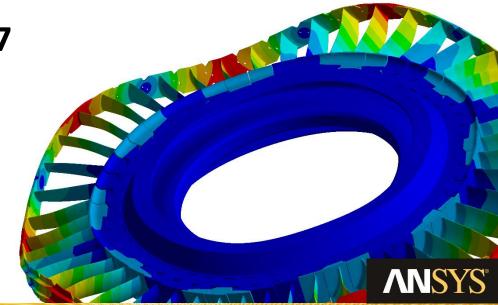


# **Investor Presentation**

**Third Quarter 2017** 

**NASDAQ: ANSS** 



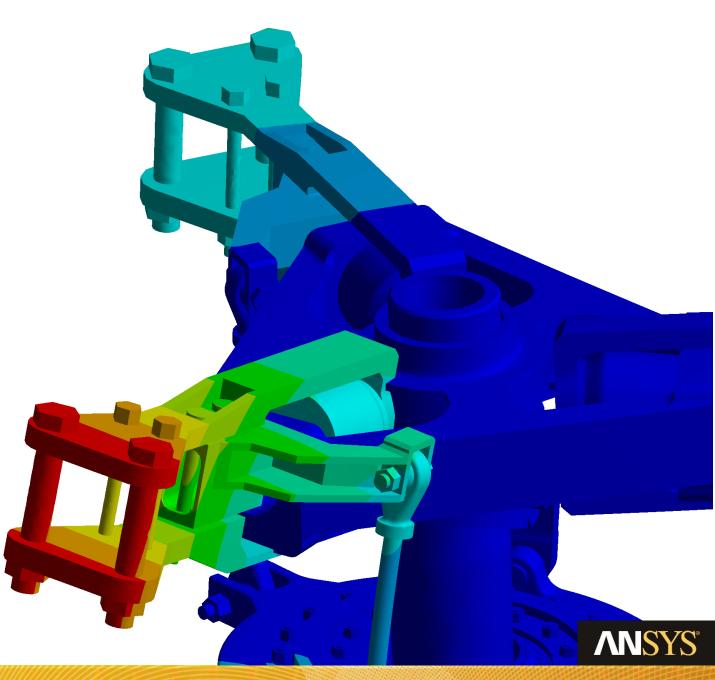
# **Safe Harbor**

Certain statements contained in this presentation regarding matters that are not historical facts, including, but not limited to, statements regarding our projections for revenue, operating margin, effective tax rate, earning per share and operating cash flow (on a non-GAAP basis) and earnings per share for the fourth quarter 2017 and fiscal year 2017; statements about management's views concerning the Company's prospects and outlook for 2017, statements regarding our financial objectives beyond 2017, including revenue growth and operating margin targets on a non-GAAP basis, statements regarding the likelihood of obtaining those objectives and the drivers and points of impact required to reach such objectives, statements regarding the expected impact of ASC 606, the planned changes in the Company's disclosure practices, any statements regarding the Company's financial outlook utilizing the new ASC 606 framework, statements regarding the future use and pervasiveness of simulation, statements regarding our plan for investment, including the relative allocation of such investments, statements regarding the ability of our solutions to unlock the potential of additive manufacturing, statements regarding the ability of simulation to unlock significant value in digital twins, statements regarding changes in our go-to-market approach and its likelihood of success, statements regarding our European sales operations in FY 2017 and FY 2018 are "forward-looking" statements (as defined in the Private Securities Litigation Reform Act of 1995). Because such statements are subject to risks and uncertainties, actual results may differ materially from those expressed or implied by such forward-looking statements. All forward-looking statements made during this Investor Day are subject to risks and uncertainties including, but not limited to, the risk that adverse conditions in the global and domestic markets will significantly affect ANSYS' customers' ability to purchase products from the Company at the same level as prior periods or to pay for the Company's products and services, the risk that declines in the ANSYS' customers' business may lengthen customer sales cycles, the risk of declines in the economy of one or more of ANSYS' primary geographic regions, the risk that ANSYS' revenues and operating results will be adversely affected by changes in currency exchange rates or economic declines in any of the countries in which ANSYS conducts transactions, the risk that the assumptions underlying ANSYS' anticipated revenues and expenditures will change or prove inaccurate, the risk that ANSYS has overestimated its ability to maintain growth and profitability and control costs, uncertainties regarding the demand for ANSYS' products and services in future periods, uncertainties regarding customer acceptance of new products, the risk of ANSYS' products future compliance with industry quality standards and its potential impact on the Company's financial results, the risk that the Company may need to change its pricing models due to competition and its potential impact on the Company's financial results, the risk that ANSYS' operating results will be adversely affected by possible delays in developing, completing or shipping new or enhanced products, the risk that enhancements to the Company's products or products acquired in acquisitions may not produce anticipated sales, the risk that the Company may not be able to recruit and retain key executives and technical personnel, the risk that third parties may misappropriate the Company's proprietary technology or develop similar technology independently, the risk of unauthorized access to and distribution of the Company's source code, the risk of the Company's implementation of its new IT systems, the risk of difficulties in the relationship with ANSYS' independent regional channel partners, the risk of ANSYS' reliance on perpetual licenses and the result that any change in customer licensing behavior may have on the Company's financial results, the risk that ANSYS may not achieve the anticipated benefits of its acquisitions or that the integration of the acquired technologies or products with the Company's existing product lines may not be successful, the risk of periodic reorganizations and changes within ANSYS' sales organization, the risk of industry consolidation and the impact it may have on customer purchasing decisions, and other factors that are detailed from time to time in reports filed by ANSYS, Inc. with the Securities and Exchange Commission, including ANSYS, Inc.'s Annual Report and Form 10-K for the fiscal year ended December 31, 2016. We undertake no obligation to publicly update or revise any forward-looking statements, whether changes occur as a result of new information or future events, after the date they were made.

