# 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
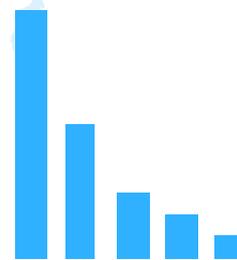
**40** countries

**PROVEN**

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

**INDEPENDENT**

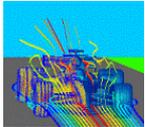Long-term financial stability
CAD agnostic

**LARGEST**

**2x** The size of our nearest competitor
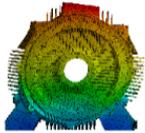
*BusinessWeek, FORTUNE

**ANSYS®**

# Comprehensive industry reach and solution offerings

## Leading Disciplines

Fluids

Structures
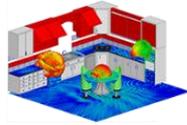
Electromagnetics
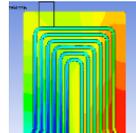
Thermal
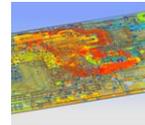
Power Integrity
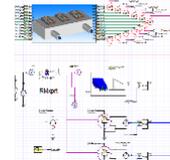
Systems
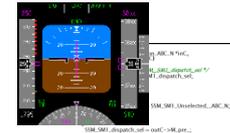
Embedded Software

## Global Reach

| | | | | |
|---|---|---|---|---|
| PEOPLE | 1,375+ | 650+ | 800+ | 2,000+ FROM CHANNEL PARTNERS |
| CUSTOMERS | 45,000+ GLOBALLY | | | |
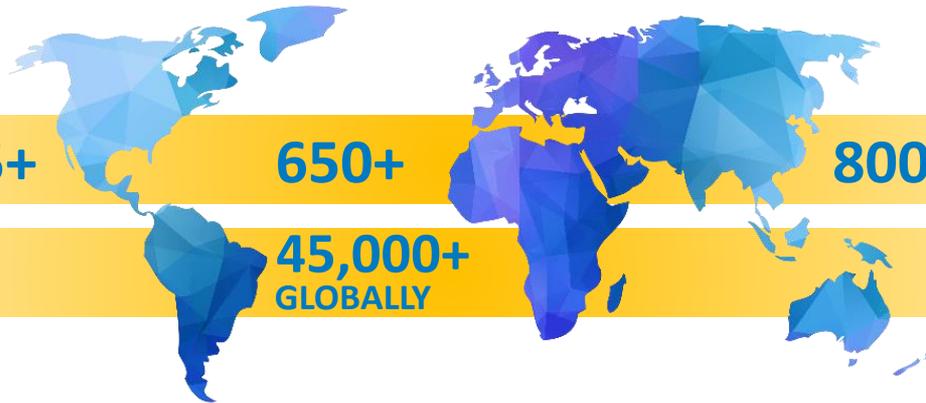
## Industry Presence

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

# A time of profound industry transformation

**1** Greatest value creation since the industrial revolution



| 1st | 2nd | 3rd | 4th |
|---|---|---|---|
| Mechanization, water power, steam power | Mass production, assembly line, electricity | Computer and automation | Cyber Physical Systems |

UBER    dyson

nebia    GE    tsmc

TESLA

Honeywell    HYPERLOOP
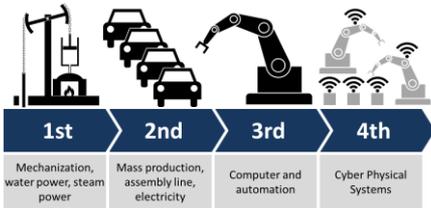
**+$11 trillion potential by 2025**

**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
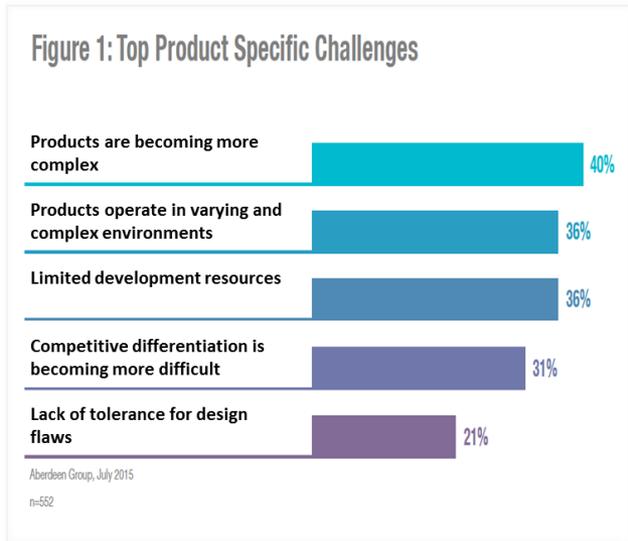
**3** Engineering simulation critical to the products of tomorrow

**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!
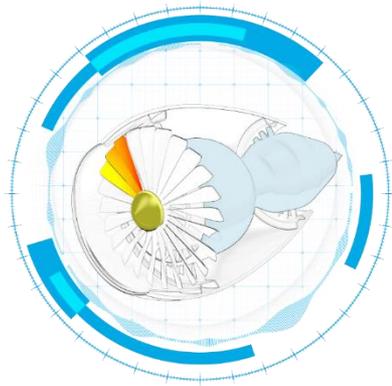
DIGITAL
EXPLORATION

DIGITAL
PROTOTYPE

DIGITAL
TWIN

**DESIGNERS**
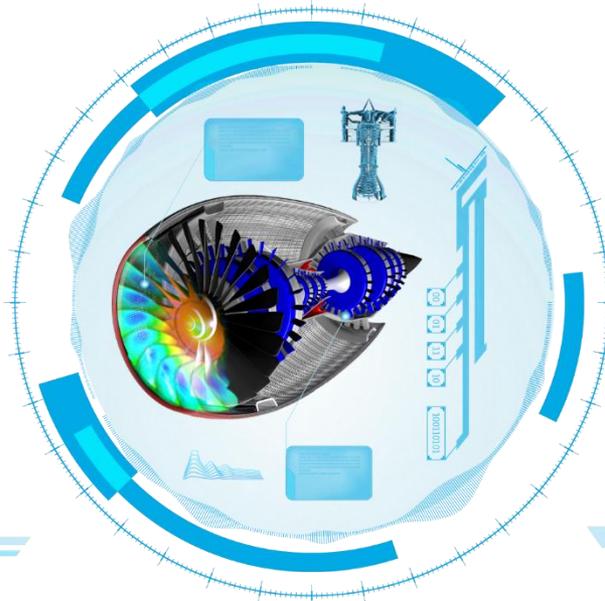
**ANALYSTS**

**OPERATORS**

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# Improving next-generation products and operations

