ANSYS®

The World's Leading Engineering Simulation Software Provider

Investor Presentation
Q2 2017

NASDAQ: ANSS
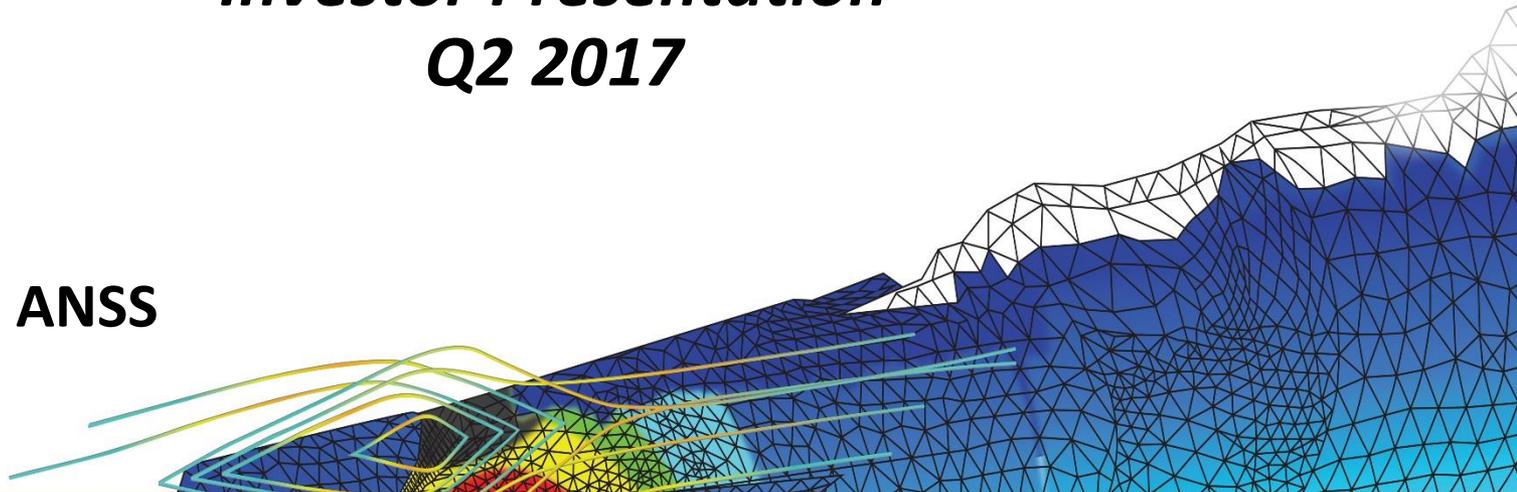
Important Factors Regarding Future Results

The Company cautions investors that its performance is subject to risks and uncertainties. Some matters that will be discussed throughout this presentation may constitute forward-looking statements that involve risks and uncertainties which could cause actual results to differ materially from those projected. These risks and uncertainties are discussed at length, and may be amended from time to time, in the Company's Annual Report to Stockholders and its filings with the SEC, including our most recent filings on Forms 10-K and 10-Q. 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.

ANSYS®

ANSYS is the Simulation Leader

FOCUSED

This is all we do.
Leading product technologies in all physics areas
Largest development team focused on simulation

TRUSTED

96 of the top 100

**FORTUNE 500 Industrials
ISO 9001 certified**

CAPABLE

2800 employees

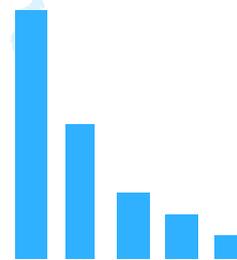**75** locations

40 countries

PROVEN 🌍

Recognized as one of the world's **MOST INNOVATIVE AND FASTEST-GROWING COMPANIES***

INDEPENDENT
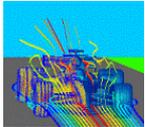
Long-term financial stability
CAD agnostic

LARGEST

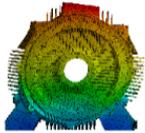### 2x The size of our nearest competitor

BusinessWeek, FORTUNE

ANSYS®

Comprehensive industry reach and solution offerings

Leading Disciplines

Fluids

Structures
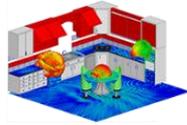
Electromagnetics
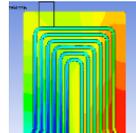
Thermal
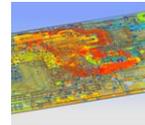
Power Integrity
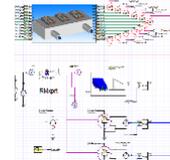
Systems

Embedded Software

Global Reach

PEOPLE	**1,375+**	**650+**	**800+**	**2,000+** **FROM CHANNEL PARTNERS**
CUSTOMERS		**45,000+** **GLOBALLY**		

Industry Presence

Automotive

Academic

Consumer Goods

Energy

Industrial Equip.
& Rotating Machinery

Semiconductors

Aerospace
& Defense

Construction

Electronics

Healthcare

Materials &
Chemical Processing

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World-Class companies leveraging our platform

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A time of profound industry transformation

(1) Greatest value creation since the industrial revolution

+$11 trillion potential by 2025

(2) Product complexity is increasing dramatically

Figure 1: Top Product Specific Challenges

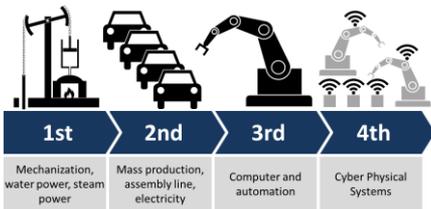|	
Products are becoming more complex	40%
Products operate in varying and complex environments	36%
Limited development resources	36%
Competitive differentiation is becoming more difficult	31%
Lack of tolerance for design flaws	21%

Aberdeen Group, July 2015

n=552
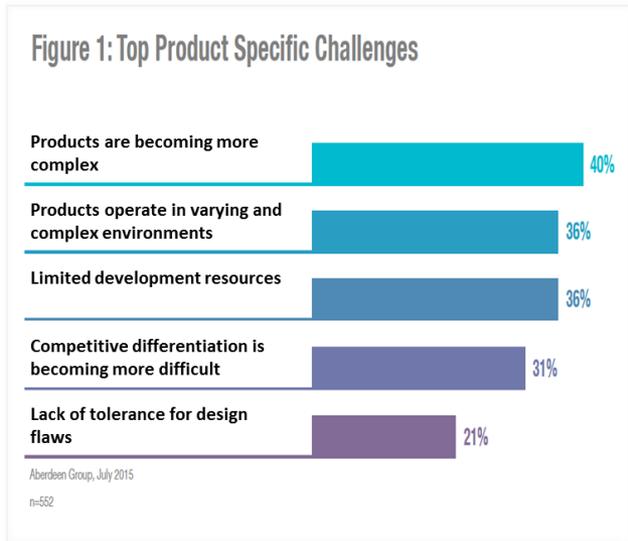
(3) Engineering simulation critical to the products of tomorrow

Top 3 technologies that will have the biggest impact on product design and development over the next 5 years?

