

Innovation Through Pervasive Engineering Simulation

Investor Presentation

Q1 2020

NASDAQ: ANSS



Cautionary Statement Regarding Forward-Looking and Non-GAAP Financial Information

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are statements that provide current expectations or forecasts of future events based on certain assumptions. Forward-looking statements are subject to risks, uncertainties, and factors relating to our business which could cause our actual results to differ materially from the expectations expressed in or implied by such forward-looking statements. Many of these risks, uncertainties, and factors are currently amplified by, and may continue to be amplified by, the COVID-19 pandemic. Forward-looking statements use words such as “anticipate,” “believe,” “could,” “estimate,” “expect,” “forecast,” “intend,” “likely,” “may,” “outlook,” “plan,” “predict,” “project,” “should,” “target,” or other words of similar meaning. Forward-looking statements include those about market opportunity, including our total addressable market. Risks, uncertainties, and factors that could cause actual results to differ materially from those implied by these forward-looking statements include: current and potential future impacts of the COVID-19 pandemic on the global economy and our business, financial position, results of operations and cash flows; adverse changes in global economic and/or political conditions; declines in our customers’ businesses resulting in adverse changes in customer procurement patterns; disruptions in accounts receivable and cash flow due to customers’ liquidity challenges and commercial deterioration; uncertainties regarding demand for our products and services in the future and our customers’ acceptance of new products, including those arising from the need of customers to utilize our products from remote locations; plans for future capital spending; delays or declines in anticipated sales due to reduced or altered sales and marketing interactions with customers; disruptions in the global economy and financial markets that may limit or delay availability of credit under existing or new credit facilities, or that may limit our ability to obtain credit or financing on acceptable terms or at all; investments in complementary companies, products, services and technologies; our ability to complete and successfully integrate our acquisitions and realize the financial and business benefits of the transactions; political, economic, regulatory and public health and safety risks and uncertainties in the countries and regions in which we operate; impacts from tariffs, trade sanctions, export license requirements or other trade barriers; the effect of changes in currency exchange rates and changes in interest rates; potential variations in our sales forecasts compared to actual sales; the volatility of our stock price; failures or errors in our products and services; our industry’s rapidly changing technology; the quality of our products, including the strength of features, functionality and integrated multi-physics capabilities; lease license volatility; higher than anticipated costs for research and development or slowdown in our research and development activities; increased pricing pressure as a result of the competitive environment in which we operate; our ability to recruit and retain key personnel including any delays in recruitment caused by restrictions on travel and in person interactions and the absence of key personnel or teams due to illness or recuperation; our ability to protect our proprietary technology; cybersecurity threats or other security breaches, including in relation to an increased level of our activity that is occurring from remote global off-site locations; disclosure and misuse of employee or customer data whether as a result of a cybersecurity incident or otherwise; implementation of our new IT systems; investments in global sales and marketing organizations and global business infrastructure; dependence on our channel partners for the distribution of our products; increased volatility in our revenue due to the timing, duration and value of multi-year lease contracts; our reliance on high renewal rates for annual lease and maintenance contracts; operational disruptions generally or specifically in connection with transitions to and from remote work environments, or the failure of our technological infrastructure; the outcome of contingencies, including legal proceedings and government or regulatory investigations and service tax audit cases; uncertainty regarding income tax estimates in the jurisdictions in which we operate; changes in accounting principles or standards; the effect of changes in tax laws and regulations in the jurisdictions in which we operate; the uncertainty of estimates relating to the impact on reported revenue related to the acquisition accounting treatment of deferred revenue; and other risks and uncertainties described in our reports filed from time to time with the Securities and Exchange Commission. We caution readers not to place undue reliance upon any such forward-looking statements, which speak only as of the date they are made. We undertake no obligation to publicly update forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

We include non-GAAP financial information in this presentation. Reconciliations for such financial information may be found in our presentation, in these slides including in the Appendix, in other materials on our corporate website, and in our SEC filings. This information supplements our GAAP results and should not be viewed in isolation from, or as a substitute for, GAAP results. We believe that this information and the related reconciliations may be useful to investors, analysts and others to help understand and evaluate our financial results, and with respect to adjusted metrics, because we believe they better reflect the ongoing financial results and trends of our businesses and increase comparability of period-to-period results.

COVID-19 Update (as of May 6, 2020)

Information from 1Q20 Earnings

Operational Impact

- Our offices in North America, Asia and Europe, including our corporate headquarters in the United States, remain closed with employees working from home. Additionally, we are operating under certain travel restrictions. These actions have disrupted how we operate the business.
- We continue to pay all of our salaried and hourly workers.
- The purchasing process of some of our customers has slowed.
- Our R&D teams continue to collaborate effectively, and we are on track to meet product release targets.

Financial Impact

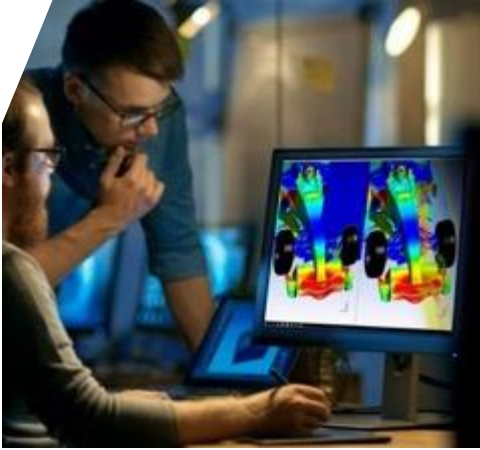
- The COVID-19 pandemic did not have a material, adverse impact on our first quarter financial results as compared to the financial guidance that we provided in February 2020.

Liquidity Impact

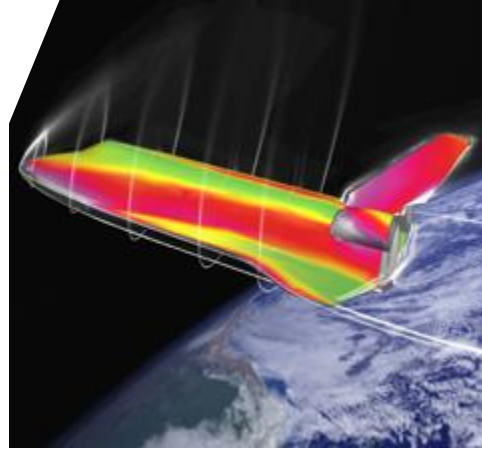
- While the acquisition of Lumerical Inc. utilized \$107.5 million of cash in early April, we continue to hold approximately \$600 million at April 30, 2020. We believe that this balance, together with cash generated from operations and access to our \$500.0 million revolving credit facility, are in excess of the cash required for our operations over the next twelve months.
- The increased requests from our customers and channel partners for extended payment terms have resulted in a 26% increase in our reserves for bad debt during the first quarter of 2020.
- We have an unsecured term loan with an outstanding principal balance of \$425.0 million as of March 31, 2020. We are compliant with our debt covenants. Our debt agreement currently requires no principal payments through the next twelve months.

Additional information related to the impact of COVID-19 can be found in the Q1 2020 prepared remarks available at <https://investors.ansys.com>.

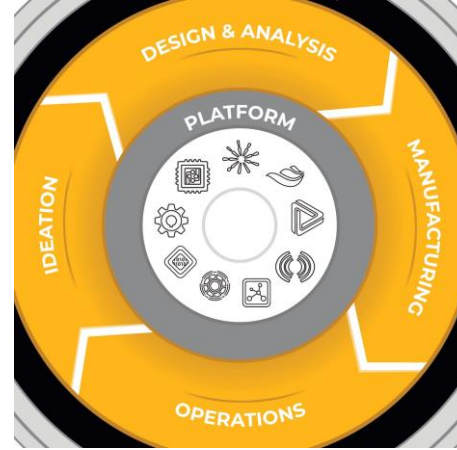
Well Positioned in a Growing Market



Ansys is the simulation market leader



The simulation market is strong and growing



Our strategy capitalizes on this growing market



We have a proven record of execution

/ A Leader in the Simulation Market for 50 Years

~2X THE SIZE OF OUR
NEAREST COMPETITOR

(CIMdata 2019 REPORT)*

#1 IN
SIMULATION

FOCUSED
SIMULATION IS ALL WE DO

PROVEN

MEMBER OF PRESTIGIOUS

STANDARD & POOR'S **Nasdaq 100**
Index

\$22B market capitalization

(as of May 6, 2020)

COMMITTED

OVERALL CUSTOMER SATISFACTION
GLOBALLY (2019): 85.9%

CAPABLE

4,200 EMPLOYEES GLOBALLY

87 ANSYS OFFICES
>100 CHANNEL
PARTNERS GLOBALLY

ConfirmIT source of customer satisfaction results. *Excludes MathWorks due to differences in product portfolio.

Commitment to Corporate Responsibility

People

ONE Ansys

79% Employee Engagement Score

21% Women on Senior Leadership Team

5.6% Voluntary Employee Turnover Rate

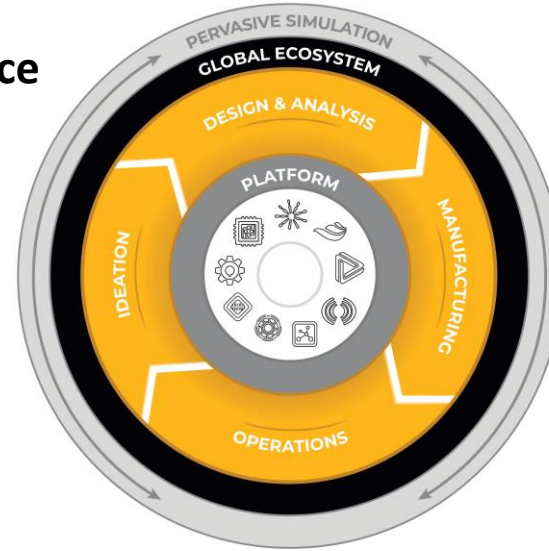
23% Women Employees
Metrics for full-year 2019

Planet

CLEAN TECHNOLOGY CONTRIBUTIONS – OUR PRODUCT HANDPRINT

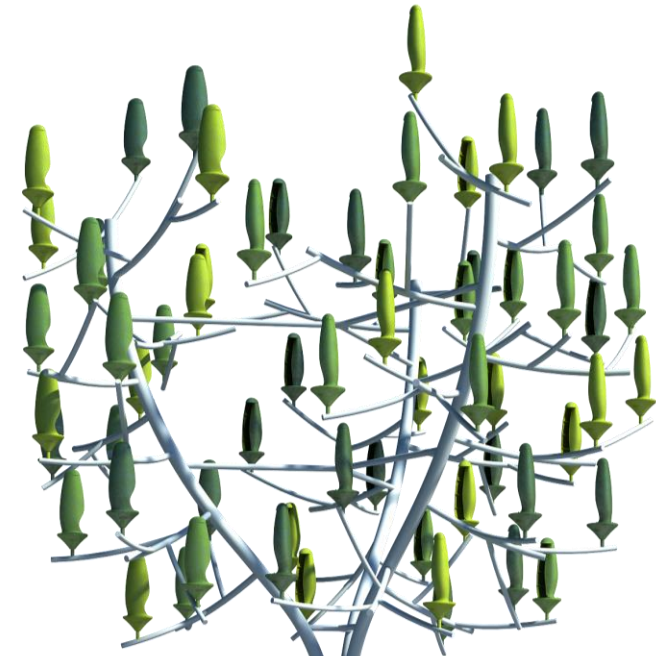
Ansys solutions support our customers in their efforts in sustainability as well as improving the efficiency, performance and durability of products. This has the positive effect of reducing total material use, increasing energy efficiency, reducing greenhouse gas emission, supporting the circular economy and increasing operational performance.

Practice



Innovation is one of our eight Ansys values. Our growth and financial strength reflect our leading technology position and commitment to innovation. This commitment to innovation ensures that we continue our progress toward our goal of enabling Pervasive Engineering Simulation™.

Enabling Our Customers' Sustainability Goals



By designing a tree-like wind power generator with steel branches and plastic leaves, New Wind has created an aesthetically pleasing alternative energy source for urban environments, bringing energy generation closer to people.

Awards & Recognition



World-class companies leveraging our platform



ANSYS Offers the Only True Simulation Platform

Best-of-breed simulation across all major physics

FLUIDS



STRUCTURES



ELECTROMAGNETICS



SEMICONDUCTOR



EMBEDDED
SOFTWARE



OPTICAL



SYSTEMS

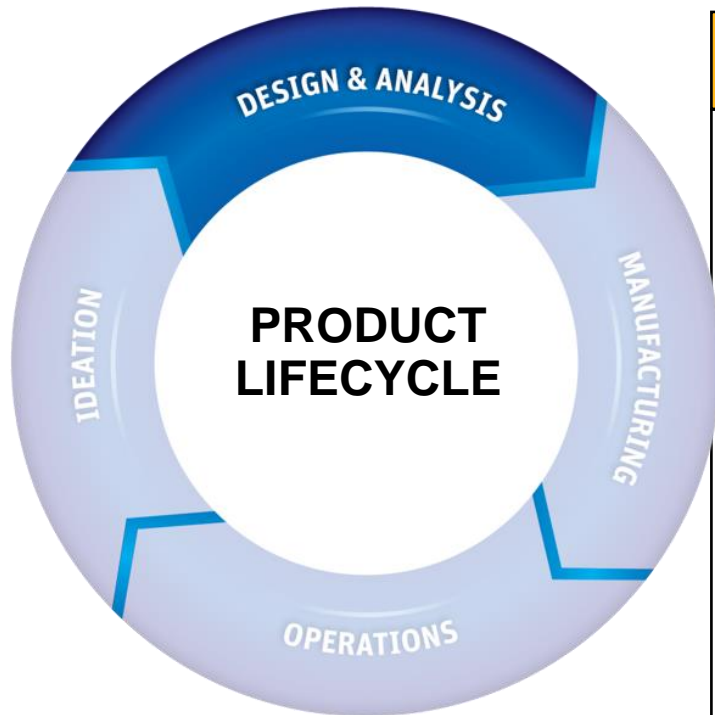


MATERIALS
INFORMATION



PLATFORM

Anslys' Simulation Provides Customers Top-Line Growth and Bottom-Line Savings



Simulation impact

- Rapid innovation
- Lower cycle time
- Reduced risks
- Increased quality
- Manage complexity

