



# IDEXX Growth Strategy

Jonathan Ayers, Chairman and CEO

IDEXX Investor Day | August 15, 2018



## Safe Harbor Disclaimer

The following information contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are based on management's current expectations and beliefs, as well as a number of assumptions concerning future events. These statements are subject to risks, uncertainties, assumptions and other important factors. You are cautioned not to put undue reliance on such forward-looking statements because actual results may vary materially from those expressed or implied. The reports filed by the Company pursuant to United States securities laws contain discussions of these risks and uncertainties. The Company assumes no obligation to, and expressly disclaims any obligation to, update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. You are advised to review the Company's filings with the United States Securities and Exchange Commission (which are available from the SEC's EDGAR database at [www.sec.gov](http://www.sec.gov) and via the Company's website at [www.idexx.com](http://www.idexx.com)).

We refer in this presentation to 2018 outlook communicated on August 1, 2018; these references speak only as of August 1, 2018 and shall not be deemed to be a reiteration or affirmation of the guidance or an indication that our expectations have not changed since that time.

### **Non-GAAP Financial Measures**

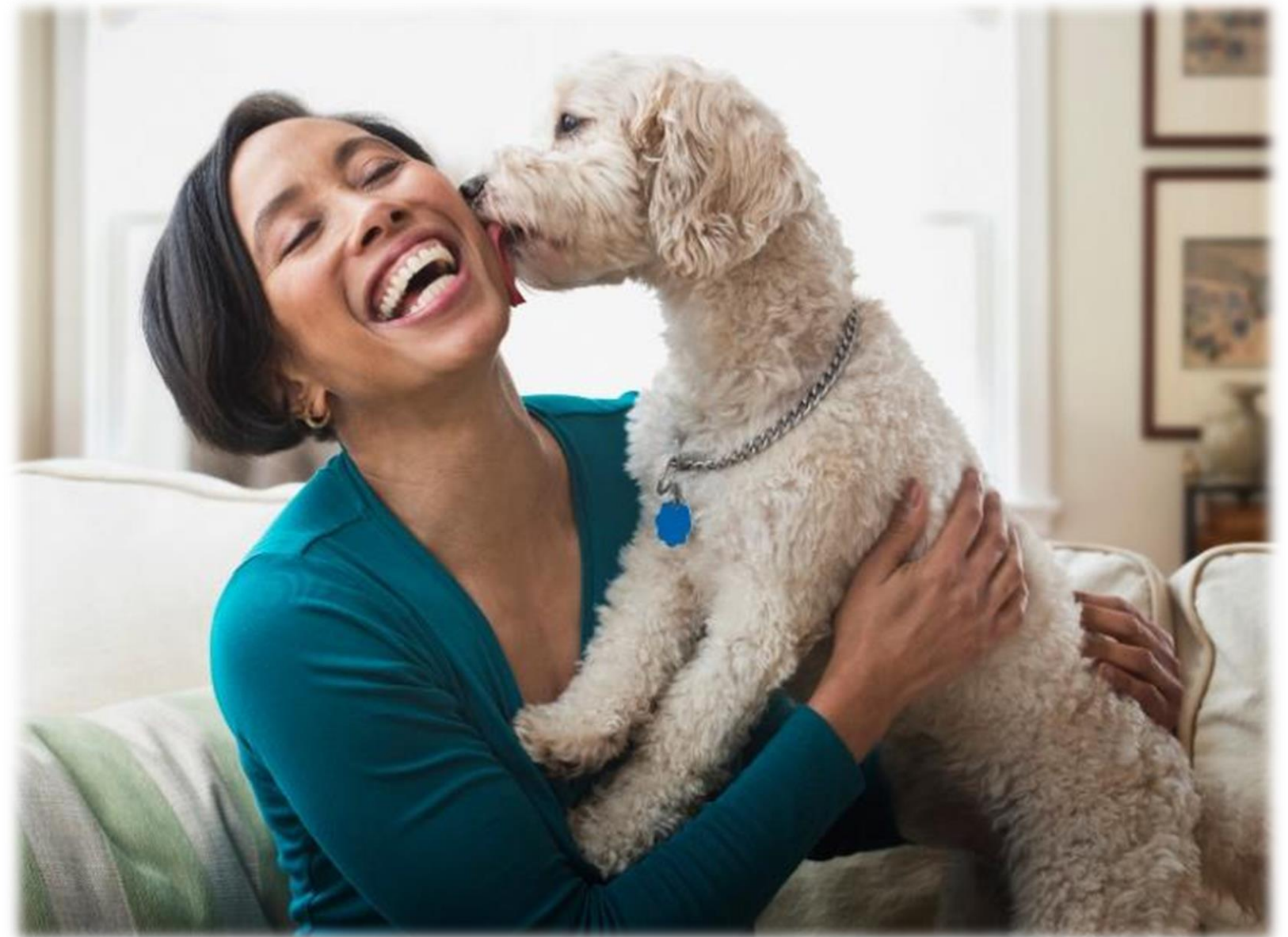
In this presentation, we refer to some non-GAAP financial measures. For a reconciliation to the most comparable GAAP financial measures, we refer you to our footnotes and the Appendix to this presentation, which also refer to our Definitive Proxy Statement filed March 29, 2018 and the Company's Annual Report on Form 10-K for the year ended December 31, 2017, both available at [www.idexx.com/investors](http://www.idexx.com/investors).

**Please refer to additional footnotes in the Appendix.**



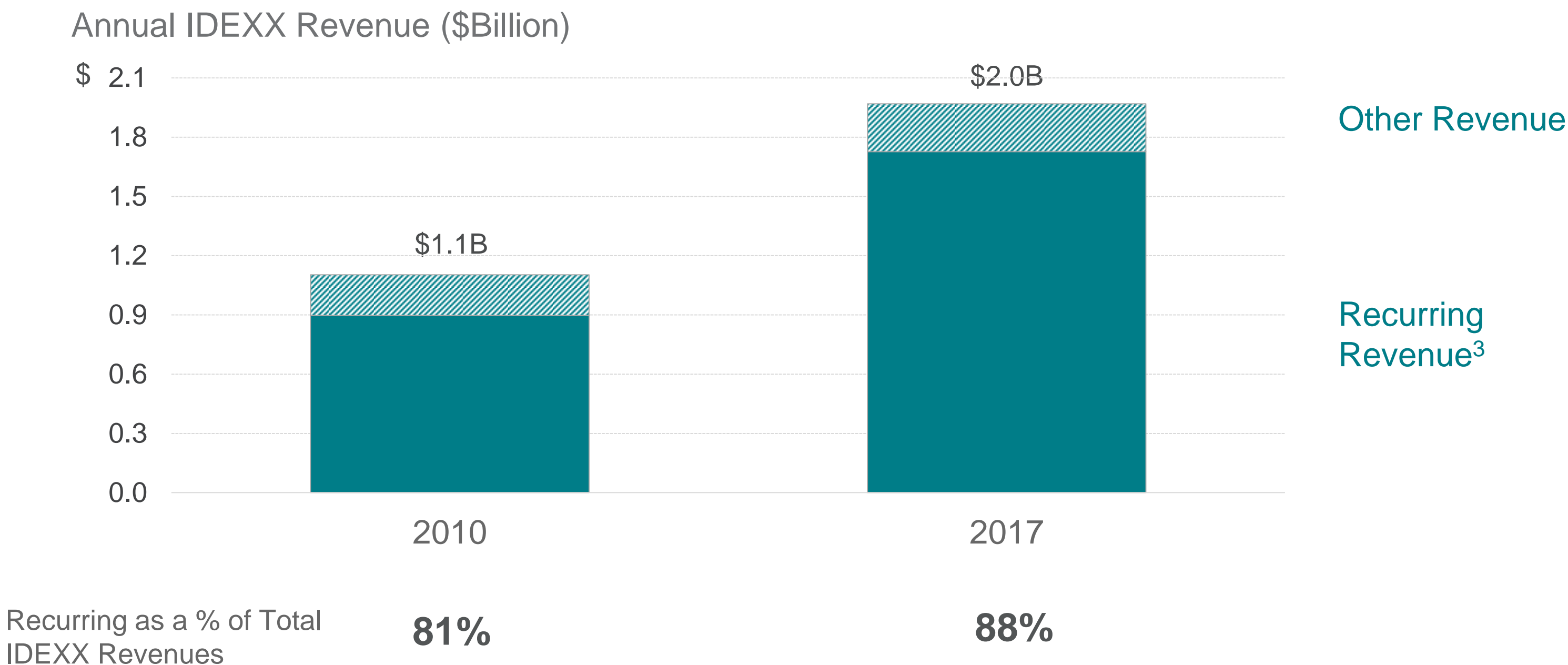
# IDEXX – Expanding Opportunity to Advance Pet Care

- Strong market growth with favorable demographic trends
- Enduring recurring revenue model
- Global leadership with wide innovation gap
- Expanding commercial model driving adoption of an elevated standard of pet care
- Accelerated organic growth of CAG Diagnostics Recurring Revenue



# The Core Business Model Consists of Profitable Recurring Revenue

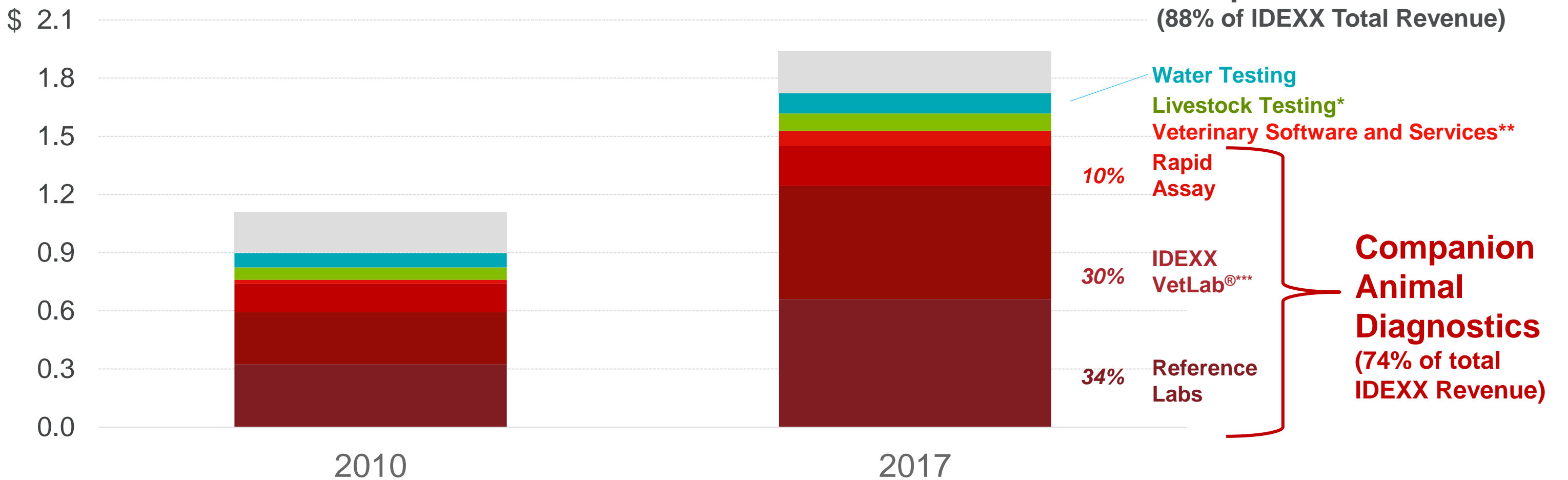
*Recurring Revenue Comprises 88% of 2017 Total IDEXX Revenue*



<sup>3</sup> Please refer to the Appendix for descriptive footnotes.

# IDEXX Recurring Revenue is Led by CAG Diagnostics

Annual Recurring Revenue (\$Billion)<sup>1,3</sup>



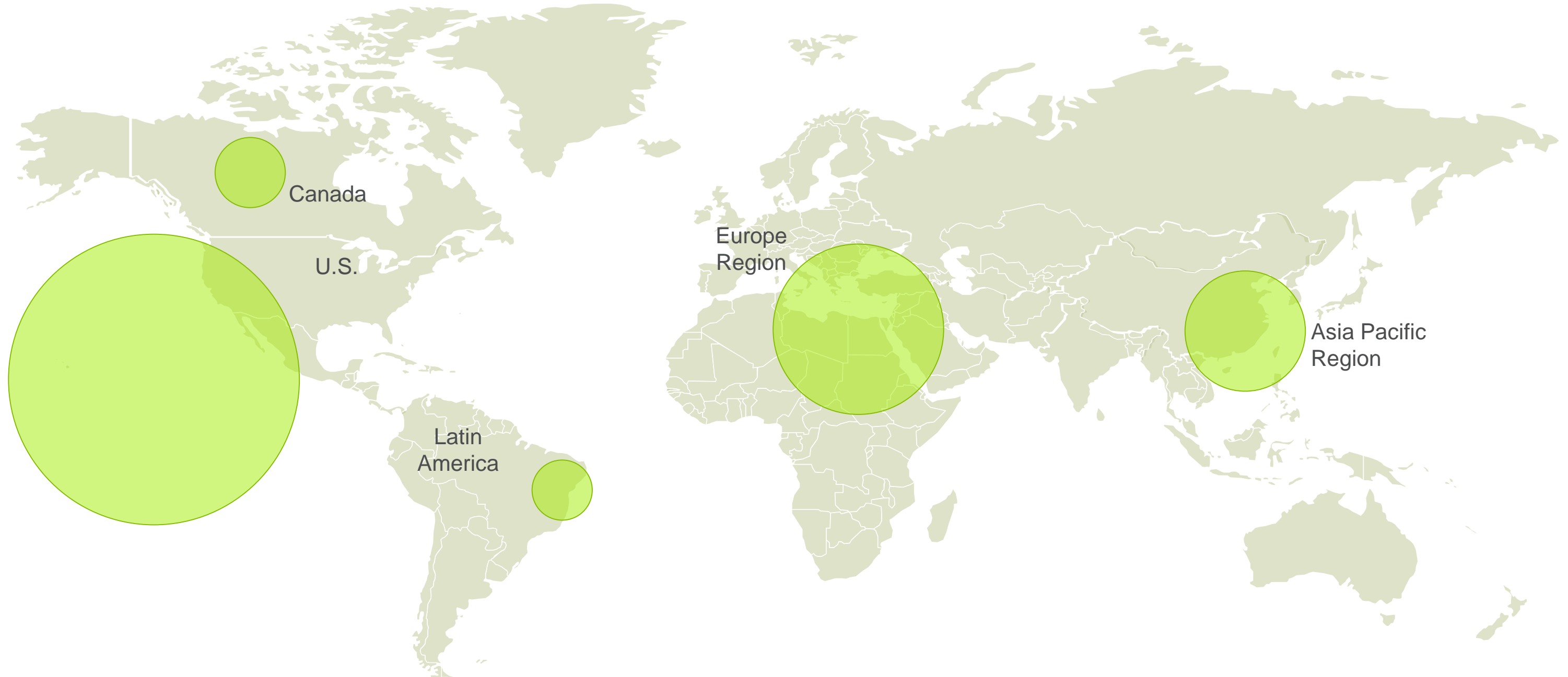
\* Livestock, poultry and dairy testing. \*\* Includes diagnostic imaging systems. \*\*\* IDEXX VetLab includes consumables, service and accessories.

<sup>1,3</sup> Please refer to the Appendix for descriptive footnotes.

# The Global Market is ~\$4.2 Billion with Strong Secular Growth Trends

*U.S. represents ~\$2.6B, or ~62% and International represents ~\$1.6B or ~38%*

Estimated 2017 Total Companion Animal Diagnostic and Veterinary Software Spending (\$M)\*



\* Revenue estimated at the manufacturer level. Includes reference lab, telemedicine, in-house instruments and consumables, rapid assay, manual microscopy, digital, ultrasound and veterinary software. Figures stated in USD, based on 2017 average exchange rates.

# Pet Owners View their Pets as Members of their Families and Can't Imagine Giving them Up

“I feel that my pet is an **important part of my family.**”

98%

“I **couldn't imagine giving up my pet** for any reason.”

95%



Percentages represent those responding “Strongly agree” or “Agree”.

Source: Pet Owner Survey conducted in 2016 by The Human Animal Bond Research Institute (HABRI) Foundation in partnership with Cohen Research Group (n = 1,995 pet owners), which had a margin of error of plus or minus 2.2%.



# Pets Improve People's Health – The Evidence Continues to Build



## Cardiovascular Health\*

American Heart Association issued a scientific statement that **pet ownership improves heart health**



## Mental Health

**74% of pet owners** reported mental health improvements from pet ownership\*\*



ANXIETY AND DEPRESSION  
ASSOCIATION OF AMERICA



## Longevity\*\*\*

Clear **correlation between dog ownership and longer life**



UPPSALA  
UNIVERSITET

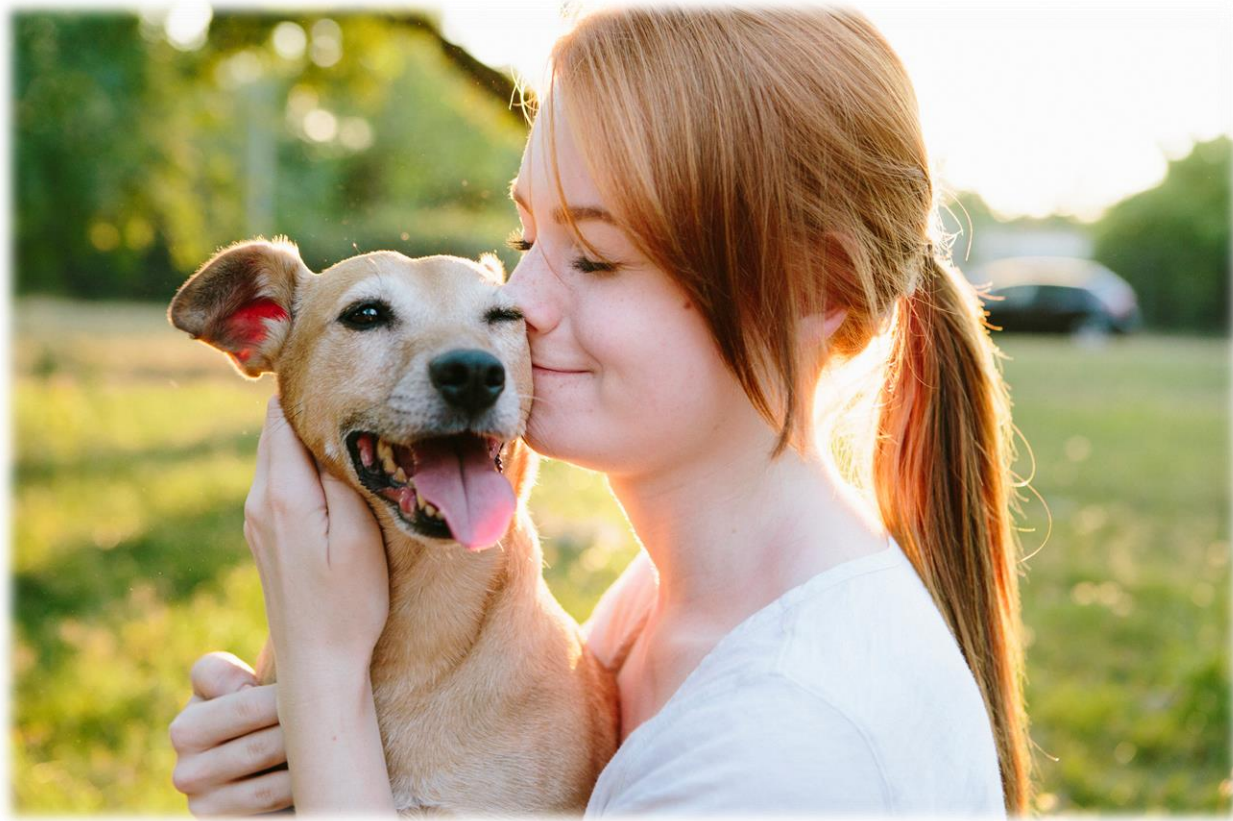
\* Levine, Glenn N., et al. "Pet Ownership and Cardiovascular Risk A Scientific Statement From the American Heart Association." Circulation 127.23 (2013): 2353-2363. <http://circ.ahajournals.org/content/early/2013/05/09/CIR.0b013e31829201e1>

\*\* The Human Animal Bond Research Institute (HABRI) partnered with Cohen Research Group to conduct an online survey in May 2016 of 2,000 pet owners, which had a margin of error of plus or minus 2.2%.

\*\*\* Mubanga, Mwenya, et al. "Dog ownership and the risk of cardiovascular disease and death—a nationwide cohort study." Scientific reports 7.1 (2017): 15821. <https://www.nature.com/articles/s41598-017-16118-6>



# Millennials have become the 'Pet Generation'



## Millennial Segment is the Largest Pet-Owning Demographic Segment\*

### Millennial Pet Owners' Attitudes and Behaviors:

- **43%** Refer to their pet as their "Fur Baby"\*\*
- **71%** Would take a pay cut to take their pets to work every day\*\*\*
- **33%** of first home buyers cited 'better space/ yard for their dog' as a major driver of their decision to purchase - more than the number citing marriage or children as a driver \*\*\*\*

\* American Pet Products Association National Pet Owners Survey 2017-2018.

\*\* Survey commissioned by Trupanion, a leader in medical insurance for cats and dogs, and conducted from October 3 to October 6, 2017. Participants were required to own a dog or cat and be at least 18 years old. The survey had 1,250 participants. 825 were from the United States and 425 from Canada.

\*\*\* The Millennialization of the Pet Industry - Retail's Opportunity to Reach the Pet-Obsessed

\*\*\*\* SunTrust Mortgage online survey conducted by Harris Poll, June 28-30, 2017.

# Early Indications are that Gen Z Love their Pets At Least As Much



## Baby Boomers

(54 yrs to 72 yrs)

## Millennials

(22 yrs to 37 yrs)

## Gen Z

(Up to 21 yrs)

U.S. Pet Owner Survey\*

Celebrate Their Pet's Birthday

48%

83%

93%

Celebrate Valentine's Day

18%

44%

67%

\* Survey commissioned by Trupanion, a leader in medical insurance for cats and dogs, and conducted from October 3 to October 6, 2017. Participants were required to own a dog or cat and be at least 18 years old. The survey had 1,250 participants. 825 were from the United States and 425 from Canada.

# Millennial and Gen Z Are Highly Sensitive to the Needs of their Pets



U.S. Pet Owner Survey\*:  
% Agreeing with Statement

## Baby Boomers

(55 yrs to 74 yrs)

“I rely on my veterinarian for advice about medicine and pet food”



“My pet has special health needs”



“My pet has special nutrition needs”



## Millennials & Gen Z

(18 yrs to 39 yrs)



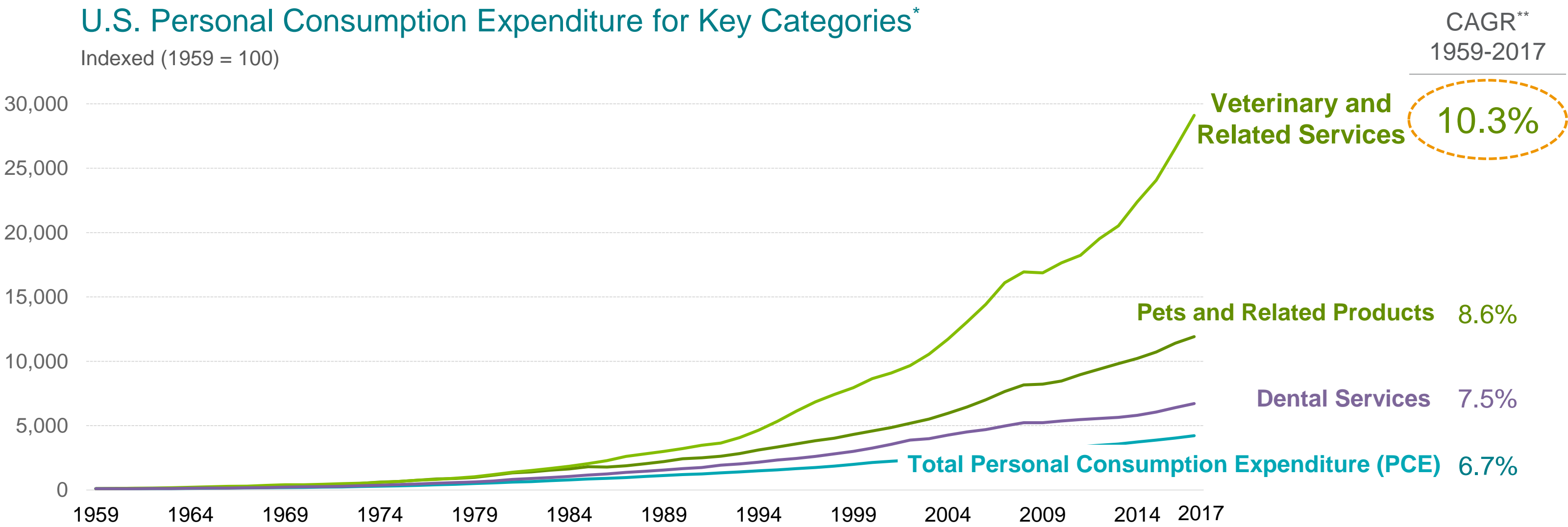
42%

45%

\* Based on: Gen Z and Millennials as Pet Market Consumers: Dogs, Cats and Other Pets, Packaged Facts, February, 2018.



# U.S. Market Backdrop: Pet-related Spending Growth has Significantly Outpaced Personal Consumption

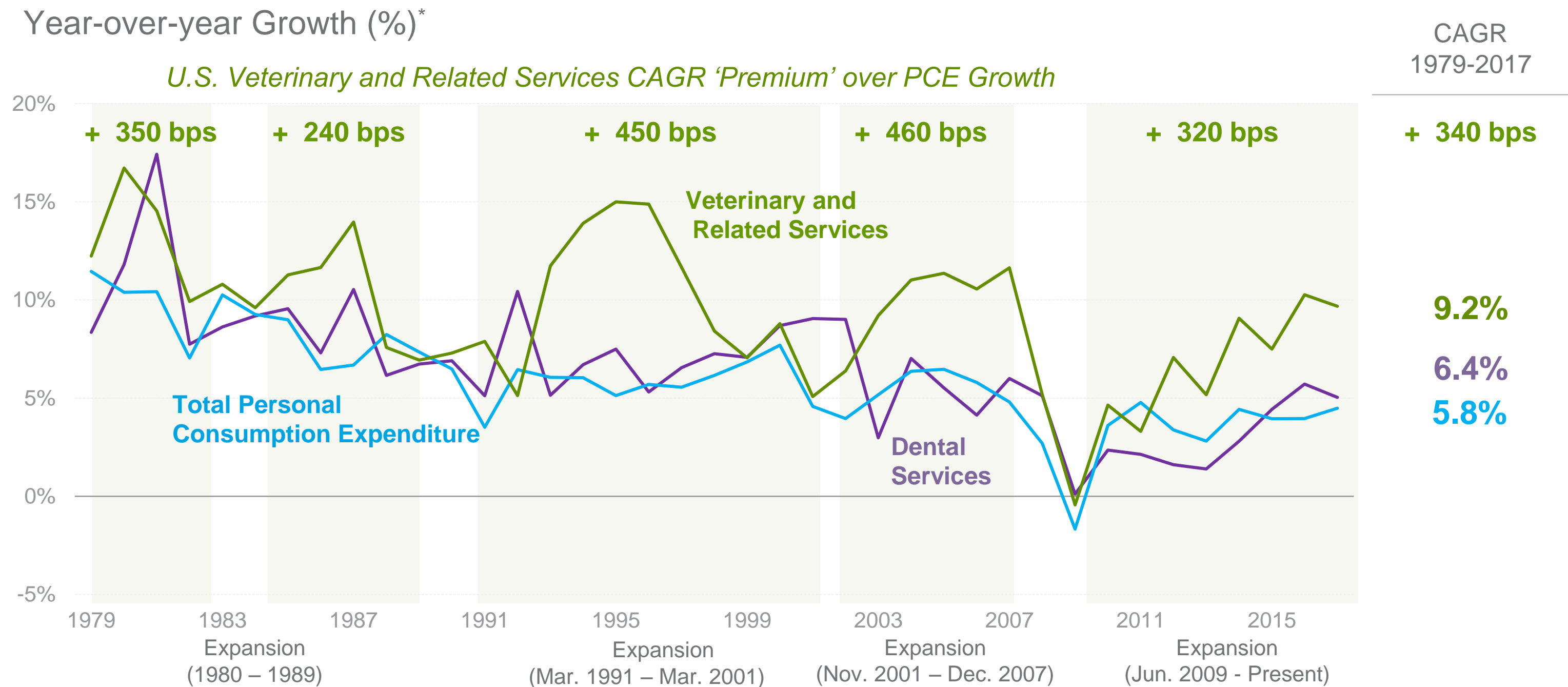


Yet, veterinary services, pets and related products together still  
comprise only ~1% of total consumption expenditure

\* Analysis based on data from Bureau of Economic Analysis last revised on May 30, 2018. \*\* Compound Annual Growth Rate.

