S&P Global Ratings

RatingsDirect®

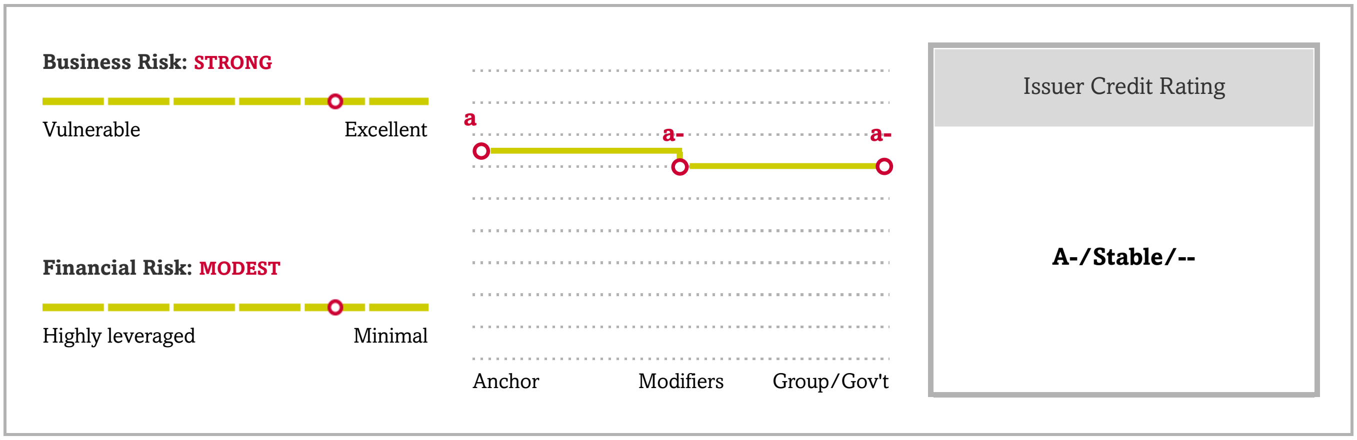
Dassault Systemes SE

Primary Credit Analyst:
Thibaud Lagache, Paris + 33 14 420 6789; thibaud.lagache@spglobal.com

Secondary Contact:
Xavier Buffon, Paris + 33 14 420 6675; xavier.buffon@spglobal.com

Table Of Contents

Dassault Systemes SE



Credit Highlights

Overview

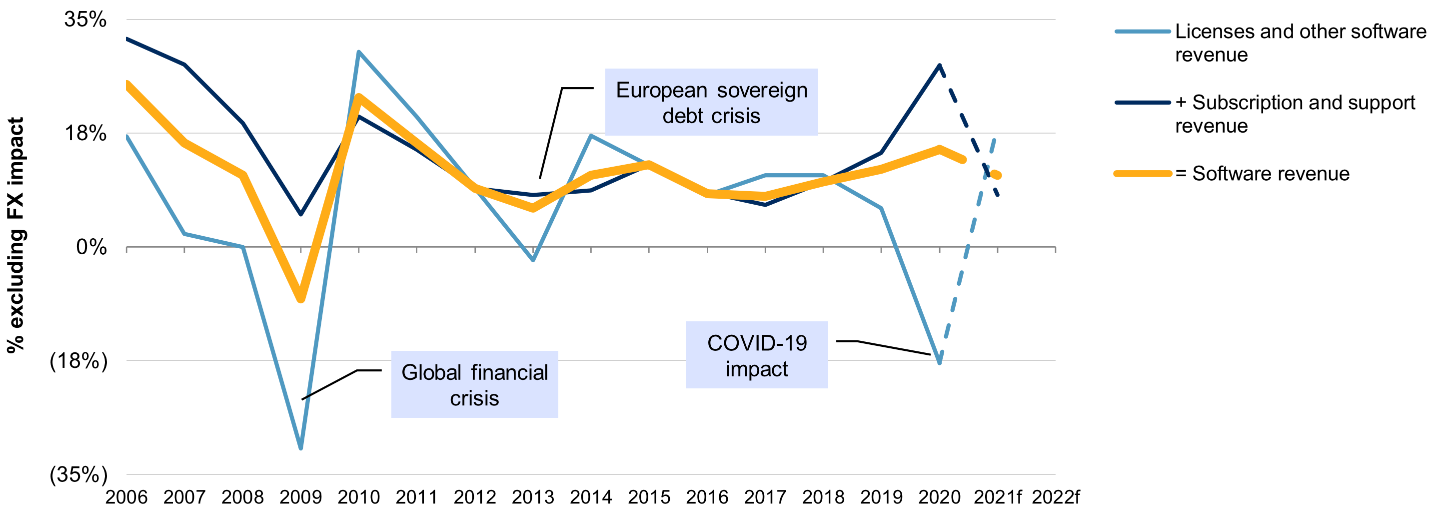
Key strengths	Key risks
Broad and sophisticated solutions combining industry knowledge-based and mission-critical software, which provide very high barriers to entry and a lasting edge over generic software vendors.	Long sales cycle and a significant number of proof-of-concepts can affect margin and payback period.
Strong differentiation from close competitors through its first-mover unified platform strategy and large adoption by industry leaders, challengers, and new entrants.	Threats from market competition and talent retention, as well as the need to maintain key partnerships and differentiate.
Established and proven resilience across cycles, given exposure to product planning and not production volumes.	Very-large-scale, cash-rich software companies could over time become competitors.
Well-established No. 1 position in manufacturing industries (about 70% of 2020 revenue) with about a 29% market share in product lifecycle management (PLM) solutions.	Global exposure to economic and currency risks.
Strong innovation capacity, reflected in cumulative research and development (R&D) spending of €6.9 billion from 2006-2020, combined with a highly qualified and stable workforce.	
Strong management, prudent financial policy, and supportive ownership structure, underpinning a strong governance framework.	