1. **Additive Manufacturing**
2. **Engineering Simulation**
3. **Advanced Materials**

SIMULATION vs NO SIMULATION
Simulated Environments Experience:

Length of Development Time	▼	**9x** reduction
Overall Product Cost	▼	**4x** reduction

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Engineering simulation is becoming pervasive!
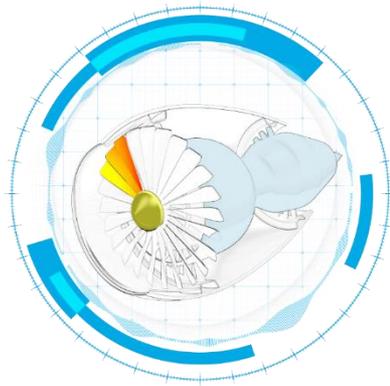
DIGITAL
EXPLORATION

DIGITAL
PROTOTYPE

DIGITAL
TWIN

DESIGNERS
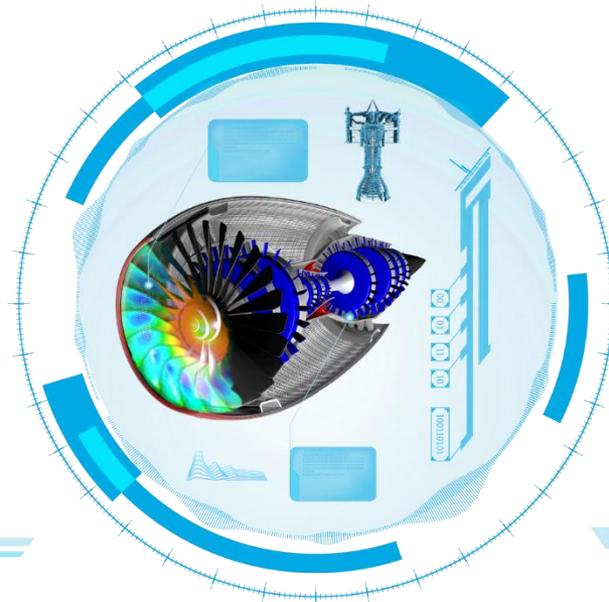
ANALYSTS

OPERATORS

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Improving next-generation products and operations

Design

Test

Operate
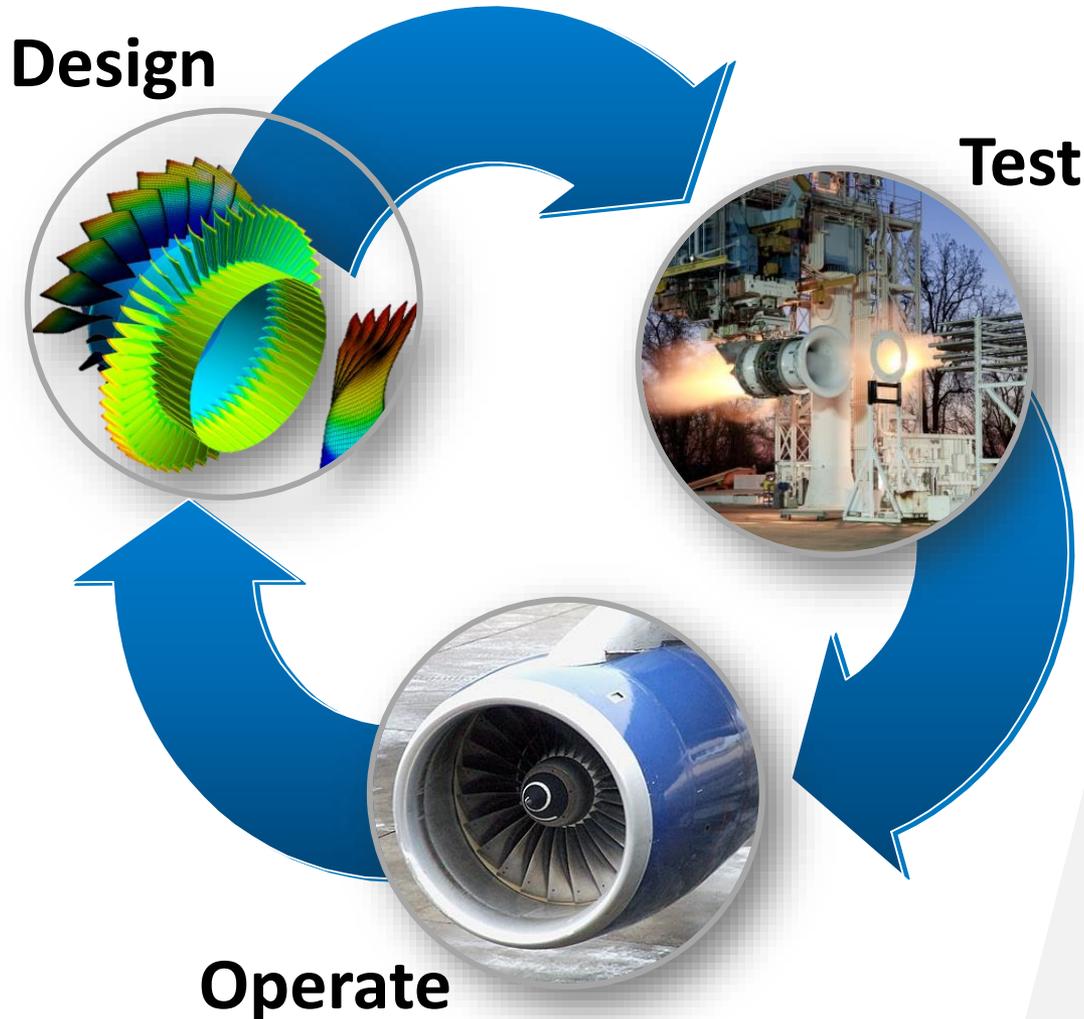
- **Design to reality** (increase profits, customer for life)

- **Compress cycle time/cost** (grow market share)

- **Best product at best price** (sustained growth)

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By using simulation throughout the product development process…

Simulation-Driven Product Development Process

Concept
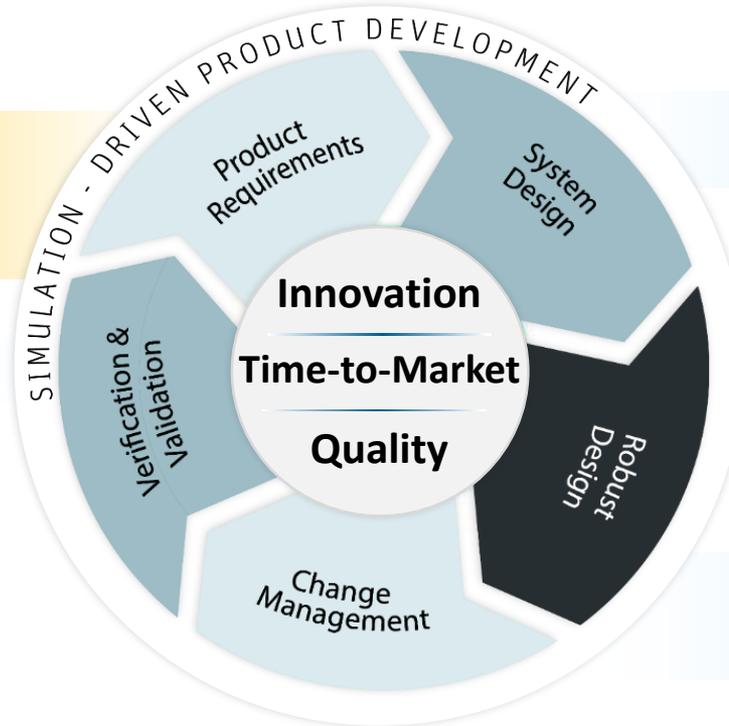
Detailed Design

Physical Testing

Production

SIMULATION - DRIVEN PRODUCT DEVELOPMENT

Product Requirements

System Design

Verification & Validation

Robust Design

Change Management

Innovation

Time-to-Market

Quality

Traditional Product Development Process

Concept → Design → Physical Prototype → Testing → Analysis → Yes/No → Production

CAD

CAE

CAM

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...companies are reducing product development cost

