



Chinese Animal Disease Surveillance Program for Entry Animal and Animal Products

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Nanjing Customs District, GACC



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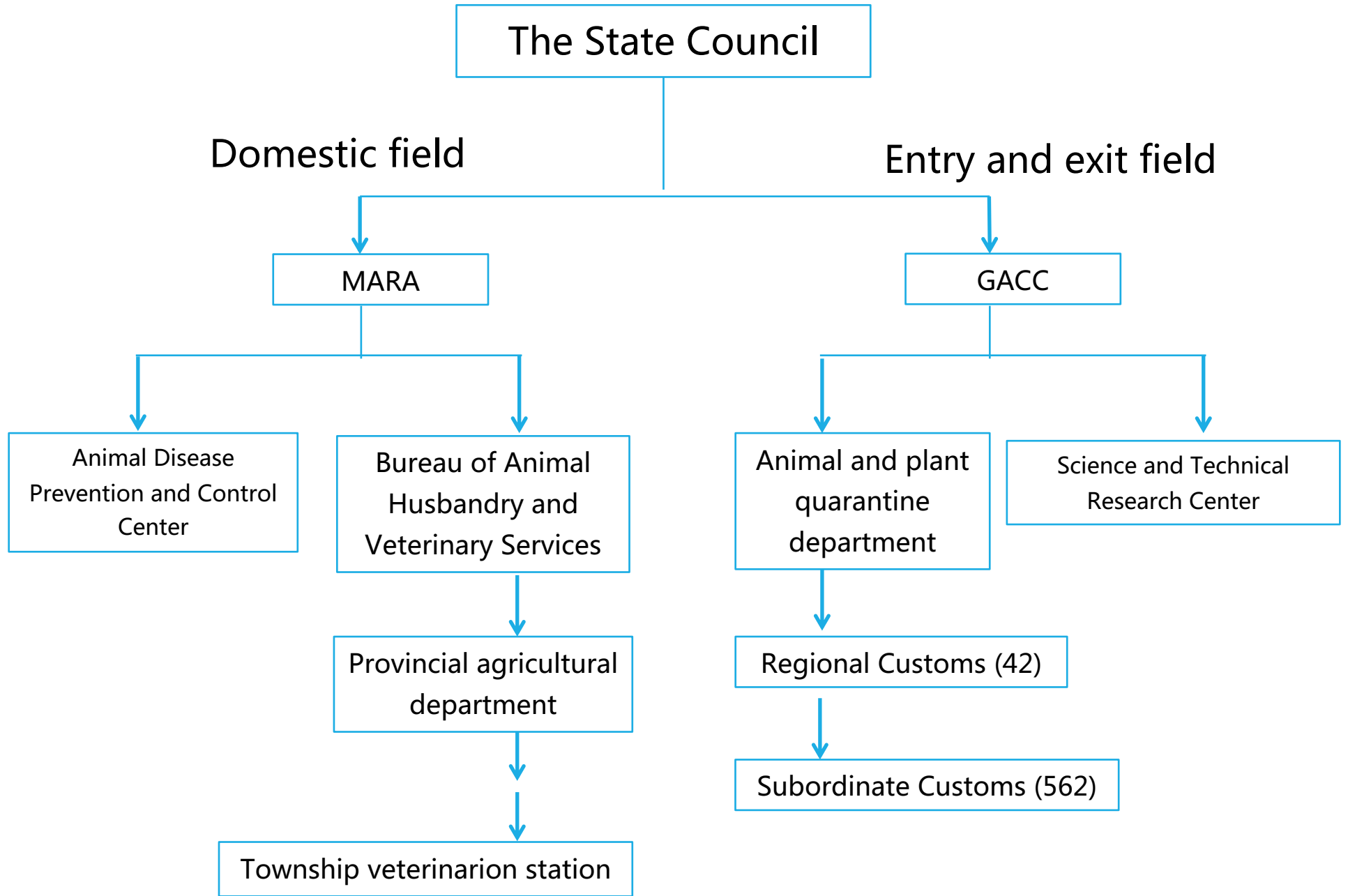


**I . Chinese animal disease
prevention and control
system**

**1. Framework of Chinese government organizations
responsible for animal disease prevention and control**



**I . Chinese animal
hygiene prevention and
control system
introduction**





2. laws

(1) Biosafety Law

(2) Domestic field:

Law on Animal Epidemic Prevention of the People's Republic of China

Animal Husbandry Law of the People's Republic of China

(3) Entry and exit field

Entry and Exit Animal and Plant Quarantine Law



3. personnel

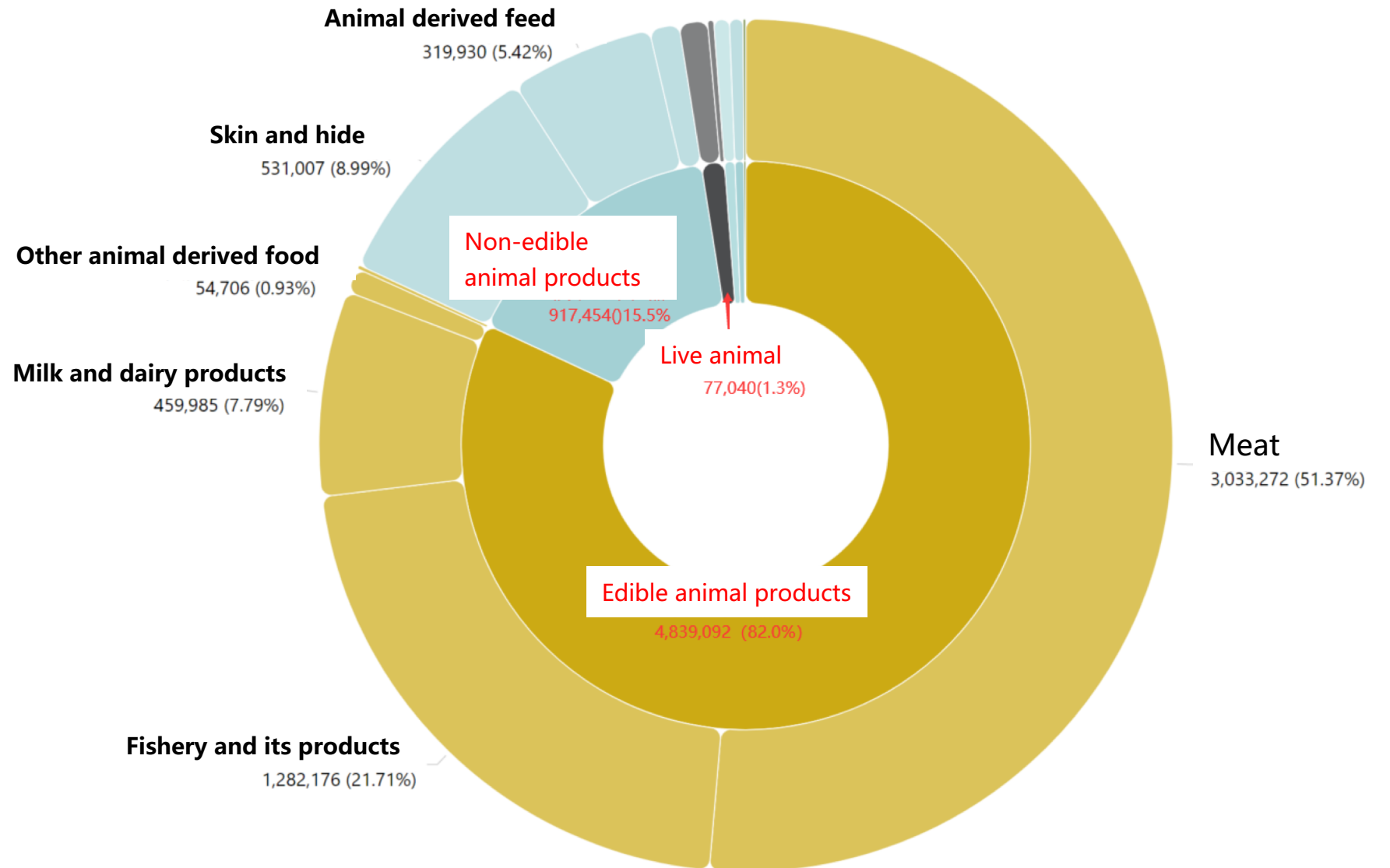
I . Chinese animal
hygiene prevention and
control system
introduction





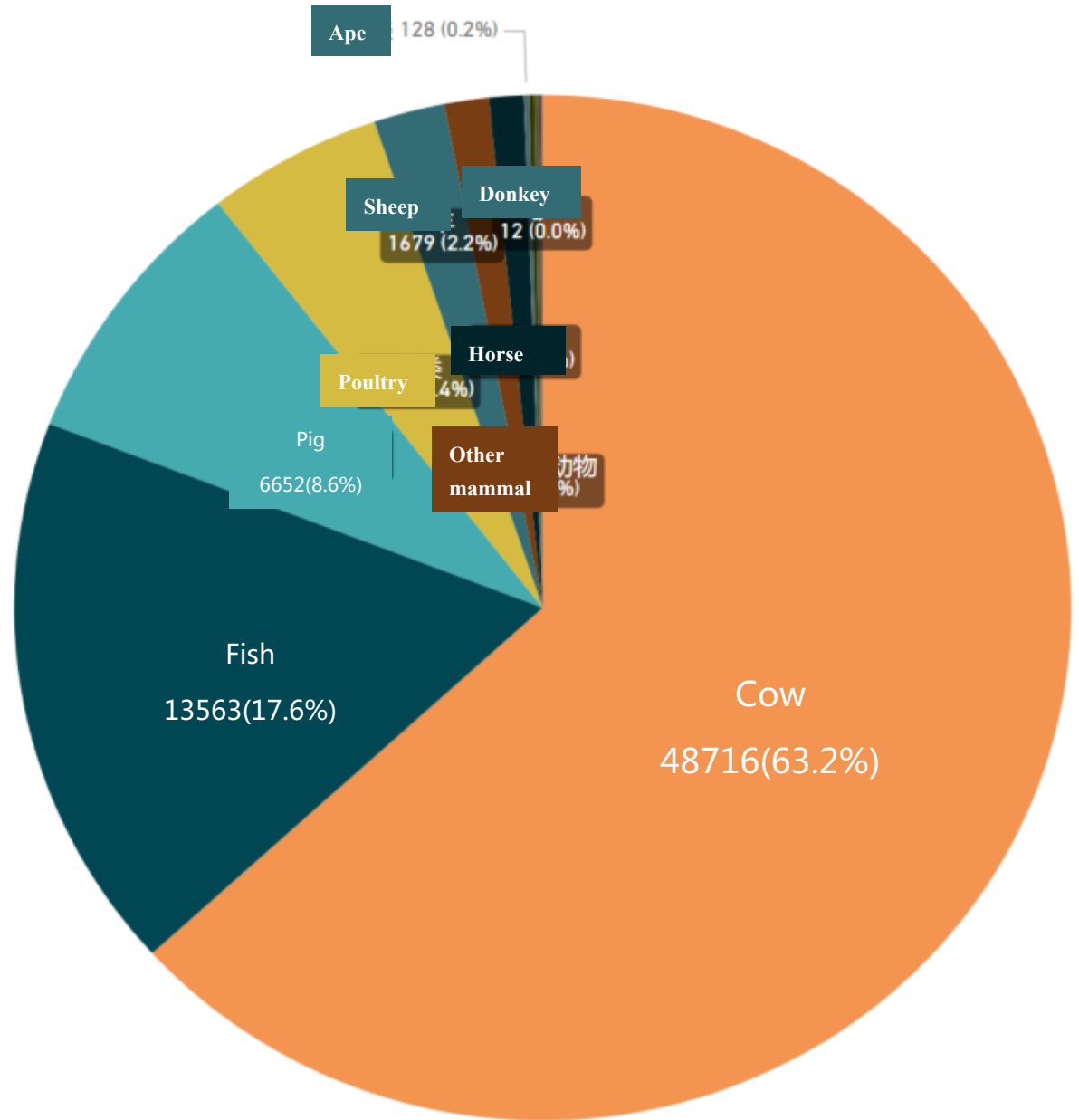
II. Chinese entry animal and animal products trade

