

2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

2021 Market Analysis Results

PLM Market & Industry Forum

A CIMdata PLM Leadership Event

15 April 2021

Stan Przybylinski, Vice President

Tel: +1.734.668.9922

Email: s.przybylinski@CIMdata.com

Twitter, Skype: smprezbo

CIMdata[®]

Global Leaders in PLM Consulting
www.CIMdata.com

#plm4um

Copyright © 2021 by CIMdata, Inc.

Our Mission...

Strategic management consulting for competitive advantage in global markets

CIMdata is the leading independent global strategic management consulting and research authority focused exclusively on PLM and the digital transformation it enables.

We are dedicated to maximizing our clients' ability to design, deliver, and support innovative products and services through the application of PLM.

CIMdata[®]

Copyright © 2021 by CIMdata, Inc.

2

2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

Purpose of this Presentation

A CIMdata disclaimer

- Deliver an overview of CIMdata's analysis of the PLM market for calendar year 2020
- Present our estimates of direct provider revenues by various categories
- Provide insight into investment changes, trends and market leaders
- Obtain provider input as to the PLM analytics they would like CIMdata to develop
- A detailed analysis of this research will be provided in CIMdata's 2021 PLM Market Analysis Report series
- All information represent CIMdata's estimates of revenues and investments

CIMdata[®]

Copyright © 2021 by CIMdata, Inc.

3

Important Notes

How CIMdata prepares the global MAR data

- CIMdata's estimates are for calendar year 2020 and may differ from a provider's fiscal year reported financials
- The relative strength of different currencies can impact growth estimates – all estimates are based on the yearly average for conversion of a currency to US dollars
- All estimates are net of royalties to eliminate any double counting of revenues
 - The royalty paid by a reseller is deducted from their revenue estimate and included within the direct revenues of the appropriate provider's estimate
- There are many acquisitions in some segments that could affect some numbers in 2020
 - We will note those during the presentation

CIMdata[®]

Copyright © 2021 by CIMdata, Inc.

4

2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

Agenda

2021 CIMdata PLM Market & Industry Forum

- PLM Market Analysis
- Overall cPDM Market Analysis
- PLM Provider Analysis
- Provider Sector Analysis
- Concluding Remarks

CIMdata[®]

Copyright © 2021 by CIMdata, Inc.

5

Research Methodology Overview

How CIMdata gathers PLM market data each year

- Gather data through multiple means
 - Nearly 550 companies get survey workbooks via email
 - Repeated reminders increase response rate
 - Approximately 30 of the world's largest PLM companies interviewed each year
 - Often multiple times to get more insights
 - Separate research conducted in China and Japan
 - Public reporting and other market research used for data collection and cross-check, e.g., Electronic System Design Alliance (formerly EDA Consortium)
 - CIMdata global contacts used as "sanity checks" on anomalous inputs
- Total of approximately 700 companies "touched" by CIMdata process

CIMdata[®]

Copyright © 2021 by CIMdata, Inc.

6

2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

Currency Fluctuations Important

More balanced than recent years

Currency	2020	2019	YoY Change
Euro TO US Dollar	1.13895	1.11980	1.68%
Pound TO US Dollar	1.28205	1.28700	-0.39%
Japanese Yen TO US Dollar	0.00937	0.00891	4.96%
Swiss Franc TO US Dollar	1.06496	1.01500	4.69%
Chinese Yuan TO US Dollar	0.14491	0.14800	-2.13%
Korean Won TO US Dollar	0.00085	0.00088	-4.32%
Swedish Krona TO US Dollar	0.10858	0.10575	2.60%
Brazilian Real TO US Dollar	0.18000	0.25354	-40.86%
Indian Rupee To US Dollar	0.01350	0.01420	-5.22%
Australian Dollar To US Dollar	0.68776	0.69490	-1.04%
Norwegian Krone To US Dollar	0.10624	0.11364	-6.97%

CIMdata

Copyright © 2021 by CIMdata, Inc.

7

Acquisitions in 2020

Some big, many tuck-ins but still at a high rate (1 of 4)

- Autodesk continued their AEC build out with Pype and Spacemaker
- Dassault Systèmes tucked-in Proxem and NuoDB
- Koch Industries bought Infor
- PTC acquired Arena Solutions
- Siemens made three acquisitions, including Culgi

CIMdata

Copyright © 2021 by CIMdata, Inc.

8

2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

Acquisitions in 2020

Some big, many tuck-ins but still at a high rate (2 of 4)

- Altair made 5 acquisitions, including newFASANT, S&WISE Co. Ltd., Univa, Ellexus, and M-Base Engineering + software GmbH
- Ansys added two companies, including Lumerical and Analytical Graphics, Inc. (AGI)
- Hexagon added 11, including Romax Technology, MECADAT AG, CAEfatigue Limited, and DP Technology
- Cadence acquired Integrand
- Synopsys added 5 companies, including Qualtera

CIMdata®

Copyright © 2021 by CIMdata, Inc.

9

Acquisitions in 2020

Some big, many tuck-ins but still at a high rate (3 of 4)

- Accenture continued its buying spree with 18, including VanBerlo, ESR Labs, Callisto Integration, PLM Systems
- Addnode acquired Netpublicator and Scanscot Technology
- Capgemini added 3, including Advectas and WhiteSky Labs
- HCL acquired 2 companies, including DWS Limited
- Infosys added 3, including Kaleidoscope Innovation
- Tech Mahindra added two Australian consultancies
- Wipro acquired 3 companies, include Eximus Design and IVIA Servicos de Informatica

CIMdata®

Copyright © 2021 by CIMdata, Inc.

10

2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

Acquisitions in 2020

Some big, many tuck-ins but still at a high rate (4 of 4)

- Aspen Technology added Camo Analytics AS and OptiPlant
- AVEVA acquired MESEnter and OSIsoft
- Bentley added NoteVault, PCSG, and GroupBC
- Honeywell acquired Sparta Systems
- Rockwell Automation added Kalypso and Flix, Inc.
- Sandvik acquired CGTech

CIMdata®

Copyright © 2021 by CIMdata, Inc.

11

Changes in Market Sample

Looking to cover more and more of the overall PLM market

- None of the acquisitions will affect the overall market results
 - Of course, acquisitions will affect the results of individual companies
 - E.g., Accenture growth from 2019-2020 acquisitions
 - Compensate for acquisitions by adjusting un-allocated revenues
- Will follow up in next year's process to see if any of the acquisitions are contributing to their PLM business
- Beyond acquisitions, in any given year we may add a number of companies
- For 2020, there were no major additions that affect the reported results

CIMdata®

Copyright © 2021 by CIMdata, Inc.

12

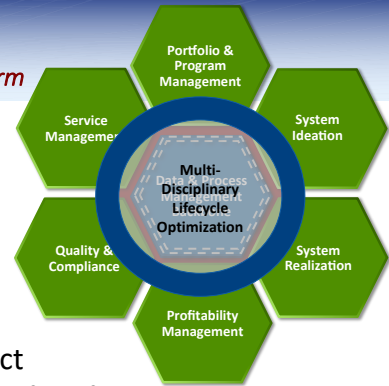
2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

PLM – CIMdata's Definition

Digital transformation of the lifecycle—enabled by a product innovation platform

- Strategic business approach
 - **NOT** just technologies
 - Consistent set of business solutions
- Collaborative creation, use, management & dissemination of product related *intellectual assets*
 - All product/plant definition information – the virtual product
 - AEC, MCAD, EDA, ALM, SE, requirements, simulations, analytics, portfolio, formulas...
 - All product/plant process definitions – the virtual processes
 - Processes that plan, design, produce, operate, support, decommission, recycle...
- An innovation platform that supports the extended enterprise
- Spans the full lifecycle, from idea/concept through life



CIMdata®

Copyright © 2021 by CIMdata, Inc.

13

PLM Market Categories

Three major segments comprise the PLM Market

- collaborative Product Definition management
 - Applications and solutions to capture, manage, disseminate, visualize and collaborate on product related intellectual (digital/virtual) information, including related processes
- Tools
 - Applications that are used to create intellectual assets
 - Authoring, analysis, modeling, simulation and documentation of product and plant/facility information
- Digital Manufacturing
 - Process planning, resource definition, factory floor layout and product flow simulation and analysis (including ergonomics)

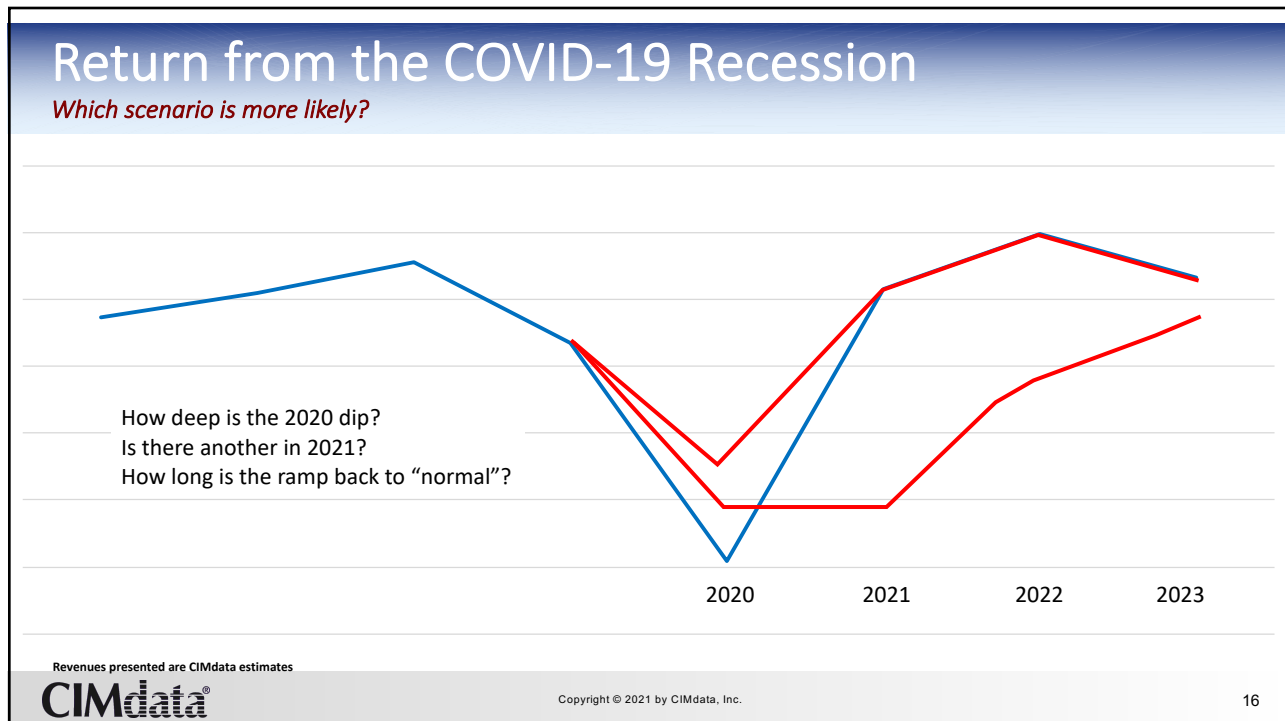
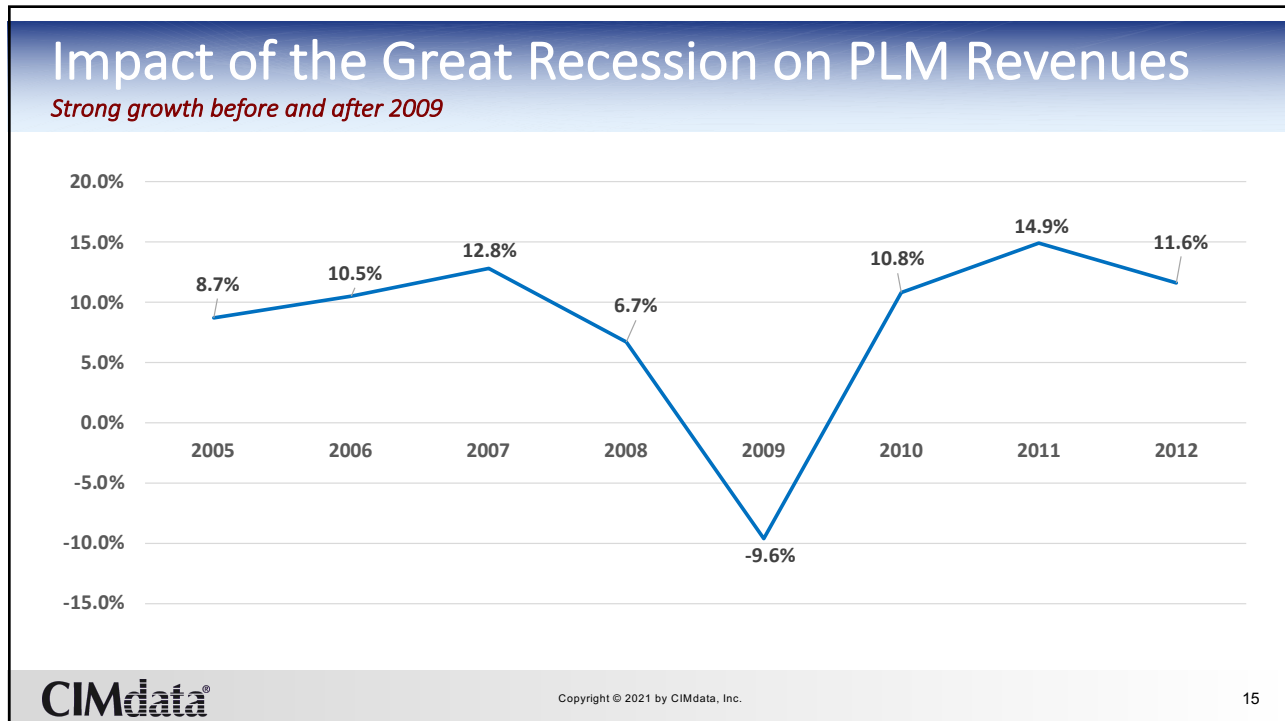
CIMdata®

Copyright © 2021 by CIMdata, Inc.