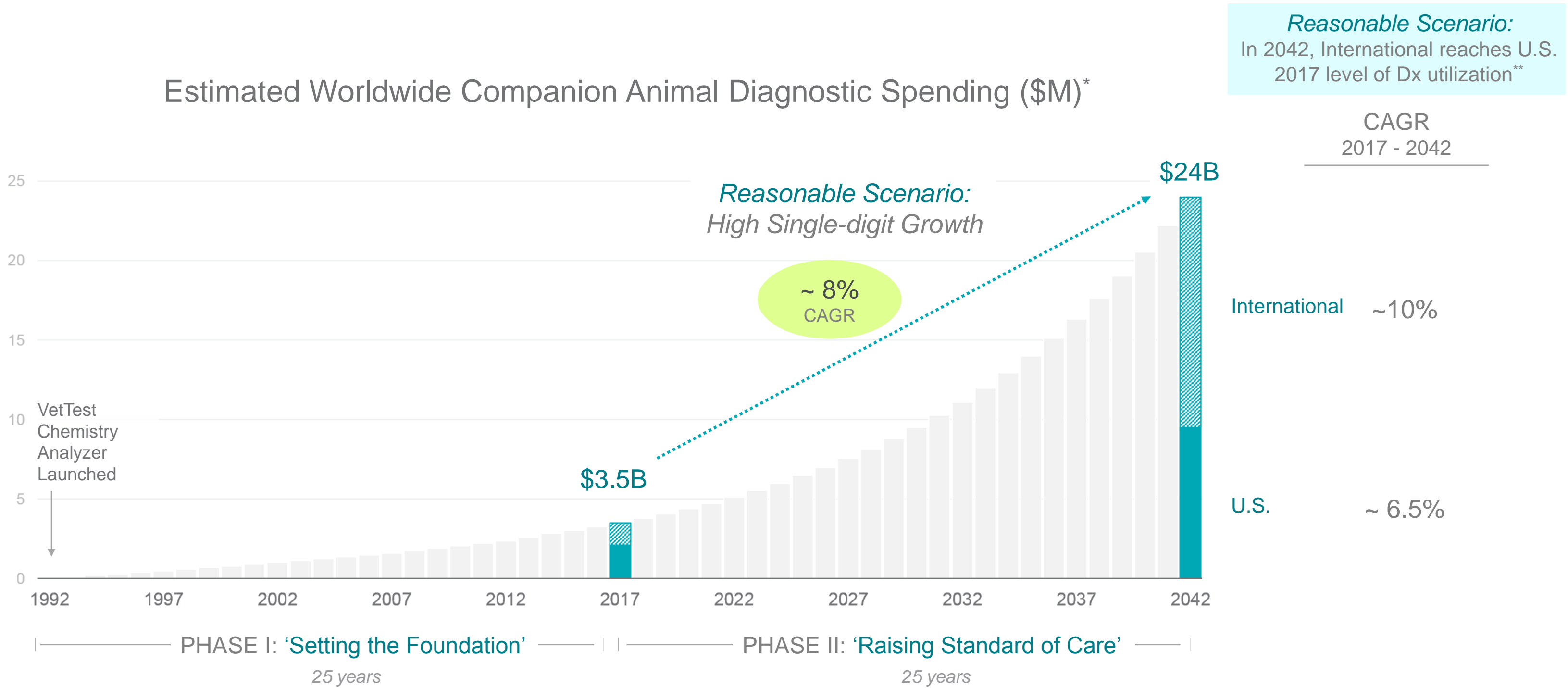


# U.S. Market Backdrop: Pet Healthcare Bounces Back Faster and Thrives during Expansions



\* Analysis based on data from Bureau of Economic Analysis, Personal Consumption Expenditure, last revised on January 26, 2018.

# All Signs Point to a Second 25-Year Generational Macro-Cycle of Global Growth

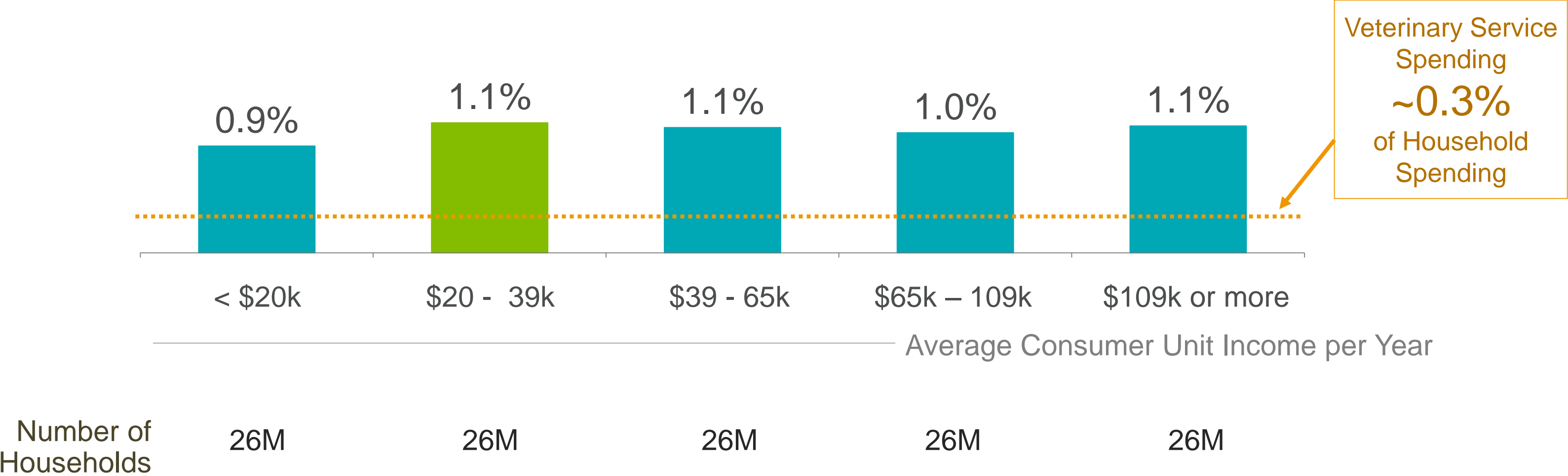


\* Revenue estimated at the manufacturer level. Includes reference lab, telemedicine, in-house instruments and consumables, rapid assay, manual microscopy and 'similar' types of diagnostics through 2042. Excludes veterinary software, digital and ultrasound. Figures stated in USD, based on 2017 average exchange rates.

\*\* Defined as average diagnostic revenue per practice.

# Vet Healthcare Spending Averages 0.3% of Total Household Spending

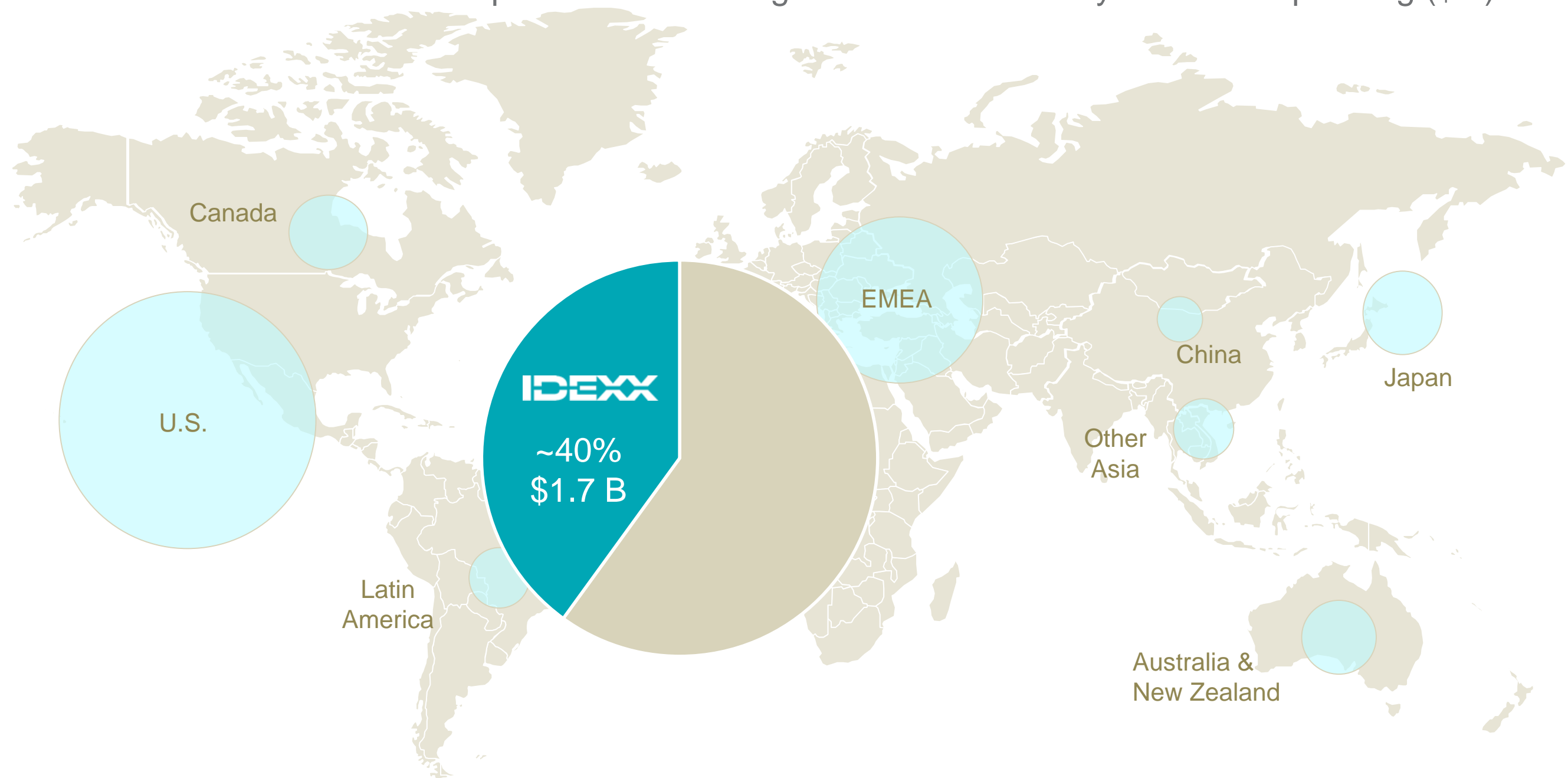
2017 U.S. Total Pet Spending as a Percentage of Household Consumption Spending by Household Income Segment\*



\* Analysis based on Bureau of Labor Statistics Personal Consumption Expenditure Survey, for 12 months ended June, 2017. Total Spending = \$7.4T USD.

# We Lead with Best-in-Class Offerings in Each Diagnostic and Software Modality and with Global Scale

Estimated 2017 Total Companion Animal Diagnostic and Veterinary Software Spending (\$M)\*



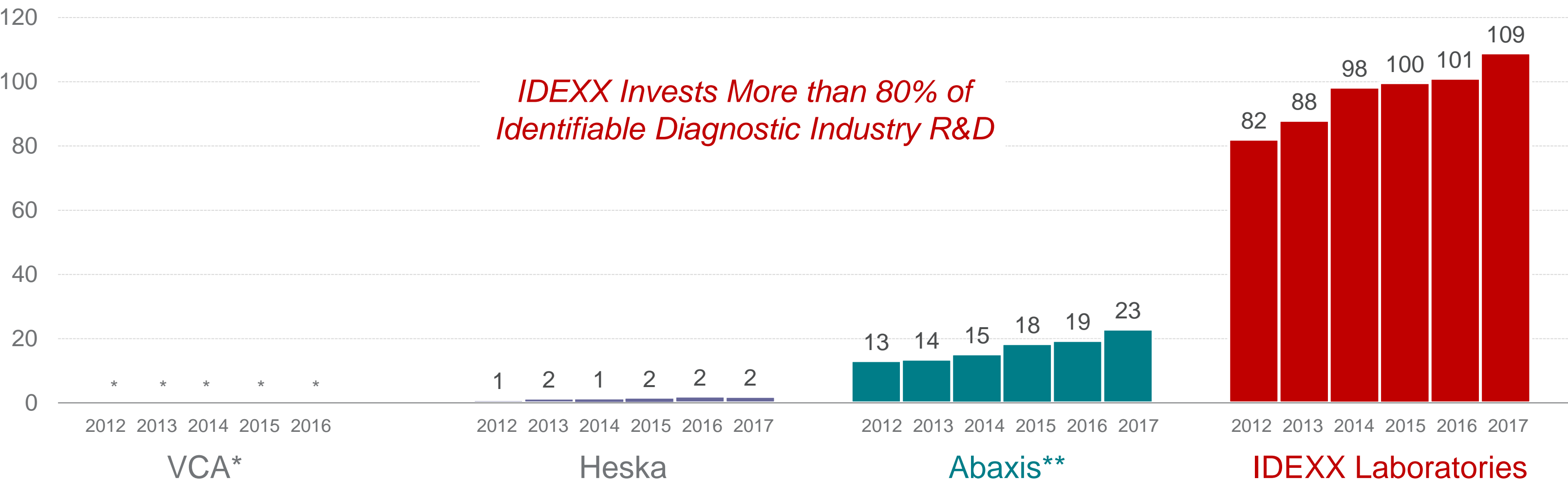
\* Revenue estimated at the manufacturer level, adjusting to reflect distributor margin where appropriate. Includes reference lab, telemedicine, in-house instruments and consumables, rapid assay, manual microscopy.



# IDEXX's Innovation has Created a Highly Proprietary Diagnostic Offering

## Comparison of Annual R&D Investment of Major Veterinary Diagnostics Companies

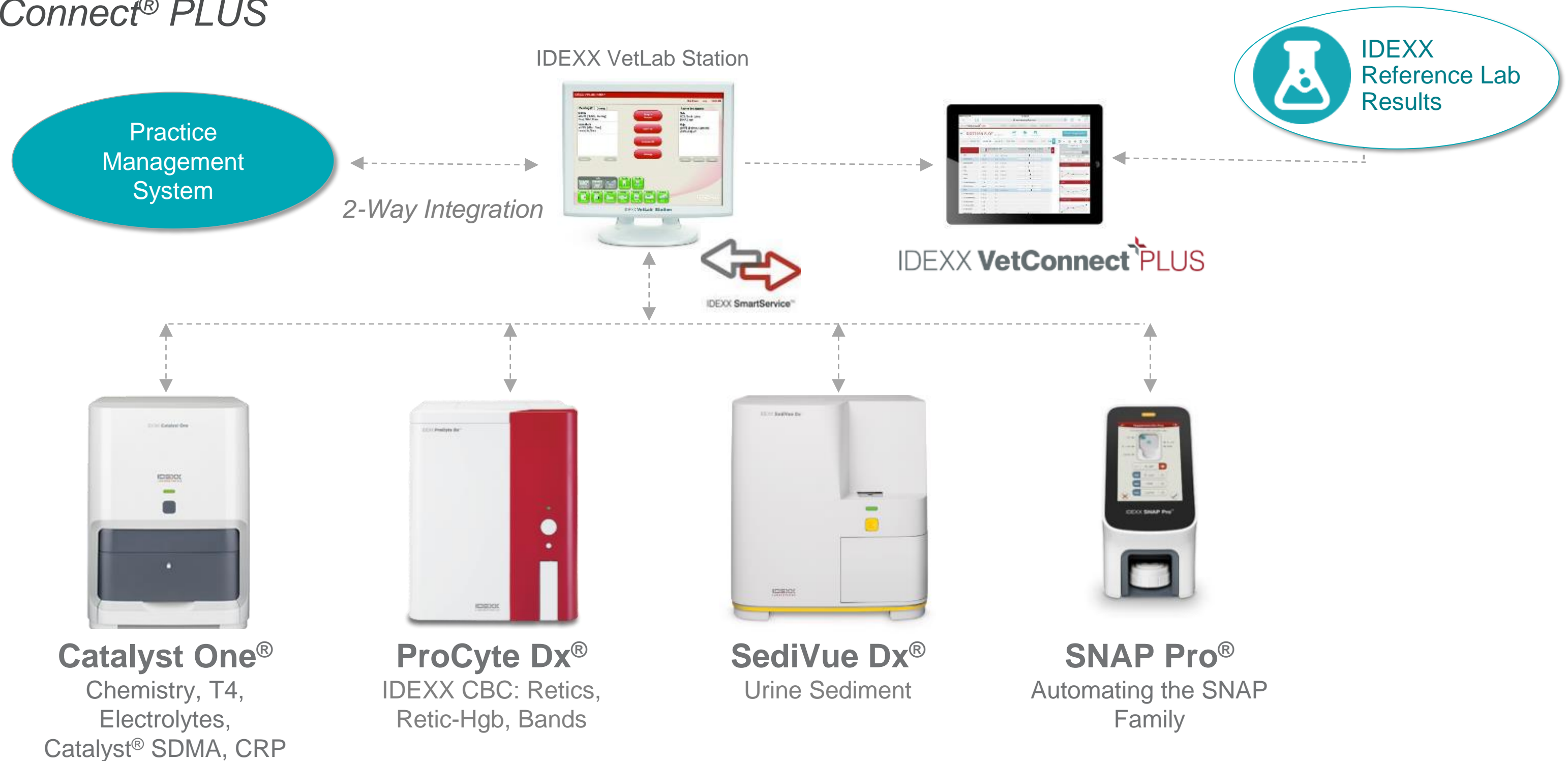
(\$M), calendar years shown



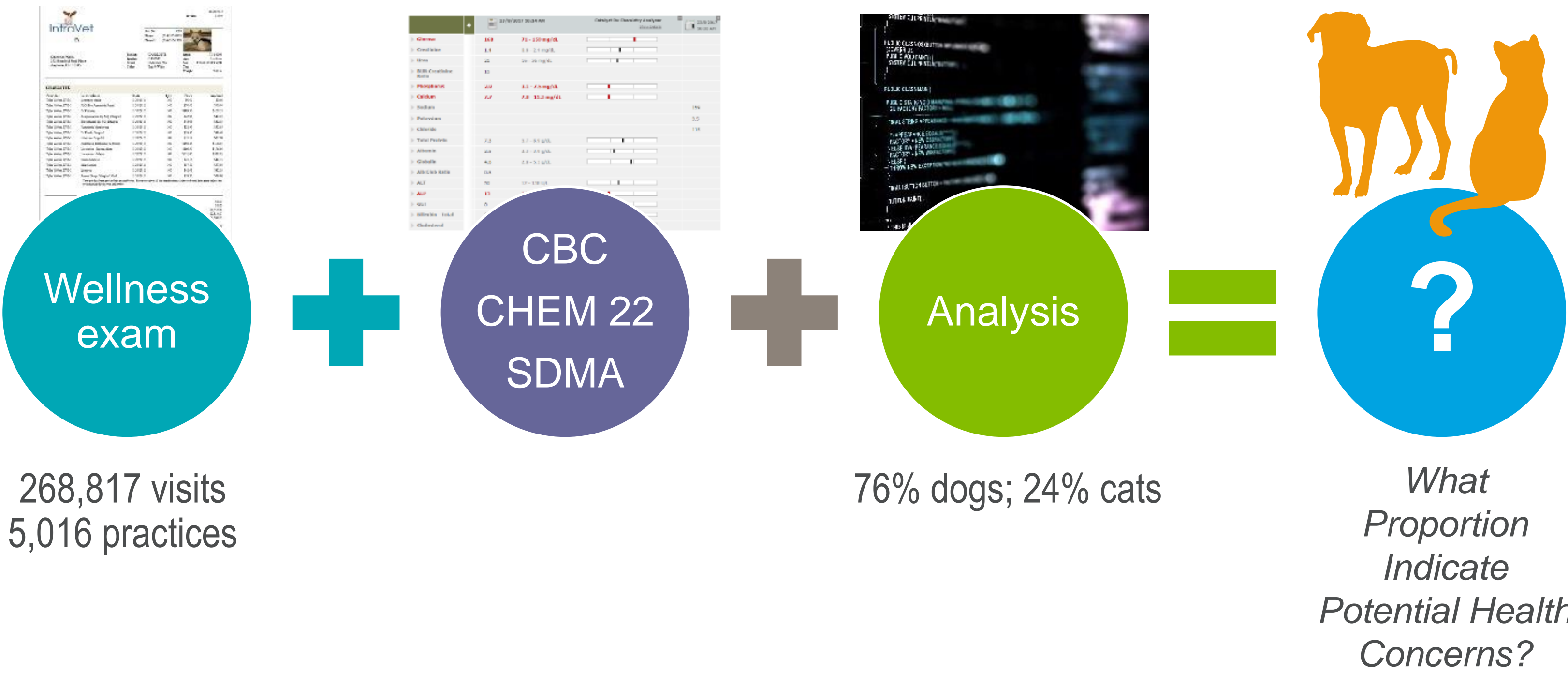
\* VCA does not report any R&D investments in its filings with the U.S. Securities and Exchange Commission ("SEC"). Following acquisition of VCA, Inc. by Mars in 2017, there are no further public disclosures.  
\*\* Abaxis, Inc. was acquired by Zoetis, Inc. July 31, 2018.  
Sources: Company SEC filings; earnings releases.

# IDEXX VetLab Instrument Suite - Innovation that Uniquely Expands Utility

*Fully-Integrated Diagnostic Solution with IDEXX Reference Lab Ordering and Results Through VetConnect® PLUS*



# Preventive Care Bloodwork – The Medical Evidence from Big Data



Source: Data on file at IDEXX Laboratories, Inc. Westbrook, Maine USA.

# Preventive Care Bloodwork Frequently Uncovers Significant Findings

268,817 visits from 5,016 practices

## 1 in 7 adults

dogs aged 3–6 years;  
cats aged 2–8 years



## 1 in 5 seniors

dogs aged 7–10 years;  
cats aged 9–13 years



## 2 in 5 geriatrics

dogs aged 11+ years;  
cats aged 14+ years



Preventive care profiles (Chem 22 with CBC and IDEXX SDMA); revealed that three or more clinically significant findings and/ or 1 abnormal SDMA were evident in patients from adult to geriatric life stages – requiring veterinary follow-up (adults: 15%; seniors: 21%; geriatrics: 42%).

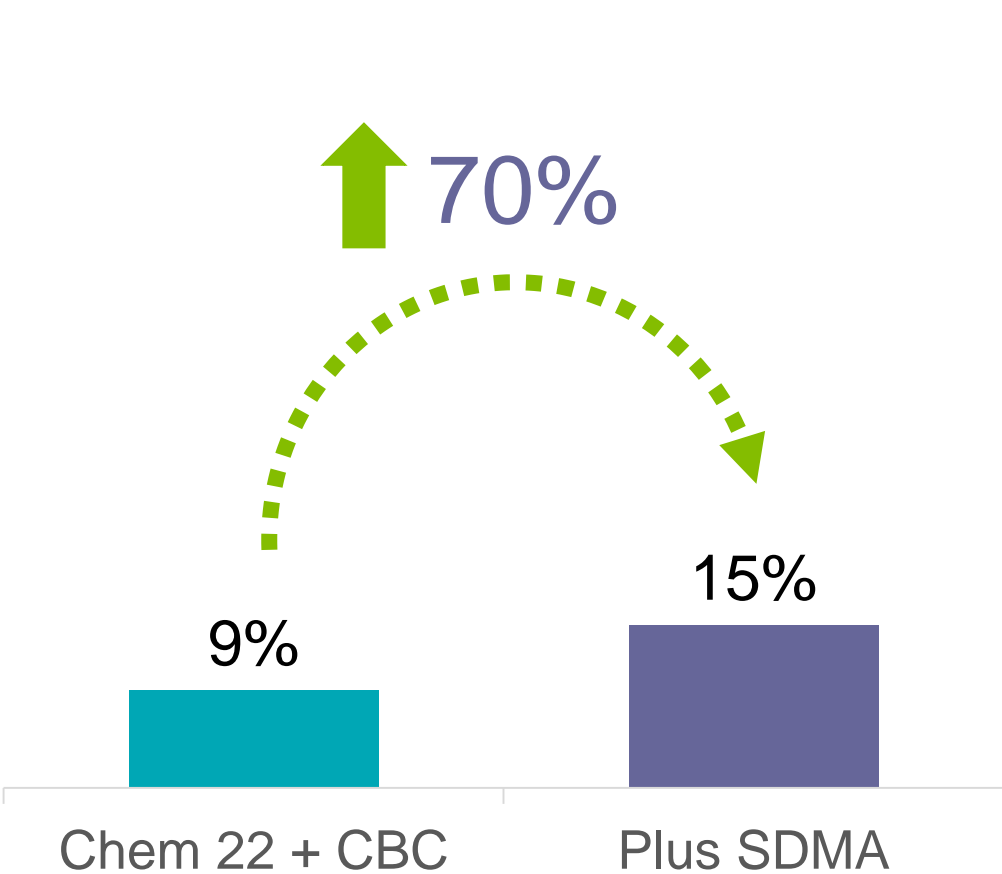
Testing completed on samples from 268,817 wellness consultations from 5,016 clinics using IDEXX Reference Laboratories. Data on file at IDEXX Laboratories, Inc. Westbrook, Maine USA.



