# Dassault Systèmes

## Morgan Stanley TMT 2019

**Pascal Daloz,**

EVP, CFO & Corporate Strategy Officer

3D**EXPERIENCE**®

# Agenda

Q3 & YTD 2019 Highlights

Q4 & FY 2019 Objectives

2019 Life Sciences Day

# Q3 & YTD 2019 Highlights Non-IFRS

▶ Q3 **revenue** up **10%** exFX and **EPS** up **20%**

## YTD 2019 Performance

Total revenue up **+12%** exFX

Organic recurring* revenue up **+9%** exFX

**3D**EXPERIENCE software revenue** up **+32%** exFX

Double-digit software revenue growth in **Aerospace**, **Marine & Offshore** and **Home & Lifestyle**

EPS up **+19%**

## Strategy Implementation

| | |
|---|---|
| **PURPOSE** | **Life Sciences** to become a **new core industry** |
| **SOCIAL** | Addressing the whole value chain: from **Large Companies** to **Small Businesses** and **Startups** |
| **INDUSTRY** | Industry Renaissance: from **Manufacturing Industries** to **Infrastructures & Territories** and **Healthcare** |
| **EXPERIENCE** | **Customer-centric**, **citizen-centric**, **patient-centric** experience |

▶ On-track to reach **5-year goal** of **doubling EPS** to **€3.50** in **2019**
▶ Medidata acquisition **completion** expected in the **coming days**
▶ Adding **Medidata** to FY19 objectives, assuming **two-month contribution period**

**3DS DASSAULT SYSTEMES**

# The **3D**EXPERIENCE Supports our Purpose

> " Dassault Systèmes provides business & people with **3D**EXPERIENCE universes to imagine sustainable innovations capable of harmonizing product, nature and life. "

# Delivering on Transportation & Mobility Challenges

**Electric, Connected & Autonomous Vehicles**
Intelligent vehicle experience delivery

**Certification & Compliance**
Compliance with global and local requirements

**Electric Vehicles Batteries**
From chemistry to cell engineering, to module engineering and integration into full vehicles

**On-Target Vehicle Launch**
Engineering, industrialization, manufacturing

**On-Demand Production**
Visibility, efficiency, and control of manufacturing operations, within and across plants

**DS** *DASSAULT SYSTEMES*

# **TOYOTA** Adopts **3D**EXPERIENCE Platform

The automotive industry is now undergoing a major transformation.
OEMs are facing challenges of survival and sustainable growth.
TMC decided to adopt 3DEXPERIENCE POWER'BY to reinvent its traditional car development and drastically improve its productivity.

## Business Values:

Car electrification, smart & connected cars, new competition, AI, consumer digitalization, IoT

**Values:**

▶ **Simultaneous** development by timely sharing latest data
▶ **Single version of truth** across R&D, design, production, sales, customer services, alliance companies & suppliers

**Ambition:**

▶ Global deployment including suppliers for more than **40,000 users** (deployment ramp-up 2019-2023)
▶ **Lead time reduction**
▶ **Business transformation** (digital engineering)
▶ **Seamless collaboration** with oversea sites, worldwide suppliers and business partners
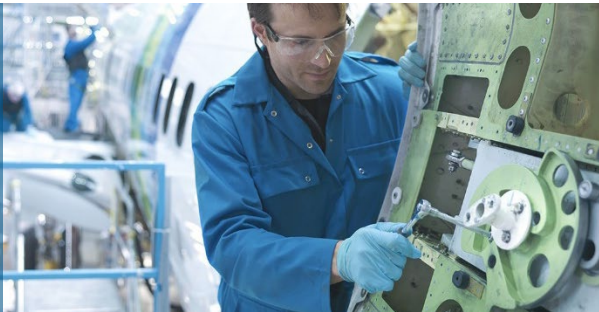
**Solution:**

**3D**EXPERIENCE POWER'BY

# Delivering on Aerospace Challenges

**Production Rate**
Meet demand for the next few years

**Growing Complexity of Systems**
Accelerate program integration while decreasing costs

**Disruptive Innovation**
Accelerate from concept to delivery from years to months

**After Market**
Increase fleet availability and reduce parts inventory

**Passenger Experience**
Stand-out from the competition with customized, cost-efficient and certified experiences

**3DS DASSAULT SYSTEMES**

# Lockheed Martin Adopts 3DEXPERIENCE

LOCKHEED MARTIN

Lockheed Martin Aeronautics Company, home of the world renowned Skunk Works®, turns visionary aircraft into reality and is known for building the finest military aircraft in the world

## Business Values:

**3DEXPERIENCE platform** to become the **standard engineering** and **manufacturing** planning software for **all new Advanced Development Programs** in Aviation innovator Skunkworks

► Providing the **end-to-end infrastructure** needed to engineer new programs from **concept** to the **handoff** to the **shop floor**

► Multi-year digital transformation partnership to improve **affordability** and **manufacturability** of next generation products

### Solution:

**3DE**XPERIENCE Platform with **Program Excellence**, **Winning Concept**, **Co-Design to Target**, **Ready to Rate** and **Cleared to Operate** Industry Solution Experiences

DASSAULT SYSTEMES

# Delivering on Consumer Packaged Goods and Retail Challenges

**The New Consumer**
React more quickly to deliver meaningful innovation on shorter timelines

**Production Complexity**
Manage production complexity to provide the right product at the right time

**Margin Pressure**
Drive sustainable growth and increase profits

**Regulatory Compliance**
Support health and wellness trends and manage regulatory compliance efficiently

**The Last Mile**
Use agile new models for product delivery

# L'Occitane Adopts 3DEXPERIENCE

## L'OCCITANE EN PROVENCE

Leading Health and Beauty Company

**Business Values:**

Laboratoires M&L, the **manufacturing division of L'Occitane Group**, needed to improve production planning flexibility to **deal with the fluctuations in natural raw materials** and to deliver its products **on time**

► **Optimizing global production and logistics operations** from raw material reception, weighing, production, packaging, and storage

► **Anticipating early**, issues that can adversely affect the quality and delivery of its products to market

► **Reducing the rate of non-quality** and **waste** by **50%**

**Solution:**

**3D**EXPERIENCE Platform with **Perfect Production** Industry Solution Experience leveraging **DELMIA Apriso** applications

# Delivering on Home & Lifestyle Challenges

**The New Consumer**
Understand consumers to meet their expectations and gain their loyalty

**Limitless Innovation**
Think without limits in order to deliver innovation for product, process, materials, and experience

**Digital Manufacturing & Supply Chain**
Be flexible and adapt the entire supply chain to evolving consumer demand

**Personalized Experiences**
From mass merchandising to customized products and personalized experiences

# CENTRIC PLM: 1,000+ brands

## Market Adoption in Home & Lifestyle



| 2007 – 2011 | 2012 – 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | YTD 2019 |