**Design**

**Test**

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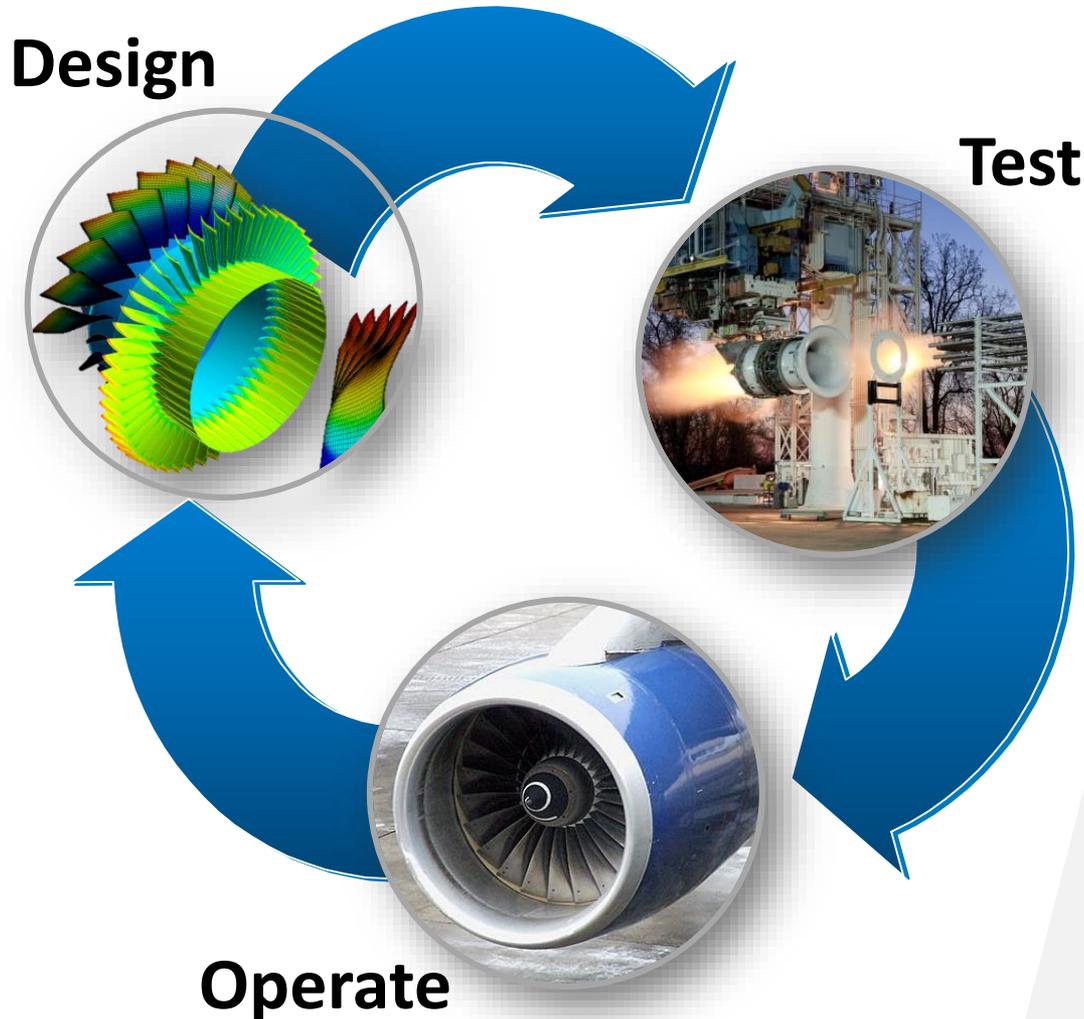
- **Design to reality** (increase profits, customer for life)