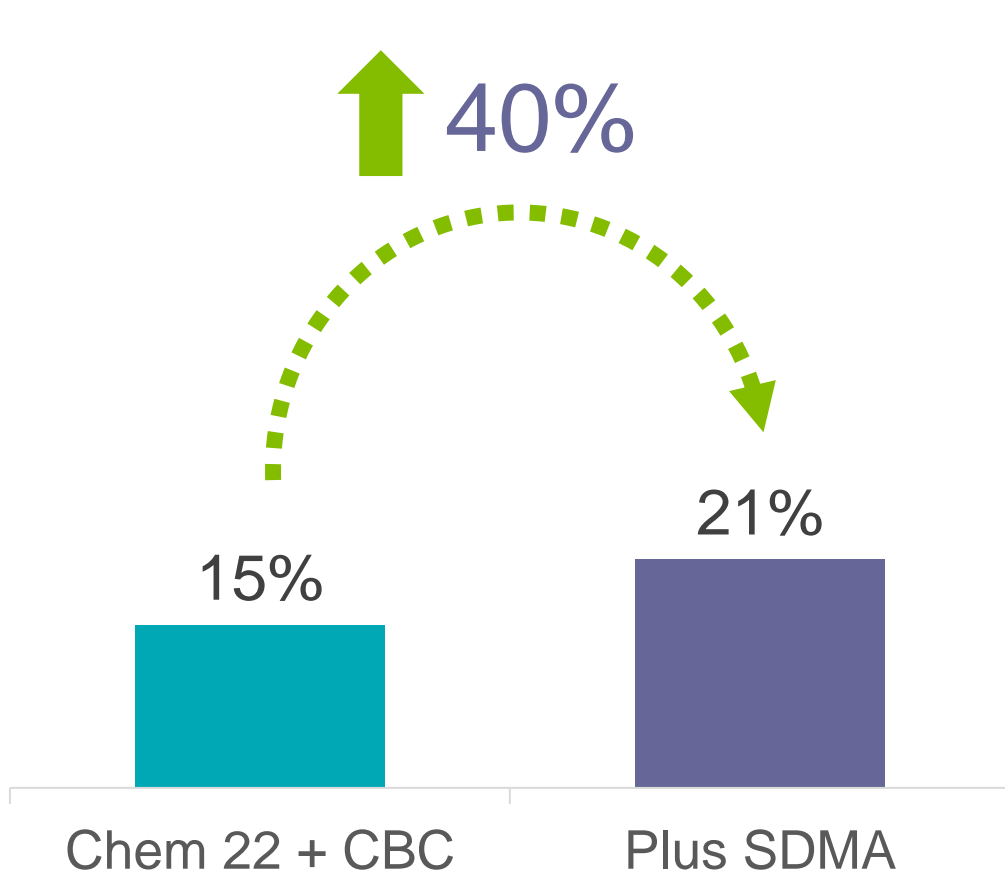
# The Addition of IDEXX SDMA is Essential to the Value of Preventive Care Bloodwork



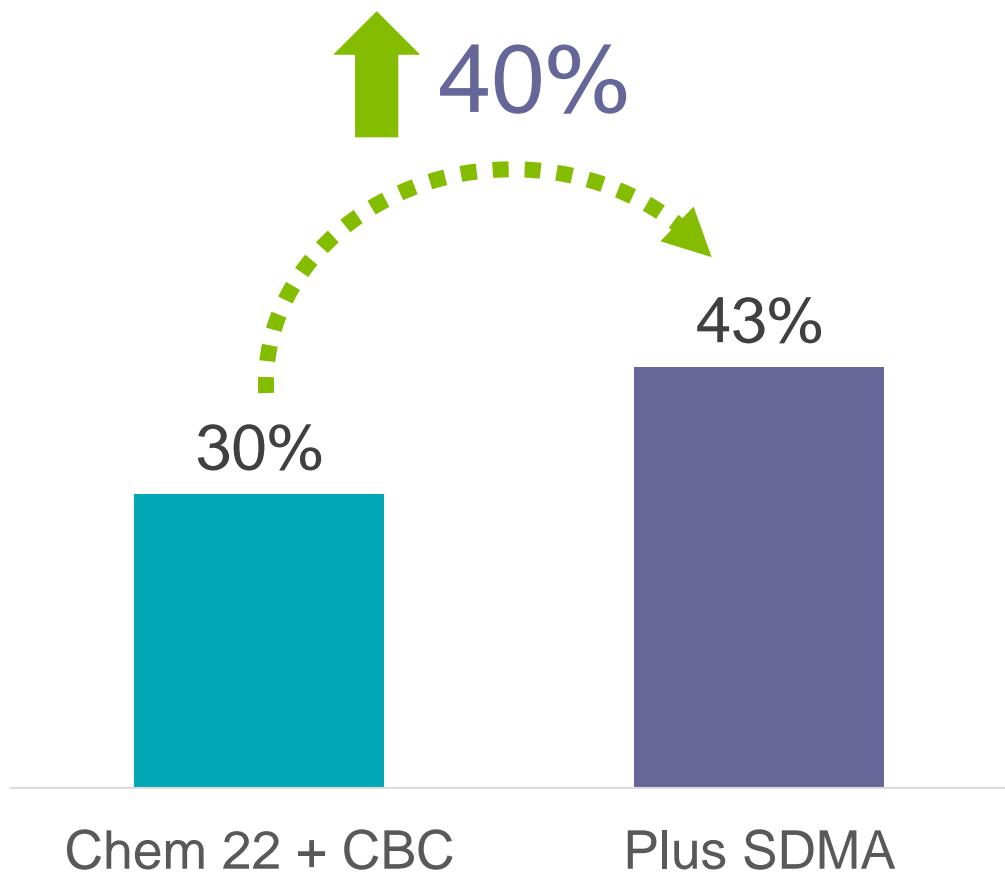
Adults



Seniors



Geriatrics



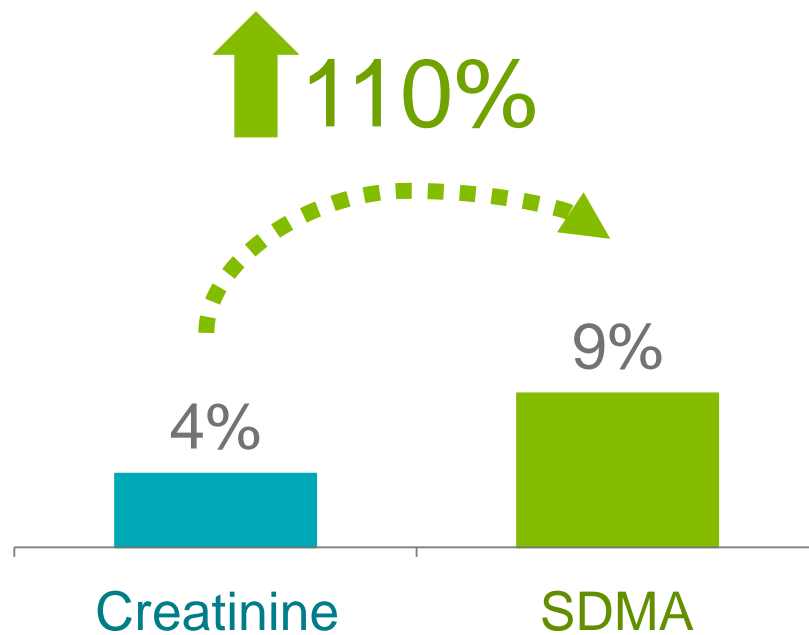
Based on analyses of combined dogs and cats; 268,817 profiles; 5,016 North American veterinary clinics using IDEXX Reference Laboratories. Profiles defined as “wellness” based on invoice to pet owner. “Clinically significant changes” are those that would indicate the need for follow-up, further consideration, or a change in action by the clinician. Clinical significance based on rules determined by IDEXX veterinarian panel.  
Source: Data from July 2015 to March 2017. Data on file at IDEXX Laboratories, Inc. Westbrook, Maine USA.

# IDEXX SDMA Also Adds Significant Value to Non-Wellness Testing

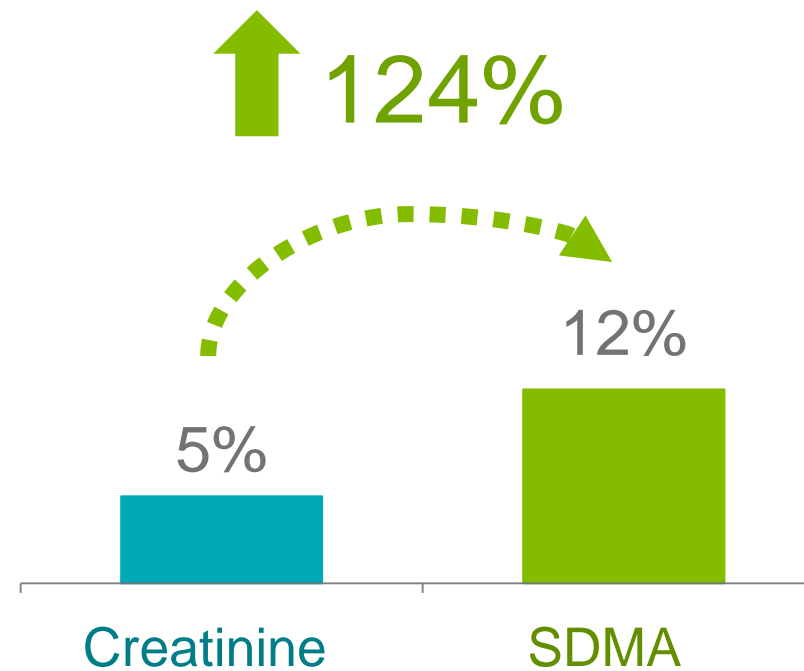
*Percentage of Patients with Clinically Significant Increases in Creatinine or SDMA (non-wellness visits)*



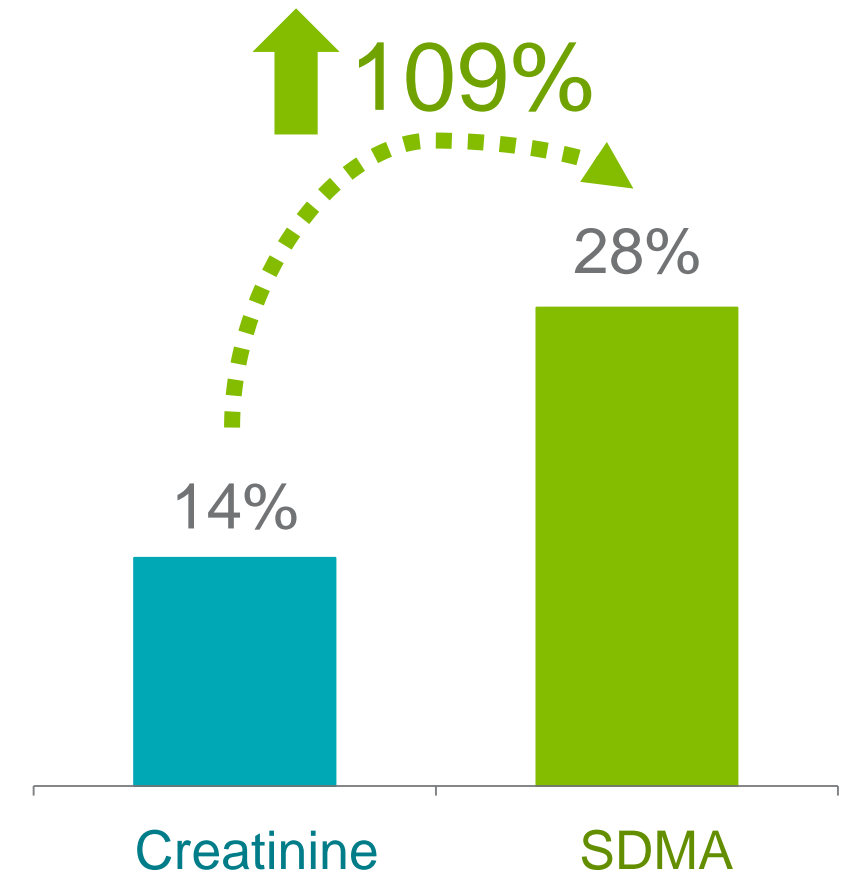
Adults



Seniors



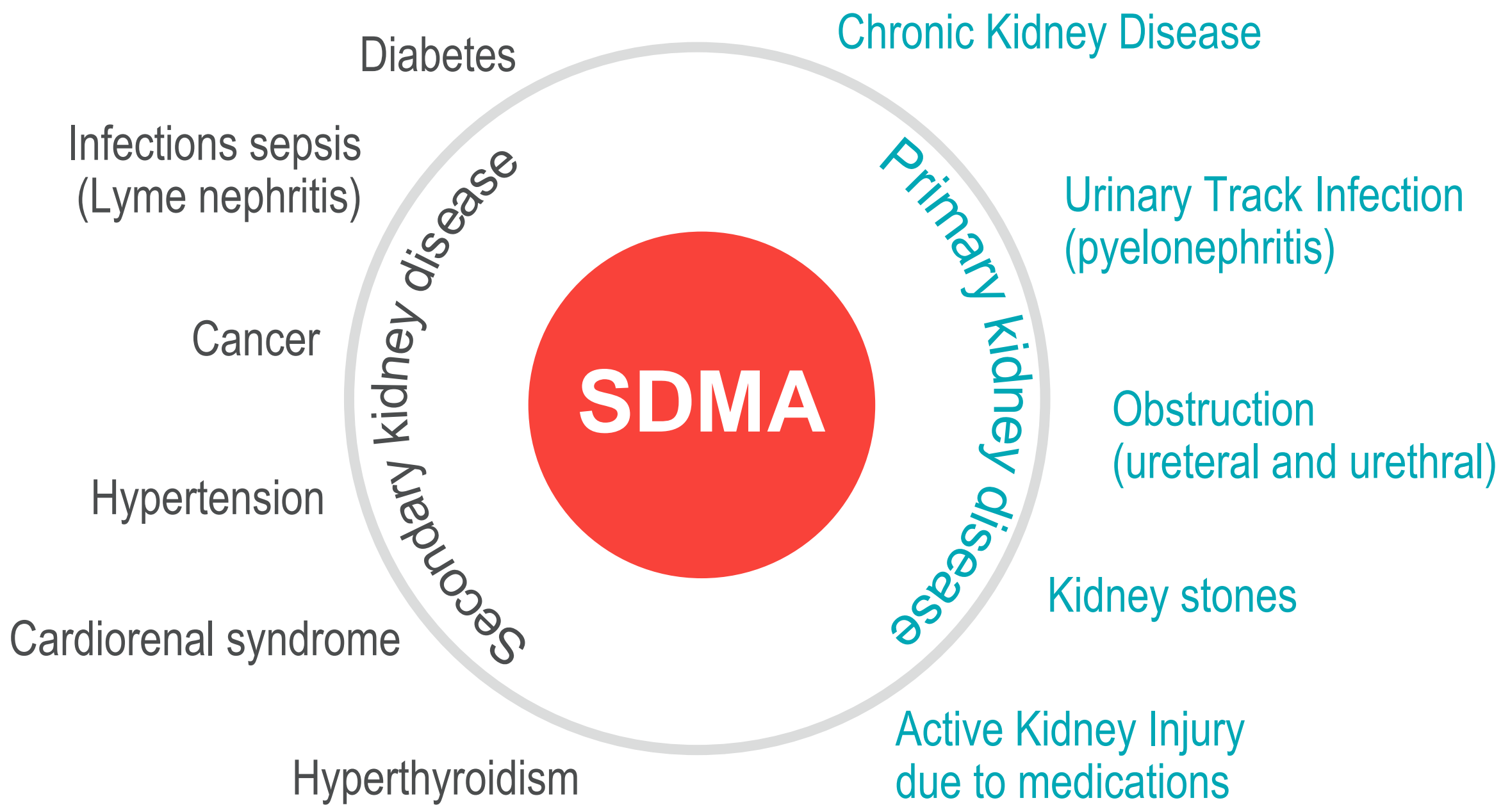
Geriatrics



Source: Based on analyses of a sample of 1,018,286 patients, 72.8% canine and 27.2% feline, using IDEXX Reference Laboratories diagnostic results data.

# Why Does the Addition of Just SDMA Testing Increase the Findings so Much?

*An Increased SDMA Reflects Both Kidney Disease and Other Diseases that Impact Kidney Function*



# Catalyst SDMA Launched in January, 2018



**Over 50%**  
of Catalysts globally  
have already  
purchased\*

IDEXX SDMA® at the  
Reference Lab\*:  
**Over 17 Million**

Increasing Recognition as *an Essential Element* of the Chemistry Panel

\* As of August 3, 2018.



# SediVue Dx - Urinalysis Plays a Role in Both Sick and Wellness Visits

1 in 3 urinalyses in *wellness visits* have significant findings\*

Wellness urinalysis addressable market barely penetrated today

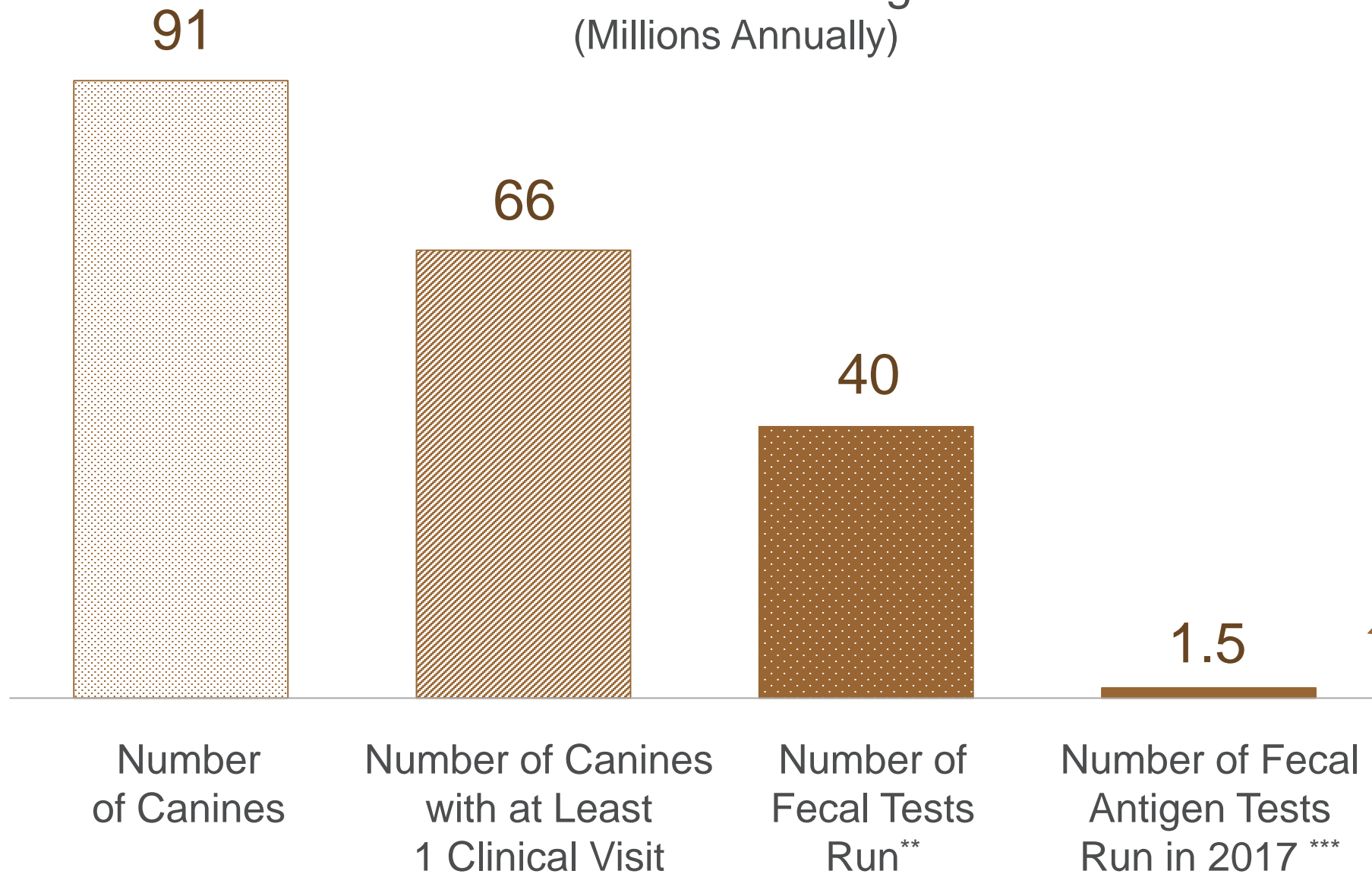
5,200 instruments placed to date used primarily for sick animal differential diagnoses



\* IDEXX study of 3,000 patients coming in for a wellness visit with the inclusion of a SediVue urine sediment exam as part of a complete urinalysis.

# Fecal Antigen Presents a ~\$600 Million Total Addressable Annual Market Opportunity\*

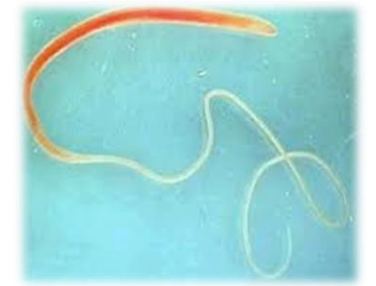
2017 North America Companion Animal  
Estimated Fecal Testing Market  
(Millions Annually)



*Hookworm*



*Roundworm*

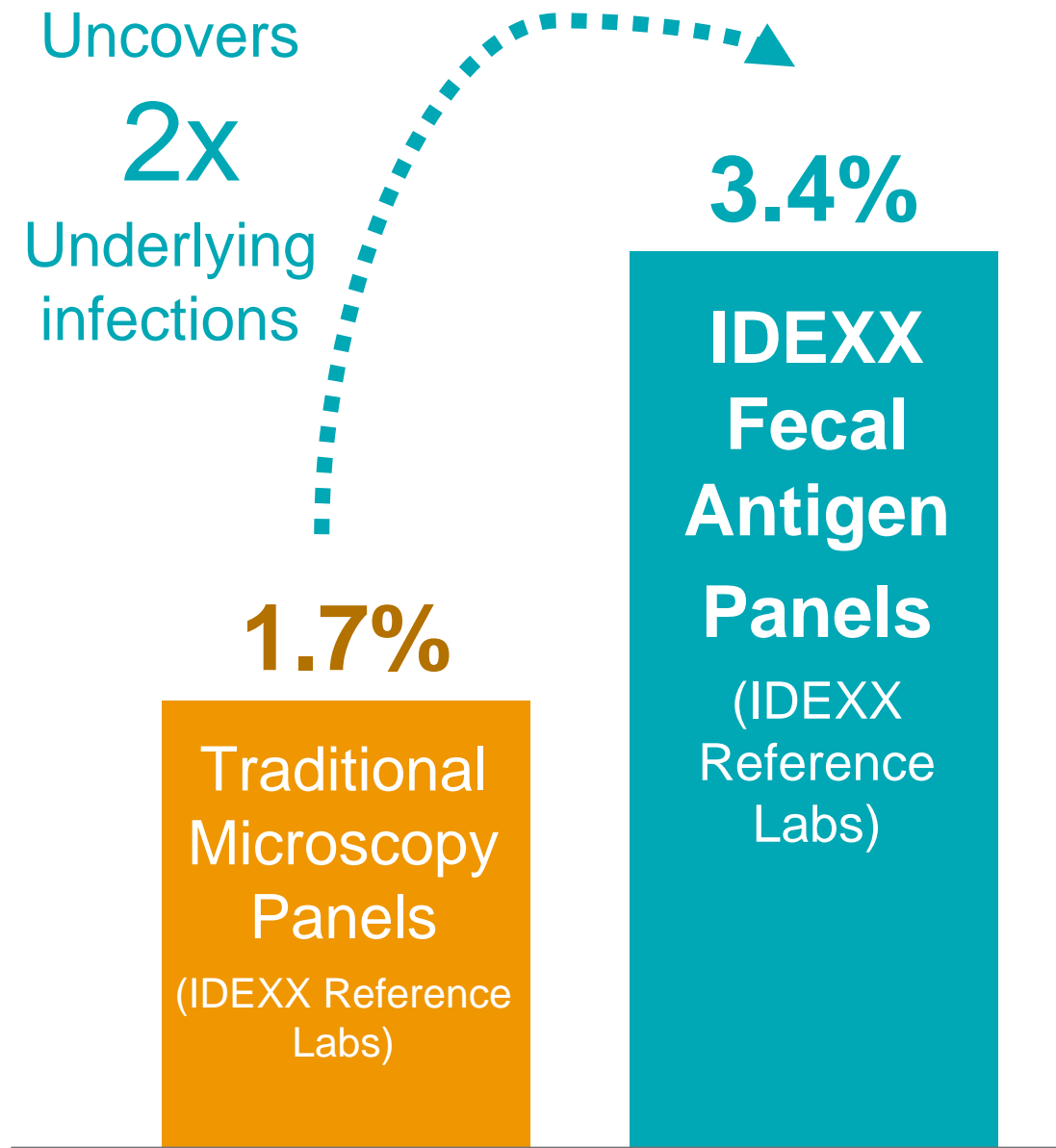


*Whipworm*

**Less than 4%**  
of fecal tests run  
today benefit from  
Fecal Antigen  
Technology

\* Assume \$15 average price realized per test, and 40 million tests run in North America  
\*\* Estimated total number of fecal tests run in North America in-practice and at reference labs.  
\*\*\* Total fecal tests run at North America IDEXX Reference Labs that include IDEXX Fecal Antigen technology.

# IDEXX Fecal Antigen – The Medical Evidence



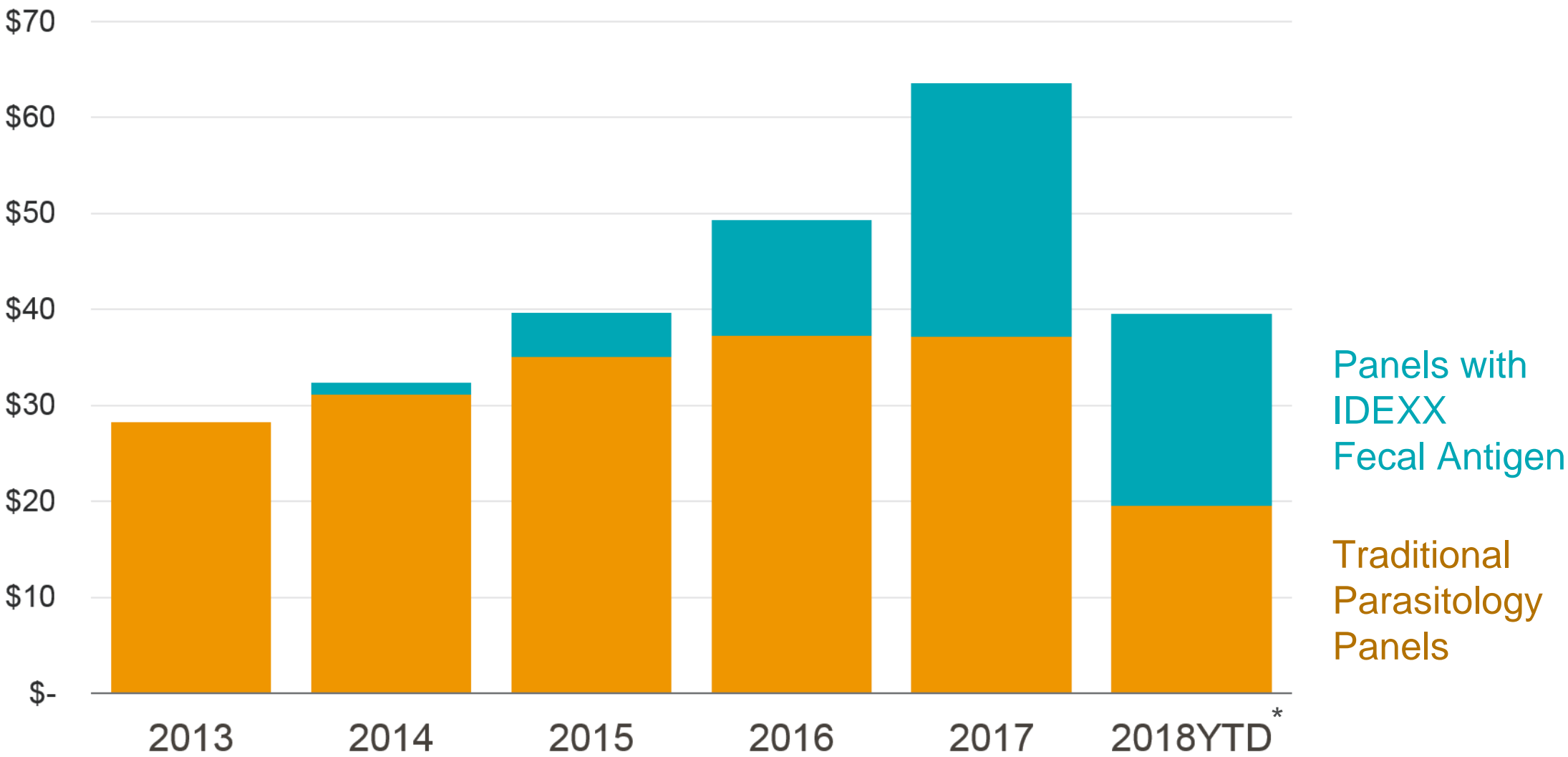
Hookworm, Roundworm and Whipworm Infections\*

- Fecal antigen uncovers underlying intestinal parasite infections missed by microscopy used in the reference labs
- Fecal antigen – IDEXX-proprietary
- A fecal test is a core element of the routine semi-annual exam
- Built into all IDEXX Preventive Care Challenge panels

\* Analysis based on a sample of 442,884 canines, presenting for preventive care visits with fecal exams sent to IDEXX Reference Labs between December, 2015 and June, 2018.

