

Virtual Twin Experiences

Dassault Systèmes 2023 Analyst Days

Key Takeaways

Deputy CEO Pascal Daloz will take over as CEO on January 1, 2024, with Bernard Charlès remaining as Chairman of Dassault Systèmes.

The company is building out Virtual Twin Experiences and plans to offer them as a service in the future.

Acquisitions like Centric Software and Medidata are fueling growth.

Their long-time focus on model-based systems engineering (MBSE) is paying dividends beyond just its roots in aerospace & defense (A&D).

Dassault Systèmes is well-positioned for the emerging Industrial Metaverse.

CIMdata had the pleasure of attending the Dassault Systèmes Analyst Days in Paris, France, on May 30 and June 1, 2023.¹ According to our hosts, the number of analysts in attendance doubled over 2022. The sessions included over 30 presentations and demonstrations.

The opening session began with a video of Mr. Bernard Charlès, CEO and Chairman of Dassault Systèmes. Mr. Charlès has made it clear that Mr. Pascal Daloz, Deputy CEO and COO, is “ready to take over the job.” In fact, after the Analyst Days the company announced that Mr. Daloz will officially become CEO on January 1, 2024.² Mr. Charlès will continue as Chairman and will spend much of his time with their current customers and prospects.

Mr. Daloz’ presentation, entitled “Virtual Twin Experiences for Sustainable Industries,” provided a clear update on the state of Dassault Systèmes. The company has about 320,000 customers, with 25 million users of its various solutions, including approximately 25,000 “makers,” supported by about 15,000 partners. Mr. Daloz reiterated their long-time statement that Dassault Systèmes is a science-based company, and will increasingly leverage data science as part of their many offerings. Like many of their competitors, Dassault Systèmes is getting an increasing percentage of their revenues from subscriptions (vs. paid-up, perpetual licenses). Mr. Daloz claimed that their subscription base grew by 15% from the previous year. He admitted the move to subscriptions is complex and that some markets will likely

¹ Research for this commentary was partially supported by Dassault Systèmes.

² <https://www.wsj.com/articles/dassault-systemes-targets-significant-mid-term-growth-names-pascal-daloz-ceo-3cd2e08a>

continue to demand perpetual licensing, such as China and aerospace and defense (A&D).³ The company added 20,000 customers in 2022 claimed Mr. Daloz. While he termed 2021 “the year of A&D” in their results, 2022 was the “year of the auto sector,” with electrification creating new demand for Dassault Systèmes offerings. He claimed that 85% of electric vehicle (EV) programs rely on Dassault Systèmes solutions.

Mr. Daloz also provided an update on Centric Software, a 2018 investment that turned into a very successful acquisition for the company. When acquired, Centric focused on the retail, footwear, and apparel (RFA) markets and counted some of the world’s most famous brands in their growing customer base. Mr. Daloz stated that almost 12,500 well-known brands are using Centric today. Over the last several years, Dassault Systèmes expanded the Centric portfolio with the 2021 acquisition of Armonica Retail, a cloud-native retail planning solution, and the 2022 acquisition of StyleSage, a developer of AI-powered tools for competitive assortment benchmarking and price and product trend insights. At the same time in analyst briefings, Centric stated their intent to enter other segments like consumer goods and consumer electronics and have reported success in those new segments.

Mr. Daloz then pivoted to life sciences, the industry with the highest revenues, greater than A&D he claimed. This is largely due to their Medidata acquisition in 2019. Mr. Daloz stated that the development of 75% of new drugs approved by the US Food and Drug Administration (FDA) were supported by Medidata solutions. This has been a very successful acquisition for Dassault Systèmes, contributing to the top and bottom lines and key metrics, such as revenue from the cloud (Medidata’s solutions are cloud-native) and subscriptions (before the acquisition, 85% of Medidata’s revenue came from cloud subscriptions).

At last year’s Analyst Days, the company spoke about Virtual Twin Experiences as a Service. Mr. Daloz suggested that Dassault Systèmes is becoming a virtual twin experience company. This is consistent with their early promotion and leveraging of 3D technology over the life of the company. But the future could see a different Dassault Systèmes. Mr. Daloz posited a vision of becoming a content company, providing virtual twin (VT) experiences as a service for industries. But how Dassault Systèmes might monetize their “VT-as-a-service” offerings is still an open question, based on their response to CIMdata’s question at the Executive Q&A that closed the program.

The HomeByMe app developed by Dassault Systèmes came up several times, first by Mr. Daloz and in later sessions. The app offers virtual reality capabilities to put home goods options into real or virtual scenes to assess potential changes. Mr. Daloz claimed the app has helped users create 20 million projects. In a later session, Mr. Philippe Laufer, Executive Vice President, 3DS Global Brands, claimed HomeByMe had 30 million users in the last quarter, all with no training. Several million kitchens are viewed each day, according to Mr. Laufer. Many home owners use the app, but it is also increasingly relied upon by interior designers and influencers. While the business press extols the potential of the Metaverse, it is applications like HomeByMe that help condition the masses to interact with content in new virtual ways. Not everyone is a gamer used to headsets and tactile game controller interfaces. These small steps will help get people get there.