Development Cost (y-axis) vs **Development Time** (x-axis)

Legend:
- Failure Modes Avoidance
- Marketing
- Engineering
- Concept Design
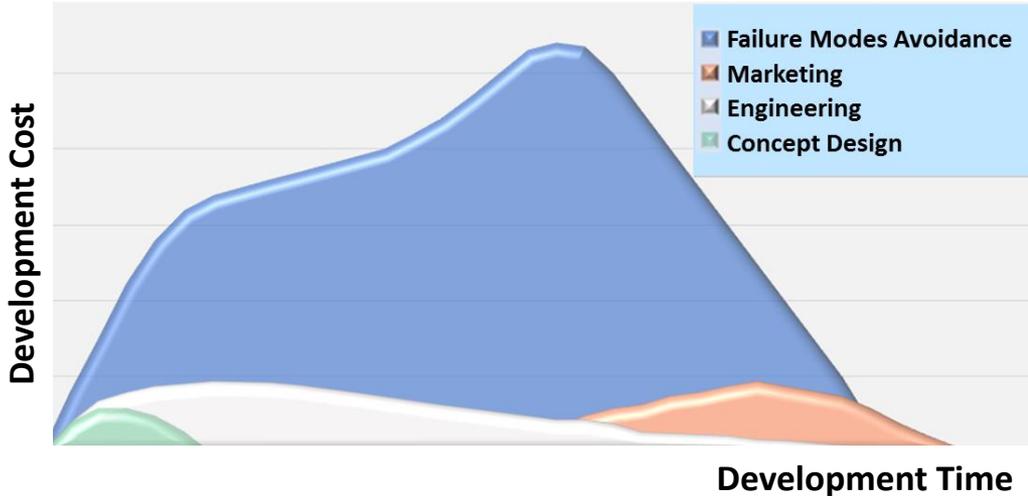
Relative Product Development Costs

- Requirement
- Functional Spec.
- Concept
- Design
- Analysis
- Testing ←
- Manufacturing
- Commission
- Operate
- Maintain
- Warranty

OpEx
CapEx
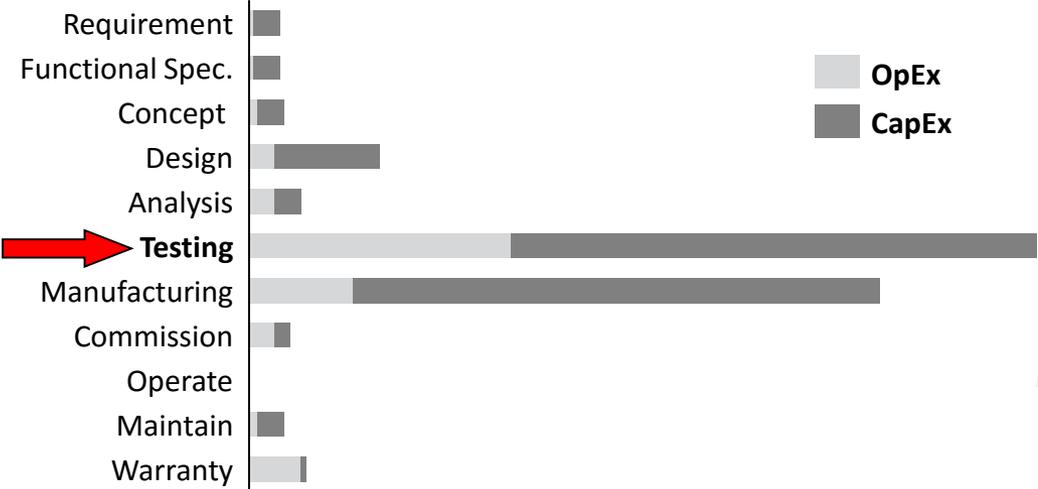
- **Design and engineering contributes ~17% of product development costs**

- **Most costs are spent avoiding failure modes**

Source: MIT Study on Product Development Cost Distribution

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ANSYS complete digital prototype

Comprehensive Solution to Pressing Business Challenges

...as is the value of a platform approach

HOLISTIC DEVELOPMENT vs SILOED DEVELOPMENT

Holistic Development Experiences:

Length of Development Time	▼	**7X** reduction
Overall Product Cost	▼	**2.5x** reduction
Warranty Costs	▼	**53%** more likely to decrease
Number of Change Orders After Release to Manufacturing	▼	**123%** more likely to decrease
Percent Successful New Product Introduction (NPI) Rate	▲	**33%** more likely to achieve

Source: Aberdeen Group July 2015

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Solid and increasing opportunity

Simulation & Analysis – Investments
Software + services market history and forecast – Five year CAGR estimate = 7.9%
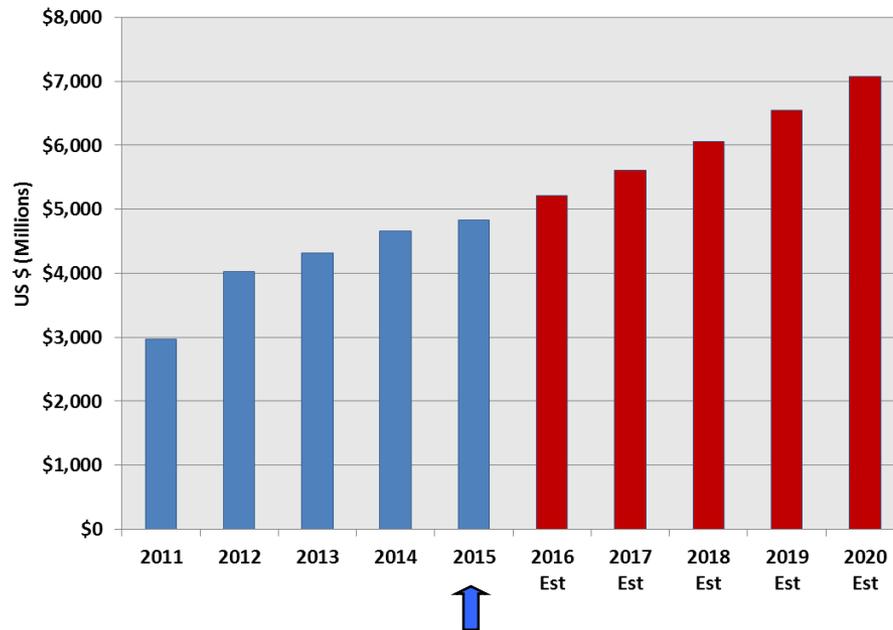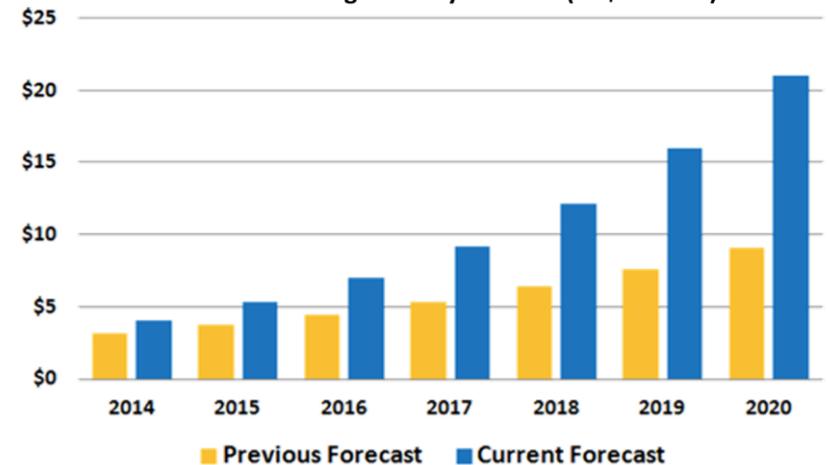
Source: CIMdata June 2016