# Fecal Antigen in IDEXX Reference Labs – Early Stages of Adoption

North America Reference Lab Fecal Testing Revenue (\$M)

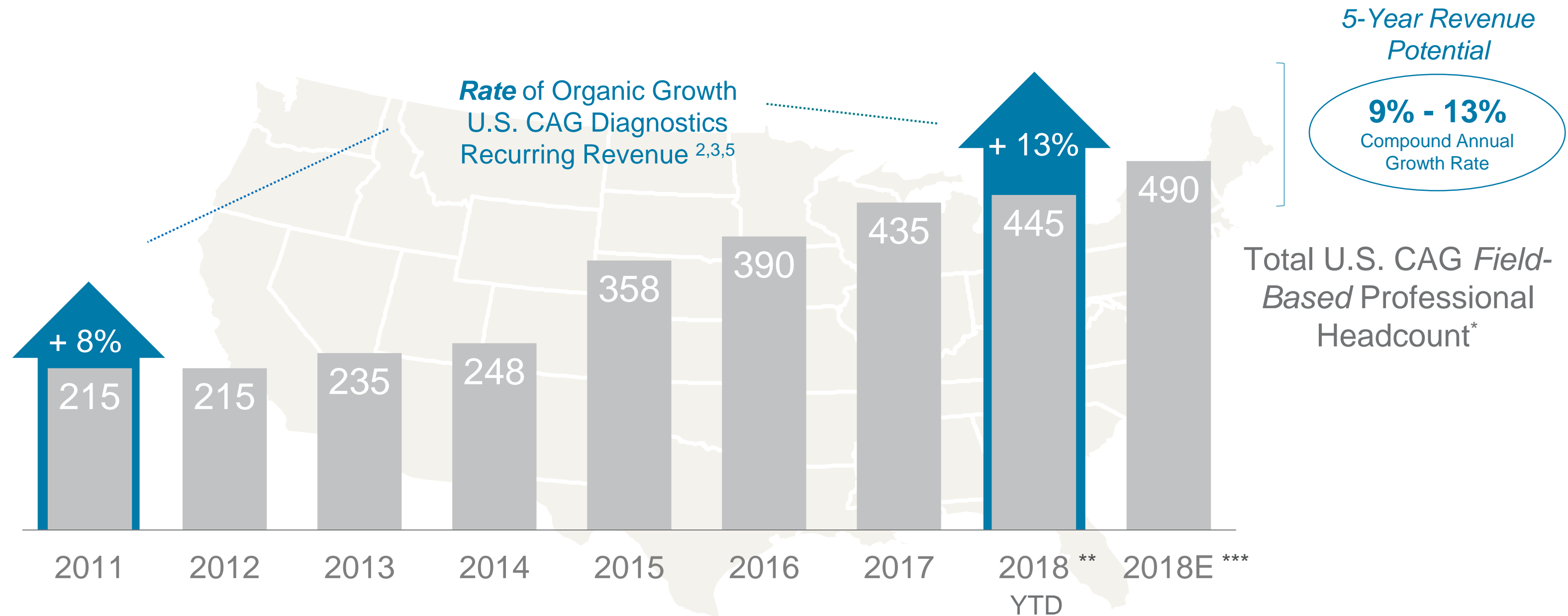


**\$120 Million**  
Incremental  
Annual  
Revenue  
Opportunity in  
Five Years

\* All references to 2018 YTD mean January 1, 2018 through June 30, 2018.

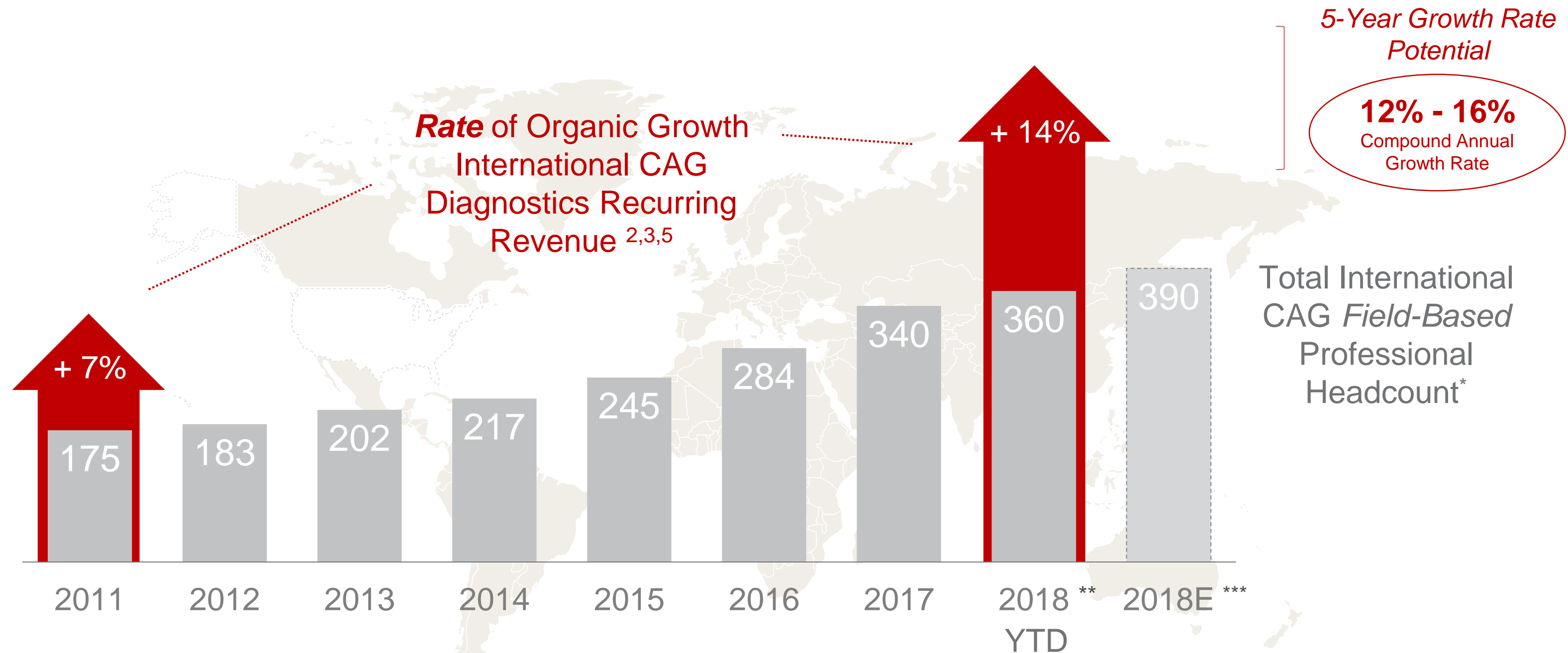


# IDEXX U.S. Transformation Has Expanded our Presence with Customers, Resulting in an Accelerated Rate of Adoption of IDEXX's Proprietary Innovations



\* Includes all field-based sales and technical services headcount, excluding management. Figures as of December 31 of each calendar year.  
\*\* All references to 2018 YTD mean January 1, 2018 through June 30, 2018. \*\*\* All references to 2018E reflect the midpoint of 2018 outlook communicated August 1, 2018. Please refer to our Safe Harbor Disclaimer.  
<sup>3</sup> Please refer to the Appendix for descriptive footnotes. <sup>2, 5</sup> Non-GAAP financial measure, please refer to Appendix for descriptive footnotes.

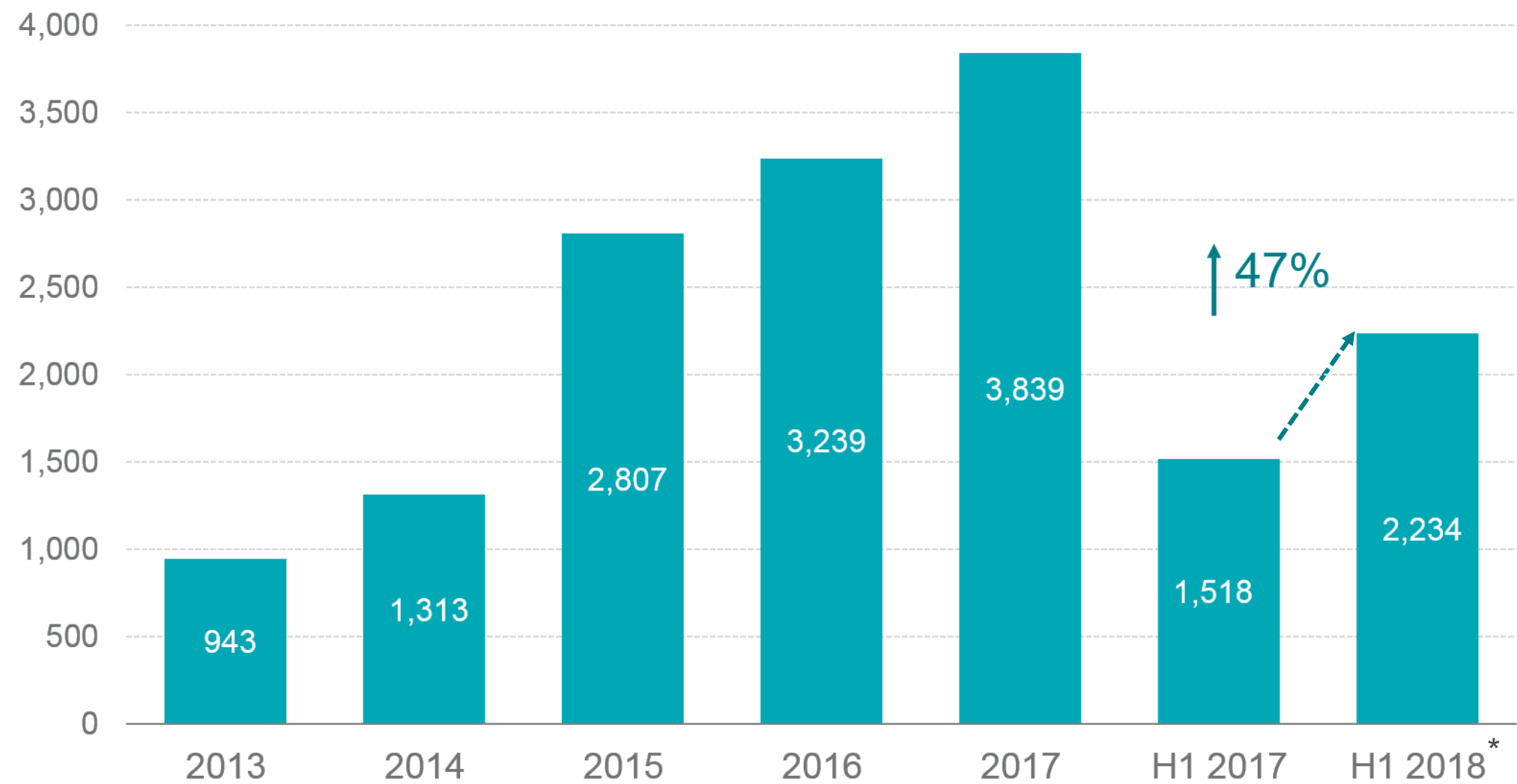
# Our Expanding International CAG Commercial Presence has Supported Accelerated CAG Dx International Recurring Revenue Growth



\* Includes all field-based sales and technical services headcount, excluding management. Figures as of December 31 of each calendar year.  
\*\* All references to 2018 YTD mean January 1, 2018 through June 30, 2018. \*\*\* All references to 2018E reflect the midpoint of 2018 outlook communicated August 1, 2018. Please refer to our Safe Harbor Disclaimer.  
<sup>3</sup> Please refer to the Appendix for descriptive footnotes. <sup>2, 5</sup> Non-GAAP financial measure, please refer to Appendix for descriptive footnotes.

# Catalyst Placements Continue to be the Key Growth Driver Outside of North America, with Strong Runway for Foreseeable Future

Catalyst Analyzer Placements Outside North America



Catalyst loyalty rates exceeding 99%!

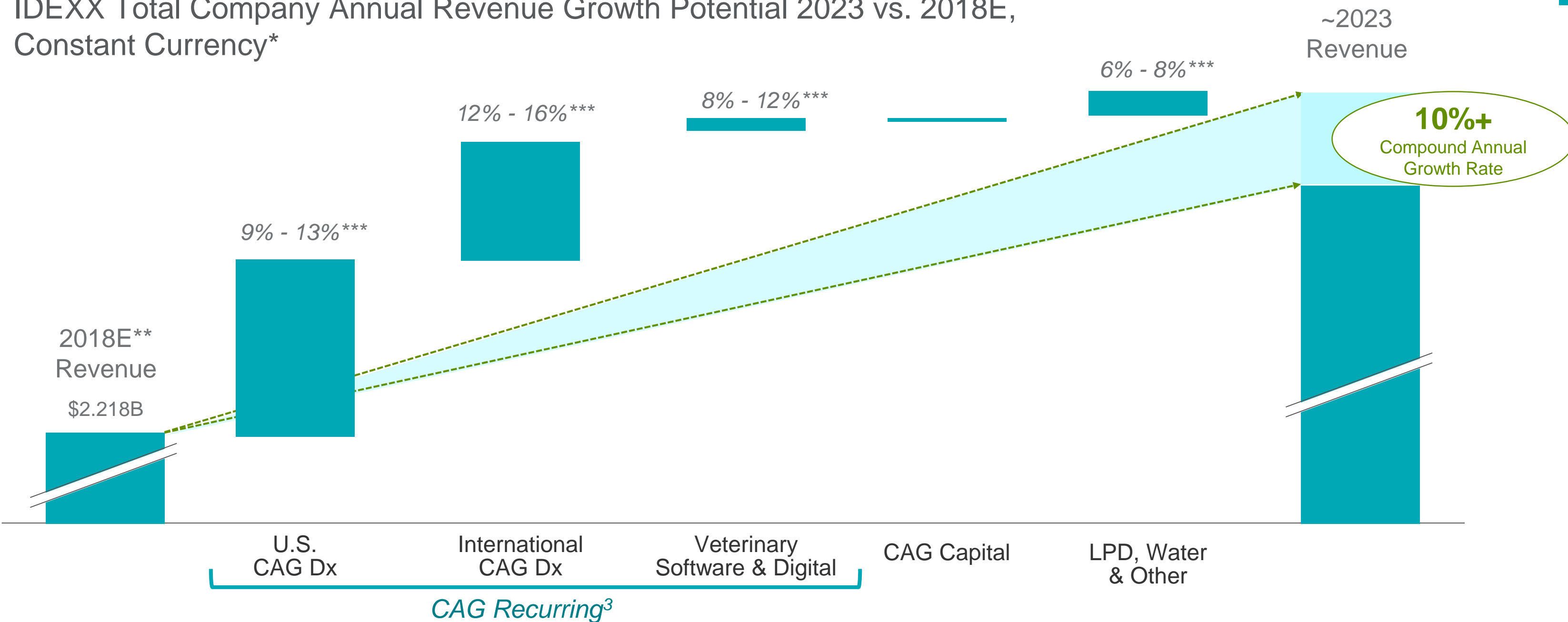


\* 2018YTD reflects placements through June 30, 2018.

# Continued 10%+ Annual Revenue Growth Potential

*Driven By Expansion of CAG Diagnostics Recurring Revenue*

IDEXX Total Company Annual Revenue Growth Potential 2023 vs. 2018E, Constant Currency\*



\* These projections assume that foreign currency exchange rates will remain the same as in 2018.  
\*\* 2018E Revenue based on midpoint of guidance range communicated on August 1, 2018. Please refer to our Safe Harbor Disclaimer.  
\*\*\* Estimated potential revenue compound annual growth rate for this business segment.  
<sup>3</sup> Please refer to the Appendix for descriptive footnotes.



A person with red hair is seen from the back, wearing a white long-sleeved shirt. They are holding a white dog, possibly a Weimaraner, against their chest. The dog is looking out towards the right. The background is a soft, out-of-focus sunset or sunrise scene with warm light and a body of water.

# IDEXX – Exceptional, Durable Growth and Returns


An Enduring Recurring Revenue Model with

... exceptionally long-run growth dynamics...

... accelerated by IDEXX's unique innovation and growing commercial model...

... generating exceptional financial returns.





## IDEXX Financial Review

Brian McKeon, Executive Vice President and CFO

IDEXX Investor Day | August 15, 2018





# Financial Review – Key Messages

Accelerated growth, overdelivering against our long-term financial goals

Tremendous, long-term potential in developing core CAG business

Increasing high-return investments aligned with growth opportunity

Well positioned to deliver continued strong long-term financial results



# We are Over-Delivering Against our Long-term Financial Goals Introduced in 2015

|                                                                    | Multi-Year Goals | 2016    | 2017    | 2018E *       |
|--------------------------------------------------------------------|------------------|---------|---------|---------------|
| Organic Revenue Growth <sup>5</sup>                                | 10%+             | 11.4%   | 10.4%   | 11.5% - 12.5% |
| Operating Margin Gain<br>(Adjusted Constant Currency) <sup>7</sup> | 50 bps+          | 170 bps | 140 bps | 90 - 130 bps  |
| EPS Growth<br>(Comparable Constant Currency) <sup>6</sup>          | 15% - 20%        | 25%     | 21%     | 32% - 36%     |
| Capital Allocation Leverage **                                     | 1% - 3%          | 3%      | ~2%     | ~1%           |
| Free Cash Flow <sup>8</sup> % of Net Income                        | 95% - 100%       | 130%    | 114%    | 70% - 75%     |

\*All references to 2018E reflect the midpoint of 2018 outlook communicated August 1, 2018. Please refer to our Safe Harbor Disclaimer.

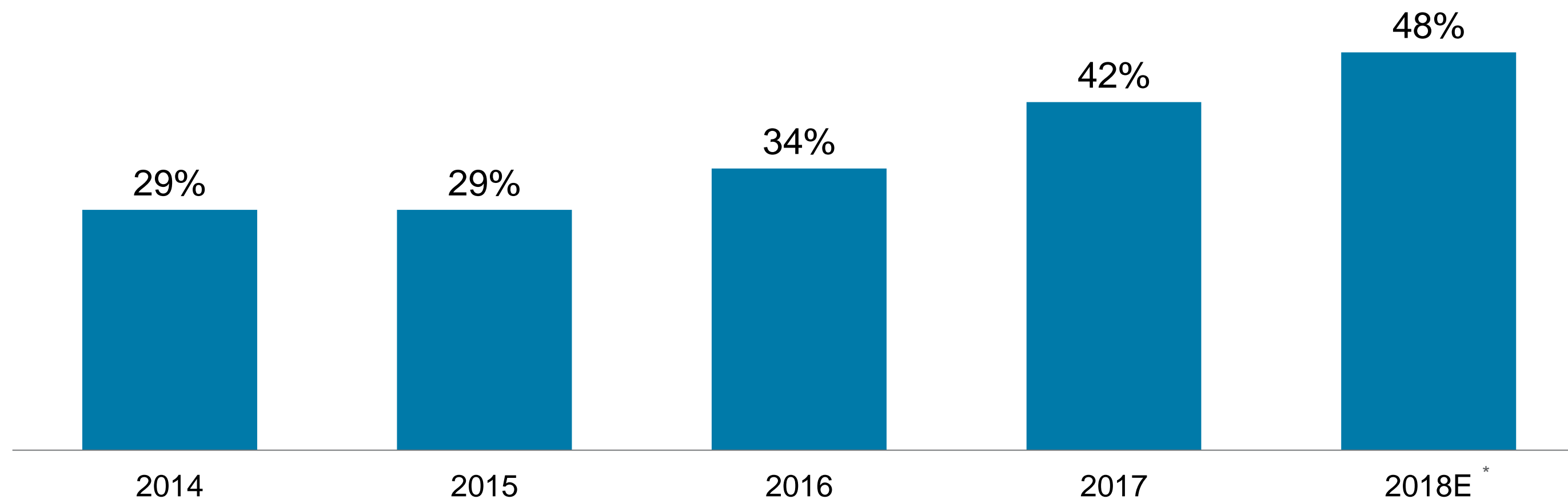
\*\* 2017 reflects normalized year-over-year share count reduction which adjusts for impact of adopting ASU 2016-09, Compensation-Stock Compensation (Topic 718). Reported share count reduction was 1.4%.

<sup>5,6,7,8</sup> Non-GAAP financial measure, please refer to Appendix for descriptive footnotes.



# Strong Execution Yielding Outstanding Returns

After-Tax Return on Invested Capital, *Excluding* Cash & Investments<sup>9</sup>



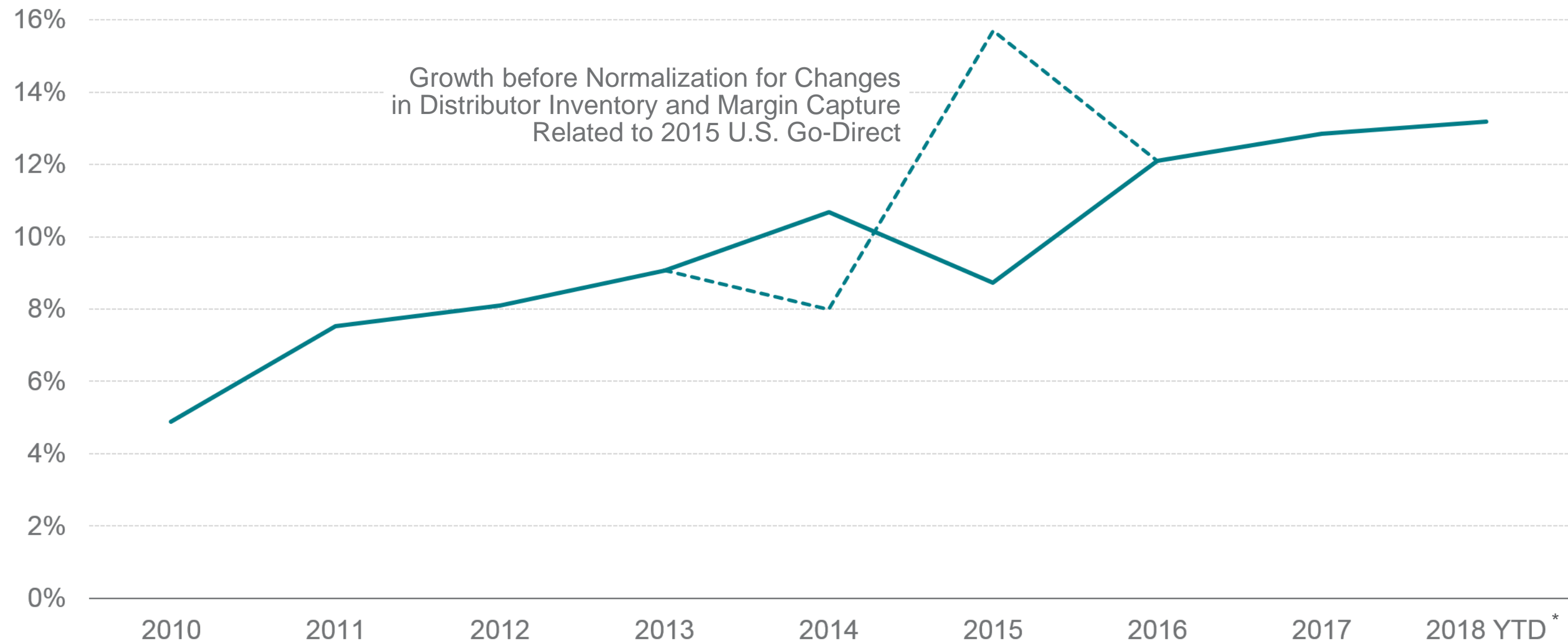
\* All references to 2018E reflect the midpoint of 2018 outlook communicated August 1, 2018. Please refer to our Safe Harbor Disclaimer.

<sup>9</sup> Non-GAAP financial measure, please refer to Appendix for descriptive footnotes.

# Overall Growth has Accelerated to 10%+

*Driven by CAG Diagnostics Recurring Annuity Gains*

Annual CAG Diagnostics Recurring Normalized Organic Revenue Growth<sup>2,3,5</sup>

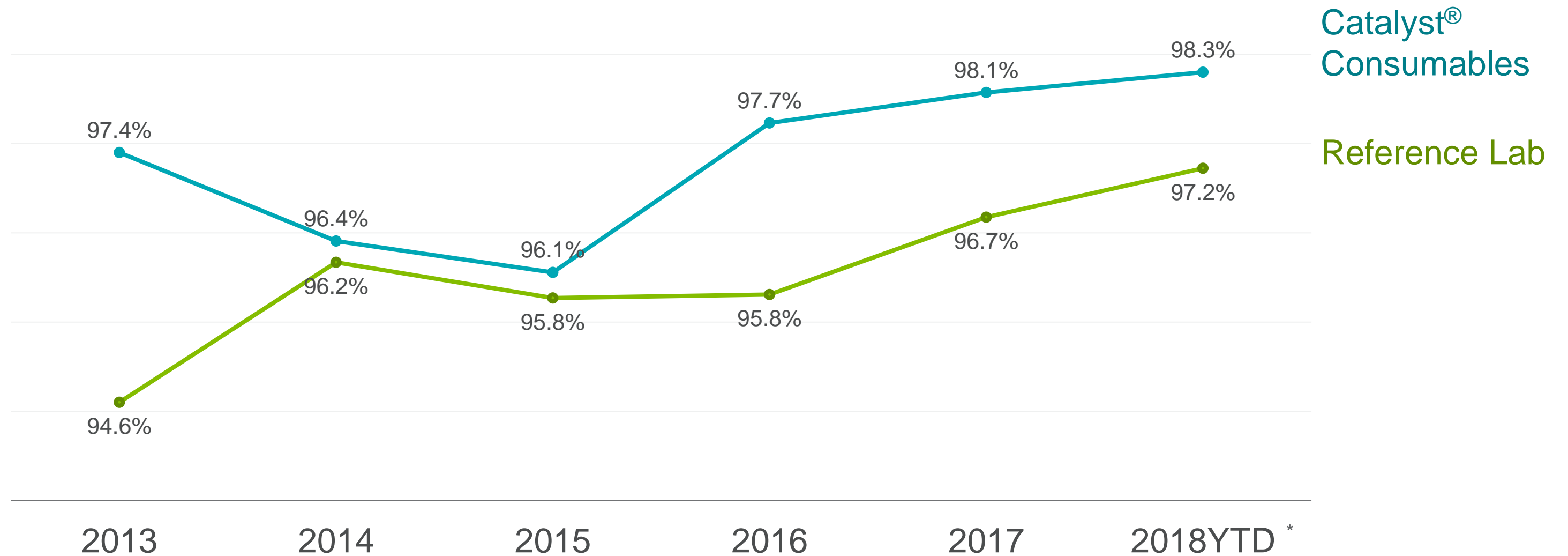


\* All references to 2018 YTD mean January 1, 2018 through June 30, 2018.  
<sup>2,5</sup> Non-GAAP financial measure, please refer to Appendix for descriptive footnotes. <sup>3</sup> Please refer to the Appendix for descriptive footnotes.



