle saw growth of 17.4%. Eastern Europe in particular, but also Spain and Portugal as well as the UK and Ireland showed high double-digit growth rates. The IT service provider achieved organic growth of its quarterly revenues amounting to 12.7%. The IT System House & Managed Services segment achieved considerable revenue growth within the segments of 21.7%. Bechtle's positioning as an IT partner for the digital transformation is leading to a further increase in demand, especially for IT security, managed cloud services and multi-cloud architectures. In IT e-commerce, growth was 3.0% – mainly due to high comparative values from the previous year. "Bechtle is operating from a position of strength. We are using the gradual improvement in the delivery situation to clear the project backlog that has arisen, resulting in strong revenue growth in a difficult overall economic environment. At the same time, we are doing everything we can to further strengthen Bechtle's future viability – for example, by investing in the further training of employees," explains Dr Thomas Olemotz, Chairman of the Executive Board of Bechtle AG.

Investment in employees

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In the third quarter, Bechtle further expanded its initiatives concerning employee training and certification. The continuous development of expertise is what gives Bechtle an important competitive advantage, particularly in strategically important business areas, such as security, multi-cloud architectures and technologies. The significant increase in trainees, but also the further training and certification measures for existing employees as well as the innovative lateral entry programme are having an impact on productivity. "Particularly in times of transformation, it is important to invest in expertise in order to continue shaping the future with state-of-the-art IT solutions," says Dr Thomas Olemotz.

EBT margin in line with forecast

In terms of the result, on the one hand, the cost savings resulting from COVID-19 – for example in travel costs – were largely eliminated in the reporting period, which led to a normalisation and thus an increase in the cost base compared to the previous year. Beyond that, inflation is also making itself felt with rising costs. On the other hand, Bechtle was able to realise positive price effects, especially in IT e-commerce. Overall, the Bechtle Group's EBT margin of 6.0% is at a very good level and is in line with the forecast for the full year.

Cash flow shows clear positive trend

The operating cash flow of Bechtle AG continues to be characterised by the challenging general conditions. It was €-28.3 million in the third quarter. The supply situation, which is continuously improving, even if sluggishly in some areas, is the main reason for Bechtle's unchanged high inventory levels. Missing components for projects thus prevent the order being implemented at the customer's site. Moreover, the cash flow also reflects the extremely positive business performance. A revenue growth of almost 15% brings with it a high level of inventories and a correspondingly high level of receivables. Nevertheless, Bechtle achieved a further reduction of capital commitment in the third quarter – a development that should ensure noticeable improvements by the end of the year.

Optimistic outlook

Bechtle remains optimistic for the current fiscal year and confirms the forecast published in March of a significant increase in revenues and earnings with a simultaneously stable EBT margin. "Under normal conditions, the positive business performance in the first nine months would give us a very good opportunity to exceed our forecast. However, in view of the high uncertainties regarding the overall economic development, we are not changing the forecast, but still consider it realistic to achieve the targets. We are going into our year-end business full of confidence, with a highly motivated team, and are also expecting a very positive business performance for 2023," says Dr Thomas Olemotz.

Bentley Systems Announces Operating Results for the Third Quarter of 2022

8 November 2022

Bentley Systems, Incorporated ("Bentley Systems" or the "Company"), the *infrastructure engineering software* company, announced operating results for its third quarter and nine months ended September 30, 2022.

Third Quarter 2022 Financial Results

- *Total revenues* were \$268.3 million, up 6.7% or 14.7% on a constant currency basis, year-over-year;
- *Subscriptions revenues* were \$235.3 million, up 9.4% or 17.6% on a constant currency basis, year-over-year;

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- *Last twelve-month recurring revenues* were \$950.4 million, up 20.3% year-over-year;
- *Last twelve-month recurring revenues dollar-based net retention rate* was 110%, compared to 106% for the same period last year;
- *Last twelve-month account retention rate* was 99%, compared to 98% for the same period last year;
- *Annualized Recurring Revenue (“ARR”)* was \$983.7 million as of September 30, 2022, representing a *constant currency ARR growth rate* of 14% from September 30, 2021;
- *GAAP operating income* was \$55.5 million, compared to *GAAP operating loss* of \$37.5 million for the same period last year. The third quarter of 2021 *GAAP operating loss* was due to a one-time compensation charge of \$90.7 million resulting from a modification of our deferred compensation plan;
- *GAAP net income* was \$37.0 million, compared to *GAAP net loss* of \$48.0 million for the same period last year. *GAAP net income per diluted share* was \$0.12, compared to *GAAP net loss per diluted share* of \$0.16 for the same period last year. The third quarter of 2021 *GAAP net loss* was due to a one-time compensation charge of \$83.4 million, net of tax, resulting from a modification of our deferred compensation plan. *GAAP net income margin* was 13.8%, compared to *GAAP net loss margin* of 19.1% for the same period last year;
- *Adjusted Net Income* was \$61.8 million, compared to \$56.3 million for the same period last year. *Adjusted Net Income per diluted share* was \$0.19 compared to \$0.17 for the same period last year;
- *Adjusted EBITDA* was \$89.7 million, compared to \$84.5 million for the same period last year. *Adjusted EBITDA margin* was 33.4%, compared to 33.6% for the same period last year; and
- *Cash flow from operations* was \$69.5 million, compared to \$58.4 million for the same period last year.

Nine Months Ended September 30, 2022 Financial Results

- *Total revenues* were \$812.1 million, up 16.5% or 22.6% on a constant currency basis, year-over-year;
- *Subscriptions revenues* were \$708.7 million, up 20.2% or 26.6% on a constant currency basis, year-over-year;
- *GAAP operating income* was \$167.9 million, compared to \$51.3 million for the same period last year. The nine months ended September 30, 2021 *GAAP operating income* includes a one-time compensation charge of \$90.7 million resulting from a modification of our deferred compensation plan;
- *GAAP net income* was \$149.1 million, compared to \$54.6 million for the same period last year. *GAAP net income per diluted share* was \$0.46, compared to \$0.17 for the same period last year. The nine months ended September 30, 2021 *GAAP net income* includes a one-time compensation charge of \$83.4 million, net of tax, resulting from a modification of our deferred compensation plan. *GAAP net income margin* was 18.4%, compared to 7.8% for the same period last year;
- *Adjusted Net Income* was \$215.2 million, compared to \$195.0 million for the same period last year. *Adjusted Net Income per diluted share* was \$0.66 compared to \$0.62 for the same period

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last year;

- *Adjusted EBITDA* was \$273.9 million, compared to \$236.8 million for the same period last year. *Adjusted EBITDA margin* was 33.7%, compared to 34.0% for the same period last year; and
- *Cash flow from operations* was \$238.2 million, compared to \$207.4 million for the same period last year.

Definitions of the non-GAAP financial measures used in this press release and reconciliations of such measures to the most comparable GAAP financial measures are included below under the heading “Use and Reconciliation of Non-GAAP Financial Measures.”

CEO Greg Bentley said, “We are pleased to report that Bentley Systems’ operating performance continues dependably toward our established financial outlook range for full-year 2022, albeit with reported revenues subject to this year’s foreign exchange gyrations. In *constant currency*, our year-over-year *business performance ARR growth rate* remained 11.5%, which includes the first-half write-down (1%) of our *ARR* in Russia, but does not include 2.5% from our 22Q1 acquisition of Power Line Systems. This reflects new business accelerating noticeably in the U.S., and for civil engineering organizations globally, consistent with multiple public infrastructure investment programs.