Dassault Systèmes SE's robust business model weathered the fallout from the pandemic with limited effects (see chart 1). The company's robust revenue model stems from its software solutions, which are largely independent of its customers' production volumes and production planning and protect its business from temporary downturns. These offset resulting declining software license sales. In 2020, organic revenue declined by about 3% (excluding foreign exchange [FX] impact), mainly because of a drop in new licenses and consulting services (18% both, excluding FX), but this was partly offset by an organic 6% growth (excluding FX) in subscription and support revenue (compared with 7% organic growth excluding FX in 2019), representing 72% of 2020 revenue. Reported revenue increased 11%, mainly thanks to the inclusion of Medidata Solutions following its acquisition in October 2019. Subscription and support revenue rose 27%, fully offsetting a 20% decline in license and other software revenue, due to the pandemic's economic effects. Dassault Systèmes' 3DEXPERIENCE platform remained robust, representing 27% of software revenue compared with 29% in 2019.

Chart 1

Resilience Of Dassault Systèmes' Business Model Throughout The Cycle

Software revenue growth breakdown excluding currency impact

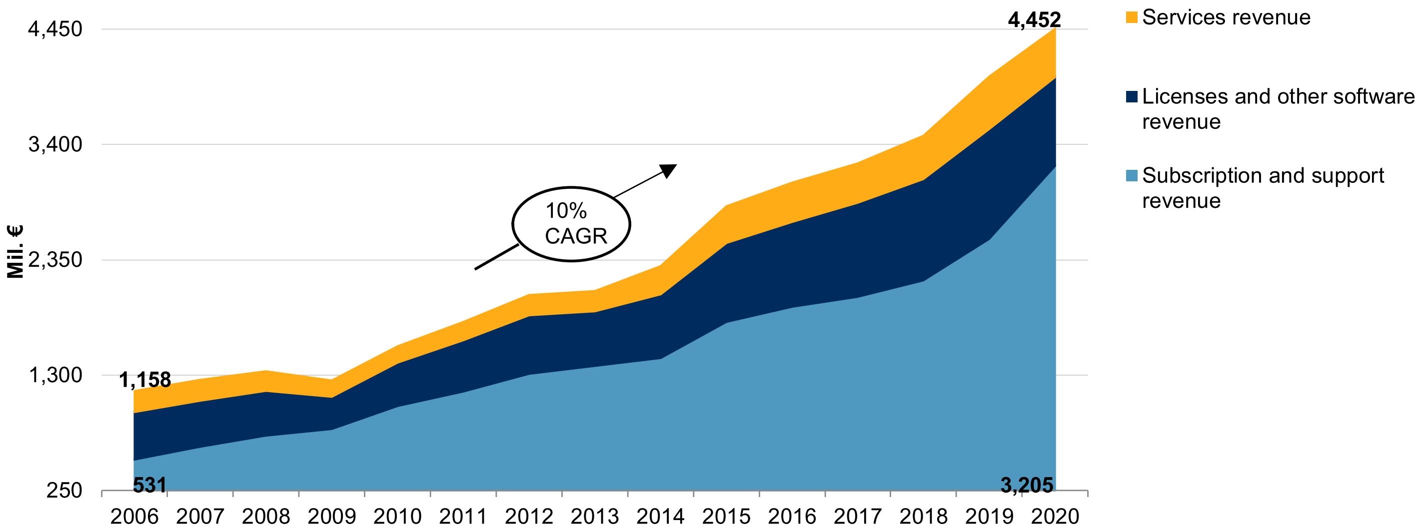


f--Forecast. Source: Company filings, S&P Global Ratings.

The group's steadily enlarged end-market footprint should further enhance its resilience to economic and industrial cycles. Dassault Systèmes is highly diversified after its expansion in life sciences with Medidata Solutions (see chart 2), which is now the platform of reference in clinical trials. More than 60% of clinical trials worldwide for the COVID-19 vaccine were based on the Medidata platform, with recurring life sciences revenue expanding by more than 20% during the year. Dassault Systèmes also had a strong track record during previous economic downturn and investment and end-market cycles, when it was not as diversified and integrated as it is today. It displayed a track record of better resilience versus its close competitors like Autodesk or PTC, even before it moved to a platform strategy in 2012. Its proprietary solutions, more efficient R&D efforts, long-term high weight of recurring revenue (subscription and support services) and highly diverse clients, geographies, and industry footprints allowed revenue growth and margin improvement to persist through cycles. The company increased its revenue an average of 10% per year over 2006-2020 (see chart 3), while the competition's average annual revenue growth remained at or below 5%. Moreover, it increased its average EBITDA margin (IFRS) to about 30%, when competitors achieved well below 20% over the same period.

Chart 2

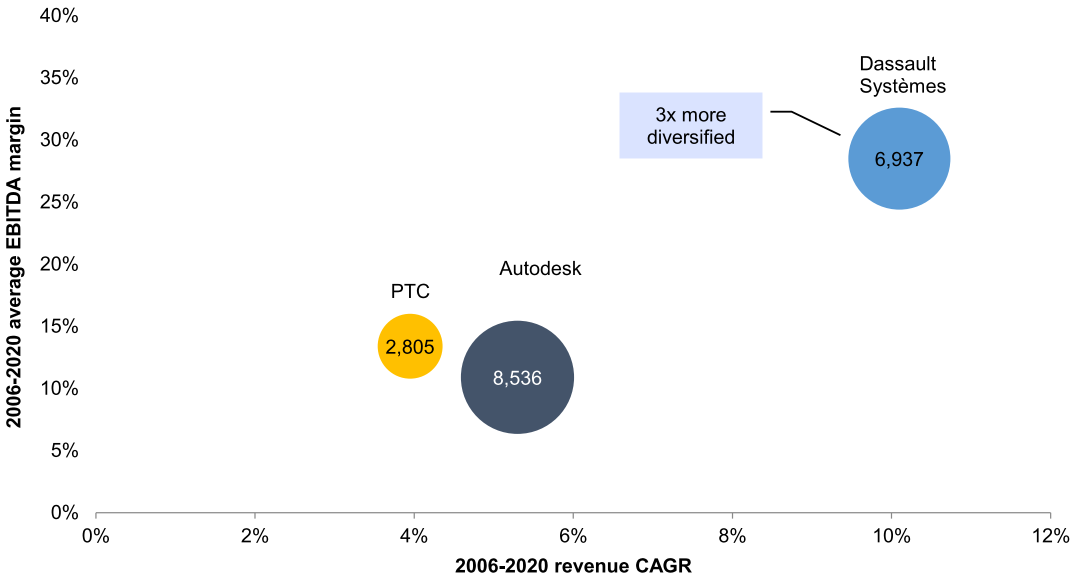
Dassault Systèmes' Subscription Revenue Benefited From The Acquisition Of Medidata In 2019
Total revenue breakdown