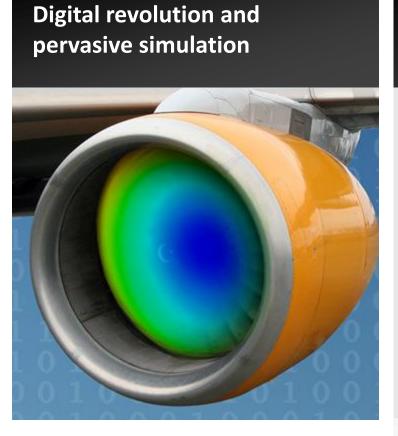


# **MISSION**

EMPOWER OUR CUSTOMERS
TO DESIGN AND DELIVER
TRANSFORMATIONAL
PRODUCTS



# **ANSYS** business fundamentals are strong









## The seemingly unsolvable product delivery problem

Higher CYCLE TIME
Higher COSTS

Optimizing cycle time and cost comes with tradeoffs

**Lower QUALITY Increased RISK** 

Optimizing for quality and risk reduction comes with tradeoffs

Drive INNOVATION

Manage COMPLEXITY

**Optimizing for complexity and innovation comes with tradeoffs** 





# The technological developments of the digital revolution will have a massive economic impact on our customers

**IoT / Industrial Internet** 

**Big Data and Machine Learning** 

**Additive Manufacturing** 

**Autonomous Robots** 

**Mass Customization** 

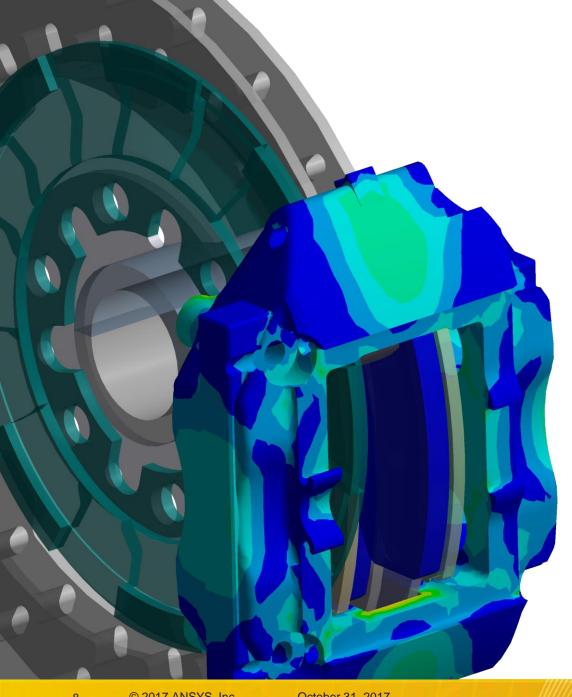
**Composite Materials** 

**Circular Economy** 

+\$11 trillion **POTENTIAL BY 2025** 

~10% of global GDP





# **END CUSTOMER EXPECTATIONS ARE ALSO SHIFTING DRAMATICALLY**



# Our customers face increased pressure to deliver on the classic challenges





# The seemingly unsolvable product delivery problem is more challenging than ever ...

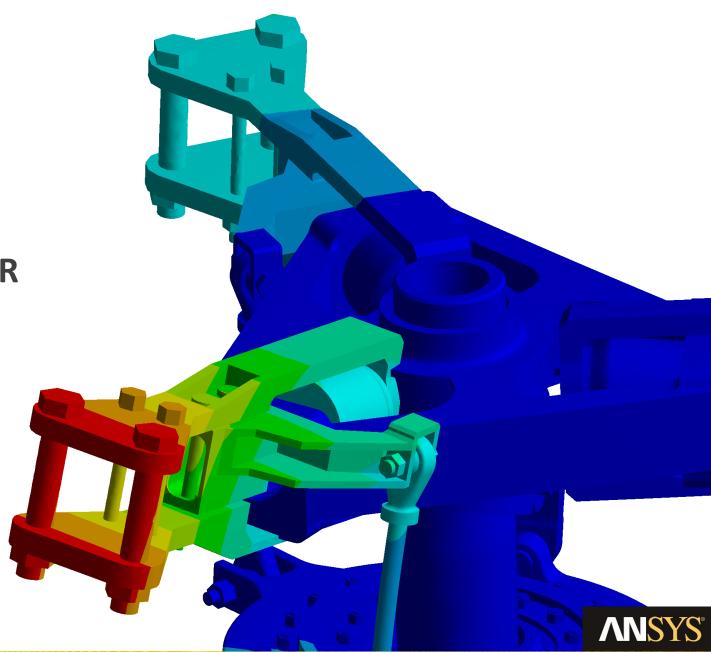
**50%** 

"One of Callum's (Ford VP of Design) biggest goals is to shorten product development times so that a new vehicle's final designs are set closer to when it goes on sale."

—Automotive News, 2017







# **SIMULATION IS THE ANSWER**

## Simulation solves a seemingly unsolvable problem

#### SIMULATION ENABLES PRODUCT ENGINEERS TO ...

**Lower CYCLE TIME Reduce COSTS** 

... instantly get feedback without building anything physical ...

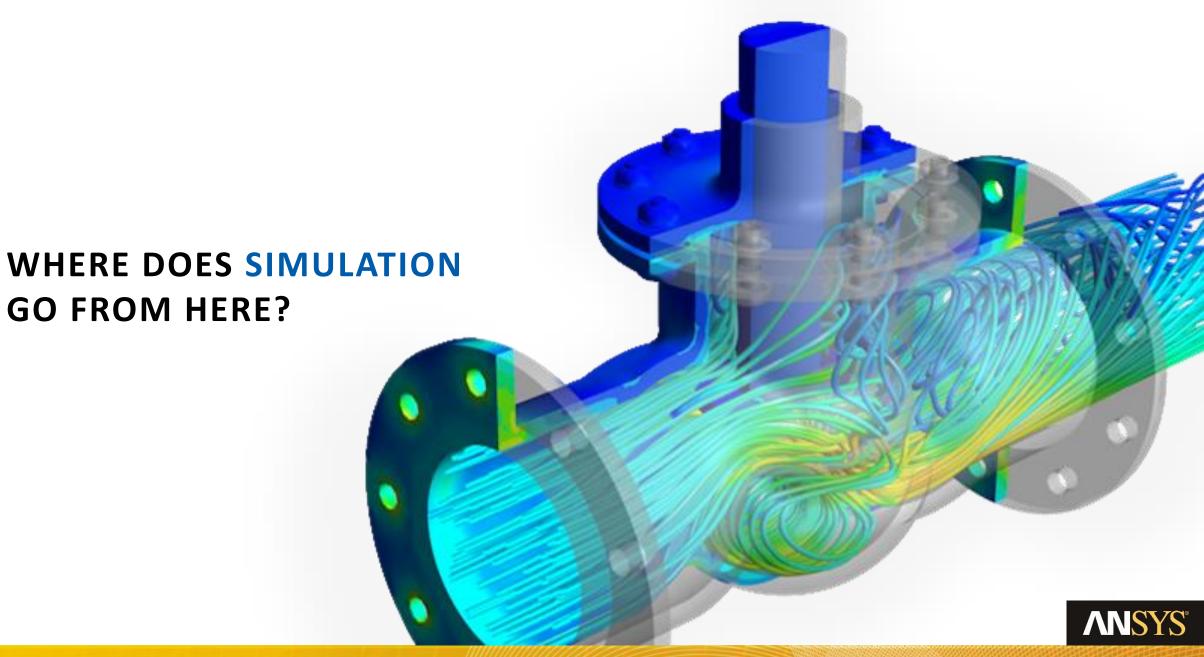
Increase QUALITY Eliminate RISK

... while considering millions of design options with real-world accuracy ...

