

# Animal Vaccine Business Opportunity with CAVAC

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**More than 50 Years**  
For the best quality vaccine

- 01** General
- 02** Manufacturing process (Movie)
- 03** Portfolio & Pipeline
- 04** Business focus
- 05** Business opportunity



# General

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# “CAVAC” in a nutshell



Employees

172



Products

83

Patent

32



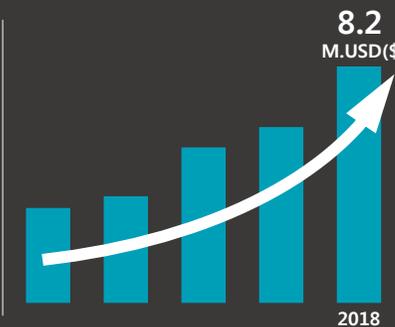
Exporting countries

20



R&D investment

Approx. 10 %



Export / CAGR

26 %



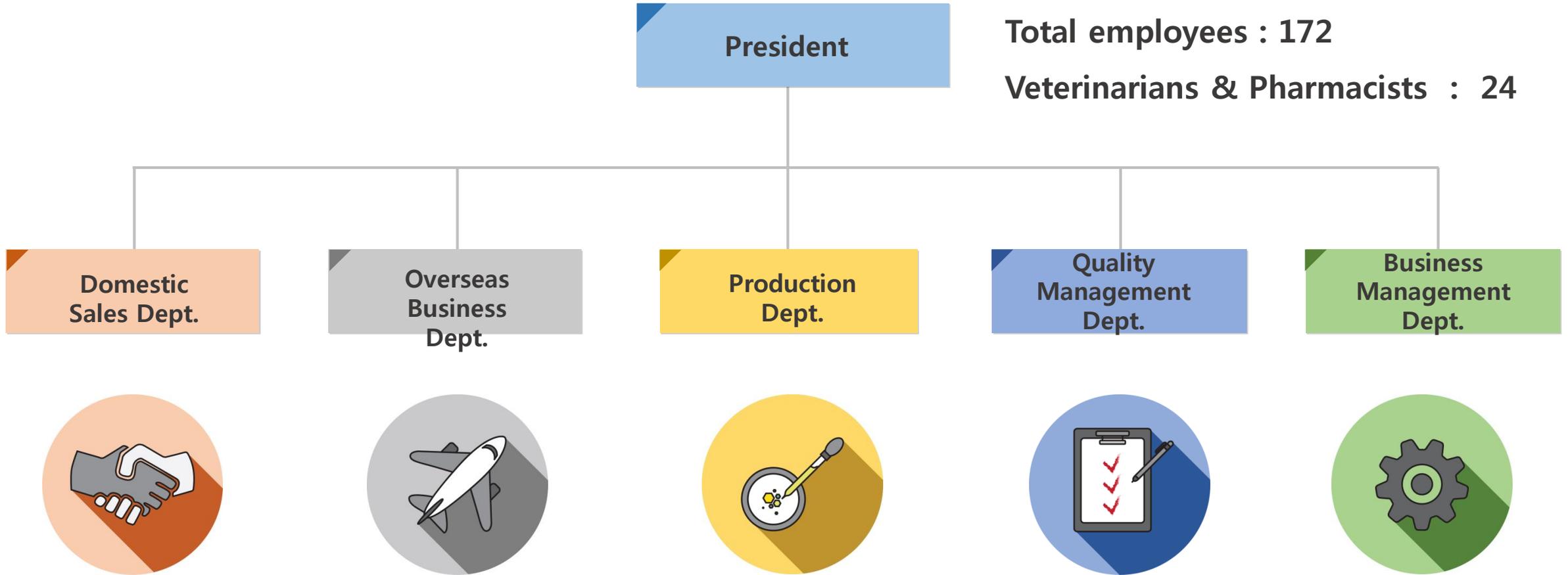
# 01 History

## General

- **1968 Established as Choong Ang Animal Disease Laboratory**
- 1984 Established specialized facility for animal vaccine production
- 1991 Constructed the laboratory animal center
- **1994 Acquired KVGMP approval from QIA Korea**
- 2003 Choong Ang Vaccine Laboratories Co., Ltd., “CAVAC” in abbreviation  
Listed in KOSDAQ (Korea Securities Dealers Automated Quotations)
- 2006 ~ 2008 Korea’s No. 1 animal vaccine company
- 2009 Asia’s 200 Best Under A Billion by Forbes
- **2013 Passed Bayer audit - Closed out in May, 2015**
- **2016 Egypt Governmental Audit**
- **2017 Russia Governmental Audit for a certain product**
- **2017 Pakistan Governmental Audit**
- 2018 First acquired **WHO-GMP approval** in Korea
- 2018 **New facility for egg-based vaccine and own adjuvant** in Nonsan city
- **2019 Winning an award for the export of 10 million dollars**

