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**Equity Research Division**

## **Dassault Systèmes**

Virtual Worlds for Real Life

**Target Price: € 44.11**

Current Price: € 36.00

Upside Potential: **+ 22.53%**

**Recommendation: BUY**

**Investment Horizon: 3 Years**

*Vienna, Jan 31st, 2025*

# Team Overview

## Equity Research



**Lukas Brandl**

Sen. Associate

- Equity Story
- Task Distribution



MSc. (WU) – 3rd Sem.



**Anna Almaz**

Sen. Associate

- Valuation



BSc. (WU)  
BA. (LBS)



**Filip Kindermann**

Associate

- Valuation



MSc. (WU) – 1st Sem.



**Elisa Kuhnert**

Analyst

- CCA
- Peer Research



BSc (WU)  
LLB (Juridicum)



**Manuel Gissing**

Fellow Analyst

- Financial Analysis
- Market Overview



BA. (FH) – 3rd Sem.



**Simon Slaninka**

Fellow Analyst

- Business Model



MSc. (WU) – 1st Sem.



**Tim Jungeblut**

Fellow Analyst

- Company Overview
- Strategy



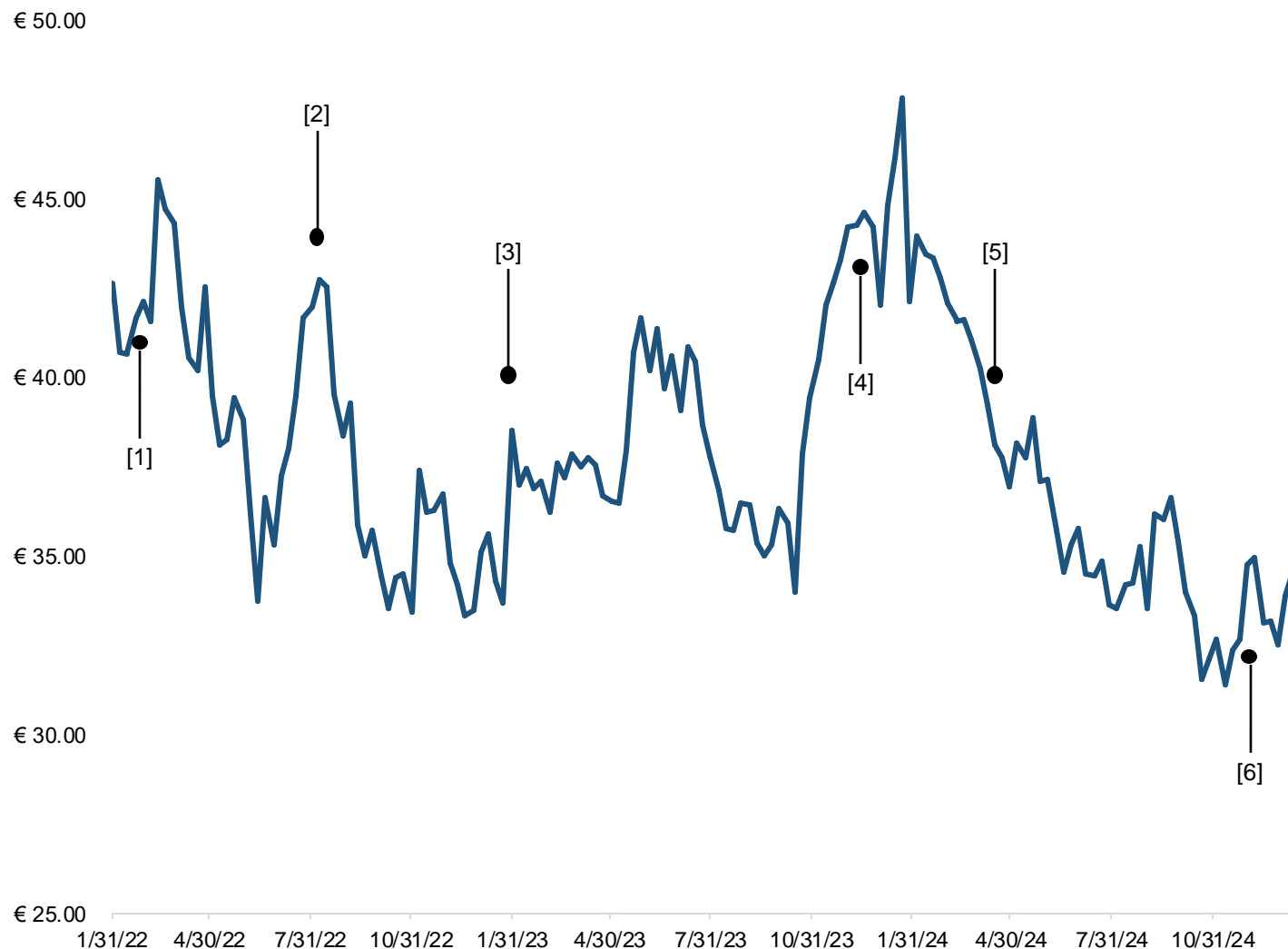
BSc. (WU) – 1st Sem.

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1	Company Overview	5
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# Share Price Performance

A volatile share price characterized by new partnerships and sensitivity to earnings

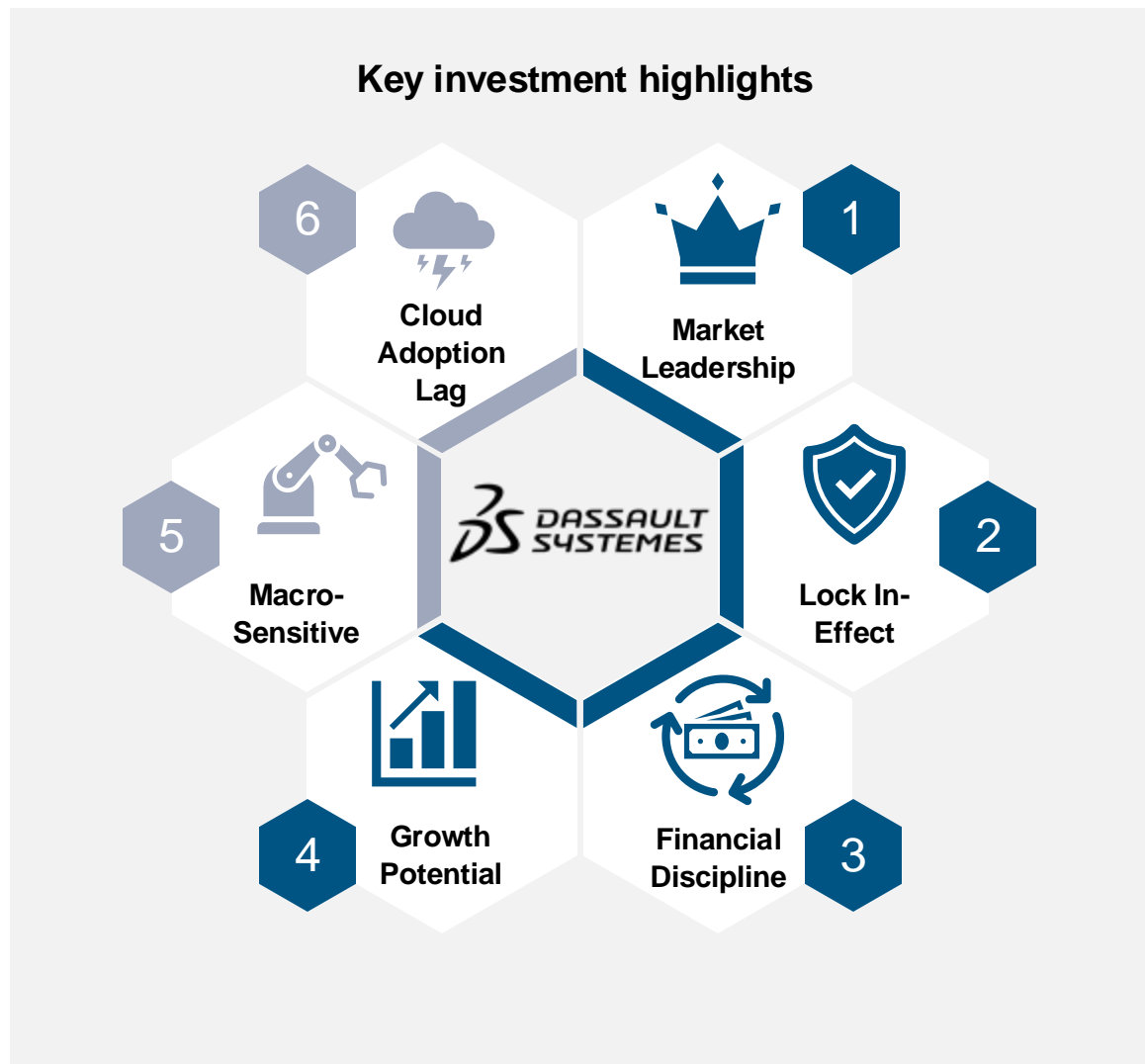


## Share Price – Major Events

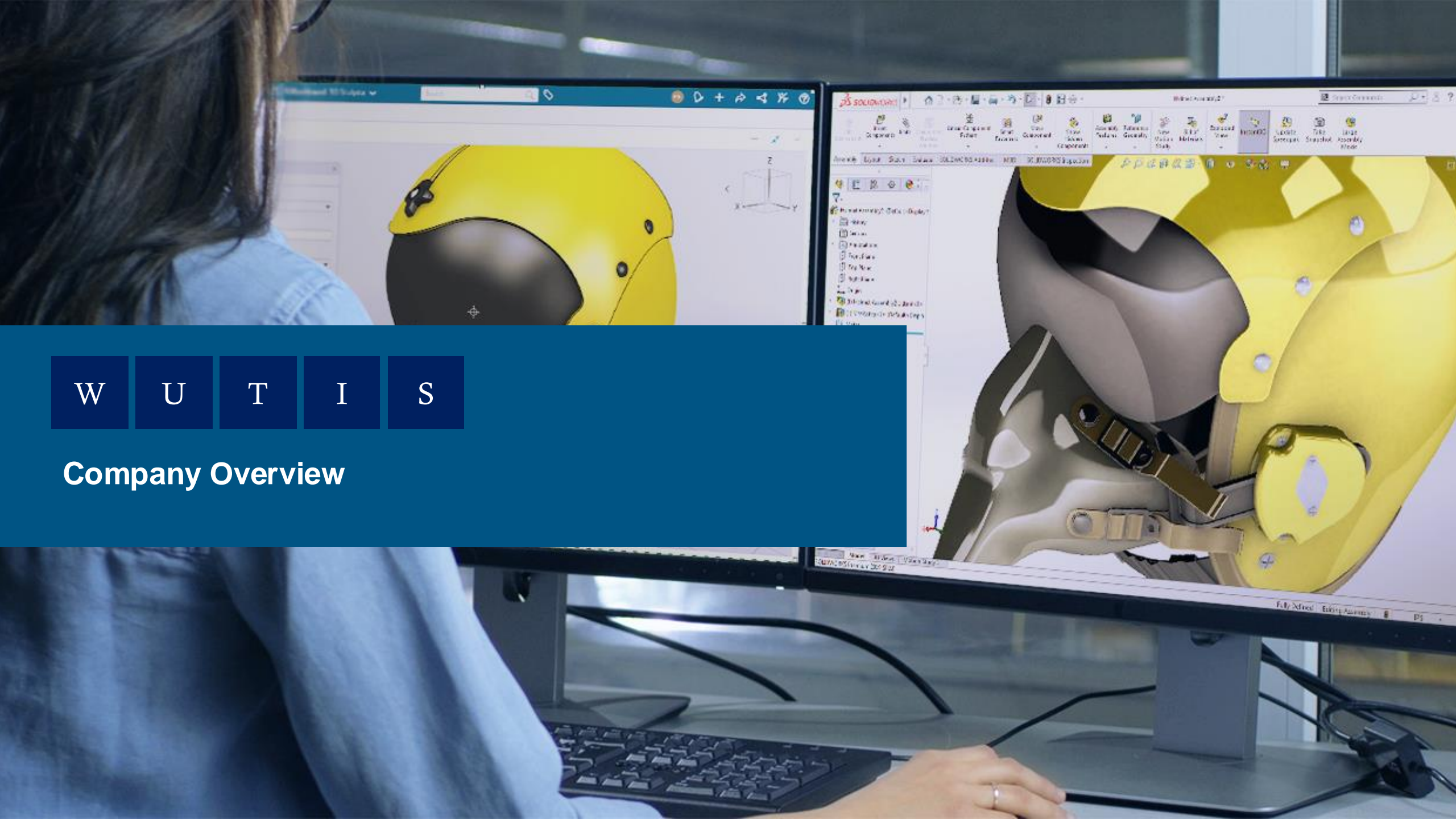
- [1] Feb 2022 (+14.7%) – Introduction of the **Life Cycle Assessment Solution** on the 3DEXperience platform
- [2] Aug 2022 (+19.5%) – 5-year **contract extension** with **Hyundai**
- [3] Jan 2023 (+12.1%) – Dassault announced a **partnership with IBM for Virtual Twins**
- [4] Nov 2023 (+20%) – Confirmation of the **annual targets** and expansion of the **partnership with BMW**
- [5] Jan - Oct 2024 (-35.1%) – **Reduced** earnings target
- [6] Nov 2024 (+11%) – **Volvo** adopted 3DEXPERIENCE platform

## Key Stats

- **IPO:** 1996
- **Close:** 36.00 EUR
- **52-week range:** EUR 31.31 – 48.52
- **Market Capitalization:** EUR 50.44 billion



- 1 **Industry-Centric Innovation and Market Leadership with 3DEXPERIENCE:** This capability cements Dassault as a partner, not just a provider, driven by pioneering in the field of 3D software.
- 2 **Cross-Industry Breadth with Lock In-Effect:** Operating across 11 industries, with its solutions deeply integrated into clients' R&D and production processes. These high switching costs protect recurring revenue and lock customers in.
- 3 **Financial Discipline and Resilient Growth Model:** Dassault's 80% recurring revenue provides unmatched predictability in cash flows. Furthermore, its double-digit margin growth ensures long-term revenue acceleration.
- 4 **Growth Potential in the Market of Digital Innovation:** With the 3D Technology market projected to reach \$100 billion in the future, Dassault is uniquely positioned to dominate.
- 5 **Dependence on Macro-Sensitive Industries:** A significant portion of revenue comes from cyclical industries like aerospace and automotive, making Dassault partially exposed to global economic downturns.
- 6 **Cloud Adoption Lag:** Dassault's transition to cloud subscription models is progressing, but slower adoption in Europe could lead to short-term margin compression relative to more agile competitors.



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## Company Overview

# Company Overview

A global leader in 3D design software with an experienced management team

## Company Description

Dassault Systèmes is a global technology company that **develops, designs, and delivers 3D design software, 3D virtual twins, and product lifecycle management solutions**, empowering industries worldwide to innovate and create sustainable products and experiences



**Headquarters**  
Paris, France



**Foundation**  
1981



**Employees**  
22,000



**Coverage**  
140 countries

## Management Board



**Pascal Daloz**  
CEO  
Joined Dassault in 2001



**Bernard Charles**  
Executive Chairman  
Joined Dassault in 1983



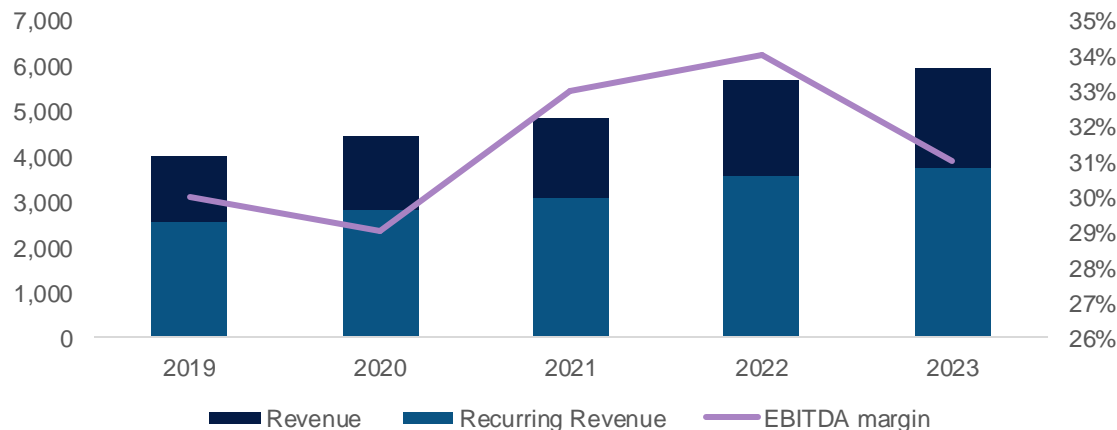
**Rouven Bergmann**  
VP and CFO  
Joined Dassault in 2022



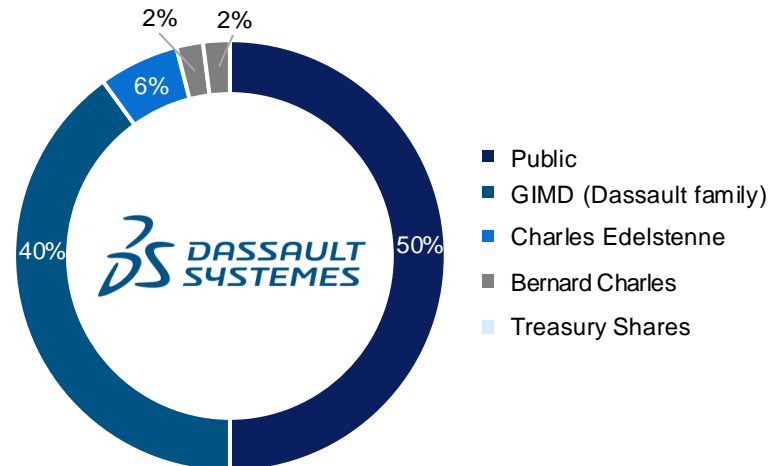
**Olivier Ribet**  
VP EMEA  
Joined Dassault in 2013

> **Proven leaders** with a shared vision for innovation and sustainable growth

## Financials (in EUR m)



## Shareholder Structure



> **Strong shareholder structure**, anchored by the **Dassault family**, ensures long-term stability and a **clear vision**, driving strategic growth.



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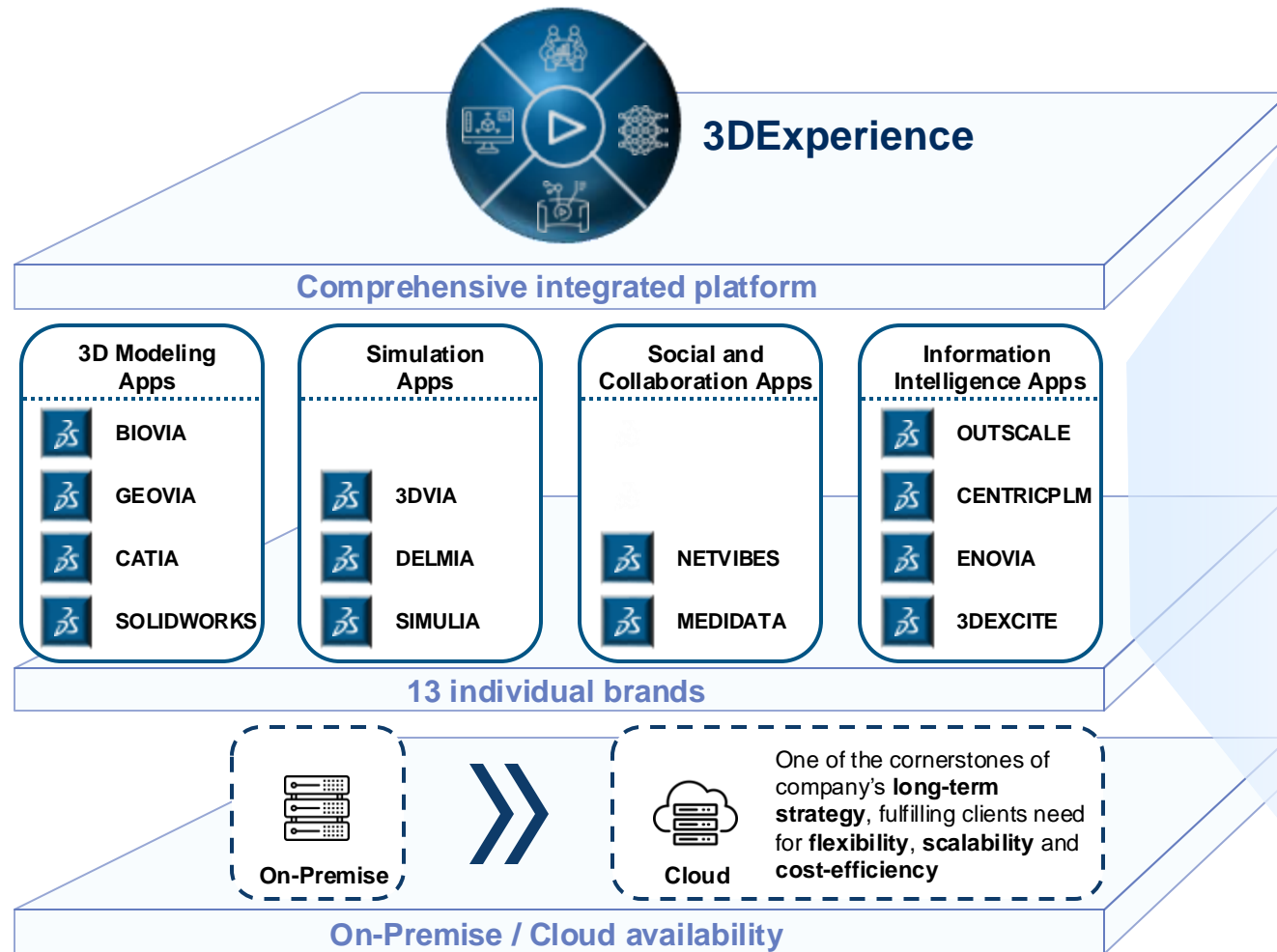
**Business Model & Strategy**