# The **3D**EXPERIENCE Supports our Purpose

" Dassault Systèmes provides business & people with **3D**EXPERIENCE universes to imagine sustainable innovations capable of harmonizing product, nature and life. "

**3DS** *DASSAULT SYSTEMES*

# Delivering on Construction, Cities and Territories Challenges

**Sustainable, Secure and Resilient Future**
Establish a digital referential to enable modeling and using scenario simulation

**Maximize Project Outcomes**
Design more effectively and efficiently

**Create Collectively**
Access to real-time information and seamlessly exchange knowledge

**Modernize Craftsmanship**
Allow architecture, engineering and construction professionals to gain precision and control

**Respect the Art**
Achieve total creative flexibility and win design competitions

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# **CRDC** Adopts **3D**EXPERIENCE

**China Railway Design Corporation (SRDC)** is China's leading railway design company



## Business Values:

Increasing **large-scale railway projects win rate** in China and abroad

▶ Improving **collaboration** between **all multidisciplinary stakeholders**

▶ Increasing **design efficiency** and **consistency**

▶ "Before digital optimization, we would remove nearly the entire mountain body to build the retaining structure of the railway. But after digitally moving the location of the entrance, the **earthwork decreased drastically**"

Lin Su, senior engineer and group leader of CRDC's BIM R&D group

### Solution:

**3D**EXPERIENCE Platform with multiple Industry Solution Experiences

# The **3D**EXPERIENCE Supports our Purpose

"Dassault Systèmes provides business & people with **3D**EXPERIENCE universes to imagine sustainable innovations capable of harmonizing product, nature and life."

# Delivering on Life Sciences Challenges

**Personalized Health**
Develop a holistic approach to care that encompasses genomics, behavior and the environment
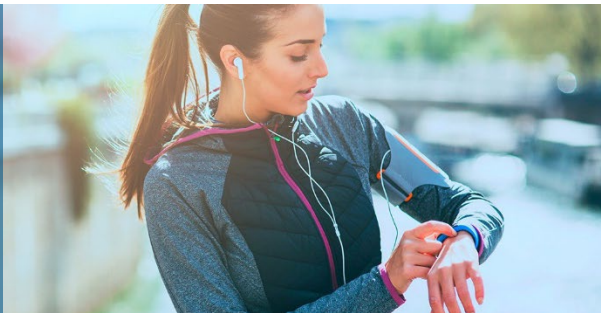
**Knowledge Capitalization**
Connect systems, people and data in a virtual ecosystem

**Total Quality**
Achieve regulatory compliance with exceptional quality standards

**Development and Manufacturing Excellence**
Smart, predictive and adaptive manufacturing

**Reinventing the Value Chain**
Create new, connected patient experiences

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# **IRBM** Adopts **3D**EXPERIENCE

## IRBM

IRBM is Italy's largest independent partner research organization for drug discovery and preclinical development

### Business Values:

**Global solution from research to development** including lab informatics, cheminformatics, bioinformatics lab process management, chemical and materials inventory, lab execution, data analytics

► Improving **efficiency** and **speed**

► Reducing **costs** for research and development

► Improving **quality** and **compliance**

► Faster **task execution** & **standardization**

► Reducing **in-house software development**

### Solution:

**3D**EXPERIENCE Platform with **One Lab Design to Cure** Industry Solution Experience

**2S DASSAULT SYSTEMES**

# Medidata Acquisition
## Pushing the Bounds of Possibilities in 21st Century Healthcare
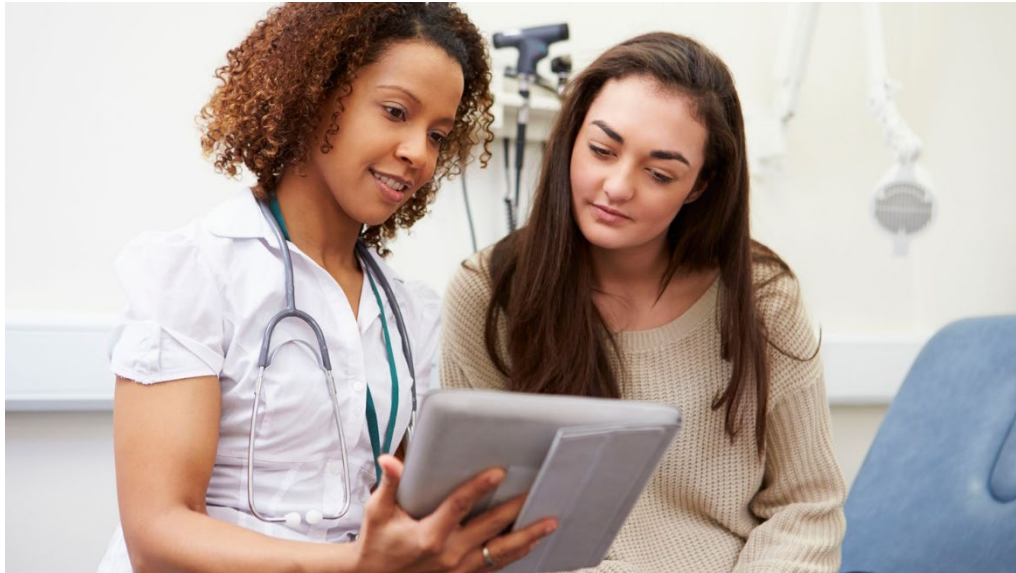


Poised to lead the digital transformation of
Life Sciences in the age of precision medicine and patient-centric experience

3S DASSAULT SYSTEMES

# Unique Integrated Business and Scientific Platform

**Made to Cure**
Accelerate market launch and maximize return on investment

**Launched to Cure**

**Manufacturing**

**Commercialization**

**License to Cure**
Accelerate therapeutic development, approval, manufacturing, and supply, in a global landscape

**Clinical testing**

**Research & Discovery**

**Clinically Approved**

**Designed to Cure**
Speed time to market with higher quality novel therapeutics

**Preclinical development**

**ONE Lab**
Optimize your laboratories and leverage knowledge to improve time to market

Dassault Systèmes

Medidata Solutions

# Dassault Systèmes + Medidata

## Medidata
## to operate as a 3DS brand



Powering Smarter Treatments
and Healthier People

## Life Sciences
## New Core Industry



**~20%** of combined
software revenue*

## Dedicated
## Go-to-market



To address
**4,500** companies
in pharma
and **50,000** in medical
devices

* On an annual basis

# Q3 & YTD 2019 Performance at a Glance Non-IFRS

| € millions | Q3 19 | YTD 19 |
|---|---|---|
| Revenue | 914 | 2,843 |
| Growth | +13% | +16% |
| **Growth exFX** | **+10%** | **+12%** |
| Software Growth exFX | **+9%** | **+11%** |
| Licenses* Growth exFX | +2% | +9% |
| Recurring** Growth exFX | +12% | +12% |
| Operating Margin | 30.3% | 31.3% |
| **Operating Margin** | **+1.4 pt** | **+1.4 pt** |
| EPS (€) | 0.78 | 2.46 |
| **EPS Evolution** | **+20%** | **+19%** |