1. General condition





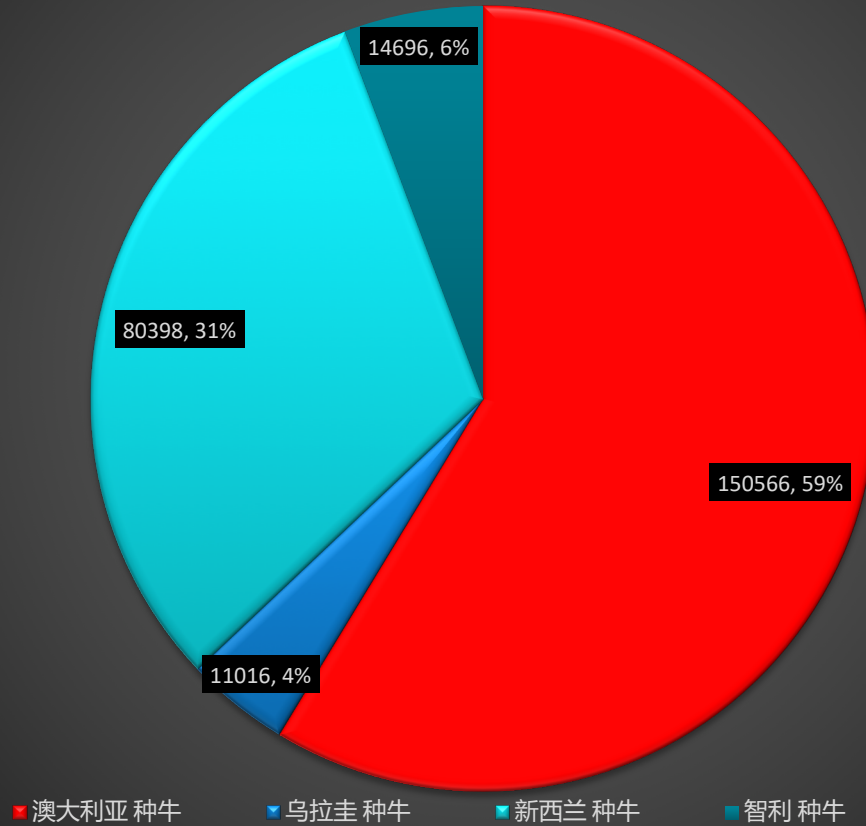
2. Live animal



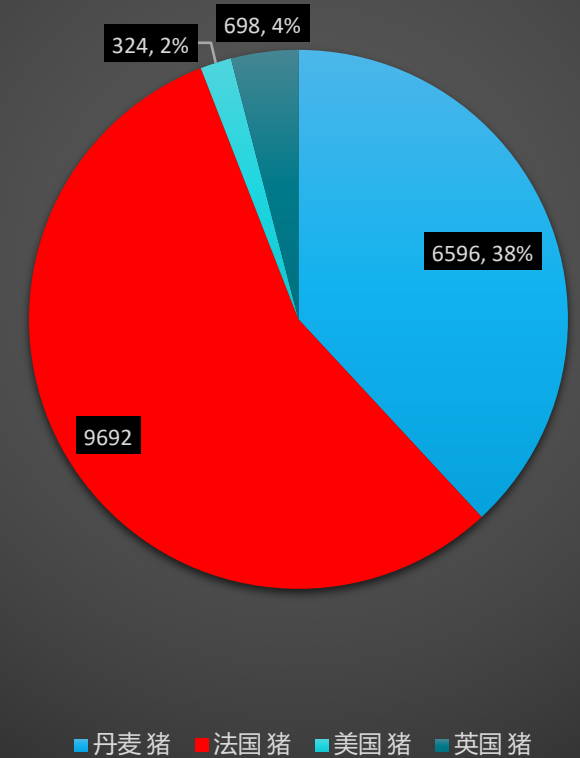


II. Chinese entry animal and animal products trade

Country distribution of imported breeding cattle from January to December in 2020



