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General Secretariat

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REQUEST FOR CONTRIBUTION

From: To:	General Secretariat of the Council Working Party on Animals and Veterinary Questions (Animal Welfare)
N° Cion doc.:	ST 16405 2023 ADD 1 + ST 16405 2023 INIT
Subject:	Protection of animals during transport and related operations - presentation on space allowances - dl for comments 8 September 2025

Delegations will find in annex the presentation made at the meeting of the above Working Party on 8-9 July 2025 concerning space allowances. They are invited to share their comments by 8 September COB by email to 18-transport@fvst.dk and life.3@consilium.europa.eu, in response to the following questions:

1. Do you favour a risk-based approach, with a series of k-values depending on the species?

2. If so, what risk factors should be taken into account?

3. Do you have any other comments regarding space allowances?



Space allowance

Reg 1/2005, EFSA recommendations, and consequences of different k values

European Commission

Introduction

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Setting a system for a clear and simple way to calculate space allowance for animals of different species is one of the cornerstones of this revision.

In comparison with the existing legislation, the new method (allometric equation) will:

- allow exact calculation of space allowance for every animal based on its weight;
- provide total number of animals in the animal compartment based on the weight of animals transported and the available space in the compartment, pen, etc.;
- reduce ambiguity due to ranges or lack of provisions for certain categories.

The mobile app (art 53) will allow an immediate visualisation of the number of animals that can be placed in a particular means of transport, without calculation needed from operators or competent authorities.

The challenge is to understand the methodology and the reasons behind it, and to choose the k-value the most appropriate to balance animal welfare improvement and economic impact.

Allometric equation

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The Commission proposal introduced the calculation of space allowance for animals of different species based on recommendations of EFSA scientific opinions (cattle, pigs, horses, small ruminants and animals transported in containers – poultry and rabbits).

$$A = k \cdot W^{(2/3)}$$

A: area per animal

k: k-value

W: live weight of the animal

K-value

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To determine adequate space allowance, scientific literature provides species specific coefficients (k-values) which takes into account:

- The biokinetics and the body shape of various species;
- Horizontal space required to:
  - accommodate physical size;
  - adjust posture in response to acceleration and other events;
  - rest in lying posture;
  - Thermoregulate;
  - eat and drink (access to drinkers and troughs).

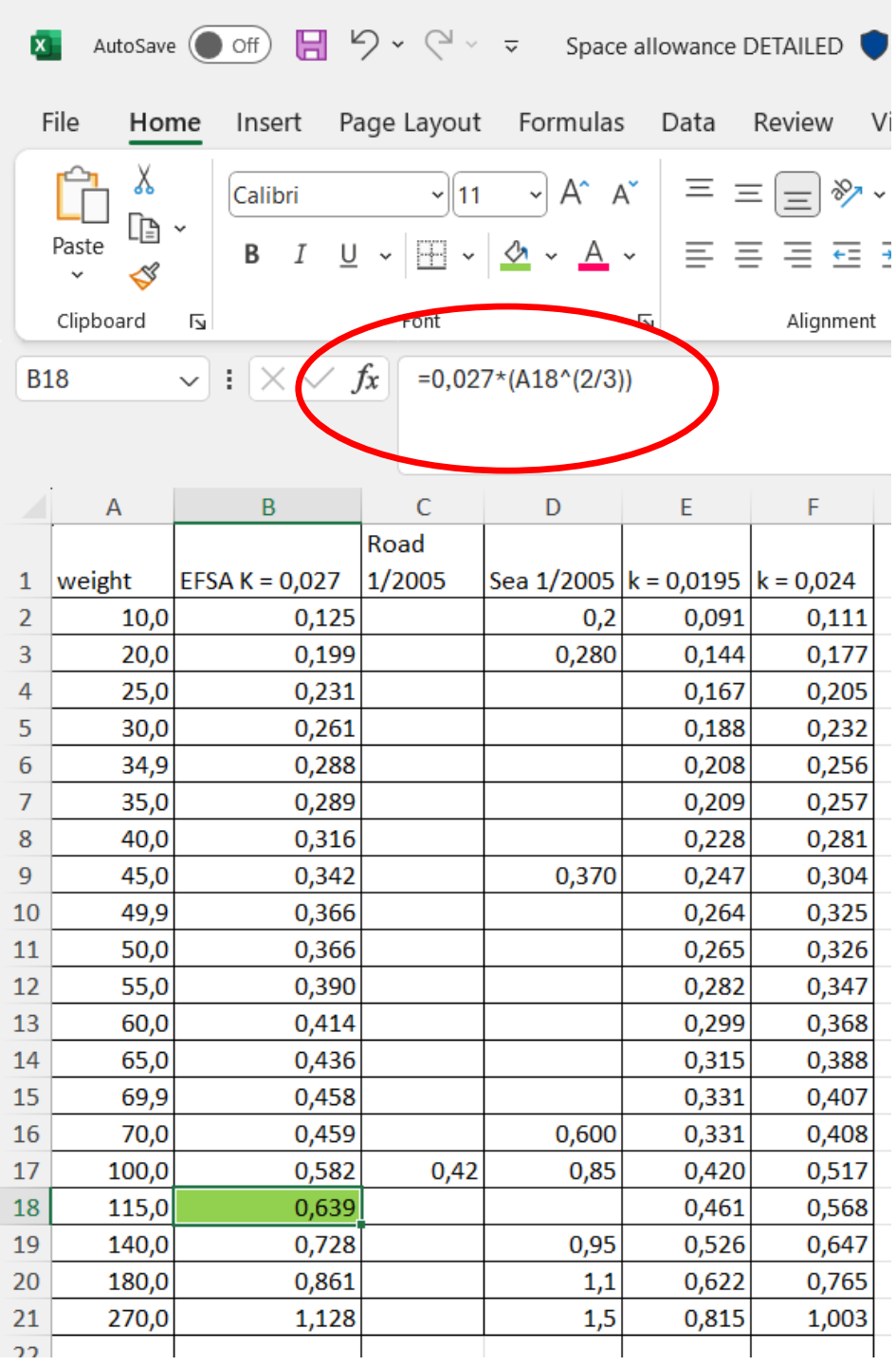
The Commission proposal follows the k-values recommended by EFSA.