Revenue growth

- Offer more products
- Launch right products
- Faster time to market

Cost savings

- Improved R&D efficiency
- Fewer physical prototypes
- Lower warranty costs

Strong Customer Trust Creating High Barriers to Entry

Our differentiators

Best-in-class and proven physics solutions

Advanced methods

Industry-leading platform

Delivered on-premises and in the cloud

Open ecosystem

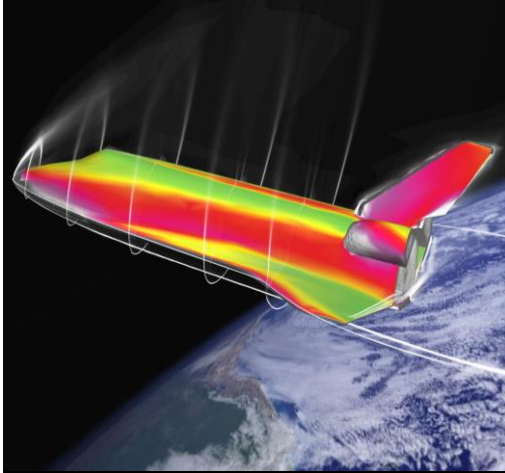
World-class customer engagement

High barriers to entry

Well Positioned in a Growing Market



Ansys is the simulation market leader



The simulation market is strong and growing

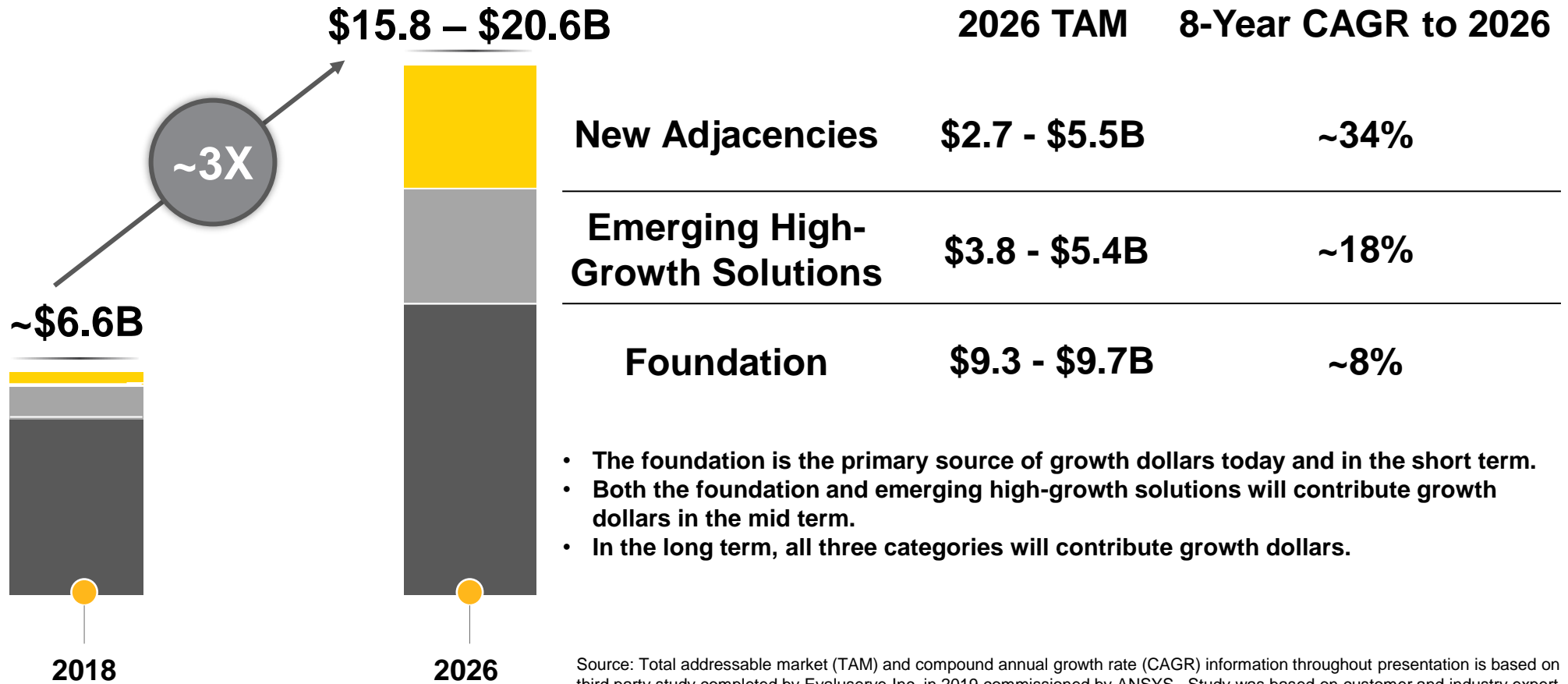


Our strategy capitalizes on this growing market



We have a proven record of execution

The Ansys Total Addressable Market For Simulation will ~Triple in the Next 7-10 Years



- The foundation is the primary source of growth dollars today and in the short term.
- Both the foundation and emerging high-growth solutions will contribute growth dollars in the mid term.
- In the long term, all three categories will contribute growth dollars.

Source: Total addressable market (TAM) and compound annual growth rate (CAGR) information throughout presentation is based on third party study completed by Evaluserve Inc. in 2019 commissioned by ANSYS. Study was based on customer and industry expert interviews and review of industry analyst reports and commentaries. Refer to Cautionary Statement for a discussion of factors that could impact future financial results.

Emerging High-Growth Solutions: Cross-Industry Trends will Accelerate Growth



Play to our strengths

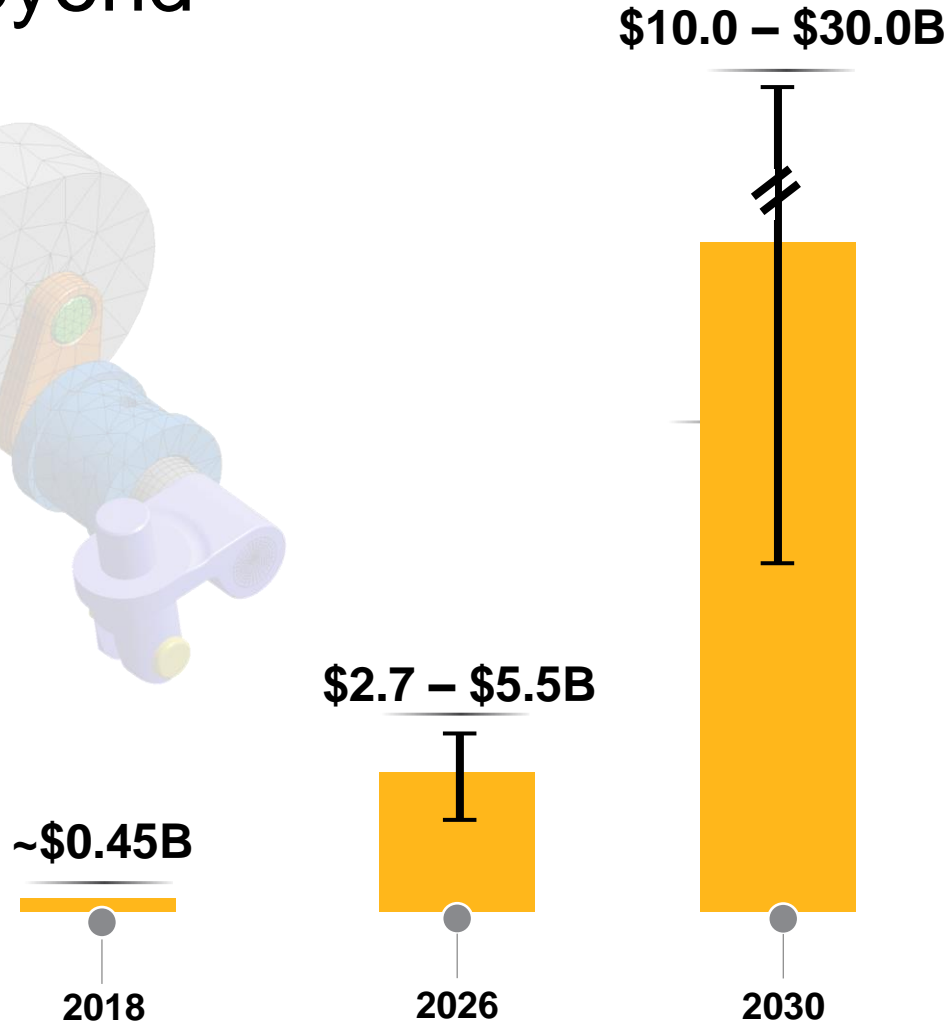
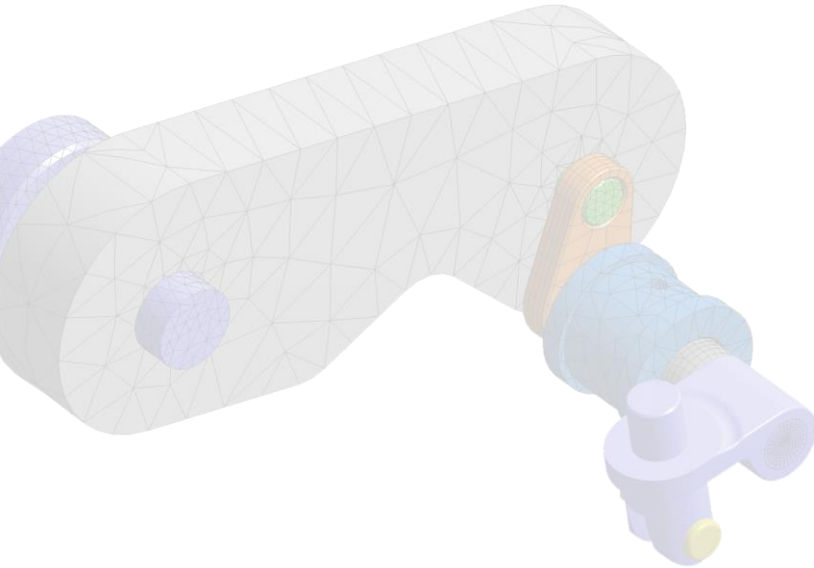
Disruptive market opportunities

**Large – and growing –
customer investment**

Unprecedented product complexity

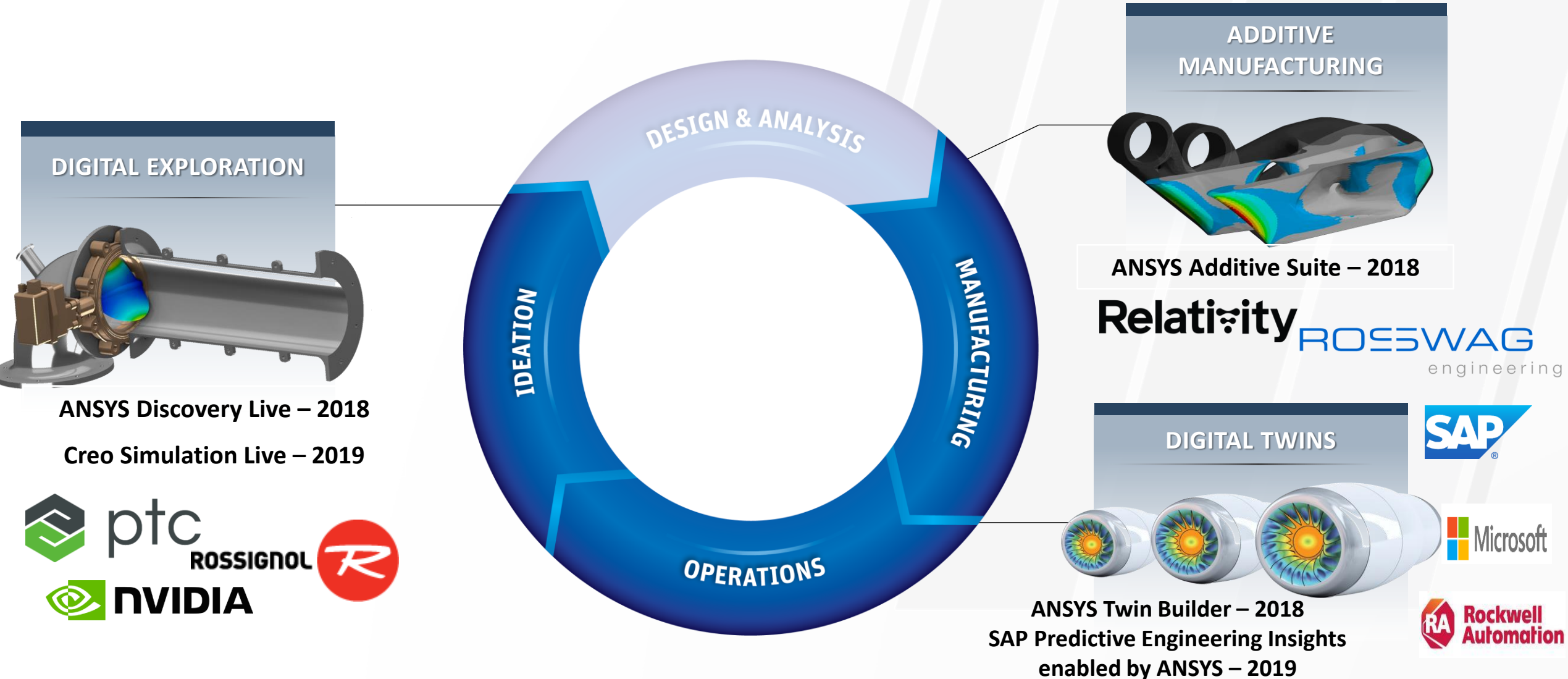
**Requires extensive use
of simulation**

New Adjacencies: Substantial Growth into 2026 and Major Upside Beyond



New adjacencies	
2026 TAM	CAGR
\$2.7 - \$5.5B	~32%
2030 TAM	CAGR
\$10.0 - \$30.0B	~37%

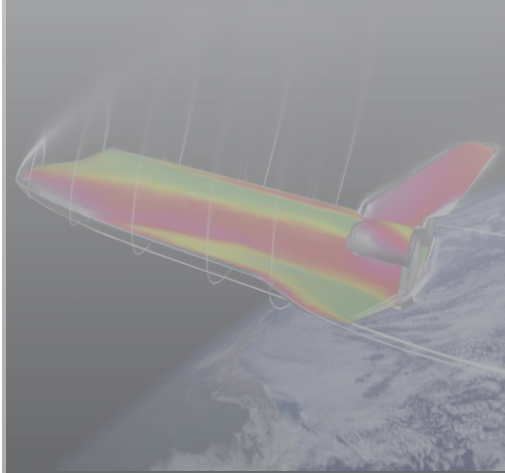
New Adjacencies: Drive Simulation across the Entire Product Lifecycle



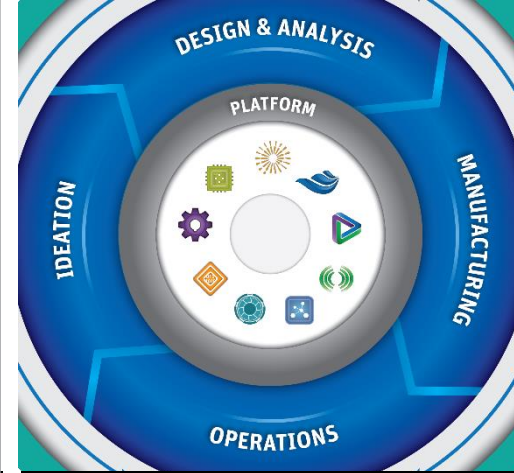
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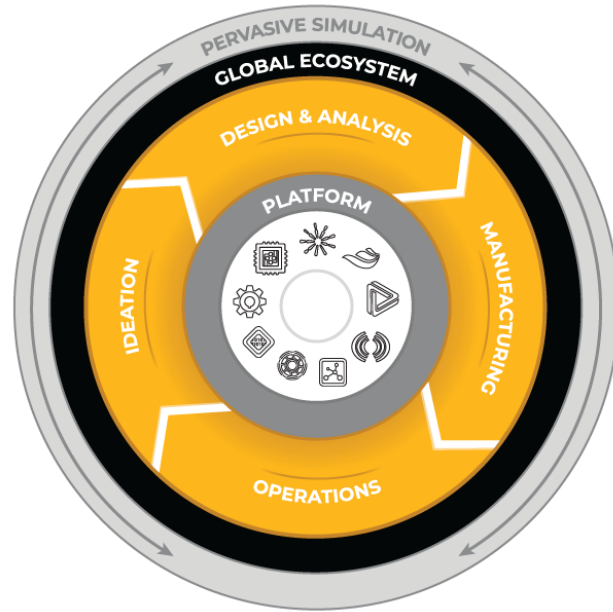


We have a proven record of execution

Our Product Strategy is Based on Pervasive Simulation

Pervasive Simulation is:

- Integration across all physics on a single open platform
- And the injection of simulation into partner ecosystems



Our Product Strategy:

- Continuing investment to extend leading positions in all physics
- Leveraging and expanding platform to drive deeper client relationships
- Selectively targeting highest-growth market opportunities
- Accelerating opportunities and growth through world-class ecosystem

Our Strategy is Aligned with Market Growth:

Core

- Strengthen our foundation
- Deliver offerings for emerging high-growth solutions
- Will deliver the bulk of Ansys growth for the next 3-5 years

Expansion

- Drive simulation across the entire product cycle
- Embed Ansys into partners' ecosystems
- Provides significant upside to long-term growth

