Innovation Through Pervasive Engineering Simulation

Investor Presentation

Q2 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 August 5, 2020)

Information from 2Q20 Earnings

Operational Impact

- While most of our offices have since reopened, many have reopened on a limited basis, so working remotely remains the primary means
 of work for a majority of our workforce. 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 our customers with lower levels of remote working sophistication has slowed.
- We hosted our inaugural Simulation World digital event, which was one of the world's largest virtual events focused on engineering simulation, in conjunction with the 16th annual LS-DYNA user group. Our R&D teams continue to collaborate effectively, and we continue to meet product release targets, as evidenced by the recent releases of Ansys 2020 R2 and Ansys Discovery™ in July.

Financial Impact

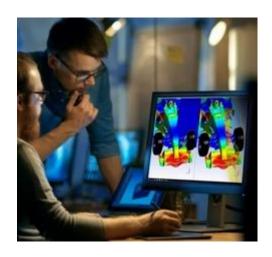
• While the COVID-19 pandemic did have an adverse financial impact on the updated guidance we provided in May and on our actual Q2 results, the resilience of our business contributed to our delivery of revenue, operating margin and earnings that exceeded the high end of our financial guidance.

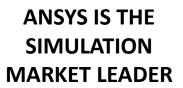
Liquidity Impact

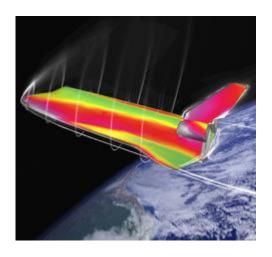
- Our cash and cash equivalents increased during the quarter, ending with a balance of \$744.5 million as of June 30, 2020. We believe that this balance, together with cash generated from operations and access to our \$500.0 million revolving credit facility, are in excess of the cash required for our operations over the next twelve months.
- Our cash flows from operations were strong in the second quarter and the first half of 2020. The second quarter cash flow growth was
 driven primarily by the ability to delay certain income, employment and indirect tax payments into the second half of 2020 and beyond.
 These positive cash flows were partially offset by the delays in some customer payments on existing contracts, primarily in China, and
 longer payment terms requested for new contracts. While such requests were initially in the automotive industry, during the second
 quarter we experienced the expansion of such requests in other industries, particularly related to larger contract commitments. These
 requests have increased the uncertainty of cash collections and resulted in an increase in our reserves for bad debt during the first half
 of 2020.
- We have an unsecured term loan with an outstanding principal balance of \$425.0 million as of June 30, 2020. We are compliant with our
 debt covenants. Our debt agreement currently requires no principal payments until 2024.



Well Positioned in a Growing Market







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 June 2020 Report)*

#1 IN SIMULATION

FOCUSED
SIMULATION IS ALL WE DO

PROVEN

MEMBER OF PRESTIGIOUS





\$27B market capitalization

(as of August 5, 2020)

COMMITTED

OVERALL CUSTOMER SATISFACTION GLOBALLY (2019): 85.9%

CAPABLE

4,400 EMPLOYEES GLOBALLY

88 ANSYS OFFICES >100 CHANNEL PARTNERS GLOBALLY



Commitment to Corporate Responsibility

People



79%

Employee Engagement

21%

Women on Senior Leadership Team

5.6% Voluntary Employ Turnover Rate

23%

Women Employees

Metrics for full-year 2019

Planet

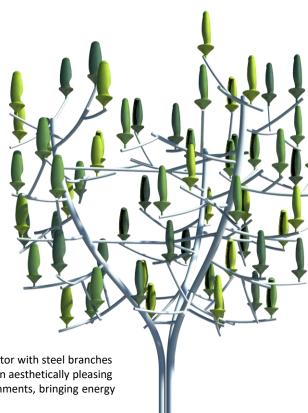
CLEAN TECHNOLOGY CONTRIBUTIONS – OUR PRODUCT HANDPRINT

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.



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



Awards & Recognition











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.



World-class companies leveraging our platform











































































































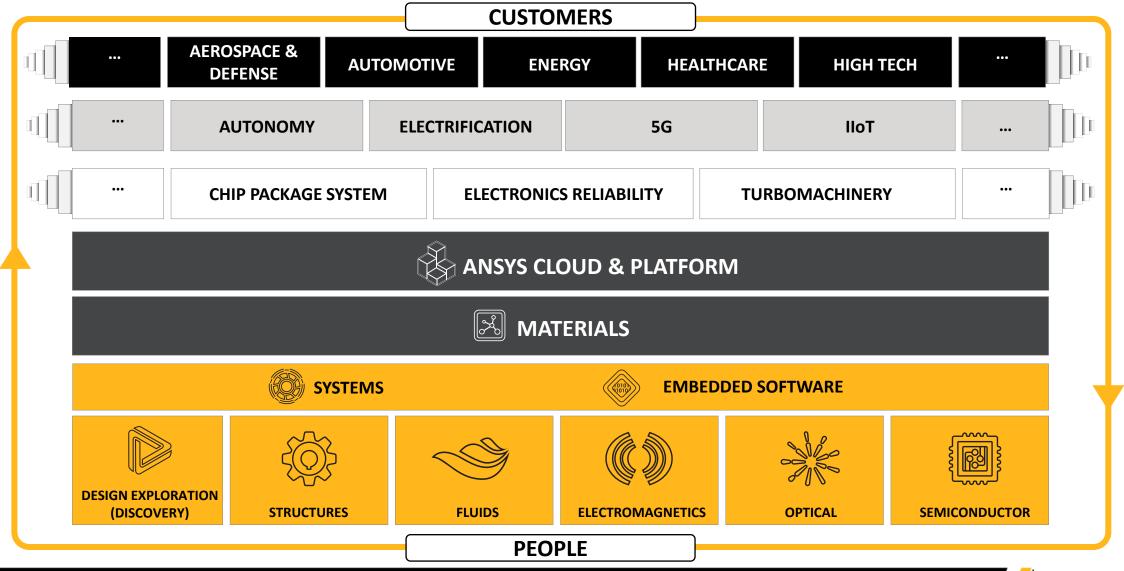




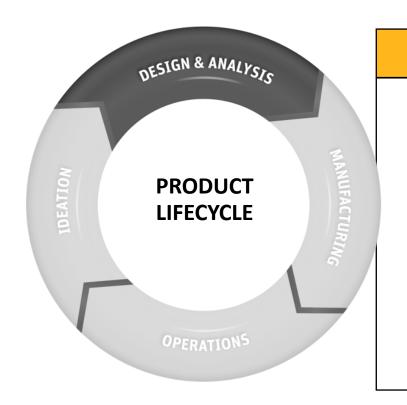




Ansys Offers the Only True Simulation Platform



Ansys' 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

Degree of accuracy

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

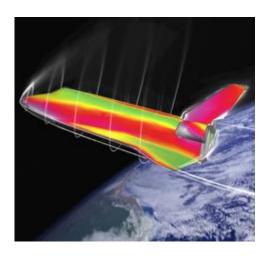




Well Positioned in a Growing Market







THE SIMULATION
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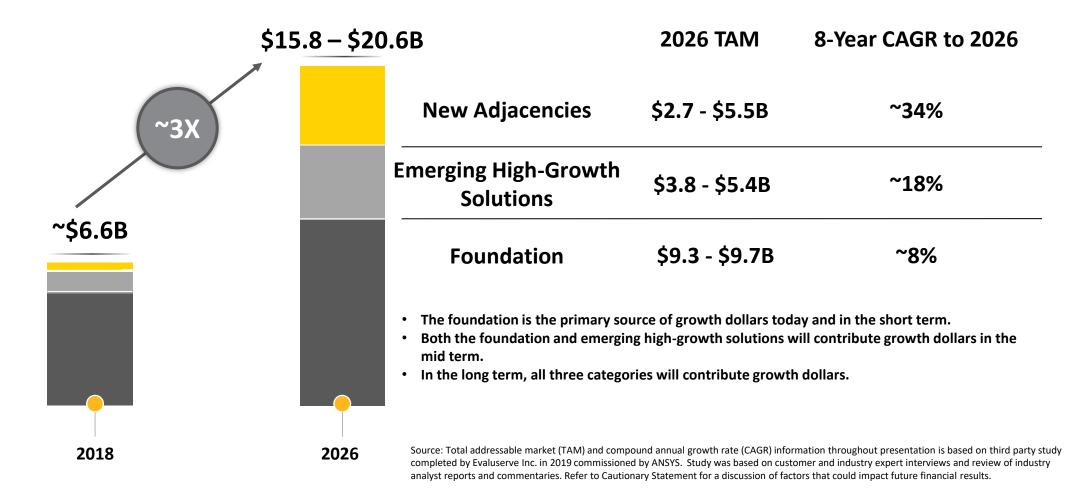
OUR STRATEGY
CAPITALIZES ON
THIS GROWING
MARKET