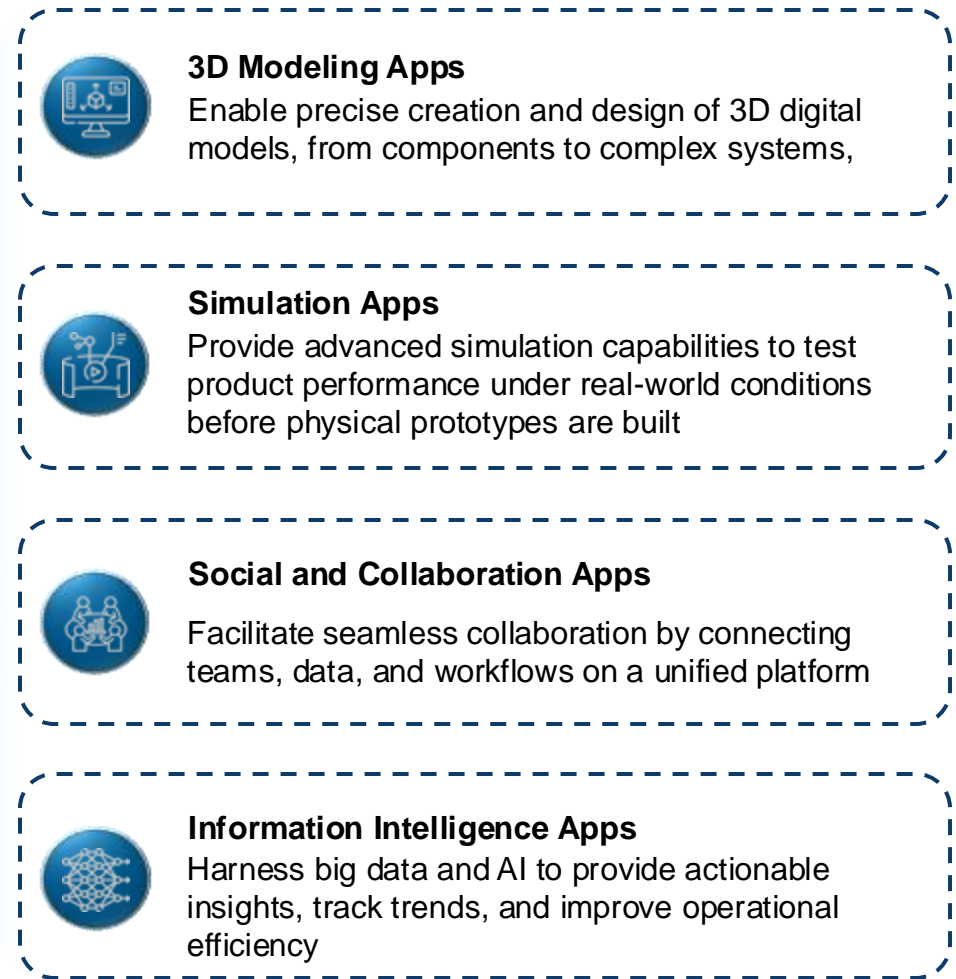
# Business Model I - Overview

Dassault Systèmes provides a science-based virtual environment that enables businesses to innovate and optimize

## Overview of Product Offering



## Use Case of 4 Key Categories of Apps






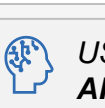

# Business Model II – USP

Dassault Systèmes elevated the areas of product development and operations with its 3DEXperience platform

## Status Quo before Dassault Systèmes

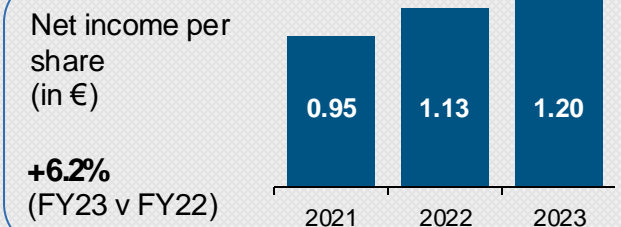
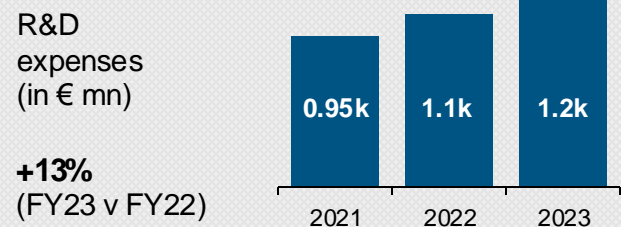
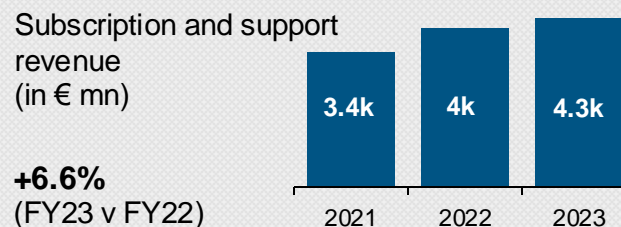
-  **Long lead times for innovation** due to fragmented technology ecosystems
-  **Reliance on physical prototypes** for design validation and testing
-  **Inefficient collaboration** among design, engineering, and manufacturing teams
-  **Lack of actionable insights** from raw data collected during product development

## 3DEXperience

-  **USP I: Platform**  
3DEXperience integrates every product on one platform
-  **USP II: MODSIM**  
Unified modeling and simulation re-shaping the product development
-  **USP III: Virtual twin**  
Cutting-edge technology of virtual twin revolutionizing 3D design
-  **USP IV: AI-native**  
AI assists to provide insights based on underlying data
-  **USP V: Cloud**  
Cloud availability increasing opportunities to scale and collaborate




## Results





# Business Model III – Product deep dive

Improved design precision and efficiency through advanced simulation solutions




**FEOPS** insights for excellence  — **Hearth surgery (TAVI<sup>2</sup>)**




**Challenge** 


- Less invasive alternative to open **hearth surgery TAVI** requires a **specialized device customized to patient's hearth**
- **50% of aortic valve disease patients will not survive** more than an average of **two years**


**Solution** 


- Leveraging **3DExperience** proprietary software to create **3D virtual twin of patient's hearth**
- **Simulation of valve implementation scenarios**

**Impact** 


- **Accurate prediction** regarding **behavior of the implanted device**
- **Decreased** in needed **time for simulation from days to hours**

 **CSADI** 中南建筑设计院 — **Construction of meteorological radar tower**




**Challenge** 

- **Design and construction** of complex **Meteorological Radar tower** near Wuhan
- Traditional **fragmented project management** approach made it **difficult to coordinate** between departments

**Solution** 

- **3DExperience** enabled **collaboration** covering different disciplines (structure, heating, electricity,..)
- **Simulation** of over **1000 exterior wall panels**

**Impact** 

- **60% reduction in construction errors**, by implementing virtual twin experience
- The overall **construction schedules decreased by 30%**

1) Computational fluid dynamics, 2) Transcatheter aortic valve implantation, 3) Finite element analysis  
Source: Annual Report

# Business Model IV – Sector overview

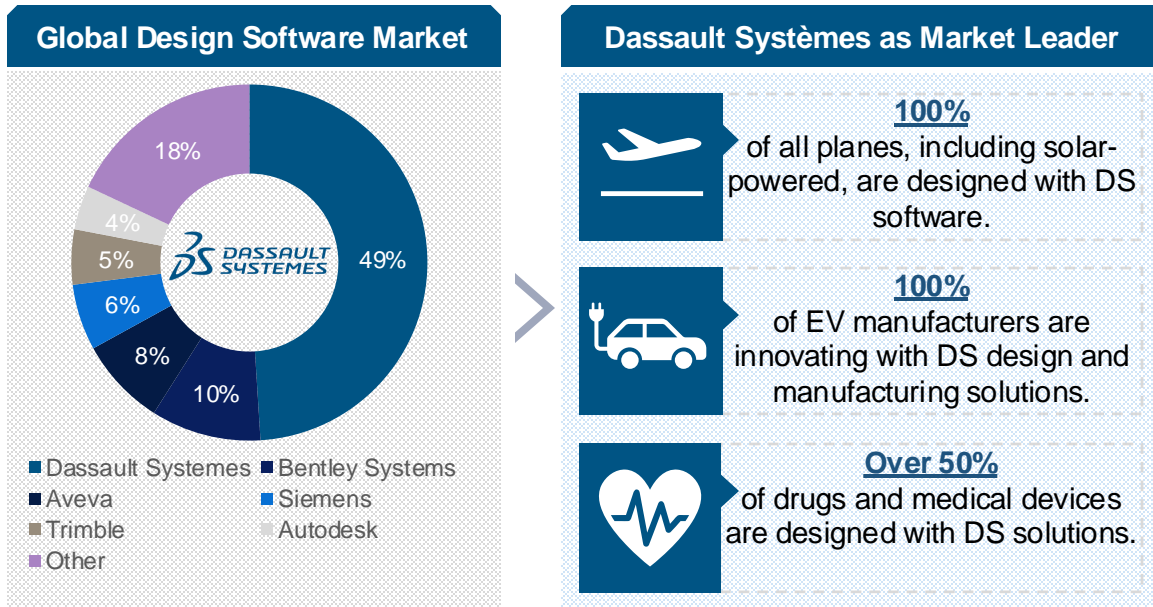
Serving over 350 000 customers across 3 sectors, ranging from small entrepreneurs to large corporations

	Manufacturing	Life Sciences & Healthcare	Infrastructure & Cities																														
Main Industries	<ul style="list-style-type: none"> <li>• Transportation &amp; Mobility</li> <li>• Industrial Equipment</li> <li>• Consumer Packaged Goods &amp; Retail</li> </ul>	<ul style="list-style-type: none"> <li>• Life Sciences &amp; Healthcare</li> </ul>	<ul style="list-style-type: none"> <li>• Infrastructure, Energy &amp; Materials</li> <li>• Architecture &amp; Construction</li> <li>• Cities &amp; Public Services</li> </ul>																														
Revenue (in € mn)	<table border="1"> <caption>Manufacturing Revenue (€ mn)</caption> <thead> <tr> <th>Year</th> <th>Revenue (€ mn)</th> </tr> </thead> <tbody> <tr> <td>2020</td> <td>2700</td> </tr> <tr> <td>2021</td> <td>3200</td> </tr> <tr> <td>2022</td> <td>3800</td> </tr> <tr> <td>2023</td> <td>4100</td> </tr> </tbody> </table>	Year	Revenue (€ mn)	2020	2700	2021	3200	2022	3800	2023	4100	<table border="1"> <caption>Life Sciences &amp; Healthcare Revenue (€ mn)</caption> <thead> <tr> <th>Year</th> <th>Revenue (€ mn)</th> </tr> </thead> <tbody> <tr> <td>2020</td> <td>800</td> </tr> <tr> <td>2021</td> <td>1000</td> </tr> <tr> <td>2022</td> <td>1200</td> </tr> <tr> <td>2023</td> <td>1400</td> </tr> </tbody> </table>	Year	Revenue (€ mn)	2020	800	2021	1000	2022	1200	2023	1400	<table border="1"> <caption>Infrastructure &amp; Cities Revenue (€ mn)</caption> <thead> <tr> <th>Year</th> <th>Revenue (€ mn)</th> </tr> </thead> <tbody> <tr> <td>2020</td> <td>450</td> </tr> <tr> <td>2021</td> <td>400</td> </tr> <tr> <td>2022</td> <td>450</td> </tr> <tr> <td>2023</td> <td>450</td> </tr> </tbody> </table>	Year	Revenue (€ mn)	2020	450	2021	400	2022	450	2023	450
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Key Customers																																	
Use Case	<p><b>Create and test thousands of alternative design combination through requirements-driven simulation</b></p>	<p><b>Simulate patient-specific treatment with virtual twins, identifying potential risks and outcomes more effectively</b></p>	<p><b>Simulate urban development scenarios, optimizing layouts for transportation, utilities and sustainability</b></p>																														

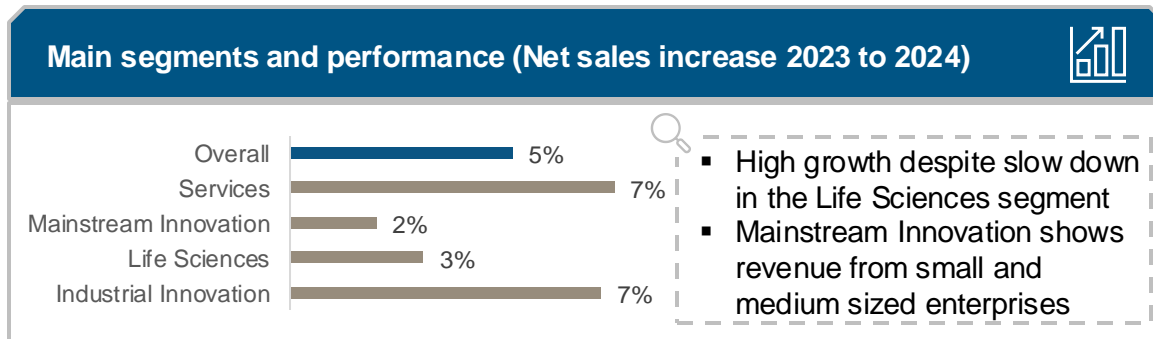
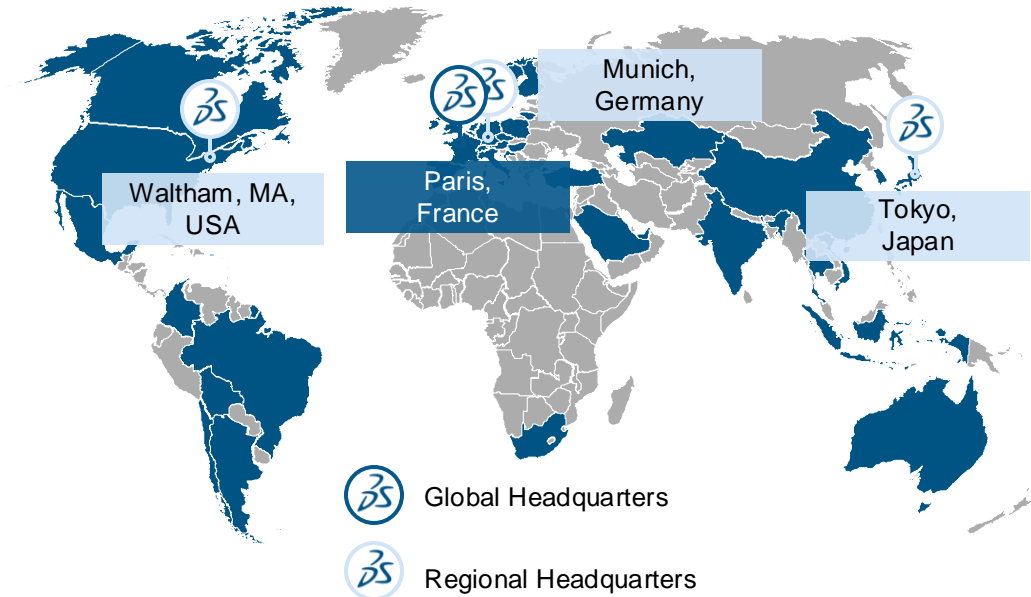
# Business Model V – Strengths

Global market leadership with Dassault's products being crucial for innovation across industries

## Segment Leadership & Product Performance



## Dassault Systèmes as a Global Player



- ### Dassault Systèmes as Global Player
- Operations:** Serving customers in over 140+ countries globally
  - Strategic Partnerships and Collaborations:** Dassault Systèmes engages in strategic partnerships and collaborations with healthcare providers, research institutions and other industry players
  - Diverse Workforce:** Employment of a diverse and skilled workforce from different cultural and professional backgrounds

# Strategy – Generative Economy

As the architect of an entirely new market, the transformation to Generative Economy

## Parts of Dassault Systèmes Strategy

### Cutting Edge Technology

- Growing **R&D expenditures** for innovation.
- Applications include advanced solutions like **synthetic arms for drug trials**.

### SaaS

- Transition to cloud-based solutions for **flexibility, scalability, and recurring revenue**.
- **80% recurring software revenue** through subscription-based models.
- Focus on **long-term client partnerships**.

### Sustainability

- Empowering clients to drive **sustainable innovations** with Dassault tools.
- Strong emphasis on **sustainability reporting** and decarbonization strategies.

### Generative Economy

- **Generative Economy:** Combining Experience and Circular Economies for net-positive, regenerative systems.
- **UNIVERSES:** Virtual ecosystems (Virtual Twins) integrating AI to enable collaboration, real-time insights, and sustainable innovation.
- **Long-Term Vision (2040 Horizon):** Accelerating the transition to the "Life of Things" with regenerative, self-healing products, while creating an **Infinite Innovation Loop** by seamlessly integrating virtual and real-world systems.





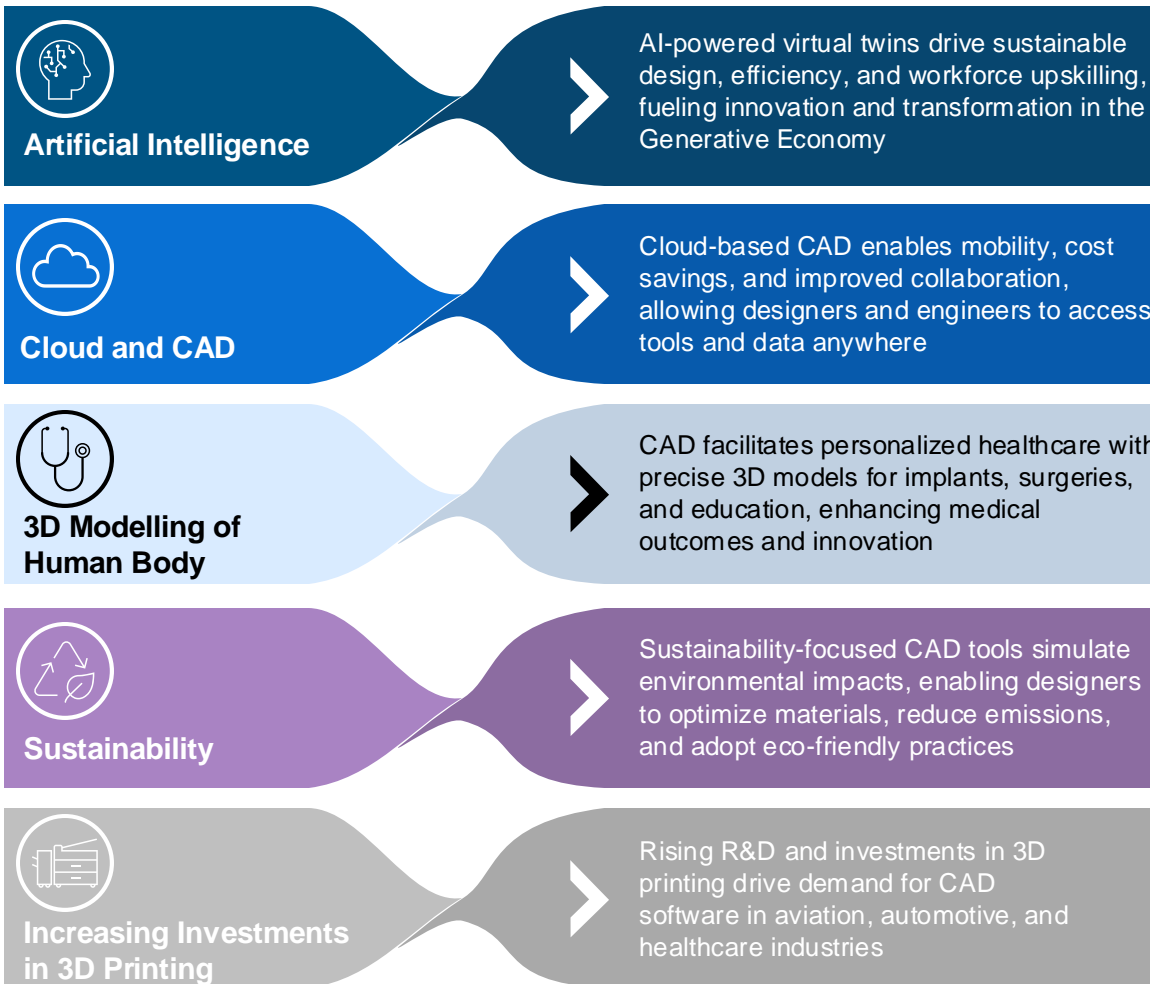
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Industry Overview

