

Welcome & Introductions

Ken Frazier, Chairman and Chief Executive Officer

Financial & Value Creation Overview

Rob Davis, Chief Financial Officer and Head of Global Services

Commercial Growth Drivers: KEYTRUDA & Beyond

Frank Clyburn, Chief Commercial Officer

Animal Health Innovation

Rick DeLuca, President, Merck Animal Health

Merck R&D Strategy Overview

Dr. Roger M. Perlmutter, President, Merck Research Laboratories

Pipeline Opportunities

Dr. Roy Baynes, Head of Clinical Development and Chief Medical Officer, and Mike Nally, Chief Marketing Officer

Future of Merck R&D: Panel Discussion

Merck Research Laboratories Leadership: Dr. Dean Li, Dr. Fiona Marshall and Dr. Daria Hazuda

Q&A / Closing Remarks

All

Lunch Break

All

Breakout Sessions

Pipeline Deep Dive

Next Generation Discovery

International Opportunity & China





MERCK ANIMAL HEALTH IS A MARKET LEADER

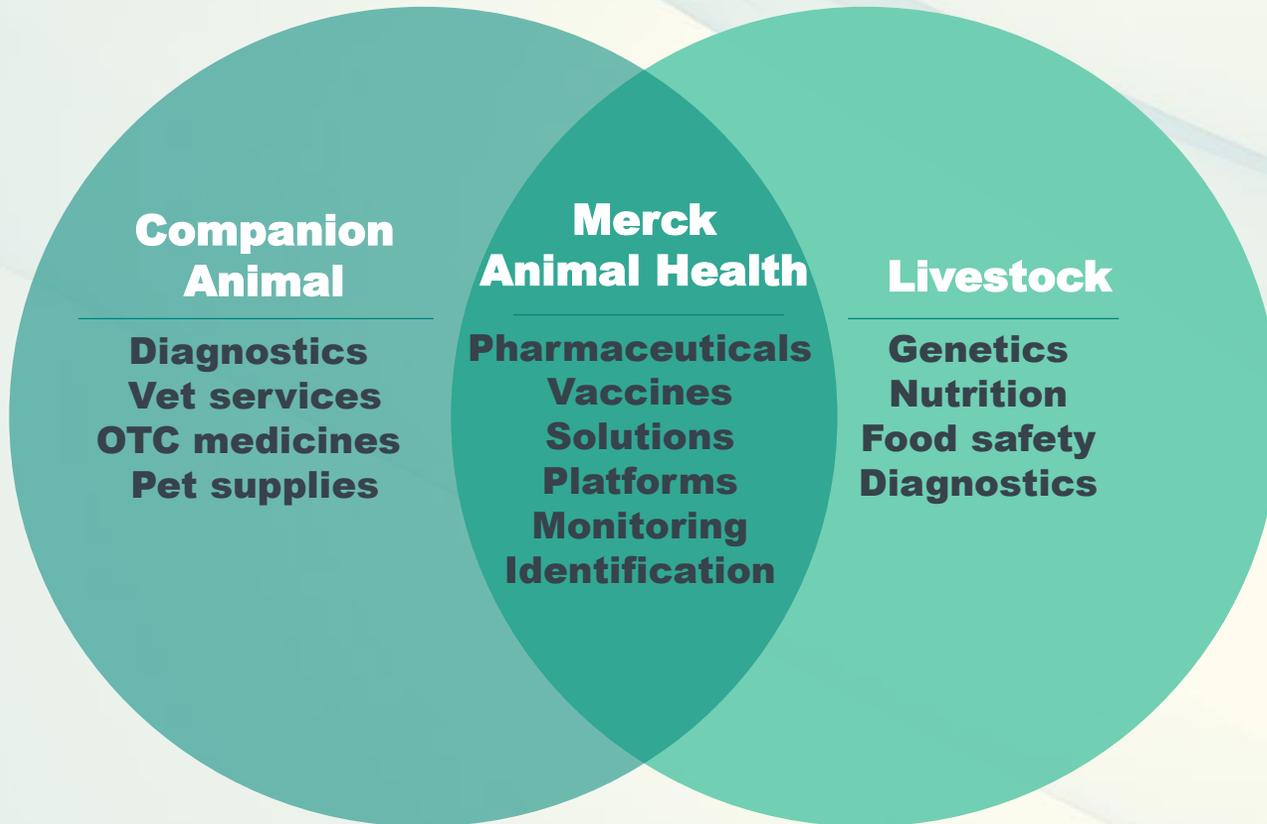
- **Global scale**
- **Revenue growth above market**
- **Strong profit contribution**
- **Innovative new product solutions**
- **Technologies that drive customer value**
- **Merck synergies**