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Product & technology investments
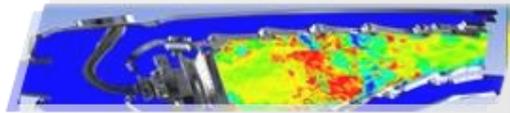
Frequent Release Program – 18.0
Sustaining Our Competitive Advantage

Cloud & Elastic Licensing
Scaling Simulation on Demand

App Store – ANSYS ACT
Reaching Non-Traditional Users

ANSYS AIM
Simulation for Every Engineer

Internet of Things
Reaching Beyond Engineering Design

Big Data & Analytics
Increasing Simulation Throughput

Additive Manufacturing
New Opportunities for Extreme Customization

ANSYS®

Extending our competitive advantage with R18x

STRUCTURES

Next generation capabilities to tackle **reliability, fuel efficiency, lightweighting,** and **safety challenges**

Easy to use topology optimization for **Additive Manufacturing** applications

ELECTRONICS

Shooting and bouncing ray technology to **predict antenna performance on electrically large platforms**

Faster results with automated broadband adaptive meshing

FLUIDS

Breakthrough **harmonic** analysis delivers **accurate turbomachinery** simulations up to **100x faster**

ANSYS AIM integration with Fluent for easy prep and meshing
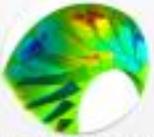
Harmonic Analysis

SEMICONDUCTORS

Comprehensive analysis for **integrated PMIC** designs and **advanced 3D-IC** designs

1000x faster power profiles in RTL power analysis
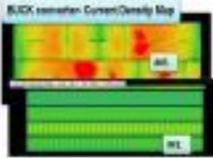
Buck Converter

SYSTEMS

Breakthrough ROM technology, Reuse 3-D physics-based models at system level

Modelica support for fluid power, liquid cooling and mechanical dynamics
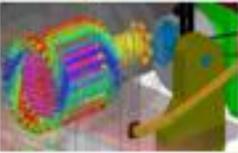
EMBEDDED SOFTWARE

Develop, test, and certify **ADAS** applications with **new automotive package** – fulfills ISO-26262 & AUTOSAR.

Avionics package includes **FACE** capability for efficient software component design – fulfills DO-178C

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Transforming the go-to-market

	SALES	MARKETING
SELLING THE PORTFOLIO	• **Market coverage** • **Enterprise agreements** • **Platform adoption**	• **Global platform campaigns**
DIGITAL EVOLUTION	• **Social selling**	• **Digital marketing infrastructure**
EXPANDING THE ECOSYSTEM	• **Channel partner expansion**	• **Students** • **Startups**
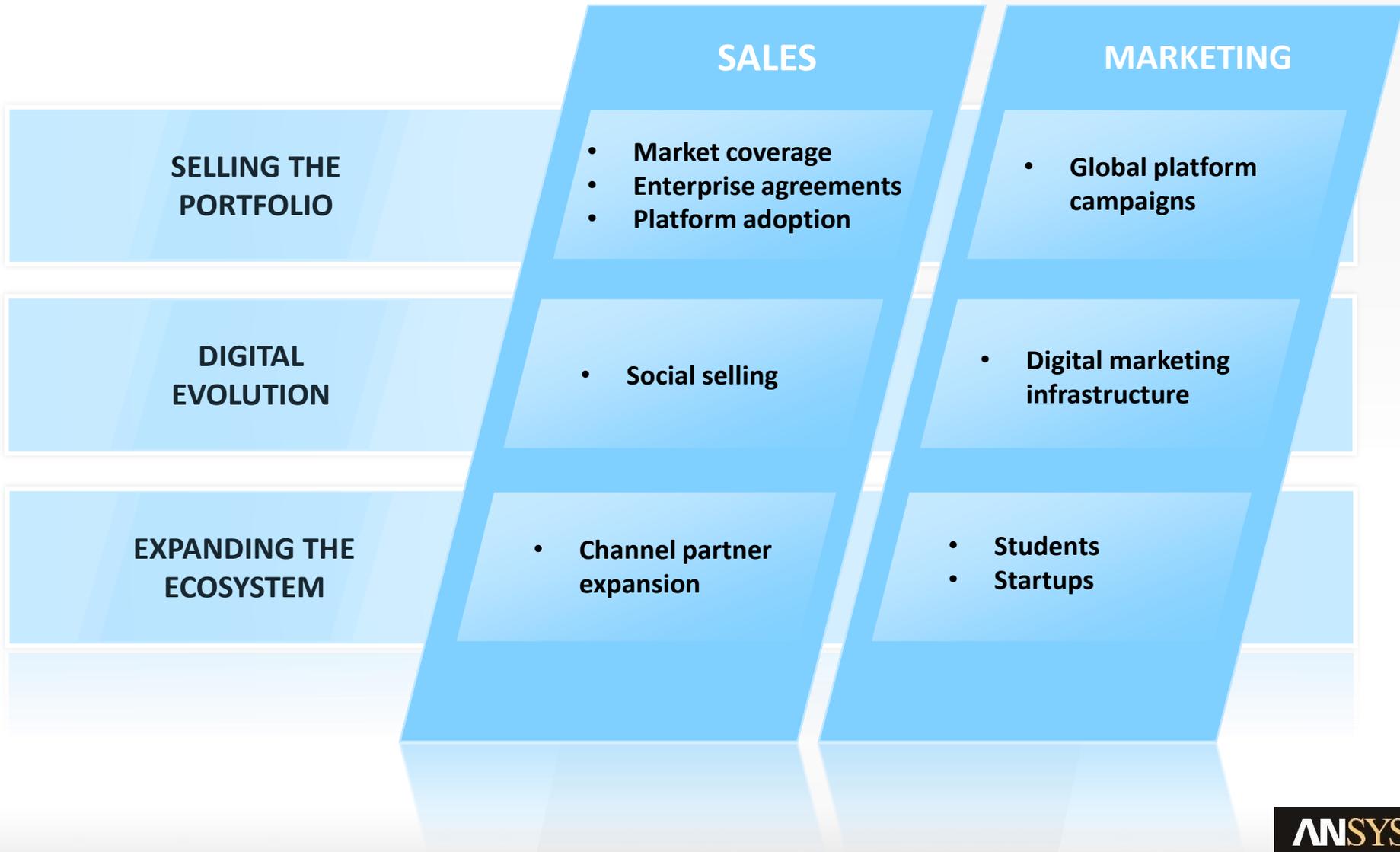
ANSYS®

Simulation for every engineer
Empowering next-generation engineers
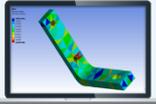
Access

Content

Engagement

Free ANSYS Student product launched Q3 2015

ANSYS AIM Student product launched Q3 2016

+56,000 signed up for Cornell & edX MOOC

Most Hyperloop student teams using ANSYS

All top 25 engineering schools in the US use ANSYS

Over 200,000 downloads of ANSYS Student!