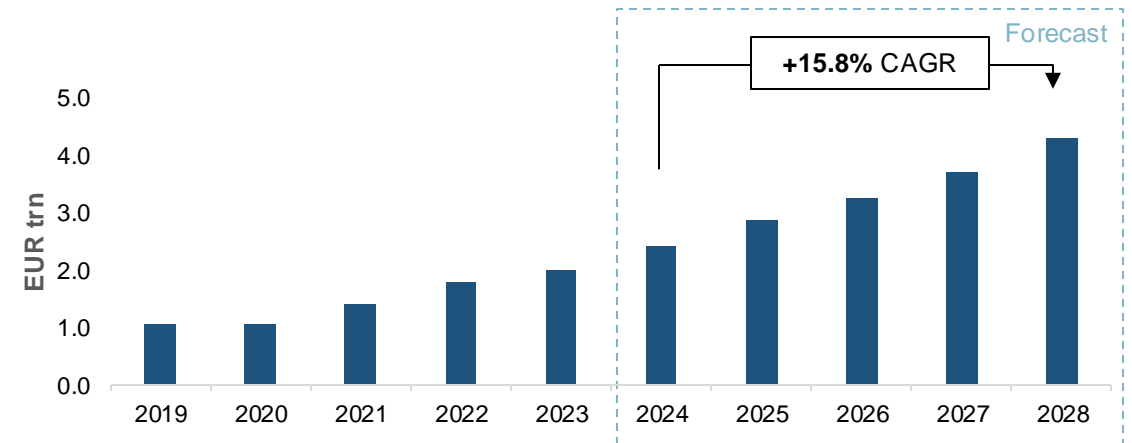
# Market Overview I – Trends & Drivers

Rapid growth in 3D CAD & PLM software market: AI and sustainability as key accelerators

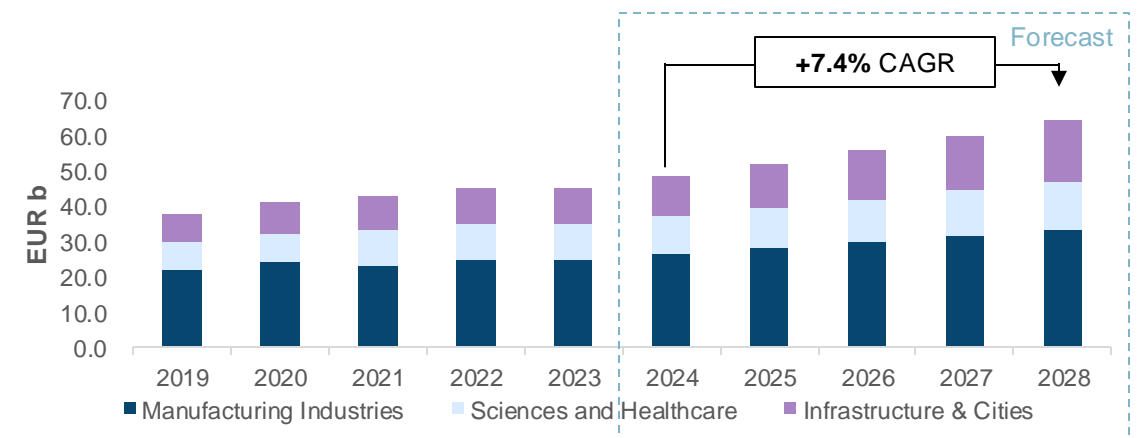
## Current Market Trends Driving Future Growth



## Spending on Digital Transformation Technologies & Services Worldwide



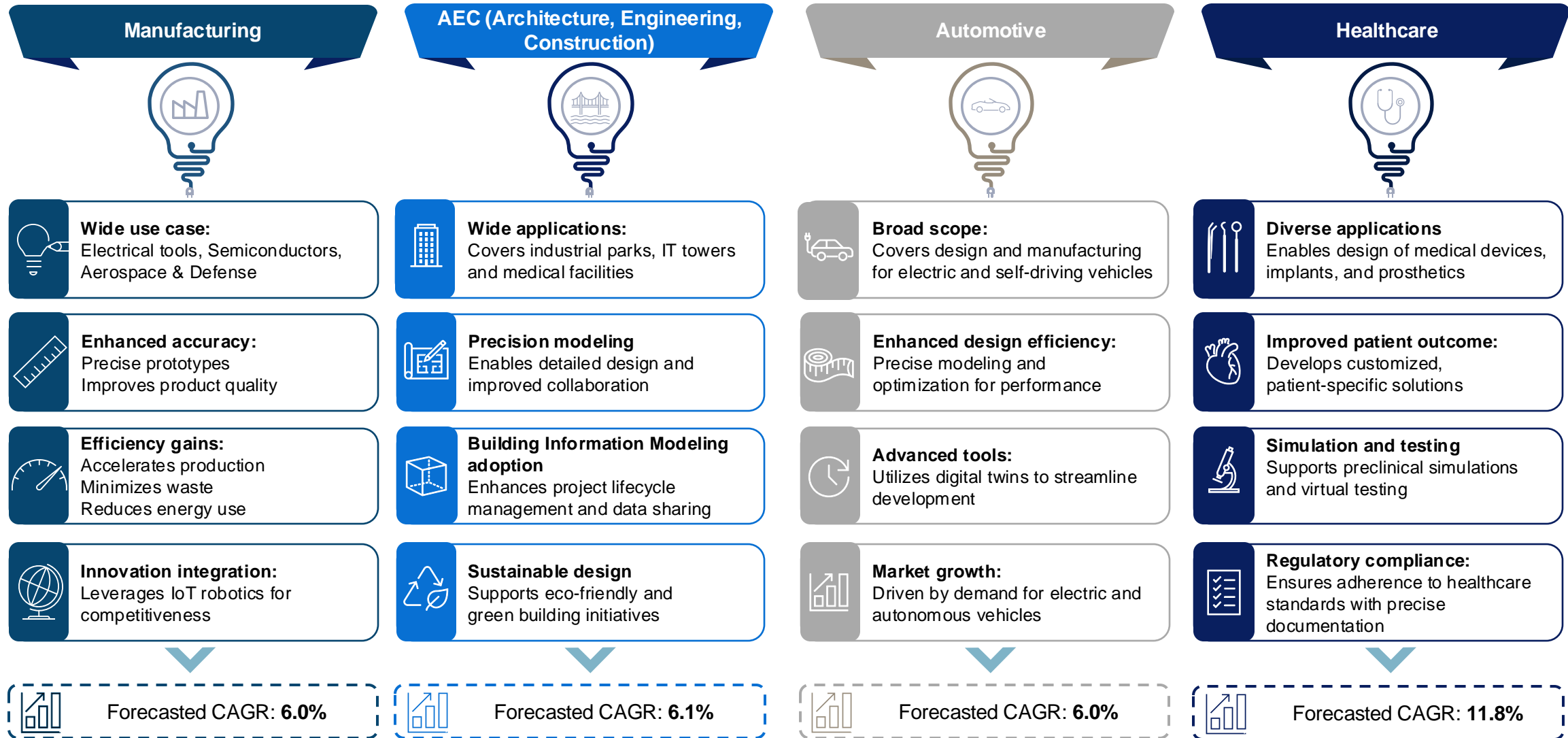
## Global 3D CAD and PLM Software Market Outlook





# Market Overview II - 3D Software Market End User Industries

3D software is essential for efficiency in a rapidly changing market across a wide range of industries





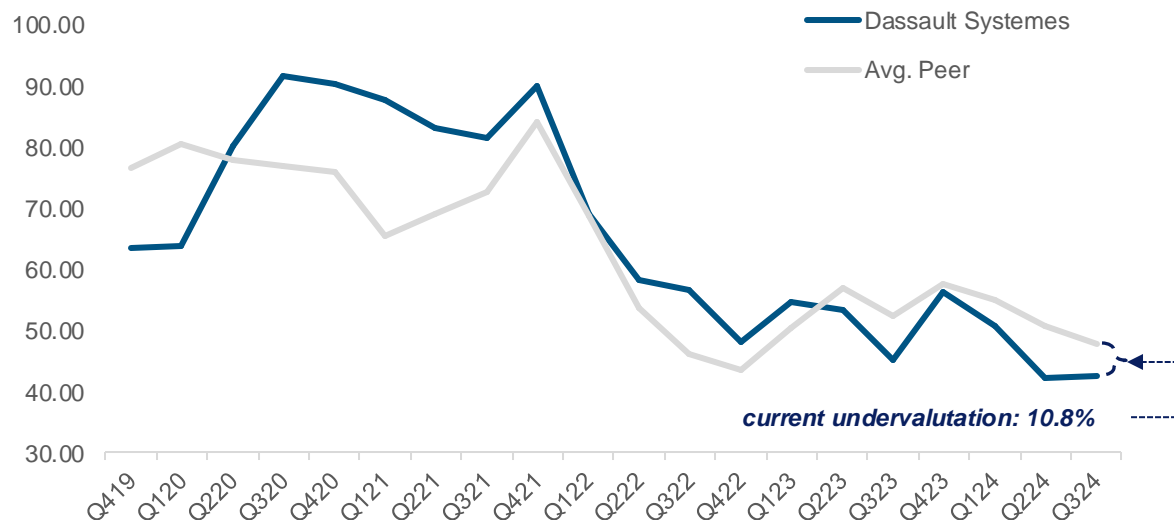
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**Financials & Valuation**

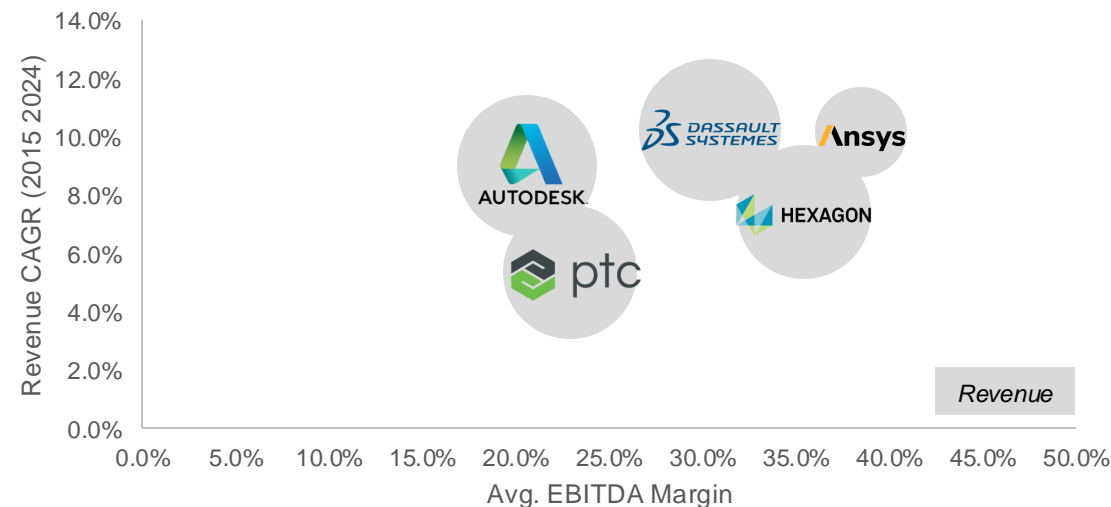
# Introduction Financials

Short-term undervaluation in combination with growth in AI-Powered virtual twins driving the success

## Peer Group P/E Development



## Peer Comparison: Revenue CAGR, EBITDA-Margin, Revenue (2015 – 2024)



## Why Dassault Right Now?



### Short-term Undervaluation

Current under-valuation, compared to the peers, offering **significant growth potential**, compared to its market price due to robust financial health & stable growth.



### Leading Growth and Profitability with Industry-Lead. Margins through R&D

With a **30.4% EBITDA margin** and **10.3% revenue CAGR**, the company leads its peers, driven by **R&D investments** in the **3DEXPERIENCE** platform, **AI**, and **virtual twins**.



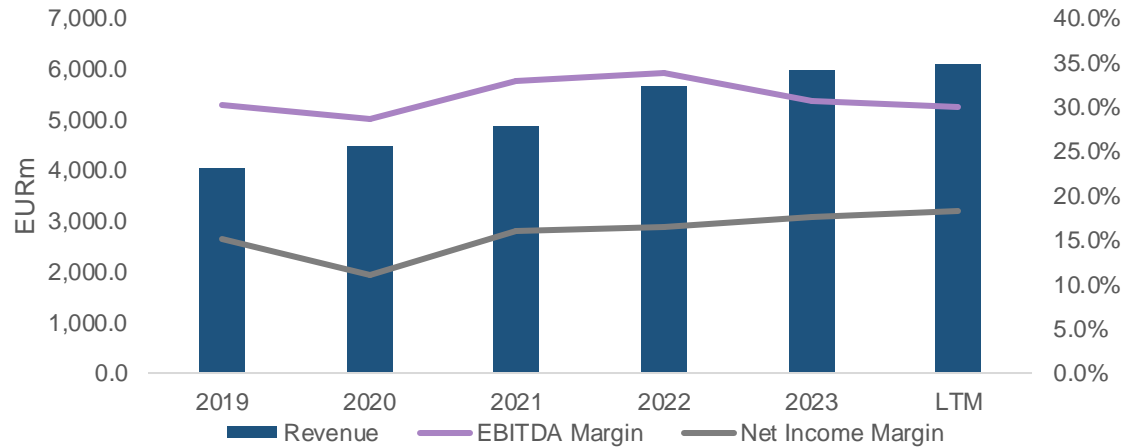
### Driving Growth with AI-Powered Virtual Twin Technology

Growth through the integration of **AI-powered virtual twin experiences**, continuously innovating to enhance **sustainability** and operational **efficiency** in core markets.

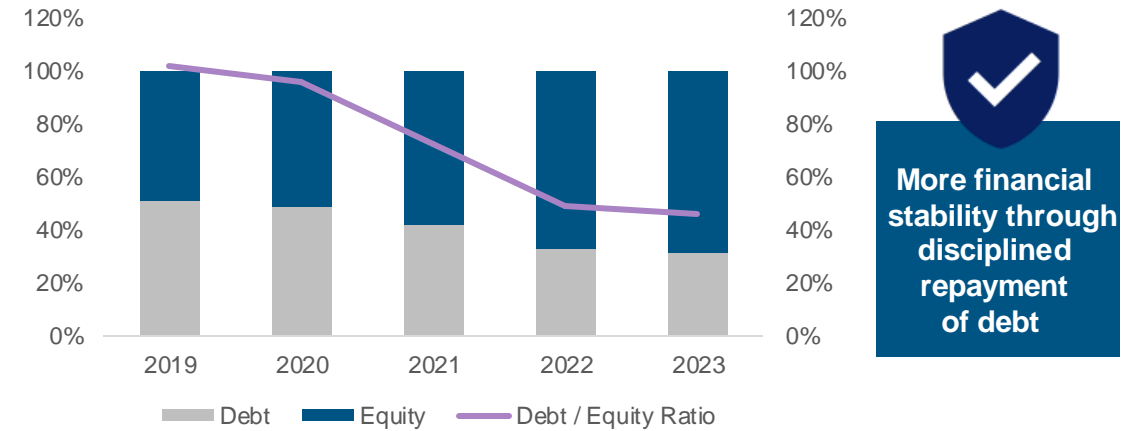
# Historical Financial Analysis

Growth in sales and margin combined with an improved capital structure lay the foundations for the future

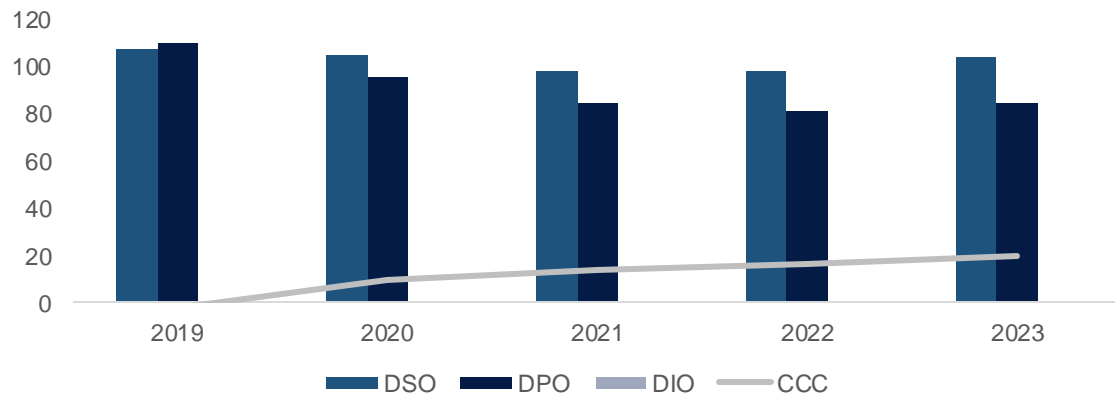
## Revenue/Margin Development



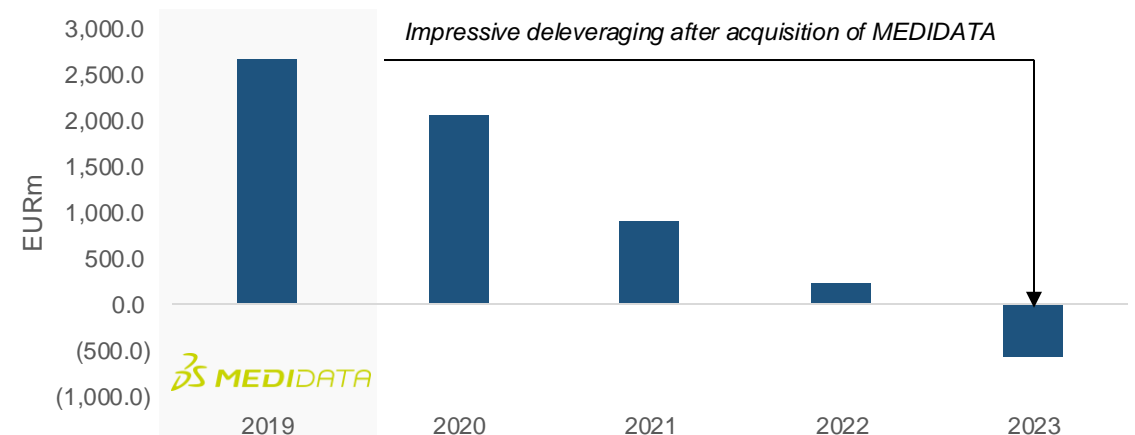
## Capital Structure



## Working Capital



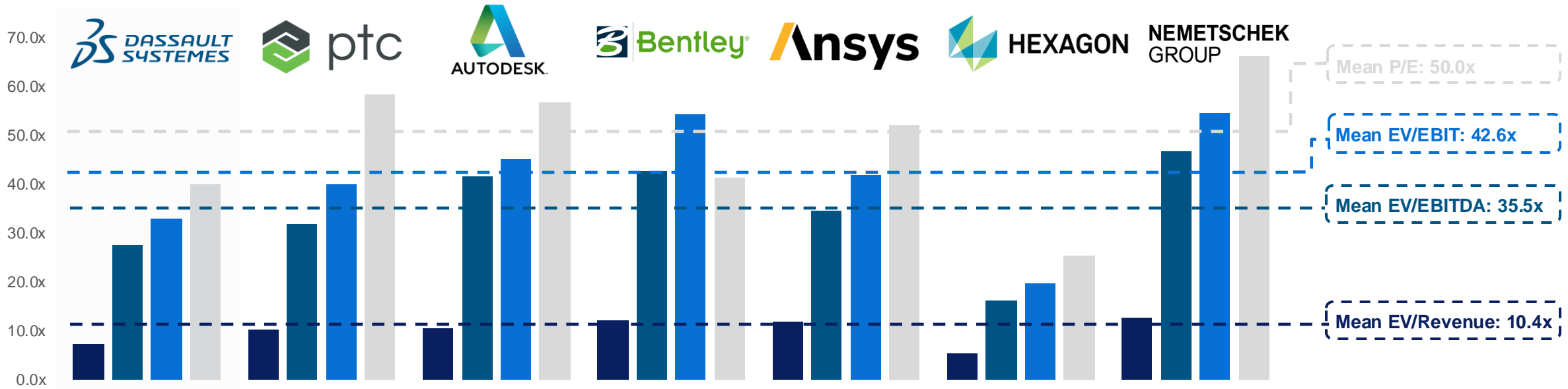
## Net Financial Debt / (cash)



# Financials & Valuation I – CCA

Dassault Systèmes is undervalued in comparison to the peer group with multiples indicating growth potential

## Multiple Valuation Summary

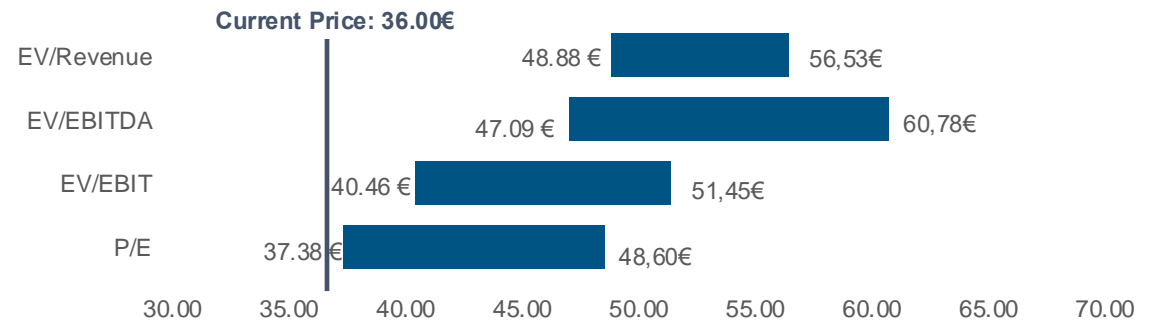


## Comments

**Multiples are currently undervalued** compared to peers, indicating **huge growth potential** for Dassault Systèmes

With about **40% share price growth potential** Dassault Systèmes presents the perfect investor target with **long term growth potential**




## Implied Share Price Range



# Financials & Valuation II – DCF I


Digitalization project in customers' industries determine revenue growth and thereby Dassault Systèmes valuation