Calculation

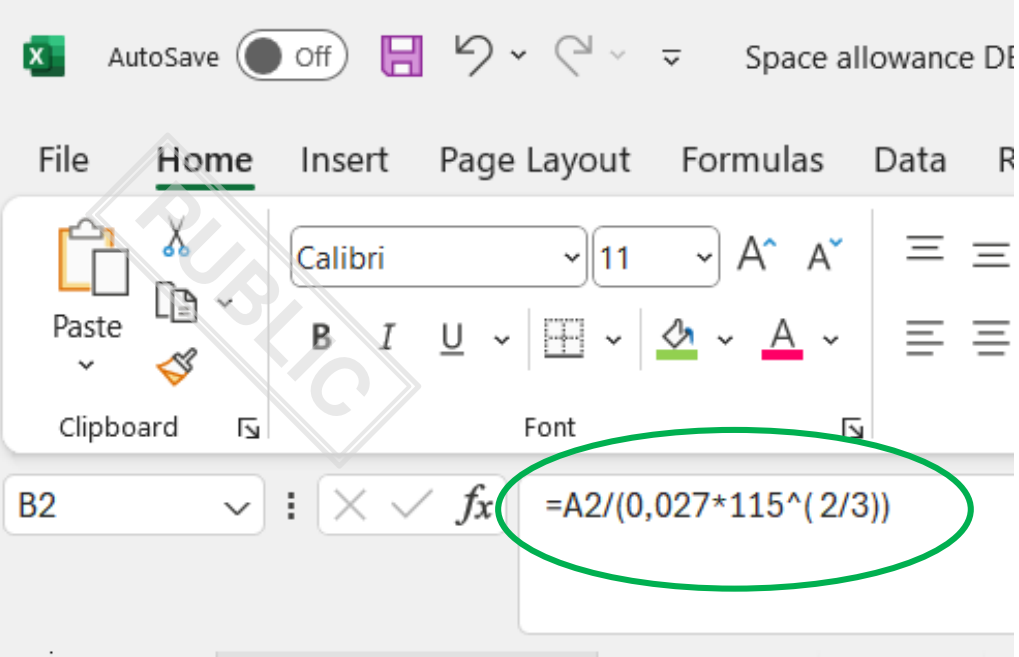
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Allometric equation allows:

- calculation of **space allowance** for individual animals based on its live weight;
- calculation of **number of animals** based on the available space and their weight;



	A	B	C	D	E	F
1	weight	EFSA K = 0,027	Road 1/2005	Sea 1/2005	k = 0,0195	k = 0,024
2	10,0	0,125		0,2	0,091	0,111
3	20,0	0,199		0,280	0,144	0,177
4	25,0	0,231			0,167	0,205
5	30,0	0,261			0,188	0,232
6	34,9	0,288			0,208	0,256
7	35,0	0,289			0,209	0,257
8	40,0	0,316			0,228	0,281
9	45,0	0,342		0,370	0,247	0,304
10	49,9	0,366			0,264	0,325
11	50,0	0,366			0,265	0,326
12	55,0	0,390			0,282	0,347
13	60,0	0,414			0,299	0,368
14	65,0	0,436			0,315	0,388
15	69,9	0,458			0,331	0,407
16	70,0	0,459		0,600	0,331	0,408
17	100,0	0,582	0,42	0,85	0,420	0,517
18	115,0	0,639			0,461	0,568
19	140,0	0,728		0,95	0,526	0,647
20	180,0	0,861		1,1	0,622	0,765
21	270,0	1,128		1,5	0,815	1,003



	A	B	C	D
1	area	nr animals (average weight 115kg)	nr of animals (rounded)	
2	5	7,83	8	
3	10	15,66	16	
4	15	23,49	23	
5	20	31,32	31	
6	25	39,15	39	
7	30	46,98	47	
8	35	54,82	55	
9	40	62,65	63	
10				
11				
12				
13				
14				