14

2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum



2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

PLM Forecast

Impact of changes to subscription models

From Last Year

- COVID-19 will have differential impacts on PLM segments
- PLM during the Great Recession, the last major disruption, offers a model
- Considered impacts of market and technology changes since then
 - Move to subscription provides some help to stop the bleeding
 - The cloud helps people work anywhere, anytime, can be an upside as the model takes hold in PLM
 - How face-to-face consulting services might have to change is a big question facing the industry
- How long will it take to get back to normal, or will there be a “new normal”?

CIMdata[®]

Copyright © 2021 by CIMdata, Inc.

17

Overall PLM Results

Growth in 2020 over forecast

- Overall PLM growth (3.46%) above forecast (-1.7%)
 - Results mixed
 - EDA, SI/Reseller/VAR the biggest surprises
- Autodesk and PTC license model transition affects certain segments
- Continued industry consolidation, new entrants, investor interest and action
 - SI/Reseller/VAR the most active segment, led by Accenture (again)
 - Major PLM players trying to differentiate, expand reach

CIMdata[®]

Copyright © 2021 by CIMdata, Inc.

18

2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

2020 Market Results

Results by segment (US\$ Millions) mostly positive

Segment	2020 Revenues	YoY Growth
cPDM Comprehensive Technology Providers	\$6,939.0	4.2%
cPDM-Focused Applications	\$2,666.1	3.9%
Digital Manufacturing	\$833.0	-6.0%
SI/Reseller/VAR	\$7,843.7	-4.2%
Tools		
MCAD-Multi Discipline	\$3,841.3	-2.2%
MCAD-Design Focused	\$3,541.3	0.7%
Non-Bundled CAM	\$1,476.4	-6.3%
Simulation & Analysis	\$7,477.2	4.2%
Other Tools (e.g., ALM)	\$1,796.2	7.6%
EDA	\$11,338.2	10.4%
AEC	\$5,539.0	9.1%
Total	\$53,291.4	3.46%

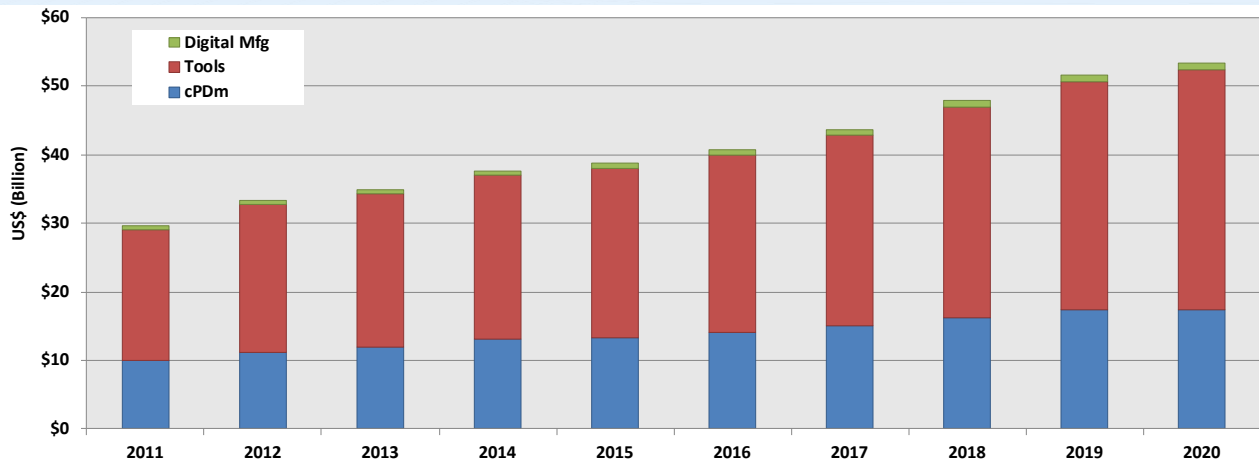
CIMdata®

Copyright © 2021 by CIMdata, Inc.

19

PLM Market Investment

Spend increased during 2020



Revenues presented are CIMdata estimates

PLM up 3.5% – \$53.3 billion



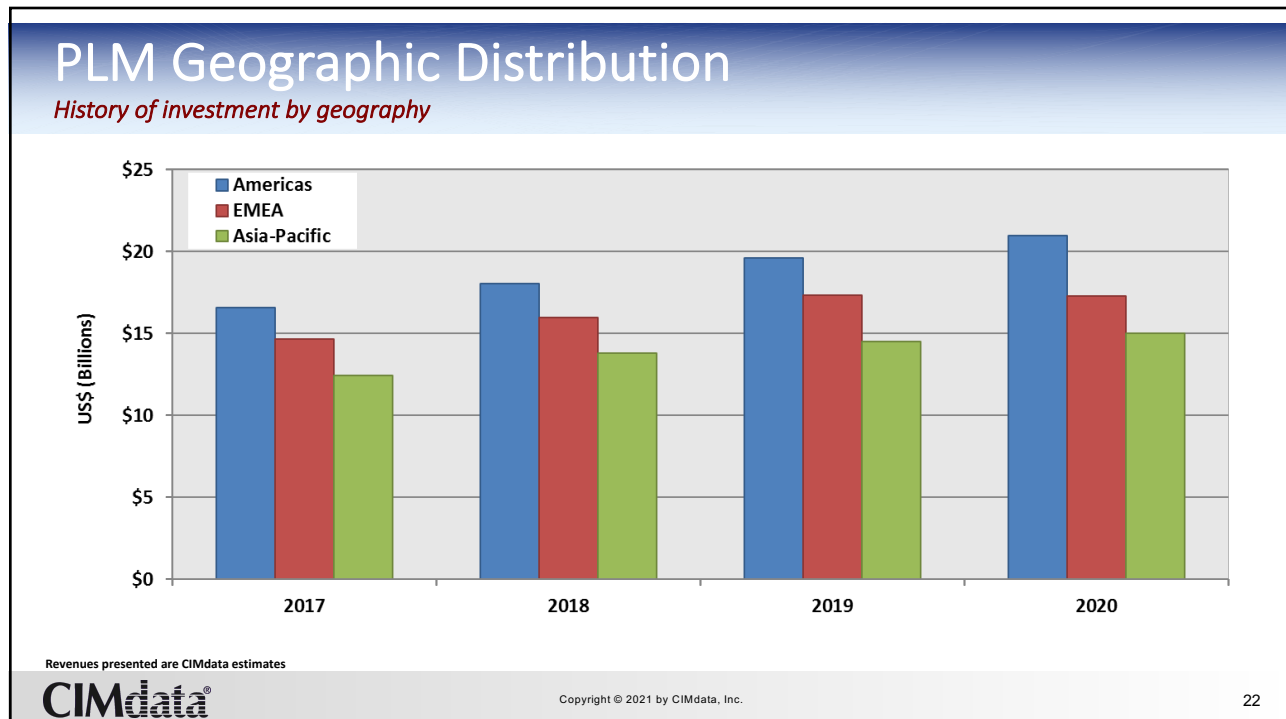
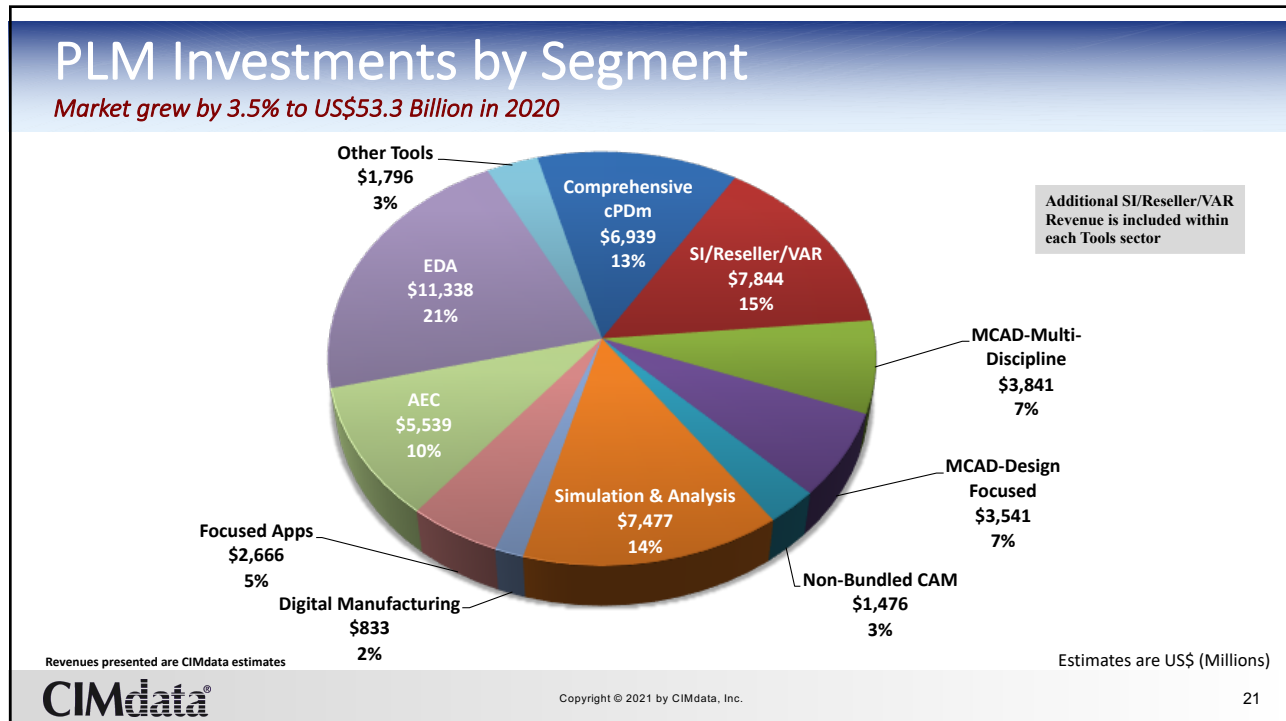
CIMdata®

Copyright © 2021 by CIMdata, Inc.

20

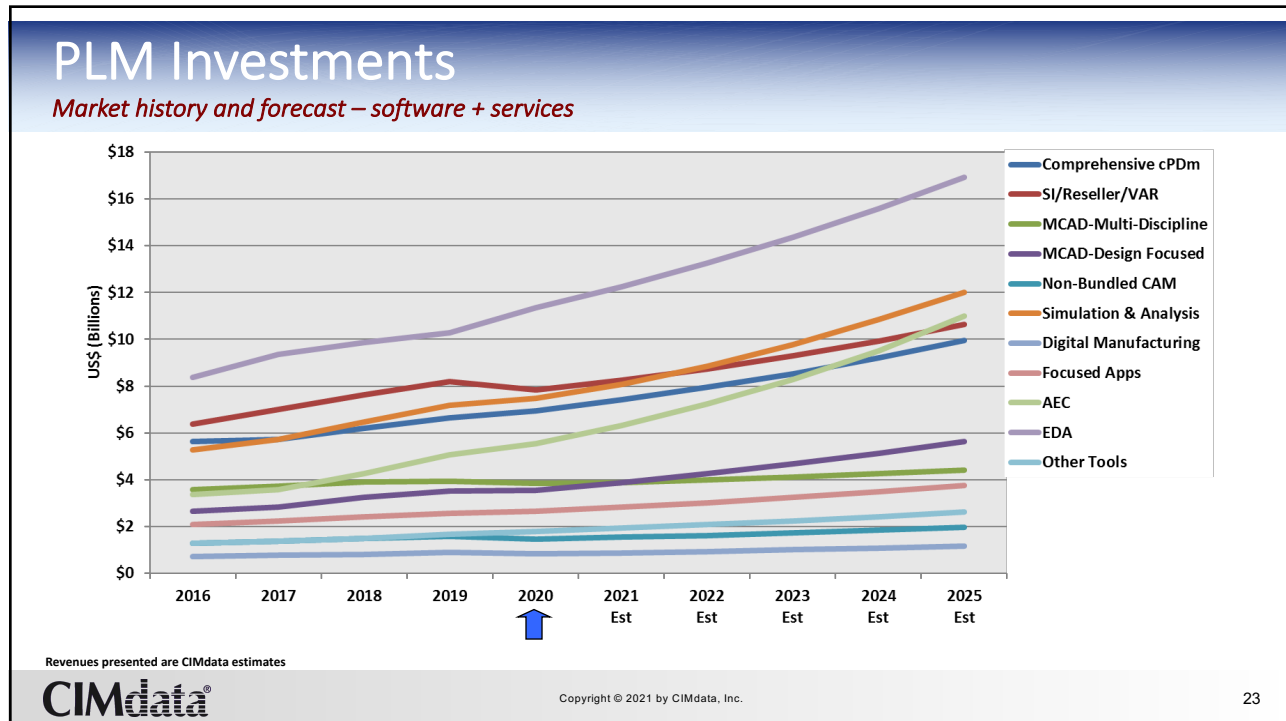
2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum



2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum



PLM Market in 2021

Big IT changes on-going, global economic growth stopped in its tracks by COVID-19

- What does 2020 mean for the coming years?
 - Will take some time for "business as usual" to return, at least in part
 - How fast will end use markets return to growth? Auto, A&D? Did not seem to matter in the Great Recession
- Still seems to be appetite for M&A
- CIMdata believes the market still has a lot of potential

CIMdata® Copyright © 2021 by CIMdata, Inc. 24

2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

Market Forecasts

For 2021 (US\$ Millions) and 5-year compound annual growth rate (CAGR)

Segment	2021 Estimate	YoY Growth	5 Year CAGR
cPDM Comprehensive Technology Providers	\$7,408.22	6.8%	7.5%
cPDM-Focused Applications	\$2,830.09	6.2%	7.1%
Digital Manufacturing	\$877.16	5.3%	6.8%
SI/Reseller/VAR	\$8,251.60	5.2%	6.3%
Tools			
MCAD-Multi Discipline	\$3,889.27	1.3%	2.8%
MCAD-Design Focused	\$3,877.68	9.5%	9.7%
Non-Bundled CAM	\$1,542.83	4.5%	5.8%
Simulation & Analysis	\$8,082.88	8.1%	10.0%
Other Tools (e.g., ALM)	\$1,936.35	7.8%	7.9%
EDA	\$12,245.26	8.0%	8.4%
AEC	\$6,325.56	14.2%	14.7%
Total	\$57,266.90	7.5%	8.5%

CIMdata®

Copyright © 2021 by CIMdata, Inc.