Significantly, each of our primary growth initiatives is bearing fruit as intended in terms of business performance *ARR growth*, serving to make up for circumstantially fewer programmatic acquisitions during 2022 to date. Our enterprise success teams are increasing *ARR accretion* within our consumption-based E365 program. Our Virtuoso subscriptions are growing exponentially in SMB accounts and new-name prospects. Our Seequent and Power Line Systems platform acquisitions continue their pace-setting growth. Finally, our *Year in Infrastructure 2022* conference next week in London will showcase, through the Finalists’ *Going Digital Awards* presentations, notable digital twin advancements within our accounts.”

CFO Werner Andre said, “As the net favorable directions of business performance that Greg enumerated are serving to offset losses from Russia, we continue to reaffirm the range of our 2022 full year annual financial outlook in constant currency metrics. This includes *total revenues growth* of 16.9% to 20.1% in constant currency, as well as *constant currency ARR growth rate* of 14% to 16%.

To quantify the ongoing impact of the year’s volatile exchange rates on our annual outlook metrics, which are denominated in reported currency:

- our 22Q3 *GAAP total revenues* of \$268.3 million would have been \$283.3 million, if the exchange rates used in our annual financial outlook had remained in effect; and
- if recent exchange rates would prevail for the remainder of the year, our 2022 full year *total revenues* as reported would be negatively impacted on the order of \$40 million, relative to the revenues based on the exchange rates in effect when we determined our full year 2022 outlook.

By virtue of our operating expense natural hedge, we continue to expect that exchange rates will have minimal effect on our full year outlook for 2022 *adjusted EBITDA margin* of 33%.”

Operating Results Call Details

Bentley Systems will host a live Zoom video webinar on November 8, 2022 at 8:15 a.m. EST to discuss operating results for its third quarter and nine months ended September 30, 2022.

Those wishing to participate should access the live Zoom video webinar of the event through a direct registration link at https://us06web.zoom.us/webinar/register/WN_xfiQCdeSRZishWDpJPAwFA.

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Alternatively, the event can be accessed from the Events & Presentations page on Bentley Systems' Investor Relations website at <https://investors.bentley.com>. In addition, a replay and transcript will be available after the conclusion of the live event on Bentley Systems' Investor Relations website for one year.

Desktop Metal Announces Third Quarter 2022 Financial Results

9 November 2022

Desktop Metal, Inc. announced its financial results for the third quarter ended September 30, 2022.

“Our team continued to work diligently in the third quarter to drive adoption of our AM 2.0 mass production solutions with continued traction from both customers and major strategic partners,” said Ric Fulop, Founder and CEO of Desktop Metal. “This was demonstrated by a promising new strategic collaboration with Align Technology, the market leader in clear aligners.”

Fulop continued, “Although we continue to make meaningful progress on our long-term growth strategy, third quarter results did not meet our expectations as macroeconomic environment headwinds accelerated during the quarter, leading some customers to delay purchase decisions. To address this change to our operating backdrop, we have taken decisive actions to accelerate and expand our cost optimization initiative, and will continue to evaluate opportunities to reduce our expense structure and prioritize our path to profitability.”

Fulop concluded, “Despite short-term challenges, the long-term trends supporting broad adoption of additive manufacturing and market growth to over \$100 billion in the next decade remain intact, particularly for mass production. Supported by an unmatched portfolio of AM 2.0 solutions, Desktop Metal is well-positioned to continue capturing share of this growing market, and take advantage of the next stage of long-term secular growth.”

Third Quarter 2022 and Recent Business Highlights:

- Announced strategic collaboration with Align Technology to accelerate adoption of digital dentistry in the \$30 billion annual dental parts market. Align's market-leading iTero intraoral scanners will be offered as a seamless managed service to dentists in a subscription model with recurring revenue, enabling a gateway for a connected suite of digital dentistry solutions with a workflow backed by Desktop Labs' experienced network of dental laboratories and premium Desktop Health 3D printers and materials
- Accelerating and expanding Strategic Integration and Cost Optimization Initiative to reduce expense structure, drive margin expansion, and prioritize path to profitability
- Announced multi-faceted partnership with Siemens to accelerate adoption of AM 2.0 with large manufacturers for scalable production applications
- Expanded partnership with Henkel to qualify additional industrial photopolymer resins on the Xtreme 8K
- Actively engaged with some of the largest companies in the world on Production System™ P-50 while remaining steadfast in building a pipeline for this platform
- Demonstrated monetization opportunity of IP portfolio of over 950 patents and pending patent applications with successful injunctive action and initiation of royalty-bearing license structure
- Expanded lineup for world's best-selling metal binder jet system with Shop System+ and Shop System Pro

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- Launched Figur G15, the first commercial platform of its kind to shape standard sheet metal on demand using patent-pending Digital Sheet Forming (DSF) technology

Third Quarter 2022 Financial Highlights:

- Revenue of \$47.1 million, up 85.1% from third quarter 2021 revenue of \$25.4 million
- GAAP gross margin of (0.7)%; non-GAAP gross margin of 19.9%
- GAAP net loss of \$60.8 million; non-GAAP net loss of \$33.1 million
- Adjusted EBITDA of \$(28.2) million
- Cash, cash equivalents, and short-term investments of \$217.3 million as of September 30, 2022

Financial Outlook:

- Fourth quarter 2022 revenue expectation between \$51 to \$62 million, representing revised full year 2022 revenue expectation between \$200 to \$210 million, or 78% to 87% growth from 2021
- Fourth quarter 2022 adjusted EBITDA expectation between \$(20) to \$(26) million, representing revised full year 2022 adjusted EBITDA expectation between \$(117) to \$(123) million

Conference Call Information:

Desktop Metal will host a conference call on Wednesday, November 9, 2022 at 4:30 p.m. ET to discuss third quarter 2022 results. Participants may access the call at 1-888-999-5318, international callers may use 1-848-280-6460, and request to join the Desktop Metal financial results conference call. A simultaneous webcast of the conference call and the accompanying summary presentation may be accessed online at the Events & Presentations section of ir.desktopmetal.com. A replay will be available shortly after the conclusion of the conference call at the same website.

HPE's Q4 earnings call is scheduled for November 29, 2022

10 November 2022

[Hewlett Packard Enterprise](http://www.hpe.com) will conduct a live audio webcast of its conference call to review its financial results for the fourth quarter of fiscal 2022, which ended October 31, 2022.

The call is scheduled for Tuesday, November 29, at 4:00 p.m. CT (5:00 p.m. ET), and the webcast will be available at www.hpe.com/investor/2022Q4Webcast.

A replay of the audio webcast will be available at the same website shortly after the call and will remain available for approximately one year.

Markforged Announces Third Quarter 2022 Results

9 November 2022

Markforged Holding Corporation, the company strengthening manufacturing resiliency by enabling industrial production at the point of need, announced its results from the third quarter ended September 30, 2022.

Financial Highlights

- Revenue increased by 5%, to \$25.2 million, in the third quarter of 2022 from \$24.0 million in the third quarter of 2021.
- Gross margin was 48.6% in the third quarter of 2022 compared to 57.0% in the third quarter of 2021.

CIMdata PLM Industry Summary

- Non-GAAP gross margin was 49.1% in the third quarter of 2022 compared to 57.6% in the third quarter of 2021.
- Net loss was \$23.0 million in the third quarter of 2022, compared to net profit of \$21.7 million in the third quarter of 2021.
- Non-GAAP net loss was \$15.2 million in the third quarter of 2022, compared to a loss of \$11.7 million in the third quarter of 2021.
- GAAP earnings per share was a loss of \$0.12 for the third quarter of 2022, compared to income of \$0.13 in the third quarter of 2021.
- Non-GAAP earnings per share was a loss of \$0.08 for the third quarter of 2022, compared to a loss of \$0.07 in the third quarter of 2021.
- Cash and cash equivalents were \$181.8 million as of September 30, 2022.