# Durability of CAG Recurring Annuity Continues to Strengthen

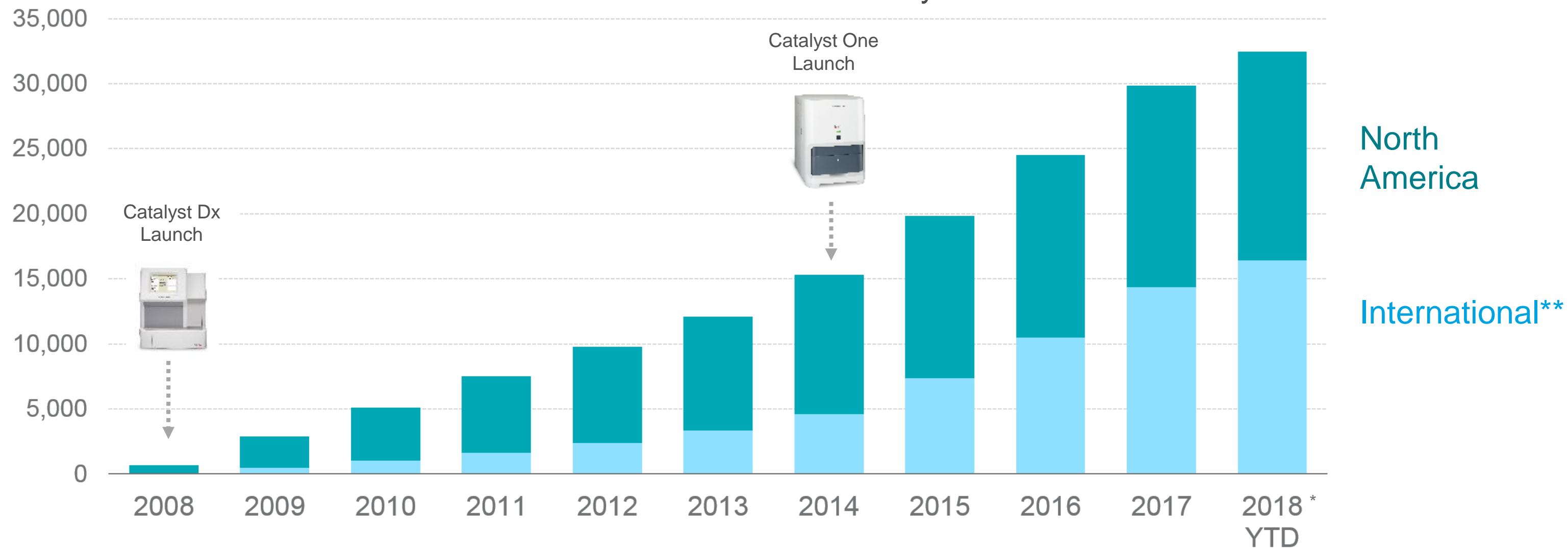
## Annual U.S. Customer Revenue Retention Rates



\* All references to 2018 YTD mean January 1, 2018 through June 30, 2018.

# Key Growth Drivers: Global Catalyst Installed Base Expansion

Worldwide Catalyst Installed Base  
Number of Active Installed Catalysts



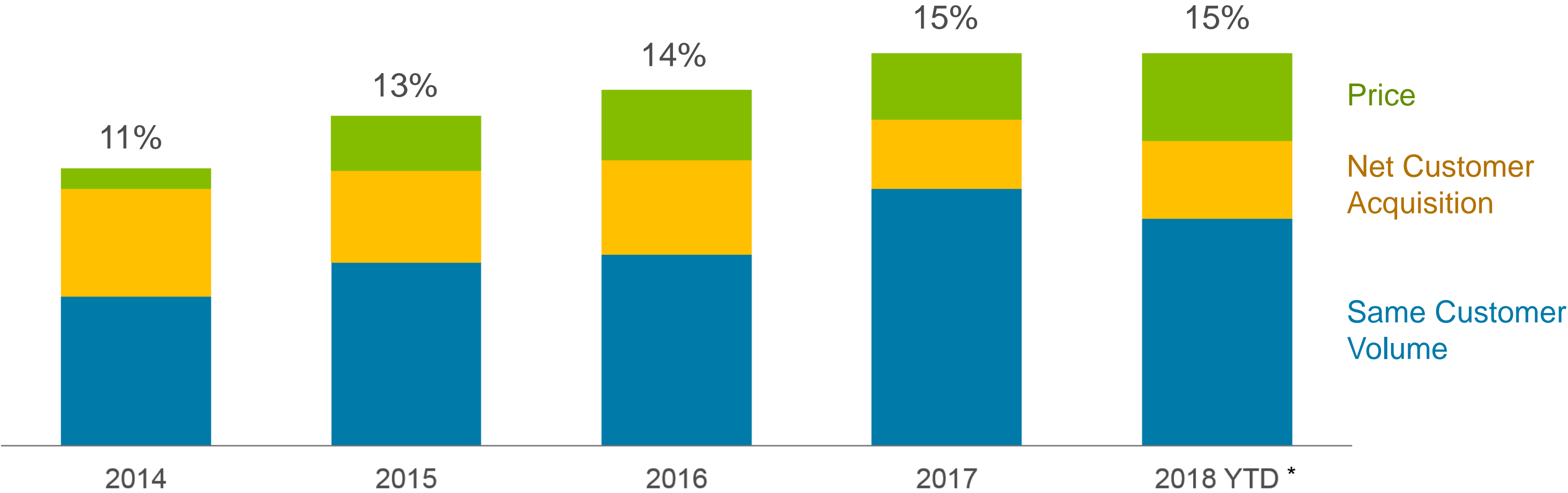
\* 2018 YTD as of June 30, 2018.  
\*\* International installed base excluding Canada.



# Key Growth Drivers: Accelerated U.S. Reference Laboratory Growth



U.S. Reference Lab Organic Revenue Growth by Driver<sup>5,\*</sup>



\* Includes U.S. Reference Lab revenue. International Reference Lab organic revenue will be discussed in the IDEXX Reference Labs presentation on August 16, 2018.

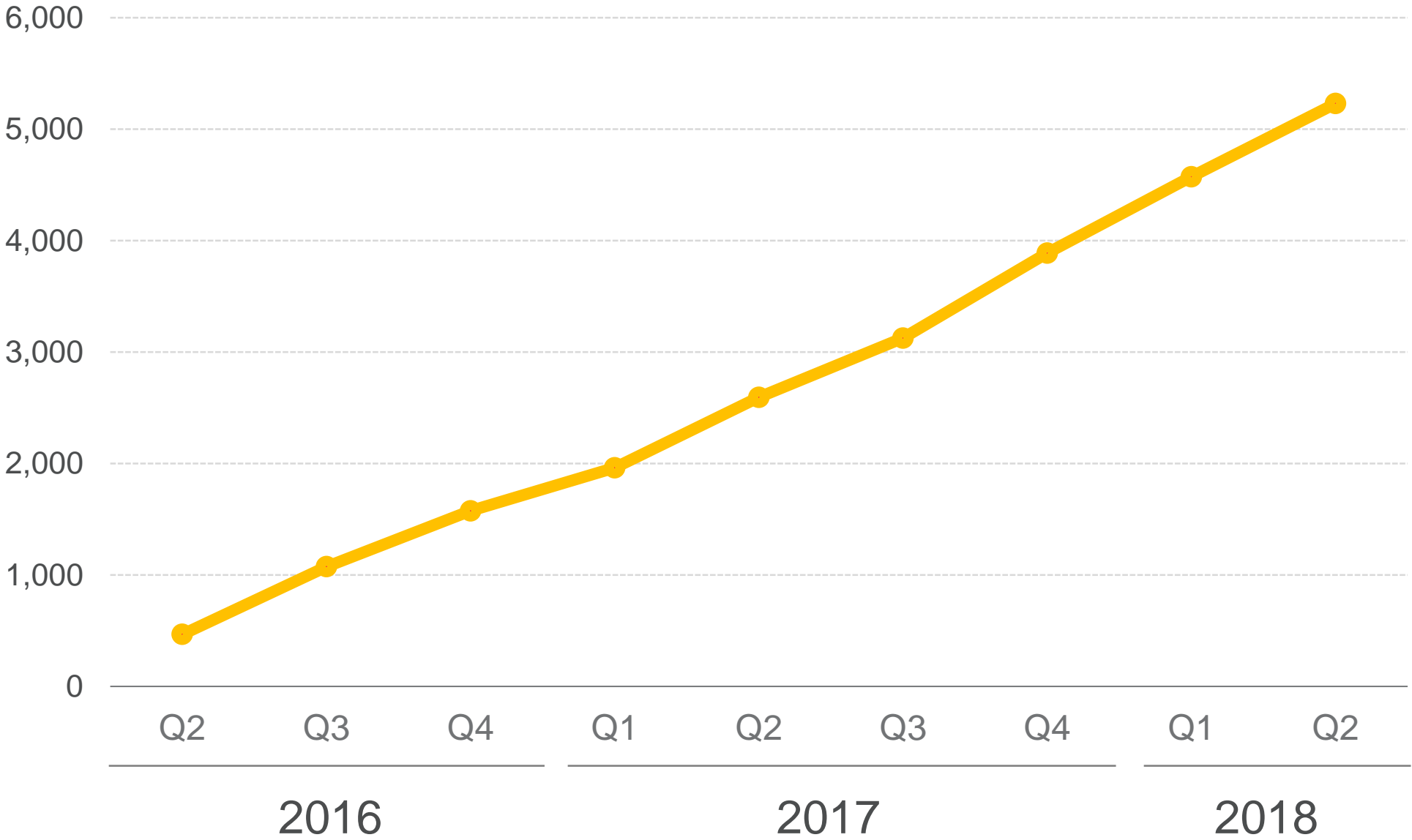
\*\* All references to 2018 YTD mean January 1, 2018 through June 30, 2018.

<sup>5</sup> Non-GAAP financial measure, please refer to Appendix for footnotes.

# Key Growth Drivers: Greenfield Innovation

*Creating Large, New CAG Franchises ...*

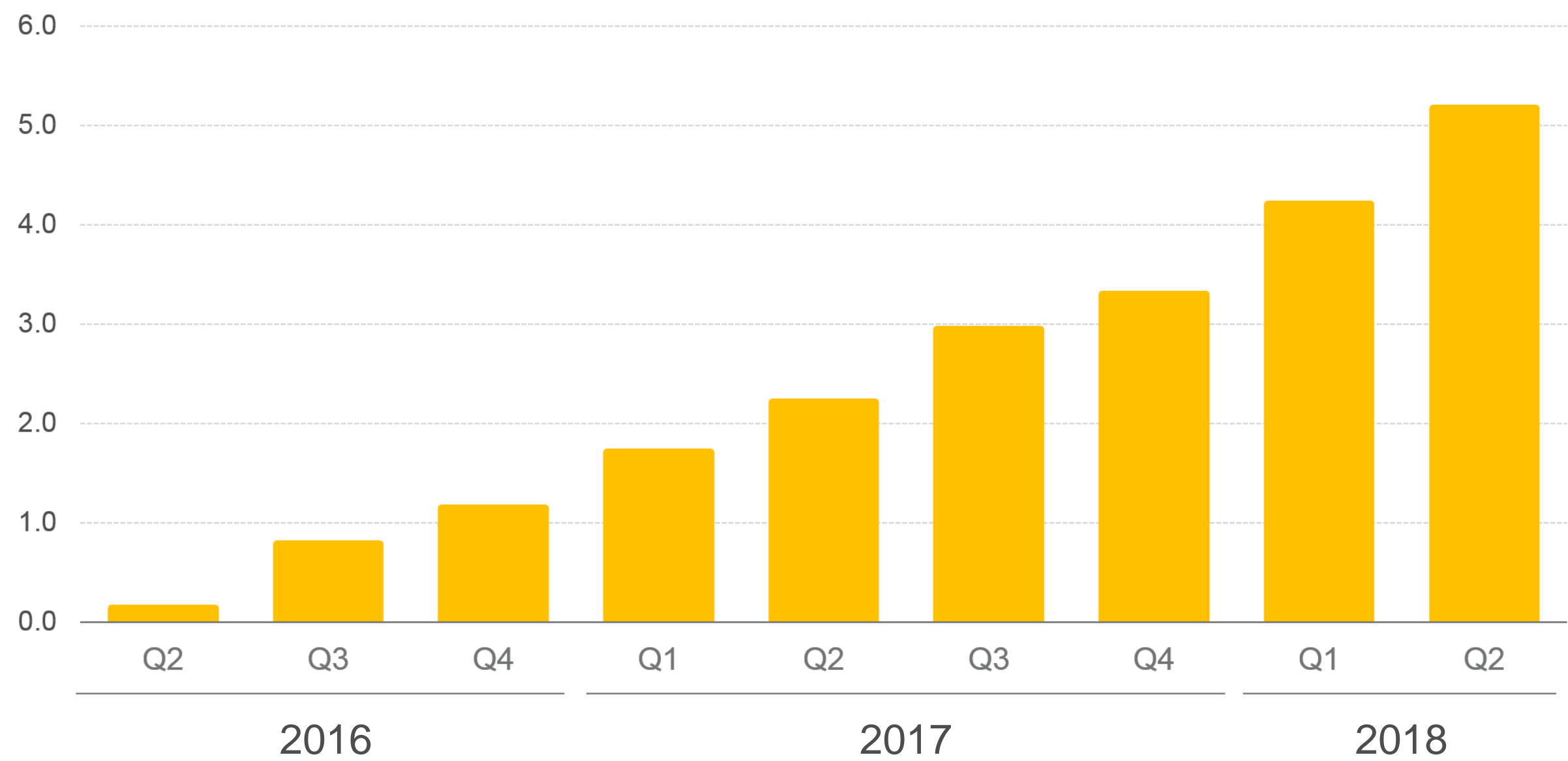
Worldwide Sedivue Dx Installed Base  
Number of Active Installed SediVue Dx Instruments



# Key Growth Drivers: Greenfield Innovation

... Which Drive Enduring, High Margin Annuity Revenues

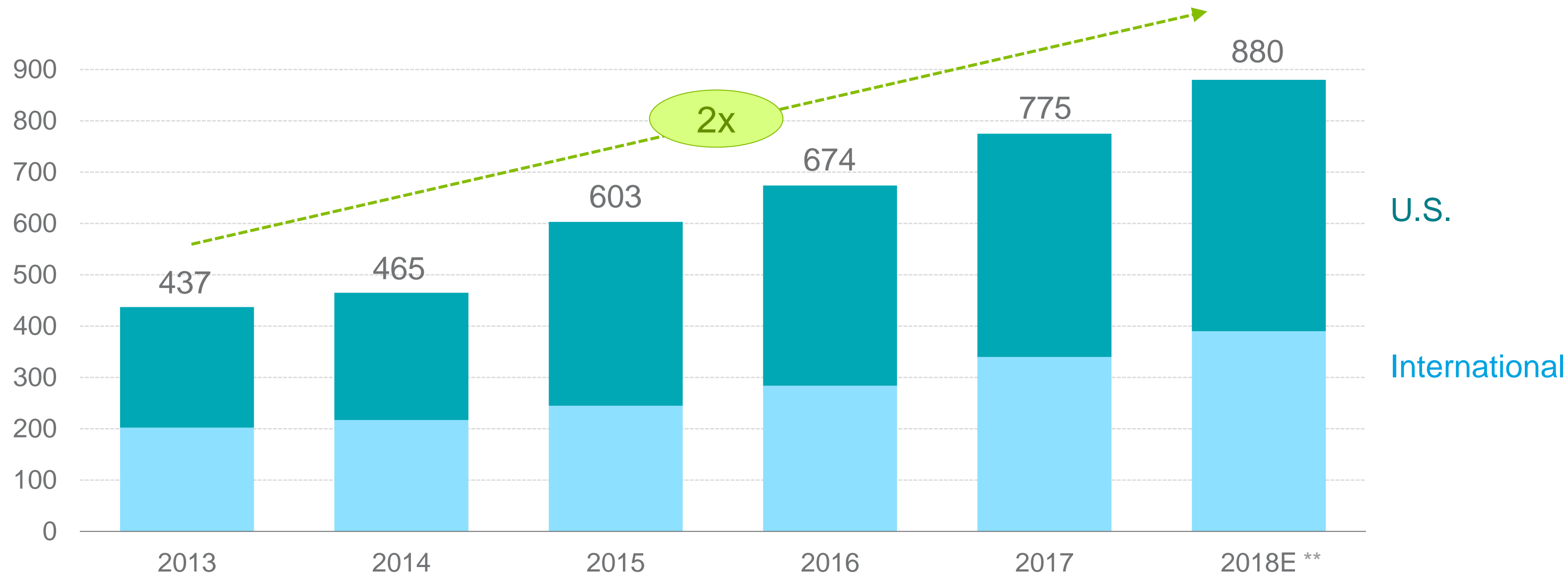
Worldwide Sedivue Dx Recurring Revenue (\$M)\*



\* SediVue Dx Recurring Revenue is reported within CAG Diagnostics recurring revenue and includes Sedivue consumables, services and accessories.

# Key Growth Drivers: Enhanced Direct Commercial Capability

Total U.S. and International CAG *Field-Based* Professional Headcount\*

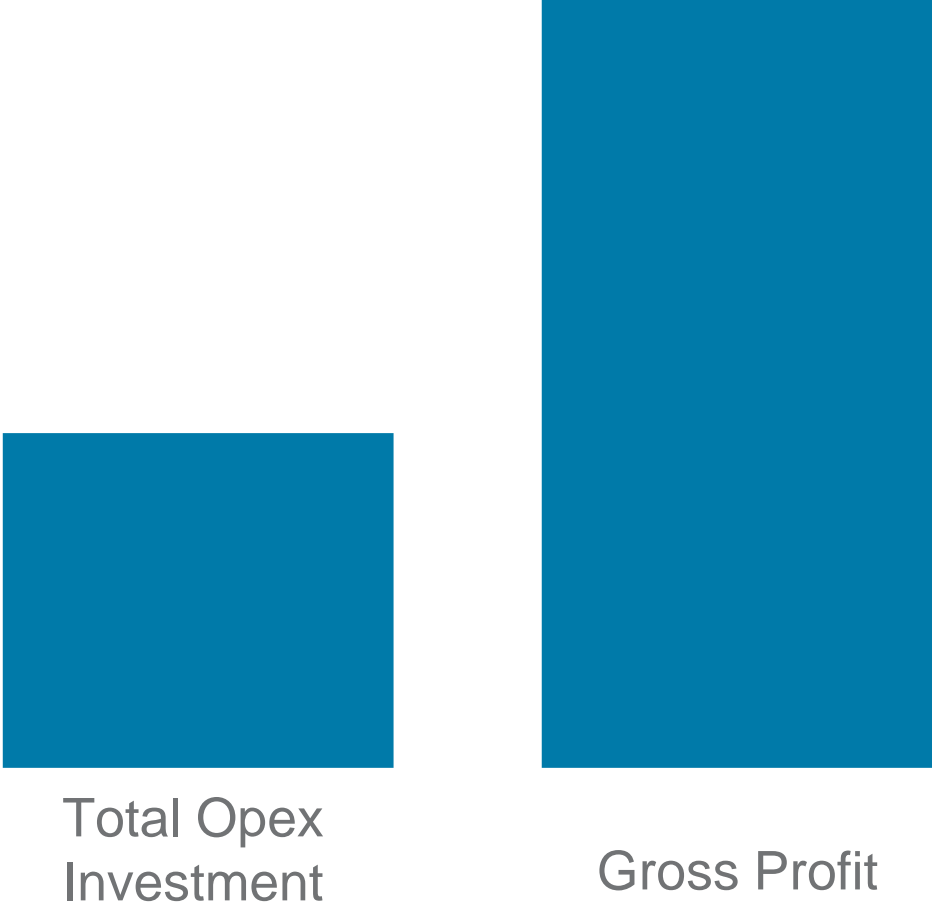


\* Includes all field-based sales and technical services headcount, excluding management. Figures as of December 31 of each calendar year.

\*\* Estimated number of U.S. and International CAG field-based reps at the end of 2018.

# High Incremental Return on CAG Organic Growth Investments

Global CAG Incremental Opex & Gross Profit  
2014 vs. 2018E\* (Constant Currency)<sup>4</sup>



~10%

~15%

- “To Date” Incremental ROIC 120%+
- Estimated Annuity NPV => 6x Incremental Opex

2014 – 2018E\*  
Constant Currency  
CAGR (%)<sup>4</sup>

• 2018E Revenue based on midpoint of guidance range communicated on August 1, 2018. Please refer to our Safe Harbor Disclaimer.

<sup>4</sup> Non-GAAP financial measure, please refer to Appendix for footnotes.

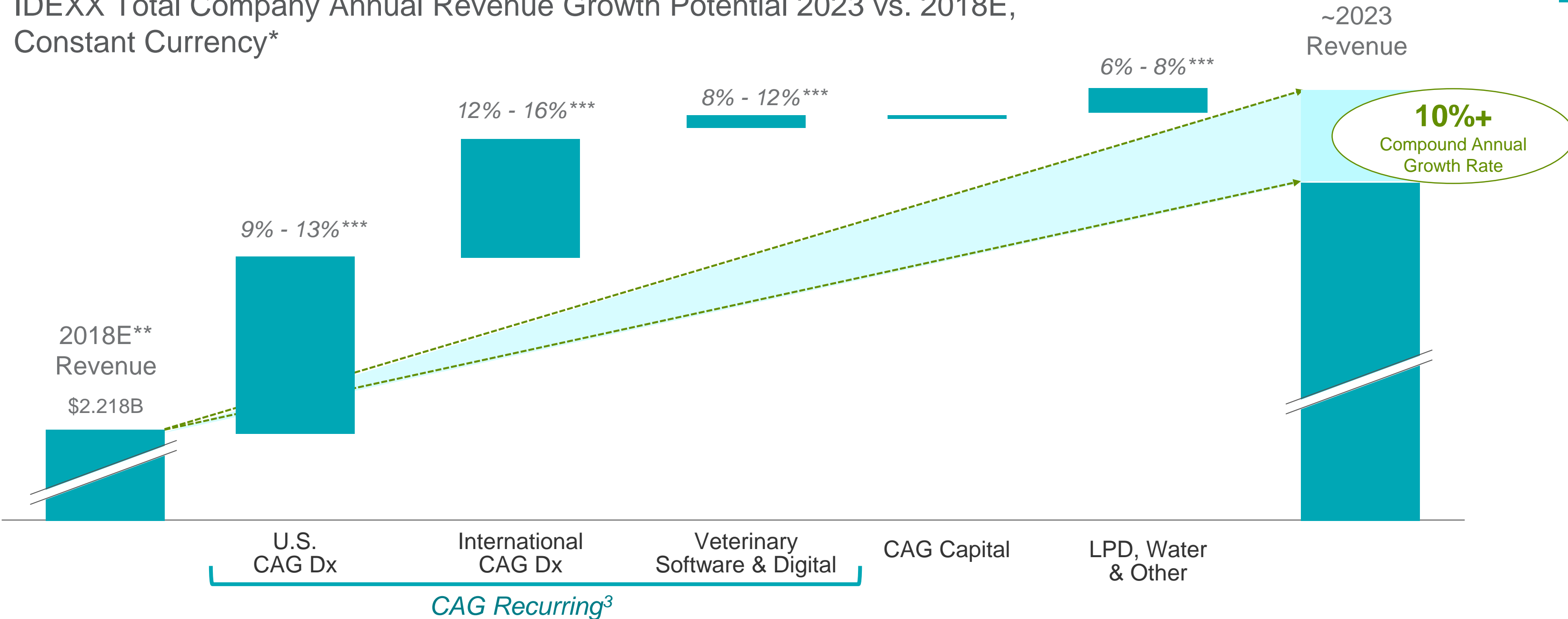
Incremental ROIC: Compares actual CAG Dx recurring revenue growth over period versus base growth of 8% over period. We assume 60% gross margins on the incremental revenue growth and tax rate of 22%. The after tax gross profit is divided by the after tax incremental operating expense investment over the period to obtain incremental ROIC. The incremental OPEX is calculated by taking actual CAG Segment OPEX over period less base OPEX growth at 6% to align with 8% base revenue growth. Estimated NPV multiple: Defined at present value of after tax gross profit net of maintenance OPEX equal to 20% of 2018 ending OPEX over 40 year horizon (inverse of 97%-98% retention rate) discounted at 7% cost of capital.



# Continued 10%+ Annual Revenue Growth Potential

*Driven by Expansion of CAG Diagnostics Recurring Revenue*

IDEXX Total Company Annual Revenue Growth Potential 2023 vs. 2018E, Constant Currency\*

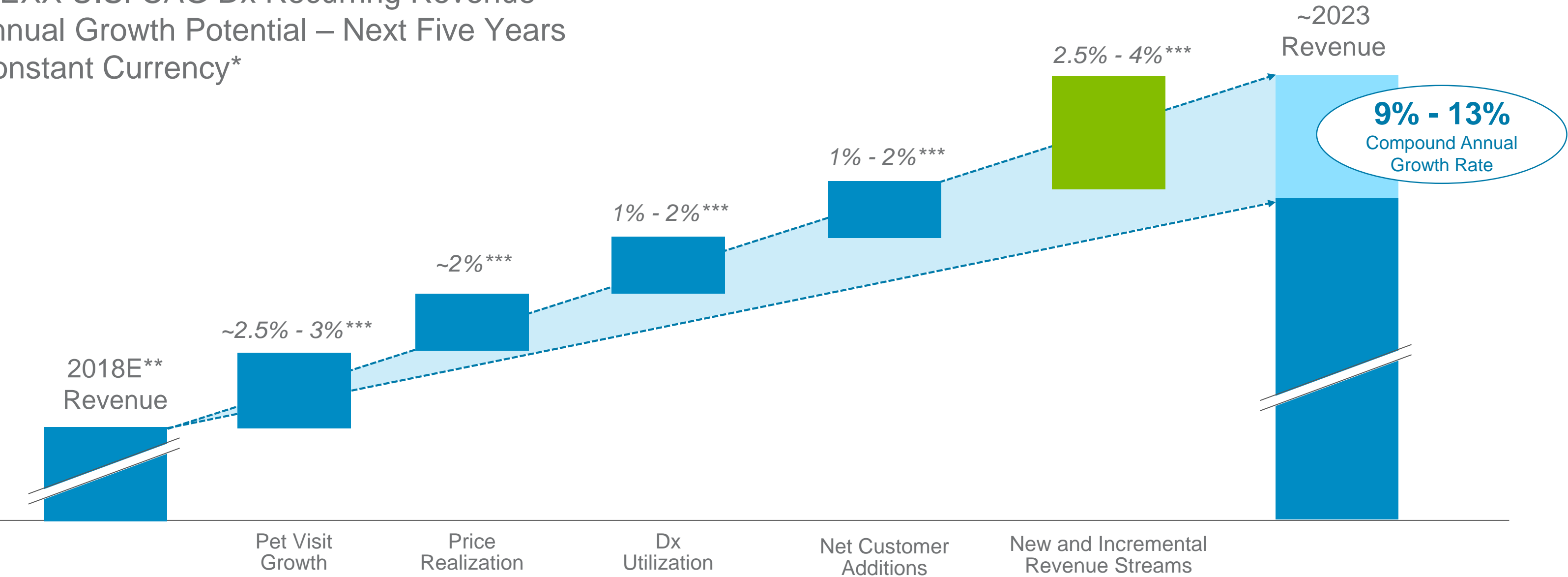


\* These projections assume that foreign currency exchange rates will remain the same as in 2018.  
\*\* 2018E Revenue based on midpoint of guidance range communicated on August 1, 2018. Please refer to our Safe Harbor Disclaimer.  
\*\*\* Estimated potential revenue compound annual growth rate for this business segment.  
³ Please refer to the Appendix for descriptive footnotes.