## Main Drivers


- 
**Digital Transformation**  
 Revenue in PLM and CAD sectors are driven by companies digitalizing their R&D processes to promote innovation
- 
**Focus on Strategic Industries**  
 Dassault solutions are used in multiple strategic industries, such as aerospace, defence, healthcare and infrastructure
- 
**Digital Twin and Virtual Simulation**  
 Dassault is supporting the increasing use of digital twins and digital simulation solutions across sectors


## Revenue Forecast


DCF Assumptions


 **WACC: 6.63%**


 **Beta: 0.71**

 **LT GR: 2.8%**

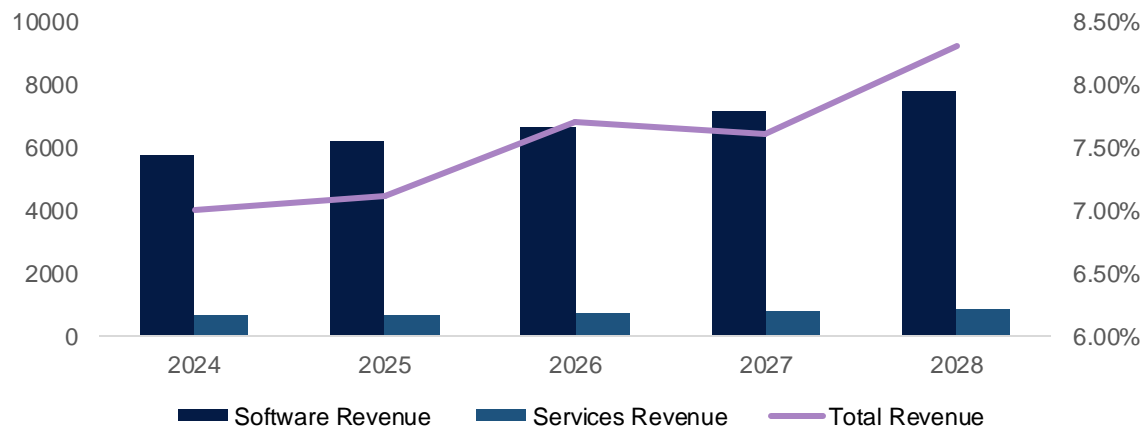
 **Multiple: 23.4**

 **Bear Case**  
 Slower revenue growth due to cost-cutting strategies of final consumers as a result of continuous recession

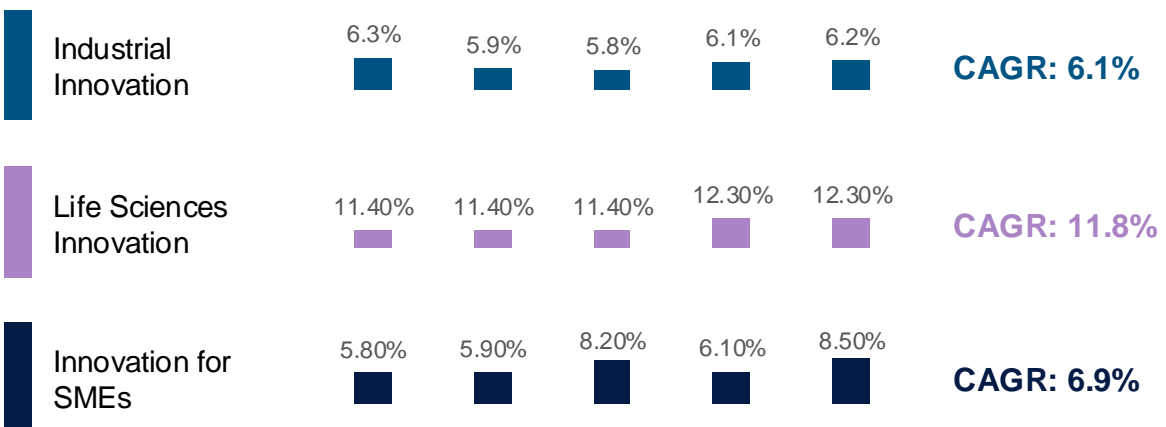
 **Base Case**  
 Revenue is growing in line with industry growth, supported by high growth in BioTech

 **Bull Case**  
 Increased digitalisation and R&D expenses of the enterprises in economic recovery phase

## Revenue Development by Segments (in EUR m)



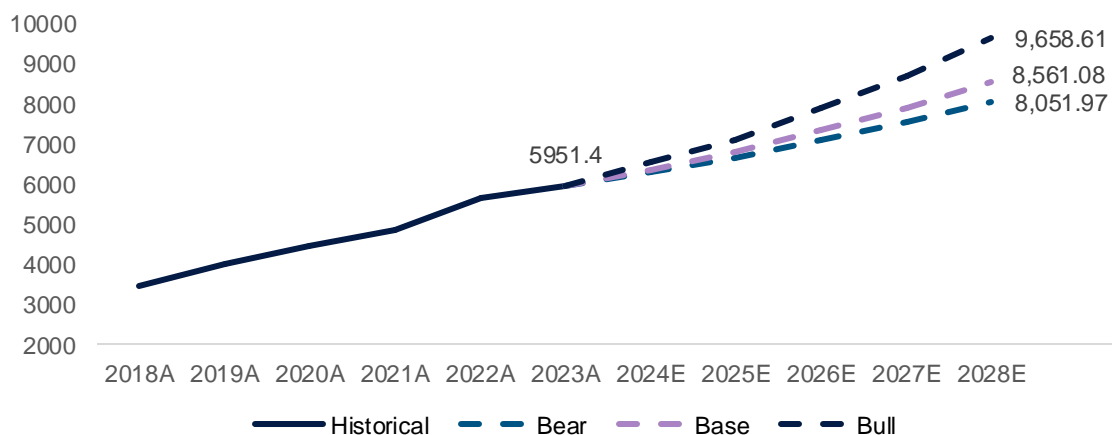
## Growth Rates in Software Revenue



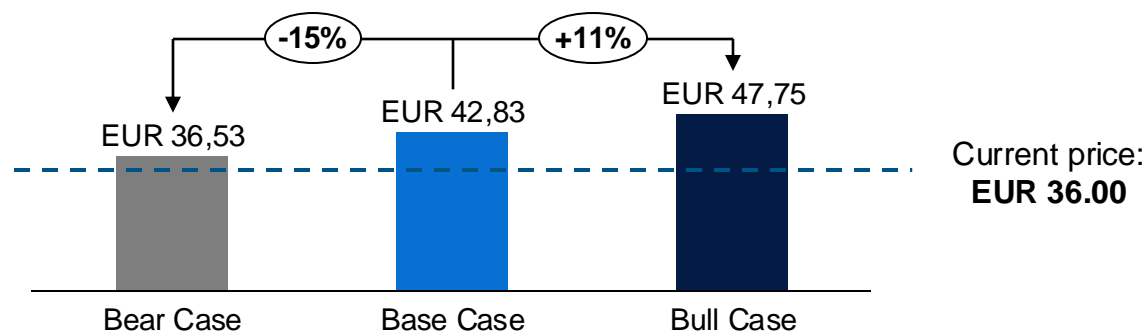
# Financials & Valuation III – DCF & Target Share Price

Undervaluation in three DCF cases combined with CCA results in a Buy recommendation

## Revenue Growth in EUR mn



## DCF Share Price Range (Exit Multiple)

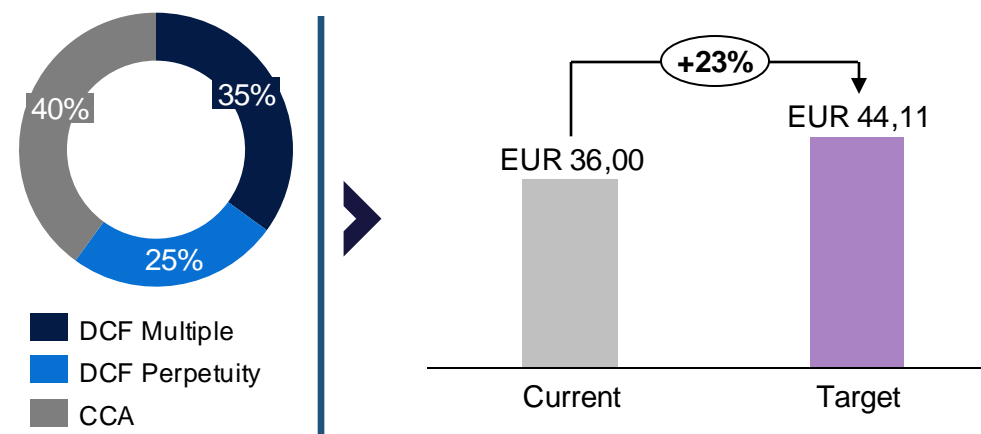


Each scenario results in a **higher share price** than the current one

## Sensitivity Analysis

WACC	Exit Multiple				
	13.40	18.40	23.40	28.40	33.40
5.63%	28.57	36.66	44.76	52.85	60.94
6.13%	27.97	35.88	43.78	51.69	59.59
6.63%	27.39	35.11	42.83	50.55	58.27
7.13%	26.83	34.37	41.91	49.45	57.00
7.63%	26.28	33.65	41.02	48.38	55.75

## Target Share Price





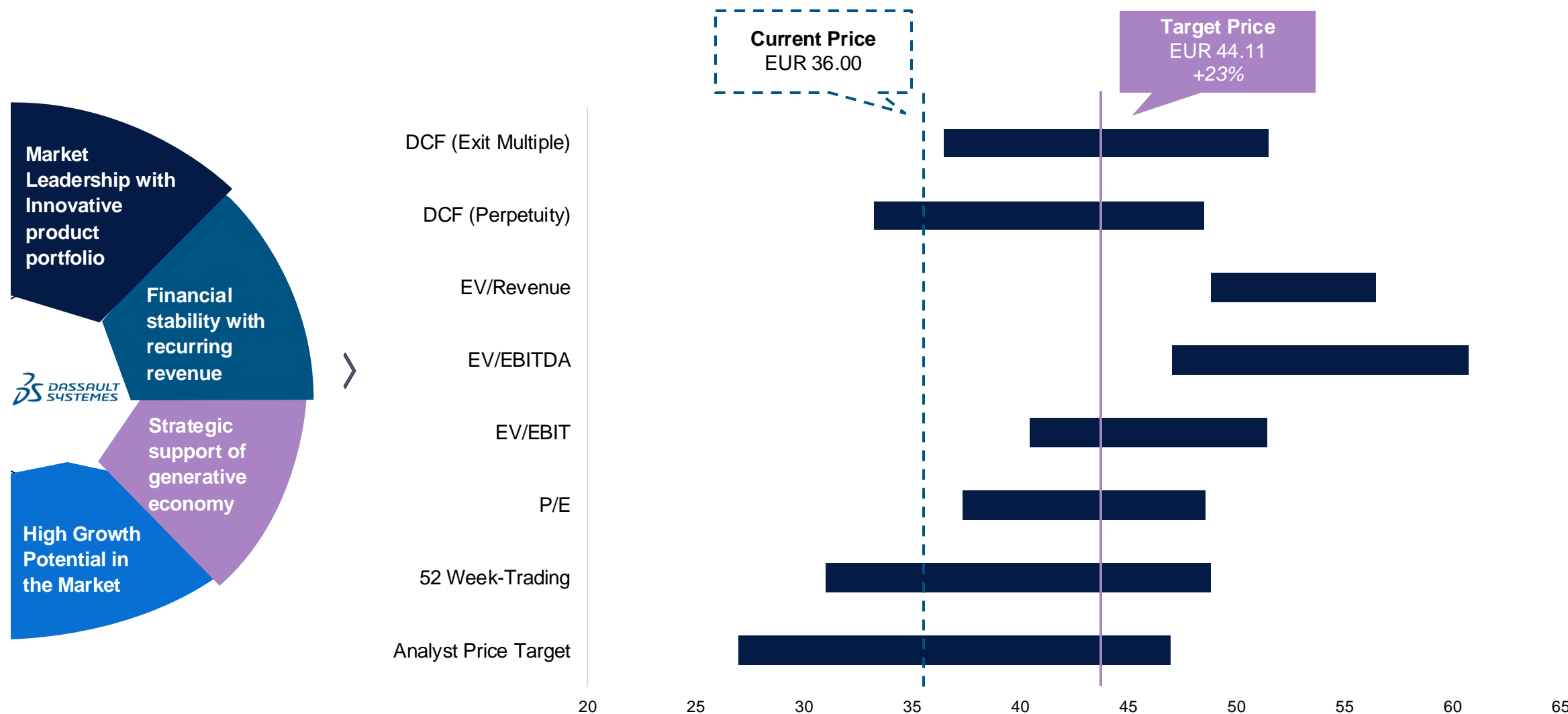
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Conclusion

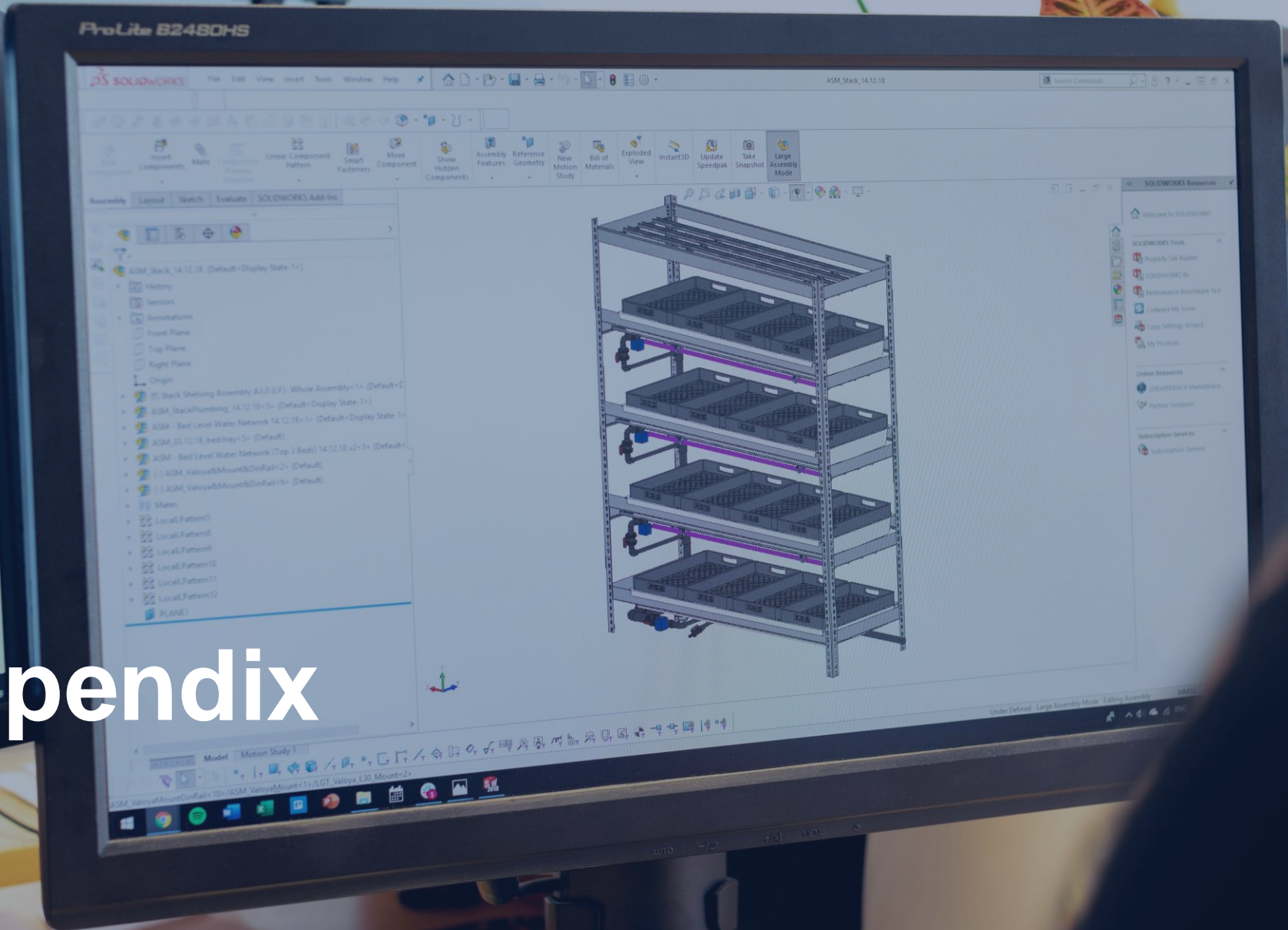


# Conclusion

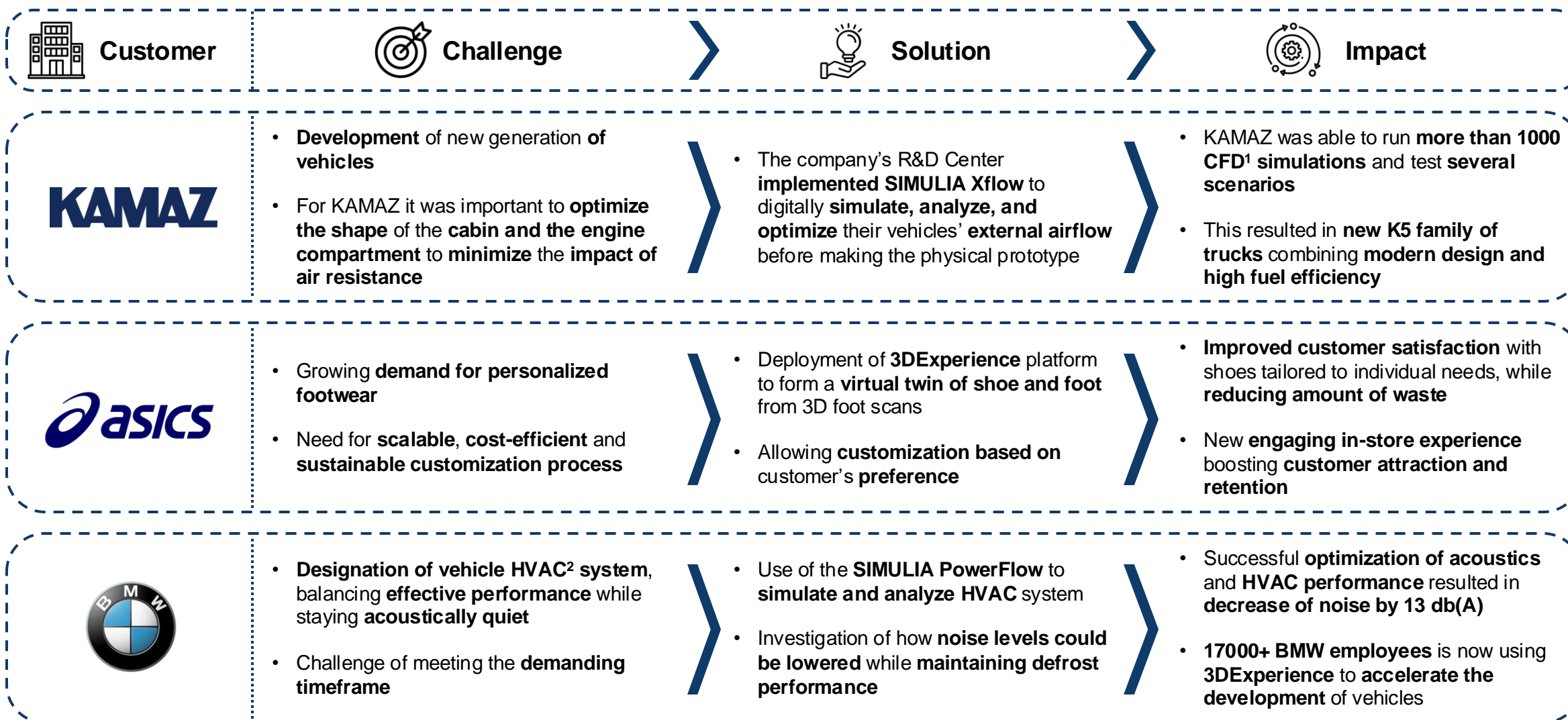
Market leadership in a high-growth industry supported by quantitative analysis promote growth of Dassault Systèmes



# Appendix

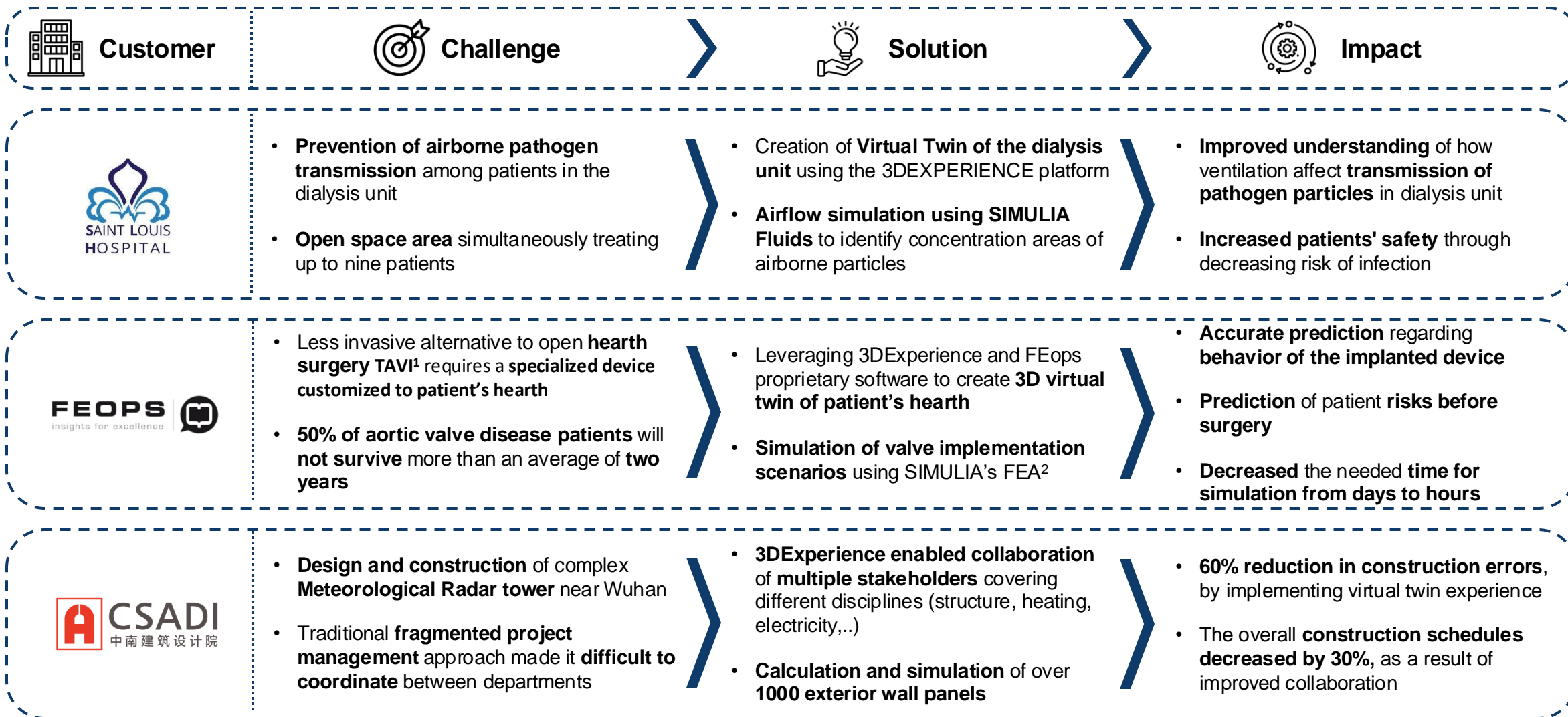


## Success stories: Manufacturing



1) Computational fluid dynamics, 2) Heating, Ventilation, and Air Conditioning  
Source: Annual Report, Company website

## Success stories: Life Sciences & Infrastructure



1) Transcatheter aortic valve implantation, 2) Finite element analysis  
Source: Annual Report, Company's website

### STRENGTHS

- Comprehensive and advanced solutions combining industry-specific expertise with mission-critical software, creating significant entry barriers and a lasting competitive advantage over generic software providers.
- Distinct competitive edge through a first-mover unified platform approach and widespread adoption by industry leaders, emerging challengers, and new entrants.
- Well-established No. 1 position in manufacturing industries (about 70% of 2023 revenue) with about a 29% market share in product lifecycle management (PLM) solutions

### OPPORTUNITIES

- Growth in IoT across industries like appliances, vehicles, and energy meters increases demand for cloud services, aligning with Dassault's capabilities.
- Personalized Healthcare: Leveraging Dassault's 3DEXPERIENCE platform and tools like CATIA, the company can expand its role in the growing personalized healthcare market.
- Sustainability Solutions: Dassault's simulation tools position it as a leader in sustainable design, addressing the increasing demand for eco-friendly practices.