Drive INNOVATION
Manage COMPLEXITY

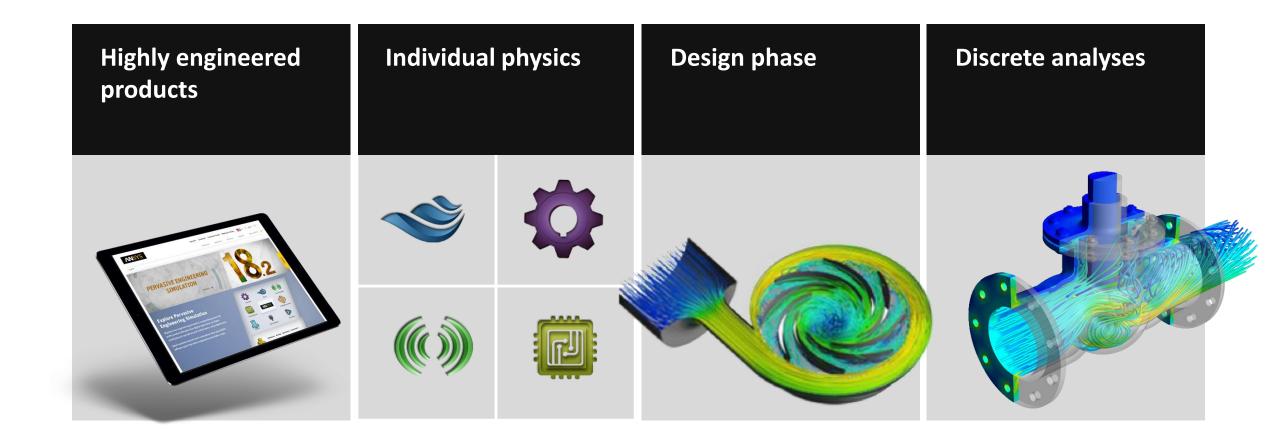
... and taking an unconstrained view toward product delivery





**GO FROM HERE?** 

# Historically, simulation has been confined to ...



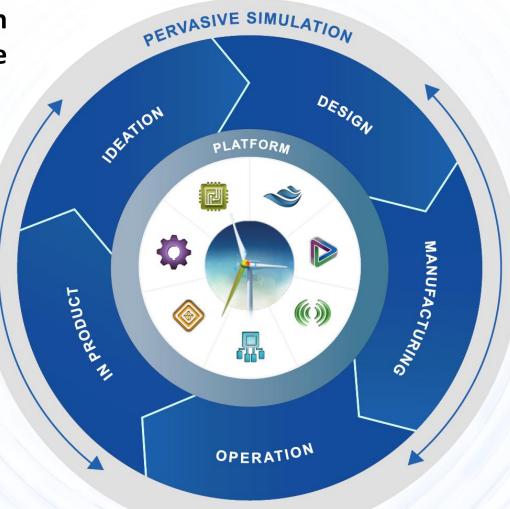


# ... but the future is pervasive simulation





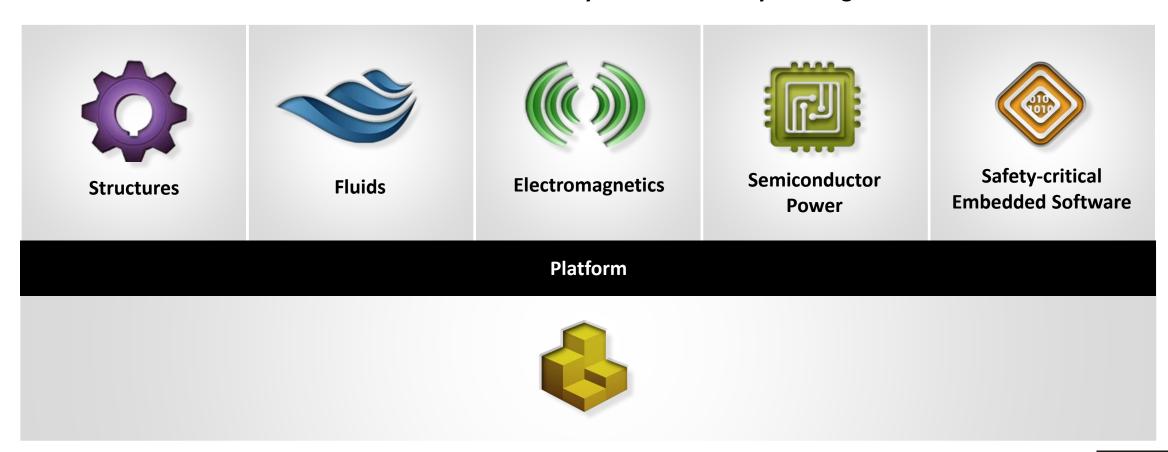
Pervasive simulation is continuous simulation with all physics across the entire lifecycle for all products





# ANSYS offers the only true simulation platform with best-of-breed simulation across all major physics

Market Leader Across Individual Physics with Industry-Leading Platform





# Our portfolio breadth is unmatched

	#1 STRUCTURES	#1 FLUIDS	#1 ELECTROMAGNETICS	#1 SEMICONDUCTOR POWER	#1 SAFETY-CRITICAL EMBEDDED SOFTWARE
<b>ANSYS</b> °				•	
Competitor #1	****				
Competitor #2					0
Competitor #3					
Competitor #4	(1)		()		
Competitor #5					
Competitor #6	(1)				
Competitor #7				•	
Competitor #8					
Competitor #9				(*)	

Best-of-breed offering

Source: ANSYS analysis using public data updated with internal estimates



# Our platform amplifies the value of our best-of-breed solutions

	THE ANSYS <b>PLATFORM</b> IS	EXAMPLE INITIATIVES
<b>→</b> \$>	INTEGRATION across physics	Comprehensive solutions solving multiphysics problems
	SCALABLE simulation	Intel partnership to continually scale faster than Moore's law
	STANDARDIZATION of data and workflows	Continuing to support broadest range of engineering formats
	OPEN architecture	IoT partnerships with GE and PTC for the industrial internet
4	FLEXIBLE deployment	Hybrid model for all customers across private, partner and public clouds
	ECOSYSTEM of apps and solutions	ANSYS app store and application builder



## Our platform amplifies the value of our best-of-breed solutions

THE ANSYS PLATFORM IS DEPLOYED WITH EVERY PURCHASE...

Of ANSYS' top 1,000 customers:

100% Deployed Workbench

93% Use 2+ physics

91% Use high-performance computing

...AND OUR BEST CUSTOMERS THINK OF ANSYS
AS A PLATFORM COMPANY

"ANSYS offers the only true umbrella platform in which you have every **solution** you need."