CAGR--Compound annual growth rate. Revenues in IFRS. Source: Company filings, S&P Global Ratings.

Chart 3

Dassault Systèmes' Growth Results From Strong Differentiation
Cumulative (2006-2020) R&D spending (mil. €) versus revenue CAGR and average EBITDA margin

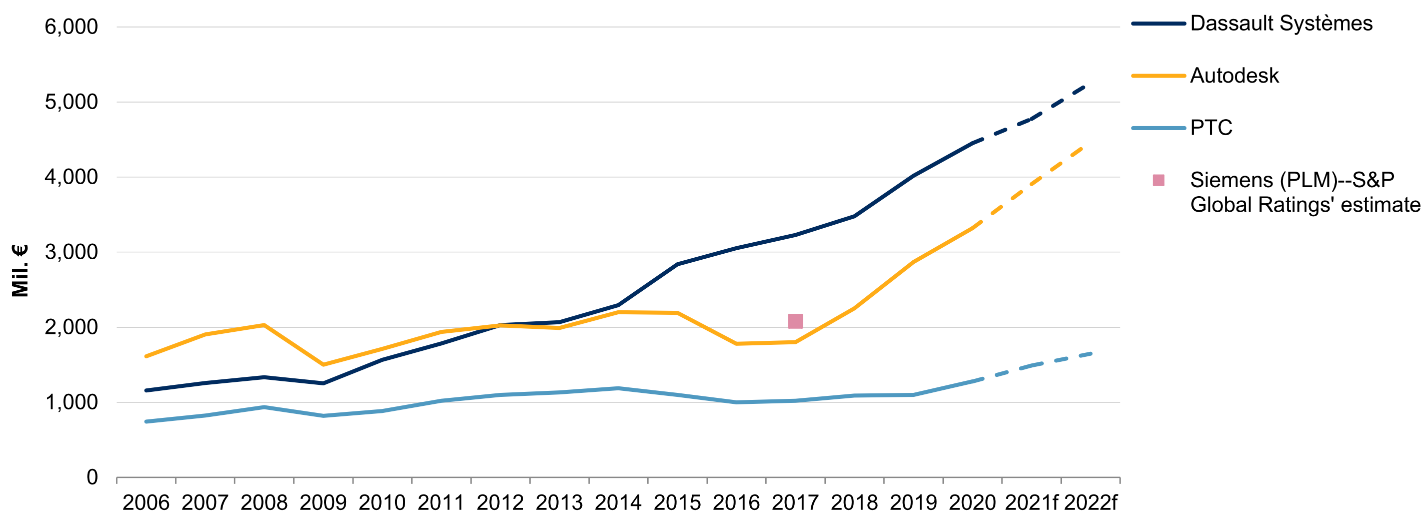


CAGR--Compound annual growth rate. R&D--Research and development. Bubble size represents the cumulative R&D spendig at constant EUR/USD rate of 1.1415(2020). Source: Company filings, S&P Global Ratings.

Dassault Systèmes SE is a world leader in PLM solutions and scientific and industrial software. The group benefits from very high barriers to entry due to the breadth and sophistication of its solutions, the challenges in replicating its combined expertise in enterprise software, and its deep industrial and scientific knowledge. This is combined with its differentiating capability to offer digital continuity, from design to simulation and manufacturing, via a platform available on premise and in the cloud. The company has a well-established and distant No. 1 position in PLM, with about a 29% market share (estimated by the company in its core markets). This compares with its closest competitors, Siemens PLM (about 22% market share), PTC (10%), and Autodesk (9%). The company also has an above-peer-average reported margin of 28% (see chart 4), compared with about 20% for its peer group, together with a large installed customer base of more than 270,000 (increasing by 8% on average per year) including industry leaders, challengers, and newcomers across 11 industries (and about 70 subsegments), with a record-low churn of less than 5%.

Chart 4

Dassault Systèmes Is A Leader In 3D Software, With A Long Track Record Of Above-Market-Average Growth
Total revenue



f--Forecast. PLM--Product lifecycle management. IFRS and GAAP. Autodesk and PTC at EUR/USD constant average rate of 1.1415 (2020). Source: Company filings, S&P Global Ratings.

S&P Global Ratings anticipates the company will organically expand 9%-10% per year on average over 2021-2023, with reported EBITDA margin strengthening above 30% by 2022, allowing rapid deleveraging. We believe that the company's growth and resilience to cycles will be supported by the ever-increasing trend toward digitalization across industries, the deep industrial transformations taking place, and the demand shift toward integrated applications, which allow faster and more effective time to market. The acquisition of Medidata resulted in S&P Global Ratings-adjusted debt to EBITDA peaking at 2.7x in 2019, from 0x at year-end 2018. We anticipate that Dassault Systèmes will make primarily bolt-on acquisitions (up to about €300 million per year) and occasional large billion-euro range acquisitions. However, we factor in our rating the company's ability to rapidly deleverage post-acquisition, and we expect reported net leverage to halve by 2021.

