

James R. Scapa  
Founder, Chairman and CEO

## SIMULATION DRIVEN INNOVATION



# SAFE HARBOR

This presentation and the accompanying oral commentary contain “forward-looking” statements that are based on our beliefs and assumptions and on information available to us as of the date of this presentation. All statements other than statements of historical facts contained in this presentation, including statements regarding our future results of operations and financial position, including our customer lifetime value, strategy and plans, market size and opportunity, competitive position, industry environment, potential growth opportunities and our expectations for future operations, are forward-looking statements. The words “believe,” “may,” “might,” “objective,” “ongoing,” “will,” “estimate,” “continue,” “anticipate,” “design,” “intend,” “expect,” “could,” “plan,” “potential,” “predict,” “project,” “seek,” “should,” “would” or the negative version of these words and similar expressions are intended to identify forward-looking statements. This presentation also contains non-GAAP financial measures. We have provided a reconciliation of such non-GAAP financial measures to the most directly comparable measures prepared in accordance with U.S. GAAP in the Appendix to this presentation.

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## OUR VISION



**Altair transforms design and decision making by applying simulation, machine learning, and optimization throughout product lifecycles.**



# SIGNIFICANT PROGRESS SINCE IPO

(\$M)

9M 3/31/17

Post-IPO  
9M 3/31/18

Software  
product revenue

\$171

17%

\$199

Total  
revenue

\$238

12%

\$267

Billings

\$251

17%

\$292

Acquisitions

carriots

MODELiis

CANDI

Thermal  
Electrical  
Structural  
IES  
International L.L.C.

CEDRAT  
design solutions for  
electrical engineering

RUNTIME

FluiDyna  
INNOVATIVE ENGINEERING AND BEYOND



## IN THE NEWS SINCE IPO

**Awarded Cray's 2017 Supplier of the Year at SC17**

**Expands thermal capabilities for electronics: acquires TES International's Software and hires technologist**

**Mary C. Boyce, Dean of the School of Engineering and Applied Sciences at Columbia, joins Altair Board**

**Reinvents the Cloud High-Performance Computing experience with the release of PBS Works 2018**

**Electromagnetics software release targets e-Mobility and communications markets**

**Acquisition of CANDI Controls assets adds Edge Gateway technology to Altair's IoT platform**

**GE and Altair sign agreement for exclusive distribution of GE's Flow Simulator Software**

**Acquisition of Fluidyna accelerates Altair's computational fluid dynamics technology**



# INVESTMENT HIGHLIGHTS

**Broad software suite** to design and optimize complex, highly engineered products

Well-positioned to gain share in **large, growing markets**

**Global blue-chip customer base** across industries

Powerful business model drives **high engagement, retention,** and **recurring revenue**

Attractive combination of **scale, profitable growth,** and **margin expansion** opportunities