CEO, EngineeringSolutions Company



# ANSYS is the only company that can deliver on what matters most to our customers



- **Accuracy**
- **Multiphysics**
- 3 Electronification
- **Customer support**
- 5 Advanced methods

Source: Third-party customer and market research



## **Accuracy**

#### WHY IT MATTERS

PRIORITY FOR
OUR CUSTOMERS **PRIORITY FOR** 

Required for better, more complex, more innovative products

Essential to minimizing risk

#### WHY ANSYS

ANSYS offers the deepest, most accurate simulation products across all major physics

Source: Third-party customer and market research



# **Multiphysics**

#### WHY IT MATTERS

Real-world problems do not confine themselves to single physics

All physics are required to create better products faster



#### WHY ANSYS



Source: Third-party customer and market research



#### **Electronification**

#### WHY IT MATTERS



#### WHY ANSYS



Source: Third-party customer and market research



### **Customer support**

#### WHY IT MATTERS

# Physics is complicated

All our customers rely on ANSYS support to get the most from simulation

#### WHY ANSYS

750+ PHDs

Deep specialization and expertise in individual and multiphysics

ANSYS' field engineering team partners with the most innovative customers to help develop cutting-edge solutions























#### **Advanced methods**

#### WHY IT MATTERS

# Our customers increasingly solve harder and harder problems

Essential to predict real-life product behavior, allowing companies to iterate designs and meet product requirements quickly

#### WHY ANSYS

ANSYS has years of experience using advanced methods and emerging technology to enhance the power of physics-based engineering simulation



Reduced Order Models



Additive Manufacturing



Machine Learning



Embedded Code Generation



Non-linear Analysis



Real-Time Simulation



High-Performance Computing



Functional Safety
Analysis



# Our customers attest to the value we deliver



Whirlpool automated the simulation process using ANSYS technology to provide consistent and **error-free simulation results** in an easy-to-use environment and up to **5x faster** than manual methods.

Niyza Ui Haque Deputy Manager, Whirlpool

66

27

Simulation via ANSYS has **saved 50** percent in development time and hundreds of thousands of dollars in physical testing.

Glenn Philen

**CEO, The Carbon Freight Company** 



AMD used ANSYS PowerArtist to apply a design-for-power approach at an early stage in the design flow, making it possible to **reduce power consumption** to **unprecedented**levels.

Mark Silla

**Principal Member, Technical Staff, AMD** 

66

ANSYS software and other measures we have put in place have helped us improve reliability and **reduced** our drilling systems **non- productive time by 25** percent globally in the past 18 months.

**Scott Parent** 

**VP of Technology, Baker Hughes** 



# ANSYS' pervasive simulation platform uniquely positions us to capitalize on customer demand today ...



Most accurate

Only true multiphysics solution

Only company with leading electronics, semiconductor and software offerings

**Best customer support** 

Most advanced methods

... and also enables us to unlock a range of next-generation growth opportunities and expand beyond the design use case

# We are also accelerating growth and innovation through our world-class ecosystem









📭 Stanford

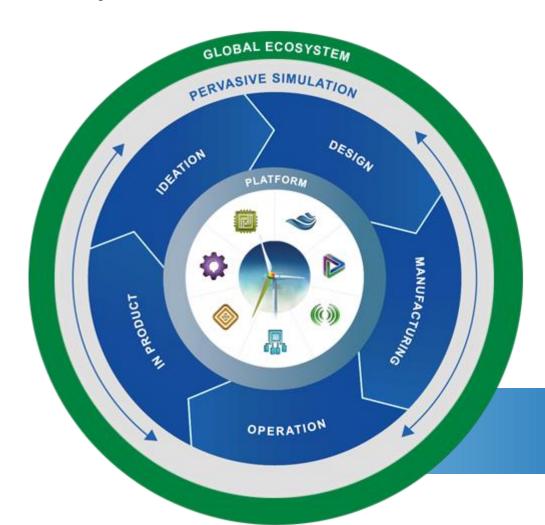
Carnegie Mellon



UNIVERSITY OF

**WATERLOO** 

# Only ANSYS can meet customers' need for simulation today and in the future



**Best-of-breed individual physics** 



**Industry-leading simulation platform** 



**Expansion into next-generation use cases** 



**World-class ecosystem** 

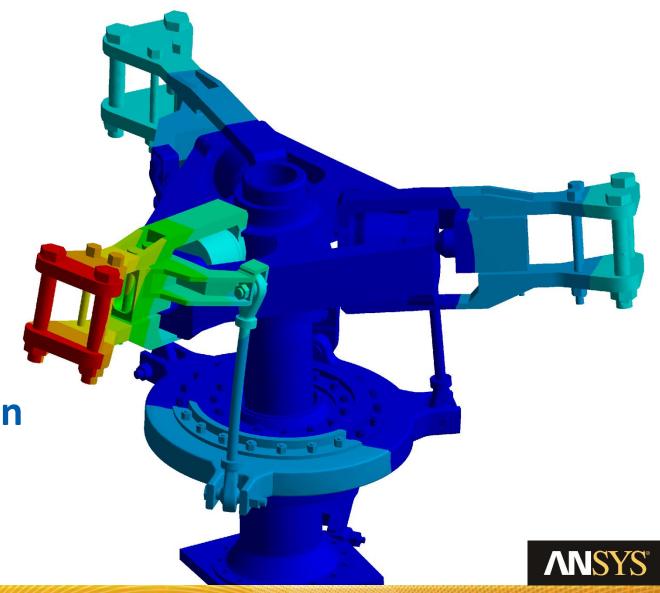
**PERVASIVE SIMULATION** 



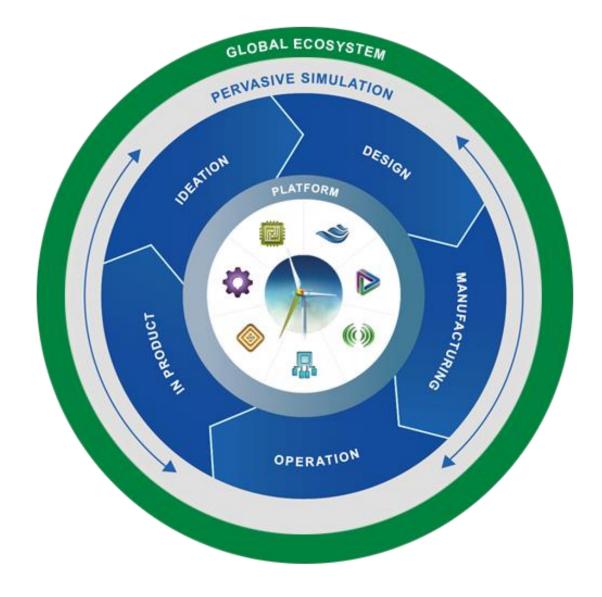
## **MISSION**

EMPOWER OUR CUSTOMERS
TO DESIGN AND DELIVER
TRANSFORMATIONAL
PRODUCTS

... through pervasive simulation



Our 2020 objective is sustained double-digit organic revenue growth with continued financial discipline and industry-leading operating margins





# Large, diverse, and expanding customer base that increasingly needs our help

#### TRADITIONAL, HIGHLY ENGINEERED



#### **CONSUMER**



33











































#### **ESTABLISHED TECHNOLOGY**













magic leap



















**START-UPS** 





## A world-class GTM will enable double-digit organic revenue growth

# WE USED A 'CUSTOMER FIRST' APPROACH...

Outside-in approach:
Customer and Partner input

Analytics and Data-based research

**Previous experience** 

#### ...WHICH POINTED TO THE NECESSARY CHANGES

- **1** Consultative sale for Enterprise and Strategic accounts
- 2 Expanded field technical team
- **3** Volume sale for smaller accounts
- 4 Expanding channel and remote sales
- 5 Building infrastructure to scale