“Despite a challenging macro environment, we delivered another solid quarter as demand for The Digital Forge continues to grow globally. Ongoing supply chain challenges continue to be a catalyst for demand for our Digital Forge platform which brings industrial production to the point of need,” said Shai Terem, President and CEO of Markforged. “Excitement for our newest production-grade printer, the FX20, has been tremendous, and we are pleased to have expanded our addressable market by adding high volume metal application capabilities to our technology offerings with the closing of the Digital Metal acquisition. While challenges including inflation, geopolitical tensions and supply chain disruption are putting near-term pressure on our margins, we are confident in our long term strong fundamentals, which are supported by our growing pipeline and market opportunity.”

Business Highlights

- **Robust FX20 demand.** Markforged’s newest production-grade printer the FX20 is generating unprecedented excitement and orders continue to exceed the company’s expectation as manufacturers seek solutions to make their supply chains more resilient and flexible. However, as supply chain challenges continued globally, Markforged was not able to meet the demand for the FX20 and the cost of production of the FX20 exceeded our estimates.
- **Addressable market expansion with metals technology.** The company completed the acquisition of Digital Metal in the third quarter. The addition of this new metal binder jetting technology expands Markforged’s addressable market into the mass production of end-use metal parts. Demand is building in automotive, luxury goods, medical and MIM applications.
- **Strength in the APAC region.** In the Americas and EMEA, inflation and geopolitical pressures continued to impact the company’s business, as macroeconomic uncertainty led businesses to delay purchase decisions. However, the APAC region met the company’s expectations for significant growth in the second half of 2022. Revenue in APAC grew 51% during the nine months ended September 30, 2022 compared to the same period in 2021, and 82% during the three months ended September 30, 2022 compared to the same period in 2021, led by strong demand for mature products and accelerated demand for the FX20.
- **Operating leverage from tight cost controls.** Strong cost controls allowed Markforged to see sequential operating leverage and deliver on its EPS target in Q3. The company reorganized its go-to-market team and reprioritized initiatives with the potential for the greatest impact on profitable growth. These cost controls resulted in a strong balance sheet that the company anticipates will keep it on the path to profitability in 2024.

2022 Guidance

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Markforged is updating its full-year 2022 financial guidance to reflect its updated fiscal year outlook, which considers the current market conditions. The Company anticipates revenue for the fourth quarter to be in the range of \$28 - \$32 million which, at the midpoint, would result in 2022 full year revenue near the lower end of the range the Company provided previously. Non-GAAP gross margin in the fourth quarter is anticipated to be in the range of 48% - 50%, which equates to full year 2022 non-GAAP gross margin within the range of 50% - 52%. Non-GAAP operating loss in the fourth quarter is expected to be in the range of \$13.2 - \$14.7 million, which equates to full year 2022 non-GAAP operating loss in the range of \$61 - \$62.5 million for the year. Non-GAAP earning per share results for the fourth quarter are expected to be a loss in the range of \$0.06 - \$0.07 per share, which equates to full year 2022 non-GAAP earning per share results to be a loss in the range of \$0.31 - \$0.32 per share, based on the outstanding share count of approximately 193.6 million shares.

Conference Call and Webcast Information

The Company will host a webcast and conference call at 5:00 p.m. ET today, Wednesday, November 9, to discuss the results.

Participants may access the earnings press release, related materials and the audio webcast by visiting the investors section of the Company's website at <https://investors.markforged.com/>.

To participate in the call, please dial 1-800-954-0692, or 1-212-231-2907 for international participants, ten minutes before the scheduled start.

For those unable to listen to the live conference call, a replay will be available on the Company's website and telephonically through Wednesday, November 23, 2022 by dialing 1-844-512-2921 (U.S. domestic) or 1-412-317-6671 (International), passcode 152520.

Matterport Announces Record Third Quarter 2022 Financial Results

10 November 2022

Matterport, Inc. (“Matterport” or the “Company”), the leading spatial data company driving the digital transformation of the built world, announced record financial results for the quarter ended September 30, 2022.

“We delivered outstanding third quarter results, with record total revenue, demonstrating that our strategy is working,” said RJ Pittman, Chairman and Chief Executive Officer of Matterport. “We successfully launched our new Enterprise Essentials subscription suite as well as our new, high speed, LiDAR-enabled, Pro3 camera, which began shipping in the third quarter. We also completed the acquisition of VHT Studios, which brings together an industry-leading real estate marketing platform with Matterport’s immersive digital twin technologies. Further, customer demand remained robust in the quarter as enterprises leveraged the deflationary power of Matterport digital twins to improve operating efficiency and productivity, resulting in strong revenue growth across our target markets,” Pittman added.

“We saw strength across all of our revenue lines in the quarter, and combined with our focus on operating efficiency, we delivered financial results that exceeded our expectations on both the top and bottom lines,” said JD Fay, Chief Financial Officer of Matterport. “Subscription revenue grew to a record \$19.0 million and services revenue grew 204% year-over-year, to a record \$10.0 million. In addition, we were able to ship through our product order backlog during the third quarter. Finally, our focus on operational efficiency began yielding savings a quarter earlier than planned, and with our strong revenue growth, enabled non-GAAP net loss to improve by 24% sequentially, resulting in a narrower loss relative to our guidance range.”

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Third Quarter 2022 Financial Highlights

- Total subscribers increased to 657,000, up 50% compared to the third quarter of 2021
- Spaces Under Management (SUM) grew to 8.7 million, up 40% year-over-year
- Total revenue was \$38.0 million, up 37% year-over-year
- Subscription revenue was \$19.0 million, up 21% year-over-year
- Services revenue was \$10.0 million, up 204% year-over-year
- Annualized Recurring Revenue (ARR) exiting the third quarter was \$76.0 million
- Non-GAAP net loss was \$0.09 per share

Recent Business Highlights

- [Completed the acquisition of VHT, Inc.](#), known as VHT Studios, a U.S.-based real estate marketing company that offers brokerages and agents digital solutions to promote and sell properties. This transaction brings together VHT Studios' visual media services with the immersive Matterport 3D Digital Twin platform to elevate the buying experience for home buyers while simplifying the process of creating comprehensive marketing packages for brokers and agents.
- Launched the all-new [Matterport Pro3 Camera](#), a breakthrough in 3D capture technology, along with major updates to its industry-leading digital twin cloud platform. The Matterport Pro3 Camera is one of the most advanced Matterport 3D capture devices with a powerful combination of sensors working in harmony to create stunning digital twins, both indoors and outdoors.
- Matterport expanded its presence in the North American market with a [new relationship with TD SYNEX](#), a leading distributor and IT solution aggregator, to integrate Matterport's 3D digital twin platform across TD SYNEX's network of 150,000 resellers.
- Partnered with [Burns & McDonnell](#), an engineering, construction and architecture firm providing services for critical infrastructure companies with more than 10,000 employees, to deliver the Matterport Digital Twin Platform, including software services and hardware, to optimize construction expansion and maintenance projects.
- Partnered with [North Carolina Regional MLS](#), one of the largest Multiple Listing Services in North Carolina, covering more than half of the state and, representing nearly 12,000 realtors and appraisers, to integrate the Matterport Digital Twin Platform with its new listing management system, BrokerBay.
- Collaborated with Emmy Award-winning creative director [David Korins and hyperrealist artist Robin Eley](#), to create an immersive 3D experience of their limited-run exhibition in New York City, [Private Collection/Closed for Installation](#).