# 02 Organization

General



# 03 Location...

General



1<sup>st</sup> Manufacturing Site

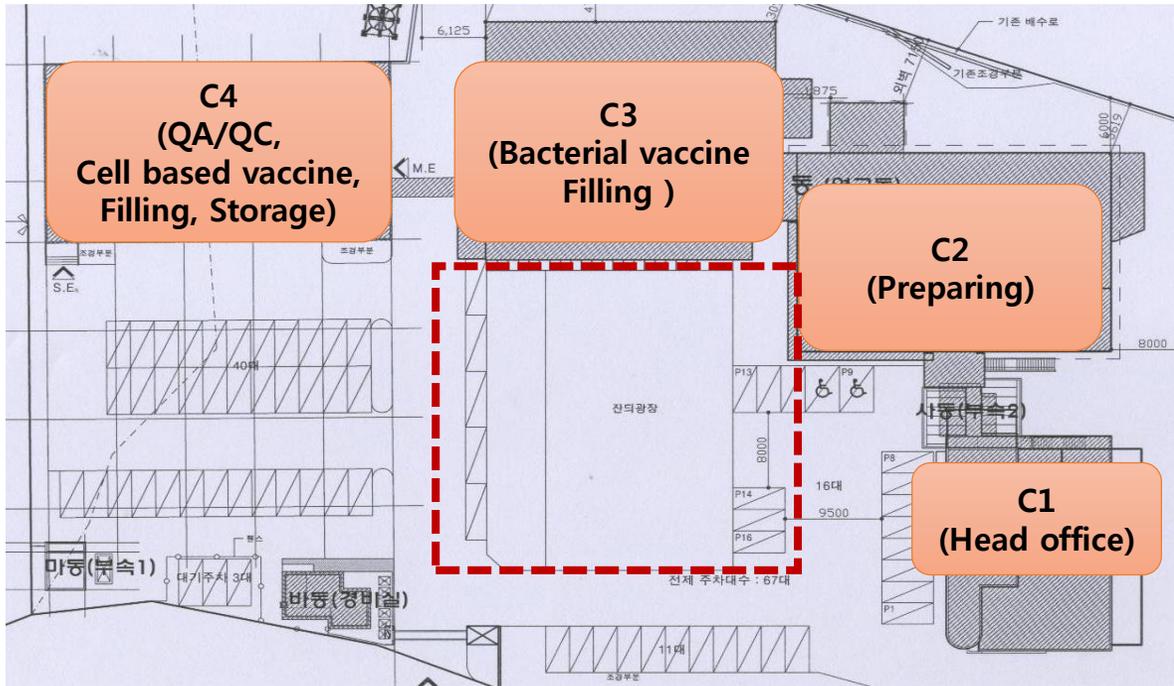


2<sup>st</sup> Manufacturing Site

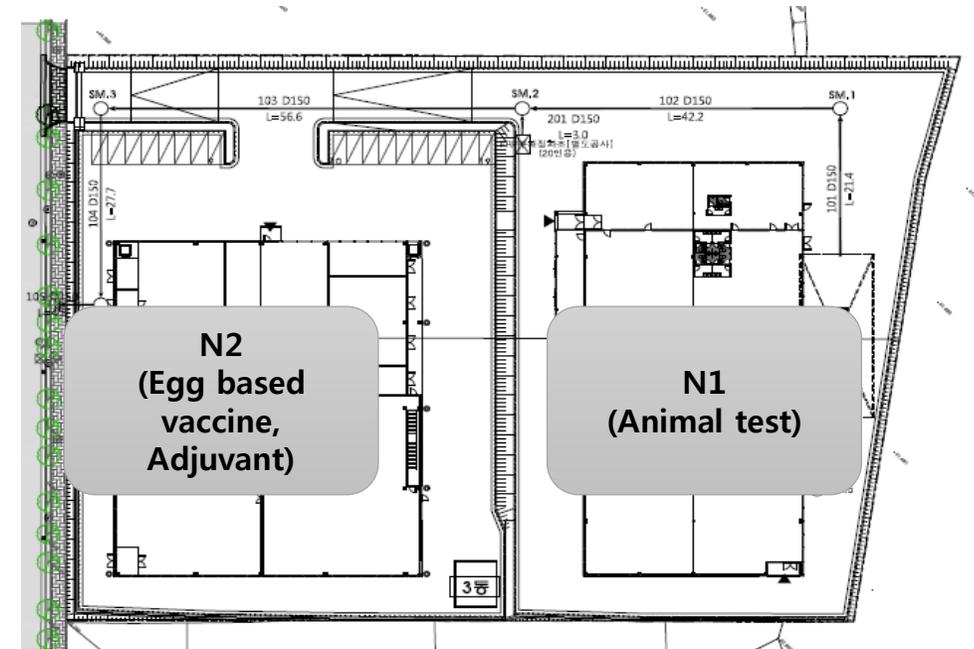
# 04 Building

General

## \*1st Manufacturing Site



## \*2st Manufacturing Site



# 05 International GMP Inspection

## General



2013



2016



2017



2017



2018

### WHO-GMP certificate



Animal and Plant Quarantine Agency  
67 Hyehwa 3-ro, Bundang-si, Seongnam-si, Gyeonggi-do, Republic of Korea  
Tel. 02-34-842-6343, Fax. 02-34-842-6390

#### CERTIFICATE OF GOOD MANUFACTURING PRACTICE

Representative	Injoong Yoon	Name Of Manufacturer	Choong Ang Vaccine Laboratories Co., Ltd.
Address (Factory)	1476-37 Yusong-daero, Yusong-gu, Daejeon, 34055, Republic of Korea		
Registered Production Manager	Dr. Eun-hee Kim	Registered Quality Control Manager	Dr. Hwan-won Choi
Approved Dosage Forms	Initial Date Of Approval	Latest Date Of Inspection	Next inspection schedule
Biological products	Dec. 21, 1994	Nov. 1, 2017	2019

It is hereby certified that the above manufacturing plant in which the products are produced is subject to inspections at suitable intervals and the manufacturer conforms to KVGMP (Korean Veterinary Good Manufacturing Practice). The manufacturing operations of the plant conform to GMP guideline as recommended by WHO (World Health Organization)

ANIMAL AND PLANT QUARANTINE  
AGENCY OF THE MINISTRY FOR  
AGRICULTURE FOOD AND RURAL  
AFFAIRS OF THE REPUBLIC OF KOREA  
ON 2018.07.13  
*Kang, Hwangsoo*  
Director of Veterinary Pharmaceutical Inspection Division