Ansys Delivers What Matters Most to Customers



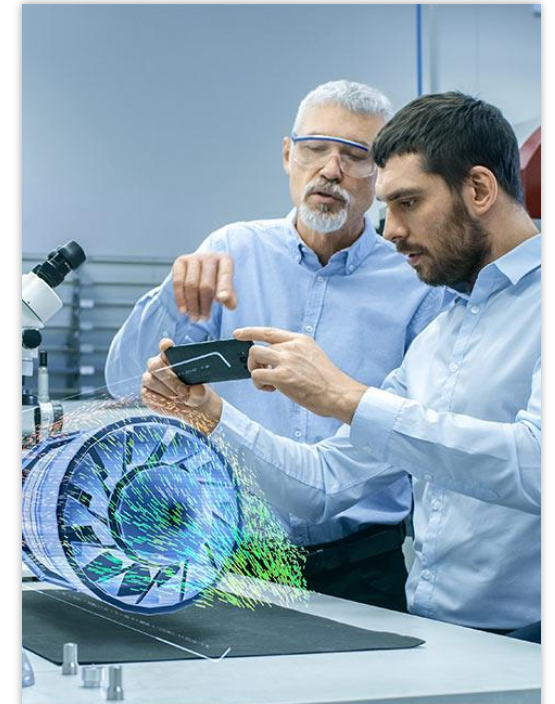
Accuracy



**True
Multiphysics**










**Close Technical
Partnership**



**Advanced
Methods**

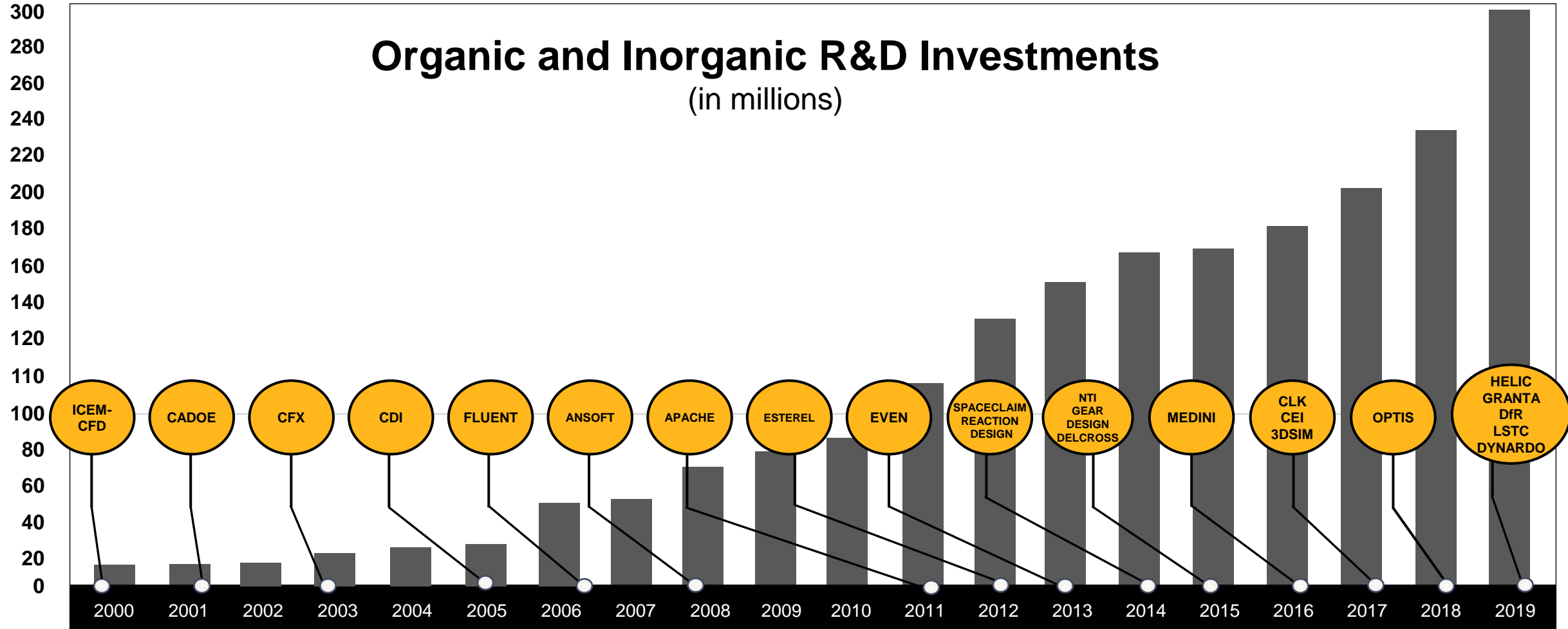
/ We are Uniquely Positioned to Make Simulation Pervasive

	#1 STRUCTURES 	#1 FLUIDS 	#1 ELECTRO- MAGNETICS 	#1 SEMICONDUCTOR 	#1 EMBEDDED SOFTWARE 	#1 MATERIALS INFORMATION 	#1 OPTICAL 
Ansys	●	●	●	●	●	●	●
COMPETITOR #1	○	○	○				
COMPETITOR #2	○	●	○		○	○	○
COMPETITOR #3	●	○	●		○		
COMPETITOR #4	○	○	○		○		
COMPETITOR #5	○	○					
COMPETITOR #6	○					○	
COMPETITOR #7							●
COMPETITOR #8		●					
COMPETITOR #9			●	●			

Best-of-breed offering
 More limited offering

Source: Summary of competitor offerings based on Ansys analysis of public information and third-party market research.

Continuously Investing to Strengthen the Core — Organically and Through Acquisitions



Source: Annual ANSYS R&D expense reported in Form 10-K. Refer to www.investors.ansys.com for additional details on acquisitions.

Continuously Investing to Strengthen the Core — Organically and through Acquisitions



NEWS RELEASE

Contact

Media: Mary Kate Joyce
720.820.4368
marykate.joyce@ansys.com

Investors: Annette Arribas
720.820.3700
annette.arribas@ansys.com

Ansys and Photonic Simulation Leader Lumerical Sign Definitive Acquisition Agreement

Acquisition to add photonic simulation to Ansys' multiphysics portfolio for 5G, IIOT and autonomous vehicle development

(NASDAQ: ANSS), the global leader and innovator of engineering simulation software, announced today that it has entered into a definitive agreement to acquire Lumerical Inc., a leading developer of photonic design and simulation tools. The acquisition will add best-in-class photonics products to the Ansys multiphysics portfolio, providing customers with a full set of solutions to solve their next-generation product challenges.

- Premier provider of photonics interconnect and 3-D light simulation solutions**
- Best-in-class 17-year history in the industry**
- <https://www.lumerical.com/>**
- Acquisition closed on April 1, 2020.**



Ansys Long-Term Technology Strategy Dimensions



Artificial Intelligence and Machine Learning

- Simulation used to train AI methods
- AI used to improve simulation
- ML-based Models & data confluence



Digital and Physical Worlds

- AR/VR for simulation brings digital world to physical
- IOT and connectedness brings physical world to digital
- Smart energy, smart Cities



Platform for Multiphysics simulation

- Seamless simulation & visualization process
- Robust Multiphysics, Multi-disciplinary Optimization
- Azure/AWS microservices for simulation



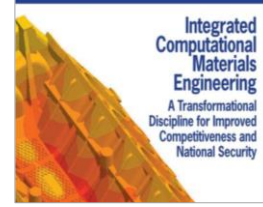
Digital Transformation

- Digital threads, digital continuity, digital twins
- Model-Based Systems Engineering
- Simulation-led engineering outcome



Hyperscale Simulation, Collaboration on Cloud

- GPU, SMP, MPI, Task based
- Quantum computing
- Hyperscale Real Time Simulation



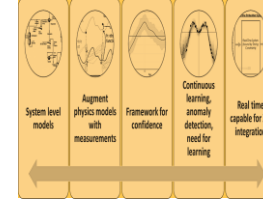
Computational Methods in New Areas

- Integrated computational materials engineering
- Computational chemistry, drug design, healthcare,
- Photonic IC, 3D IC, digital manufacturing



Predictive and Robust Design

- High accuracy, adaptive numerical methods
- Integrated Verification and Validation
- Uncertainty Quantification



How can Simulation be Disrupted?

- ML-based flow-solver, generative design
- Integrated synthesis and verification
- Automated Mixed mode (0D-4D), MF, MS simulation

Investing in Four Key Product Initiatives to Drive Growth

1 CAPITALIZE ON RECENT
ACQUISITIONS

2 GROW INDUSTRY-LEADING
SIMULATION PLATFORM

3 EXPAND INTO NEXT-
GENERATION USE CASES

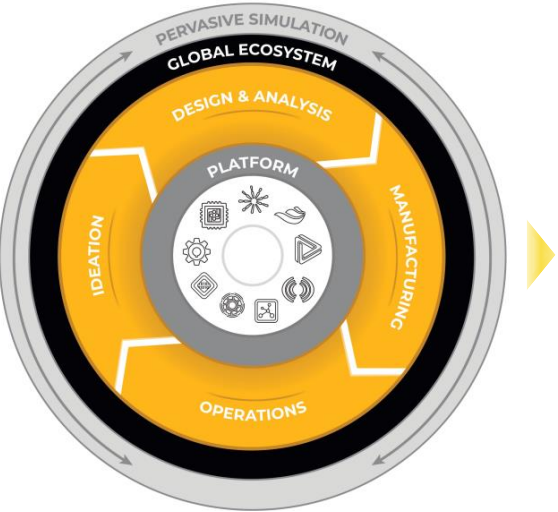
4 GROW GLOBAL
PARTNER ECOSYSTEM

1. Capitalize on Recent Acquisitions



	ADJACENCIES			EMERGING HIGH-GROWTH SOLUTIONS			
STRENGTHENS CORE	ADDITIVE MFG.	DESIGN ENGINEERS	DIGITAL TWIN	ELECTRIFICATION	AUTONOMOUS	5G	IIoT
GRANTA	✓	✓	✓	✓			✓
Helic					✓	✓	
DfR	✓	✓	✓	✓	✓	✓	✓
OPTIS	✓		✓		✓		✓
LSTC	✓			✓	✓		
dynardo	✓	✓	✓	✓	✓		✓

2. Ansys Comprehensive Portfolio for Digital Engineering Workflows



Comprehensive Multiphysics + Collaborative Simulation and optimization + Materials information management

Ansys Minerva

Multiphysics collaboration	Simulation applications	SPDM
Simulation Projects	Simulation Data Science	Hybrid HPC integration
Visualization	Simulation Analytics	Enterprise connectivity

Ansys optiSLang

Simulation Workflow
CAX Automation
Robust Design Optimization

Ansys Multiphysics

Structures	Fluids
Electronics	Systems
Semiconductors	Embedded Software
Workbench	TwinBuilder

Ansys Granta MI

Materials intelligence
Materials exploration
Materials data
Materials compliance

Customer Ecosystem

PLM	ALM
ERP	liot
TDM	Inhouse
..	

+ Strategic partner ecosystem



...

2. Ansys Cloud



 **Ansys Cloud**
Easy access to on-demand HPC directly
from Ansys flagship products



*1-click
burst-to-the
cloud*

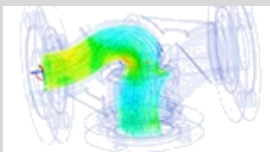
*Web-based 3-D
Postprocessing*

*Highly optimized for
Ansys solvers*

*Single vendor solution
for Software +
Hardware*

3. Expanding our Technology to Enable Emerging Solutions and Adjacencies

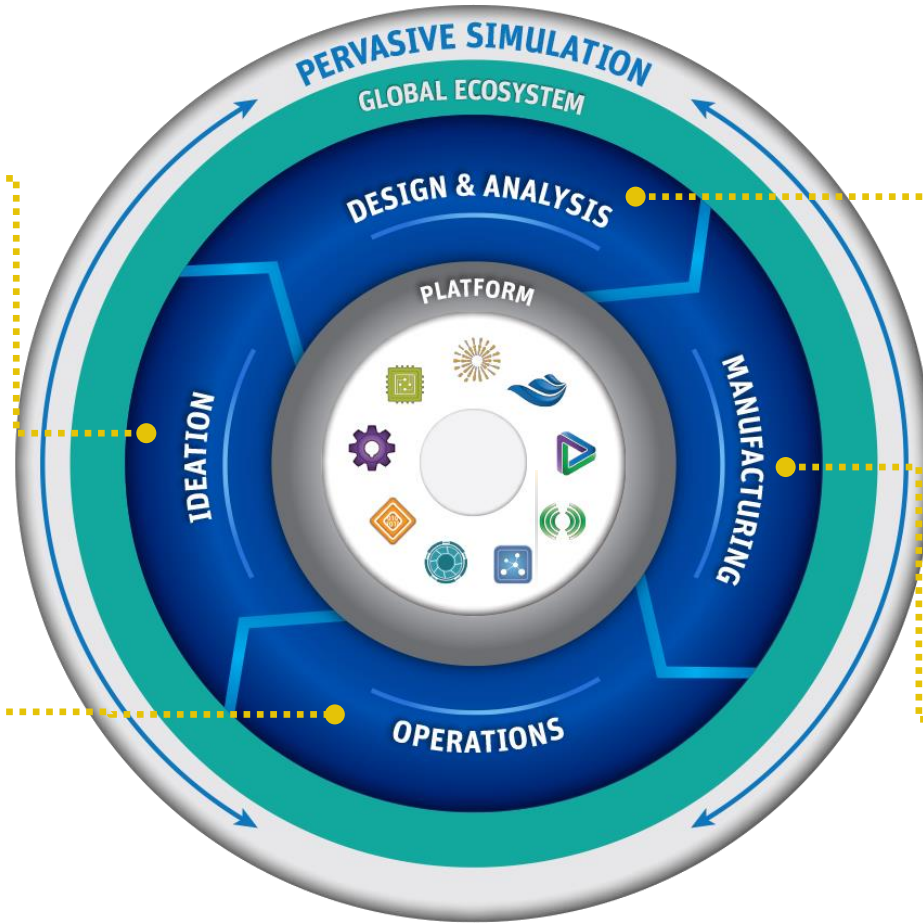
Ansys Addressable Market (2026)



Upfront Simulation
PROJECTED MARKET SIZE **\$1.4-2.0B**



Digital Twin / IIoT
PROJECTED MARKET SIZE **\$1.2-3.3B**



Emerging Solutions
PROJECTED MARKET SIZE **\$3.8-5.4B**



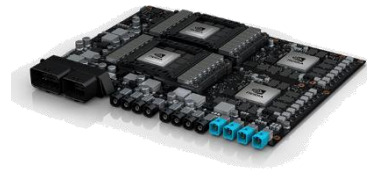
Additive Manufacturing
PROJECTED MARKET SIZE **\$0.1-0.2B**