Conference Call Information

Matterport will host a conference call for analysts and investors to discuss its financial results for the third quarter of fiscal 2022 today at 1:30 p.m. Pacific time (4:30 p.m. Eastern time). A recorded webcast of the event will also be available following the call for one year on the Matterport's Investor Relations website at investors.matterport.com. The dial-in number will be (412) 902-4209, conference ID: 10171665.

The financial results press release and a live webcast of the conference call will be accessible from the

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Matterport website at investors.matterport.com. An audio webcast replay of the conference call will also be available for one year at investors.matterport.com.

Modelon AB Interim report Q3 2022

11 November 2022

Annual Recurring Revenue growth and new customer acquisitions

Q3 Highlights

- **ARR increased by 16% to MSEK 42.1 (36.4).**
- **Net revenue increased to MSEK 16.1 (14.1), software revenues increased to MSEK 10.9 (9.2).**
- **EBIT amounted to MSEK -15.9 (-11.0), including development costs of MSEK 13.1 (11.7).**
- **Net result amounted to MSEK -15.9 (-10.9).**
- **Earnings per share amounted to SEK -1.45 (-0.99) before dilution.**
- **Financial result for the period reflects the ongoing investment phase for accelerated growth.**

Comments from the CEO

ARR growth and new customer acquisitions

Annual recurring revenues in the third quarter of 2022 increased 16% compared to Q3 2021. Software revenues in the quarter increased 18% compared to 2021 and comprised 68% of total revenue vs. 65% in 2021.

- Notable new customer wins in the third quarter include:
- US multinational consumer goods corporation
- Leading European home appliance manufacturer
- European aerospace institute
- European aircraft engine manufacturer
- Chinese automotive research institute
- Multi-national nuclear reactor provider
- US global energy technology company
- US geothermal HVAC company
- US defense research laboratory
- Swedish global automotive company

This list of new customers continues to demonstrate how leading and global innovation driven technology companies across Europe, the Americas and Asia are adopting Modelon Impact. Most of these companies are new customers, while some are longer term Modelon software and services customers who are starting to adopt or migrate to Modelon Impact. The energy sector remains strong in the sales mix, while we also see a good spread across our other industry focus segments with increasing activity in defense. The pattern with larger deal sizes in the US compared to other regions continues. New customers continue driving Modelon Impact sales, building a solid foundation for future upselling. The summer seasonal effect means that the third quarter orders are concentrated late in the quarter, contributing to Q3 ARR with a smaller portion of the order value with the full effects from Q4.

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Customer testimonials demonstrate Modelon Impact positioning

Pipeline activity is healthy. We are pleased to continue seeing good effects in our lead generation from the return of face-to-face events and visits. For example, in the third quarter Modelon experts and commercial staff attended ThermoSim in Braunschweig, Germany and the GE Edge Symposium in New York. The quarter ended with the final preparations for Modelon's first international user conference Modelon Innovate, held in Stockholm October 19-20. The event was a great success and will be described further in the upcoming year-end report.

We published two exciting case studies during the quarter: One from Saab that explains how Saab worked with Modelon to incorporate model-based systems engineering (MBSE) and greatly enhance the Gripen multi-role fighter aircraft without overextending its in-house resources. We published a second case study from Siemens Energy that explains how they adopted Modelon Impact for integration of heat-pumps into evolving energy technology and district heating systems.

Accelerating the transition to public cloud

The Modelon Impact public cloud offering was announced in August 2022, after a soft launch in Q2. The market reception has exceeded our expectations, with more than a third of all new Modelon Impact licenses in Q2 and Q3 on the public cloud version. To meet demand, we are currently and in the short term prioritizing the product roadmap to optimize the transition towards public cloud. In Q3, we see this ongoing shift slowing ARR growth compared to the target growth rate, until the new functionality is established, while after the transition we will be in an even stronger position for scaling.

We continue to have great confidence in our growth strategy and goals by pioneering system simulation on the cloud with Modelon Impact. Accurate simulations give better engineering decisions and make technology companies more successful, innovative and competitive. That holds true in any market or macro situation, and will drive our success for many years to come.

Magnus Gäfvert, CEO Modelon

Lund, November 11, 2022

Investor presentation

Modelon invites investors to a presentation of the Q3 interim report at 10am CET on November 11, 2022. CEO Magnus Gäfvert and CFO Jonas Eborn will present the Q3 earnings in an audiocast: <https://tv.streamfabriken.com/modelon-q3-report-2022>.

The complete Q3 interim report is attached to this press release and is also made available on the company webpage: <https://modelon.com/investor-relations/#FinancialReports>.

Synopsys Announces Earnings Release Date for Fourth Quarter and Fiscal Year 2022

9 November 2022

Synopsys, Inc. announced it will report results for the fourth quarter and fiscal year 2022 on Wednesday, November 30, 2022, after the market close. The company will host a conference call at 2:00 p.m. Pacific Time / 5:00 p.m. Eastern Time to review its financial results and business outlook.

Financial and other statistical information to be discussed on this conference call will be available on the corporate website at www.synopsys.com immediately before the call. A live webcast will also be available on this site. Participants should access the live webcast at least 10 minutes prior to the start of the call. A webcast replay can be accessed on the corporate website beginning Wednesday, November 30, 2022, at approximately 5:00 p.m. PT. The replay will be available until Synopsys announces its first quarter fiscal year 2023 results in February 2023. In addition, a dial-up replay of the conference call will be available beginning November 30, 2022, at 5:00 p.m. PT, ending on December 7, 2022, at midnight.

The replay telephone number is USA +1-800-770-2030, and International +1-647-362-9199, conference ID 6444570.

Product News

3Dfindit.com integrated directly into VISI: Users benefit from millions of 3D CAD models from manufacturer catalogs

8 November 2022

New AddOn powered by CADENAS for mould making CAD software accelerates design process with engineering data & digital twins

Starting with VISI version 2022.0, Hexagon, in cooperation with the software company CADENAS, offers designers in mold and tool making access to millions of 3D CAD models from thousands of manufacturer catalogs. This is made possible by the new, deep integration of high-quality, manufacturer-verified component data from CADENAS' visual, browser-based search engine 3Dfindit.com into VISI.

"The VISI Standard Elements package, with the addition of 3Dfindit.com, provides all designers with a complete selection of catalogs and associated standard elements that allow them to optimize the time spent designing plastic and prog die moulds," said Marco Cattaneo, Technical Product Manager at Hexagon. "3Dfindit.com completes the standard elements package already available in VISI with a list of catalogs that is always updated and contains all available standard products that can be quickly and intuitively inserted into the project, with the corresponding order code automatically added to our parts list."

Accelerated product design through digital component information from 3Dfindit.com

VISI users now have the possibility to find components that go beyond the VISI internal standard parts library in the integration directly in the 3D CAD software. The intelligent engineering data can be configured according to their needs and then transferred to their design free of charge with just a few clicks. The intuitive search methods, such as the geometric similarity search, the sketch search, the color search, the parametric text search or the filter options via the facets, are specially tailored to the needs of CAD users.

"By using 3Dfindit.com and the digital component information, VISI users no longer have to manually trace the required components in a time-consuming manner and thus have significantly more time for creative product development," explains Jürgen Heimbach, Managing Director of CADENAS GmbH. "In this way, 3Dfindit.com helps to accelerate the product development process and therefore significantly shorten the time-to-market."

3Dfindit.com is a visual search engine developed by digital CAD catalog expert CADENAS. Engineers, buyers and architects worldwide use the search engine to find and download millions of manufacturer-approved 3D CAD and BIM models.

