

BelVet- SAC 2024

BELGIAN VETERINARY SURVEILLANCE OF ANTIBACTERIAL CONSUMPTION

Vision 2024: did we reach the targets? Sales and use of veterinary antibacterials at national and species level.





CONTENTS

- Datasources
- Non-standardised sales and use data
- Standardised sales and use data
 - mg sold active substance / kg biomass produced
 - BD₁₀₀-species
 - Use data based on farm-level-BD₁₀₀ pigs, poultry, veal calves, cattle
- Sales and use per antibacterial class, administration route and AMCRA colour code
- Did we reach the 2024 reduction targets?





DATA SOURCES

- Sales data
 - Antibacterial **premises**
 - **Manufacturers of medicated feed (~ MMF)**
 - Yearly survey → **Vet-AM Sales application** (1st time January 2025)
 - Antibacterial '**pharmaceuticals**' (= all other pharmaceutical forms of antibacterial VMPs)
 - **Marketing Authorisation Holders (~ MAH) → Vet-AM Sales application** (1st time January 2025)
 - Since 2022
 - ⇔ until 2021: from the distributors

- Use data
 - Sanitel-Med





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TOTAL SALES OF ANTIBACTERIAL PHARMACEUTICALS + PREMIXES (NON STANDARDISED)

Absolute Total Sales of Antibacterial Premixes & Pharmaceuticals
Tonnes active substance

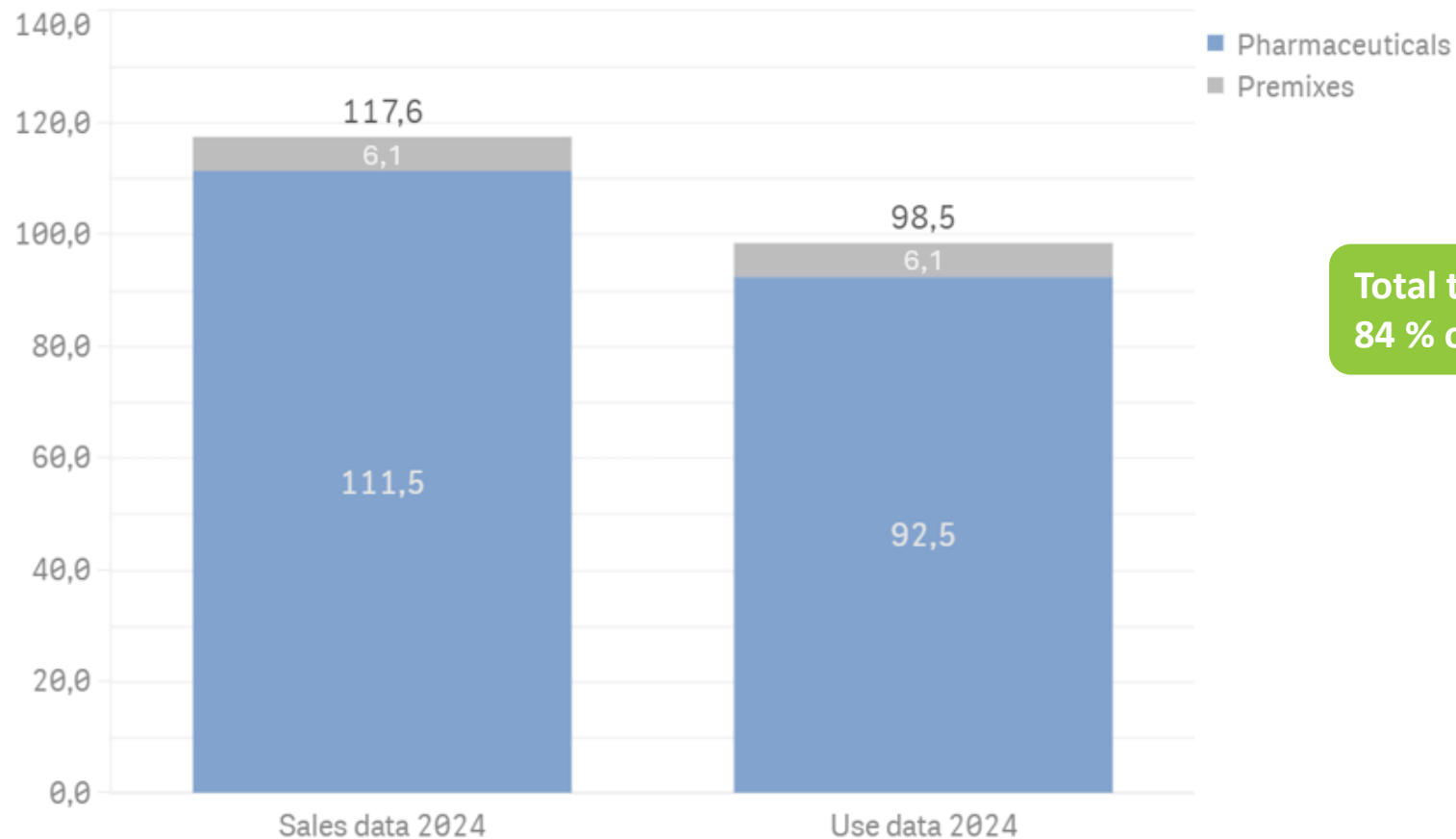




USE ANTIBACTERIAL PHARMACEUTICALS + PREMIXES PIGS, POULTRY, VEAL CALVES, CATTLE (NON STANDARDISED)

Sanitel-Med coverage of sales data in 2024

Tonnes active substance



→ 83 % coverage

→ 99 % coverage

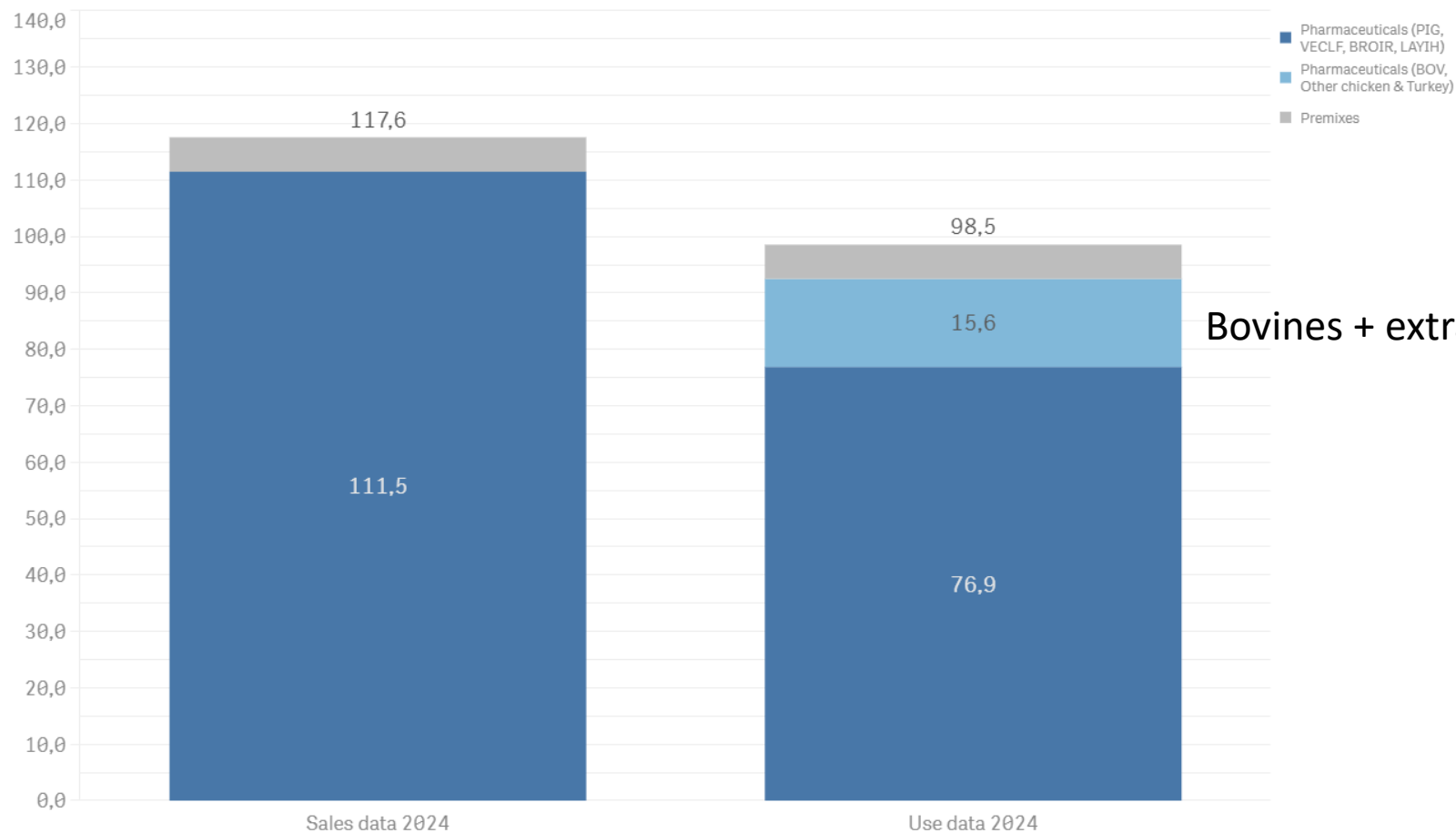
Total tonnes Sanitel-Med =
84 % of total tonnes 'sales'



USE ANTIBACTERIAL PHARMACEUTICALS + PREMIXES PIGS, POULTRY, VEAL CALVES, CATTLE (NON STANDARDISED)

Sanitel-Med coverage of sales data in 2024

Tonnes active substance



Bovines + extra poultry



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BIOMASS PRODUCED BETWEEN 2018 AND 2024

$$\text{biomass (kg)} = (\text{kg beef} + \text{pork} + \text{poultry} + \text{small ruminants}) + (n \text{ live dairy cattle} \times 500 \text{ kg})$$