# ALTAIR AT A GLANCE

*Long heritage of solving some of the most challenging engineering problems*



**\$333M**

FY17 Revenue



**\$23M**

FY17 Adjusted EBITDA



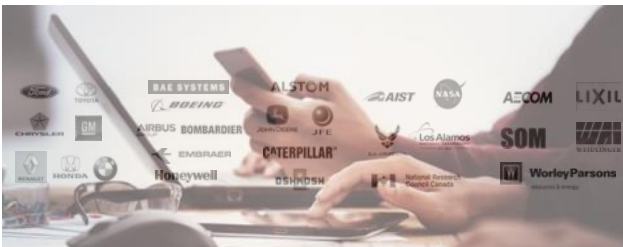
**Tens of Thousands**

of Global Users



**2,000+**

Engineers, scientists, and creative thinkers



**5,000+**

Customer installations globally



**71 offices**

in 24 countries

# OUR BUSINESS

*FY2017 Revenue / % total*

Software - \$280M – 84%

**HyperWorks®**

THE PLATFORM FOR INNOVATION™



**PBS Works**

ACCELERATING INNOVATION IN THE CLOUD™



**solidThinking®**

WHERE INNOVATION BEGINS™

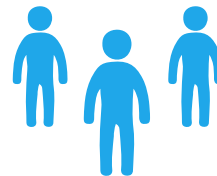


**Carriots™**

INNOVATION INTELLIGENCE™



CES - \$47M – 14%



Long-term ongoing  
engineering, design and  
development expertise

Innovation - \$7M – 2%



**toggled®**

**WEYV™**





# PRINCIPAL DRIVERS OF GROWTH FOR SIMULATION

Fundamental **transformations** in product engineering

Increasing **sophistication and fidelity** of simulation technologies

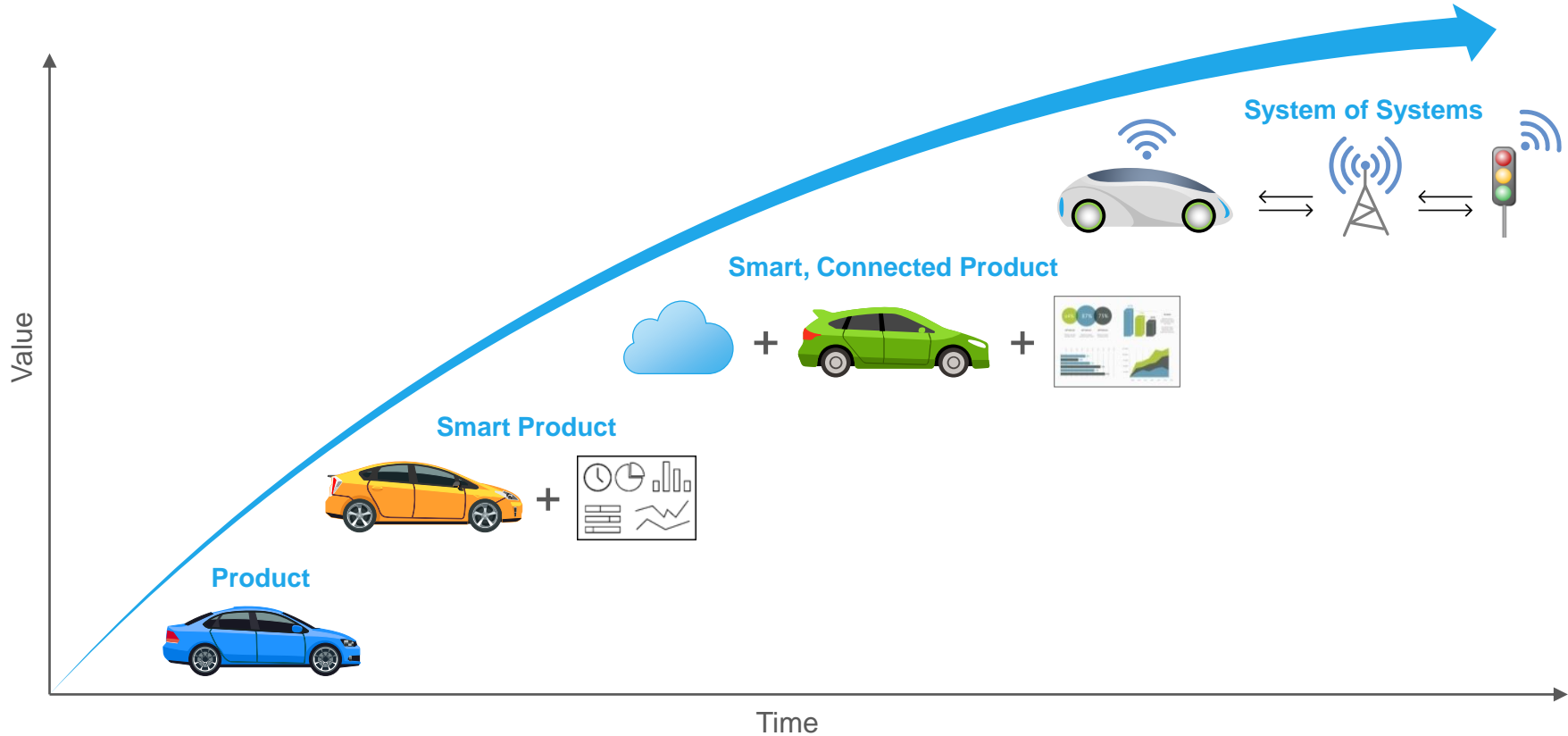
**Democratization** of simulation

An emerging paradigm of **simulation-driven design**

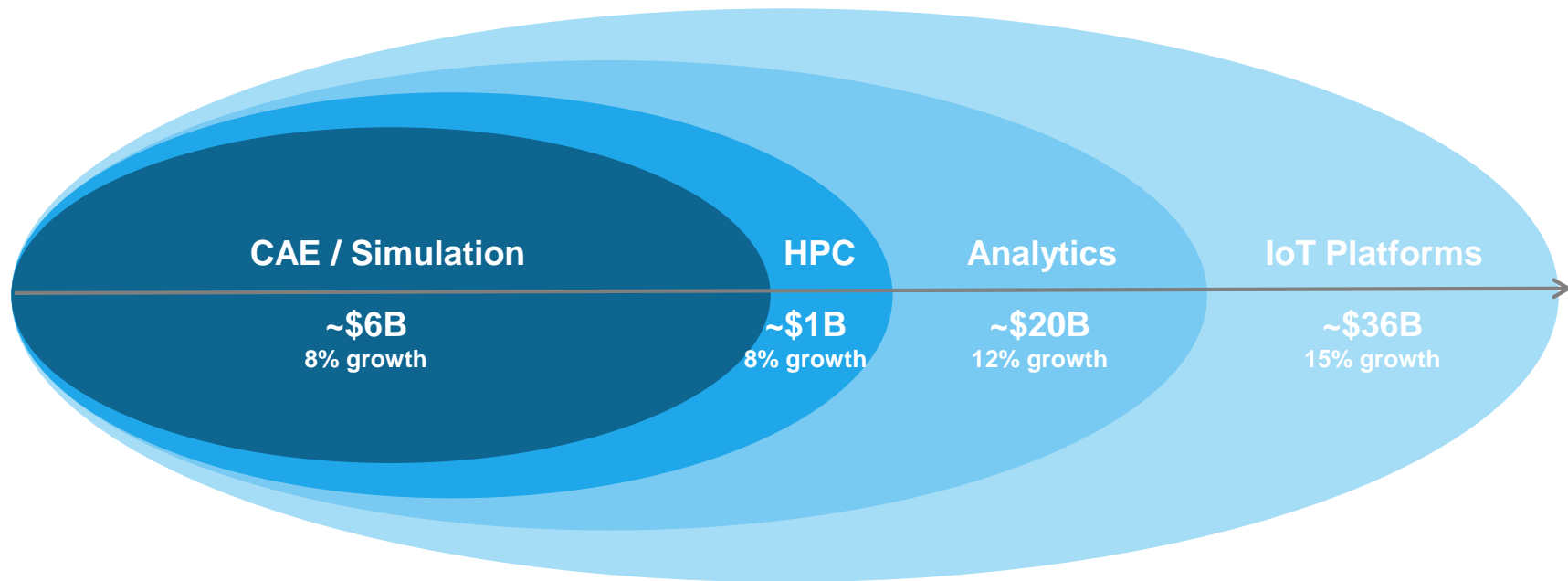
Expanding scope of simulations to **“Digital Twins”**