CIMdata attends many “analyst days” events during the year. When the company has a broad portfolio, like Dassault Systèmes, building the event agenda can be a challenge. The company has many brands with strong or leading positions in their respective segments, but for 15 years has focused on delivering industry-focused solutions that leverage those brands. Analysts need to hear about progress for the brands, industry solution development, and in customer deployments with demonstrable successes. During our time in France for the event, the company did a good job of balancing the needed updates

³ Interestingly, at their analyst event a few weeks later, Siemens claimed that they saw increasing interest and revenues from A&D companies on the cloud.

with a focus on customer experiences in their target industries. They also provided updates on their sustainability efforts, another facet of their mission expansion that started in 2012.⁴

One acquisition underpinning their strategy is Outscale, a fast-growing player in enterprise-class cloud services. Most of the Dassault Systèmes portfolio is available on Outscale. According to the company, the Outscale acquisition allows them “to adjust and control its cloud resources and services to manage peaks in activity, further diversify its industry segments, deploy new features, and provide advanced on premise, private and hybrid cloud solutions for its customers.”⁵ This is a major difference between Dassault Systèmes and their main competitors who primarily use Amazon Web Services (AWS) or Microsoft Azure as their Infrastructure-as-a-Service provider. Data sovereignty is an important issue in the cloud market and having data centers that span a company’s value chain is critical. Outscale is working hard to expand their global coverage to meet this requirement. Mr. Arnaud Bertrand, the new CTO of Outscale, described how their 15 data centers are becoming the sovereign operator of Dassault Systèmes’ Trusted Business Experience as a Service.⁶

A team of Dassault Systèmes executives led the session entitled “The Virtual Twin of Assets, Products, and Services.” Mr. Olivier Sappin, CEO of CATIA, described the importance of model-based systems engineering (MBSE) for manufacturing industries. Mr. David Ziegler, Vice President of A&D, described how the Modular Open System Approach (MOSA) is increasingly being required in US Department of Defense procurements. Mr. Ziegler claimed that 100% of US A&D contractors use CATIA Magic, the rebranded solution from No Magic, a 2018 Dassault Systèmes acquisition. CIMdata has watched MBSE move from its roots in A&D and then in automotive to applications in a range of industries. The advent of smart, connected products makes systems thinking essential to conceptualizing and realizing new complex systems. Mr. Ziegler also discussed mission engineering, a concept from space and A&D about using multiple types of simulations to model and understand the interaction of physical entities (e.g., buildings or mountains combined with planes or missiles) to form systems of systems. Ansys acquired Analytical Graphics Inc. (AGI), a leader in mission engineering in 2020, but many companies with MBSE methods and tools, such as No Magic, have long experience supporting the topic.

As part of the event, the analysts in attendance took a field trip to the Museum of Architecture & Patrimony, a partner of Dassault Systèmes. Teams of analysts were fitted with virtual reality goggles and immediately entered the Lascaux caves where participants experienced paintings made 17,000 years before. This is a great way for people to experience such wonders, as their physical presence can harm such fragile artifacts. Participants then turned to a more practical issue: solving some manufacturing process issues in a small manufacturer. As the team moved from “room” to “room” the team members experienced the real shop as illustrated by point cloud data that was combined with other data sources to create the experience. Point cloud data representing a factory interior can be acquired in a day, making the experience practical even for small companies. While the goggles took some getting used to, the demo showed how real world and virtual data can be combined to support real world use cases. Dassault Systèmes has been working on this topic for over a decade and has many successful demonstration projects. These technologies and skills will be essential to realizing the vision for the industrial metaverse and Dassault Systèmes is well-positioned to benefit from this trend.

⁴ <https://www.3ds.com/newsroom/press-releases/dassault-systemes-opens-new-horizons-3d-experience>

⁵ <https://investor.3ds.com/news-releases/news-release-details/dassault-systemes-acquires-majority-stake-outscale>

⁶ <https://www.3ds.com/newsroom/press-releases/dassault-systemes-announces-its-new-outscale-brand-leading-sovereign-and-sustainable-operator-trusted-business-experience-service>

Conclusion

This CIMdata Commentary covers but a sample of the topics, industries, and solutions presented in 30+ sessions over the two-day event. Dassault Systèmes is a PLM market leader but sees its historical PLM business as just one part of their enterprise going forward. Life sciences and infrastructure/smart cities will provide engines of future growth, some of which are really greenfield opportunities, particularly in comparison to discrete PLM. The company has to balance investments in their historical PLM segment (about 70% of their business) while also investing to grow mindshare and market share in new industrial sectors. Based on the sessions at their Analyst Days they seem to be doing well on both fronts.

Dassault Systèmes is a public company so one can see their results. They have continued to build out their Industry Solution Experiences (ISEs) in their 12 industry segments and, as stated at the meeting, have brought data science to bear across their portfolio. Since 2012 their strategy has diverged from their two main competitors, Siemens Digital Industries Software and PTC. Over the last decade each has made investments that made this divergence more pronounced. Dassault Systèmes has made some wise large investments, like those in Centric Software and Medidata, that have given them leadership positions in their target markets. The move to Experiences-as-a-Service is another major change, one without precedent in the PLM market space. The company has work to do to build out these experiences and learn how to best monetize them for the benefit of their customers and Dassault Systèmes itself. CIMdata looks forward to the next Analyst Days for an update.

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