# High U.S. CAG Diagnostics Recurring Revenue Growth Potential

*Driven by Strong Market Growth, Customer Acquisition and Innovation*

IDEXX U.S. CAG Dx Recurring Revenue  
Annual Growth Potential – Next Five Years  
Constant Currency\*

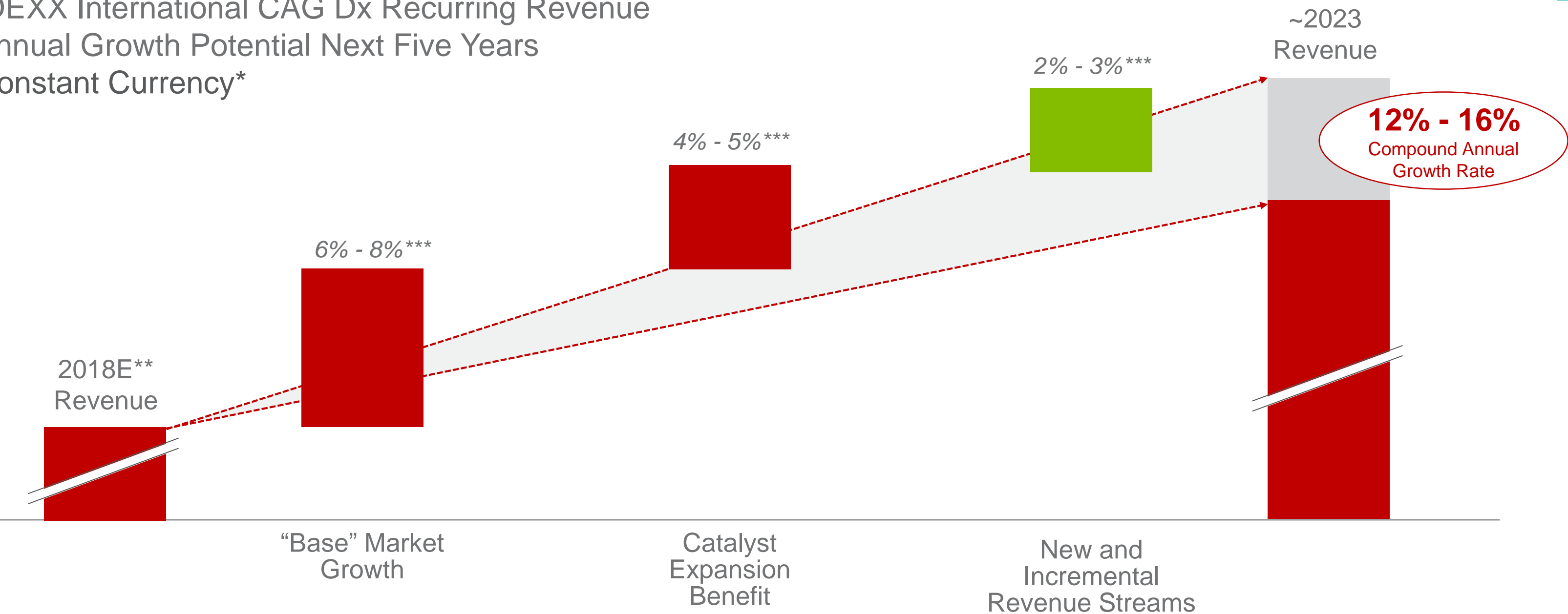


\* These projections assume that foreign currency exchange rates will remain the same as in 2018.  
\*\* 2018E Revenue based on midpoint of guidance range communicated on August 1, 2018. Please refer to our Safe Harbor Disclaimer.  
\*\*\* Estimated contribution to U.S. CAG Dx Recurring Revenue potential compound annual growth rate from this driver.

# Higher International CAG Diagnostics Recurring Revenue Growth Potential

*Supported by Catalyst Expansion*

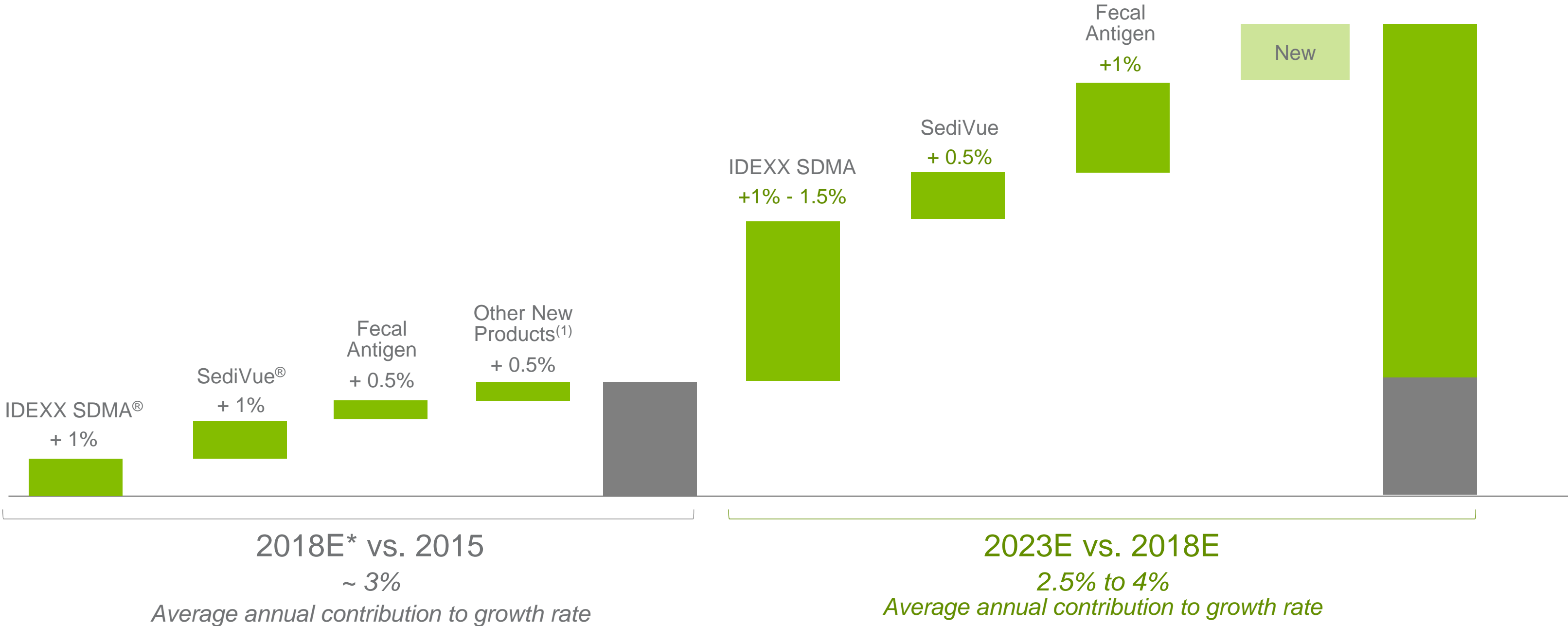
IDEXX International CAG Dx Recurring Revenue  
Annual Growth Potential Next Five Years  
Constant Currency\*



\* These projections assume that foreign currency exchange rates will remain the same as in 2018.  
\*\* 2018E Revenue based on midpoint of guidance range communicated on August 1, 2018. Please refer to our Safe Harbor Disclaimer.  
\*\*\* Estimated potential revenue compound annual growth rate from this driver.

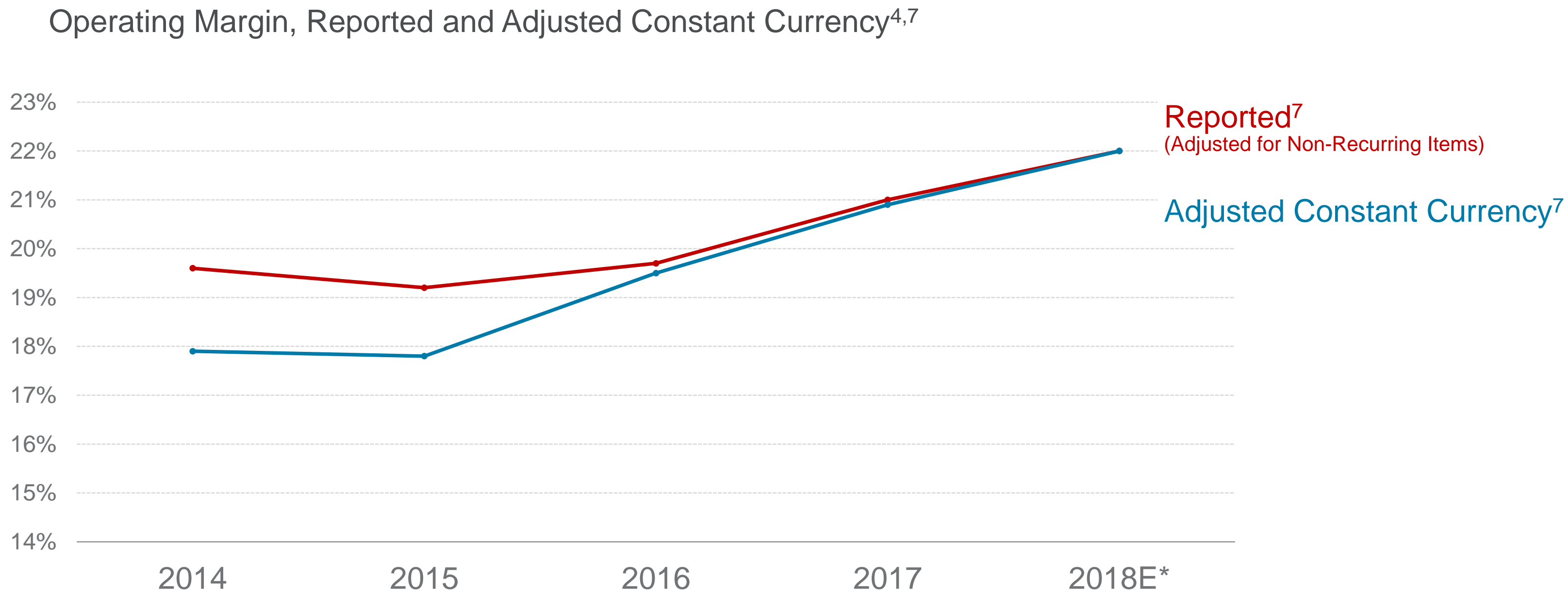
# Key Growth Drivers: Greenfield and New Innovation

IDEXX Greenfield and New Innovation – Annual Contribution to Revenue Growth (\$M)  
*Estimated Achievement & Future Potential*



\* 2018E Revenue based on midpoint of guidance range communicated on August 1, 2018. Please refer to our Safe Harbor Disclaimer.

# Strong Growth Supports Operating Margin Gains



\* All references to 2018E reflect the midpoint of 2018 outlook communicated August 1, 2018. Please refer to our Safe Harbor Disclaimer.

<sup>4,7</sup> Non-GAAP financial measures, please refer to Appendix for footnotes. Operating margin includes hedges.



# Operating Margin Outlook

*Targeting Continued Solid Gains While Increasing Growth and Enabling Investments*

| Margin Drivers                                                                      | 2016-2018E*           | 2019 Target          | Longer-Term Potential |
|-------------------------------------------------------------------------------------|-----------------------|----------------------|-----------------------|
| <b>Gross Margin Expansion</b>                                                       | ↑↑                    | ↑↑                   | ↑↑                    |
| CAG Recurring Annuity Growth (Price & Mix)                                          | ↑                     | ↑                    | ↑                     |
| Lab Scale/Productivity                                                              | ↑                     | ↑                    | ↑                     |
| Sourcing/Manufacturing (Cost/Mix)                                                   | ↑                     | ↑                    | ↑                     |
| Growth Investments – Customer Acquisition, Capability & Capacity                    | ↔ ↓                   | ↔ ↓                  | ↔                     |
| <b>Operating Expense Leverage</b>                                                   | ↑↑                    | ↔ ↓                  | ↑                     |
| Sales & Marketing                                                                   | ↑                     | ↓                    | ↔ ↑                   |
| R&D                                                                                 | ↑                     | ↔ ↓                  | ↔                     |
| IT                                                                                  | ↓                     | ↔                    | ↔                     |
| G & A / Other                                                                       | ↑                     | ↑                    | ↑                     |
| <b>Acquisition Impact</b>                                                           | ↓                     | ↓                    | ↔                     |
| <b>Average Annual Adjusted Constant Currency Operating Margin Gains<sup>7</sup></b> | <b>~140 bps (avg)</b> | <b>~50 - 100 bps</b> | <b>50 - 100+ bps</b>  |

Impact on operating margin:



Positive



Neutral



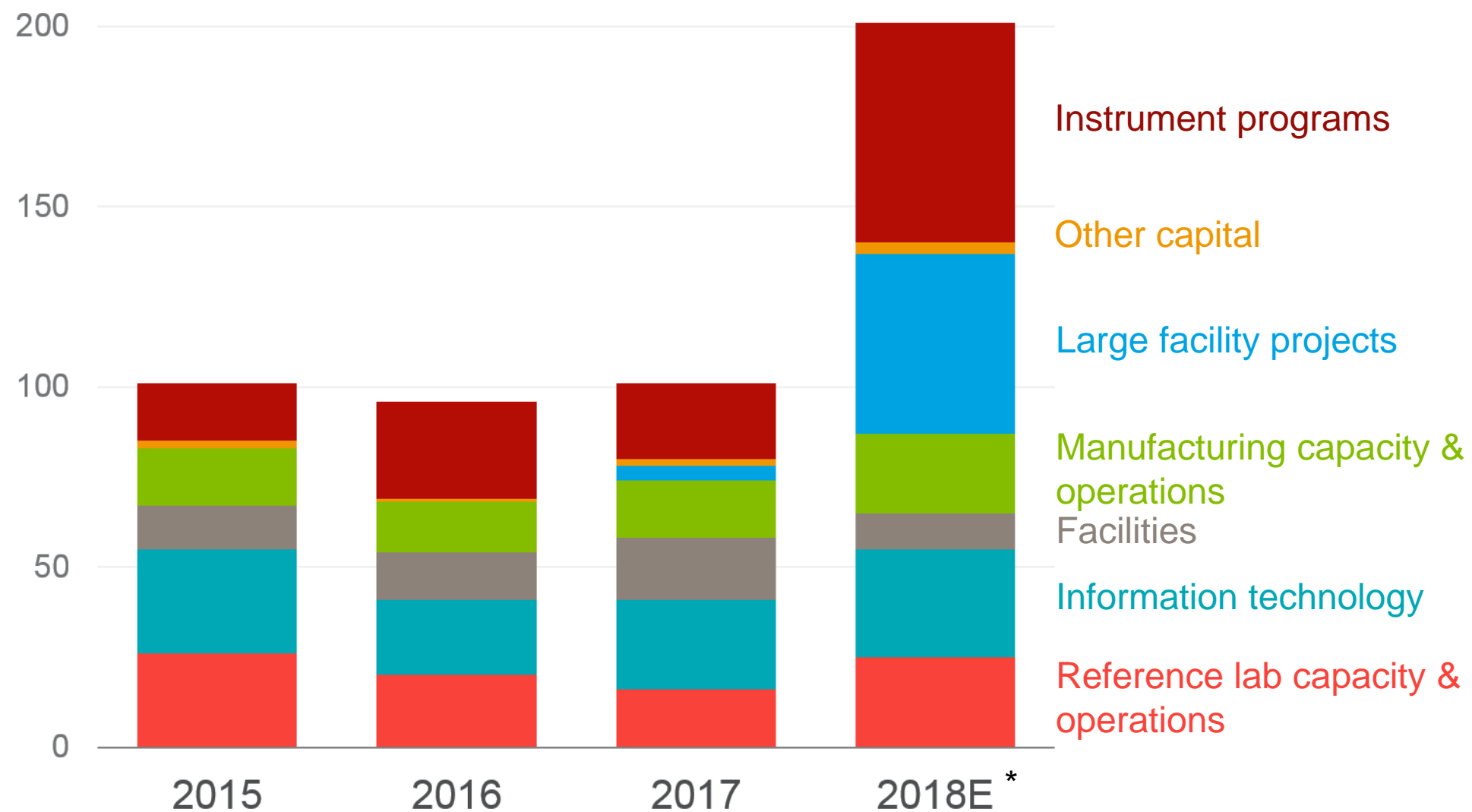
Negative

\* 2018E Revenue based on midpoint of guidance range communicated on August 1, 2018. Please refer to our Safe Harbor Disclaimer.

<sup>4</sup> Non-GAAP financial measure, please refer to Appendix for footnotes.

# Increased Organic Capital Allocation

Capital and Instrument Program Investments (\$M)

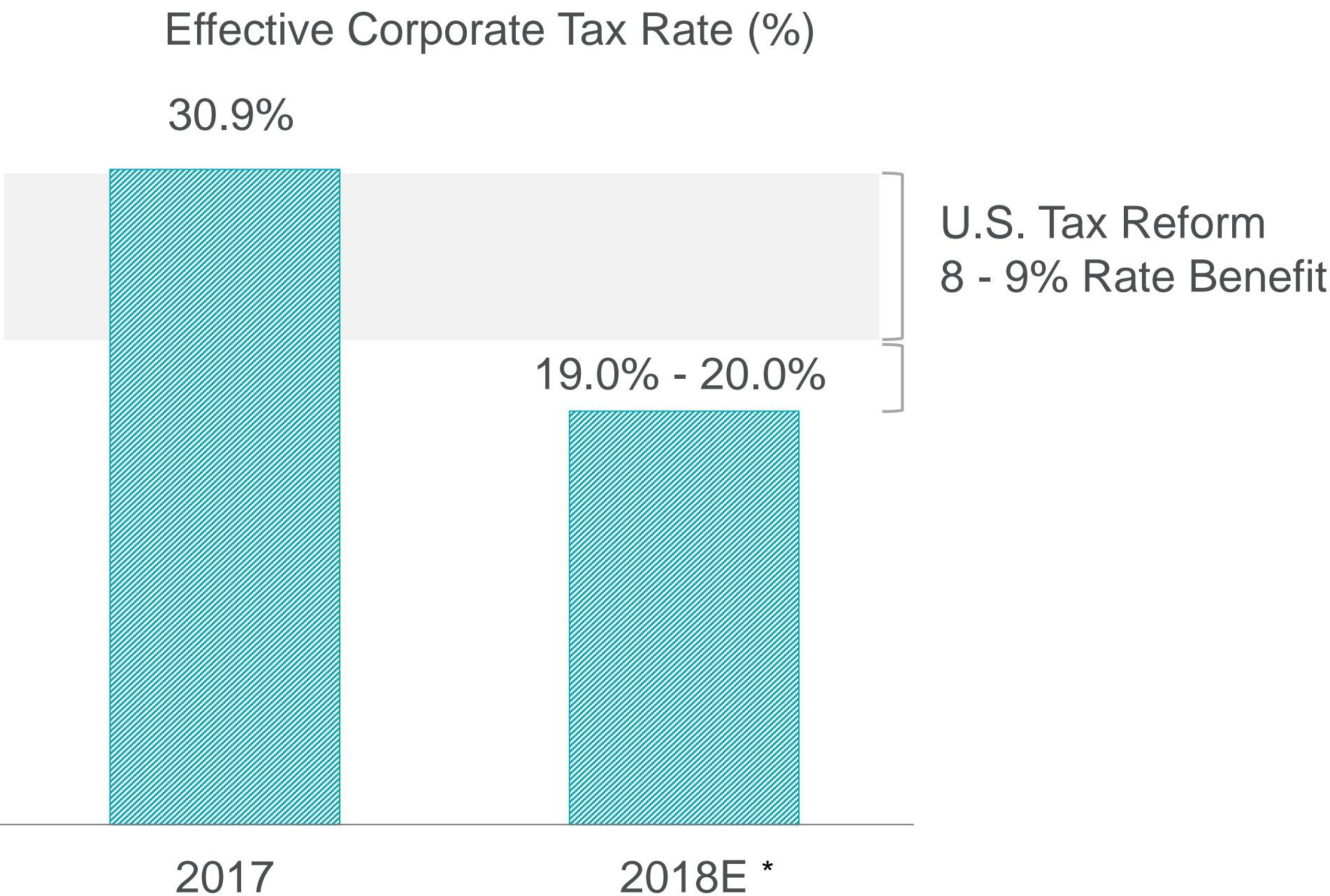


## Key Drivers

- Accelerated program instrument placements (IDEXX 360)
- Large facility projects (German core lab, Westbrook HQ)
- Increased lab capacity and enabling IT
- Expanded self-manufacturing capacity

\* All references to 2018E reflect the midpoint of 2018 outlook communicated August 1, 2018. Please refer to our Safe Harbor Disclaimer.

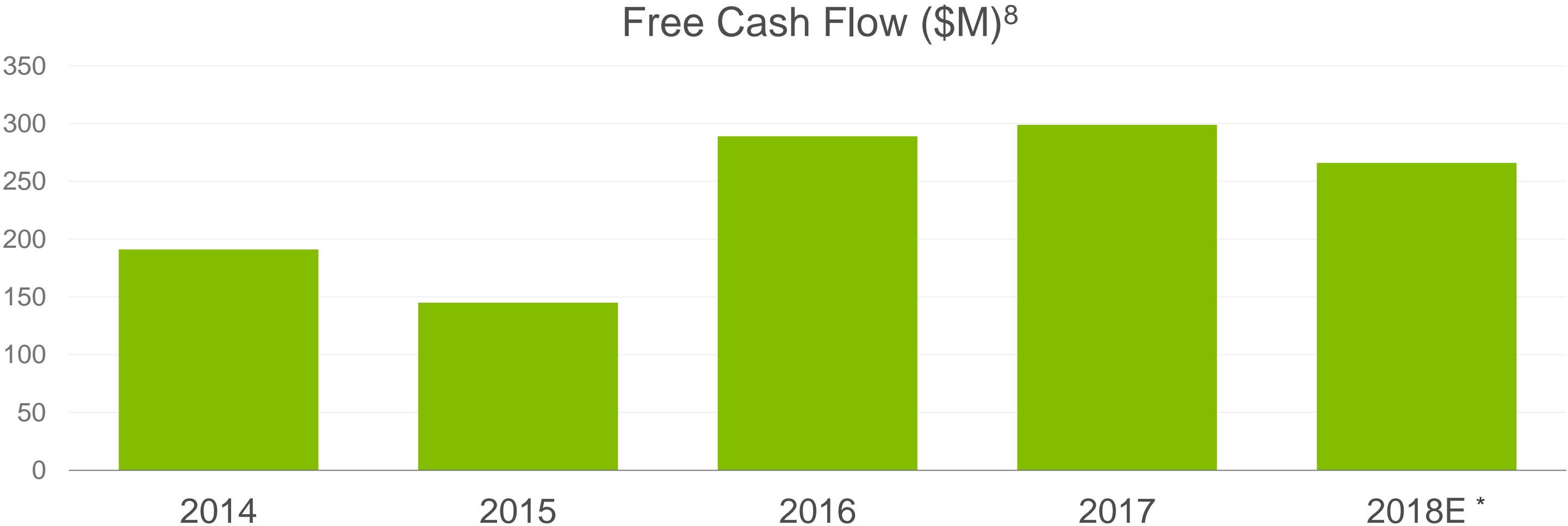
# Substantial U.S. Tax Reform Benefits Support Increased Investment



- Raises attractiveness of U.S. investment
- 8% - 10% increase in operating cash flow
- Global investment flexibility (reduced tax friction)

\* All references to 2018E reflect the midpoint of 2018 outlook communicated August 1, 2018. Please refer to our Safe Harbor Disclaimer.

# Continued Strong Free Cash Flow Outlook



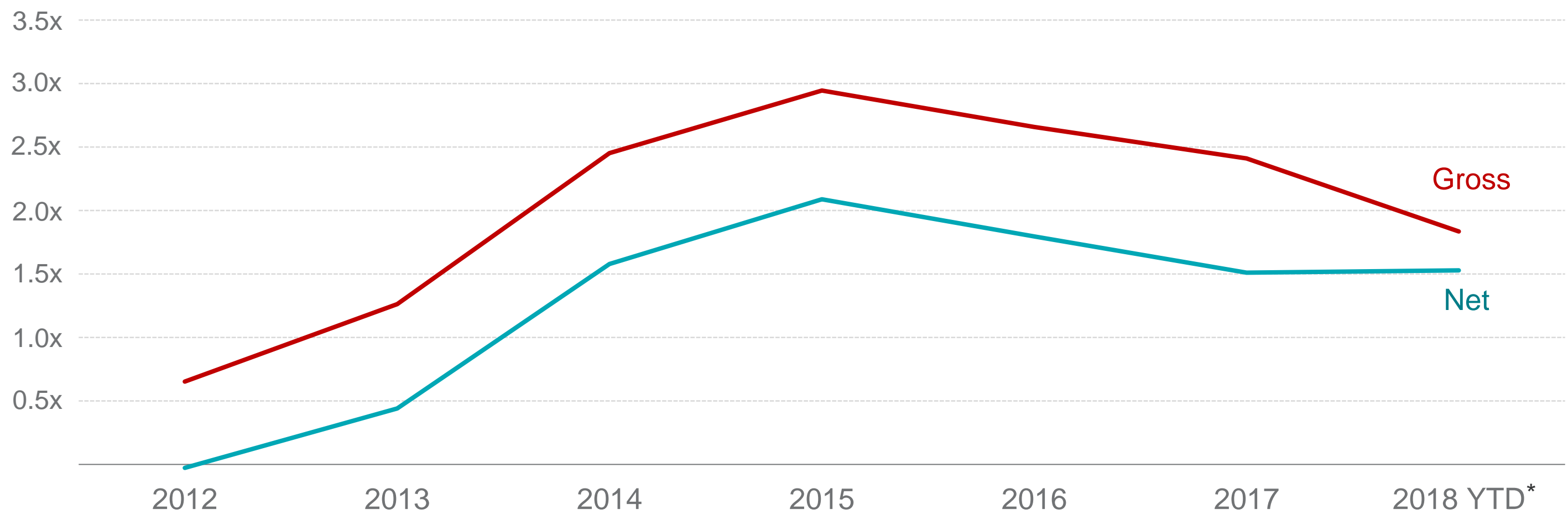
Expect 2018/2019 free cash flow conversion at 70% - 75% of net income  
(as we advance major projects and increase growth capital deployment)

\* All references to 2018E reflect the midpoint of 2018 outlook communicated August 1, 2018. Please refer to our Safe Harbor Disclaimer

<sup>8</sup> Non-GAAP financial measure, please refer to Appendix for footnotes.

# Moderated Leverage Levels (Reflects Post-Tax Reform Optimization)

Debt to Adjusted EBITDA<sup>10</sup> Ratio



\* All references to 2018 YTD mean January 1, 2018 through June 30, 2018.