# EVOLUTION OF PRODUCT COMPLEXITY



# WAVES OF CHANGE ARE EXPANDING OUR MARKET OPPORTUNITY

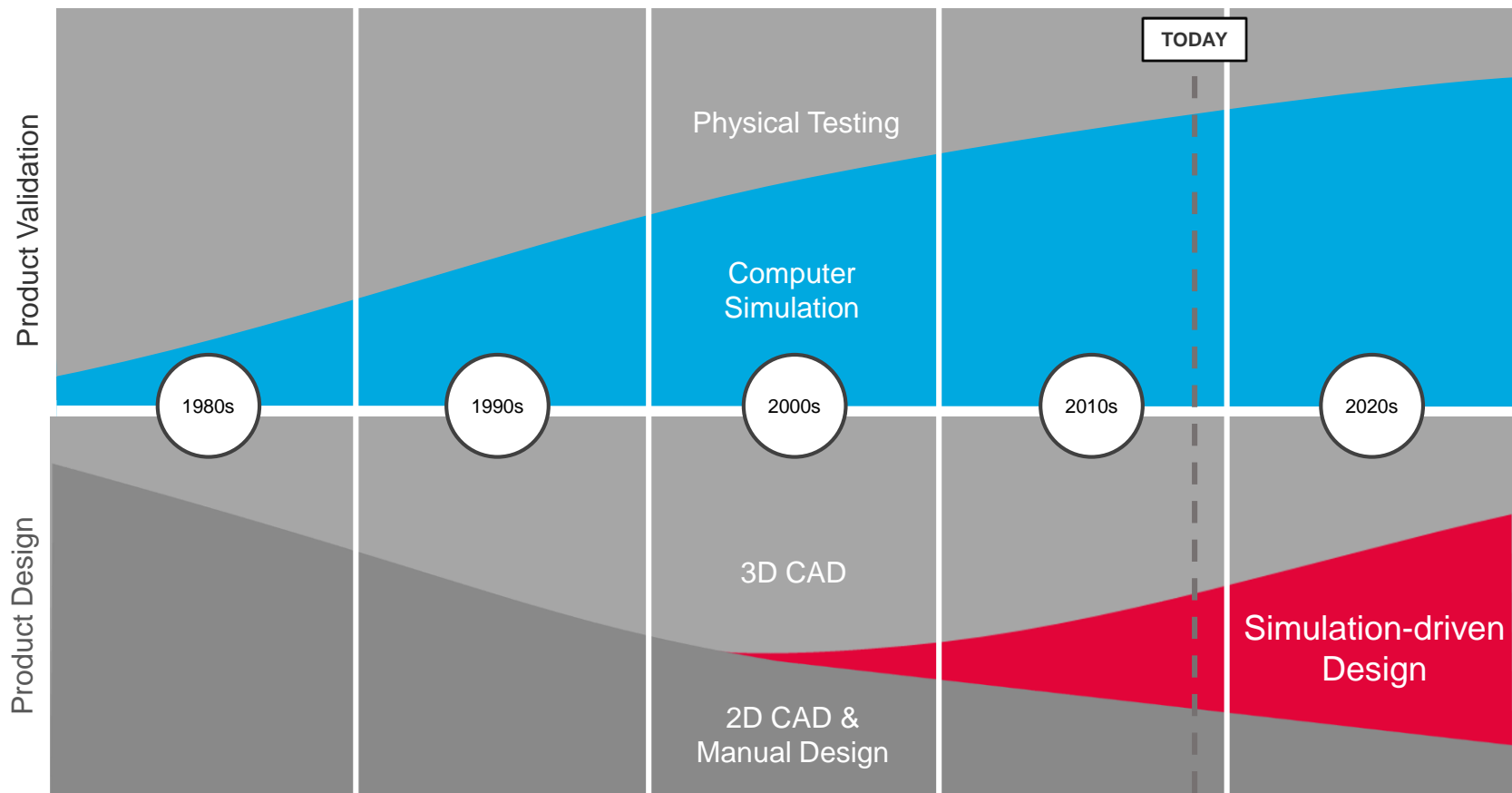


CIMdata expects the CAE market, “will be one of the more rapidly growing segments within the tools sector of PLM over the next five years, and forecasts that this market sector will exceed **\$7.8 billion in 2021**, with an **8.1% CAGR**.”

**“We are truly in the era of simulation-driven engineering.”**

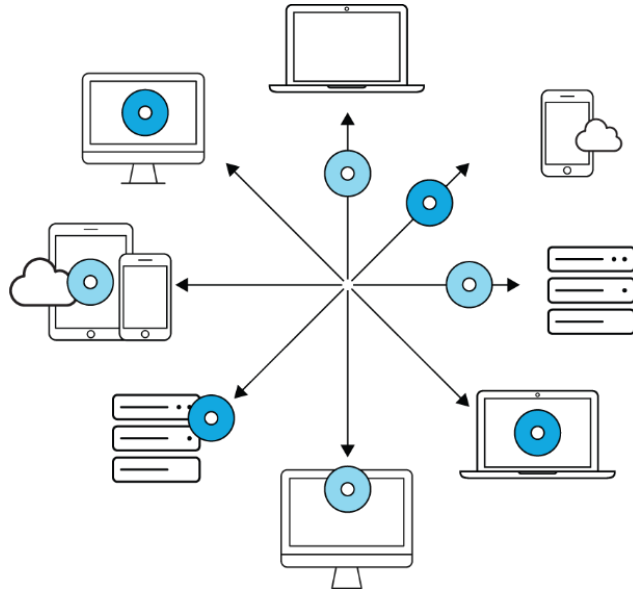


# SIMULATION INCREASINGLY COMPLEX, DISPLACING PHYSICAL TESTING



# DIFFERENTIATED UNITS-BASED SUBSCRIPTION LICENSING MODEL

*Results in high retention, visibility and recurring revenues*



Customers purchase a pool of **shareable units**

Users draw units to utilize **ANY product** across **ANY location**

Units return to the pool after use and become **available to all users**

**Average customer uses ~15 products**



# COMPREHENSIVE PLATFORMS FOR SIMULATION NEEDS

HyperWorks®

solidThinking®

carriots®

PBS Works

30+

Altair Applications

150+

Partner Products

~15

Average  
products used

1

Units-based  
Licensing Model

## Modeling & Visualization

HyperMesh

HyperCrash

HyperView

SimLab

HyperGraph

MotionView

## Solvers & Optimization

OptiStruct

WinProp

RADIOSS

Flux

AcuSolve

HyperStudy

Feko

MotionSolve

Multiscale Designer

## Simulation-driven Design

Evolve / Thea

Inspire

Click2Cast

Click2Extrude

Click2Form

Compose

Activate

Embed

## IoT & Analytics

Edge  
Technology

Cloud  
Platform

Advanced  
Analytics

AI and Machine  
Learning

Digital Twin  
Gateway

## HPC

PBS Professional

PBS Access

PBS Control

WorkloadXelerator

FlowTracer

LicenseAllocator

LicenseMonitor

SAO

HERO



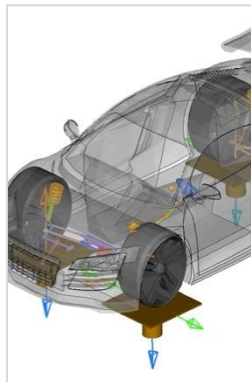
Partner Alliance



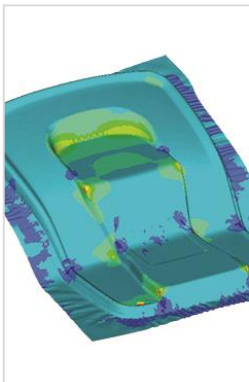


# BROAD PORTFOLIO OF SOLVERS ACROSS MULTIPLE PHYSICS TYPES

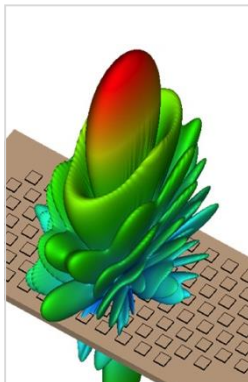
*Interconnected, smart products demand optimization across multiple physics to create cutting-edge designs*