- Margins: Dassault Systèmes' operating margins have contracted from 33.8% in FY2022 to 29.9% in LTM, highlighting pressures on profitability.
- While Dassault Systèmes is a leader in innovation, the corporate brand itself is not widely recognized in many industries compared to competitors like Siemens or Autodesk.
- Industry Concentration: A high reliance on manufacturing industries exposes the company to cyclical economic risks, underscoring the need for greater diversification.

### WEAKNESSES

- Competitive pressures and challenges in talent retention, alongside the need to sustain key partnerships and maintain differentiation.
- Potential competition from large, cash-rich software companies entering the market over time.
- Vulnerability to global economic fluctuations and currency risks.

### THREATS

## Customer & recurring revenue

### Insights of an Expert



*Dassault Systèmes' strength lies in unifying design, engineering, manufacturing, and data management, fostering collaboration and innovation to meet the demand for seamless, connected ecosystems.*



#### Key Insights:



**Growth in SaaS Models:** The company's shift to cloud-based offerings aligns with increasing customer demand for **flexibility, scalability, and efficiency**, driving recurring revenue growth



**Sustainability Leadership:** By leveraging **digital twins**, Dassault helps clients optimize processes, reduce resource consumption, and achieve environmental goals, turning sustainability into an advantage.



**Future Vision:** Dassault is positioned as a catalyst for the **generative economy**, with long-term goals to combine **AI and virtual twins** for transformative industry solutions over the next 5–10 years.

### The Recurring Revenue and SaaS Model



#### Needs Analysis

Customers are advised by the sales team, and an exclusive product is tailored to their needs



#### Growth & Retention

Customers expand the product range and use more options



#### Adoption





Customers receive access data for the tool and can get started immediately






#### Integration

Utilization and digital transformation of customers and their processes in Dassault solutions

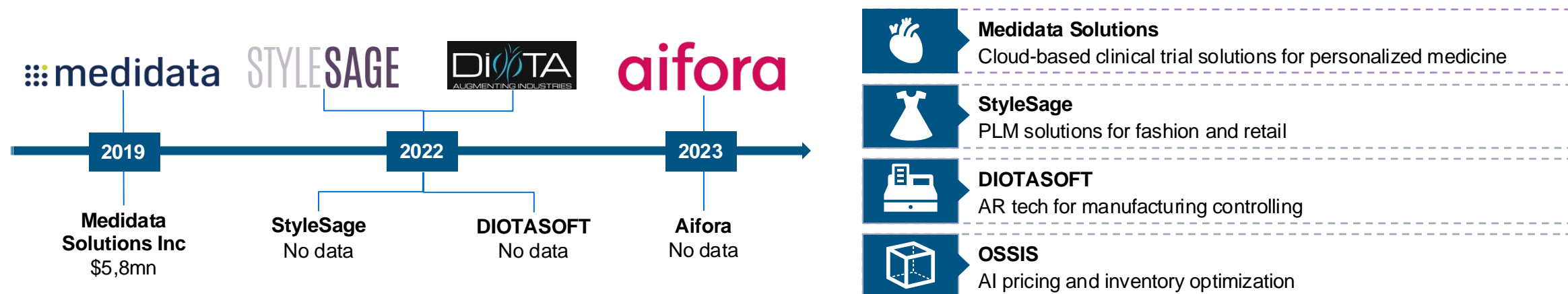
### Management Vision and Long-Term Strategy

-  **Diversification:** Expanding across 12 industries and 156 countries to tap into new subsegments and geographies
-  **Sustainable Innovation:** Developing circular processes and products to minimize environmental impact
-  **Capitalizing on Knowledge:** Leveraging AI, data analytics, and modeling for smarter decision-making
-  **Subscription Models:** further expand its subscription-based revenue, aiming to double its EPS to €2.40 by 2028











### 3DEXPERIENCE Platform

-  **Revenue Growth**
  - The total addressable market (TAM) for 3DEXPERIENCE is estimated at \$45 bn, with potential growth to accessible market (PAM) of \$100 bn
-  **Platform Contribution:**
  - Accounts for 80% of recurring software revenue and has over 350,000 customers globally
-  **Cloud Expansion**
  - Continuing to push cloud adoption, targeting enhanced deployment and collaboration while maintaining sovereignty over intellectual property

### Mergers & Acquisitions



## Catalysts: innovation, virtualization, and a focus on generative economy

Catalyst	Type	Influenced factor	Estimated impact on share price
 <b>New Technologies</b>	Hard	Product Innovation	<ul style="list-style-type: none"> <li>▪ <b>High</b></li> <li>▪ Supports the company in leading innovation and attracting new customers thus increasing revenue</li> </ul> 
 <b>Virtualization</b>	Hard	Revenue	<ul style="list-style-type: none"> <li>▪ <b>High</b></li> <li>▪ Provides immediate technological applications (like Virtual Twin Experiences and UNIV+RSES) that drive quantifiable benefits in industries</li> </ul> 
 <b>IFWE-Loop</b>	Hard	Revenue	<ul style="list-style-type: none"> <li>▪ <b>High</b></li> <li>▪ IFWE loop connects virtual with real world (catalyst of Generative Economy) – high growth potential</li> <li>▪ Expands addressable market, strengthening investor confidence</li> </ul> 
 <b>Disruptive Innovation by Emerging Competitors</b>	Hard	Revenue & Product Innovation	<ul style="list-style-type: none"> <li>▪ <b>Medium</b></li> <li>▪ Decreases company's growth and innovation potential, and could also possibly harm its competitive edge</li> </ul> 
 <b>Industry Collaboration &amp; Partnerships</b>	Soft	Market Expansion	<ul style="list-style-type: none"> <li>▪ <b>Medium</b></li> <li>▪ Industry collaborations serve to expand market presence and work on development of new strategic solutions</li> </ul> 



## Risk factors

- O1

**Innovation Dependency:** Risks tied to maintaining leadership in cutting-edge technologies like Virtual Twins and AI.
- O2

**Post-Merger Integration Risks:** Frequent M&A activity may cause challenges in integration, affecting operational efficiency and alignment
- M3

**Low Brand Recognition:** Customers often don't associate products (e.g., CATIA, SIMULIA) with Dassault Systèmes.
- M4

**High Switching Costs:** Convincing customers to switch is difficult due to long-term contracts with competitors and high training costs for software.
- M5

**Client Concentration:** Heavy reliance on large customers within key industries could expose vulnerabilities.
- M6

**Dependence on Macro-Sensitive Industries:** A significant portion of revenue comes from cyclical industries like aerospace and automotive.
- L7

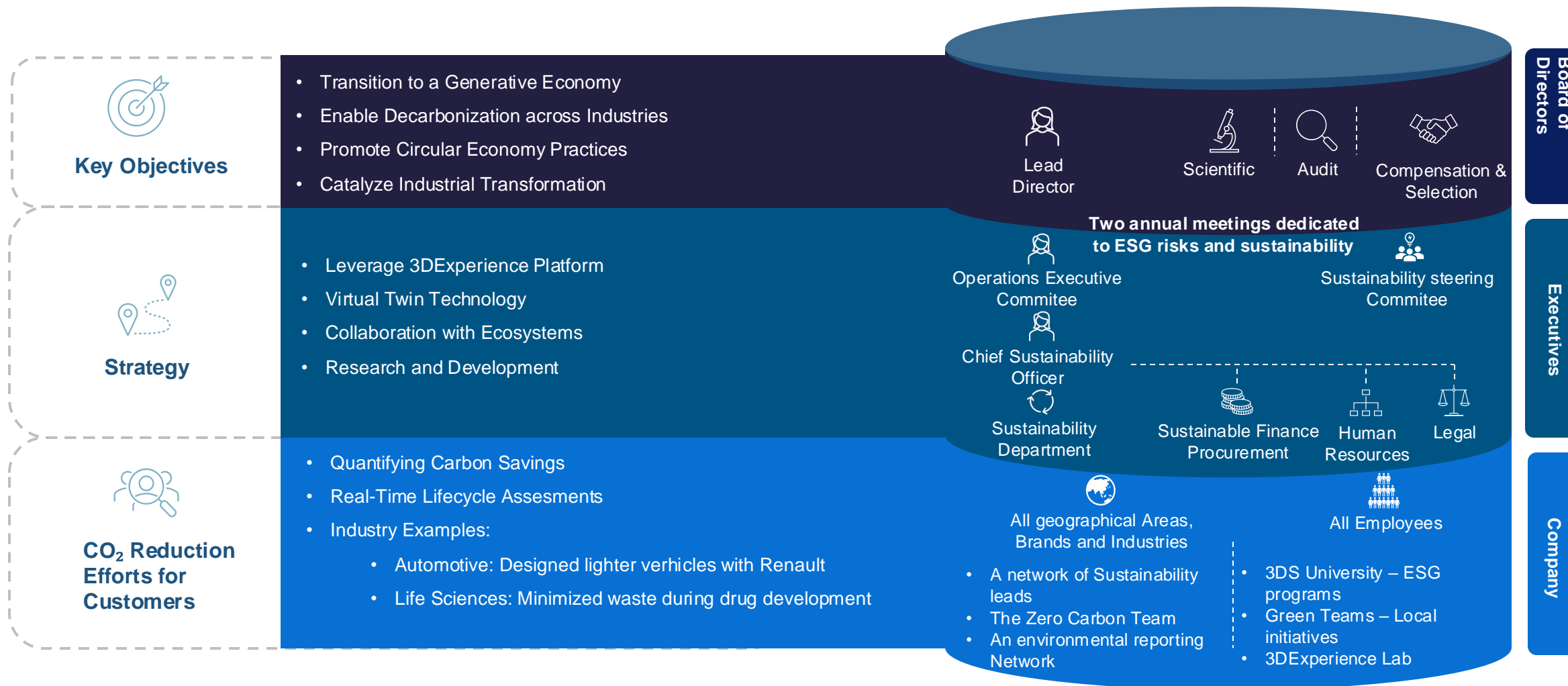
**Complex Legal Frameworks:** Operating in 140+ countries exposes Dassault Systèmes to diverse laws.
- W8

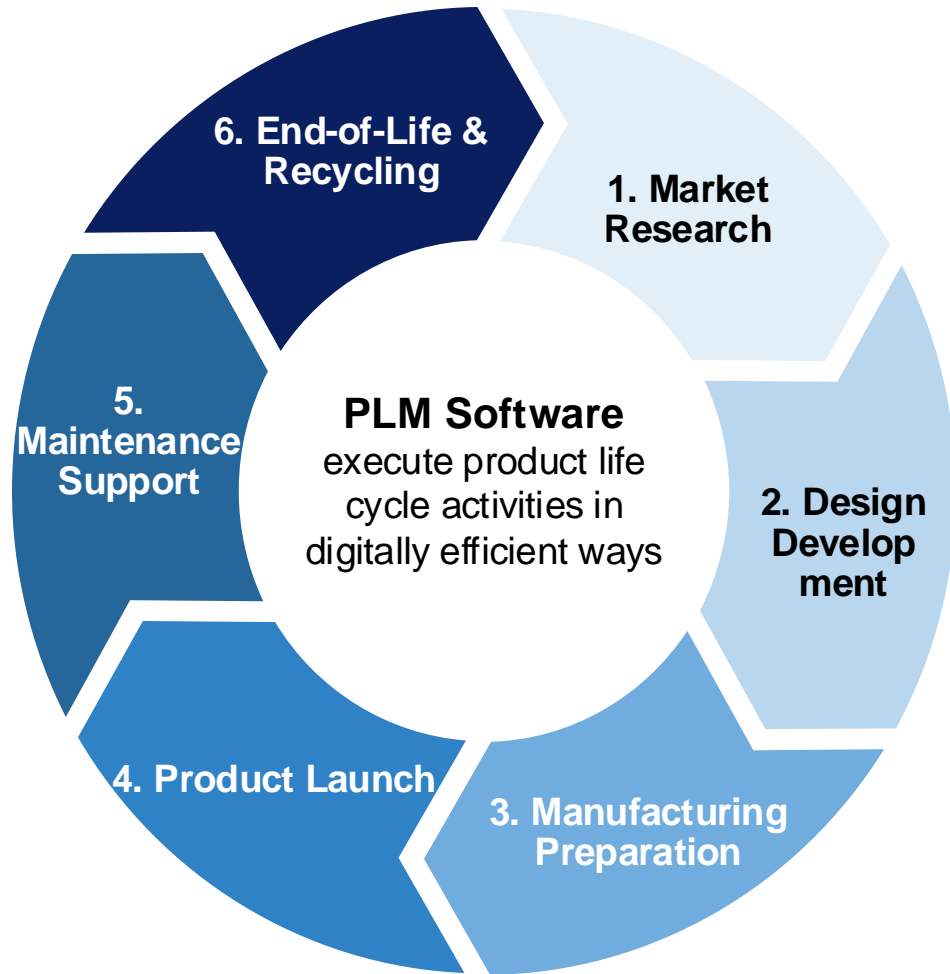
**Attracting Talent:** Losing or failing to attract skilled employees could hinder innovation and operations.



Operations (O) – Market (M) – Financial (F) – Legislation (L) – Workforce (W)

## Sustainability framework





1

### Market Research

Identify product trends and competitive landscape. Stimulate product ideas, market needs and preferences, and product market fit analysis.

2

### Design & Development

Design and validate parts, software, assemblies and processes that transform product concepts and designs into physical products

3

### Manufacturing Preparation

Validate and optimize manufacturing processes and layouts to ensure high-quality production, cost efficiency, and ongoing operational improvements.

4

### Product Launch

Launch products by educating the market, optimizing sourcing and manufacturing, and enabling sales and service teams to engage customers.

5

### Maintenance Support:

Ensure reliable operation with minimal downtime while gathering data for continuous improvement.






























6

### End-of-Life & Recycling

Scale down product manufacturing with minimal scrap inventory, while maximizing efficient recycling of parts and materials

# Appendix

## Peer analysis

Company							
Country	France 	United States 	United States 	United States 	United States 	Germany 	Sweden 
Revenue EBITDA EBITDA-Margin	5,951 m 1,817 m 30.5%	5,497 m 1,314 m 23.9%	2,097 m 581 m 27.7%	2,270 m 768 m 33.8%	1,228 m 320 m 26.1%	851 m 260 m 30.6%	5,440 m 2,030 m 37,3%
Software	<p><b>PDE<sup>1</sup></b></p>  <p><b>AEC<sup>2</sup></b></p>  <p><b>SIM/DT<sup>3</sup></b></p> 	<p><b>PDE<sup>1</sup></b></p>  <p><b>AEC<sup>2</sup></b></p> 	<p><b>PDE<sup>1</sup></b></p>  <p><b>SIM/DT<sup>3</sup></b></p> 	<p><b>AEC<sup>2</sup></b></p>  <p><b>SIM/DT<sup>3</sup></b></p> 	<p><b>PDE<sup>1</sup></b></p>  <p><b>SIM/DT<sup>3</sup></b></p> 	<p><b>AEC<sup>2</sup></b></p> 	<p><b>PDE<sup>1</sup></b></p>  <p><b>AEC<sup>2</sup></b></p>  <p><b>SIM/DT<sup>3</sup></b></p> 

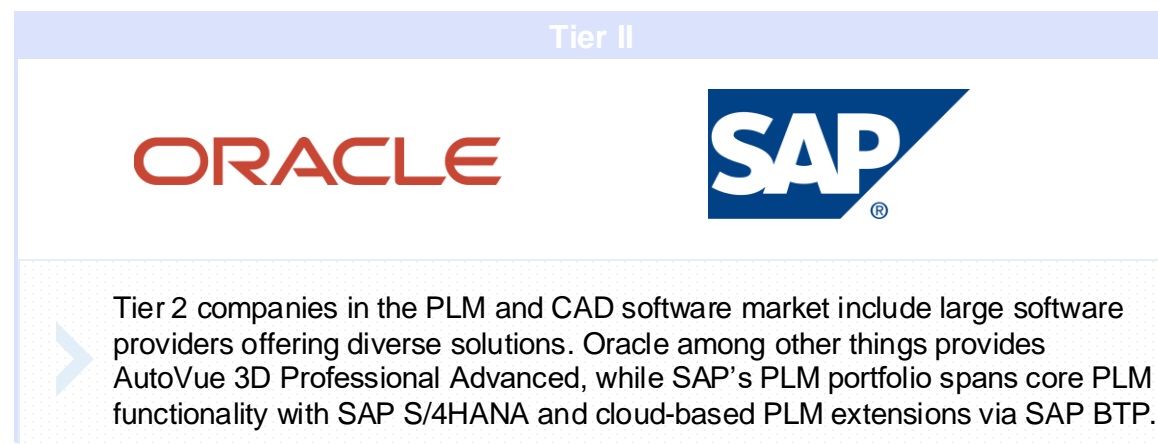
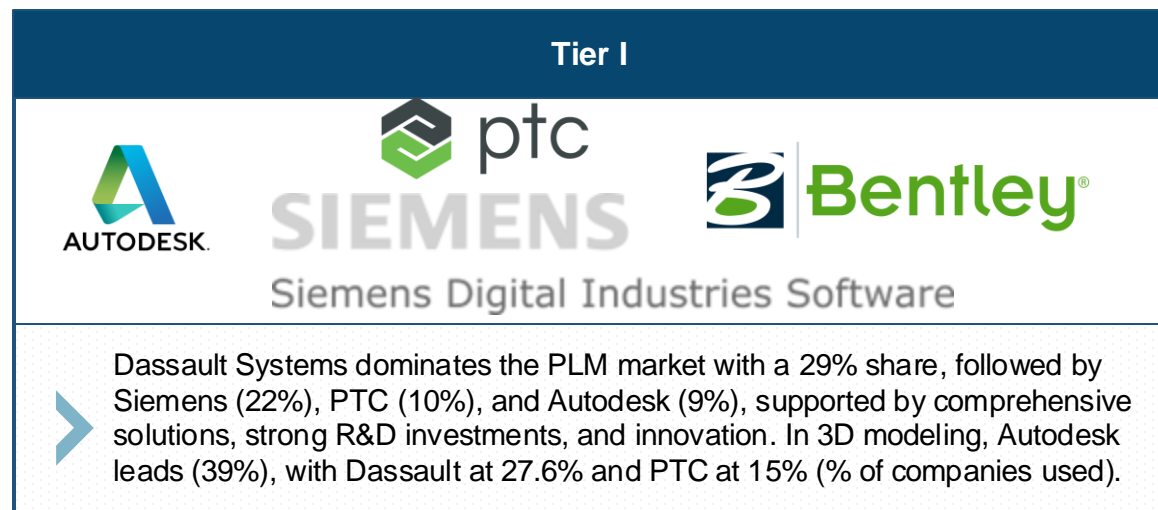
<sup>1</sup>PDE: Product Design and Engineering