WE HAVE A
PROVEN RECORD
OF EXECUTION



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





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









Play to our strengths

Disruptive market opportunities

Large – and growing – customer investment

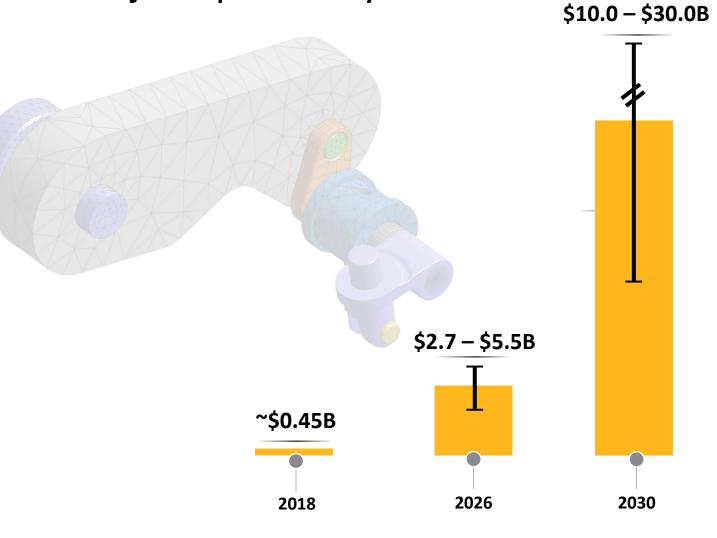
Unprecedented product complexity

Requires extensive use of simulation



New Adjacencies: Substantial Growth into 2026 and

Major Upside Beyond



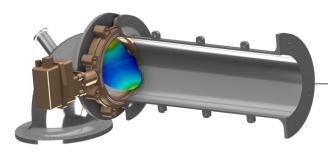
New adjacencies			
2026 TAM	CAGR		
\$2.7 – \$5.5B	~32%		
2030 TAM	CAGR		
\$10.0 – \$30.0B	~37%		





ADDITIVE MANUFACTURING

DIGITAL EXPLORATION



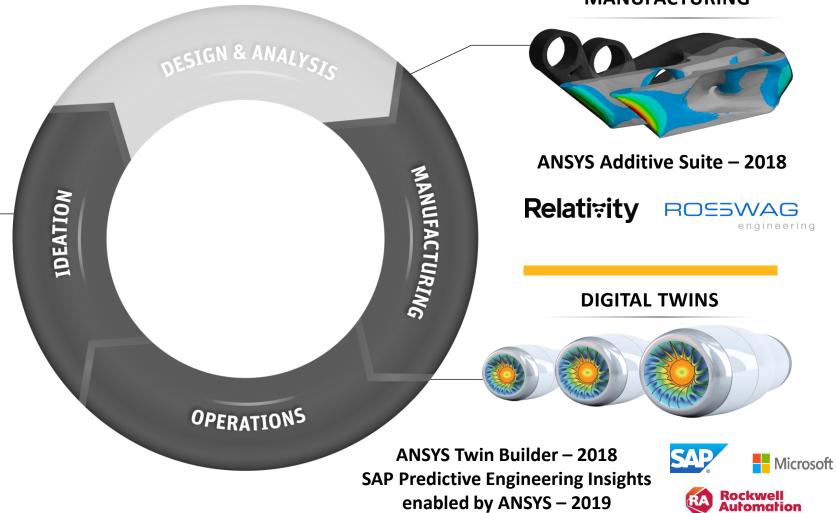
ANSYS Discovery Live – 2018

Creo Simulation Live – 2019







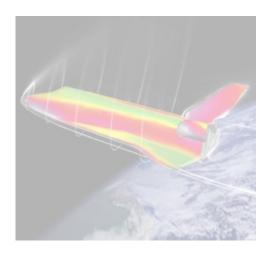




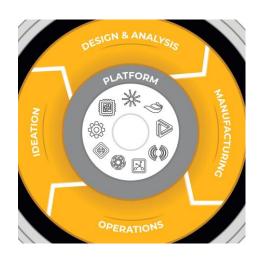
Well Positioned in a Growing Market







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OUR STRATEGY CAPITALIZES ON THIS GROWING MARKET



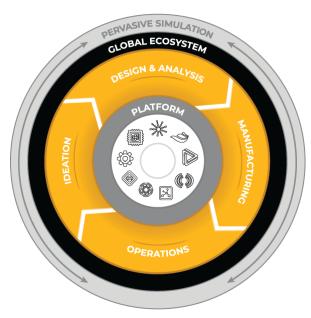
WE HAVE A
PROVEN RECORD
OF EXECUTION



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

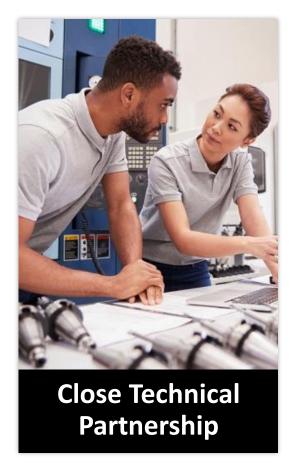
- Drive simulation across the entire product cycle
- Embed Ansys into partners' ecosystems
- Provides significant upside to longterm growth

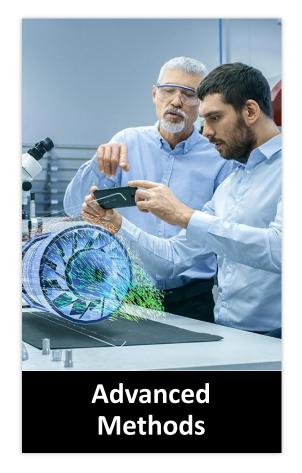


Ansys Delivers What Matters Most to Customers





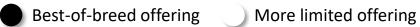






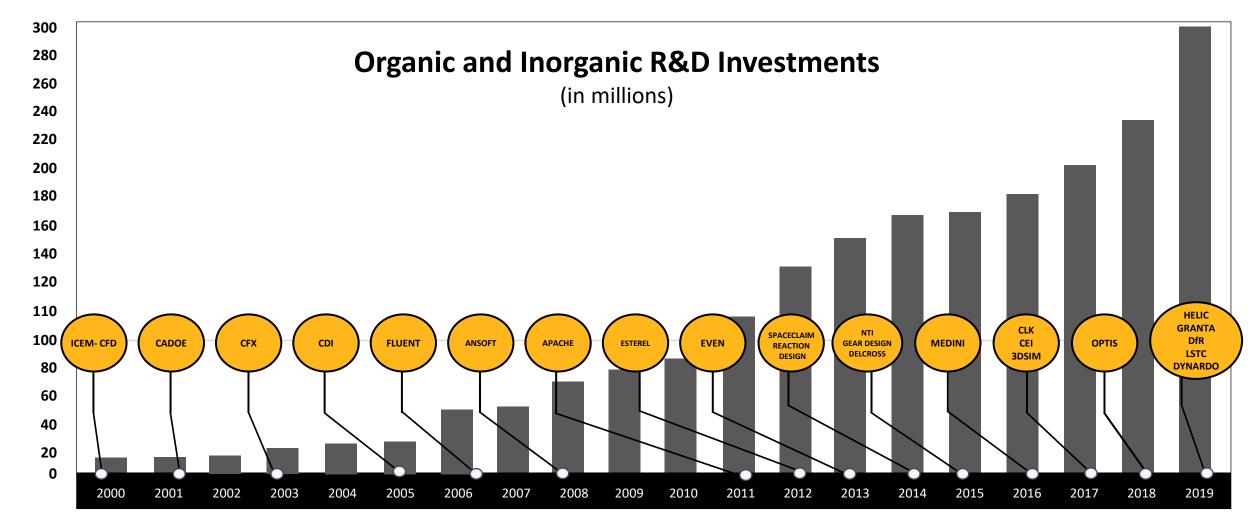
We are Uniquely Positioned to Make Simulation Pervasive