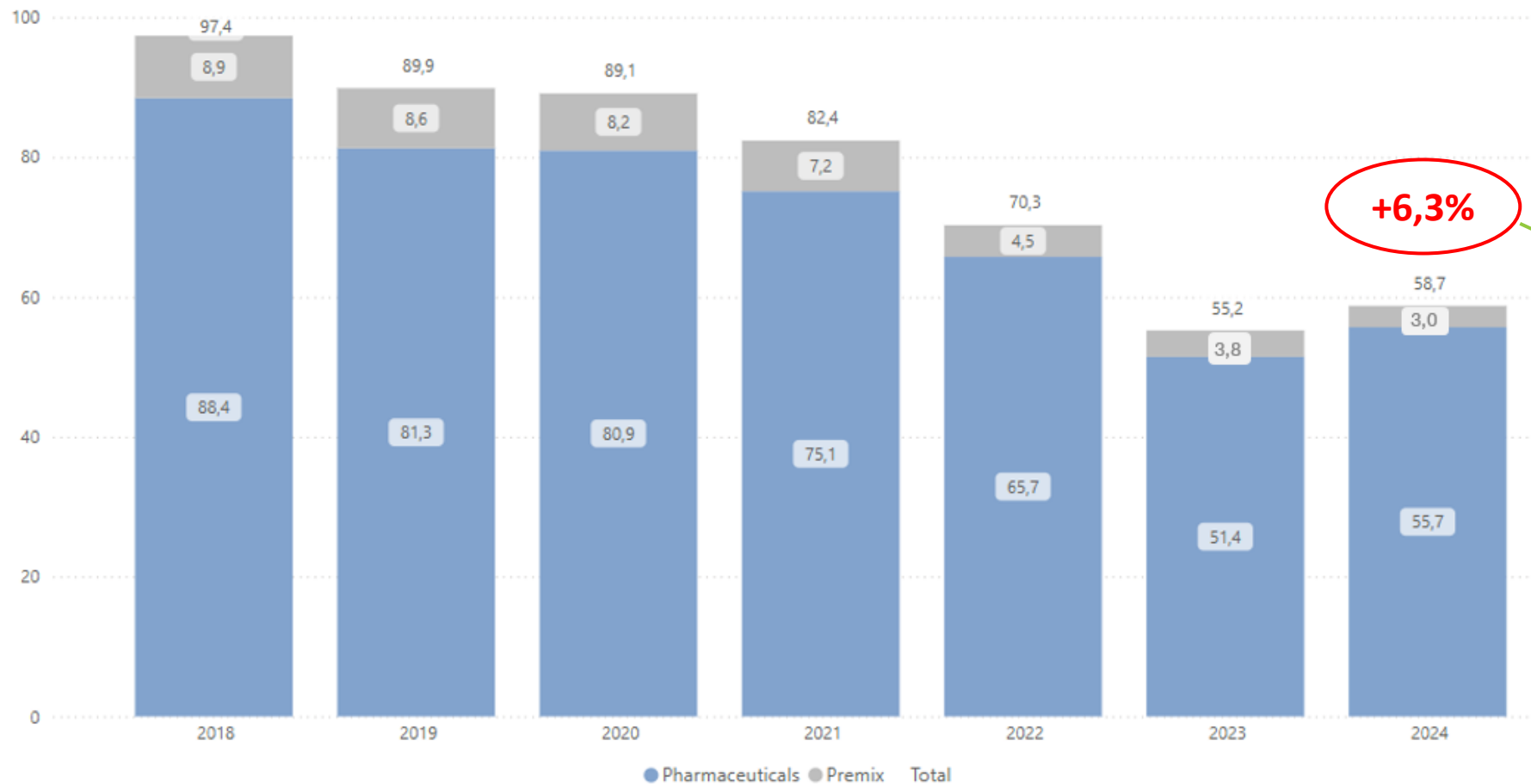
Animal biomass	2018	2019	2020	2021	2022	2023	2024
Meat (tonnes)							
Pork	1 073 121	1 038 916	1 098 714	1 140 002	1 032 197	929 740	945 176
Beef	277 312	263 750	254 509	247 122	238 137	240 180	249 435
Poultry	469 587	447 786	448 974	455 115	449 039	428 196	538 523
Sheep/goat	3 090	3 036	2 845	3 058	2 514	2 189	1 905
Total biomass from meat production	1 823 110	1 753 488	1 805 042	1 845 297	1 721 886	1 600 305	1 735 039
Dairy cattle							
Dairy cattle (number)	529 247	537 960	537 941	537 246	543 680	535 548	534 891
Dairy cattle metabolic weight (tonnes)	264 624	268 980	268 971	268 623	271 840	267 774	267 446
Total biomass (tonnes)	2 087 734	2 022 468	2 074 013	2 113 920	1 993 726	1 868 079	2 002 485
Evolution since previous year	+ 1,7%	-3,1%	+2,6%	+1,9%	-5,7%	-6,3%	+7,2%



TOTAL **SALES** ANTIBACTERIAL PHARMACEUTICALS + PREMIXES MG ACTIVE SUBSTANCE/KG BIOMASS

Standardised Total Sales of Antibacterial Premixes & Pharmaceuticals

mg active substance / kg biomass



58,7 mg sold / kg biomass in 2024

+6,3%

-19,2 %

+8,2 %



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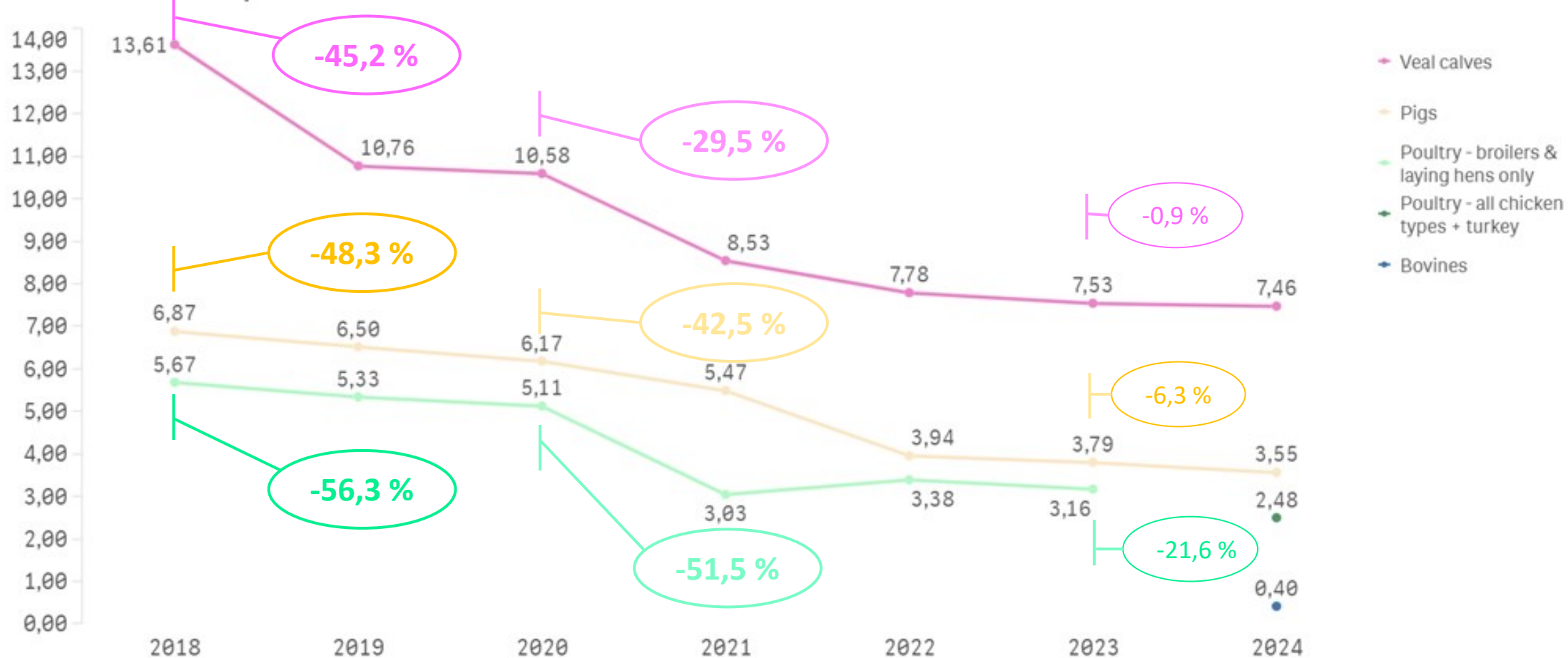
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USE – BD₁₀₀-SPECIES

Evolution of the BD100-species from 2018 to 2024



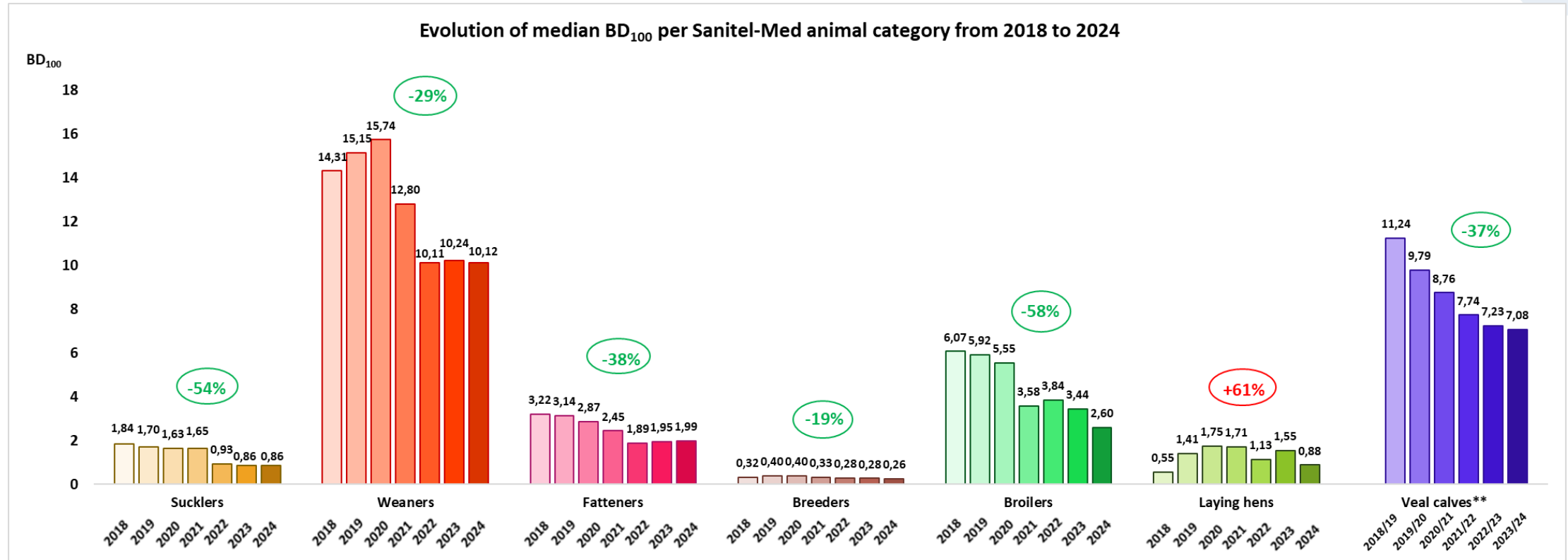


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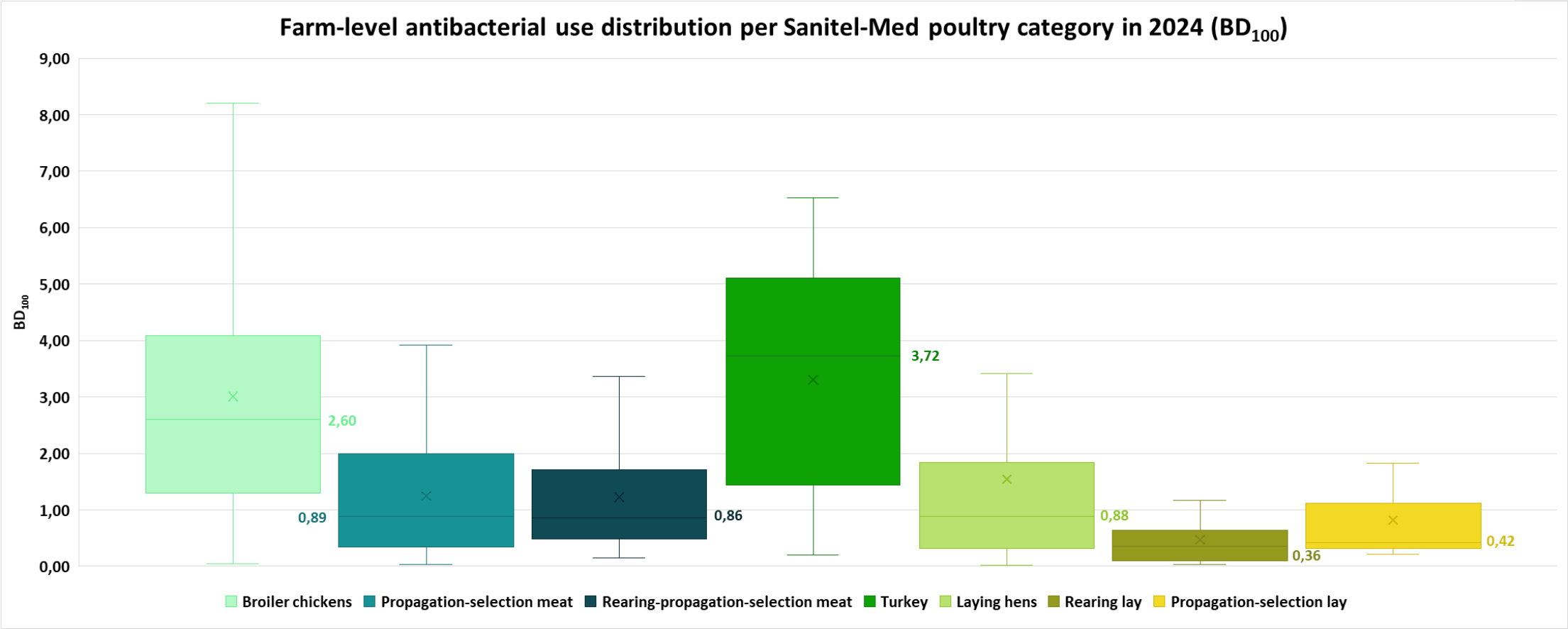