- **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

**Innovation**

**Time-to-Market**

**Quality**

SIMULATION - DRIVEN PRODUCT DEVELOPMENT

Product Requirements

System Design

Robust Design

Change Management

Verification & Validation
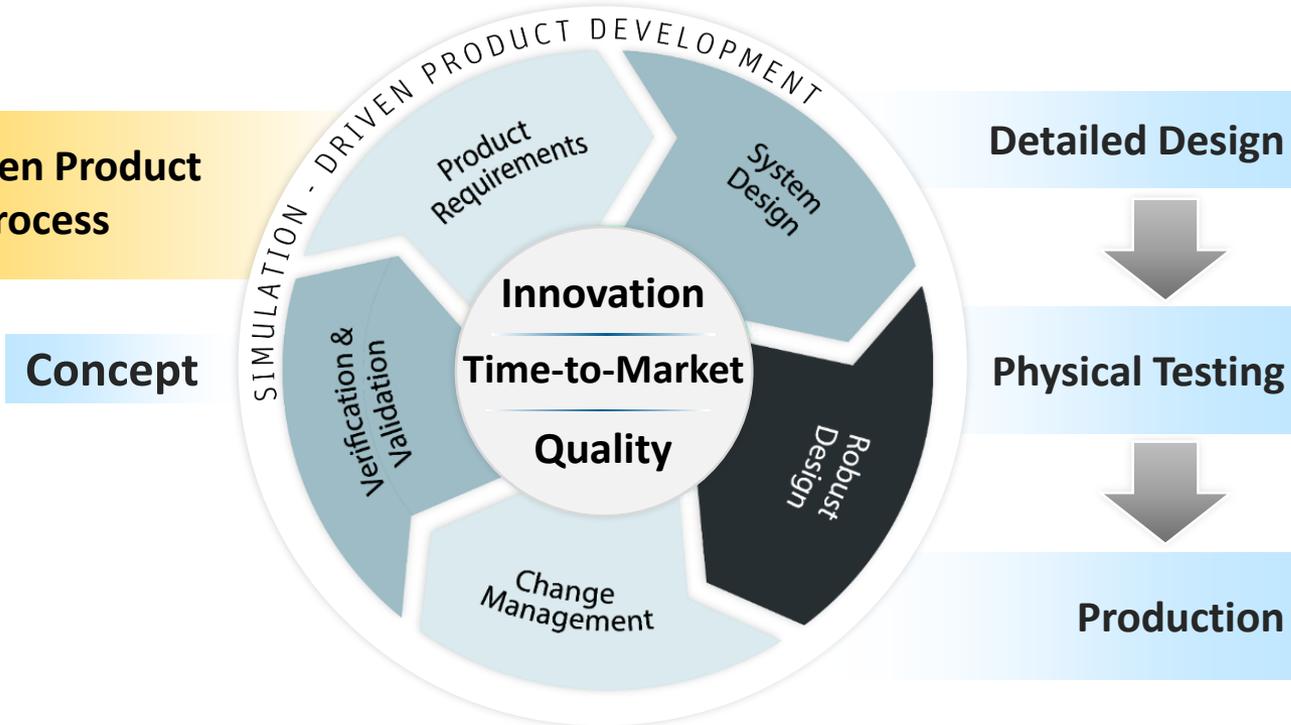
**Traditional Product Development Process**

Concept → Design → Physical Prototype → Testing → Analysis → Production

CAD — CAE — CAM

Yes / No

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# …companies are reducing product development cost



Development Cost vs. Development Time

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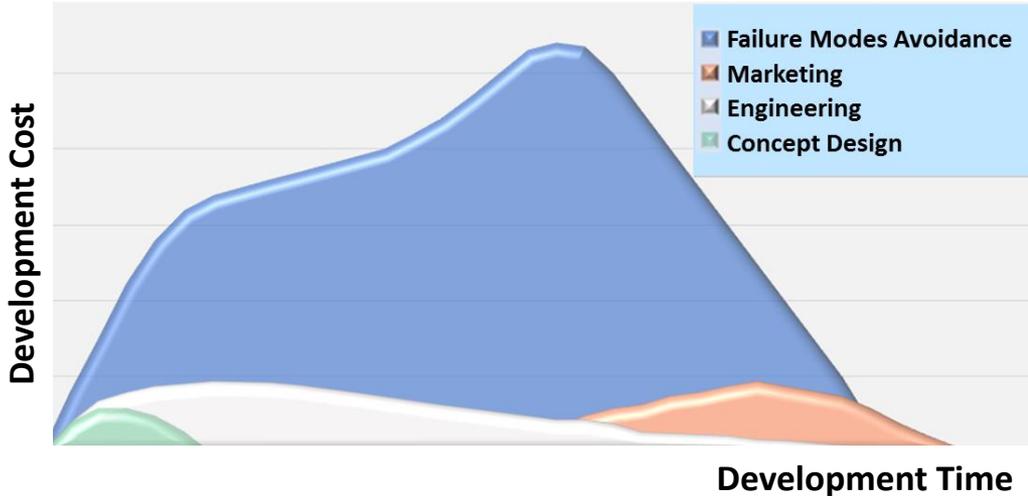
**Relative Product Development Costs**



Categories (top to bottom):
- Requirement
- Functional Spec.
- Concept
- Design
- Analysis
- **Testing** ←
- Manufacturing
- Commission
- Operate
- Maintain
- Warranty

Legend:
- 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%*
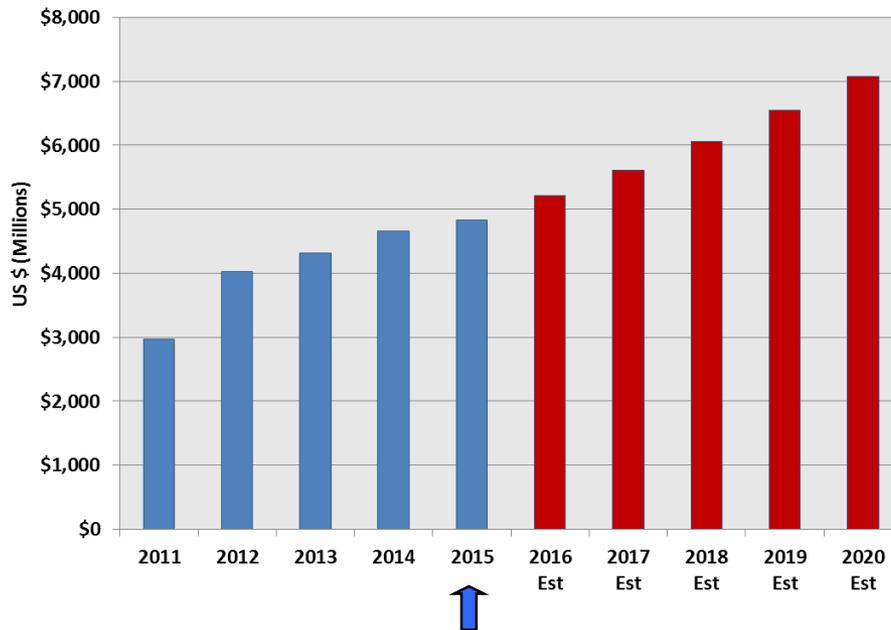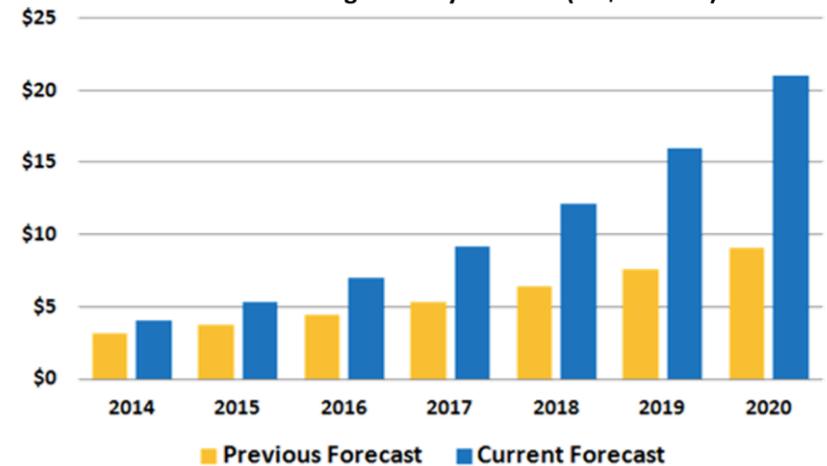