Outlook: Stable

The stable outlook reflects our expectation that Dassault Systèmes will likely post about 10% annual organic revenue growth with adjusted EBITDA margins strengthening above 34%. We expect the company to sharply deleverage to adjusted debt to EBITDA below 2.0x by 2021.

Downside scenario

We could lower the rating if the company's revenue growth significantly slowed because of stronger competition from existing or new competitors or higher-than-expected integration and restructuring costs, coupled with adjusted EBITDA margins deteriorating sustainably below 30%. Alternatively, we could lower the rating if our adjusted leverage ratios sustainably exceeded 2.0x or funds from operations (FFO) to debt remained sustainably below 45%, which could stem from consistently higher merger and acquisition (M&A) outlays than we expect.

Upside scenario

We could raise the rating if we expected that the company would maintain adjusted leverage sustainably below 1.5x and FFO to debt above 60%, while sustaining its strong business risk profile.

Our Base-Case Scenario

Assumptions

- Global real GDP growth of 5.6% in 2021 and about 4.1% in 2022, from a 3.2% contraction in 2020. This supports continued solid global software industry growth of 8% in 2021, along with the increasing development of digitalization across industries and industrial transformations, which will be boosted by ongoing technology developments (3D printing, 5G, edge computing, quantum computing, and artificial intelligence).
- Average annual run-rate revenue growth of 9%-10% over 2021-2023, led by Dassault Systèmes' core and diversification industries, where software revenue will increase 10% on average per year, and supported by underlying average market growth of 6% per year over 2020-2025.
- The expansion of the company's addressable market (about $41 billion) with Medidata in life sciences and continued bolt-on M&A, along with increasing adoption of the 3DEXPERIENCE platform, driving revenue growth. We expect expanding options, including the shift to a cloud-based subscription models and the progressive migration of core industries, to be key factors in this growth, but we take a conservative position and do not see the marketplace initiative generating meaningful revenue in 2021.
- Reported EBITDA margin (IFRS) expanding above 29% by 2021, after a temporary dilution in 2020 due to the integration-related nonrecurring costs of the Medidata acquisition and continuing costs related to proof of concept efforts to deploy Dassault Systèmes' solutions.
- Stable capital expenditure (capex) of around 2.7% of revenue on average per year over forecast horizon.
- Cash dividends and share buy-backs in line with the company's policy. The company has a distribution target of about 30% of average IFRS-defined net income. We anticipate total share repurchases, dividends, and proceeds

from exercises stock options of around €1.2 billion over 2021-2023, with share repurchases offsetting the dilution of dividend and stock-based compensation.

- Our assumption of about €300 million in bolt-on acquisitions per year.

Key metrics

Dassault Systèmes SE--Key Metrics*

	--Fiscal year ended Dec. 31--				
(Mil. €)	**2019a**	**2020a**	**2021f**	**2022f**	**2023f**
Revenue	4,018	4,452	4,775	5,255	5,784
Reported EBITDA margin (IFRS) (%)	30.1	28.2	29.2	30.2	31.0
EBITDA margin (%)	33.0	32.6	32.1	32.8	33.4
Funds from operations (FFO)	1,162	1,168	1,311	1,467	1,640
Capital expenditure	(98)	(127)	(135)	(142)	(150)
Reported free operating cash flow after leases (FOCF)	1,011	1,021	1,123	1,273	1,437
Reported discretionary cash flow after leases (DCF)	676	636	609	835	965
FFO-to-debt (%)	32.1	39.1	50.0	73.7	127.9
Debt to EBITDA (x)	2.7	2.1	1.7	1.2	0.7

*All figures adjusted by S&P Global Ratings, unless otherwise stated ('reported'). a--Actual. e--Estimate. f--Forecast.

Revenue growth will remain robust and resilient. We expect S&P Global Ratings-adjusted EBITDA margins to rise above 30%, supported by strong industry growth, organic performance, and addressable market expansion.

FFO and discretionary cash flow (DCF) will increase. We forecast FFO will reach €1.3 billion, with reported DCF after leases of around €609 million by 2021.

The company's cash will continue rising, supporting deleveraging. Strong operating performance, prudent distribution policy, and Dassault Systèmes' strong governance framework will support deleveraging below 2.0x by 2021 (1.7x S&P Global Ratings-adjusted and 1.2x reported).

Company Description

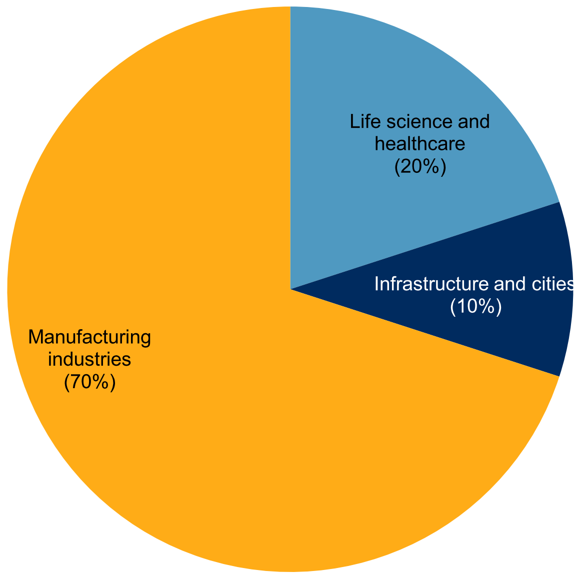
Dassault Systèmes was formed in 1981 as a subsidiary of the Dassault Group to develop computer-aided design (CAD) software, mostly for the aerospace and defense industry. Today, it develops and markets specialized PLM software and services for all industry verticals. This encompasses 3D design (new CAD), simulation, digital manufacturing, product data management, and additional solutions such as supply chain management, marketing and sales, and collaborative project management tools. The company has integrated these products into 3DEXPERIENCE, a single, unified, and interoperable platform.