	#1 STRUCTURES	#1 FLUIDS	#1 ELECTRO MAGNETICS	#1 SEMICONDUCTOR	#1 EMBEDDED SOFTWARE	#1 MATERIALS INFORMATION	#1 OPTICAL
Ansys							
COMPETITOR #1	0	0	0				
COMPETITOR #2	•	•	•		•	•	•
COMPETITOR #3	•	\circ	•		\circ		
COMPETITOR #4	•	•	•		•		
COMPETITOR #5	0	0					
COMPETITOR #6	•					•	
COMPETITOR #7							•
COMPETITOR #8		•					
COMPETITOR #9			•	•			





Continuously Investing to Strengthen the Core — Organically and Through Acquisitions





Acquired Photonic Simulation Leader Lumerical on April 1, 2020

Lumerical use cases across target markets

Datacom



- Circuit Yield Estimation
- Minimize Bit Error Rate
- Thermal Stabilization



- Optimize Pixel Efficiency
- Minimize Crosstalk



- Grating Coupler Optimization
- Phased Array Design
- Metasurface Design

AR/VR



- Metalens Design
- Display Pixel Design

Quantum



- Robust Passive Component Design
- Optical Switch Design

Display



Optimize Pixel



- Passive Component Optimization
- IO Port Design
- Compact Model Generation

Lighting



Optimize Efficiency



 Custom Component Design with PDK





- Defect Detection
- Optical Metrology



Ansys 2020 R2 Key Updates – Released July 2020



INCREASED TECHNICAL BREADTH & DEPTH

- Enhanced mechanical simulation of electronics
- Improvements to speed and robustness of core solver
- Further exposure of LS-DYNA technology in Workbench



IMPROVED WORKFLOWS & NEW CAPABILITIES

- Enhanced battery simulation
- New fast & accurate simulation of compressors
- Improved workflows across multiple applications



NEW STREAMLINED ELECTRONICS WORKFLOWS

- Simulate bio-compatibility of 5G equipment
- Enhanced electro-thermal integration
- New advanced cable modeling solution



ALL-NEW USER EXPERIENCE

- New unified Discovery application
- Improved workflow and GTM with flagships
- · Enhanced speed and accuracy



ENABLING A TRUE DIGITAL TRANSFORMATION

- Significantly enhanced usability and enterprise integration
- Further integration with Ansys portfolio, including Minerva
- Updated materials datasets, including restricted substances



Ansys 2020 R2 Key Updates – Released July 2020







ENABLING EMBEDDED AUTO SOFTWARE

- ARINC661 enhancements for touch screen cockpits
- New connector to Siemens Polarion[®]
- Supports new Auto industry methodology for FMEA

IMPROVED WORKFLOW & SENSOR HANDLING

- Accelerated prototyping with SPEOS Live Preview
- Optimized user experience speeds setup by 4X
- Enhanced LiDAR and sky model support

MAKING AV/DIGITAL TWIN VISIONS ACHIEVABLE

- Faster & easier to deploy and validate digital twins
- Listen to your simulation with VREXPERIENCE Sound
- Enhanced sensor models for AD/ADAS development





ENABLING ADVANCED 5G, HPC AND AI DESIGNS

- On-chip electromagnetics solutions for 5G
- New 3D-IC multiphysics thermal solutions for HPC & AI
- New low-power analysis capabilities for mobile & data center

ACCELERATE INNOVATION IN ANY ENVIRONMENT

- Streamlined collaborative simulation and optimization workflows
- New virtual desktop infrastructure
- New Ansys LS-DYNA cloud-HPC workflow support



Ansys Long-Term Technology Strategy Dimensions



Artificial Intelligence and Machine Learning

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



Platform for Multiphysics simulation

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



Hyperscale Simulation, Collaboration on Cloud

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



Predictive and Robust Design

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



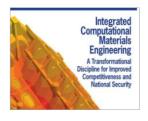
Digital and Physical Worlds

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



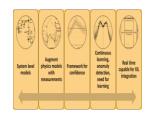
Digital Transformation

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



Computational Methods in New Areas

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



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 GROW GLOBAL PARTNER ECOSYSTEM



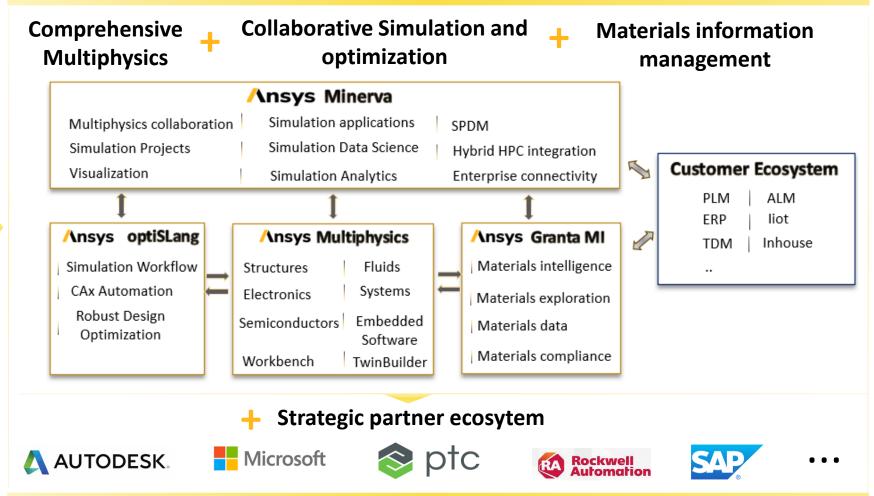
1. Capitalize on Recent Acquisitions

		ADJACENCIES		EMERGING HIGH-GROWTH SOLUTIONS			TIONS	
	STRENGTHENS CORE	ADDITIVE MFG.	DESIGN ENGINEERS	DIGITAL TWIN	ELECTRIFICATION	AUTONOMOUS	5 G	lloT
GRANTA MATERIAL INTELLIGENCE	~	~	~	~	~	~	~	~
Helic	~					~	~	~
DfR	~		~	~	~			
OPTIS	~			~		~		~
LSTC Livermore Software fechnology Corp.	~	✓			~	~		
dynamic software & engineering	~	~	~	~	✓	~		~
C lumerical	~		~			~	~	~



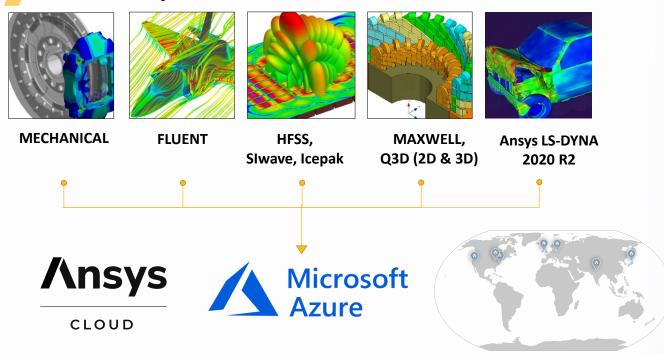
2. Ansys Comprehensive Portfolio for Digital Engineering Workflows