3. Ansys 5G Solutions for the Complete Ecosystem

100% of the semiconductor top 10 use Ansys



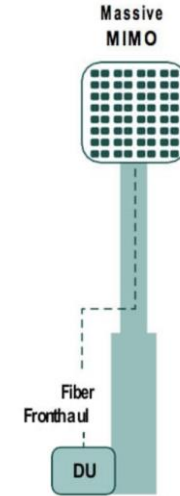
Chip



Board



Data Center



Network



User Equipment

Electronics Reliability

Power Integrity

Electromagnetics



Helic

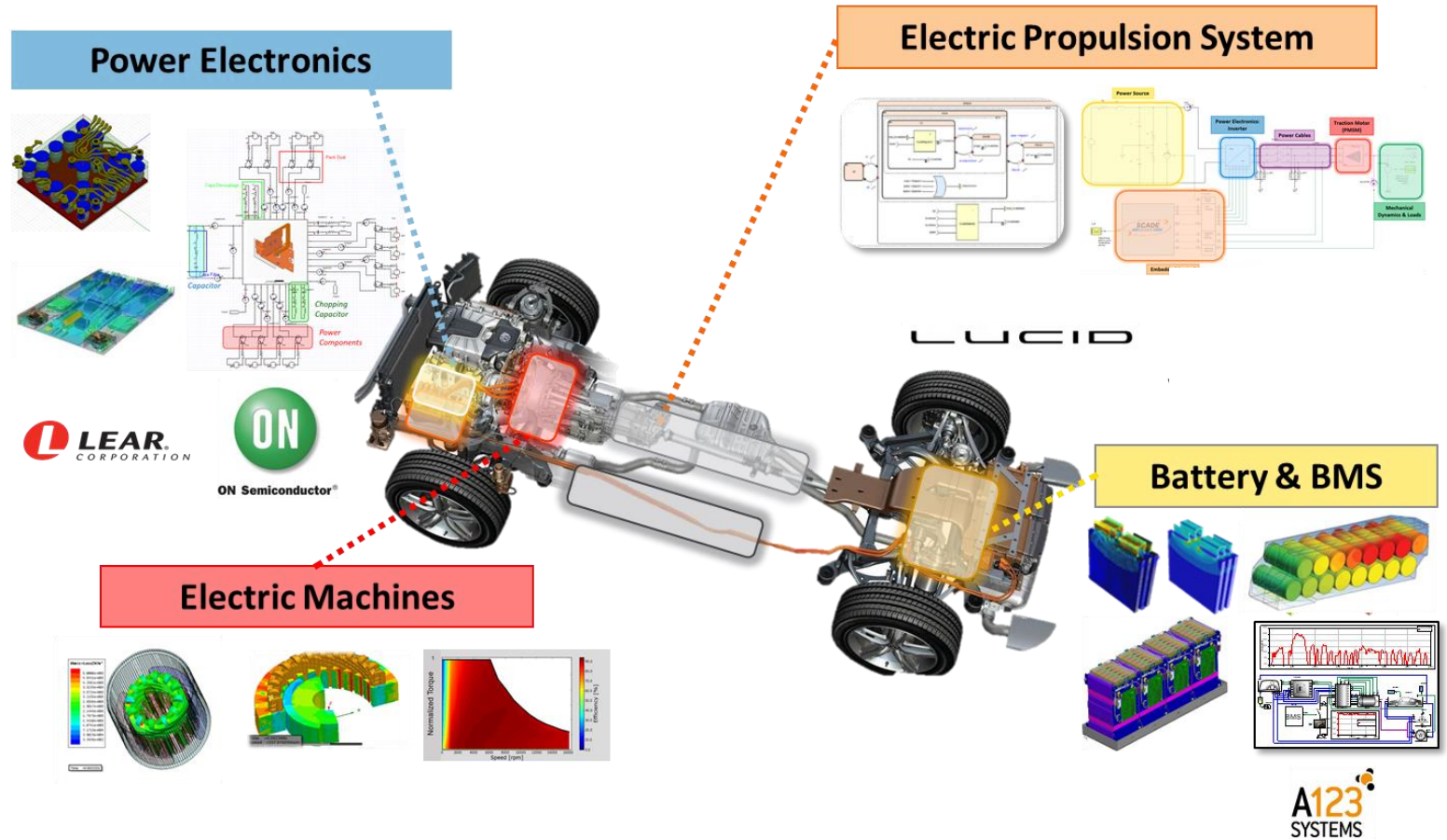
3. Ansys Electrification Solutions

Leader in Electrification

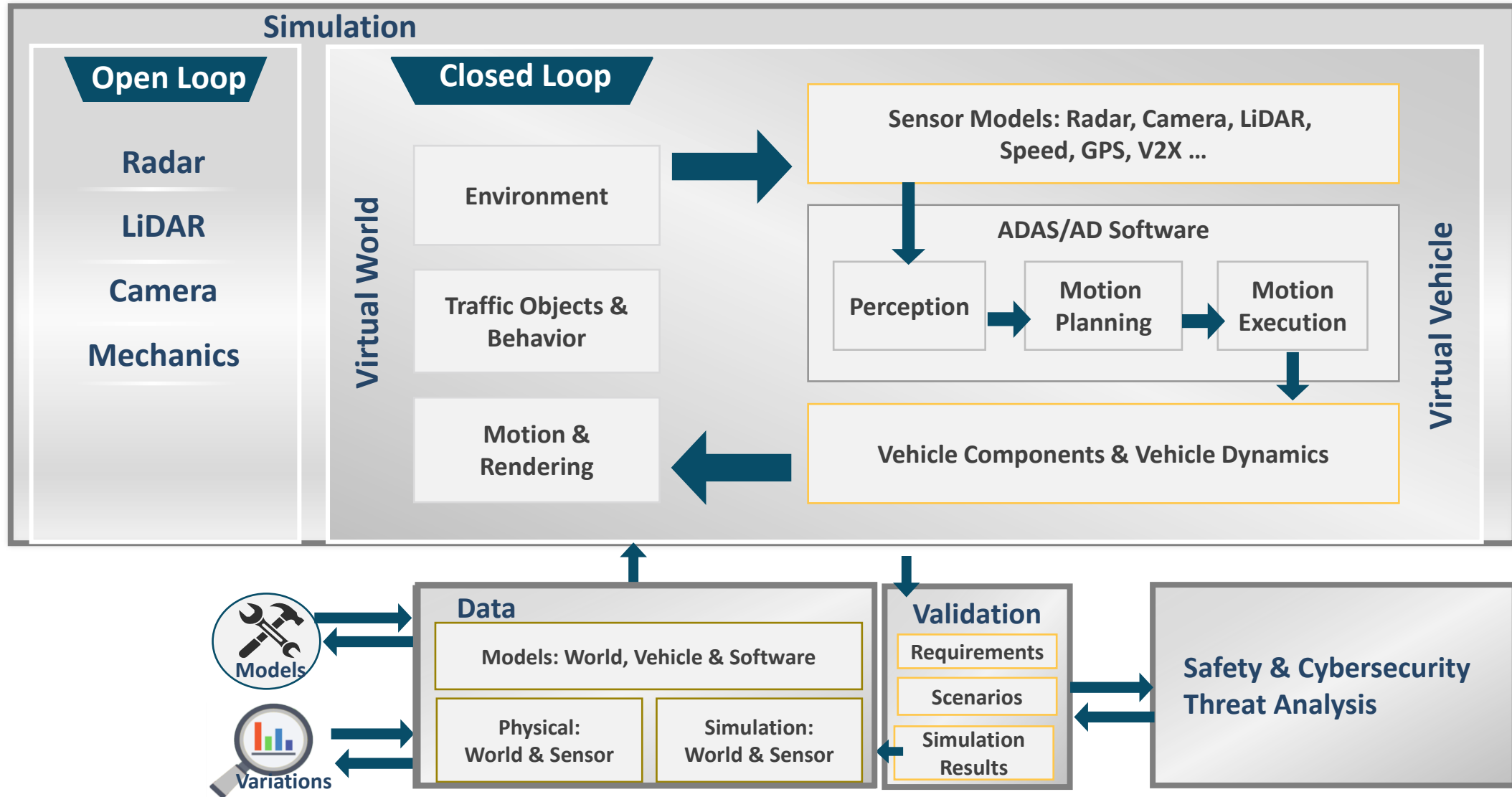
- 50 Years Focus on Simulation
- Breadth/Depth of Multi-Domain/Multi-Technology Solutions
- Open Platform

Four Pillars

1. Battery & BMS
2. Power Electronics
3. Electric Machines
4. Electrified Propulsion System






3. Ansys Autonomy Simulation Toolchain






4. Partnerships Expand Ansys Simulation into Other Ecosystems

Go-to-market expansion through partner activities

	<p>SAP Predictive Engineering Insights (PEI) Enabled by Ansys - High-fidelity physics-based digital twins for real-time monitoring of physical assets</p> <p>Early success:</p> <ul style="list-style-type: none">• Streamlined customer's Configure Price Quote (CPQ) timeline from months to days• Showcased benefits of SAP PEI with A&D industry leaders at the Paris Air Show
	<p>Creo Simulation Live Powered by Ansys - Integrates real-time simulation directly into 3D CAD modeling environment to get instant feedback for designers</p> <ul style="list-style-type: none">• In April 2020, PTC launched Creo 7.0. This release now adds fluid dynamics to the Creo Simulation Live Powered by Ansys capabilities
	<p>Synopsys IC Compiler™ II with Ansys RedHawk™ Analysis Fusion - Delivers cohesive and integrated workflow that shortens time on challenging power requirements</p> <p>Early success:</p> <ul style="list-style-type: none">• Automaker realized 35% reduction in peak dynamic IR drop




4. Partnerships Expand Ansys Simulation into Other Ecosystems

Go-to-market expansion through partner activities

 <p>BMW Group</p>	<ul style="list-style-type: none">• Ansys and BMW Group are partnering to create the automotive industry's first holistic simulation tool chain for developing autonomous vehicle technologies.• BMW Group is leveraging Ansys' broad pervasive engineering simulation solutions and experience to speed up the development of a safety-focused solution for the validation of Autonomous Driving systems.
 <p>AIRBUS</p>	<ul style="list-style-type: none">• Through a new collaboration, Ansys and Airbus plan to develop a new Ansys solution for enabling safety-critical flight controls with sophisticated artificial intelligence (AI), aiming at autonomous flight by 2030.• The intent is to engineer an advanced Ansys SCADE® tool that links traditional model-based software development with new AI-based development flow. The new solution will be pivotal to reducing development time and expenses.
 <p>AV SIMULATION</p>	<ul style="list-style-type: none">• Ansys and AVSimulation are partnering to speed the development of safe autonomous driving for automobile manufacturers.• The collaboration integrates revolutionary simulation technology from AVSimulation with Ansys' immersive autonomous driving simulation solutions, expediting vehicle design and validation by using virtual testing.

4. Partnerships Expand Ansys Simulation into Other Ecosystems

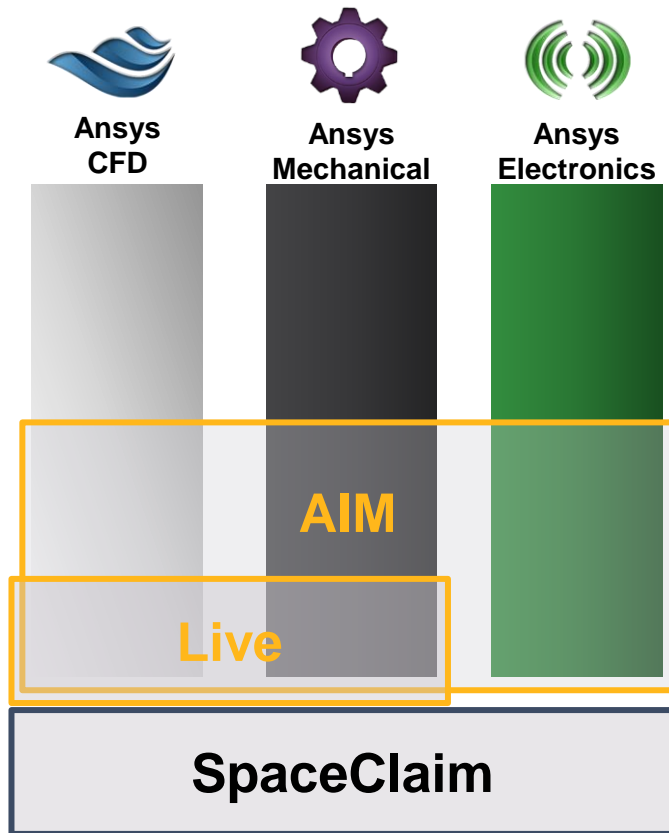
Go-to-market expansion through partner activities

	<ul style="list-style-type: none">• The partnership will allow seamless interoperability across Ansys and Autodesk products to drive revolutionary design and engineering agility for our customers.• The collaboration connects Autodesk® Fusion 360®, integrated design and manufacturing software with world-class Ansys® Mechanical™ simulation solutions to expedite products to market.• The collaboration breaks down silos in the product development process by driving a best-in-breed, connected and interoperable designer-to-analyst workflow.
	<ul style="list-style-type: none">• Ansys is partnering with Microsoft to extend Microsoft Azure Digital Twins with Ansys® Twin Builder™ to enable mutual customers to significantly improve operations. The collaboration will empower Microsoft's enterprise customers to more accurately predict an asset's future performance and reduce unscheduled downtime expenses — enabling users to slash product maintenance costs and speed high-quality products to market.• Through the collaboration, manufacturers that model and connect assets using Azure Digital Twins can optimize asset production and operations using Ansys Twin Builder.
	<ul style="list-style-type: none">• Our strategic partnership provides industrial companies with access to a streamlined, holistic, end-to-end solution for design, automation, production and lifecycle management.• The partnership helps customers develop simulation-based digital twins of products, processes or manufacturing. Now customers can design and test through simulation to accelerate development and analysis, improving product quality and reducing testing time.

4. Our Agreements with Our Ecosystem Partners Enable Us to Fully Cover the AV Simulation Opportunity



Adjacencies - Ansys Discovery Family of Products



Discovery AIM

- Easy to use high-fidelity simulation providing Ansys gold-standard accuracy and speed
- Comprehensive physics



Discovery Live

- Instantaneous simulation, tightly coupled with direct geometry modeling
- Qualitative results; high accuracy is not the goal



Discovery SpaceClaim

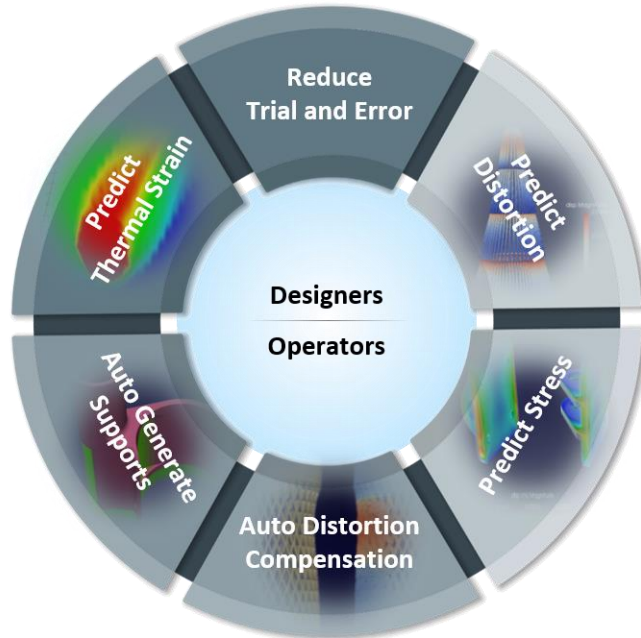
- Fast and intuitive 3D Direct Modeling to create, edit and repair geometry for concept design and simulation

Additional information located at www.ansys.com/products/3d-design/ansys-discovery-live.

Adjacencies – Additive: Two Distinct Customer Groups – Two Products

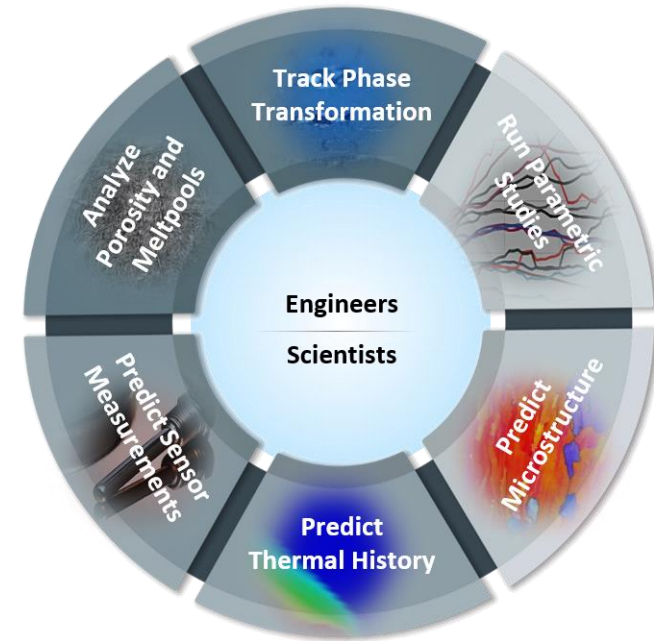


Ansys Additive Print



- Designers in aerospace, defense, auto OEMs & medical
- Metal additive manufacturing machine operators
- Part manufacturing operations managers

Ansys Additive Suite



- FEA analysts in aerospace, defense, auto OEMs & medical
- Owners of “part qualification” within OEMs
- Materials/manufacturing researchers

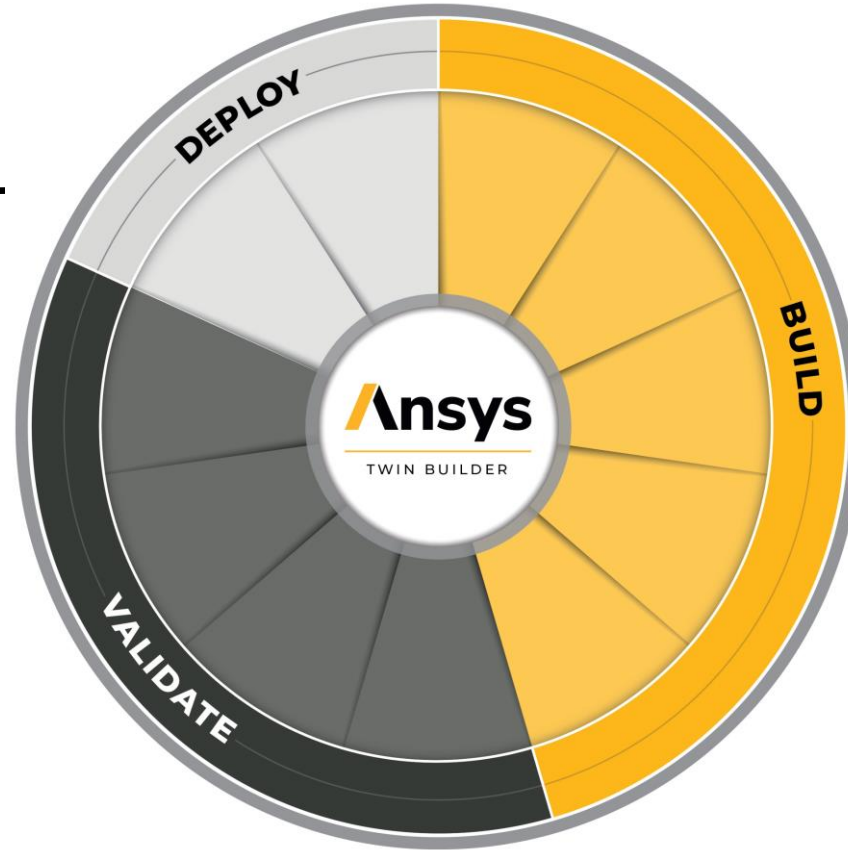
Additional information located at www.ansys.com/products/structures/ansys-additive-print