ANSYS®

Simulation for every engineer
Supporting next-generation engineering companies
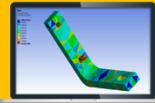
ANSYS Startup Program

Pilot
2015

Incubator Program
2016

Online Startup program
2017+

KARMA

4moms

Carbon Freight
Advanced Containers

innovation works

TECHWILDCATTERS

LACI

EvoNexus

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New consulting offerings – Launched 2016

- **Consulting offerings support the adoption of the ANSYS simulation platform**
- **Paid high-value engagements**

- **Simulation deployments**

- **Workflow optimization**

- **Embedded experts**

- **Mentoring experts**

ANSYS Q2 2017 revenue highlights

QTD NON-GAAP REVENUE COMPARISON							
(in thousands, except percentages)	Q2 2017	% of Total		Q2 2016	% of Total	% Change	% Change in Constant Currency
Lease	$ 92,689	35.1 %	$	83,169	33.8 %	11.4 %	12.5 %
Perpetual	57,615	21.8 %		57,918	23.5 %	(0.5)%	(0.2)%
Maintenance	107,632	40.7 %		98,869	40.2 %	8.9 %	9.8 %
Service	6,412	2.4 %		6,113	2.5 %	4.9 %	6.0 %
Total	$ 264,348		$	246,069		7.4 %	8.3 %

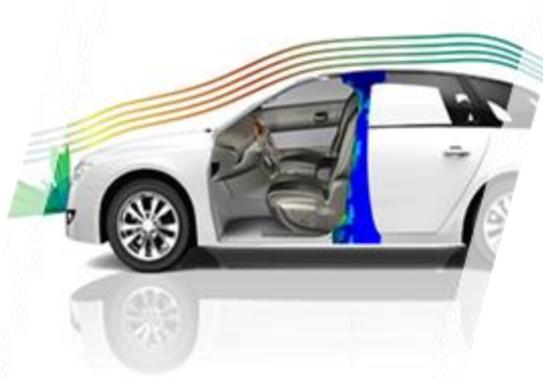| QTD NON-GAAP REVENUE GEOGRAPHIC COMPARISON							
(in thousands, except percentages)	Q2 2017	% of Total		Q2 2016	% of Total	% Change	% Change in Constant Currency
North America	$ 104,926	39.7 %	$	92,560	37.6 %	13.4 %	13.5 %
Germany	23,032	8.7 %		24,662	10.0 %	(6.6)%	(4.7)%
United Kingdom	7,318	2.8 %		9,012	3.7 %	(18.8)%	(10.1)%
Other Europe	42,583	16.1 %		39,111	15.9 %	8.9 %	10.9 %
Europe	72,933	27.6 %		72,785	29.6 %	0.2 %	3.0 %
Japan	32,356	12.2 %		31,250	12.7 %	3.5 %	6.0 %
Other Asia-Pacific	54,133	20.5 %		49,474	20.1 %	9.4 %	7.7 %
Asia-Pacific	86,489	32.7 %		80,724	32.8 %	7.1 %	7.1 %
Total	$ 264,348		$	246,069		7.4 %	8.3 %

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ANSYS YTD 2017 revenue highlights

YTD NON-GAAP REVENUE COMPARISON						
(in thousands, except percentages)	Q2 YTD 2017	% of Total	Q2 YTD 2016	% of Total	% Change	% Change in Constant Currency
Lease	$ 186,466	36.0 %	$ 164,835	34.9 %	13.1 %	14.0 %
Perpetual	105,889	20.4 %	102,330	21.7 %	3.5 %	4.0 %
Maintenance	212,038	40.9 %	192,563	40.8 %	10.1 %	11.0 %
Service	13,503	2.6 %	12,350	2.6 %	9.3 %	10.6 %
Total	$ 517,896		$ 472,078		9.7 %	10.5 %

YTD NON-GAAP REVENUE GEOGRAPHIC COMPARISON						
(in thousands, except percentages)	Q2 YTD 2017	% of Total	Q2 YTD 2016	% of Total	% Change	% Change in Constant Currency
North America	$ 209,183	40.4 %	$ 181,401	38.4 %	15.3 %	15.4 %
Germany	45,724	8.8 %	48,031	10.2 %	(4.8)%	(2.4)%
United Kingdom	14,641	2.8 %	17,789	3.8 %	(17.7)%	(7.6)%
Other Europe	82,306	15.9 %	76,042	16.1 %	8.2 %	10.9 %
Europe	142,671	27.5 %	141,862	30.1 %	0.6 %	4.1 %
Japan	63,794	12.3 %	59,105	12.5 %	7.9 %	8.3 %
Other Asia-Pacific	102,248	19.7 %	89,710	19.0 %	14.0 %	12.3 %
Asia-Pacific	166,042	32.1 %	148,815	31.5 %	11.6 %	10.7 %
Total	$ 517,896		$ 472,078		9.7 %	10.5 %

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ANSYS Financial Highlights

(in millions, except percentages and per share data)	GAAP			Non-GAAP		
	Q2 2017	Q2 2016	% Change	Q2 2017	Q2 2016	% Change
Revenue	$ 263.9	$ 246.1	7 %	$ 264.3	$ 246.1	7 %
Net income	$ 69.7	$ 69.6	0 %	$ 86.4	$ 83.2	4 %
Earnings per share	$ 0.80	$ 0.78	3 %	$ 0.99	$ 0.93	6 %
Operating profit margin	37.3 %	38.3 %		48.3 %	46.9 %	
Operating cash flow	$ 112.2	$ 71.6	57 %			

(in millions, except percentages and per share data)	GAAP			Non-GAAP		
	YTD 2017	YTD 2016	% Change	YTD 2017	YTD 2016	% Change
Revenue	$ 517.3	$ 472.0	10 %	$ 517.9	$ 472.1	10 %
Net income	$ 133.0	$ 126.1	6 %	$ 163.9	$ 152.6	7 %
Earnings per share	$ 1.53	$ 1.41	9 %	$ 1.88	$ 1.70	11 %
Operating profit margin	35.5 %	38.0 %		47.3 %	46.7 %	
Operating cash flow	$ 238.1	$ 182.4	31 %			

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Diversified Revenue Model – Trailing 12 Months Thru June 30, 2017