USE – EVOLUTION MEDIAN FARM-LEVEL BD_{100} PER ANIMAL CATEGORY



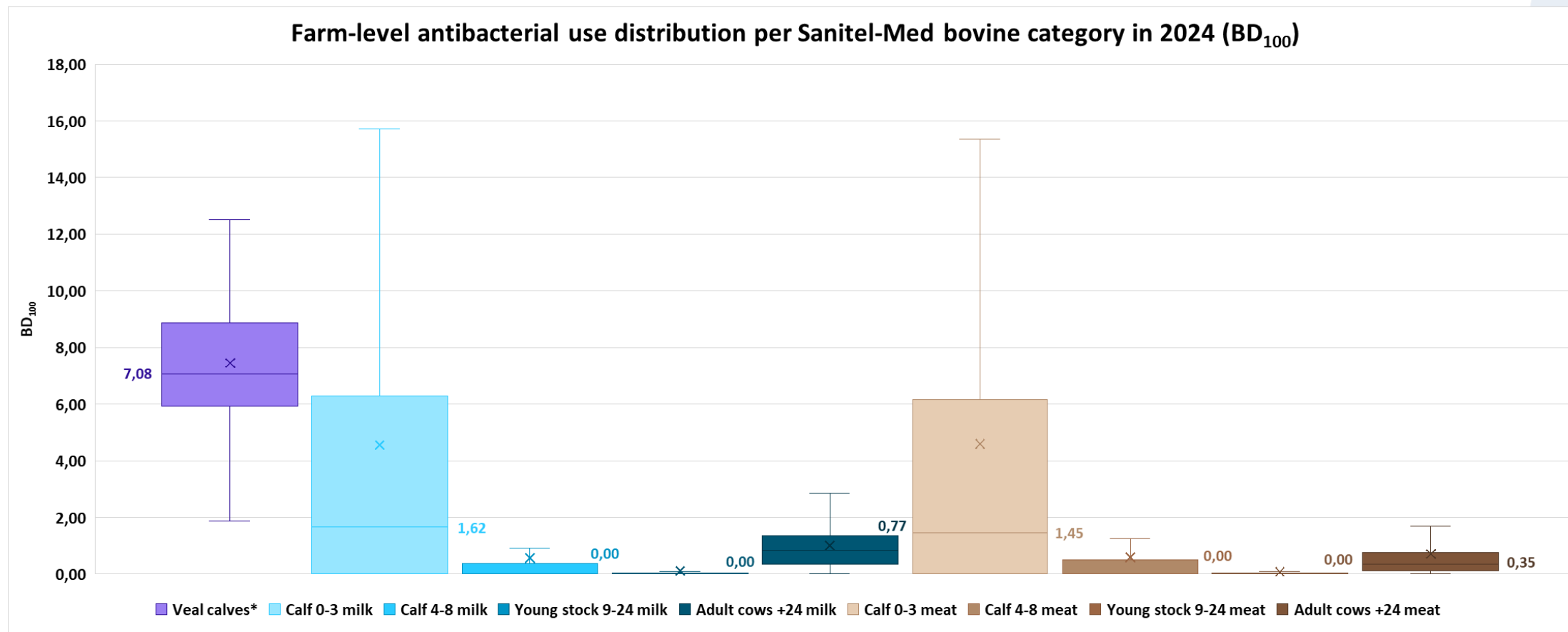


USE – DISTRIBUTION FARM LEVEL BD_{100} PER POULTRY CATEGORY





USE – DISTRIBUTION FARM LEVEL BD_{100} PER BOVINE CATEGORY

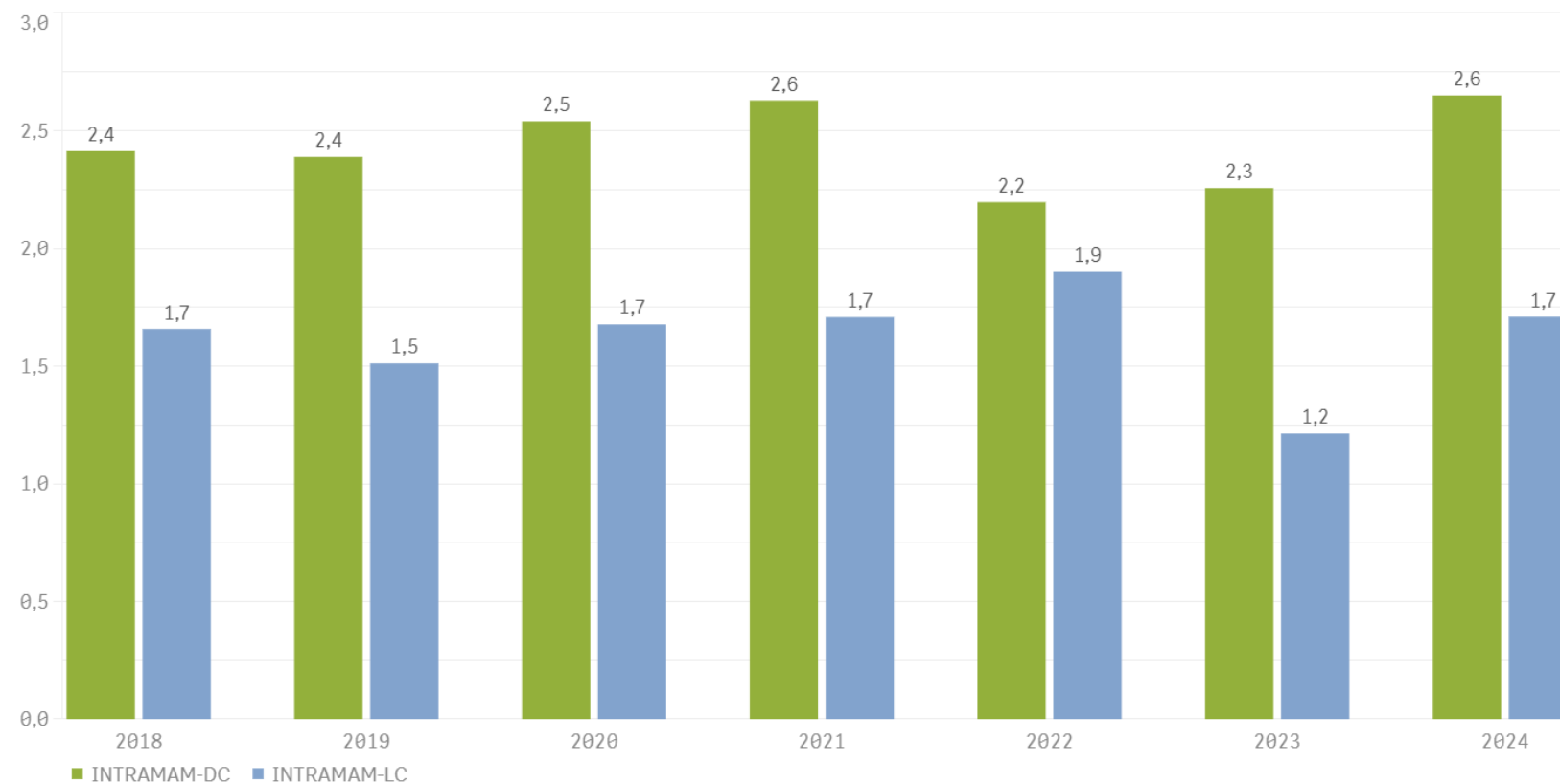




SALES AND USE – INTRAMAMMARY PRODUCTS (APPLICATORS/COW)

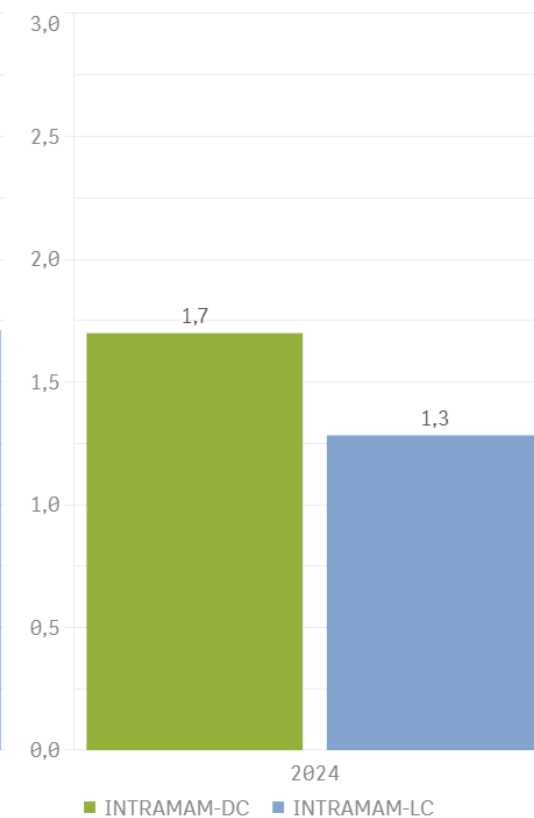
Number of applicators sold vs used per cow and per year for use in dry cow therapy and treatment of mastitis