Certified by \_\_\_\_\_



# 06 Building

General





# Manufacturing process (Movie)

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# 01 Video clip

Manufacturing process (Movie)





# Portfolio & Pipeline

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# 01 Brands and Products

Portfolio & Pipeline



The number of products	
List	Products
Swine	37
Poultry	26
Canine	9
Bovine	7
Feline	1
Rabbit	1
Fish	1
Diagnostic Kit	1
<b>Total</b>	<b>83</b>

# 02 R&D Network

Portfolio & Pipeline

## Universities in KR



## Universities in Overseas



## Institutes in KR





# Business focus

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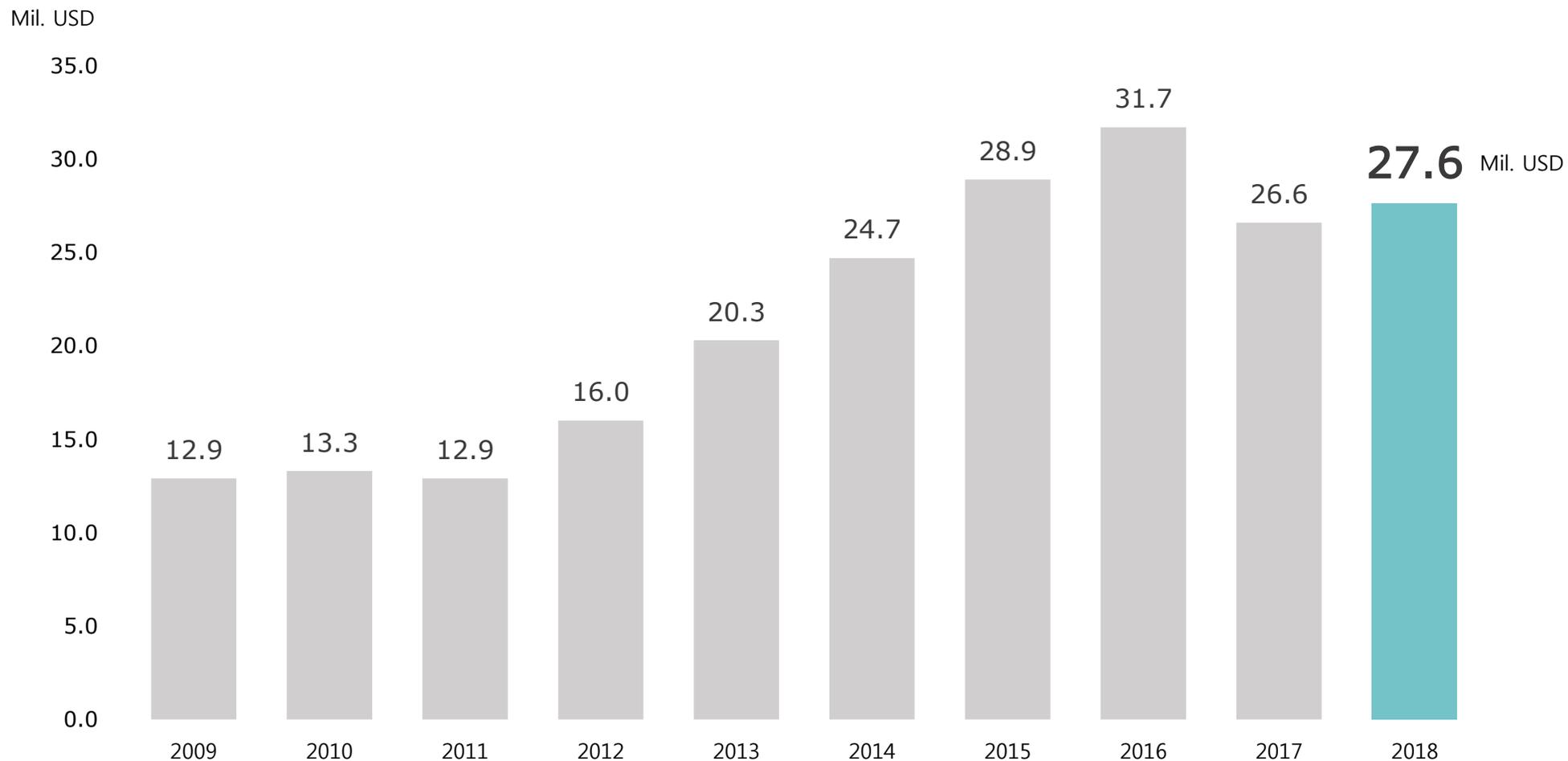