Source: CIMdata June 2016

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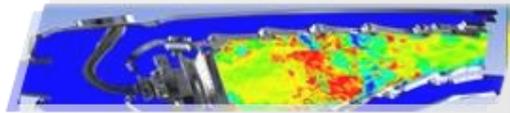
**Frequent Release Program – 18.0**
*Sustaining Our Competitive Advantage*

**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*

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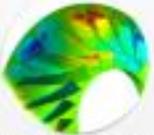Shooting and bouncing ray technology to **predict antenna performance** on **electrically large platforms**

**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
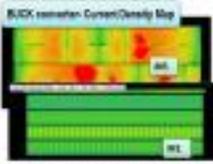
**Buck Converter**

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

**Modelica support** for fluid power, liquid cooling and mechanical dynamics
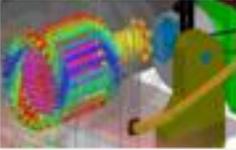
## EMBEDDED SOFTWARE
Develop, test, and certify **ADAS** applications with **new automotive package** – fulfills ISO-26262 & AUTOSAR.

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

# Transforming the go-to-market

|  | SALES | MARKETING |
|---|---|---|
| **SELLING THE PORTFOLIO** | • **Market coverage**<br>• **Enterprise agreements**<br>• **Platform adoption** | • **Global platform campaigns** |
| **DIGITAL EVOLUTION** | • **Social selling** | • **Digital marketing infrastructure** |
| **EXPANDING THE ECOSYSTEM** | • **Channel partner expansion** | • **Students**<br>• **Startups** |
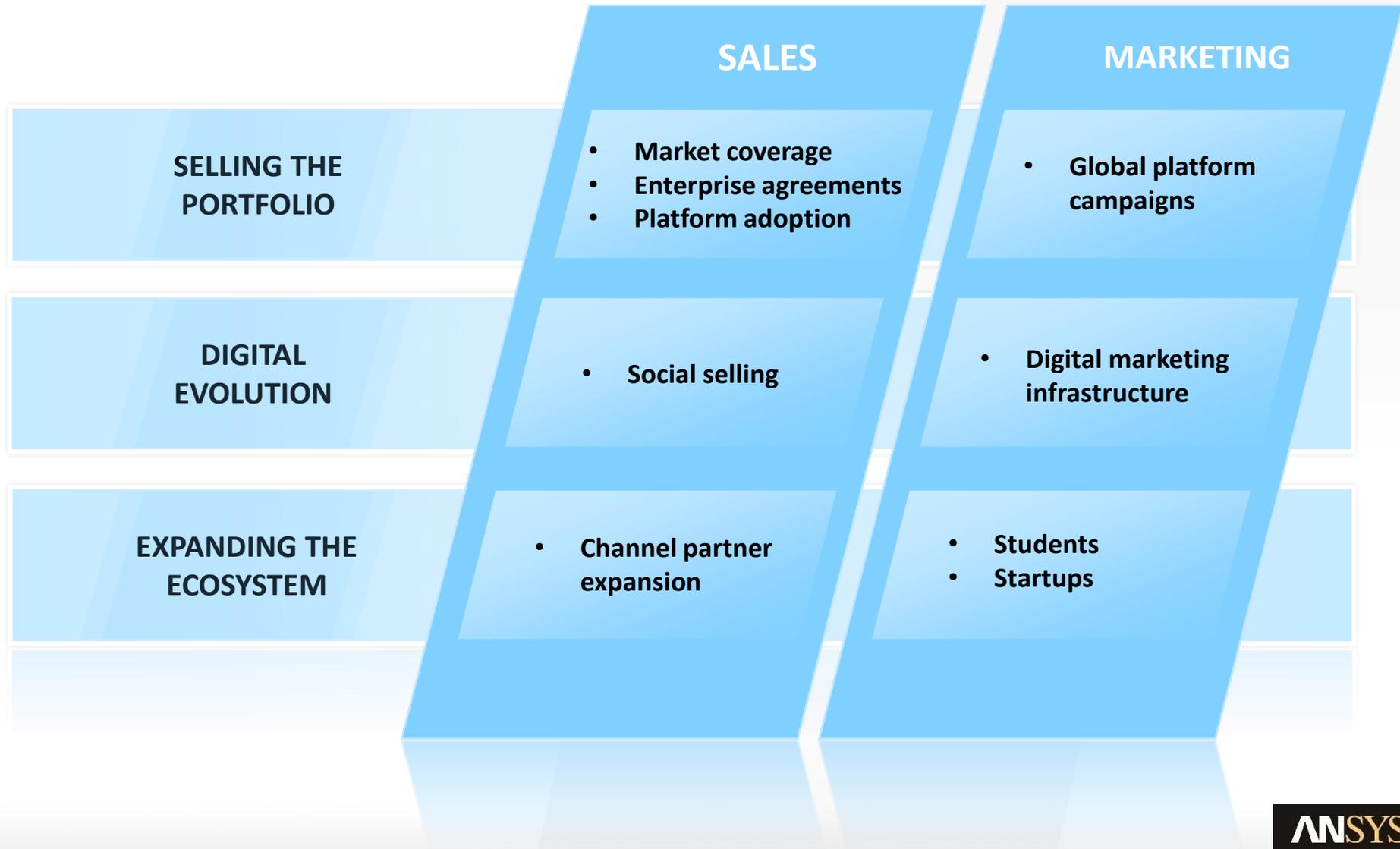
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# Simulation for every engineer
## Empowering next-generation engineers
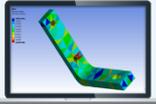
**Access**

**Content**

**Engagement**

Free ANSYS Student product launched Q3 2015

ANSYS AIM Student product launched Q3 2016

+35,000 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!