Aspen Technology Delivers First-of-its-Kind Training for Sustainability Technology Pathways

9 November 2022

Aspen Technology, Inc., a global leader in industrial software, announced the details of its industry-first Sustainability Training Program for customers and partners. The robust training made for all experience levels consists of 18 classes designed to expand users' expertise on how to accelerate progress on critical

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sustainability pathways with digital technology. More than 1,000 individuals have already broadened their skillsets and helped to improve their organizations' sustainability position by successfully completing the training.

“Our customers are facing the dual challenge of meeting the increasing demand for resources from a growing population, while addressing sustainability goals. This, coupled with generational workforce changes, has made operational excellence and continuous education incredibly important for capital-intensive industries,” said David Reumuth, Sr. Director, Customer Support and Training, AspenTech. “AspenTech’s Sustainability Training Program is empowering a new generation of industry users to grow their practical knowledge of proven digital solutions that are making an impact on sustainability. The program is aligned with key sustainability technology pathways that are putting our customers and partners in the best position to mitigate their environmental impact and meet the dual challenge.”

Capital-intensive industries are using AspenTech solutions to advance technology pathways that will help them achieve their sustainability objectives. Sustainability technology pathways include improving resource efficiencies, supporting energy transition and decarbonization initiatives, innovating new approaches for the hydrogen economy and carbon capture, and enabling recycling efficiencies for waste reduction.

Components of AspenTech’s Sustainability Training Program

AspenTech’s Sustainability Training Program includes practical examples from AspenTech’s 60+ sustainability models. AspenTech sustainability models are used by capital-intensive industries to make progress toward their near- and long-term sustainability initiatives, like managing emissions and developing carbon capture technologies.

Participants start with a flexible, self-paced eLearning program that fits their schedule. This is followed by a combination of expert-led training that can be customized per company and small group coaching sessions to improve the proficiency of complex industrial concepts.

Once the training is complete, AspenTech continues to partner with participants to help them track organizational competencies across operating facilities and their enterprise to ensure company-wide, long-term value. As a result, attendees become proficient in the role of digitalization and operational excellence in achieving sustainability results.

BETA CAE Systems announces the release of the v7.1 of its License Manager

3 November 2022

About this release

BETA LM v7.x is required for running BETA software, starting from the lately introduced v23.0.0 and onwards. BETA LM v7.1 is the first bug-fix release of the 7.x series of our license manager, which comes to support further the migration to the new version of our software.

As there are numerous highly anticipated implementations to look forward to in this new version, we are glad to introduce the brand-new BETA LM Dashboard: An application that enables the creation of graphical and statistical representations, based on the information derived from the license.log file.

Always aiming to provide you with first-class support, apart from noteworthy enhancements and implementations, this version also hosts numerous fixes.

Enhancements and Known issues resolved

Status Tool

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beta_lm_stat command would report incorrect standings in the CREDIT USED column for PACKAGES and BUNDLES, in case of License File with multiple Serial Numbers.

Furthermore, information about the weight and options per FEATURE, as well as the version of BETA LM, is now reported under beta_lm_stat tool and report.

Host Key

The host_key produced by either lowercase or uppercase UUID characters is accepted by the License Manager. In addition, the -ni UUID flag is no longer required for the installation of a License File based on UUID.

Opt File

The rules defined to allow or limit the usage of licensed features based on user, group of users, IP address or hostname would not function properly in some cases.

Moreover, setting UserPrivacyLevel=1 in license.opt file will disable listing of usernames & hostnames, when executing beta_lm_stat -a command. This change applies since versions 22.0.0, 21.1.2, 21.0.3, 20.1.6 of BETA Software Suite Products and onwards.

License File

The full path to a missing License File is now logged in the license.log, further facilitating the troubleshooting process.

For more details about the new software features, enhancements and corrections please, refer to the Release Notes and Setup Guide documents.

Compatibility

BETA LM Tools 7 does not require a new host key. Existing license files are compatible with the new license manager.

The new LM version is compatible with all the previously released BETA CAE Systems software.

Improvements apply to all versions of BETA CAE Systems Software with performance being further increased for software released after the 14th of September 2015.

Better End-To-End Customer Experiences by Addressing Complexity Bottlenecks with Configit Ace®

3 November 2022

Configit, the global leader in Configuration Lifecycle Management (CLM), announces the **latest release of the Configit Ace®** enterprise-grade product configuration platform. With this latest release, Configit addresses complexity bottlenecks that make integration implementation and validation as well as maintenance and support more difficult. This provides a better end-to-end customer experience throughout the product lifecycle.

“Configit Ace® has been the leading CLM platform for years and is used by many market leading and global companies to support thousands of product models. However, with this scale comes complexity making it more difficult to maintain and support products and systems. We have engaged with our customers to understand the complexity bottlenecks they are facing and with this release we are providing solutions that address these challenges,” **stated Johan Salenstedt, CEO, Configit.**

Configit Ace® provides a single source of truth for product configuration information that enables providers of complex products and services to manage, query and **validate product configuration**

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options in real-time. Configit Ace® supports production, sales, manufacturing and service organizations through integrations with multiple systems including PLM, ERP/MES and CRM.

Configit Ace® now includes capabilities and APIs that make validation of integrations easier. These additional features effectively accelerate integration activities by removing bottlenecks during implementation and validation. The latest release also addresses bottlenecks in maintenance and support.

“When discussing CLM, we tend to focus on the engineering, sales and manufacturing processes. But CLM is also extremely important and valuable for **post-sales activities**. After several years of supporting our customers, we can now see the complexity challenges they face in upgrading, maintaining and supporting products and systems already deployed. For example, some products and systems have lifetimes that span decades. When these products and systems need to be upgraded, serviced or repaired, the defining product configuration could now be invalid. Since the product configuration could involve thousands of feature combinations, it can be very difficult to determine the cause of the issue. In the latest release of Configit Ace®, we **provide powerful new APIs** that help identify the cause of conflicts as well as explain why the configuration is not valid. This makes upgrade, maintenance and support tasks both easier and faster,” **stated Henrik Reif Andersen, co-founder and CSO of Configit.**

By addressing complexity bottlenecks, Configit Ace® facilitates a smoother and better end-to-end customer experience from product design to product decommission.

Control cabinets in 3D: better overviews for service and maintenance

9 November 2022

At the SPS in Nuremberg, Germany, EPLAN will be presenting improvements to EPLAN eVIEW Free that provide service technicians in particular with far more flexibility. Tobias Kratz, Business Owner Rapid Design at EPLAN explains: “EPLAN eVIEW Free supports the service team during maintenance by providing a visualisation of the digital twin with the full depth of information. With the new 3D graphics engine, entire sections of a control cabinet can be displayed or hidden, and individual components can even be highlighted in the visualisation.” The benefits are clear: if a service technician hides a side panel or doors, as examples, all the components within are freely accessible – meaning she has a complete view of the cabinet’s interior. And this view is available at any time and independent of location – simply by using an internet browser.

Log in, register, get started

How does it work? Users register at www.eplan.com and can upload their current projects there. With the eVIEW Free application, project documentation can be displayed in 2D as a schematic or in 3D as a virtual visualisation of the control cabinet. The new integrated split-screen technology provides more freedom in choosing viewing options: the schematics and the AR model of the control cabinet can now be displayed next to each other. In the case that the machine shuts down, as an example, the fault can quickly be traced back to its source and the faulty component or components can be highlighted. If the service technicians need more information, they can open the 3D model of a component directly from the schematics. Another practical advantage is access to cross-references to the device lists, bills of materials, cable overviews and other analyses including topologies.

Great collaboration between engineering and service departments

Using the redlining function, service technicians can note the changes directly on the schematics, which are then automatically forwarded to the engineering department. This results in documentation that is always up to date, including for any upcoming maintenance or servicing. Furthermore, setpoints can be

recorded directly in the schematics using the greenlining function as another example. Documentation stored in the EPLAN Cloud is available to view at any time from anywhere in the world, making interdepartmental collaboration even easier.