25

Agenda

2021 CIMdata PLM Market & Industry Forum

- PLM Market Analysis
- Overall cPDM Market Analysis
- PLM Provider Analysis
- Provider Sector Analysis
- Concluding Remarks

CIMdata®

Copyright © 2021 by CIMdata, Inc.

26

2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

cPDm Segment of the PLM Market

cPDm is a core element of a PLM environment

- Managing intellectual assets
 - Management of product information and processes
 - Workflow, vaulting, content, document management
 - Visualization and collaboration
 - Product structure
 - Configuration and change management
 - Strategic product planning
 - Project and program management
 - Compliance and sourcing
 - Others

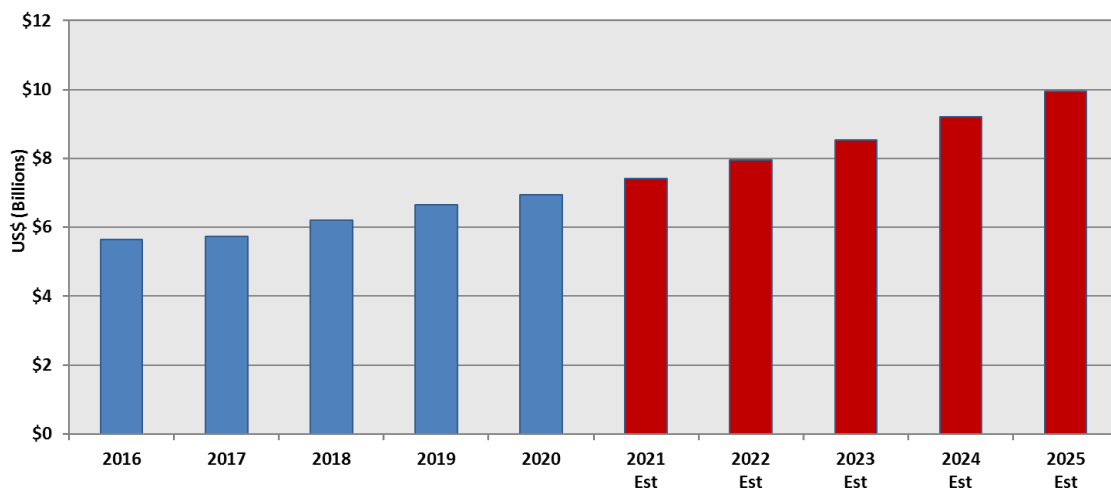


Copyright © 2021 by CIMdata, Inc.

27

2020 cPDm Revenue Distribution

Total investment = software + services – Five year CAGR estimate = 7.5%



Revenues presented are CIMdata estimates



Copyright © 2021 by CIMdata, Inc.

28

2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

Revenue Ratios – Software vs. Services

Services is a major revenue area

- Overall cPDM market: services are 29.3%
 - Driven by independent services providers
- Comprehensive cPDM providers
 - In 2020, Software was 70.7% vs. 29.3% for Services
 - In 2019, Software was 67.4% vs. 32.6% for Services
- Services ratio can change for several reasons
 - PLM solution providers developing products, packaging, and delivery bundles to reduce services
 - Cloud-based products often claim to require less services
 - Nature of services changing – more need for skills in advanced PLM topics vs. IT installation and integration

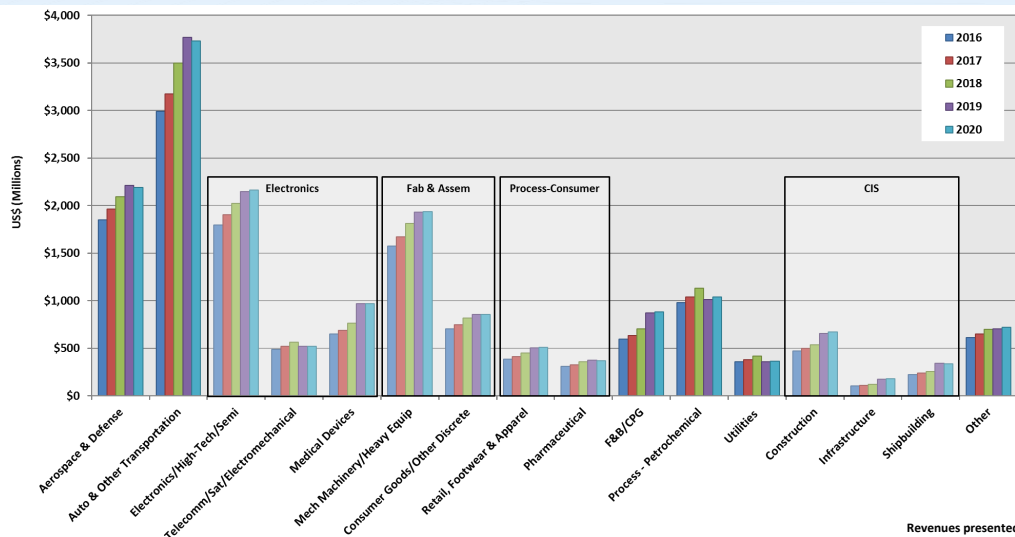
CIMdata®

Copyright © 2021 by CIMdata, Inc.

29

cPDM Investment

Investments by industry



Revenues presented are CIMdata estimates

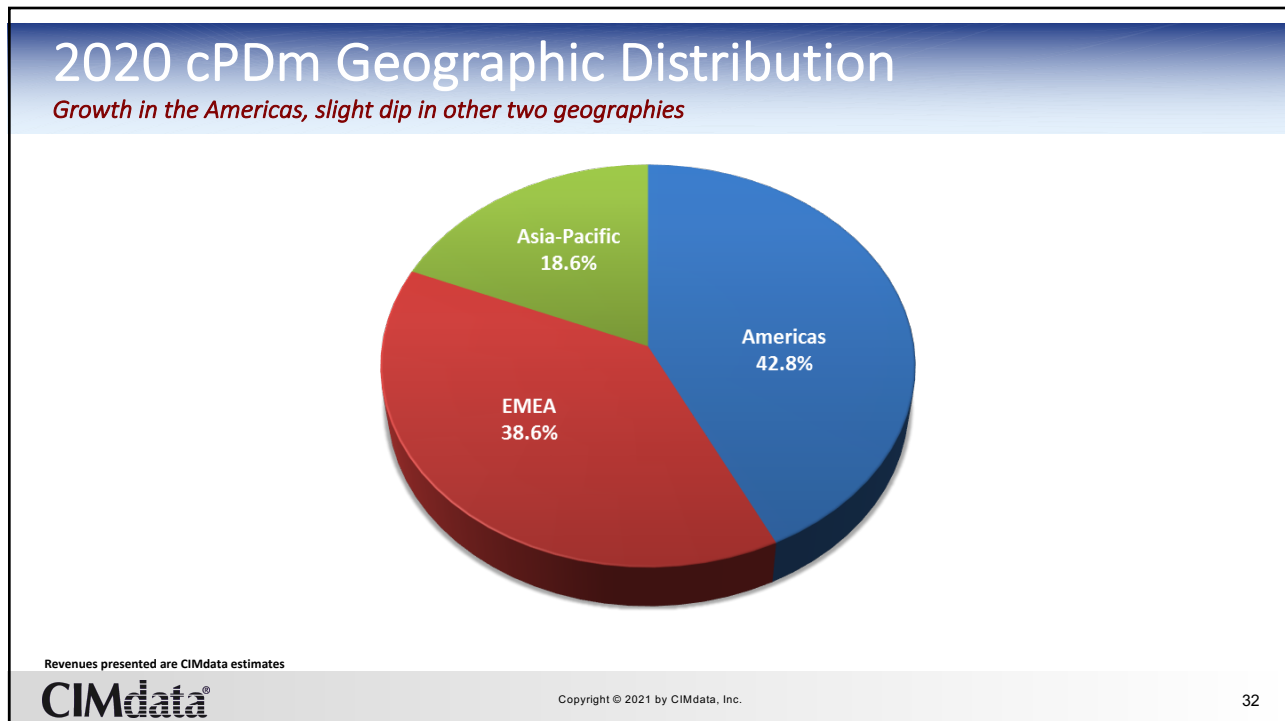
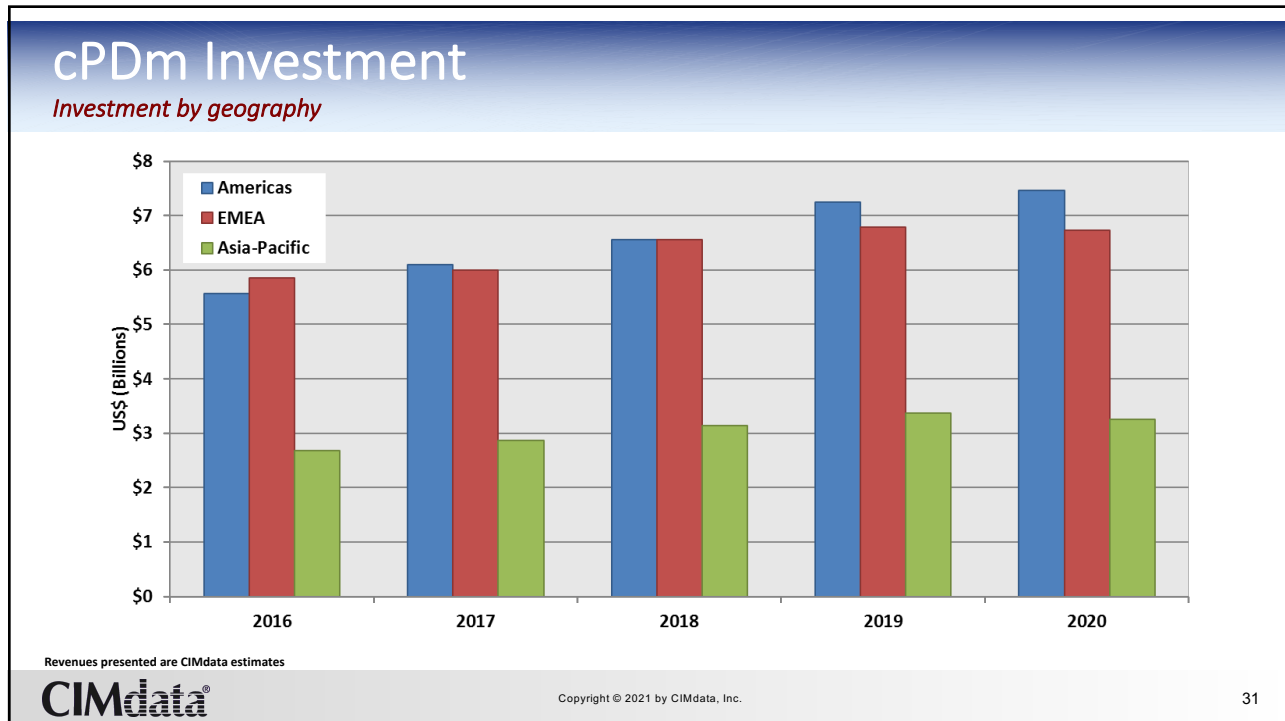
CIMdata®

Copyright © 2021 by CIMdata, Inc.