<sup>2</sup>AEC: Architecture, Engineering, and Construction

<sup>3</sup>SIM/DT: Simulation, IoT, and Digital Twin

## Competitors overview

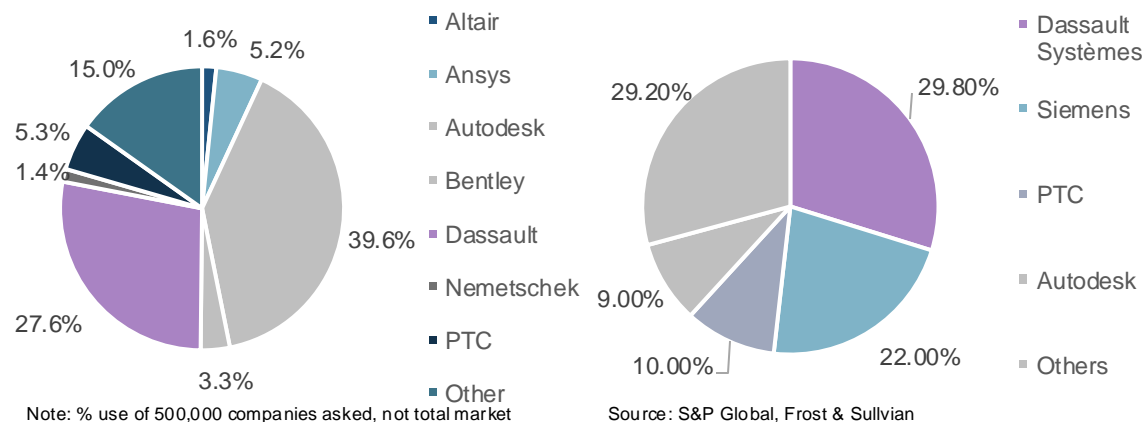
### Peer Group Overview



### M&A Activity (Company Lifetime)

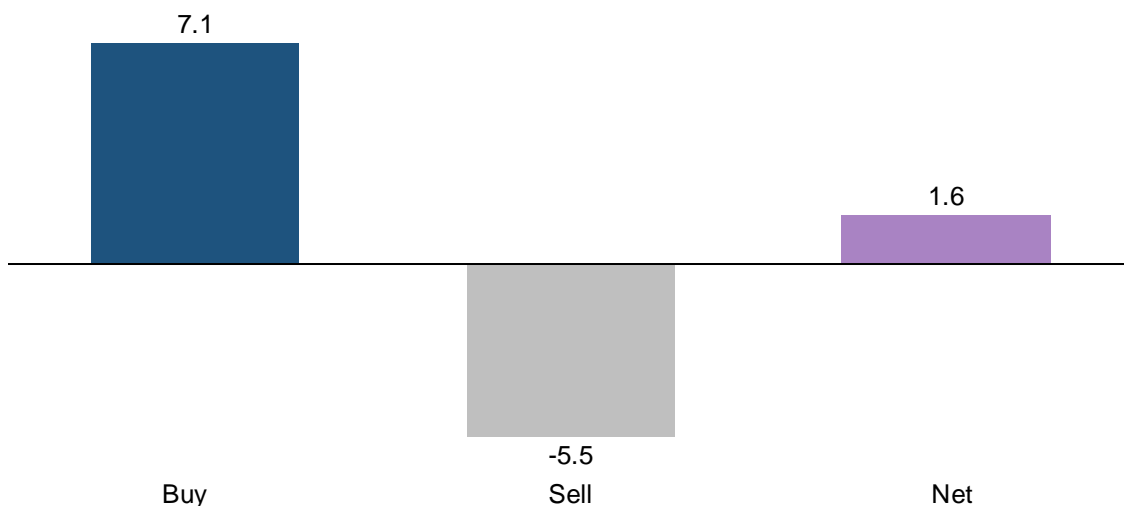


### % of CAD Software used by Companies (500tsd.)



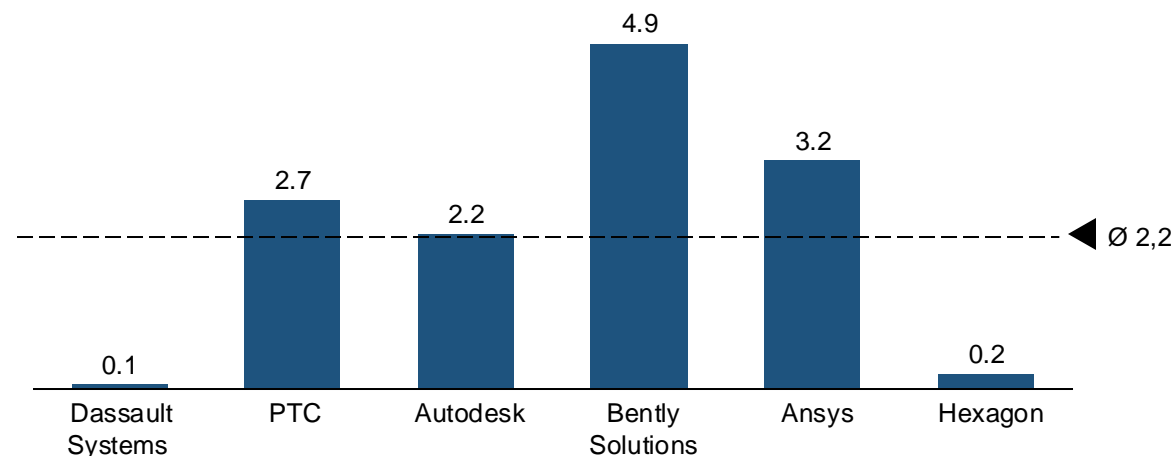
## Short interest & directors dealings

### Significant Directors Dealings (in EUR m)



Date	Name & Position	Deal Type	Value of Trade
27.02.24	Erik Swedberg, Executive Vice President	Sell	€ 3,095,002
31.03.24	Charles Edelstenne, Chairman of the Board	Buy	€ 2,971,887
01.02.24	Erik Swedberg, Executive Vice President	Sell	€ 2,527,398
26.06.24	Charles Edelstenne, Chairman of the Board	Buy	€ 2,440,428
26.06.24	Charles Edelstenne, Chairman of the Board	Buy	€ 1,734,799

### Short Interest Ratio (as of 31.12.2024)



### Comment

- **Strong Insider Confidence:** Net positive director dealings of **€1.6m**, indicating insider confidence in the company's future.
- **Key Executives Buying Shares:** Chairman of the Board, **Charles Edelstenne**, made multiple buy transactions, reinforcing trust in long-term value.
- **Favorable Short Interest:** **Dassault Systèmes** has a very low **short interest ratio** compared to peers, signaling strong investor confidence.
- **Competitive Industry Positioning:** The company faces **less shorting pressure** than competitors, highlighting a more stable investor sentiment.

### Structure

Groupe Dassault



**Industry:** 3D related software  
**Employees:** 23,800  
**Main customers:** industrial companies

**GROUPE FIGARO**

**Industry:** media and advertising  
**Employees:** 2,000  
**Journalists:** 500



**Industry:** aerospace and defence  
**Employees:** 13,533  
**Main customers:** governments



**Industry:** real estate  
**Employees:** 11  
**Portfolio:** 14 real estate assets

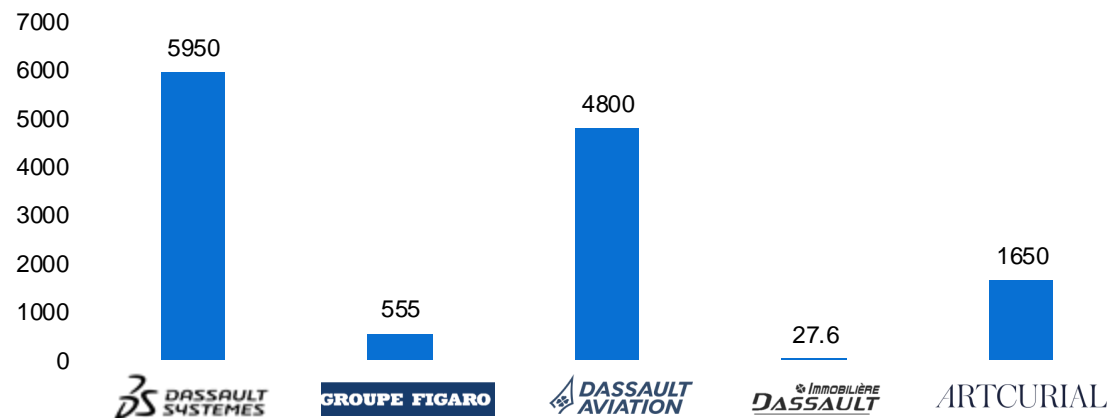
**ARTCURIAL**

**Industry:** auctions (art, RE, horses)  
**Employees:** 680  
**Countries of operation:** 25



**Industry:** viticulture  
**Size:** 60 hectares  
**Rank:** Grand Cru Classé

### Group Revenue Split (in EUR mn)



### Values



**Passion**  
 Inspired by the founder of Dassault Group, Marcell Dassault



**Innovation**  
 Commitment to embracing change



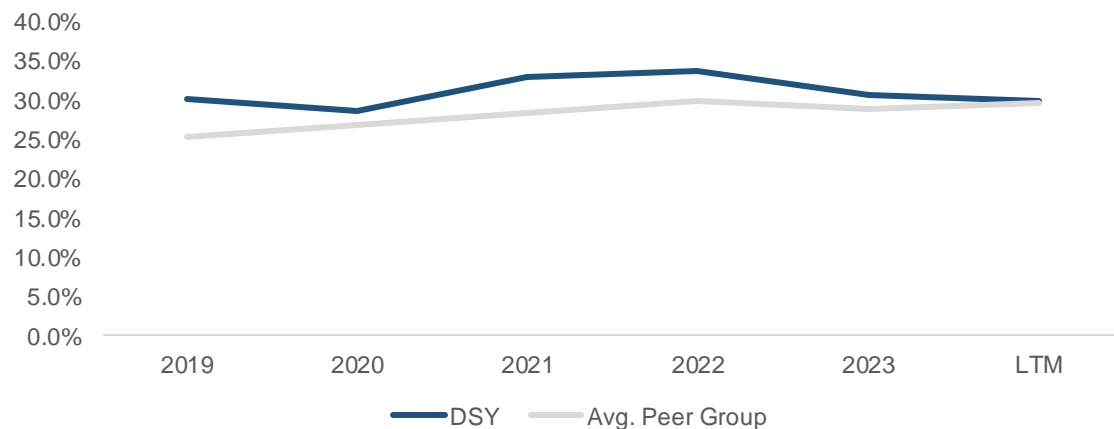
**Excellence**  
 Continuous quest for improvement enhancing trust



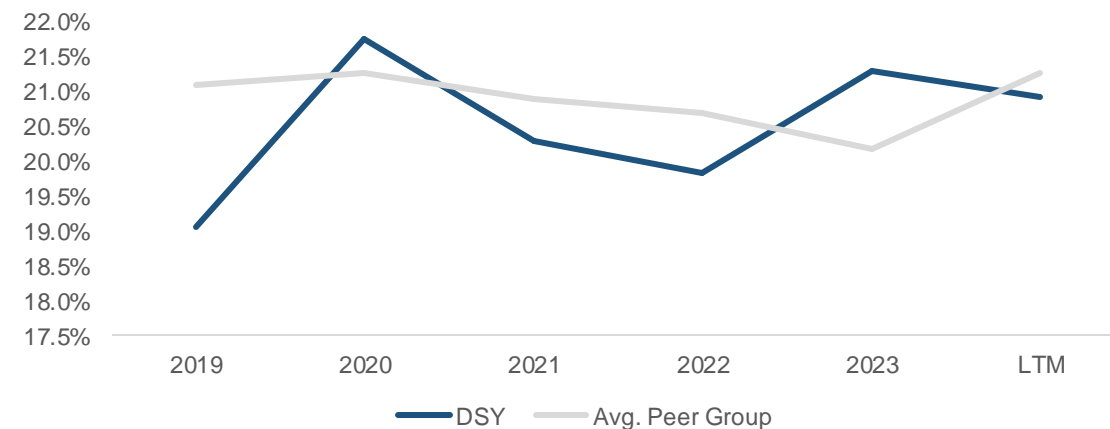
**Commitment**  
 Dedication to making a positive global impact