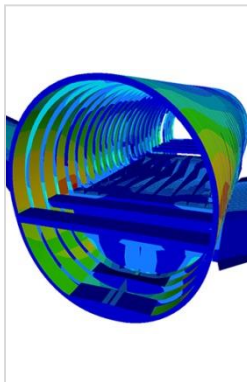
Systems  
Simulation



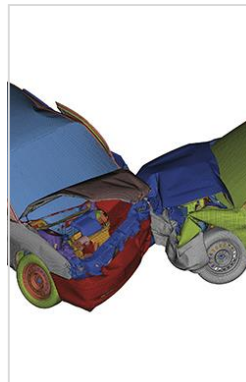
Manufacturing  
Simulation



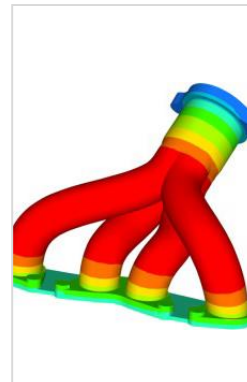
Electro-  
Magnetics



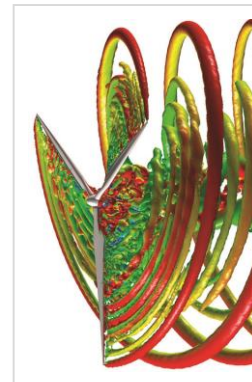
Structural  
Analysis



Crash, Safety,  
Impact & Blast



Thermal Analysis

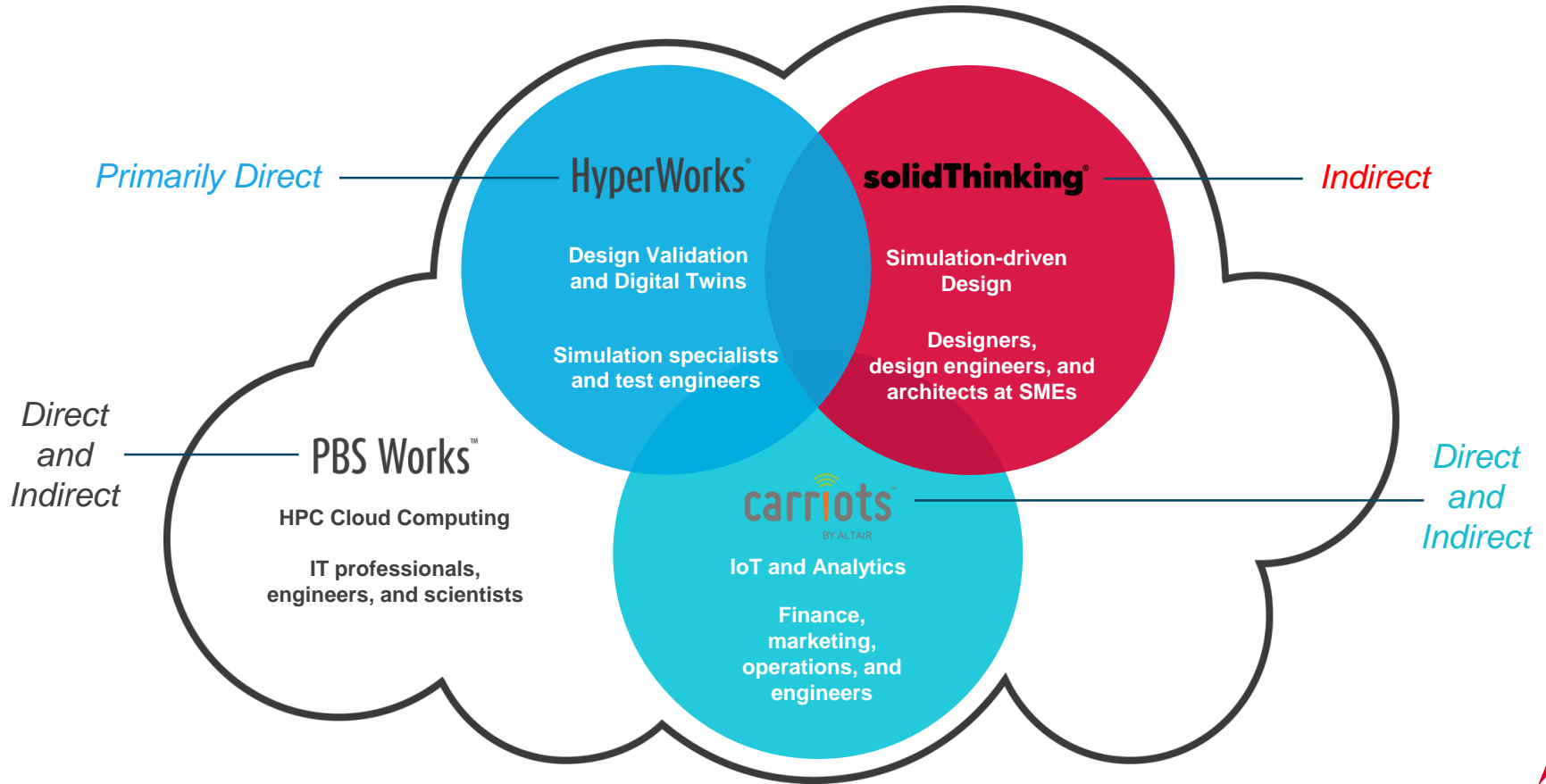


Fluid  
Dynamics

Altair is driving the multi-physics optimization opportunity



# OUR MARKETS, BRANDS, AND USERS



# GLOBAL BLUE-CHIP CUSTOMER BASE ACROSS INDUSTRIES

## Automotive



## Aerospace



## Architecture



## Consumer Goods



5,000+ customers globally

No customer >3% of Software billings

15 out of top 15 auto manufacturers

10 out of top 10 aerospace manufacturers

Decades-long relationships

## Energy



## Government



## Heavy Equipment



## Life / Earth Sciences



# WHY WE WIN

Breadth of Simulation Portfolio

Leading Simulation Performance
































Open Architecture

Units-Based Subscription Model

Deeply Loyal and Sticky User Base

Our Innovation DNA

Competitors

| CAE Market Landscape   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
|  | Breadth of Simulation Portfolio   | Simulation & Optimization Performance   | Open Architecture   | Strategic engineering services  | Units-based Subscription Model  | IoT & Analytics   |
| <br>Altair |  |  |  |  |  |  |
| A  |  |  |  |  |  |  |
| B  |  |  |  |  |  |  |
| C  |  |  |  |  |  |  |
| D  |  |  |  |  |  |  |