Accelerating recurring revenue growth

3D**EXPERIENCE*****

**Software**

**Q3**

+19% exFX

| Q3 18 | Q3 19 |
|---|---|
| 24% | 27% |

**YTD**

+32% exFX

| YTD 18 | YTD 19 |
|---|---|
| 22% | 27% |

**Licenses***

+21% exFX

| Q3 18 | Q3 19 |
|---|---|
| 33% | 40% |

+40% exFX

| YTD 18 | YTD 19 |
|---|---|
| 33% | 43% |

Revenue growth          % of related revenue
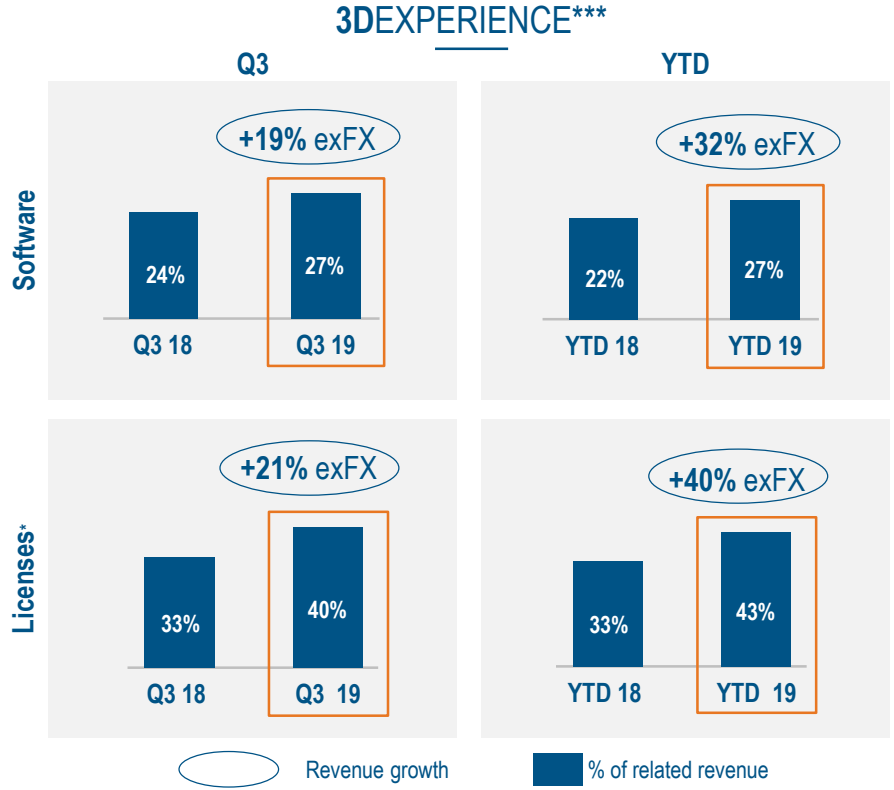
# Software Revenue Non-IFRS

| Software Revenue Growth exFX | Q3 19 | YTD 19 | |
|---|---|---|---|
| **by Region** | | | |
| Americas | +19% | +17% | Large deal activity, strong recurring software growth and contributions from acquisitions |
| Europe | +5% | +9% | Good performance in France, Northern and Southern Europe - Weak macro backdrop in Germany |
| Asia | +4% | +7% | China and Japan up 10% exFX in Q3, partially offset by weak results in Korea and India |
| **by Brand** | | | |
| CATIA | +5% | +8% | Sustained growth of automotive OEMs Softening of automotive supply chain in Q3 |
| ENOVIA | +3% | +10% | Limited number of large transactions in Q3 |
| SOLIDWORKS | +7% | +5% | Continued double-digit revenue growth in Asia Improvement in Europe and America |
| Other Software | +17% | +19% | Double-digit organic revenue growth led by SIMULIA and DELMIA |
| **Software Revenue** | **+9%** | **+11%** | |

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# Operating Margin Evolution Non-IFRS



| YTD 18 Margin | Currencies | Activity | Acquisitions | YTD 19 Margin |
|---|---|---|---|---|
| 29.9% | 40 bps* | 200 bps* | -100 bps* | 31.3% |
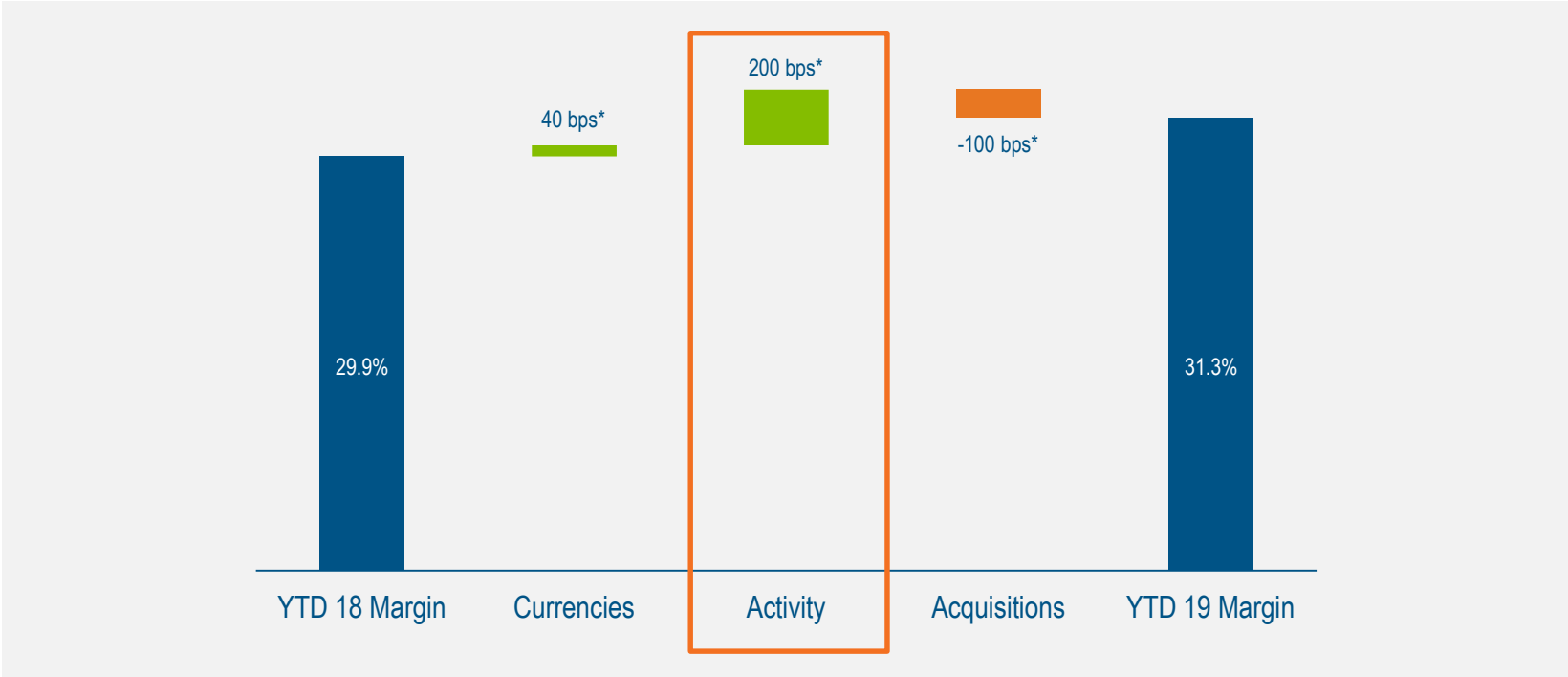
* bps: basis points