Adjacencies - Ansys Digital Twin Key Capabilities

System Preventive Maintenance



CONNECT the TWINS to IIoT Platforms and **DEPLOY** TWIN Run times in **OPERATION**

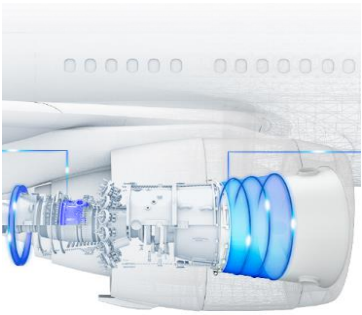


System Simulation



BUILD an accurate **Physics-Based DIGITAL TWIN** in record time

System Validation & Optimization



VALIDATE and **OPTIMIZE** the TWINS

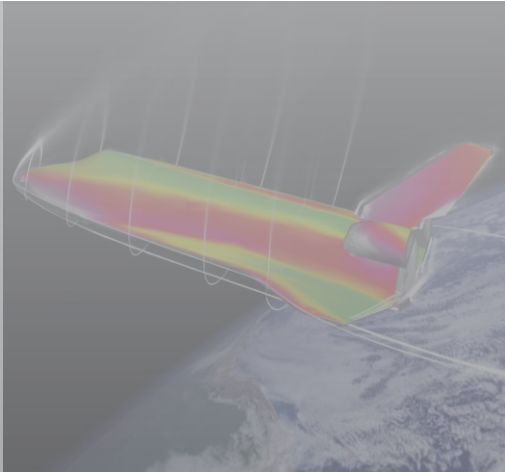


Additional information located at: www.ansys.com/products/systems/digital-twin.

Well Positioned in a Growing Market



Ansys is the simulation market leader



The simulation market is strong and growing



Our strategy capitalizes on this growing market



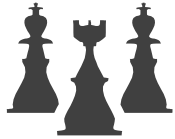
We have a proven record of execution

Our Go-To-Market has Changed to Deliver Greater Customer Success



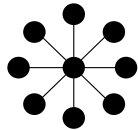
Enterprise

80+ Accounts



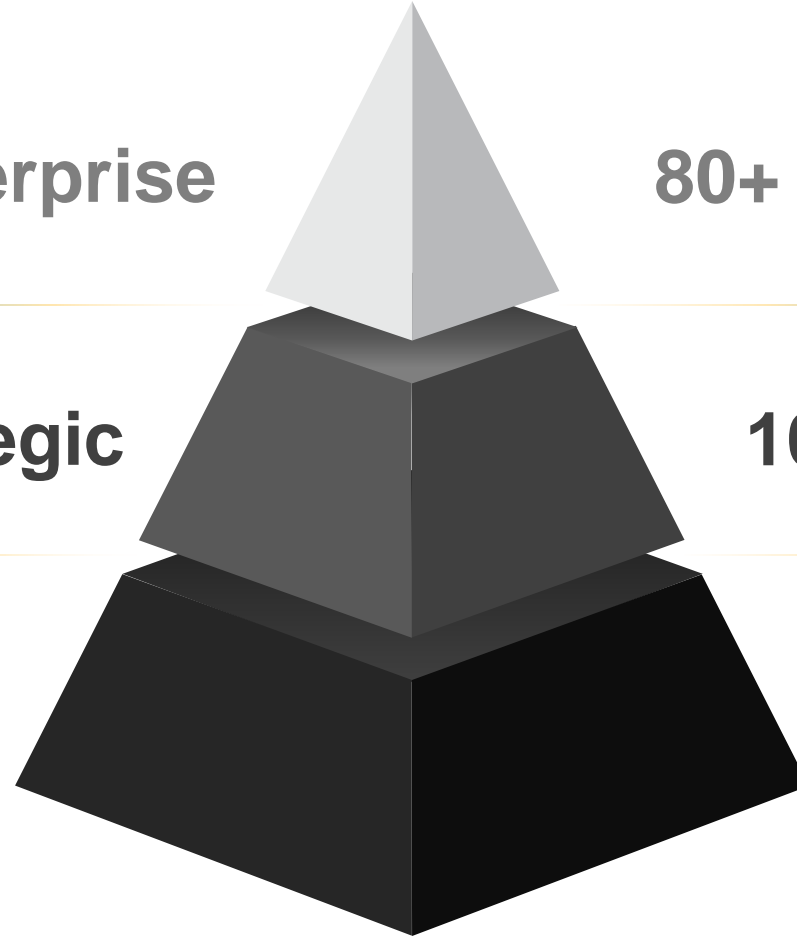
Strategic

100s of Accounts



Volume

1000s of Accounts

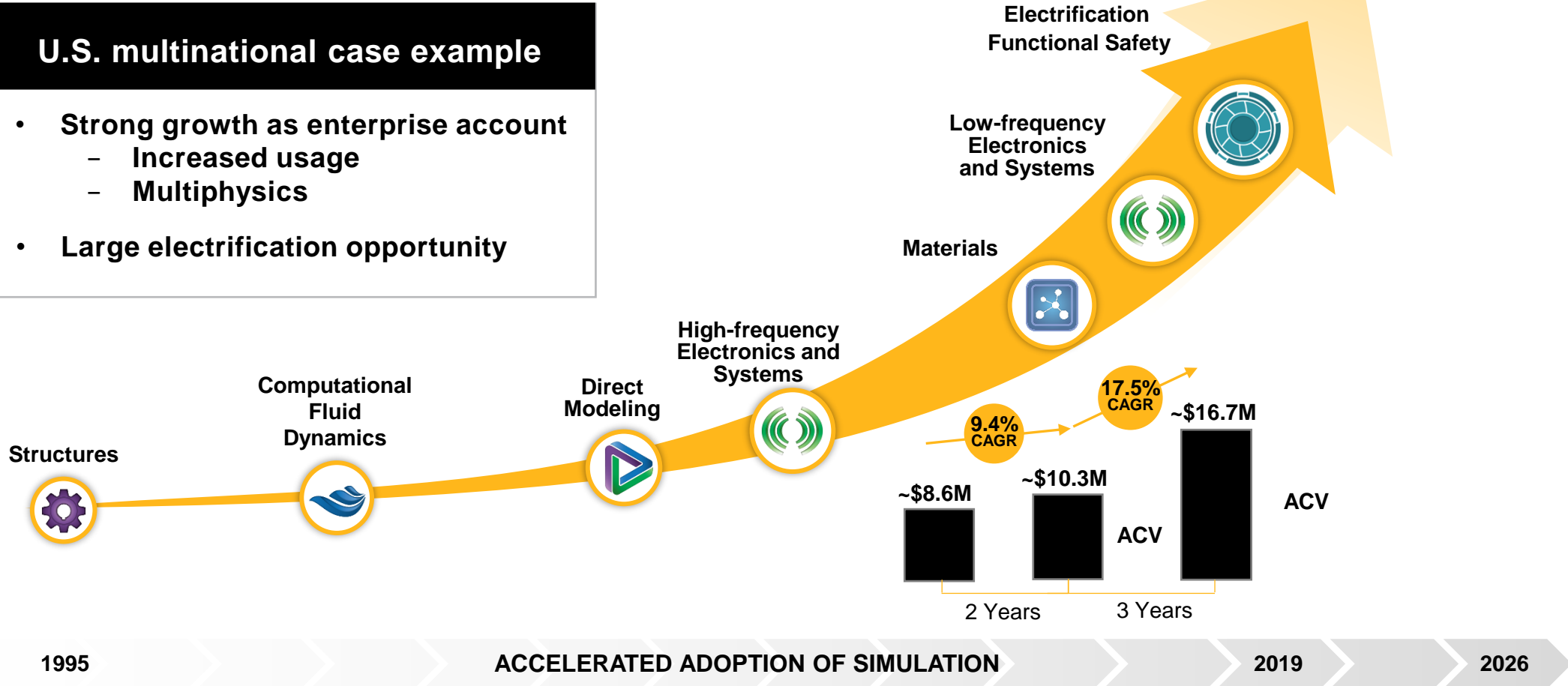


Reinforce and Extend Leadership in the Core

Each of the 80+ enterprise accounts offers strong growth opportunities

U.S. multinational case example

- Strong growth as enterprise account
 - Increased usage
 - Multiphysics
- Large electrification opportunity



Ansys' Sales Go-To-Market Plays to Emerging High-Growth Solutions

GTM Readiness

Channel segmentation

Industry verticals

Expanded support and consulting

High-Growth Solutions

Electrification



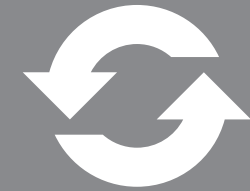
Autonomy



5G



IIoT



Repeatable and reusable solutions

Futures Sales Growth Drivers: Investing in Marketing to Optimize Brand Awareness

Platform
infrastructure



Global digital
reach



Marketing
automation

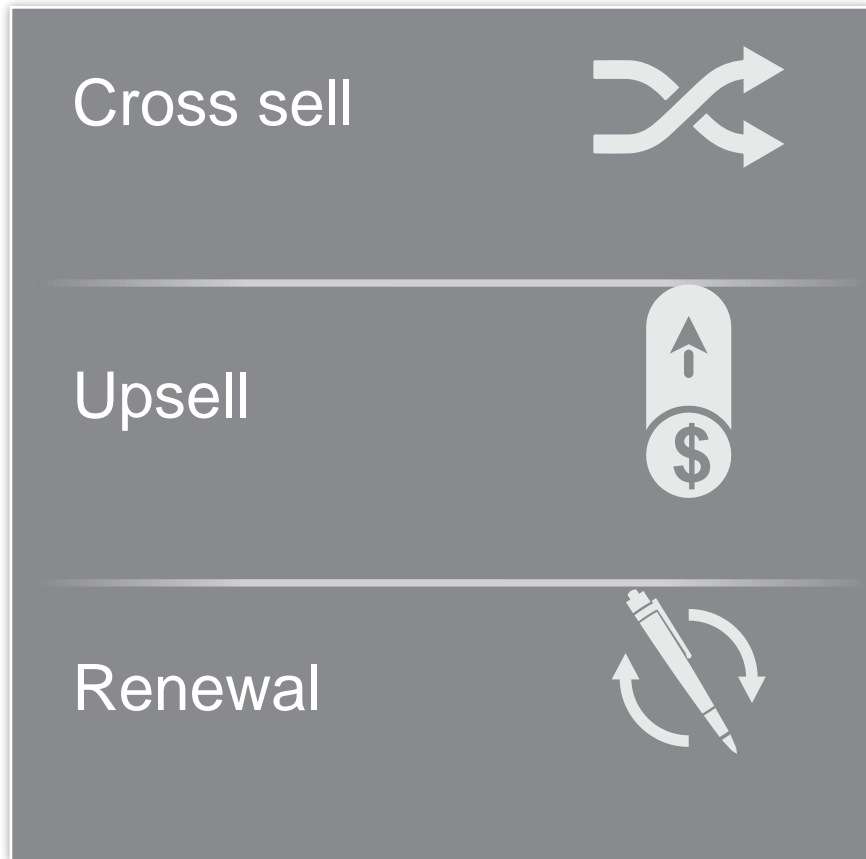


Brand
awareness



Future Sales Growth Drivers: Leveraging Acquisitions and Ecosystem

Expand Customer Relationships With Acquisitions

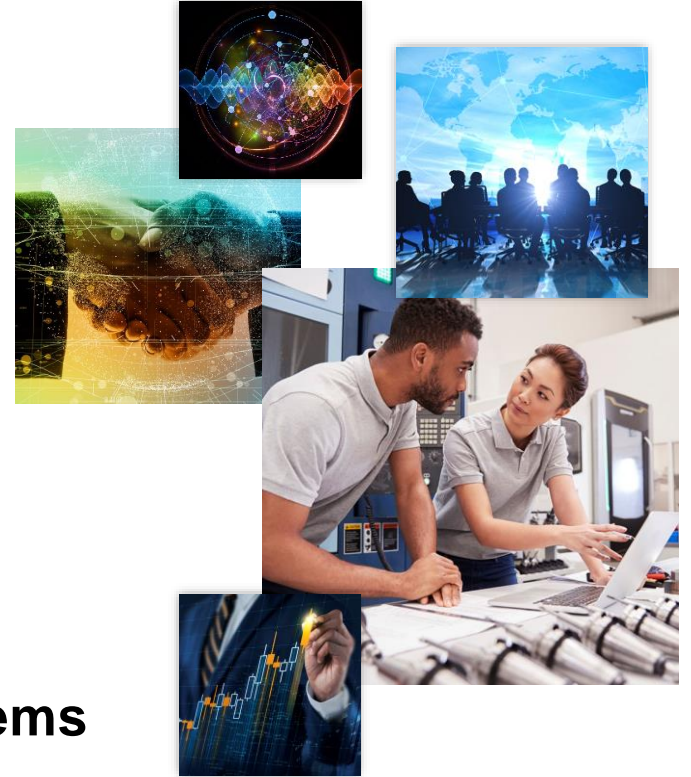


Penetrate New Markets With Strategic Ecosystem



Continued Delivery on Strategy Through Disciplined Execution

- 1 Reinforce and Extend Leadership in the Core**
- 2 Capture Upside in High-Potential Adjacencies**
- 3 Programmatically Pursue Strategic Acquisitions**
- 4 Forge Partnerships to Embed Ansys into Other Ecosystems**
- 5 Build a Winning Culture**