STRONG LONG-TERM METRICS FOR THE ANIMAL HEALTH INDUSTRY

At the core of a **\$34+ billion** industry

CAGR mid-single digits¹



Predictable and sustainable
growth drivers



Population
growth



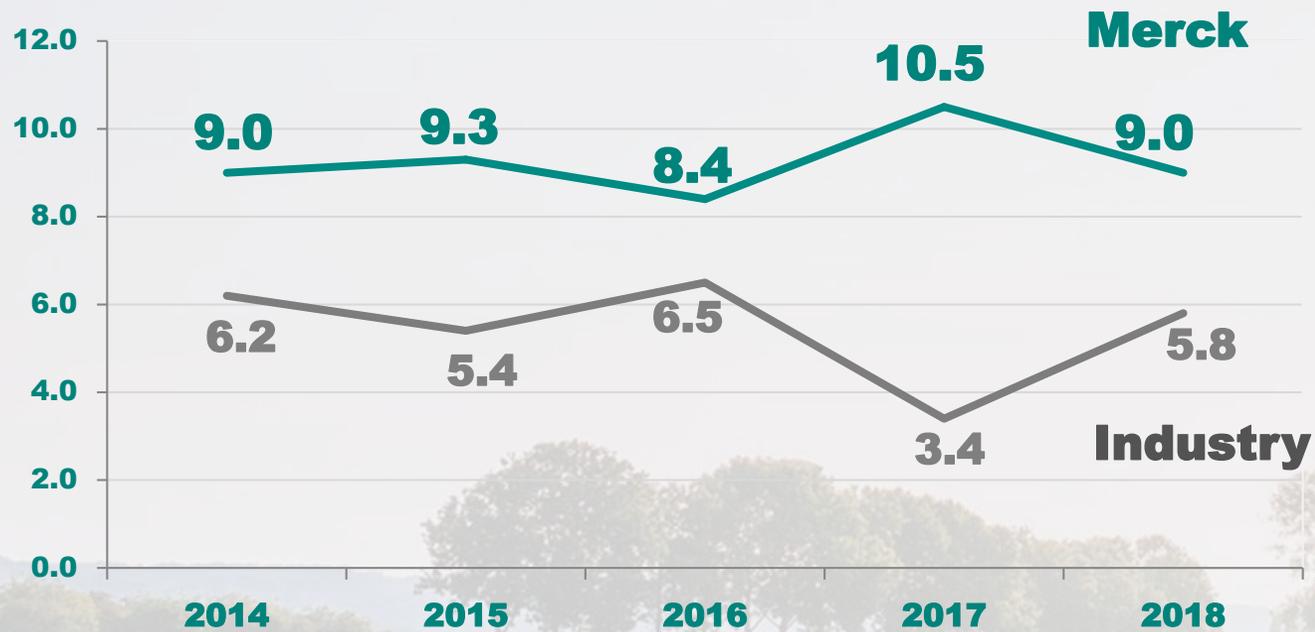
Rising middle
class



Increasing
urbanization

¹ Forward-Looking Projection

ANNUAL NET SALES GROWTH (%)