# Change in Net Financial Cash Position IFRS



Waterfall chart:

- Net Financial Position Q4 2018: 1,810*
- Net Income: +426
- Non cash P&L items: +333
- Change in operating working capital: +251
- Change in non-operating working capital: -6
- Capital expenditure: -77
- Payment on lease obligations (IFRS 16): -57
- Acquisitions and other investing and financing: -401
- DS stock option exercise: +73
- Treasury shares: -35
- Cash dividend paid: -169
- FX impact: +69
- Net Financial Position Q3 2019: 2,217*

Operating cash flow: +1,004 M€
vs. +747 M€ in Q3 2018 (+34%)

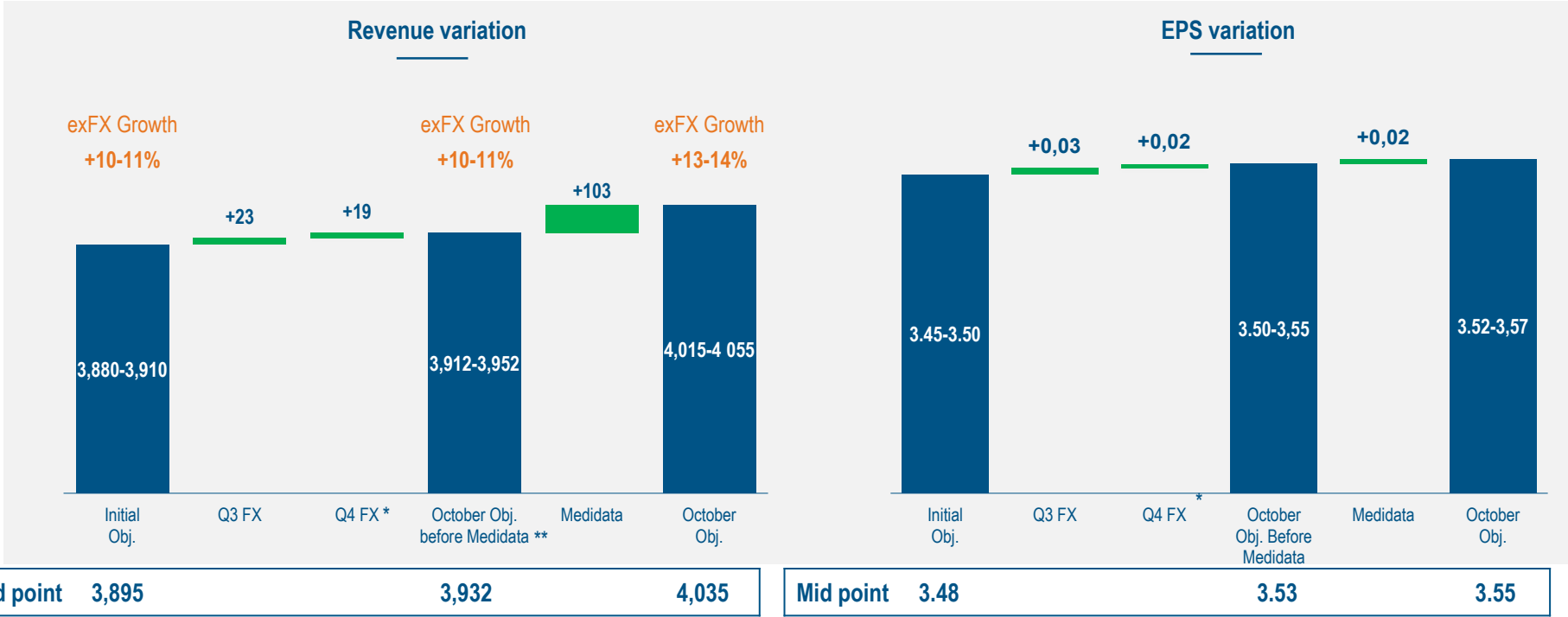* Net financial cash position = Cash and cash equivalents and short-term investments minus borrowings

# Agenda

Q3 & YTD 2019 Highlights

Q4 & FY 2019 Objectives

2019 Life Sciences Day

# Objectives Changes from July to October Non-IFRS

## Revenue variation

| | | | | | |
|---|---|---|---|---|---|
| exFX Growth **+10-11%** | | | exFX Growth **+10-11%** | | exFX Growth **+13-14%** |
| | +23 | +19 | | +103 | |
| 3,880-3,910 | | | 3,912-3,952 | | 4,015-4 055 |
| Initial Obj. | Q3 FX | Q4 FX * | October Obj. before Medidata ** | Medidata | October Obj. |

| Mid point | 3,895 | | | 3,932 | | 4,035 |
|---|---|---|---|---|---|---|

## EPS variation

| | | | | | |
|---|---|---|---|---|---|
| | +0,03 | +0,02 | | +0,02 | |
| 3.45-3.50 | | | 3.50-3.55 | | 3.52-3,57 |
| Initial Obj. | Q3 FX | Q4 FX | October Obj. Before Medidata | Medidata | October Obj. |

| Mid point | 3.48 | | 3.53 | | 3.55 |
|---|---|---|---|---|---|

* Q4 FX: from US$1.20 per €1.00 in July to US$1.15 per €1.00 in October
** Enlarging range to take into account the potential for continued volatility in licenses activity in Q4

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# Proposed Objectives* Non-IFRS

| Q4 2019 | | FY 2019 | |
|---|---|---|---|
| **Software** +15-19% exFX | | | |
| **Licenses** +0-5% exFX | | | |
| **Recurring** +25-28% exFX | | | |

| Q4 2019 | | FY 2019 | |
|---|---|---|---|
| 1,172-1,212 | Revenue (M€) | 4,015-4,055 | |
| +14-18% | Growth | +15-16% | |
| **+15-19%** | **Growth ex FX** | **+13-14%** | |
| 33.0-33.5% | Operating Margin | ~32% | |
| -3.5 to -3 pts | Operating Margin Growth | stable | Organic operating margin increase: ~ **+100** basis points exFX and excluding IFRS16 benefit |
| 1.05-1.10 | EPS (€) | 3.52-3.57 | Tax rate of ~**28.3%** |
| -1 to 4% | **EPS Growth** | +13-14% | |
| 1.15 | €/$ rates | 1.13 | |
| 125.0 | €/¥ rates | 123.2 | |