30

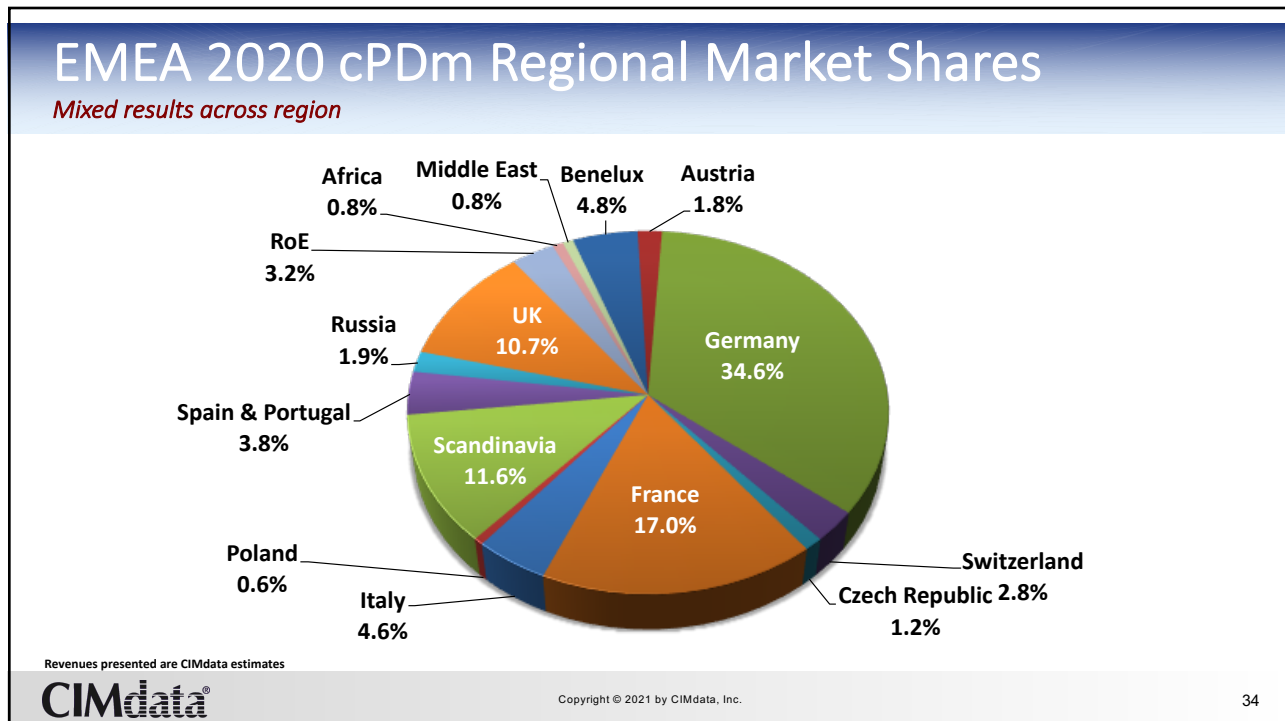
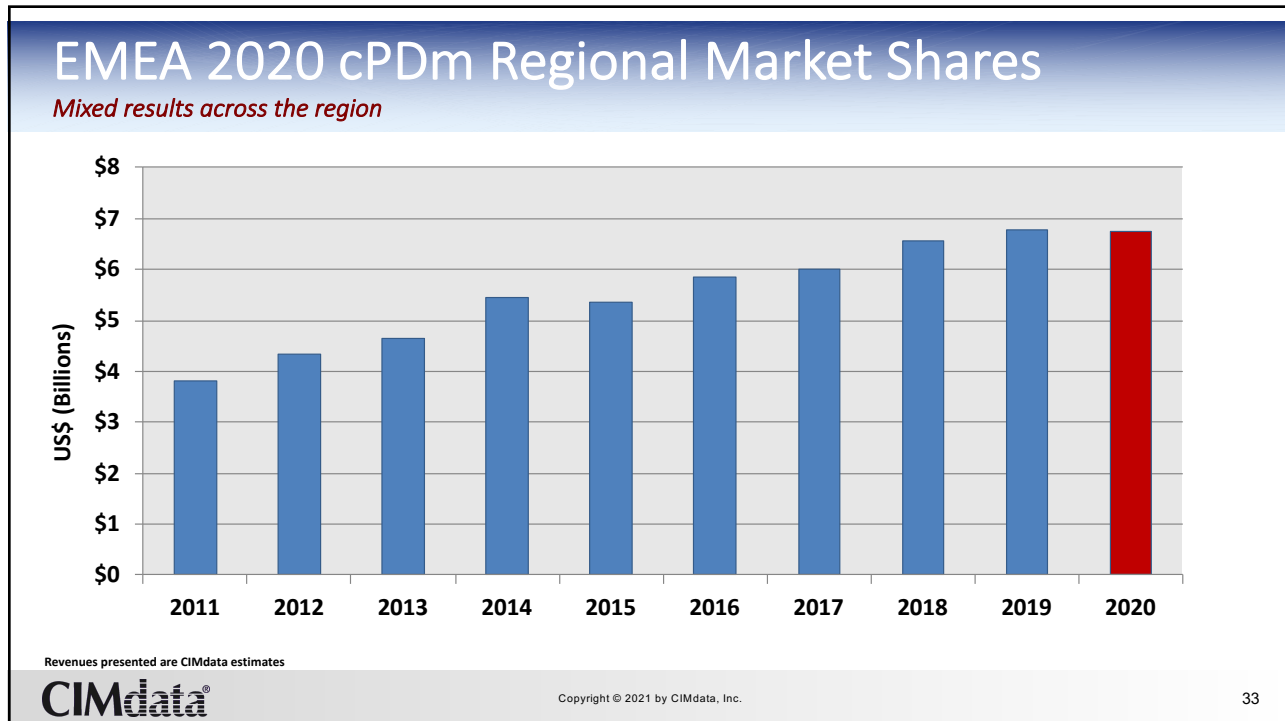
2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum



2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

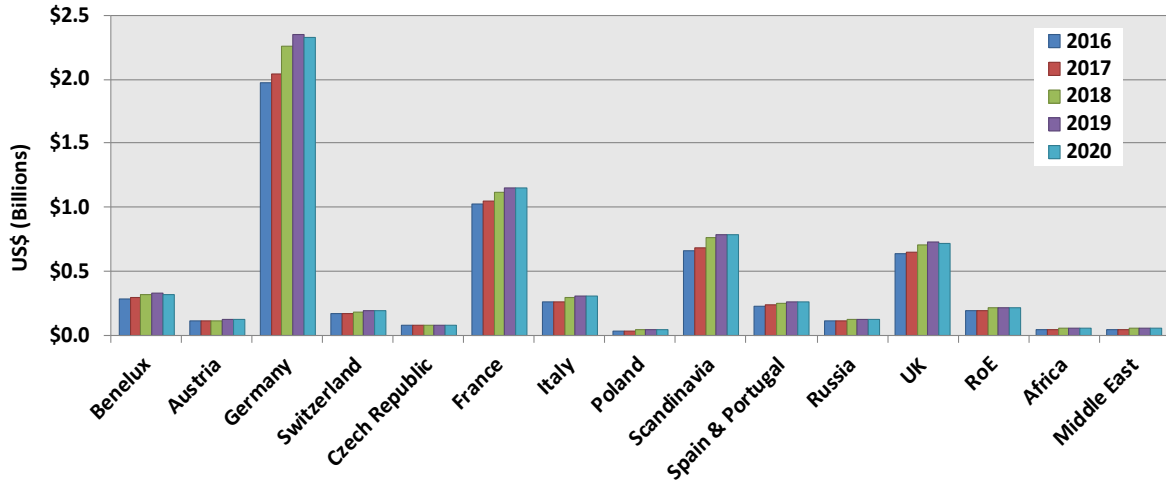


2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

EMEA cPDM Revenue History

Growth across region



Revenues presented are CIMdata estimates

CIMdata

Copyright © 2021 by CIMdata, Inc.

35

Agenda

2021 CIMdata PLM Market & Industry Forum

- PLM Market Analysis
- Overall cPDM Market Analysis
- PLM Provider Analysis
- Provider Sector Analysis
- Concluding Remarks

CIMdata

Copyright © 2021 by CIMdata, Inc.

36

2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

PLM Mindshare Leaders

Who do people think about?

- These companies are perceived as leading the market
 - Number, size, and scope of implementations
 - Technology and thought leadership
- All are comprehensive, lifecycle-focused providers
 - Some were leaders in the PDM market
 - Some also provide tools – primarily MCAD and S&A
- Are developing broad PLM platforms, and addressing new industries and geographies

CIMdata[®]

Copyright © 2021 by CIMdata, Inc.

37

Market Presence

Evaluating a provider's impact in the marketplace

- Market presence includes
 - A provider's direct revenues
 - Partner revenues built around a provider's products and technology
 - Does not double count royalties paid
- Represents a provider's overall footprint in the PLM market
- Grows with a provider's partnerships and alliances

CIMdata[®]

Copyright © 2021 by CIMdata, Inc.

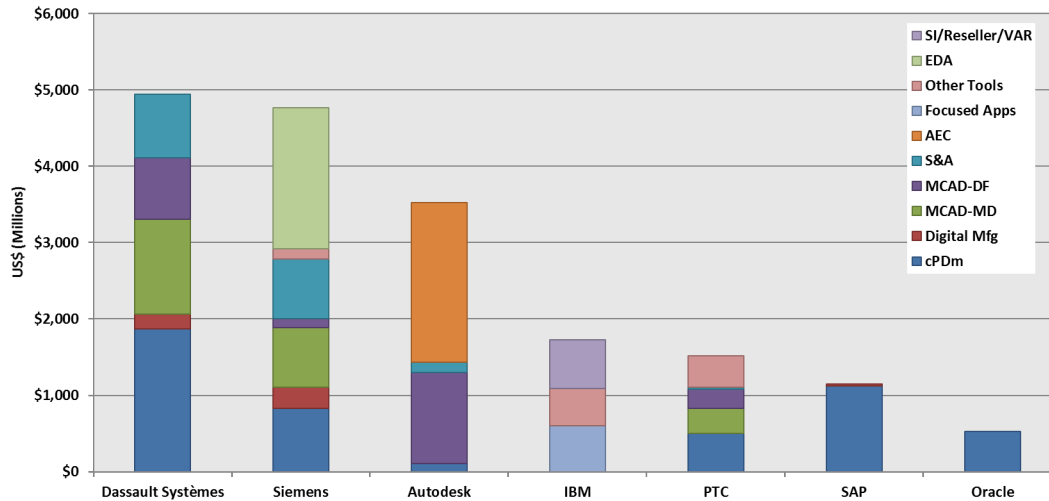
38

2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

2020 PLM Mindshare Leaders Revenue

Leaders' direct revenues—led by providers of CAD tools



Revenues presented are CIMdata estimates

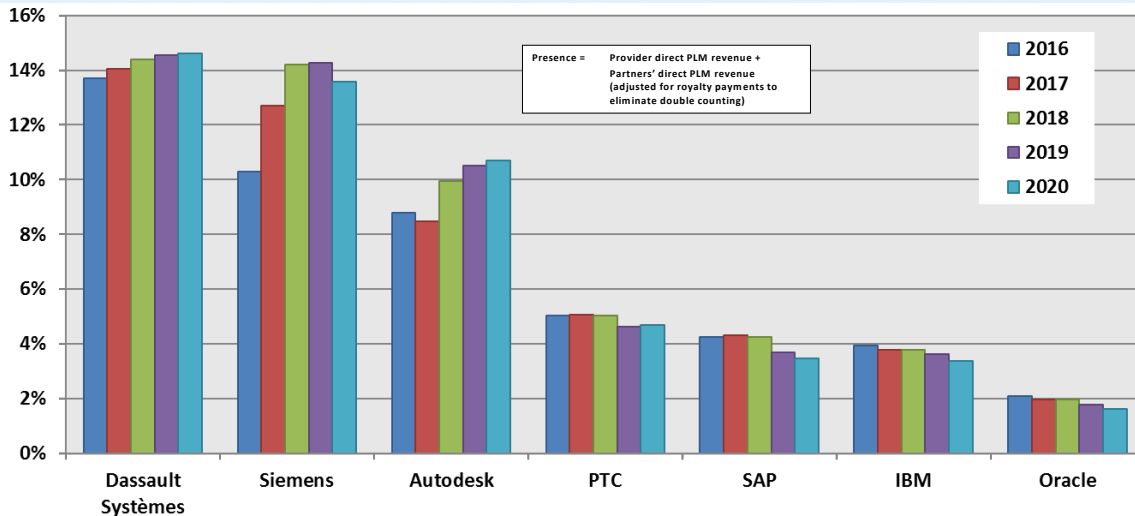


Copyright © 2021 by CIMdata, Inc.