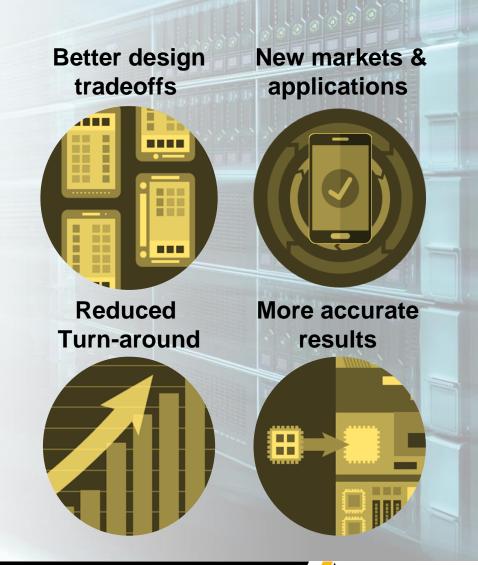


2. Ansys Cloud Overview



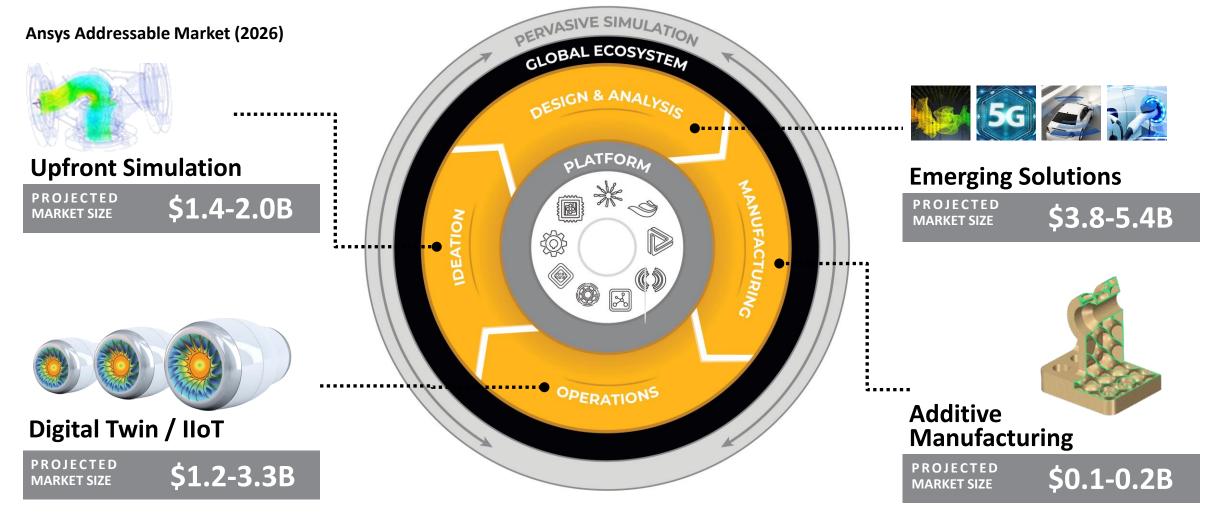
- Solve in the cloud directly from the desktop application or fully in the cloud with Virtual Desktop Infrastructure (VDI), new in 2020 R2
- Send Ansys LS-Dyna solves to Ansys Cloud, for additional compute power
- Access virtually unlimited compute power through cloud-based HPC
- Only cloud solution supported fully by and integrated with desktop software

Benefits of Cloud



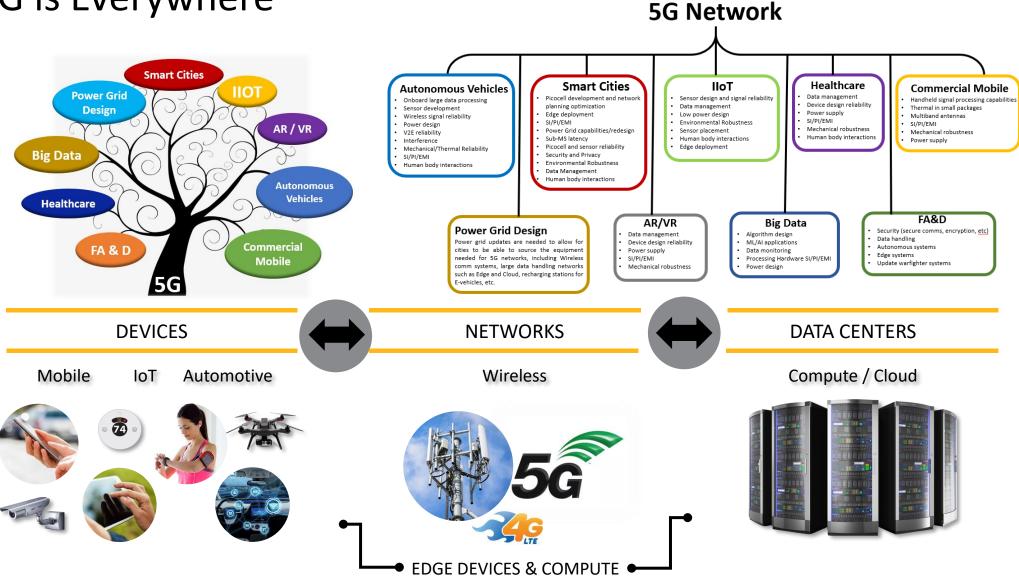


3. Expanding our Technology to Enable Emerging Solutions and Adjacencies





5G is Everywhere





Pervasive Engineering Simulation Means Saying

Hello to 5G with Ansys



ANSYS products and capabilities for Wireless and Semiconductor design from 3G to 4G and now 5G, are the trusted source for enabling customer simulation-driven solutions for the User Equipment (UE) and Devices, Network, and Data-centers

Electronics Integration Complexity	Multi-chip and multi-die power integrity, complex mixed signal, Electronics and SoC reliability, Dense RF Front-end (RFFE), Carrier Aggregation (CA)
Semiconductor SoC and 3D IC Designs	RTL Power and Sign-off in the IC Design Flow including ,low Power, SoC and IP analysis, Package and board level integrity analysis (Signal, Thermal, Power, EM), EM crosstalk, and ESD and EMC simulations for user equipment (UE) and networks
UE and Base Station (BS) Advanced Antennas	Complex Phased Array Beamforming, Advanced Channel Modeling, mmWave, Massive MIMO, Carrier-Aggregation
Base Station (BS) Performance	Physics-based simulation of large-scale Metro environments, and evaluation of system performance – Antennae Array, Site, UE received power, beamforming, BS-BS handoffs, and interference
Data Center Electronics	Integrity analysis – Signal for fast channels (SERDES, PAM4), Power and Thermal, Board-level virtual prototypes, PCB reliability, Die-level packaging issues, Electronics reliability (EMI, Electromigration, Thermal),

Driving your Performance, Cost-Savings, and Workflow Efficiency thru Strong Partnership, Outstanding Customer Service, and Great Communication.