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EFSA recommendations vs current rules

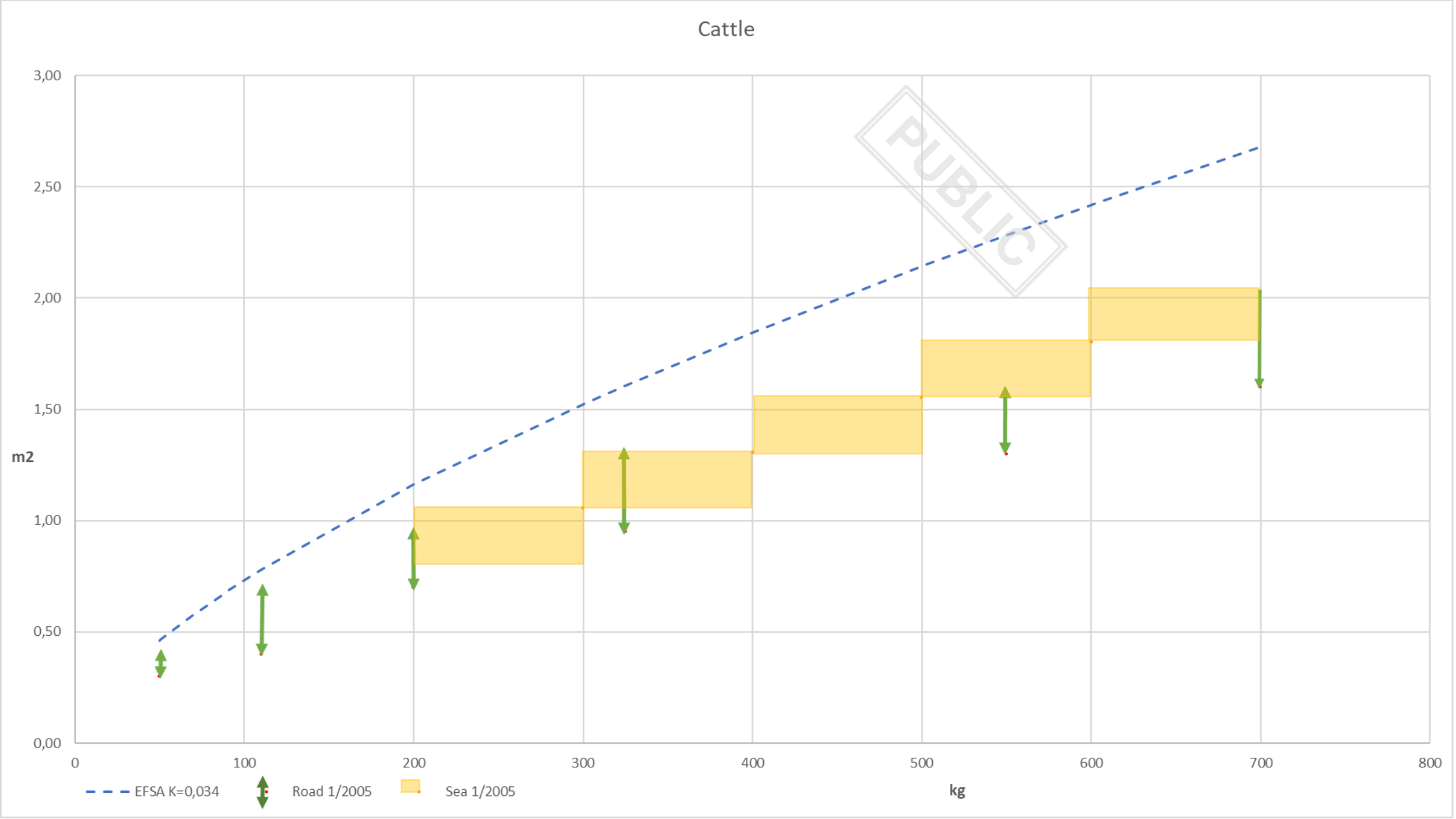
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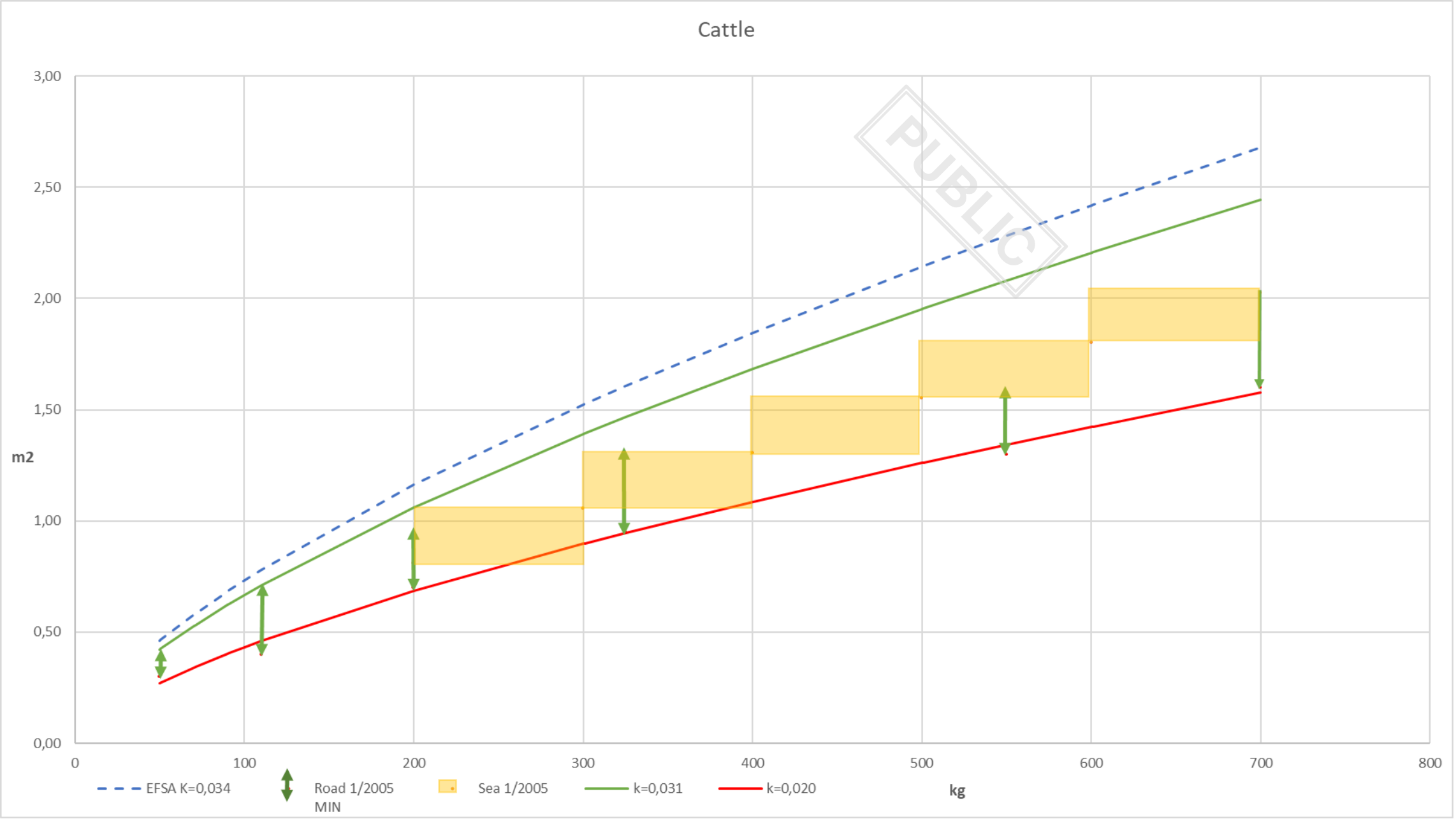
Difficulties in comparing current rules to EFSA recommendations:

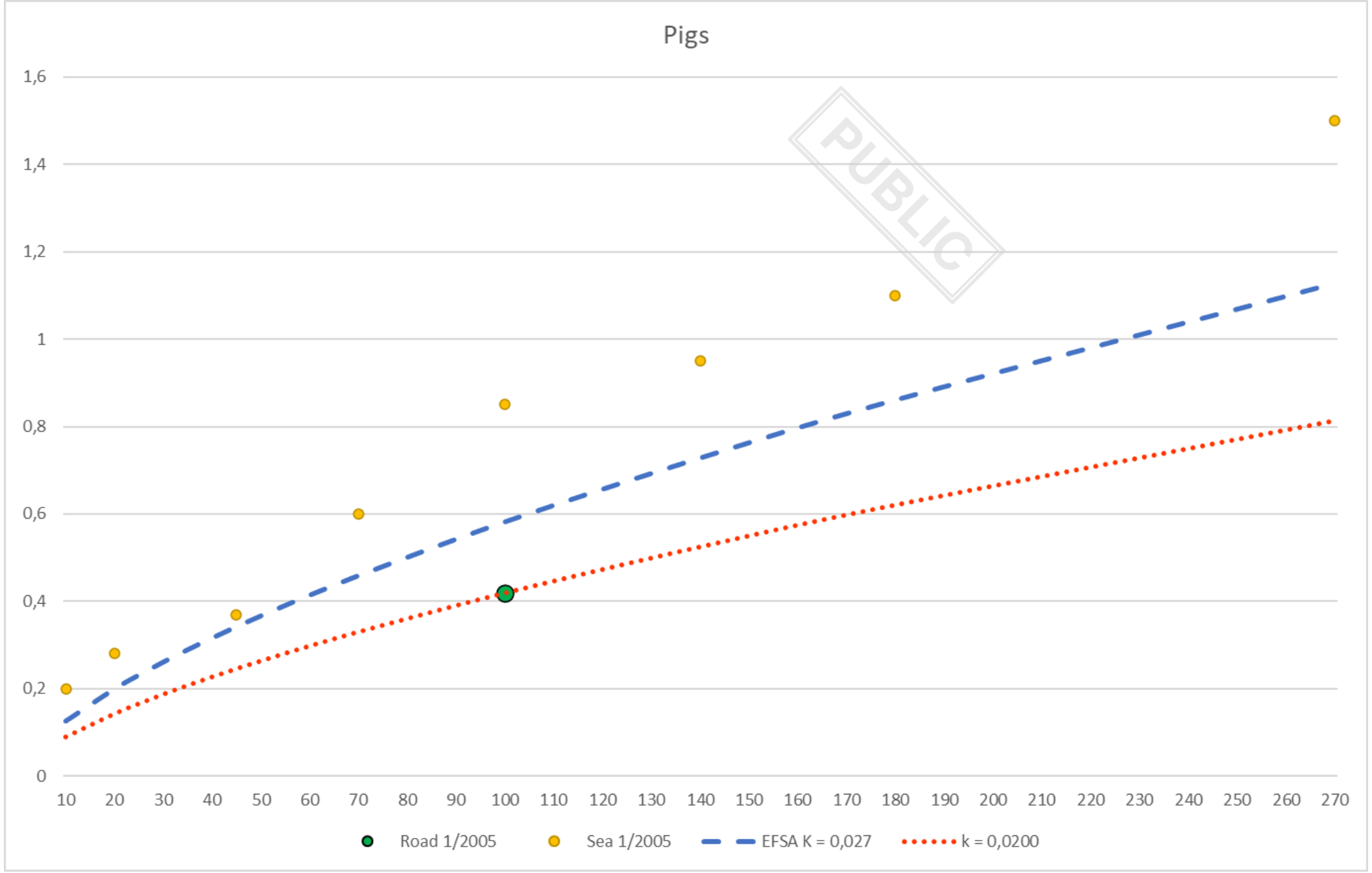
- Sporadic provisions (no rules for the whole range of weight – see cattle and pigs);
- ranges (weight range or space range required, sometimes both);
- current rules not always rely on weight (horses – age).