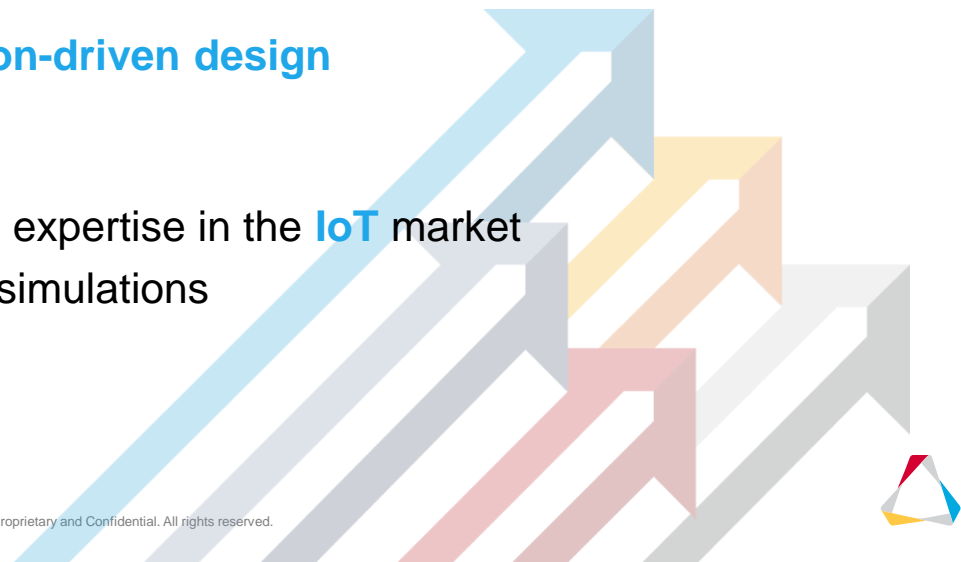
# SOFTWARE GROWTH OPPORTUNITIES

Grow market share for **solvers** and the expanding **cloud HPC** market

Build awareness and traction for our **model-based design** software solutions

Disrupt the traditional market with **simulation-driven design**

Leverage our customer portfolio, scale, and expertise in the **IoT** market with **platform, analytics, and digital-twin** simulations