# 01 Sales - Domestic + Export

Business focus

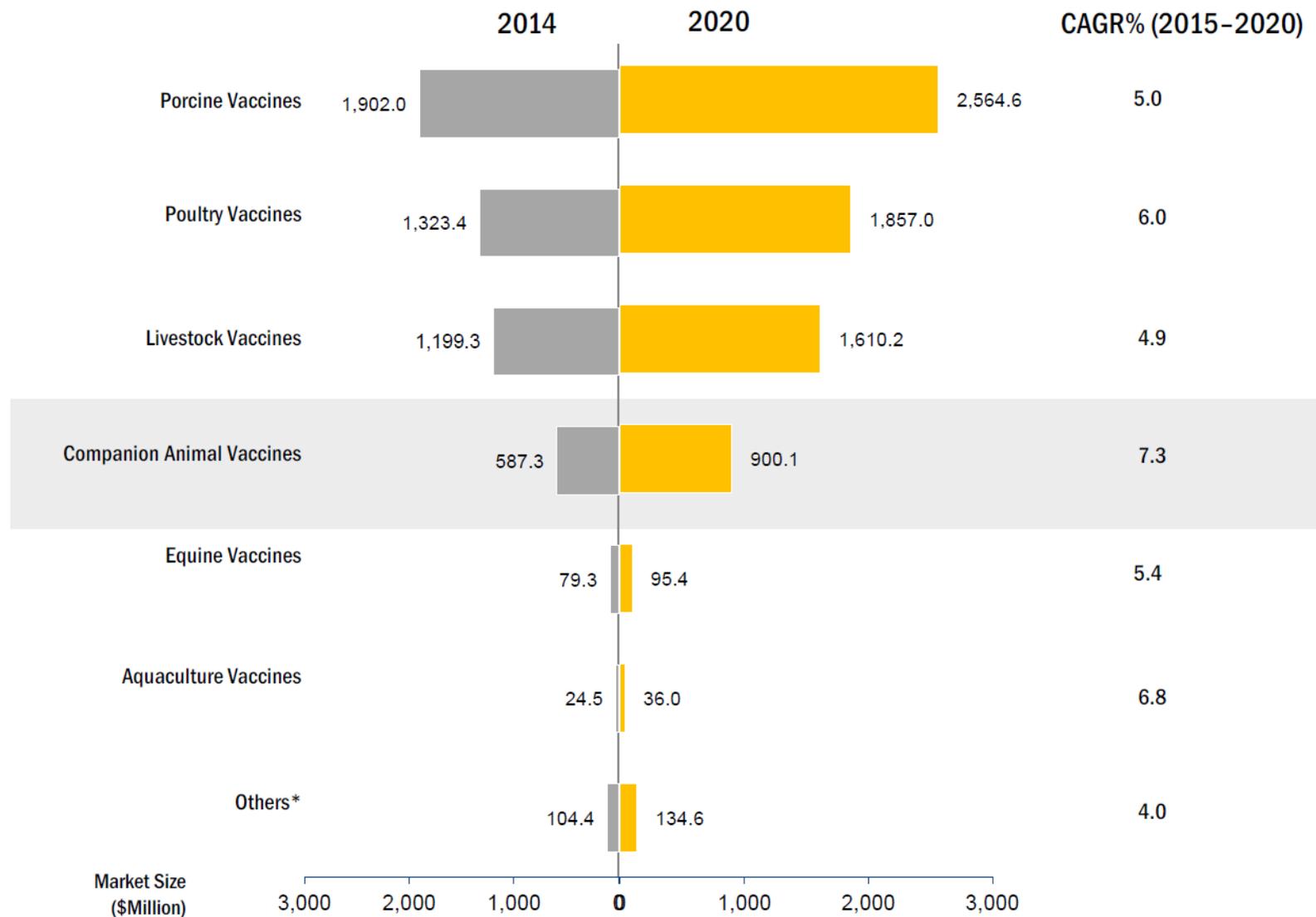


\* CAGR(2009-2018) : 10.6%



# 02 Animal vaccine market by species

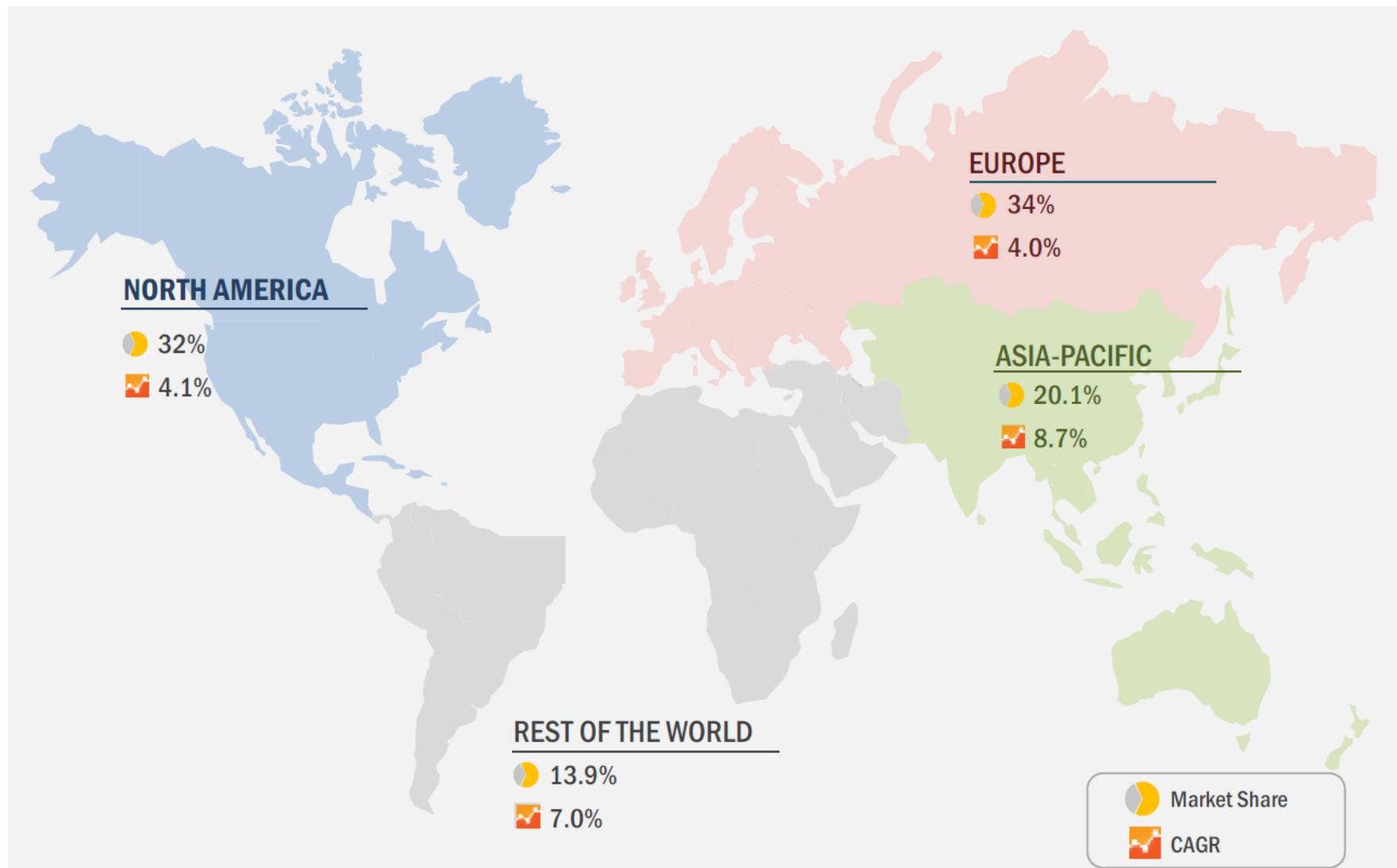
Business focus





# 03 Animal vaccine market by region

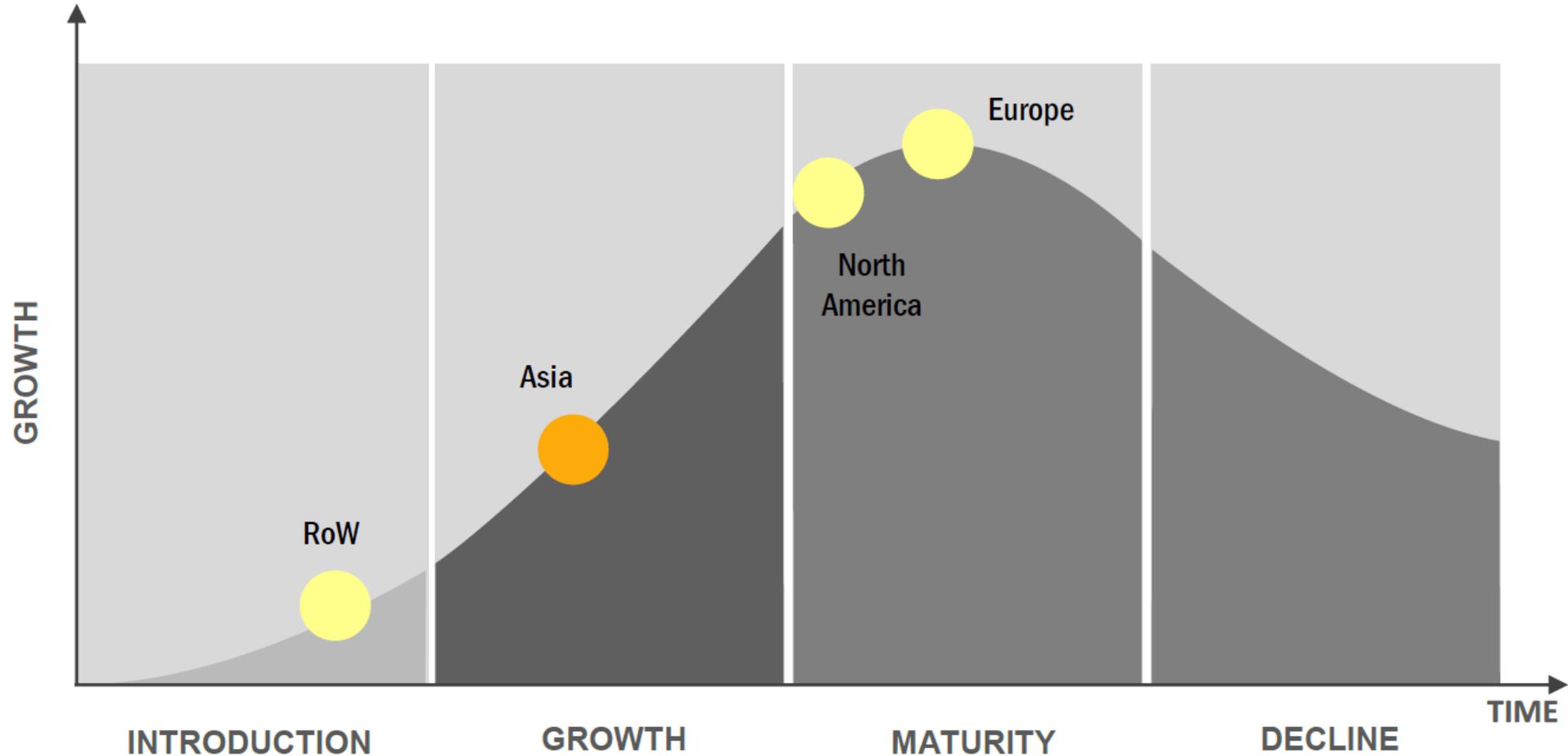
Business focus





# 04 Lifecycle analysis by region

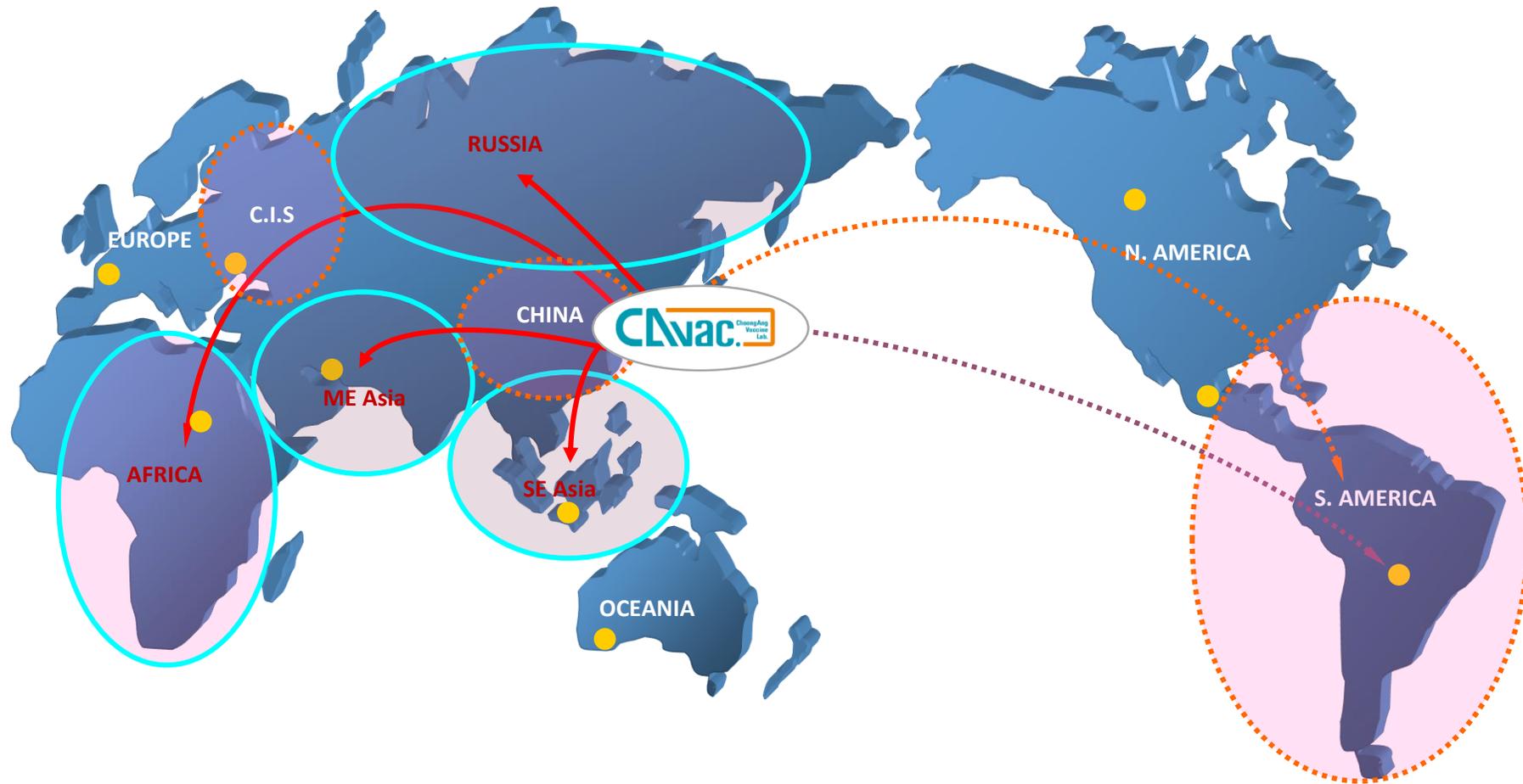
Business focus