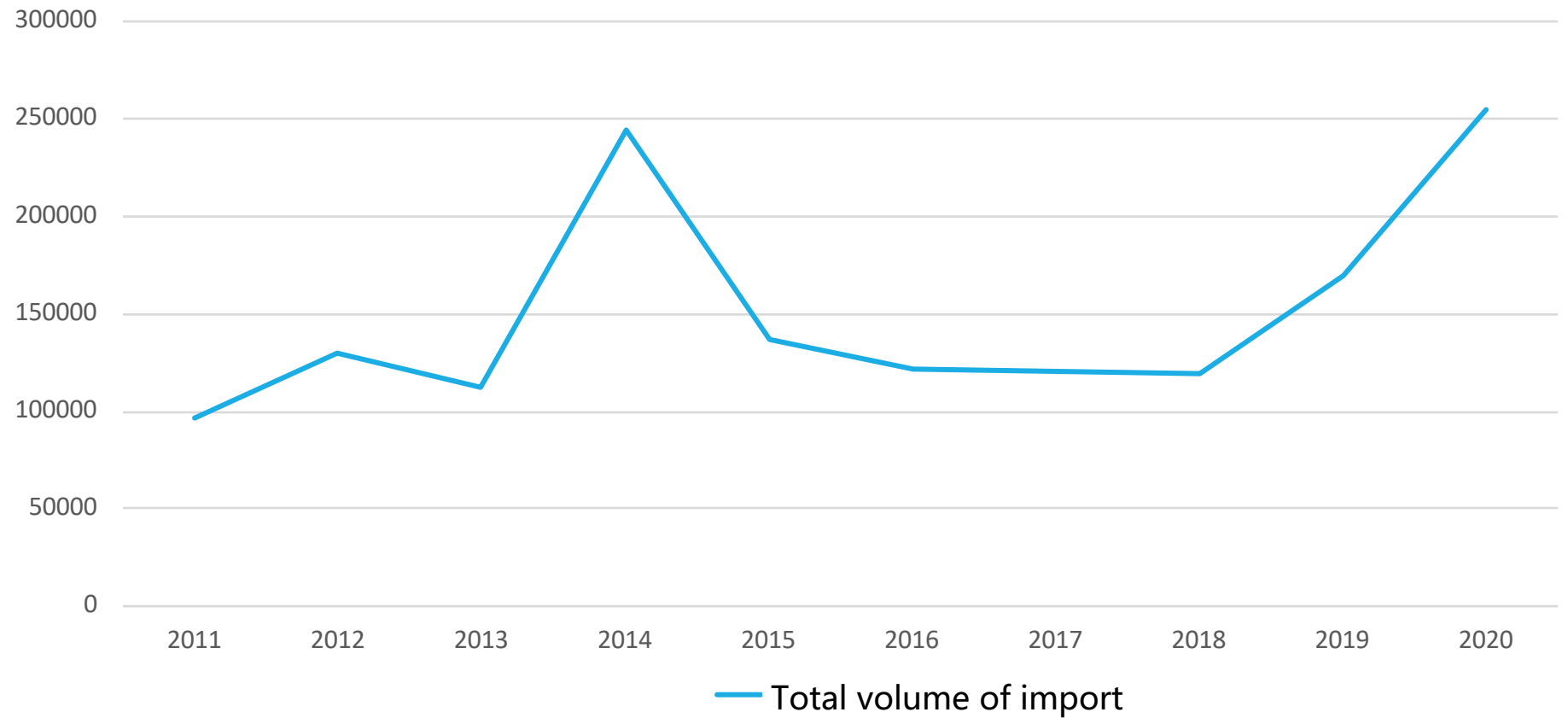
Country distribution of imported swine from January to December in 2020