February 23, 2017

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# Simulation for every engineer
## Supporting next-generation engineering companies
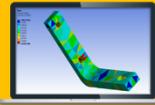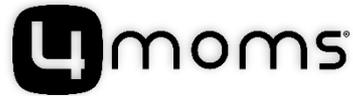


**ANSYS Startup Program**

**Pilot**
2015

**Incubator Program**
2016

**Online Startup program**
2017+

# 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**

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# ANSYS Q4 and FY 2016 revenue highlights

**ANSYS, Inc.**

**NON-GAAP REVENUE COMPARISON**

**(Unaudited)**

| *(in thousands, except percentages)* | Q4 2016 | % of Total | Q4 2015 | % of Total | % Change | % Change in Constant Currency |
|---|---|---|---|---|---|---|
| Lease | $ 89,616 | 33.1% | $ 81,848 | 32.5% | 9.5% | 9.0% |
| Perpetual | 71,890 | 26.6% | 67,856 | 26.9% | 5.9% | 6.7% |
| Maintenance | 101,970 | 37.7% | 95,184 | 37.8% | 7.1% | 7.7% |
| Service | 7,152 | 2.6% | 7,119 | 2.8% | 0.5% | 1.5% |
| Total | $ 270,628 | | $ 252,007 | | 7.4% | 7.7% |

**ANSYS, Inc.**

**NON-GAAP REVENUE COMPARISON**

**(Unaudited)**

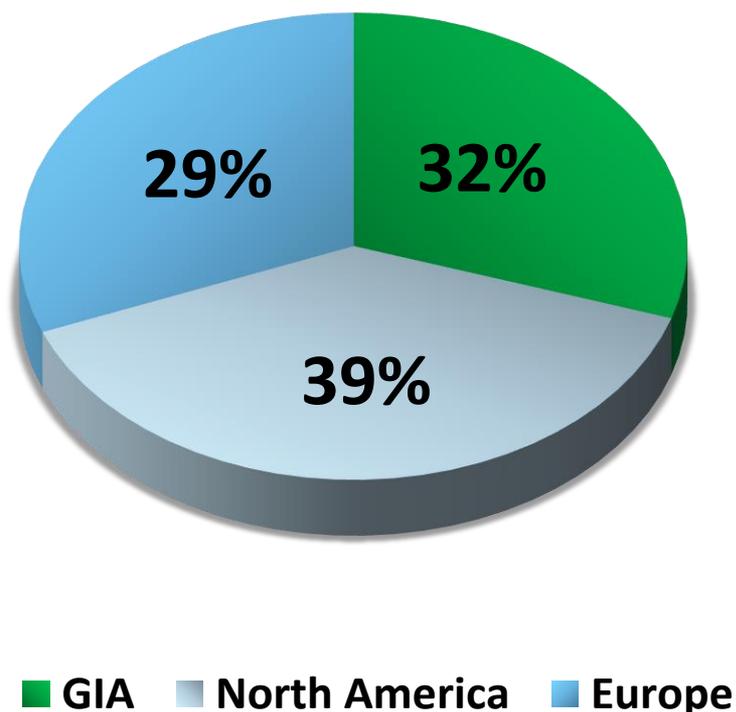| *(in thousands, except percentages)* | FY 2016 | % of Total | FY 2015 | % of Total | % Change | % Change in Constant Currency |
|---|---|---|---|---|---|---|
| Lease | $ 340,358 | 34.4% | $ 317,038 | 33.6% | 7.4 % | 6.7 % |
| Perpetual | 227,843 | 23.0% | 239,205 | 25.3% | (4.7)% | (4.3)% |
| Maintenance | 394,821 | 39.9% | 365,147 | 38.7% | 8.1 % | 9.0 % |
| Service | 25,546 | 2.6% | 23,088 | 2.4% | 10.6 % | 11.0 % |
| Total | $ 988,568 | | $ 944,478 | | 4.7 % | 4.9 % |

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# ANSYS Q4 and FY 2016 financial highlights

| (in millions, except percentages and per share data) | GAAP | | | Non-GAAP | | |
|---|---|---|---|---|---|---|
| | Q4 2016 | Q4 2015 | % Change | Q4 2016 | Q4 2015 | % Change |
| Revenue | $ 270.6 | $ 251.6 | 8 % | $ 270.6 | $ 252.0 | 7% |
| Net income | $ 70.0 | $ 68.0 | 3 % | $ 86.1 | $ 82.4 | 4% |
| Earnings per share | $ 0.80 | $ 0.75 | 7 % | $ 0.98 | $ 0.91 | 8% |
| Operating profit margin | | 35.8% | 38.5% | | 45.1% | 47.5% |
| Operating cash flow | $ 96.2 | $ 109.2 | (12)% | | | |

| (in millions, except percentages and per share data) | GAAP | | | Non-GAAP | | |
|---|---|---|---|---|---|---|
| | YTD 2016 | YTD 2015 | % Change | YTD 2016 | YTD 2015 | % Change |
| Revenue | $ 988.5 | $ 942.8 | 5 % | $ 988.6 | $ 944.5 | 5% |
| Net income | $ 265.6 | $ 252.5 | 5 % | $ 322.9 | $ 313.4 | 3% |
| Earnings per share | $ 2.99 | $ 2.76 | 8 % | $ 3.63 | $ 3.42 | 6% |
| Operating profit margin | | 38.1% | 37.5% | | 47.0% | 47.5% |
| Operating cash flow | $ 356.8 | $ 367.5 | (3)% | | | |