## Historical financial analysis

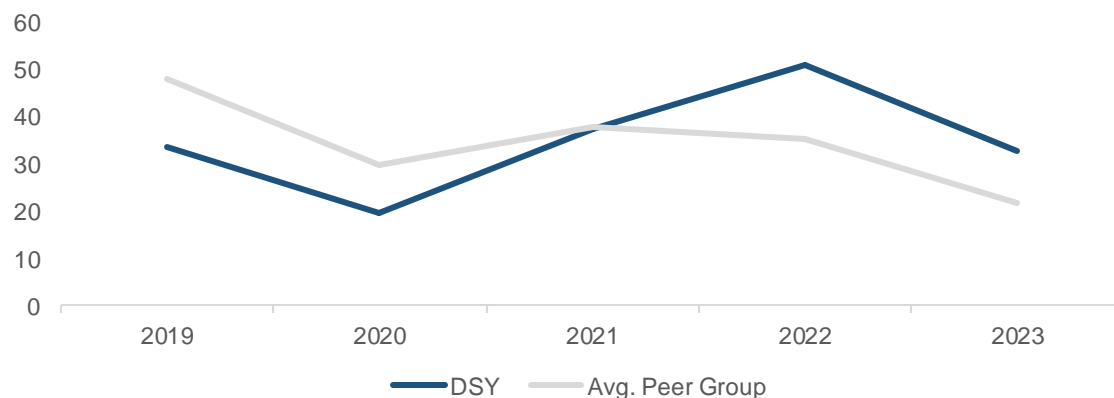
### EBITDA - Margin



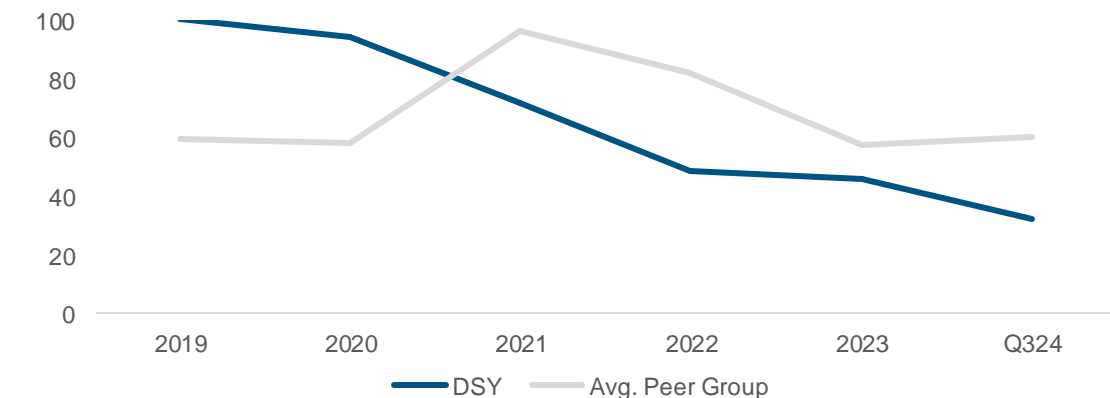
### R&D Spending as % of revenue



### Interest Coverage Ratio



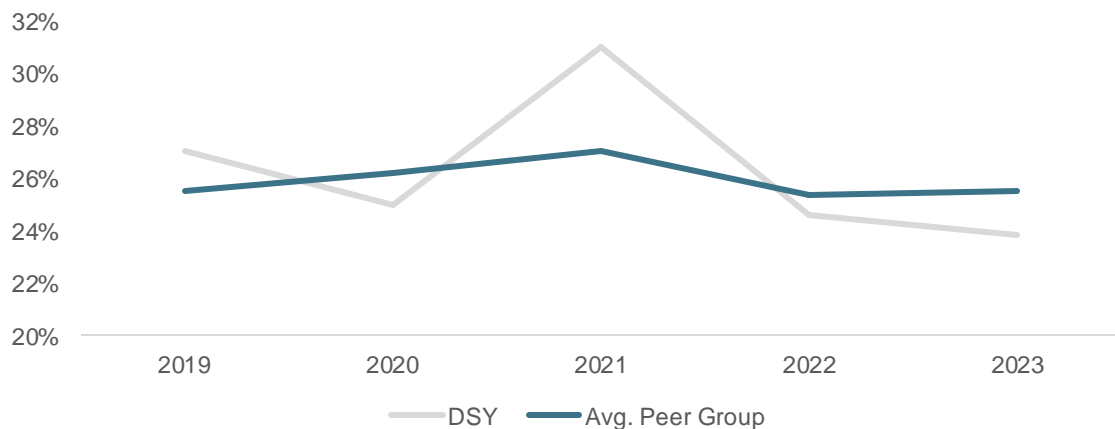
### Debt / Equity



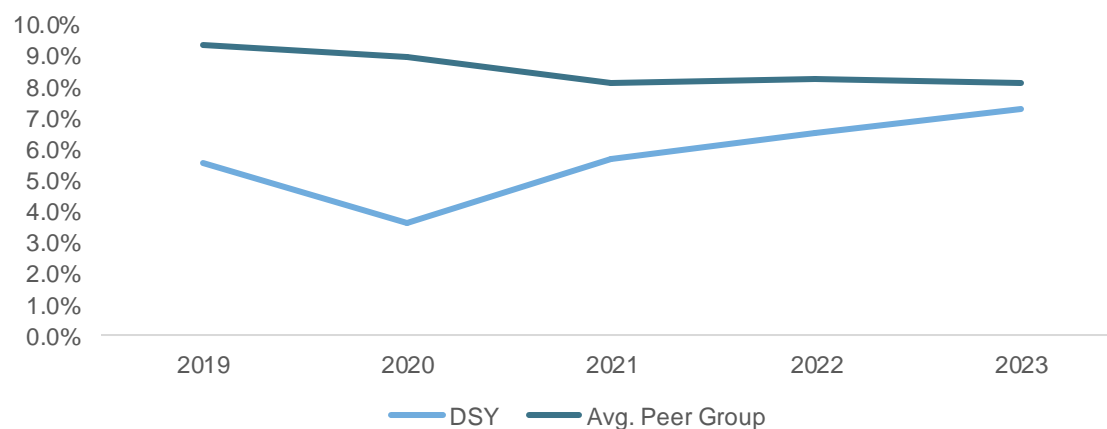


## Historical financial analysis

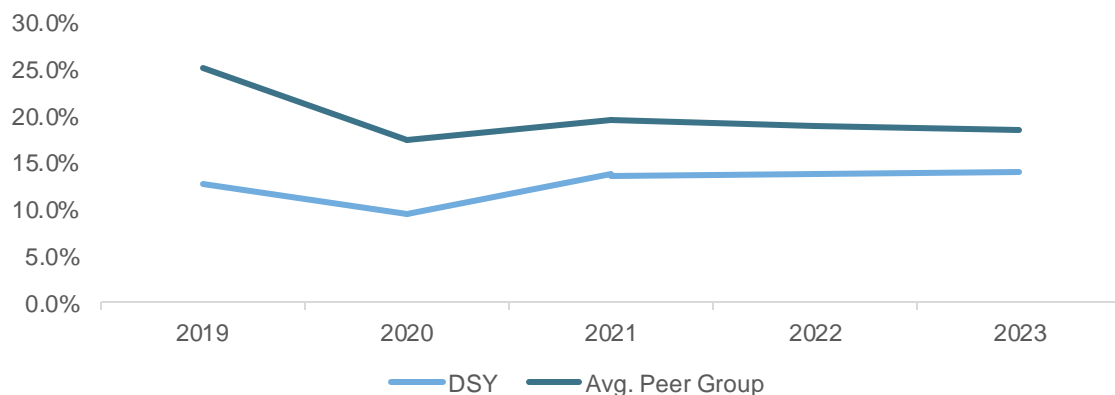
### FCF - Margin



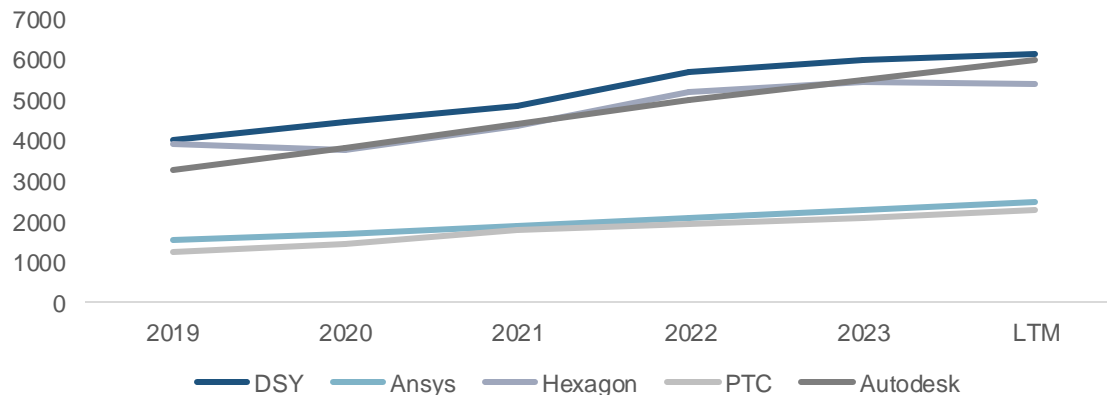
### ROA



### ROE



### Revenue vs Peers



# Appendix

## Valuation: forecasting period (base case)

### Discounted Cash Flow

DCF Valuation	FY 2022A	FY 2023A	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	TV (Multiple)	TV (Perpetuity)
Valuation Date: 100 DD, YYYY	Dec 31, 2022	Dec 31, 2023	Dec 31, 2024	Dec 31, 2025	Dec 31, 2026	Dec 31, 2027	Dec 31, 2028	Dec 31, 2028	Dec 31, 2028
<i>in € millions</i>									
<b>Net Sales</b>	<b>5,665.3</b>	<b>5,951.4</b>	<b>6,369.5</b>	<b>6,822.2</b>	<b>7,346.6</b>	<b>7,906.8</b>	<b>8,561.1</b>		
<i>Growth YoY (%)</i>	16.6%	5.1%	7.0%	7.1%	7.7%	7.6%	8.3%		
<b>Gross Profit</b>	<b>4,746.0</b>	<b>4,980.4</b>	<b>5,333.4</b>	<b>5,712.2</b>	<b>6,173.4</b>	<b>6,644.1</b>	<b>7,193.9</b>		
<i>Gross Profit Margin (%)</i>	83.8%	83.7%	83.7%	83.7%	84.0%	84.0%	84.0%		
<b>EBITDA</b>	<b>1,913.9</b>	<b>1,816.9</b>	<b>2,062.7</b>	<b>2,209.1</b>	<b>2,401.0</b>	<b>2,584.0</b>	<b>2,797.9</b>		
<i>EBITDA Margin (%)</i>	33.8%	30.5%	32.4%	32.4%	32.7%	32.7%	32.7%		
<b>EBIT</b>	<b>1,303.1</b>	<b>1,241.9</b>	<b>1,615.6</b>	<b>1,755.1</b>	<b>1,925.1</b>	<b>2,312.0</b>	<b>2,520.3</b>		
<i>EBIT Margin (%)</i>	23.0%	20.9%	25.4%	25.7%	26.2%	29.2%	29.4%		
- Taxes	(374.6)	(239.3)	(311.4)	(338.2)	(371.0)	(445.5)	(485.7)		
<i>Tax rate (%)</i>	28.7%	19.3%	19.3%	19.3%	19.3%	19.3%	19.3%		
<b>NOPLAT</b>	<b>928.5</b>	<b>1,002.6</b>	<b>1,304.3</b>	<b>1,416.9</b>	<b>1,554.1</b>	<b>1,866.4</b>	<b>2,034.6</b>		
+ Depreciation & Amort.	610.8	575.0	447.0	454.0	475.8	272.1	277.6		
- Change in NWC	(82.6)	(129.2)	352.3	195.6	193.1	245.8	241.5		
- Capital Expenditures	(132.3)	(145.3)	(224.9)	(240.8)	(259.4)	(279.1)	(302.2)		
<b>Unlevered FCF</b>	<b>1,324.4</b>	<b>1,303.1</b>	<b>1,878.8</b>	<b>1,825.6</b>	<b>1,963.7</b>	<b>2,105.2</b>	<b>2,251.4</b>	<b>65,469.7</b>	<b>60,486.2</b>
<i>in % of Net Sales</i>	23.4%	21.9%	29.5%	26.8%	26.7%	26.6%	26.3%	23.4x EBITDA	g = 2.8%
Partial Period Adjustment			1.00	1.00	1.00	1.00	1.00		
<b>Adjusted UFCFs</b>			<b>1,878.8</b>	<b>1,825.6</b>	<b>1,963.7</b>	<b>2,105.2</b>	<b>2,251.4</b>	<b>65,469.7</b>	<b>60,486.2</b>
<i>WACC (%)</i>			6.63%	6.63%	6.63%	6.63%	6.63%	6.63%	6.63%
Periods for Discounting			1.00	2.00	3.00	4.00	5.00	5.00	5.00
Discount Factor			0.94	0.88	0.82	0.77	0.73	0.73	0.73
<b>PV of Adjusted UFCFs</b>			<b>1,762.0</b>	<b>1,605.7</b>	<b>1,619.9</b>	<b>1,628.7</b>	<b>1,633.5</b>	<b>47,502.5</b>	<b>43,886.7</b>

# Appendix

## Valuation: equity bridge and sensitivity (base case)

		Exit Multiple	Perpetuity
PV Sum of Adjusted UFCFs	14.8%	8,249.8	8,249.8
PV of Terminal Value	85.2%	47,502.5	43,886.7
<b>Enterprise Value (EV)</b>	<b>100.0%</b>	<b>55,752.3</b>	<b>52,136.5</b>
- Total Debt (incl. Leases)		(2,990.7)	(2,990.7)
+ Cash & ST Investments		3,568.3	3,568.3
<b>= (Net Debt)</b>		<b>577.6</b>	<b>577.6</b>
- Preferred Shares		0.0	0.0
- Non-controlling Interests		(11.9)	(11.9)
<b>Implied Equity Value</b>		<b>56,318.0</b>	<b>52,702.2</b>
/ Shares Outstanding		1,314,780,479	1,314,780,479
<b>Implied Price per Share</b>		<b>€ 42.83</b>	<b>€ 40.08</b>
Current share price		€ 36.00	€ 36.00
Upside-/Downside potential		19%	11%

		Sensitivity				
		Share Price				
		Exit Multiple				
WACC		13.40	18.40	23.40	28.40	33.40
5.63%		28.57	36.66	44.76	52.85	60.94
6.13%		27.97	35.88	43.78	51.69	59.59
6.63%		27.39	35.11	<b>42.83</b>	50.55	58.27
7.13%		26.83	34.37	41.91	49.45	57.00
7.63%		26.28	33.65	41.02	48.38	55.75

		Sensitivity				
		Share Price				
		TV growth rate				
WACC		1.8%	2.3%	2.8%	3.3%	3.8%
5.63%		41.53	46.94	54.25	64.71	80.90
6.13%		36.72	40.80	46.10	53.28	63.55
6.63%		32.91	36.08	<b>40.08</b>	45.29	52.33
7.13%		29.82	32.34	35.46	39.38	44.49
7.63%		27.25	29.31	31.79	34.85	38.70

**Clear upside potential** in both approaches: Perpetuity and Exit Multiple. However, due to the **nature of the industry**, the **exit multiple seems more appropriate**

## Valuation: income statement (base case)

Income Statement	FY 2018A	FY 2019A	FY 2020A	FY 2021A	FY 2022A	FY 2023A	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E
in € millions	31 Dez 2018	31 Dez 2019	31 Dez 2020	31 Dez 2021	31 Dez 2022	31 Dez 2023	31 Dez 2024	31 Dez 2025	31 Dez 2026	31 Dez 2027	31 Dez 2028
<b>Net Sales</b>	<b>3,477.4</b>	<b>4,018.2</b>	<b>4,452.2</b>	<b>4,860.1</b>	<b>5,665.3</b>	<b>5,951.4</b>	<b>6,369.5</b>	<b>6,822.2</b>	<b>7,346.6</b>	<b>7,906.8</b>	<b>8,561.1</b>
<i>Growth YoY (%)</i>	<i>n.a.</i>	<i>15.6%</i>	<i>10.8%</i>	<i>9.2%</i>	<i>16.6%</i>	<i>5.1%</i>	<i>7.0%</i>	<i>7.1%</i>	<i>7.7%</i>	<i>7.6%</i>	<i>8.3%</i>
- Cost of Sales	(510.8)	(633.6)	(749.6)	(790.3)	(919.3)	(971.0)	(1,036.2)	(1,110.0)	(1,173.3)	(1,262.7)	(1,367.2)
<b>Gross Profit</b>	<b>2,966.6</b>	<b>3,384.6</b>	<b>3,702.6</b>	<b>4,069.8</b>	<b>4,746.0</b>	<b>4,980.4</b>	<b>5,333.4</b>	<b>5,712.2</b>	<b>6,173.4</b>	<b>6,644.1</b>	<b>7,193.9</b>
<i>Gross Profit Margin (%)</i>	<i>85.3%</i>	<i>84.2%</i>	<i>83.2%</i>	<i>83.7%</i>	<i>83.8%</i>	<i>83.7%</i>	<i>83.7%</i>	<i>83.7%</i>	<i>84.0%</i>	<i>84.0%</i>	<i>84.0%</i>
Research and development expenses*	(610.5)	(689.7)	(860.9)	(875.8)	(1,012.5)	(1,156.6)	(1,161.2)	(1,243.8)	(1,339.4)	(1,441.5)	(1,560.8)
<i>% of sales</i>	<i>(17.6%)</i>	<i>(17.2%)</i>	<i>(19.3%)</i>	<i>(18.0%)</i>	<i>(17.9%)</i>	<i>(19.4%)</i>	<i>(18.2%)</i>	<i>(18.2%)</i>	<i>(18.2%)</i>	<i>(18.2%)</i>	<i>(18.2%)</i>
Marketing and sales expenses*	(1,034.9)	(1,146.2)	(1,156.3)	(1,199.3)	(1,399.4)	(1,529.7)	(1,594.1)	(1,707.4)	(1,838.6)	(1,978.8)	(2,142.5)
<i>% of sales</i>	<i>(29.8%)</i>	<i>(28.5%)</i>	<i>(26.0%)</i>	<i>(24.7%)</i>	<i>(24.7%)</i>	<i>(25.7%)</i>	<i>(25.0%)</i>	<i>(25.0%)</i>	<i>(25.0%)</i>	<i>(25.0%)</i>	<i>(25.0%)</i>
General and administrative expenses*	(278.0)	(308.0)	(359.6)	(369.8)	(405.3)	(424.3)	(464.8)	(497.8)	(536.1)	(577.0)	(624.7)
<i>% of sales</i>	<i>(8.0%)</i>	<i>(7.7%)</i>	<i>(8.1%)</i>	<i>(7.6%)</i>	<i>(7.2%)</i>	<i>(7.1%)</i>	<i>(7.3%)</i>	<i>(7.3%)</i>	<i>(7.3%)</i>	<i>(7.3%)</i>	<i>(7.3%)</i>
Others*	(37.1)	(31.9)	(51.5)	(28.9)	(14.9)	(52.9)	(50.6)	(54.2)	(58.4)	(62.8)	(68.0)
<i>% of sales</i>	<i>(1.1%)</i>	<i>(0.8%)</i>	<i>(1.2%)</i>	<i>(0.6%)</i>	<i>(0.3%)</i>	<i>(0.9%)</i>	<i>(0.8%)</i>	<i>(0.8%)</i>	<i>(0.8%)</i>	<i>(0.8%)</i>	<i>(0.8%)</i>
<b>EBITDA</b>	<b>1,006.0</b>	<b>1,208.8</b>	<b>1,274.2</b>	<b>1,596.1</b>	<b>1,913.9</b>	<b>1,816.9</b>	<b>2,062.7</b>	<b>2,209.1</b>	<b>2,401.0</b>	<b>2,584.0</b>	<b>2,797.9</b>
* depreciation has been deducted by magnitude											
<i>EBITDA Margin (%)</i>	<i>28.9%</i>	<i>30.1%</i>	<i>28.6%</i>	<i>32.8%</i>	<i>33.8%</i>	<i>30.5%</i>	<i>32.4%</i>	<i>32.4%</i>	<i>32.7%</i>	<i>32.7%</i>	<i>32.7%</i>
- Depreciation & Amortization	(237.7)	(396.0)	(604.5)	(576.6)	(610.8)	(575.0)	(447.0)	(454.0)	(475.8)	(272.1)	(277.6)
<b>EBIT</b>	<b>768.3</b>	<b>812.8</b>	<b>669.7</b>	<b>1,019.5</b>	<b>1,303.1</b>	<b>1,241.9</b>	<b>1,615.6</b>	<b>1,755.1</b>	<b>1,925.1</b>	<b>2,312.0</b>	<b>2,520.3</b>
<i>EBIT Margin (%)</i>	<i>22.1%</i>	<i>20.2%</i>	<i>15.0%</i>	<i>21.0%</i>	<i>23.0%</i>	<i>20.9%</i>	<i>25.4%</i>	<i>25.7%</i>	<i>26.2%</i>	<i>29.2%</i>	<i>29.4%</i>
Interest, Net	15.5	3.1	(23.4)	(15.1)	2.8	59.0	0.0	0.0	0.0	0.0	0.0
<b>EBT</b>	<b>783.8</b>	<b>815.9</b>	<b>646.3</b>	<b>1,004.4</b>	<b>1,305.9</b>	<b>1,300.9</b>	<b>1,615.6</b>	<b>1,755.1</b>	<b>1,925.1</b>	<b>2,312.0</b>	<b>2,520.3</b>
- Income Tax Expense	(220.4)	(209.6)	(160.8)	(230.4)	(375.4)	(250.7)	(311.4)	(338.2)	(371.0)	(445.5)	(485.7)
<b>Taxes</b>	<b>(220.4)</b>	<b>(209.6)</b>	<b>(160.8)</b>	<b>(230.4)</b>	<b>(375.4)</b>	<b>(250.7)</b>	<b>(311.4)</b>	<b>(338.2)</b>	<b>(371.0)</b>	<b>(445.5)</b>	<b>(485.7)</b>
<i>Tax Rate (%)</i>	<i>(28.1%)</i>	<i>(25.7%)</i>	<i>(24.9%)</i>	<i>(22.9%)</i>	<i>(28.7%)</i>	<i>(19.3%)</i>	<i>(19.3%)</i>	<i>(19.3%)</i>	<i>(19.3%)</i>	<i>(19.3%)</i>	<i>(19.3%)</i>
<b>Net Income</b>	<b>563.4</b>	<b>606.3</b>	<b>485.5</b>	<b>774.0</b>	<b>930.5</b>	<b>1,050.2</b>	<b>1,304.3</b>	<b>1,416.9</b>	<b>1,554.1</b>	<b>1,866.4</b>	<b>2,034.6</b>

# Appendix

## Valuation: balance Sheet (base case)

Balance Sheet		FY 2019A	FY 2020A	FY 2021A	FY 2022A	FY 2023A	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E
<b>Current Assets</b>											
Cash and cash equivalents	2,809.3	1,944.9	2,148.9	2,979.5	2,769.0	3,568.3	5,095.6	6,525.2	8,039.0	9,585.1	11,206.8
Trade accounts receivable, net	1,044.1	1,319.2	1,229.1	1,366.3	1,661.6	1,707.9	1,740.3	1,813.0	1,892.0	1,971.3	2,058.4
Contract assets	26.5	26.9	27.0	12.7	20.3	26.8	24.4	22.4	20.1	19.5	21.1
Other current assets	321.9	378.0	355.4	360.5	393.4	477.1	447.2	461.6	476.9	491.6	507.4
<b>Total Current Assets</b>	<b>4,201.8</b>	<b>3,669.0</b>	<b>3,760.4</b>	<b>4,719.0</b>	<b>4,844.3</b>	<b>5,780.1</b>	<b>7,307.5</b>	<b>8,822.2</b>	<b>10,428.0</b>	<b>12,067.5</b>	<b>13,793.7</b>
<b>Non-Current Assets</b>											
Property and equipment, net	178.2	899.7	861.1	817.0	819.9	882.8	813.4	778.7	769.5	778.8	803.5
Intangible assets, net	1,137.8	4,186.1	3,546.8	3,462.5	3,302.4	2,842.1	2,689.3	2,510.8	2,303.6	2,301.3	2,301.2
Goodwill	2,124.5	4,730.9	4,390.5	4,712.4	4,971.1	4,805.0	4,805.0	4,805.0	4,805.0	4,805.0	4,805.0
Other non-current assets	331.7	386.9	405.5	507.7	323.3	312.6	312.6	312.6	312.6	312.6	312.6
<b>Total Non-Current Assets</b>	<b>3,772.2</b>	<b>10,203.6</b>	<b>9,203.9</b>	<b>9,499.6</b>	<b>9,416.7</b>	<b>8,842.5</b>	<b>8,620.2</b>	<b>8,407.1</b>	<b>8,190.6</b>	<b>8,197.7</b>	<b>8,222.4</b>
<b>Total Assets</b>	<b>7,974.0</b>	<b>13,872.6</b>	<b>12,964.3</b>	<b>14,218.6</b>	<b>14,261.0</b>	<b>14,622.6</b>	<b>15,927.7</b>	<b>17,229.3</b>	<b>18,618.6</b>	<b>20,265.2</b>	<b>22,016.1</b>
<b>Current Liabilities</b>											
Trade accounts payable	161.7	220.0	171.7	192.4	216.3	230.5	249.1	279.8	308.6	346.0	373.6
Contract liabilities	907.5	1,093.5	1,169.1	1,304.4	1,536.6	1,479.3	1,626.9	1,766.0	1,921.9	2,090.1	2,256.8
Borrowings, current	350.0	4.4	16.0	903.3	258.6	950.1	950.1	950.1	950.1	950.1	950.1
Other current liabilities	603.6	816.0	730.0	1,070.3	869.6	901.0	1,087.1	1,198.1	1,298.6	1,432.2	1,583.8
<b>Total Current Liabilities</b>	<b>2,022.8</b>	<b>2,133.9</b>	<b>2,086.8</b>	<b>3,470.4</b>	<b>2,881.1</b>	<b>3,560.9</b>	<b>3,913.2</b>	<b>4,194.0</b>	<b>4,479.1</b>	<b>4,818.3</b>	<b>5,164.3</b>
<b>Non-Current Liabilities</b>											
Borrowings, non-current	650.0	4,596.8	4,174.3	2,966.4	2,737.4	2,040.6	2,040.6	2,040.6	2,040.6	2,040.6	2,040.6
Other non-current liabilities	675.4	1,879.4	1,596.8	1,571.0	1,317.8	1,174.8	1,174.8	1,174.8	1,174.8	1,174.8	1,174.8
<b>Total Non-Current Liabilities</b>	<b>1,325.4</b>	<b>6,476.2</b>	<b>5,771.1</b>	<b>4,537.4</b>	<b>4,055.2</b>	<b>3,215.4</b>	<b>3,215.4</b>	<b>3,215.4</b>	<b>3,215.4</b>	<b>3,215.4</b>	<b>3,215.4</b>
<b>Shareholders' Equity</b>											
Common stock	131.4	132.0	132.6	133.3	133.5	133.8	133.8	133.8	133.8	133.8	133.8
Share premium	766.3	863.3	954.0	1,108.0	1,128.3	1,173.2	1,173.2	1,173.2	1,173.2	1,173.2	1,173.2
Retained earnings and other reserves	4,003.5	4,653.2	5,043.7	5,712.6	6,307.8	7,170.1	8,122.9	9,143.7	10,247.9	11,555.3	12,960.2
Other	(339.2)	(439.8)	(1,069.0)	(756.5)	(258.9)	(643.0)	(643.0)	(643.0)	(643.0)	(643.0)	(643.0)
<b>Total parent shareholders' equity</b>	<b>4,562.0</b>	<b>5,208.7</b>	<b>5,061.3</b>	<b>6,197.4</b>	<b>7,310.7</b>	<b>7,834.1</b>	<b>8,786.9</b>	<b>9,807.7</b>	<b>10,911.9</b>	<b>12,219.3</b>	<b>13,624.2</b>
Non-controlling interests	63.9	53.9	44.8	13.7	14.2	11.9	11.9	11.9	11.9	11.9	11.9
<b>Total equity</b>	<b>4,625.9</b>	<b>5,262.6</b>	<b>5,106.1</b>	<b>6,211.1</b>	<b>7,324.9</b>	<b>7,846.0</b>	<b>8,798.8</b>	<b>9,819.6</b>	<b>10,923.8</b>	<b>12,231.2</b>	<b>13,636.1</b>
<b>Total Liabilities and Equity</b>	<b>7,974.1</b>	<b>13,872.7</b>	<b>12,964.0</b>	<b>14,218.9</b>	<b>14,261.2</b>	<b>14,622.3</b>	<b>15,927.4</b>	<b>17,229.0</b>	<b>18,618.3</b>	<b>20,264.9</b>	<b>22,015.8</b>