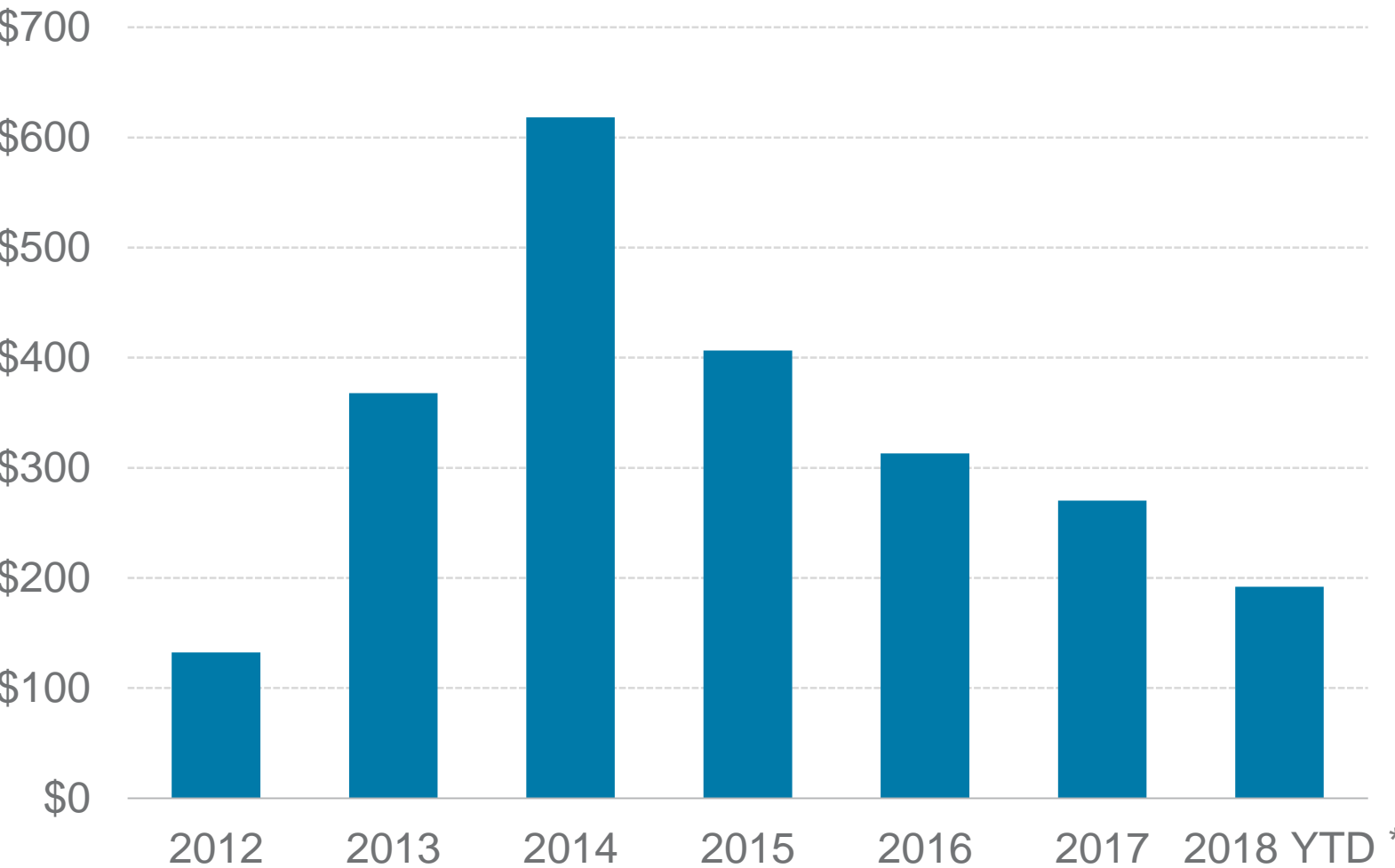
<sup>10</sup> Non-GAAP financial measure, please refer to Appendix for footnotes.



# Capital Allocation Aligned with Focus on Core Business Growth and Shareholder Value Creation

- Emphasis on organic growth investment
- Support focused acquisition strategy (technology, lab and distributor fold-in's)
- Allocation of excess capital to share repurchases (varied investment pace)

Capital Allocated to Share Repurchases (Annually, \$M)



**\$2.3 billion**  
capital deployed

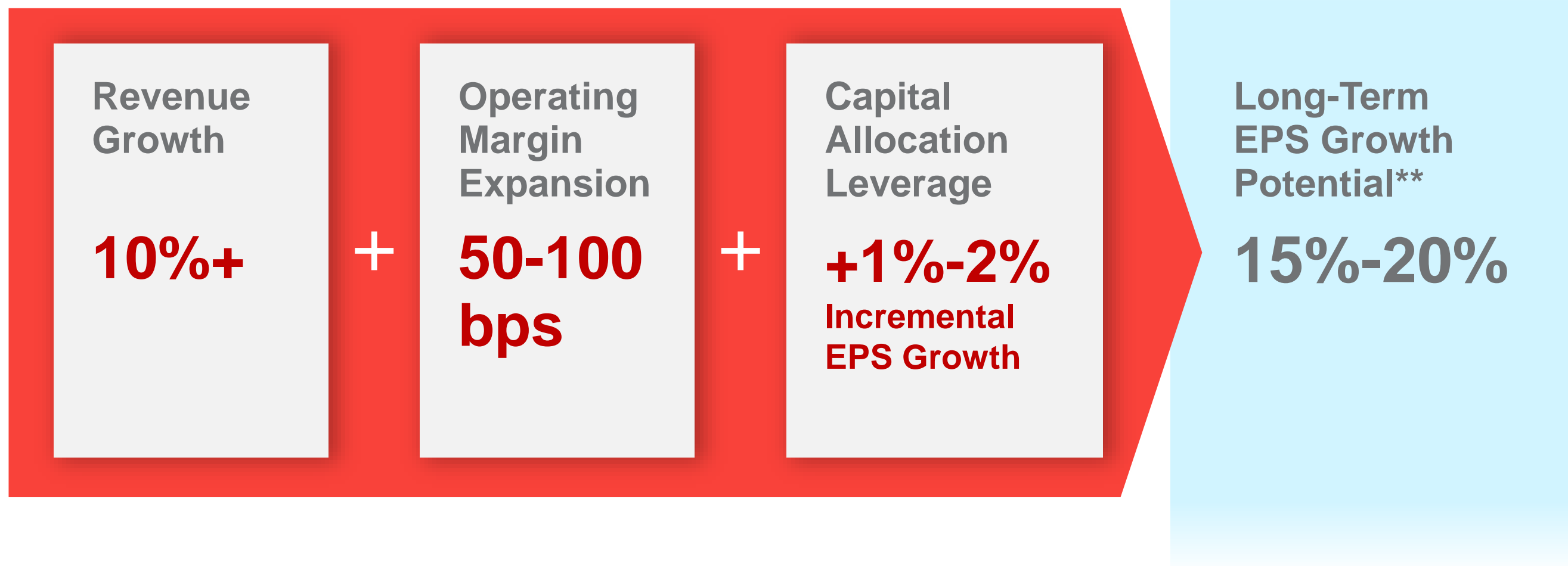
**30%** cumulative share count  
reduction

**\$72** average  
purchase price

\* All references to 2018 YTD mean January 1, 2018 through June 30, 2018.

# Well-Positioned to Drive Sustainable, Strong Financial Performance

Long-Term Financial Model\*  
(Average Annual Constant Currency Gains)



\* These projections assume that foreign currency exchange rates will remain the same as in 2018.

\*\* EPS growth potential outlook excludes year over year changes in share-based compensation tax benefits.





# IDEXX Veterinary Software & Services

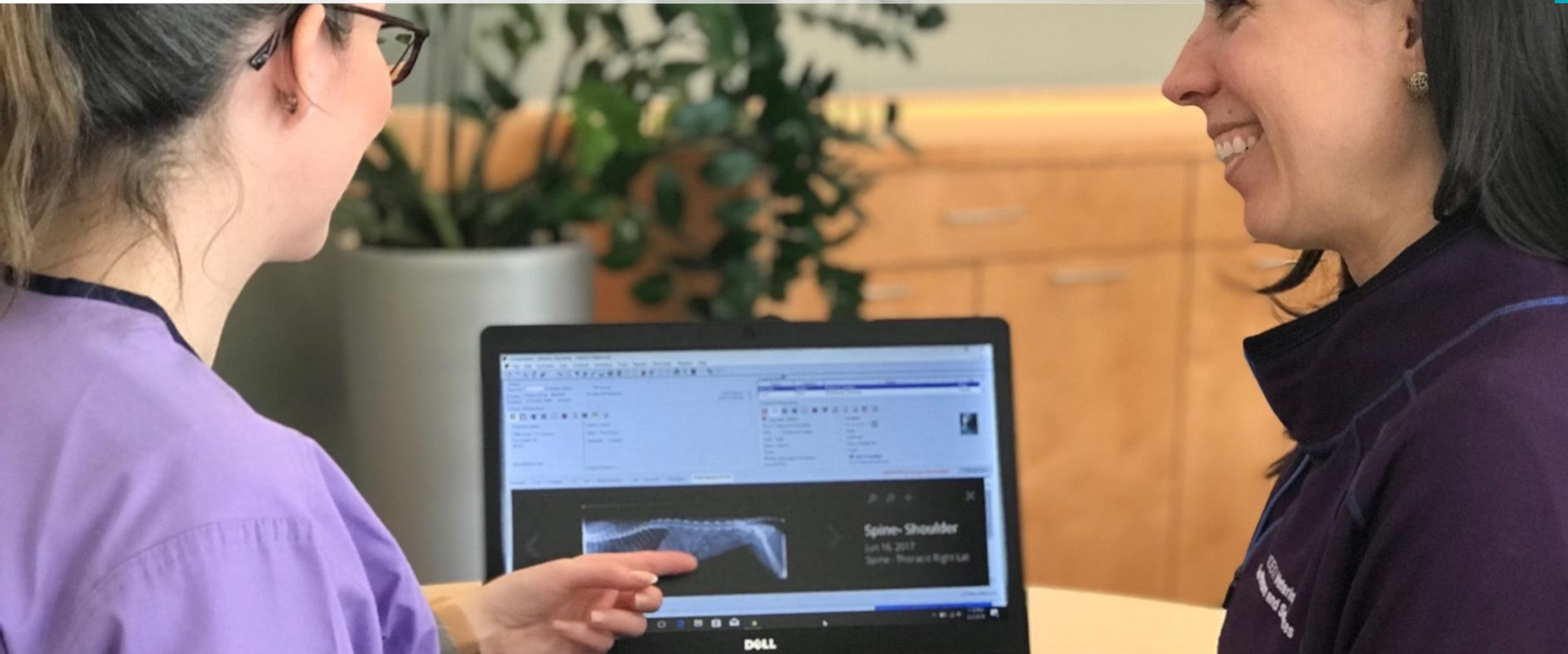
Mike Erickson, PhD, Corporate Vice President

IDEXX Investor Day | August 15, 2018





# Veterinary Health Services are Inherently Information and Workflow Intensive





# IDEXX Veterinary Software Provides Critical Tools for All Members of the Veterinary Team...

## Practice Staff



**Practice Manager**

- Run the practice
- Develop and manage staff
- Address technology gaps

## Care Team



**Veterinarian**

- Deliver care
- Use tools that support care (EHR, VC+)



**Technician**

- Run diagnostics
- Aid veterinarian, record care decisions

## Corporate



**CIO and Group Manager**

- Manage fragmented IT environment
- Track performance
- Evaluate and implement tools



# ...And Supports Diagnostics Loyalty and Growth

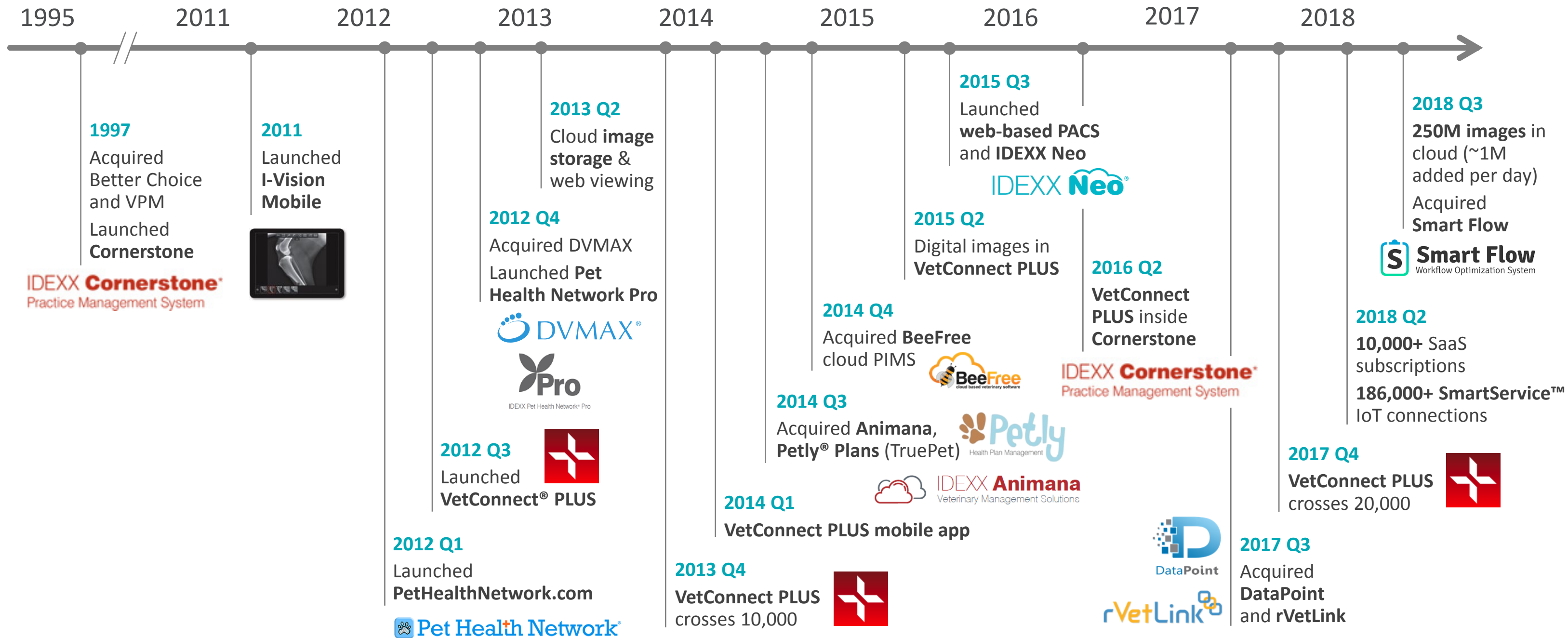
Our best customers use IDEXX software...

- 2x IDEXX diagnostics per customer
- Far more loyal to IDEXX diagnostics





# IDEXX has Developed and Acquired Broad Capabilities to Establish Leadership in Veterinary Software



# IDEXX Veterinary Software Strategy has Four Pillars

1

## Leading PIMS Solutions

Critical customer real estate

Store all customer and patient data (EHR), scheduling and billing system

2

## Valuable Apps and Services

Value created here through recurring revenue growth

Critical tools to run practice

3

## Secure Sanctioned API

Connecting PIMS and Apps, ensuring patient privacy and security

4

## Solutions for Corporate Groups

Addressing unique enterprise needs

Managing distributed IT environments across practice network

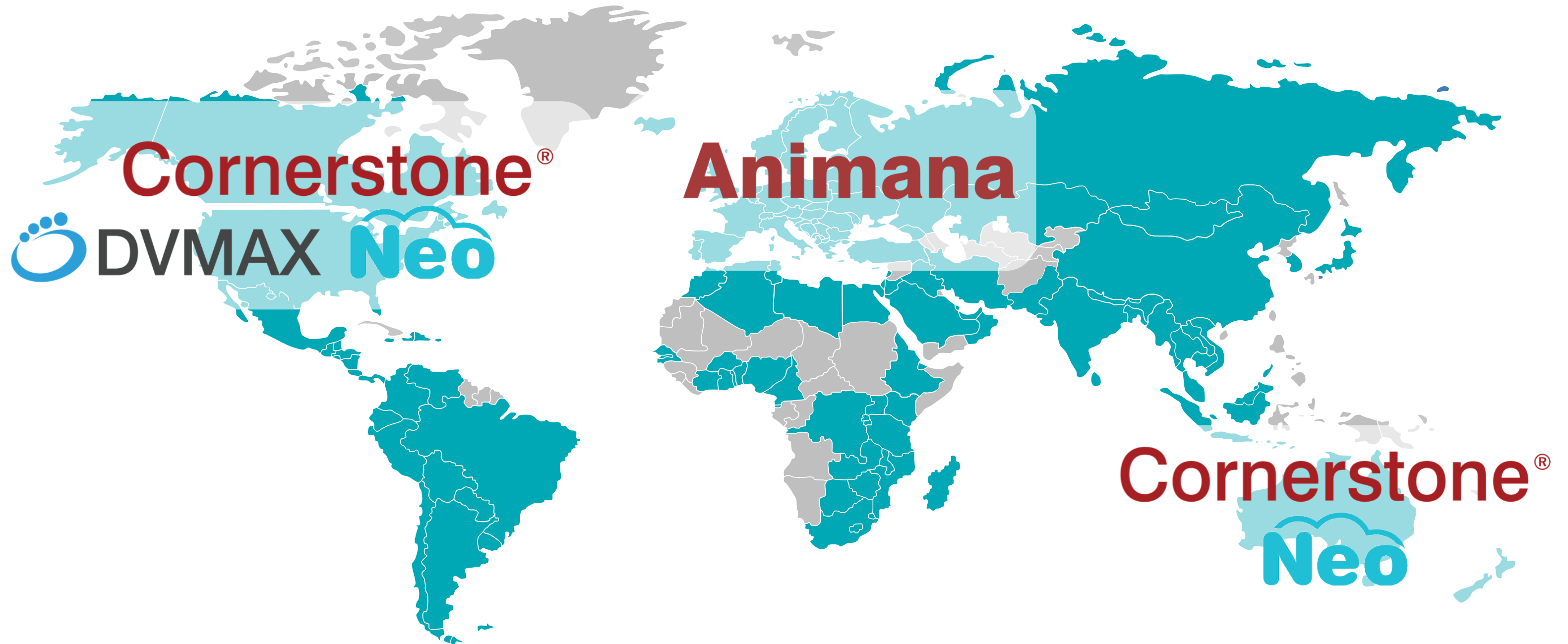
**Cornerstone<sup>®</sup>**  
**DVMAX** **Neo**  
**Animana**

**VetConnect<sup>+</sup> PLUS**  
**Petly** **rVetLink<sup>+</sup>**  
Plans  
**Smart Flow**  
Workflow Optimization System

**DataPoint**

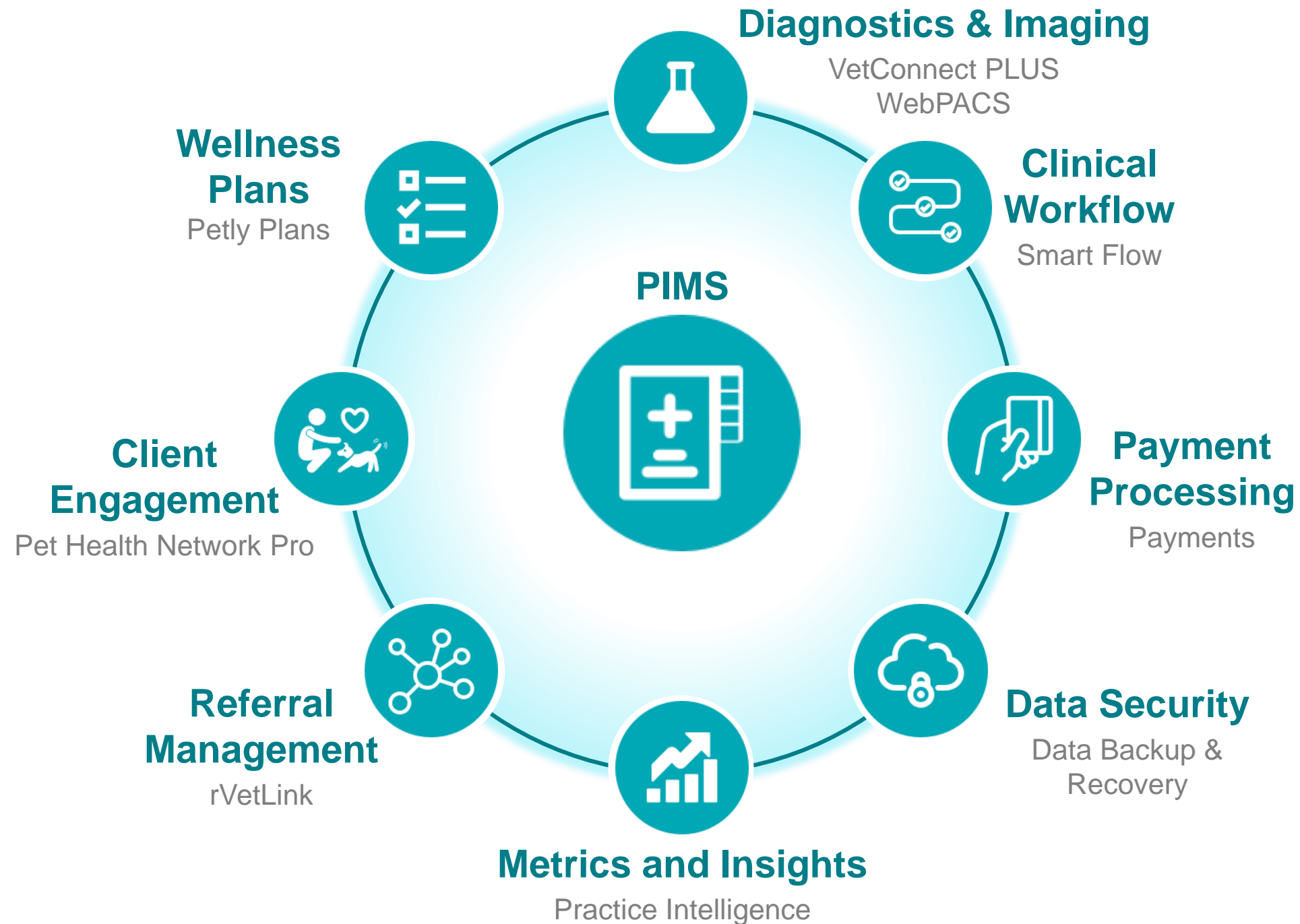


# 1 Expanding Global Footprint of PIMS and Cloud Technology



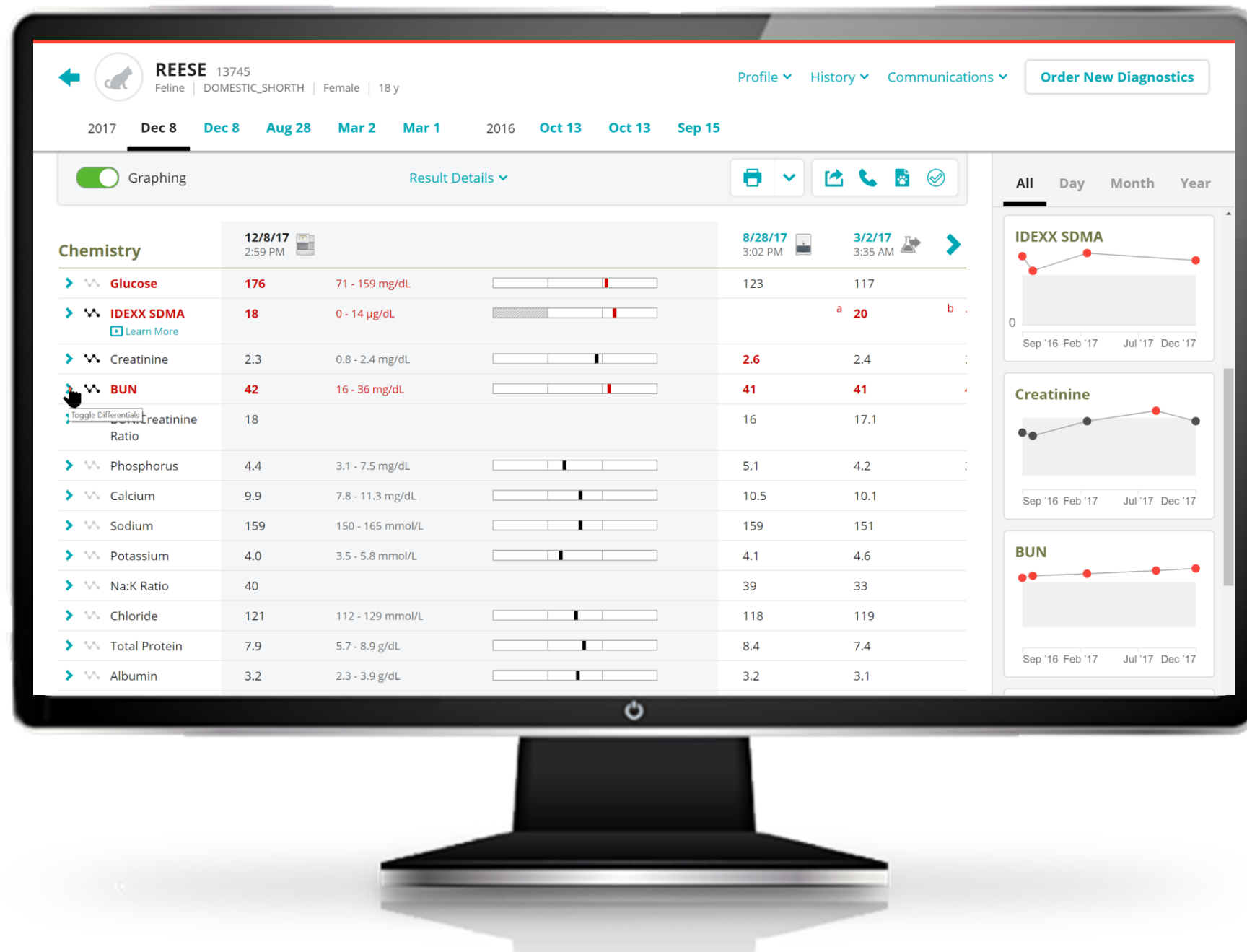


## 2 PIMS + Apps/Services Together Form a Complete Solution





## 2 VetConnect PLUS is Veterinary's Largest Global Application

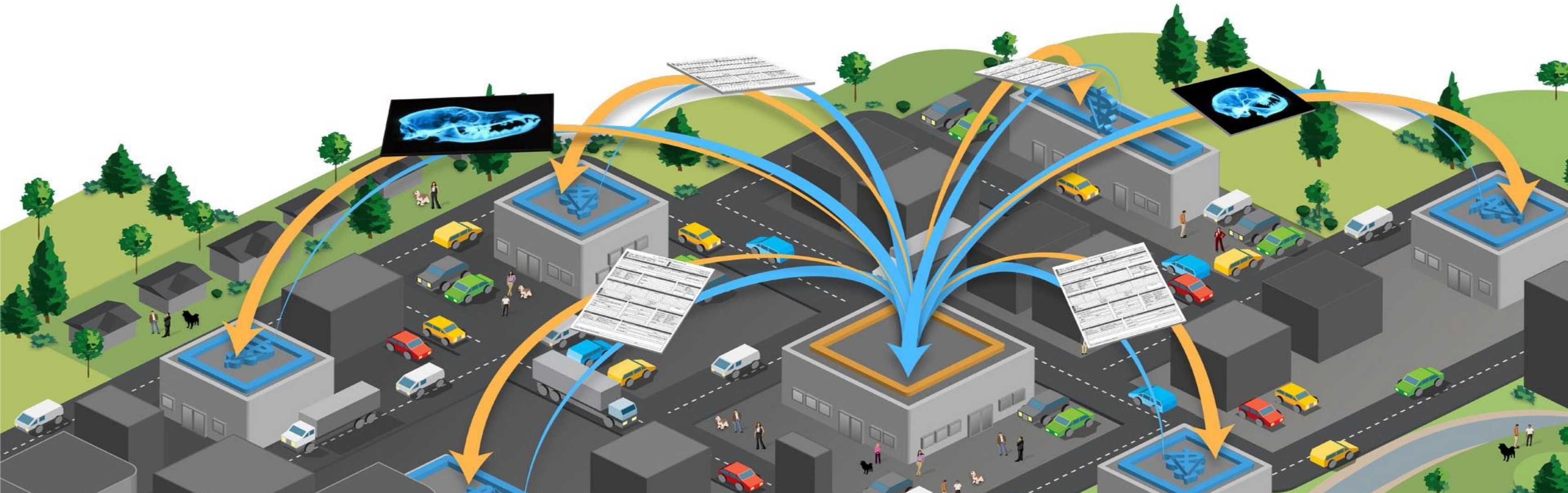


- 23,000+ active practices
- 282M+ results views
- 136M+ patients
- 87% of U.S. Reference Lab submissions