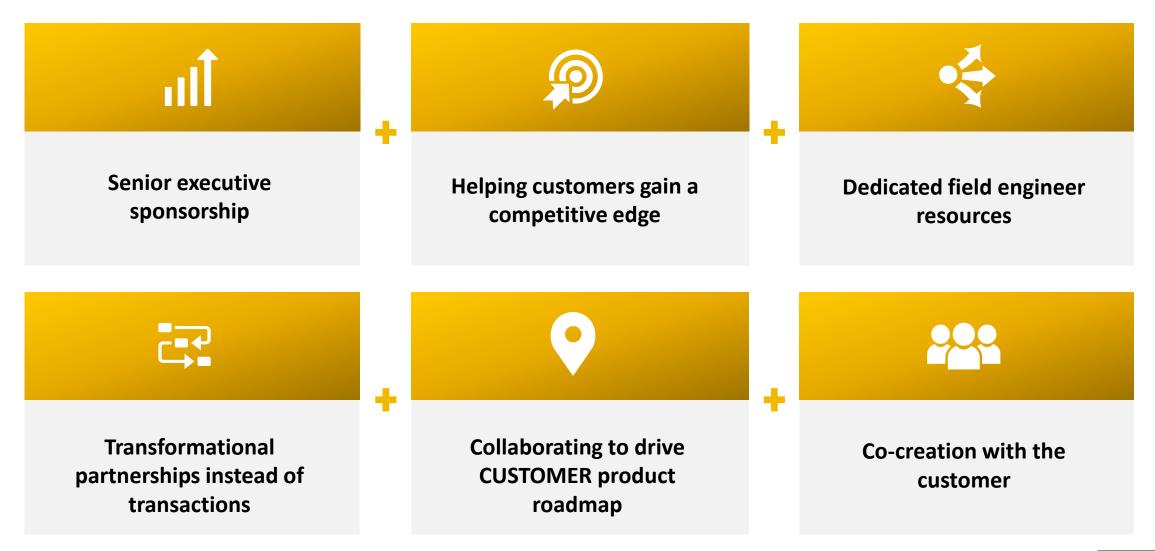


# Our go-forward GTM approach

**Enterprise Building value-based partnerships** that unlock immense value accounts **Strategic** Monetizing innovation with our strategic customers accounts Driving more frequent, more Volume productive interactions with smaller accounts and new-to-simulation customers

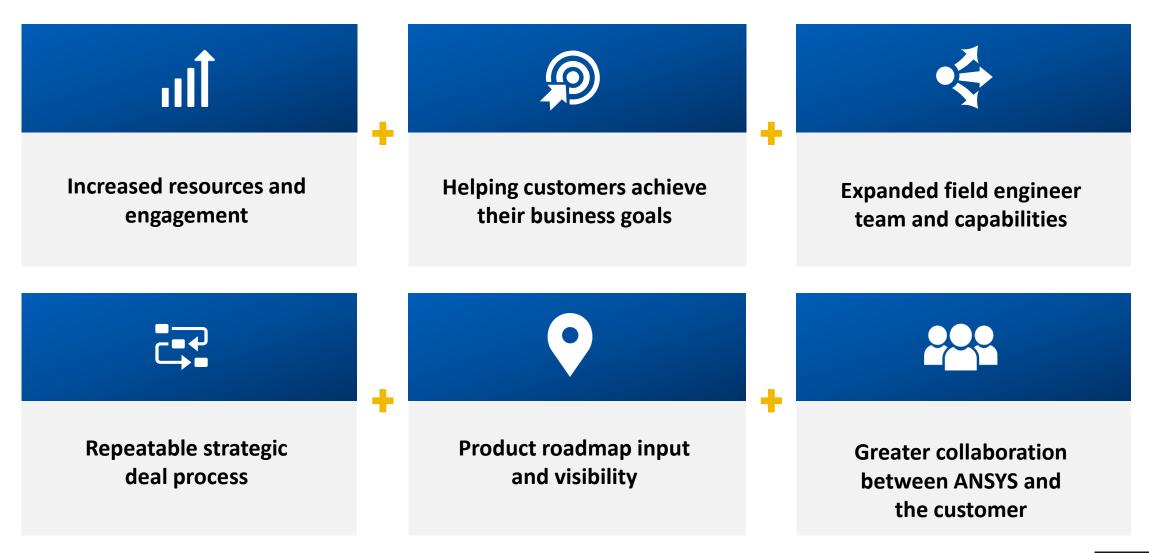


# Enterprise accounts: Building value-based partnerships that unlock immense value





## Strategic accounts: Monetizing innovation with our strategic customers





## Expanding the field engineering team key to accelerating growth

CENTRAL TO BUILDING CUSTOMER
RELATIONSHIPS AND DRIVING GROWTH

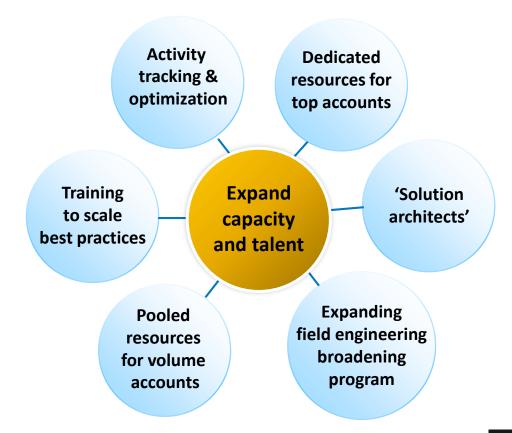
WE ARE INVESTING TO EXPAND CAPACITY AND TALENT

#### Field engineers enable ANSYS to:

Better understand the problems our customers are trying to solve

Collaborate with our customers to solve their most challenging problems

Further penetrate accounts and displace competition





Volume accounts: Do more to help current and prospective customers benefit from simulation