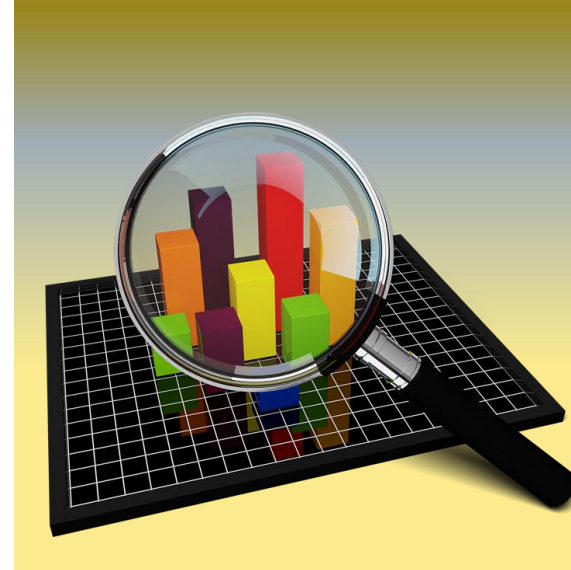
Executing on Our Growth Strategy



**Performance
across key metrics**



**Diversified and
resilient business**



Capital allocation



Financial outlook

Key Highlights – Q1 2020

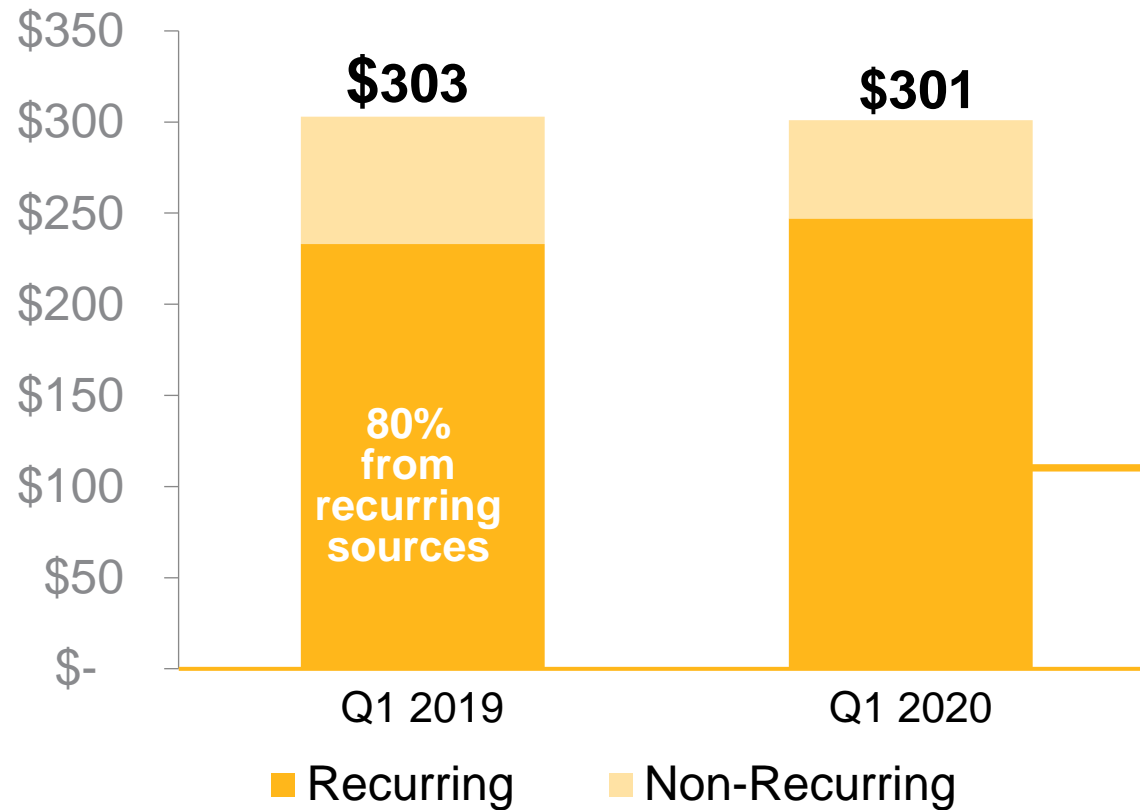
Non-GAAP Financial Highlights

Revenue	\$309M
Operating Margin	29.3%
Tax rate	19.5%
Diluted EPS	\$0.83
Annual Contract Value (ACV)	\$301M

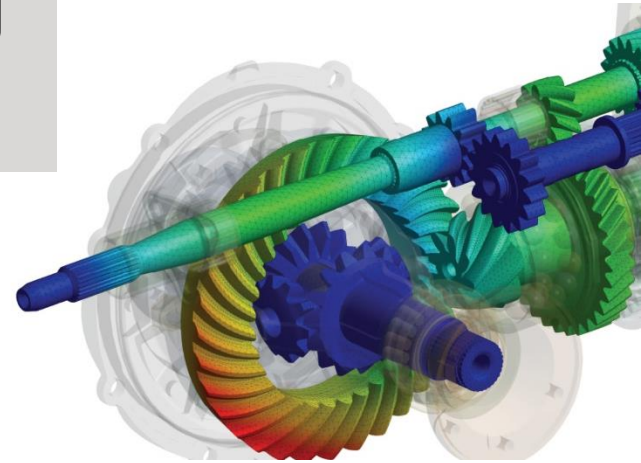
See Reconciliation of Non-GAAP financial metrics in Appendix.

Strong Annual Contract Value

Annual Contract Value (ACV)
(\$ Million)

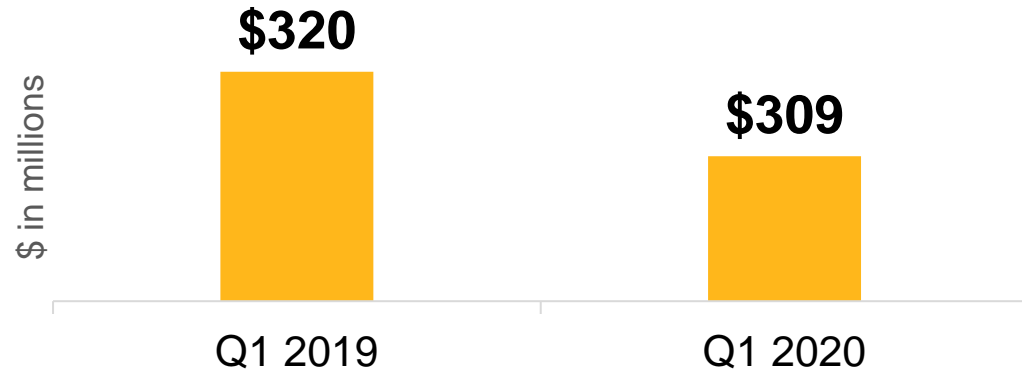


**82% of
Q1 2020 ACV
from recurring
sources**

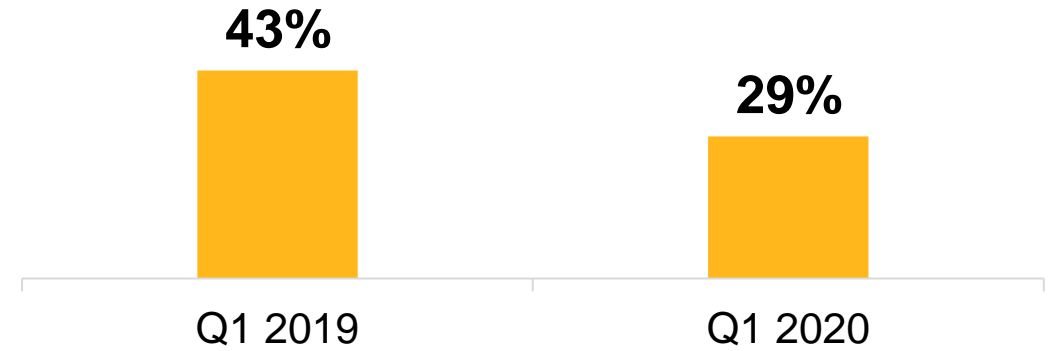


Non-GAAP – First Quarter

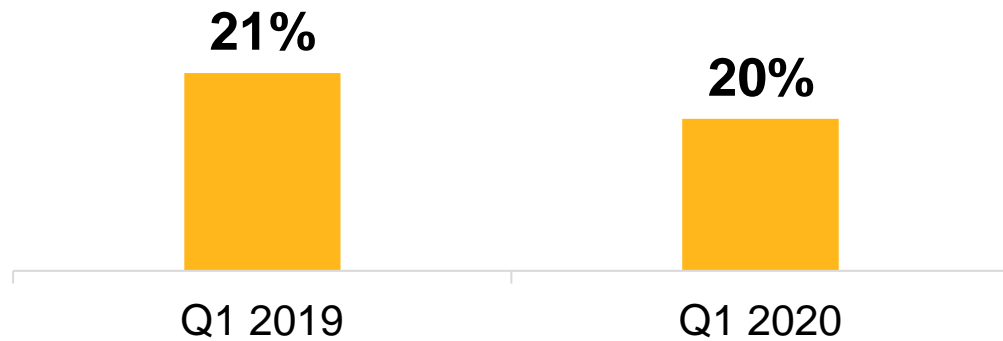
Revenue



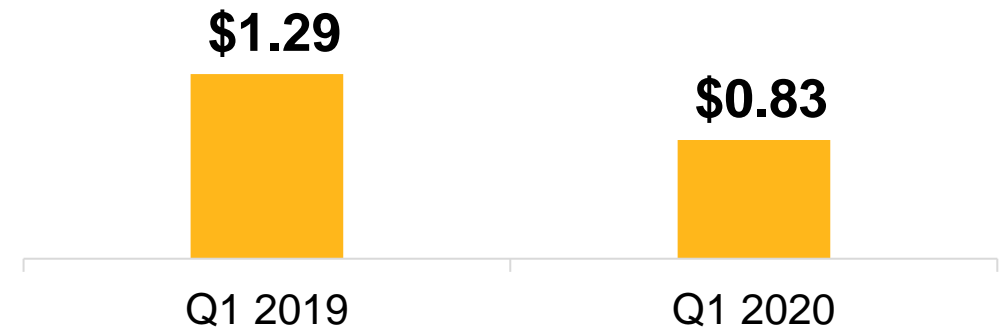
Operating Margins



Tax Rate



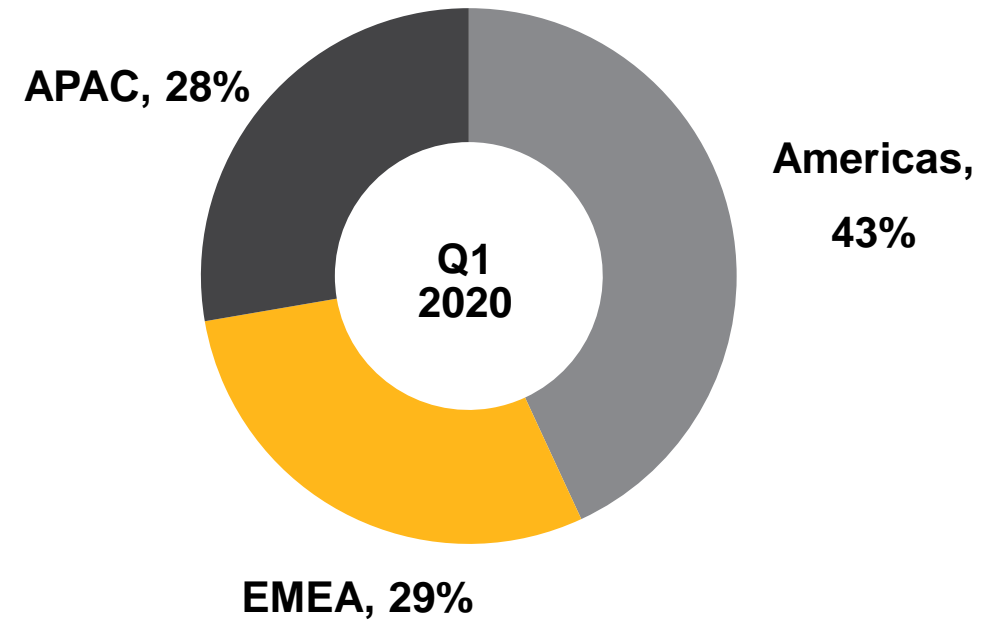
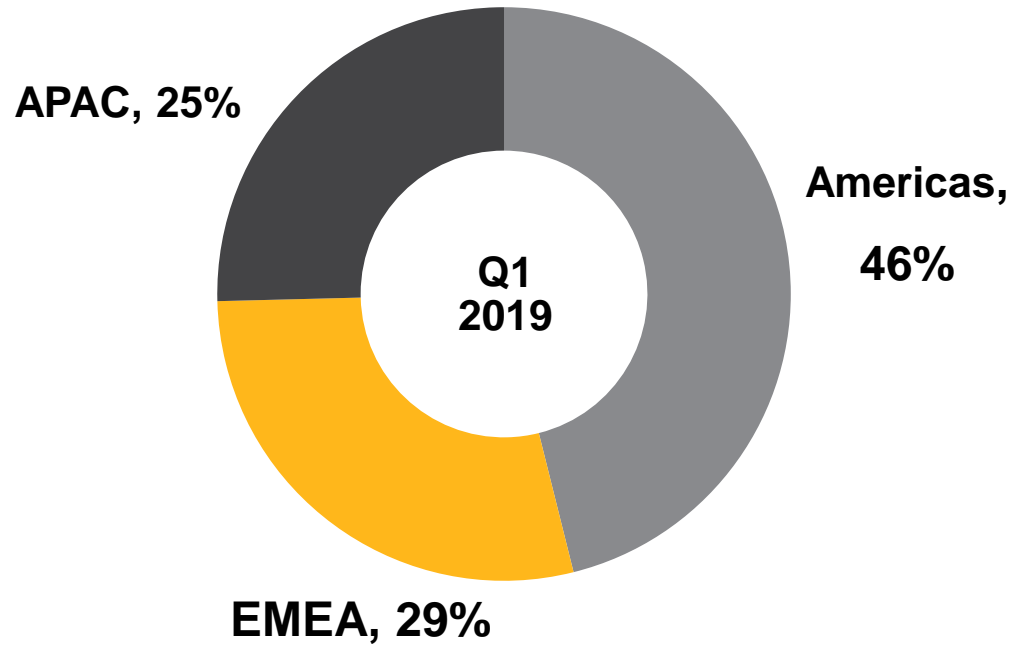
EPS



See Reconciliation of Non-GAAP financial metrics in Appendix.

Geographic Diversity

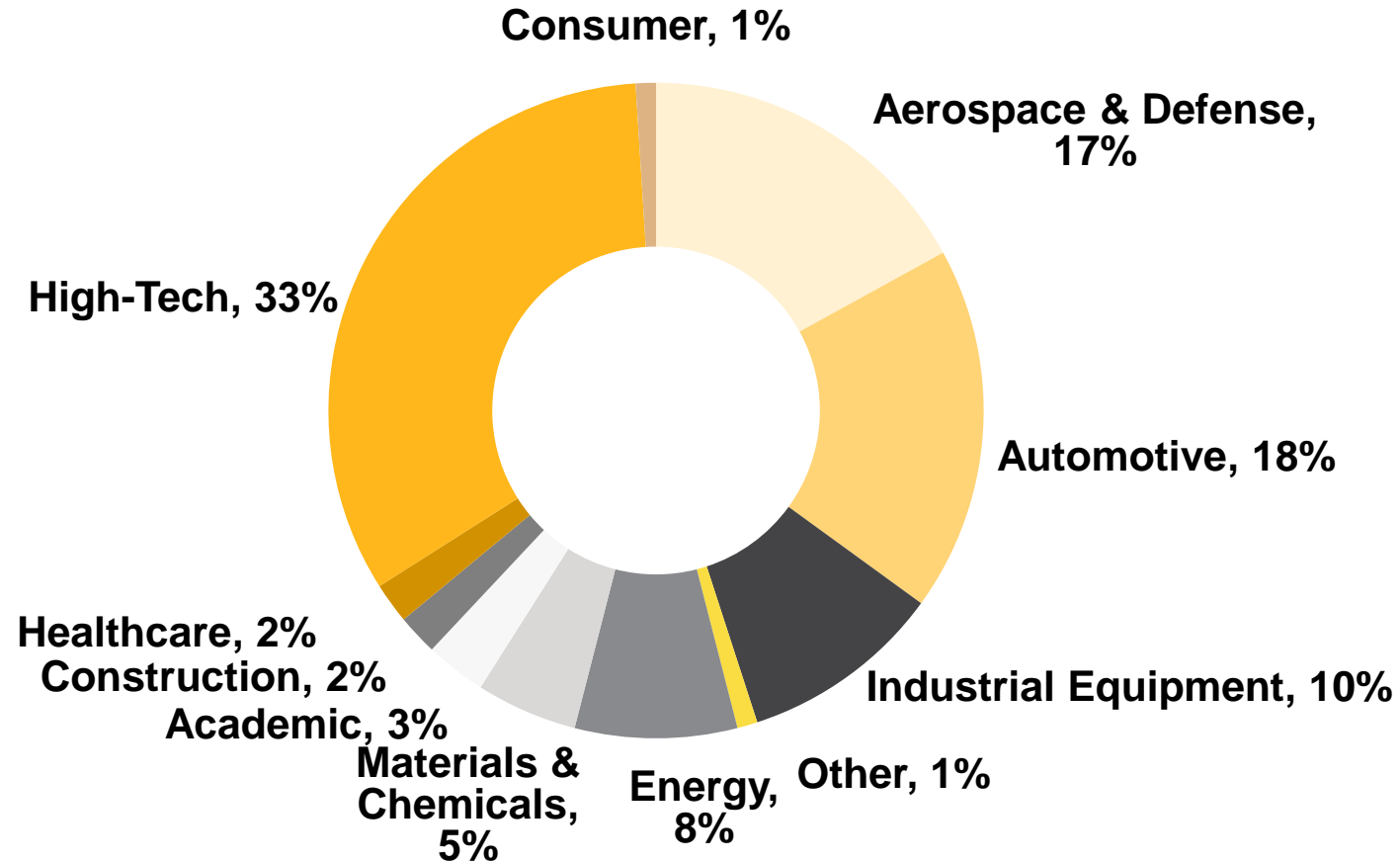
Revenue by Geography - Non-GAAP



See Reconciliation of Non-GAAP financial metrics in Appendix.