**Software: +12-13%** exFX

**Licenses: +6-8%** exFX

**Recurring: +15-16%** exFX

* Including Medidata assuming two-month contribution period

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# Agenda

Q3 & YTD 2019 Highlights

Q4 & FY 2019 Objectives

2019 Life Sciences Day

# Health & Wealth

**10%**
of WW GDP

↗ **5%**
2019-2040 GDP forecast

**20%**
of WW GDP

↗ **2%**
2019-2040 GDP forecast

**48%**
of WW GDP

↗ **2%**
2019-2040 GDP forecast

Real GDP, base year 2015, source: Oxford Economics
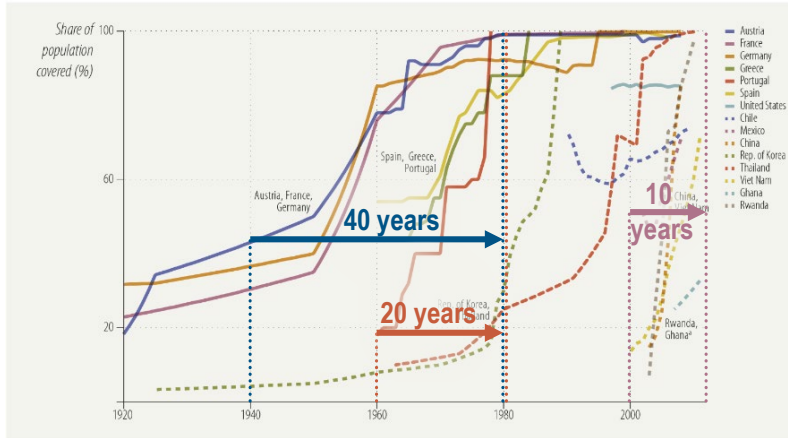
# Time for a Decisive Breakthrough

## Health Progress: Access to Healthcare

Today: **50%** (1)  |  2030 objective: **100%** (1)

**Evolution of Health Protection Coverage**(2)
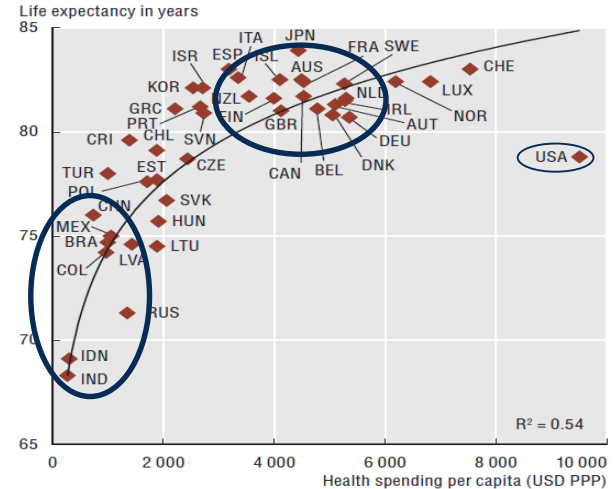as a percentage of total population in selected countries



## Health Spending: per Capita

Today: **$1,000** (1)  |  2040: **$3,000** (2)

**Life Expectancy at Birth and Health Spending per Capita** (3)

(1)  https://www.who.int/news-room/fact-sheets/detail/universal-health-coverage-(uhc)
(2)  https://ourworldindata.org/financing-healthcare

(1)  https://apps.who.int/iris/bitstream/handle/10665/276728/WHO-HIS-HGF-HF-WorkingPaper-18.3-eng.pdf?ua=1
(2)  https://www.thelancet.com/action/showPdf?pii=S0140-6736(17)30873-5
(3)  https://www.oecd-ilibrary.org/social-issues-migration-health/
health-at-a-glance-2017_health_glance-2017-en

# Help Health Innovators Power Smarter Treatments and Healthier People

Drug Development*
**10 years**

Drug Development Costs**
**$2.6bn**

Success rate***
**<10%**

Underperformance****
**50%**

Patent Lifecycle: **20 years**

Drug Development: **10 years**

Patient Centric
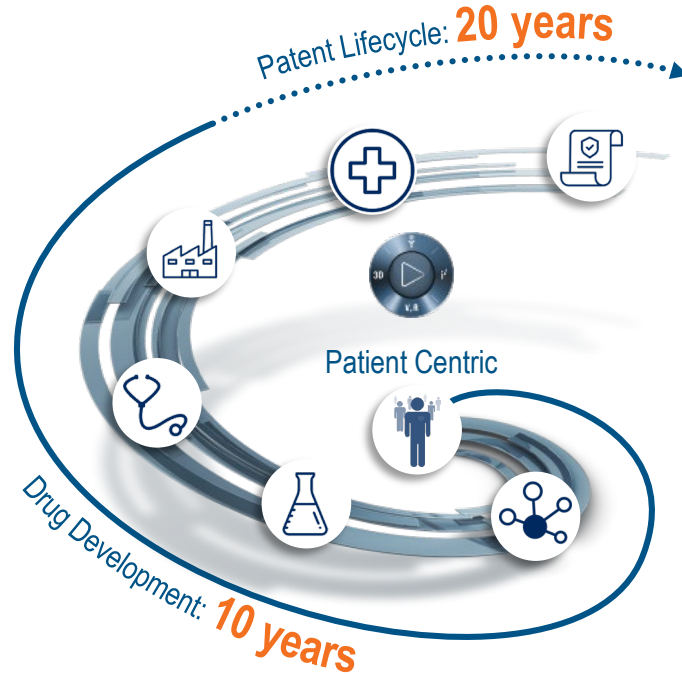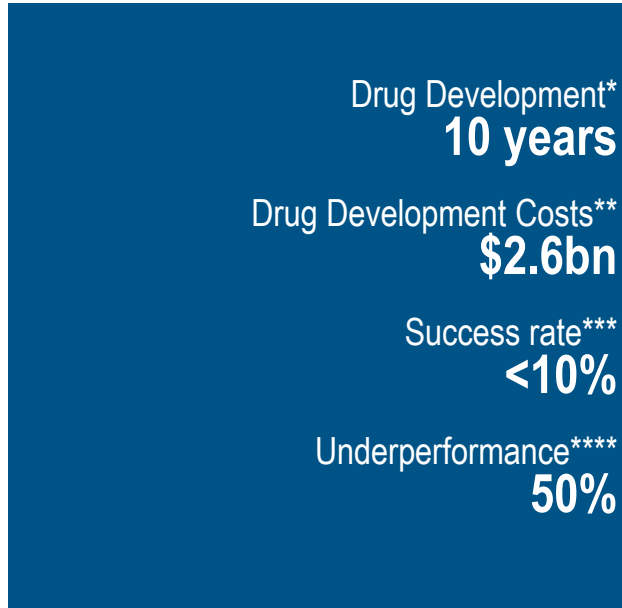
\* Biopharmaceutical Research & Development: The Process Behind New Medicines, PhRMA, 2015 (page 4)
\*\* Tufts Center for the Study of Drug Development, November 2014 (slide 5)
\*\*\* Clinical Development Success Rates 2006-2015 (page 7), BIO, Biomedtracker, Amplion
\*\*\*\* Bain report, September 2017