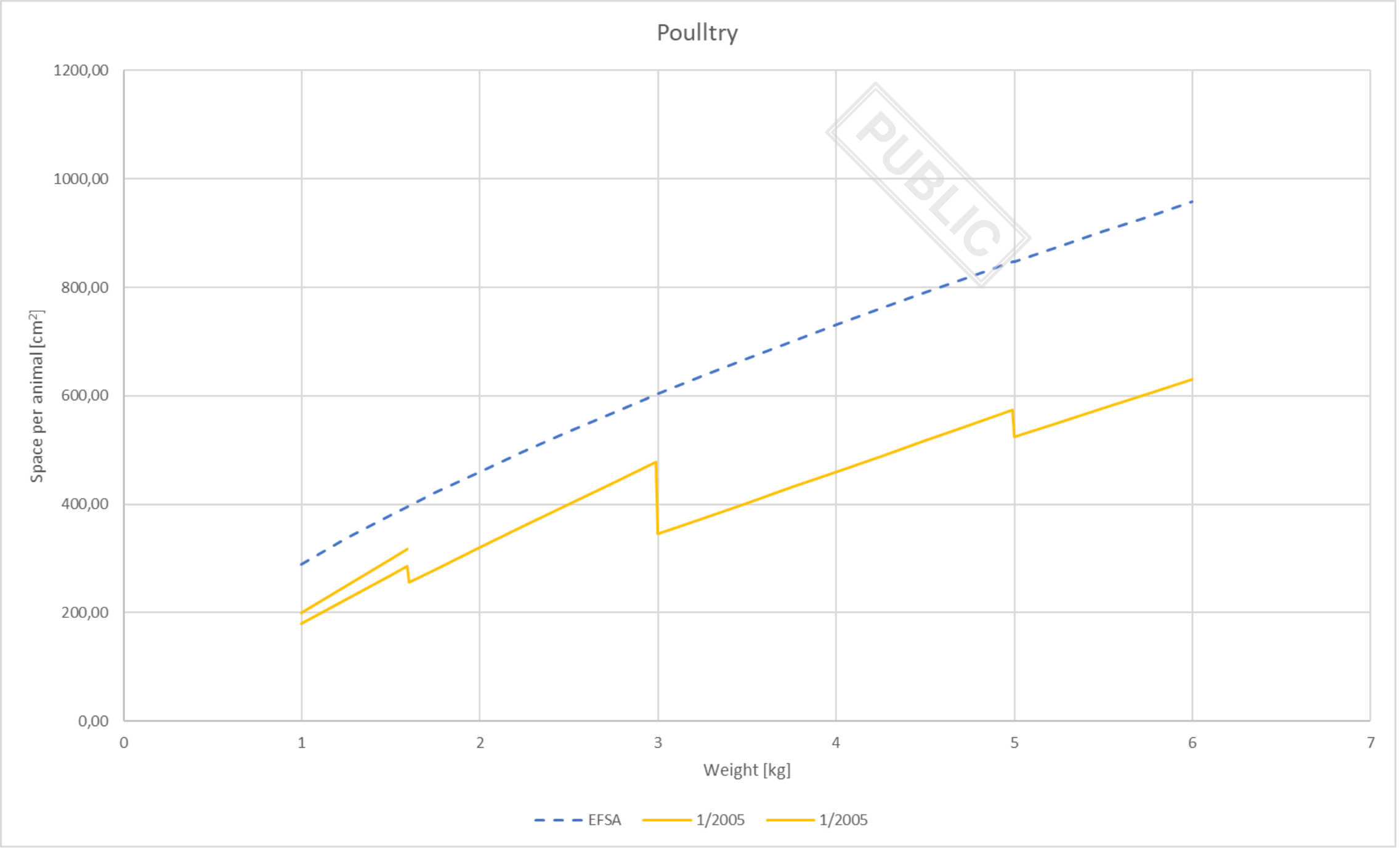
Generally, EFSA requires higher space allowances (not in every scenario).