MERCK ANIMAL HEALTH:
OUTPERFORMING THE INDUSTRY

MERCK ANIMAL HEALTH

Global leader in pharmaceuticals, vaccines, health management solutions and emerging digital technology

800+
Product families



Operating in more than
50 Countries
Products in more than
150 Markets

34
Dedicated manufacturing sites

102
BILLION
Vaccine doses produced annually

9,400 Colleagues

12
Major manufacturing technologies & platforms

2018 Sales

38% Companion Animal



62% Livestock

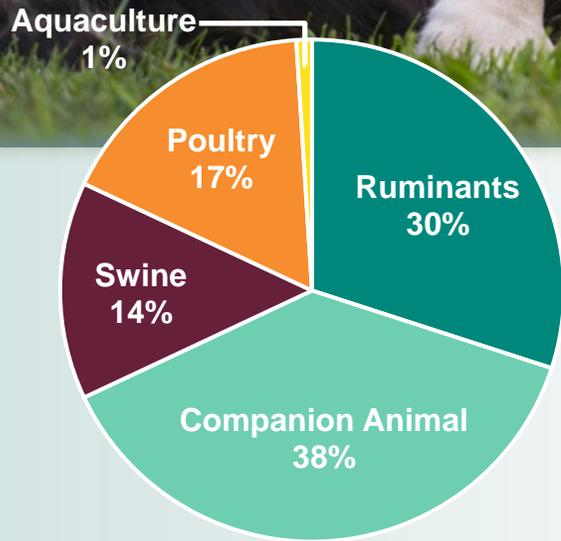
29% U.S.