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# Diversified Revenue Model – Trailing 12 Months Thru December 31, 2016

## Revenue by Geography*

- 32% GIA
- 39% North America
- 29% Europe

**Legend:** ■ GIA ■ North America ■ Europe

## Sales by Industry**

- 14% Automotive
- 17% Aerospace & Defense
- 1% Consumer Products
- 1%
- 4%
- 20% Electronics
- 5% Energy
- 2% Bio-Med
- 14% Industrial Equipment
- 8% Materials & Chemical
- 14% Semiconductors

**Legend:**
- ■ 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

## Q4 2016
### Revenue Distribution



**Channel Expansion**

**Foundation Expansion**

25%

75%

■ Indirect ■ Direct

## Q4 2016
### Revenue Streams



Service

Lease
33%

3%

Paid-Up
Licenses
26%

Maintenance
38%
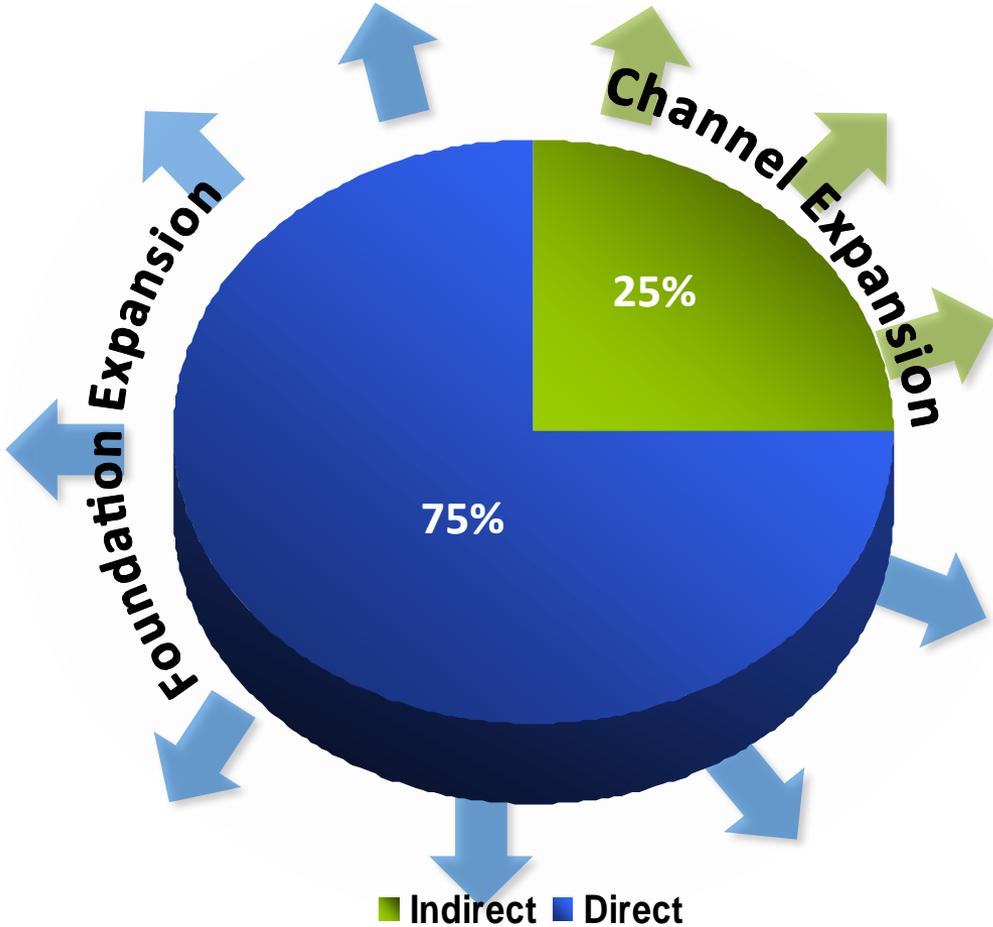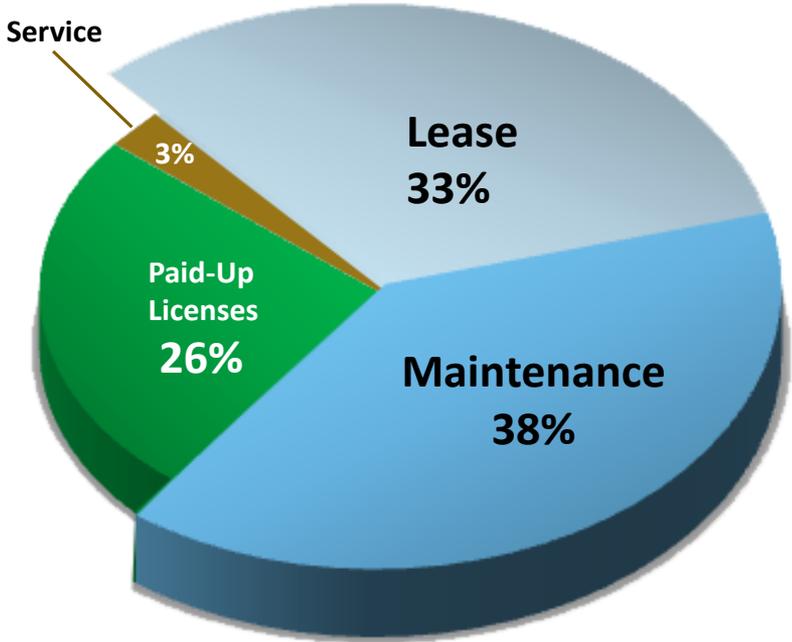
**Recurring Revenue = 71%**

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# Annual organic recurring revenue growth
## (in constant currency)



| Year | Growth |
|------|--------|
| 2011 | 10% |
| 2012 | 12% |
| 2013 | 10% |
| 2014 | 10% |
| 2015 | 9% |
| 2016 | 8% |