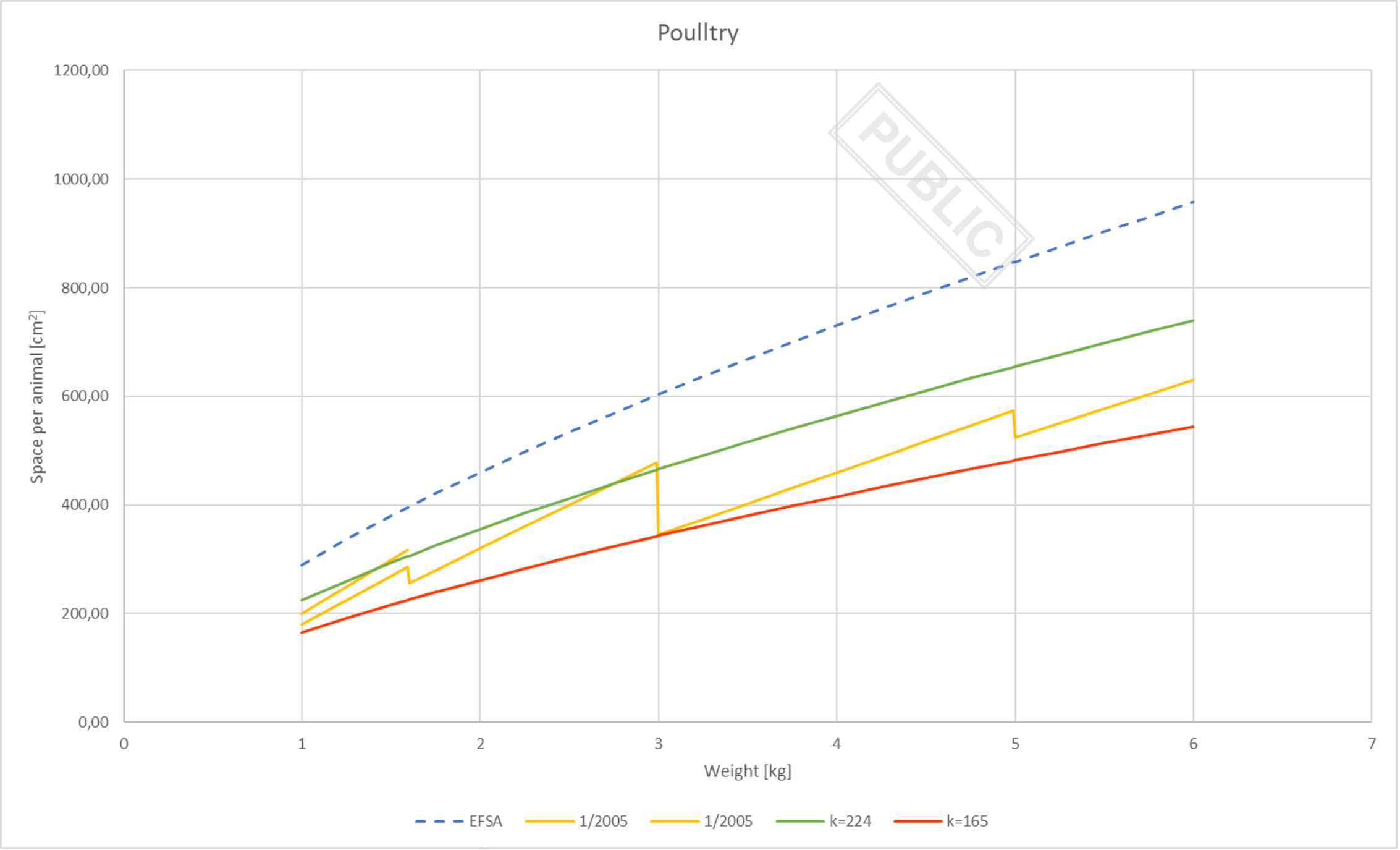
Certain stakeholders and some Member States have already voiced their concerns about the possible increase.