Revenue by Geography*

Asia-Pac: 32%
North America: 40%
Europe: 28%

■ Asia-Pac ■ North America ■ Europe

Sales by Industry**

16% 13%
9% 15%
12% 1%
5% 1%
2% 4%
22%

■ Automotive   ■ Aerospace & Defense
■ Construction   ■ Consumer Products
■ Academic   ■ Electronics
■ Energy   ■ Bio-Med
■ Industrial Equipment ■ Materials & Chemical
■ Semiconductors
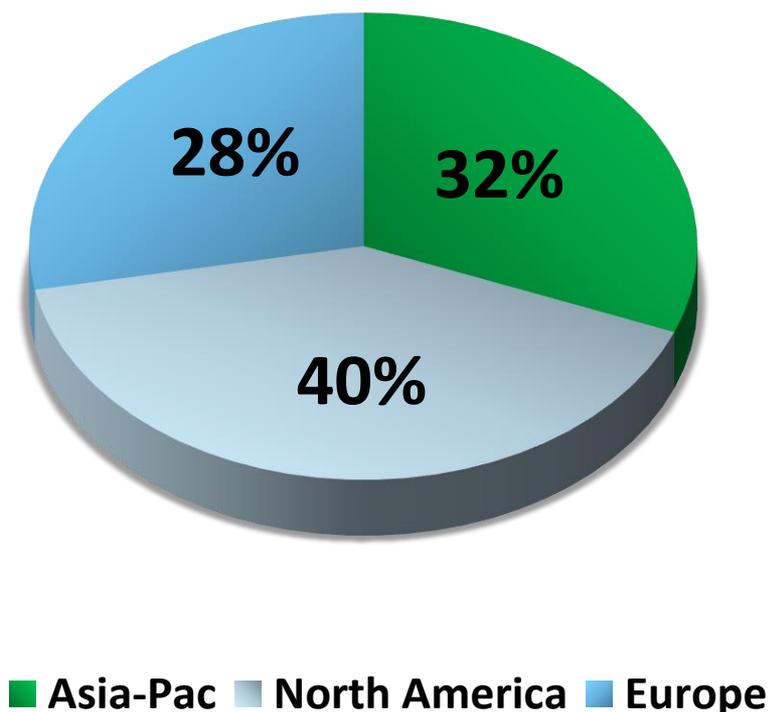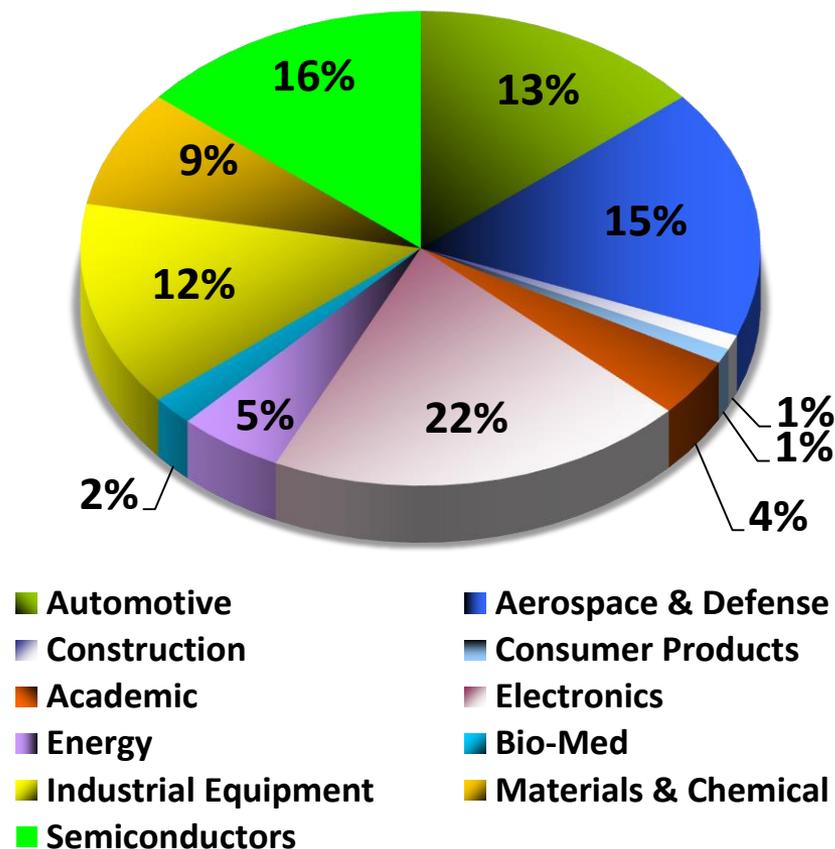
* Non-GAAP   (Unaudited)**

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Revenue distribution

Q2 2017 Revenue Distribution

Channel Expansion

Foundation Expansion

24%

76%

Indirect   Direct

Q2 2017 Revenue Streams

Service

Lease 35%

2%

Paid-Up Licenses 22%

Maintenance 41%
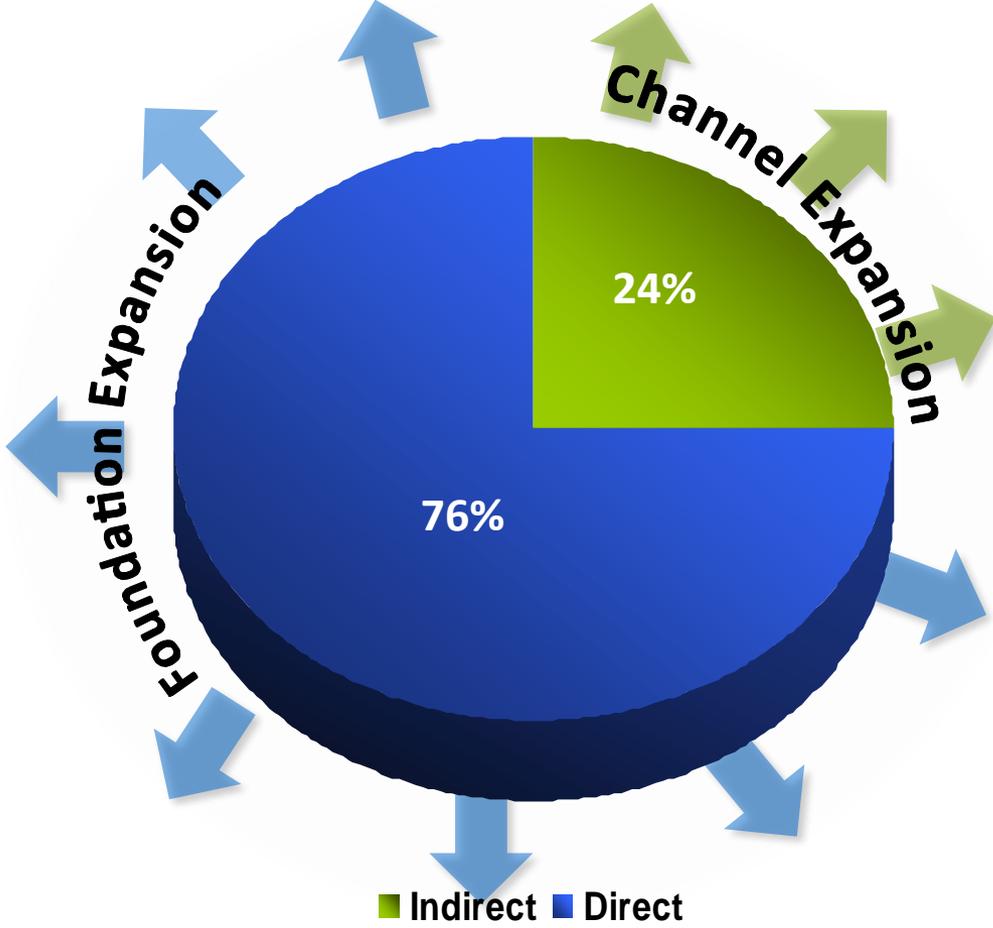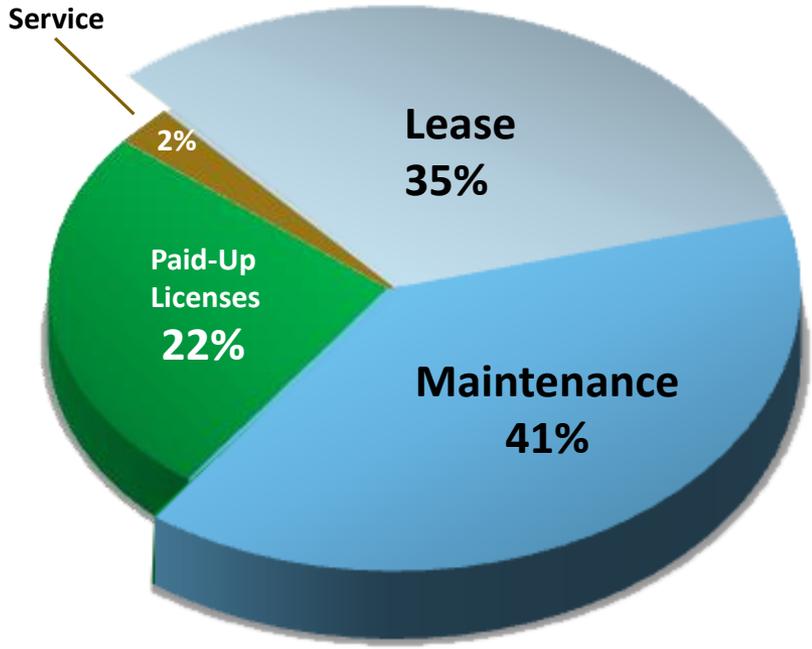
Recurring Revenue = 76%