Diverse Customer Base

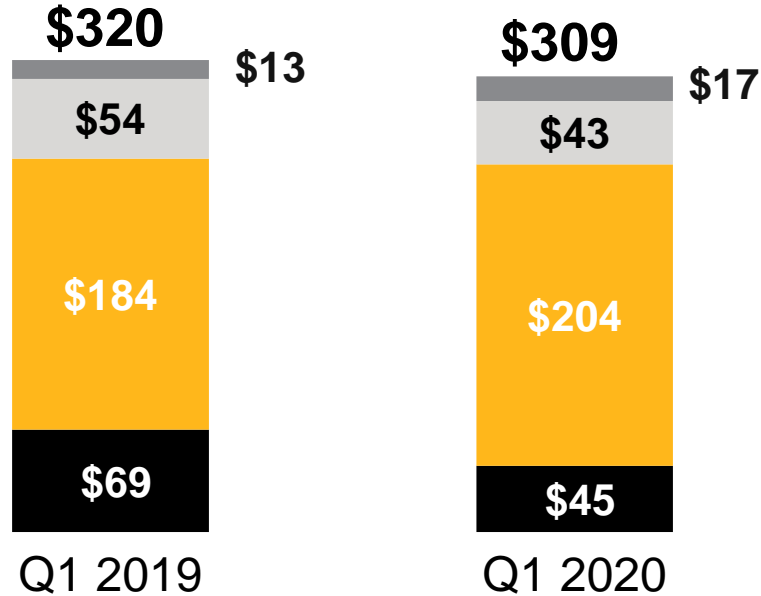
% Total Trailing Twelve-Month ACV by Industry



Diverse Revenue Sources

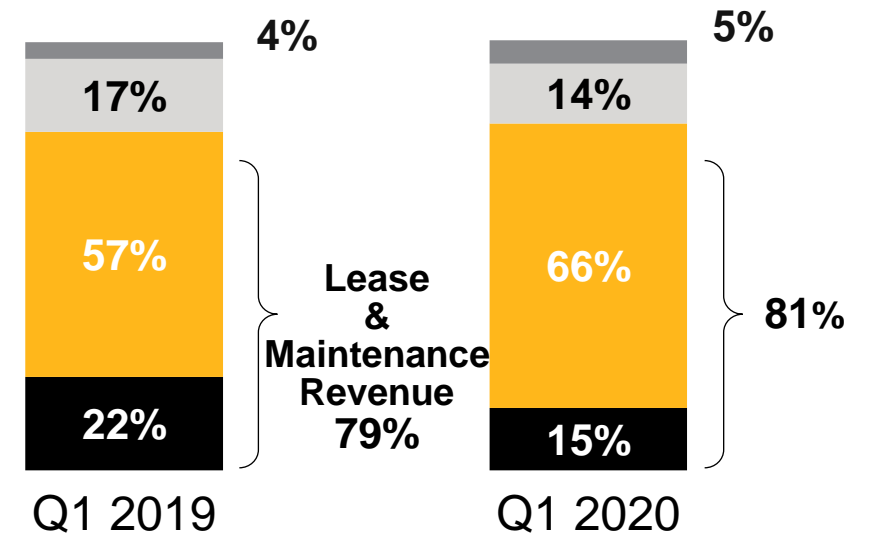
Lease & Maintenance Revenue

(Revenue by Type - Non-GAAP)
(\$ Million)



■ Lease ■ Maintenance ■ Perpetual ■ Service

(Revenue as a % of Total - Non-GAAP)

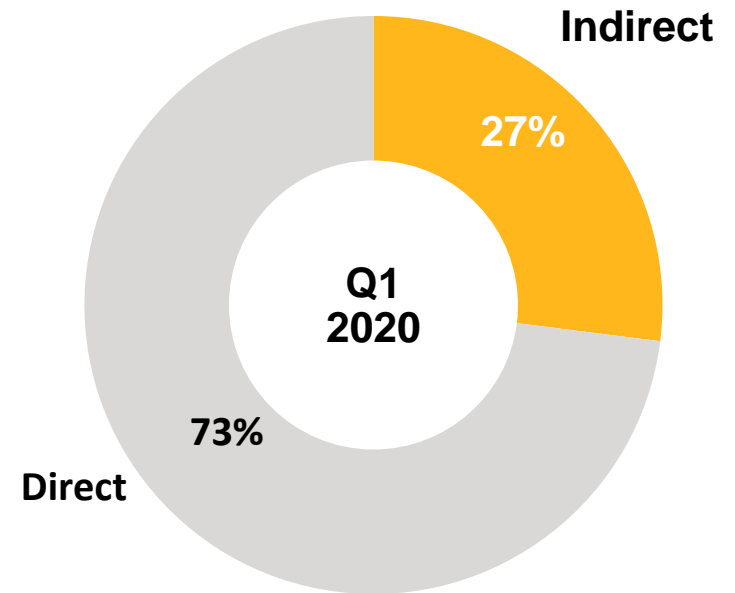
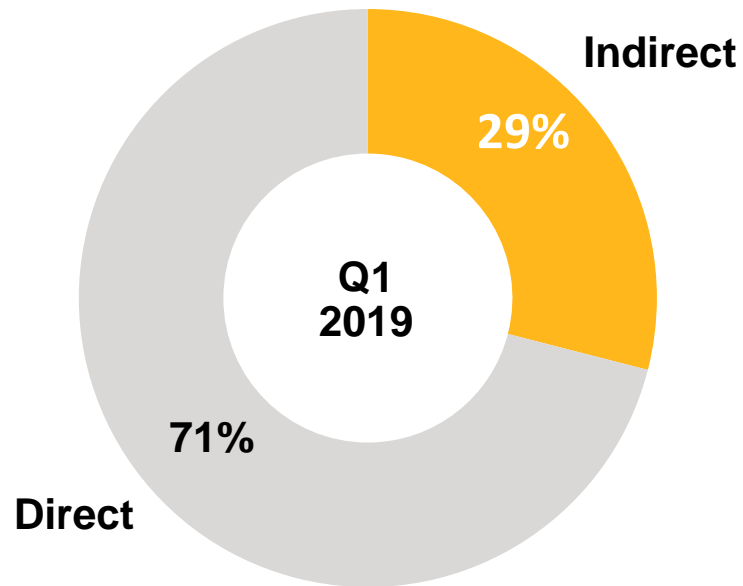


■ Lease ■ Maintenance ■ Perpetual ■ Service

See Reconciliation of Non-GAAP financial metrics in Appendix.

Diverse Go-to-Market Revenue

Non-GAAP Revenue by Channel (% of Total Revenue)



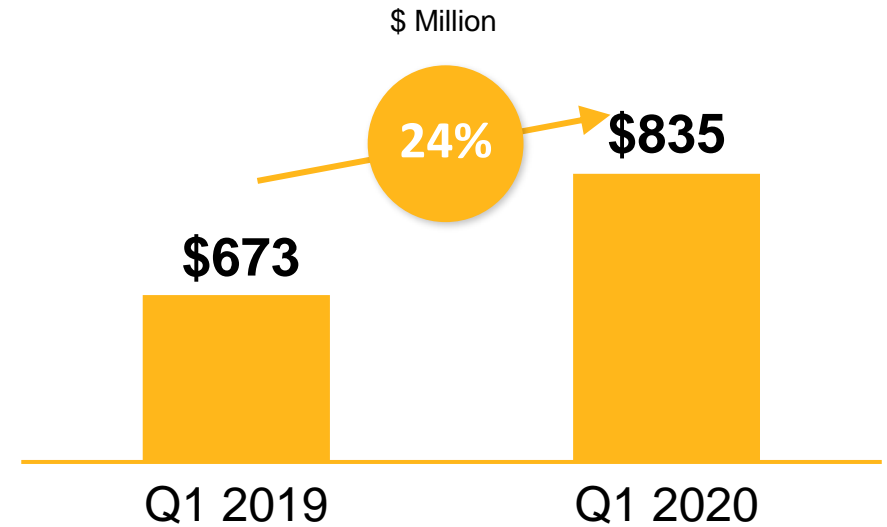
See Reconciliation of Non-GAAP financial metrics in Appendix.

Maintaining Strong Financials

Maintaining a Strong Balance Sheet

As of March 31, 2020	
Cash & short-term investments	\$718M
Deferred revenue & backlog	\$835M
Long-term debt	\$424M

Delivering Strong Y-O-Y Deferred Revenue and Backlog Growth



Includes both current and long-term deferred revenue and backlog.

Capital Allocation Framework

Invest in Organic Growth

- Strategic R&D investment
- Expand field engineering
- Digital transformation and infrastructure build-out

Invest in M&A to Enhance Growth

- Targeted acquisitions
- Leverage cross-selling
- Broaden simulation portfolio and expand TAM

Return Capital to Shareholders

- Maintain a focused repurchasing plan

Return of Excess Capital to Stockholders

- We repurchased 0.7 million shares in Q1 2020 at an average price of \$233.48 per share.

Targeted M&A to Broaden Simulation Portfolio and Expand TAM

Key Criteria

Strategic Alignment

- Technology alignment considerations
- Gain top talent
- Go-to-market strategy



Growth

- Expand TAM into new markets
- Access to new customers
- Leverage cross-selling



Cultural Fit

- Passion for technology
- Commitment to excellence
- Strong customer relationships



Selectively investing in value-creating opportunities

Financial Outlook – Q2 2020

	Q2 2020 GAAP	Q2 2020 Non-GAAP
Revenue	\$330.9 - \$370.9M	\$335.0 - \$375.0M
Operating Margin	16.5% - 26.0%	33.5% - 39.0%
Effective Tax Rate	7.0% – 13.0%	19.5%
Diluted EPS	\$0.55 - \$0.92	\$1.01 - \$1.33

Guidance as of May 6, 2020. Any usage of slide on a subsequent date does not constitute guidance re-confirmation as of such subsequent date. Refer to Cautionary Statement for a discussion of factors that could cause actual results to differ materially from outlook.

Financial Outlook - FY 2020

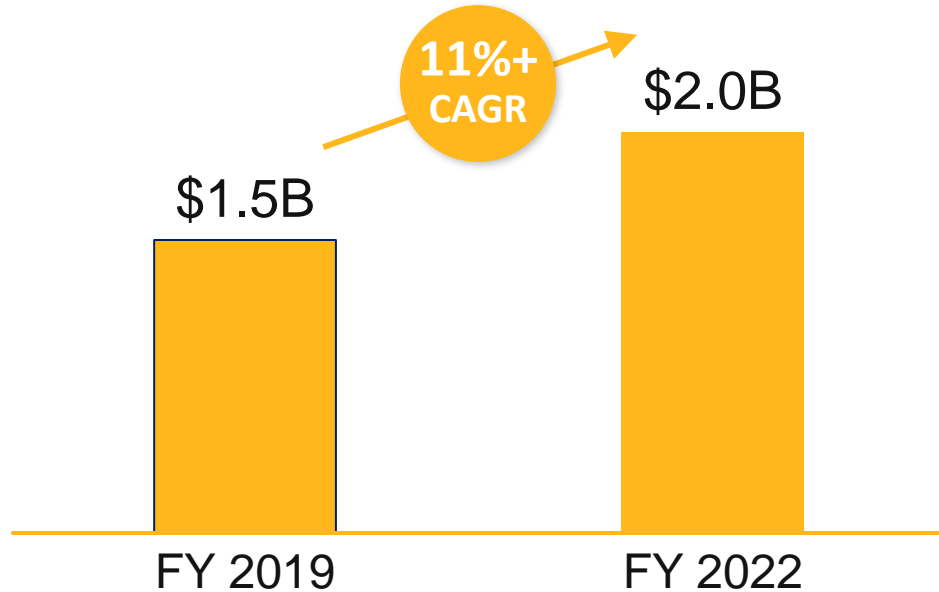
	FY 2020 GAAP	FY 2020 Non-GAAP
Revenue	\$1,543.6 - \$1,618.6M	\$1,555.0 - \$1,630.0M
Operating Margin	25.5% - 29.5%	40.0% - 42.0%
Effective Tax Rate	12.5% - 15.5%	19.5%
Diluted EPS	\$3.84 - \$4.62	\$5.61 - \$6.23

	FY 2020
Annual Contract Value (ACV)	\$1,500.0 - \$1,575.0M
Operating Cash Flows	\$425.0 - \$470.0M

Guidance as of May 6, 2020. Any usage of slide on a subsequent date does not constitute guidance re-confirmation as of such subsequent date. Refer to Cautionary Statement for a discussion of factors that could cause actual results to differ materially from outlook.

The Growth Story Continues to 2022: Marching Towards \$2B ACV and Investing Selectively

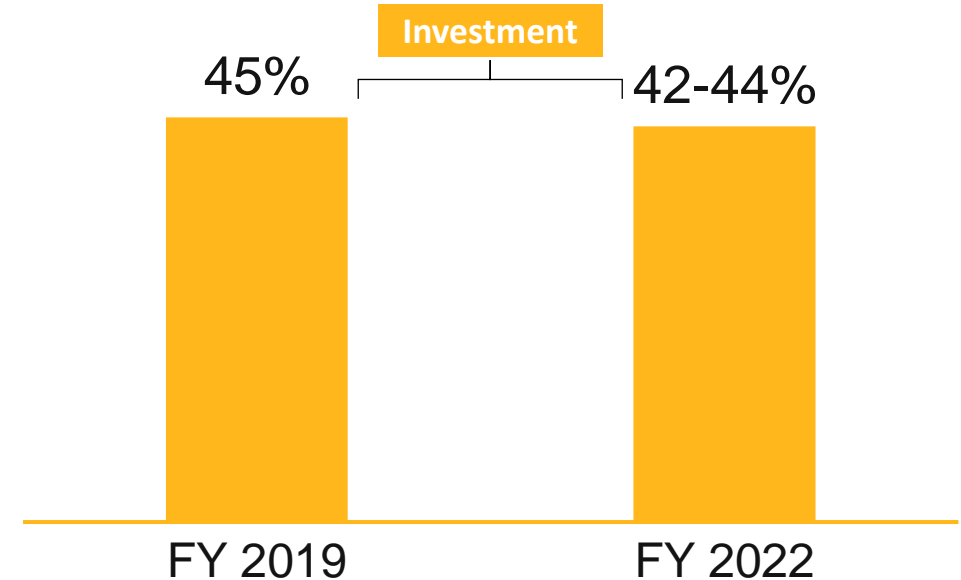
ACV



Marching Toward \$2 Billion!

- Continued execution on Pervasive Simulation strategy
- Capitalize on emerging high-growth solutions
- Invest in world-class customer-facing expertise
- Includes impact of “tuck-in” acquisitions

Operating Margins (Non-GAAP)



Investing in the Business

- Slight dilution from M&A
- Ongoing infrastructure and digital transformation investments

Appendix



Non-GAAP Measures

We provide non-GAAP revenue, non-GAAP operating income, non-GAAP operating profit margin, non-GAAP net income and non-GAAP diluted earnings per share as supplemental measures to GAAP regarding our operational performance. These financial measures exclude the impact of certain items and, therefore, have not been calculated in accordance with GAAP. A detailed explanation of each of the adjustments to such financial measures is described below. This investor deck also contains a reconciliation of each of these non-GAAP financial measures to its most comparable GAAP financial measure.

We use non-GAAP financial measures (a) to evaluate our historical and prospective financial performance as well as our performance relative to our competitors, (b) to set internal sales targets and spending budgets, (c) to allocate resources, (d) to measure operational profitability and the accuracy of forecasting, (e) to assess financial discipline over operational expenditures and (f) as an important factor in determining variable compensation for management and employees. In addition, many financial analysts that follow us focus on and publish both historical results and future projections based on non-GAAP financial measures. We believe that it is in the best interest of our investors to provide this information to analysts so that they accurately report the non-GAAP financial information. Moreover, investors have historically requested, and we have historically reported, these non-GAAP financial measures as a means of providing consistent and comparable information with past reports of financial results.