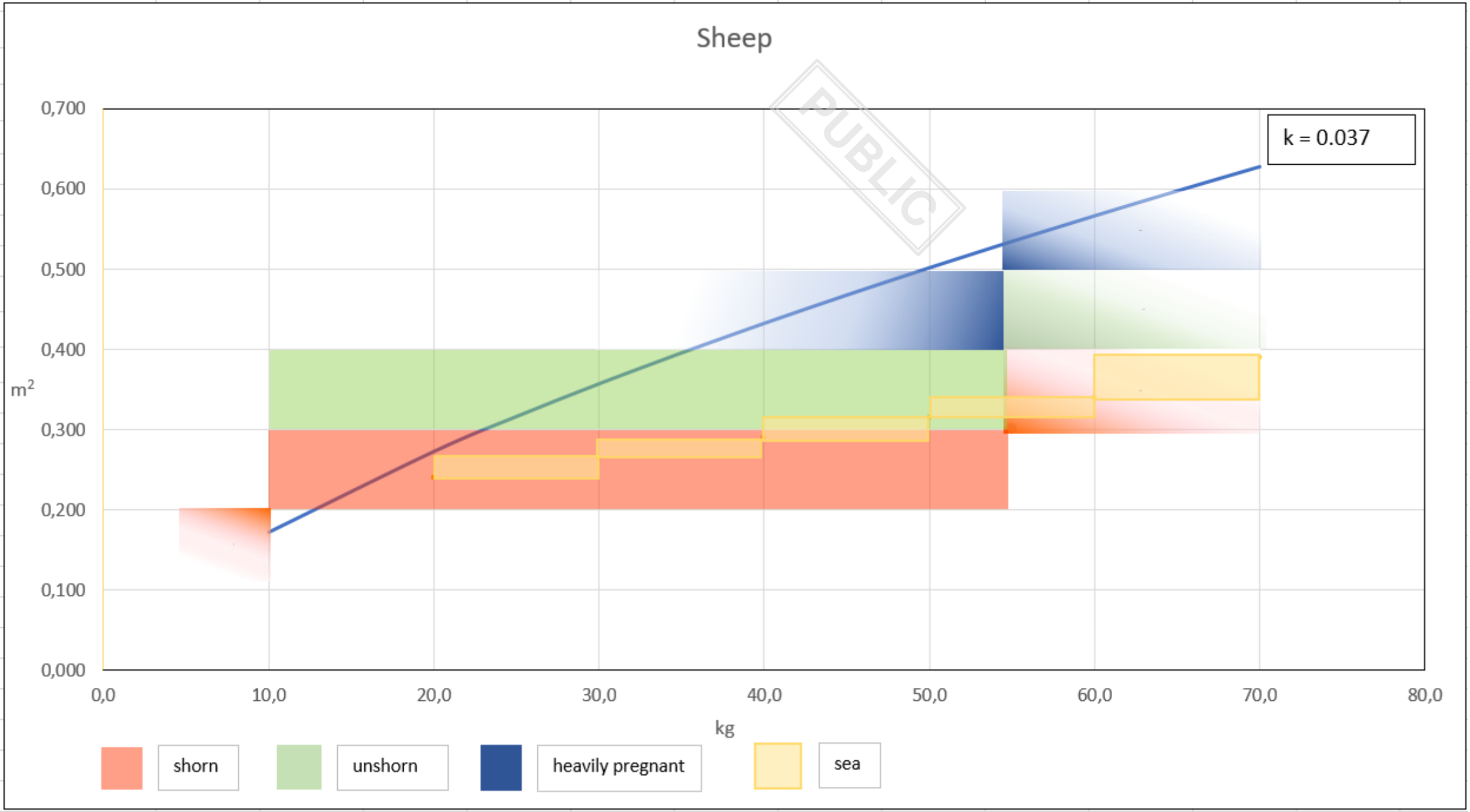

Cattle
3,00
2,50
2,00
1,50
1,00
0,50
0,00
m2
0
100
200
300
400
500
600
700
800
kg
EFSA K=0,034
Road 1/2005
Sea 1/2005
PUBLIC


Cattle
3,00
2,50
2,00
1,50
1,00
0,50
0,00
m2
0
100
200
300
400
500
600
700
800
kg
EFSA K=0,034
Road 1/2005 MIN
Sea 1/2005
k=0,031
k=0,020
PUBLIC