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Building deferred revenue & backlog

*Includes long-term deferred revenue and backlog

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Consistently strong cash flows from operations

Operating Cash Flow ($ millions)

- 2011: $307.7
- 2012: $298.4
- 2013: $330.0
- 2014: $385.3*
- 2015: $367.5
- 2016: $356.8

Q2 2017 operating cash flows of $112.2 million, a 57% increase over Q2 2016
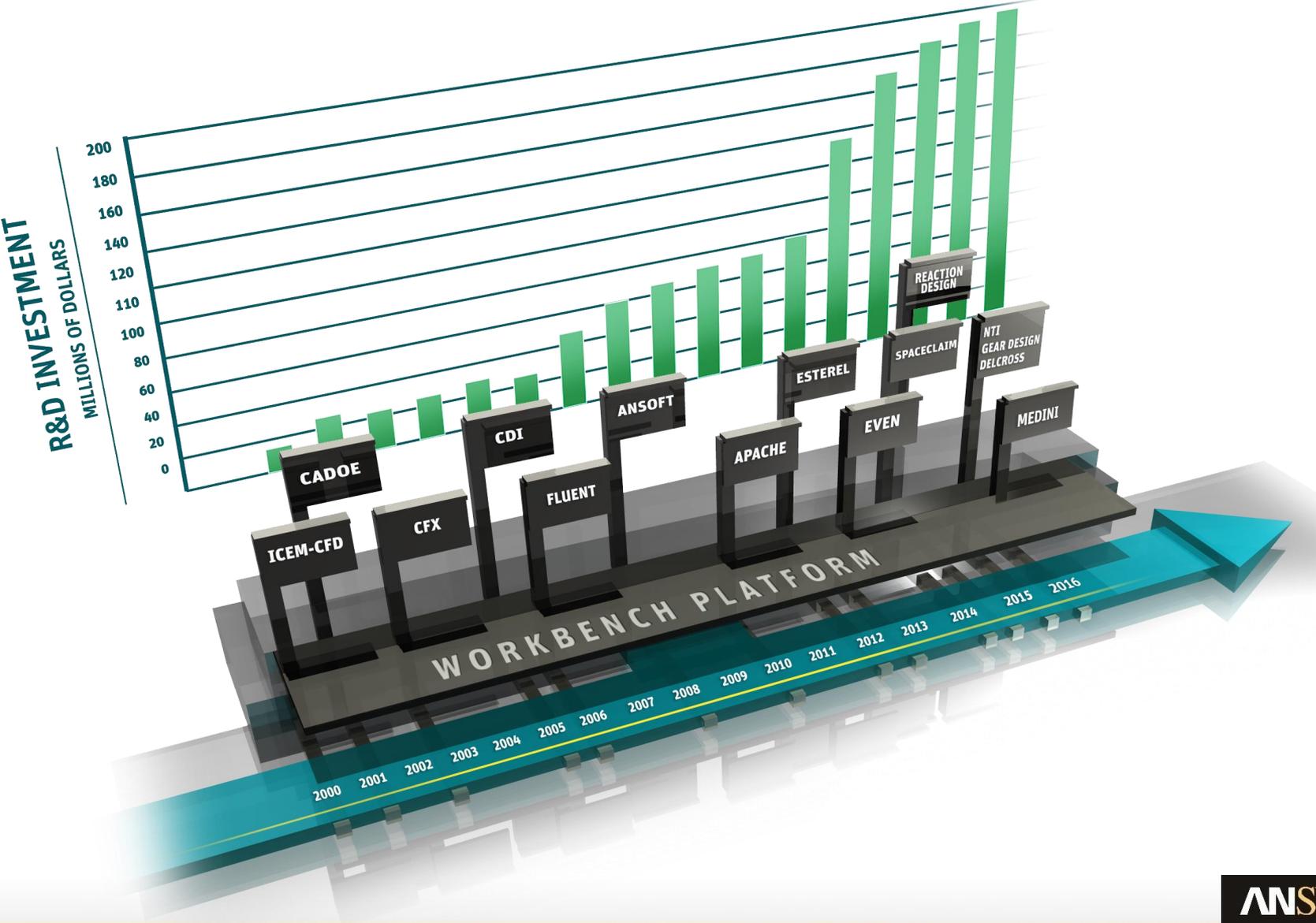**1H 2017 operating cash flows of $238.1 million, a 31% increase over 1H 2016**

*Includes an income tax refund of approximately $27 million in the first quarter of 2014 that did not recur in 2015

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2017 capital allocation

- **Investment in Organic Growth of the 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**
  - ➢ **Reduce Total Share Count Over Time**

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Our ongoing financial commitment to deliver value

Share repurchases over time

 # Shares Repurchased

- 1,494,000 — 2013
- 2,976,900 — 2014
- 3,833,048 — 2015
- 3,700,000 — 2016

$ Spent on Share Repurchases (millions)