# 05 Lifecycle analysis by region

Business focus



\*2019

-Countries : 20

-Products : 38

-Sales : 10 Mio. USD



# 06 Business - Export only (YTD)

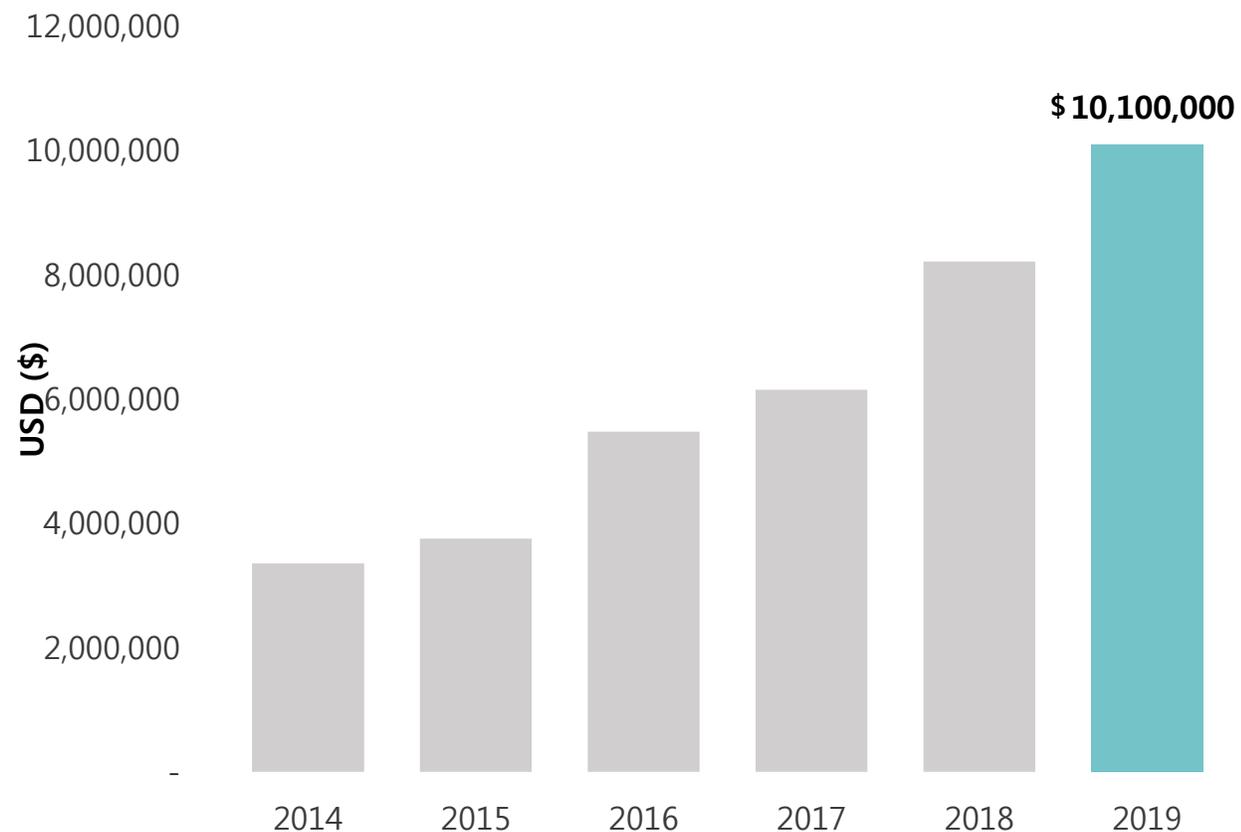
Business focus



- **CAGR (2014-2019): 25%**

- **Key drivers**

- Swine vaccine (SuiShot Circo-ONE) in TH & VN
- Chicken vaccines in ME countries



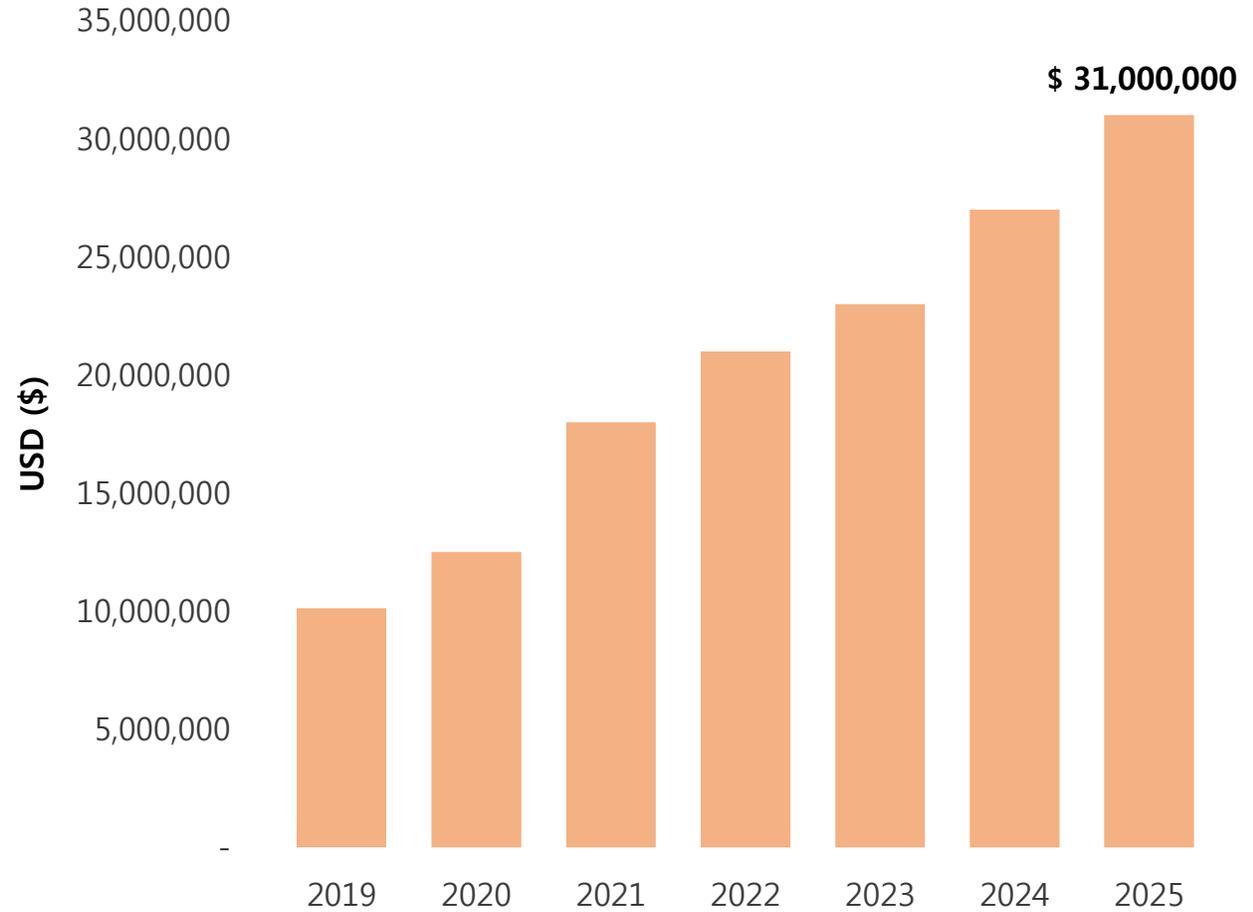


# 06 Business - Export only (Future Plan)

Business focus



- **CAGR (2019-2025): 21%**
- **Key drivers**
  - Chicken vaccines in ME countries (AI, ND etc.)
  - Pigs (PED, PCV2) and Pet vaccine (Rabies)





# 07 Competitive advantages

Business focus

- ◆ **50 years experience with solid track record**
- ◆ **Tailor-made vaccine**
- ◆ **Competitive quality & price**
- ◆ **Rabies vaccine (Government procurement in Bangladesh)**
- ◆ **Technology transfer (i.e. Chicken killed vaccine)**



# Business opportunity

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# 01 Brazil

Business opportunity

- ✓ **Animal population** (Source: FAOSTAT)
  - Cattle: 214.9 Mio. (**No. 1** in the world, 14.4%)
  - Chicken: 1,425.7 Mio. (**No. 4** in the world)
  - Pig: 41.1 Mio.
  - Dog and cat: 25 Mio.
- ✓ **Rabies vaccine (Government tender)**
- ✓ **In the middle of business discussion with potential partner**