number of applicators/cow/year SOLD



USE data

number of applicators/cow/year USED





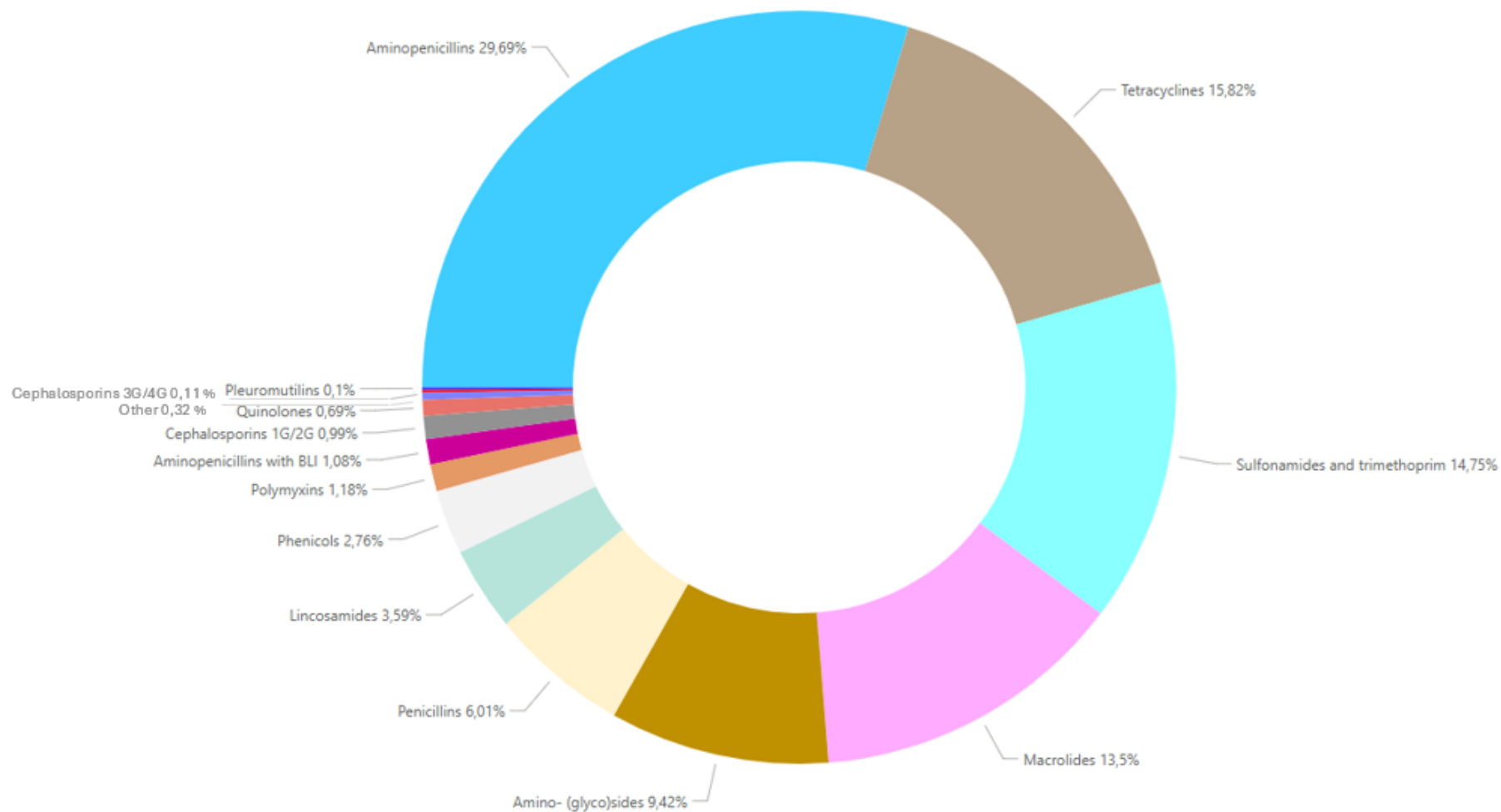
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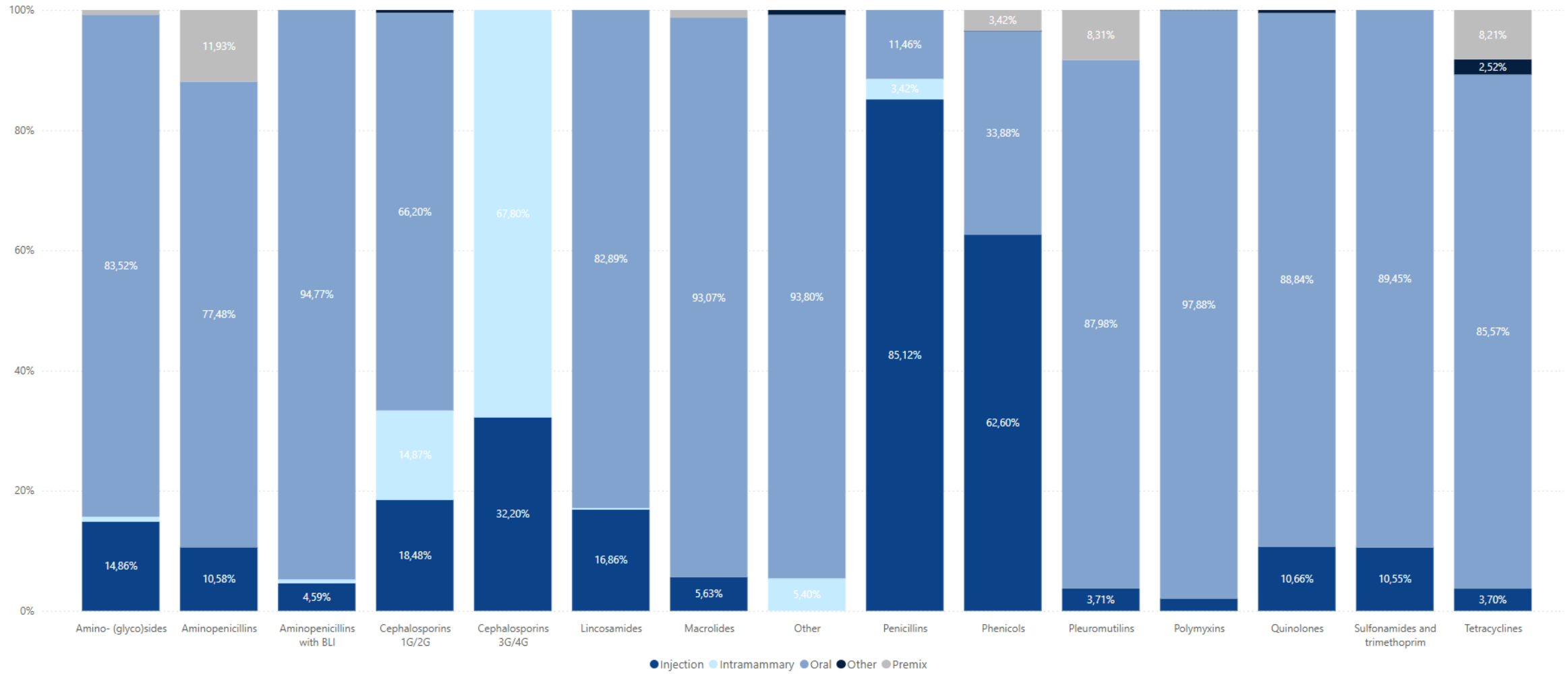
SALES PER ANTIBACTERIAL CLASS (MG ACTIVE SUBSTANCE/KG BIOMASS)



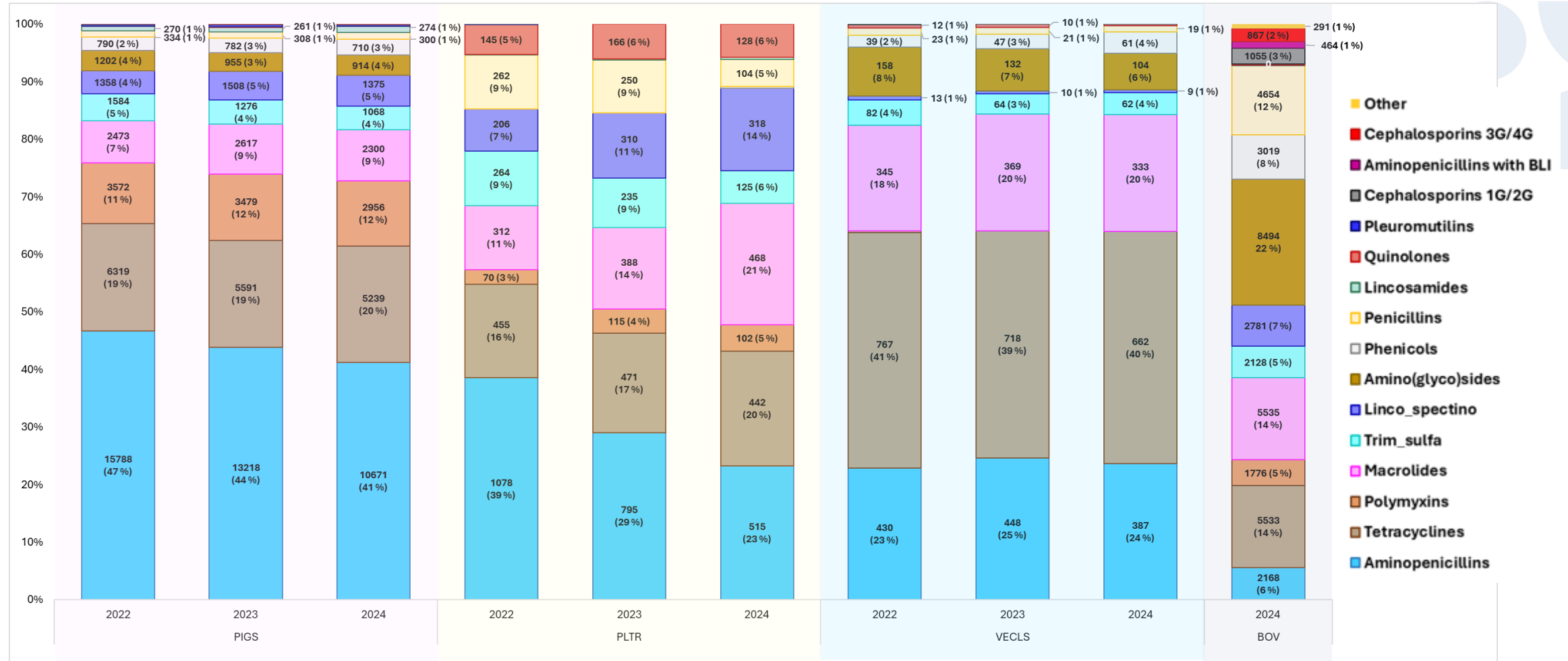
SALES PER ANTIBACTERIAL CLASS (MG ACTIVE SUBSTANCE/KG BIOMASS)