While we believe that these non-GAAP financial measures provide useful supplemental information to investors, there are limitations associated with the use of these non-GAAP financial measures. These non-GAAP financial measures are not prepared in accordance with GAAP, are not reported by all our competitors and may not be directly comparable to similarly titled measures of our competitors due to potential differences in the exact method of calculation. We compensate for these limitations by using these non-GAAP financial measures as supplements to GAAP financial measures and by reviewing the reconciliations of the non-GAAP financial measures to their most comparable GAAP financial measures.

The adjustments to these non-GAAP financial measures, and the basis for such adjustments, are outlined below:

Acquisition accounting for deferred revenue. Historically, we have consummated acquisitions in order to support our strategic and other business objectives. In accordance with the fair value provisions applicable to the accounting for business combinations, acquired deferred revenue is often recorded on the opening balance sheet at an amount that is lower than the historical carrying value. Although this acquisition accounting requirement has no impact on our business or cash flow, it adversely impacts our reported GAAP revenue in the reporting periods following an acquisition. In order to provide investors with financial information that facilitates comparison of both historical and future results, we provide non-GAAP financial measures which exclude the impact of the acquisition accounting adjustment. We believe that this non-GAAP financial adjustment is useful to investors because it allows investors to (a) evaluate the effectiveness of the methodology and information used by us in our financial and operational decision-making, and (b) compare our past and future reports of financial results as the revenue reduction related to acquired deferred revenue will not recur when related annual lease licenses and software maintenance contracts are renewed in future periods.

Amortization of intangible assets from acquisitions. We incur amortization of intangible assets, included in our GAAP presentation of amortization expense, related to various acquisitions we have made. We exclude these expenses for the purpose of calculating non-GAAP operating income, non-GAAP operating profit margin, non-GAAP net income and non-GAAP diluted earnings per share when we evaluate our continuing operational performance because these costs are fixed at the time of an acquisition, are then amortized over a period of several years after the acquisition and generally cannot be changed or influenced by us after the acquisition. Accordingly, we do not consider these expenses for purposes of evaluating our performance during the applicable time period after the acquisition, and we exclude such expenses when making decisions to allocate resources. We believe that these non-GAAP financial measures are useful to investors because they allow investors to (a) evaluate the effectiveness of the methodology and information used by us in our financial and operational decision-making, and (b) compare our past reports of financial results as we have historically reported these non-GAAP financial measures.

Non-GAAP Measures

Stock-based compensation expense. We incur expense related to stock-based compensation included in our GAAP presentation of cost of maintenance and service; research and development expense; and selling, general and administrative expense. This non-GAAP adjustment also includes excess payroll tax expense related to stock-based compensation. Stock-based compensation expense (benefit) incurred in connection with our deferred compensation plan held in a rabbi trust includes an offsetting benefit (charge) recorded in other income (expense). Although stock-based compensation is an expense and viewed as a form of compensation, we exclude these expenses for the purpose of calculating non-GAAP operating income, non-GAAP operating profit margin, non-GAAP net income and non-GAAP diluted earnings per share when we evaluate our continuing operational performance. We similarly exclude income (expense) related to assets held in a rabbi trust in connection with our deferred compensation plan. Specifically, we exclude stock-based compensation and income (expense) related to assets held in the deferred compensation plan rabbi trust during our annual budgeting process and our quarterly and annual assessments of our performance. The annual budgeting process is the primary mechanism whereby we allocate resources to various initiatives and operational requirements. Additionally, the annual review by our board of directors during which it compares our historical business model and profitability to the planned business model and profitability for the forthcoming year excludes the impact of stock-based compensation. In evaluating the performance of our senior management and department managers, charges related to stock-based compensation are excluded from expenditure and profitability results. In fact, we record stock-based compensation expense into a stand-alone cost center for which no single operational manager is responsible or accountable. In this way, we can review, on a period-to-period basis, each manager's performance and assess financial discipline over operational expenditures without the effect of stock-based compensation. We believe that these non-GAAP financial measures are useful to investors because they allow investors to (a) evaluate our operating results and the effectiveness of the methodology used by us to review our operating results, and (b) review historical comparability in our financial reporting as well as comparability with competitors' operating results.

Transaction costs related to business combinations. We incur expenses for professional services rendered in connection with business combinations, which are included in our GAAP presentation of selling, general and administrative expense. These expenses are generally not tax-deductible. We exclude these acquisition-related transaction expenses, derived from announced acquisitions, for the purpose of calculating non-GAAP operating income, non-GAAP operating profit margin, non-GAAP net income and non-GAAP diluted earnings per share when we evaluate our continuing operational performance, as we generally would not have otherwise incurred these expenses in the periods presented as a part of our operations. We believe that these non-GAAP financial measures are useful to investors because they allow investors to (a) evaluate our operating results and the effectiveness of the methodology used by us to review our operating results, and (b) review historical comparability in our financial reporting as well as comparability with competitors' operating results.

Tax Cuts and Jobs Act. We recorded impacts to our income tax provision related to the enactment of the Tax Cuts and Jobs Act of 2017, specifically for the transition tax related to unrepatriated cash and the impacts of the tax rate change on net deferred tax assets. We exclude these impacts for the purpose of calculating non-GAAP net income and non-GAAP diluted earnings per share when we evaluate our continuing operational performance, as (i) the charges are not expected to recur as part of our normal operations and (ii) the charges resulted from the extremely infrequent event of major U.S. tax reform, the last such reform having occurred in 1986. We believe that these non-GAAP financial measures are useful to investors because they allow investors to (a) evaluate our operating results and the effectiveness of the methodology used by us to review our operating results, and (b) review historical comparability in our financial reporting.

Non-GAAP tax provision. We utilize a normalized non-GAAP annual effective tax rate (AETR) to calculate non-GAAP measures. This methodology provides better consistency across interim reporting periods by eliminating the effects of non-recurring items and aligning the non-GAAP tax rate with our expected geographic earnings mix. To project this rate, we analyzed our historic and projected non-GAAP earnings mix by geography along with other factors such as our current tax structure, recurring tax credits and incentives, and expected tax positions. On an annual basis we will re-evaluate this rate for significant items that may materially affect our projections.

Non-GAAP financial measures are not in accordance with, or an alternative for, GAAP. Our non-GAAP financial measures are not meant to be considered in isolation or as a substitute for comparable GAAP financial measures and should be read only in conjunction with our consolidated financial statements prepared in accordance with GAAP.

We have provided a reconciliation of the non-GAAP financial measures to the most directly comparable GAAP financial measures as listed below:

GAAP Reporting Measure

Revenue
Operating Income
Operating Profit Margin
Net Income
Diluted Earnings Per Share

Non-GAAP Reporting Measure

Non-GAAP Revenue
Non-GAAP Operating Income
Non-GAAP Operating Profit Margin
Non-GAAP Net Income
Non-GAAP Diluted Earnings Per Share

ANSYS, INC. AND SUBSIDIARIES
Reconciliation of Non-GAAP Measures
(Unaudited)

	Three Months Ended					
	March 31, 2020			March 31, 2019		
<i>(in thousands, except percentages and per share data)</i>	GAAP Results	Adjustments	Non-GAAP Results	GAAP Results	Adjustments	Non-GAAP Results
Total revenue	\$ 304,985	\$ 3,912 (1)	\$ 308,897	\$ 317,130	\$ 2,780 (4)	\$ 319,910
Operating income	34,073	56,500 (2)	90,573	95,649	41,537 (5)	137,186
Operating profit margin	11.2 %		29.3 %	30.2 %		42.9 %
Net income	\$ 46,064	\$ 26,241 (3)	\$ 72,305	\$ 86,230	\$ 24,440 (6)	\$ 110,670
Earnings per share – diluted:						
Earnings per share	\$ 0.53		\$ 0.83	\$ 1.01		\$ 1.29
Weighted average shares	87,369		87,369	85,493		85,493

- (1) Amount represents the revenue not reported during the period as a result of the acquisition accounting adjustment associated with the accounting for deferred revenue in business combinations.
- (2) Amount represents \$30.9 million of stock-based compensation expense, \$7.0 million of excess payroll taxes related to stock-based awards, \$13.7 million of amortization expense associated with intangible assets acquired in business combinations, \$1.0 million of transaction expenses related to business combinations and the \$3.9 million adjustment to revenue as reflected in (1) above.
- (3) Amount represents the impact of the adjustments to operating income referred to in (2) above, decreased for the related GAAP to non-GAAP tax provision impact of \$30.3 million based on a normalized non-GAAP annual effective tax rate of 19.5%.
- (4) Amount represents the revenue not reported during the period as a result of the acquisition accounting adjustment associated with the accounting for deferred revenue in business combinations.
- (5) Amount represents \$23.8 million of stock-based compensation expense, \$4.0 million of excess payroll taxes related to stock-based awards, \$8.3 million of amortization expense associated with intangible assets acquired in business combinations, \$2.7 million of transaction expenses related to business combinations and the \$2.8 million adjustment to revenue as reflected in (4) above.
- (6) Amount represents the impact of the adjustments to operating income referred to in (5) above, decreased for the related income tax impact of \$15.6 million, adjustments related to the transition tax associated with the Tax Cuts and Jobs Act of \$1.3 million, and rabbi trust income of \$0.2 million.

ANSYS, INC. AND SUBSIDIARIES
Reconciliation of Forward-Looking Guidance
Quarter Ending June 30, 2020

	<u>Earnings Per Share - Diluted</u>
U.S. GAAP expectation	\$0.55 - \$0.92
Exclusions before tax:	
Acquisition adjustments to deferred revenue	\$0.05
Acquisition-related amortization	\$0.16 - \$0.17
Stock-based compensation and related excess payroll tax	\$0.38 - \$0.44
Adjustment for income tax effect	<u>(\$0.18) - (\$0.20)</u>
Non-GAAP expectation	<u>\$1.01 - \$1.33</u>

ANSYS, INC. AND SUBSIDIARIES
Reconciliation of Forward-Looking Guidance
Year Ending December 31, 2020

	<u>Earnings Per Share - Diluted</u>
U.S. GAAP expectation	\$3.84 - \$4.62
Exclusions before tax:	
Acquisition adjustments to deferred revenue	\$0.13
Acquisition-related amortization	\$0.63 - \$0.67
Stock-based compensation and related excess payroll tax	\$1.59 - \$1.77
Adjustment for income tax effect	<u>(\$0.74) - (\$0.80)</u>
Non-GAAP expectation	<u>\$5.61 - \$6.23</u>

Appendix - Reconciliations Of GAAP To Non-GAAP Financial Information

Earnings Per Share

	Q1 2020 YTD	Q1 2019 YTD
Diluted earnings per share (U.S. GAAP)	\$0.53	\$1.01
Exclusions before tax:		
Acquisition adjustments to deferred revenue	\$0.04	\$0.03
Acquisition-related amortization	\$0.16	\$0.10
Stock-based compensation and related excess payroll tax	\$0.44	\$0.32
Acquisition-related transaction expenses	\$0.01	\$0.03
Adjustment for income tax effect	(\$0.35)	(\$0.20)
Diluted earnings per share (Non-GAAP)	\$0.83	\$1.29

Appendix - Reconciliations Of GAAP To Non-GAAP Financial Information

Revenue by Geography Q1 2019 YTD

in millions, except percentages

Geography	Geographic Revenue (GAAP)	% of Total GAAP Revenue	Acquisition Adjustments to Deferred Revenue	Geographic Revenue (Non-GAAP)	% of Total Non-GAAP Revenue
Americas	\$147	46%	\$1	\$148	46%
APAC	\$80	25%	\$1	\$81	25%
EMEA	\$90	29%	\$1	\$91	29%
Total Revenue	\$317		\$3	\$320	

Revenue by Geography Q1 2020 YTD

in millions, except percentages

Geography	Geographic Revenue (GAAP)	% of Total GAAP Revenue	Acquisition Adjustments to Deferred Revenue	Geographic Revenue (Non-GAAP)	% of Total Non-GAAP Revenue
Americas	\$132	43%	\$1	\$133	43%
APAC	\$84	28%	\$2	\$86	28%
EMEA	\$89	29%	\$1	\$90	29%
Total Revenue	\$305		\$4	\$309	

Appendix - Reconciliations Of GAAP To Non-GAAP Financial Information

Revenue by Source

in millions	Q1 2019 YTD (\$ in millions)	Q1 2019 YTD (%)	Q1 2020 YTD (\$ in millions)	Q1 2020 YTD (%)
Lease Revenue (GAAP)	\$69	22%	\$45	15%
Acquisition adjustments to deferred revenue	-		-	
Total Lease Revenue (Non-GAAP)	\$69	22%	\$45	15%
Maintenance Revenue (GAAP)	\$181	57%	\$200	66%
Acquisition adjustments to deferred revenue	\$3		\$4	
Total Maintenance Revenue (Non-GAAP)	\$184	57%	\$204	66%
Perpetual Revenue (GAAP)	\$54	17%	\$43	14%
Acquisition adjustments to deferred revenue	-		-	
Total Perpetual Revenue (Non-GAAP)	\$54	17%	\$43	14%
Service Revenue (GAAP)	\$13	4%	\$17	5%
Acquisition adjustments to deferred revenue	-		-	
Total Service Revenue (Non-GAAP)	\$13	4%	\$17	5%

Appendix - Reconciliations Of GAAP To Non-GAAP Financial Information

Revenue by Channel Q1 2019 YTD

in millions, except percentages

Channel	Channel Revenue (GAAP)	% of Total GAAP Revenue	Acquisition Adjustments to Deferred Revenue	Channel Revenue (Non-GAAP)	% of Total Non-GAAP Revenue
Direct	\$224	70%	\$2	\$226	71%
Indirect	\$93	30%	\$1	\$94	29%
Total Revenue	\$317		\$3	\$320	

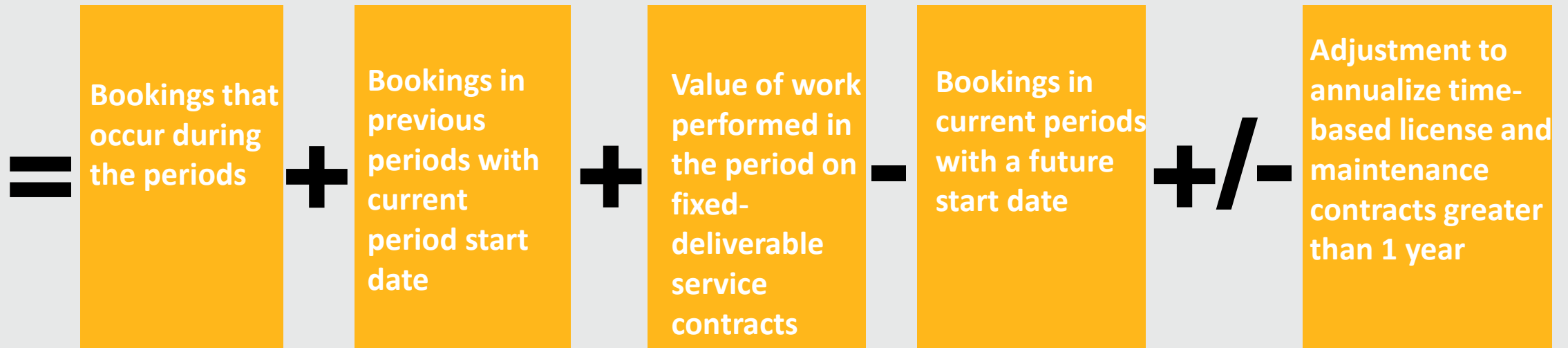
Revenue by Channel Q1 2020 YTD

in millions, except percentages

Channel	Channel Revenue (GAAP)	% of Total GAAP Revenue	Acquisition Adjustments to Deferred Revenue	Channel Revenue (Non-GAAP)	% of Total Non-GAAP Revenue
Direct	\$225	74%	\$2	\$227	73%
Indirect	\$80	26%	\$2	\$82	27%
Total Revenue	\$305		\$4	\$309	

Annualized Contract Value (ACV)

ANNUALIZED CONTRACT VALUE (ACV) METRIC



- We will continue to report and provide guidance on the same key financial metrics as we do today (revenue, operating margin, EPS, tax rate, etc.)
- We will begin disclosing fiscal year guidance on operating cash flow, free cash flow and ACV



Annette N. Arribas, IRC
Senior Director, Global Investor Relations Officer
Phone: +1 (724) 820-3700
Email: annette.arribas@ansys.com

Virginea Stuart Gibson
Investor Relations Manager
Phone: +1 (724) 820-4225
Email: virginea.gibson@ansys.com

NASDAQ: ANSS

<https://investors.ansys.com>