**II. Chinese entry animal and
animal products trade**

Imported live cattle





III. Animal Disease Surveillance
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Animal Products

Entry and Exit
Animal Disease
Prevention and
Control System



early warning for overseas animal epidemics



risk assessment for quarantine access



border biosafety surveillance program

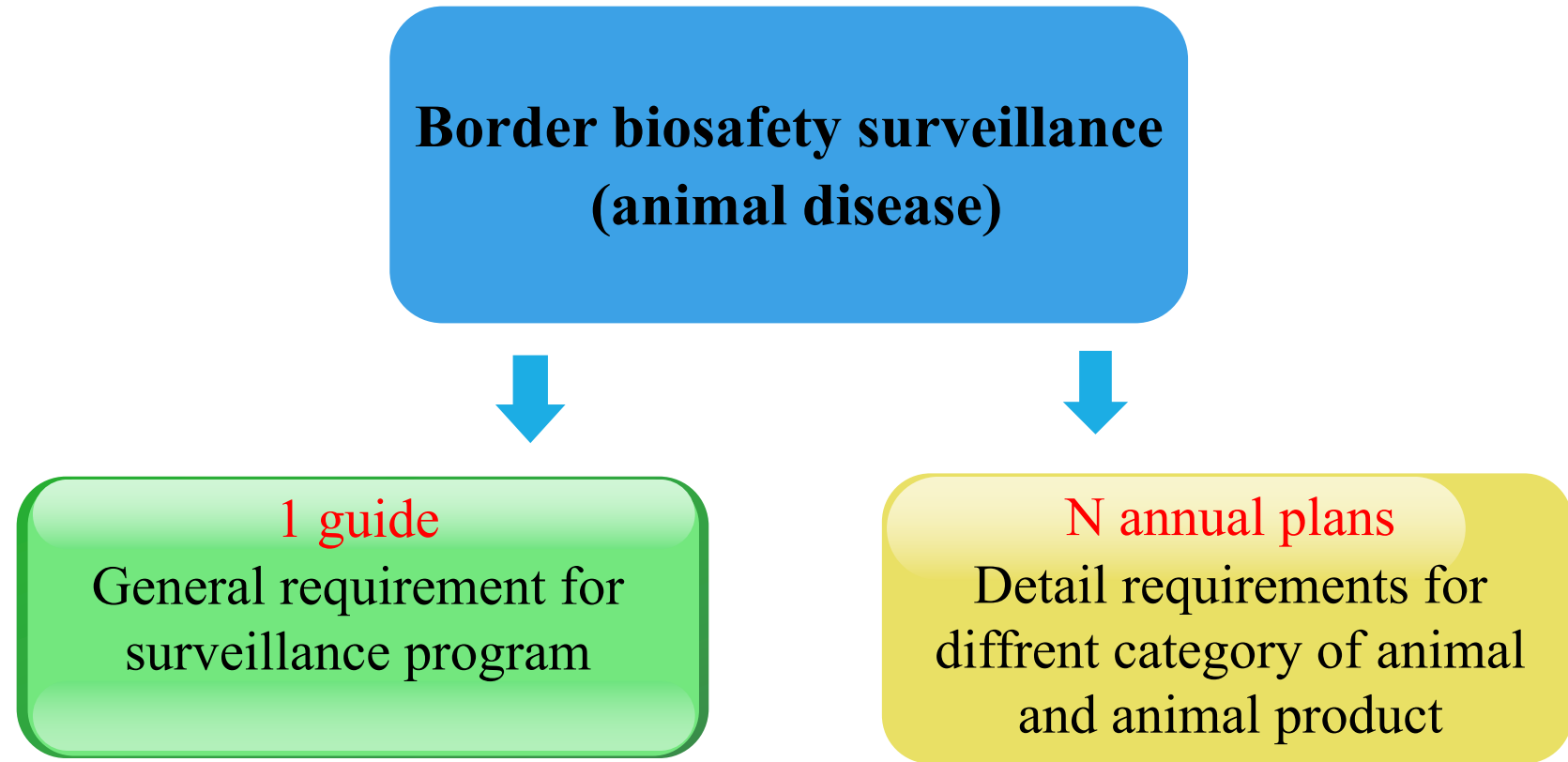


emergency response for major epidemics



III. Animal Disease Surveillance
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◆ Framework: 1+N





III. Animal Disease Surveillance Program for Entry Animal and Animal Products

◆ Contents

➤ 1. formulation and revision basis

- prevalence situation of animal epidemics at home and abroad
- Surveillance results of entry and exit animal diseases in the previous year.



➤ 2. Contents of surveillance plan

- ❑ product categories, species of disease, surveillance frequency, surveillance cycle
- ❑ sampling plan, requirements for taking and sending samples, allocation plan for testing tasks
- ❑ testing methods, confirmation laboratories and relevant criteria
- ❑ reporting of results, disposal procedures for unqualified results



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➤ **3. Surveillance cycle**

Oct. 1 of previous year to Sep. 30 of next year.

➤ 4. Classification of surveillance diseases

01

Key diseases

Mainly focus on class A animal epidemic disease, zoonosis, general and potential animal disease with a comparatively high detection rate in the past.

02

General diseases

Mainly focus on disease that listed in the bilateral importation quarantine protocol (excluding diseases listed as the key disease)

03

potential diseases

Mainly focus on emerging animal diseases or diseases happened recently in exporting countries/regions.

04

emergency surveillance diseases

Mainly focus on disease specified the risk warning notification and based on the passive surveillance requirements.

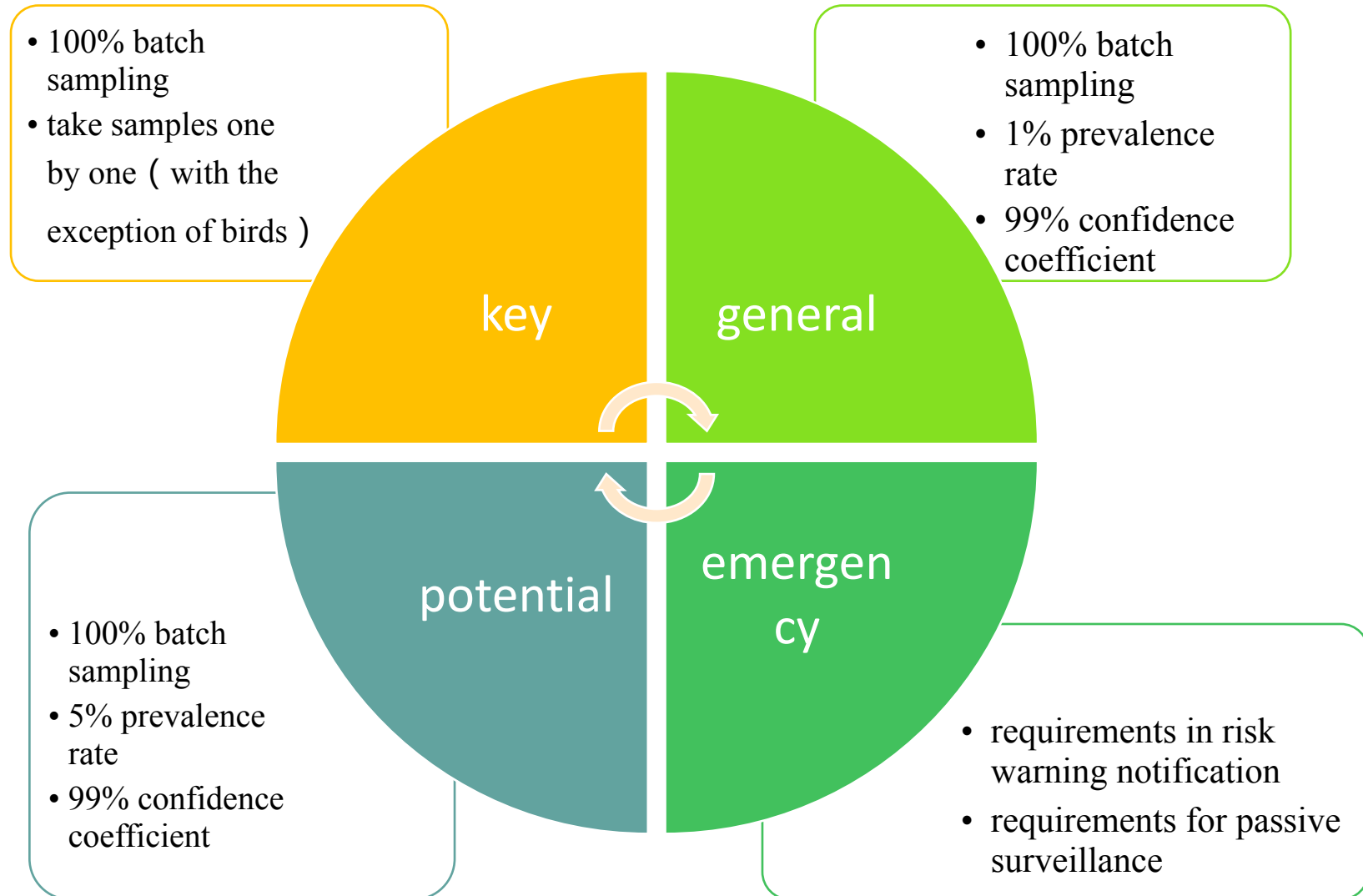
Determine the surveillance epidemic items according to risk level (e.g. the breeding pig imported from XXX country)