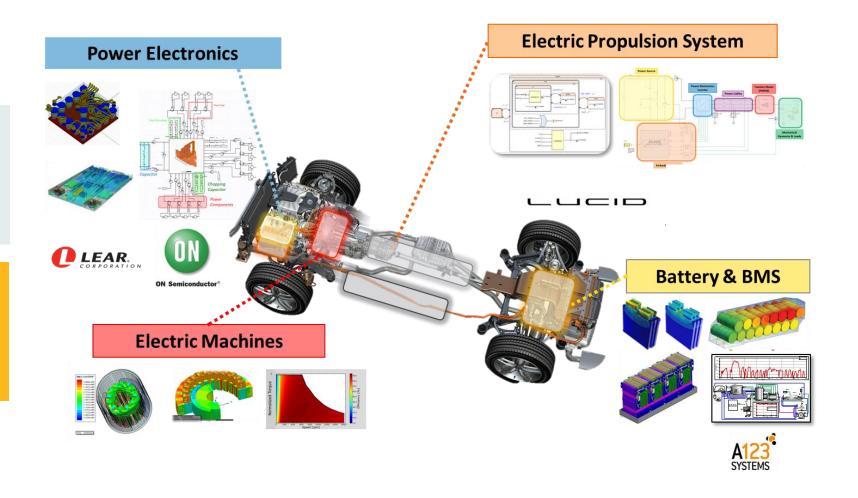
3. Ansys Electrification Solutions

Leader in Electrification

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

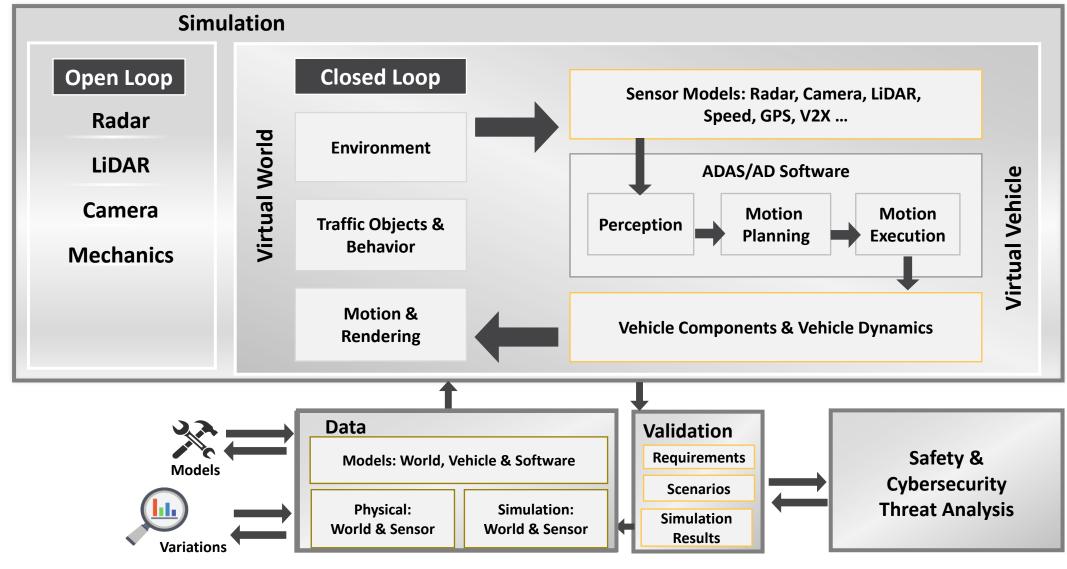
Four Pillars

- 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

SAP	SAP Predictive Engineering Insights (PEI) Enabled by Ansys - High-fidelity physics-based digital twins for real-time monitoring of physical assets. Early success: Secured several deals in past year and focused on growing their usage and proving ROI. Expanding focus from Operators to OEMs to support digital transformation business initiatives.
ptc	Creo Simulation Live Powered by Ansys - Integrates real-time simulation directly into 3D CAD modeling environment to get instant feedback for designers. In April 2020, PTC launched Creo 7.0. This release now adds fluid dynamics to the Creo Simulation Live (CSL) powered by Ansys capabilities. Solid results for CSL in fiscal Q3 2020: PTC closed ten follow-on expansion deals across multiple industries and signed first 7-figure deal.
SYNOPSYS®	Synopsys IC Compiler™ II with Ansys RedHawk™ Analysis Fusion - Delivers cohesive and integrated workflow that shortens time on challenging power requirements. Early success: • Automaker realized 35% reduction in peak dynamic IR drop.
ROLLS ROCKE	 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.
S AIRBUS	 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.
AV SIMULATION	 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

	The partnership will allow seamless interoperability across Ansys and Autodesk products to drive revolutionary design and engineering agility for our customers.
AUTODESK.	• 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.
Microsoft	 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.
Rockwell	• Our strategic partnership provides industrial companies with access to a streamlined, holistic, end-to-end solution for design, automation, production and lifecycle management.
Automation	• 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.



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



Ansys Discovery: Breaking the Barriers to Upfront Simulation

Design Exploration

- Real time interactive simulation for rapid evaluation and experimentation
- Structural, thermal, fluids & multiphysics
- "Just works" simulation that is tolerant of dirty geometry and imprecise modeling
- Fast topology optimization

Design Verification

- Trusted ANSYS solvers for highfidelity results
- MAPDL for structures & thermal
- Fluent for fluids and conjugate heat transfer
- Extended physics including nonlinearities and bolt pre-tensioning
- Export to Mechanical/Fluent



Innovative User Experience

- Single environment for all physics that includes setup, solve, and postprocessing
- Compressed workflows w/ sophisticated automation & intelligence
- Major focus on ease of learning and ease of reuse through guidance and feedback

Geometry Preparation

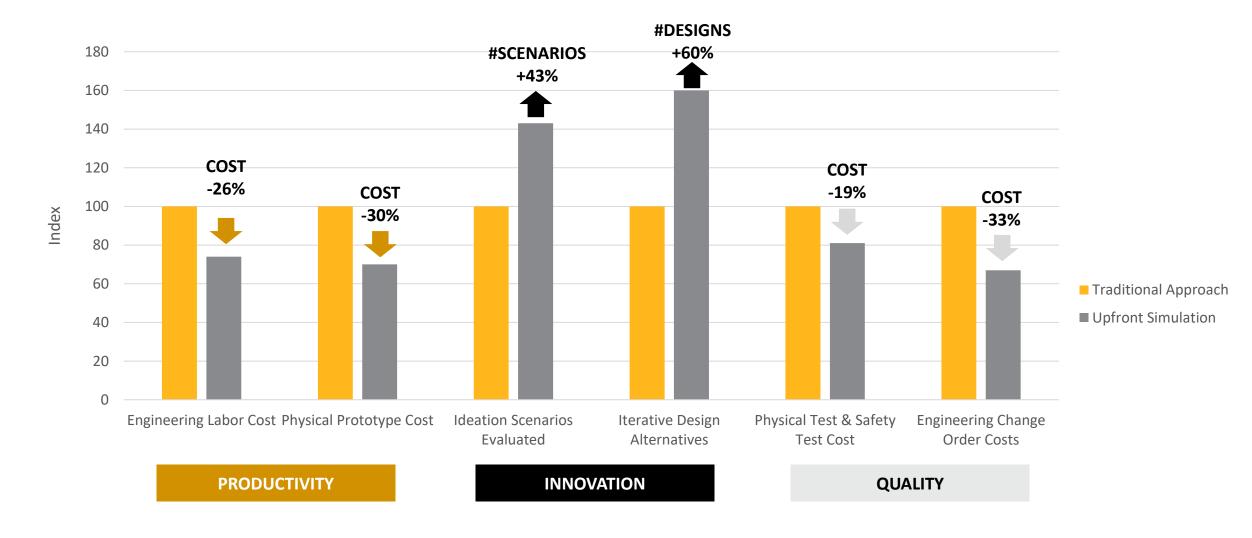
- Dedicated tools for simulation prep
- Import & edit CAD from any source
- Faceted and BREP
- Direct and history-based modeling

And More

- Granta materials
- Prep and simulation for Additive
- DoE and optimization
- Scripting & extensibility