# SOFTWARE GROWTH STRATEGIES

Increase software usage within our **existing customer base**

Invest in our **direct sales force** and **indirect sales channels**

Continue to invest in **R&D**

Selectively pursue **acquisitions** and **strategic investments**





# FOUNDER-LED, WITH A DEEP BENCH OF INDUSTRY VETERANS



**James R. Scapa**  
Founder, Chairman & CEO  
(33 years)



**Howard N. Morof**  
Chief Financial Officer  
(5 years)



**Brett Chouinard**  
President & COO  
(24 years)



**Nelson Dias**  
Chief Revenue Officer  
(16 years)



**James Dagg**  
Chief Technical Officer  
(31 years)



**Dr. Uwe Schramm**  
Chief Technical Officer  
(22 years)



**Sam Mahalingam**  
Chief Technical Officer  
(20 years)



**Jeffery M. Brennan**  
Chief Marketing Officer  
(26 years)



**Martin Nichols**  
Chief Information Officer  
(26 years)



**Massimo Fariello**  
Chief Strategy Officer  
(25 years)

Years denote tenure at Altair





# Financial Overview

Howard N. Morof • CFO



# FINANCIAL HIGHLIGHTS

**Scaled business** with global presence and attractive revenue growth

**Recurring model** with high visibility and predictability

Powerful “**retain, expand, and land**” strategy

**Strong free cash flow** generation

Proven profitability with **significant operating leverage** opportunities



# POWERFUL “RETAIN, EXPAND, AND LAND” STRATEGY

## Large, attractive base



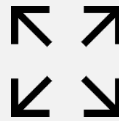
### Retain

**90%+ Recurring  
Software License Rate**

Maintain usage

Listen and respond  
to user requirements

Support, development



### Expand

**~60% of New Software Growth**

Grow usage

More engagement,  
new users, new products

Training, support,  
consulting, units-based model

## New customers & markets



### Land

**~40% of New Software Growth**

New customers

New verticals,  
high impact solutions

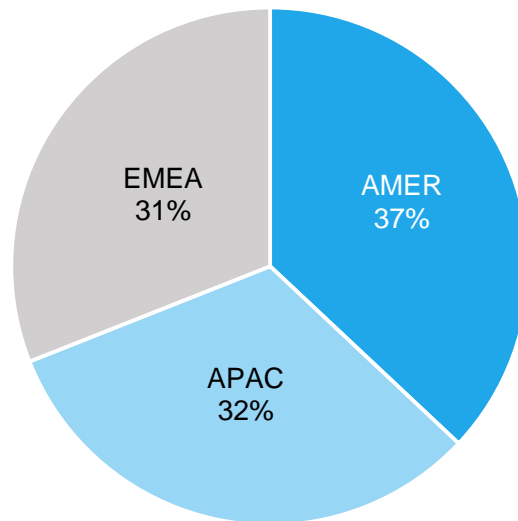
New channels and  
delivery models



# GLOBALLY DIVERSIFIED BUSINESS

Billings Mix

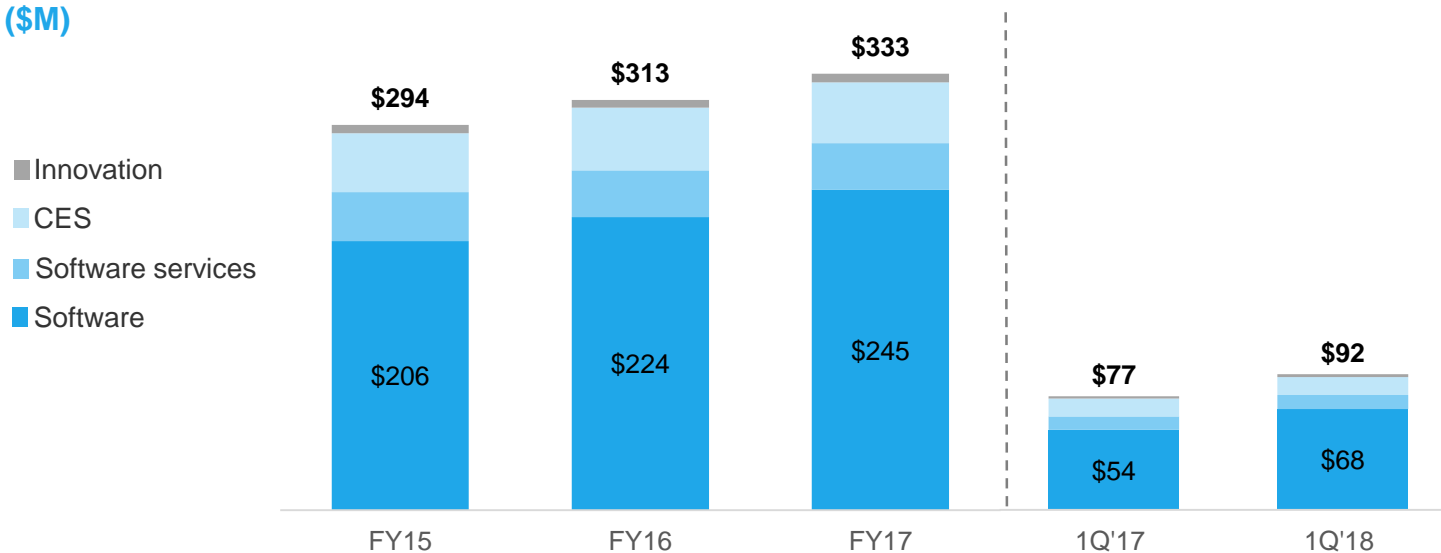
**FY17: \$359M**



# ATTRACTIVE REVENUE PROFILE

|                  | FY15 to FY16 | FY16 to FY17 | 1Q17 to 1Q18 |
|------------------|--------------|--------------|--------------|
| Total Growth     | 7% CC        | 6% CC        | 13% CC       |
| Software Product | 9% CC        | 9% CC        | 19% CC       |

(\$M)



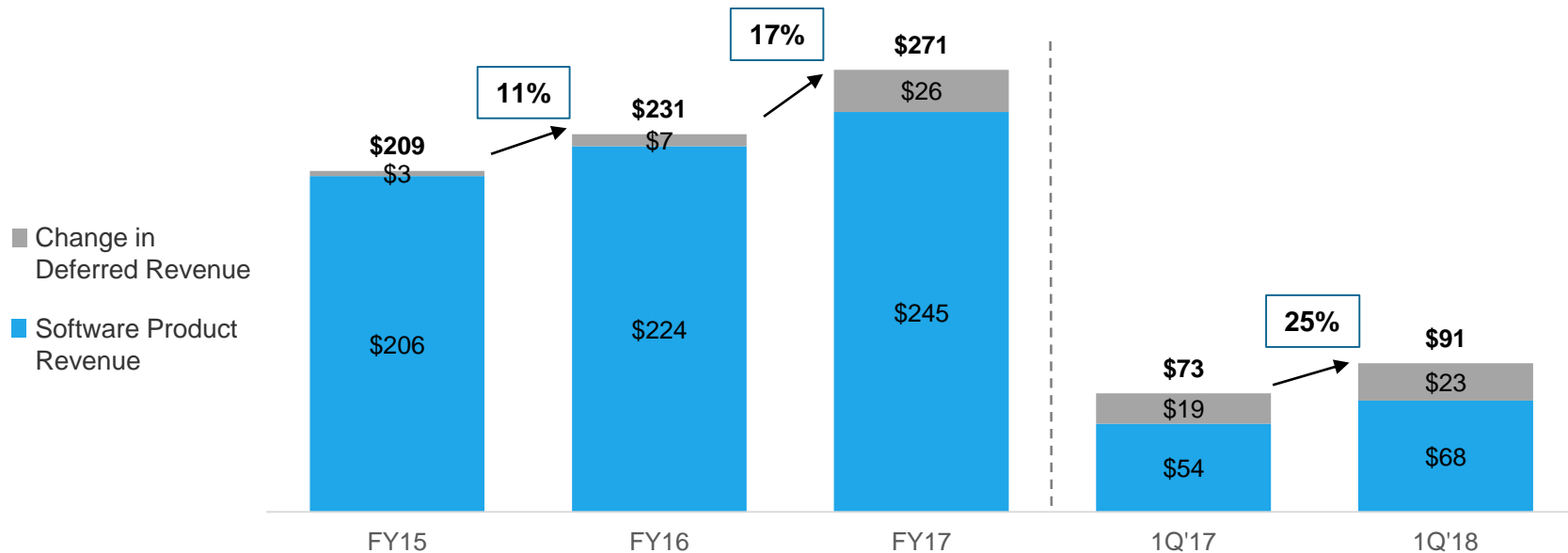
Constant currency ("CC"): Calculated from the current month activity at the prior average rate for that month. Year-to-date is the total of each month.





# SOFTWARE MOMENTUM

Software Product Revenue + Change in Deferred Revenue (\$M)



Note: Change in deferred revenue is primarily related to software



# FY17 GROSS PROFIT MARGINS AND OPERATING EXPENSES

## Gross Profit % of Revenue

|                           |            |
|---------------------------|------------|
| <b>Software</b>           | <b>85%</b> |
| Software related Services | 24%        |
| CES                       | 18%        |
| Innovation                | 21%        |
| <b>Total Gross Profit</b> | <b>68%</b> |

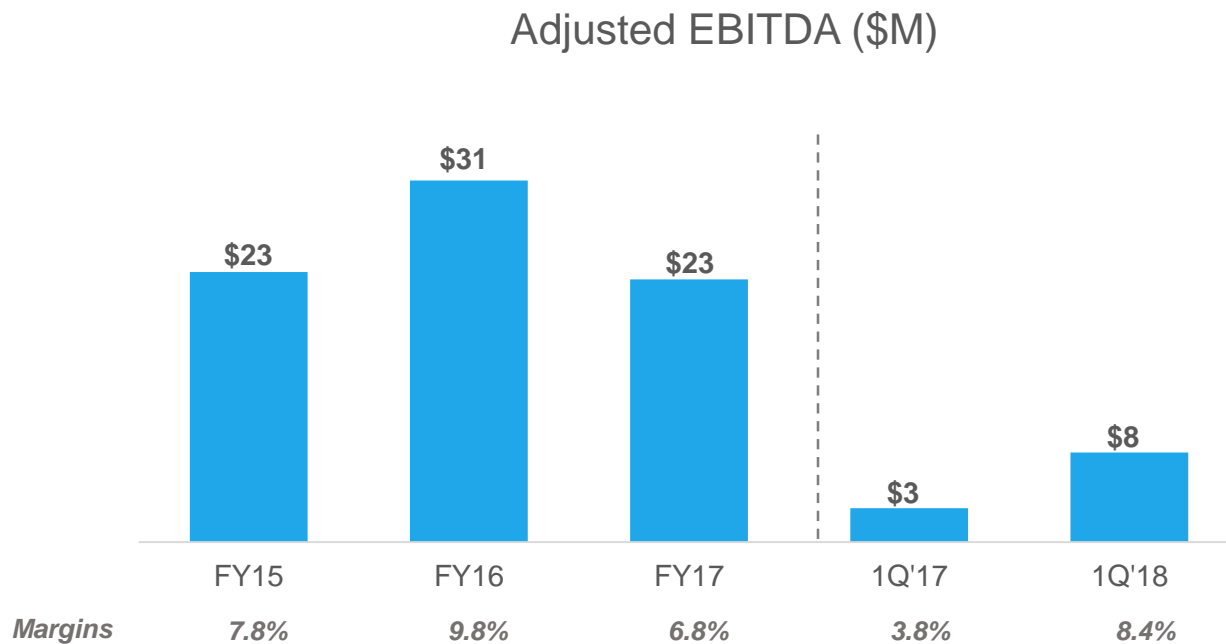
## Operating Expenses % of Revenue

|                          |            |
|--------------------------|------------|
| Research & Development   | 23%        |
| Sales & Marketing        | 22%        |
| General & Administrative | 16%        |
| <b>Total OpEx</b>        | <b>61%</b> |