★ Brucellosis	ELISA	Blood	Diagnostic method of animal brucellosis (GB/T18646-2018); Quarantine technique specification of brucellosis (SN/T1088-2010)
★ Porcine reproductive and respiratory syndrome	ELISA	Blood	Diagnostic method of porcine reproductive and respiratory syndrome (GB/T18090-2008)
★ Infectious pleuropneumonia of swine	ELISA	Blood	Quarantine technique specification of infectious pleuropneumonia of swine (SN/T1447-2011)
● Transmissible gastroenteritis of swine	ELISA	Blood	Quarantine specification of transmissible gastroenteritis of swine (SN/T1446-2010)
● Pseudorabies	ELISA	Blood	Diagnostic method of pseudorabies (GB/T18641-2018); Quarantine technique specification of pseudorabies (SN/T1698-2010)
● A/H1N1 flu	Fluorescence RT-PCR	Nasopharyngeal swab	Part 1 of animal flu detection: fluorescence RT-PCR detection method of H1 subtype flu virus (GB/T35900.1-2018)
○ African swine fever	Fluorescence PCR	Blood	OIE 2019 Chapter 3.8.1.
○ Porcine circovirus type 2 (if not immunized)	Fluorescence PCR	Blood	Quarantine technique specification of porcine circovirus virus (SN/T2708-2010)
○ Porcine epidemic diarrhea	RT-PCR	Fecal swab	Quarantine technique specification of porcine delta coronavirus (SN/T5124-2019)
○ Porcine delta coronavirus	RT-PCR	Fecal swab	Quarantine technique specification of porcine epidemic diarrhea (SN/T1699-2017)



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➤ 5. Requirements for animal sampling and testing numbers



Surveillance result at a 99% confidence coefficient and its correspondent sampling quantity

Population quantity	Prevalence rate										
	0.10%	1%	2%	5%	10%	15%	20%	25%	30%	40%	50%
20	20	20	20	20	18	15	13	11	10	8	6
30	30	30	30	30	23	19	15	12	11	8	7
40	40	40	40	36	27	21	16	14	11	9	7
50	50	50	50	42	29	22	17	14	12	9	7
60	60	60	58	47	31	23	18	15	12	9	7
70	70	70	68	51	33	23	18	15	12	9	7
80	80	80	76	54	34	24	19	15	12	9	7
90	90	90	83	57	35	25	19	15	13	9	7
100	100	100	90	59	36	25	19	15	13	9	7
200	200	180	136	73	40	27	20	16	13	9	7
500	500	300	183	83	42	28	21	16	13	9	7
1000	990	368	204	86	43	28	21	16	13	9	7
10000	3689	448	226	90	44	29	21	16	13	9	7
infinite	4603	459	228	90	44	29	21	16	13	9	7



◆ Implementation

➤ 1. Directives transition

Generally transit through the risk deployment system with electronic form.

Occasionally transit by documents due to the relatively complicated rules.





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➤ 2. Results reporting

- ❑ Testing results recorded in E-Lab system.
- ❑ Subordinate customs must report to regional customs within 2 hours, and regional customs must report to GACC within 1 hour if class A diseases or zoonoses are detected.
- ❑ Notify the veterinary department of the local government.



➤ 3. Treatment of positive cases

- ❑ Animals with class A and B diseases should be treated in accordance with the provisions of Article 16 of the Law on Animal and Plant Quarantine.
- ❑ Other diseases beyond class A and B must be reported to the Animal and Plant Department of GACC, and be treated based on risk analysis.



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➤ 4. Early warning of risk

- ❑ The animal and plant department of GACC shall carry out risk analysis according to the test result of surveillance program and announce risk warning notification if necessary.
- ❑ Regional Customs shall implement the emergency surveillance order according to the risk warning notification.





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◆ Surveillance result evaluation

- ❑ Regional Customs shall submit the surveillance program report to the animal and plant department of GACC before Oct.15 each year.
- ❑ The surveillance report must include: implementation situation, statistical analysis, treatment of disqualified results, suggestions/problems of surveillance program.
- ❑ The designated expert team of GACC draft annual evaluation report.