Class AB Mg/Kg Biomass	2018	2019	2020	2021	2022	2023	2024	18»19	19»20	20»21	21»22	22»23	23»24	2024%	Evolution
Aminopenicillins	30,41	30,07	30,81	26,89	22,44	17,53	17,43	-1,13 %	2,47 %	-12,72 %	-16,55 %	-21,87 %	-0,56 %	29,69 %	
Tetracyclines	26,12	19,83	19,18	17,32	13,29	9,58	9,29	-24,08 %	-3,28 %	-9,70 %	-23,30 %	-27,89 %	-2,03 %	15,82 %	
Sulfonamides and trimethoprim	18,24	17,69	16,72	16,35	12,16	7,31	8,66	-3,04 %	-5,50 %	-2,20 %	-25,60 %	39,86 %	18,40 %	14,75 %	
Macrolides	5,95	5,52	6,42	6,62	6,28	7,18	7,93	-7,25 %	16,39 %	3,04 %	-5,14 %	14,46 %	10,39 %	11,50 %	
Amino- (glyco)sides	3,74	4,55	4,27	4,53	4,37	3,96	5,53	21,59 %	-6,21 %	6,12 %	-3,63 %	9,30 %	39,64 %	9,42 %	
Penicillins	5,11	4,22	4,19	3,84	5,23	3,85	3,53	-17,29 %	-0,91 %	-8,34 %	36,38 %	-26,33 %	-8,47 %	6,01 %	
Lincosamides	2,20	2,57	2,32	1,90	2,09	1,43	2,11	16,73 %	-9,88 %	-18,08 %	10,25 %	-31,49 %	47,13 %	3,59 %	
Phenicol	1,59	1,56	1,57	1,81	1,82	1,52	1,62	-1,79 %	0,41 %	15,33 %	0,87 %	-16,43 %	6,31 %	2,76 %	
Polymyxins	1,73	1,50	1,33	1,16	0,57	0,62	0,69	-13,25 %	-11,24 %	-12,62 %	-50,79 %	8,01 %	11,81 %	1,18 %	
Aminopenicillins with BLI	0,49	0,56	0,55	0,57	0,55	0,63	0,63	14,55 %	-3,05 %	4,52 %	-2,98 %	14,42 %	0,26 %	1,08 %	
Cephalosporins 1G/2G	0,38	0,52	0,62	0,60	0,49	0,64	0,58	37,93 %	19,31 %	-3,73 %	-17,49 %	29,40 %	-9,40 %	0,99 %	
Quinolones	0,44	0,48	0,65	0,35	0,59	0,53	0,40	9,84 %	36,69 %	-46,02 %	66,43 %	-10,25 %	-23,70 %	0,69 %	
Other	0,14	0,15	0,14	0,18	0,16	0,23	0,19	12,63 %	-10,70 %	32,61 %	-10,71 %	38,59 %	-15,94 %	0,32 %	
Cephalosporins 3G/4G	0,07	0,07	0,07	0,06	0,05	0,06	0,06	-5,48 %	3,61 %	-13,49 %	-16,97 %	22,20 %	1,59 %	0,11 %	
Pleuromutilins	0,74	0,55	0,27	0,18	0,16	0,13	0,06	-25,92 %	-50,59 %	-31,99 %	-13,56 %	-21,01 %	-53,47 %	0,10 %	

SALES PER ANTIBACTERIAL CLASS AND ROUTE OF ADMINISTRATION (MG ACTIVE SUBSTANCE/KG BIOMASS)



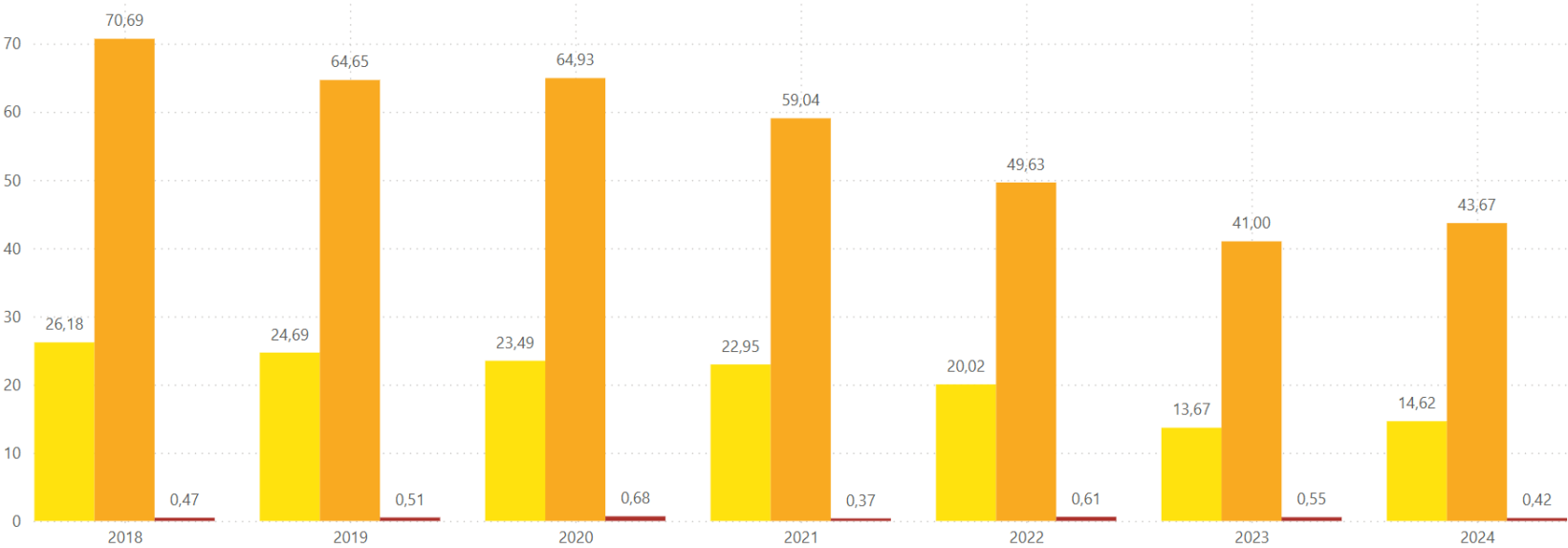
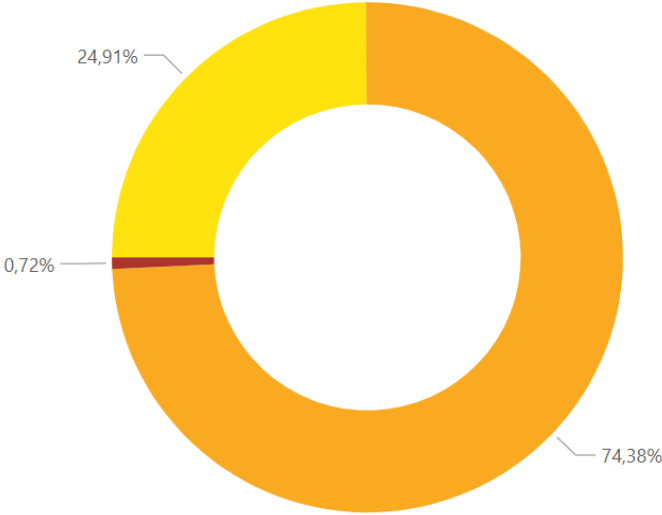
USE PER ANTIBACTERIAL CLASS PER ANIMAL TYPE (TREATMENT DAYS)





SALES PER AMCRA COLOUR CODE

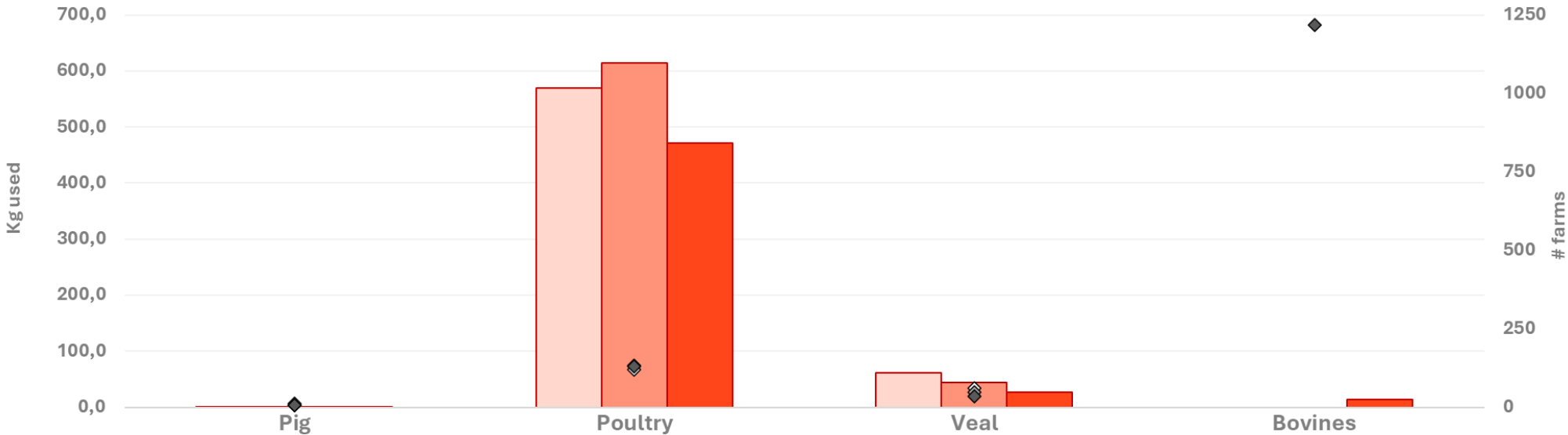
2024





USE OF QUINOLONES (KG)

Use of quinolones per Sanitel-Med species from 2022 to 2024 (kg)

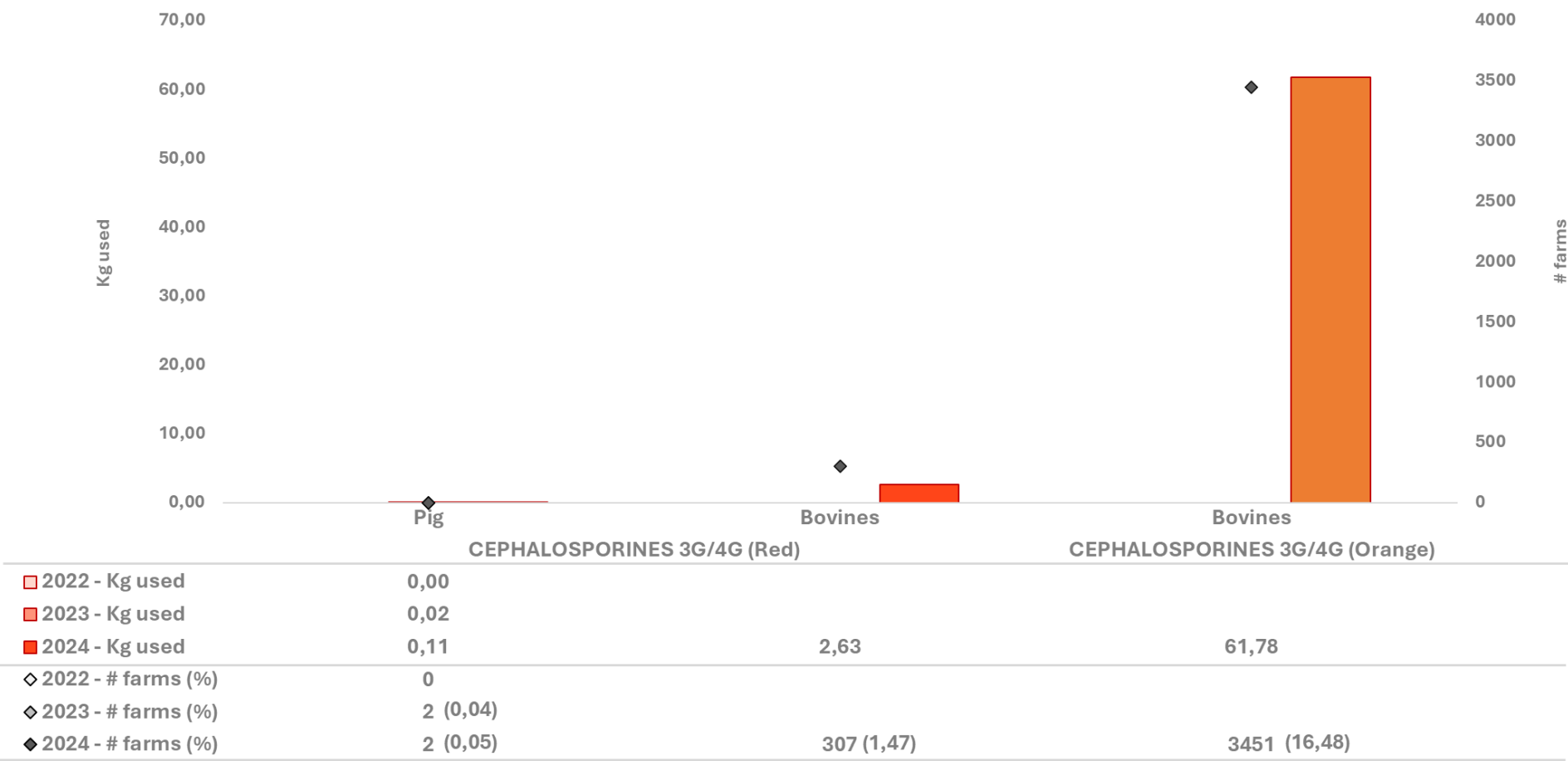


QUINOLONES				
2022 - Kg used	0,2	569,8 ¹	62,3	
2023 - Kg used	0,4	613,6 ¹	43,9	
2024 - Kg used	0,4	472,1 ²	27,0	13,7
◇ 2022 - #farms (%)	7 (0,1)	121 ¹ (9,9)	60 (24,2)	
◐ 2023 - #farms (%)	11 (0,2)	133 ¹ (10,7)	49 (20,0)	
◆ 2024 - #farms (%)	7 (0,2)	131 ² (8,6)	35 (14,3)	1219 (5,8)