Dassault Systèmes generated 2020 revenue of €4.5 billion and reported EBITDA (IFRS) of €1.3 billion (28% margin), with a high level of recurring revenue (72% of total revenue). Software revenue amounted to €4.0 billion, of which 80% came from subscription and support services and 20% from licenses and other revenue (see charts 5 and 6).

Chart 5

Total Revenue Breakdown By Markets

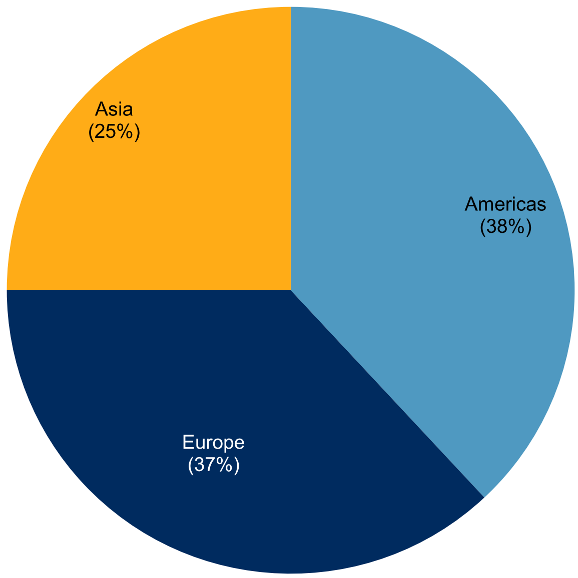
Diversification industries represent 30% of 2020 revenue (€4.45 billion IFRS-defined)



IFRS--International financial reporting standards. Source: Company filings, S&P Global Ratings.

Chart 6

Software Revenue Breakdown By Geography
€4.01 billion in 2020 (IFRS)



IFRS--International financial reporting standard. Source: Company filings, S&P Global Ratings.

Peer Comparison

Table 1

Dassault Systemes SE--Peer Comparison

Industry sector: Software and services

	Dassault Systemes SE	Autodesk Inc.	PTC Inc.	SAP SE	Oracle Corp.	Microsoft Corp.	Alphabet Inc.	Adobe Inc.
Ratings as of May 7, 2021	A-/Stable/--	BBB/Stable/--	BB+/Stable/--	A/Stable/--	A/Negative/A-1	AAA/Stable/A-1+	AA+/Stable/A-1+	A/Stable/--
	--Fiscal year ended--							
	Dec. 31, 2020	Jan. 31, 2021	Sept. 30, 2020	Dec. 31, 2020	May 31, 2020	June 30, 2020	Dec. 31, 2020	Nov. 27, 2020
(Mil. €)								
Revenue	4,452.2	3,122.5	1,242.0	27,338.0	35,142.8	127,075.7	149,211.4	10,762.4
EBITDA	1,452.4	1,036.7	379.4	8,645.0	17,153.1	64,500.6	57,369.6	5,036.6
Funds from operations (FFO)	1,168.4	898.4	272.9	7,207.0	12,424.2	51,057.4	52,854.5	4,559.3

Table 1

Dassault Systemes SE--Peer Comparison (cont.)								
Interest expense	38.8	52.4	75.2	179.0	1,855.0	2,506.0	546.3	108.5
Cash interest paid	33.6	61.9	61.7	244.0	1,834.3	2,336.3	436.0	85.1
Cash flow from operations	1,241.3	1,257.2	222.0	7,194.0	12,311.7	55,524.2	54,654.6	4,878.0
Capital expenditure	127.0	79.0	26.6	816.0	1,406.9	13,720.1	18,036.0	350.4
Free operating cash flow (FOCF)	1,114.3	1,178.2	195.4	6,378.0	10,904.9	41,804.1	36,618.6	4,527.5
Discretionary cash flow (DCF)	765.6	594.6	195.4	3,020.0	(9,761.8)	7,946.0	11,155.0	1,976.6
Cash and short-term investments	2,149.0	1,529.9	258.5	6,759.0	38,731.1	121,248.6	111,744.1	5,011.5
Debt	2,991.0	212.7	783.3	10,262.0	31,661.9	0.0	0.0	0.0
Equity	5,106.1	795.4	1,224.8	29,928.0	11,439.3	105,118.8	181,924.4	11,093.6
Adjusted ratios								
EBITDA margin (%)	32.6	33.2	30.5	31.6	48.8	50.8	38.4	46.8
Return on capital (%)	8.1	72.4	10.6	16.3	30.0	50.6	19.9	34.8
EBITDA interest coverage (x)	37.4	19.8	5.0	48.3	9.2	25.7	105.0	46.4
FFO cash interest coverage (x)	35.8	15.5	5.4	30.5	7.8	22.9	122.2	54.6
Debt/EBITDA (x)	2.1	0.2	2.1	1.2	1.8	0.0	0.0	0.0
FFO/debt (%)	39.1	422.3	34.8	70.2	39.2	N.M.	N.M.	N.M.
Cash flow from operations/debt (%)	41.5	591.0	28.3	70.1	38.9	N.M.	N.M.	N.M.
FOCF/debt (%)	37.3	553.9	24.9	62.2	34.4	N.M.	N.M.	N.M.
DCF/debt (%)	25.6	279.5	24.9	29.4	(30.8)	N.M.	N.M.	N.M.

N.M.--Not meaningful.

Higher-rated peers, including Microsoft Corp. and Oracle Corp., have larger scale, higher margins, and a more dominant competitive position given their simpler, mass-market solutions that command much lower adoption risk. Peers also have low or no adjusted debt and higher DCF and cash balances, which gives them greater strategic and financial flexibility.