Note: Operating expense items exclude stock-based compensation and depreciation (removed from G&A); R&D net of refundable R&D tax credits



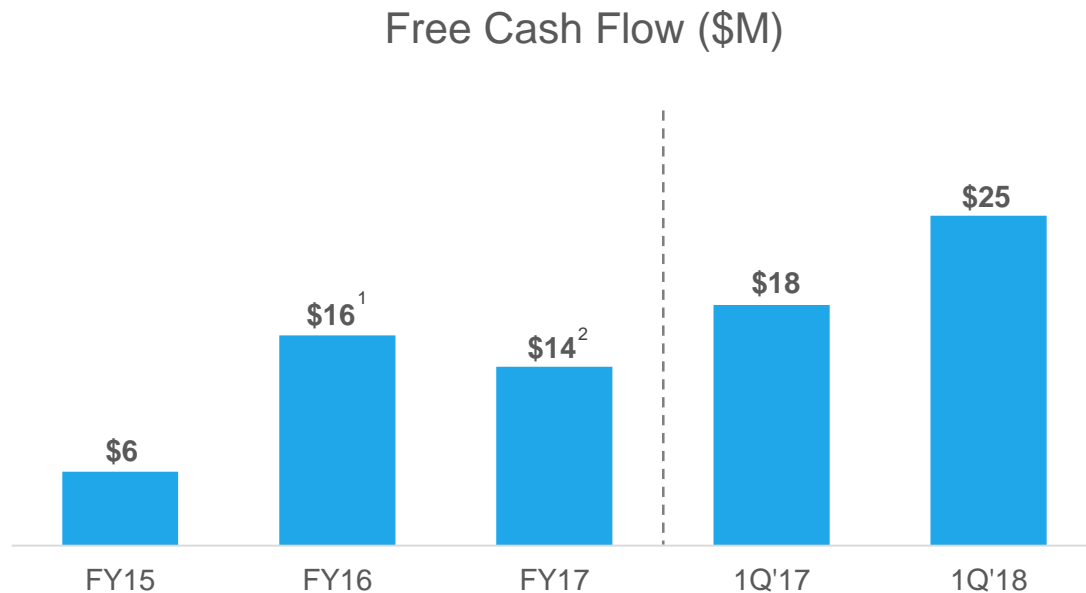
# ADJUSTED EBITDA



Note: See non-GAAP reconciliation in appendix.



# STRONG FREE CASH FLOW GENERATION



Note: FCF defined as operating cash flow less capex

<sup>1</sup> Excludes non-recurring \$4.0mm purchase of real property adjacent to corporate headquarters in 4Q16

<sup>2</sup> Adjusted for Modelis asset acquisition of \$2.0mm and timing of refundable foreign R&D credit of \$3.0mm



# STRONG BALANCE SHEET, SIGNIFICANT LIQUIDITY

| (\$M)                     | 3/31/18 | <i>Pro Forma</i><br>3/31/18 <sup>1</sup> |
|---------------------------|---------|--|
| Cash and Cash Equivalents | \$63    | \$174                                    |
| Total Debt                | \$1     | \$1                                      |
| Undrawn Revolver          | \$100   | \$100                                    |
| Available Liquidity       | ~\$162  | ~\$272                                   |

Note: Excludes \$50mm accordion

<sup>1</sup> Adjusted for \$109.9mm of net proceeds from follow on offering



# LONG-TERM TARGET OPERATING MODEL

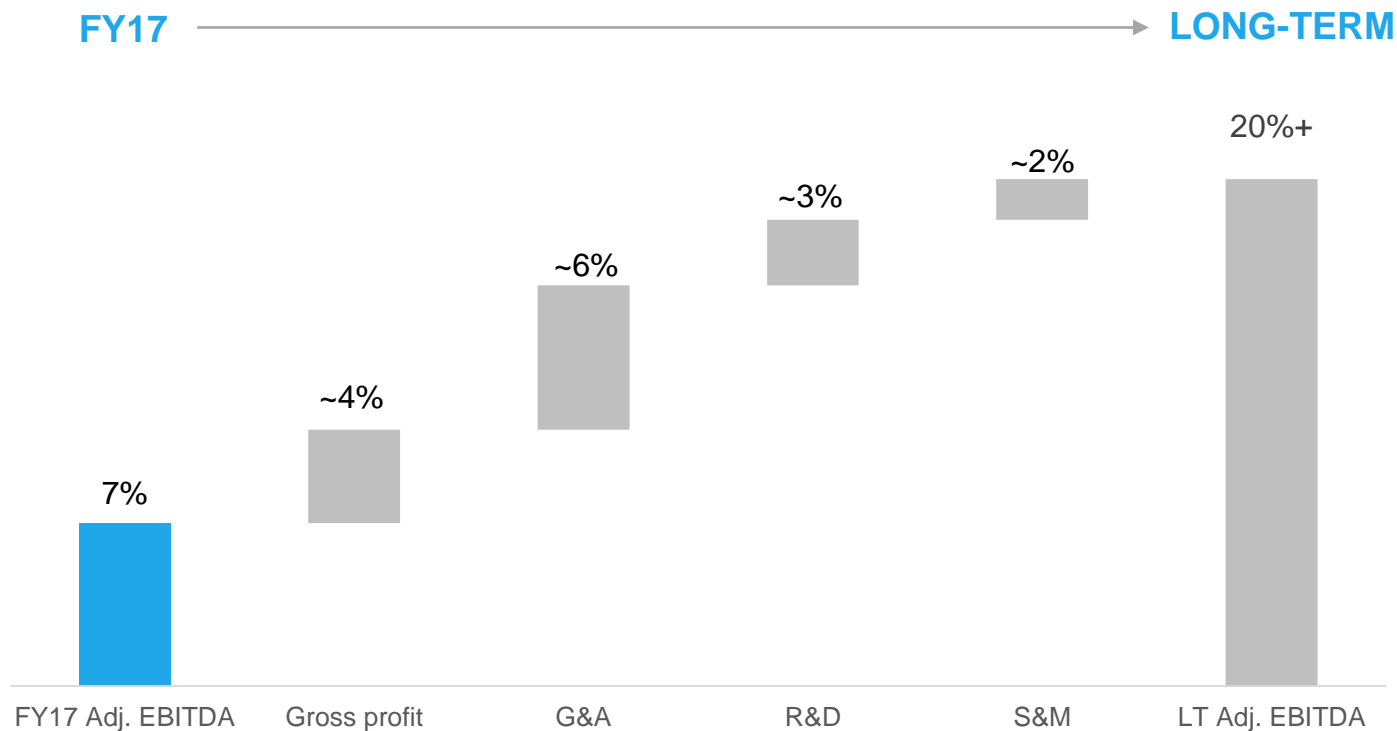
|                                     | FY17 | LONG-TERM |
|-------------------------------------|------|-----------|
| Software Product % of total revenue | 73%  | 75%+      |
| Total Gross Margin                  | 68%  | 71-73%    |
| Research and Development            | 23%  | 19-20%    |
| Sales and Marketing                 | 22%  | 19-21%    |
| General and Administrative          | 16%  | 9-12%     |
| Adjusted EBITDA Margin              | 7%   | 20%+      |