# Building deferred revenue & backlog



*Includes long-term deferred revenue and backlog

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# Consistently strong cash flows from operations



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

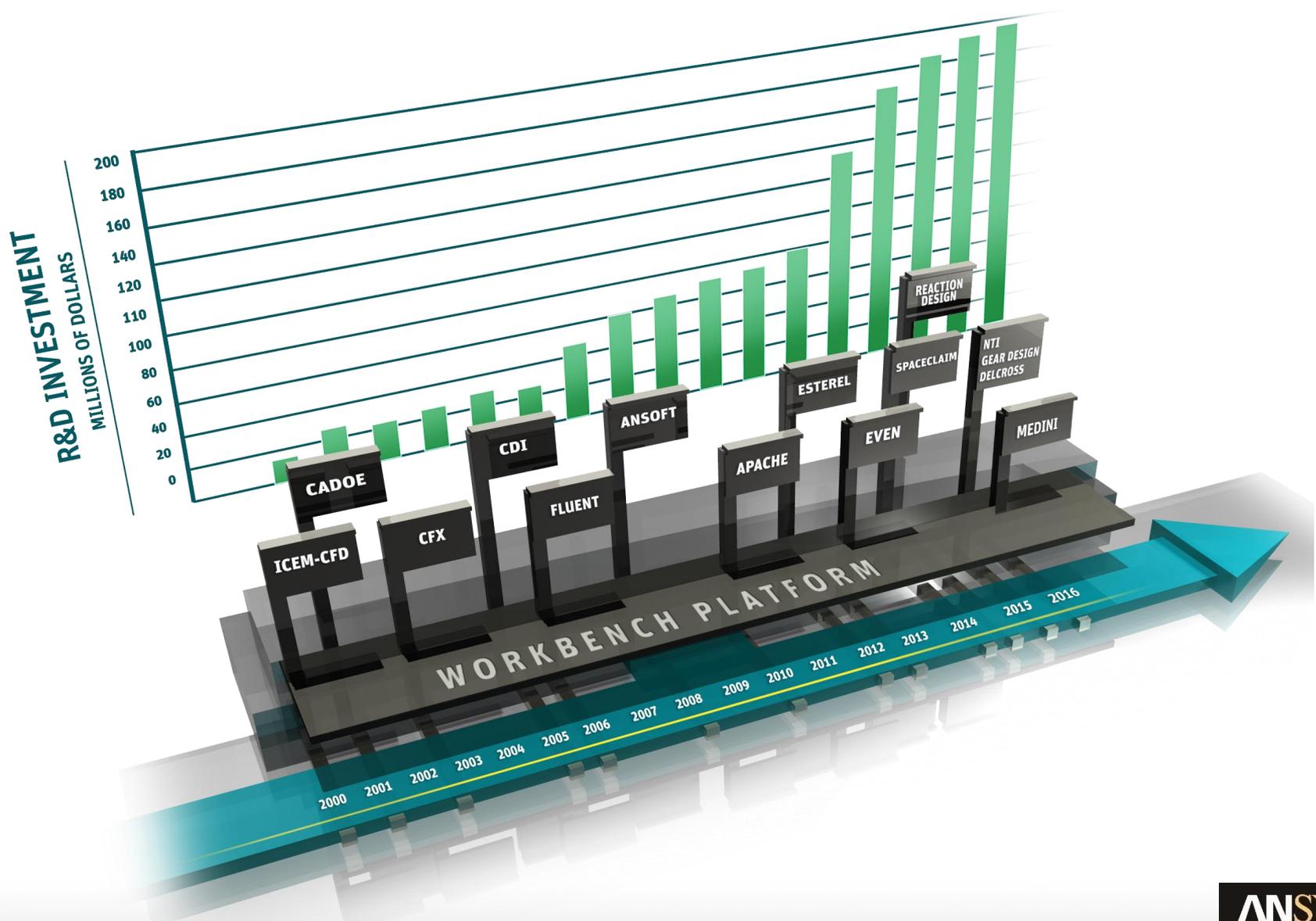# 2016 capital allocation

- **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



Left chart — # Shares Repurchased:
- 2013: 1,494,000
- 2014: 2,976,900
- 2015: 3,833,048
- 2016: 3,700,000