39

PLM Mindshare Leaders Market Share History

PLM mindshare leaders' five-year PLM market presence share trends



Revenues presented are CIMdata estimates

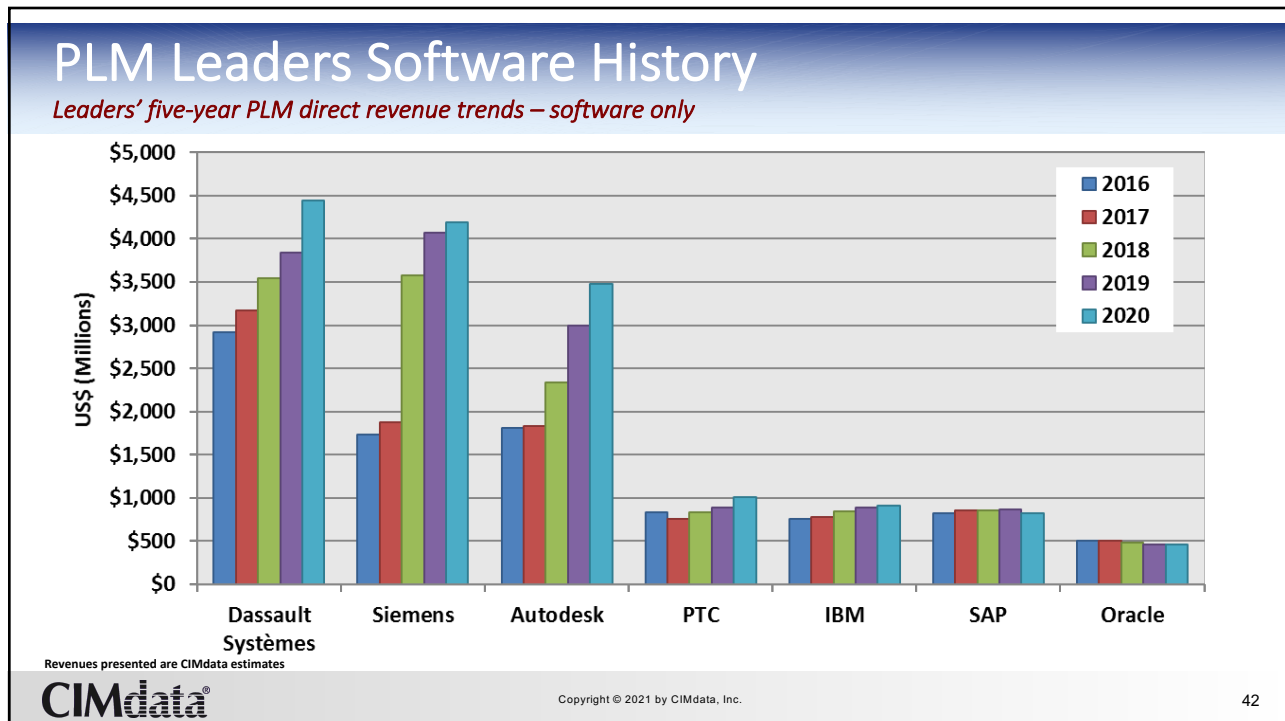
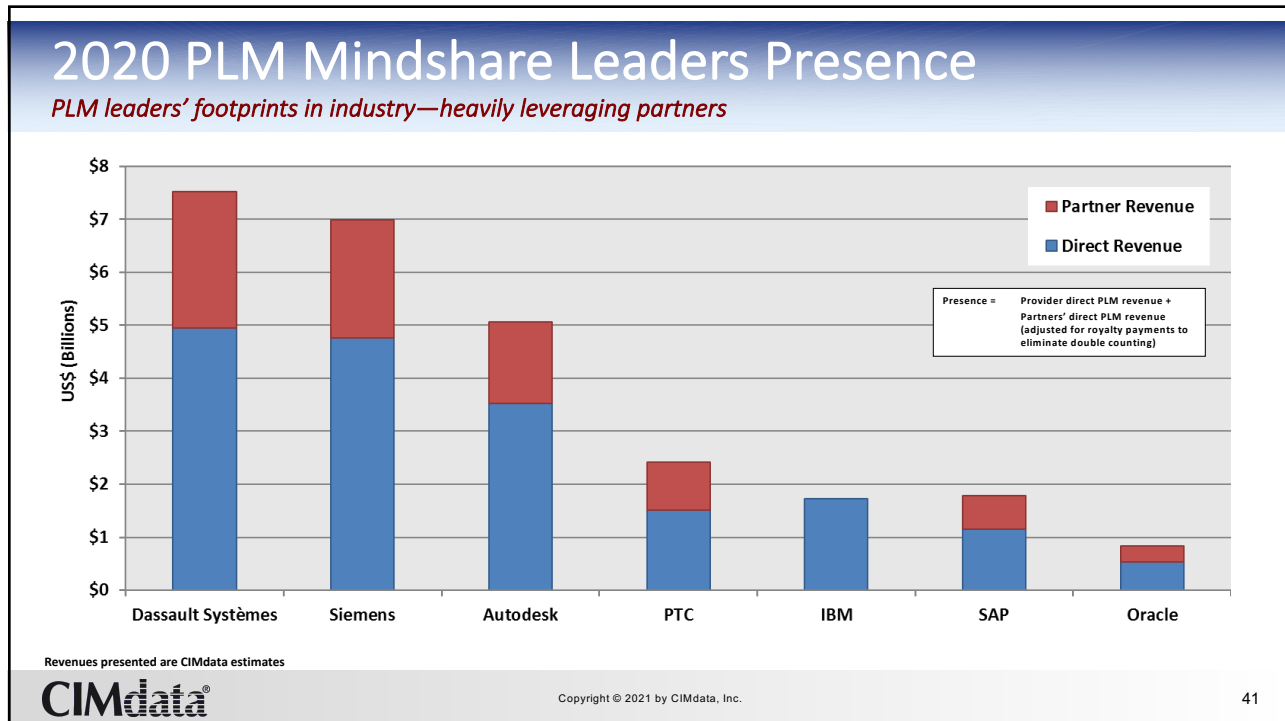


Copyright © 2021 by CIMdata, Inc.

40

2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum



2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

Overall PLM Market Revenue Leaders

The market leaders are a diverse group

- Several are focused on specific technologies or industries
 - MDA, EDA, AEC, analysis, ...
- Some have multiple lines of business
- Some are partners of multiple other providers
- Many are not competitors
- Thirteen companies over \$1 billion in revenue
 - Two EDA
 - Five Comprehensive cPDM
 - Two SI/Reseller/VAR
 - Two S&A
 - One Focused cPDM
 - And Hexagon...

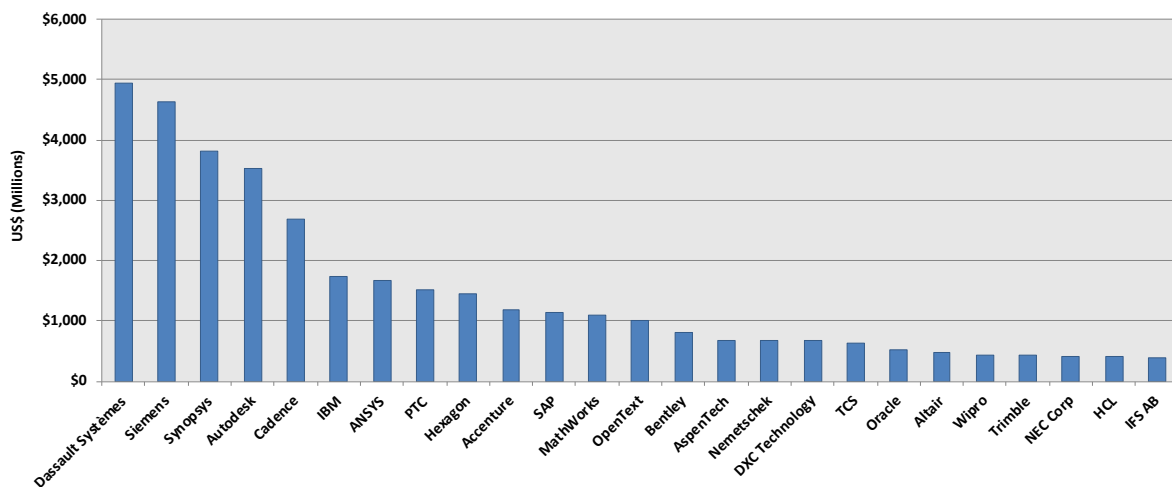


Copyright © 2021 by CIMdata, Inc.

43

2020 Overall PLM Revenue Leaders

Many diverse companies generate PLM revenue



Revenues presented are CIMdata estimates



Copyright © 2021 by CIMdata, Inc.

44

2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

Scope of Services Continues to Evolve

As PLM solutions evolve, more and different services are needed—even more of a challenge now

- PLM continues to interface, exchange information and processes with more and more business solutions
 - Expanding footprint, support for digital thread requires higher levels of integration
 - PLM expansion areas require deployment skills not normally available in-house – driving use of external expertise
 - Cloud – cloud-to-cloud, cloud to on-premise interconnection
 - IoT data will have to be analyzed, with results fed back to multiple systems
- Changes to software design, packaging, and delivery changing the types of services needed
 - Going beyond just implementation, IT integration
 - Helping customers to implement advanced topics/processes using a specific cPDM solution
 - Mobile access to multiple systems of record

CIMdata®

Copyright © 2021 by CIMdata, Inc.

45

Service Providers

Services companies continue to increase PLM commitments

- Systems integrators and consultancies continuing their PLM program expansion
 - Global firms
 - Accenture, Atos, Capgemini, IBM, T-Systems, CENIT, DXC Technology, Deloitte, Tata Technologies, TCS, HCL, Infosys, Wipro, Tech Mahindra,...
 - Regional/focused SIs continue expanding
 - NEC, Addnode, Samsung SDS,...
- These firms are developing solutions on top of solution provider technology
 - Adding their domain expertise
 - Industry and/or functional solutions
 - Selling through vendors or direct to industrial companies

CIMdata®

Copyright © 2021 by CIMdata, Inc.

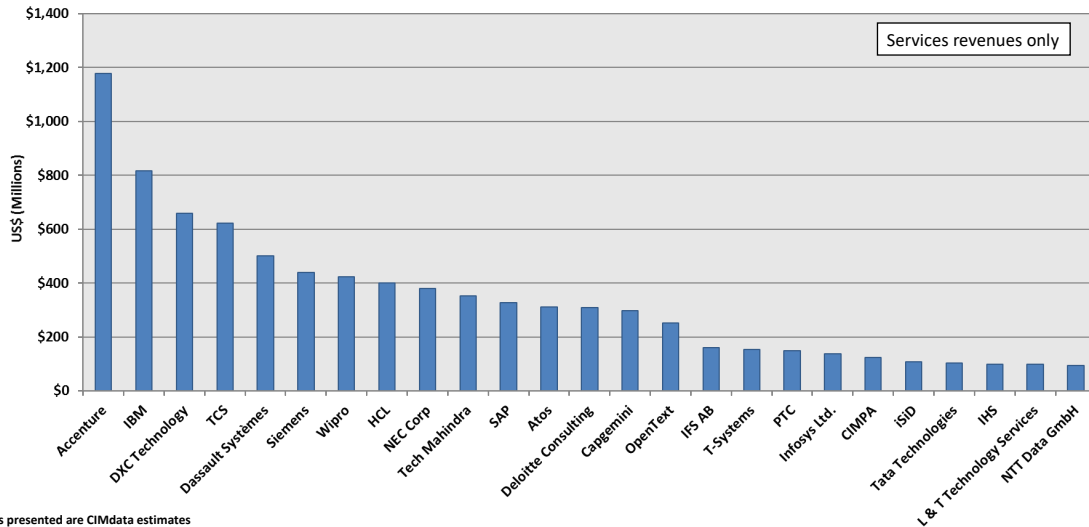
46

2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

2020 PLM Services Revenue Leaders

Changes in the services organizations of leading PLM solution providers



Revenues presented are CIMdata estimates



Copyright © 2021 by CIMdata, Inc.

47

Focused Application Providers

Expanding PLM through innovation

- Focused providers help expand the PLM market
 - Target specific market segments
 - Create solutions that complement major providers' suites
 - Introduce new technology and working paradigms into the PLM environments
- Many create technologies and solutions that are acquired or embedded into the comprehensive providers' product suites
- Frequently become acquisition targets
 - E.g., Dassault Systèmes and Medidata, Honeywell and Sparta Systems
- Harder (or impossible) to continue to measure separately post-acquisition



Copyright © 2021 by CIMdata, Inc.

48

2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

Agenda

2021 CIMdata PLM Market & Industry Forum

- PLM Market Analysis
- Overall cPDM Market Analysis
- PLM Provider Analysis
- Provider Sector Analysis
- Concluding Remarks

CIMdata[®]

Copyright © 2021 by CIMdata, Inc.

49

cPDM Provider Analysis

Review of cPDM provider revenue performance

- cPDM sector had better than expected results
- Comprehensive segment dominated by “mindshare” leaders
 - Aras, Dassault Systèmes, Oracle, PTC, SAP, and Siemens PLM Software
- Other major providers
 - Autodesk, IBM, IFS, and Infor
 - NEC focused on Japan
- New providers continue to emerge
 - Continuing the expansion
 - Cloud-native (CassiniPLM, Ganister, OpenBOM, Upchain, etc.), some on cloud platforms (Propel PLM)
 - Local providers, i.e., China, Russia, etc.

CIMdata[®]

Copyright © 2021 by CIMdata, Inc.