III. Animal Disease Surveillance Program for Entry Animal and Animal Products

◆ Improvement of surveillance program

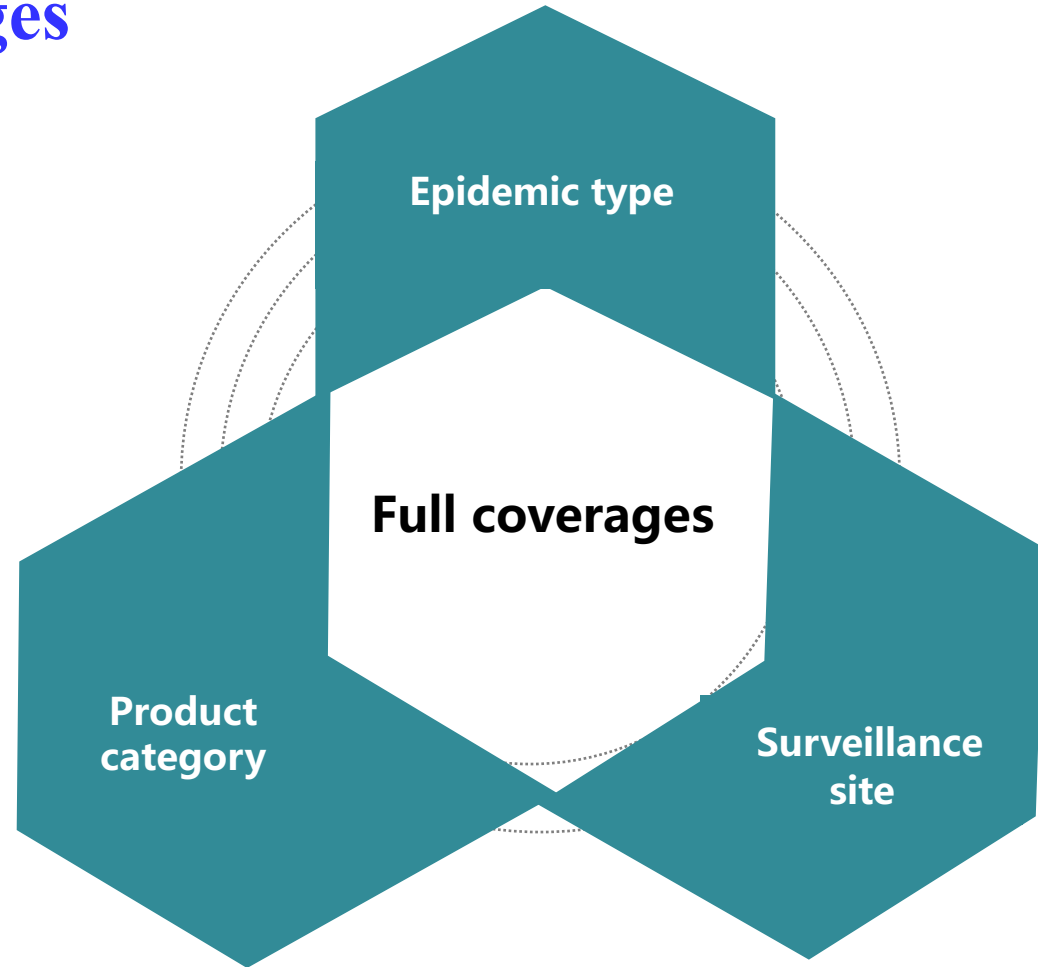
- Regional Customs raise proposals regarding the problems dicovered during the implementation.
- GACC organize research and examination.
- GACC adjust surveillance Program according to the evaluation result.