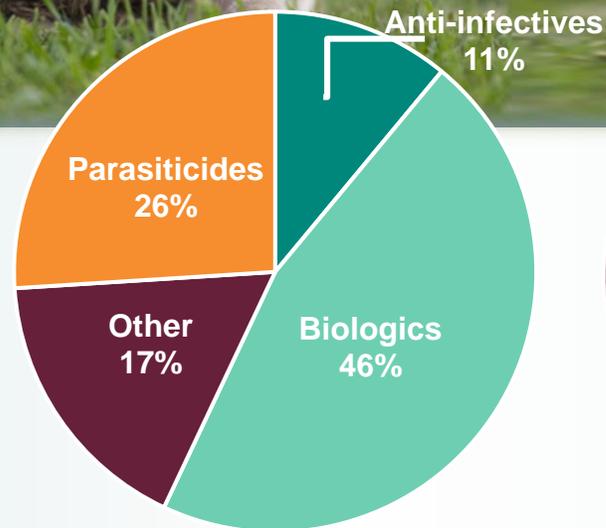
71% International

OUR DIVERSE PORTFOLIO PROVIDES STRENGTH

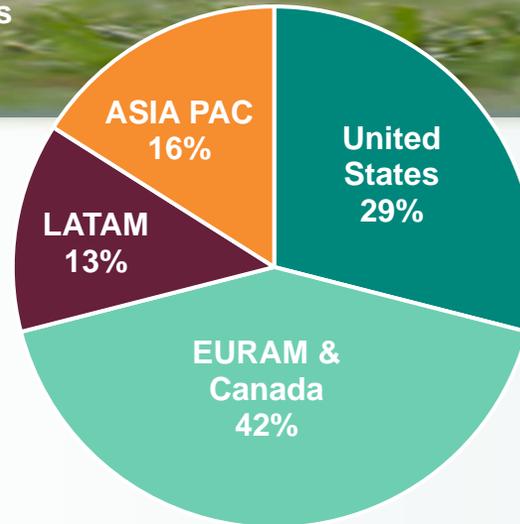
2018 RESULTS



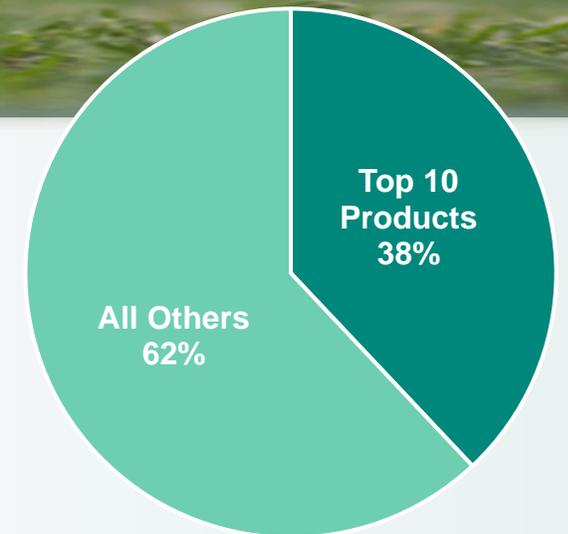
Revenue by species



Revenue by therapeutic area



Revenue by geography



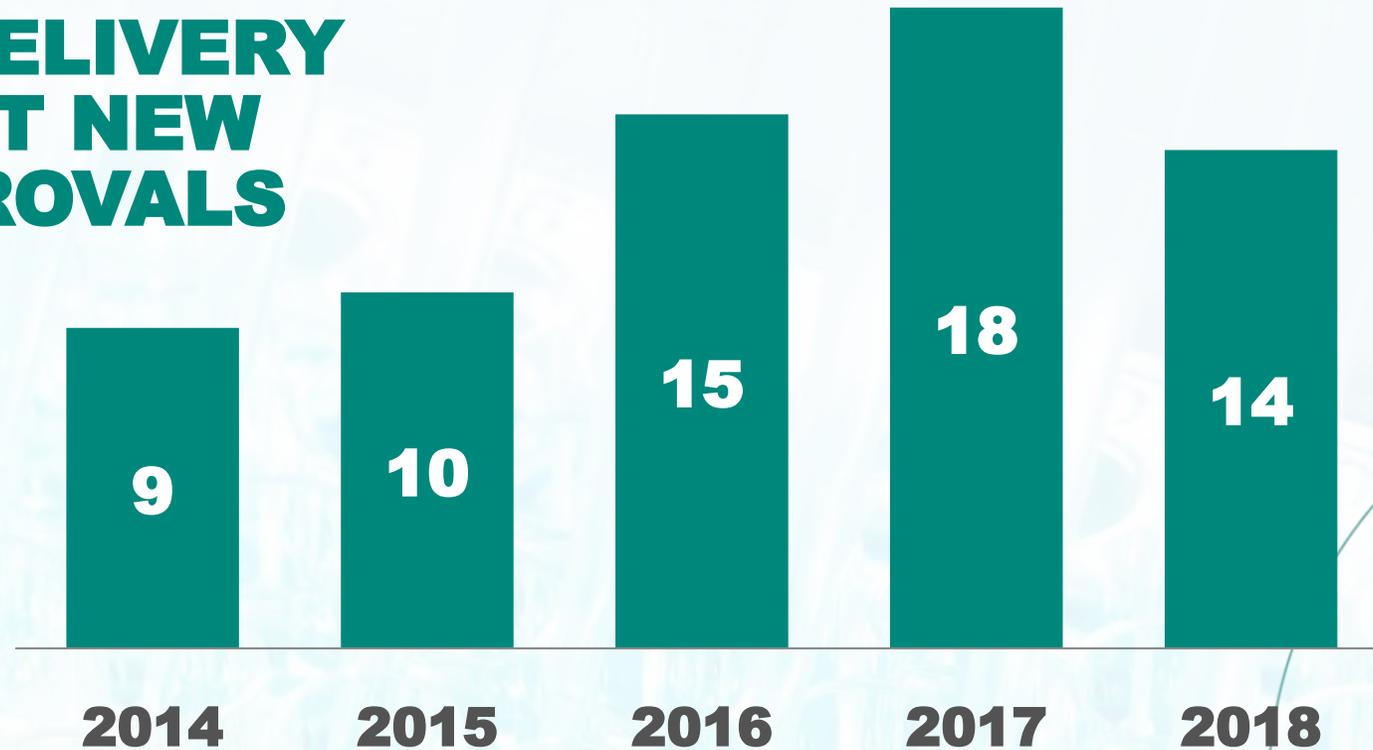
Revenue by product line

DEDICATED ANIMAL HEALTH R&D NETWORK



Over 66 Approvals in 5 Years

**MERCK ANIMAL HEALTH:
CONSISTENT DELIVERY
OF SIGNIFICANT NEW
PRODUCT APPROVALS**



>150 Geo-expansion licenses annually

OUR INNOVATION PATHWAYS

In-house Discovery and Technology

- Biologics
- Recombinant vaccines, RP technology
- Emerging diseases
- Delivery technologies

Merck Research Laboratories

- Monoclonal antibodies
- Oncology
- Diabetes, atopy, osteoarthritis
- Shared vaccine technologies

External Partnerships/Business Development

- Parasiticides
- Internal medicine
- Devices

Strategic Advantages

Best-in-class

First-in-class

Vaccine leadership

Delivery technologies

Compound libraries

Diagnostic labs

Nobivac
Proteção essencial para laços essenciais

innovax
ND-IBD

Panacur® AquaSol™

BANAMINE®
(flunixin meglumine)

BRAVECTO®
(FLURALANER)