Demonstrated Return on Investment in Upfront Simulation







Adjacencies – Additive: Two Distinct Customer Groups

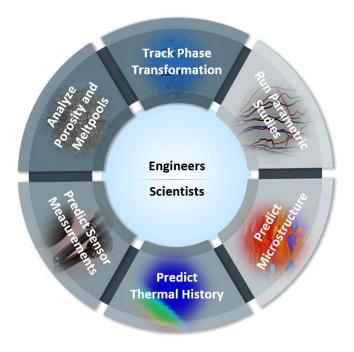
- Two Products

Ansys Additive Print



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

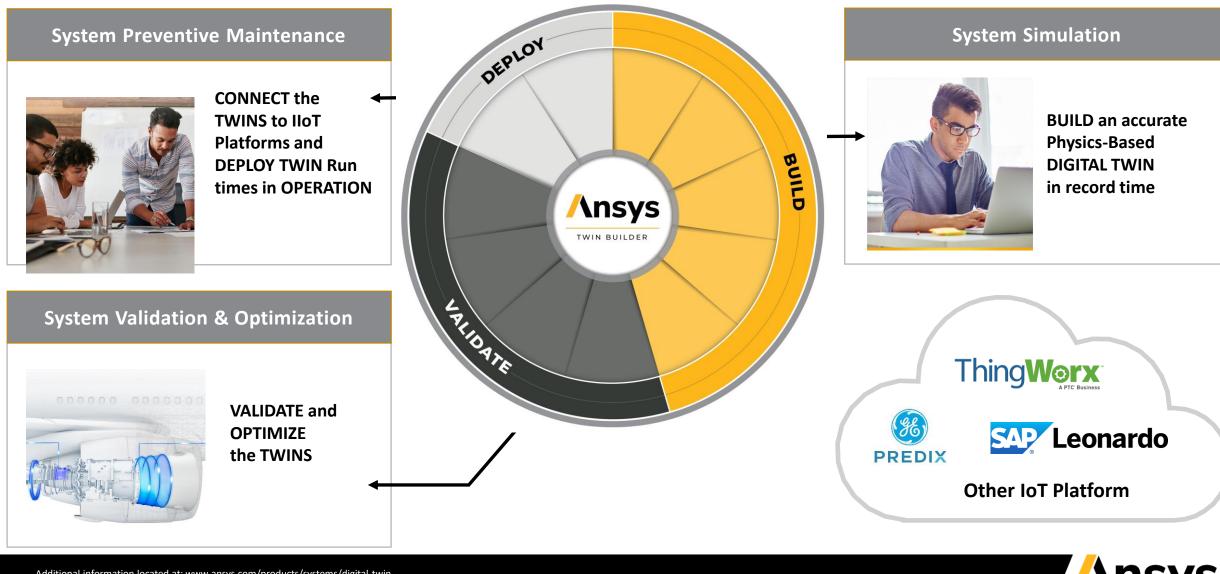
Ansys Additive Suite



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



Adjacencies - Ansys Digital Twin Key Capabilities

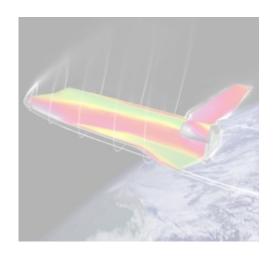




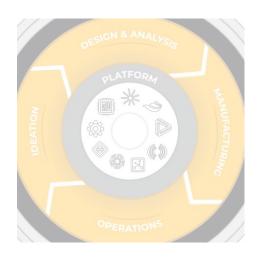
Well Positioned in a Growing Market



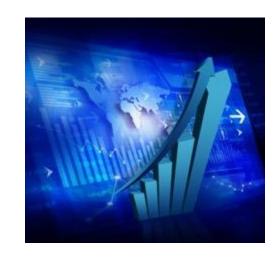
ANSYS IS THE SIMULATION MARKET LEADER



THE SIMULATION
MARKET IS STRONG
AND GROWING



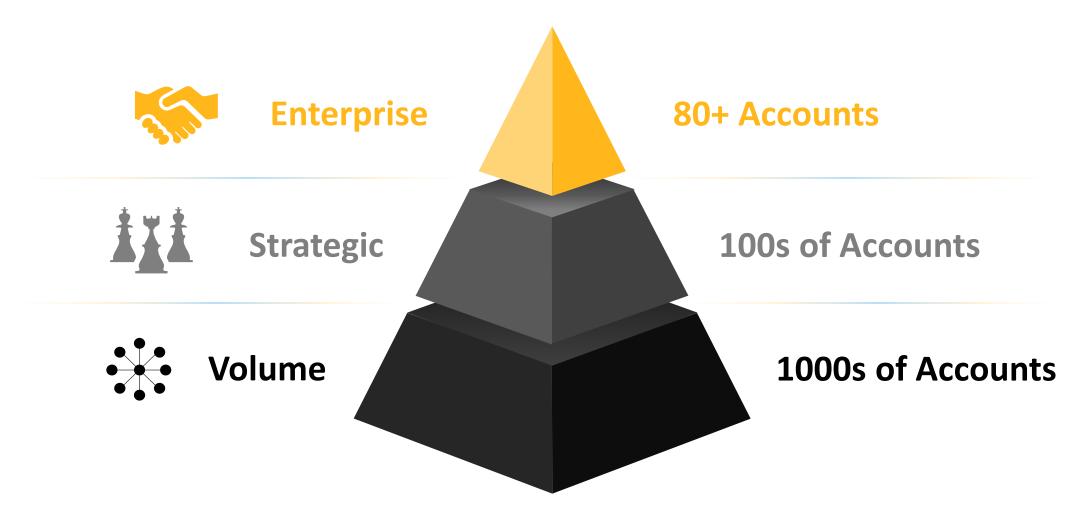
OUR STRATEGY
CAPITALIZES ON
THIS GROWING
MARKET



WE HAVE A
PROVEN RECORD
OF EXECUTION



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





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

Computational

Large electrification opportunity

Digital Twins Digital Thread Minerva Electrification **Functional Safety** Low-Frequency **Electronics and** Systems **Materials** ~\$20.0M ~\$16.7M ~\$10.3M ~\$8.6M Sustained ACV growth with every new contract

Fluid Dynamics Structures





Direct Modeling





High-Frequency Electronics and

Systems



Ansys Learning Hub Ansys Deployment and Adoption Services

2026

2019

1995



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

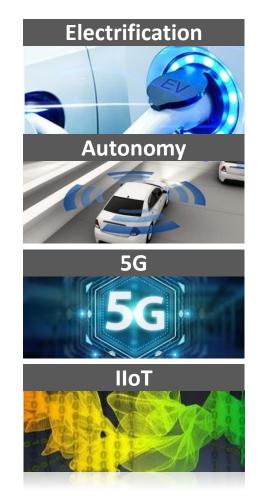
GTM Readiness

Channel segmentation

Industry verticals

Expanded support and consulting

High-Growth Solutions







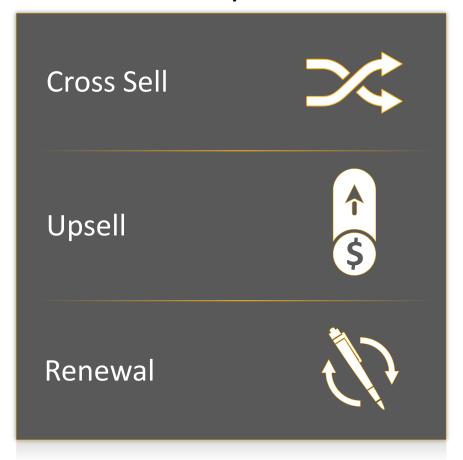
Futures Sales Growth Drivers: Investing in Marketing to Optimize Brand Awareness





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
- Forge Partnerships to Embed Ansys into Other Ecosystems
- 5 Build a Winning Culture





Executing on Our Growth Strategy









Performance Across Key Metrics



Capital Allocation

Financial Outlook



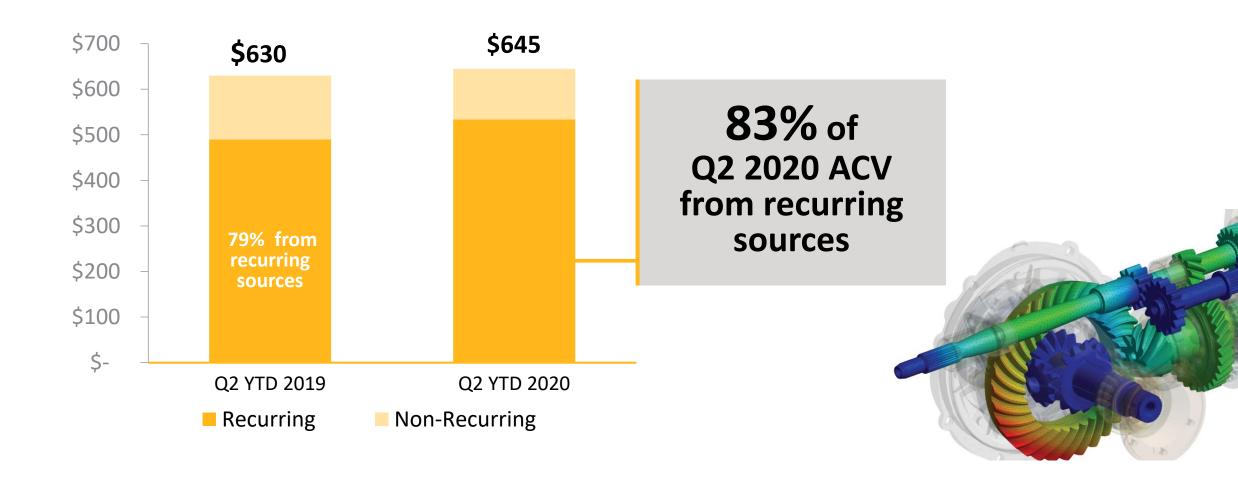
Key Highlights – Q2 QTD 2020

Non-GAAP Financial Highlights

Revenue	\$390M
Operating Margin	42.9%
Tax rate	19.5%
Diluted EPS	\$1.55
Annual Contract Value (ACV)	\$344M