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◆ **Effects**

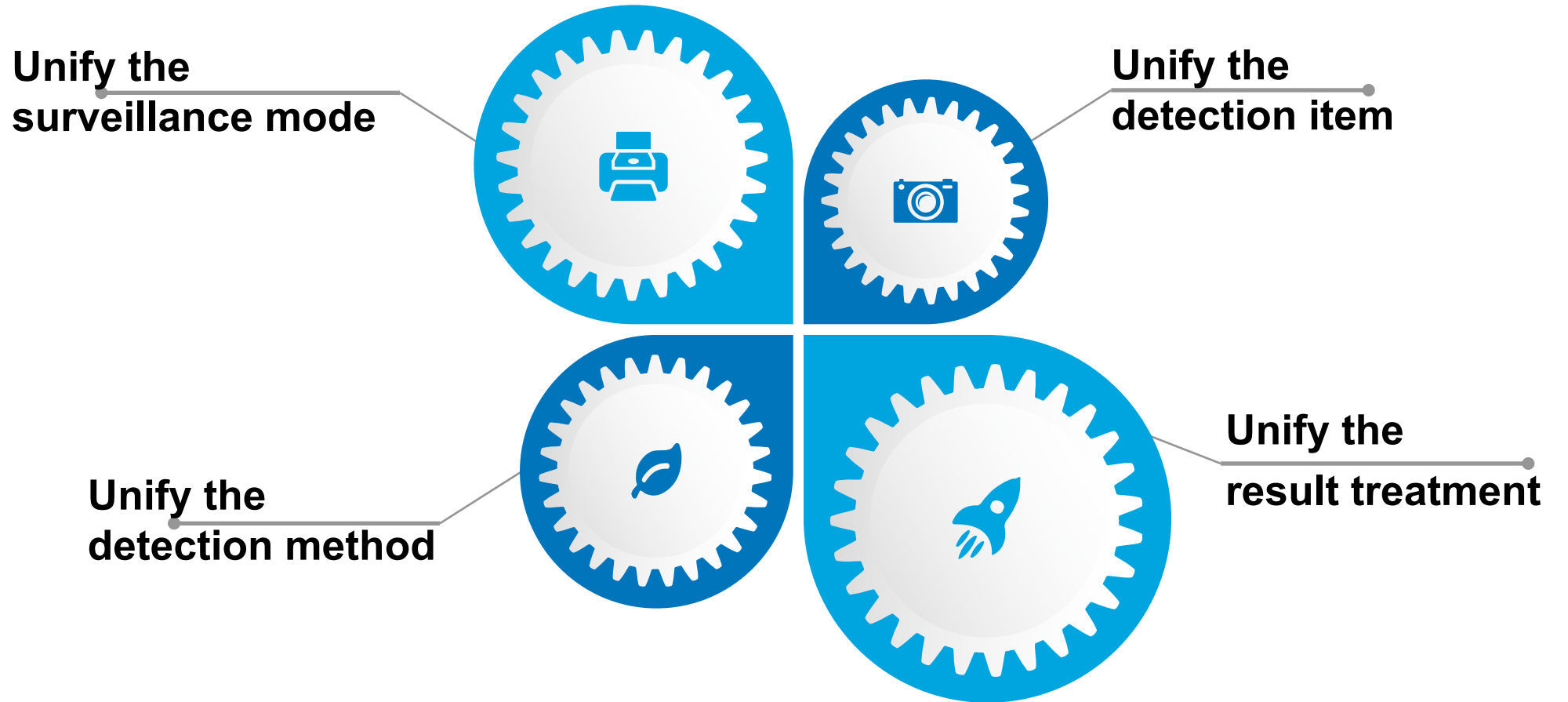
➤ **1. Coverages**





III. Animal Disease Surveillance Program for Entry Animal and Animal Products

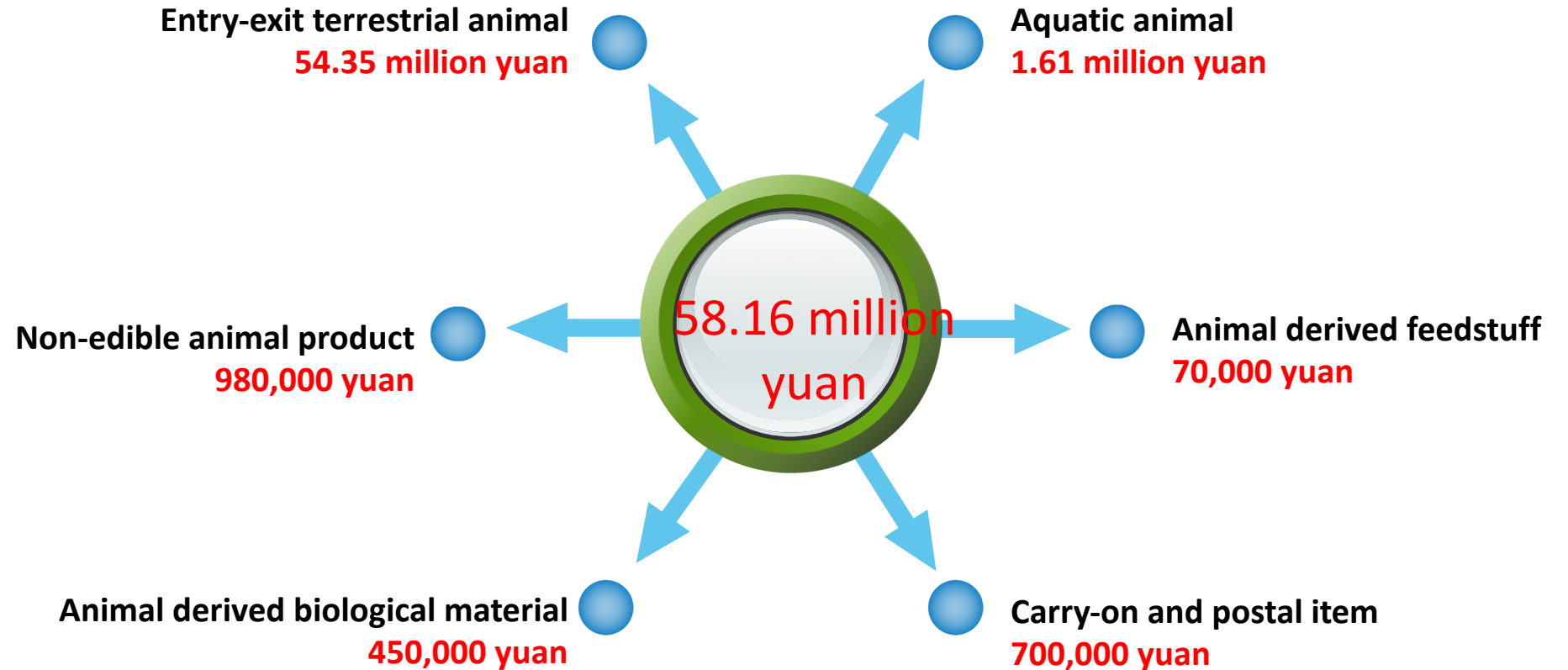
➤ 2. Unifications





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➤ 3. Efficiency



The surveillance expenditure is over 1/3 lower than that of the traditional mode



➤ 4. Accuracy

- ❑ Be more accurate in goal orientation.
- ❑ Be more accurate in prevention and control measures.





➤ Main cases in year 2021

- ❑ Shenyang Customs detected avian leukosis in the one-day-year-old chicklings imported from New Zealand. It was the first time to discover the disease.
- ❑ Guangzhou Customs detected the circovirus type 2 in the breeding swine imported from the U.S. It was the first time to discover the disease.
- ❑ Fuzhou Customs district detected the infectious pleuropneumonia of swine in the breeding swine imported from Demark. It was the first time to discover the disease.
- ❑ Chengdu Customs detected the hepatitis type E in the imported breeding swine from U.K, It was the first time to discover the disease.



Thanks !

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