Exzolt®

IDAL^{3G}

MERCK ANIMAL HEALTH R&D AREAS OF FOCUS: ACROSS SPECIES

Merck Research
Laboratories (MRL)
Collaborations

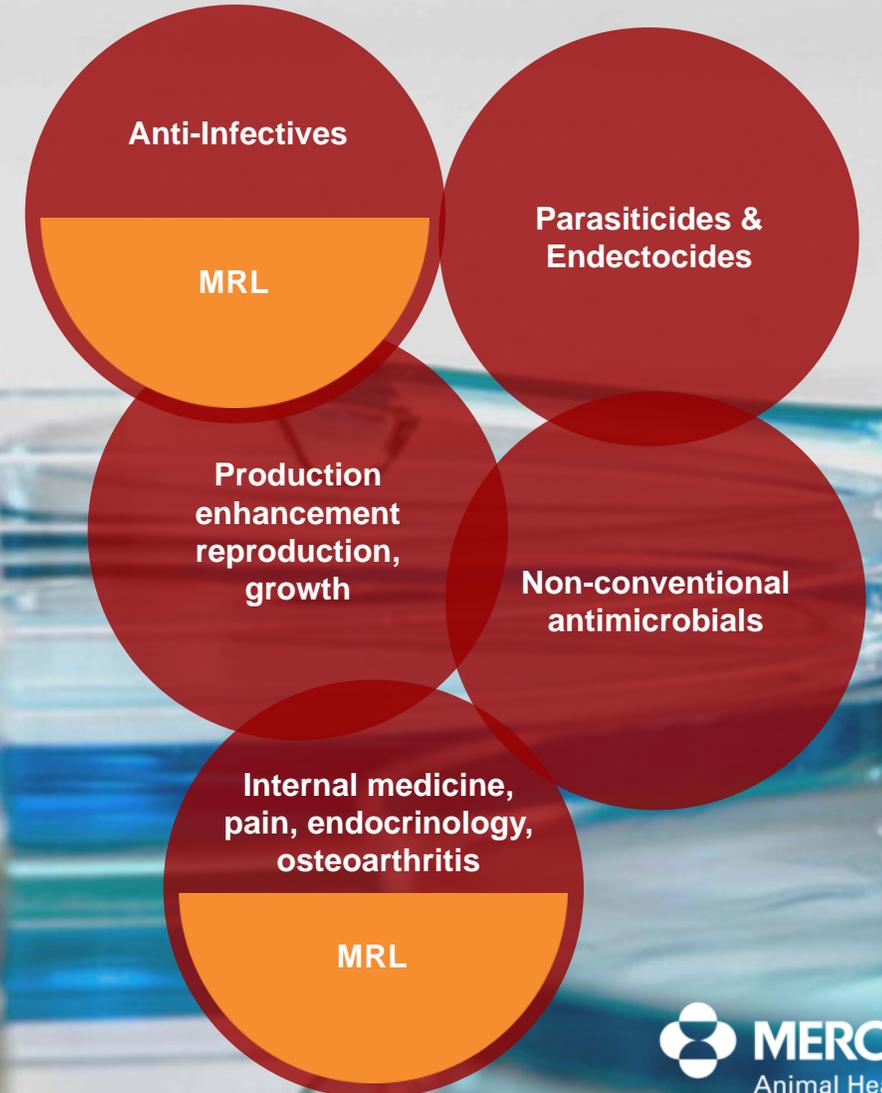
VACCINES



BIOPHARMACEUTICALS



PHARMACEUTICALS



COMPLEMENTARY BUSINESS DEVELOPMENT

Geo-expansion: vaccines, pharmaceuticals
High-growth markets



*Zhejiang Zhengli
Antoo Biotech Co*



INVESTING IN HIGH-GROWTH ANIMAL HEALTH OPPORTUNITIES

Trends Driving Technology Adoption

- Productivity
- Wellness
- Traceability
- Safety
- Automation

Customer Value

PRODUCTS

+

CONVENIENCE

+

PREDICTIVE SOLUTIONS

Vaccines & Pharmaceuticals



Innovative Delivery Solutions



Technology & Data
Animal Health Ventures

Antelliq



Market Opportunities

INVESTING IN DIGITALLY-ENABLED CUSTOMER SOLUTIONS

Antelliq



>500 million animals tagged per year

>100 million pets monitored

>1,100 aqua monitoring stations worldwide

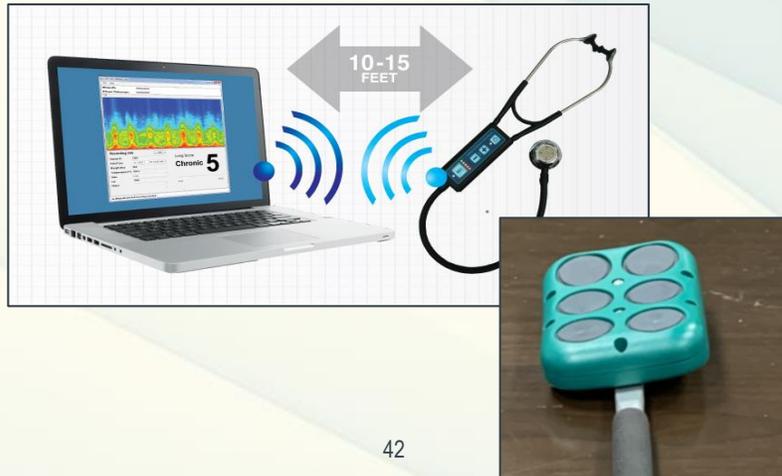


MERCK ANIMAL HEALTH VENTURES

Whisper[®]

Veterinary Stethoscope

Non-invasive tool that confirms bovine respiratory disease and gauges its severity in eight seconds



Sea lice counter





MERCK ANIMAL HEALTH: OUR COMPETITIVE ADVANTAGE

- ✓ **Broad global portfolio and presence**
- ✓ **Innovative products and solutions**
- ✓ **R&D excellence and access to MRL expertise**
- ✓ **High-quality manufacturing and supply**
- ✓ **Investment in digital technology to drive customer productivity**
- ✓ **Track record of execution**



THE SCIENCE OF HEALTHIER ANIMALS®