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# Unique Integrated Business and Scientific Platform

**Made to Cure**
Accelerate market launch and maximize return on investment

**Launched to Cure**

**Manufacturing**

**Commercialization**

**License to Cure**
Accelerate therapeutic development, approval, manufacturing, and supply, in a global landscape

**Research & Discovery**

**Clinical Testing**

**Designed to Cure**
Speed time to market with higher quality novel therapeutics

**Clinically Approved**

**Preclinical Development**

**ONE Lab**
Optimize your laboratories and leverage knowledge to improve time to market

Dassault Systèmes

Medidata Solutions

# A Fragmented Market

**SAP · SSAS · TIBC◇**

**Made to Cure**
Accelerate market launch and maximize return on investment

**Manufacturing**

**Launched to Cure**

**Veeva · ZS · Model N**

**Commercialization**

**ORACLE · Veeva · ArisGlobal · Sparta Systems**

**License to Cure**
Accelerate therapeutic development, approval, manufacturing, and supply, in a global landscape

**Clinical Testing**

**ORACLE · IBM Clinical Development · medrio · Veeva**

**Clinically Approved**

**Research & Discovery**

**Designed to Cure**
Speed time to market with higher quality novel therapeutics

**SCHRÖDINGER · dotmatics**

**Preclinical Development**

**ONE Lab**
Optimize your laboratories and leverage knowledge to improve time to market

**LABWARE · LabVantage**

- Dassault Systèmes
- Medidata Solutions

**DS DASSAULT SYSTEMES**

# Doubling Addressable Market at Each Key Step

Total Addressable Market*

$4bn

$8bn

$16bn

$32bn

| 1981 | **3D**<br>Design | 1989 | **3D DMU**<br>Digital Mock-up | 1999 | **3D PLM**<br>Product Lifecycle Management | 2012 | **3D**EXPERIENCE **platform**<br>Business Experience |

**3D**EXPERIENCE

* Software + Service

**DS DASSAULT SYSTEMES**

# Market Expansion with **3D**EXPERIENCE

## Total Addressable Market



**X4**

$16bn
- $6bn Services
- $10bn PLM* Software

**2012**
3D PLM

$1bn

$38bn

$8bn
$5bn
$11bn
$13bn

**2018**
3DEXPERIENCE Platform

Services

**Healthcare : Total Addressable Market Growth ~10%**

**Business and marketing**

**Manufacturing & Supply Chain**

**Fluid & Electromagnetic Simulation**

**PLM* Software**
CAD**, Product Data Management, Simulation, Digital Manufacturing

## Growing pipeline (Drug Count)

Growth in drug count



CAGR **+5%**

CAGR **+8%**

16,000

**2001**          **2013**          **2019**

* Product Lifecycle Management. ** Computer-Aided Design.
Source for active pipeline: Pharmaprojects, January 2019

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# Healthcare Market Breakdown by Value Streams



**SAP / sas / TIBCO**
$2bn — **Made to Cure**
Accelerate market launch and maximize return on investment

**Commercialization**
**ORACLE / Veeva / ArisGlobal / Sparta Systems**
$0.5bn — **Launched to Cure**
**Veeva / ZS / Model N**

**Manufacturing**
**ORACLE / Veeva / ArisGlobal / Sparta Systems**
$0.5bn — **License to Cure**
Accelerate therapeutic development, approval, manufacturing, and supply, in a global landscape

**Clinical Testing**
**ORACLE / IBM Clinical Developme / medrio / Veeva**
$3bn — **Clinically Approved**

**Research & Discovery**
$0.5bn — **Designed to Cure**
Speed time to market with higher quality novel therapeutics
**SCHRÖDINGER / dotmatics**
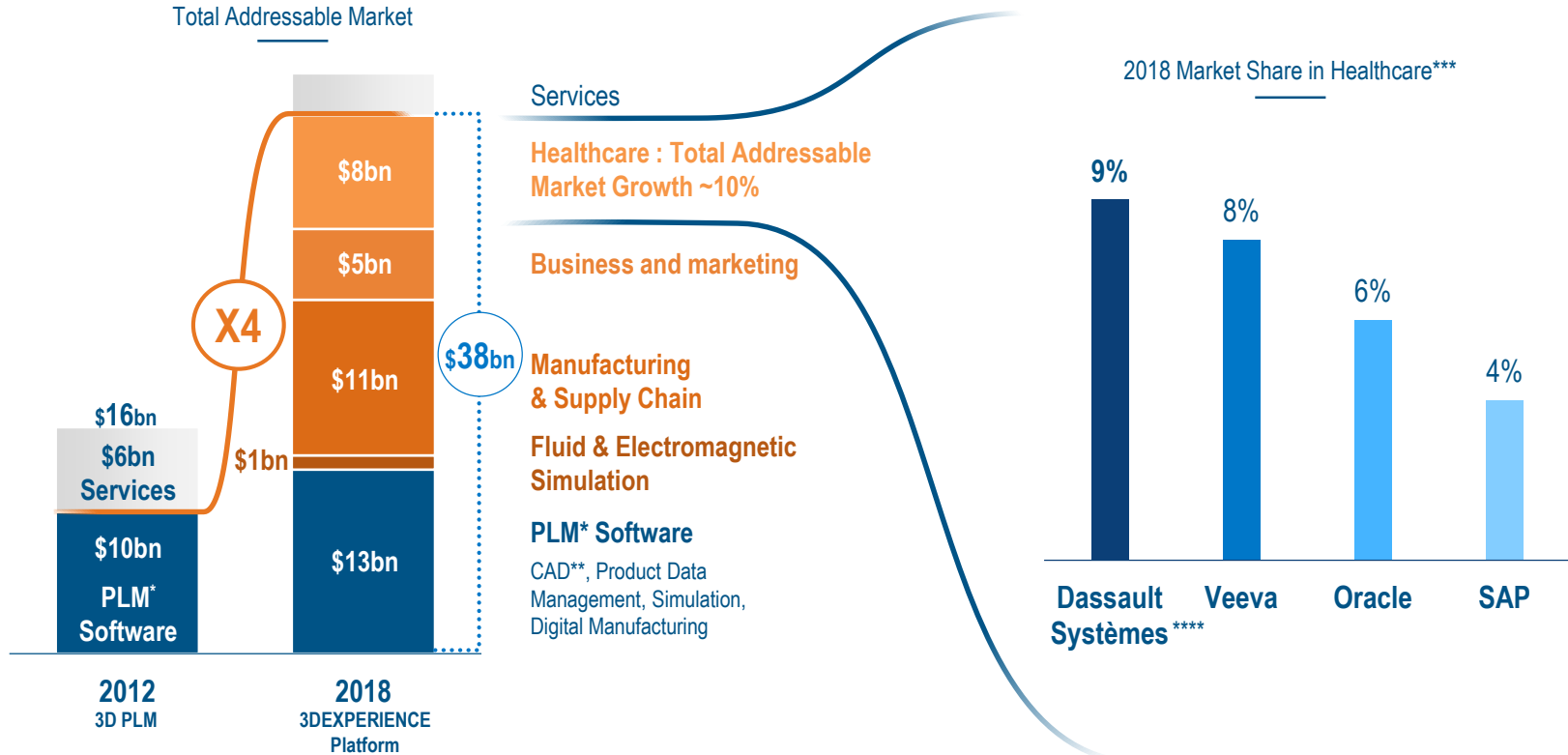
**Preclinical Development**
$2bn — **ONE Lab**
Optimize your laboratories and leverage knowledge to improve time to market
**LABWARE / LabVantage**