USE OF 3RD AND 4TH GENERATION CEPHALOSPORINS (KG)

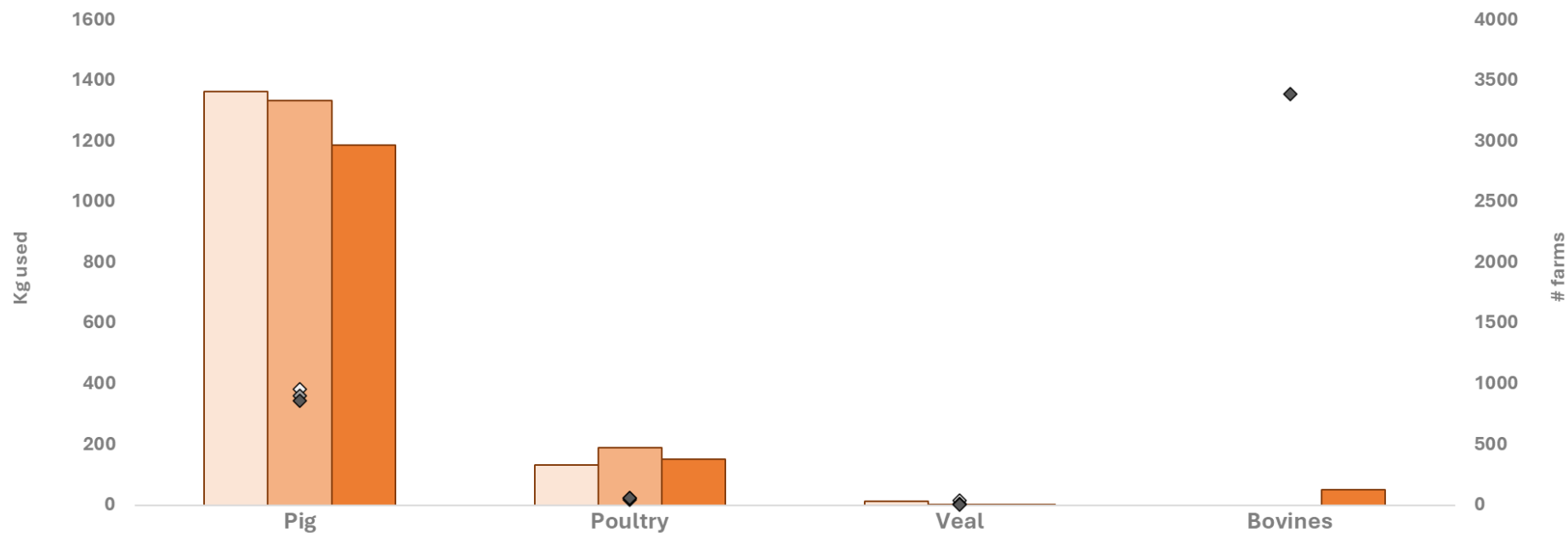
Use of 3G/4G cephalosporins per Sanitel-Med species from 2022 to 2024 (kg)





USE OF COLISTINE (KG)

Use of colistin per Sanitel-Med species from 2022 to 2024 (kg)



POLYMYXINS						
2022 - Kg used	1364,2	131,4	11,8			
2023 - Kg used	1334,7	188,6	2,4			
2024 - Kg used	1187,7	151,5	0,9		51,9	
◇ 2022 - # farms (%)	959 (19,0)	48 ¹ (3,9)	37 (14,9)			
◆ 2023 - # farms (%)	900 (19,7)	58 ¹ (4,7)	11 (4,5)			
◆ 2024 - # farms (%)	860 (19,8)	62 ² (4,1)	6 (2,4)		3391 (16,2)	



CONTENTS

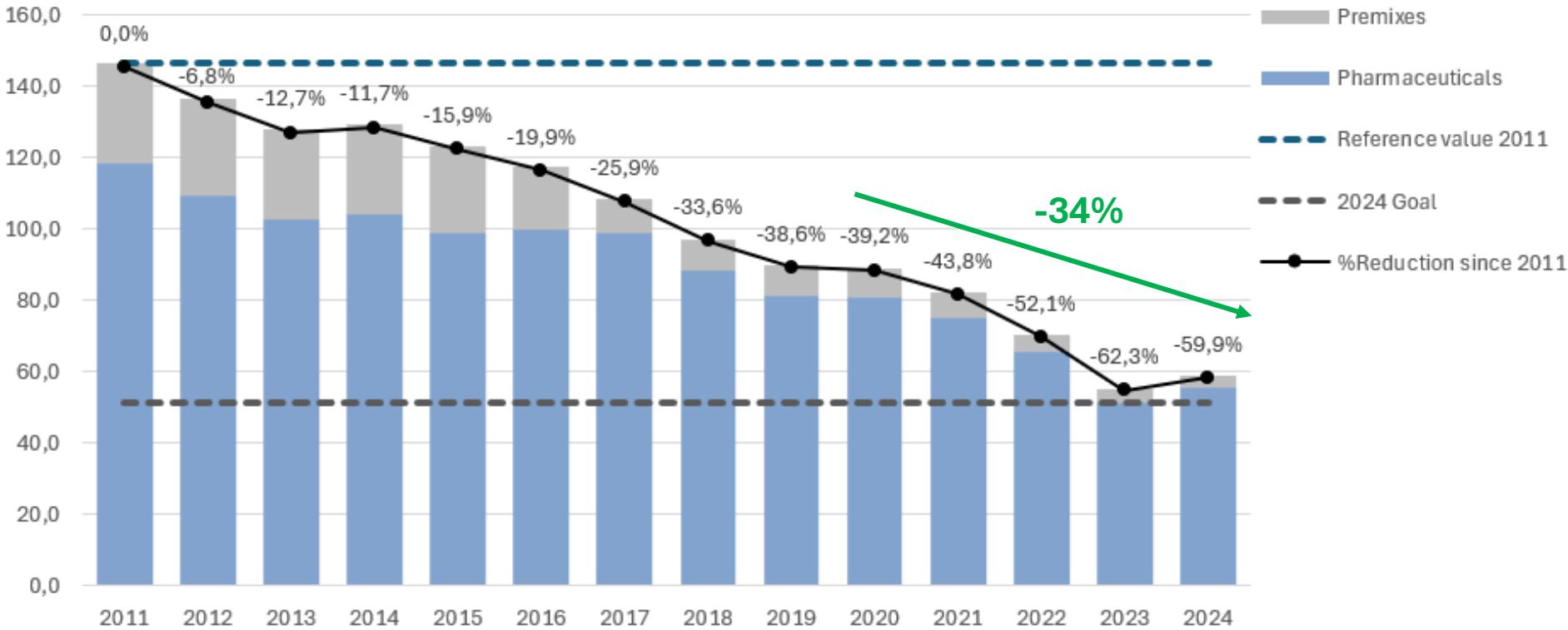
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- **Did we reach the 2024 reduction targets?**





1ST TARGET:
A MAXIMUM **SALES** OF ANTIBACTERIALS OF 50 MG/KG BIOMASS BY THE END OF 2024

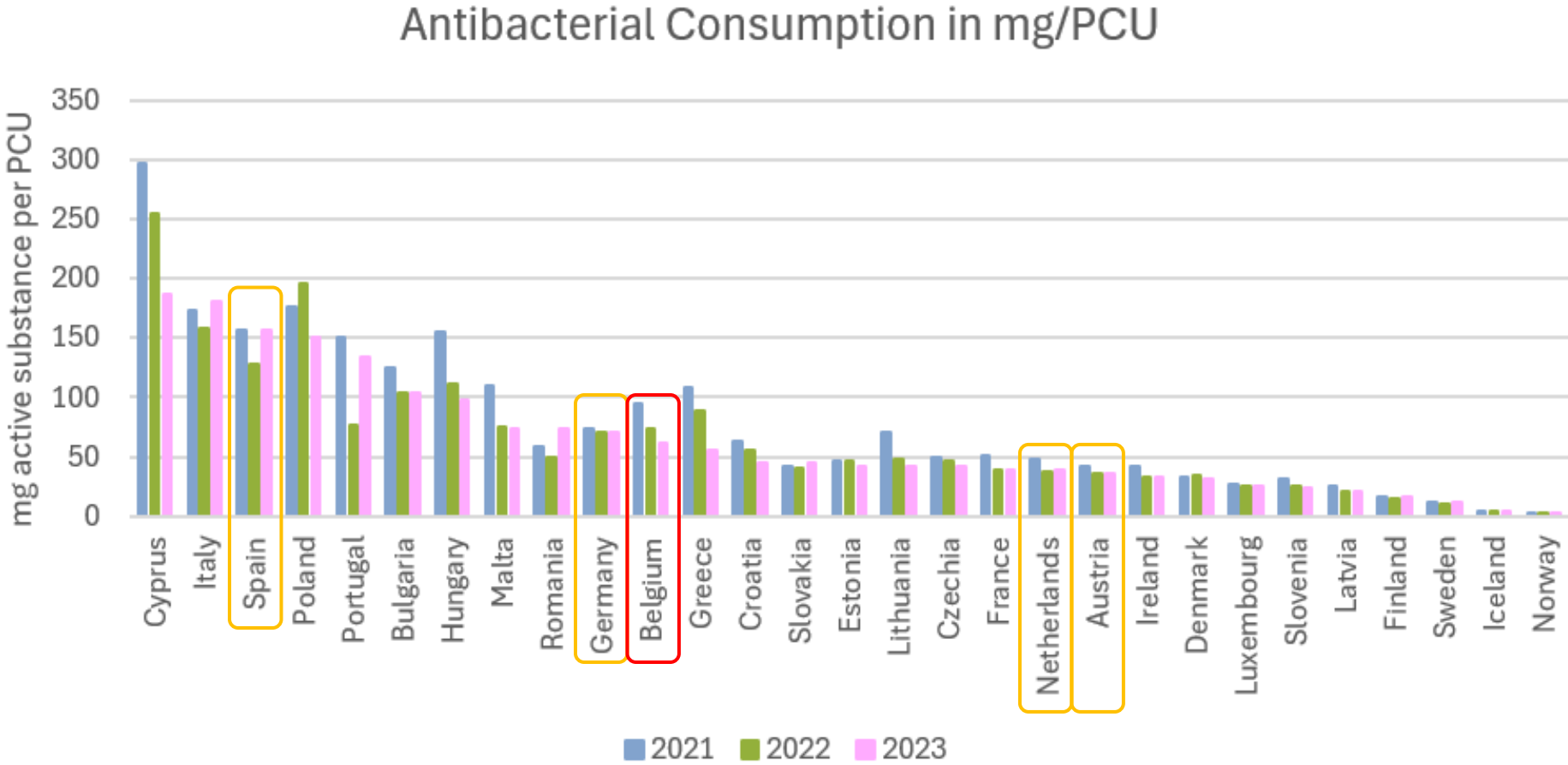
Evolution in standardised antibacterial sales since 2011
mg active substance / kg biomass



58,7 mg/kg



BELGIUM IN RELATION TO OTHER EU COUNTRIES



EUROPEAN DENOMINATOR AND MG/KG INDICATOR

= 1 kg animal biomass. The ESUAvet sales denominator for food-producing animals and the PCU cannot be directly compared because the animal population categories and the standard animal weights used to calculate the animal biomass are different⁸⁰. [Figure 27](#) (middle) illustrates the im

In 2023, the animal biomass denominator for ESUAvet sales for food-producing animals ([Figure 28](#)) was, on average, 1.9 times higher than the PCU for all reporting countries. The fold difference between countries varied from 1.2 to 2.5.