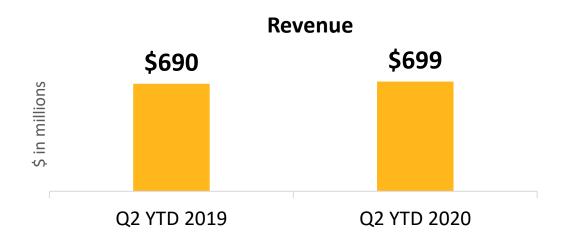


Strong Annual Contract Value – Q2 YTD

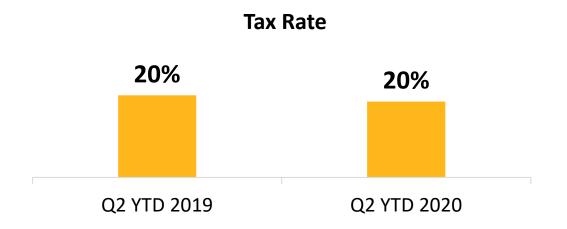


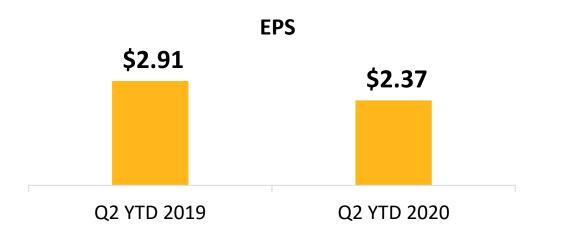


Non-GAAP – Q2 YTD





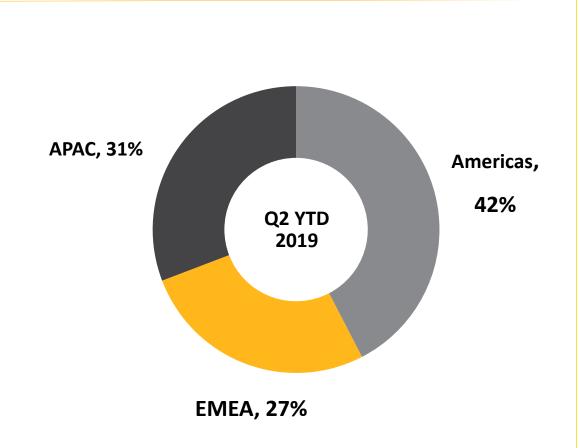


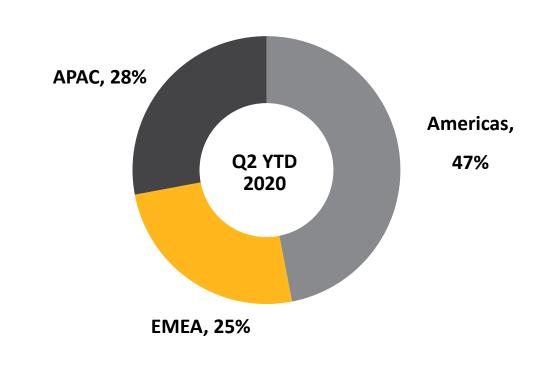




Geographic Diversity – Q2 YTD

Revenue by Geography - Non-GAAP

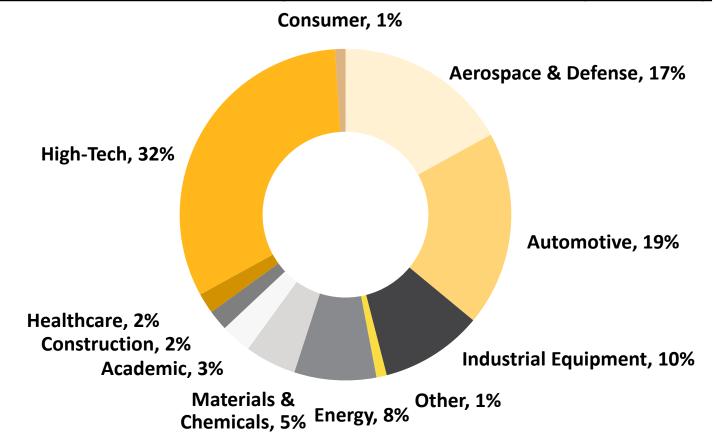






Diverse Customer Base

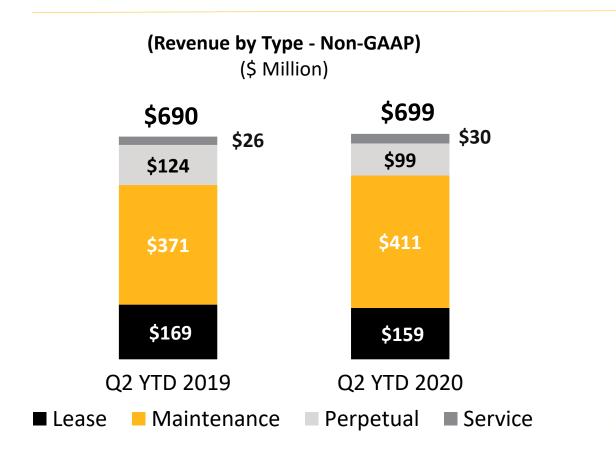
% Total Q2 2020 Trailing Twelve-Month ACV by Industry

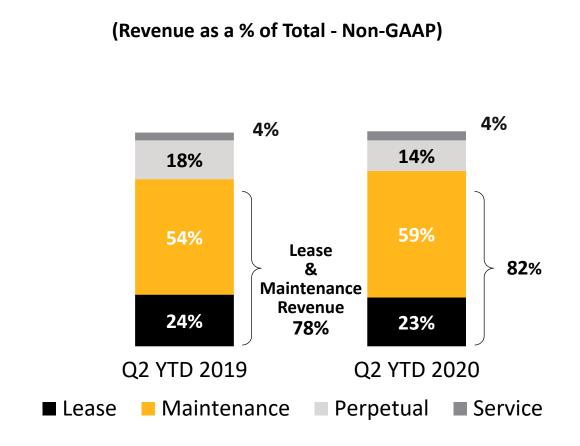




Diverse Revenue Sources – Q2 YTD

Lease & Maintenance Revenue



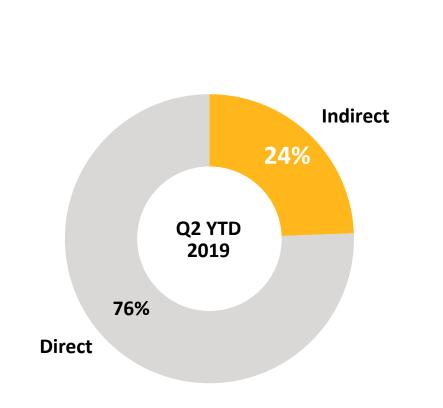


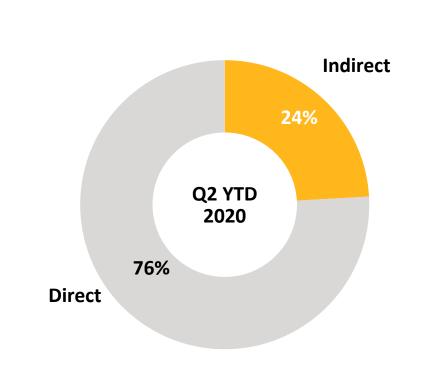


Diverse Go-to-Market Revenue – Q2 YTD

Non-GAAP Revenue by Channel

(% of Total Revenue)





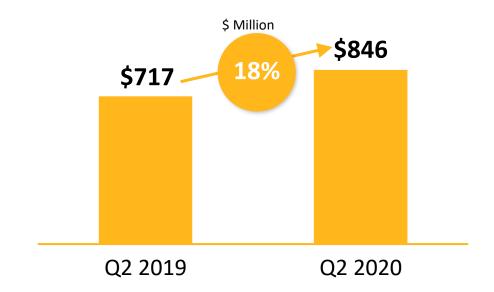


Maintaining Strong Financials

Maintaining a Strong Balance Sheet

As of June 30, 2020	
Cash & short-term investments	\$745M
Deferred revenue & backlog	\$846M
Long-term debt	\$424M

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





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 during Q2 YTD 2020 at an average price of \$233.48 per share. These purchases occurred during Q1 2020; there were no purchases in Q2 2020.



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 – Q3 2020

	Q3 2020 GAAP	Q3 2020 Non-GAAP
Revenue	\$344.9 - \$374.9M	\$347.0 - \$377.0M
Operating Margin	19.0% - 26.0%	34.5% - 38.5%
Effective Tax Rate	18.0% – 19.5%	19.5%
Diluted EPS	\$0.61 - \$0.90	\$1.10 - \$1.34

Guidance as of August 5, 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

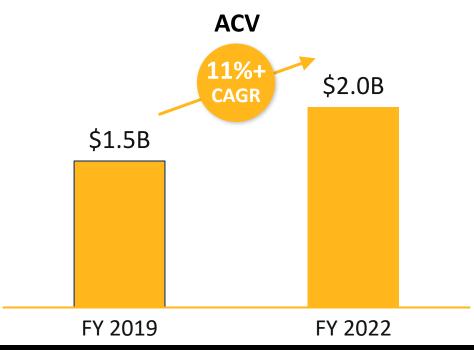
	FY 2020 GAAP	FY 2020 Non-GAAP
Revenue	\$1,558.7 - \$1,633.7M	\$1,570.0 - \$1,645.0M
Operating Margin	26.0% - 29.5%	40.0% - 42.0%
Effective Tax Rate	13.5% - 15.0%	19.5%
Diluted EPS	\$4.01 - \$4.70	\$5.75- \$6.35

	FY 2020
Annual Contract Value (ACV)	\$1,520.0 - \$1,585.0M
Operating Cash Flows	\$435.0 - \$475.0M

Guidance as of August 5, 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.