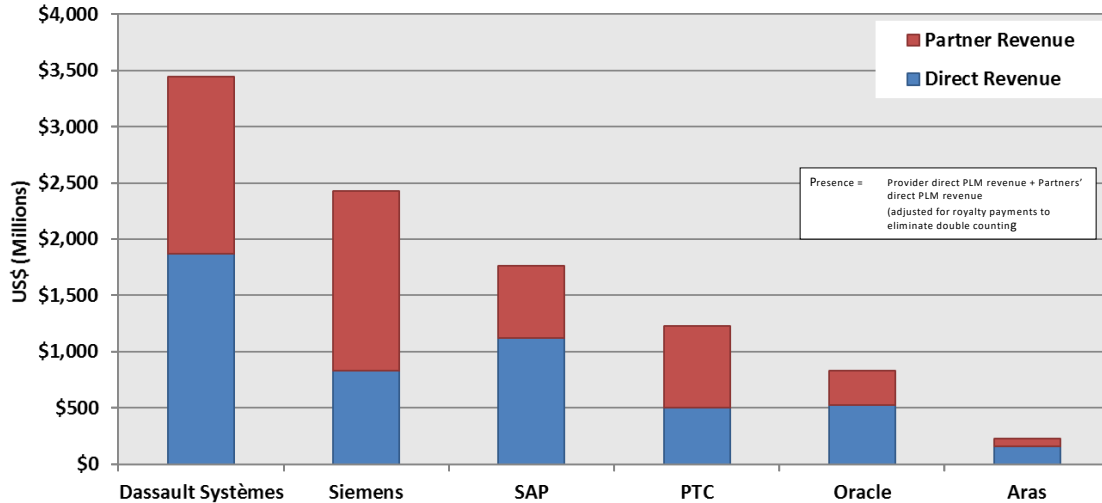
50

2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

2020 cPDM Leaders Market Presence

Shows impact on cPDM market sector



Revenues presented are CIMdata estimates

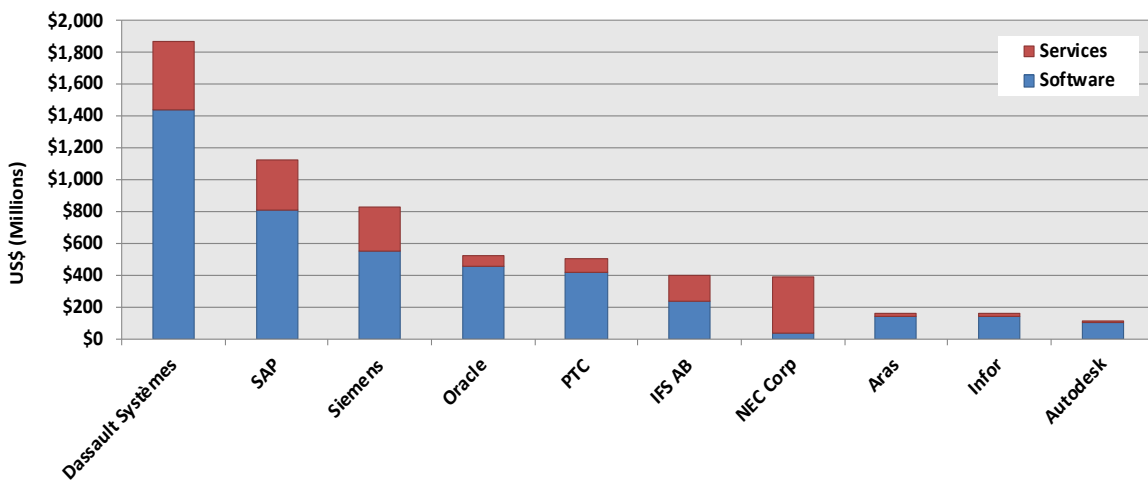


Copyright © 2021 by CIMdata, Inc.

51

2020 cPDM Leaders Direct Revenue

Software provides the majority of revenue for most providers



Revenues presented are CIMdata estimates



Copyright © 2021 by CIMdata, Inc.

Software includes: one time payments (paid licenses) plus recurring fees – right to use, subscriptions, maintenance

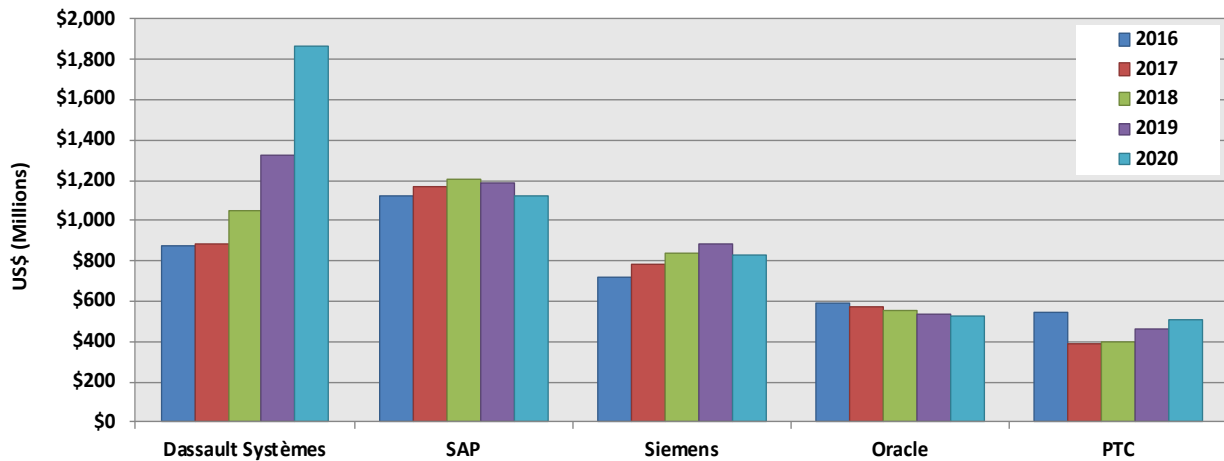
52

2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

Comprehensive cPDM Leaders Revenue History

Leaders' five-year cPDM direct revenue trends



Revenues presented are CIMdata estimates

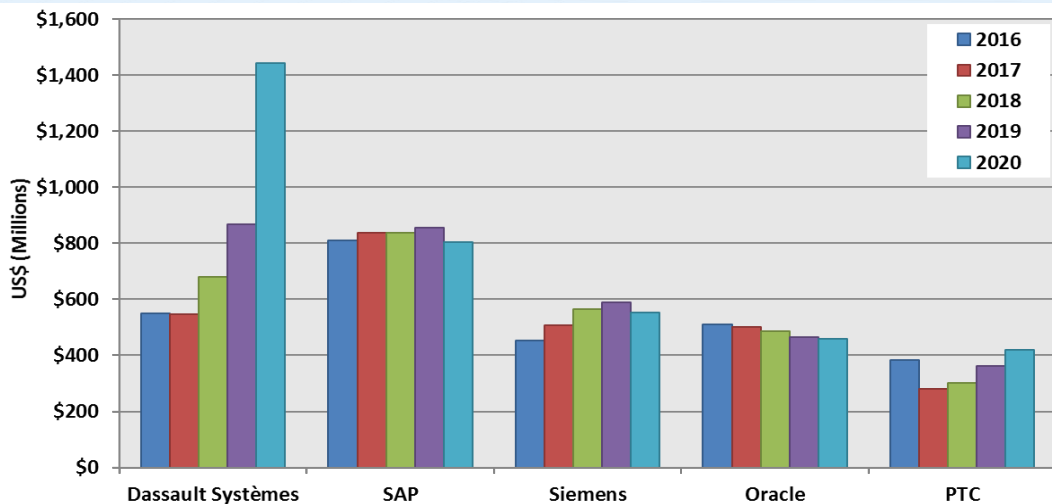


Copyright © 2021 by CIMdata, Inc.

53

Comprehensive cPDM Leaders S/W History

Leaders' cPDM direct revenue



Revenues presented are CIMdata estimates



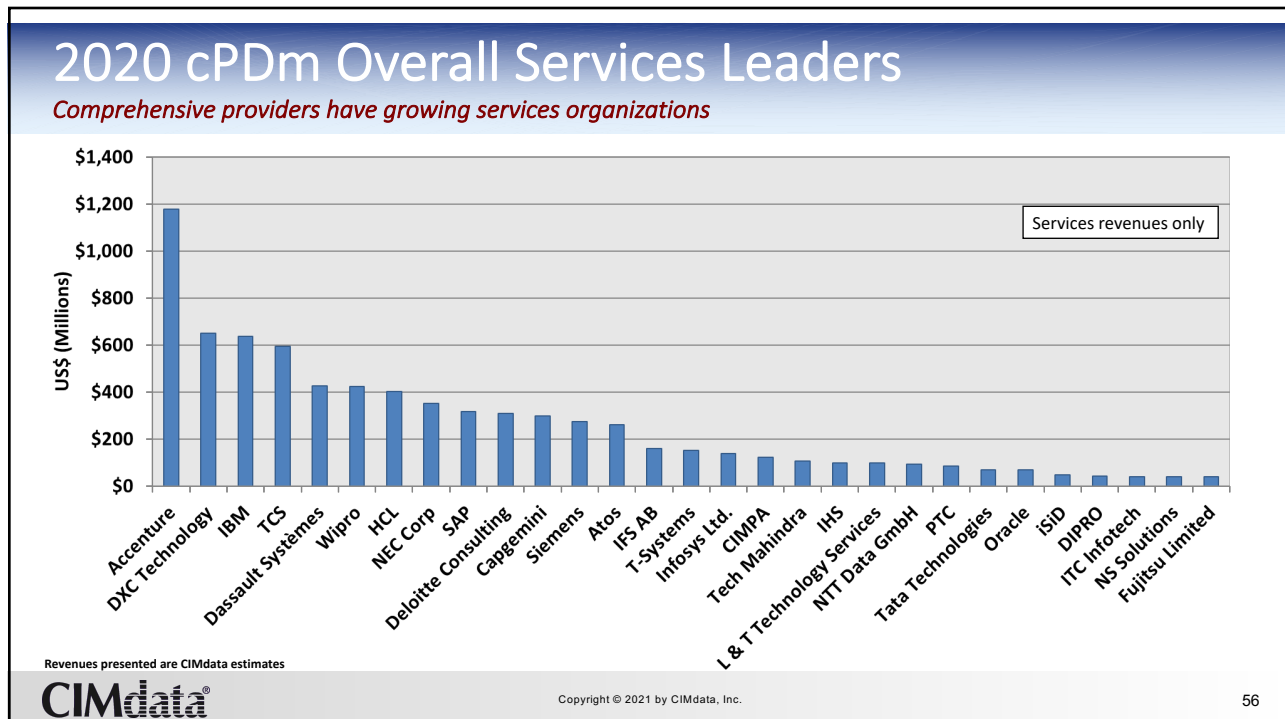
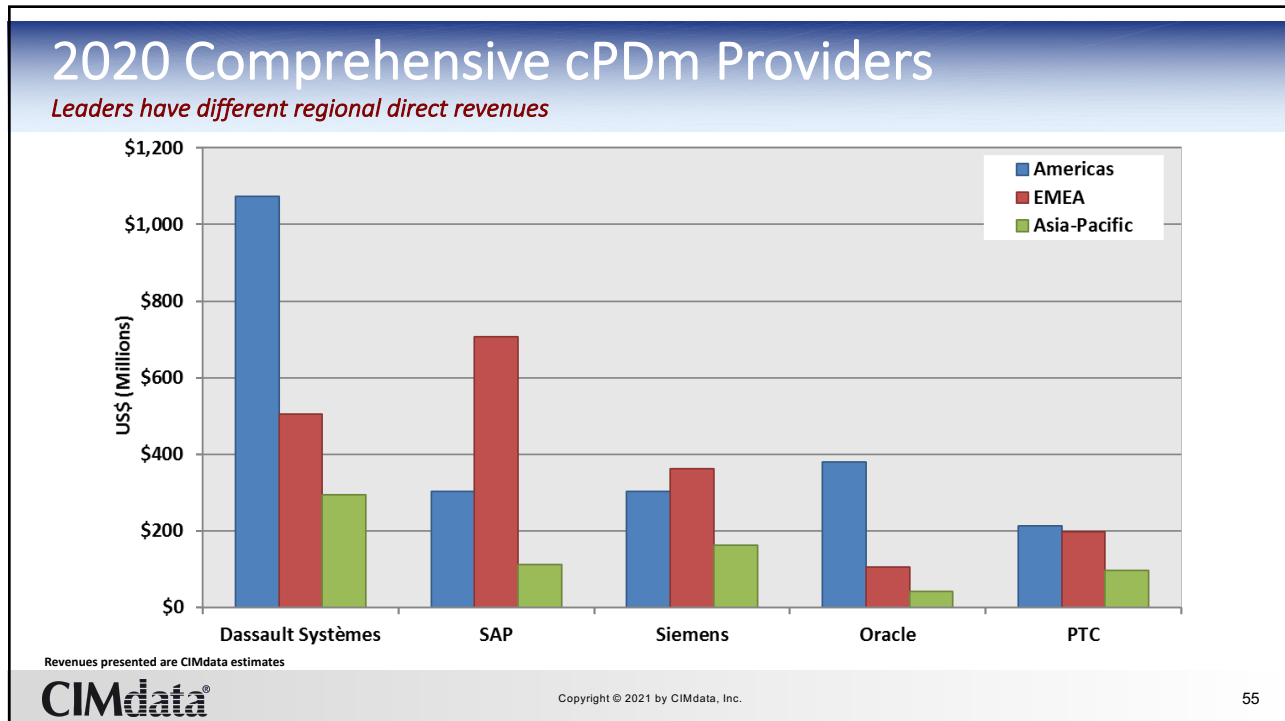
Copyright © 2021 by CIMdata, Inc.

Software includes: one time payments (paid licenses) plus recurring fees – right to use, subscriptions, maintenance

54

2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

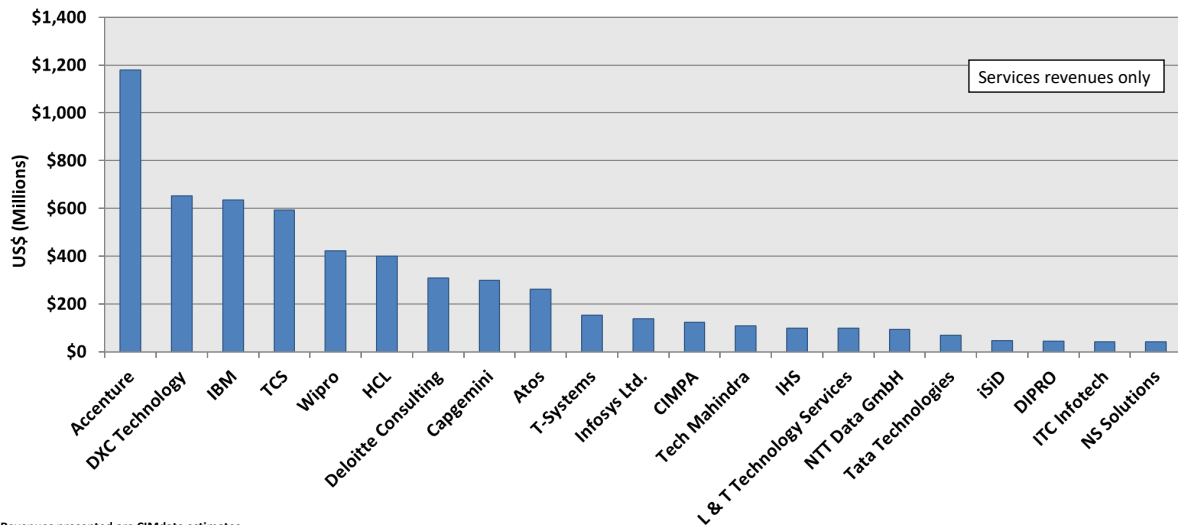


2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

2020 cPDM Independent Services Leaders

cPDM independent services continue to grow



Revenues presented are CIMdata estimates

CIMdata

Copyright © 2021 by CIMdata, Inc.