Note: Operating expense items exclude stock-based compensation, and exclude depreciation and amortization; depreciation substantially booked within G&A; R&D net of refundable R&D tax credits





# ADJUSTED EBITDA MARGIN: FY17 TO LONG-TERM TARGET



Note: Operating expense items exclude stock-based compensation, and exclude depreciation and amortization; depreciation within G&A; R&D net of R&D grants



# IN SUMMARY

## Well positioned in large, growing markets

- Broad, differentiated product suite
- Levered to strong secular drivers

## Attractive financial profile

- Scaled, global and diversified
- Proven profitability with significant operating leverage

## Unique business model

- High retention, visibility and recurring revenues
- “Retain, expand and land” global blue chip customer base

## Significant organic and inorganic growth opportunities





# Appendix

# GAAP TO NON-GAAP RECONCILIATION

(\$000)

|                            | FY15      | FY16      | FY17      | 1Q FY17   | 1Q FY18   |
|----------------------------|-----------|-----------|-----------|-----------|-----------|
| Revenue                    | \$294,129 | \$313,240 | \$333,333 | \$76,882  | \$91,731  |
| Ending deferred revenue    | 106,516   | 113,929   | 139,762   | 132,466   | 162,624   |
| Beginning deferred revenue | (103,287) | (106,516) | (113,929) | (113,929) | (139,762) |
| Billings                   | \$297,358 | \$320,653 | 359,166   | 95,419    | 114,593   |

|                               | FY15     | FY16     | FY17       | 1Q FY17   | 1Q FY18 |
|-------------------------------|----------|----------|------------|-----------|---------|
| Net income (loss)             | \$10,931 | \$10,163 | (\$99,407) | (\$2,188) | \$3,920 |
| Income tax expense (benefit)  | 818      | 3,539    | 62,996     | (772)     | 1,234   |
| Stock-based compensation      | 597      | 5,132    | 47,281     | 2,869     | 216     |
| Interest expense              | 2,416    | 2,265    | 2,160      | 611       | 16      |
| Interest income and other     | (191)    | (249)    | (2,260)    | (85)      | (1,255) |
| Depreciation and amortization | 8,378    | 9,980    | 11,747     | 2,474     | 3,543   |
| Adjusted EBITDA               | \$22,949 | \$30,830 | 22,517     | 2,909     | 7,674   |

|   | FY15     | FY16     | FY17                  | 1Q FY17  | 1Q FY18  |
|---|----------|----------|-----------------------|----------|----------|
| Net cash provided by operating activities | \$10,838 | \$21,385 | \$19,090 <sup>1</sup> | \$19,202 | \$26,689 |
| Capital expenditures                      | (5,233)  | (5,444)  | (5,522) <sup>2</sup>  | (969)    | (1,684)  |
| Free cash flow                            | \$5,605  | \$15,941 | 13,568                | 18,233   | 25,005   |

<sup>1</sup> Includes a \$3.0mm non-recurring adjustment for R&D tax credit

<sup>2</sup> Adjusted for Modelis asset acquisition of \$2.0mm



# OPERATING EXPENSE RECONCILIATION

| (\$000)                                   | FY15     | FY16     | FY17                   | 1Q FY17   | 1Q FY18   |
|---|----------|----------|------------------------|-----------|-----------|
| Research and development                  | \$62,777 | \$71,325 | \$93,234               | \$18,770  | \$22,703  |
| Less: SBC                                 | (149)    | (1,370)  | (\$12,540)             | (\$775)   | (\$47)    |
| Less: Other operating income <sup>1</sup> | (2,576)  | (2,742)  | (\$4,620) <sup>2</sup> | (\$594)   | (\$1,039) |
| Research and development (pre-SBC)        | \$60,052 | \$67,213 | \$76,074               | \$17,401  | \$21,617  |
| % R&D margin (pre-SBC)                    | 20%      | 21%      | 23%                    | 23%       | 24%       |
| Sales and marketing                       | 63,080   | 66,086   | \$79,958               | \$16,910  | \$18,977  |
| Less: SBC                                 | (109)    | (775)    | (\$7,693)              | (\$431)   | (\$41)    |
| Sales and marketing (pre-SBC)             | 62,971   | 65,311   | \$72,265               | \$16,479  | \$18,936  |
| % S&M margin (pre-SBC)                    | 21%      | 21%      | 22%                    | 21%       | 21%       |
| General and administrative                | 54,069   | 57,202   | \$87,979               | \$16,089  | \$16,990  |
| Less: SBC                                 | (295)    | (2,965)  | (\$26,698)             | (\$1,658) | (\$120)   |
| Less: Depreciation                        | (5,754)  | (6,658)  | (\$6,299)              | (\$1,518) | (\$1,603) |
| General and administrative (pre-SBC)      | 48,020   | 47,579   | \$54,982               | \$12,913  | \$15,267  |
| % G&A margin (pre-SBC)                    | 16%      | 15%      | 16%                    | 17%       | 17%       |

<sup>1</sup> Consists primarily of refundable tax credits associated with certain R&D activities

<sup>2</sup> Adjusted for non-recurring legal expenses