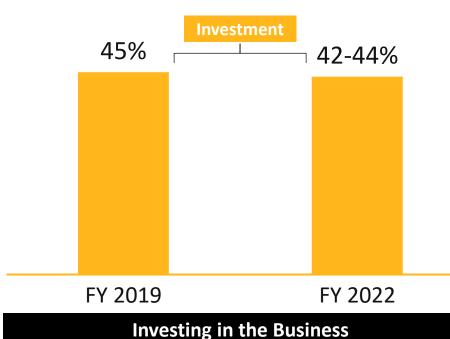
The Growth Story Continues to 2022: Marching Towards \$2B ACV and Investing Selectively



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)



- 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 press release 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 ass

Transaction expenses 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 expenses. 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



Appendix

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

Three Months Ended

June 30, 2020

(in thousands, except percentages and per share data)	R	levenue	Gross Profit		%	Operating Income		%	Net Income		EPS - Diluted ¹	
Total GAAP	\$	385,661	\$	331,801	86.0 %	\$	112,807	29.3 %	\$	96,564	\$	1.11
Acquisition accounting for deferred revenue		4,040		4,040	0.2 %		4,040	0.7 %		4,040		0.05
Stock-based compensation expense		_		3,464	0.8 %		34,130	8.9 %		34,130		0.40
Excess payroll taxes related to stock-based awards		_		166	0.1 %		1,876	0.4 %		1,876		0.02
Amortization of intangible assets from acquisitions		_		9,764	2.5 %		13,927	3.6 %		13,927		0.16
Transaction expenses related to business combinations		_		_	— %		309	— %		309		_
Rabbi trust (income) / expense		_		_	— %		_	— %		(1)		_
Adjustment for income tax effect					— %			<u> </u>		(16,518)		(0.19)
Total non-GAAP	\$	389,701	\$	349,235	89.6 %	\$	167,089	42.9 %	\$	134,327	\$	1.55

¹ Diluted weighted average shares were 86,934.





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

Three Months Ended June 30, 2019

(in thousands, except percentages and per share data)	R	levenue	Gross Profit		%	Operating Income		%	Net Income		EPS - Diluted ¹	
Total GAAP	\$	368,635	\$	328,138	89.0 %	\$	128,628	34.9 %	\$	109,750	\$	1.28
Acquisition accounting for deferred revenue		1,873		1,873	0.1 %		1,873	0.3 %		1,873		0.02
Stock-based compensation expense		_		2,374	0.7 %		29,122	7.9 %		29,122		0.35
Excess payroll taxes related to stock-based awards		_		11	— %		389	0.1 %		389		_
Amortization of intangible assets from acquisitions		_		4,755	1.2 %		8,551	2.3 %		8,551		0.10
Transaction expenses related to business combinations		_		_	— %		450	0.1 %		450		0.01
Rabbi trust (income) / expense		_		_	— %		_	— %		(58)		_
Adjustment related to the Tax Cuts and Jobs Act		_		_	— %		_	— %		(498)		(0.01)
Adjustment for income tax effect					%			<u> </u>		(11,673)		(0.14)
Total non-GAAP	\$	370,508	\$	337,151	91.0 %	\$	169,013	45.6 %	\$	137,906	\$	1.61

¹ Diluted weighted average shares were 85,483.





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

Six Months Ended

June 30, 2020

(in thousands, except percentages and per share data)	R	evenue	Gross Profit		%		perating Income	%	Net Income		EPS - Diluted ¹	
Total GAAP	\$	690,646	\$	586,670	84.9 %	\$	146,880	21.3 %	\$	142,628	\$	1.64
Acquisition accounting for deferred revenue		7,952		7,952	0.2 %		7,952	0.9 %		7,952		0.09
Stock-based compensation expense		_		6,330	1.0 %		65,071	9.4 %		65,071		0.75
Excess payroll taxes related to stock-based awards		_		689	0.1 %		8,859	1.2 %		8,859		0.10
Amortization of intangible assets from acquisitions		_		19,316	2.7 %		27,641	4.0 %		27,641		0.32
Transaction expenses related to business combinations		_		_	— %		1,259	0.1 %		1,259		0.01
Rabbi trust (income) / expense		_		_	— %		_	— %		(5)		_
Adjustment for income tax effect					<u> </u>			<u> </u>		(46,773)		(0.54)
Total non-GAAP	\$	698,598	\$	620,957	88.9 %	\$	257,662	36.9 %	\$	206,632	\$	2.37

¹ Diluted weighted average shares were 87,152.





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

Six Months Ended June 30, 2019

(in thousands, except percentages and per share data)	R	evenue		Gross Profit	%		perating Income	%	Net Income		EPS - Diluted ¹	
Total GAAP	\$	685,765	\$	610,453	89.0 %	\$	224,277	32.7 %	\$	195,980	\$	2.29
Acquisition accounting for deferred revenue		4,653		4,653	0.1 %		4,653	0.5 %		4,653		0.05
Stock-based compensation expense		_		3,602	0.5 %		52,922	7.5 %		52,922		0.62
Excess payroll taxes related to stock-based awards		_		476	0.1 %		4,379	0.6 %		4,379		0.05
Amortization of intangible assets from acquisitions		_		9,302	1.3 %		16,857	2.5 %		16,857		0.20
Transaction expenses related to business combinations		_		_	— %		3,111	0.5 %		3,111		0.04
Rabbi trust (income) / expense				_	— %			— %		(223)		_
Adjustment related to the Tax Cuts and Jobs Act		_		_	— %		_	— %		(1,834)		(0.02)
Adjustment for income tax effect		_			%			%		(27,269)		(0.32)
Total non-GAAP	\$	690,418	\$	628,486	91.0 %	\$	306,199	44.3 %	\$	248,576	\$	2.91

¹ Diluted weighted average shares were 85,488.





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

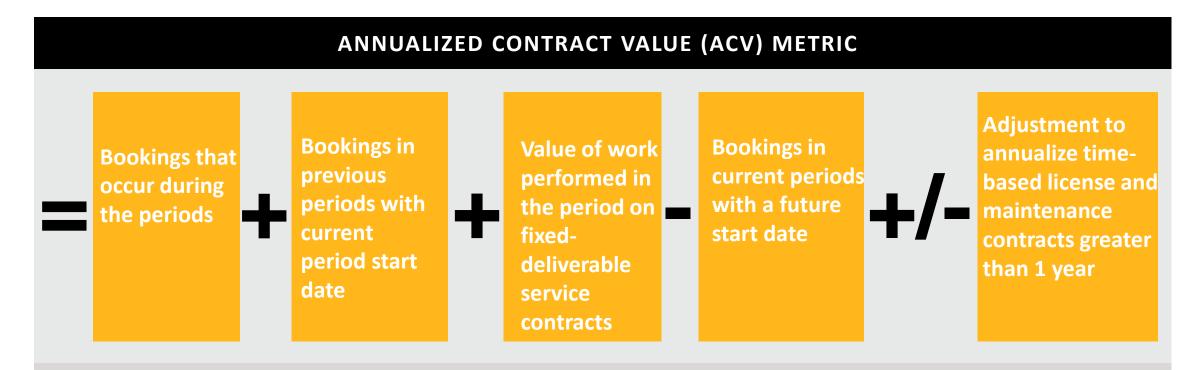
	Earnings Per Share - Diluted
U.S. GAAP expectation	\$0.61 - \$0.90
Exclusions before tax:	
Acquisition adjustments to deferred revenue	\$0.02
Acquisition-related amortization	\$0.15 - \$0.17
Stock-based compensation and related excess payroll tax	\$0.38 - \$0.43
Adjustment for income tax effect	(\$0.11) - (\$0.13)
Non-GAAP expectation	\$1.10 - \$1.34

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

	Earnings Per Share - Diluted
U.S. GAAP expectation	\$4.01 - \$4.70
Exclusions before tax:	
Acquisition adjustments to deferred revenue	\$0.13
Acquisition-related amortization	\$0.62 - \$0.65
Stock-based compensation and related excess payroll tax	\$1.61 - \$1.72
Transaction expenses related to business combinations	\$0.01
Adjustment for income tax effect	(\$0.72) - (\$0.77)
Non-GAAP expectation	\$5.75 - \$6.35



Annualized Contract Value (ACV)



- 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



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