Legend:
- Dassault Systèmes
- Medidata Solutions

TAM* for Healthcare: **$8bn**
Up ~**10%**

* Total addressable market (software)

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# Market Expansion with **3D**EXPERIENCE

Total Addressable Market

**2018 Market Share in Healthcare***

Services

**Healthcare : Total Addressable Market Growth ~10%**

**Business and marketing**

$38bn

**Manufacturing & Supply Chain**

**Fluid & Electromagnetic Simulation**

**PLM* Software**
CAD**, Product Data Management, Simulation, Digital Manufacturing

$8bn
$5bn
$11bn
$1bn
$13bn

X4

$16bn
$6bn Services
$10bn
PLM* Software

**2012**
3D PLM

**2018**
3DEXPERIENCE Platform

9%
8%
6%
4%

**Dassault Systèmes ****
**Veeva**
**Oracle**
**SAP**

**DS DASSAULT SYSTEMES**

# Dassault Systèmes + Medidata

**Medidata
to operate as a 3DS brand**



Powering Smarter Treatments
and Healthier People

**Life Sciences
New Core Industry**



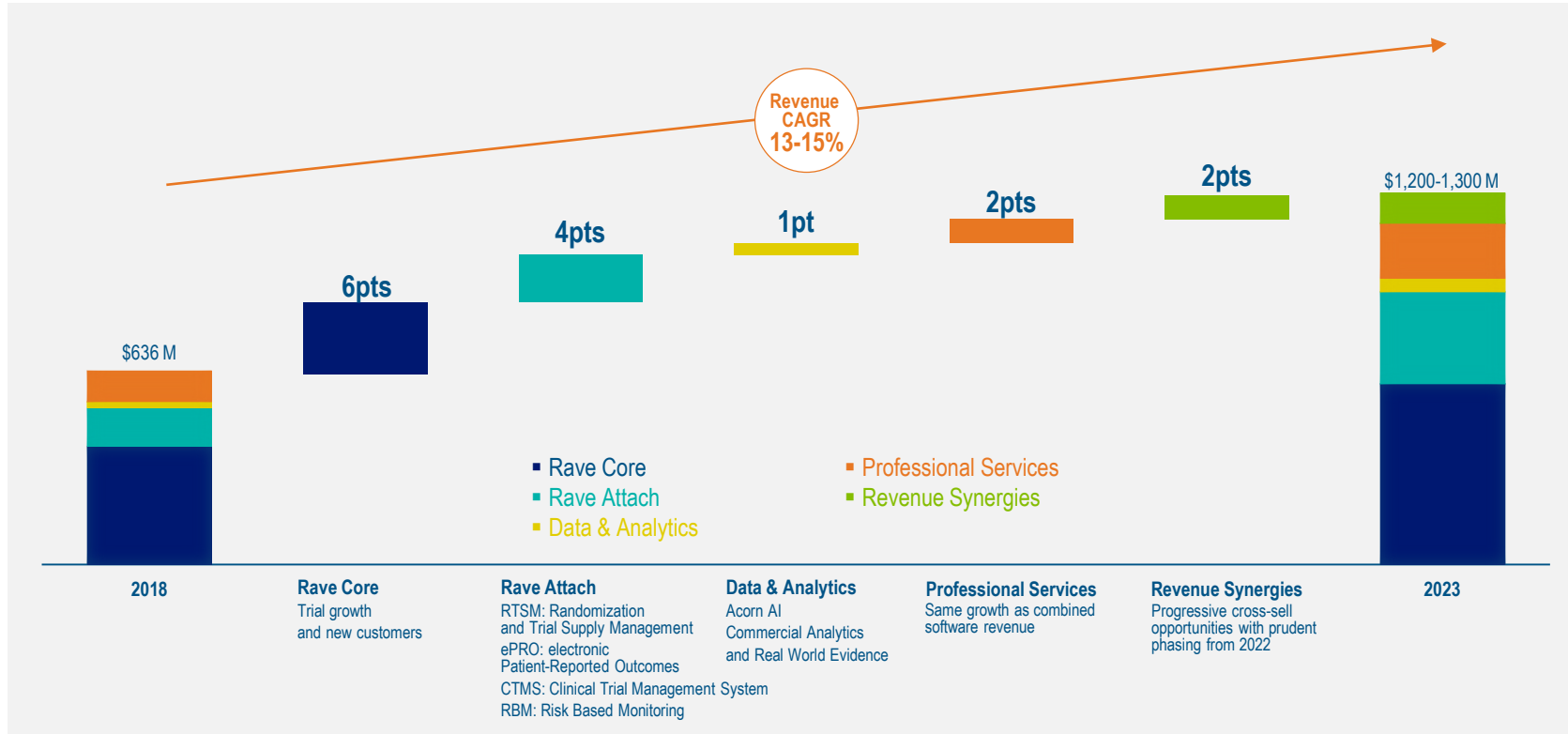~**20%** of combined
software revenue*

**Dedicated
Go-to-market**



To address
**4,500** companies
in pharma
and **50,000** in medical
devices

**Resiliency**: recurring share in software revenue **+5 points** *

* On an annual basis

# Medidata Operating Margin Evolution



Costs Synergies: 2019 | 2020 | 2021 | 2022 | 2023

+2pts per year

16% — 2018

6pts — Organic Improvement — Operating leverage

3pts — R&D Synergies — Cloud Migration from Amazon Web Services to 3DS infrastructure — Offshoring consistent with 3DS practices