We apply a one-notch negative adjustment for our comparable ratings analysis, which primarily reflects Dassault Systèmes' lower margin of error buffer for transformative M&A compared with larger software peers. This is mainly due to its comparatively lower absolute discounted cash flow, cash balances, and the greater adoption risk of its products than simple, mass-market solutions.

In addition, Dassault Systèmes operates in fragmented markets where there are diverging degrees of digitization across sectors. Although the adoption of the 3DEXPERIENCE platform has started with its core industries, where many industry leaders and challengers are adopting it (among them Boeing, Airbus, Safran, Dassault Aviation, Lockheed Martin, Tesla, Toyota, P&G, Johnson & Johnson, Pfizer BionTech, Moderna and Amgen), many of its clients are still using collections of unintegrated PLM solutions. The extent to which the 3DEXPERIENCE platform adoption will accelerate is therefore uncertain and this could constrain Dassault Systèmes' addressable market and future revenue growth. The 3DEXPERIENCE platform represented 27% of software revenue in 2020.

Business Risk: Strong

Dassault Systèmes provides companies' engineering, R&D, manufacturing, and marketing divisions with the software solutions they rely on to design, test, and produce goods, while organizing their lifecycles and industrial processes end to end. Its software further allows them to experiment with designs, simulation, and modifications before the construction or manufacturing process starts, a critical advantage for both mainstream and highly specialized products, as well as complex processes. Dassault Systèmes is among the few companies with a deep understanding of the industry's scientific knowledge and industrial processes, coupled with the power of computer software with the latest technology. It furthermore offers digital continuity through integrated applications on a single platform (the 3DEXPERIENCE platform), allowing synchronized 3D design, simulation, digital manufacturing, and creation of digital marketing assets in real time and across functions.

Dassault Systèmes had a strong track record in previous economic downturns and investment and end-market cycles, especially at times when it was not as diversified and integrated as it is today. We believe that growth and resilience to cycles will be supported by the ever-increasing trend toward digitalization across industries, and the demand shift toward integrated applications, allowing faster time to market in a cost- and quality-effective manner. Its major contracts and recent new clients illustrate this. In addition to its portfolio of superior solutions and platform strategy, the group's steadily enlarged end-market footprint should continue to enhance its resilience to economic and industrial cycles.

Furthermore, Dassault Systèmes has a strong balance sheet, a prudent financial policy, and a well-seasoned and stable management team, along with a supportive ownership structure (40.4% owned by the Dassault family, 6.0% by the group's chairman, and 1.6% by the CEO).

Our assessment of Dassault Systèmes' business risk is supported by the following:

- One of the software industry's highest barriers to entry, due to the combination of very sophisticated, industry knowledge-based, and mission-critical software solutions with the company's deep understanding of industrial processes and best practices integrated into its software solutions. This expertise, also partially shared by a few competitors like Siemens, Autodesk, and PTC, takes time to replicate, providing a major and lasting edge over generic software vendors.
- Strong differentiation from close competitors through its unified platform, 3DEXPERIENCE. No competitor (Siemens PLM, Autodesk, PTC, or others) has integrated and coupled its solutions in a platform ensuring digital continuity across design, simulation, and digital manufacturing, while implementing changes in real time and

indexing data to learn from any product specificities and human-based decisions across all the stages of the product lifecycle. Partially integrated solutions exist, but no competitor has bridged the full PLM suite while including comprehensive product data management, supply-chain, marketing, sales, and collaborative tools, as well as the ability to generate a product's digital twin. In addition, no competitor has streamlined its solutions into a single, unified architecture of hardware, information technology (IT) structure and system agnostic (built over an abstraction layer and thus patchable to any proprietary IT system), available on premises or in the cloud, and which is interoperable with Dassault Systèmes' or third-party legacy solutions.

- Its platform strategy that combines and processes the data of its users' experience and further feeds Dassault Systèmes' R&D to optimize and update its solutions. This not only enables efficient and customer-centric R&D to develop better releases and products more quickly, but also fosters the adoption of the newest generation of its solutions for clients already on the platform. Its newest solutions encompass disruptive innovations that facilitate competitive gains, such as generative design (deep-learning-based and cognitive-augmented) and manufacturing tools for 3D printing.
- Strong innovation capacity, reflected in its cumulative R&D spending of €6.9 billion over the 15 years since 2006 (IFRS-reported) excluding the cost of software. This is about €1.6 billion less than Autodesk over the same period, despite Dassault Systèmes' greater diversification. This translates into continuously product upgrades via several annual product updates developed within a cost-efficient, common R&D infrastructure. Furthermore, it allows the company to command a significant and sustained price premium, with prices higher on average than its competitors.
- An established and proven resilience across cycles. Dassault Systèmes had a track record of better resilience during economic downturns and investment and industry cycles versus competitors like Autodesk or PTC, even before it moved to a platform strategy in 2012. Its proprietary solutions, more efficient R&D efforts, early shift into a mostly recurring revenue model, and highly diverse clients, geographies, and industry footprint allowed revenue growth and margin improvement to persist through cycles. The company increased its revenue by an average of 10% per year over 2006-2020, while the competition's average annual revenue growth remained at or below 5%. Moreover, it increased its average IFRS EBITDA margin to 30%, when competitors achieved well below 20% over the same period.
- A highly qualified and stable workforce of 21,451 full-time equivalent employees from 130 countries (as of March 31, 2021). Of these, 46% are in R&D and have advanced degrees in science and engineering. The company also maintains partnerships with a network of universities, research centers, and excellence centers. It enjoys an industry-low turnover rate (at about 9%), while its R&D division's turnover is even lower.
- The current strong management and governance background. We think that Dassault Systèmes' family shareholding structure has been instrumental in fostering a very long-term strategy, as well as a maintaining a stable and well-seasoned management team, with a long average tenure of over 20 years. We think that management's continuity and long-term vision have consistently underpinned the company's competitive edge, while supporting critical investment and diversification decisions that have doubled the company's addressable market every 10 years. This has come about by its anticipation of future market needs and entrance into new verticals where competitors were not present, such as virtual planet, the 3DEXPERIENCE platform, digital twin, life sciences, and smart cities, among others.
- Our expectation of underlying revenue growth of 9%-10% on average per year over 2021-2023, and ample financial flexibility to support growth initiatives and ongoing margin expansion. Dassault Systèmes has a strong and predictable cash flow, with an available cash balance of about €2.7 billion as of March 31, 2021. It has a strong execution track record of M&A with the integration of over 120 entities in the past 10 years.