## 2 rVetLink is First-and-only Cloud Application that Connects Network of Specialty and GP Practices

- ✓ Referring DVM Cloud portal
- ✓ Medical records and images
- ✓ Integration with PIMS
- ✓ Automated medical notifications
- ✓ eReferral tools
- ✓ Mobile app







## 2 Smart Flow Optimizes Clinical Workflow – Saving Time, Paper and Ensuring all Charges Get Captured





### 3 DataPoint Provides Differentiated Services for App Partners – Real-time Read/Write

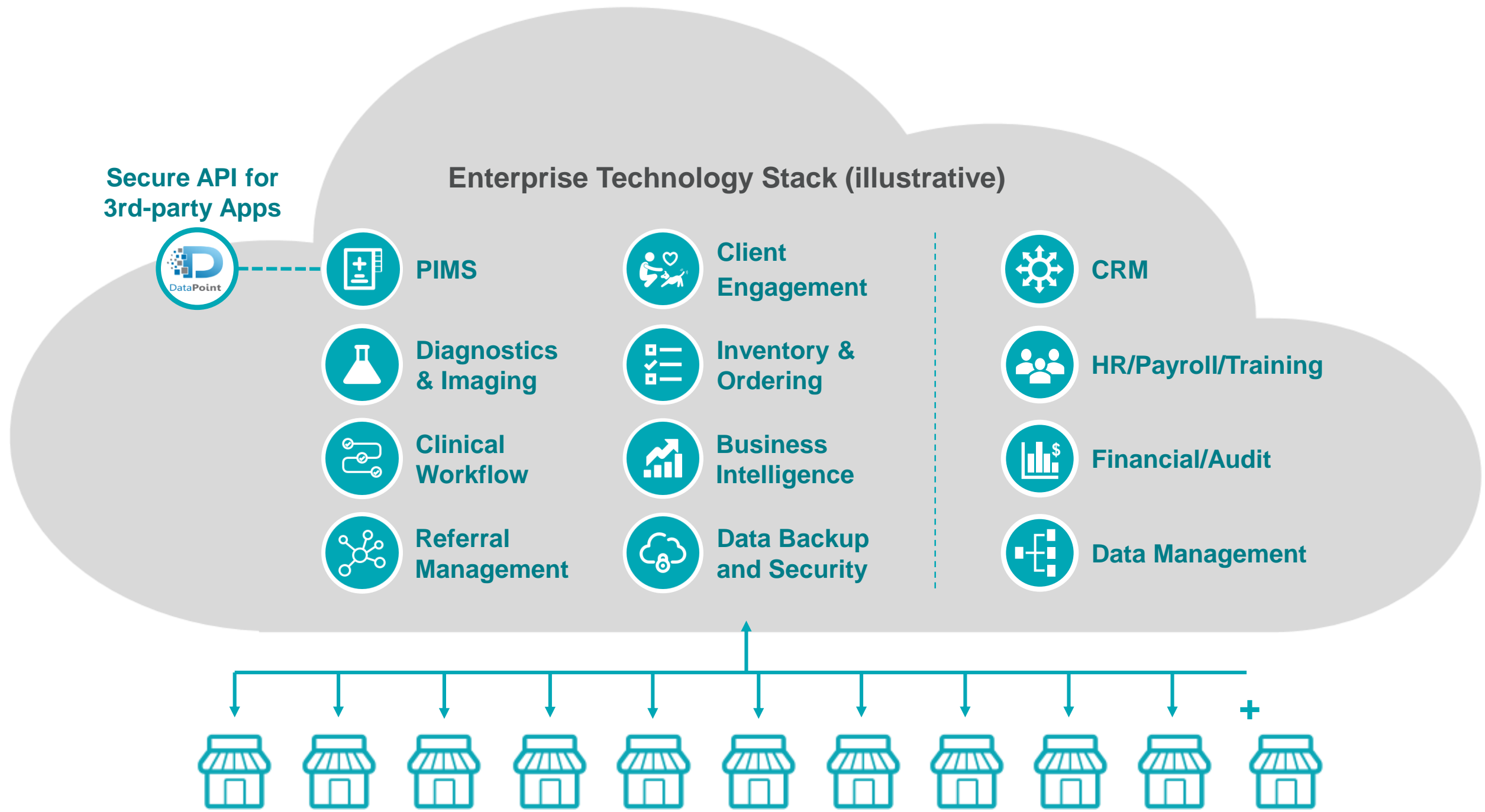


trupanion  
express™

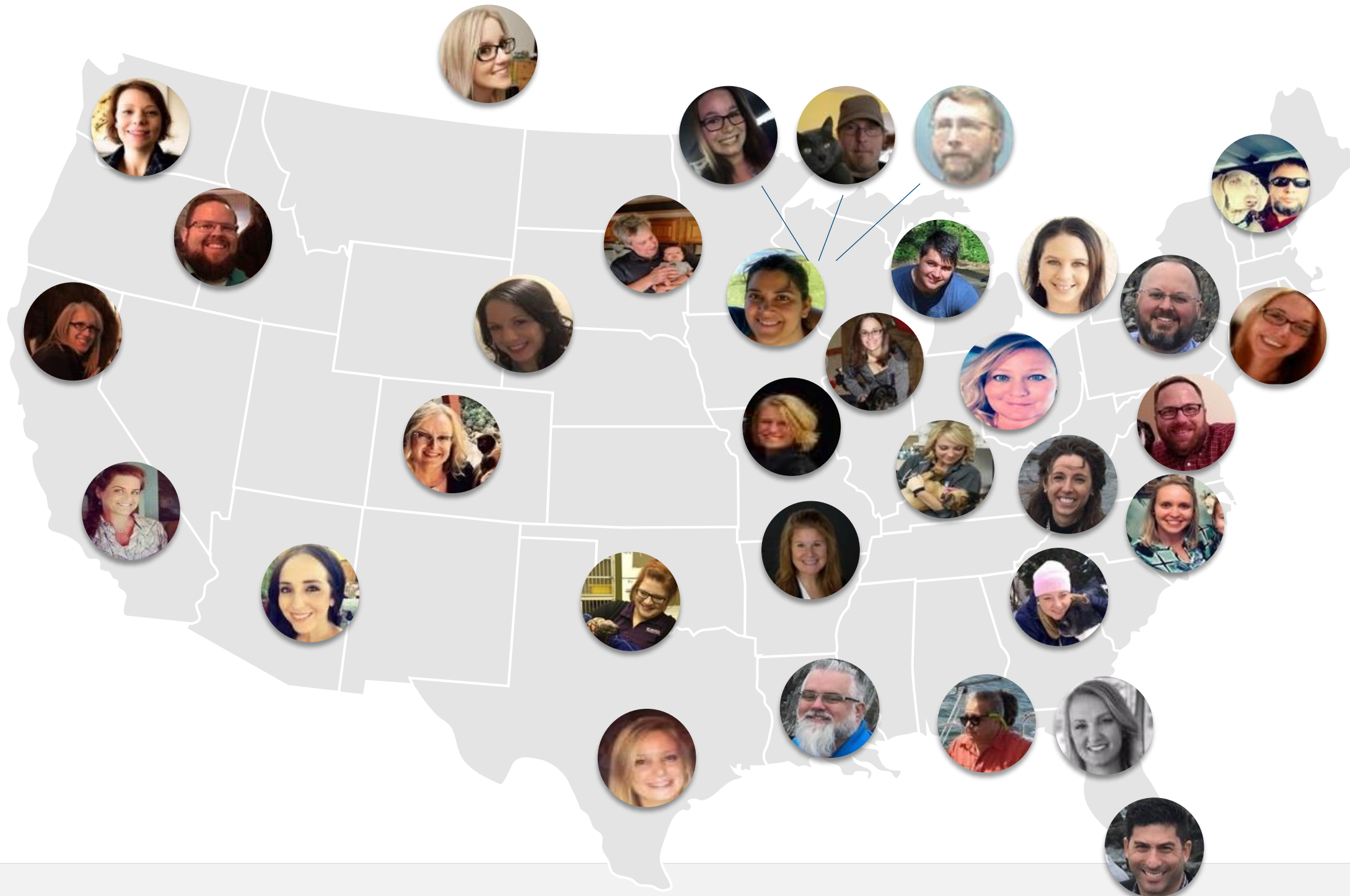
- Automatically validates claim and reimburses practice **during patient check-out**
- Enabled by DataPoint's **unique real-time** PIMS database integration functionality



# 4 Enterprise Technology Driven by Unique Needs of Corporate Groups



# A National Field Service Team that Installs, Trains, and Optimizes Software Tools



**300+** years of experience  
in veterinary practices

**9,000+** practice visits  
annually

**60+** user group meetings  
across U.S.



# IDEXX Software is Advancing Diagnostics and Pet Health

- IDEXX is a leader in Veterinary Cloud Software Technologies
- Critical tools for veterinary team and corporate groups
- Drives IDEXX Diagnostics loyalty and growth
- Source of profitable SaaS recurring revenue





# Appendix



# Footnotes

**<sup>1</sup> IDEXX Reportable Segment Revisions and Divested Revenues:** Prior to January 1, 2015, our Companion Animal Group (“CAG”) segment included herd testing diagnostic services processed within and managed by our CAG reference laboratories. We have transitioned the responsibility for these diagnostic services to our Livestock, Poultry and Dairy (“LPD”) segment to more effectively align our business with the nature and customers of these livestock services. Revenue and revenue growth calculations have been retrospectively revised to reflect this change in the composition of our reportable segments. The impact on CAG Diagnostics Recurring Revenue Growth was not material.

**<sup>2</sup> Normalized Organic Revenue Growth:** Normalized organic revenue growth is a non-GAAP financial measure, and it means organic revenue growth for the relevant period(s) in 2014 and 2015 normalized for the effects of our transition to an all-direct sales strategy in the U.S., which was effected fully by January 1, 2015, as described in this note. We incurred one-time transitional impacts related to the drawdown of distributor inventory in the fourth quarter of 2014, and reported revenues for 2014 have been adjusted to exclude this \$25 million impact. Further, during the three months ended December 31, 2014, we began recognizing revenue on rapid assay kits and instrument consumables upon delivery to end users in the U.S., instead of at distribution. We also began to capture additional revenue that was previously earned by our distribution partners, net of other changes related to this all direct strategy, such as free next-day shipping and a new returns policy for expired product. We refer to this net additional revenue as distributor margin capture, and 2015 revenue has been adjusted ~\$40 million to exclude this impact. See **Exhibit A** for a reconciliation of normalized organic revenue growth to reported growth for the relevant periods.

**<sup>3</sup> Recurring Revenue:** Annual recurring revenue for LPD, Water, Veterinary Software Services and Diagnostic Imaging Systems, Rapid Assay and IDEXX VetLab include and exclude the following as applicable: LPD excludes government sponsored eradication programs and herd health screening revenues, Water excludes sealer and filtration instruments, Veterinary Software Services and Diagnostic Imaging Systems excludes client server based placements and radiography instruments, Rapid Assay excludes SNAP Pro instruments, and IDEXX VetLab includes consumables, service and accessories.

**<sup>4</sup> Constant Currency:** Constant currency references are non-GAAP financial measures and exclude the impact of changes in foreign currency exchange rates. Management believes that constant currency information provides valuable supplemental information regarding our revenue, gross profit, operating expenses, operating margin and EPS results because it is consistent with how management evaluates our performance and facilitates comparisons with prior and future periods. We estimated the net impacts of currency on our revenue, gross profit, operating expenses, operating margin, and EPS results by restating results to the average exchange rates or exchange rate assumptions for the comparative period, which includes adjusting for the estimated impacts of foreign currency hedging transactions and certain impacts on our effective tax rates. The periods 2010-2017 were restated to 2018 forecast rates and may vary from previously reported constant currency figures. Estimated currency changes are expected to increase projected 2018 revenue growth by approximately 0.5%-1%, have an immaterial impact on 2018 operating profit margin growth and projected full-year 2018 EPS growth, decrease opex 2014-2018E constant currency CAGR by 1%, decrease 2014-2018E gross profit constant currency CAGR by 2%, and have an immaterial impact on average annual constant currency operating margin gains for 2016-2018E .

See **Exhibit A** for the impact of currency on CAG Diagnostics Recurring revenue growth for 2010-2017 and 2018 YTD results.

See **Exhibit B** for the impact of currency on operating margin for 2014-2017 results and projected full-year 2018 outlook.

See **Footnote 5** Organic Revenue Growth for the impact of currency for U.S. and International CAG Diagnostics recurring revenue growth.



# Footnotes

**<sup>5</sup> Organic Revenue Growth:** Organic revenue growth is a non-GAAP financial measure and excludes the impact of changes in foreign currency exchange rates and revenue from business acquisitions. Management believes that reporting organic revenue growth provides useful information to investors by facilitating easier comparisons of our revenue performance with prior and future periods and to the performance of our peers. The percentage change in revenue resulting from acquisitions represents incremental revenues attributable to business acquisitions that have occurred since the beginning of the prior year period. Effective January 1, 2018, we exclude only acquisitions that are considered to be a business (consistent with ASU 2017-01, “Business Combinations: (Topic 850) Clarifying the Definition of a Business”) from organic revenue growth. For more detail on what acquisitions we consider to be a business in computing organic growth, please see Management’s Discussion and Analysis of Financial Conditions and Results of Operations, Non-GAAP Financial Measures, contained in the Company’s Quarterly Report on Form 10-Q for the quarter ended June 30, 2018 available at [www.idexx.com/investors](http://www.idexx.com/investors).

See **Exhibit A** for impact of currency and acquisitions to CAG Diagnostics Recurring revenue for 2010-2018YTD.

Currency changes reduced revenue growth in 2016 by 0.8%, and increased revenue growth by 0.3% in 2017, and the impact of revenue from acquisitions increased revenue growth in 2016 by 0.2%, and increased revenue growth by 0.2% in 2017. For the calculation of projected 2018 organic revenue growth, the impacts of revenue from acquisitions is immaterial and currency changes are expected to increase projected 2018 revenue growth by approximately 0.5%-1%.

For U.S. CAG Diagnostics recurring revenue growth, the impact from currency and acquisitions was immaterial for 2011 and 2018YTD. For International CAG Diagnostics recurring revenue growth, the impact from acquisitions was immaterial for 2011 and 2018YTD, and currency changes increased growth by 9% and 8%, respectively.

For U.S. Reference Lab organic revenue growth, the impact from currency was immaterial and the impact from acquisitions was less than 1% for all years.

**<sup>6</sup> Comparable Constant Currency EPS growth:** Comparable constant currency EPS growth is a non-GAAP financial measure. Comparable constant currency EPS growth represents the percentage change in earnings per share (diluted), as compared to the same period for the prior year, net of the impact of changes in foreign currency exchange rates and excluding non-recurring items. Management believes comparable constant currency EPS growth is a more useful way to measure the Company’s business performance than constant currency EPS growth because it enables better period-over-period comparisons of the fundamental financial results by excluding items that vary independent of performance and provides greater transparency to investors regarding a key metric used by management. Comparable constant currency EPS growth excludes the third quarter 2015 non-cash software impairment charge of \$8.2 million, the impact of the Company’s adoption of share-based compensation accounting change (ASU 2016-09) for the periods after its adoption on January 1, 2017, a one-time negative impact related to the 2017 Tax Cuts and Jobs Act (“U.S. Tax Reform”), and a discrete tax benefit related to the expected utilization of foreign tax credits in 2017. The impact of the software impairment charge increased 2016 EPS growth by 3%. Share-based compensation activity is expected to increase projected EPS by approximately \$0.20 for the full-year 2018 compared to \$0.30 for full-year 2017. A one-time negative impact related to the enactment of the U.S. Tax Reform for the fourth quarter of 2017, due to the deemed repatriation of the Company’s foreign profits, net of the remeasurement of deferred taxes at the lower enacted corporate tax rate, reduced full-year 2017 EPS by \$0.34. A discrete tax benefit related to the expected utilization of foreign tax credits in 2017 increased full-year 2017 EPS by \$0.04. These impacts and those described in the constant currency note above reconcile reported EPS growth to comparable constant currency EPS growth for the Company.

**<sup>7</sup> Adjusted Constant Currency Operating Margin and Growth:** Adjusted Constant currency operating profit margin and growth (or operating margin growth) is a non-GAAP financial measure and excludes non-recurring items and changes in foreign currency exchange rates. Management believes that reporting adjusted constant currency operating margin and growth provides useful information to investors by facilitating easier comparisons of our operating margin performance with prior and future periods. Management believes that reporting Adjusted Constant Currency Operating Margin provides useful information to investors by facilitating easier comparisons of our Operating Margin with prior and future periods.

See **Exhibit B** for a reconciliation of reported to Adjusted Constant Currency Operating Margin Growth.

# Footnotes

**<sup>8</sup> Free Cash Flow and the Ratio of Free Cash Flow to Net Income:** Free cash flow is a non-GAAP financial measure. Free cash flow means, with respect to a measurement period, is the cash generated from operations during that period, including tax benefits attributable to share-based compensation, reduced by the Company's investments in property and equipment. Free cash flow should be considered in addition to, and not as a replacement of or a superior measure to, net cash provided by operating activities. Management believes that reporting free cash flow and the ratio of free cash flow to net income provide useful information to investors because free cash flow indicates the cash the operations of the business are generating after appropriate reinvestment for recurring investments in property and equipment that are required to operate the business and the ratio measures how effectively the Company is managing its cash flow relating to working capital and capital expenditures. Since adoption of ASU 2016-09 in 2017, the tax benefit from share-based compensation is included in cash generated from operations and will no longer be an adjustment in our free cash flow calculation.

See **Exhibit C** for our calculation of free cash flow for years ending December 31, 2014 through December 31, 2017, and calculation of estimated free cash flow for year ending December 31, 2018.

**<sup>9</sup> After-Tax Return on Invested Capital, Excluding Cash and Investments ("ROIC"):** After-Tax Return on Invested Capital, Excluding Cash and Investments is a non-GAAP financial measure. After-tax return on invested capital, excluding cash and investments, represents our after-tax income from operations, divided by our average invested capital, excluding cash and investments, using beginning and ending balance sheet values. After-tax return on invested capital represents after-tax income from operations divided by average invested capital using the beginning and ending balance sheet values. Management believes that reporting after-tax return on invested capital provides useful information to investors for evaluating the efficiency and effectiveness of our use of capital. For further information on how After Tax Return on Invested Capital, Excluding Cash and Investments is calculated, please see Appendix A in the *Company's Definitive Proxy Statement* filed March 29, 2018 available at [www.idexxproxymaterials.com](http://www.idexxproxymaterials.com). In order to facilitate easier comparison among periods, the tax rate used in the calculation for after-tax income from operations is adjusted for the impact from the share-based compensation accounting change (ASU 2016-09) prior to its adoption on January 1, 2017. Adjusting for this impact reduced the 2015 tax rate by 4% and the 2016 tax rate by 5%. In addition, the after-tax income from operations in 2017 includes two tax-related adjustments. A one-time negative impact related to the enactment of the Tax Cuts and Jobs Act for the fourth quarter, due to the deemed repatriation of the Company's foreign profits, net of the remeasurement of deferred taxes at the lower enacted corporate tax rate, increased our 2017 tax rate by approximately 8%. A discrete tax benefit related to the expected utilization of foreign tax reduced our effective tax rate by approximately 1%. For further information on these adjustments to the effective tax rate, see the *Company's Annual Report on Form 10-K* for the year ended December 31, 2017 available at [www.idexx.com/investors](http://www.idexx.com/investors).

See **Exhibit D** for our calculation of After-Tax Return on Invested Capital, Excluding Cash and Investments for years ending December 31, 2014 through December 31, 2017, and calculation of estimated free cash flow for year ending December 31, 2018.

**<sup>10</sup> Debt to Adjusted EBITDA:** Adjusted EBITDA, gross debt, and net debt are non-GAAP financial measures. Adjusted EBITDA is a non-GAAP financial measure of earnings before interest, taxes, depreciation, amortization and share-based compensation. Management believes that using Adjusted EBITDA, gross debt and net debt in the Adjusted EBITDA ratio is a useful and recognized measure for evaluating financial leverage. Adjusted EBITDA for 2014 is further adjusted to exclude impacts in the second half of 2014 related to the U.S. all-direct transition. For further information on how Adjusted EBITDA, gross debt, net debt and the Debt to Adjusted EBITDA Ratio are calculated, see the *Company's Annual Report on Form 10-K* for the year ended December 31, 2017 available at [www.idexx.com/investors](http://www.idexx.com/investors).

# Exhibit A: Reported to Organic Growth Reconciliation

## Reconciliation of Annual Organic Revenue Growth

| CAG Diagnostics Recurring <sup>3</sup>               | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 YTD |
|------------------------------------------------------|------|------|------|------|------|------|------|------|----------|
| Reported Growth                                      | 6%   | 11%  | 8%   | 9%   | 8%   | 10%  | 12%  | 13%  | 16%      |
| <i>Currency Impact <sup>4</sup></i>                  | 1%   | 3%   | -2%  | 0%   | -1%  | -7%  | -1%  | 0%   | 3%       |
| <i>Acquisition Impact</i>                            | 1%   | 0%   | 2%   | 0%   | 0%   | 1%   | 0%   | 0%   | 0%       |
| Organic Growth                                       | 5%   | 8%   | 8%   | 9%   | 8%   | 16%  | 12%  | 13%  | 13%      |
| <i>Distributor Inventory Adjustment <sup>2</sup></i> |      |      |      |      | 3%   | -3%  |      |      |          |
| <i>Margin Capture Adjustment <sup>2</sup></i>        |      |      |      |      |      | -4%  |      |      |          |
| Normalized Organic Growth                            | 5%   | 8%   | 8%   | 9%   | 11%  | 9%   | 12%  | 13%  | 13%      |

<sup>2</sup> See Footnote 2 for detail on adjustments to IDEXX Revenue from the Go-direct

<sup>3</sup> See Footnote 3 for a description of IDEXX recurring revenue

<sup>4</sup> See Footnote 4 for a description of constant currency. Note that all years are restated to 2018 Forecast rates and currency impact will vary from previously reported figures.

## Exhibit B: Reported to Adjusted Constant Currency Operating Margin

| Constant Currency Operating Margin<br>(Dollars in millions)                           | 2014    |            |         | 2015    |            |         | 2016    |            |         | 2017    |            |         | 2018E (Midpoint) |              |         |
|---------------------------------------------------------------------------------------|---------|------------|---------|---------|------------|---------|---------|------------|---------|---------|------------|---------|------------------|--------------|---------|
|                                                                                       | Rev     | Op. Profit | Op Marg | Rev     | Op. Profit | Op Marg | Rev     | Op. Profit | Op Marg | Rev     | Op. Profit | Op Marg | Rev              | Op. Profit   | Op Marg |
| <b>Reported Operating Margin</b>                                                      | \$1,486 | 260.3      | 17.5%   | \$1,602 | 299.9      | 18.7%   | \$1,775 | 350.2      | 19.7%   | \$1,969 | 413.0      | 21.0%   | \$2,218          |              |         |
| <i>Impairment charge</i>                                                              |         |            |         |         | 8.2        |         |         |            |         |         |            |         |                  |              |         |
| <i>Impact of distributor inventory drawdown</i>                                       | 25.1    | 20.8       |         |         |            |         |         |            |         |         |            |         |                  |              |         |
| <i>Non-recurring expenses associated with transition to all-direct sales strategy</i> |         | 9.5        |         |         |            |         |         |            |         |         |            |         |                  |              |         |
| <i>Expense ramp-up in advance of transition to new sales strategy</i>                 |         | 5.0        |         |         |            |         |         |            |         |         |            |         |                  |              |         |
| <b>Operating Margin (Adjusted for Non-Recurring Items)</b>                            | \$1,511 | 295.6      | 19.6%   | \$1,602 | 308.1      | 19.2%   | \$1,775 | 350.2      | 19.7%   | \$1,969 | 413.0      | 21.0%   | \$2,218          |              |         |
| <b>Adjusted Constant Currency Operating Margin</b>                                    | \$1,522 | 302.8      |         | \$1,692 | 329.3      |         | \$1,790 | 374.4      |         | \$1,962 | 414.1      |         | \$2,218          |              |         |
| <i>Adjusted Constant Currency Growth Year-over-Year (basis points)</i>                |         | 20 bps     |         |         | -10 bps    |         |         | 170 bps    |         |         | 140 bps    |         |                  | ~ 90-130 bps |         |

## Exhibit C: Operating to Free Cash Flow Reconciliation

| Cash Flow Reconciliation<br>(Amounts in thousands)                                                  | Year Ended December 31 |                |                |                |                 |
|-----------------------------------------------------------------------------------------------------|------------------------|----------------|----------------|----------------|-----------------|
|                                                                                                     | 2014                   | 2015           | 2016           | 2017           | 2018E           |
| Net cash provided by operating activities                                                           | 235,846                | 216,364        | 338,943        | 373,276        | ~410,000        |
| <i>Royalty prepayment to obtain exclusive patent rights</i>                                         | -                      | -              | -              | -              | -               |
| <i>Financing cash flows attributable to tax benefits from share-based compensation arrangements</i> | 16,078                 | 11,315         | 14,702         | -              | -               |
| <i>Investing cash flows attributable to purchases of property and equipment</i>                     | (60,523)               | (82,921)       | (64,787)       | (74,384)       | ~(140,000)      |
| <b>Free Cash Flow</b>                                                                               | <b>191,401</b>         | <b>144,758</b> | <b>288,858</b> | <b>298,892</b> | <b>~270,000</b> |



# Exhibit D: After-Tax Return on Invested Capital, Excluding Cash and Investments

| (Dollars in millions)<br>Numerator                                   | Year Ended December 31 |          |          |          |          |
|----------------------------------------------------------------------|------------------------|----------|----------|----------|----------|
|                                                                      | 2013                   | 2014     | 2015     | 2016     | 2017     |
| Income from operations (as reported)                                 | \$ 267                 | \$ 260   | \$ 300   | \$ 350   | \$ 413   |
| After-tax income from operations *                                   | \$ 205                 | \$ 209   | \$ 223   | \$ 258   | \$ 315   |
| <b>Denominator</b>                                                   |                        |          |          |          |          |
| Total shareholders' equity (deficit)                                 | \$ 518                 | \$ 118   | \$ (84)  | \$ (108) | \$ (54)  |
| <i>Noncontrolling interest</i>                                       | \$ -                   | \$ -     | \$ -     | \$ -     | \$ 0     |
| <i>Line of credit</i>                                                | \$ 277                 | \$ 549   | \$ 573   | \$ 611   | \$ 655   |
| <i>Long-term debt</i>                                                | \$ 150                 | \$ 350   | \$ 597   | \$ 593   | \$ 607   |
| <i>Deferred income tax liabilities - long term</i>                   | \$ 34                  | \$ 42    | \$ 49    | \$ 39    | \$ 25    |
| Total invested capital                                               | \$ 980                 | \$ 1,058 | \$ 1,135 | \$ 1,135 | \$ 1,233 |
| <i>Less cash &amp; marketable securities</i>                         | \$ 279                 | \$ 323   | \$ 343   | \$ 392   | \$ 472   |
| Total invested capital, excluding cash and investments               | \$ 701                 | \$ 735   | \$ 792   | \$ 743   | \$ 761   |
| Average invested capital, excluding cash and investments**           |                        | \$ 718   | \$ 764   | \$ 768   | \$ 752   |
| After-tax return on invested capital, excluding cash and investments |                        | 29%      | 29%      | 34%      | 42%      |

\* After-tax income from operations represents income from operations reduced by our reported effective tax rate of 30.9% for the year ended December 31, 2017 excluding the impact of non-recurring tax items. See Note 12 to our consolidated financial statements included in our 2017 Annual Report on Form 10-K for information on the impact of these items on our effective tax rate.

\*\* Average invested capital, excluding cash and investments, represents the average of the amount of total invested capital, excluding cash and investments, as of December 31 in the current and prior year.