# 02 Mexico

Business opportunity

- ✓ **Animal population** (Source: FAOSTAT)
  - Chicken: 556.1 Mio. (**No. 7** in the world)
  - Cattle: 31.8 Mio. (**No. 8** in the world)
  - Dog and cat: 25 Mio.
  - Pig: 17.2 Mio.
- ✓ **Rabies vaccine (Government tender)**
- ✓ **Import of SPF eggs**
  - Essential for manufacturing chicken vaccines
- ✓ **Looking for business partners**
  - Vaccines and/or adjuvant (applicable to animal vaccines)



# 03 Myanmar

Business opportunity

- ✓ **Partner** : Sun Thiri Co., Ltd. (AWBA group, since 1999)
- ✓ **13 registered products**
  - 6 for chicken, 4 for pig, 3 for companion animal
- ✓ **Sales**
  - 0.3 Mio. USD (2019)
  - 0.5 Mio. USD (2025, Base case)
- ✓ **Key animal species**
  - Chicken, Pig, Dog
- ✓ **National Rabies Control Program**
  - Dog population: 4.48 Mio.
  - Cattle population: 17.1 Mio.



# 04 Russia

Business opportunity

✓ **Animal population** (Source: FAOSTAT)

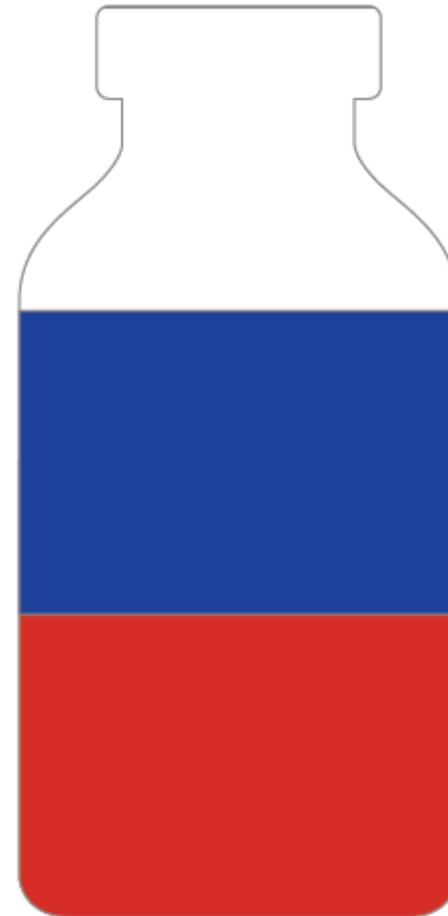
- Cattle: 18.8 Mio.
- Poultry: 497.7 Mio.
- Pig: 22.0 Mio.
- Dog and cat: 30 Mio.

✓ **1 registered product**

- Porcine circovirus type2 (PCV2) vaccine, SuiShot® Circo-ONE

✓ **Looking for business partners**

- For poultry and companion animal vaccine



# 05 Vietnam

Business opportunity

- ✓ **Partners** : Golden Veterinary Trading (since 2004)  
Bayer Vietnam (since 2014)
- ✓ **Animal population** (Source: FAOSTAT)
  - Poultry: 295.2 Mio.
  - Pig: 27.4 Mio.
  - Cattle: 5.4 Mio.
- ✓ **17 registered products**
  - 9 for chicken, 8 for pig
  - 3 for companion animal (will be registered in 2019)
- ✓ **Sales**
  - 1.9 Mio. USD (2018)
  - 2.5 Mio. USD (2020E)



# 06 Costa Rica

Business opportunity

✓ **Animal population** (Source: FAOSTAT)

- Cattle: 1.4 Mio.
- Poultry: 24.7 Mio.
- Pig: 0.5 Mio.

✓ **Looking for business partners**



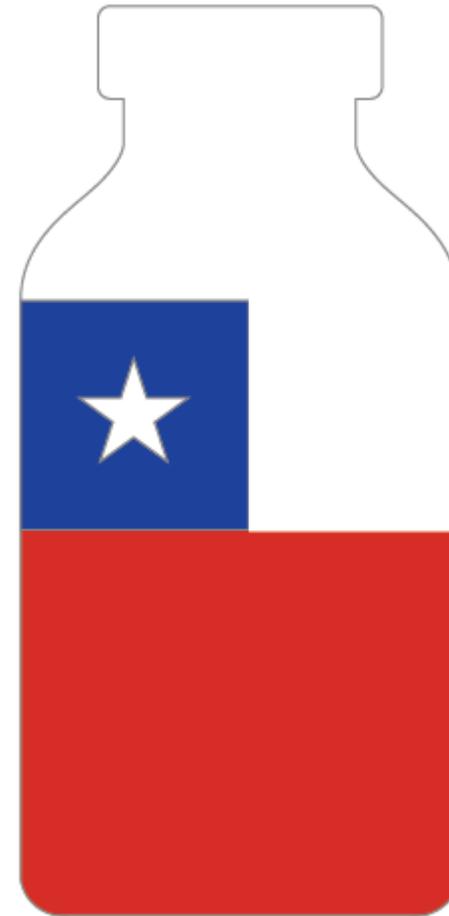
# 07 Chile

Business opportunity

✓ **Animal population** (Source: FAOSTAT)

- Poultry: 108.4 Mio.
- Pig: 2.5 Mio.
- Cattle: 2.9 Mio.

✓ **Looking for business partners**





# 08 Take away message

Business opportunity

- ✓ **50 years experience** with solid track record
- ✓ **Tailor-made** vaccine
- ✓ **Competitive** quality & price
- ✓ **Rabies** vaccine (Government procurement in Bangladesh)
- ✓ Technology transfer (**i.e. Chicken killed vaccine**)

THANK YOU