Our assessment of Dassault Systèmes' business risk is mitigated by:

- A long sales cycle. Adoption of the 3DEXPERIENCE platform often comes with a structural reengineering of a client's inner processes, which lengthens the buying and decision-making period. Clients' transformation cycles can be very long and the strategic nature of these investments requires a significant number of proof of concepts, which can negatively influence the margin and payback period. This in turn relies on Dassault Systèmes' ability to attract and keep well-trained sales and marketing talent to provide the right consulting and service to companies wanting to transform.
- The threat of market competition. The company operates in a fragmented industry that is rapidly evolving. Its platform requires continuous innovation, additional features, annual product releases, recurring updates, and technological breakthroughs to maintain its market leadership and differentiation. Although its R&D spending is the most efficient of its peer group, it still relies on its ability to attract and retain talent for its R&D engine. It also remains exposed to traditional M&A integration risk and high enterprise value (EV) multiples to complement its portfolio with external solutions.
- Global exposure to economic and currency risks. The company is also affected by rapidly evolving laws and regulations, as well as export control risks.
- The presence of very-large-scale, cash-rich software companies that could become competitors.

Financial Risk: Modest

Dassault Systèmes financial risk profile reflects the company's solid free cash flow generation and prudent financial policy. Although the company is expanding its addressable market by temporarily incurring leverage, we think it will achieve its M&A and distribution objectives well within the limits of the rating. This is because its strong and resilient growth profile and increasing earnings give it ample financial flexibility and cash buffers.

Dassault Systèmes completed the acquisition of Medidata in 2019 for an EV of $5.8 billion (€5.5 billion), including the payment of stock-based compensation. The purchase was primarily funded with debt (€4 billion) and cash on hand (€1.4 billion), causing adjusted leverage to peak at 2.7x in 2019. We expect the company to sharply deleverage to sustainably below 2.0x from 2021. This is in line with management's stated target of net debt to EBITDA (non-IFRS) of about 1x through the investment cycle.

Financial summary

Table 2

Dassault Systemes SE -- Financial Summary					
Industry sector: Software and services					
	--Fiscal year ended Dec. 31--				
	2020	**2019**	**2018**	**2017**	**2016**
(Mil. €)					
Revenue	4,452.2	4,018.2	3,477.4	3,228.0	3,055.6
EBITDA	1,452.4	1,324.8	1,199.8	1,121.9	1,038.0
Funds from operations (FFO)	1,168.4	1,161.7	990.7	872.5	689.0
Interest expense	38.8	27.5	43.2	42.1	55.9

Table 2

Dassault Systemes SE -- Financial Summary (cont.)

Industry sector: Software and services	--Fiscal year ended Dec. 31--				
	2020	**2019**	**2018**	**2017**	**2016**
Cash interest paid	33.6	28.5	38.5	39.3	39.4
Cash flow from operations	1,241.3	1,186.1	959.5	800.1	672.3
Capital expenditure	127.0	98.3	72.4	84.5	56.7
Free operating cash flow (FOCF)	1,114.3	1,087.8	887.1	715.6	615.7
Discretionary cash flow (DCF)	765.6	785.2	642.8	531.3	386.5
Cash and short-term investments	2,149.0	1,945.6	2,809.9	2,460.7	2,492.8
Gross available cash	2,149.0	1,945.6	2,809.9	2,460.7	2,492.8
Debt	2,991.0	3,622.1	0.0	0.0	0.0
Equity	5,106.1	5,262.6	4,625.8	3,996.0	3,882.8
Adjusted ratios					
EBITDA margin (%)	32.6	33.0	34.5	34.8	34.0
Return on capital (%)	8.1	12.5	19.4	20.4	19.9
EBITDA interest coverage (x)	37.4	48.2	27.8	26.6	18.6
FFO cash interest coverage (x)	35.8	41.8	26.7	23.2	18.5
Debt/EBITDA (x)	2.1	2.7	0.0	0.0	0.0
FFO/debt (%)	39.1	32.1	N.M.	N.M.	N.M.
Cash flow from operations/debt (%)	41.5	32.7	N.M.	N.M.	N.M.
FOCF/debt (%)	37.3	30.0	N.M.	N.M.	N.M.
DCF/debt (%)	25.6	21.7	N.M.	N.M.	N.M.

N.M.--Not meaningful.

Reconciliation

Table 3

Dassault Systemes SE--Reconciliation Of Reported Amounts With S&P Global Ratings' Adjusted Amounts (Mil. €)

	--Fiscal year ended Dec. 31, 2020--					
Dassault Systemes SE reported amounts						
	Debt	**Shareholders' equity**	**EBITDA**	**Operating income**	**Interest expense**	**S&P Global Ratings' adjusted EBITDA**
Reported	4,190.3	5,061.3	1,274.2	669.7	37.2	1,452.4
S&P Global Ratings' adjustments						
Cash taxes paid	--	--	--	--	--	(250.4)
Cash interest paid	--	--	--	--	--	(33.6)
Reported lease liabilities	643.3	--	--	--	--	--
Postretirement benefit obligations/deferred compensation	139.7	--	(0.1)	(0.1)	1.6	--
Accessible cash and liquid investments	(2,041.6)	--	--	--	--	--

Table 3

Dassault Systemes SE--Reconciliation Of Reported Amounts With S&P Global Ratings' Adjusted Amounts (Mil. €) (cont.)						
Share-based compensation expense	--	--	178.3	--	--	--
Nonoperating income (expense)	--	--	--	14.7	--	--
Noncontrolling interest/minority interest	--	44.8	--	--	--	--
Debt: Put options on minority stakes	59.3	--	--	--	--	--
Total adjustments	(1,199.3)	44.8	178.2	14.6	1.6	(284.0)
S&P Global Ratings' adjusted amounts						
	Debt	**Equity**	**EBITDA**	**EBIT**	**Interest expense**	**Funds from operations**
Adjusted	2,991.0	5,106.1	1,452.4	684.3	38.8	1,168.4

Liquidity: Exceptional

We assess Dassault Systèmes' liquidity as exceptional. We expect sources will likely remain comfortably higher than 2x over the next two years, and will keep exceeding uses even if EBITDA declines by 50%.