AR: freely project a control cabinet into the physical environment

The new version of EPLAN eVIEW Free has also made the possibility of virtually projecting control cabinets into a physical space easier. A control cabinet can be freely positioned in a physical space using the camera of a tablet computer or smartphone. It can be virtually projected as an overlay into any space using the integrated AR technology, for instance into a machine shop. Access to the AR functionality through PTC's Vuforia app has also been simplified. Users of this free app can now call up the AR function directly in the viewer with a click. The software then generates a QR code or a link that can be shared with other project participants. If the Vuforia app isn't installed on the device, eVIEW Free automatically suggests installing it.

EcoAct launches platform to assess organisations' physical vulnerability to climate risks

8 November 2022

EcoAct, an Atos company, launches the EcoAct Climate Risk Platform, a climate risk assessment and visualisation platform that assesses the vulnerability of organisations' physical sites to 28 climate change hazards, supporting the identification and prioritisation of mitigation and adaptation measures.

With no credible pathway to 1.5°C according to UNEP's latest Emissions Gap Report, the need for businesses to identify, mitigate and adapt to vulnerabilities as a result of climate change is becoming increasingly important.

The EcoAct Climate Risk Platform provides oversight of the exposure of an organisation's portfolio of physical sites to all 28 of the climate risks included in the EU taxonomy, allowing users to explore different criticalities, climate scenarios and time horizons. The platform models both classical climate risks such as floods and heat waves, as well as less common risks, such as glacial lake outburst floods, salinisation of coastal water tables and the impact of ocean acidification.

State-of-the-art climate information aligned with reference frameworks

Aligned with leading climate reporting frameworks including the Task Force on Climate-Related Financial Disclosures (TCFD) and the CDP's global disclosure system, the platform will support organisations to adopt a proactive strategy to mitigating and adapting to climate change including if a business should consider transforming their business model entirely.

"Our latest Climate Reporting Performance research revealed that although most businesses consider climate change a principal risk, many still do not have sufficiently robust long term plans to mitigate or adapt their business to climate change. This new platform, developed by our climate experts, and based on data from more than sixty climate risk analysis projects, can be adapted to any sector to support transformative change. It provides all organisations with the means to analyse climate scenarios, to access precise quantifications based on the latest scientific data and, ultimately, to facilitate informed decision-making with complete autonomy", says **Véronique Mariotti, Head of Climate Risk at EcoAct, an Atos company.**

Accurate, versatile and customised visualisation of climate indicators

Based on the latest scientific data from the Intergovernmental Panel on Climate Change (IPCC) and, in

particular, its 6th Climate Change Assessment Report published in 2021 and 2022, the EcoAct Climate Risk Platform offers an accurate and scientifically based quantification of physical climate change risk. To obtain maximum accuracy, the platform integrates the CORDEX regional climate models with a resolution of up to 12 kilometre, based on the IPCC scenarios, as well as complementary datasets up to 30-metre resolution and from globally recognised organisations such as WRI or NOAA. The use of downscaled regional climate data makes the platform one of the most comprehensive and accurate commercially available to date.

The EcoAct Climate Risk Platform is part of Atos' unique net-zero portfolio of business advisory services, digital services and tools, and nature-based solutions - giving organisations the means and visibility they need to take action on climate change today.

EPLAN Smart Mounting: Control cabinet manufacturing just got smarter!

8 November 2022

Control cabinet and switchgear manufacturing is under increasing time pressures and the lack of skilled employees may also be causing bottlenecks in many cases. This is where EPLAN Smart Mounting comes in: the new software – being presented for the first time at the 2022 SPS – leads the way through the entire control cabinet assembly process. It supports technicians in assembling and mounting all the components in a control cabinet and on mounting panels. Presented in a user-friendly way and supported by a 3D visualisation, the technician immediately recognises where components must be placed. EPLAN Smart Mounting provides production employees a complete list of all the work steps to be carried out. It starts with the mounting of DIN rails and cable ducts – as examples – and ends with electrotechnical components including auxiliary switches and timing relays. The browser-based application with a central web server doesn't require any installation and can be used directly in the workshop, for instance on a tablet computer.

Easy assembly with the right results

The digital twin in EPLAN Pro Panel provides the relevant engineering information – including dimensions, positioning, drill holes and the type of fastening needed for each component. Technicians can enter comments about components directly into EPLAN Smart Mounting and send them back to the engineering department. This means that the electrotechnical documentation is always up to date – improving communication across departments.

Another practical advantage is that changes to the project can now be quickly implemented. For instance, if there have been changes to the customer specifications to add an additional motor circuit breaker or contactor, the production order can be synchronised – i.e., updated – to the new project. The software shows precisely where components must be removed or which need to be added. This means tedious manual document comparisons no longer need to be done, saving time, and ensuring correct results. And if questions should still arise, EPLAN Smart Mounting provides direct access to the interactive schematics.

Better overview and more flexibility for production managers

It isn't only workers on the shop floor who gain full support. Production managers also get a better overview and more flexibility – they can see the status of open production orders at a glance. A control system displays the assembly progress for each component: green means completed, while red means not yet processed. If there are resource bottlenecks or downtimes, an order that has already been started can easily be handed off to another employee. In addition, personnel resources can be utilised more flexibly for different production steps.

Great interaction between assembly and cabling

This isn't yet the end of the process. The data foundation from EPLAN Pro Panel can also be used for cabling. Using EPLAN Smart Wiring means the complete downstream wiring process for the control cabinet can also be system-based. A uniform interface for EPLAN Smart Mounting and EPLAN Smart Wiring, as well as the digital twin from EPLAN Pro Panel as the single source of truth, ensure maximum end-to-end data consistency. The software is naturally compatible with common fully automatic wire assembly machine such as the Rittal Wire Terminal WT. Prefabricated wires can also be used. The aim is to achieve the highest degree of automation possible from the initial engineering phase to manufacturing while at the same time ensuring maximum quality.

FARO Zone 3D Forensic Scene Analysis Software Delivers New Photogrammetry Capabilities

8 November 2022

FARO® Technologies, Inc., a global leader in 4D digital reality solutions, announced the release of a new edition of FARO Zone 3D Software to the public safety market, equipping crime, crash, fire, and security professionals with critical new capabilities they need. These include: advanced graphics; customizable vehicle modeling; and the ability to measure from photographs through photogrammetry integrations.

The announced release of FARO Zone 3D Software provides public safety professionals with a multi-modal, capture-device agnostic software program that can diagram, document, and analyze forensic scenes utilizing data from drones, 3D laser scanners, 2D photos and other traditional measurement devices, leaving no customer and no data collection method behind.

“This edition of FARO Zone 3D Software is the most versatile yet for data input and processing — making the most comprehensive scene documentation software on the market even better,” said Noreen Charlton, Software Product Marketing Manager at FARO. “Public safety professionals can take images from almost any capture device — drones, photographs, laser scanners from a variety of manufacturers, hand-measured data and more — then model crime and crash scenes in 3D and virtually walk jurors through a forensic scene with an exceptional level of realism.”

Aiding in achieving that realism, which is critical to solving and proving cases in the courtroom, Charlton points to a significant feature in this release of FARO Zone 3D software- improved point cloud capability. FARO Zone 3D software is available in two versions, Zone 3D Expert and Zone 3D Pro. With Zone 3D Expert, which incorporates a new proprietary photogrammetry engine, FotoPoints, users can convert photographs into point cloud data. This means, for the first time we are enabling users to take accurate measurements from 2D photos or 3D data. Also for the first time, users of 3D Pro can import point cloud data into the software for inclusion into forensic scene analysis.