Animal population data ¹		Data format	Animal population category	Animal population weight (kg)	ESVAC category	ESVAC weight (kg)
Pigmeat (B3100)	Slaughter	Heads	Fattening pigs	120	Pigs	65
Breeding sows > 50 kg (A3120)	Livestock	Heads	Fattening pigs	240	Pigs	240

In conclusion, while the ESUAvet and PCU denominators both serve to normalise antimicrobial sales for food-producing animals, they are not directly comparable. The PCU served its purpose during the ESVAC project⁸¹ and will continue to be used in the context of monitoring the progress towards the EU antimicrobial sales reduction target, as the EU baseline and targets were calculated using the PCU. On the other hand, the ESUAvet sales denominator for food-producing animals⁸² will be the primary denominator for normalising sales in the ESUAvet reports.





EUROPEAN DENOMINATOR AND MG/KG INDICATOR

- **Belgian mg active substance / kg biomass**
≈ European PCU

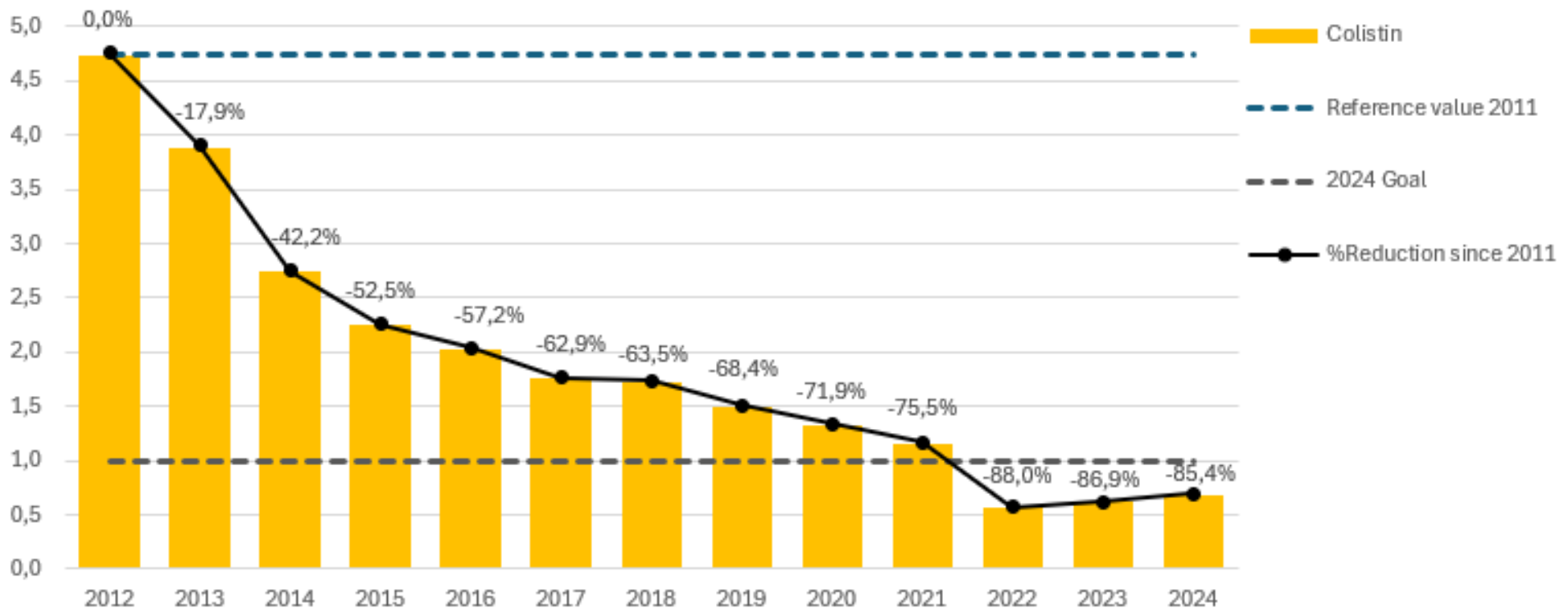
(Except not taking into account horses, food producing rabbits; export and import)

In conclusion, while the ESUAvet and PCU denominators both serve to normalise antimicrobial sales for food-producing animals, they are not directly comparable. The PCU served its purpose during the ESVAC project⁸¹ and will continue to be used in the context of monitoring the progress towards the EU antimicrobial sales reduction target, as the EU baseline and targets were calculated using the PCU. On the other hand, the ESUAvet sales denominator for food-producing animals⁸² will be the primary denominator for normalising sales in the ESUAvet reports.



2ND TARGET: A MAXIMUM **SALES** OF COLISTIN OF 1 MG/KG BIOMASS BY THE END OF 2024

Evolution in standardised colistin sales since 2012
mg active substance / kg biomass

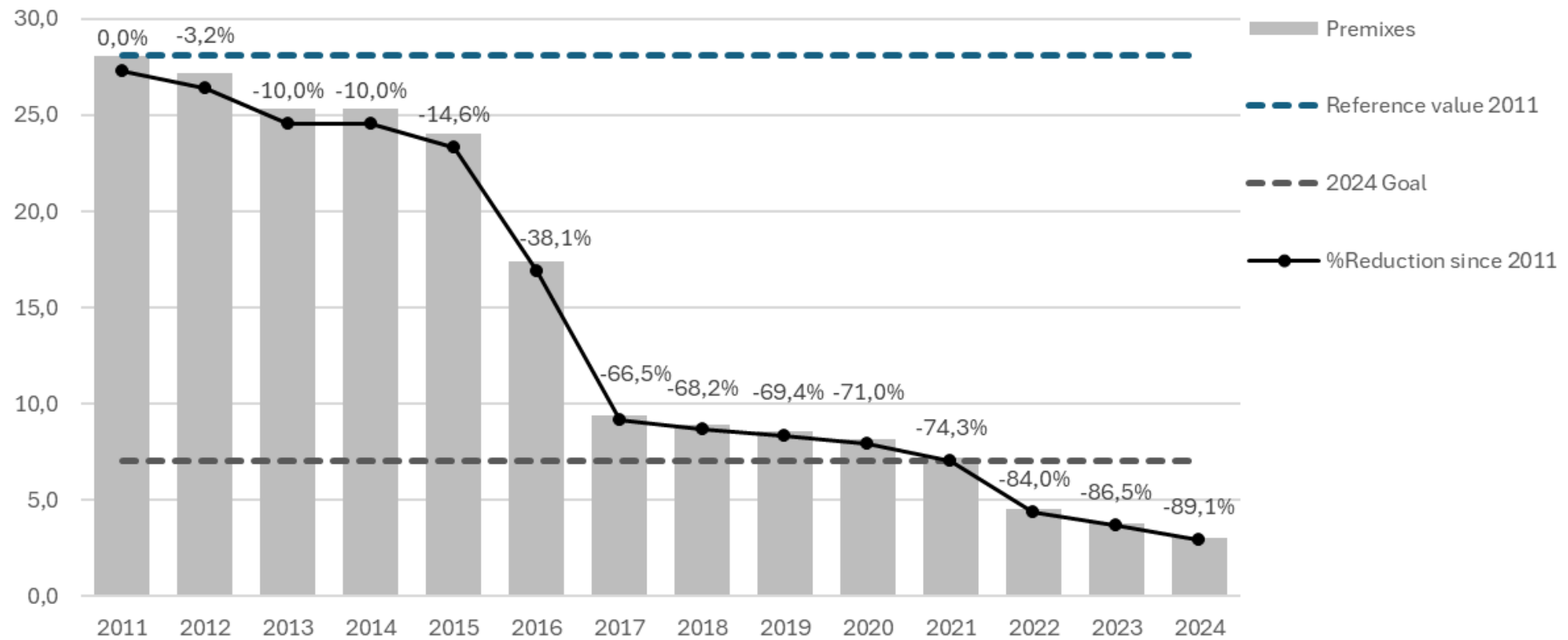


0,69 mg/kg

3RD TARGET:

A 75 % REDUCTION IN **SALES** OF MEDICATED FEED CONTAINING ANTIBACTERIALS BETWEEN 2011 AND 2024

Evolution in standardised antibacterial premix sales since 2011
mg active substance / kg biomass

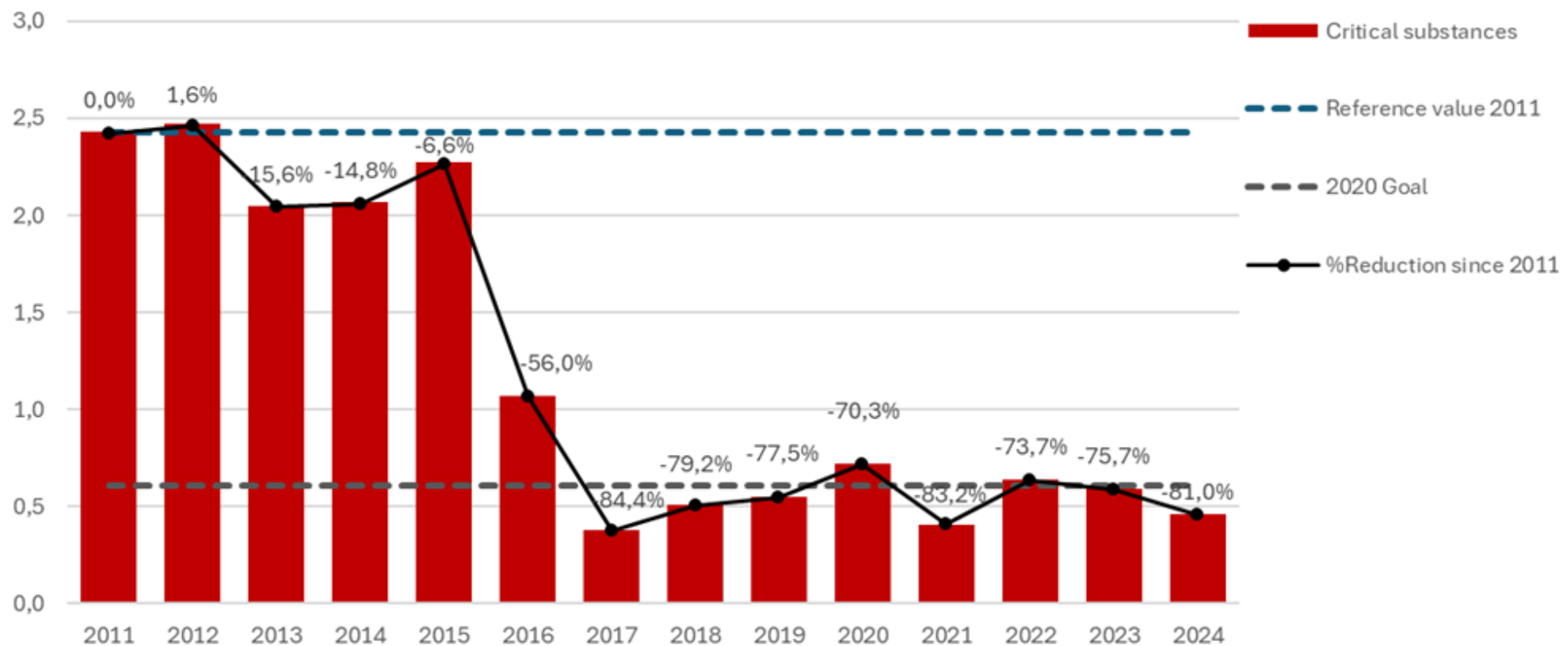


4TH TARGET:

MAINTAIN A MINIMUM OF 75 % REDUCTION COMPARED TO 2011 OF **SALES OF CIAS**

Evolution in standardised critical substance sales since 2011

mg active substance / kg biomass

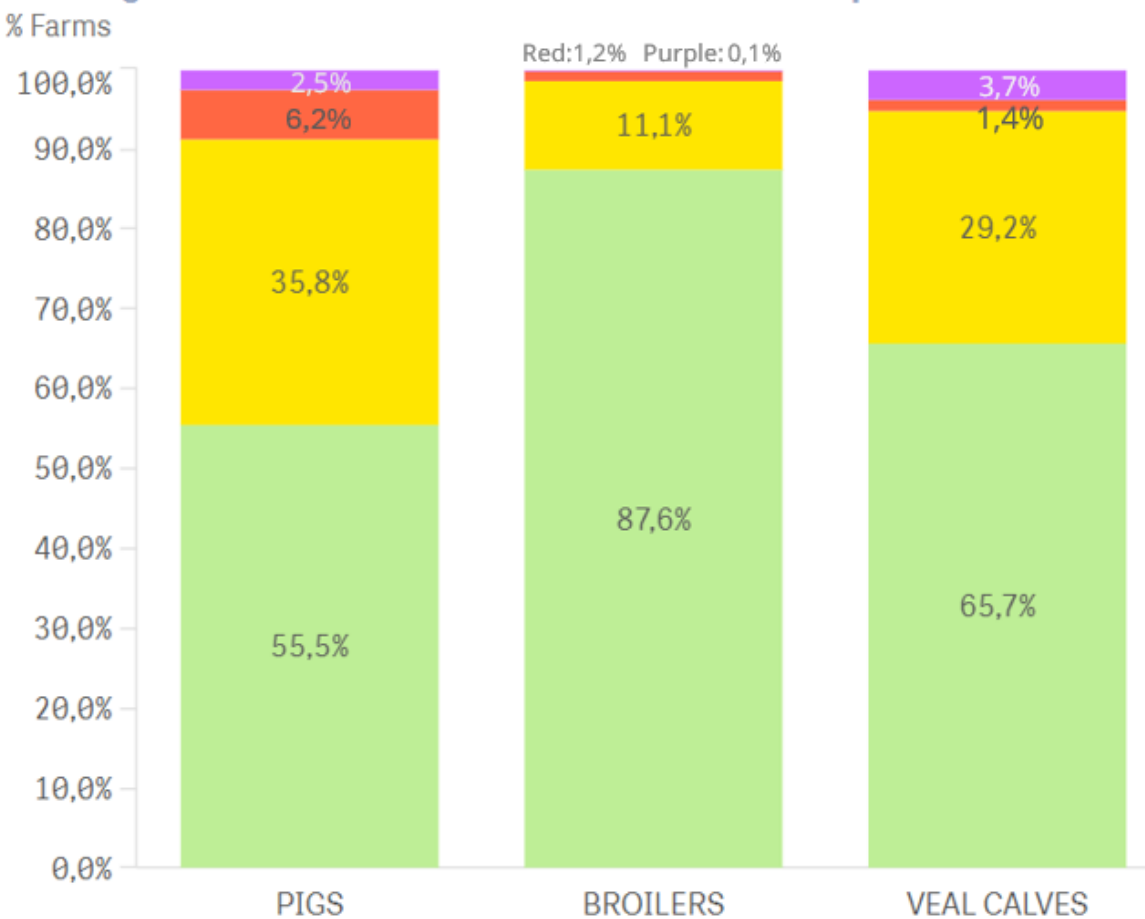




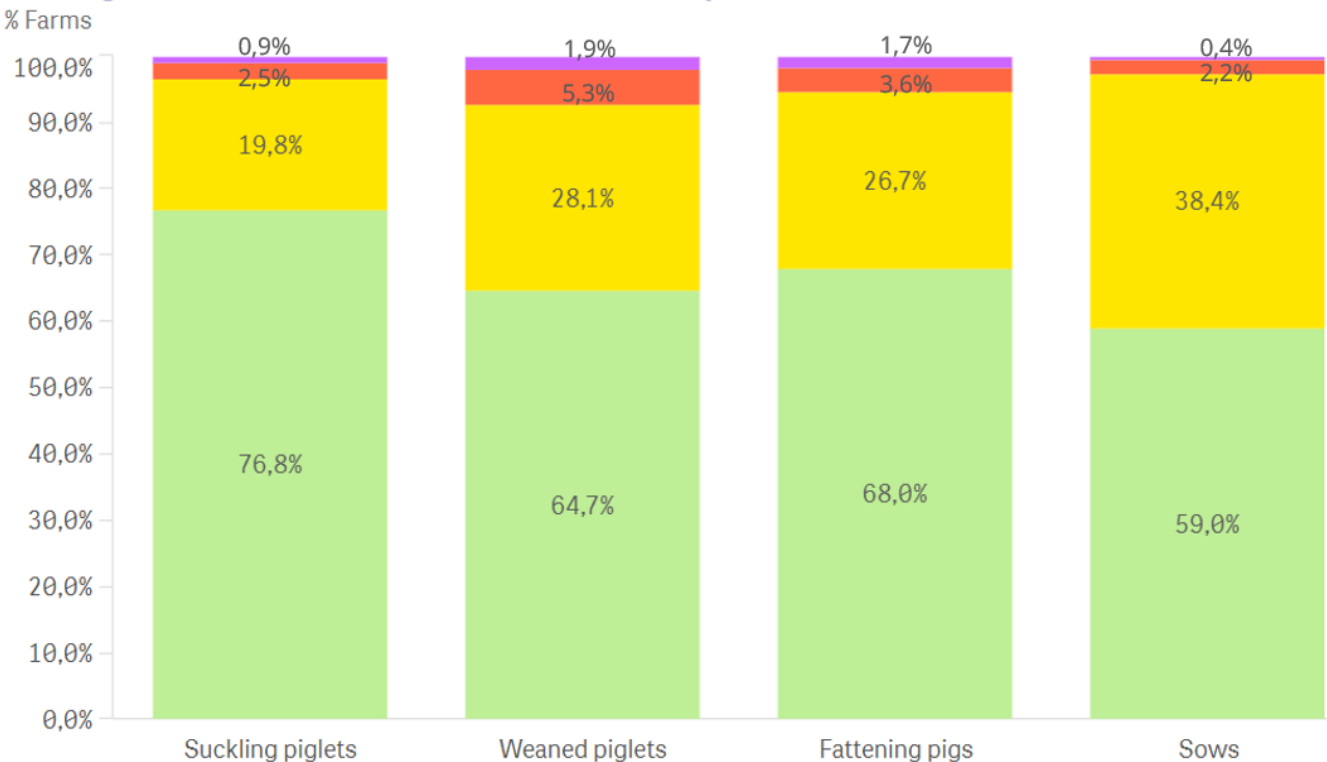
5TH TARGET:

SPECIES-SPECIFIC THRESHOLD VALUES FOR **USE** AT FARM-LEVEL AND NO MORE THAN 1% 'ALARM USERS' BY 2024

Percentage of farms classified with each benchmark colour per ANIMAL TYPE



Percentage of farms classified with each benchmark colour per PIG-ANIMAL CATEGORY





CONCLUSIONS

- Sales 2023→2024 increase 6,3%
 - Total reduction since 2011 nearly 60%
- Three other national targets were reached
- Use per sector
 - In each sector use was strongly reduced since 2018
 - 1% alarm users is reached or approached
- Various points of attention for the next year(s)
 - In each sector
 - National: colistin, relationship premix ↔ pharmaceuticals





ACKNOWLEDGEMENTS

- AMCRA team
- FAGG vet AMR team
- Wannes.vanderhaeghen@amcra.be
- amr.vet@fagg-afmps.be





DOWNLOAD HET BELVET-SAC RAPPORT

https://www.fagg.be/nl/DIERGENEESKUNDIG_gebruik/geneesmiddelen/geneesmiddelen/goed_gebruik/Antibiotica_0



EXTRA: VISION 2030

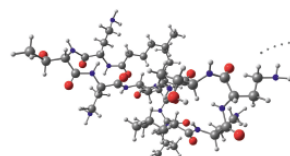
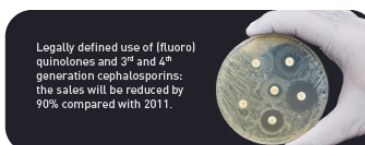
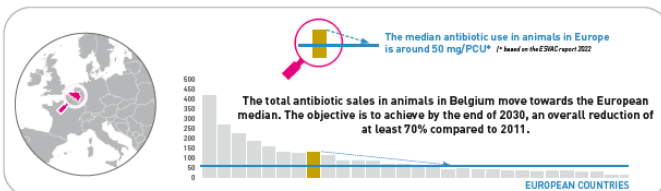
AMCRA VISION 2030

The Vision 2030 starts from a 'One World, One Health, One Welfare' approach, aiming to improve human, animal and environmental health. The sustainability of livestock farming, now and in the future, is particularly important in this respect.

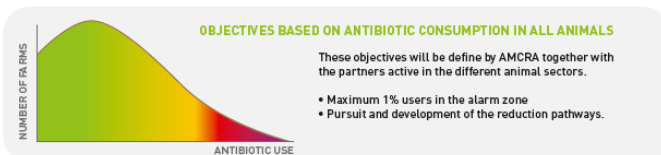
First, the Vision 2030 aims to ensure sustainable antibiotic use in all animals to safeguard health and welfare and reduce antibiotic resistance.



The vision defines the objectives and actions for a sustainable and rational use of antibiotics in animals in Belgium until 2030.



The sales of polymyxins for animals stay below 1mg/kg biomass.



AMCRA VISION 2030 9 ACTION POINTS



Progress in data collection of antibiotic use and benchmarking



Reward for low-users, monitoring and coaching of livestock farmers and veterinarians



More and better figures on the occurrence of antibiotic resistance in all animals, including companion animals



Application and monitoring of all European and national legislations concerning animal health and animal welfare by the competent authorities



Focus on disease prevention and encouraging the use of alternatives



Actively involve the entire chain across sectors in antibiotic policy



Promote and further develop antibiotic use guidelines (AMCRA formulary)



Continuous communication and awareness-raising



More research on links between usage and resistance in animals, humans and environment