57

Overall cPDM Providers

Continuing evolution among the overall leaders

- Leaders are from all cPDM segments
 - These providers do not always compete
 - Some partner on selected accounts
- Service providers continue to grow
 - Expect strong license growth in 2019 to lead to services growth in out years (eventually)
- Fourteen cPDM solution and service providers larger than \$400M in 2020, up one from 2019

CIMdata

Copyright © 2021 by CIMdata, Inc.

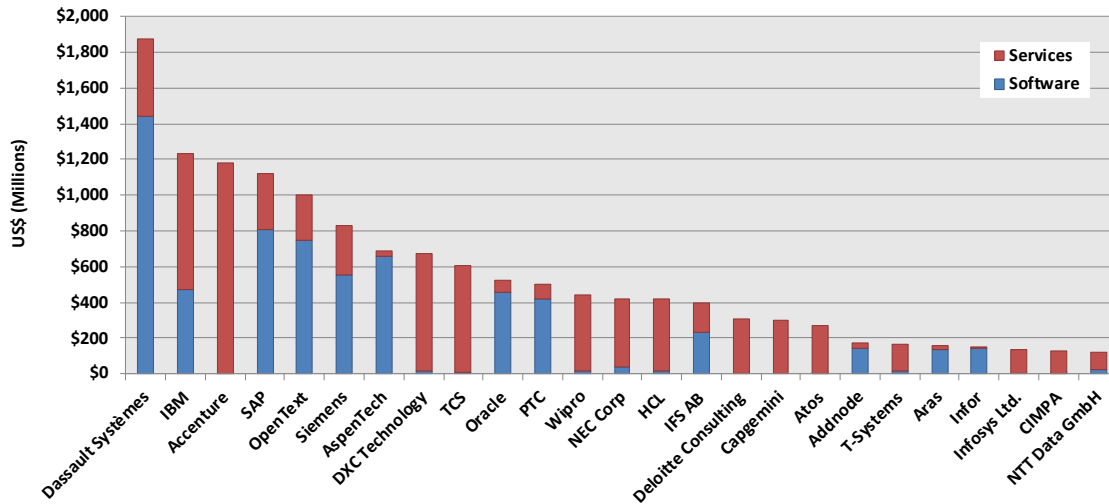
58

2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

Overall 2020 cPDm Revenue Leaders

Services are a major factor in overall revenue



Revenues presented are CIMdata estimates

Software includes: one time payments (paid licenses) plus recurring fees – right to use, subscriptions, maintenance



Copyright © 2021 by CIMdata, Inc.

59

Comments on Tool Segments

Detailed charts will be included in the published deck

Segment	Comments
MCAD-MD	Expect continued slow growth in this segment as auto and A&D hit hard by COVID-19 impacts
MCAD-DF	DF segment often affected by recession; results buoyed by Autodesk and PTC move to subscription; SOLIDWORKS a consistent performer absent a pandemic
CAM	Always hit by recession, will be slower to recover (e.g., machine tool sales down in 2018 and 2019)
S&A	Significant M&A activity in market leaders, trends driving growth will remain strong (smart connected product/Industry 4.0, need for more simulation on the left side of the Vee)
EDA	Only segment not to lower guidance after Q1 2020, strong year, same trends as S&A
AEC	Key to (re)defining the built world, expanding interest in discrete PLM issues; oil & gas affected by energy prices
Other Tools	Again, smart connected products driving investments; Atlassian up 39% in the middle of the pandemic

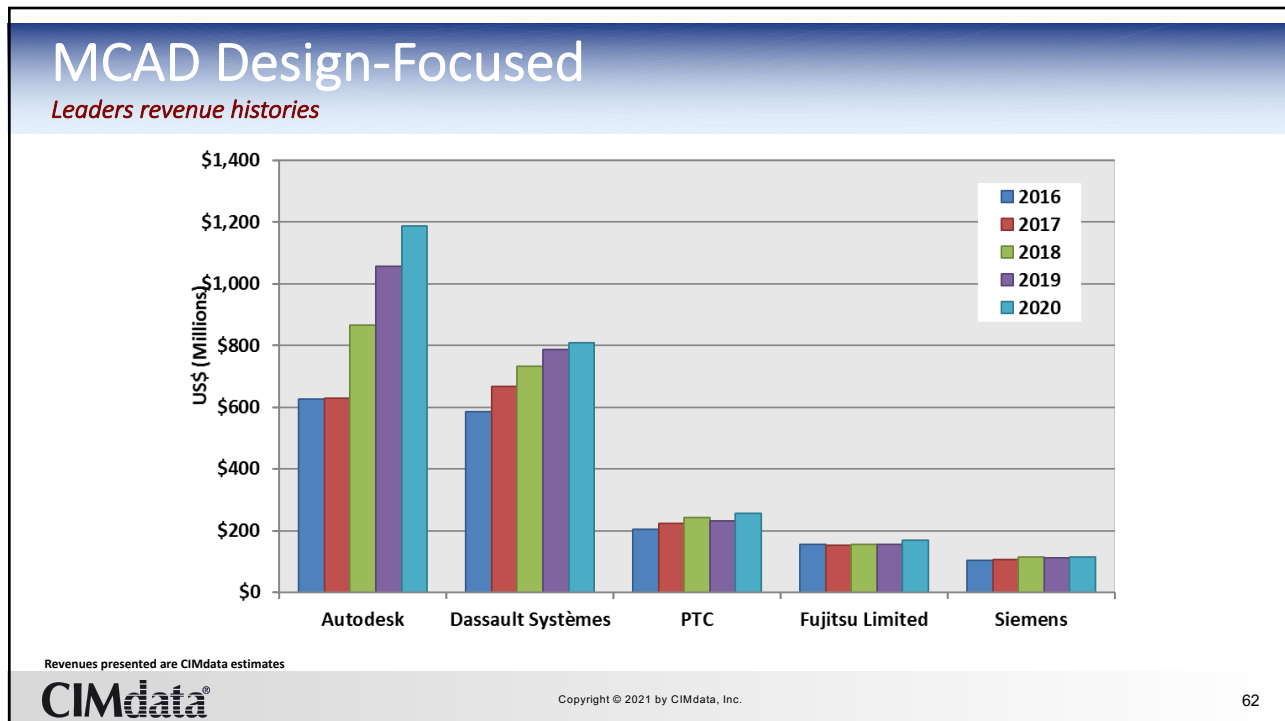
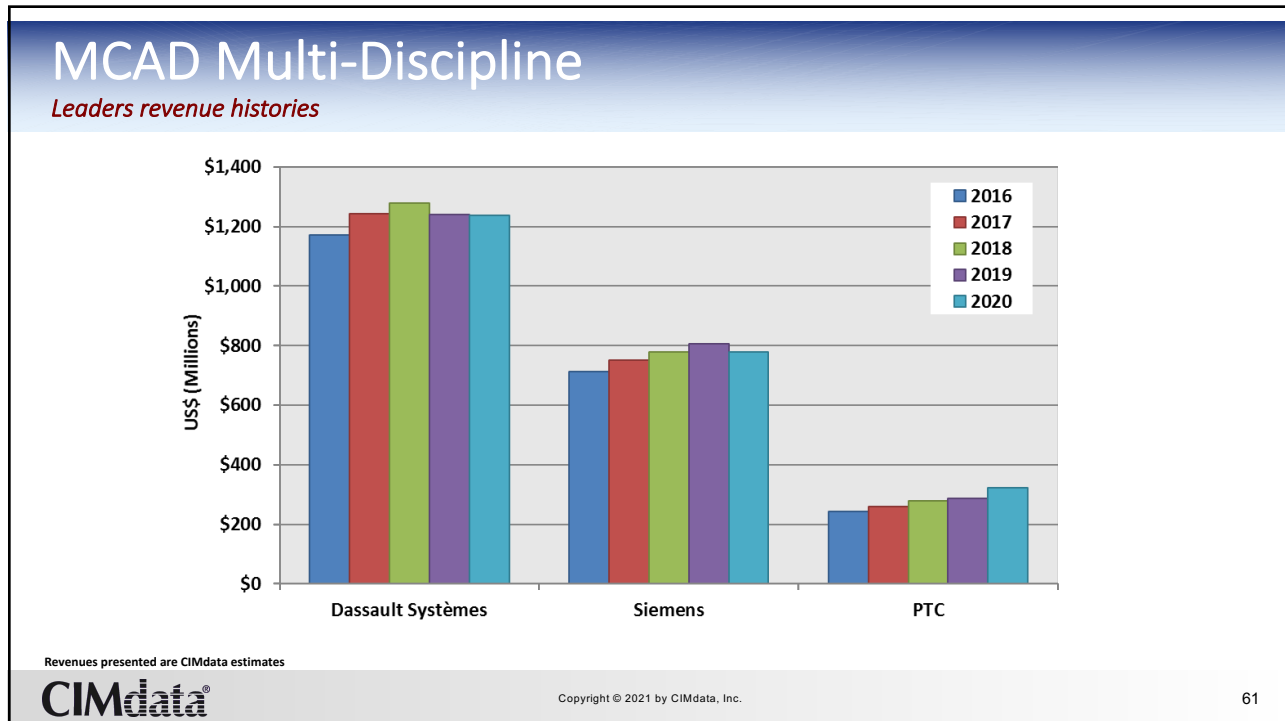


Copyright © 2021 by CIMdata, Inc.

60

2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum



2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

Combining MCADs

Does it make sense to separate MD and DF?

- Since CIMdata began reporting “Tools” revenues in the MAR, we used two categories
 - Multi-Discipline (MD)
 - Design-Focused (DF)
- Made sense at the time
 - Different markets
 - Different capabilities
- Times have changed – is it time to change to reporting to MCAD?
 - DF solutions have expanded their capabilities
- Major providers said “it makes sense to combine them, but please report them both ways”

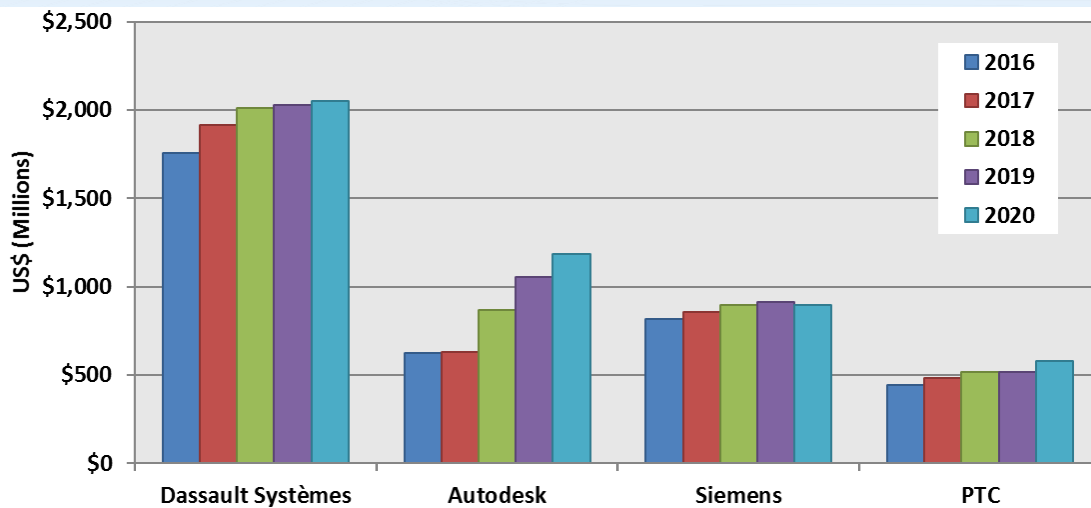


Copyright © 2021 by CIMdata, Inc.