These tools provide the functionality to accurately reconstruct any scene with multiple sources of data, to create factual diagrams, photo-realistic visuals, and give users the ability to create animations in a combined point cloud and panoramic image environment. Additionally, the camera lock feature allows a user to freeze a camera view to edit a drawing without changing the view. This can also be used to align an overlay image or video with a point cloud. Along with a large library of existing features, FARO Zone 3D software is the most comprehensive public safety tool for documentation, training, analysis and presentation.

Honeywell Launches Honeywell Forge Sustainability+ To Help Organizations Meet Carbon Reduction Goals

4 November 2022

Honeywell announced a new sustainability solution for carbon emissions monitoring and optimization which it has launched for earlier adopters and has also been deployed at its own facility. Honeywell Forge Sustainability+ for Industrials | Emissions Management and Honeywell Versatilis™ Signal Scout™ wireless Industrial IoT leak detection sensors will enable organizations to monitor and visualize emissions in near real-time. The new solution will help customers in the industrials sector as they strive to reduce their greenhouse gas (GHG) emissions and meet their carbon reduction goals.

Organizations have traditionally struggled to track emissions due to the lack of a single system of record. The new Honeywell Forge Sustainability+ for Industrials | Emissions Management and Honeywell Versatilis™ Signal Scout™ IoT sensors will provide organizations with an end-to-end software solution that includes emissions monitoring, analytics, visualization and proactive insights to assist with emissions reduction. The solution provides a foundation for organizations to measure, monitor, reduce and report their emissions performance against their carbon reduction goals.

Key features and benefits of the Honeywell Forge Sustainability+ for Industrials | Emissions Management solution include:

- An enterprise solution that measures fugitive and process GHG emission leaks, continuously monitors sites for new or remediated emissions, reports on emissions' status and drives emission reduction strategies and solutions.
- Innovative gas detection technologies with Honeywell Versatilis™ Signal Scout™ gas detector and Gas Cloud Imaging, interfaces with Emissions Management for continuous measuring and monitoring of emissions, enabling customers to better manage GHG emissions proactively in near real-time.
- Reporting of process emissions with site- and enterprise-level trending and visualization that allows organizations to locate methane leaks that may cause production loss or impact worker safety, as well as gain access to metrics and alarms associated with gas leaks.
- Enterprise-wide accounting, visualization and reporting that eliminates periodic manual reporting and provides a holistic, near real-time view of Scope 1 emissions for HSE professionals and executive teams.

"Honeywell Forge Sustainability+ for Industrials | Emissions Management presents a scalable solution to help our customers meet important compliance, reliability and profitability needs for driving energy transition and achieving their carbon reduction goals," said Kevin Dehoff, president and CEO, Honeywell Connected Enterprise. "Our new sustainability solution eliminates the need for complex data collection and spreadsheets while offering an accurate, auditable and near real-time view of emissions at the site level and across the enterprise."

"Montrose Environmental is excited to be working with the emissions management solutions being developed by Honeywell," said Scott Churbock, senior vice president, Montrose Environmental. "The ability to monitor and reduce process and fugitive GHG emissions in near real-time, will help our clients manage risk and accelerate the achievement of Net-Zero goals."

New Honeywell Flight Efficiency

Honeywell Flight Efficiency, a software-as-a-service (SaaS) application that uses deep data analytics to equip airlines and flight crews with actionable insights to reduce fuel consumption, has moved to the

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cloud to offer faster load times, more customization and reporting options. The cloud-based solution will enable better prescriptive analytics to provide guidance to pilots and ground personnel before and during flights. A new enhancement enables users to access Flight Efficiency on a native mobile application for analyzing and sharing data on the go.

"Our new cloud-based Honeywell Flight Efficiency improves upon flight analytics available to airlines to help them further reduce fuel consumption and carbon emissions," said Karen Miller, general manager, Honeywell Connected Aerospace. "The enhancements to our solution will help customers realize additional fuel savings and lower their operational costs by flight, which can translate to significant savings across their fleets."

Airline employees can use insights from Honeywell Flight Efficiency to make more informed decisions about fuel loading, taxiing and flight procedures to affect fuel economy and on-time performance. In addition to saving money, burning less fuel can result in less greenhouse emissions per flight.

ITI Launches The Latest Release Of CADfix PPS 4

7 November 2022

Global interoperability solution provider International TechneGroup Incorporated (ITI), is pleased to announce the release of CADfix PPS 4, the latest version of its CAD model simplification and file size reduction software. CADfix PPS helps plant and process, power industry, marine and offshore engineers achieve up to 80% reduction in engineering design labor and costs associated with CAD model simplification.

CADfix PPS 4 sees advances in all areas of the product with a focus on enabling users to simplify large equipment assembly models more effectively. Highlights include improved and faster automatic model simplification with new Smart Deconstruction technology, extensive new manual simplification tools, and updated CAD interfaces.

The CADfix PPS automatic simplification Wizard has been given a significant overhaul. A new Smart Deconstruction feature automatically splits complex or pre-joined solids into simplified primitive pieces, enabling a greater level of simplification than was previously possible. The box and cylinder simplification tool has been extended with a new conical primitive option. The hole, protrusion, and internal detail removal features are all faster and can handle more complex cases. The result is a robust and fully automatic CADfix PPS model simplification process that maintains the balance between processing time, file size reduction, and retaining the appropriate level of detail.

CADfix PPS 4 also adds the ability to automatically identify complex extrusions and convert them into simplified extruded profiles, with options to control the level of detail retained. This has a major impact on reducing file size for models containing a high number of structural members.

Lettering and logos are a frequent source of excess data in mechanical CAD models that is not required in plant design systems. ITI has implemented a new tool that identifies raised, sunken and flat lettering or logos and automatically removes them, producing significant file size savings.

CADfix PPS 4 includes a new utility to automatically create assembly structures, allowing further processing time and file size reductions. CADfix PPS 4 can quickly identify repeated parts, remove duplications, and then automatically create a new assembly structure using instances of the primary part.

As with every new release, the CAD import and export interfaces are updated with enhancements to the standard STEP, DWG, Parasolid and SAT interfaces, plus updates to support the latest native CAD formats. "The power of CADfix PPS is in its ability to rapidly simplify large equipment models for

integration into plant design systems, where productivity improvements make a real difference”, commented Andy Chinn, Director at ITI. “The latest version will deliver further time and cost savings for our customers, helping them achieve even greater time to market reductions in a very competitive industrial environment.”

TCS Launches SAP on Microsoft Azure Solution to Help Organizations Securely Transform Business Operations

1 November 2022

Tata Consultancy Services (TCS) announced the launch of TCS Managed Services for Security with SAP, building on its suite of solutions that help enterprises establish and run their SAP environments securely on Microsoft Azure.

TCS Managed Services for Security with SAP on Azure leverages TCS’ extensive security experience on Azure, including identity and access management, network security, cloud infrastructure security, and cloud SecOps. It uses the Fortinet Security Fabric and FortiGuard security services, which are integrated with SAP systems to secure sensitive customer data and traffic, protect applications and enforce zero-trust policies.

TCS Managed Services for Security with SAP on Azure is aligned with best practices for migrating SAP systems to Azure and provides threat protection, detection, and automatic remediation capabilities at cloud scale. It provides holistic care for security and compliance during movement of workloads to cloud in a safe, secure, and compliant manner at all stages in a managed services model.