- $116.1 — 2013
- $233.8 — 2014
- $337.9 — 2015
- $336.3 — 2016
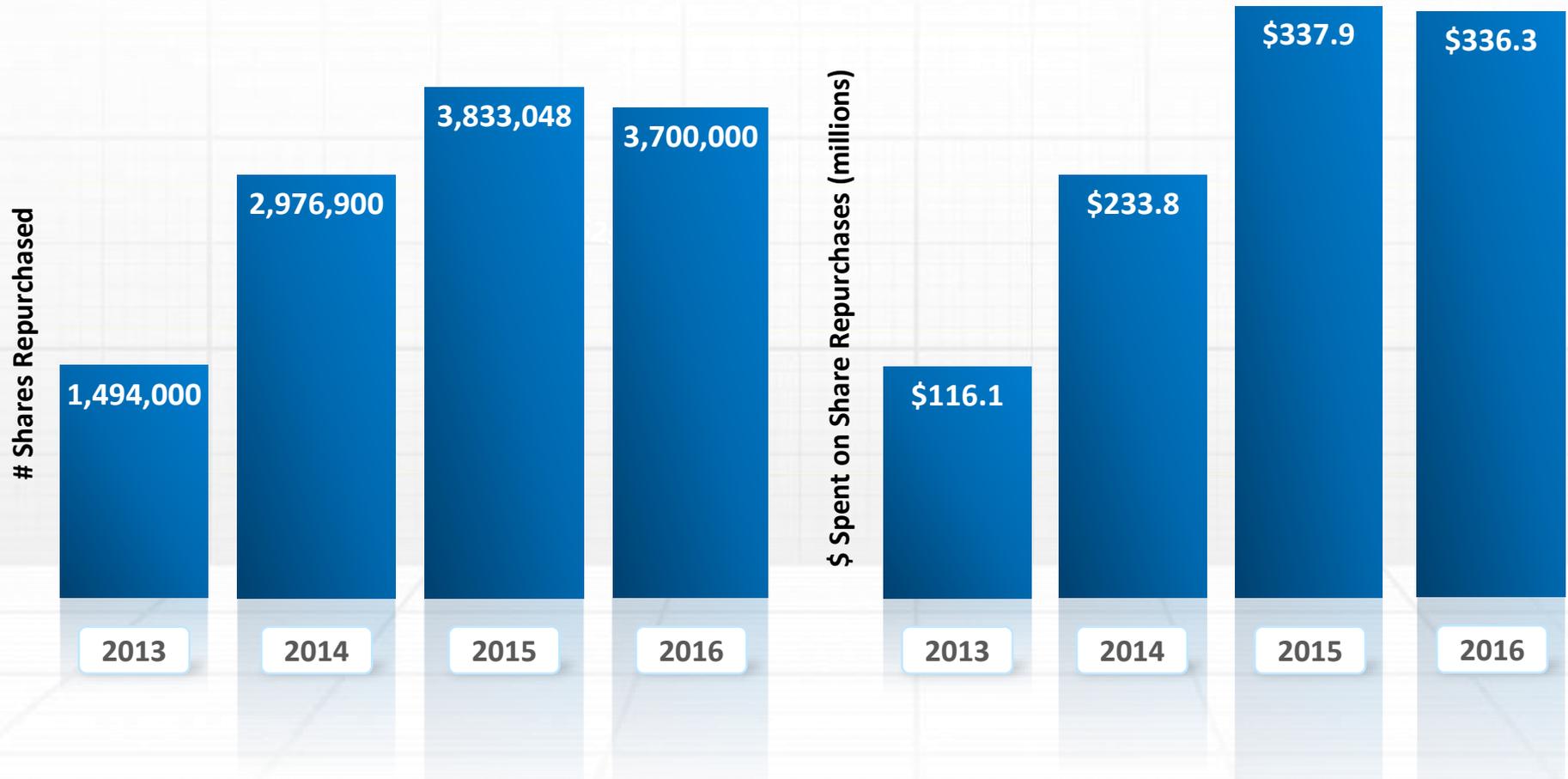
1 million shares repurchased in Q2 2017 at average cost of $122.94 per share.
2 million shares repurchased in 1H 2017 at average cost of $111.65 per share.

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History of performance

Track record of strong and consistent execution

- Released ANSYS®18.0 in January 2017, ANSYS®17.2 in August 2016; ANSYS® AIM 17.2 in September 2016; ANSYS®17.1 in May 2016; ANSYS®17.0 in January 2016;– delivering major enhancements across the Company's entire product portfolio
- Grown the customer base to approximately 45,000 logoed companies
- Increased revenue 13 fold in the past 15 years
- Driving to improved top line growth in constant currency
- Industry leading margins

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ANSYS: Well positioned for continued value creation

- Unique customer value proposition
- The market leader focused on engineering simulation
- Investing in future growth: people, sales & marketing initiatives, technology and infrastructure
- Large and growing market opportunity
- Capitalizing on key global trends in engineering and compute environments (autonomy, electrification, etc.)
- Broad customer base of leaders in their field
- Diverse portfolio across industries and geographies
- Proven financial track record
- Solid balance sheet
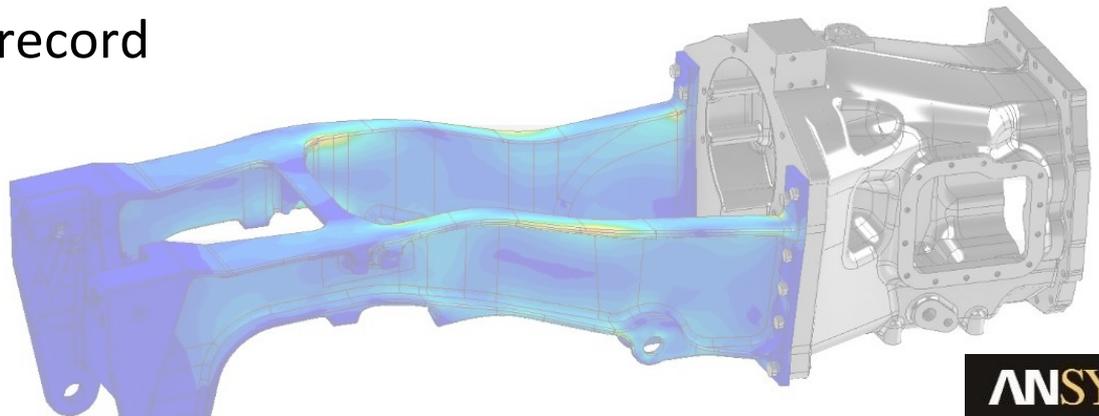
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A race with no finish line

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Reconciliation Of Non-GAAP

ANSYS, INC. AND SUBSIDIARIES
Reconciliation of Non-GAAP Measures
For the three months ended June 30, 2017
(in millions, except per share data)
(unaudited)

	As Reported	Adjustments	Non-GAAP Results
Total revenue	$263.9	$ 0.4[1]	$264.3
Operating income	$98.4	$29.2[2]	$127.6
Operating profit margin	37.3%		48.3%
Net income	$69.7	$16.7[3]	$86.4
EPS – diluted	$0.80		$0.99
Weighted avg. shares-diluted	86.9		86.9

(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 $14.1 million of stock-based compensation expense and $12.1 million of amortization expense associated with intangible assets acquired in business combinations, $2.0 million of restructuring charges, $0.5 million of transaction expenses related to business combinations and $0.4 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, adjusted for the related income tax impact of $12.5 million.

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Reconciliation Of Non-GAAP

ANSYS, INC. AND SUBSIDIARIES
Reconciliation of Non-GAAP Measures
For the six months ended June 30, 2017
(in millions, except per share data)
(unaudited)

	As Reported	Adjustments	Non-GAAP Results
Total revenue	$517.3	$0.6 [1]	$517.9
Operating income	$183.9	$61.3[2]	$245.2
Operating profit margin	35.5%		47.3%
Net income	$133.1	$30.8[3]	$163.9
EPS – diluted	$1.53		$1.88
Weighted avg. shares-diluted	87.0		87.0

(1) Amount represents the revenue not reported during the period as a result of the acquisition accounting adjustment associated with accounting for deferred revenue in business combinations.

(2) Amount represents $24.1 million of amortization expense associated with intangible assets acquired in business combinations, $24.6 million charge for stock-based compensation, and $0.6 million adjustment to revenue as reflected in (1) above and $11.3 million of restructuring charges and $0.7 million of transaction expenses related to business combinations.

(3) Amount represents the impact of the adjustments to operating income referred to in (2) above, adjusted for the related income tax impact of $30.4 million.

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