63

Combined MCAD

Leaders revenue histories



Revenues presented are CIMdata estimates

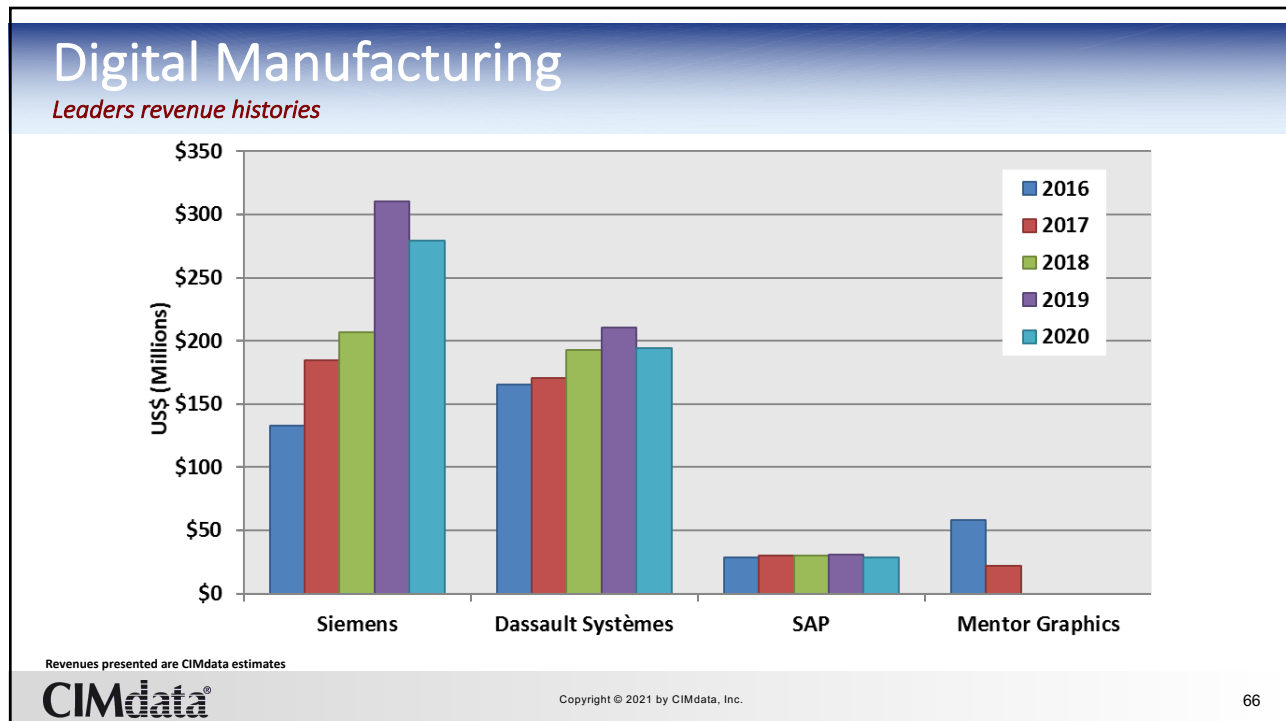
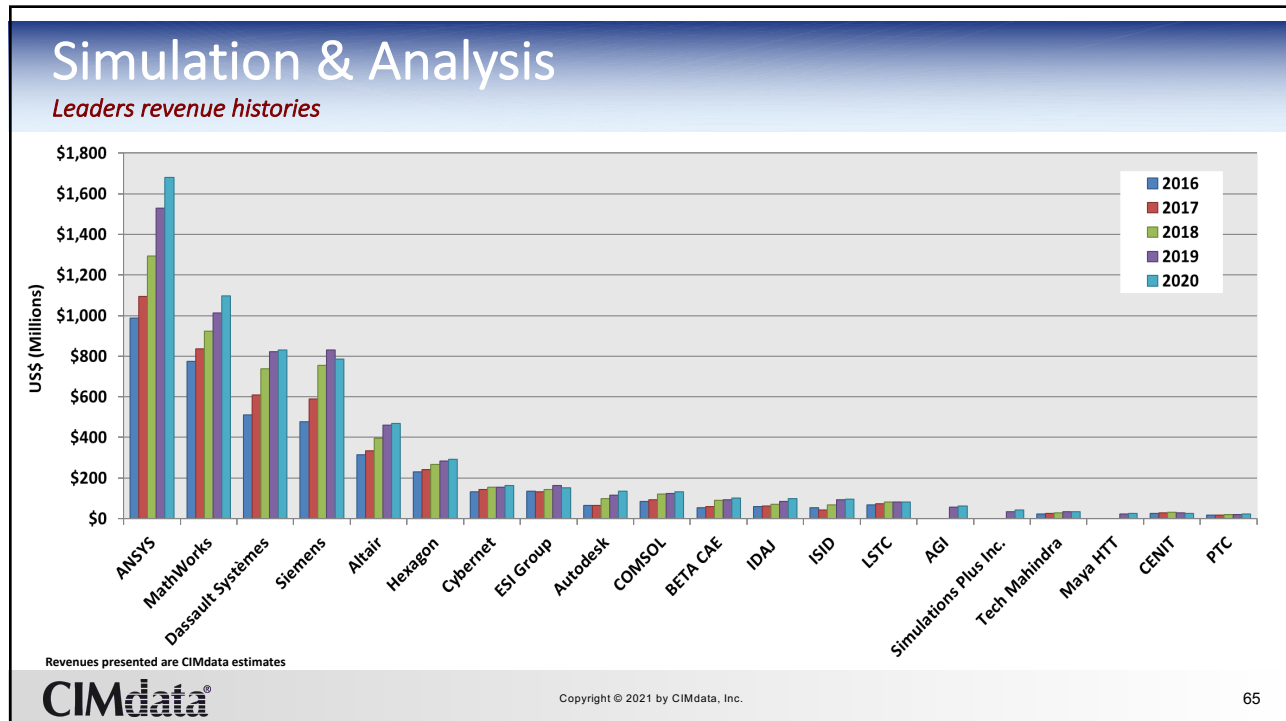


Copyright © 2021 by CIMdata, Inc.

64

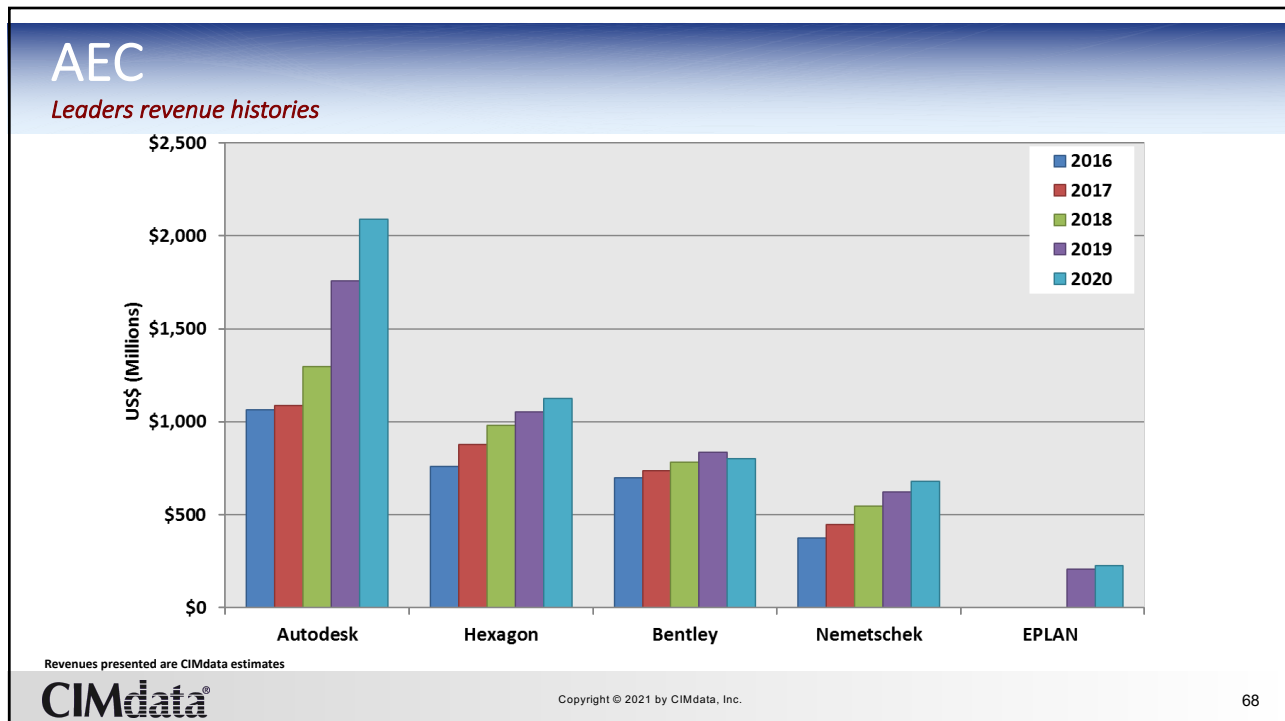
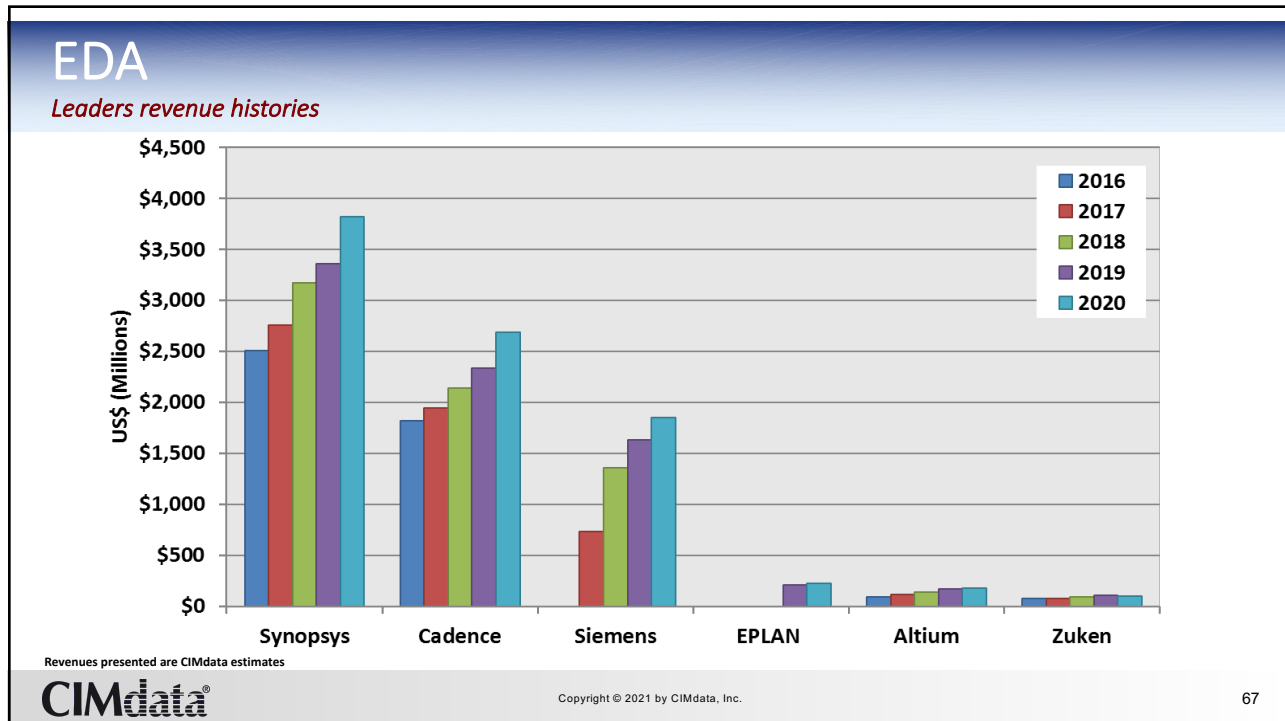
2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum



2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum



2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

Agenda

2021 CIMdata PLM Market & Industry Forum

- PLM Market Analysis
- Overall cPDM Market Analysis
- PLM Provider Analysis
- Provider Sector Analysis
- Concluding Remarks

CIMdata[®]

Copyright © 2021 by CIMdata, Inc.

69

Concluding Remarks

Factors impacting the PLM Economy (1 of 2)

- Higher than forecast, too pessimistic in the EDA and S&A segments
- COVID-19 impacted most segments, some in a big way
- Subscription can back stop declines, assuming no defections
- Simulation and systems engineering still key
- Mergers and acquisitions will continue to play a role
 - Providers look to fill out their portfolios
 - An important part of the platformization trend
 - A lot of activity in the SI/Reseller/VAR space

CIMdata[®]

Copyright © 2021 by CIMdata, Inc.

70

2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum

Concluding Remarks

Factors impacting the PLM Economy (2 of 2)

- Cloud interest and action increasing, at a tipping point?
- Services continued shrinking as a percentage of the cPDM market
 - Big impact of COVID-19 on services delivery
 - Packaged solutions changing services requirements
 - Cloud is contributing to the change
 - Changes in types of services needed
 - Digital thread and digital twin bring new requirements
 - More consolidation to come?
 - Seems to have created a new normal in service delivery
- PLM refresh programs will continue, as suggested in recent CIMdata research

The CIMdata PLM Market Analysis Report

Major PLM Foresight deliverables, a growing MAR series



- CIMdata PLM Market Analysis Report
 - CIMdata Executive PLM Market Report
 - CIMdata PLM Industry Review and Trends Report
 - CIMdata PLM Market and Solution Provider Analysis Report
 - CIMdata PLM Market Geographic Analysis Report
 - CIMdata PLM Market Industry Analysis Report
- Country reports for the Brazil, China, Germany, India, Japan, Russia, South Korea, Italy, United Kingdom, France, and the United States
- CAM MAR (29th year)
- Simulation & Analysis (S&A) MAR

2021 Market Analysis Results

2021 CIMdata PLM Market & Industry Forum



CIMdata
Strategic consulting for competitive advantage in global markets



World Headquarters
3909 Research Park Drive
Ann Arbor, MI 48108 USA
Tel: +1.734.668.9922
Fax: +1.734.668.1957

Main Office - Europe
Oogststraat 20
6004 CV Weert, NL
Tel: +31 (0) 495.533.666

Main Office - Asia-Pacific
Takegahana-Nishimachi 310-31
Matsudo, Chiba 271-0071 JAPAN
Tel: +81.47.361.5850
Fax: +81.47.362.0472

www.CIMdata.com

Serving clients from offices in North America, Europe, and Asia-Pacific

CIMdata® Copyright © 2021 by CIMdata, Inc. 73