With its sizable cash on hand and external sources of liquidity, we believe the group could absorb high-impact, low-profitability events without refinancing and could withstand severe adverse market conditions, as shown by its track record over the past 15 years. We also find the company has generally prudent risk management through its strong credit metrics and historically positive net cash position. Furthermore, the group will likely maintain its high standing in the capital markets.

Principal liquidity sources	Principal liquidity uses
• Cash and short-term investments of about €2.7 billion as of March 31, 2021 • FFO of above €1.3 billion in 2021 and €1.5 billion in 2022 • Available revolving credit facility (RCF) of €750 million • Proceeds from the exercise of stock options of about €88 million per year	• Our estimate of working capital requirements of about €50 million per year • Annual debt maturities of €200 million-€270 million • Pro forma capex of €130 million-€150 million annually in 2021 and 2022 • Bolt-on acquisitions of about €300 million per year • Cash dividends and share buybacks of about €500 million in the next 12 months

Debt maturities

As of March 31, 2021:

- 2022: €900 million

- 2024: €1.2 billion
- 2026: €900 million
- 2029: €1.15 billion

Covenant Analysis

Dassault Systèmes' notes, term loan and RCF do not have financial maintenance covenants.

Environmental, Social, And Governance

Dassault Systèmes' exposure to environmental and social risk factors is comparable to the broader software sector. Environmental factors are core to the group's operations because it improves the light and heavy industrial world's environmental footprint. The company's business is, by design, focused on making as many industrial processes as possible digital so its customers can eliminate waste, reduce mistakes from production to end-of-life disposal, and optimize products, manufacturing, and processes, while reducing raw materials and energy consumption.

The company's solutions face customer privacy and data security risks, which could cause significant reputational and monetary damage if compromised. However, we believe Dassault Systèmes' proprietary cloud solution Outscale, security enforcement efforts, and financial resources are key factors in mitigating any negative effects from potential vulnerabilities.

We assess Dassault Systèmes' management and governance as strong, reflecting our positive view of its strategic planning and risk management processes and its consistency in achieving its operational goals despite challenging economic and market conditions.

Issue Ratings - Subordination Risk Analysis

Capital structure

Dassault Systèmes' capital structure consists of a €750 million senior unsecured RCF, €500 million of term loans, and €3.65 billion of bonds at the company level.

Analytical conclusions

The issue rating on the senior unsecured bonds is 'A-', in line with our long-term issuer credit rating, because no significant elements of subordination risk are present in the capital structure.

Ratings Score Snapshot

Issuer Credit Rating

A-/Stable/--

Business risk: Strong

- **Country risk:** Low
- **Industry risk:** Intermediate
- **Competitive position:** Strong

Financial risk: Modest

- **Cash flow/leverage:** Modest

Anchor: a

Modifiers

- **Diversification/portfolio effect:** Neutral (no impact)
- **Capital structure:** Neutral (no impact)
- **Financial policy:** Neutral (no impact)
- **Liquidity:** Exceptional (no impact)
- **Management and governance:** Strong (no impact)
- **Comparable rating analysis:** Negative (-1 notch)

Related Criteria

- General Criteria: Group Rating Methodology, July 1, 2019
- Criteria | Corporates | General: Corporate Methodology: Ratios And Adjustments, April 1, 2019
- Criteria | Corporates | General: Reflecting Subordination Risk In Corporate Issue Ratings, March 28, 2018
- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- Criteria | Corporates | General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- Criteria | Corporates | General: Corporate Methodology, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- Criteria | Corporates | Industrials: Key Credit Factors For The Technology Software And Services Industry, Nov. 19, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities, Nov. 13, 2012
- Principles Of Credit Ratings, Feb. 16, 2011

Business And Financial Risk Matrix

	Financial Risk Profile					
Business Risk Profile	Minimal	**Modest**	Intermediate	Significant	Aggressive	Highly leveraged
Excellent	aaa/aa+	aa	a+/a	a-	bbb	bbb-/bb+
Strong	aa/aa-	**a+/a**	a-/bbb+	bbb	bb+	bb
Satisfactory	a/a-	bbb+	bbb/bbb-	bbb-/bb+	bb	b+
Fair	bbb/bbb-	bbb-	bb+	bb	bb-	b
Weak	bb+	bb+	bb	bb-	b+	b/b-
Vulnerable	bb-	bb-	bb-/b+	b+	b	b-

Ratings Detail (As Of May 31, 2021)*

Dassault Systemes SE	
Issuer Credit Rating	A-/Stable/--
Senior Unsecured	A-
Issuer Credit Ratings History	
27-Aug-2019	A-/Stable/--

*Unless otherwise noted, all ratings in this report are global scale ratings. S&P Global Ratings' credit ratings on the global scale are comparable across countries. S&P Global Ratings' credit ratings on a national scale are relative to obligors or obligations within that specific country. Issue and debt ratings could include debt guaranteed by another entity, and rated debt that an entity guarantees.

Additional Contact:
Industrial Ratings Europe; Corporate_Admin_London@spglobal.com