# Appendix

## Valuation: assumptions

Assumptions	FY 2018A	FY 2019A	FY 2020A	FY 2021A	FY 2022A	FY 2023A	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E
<b>Global Digital Transformation Spending Growth</b>	n.a.	18.0%	11.0%	21.4%	19.5%	15.8%	13.6%	20.0%	13.3%	14.7%	15.4%
Bear							11.0%	17.4%	10.7%	12.1%	12.8%
Base							13.6%	20.0%	13.3%	14.7%	15.4%
Bull							18.9%	25.3%	18.6%	20.0%	20.7%
<b>Sales Growth YoY</b>	n.a.	15.6%	10.8%	9.2%	16.6%	5.1%	7.0%	7.1%	7.7%	7.6%	8.3%
Bear							5.7%	6.2%	6.2%	6.3%	6.9%
Base							7.0%	7.1%	7.7%	7.6%	8.3%
Bull							9.7%	9.0%	10.7%	10.3%	11.1%
<b>Gross Profit Margin %</b>	85.3%	84.2%	83.2%	83.7%	83.8%	83.7%	83.7%	83.7%	84.0%	84.0%	84.0%
Bear							83.7%	83.7%	83.7%	83.7%	83.7%
Base							83.7%	83.7%	84.0%	84.0%	84.0%
Bull							84.1%	84.5%	84.9%	85.2%	85.3%
<b>R&amp;D, % of Sales</b>	(17.6%)	(17.2%)	(19.3%)	(18.0%)	(17.9%)	(19.4%)	(18.2%)	(18.2%)	(18.2%)	(18.2%)	(18.2%)
Bear							(19.4%)	(19.4%)	(19.4%)	(19.4%)	(19.4%)
Base							(18.2%)	(18.2%)	(18.2%)	(18.2%)	(18.2%)
Bull							(18.2%)	(18.0%)	(18.0%)	(18.0%)	(18.0%)
<b>Marketing &amp; Sales, % Sales</b>	(29.8%)	(28.5%)	(26.0%)	(24.7%)	(24.7%)	(25.7%)	(25.0%)	(25.0%)	(25.0%)	(25.0%)	(25.0%)
Bear							(26.0%)	(26.0%)	(26.0%)	(26.0%)	(26.0%)
Base							(25.0%)	(25.0%)	(25.0%)	(25.0%)	(25.0%)
Bull							(24.9%)	(24.9%)	(24.9%)	(24.9%)	(24.9%)
<b>G&amp;A expenses</b>	(8.0%)	(7.7%)	(8.1%)	(7.6%)	(7.2%)	(7.1%)	(7.3%)	(7.3%)	(7.3%)	(7.3%)	(7.3%)
Bear							(7.6%)	(7.6%)	(7.6%)	(7.6%)	(7.6%)
Base							(7.3%)	(7.3%)	(7.3%)	(7.3%)	(7.3%)
Bull							(7.3%)	(7.2%)	(7.1%)	(7.0%)	(6.9%)
<b>Other Opex, % of Sales</b>	(1.1%)	(0.8%)	(1.2%)	(0.6%)	(0.3%)	(0.9%)	(0.8%)	(0.8%)	(0.8%)	(0.8%)	(0.8%)
Bear							(1.2%)	(1.2%)	(1.2%)	(1.2%)	(1.2%)
Base							(0.8%)	(0.8%)	(0.8%)	(0.8%)	(0.8%)
Bull							(0.8%)	(0.3%)	(0.3%)	(0.3%)	(0.3%)
<b>Taxrate, % of EBT</b>	(28.1%)	(25.7%)	(24.9%)	(22.9%)	(28.7%)	(19.3%)	(19.3%)	(19.3%)	(19.3%)	(19.3%)	(19.3%)
Bear							(21.3%)	(21.3%)	(21.3%)	(21.3%)	(21.3%)
Base							(19.3%)	(19.3%)	(19.3%)	(19.3%)	(19.3%)
Bull							(19.3%)	(19.3%)	(19.3%)	(19.3%)	(19.3%)
<b>Dividends payout ratio</b>	6.7%	27.8%	37.6%	19.0%	24.0%	26.3%	27.0%	28.0%	29.0%	30.0%	31.0%
Bear							28.0%	31.0%	34.0%	37.0%	40.0%
Base							27.0%	28.0%	29.0%	30.0%	31.0%
Bull							26.0%	26.5%	27.0%	27.5%	28.0%
<b>CapEx, % of sales</b>		9.3%	132.1%	4.9%	2.6%	3.2%	3.5%	3.5%	3.5%	3.5%	3.5%
Bear							4.0%	4.0%	4.0%	4.0%	4.3%
Base							3.5%	3.5%	3.5%	3.5%	3.5%
Bull							3.0%	3.0%	3.0%	3.0%	3.0%
<b>D&amp;I PPE</b>		13.7%	17.9%	19.6%	19.5%	16.9%	21.1%	19.8%	18.9%	18.2%	17.8%
<b>A&amp;I intangibles</b>		5.7%	9.7%	10.7%	11.8%	11.6%	7.9%	9.4%	11.4%	4.1%	4.3%

# Appendix

## Valuation: revenue forecast

Period	FY 2018A	FY 2019A	FY 2020A	FY 2021A	FY 2022A	FY 2023A	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E
<b>Total Net Sales</b>	<b>3477.4</b>	<b>4018.2</b>	<b>4452.2</b>	<b>4860.1</b>	<b>5665.3</b>	<b>5951.4</b>	<b>6369.5</b>	<b>6822.2</b>	<b>7346.6</b>	<b>7906.8</b>	<b>8561.1</b>
YoY Growth		16%	11%	9%	17%	5%	7.0%	7.1%	7.7%	7.6%	8.3%
<b>Breakdown by Segments</b>											
<b>Software revenue</b>	<b>3081.8</b>	<b>3539.4</b>	<b>4014.8</b>	<b>4402.8</b>	<b>5114.5</b>	<b>5360.2</b>	<b>5749.3</b>	<b>6157.9</b>	<b>6631.3</b>	<b>7136.9</b>	<b>7727.5</b>
YoY Growth		15%	13%	10%	16%	5%	7.3%	7.1%	7.7%	7.6%	8.3%
<b>Industrial Innovation</b>		<b>2391.6</b>	<b>2287.6</b>	<b>2417.9</b>	<b>2719.1</b>	<b>2908.0</b>	<b>3090.6</b>	<b>3271.9</b>	<b>3462.7</b>	<b>3674.9</b>	<b>3901.9</b>
YoY Growth			-4%	6%	12%	7%	6%	6%	6%	6%	6%
<b>Life Sciences</b>		<b>236.9</b>	<b>787.3</b>	<b>898.8</b>	<b>1126.2</b>	<b>1158.9</b>	<b>1290.9</b>	<b>1438.0</b>	<b>1601.4</b>	<b>1798.8</b>	<b>2020.7</b>
YoY Growth			232%	14%	25%	3%	11%	11%	11%	12%	12%
<b>Mainstream Innovation for SMEs</b>		<b>910.9</b>	<b>937.6</b>	<b>1085.9</b>	<b>1268.8</b>	<b>1293.2</b>	<b>1367.8</b>	<b>1448.0</b>	<b>1567.2</b>	<b>1663.2</b>	<b>1804.9</b>
% of Industrial Innovation		38%	41%	45%	47%	44%	44%	44%	45%	45%	46%
<b>Services revenue</b>	<b>395.6</b>	<b>478.8</b>	<b>439.6</b>	<b>457.5</b>	<b>551.2</b>	<b>591.4</b>	<b>620.2</b>	<b>664.3</b>	<b>715.4</b>	<b>769.9</b>	<b>833.6</b>
% of Software revenue		14%	11%	10%	11%	11%	11%	11%	11%	11%	11%

### Industrial Innovation Growth Rates

<b>Manufacturing Industries</b>	<b>6.02%</b>	<b>5.89%</b>	<b>6.06%</b>	<b>6.18%</b>	<b>6.12%</b>
Transportation & Mobility	6.39%	6.57%	6.10%	6.70%	7.20%
Passenger Cars	10.83%	7.85%	7.35%	7.09%	8.75%
Electric Vehicles	2.20%	5.40%	6.10%	6.70%	7.20%
Commercial Vehicles	6.39%	6.57%	3.37%	1.70%	0.86%
Aerospace & Defense	6.91%	6.91%	6.91%	6.91%	6.91%
Aerospace	7.80%	7.80%	7.80%	7.80%	7.80%
Defense	6.03%	6.03%	6.03%	6.03%	6.03%
Marine & Offshore	7.66%	7.66%	9.43%	9.43%	9.43%
Shipbuilding	3.21%	3.21%	3.21%	3.21%	3.21%
Offshore energy	12.10%	12.10%	12.10%	12.10%	12.10%
Industrial Equipment	3.82%	3.61%	3.75%	3.05%	2.64%
Agriculture	5.20%	5.00%	5.40%	4.10%	3.30%
Mining	2.44%	2.22%	2.10%	1.99%	1.97%
Manufacturing	1.40%	1.40%	1.50%	1.50%	1.50%
Hgh-Tech	8.30%	8.30%	8.30%	9.30%	9.30%
Home & Lifestyle	3.97%	3.83%	3.70%	3.70%	3.65%
Apparel	3.10%	2.80%	2.70%	2.70%	2.60%
Footwear	3.60%	2.30%	2.20%	2.30%	2.40%
Accessories	4.90%	4.70%	4.50%	4.60%	4.60%
Luxury Goods	4.30%	4.50%	4.20%	4.00%	3.80%
Furniture	3.60%	3.80%	3.80%	3.80%	3.80%
Household Appliances	4.30%	4.90%	4.80%	4.80%	4.70%

Consumer-Packaged Goods & Retail	5.10%	4.38%	4.25%	4.20%	3.67%
Food	7.50%	7.10%	7.10%	6.10%	6.10%
Alcoholic Beverages	3.49%	3.45%	3.40%	3.36%	2.51%
Non-alcoholic Beverages	7.30%	4.35%	3.57%	4.02%	3.86%
Home & Laundry Care	3.60%	3.40%	3.30%	3.20%	3.20%
Beauty & Personal Care	3.60%	3.60%	3.90%	4.30%	2.70%
<b>Infrastructure &amp; Cities</b>	<b>6.54%</b>	<b>5.84%</b>	<b>5.60%</b>	<b>6.07%</b>	<b>6.24%</b>
Infrastructure	6.27%	6.27%	6.27%	6.27%	6.27%
Energy Production	4.90%	2.80%	2.10%	2.50%	3.00%
Architecture, Engineering & Construction	8.44%	8.44%	8.44%	9.44%	9.44%
<b>Industrial Innovation Average Growth Rate</b>	<b>6.28%</b>	<b>5.87%</b>	<b>5.83%</b>	<b>6.13%</b>	<b>6.18%</b>
<b>Life Sciences Growth Rate</b>					
Pharmaceutical and BioTech	13.96%	13.96%	13.96%	14.96%	14.96%
MedTech	5.40%	5.40%	5.30%	6.20%	6.20%
<b>Life Sciences Growth Rate</b>	<b>11.39%</b>	<b>11.39%</b>	<b>11.36%</b>	<b>12.33%</b>	<b>12.33%</b>

# Appendix

## Valuation: forecasting period (bear case)

### Discounted Cash Flow

DCF Valuation	FY 2022A	FY 2023A	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	TV (Multiple)	TV (Perpetuity)
Valuation Date: 100 DD, YYYY	Dec 31, 2022	Dec 31, 2023	Dec 31, 2024	Dec 31, 2025	Dec 31, 2026	Dec 31, 2027	Dec 31, 2028	Dec 31, 2028	Dec 31, 2028
<i>in € millions</i>									
<b>Net Sales</b>	<b>5,665.3</b>	<b>5,951.4</b>	<b>6,289.2</b>	<b>6,677.6</b>	<b>7,090.1</b>	<b>7,534.5</b>	<b>8,052.0</b>		
<i>Growth YoY (%)</i>	16.6%	5.1%	5.7%	6.2%	6.2%	6.3%	6.9%		
<b>Gross Profit</b>	<b>4,746.0</b>	<b>4,980.4</b>	<b>5,266.1</b>	<b>5,591.3</b>	<b>5,936.7</b>	<b>6,308.8</b>	<b>6,742.1</b>		
<i>Gross Profit Margin (%)</i>	83.8%	83.7%	83.7%	83.7%	83.7%	83.7%	83.7%		
<b>EBITDA</b>	<b>1,913.9</b>	<b>1,816.9</b>	<b>1,855.9</b>	<b>1,970.5</b>	<b>2,092.2</b>	<b>2,223.4</b>	<b>2,376.1</b>		
<i>EBITDA Margin (%)</i>	33.8%	30.5%	29.5%	29.5%	29.5%	29.5%	29.5%		
<b>EBIT</b>	<b>1,303.1</b>	<b>1,241.9</b>	<b>1,350.2</b>	<b>1,469.1</b>	<b>1,596.2</b>	<b>1,875.3</b>	<b>2,037.3</b>		
<i>EBIT Margin (%)</i>	23.0%	20.9%	21.5%	22.0%	22.5%	24.9%	25.3%		
- Taxes	(374.6)	(239.3)	(260.2)	(283.1)	(307.6)	(361.4)	(392.6)		
<i>Tax rate (%)</i>	28.7%	19.3%	19.3%	19.3%	19.3%	19.3%	19.3%		
<b>NOPLAT</b>	<b>928.5</b>	<b>1,002.6</b>	<b>1,090.0</b>	<b>1,186.0</b>	<b>1,288.6</b>	<b>1,513.9</b>	<b>1,644.7</b>		
+ Depreciation & Amort.	610.8	575.0	505.7	501.4	496.0	348.1	338.7		
- Change in NWC	(82.6)	(129.2)	342.8	184.8	202.5	223.1	212.7		
- Capital Expenditures	(132.3)	(145.3)	(251.6)	(269.1)	(285.8)	(303.7)	(346.2)		
<b>Unlevered FCF</b>	<b>1,324.4</b>	<b>1,303.1</b>	<b>1,687.0</b>	<b>1,603.0</b>	<b>1,701.3</b>	<b>1,781.3</b>	<b>1,849.9</b>	<b>55,600.0</b>	<b>49,700.1</b>
<i>in % of Net Sales</i>	23.4%	21.9%	26.8%	24.0%	24.0%	23.6%	23.0%	23.4x EBITDA	g = 2.8%
Partial Period Adjustment			1.00	1.00	1.00	1.00	1.00		
<b>Adjusted UFCFs</b>			<b>1,687.0</b>	<b>1,603.0</b>	<b>1,701.3</b>	<b>1,781.3</b>	<b>1,849.9</b>	<b>55,600.0</b>	<b>49,700.1</b>
<i>WACC (%)</i>			6.63%	6.63%	6.63%	6.63%	6.63%	6.63%	6.63%
Periods for Discounting			1.00	2.00	3.00	4.00	5.00	5.00	5.00
Discount Factor			0.94	0.88	0.82	0.77	0.73	0.73	0.73
<b>PV of Adjusted UFCFs</b>			<b>1,582.1</b>	<b>1,410.0</b>	<b>1,403.5</b>	<b>1,378.1</b>	<b>1,342.2</b>	<b>40,341.4</b>	<b>36,060.6</b>



## Valuation: equity bridge and sensitivity (bear case)

		Exit Multiple	Perpetuity
PV Sum of Adjusted UFCFs	15.0%	7,115.9	7,115.9
PV of Terminal Value	85.0%	40,341.4	36,060.6
<b>Enterprise Value (EV)</b>	<b>100.0%</b>	<b>47,457.4</b>	<b>43,176.5</b>
- Total Debt (incl. Leases)		(2,990.7)	(2,990.7)
+ Cash & ST Investments		3,568.3	3,568.3
<b>= (Net Debt)</b>		<b>577.6</b>	<b>577.6</b>
- Preferred Shares		0.0	0.0
- Non-controlling Interests		(11.9)	(11.9)
<b>Implied Equity Value</b>		<b>48,023.1</b>	<b>43,742.2</b>
/ Shares Outstanding		1,314,780,479	1,314,780,479
<b>Implied Price per Share</b>		<b>€ 36.53</b>	<b>€ 33.27</b>
Current share price		€ 36.00	€ 36.00
Upside-/Downside potential		1%	-8%

		Sensitivity				
		Share Price				
		Exit Multiple				
WACC		13.40	18.40	23.40	28.40	33.40
5.63%	24.41	31.29	38.16	45.03	51.90	
6.13%	23.91	30.62	37.33	44.04	50.75	
6.63%	23.41	29.97	<b>36.53</b>	43.08	49.64	
7.13%	22.93	29.34	35.74	42.15	48.55	
7.63%	22.47	28.72	34.98	41.24	47.50	

		Sensitivity				
		Share Price				
		TV growth rate				
WACC		1.8%	2.3%	2.8%	3.3%	3.8%
5.63%	34.46	38.91	44.92	53.51	66.81	
6.13%	30.51	33.86	38.22	44.12	52.55	
6.63%	27.38	29.98	<b>33.27</b>	37.55	43.33	
7.13%	24.83	26.91	29.47	32.69	36.89	
7.63%	22.72	24.41	26.45	28.96	32.13	

**Moderate to no downside** in both approaches: Perpetuity and Exit Multiple. However, due to the **nature of the industry**, the **exit multiple seems more appropriate**

# Appendix

## Valuation: forecasting period (bull case)

### Discounted Cash Flow

TV g: 2.8%  
TV Multiple: 23.4x

DCF Valuation	FY 2022A	FY 2023A	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	TV (Multiple)	TV (Perpetuity)
Valuation Date: 100 DD, YYYY	Dec 31, 2022	Dec 31, 2023	Dec 31, 2024	Dec 31, 2025	Dec 31, 2026	Dec 31, 2027	Dec 31, 2028	Dec 31, 2028	Dec 31, 2028
<i>in € millions</i>									
<b>Net Sales</b>	<b>5,665.3</b>	<b>5,951.4</b>	<b>6,530.5</b>	<b>7,116.5</b>	<b>7,878.9</b>	<b>8,694.3</b>	<b>9,658.6</b>		
Growth YoY (%)	16.6%	5.1%	9.7%	9.0%	10.7%	10.3%	11.1%		
Gross Profit	4,746.0	4,980.4	5,491.2	6,012.3	6,688.0	7,406.2	8,239.8		
Gross Profit Margin (%)	83.8%	83.7%	84.1%	84.5%	84.9%	85.2%	85.3%		
EBITDA	1,913.9	1,816.9	2,146.1	2,428.4	2,728.0	3,045.1	3,404.7		
EBITDA Margin (%)	33.8%	30.5%	32.9%	34.1%	34.6%	35.0%	35.3%		
<b>EBIT</b>	<b>1,303.1</b>	<b>1,241.9</b>	<b>1,739.5</b>	<b>2,058.5</b>	<b>2,389.0</b>	<b>2,773.5</b>	<b>3,164.8</b>		
EBIT Margin (%)	23.0%	20.9%	26.6%	28.9%	30.3%	31.9%	32.8%		
- Taxes	(374.6)	(239.3)	(335.2)	(396.7)	(460.4)	(534.5)	(609.9)		
Tax rate (%)	28.7%	19.3%	19.3%	19.3%	19.3%	19.3%	19.3%		
<b>NOPLAT</b>	<b>928.5</b>	<b>1,002.6</b>	<b>1,404.3</b>	<b>1,661.8</b>	<b>1,928.6</b>	<b>2,239.0</b>	<b>2,554.9</b>		
+ Depreciation & Amort.	610.8	575.0	406.6	369.9	339.0	271.6	239.9		
- Change in NWC	(82.6)	(129.2)	341.6	175.6	214.1	252.1	276.3		
- Capital Expenditures	(132.3)	(145.3)	(197.9)	(215.7)	(238.8)	(263.5)	(292.7)		
								23.4x EBITDA	g = 2.8%
<b>Unlevered FCF</b>	<b>1,324.4</b>	<b>1,303.1</b>	<b>1,954.6</b>	<b>1,991.7</b>	<b>2,243.0</b>	<b>2,499.3</b>	<b>2,778.5</b>	<b>79,670.3</b>	<b>74,645.8</b>
<i>in % of Net Sales</i>	23.4%	21.9%	29.9%	28.0%	28.5%	28.7%	28.8%		
Partial Period Adjustment			1.00	1.00	1.00	1.00	1.00		
<b>Adjusted UFCFs</b>			<b>1,954.6</b>	<b>1,991.7</b>	<b>2,243.0</b>	<b>2,499.3</b>	<b>2,778.5</b>	<b>79,670.3</b>	<b>74,645.8</b>
WACC (%)			6.63%	6.63%	6.63%	6.63%	6.63%	6.63%	6.63%
Periods for Discounting			1.00	2.00	3.00	4.00	5.00	5.00	5.00
Discount Factor			0.94	0.88	0.82	0.77	0.73	0.73	0.73
<b>PV of Adjusted UFCFs</b>			<b>1,833.1</b>	<b>1,751.8</b>	<b>1,850.3</b>	<b>1,933.5</b>	<b>2,015.9</b>	<b>57,806.0</b>	<b>54,160.3</b>

## Valuation: equity bridge and sensitivity (bull case)

		Exit Multiple	Perpetuity
PV Sum of Adjusted UFCFs	14.0%	9,384.7	9,384.7
PV of Terminal Value	86.0%	57,806.0	54,160.3
<b>Enterprise Value (EV)</b>	<b>100.0%</b>	<b>67,190.7</b>	<b>63,545.0</b>
- Total Debt (incl. Leases)		(2,990.7)	(2,990.7)
+ Cash & ST Investments		3,568.3	3,568.3
<b>= (Net Debt)</b>		<b>577.6</b>	<b>577.6</b>
- Preferred Shares		0.0	0.0
- Non-controlling Interests		(11.9)	(11.9)
<b>Implied Equity Value</b>		<b>67,756.4</b>	<b>64,110.7</b>
/ Shares Outstanding		1,314,780,479	1,314,780,479
<b>Implied Price per Share</b>		<b>€ 51.53</b>	<b>€ 48.76</b>
Current share price		€ 36.00	€ 36.00
Upside-/Downside potential		43%	35%

### Sensitivity

#### Share Price

	Exit Multiple				
WACC	13.40	18.40	23.40	28.40	33.40
5.63%	34.17	44.02	53.86	63.71	73.56
6.13%	33.45	43.07	52.68	62.30	71.92
6.63%	32.75	42.14	<b>51.53</b>	60.93	70.32
7.13%	32.06	41.24	50.42	59.59	68.77
7.63%	31.40	40.36	49.33	58.30	67.26

### Sensitivity

#### Share Price

	TV growth rate				
WACC	1.8%	2.3%	2.8%	3.3%	3.8%
5.63%	50.54	57.21	66.24	79.15	99.12
6.13%	44.61	49.64	56.18	65.04	77.71
6.63%	39.91	43.82	<b>48.76</b>	55.18	63.88
7.13%	36.09	39.22	43.06	47.90	54.21
7.63%	32.94	35.47	38.54	42.31	47.07

**Clear upside potential** in both approaches: Perpetuity and Exit Multiple. However, due to the **nature of the industry**, the **exit multiple seems more appropriate**