10,000+ ANSYS customers

could be getting more out of simulation

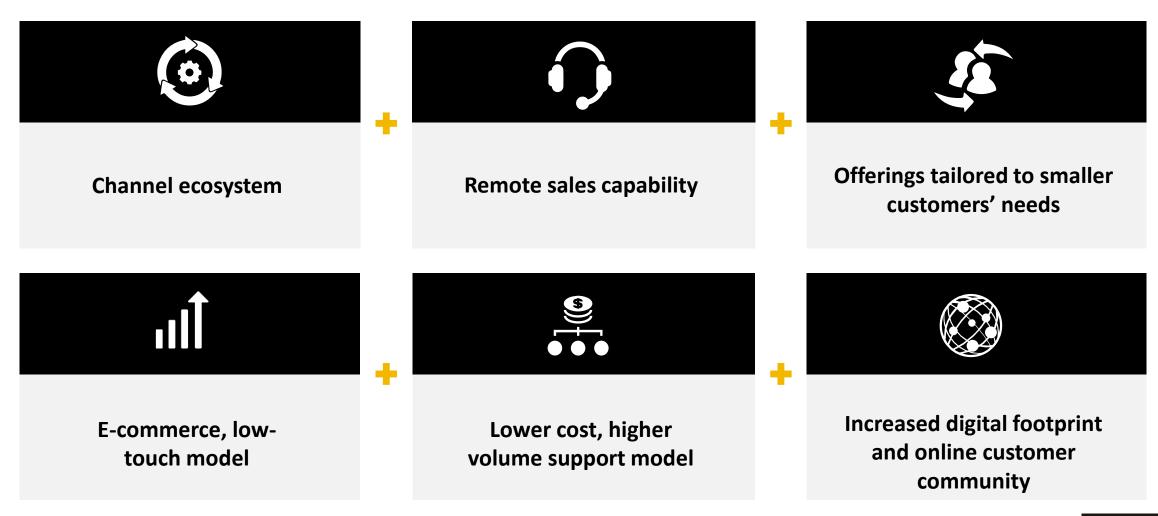


Thousands of companies

do not take advantage of simulation at all



# Volume accounts: Driving more frequent / productive interactions with smaller and new-to-simulation customers





## Building a world-class GTM will require investment



#### **PEOPLE**

R

#### TOOLS/SYSTEMS



#### **PROCESSES**

**Enhanced enterprise and regional leadership teams** 

Industry-standard CRM capability

Customer advisory councils and strategic customer MRBs

Enterprise and strategic account programs

New quote-to-cash system

Formalized solutions architecture practice and function

Increased ratio of field engineers to sales reps

New world-class online customer community

Field/Factory interlocks for product planning and validation

Channel expansion and remote sales capability

Customer analytics based opportunity targeting

Data-driven resource planning and allocation

Robust sales operations function

Digital/E-commerce portal

Industry-standard forecasting process

Standardized deal models and quality metrics





#### **Key messages**

Incredible financial strength...

...driven by years of financial discipline

Exciting opportunity to turn the growth dial...

...and return to sustained double-digit organic revenue growth

Committed to continued financial discipline...

...and industry-leading margins

We must increase our investment and execution...

...early signs of success, but significant work ahead



### Increasingly strong financial foundation

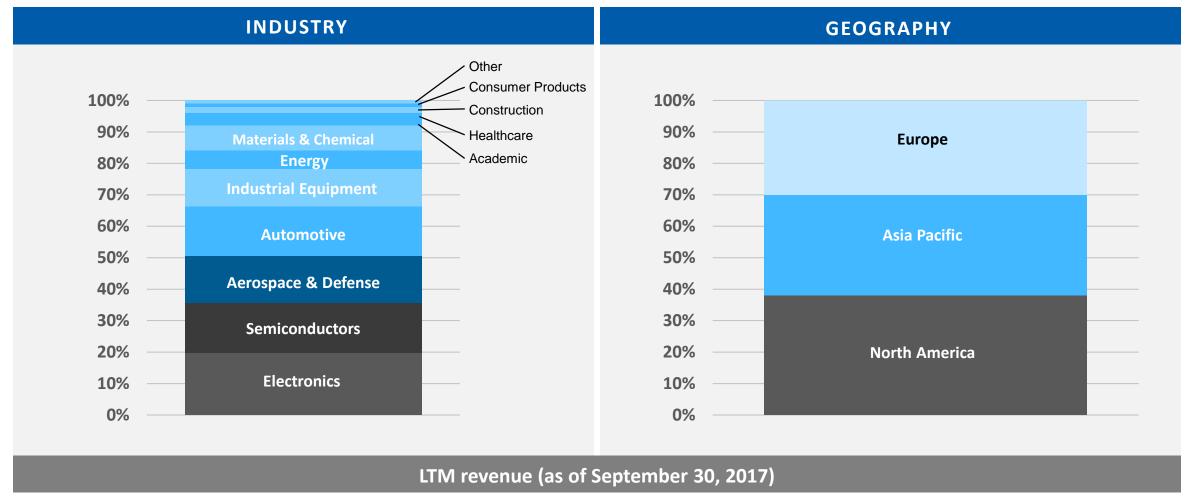


- Crossing the \$1B revenue threshold
- Diversified customer base and revenue streams
- High rate of recurring revenue
- Continuing to build deferred revenue and backlog
- Strong balance sheet
- Industry-leading margins
- Leveraging to inflect the growth trajectory



#### **Diversified customer base**

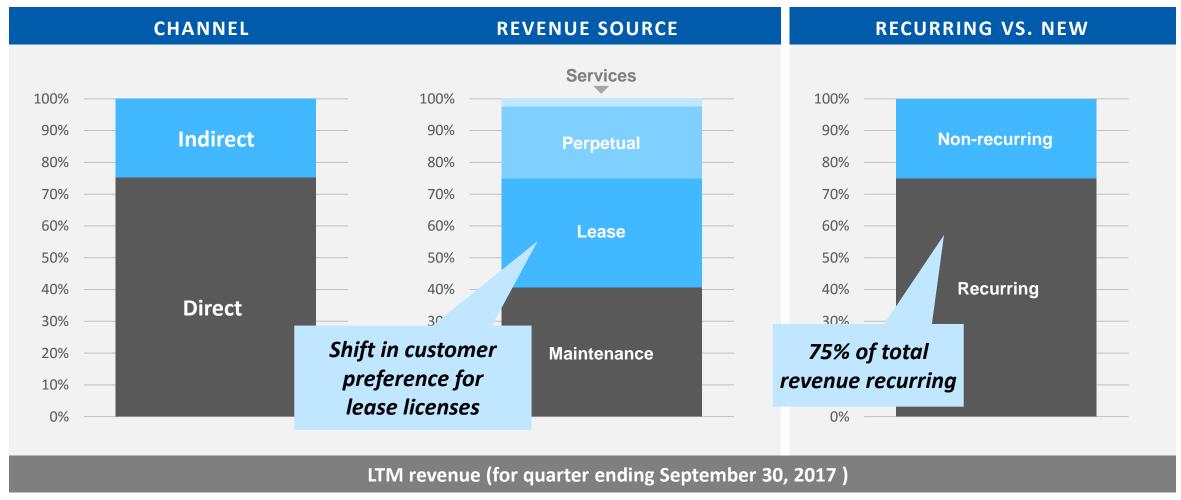






#### **Diversified revenue streams**







## Continuing to build deferred revenue & backlog







# Opportunity to turn the growth dial



Our 2020 target is sustained double-digit organic revenue growth...