The new TCS Managed Services for Security with SAP offering adds to TCS’ extensive suite of award-winning SAP on Azure solutions. This includes Microsoft Security and Identity Management, its SAP on Azure Quick Sizer, and SAP on Azure Transformation with S/4 Workshop Briefing – all designed to give organizations a comprehensive way to start their journey to securely migrate, modernize, and manage their enterprise. Another key solution is TCS Crystallus™, a set of pre-configured industry and business solutions that is helping enterprises accelerate their digital transformation initiatives.

“TCS is helping customers transform their businesses leveraging the combinatorial power of SAP S/4HANA and Microsoft Cloud to improve productivity and enhance innovation. A critical component of the SAP on Azure journey is cyber security. TCS Managed Services for Security with SAP on Azure helps clients cope with ever increasing cyber threats by protecting critical customer, financial, and product data,” said **Siva Ganesan, Head, Microsoft Business Unit, TCS.**

“TCS’ cloud-native approach and its industry-preconfigured solutions, like TCS Crystallus™, enable our joint customers to take full advantage of our market leading Microsoft Cloud to accelerate their SAP S/4HANA transformation with enhanced productivity, efficiency and innovation with advanced solutions like Teams integrations, security, data & analytics, IoT, and AI/ML,” said **Joao Couto, Vice President, SAP Business Unit, Microsoft.**

“We’re pleased to partner with TCS to help customers securely accelerate their digital transformation initiatives. With cloud-native integrations across the Fortinet Security Fabric, organizations can feel confident in securely and seamlessly migrating their mission-critical ecosystems,” said **Vincent Hwang, Senior Director of Cloud Security, Fortinet.**

With more than 1,000 successful Azure engagements completed for hundreds of global customers, TCS’ Microsoft Business Unit is one of the most recognized partners in the Microsoft ecosystem. In addition to winning the 2022 Microsoft Partner of the Year for Global SI & Advisory Digital Transformation, Retail & Consumer Goods, SAP on Azure, US Advisory Services, and US Financial Services, it was

also recognized in nine other global categories. TCS is an Azure Expert Managed Service Provider, has earned a record-setting 17 Microsoft Advanced Specializations, achieved all 18 Microsoft Gold Competencies, and is a member of the 2021/2022 Inner Circle for Microsoft Business Applications.

Trimble Construction Cloud Powered by Microsoft Azure Launches at Trimble Dimensions+ Conference

7 November 2022

Trimble announced the launch of Trimble Construction Cloud powered by Microsoft Azure, an industry cloud to streamline construction projects. Trimble Construction Cloud was developed as part of Trimble’s collaboration with Microsoft to advance technology adoption and accelerate the digital transformation of the construction, agriculture and transportation industries.

Trimble Construction Cloud takes advantage of Microsoft Azure services including Logic Apps, Azure DevOps, and Azure Kubernetes Service. The platform links project teams, data, processes and multiple stakeholders—such as general contractors, subcontractors, designers, engineers and owners—across all phases of construction projects. Connecting people, processes and workflows enables projects to be completed better, faster, safer, cheaper, and greener. By providing seamless collaboration from the field to the back office, Trimble Construction Cloud provides a trusted environment where transparency and actionable data are the new norm. It is also the sole construction industry cloud for Microsoft customers.

“Trimble Construction Cloud enables customers to accelerate and deliver improved business outcomes with data from native Trimble and ecosystem of services,” said Jennifer Lin, senior vice president and chief platform officer for Trimble. “It empowers project teams to design, construct, operate, collaborate and learn with live data sharing. This unique approach leverages connected workflows, precise spatial data and constructible models to modernize the entire ecosystem and accelerate customer success. We’re excited to help customers and partners achieve more productively and sustainability than before.”

Trimble Construction Cloud will launch as the cloud solution powering Trimble Construction One, a purpose-built connected construction management offering that includes rich field data, estimating, detailing, project management, finance and human capital management solutions. Non-Trimble Construction One users can subscribe to Trimble Construction Cloud independently as a separate service.

Trimble Construction Cloud includes four main functions designed to automate the flow of data and decision-making for more efficient and predictable business outcomes:

- **Common Data Environment:** Task-specific point solutions have created the fragmentation of data and losses in handoffs, as construction is increasingly a mixed fleet world with different equipment, technology, software and information—each of which handle different parts of the construction lifecycle. Trimble Construction Cloud features one centralized, common data environment that connects the office with site operations tools, enabling Trimble and non-Trimble solutions to automatically integrate into one usable data set. This provides enhanced data visibility and unites stakeholders across jobs, teams and departments with the right information at the right time to make the right decisions.
- **Configured and Custom Workflows:** Despite the number of repetitive tasks inherent to construction, most contractors still run their businesses manually, which is time-consuming and error prone. Trimble Construction Cloud solves this challenge with configured and customizable workflows that help project teams automate different aspects of their business with commonly used workflows, as well as by building and deploying their own around critical job roles and

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specific business objectives. The cloud's three configured workflows include a model-to-procurement built for Mechanical, Engineering and Plumbing (MEP); a model-to-fabrication for structures; and a civil bid-to-build for site management.

- **Live Data/Model Sharing:** Collaborating across projects in real-time has always been difficult for project teams. Trimble Construction Cloud provides customers with the ability to subscribe to unique capabilities across Trimble and non-Trimble solutions such as Microsoft Teams that serve to enhance and facilitate collaboration across project teams. The Live Sharing capability allows for real-time model collaboration for both Trimble and non-Trimble solutions. With Live Sharing, multiple users can be in several Trimble solutions—such as Quadri, Trimble Connect and Tekla—and view model changes as they happen. Users with non-Trimble solutions can also collaborate in the same modeling process as well.
- **Trimble Developer Portal:** Instead of reaching out to various organizations within a business to gain access to a port or specific type of data, Trimble Construction Cloud centralizes the discovery, learning, provisioning, support and successful application of APIs through the Trimble Developer Portal. An easily accessible, centralized portal is designed to facilitate faster onboarding and integration leading to more productive developer experiences.

“Cloud-based solutions are designed to take industries to the next level to compete in today’s marketplace,” said Casey McGee, vice president of Global ISV Sales, Microsoft. “Trimble Construction Cloud connects disparate systems and provides new workflows, so stakeholders have the visibility and fluidity they need to further enhance digital transformation.”

Wipro launches new financial services consulting capability in India

2 November 2022

Wipro Limited, a leading technology services and consulting company, announced the launch of a new financial services advisory capability in India. Capco, a Wipro company, will supplement Wipro’s presence in the Indian financial services sector through its business in Mumbai to jointly offer end-to-end transformation services for this sector.

The value of the Indian consulting market is estimated to be \$8.6 billion, of which financial services accounts for an estimated \$2.95 billion*. In partnership with Wipro, Capco will offer strategic advisory and consulting capabilities to Indian financial services firms that are on their digitization journey. Towards this, Capco will leverage Wipro’s India presence, relationships, scale, and proven expertise in providing a comprehensive suite of digital transformation services.

Anis Chenchah, CEO of Asia Pacific, Middle East, and Africa (APMEA), Wipro Limited, said: “Capco’s financial services consulting expertise in India aims to accelerate our clients’ end-to-end transformation journeys. I am confident that the joint forces of Wipro and Capco will play an important role in the industry’s next phase of innovation. It enriches our full spectrum of capabilities, ensuring we are well positioned to help our clients realize their growth ambitions.”

Lance Levy, CEO of Capco and Executive Sponsor of Wipro’s Financial Services business, said: “I am delighted to introduce Capco’s financial services advisory capability in India. We will combine our deep domain expertise around digital banking and insurance, data and cloud transformation, intelligent automation, and cybersecurity together with Wipro’s scale and extensive delivery to offer a fresh and dynamic, end-to-end, transformational experience for our most important clients.”