2pts — G&A Synergies — Delisting and shared services

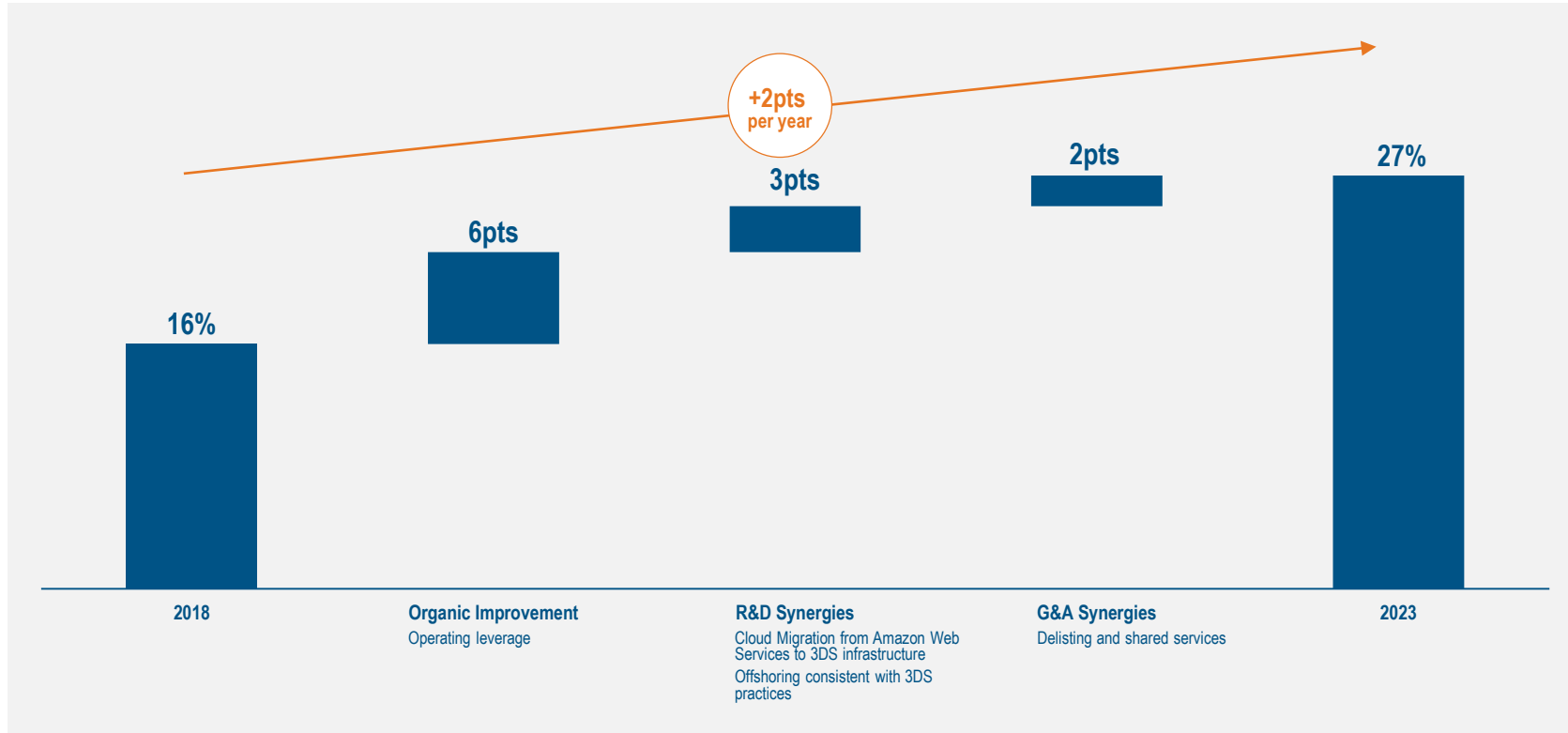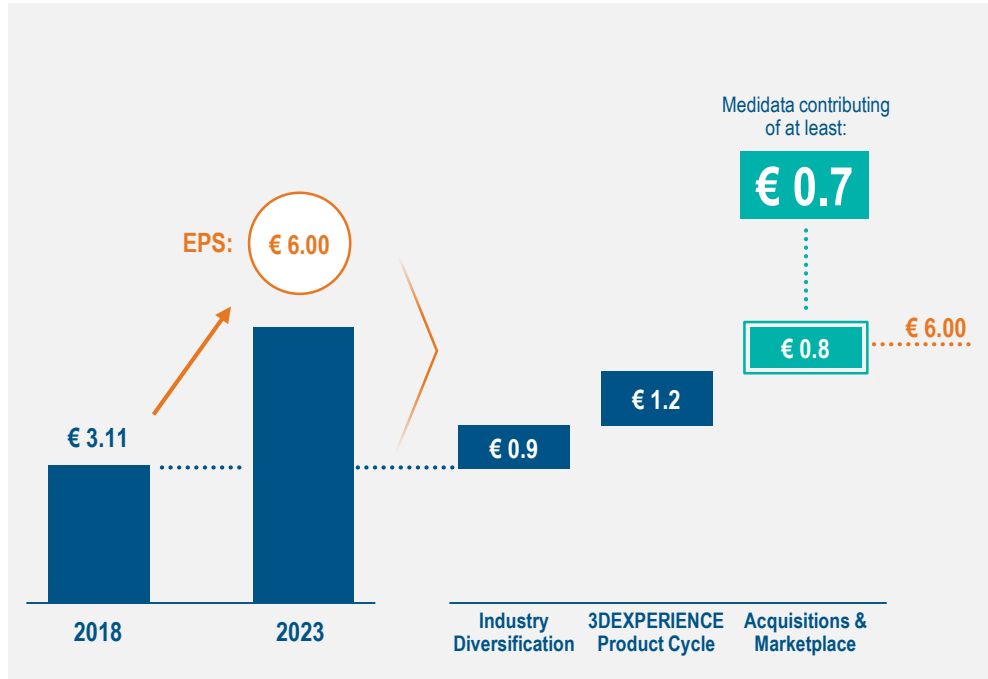27% — 2023

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# Medidata Contribution to 5-Year Plan of Doubling EPS



ASSUMPTIONS

Medidata Revenue CAGR

**+13-15%**

Meditata Operating Margin Evolution

**+2pts / Year**

► In spite of the dilutive impact of the Medidata acquisition, FY Dassault Systèmes operating margin to remain above 30% over 2019-2023

► Objective of Net debt to EBITDA ratio around 1x over time across the investment cycle

► Other assumptions unchanged compared to June 2018

Chart labels:
- EPS: € 6.00
- 2018: € 3.11
- 2023
- Industry Diversification: € 0.9
- 3DEXPERIENCE Product Cycle: € 1.2
- Acquisitions & Marketplace: € 0.8
- Medidata contributing of at least: € 0.7
- € 6.00

DASSAULT SYSTEMES