...while maintaining financial discipline and best-in-class operating margins



# Since 2015 we have increased investment and focused on improved execution



- Sales capacity
- **Channel expansion**
- **ANSYS CRM**
- **European performance improvement**
- Increased focus on making channel partners successful



# We have generated momentum...

#### **ANSYS TTM CONSTANT CURRENCY REVENUE GROWTH1** 14% 12.1% 12% 10% 7.7% 8% 6.7% 6% 4.9% 4% 2% 0% Q4 2016 Q1 2017 Q2 2017 Q3 2017

... but we are not satisfied—there is more work to do



## Further opportunity to drive growth will require incremental investment



#### **Go-to-market**

- People (increased ratio of field engineers to sales reps, channel expansion and remote sales capability)
- Tools/systems (quote-to-cash, low touch renewals)
- Processes (customer advisory councils, data-driven planning)

#### **Product**

- Extending core technology leadership (physics, platform)
- Investing in next-generation innovation (digital exploration, additive manufacturing, digital twin, IoT)

#### **Scale Infrastructure**

- Tools and systems (CRM, HRIS)
- Expand competencies (FP&A, pricing, M&A)
- New talent acquisition

# Partnerships and Acquisitions

- Investing to build strategic partnerships
  - Customers: GE, Flowserve
  - Peers: PTC, Synopsys



# 2020 growth and operating margin target (non-GAAP)



Baseline (2016A)

**Target 2020** 

**REVENUE GROWTH (%)** 

5%

10%+

**OPERATING** MARGIN (%)

47.0%

43-45%

TARGET DELIVERS INCREMENTAL STOCKHOLDER VALUE COMPARED TO BASELINE

Note: Non-GAAP

Source: ANSYS Financial Statements

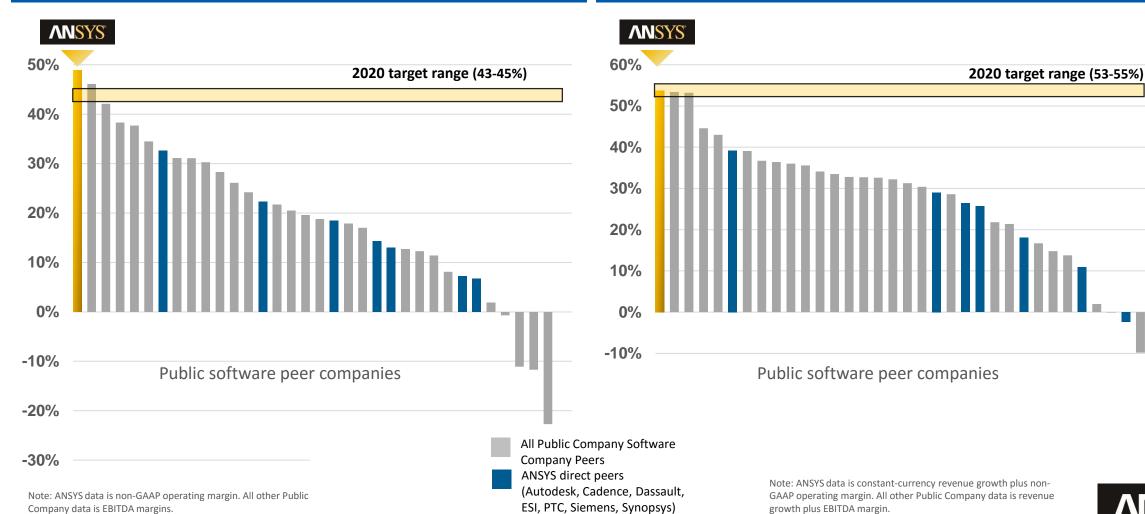


# We are committed to financial discipline and industry-leading margins





# 2016 REVENUE GROWTH + 2016 MARGINS FOR ANSYS AND PEERS





### **Capital allocation priorities**

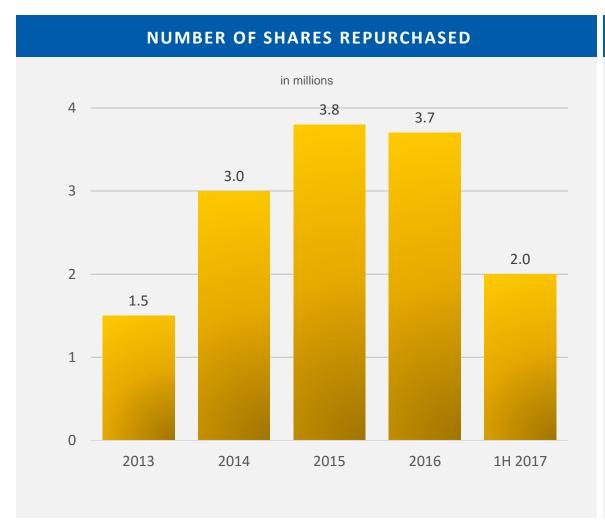


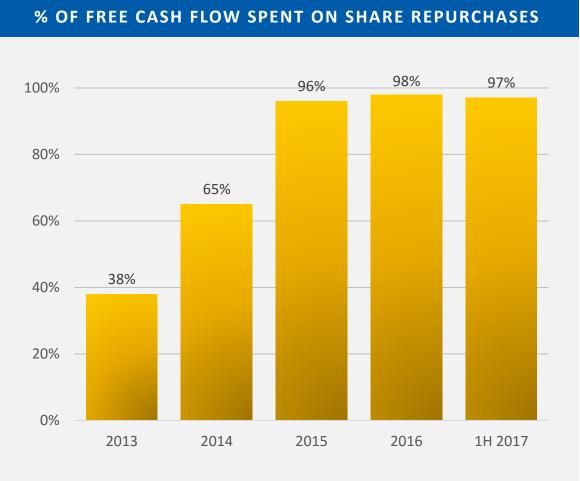
- Investment in organic growth of the core business
- M&A to enhance growth
  - Size not determining factor proven technology is key
  - Experienced talent
  - Synergy with customer base and global channel
  - Financially accretive within a reasonable timeframe
- Stock repurchase
  - Commitment to return excess cash to stockholders



## Return of excess capital to stockholders







Note: Free Cash Flow (FCF) defined as Operating Cash Flow – Capital Expenditures



#### **Key messages for 606**

- Providing results under new and old standard will maximize comparability
- Minimal impact on future comparability for the vast majority of business volume
- Will see volatility going forward based on timing of large, multi-year deals (minority of the business volume)
- Will provide a new metric (Annualized Contract Value ACV) to give more clarity into the ongoing health of our business
- No material change in accounting for sales commissions
- Cash flow from operations will be adversely affected in 2018 for the tax effects of revenue that is accelerated under ASC 606 but not reported in the financial statements



#### ASC 606 requires three primary changes relative to current practice

Immediate license revenue recognition (including the license portion embedded in a lease)

1

Revenue allocation based on estimated selling price rather than Vendor-Specific Objective Evidence (VSOE)

2

Increased financial statement disclosures (including unbilled receivables, and the expected rollout of deferred revenue and backlog)