Right chart — $ Spent on Share Repurchases (millions):
- 2013: $116.1
- 2014: $233.8
- 2015: $337.9
- 2016: $336.3
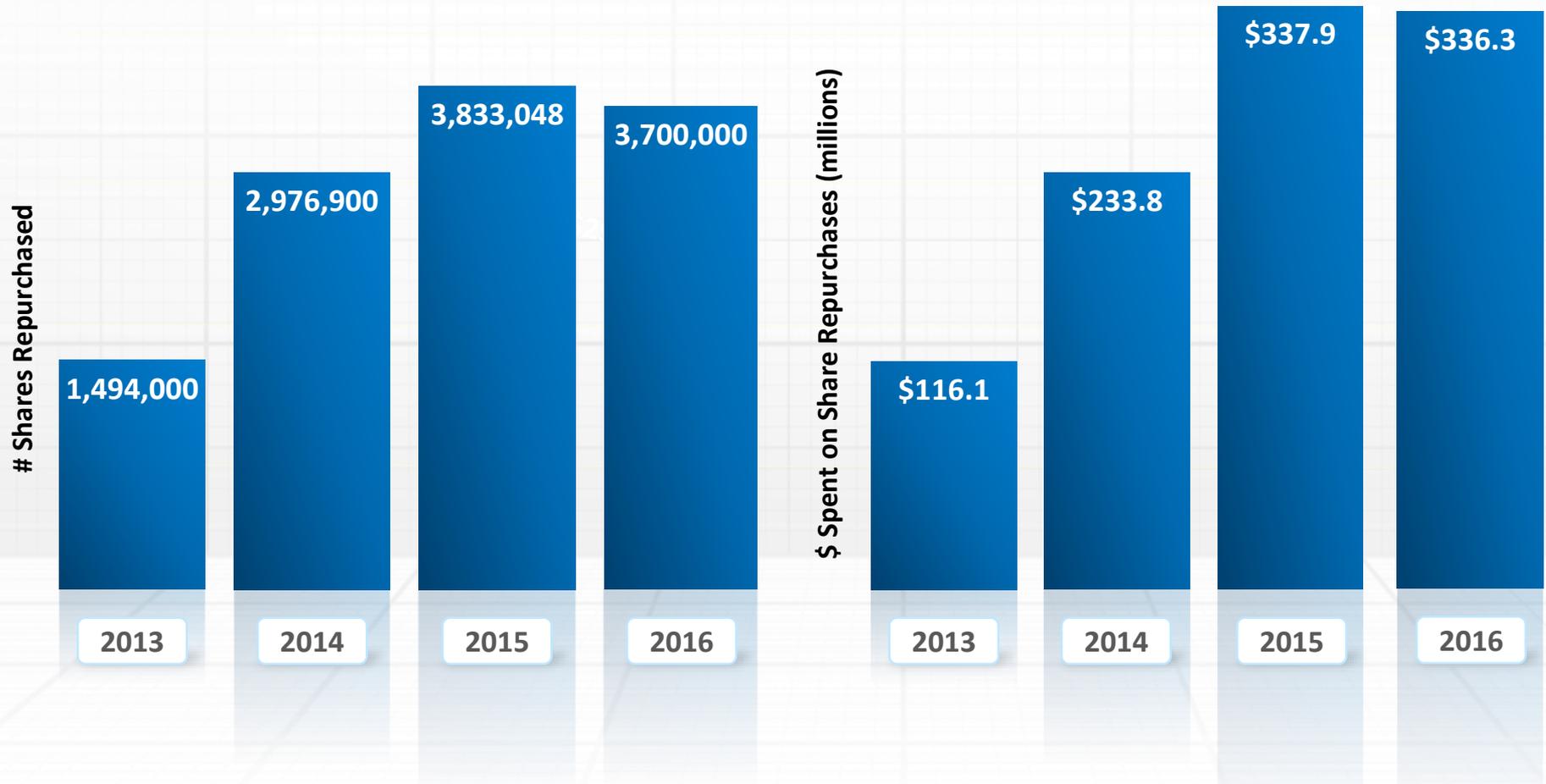
# History of performance

## 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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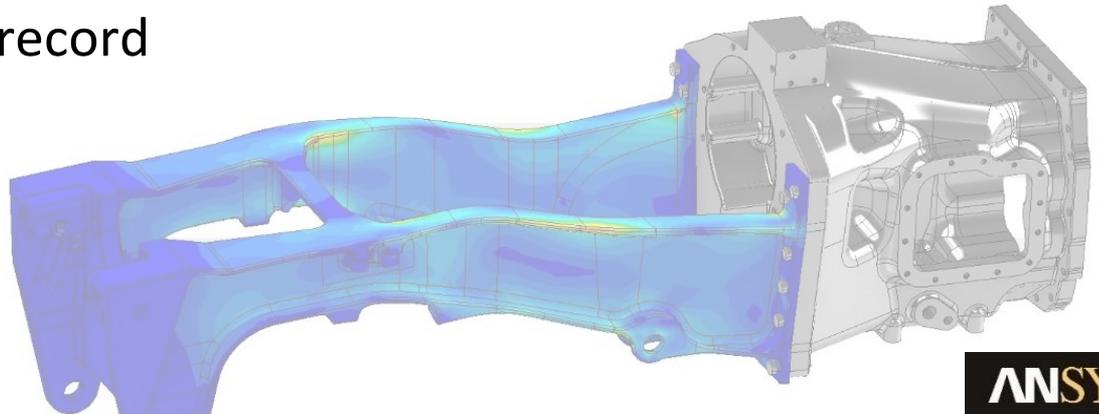
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# A race with no finish line

# Reconciliation Of Non-GAAP

**ANSYS, INC. AND SUBSIDIARIES**
**Reconciliation of Non-GAAP Measures**
**For the three months ended December 31, 2016**
(in millions, except per share data)
(unaudited)

| | As Reported | Adjustments | Non-GAAP Results |
|---|---|---|---|
| Total revenue | $270.6 | | $270.6 |
| Operating income | $97.0 | $25.1[1] | $122.1 |
| Operating profit margin | 35.8% | | 45.1% |
| Net income | $70.0 | $16.1 [2] | $86.1 |
| EPS – diluted | $0.80 | | $0.98 |
| Weighted avg. shares-diluted | 87.8 | | 87.8 |

(1) Amount represents $12.7 million of amortization expense associated with intangible assets acquired in business combinations and $8.8 million of stock-based compensation expense, $3.4 million of restructuring charges and $0.2 million of transaction expenses related to business combinations.

(2) Amount represents the impact of the adjustments to operating income referred to in (1) above, adjusted for the related income tax impact of $9.0 million.

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# Reconciliation Of Non-GAAP

**ANSYS, INC. AND SUBSIDIARIES**
**Reconciliation of Non-GAAP Measures**
**For the twelve months ended December 31, 2016**
**(in millions, except per share data)**
**(unaudited)**

|  | As Reported | Adjustments | Non-GAAP Results |
|---|---|---|---|
| Total revenue | $988.5 | $0.1 [1] | $988.6 |
| Operating income | $376.2 | $88.1[2] | $464.3 |
| Operating profit margin | 38.1% |  | 47.0% |
| Net income | $265.6 | $57.3[3] | $322.9 |
| EPS – diluted | $2.99 |  | $3.63 |
| Weighted avg. shares-diluted | 89.0 |  | 89.0 |

(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 $50.8 million of amortization expense associated with intangible assets acquired in business combinations, $33.3 million charge for stock-based compensation, and $0.1 million adjustment to revenue as reflected in (1) above and $3.4 million of restructuring charges and $0.4 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 $30.8 million.

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# For More Information, Contact:

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EM:  annette.arribas@ansys.com

Website:  www.ansys.com

NASDAQ:ANSS