#### **Overview of ASC 606 impact**

#### YEAR 1 IMPACT

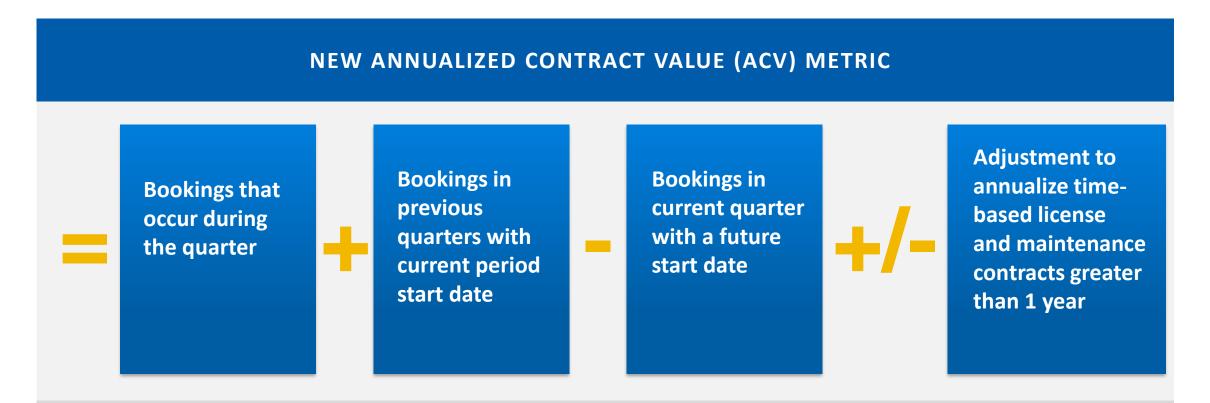
- Revenue recognition change will accelerate revenue
- Large, multi-year deals will create some volatility depending on timing (minority of the business)
- Modified retrospective implementation approach will provide disclosure of results under current rules for the first year
- Cash-flow impact for tax consequences of accelerated revenue
- No material change in accounting for sales commissions

#### **GO-FORWARD IMPACT**

- Minimal impact on future comparability for the vast majority of business volume
- Large, multi-year deals will create some volatility depending on timing (minority of the business)
- Impact likely to decrease over time as predictability increases
- ACV metric will provide clarity into business health
- No material change in accounting for sales commissions unless plan structure changes



#### New ACV metric will provide increased clarity into business health



- 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



# Q3 2017 (non-GAAP) – as of September 30, 2017

Revenue	\$276.8M					
Operating margin	48.7%					
Tax rate	33.2%					
EPS	\$1.05					
Deferred Revenue & Backlog	\$669.3M					



# 2017 YTD (non-GAAP) – as of September 30, 2017

Revenue	\$794.7M
Operating margin	47.8%
Tax rate	33.4%
EPS	\$2.94
Operating cash flow projected for 2017	\$400-425M



### Financial reporting changes for FY2018

Provide FY2018 outlook in February 2018

Provide 2018 revenue under 2017 existing revenue rules for comparability during ASC 606 transition year

Provide additional financial metrics to measure business performance

Annualized contract value, operating and free cash flow, expected rollout of deferred revenue and backlog



### **Closing thoughts**

Double organic revenue growth rate from 5% to 10%+ by 2020...

Continue to maintain industry-leading operating margins...

...Combination will drive significantly higher stockholder value over the long term



# **Appendix**



### **Appendix**

#### ANSYS, INC. AND SUBSIDIARIES

#### Reconciliation of Non-GAAP Measures (Unaudited)

#### **Three Months Ended**

	September 30, 2017						September 30, 2016							
(in thousands, except percentages and per share data)	As Reported		Adjustments		Non-GAAP Results		As Reported		Adjustments		Non-GAAP Results			
Total revenue	\$	275,585	\$	1,181 (1)	\$	276,766	\$	245,862	\$	_	\$	245,862		
Operating income		106,183		28,711 (2)		134,894		100,099		21,885 (4)		121,984		
Operating profit margin		38.5 %				48.7 %		40.7 %				49.6 %		
Net income	\$	73,630	\$	17,638 (3)	\$	91,268	\$	69,557	\$	14,638 (5)	\$	84,195		
Earnings per share – diluted:														
Earnings per share	\$	0.85			\$	1.05	\$	0.78			\$	0.95		
Weighted average shares		86,588				86,588		88,676				88,676		

5) Amount represents the impact of the adjustments to operating income referred to in (4) above, adjusted for the related income tax impact of \$7.2 million.



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.

Amount represents \$14.8 million of stock-based compensation expense, \$12.3 million of amortization expense associated with intangible assets acquired in business combinations, \$0.5 million of restructuring charges, and the \$1.2 million adjustment to revenue as reflected in (1) above.

Amount represents the impact of the adjustments to operating income referred to in (2) above, adjusted for the related income tax impact of \$11.0 million and rabbi trust income of \$0.1 million.

Amount represents \$12.7 million of amortization expense associated with intangible assets acquired in business combinations and \$9.0 million of stock-based compensation expense and \$0.2 million of transaction expenses related to business combinations.

#### **Appendix**

#### ANSYS, INC. AND SUBSIDIARIES

#### Reconciliation of Non-GAAP Measures (Unaudited)

#### Nine Months Ended

	September 30, 2017						September 30, 2016							
(in thousands, except percentages and per share data)	As Reported		Adjustments		Non-GAAP Results		As Reported		Adjustments		Non-GAAP Results			
Total revenue	\$	792,914	\$	1,748 (1)	\$	794,662	\$	717,837	\$	103 (4)	\$	717,940		
Operating income		290,049		89,985 (2)		380,034		279,276		62,990 (5)		342,266		
Operating profit margin		36.6 %				47.8 %		38.9 %				47.7 %		
Net income	\$	206,666	\$	48,480 (3)	\$	255,146	\$	195,653	\$	41,145 (6)	\$	236,798		
Earnings per share – diluted:														
Earnings per share	\$	2.38			\$	2.94	\$	2.19			\$	2.65		
Weighted average shares		86,902				86,902		89,355				89,355		

- 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.
- Amount represents \$39.4 million of stock-based compensation expense, \$36.4 million of amortization expense associated with intangible assets acquired in business combinations, \$11.7 million of restructuring charges, \$0.7 million of transaction expenses related to business combinations and the \$1.7 million adjustment to revenue as reflected in (1) above.
- Amount represents the impact of the adjustments to operating income referred to in (2) above, adjusted for the related income tax impact of \$41.4 million and rabbi trust income of \$0.1 million.
- 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.
- Amount represents \$38.1 million of amortization expense associated with intangible assets acquired in business combinations and \$24.6 million of stock-based compensation expense, \$0.2 million of transaction expenses related to business combinations and the \$0.1 million adjustment to revenue as reflected in (4) above.
- Amount represents the impact of the adjustments to operating income referred to in (5) above, adjusted for the related income tax impact of \$21.8 million.





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