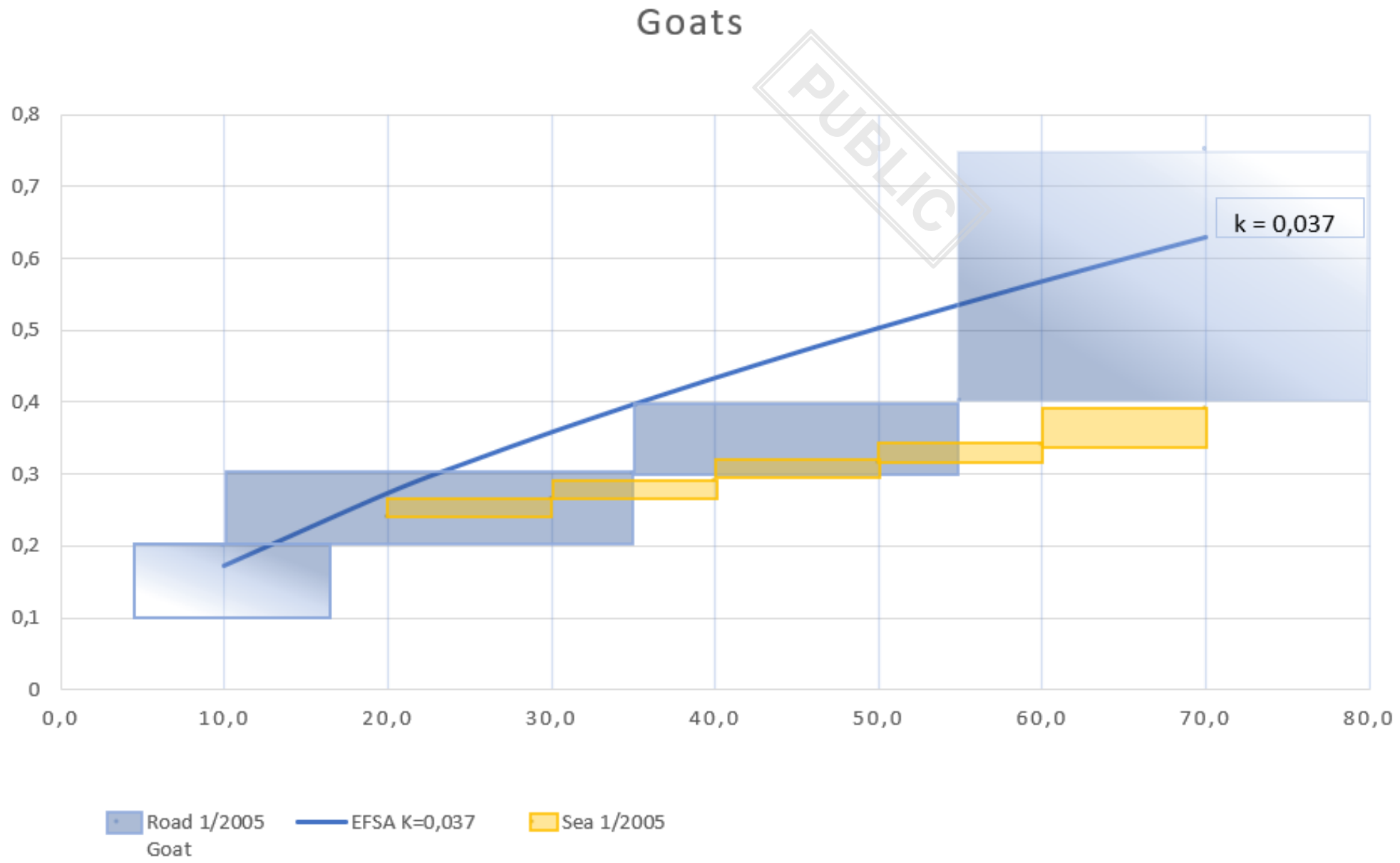

Pigs
1,6
1,4
1,2
1
0,8
0,6
0,4
0,2
0
10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270
Road 1/2005
Sea 1/2005
EFSA K = 0,027
k = 0,0200
PUBLIC


Poulltry
1200,00
1000,00
800,00
600,00
400,00
200,00
0,00
Space per animal [cm2]
0
1
2
3
4
5
6
7
Weight [kg]
EFSA
1/2005
1/2005
PUBLIC


Poulltry
1200,00
1000,00
800,00
600,00
400,00
200,00
0,00
Space per animal [cm²]
0
1
2
3
4
5
6
7
Weight [kg]
EFSA
1/2005
1/2005
k=224
k=165
PUBLIC


Sheep
PUBLIC
k = 0.037
0,700
0,600
0,500
0,400
0,300
0,200
0,100
0,000
m²
0,0
10,0
20,0
30,0
40,0
50,0
60,0
70,0
80,0
kg
shorn
unshorn
heavily pregnant
sea

PUBLIC


Goats
0,8
0,7
0,6
0,5
0,4
0,3
0,2
0,1
0
0,0
10,0
20,0
30,0
40,0
50,0
60,0
70,0
80,0
k = 0,037
Road 1/2005 Goat
EFSA K=0,037
Sea 1/2005

Points for discussion

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1. Maintaining the use of the allometric equation
   - Very practical tool that provides clear results and reduces legal ambiguity
   - It fits well into the plans with the digitalisation measures (i.e. the use of mobile application)
   - Allows easier implementation.
   - Makes official controls and enforcement easier

2. Facilitate the discussion on most appropriate k-values
   - EFSA recommendations considerably increase the space allowance in comparison with current rules.
   - Room to discuss other k-values between the recommended values and the current rules.
   - Two possible approaches.

K-values – two approaches

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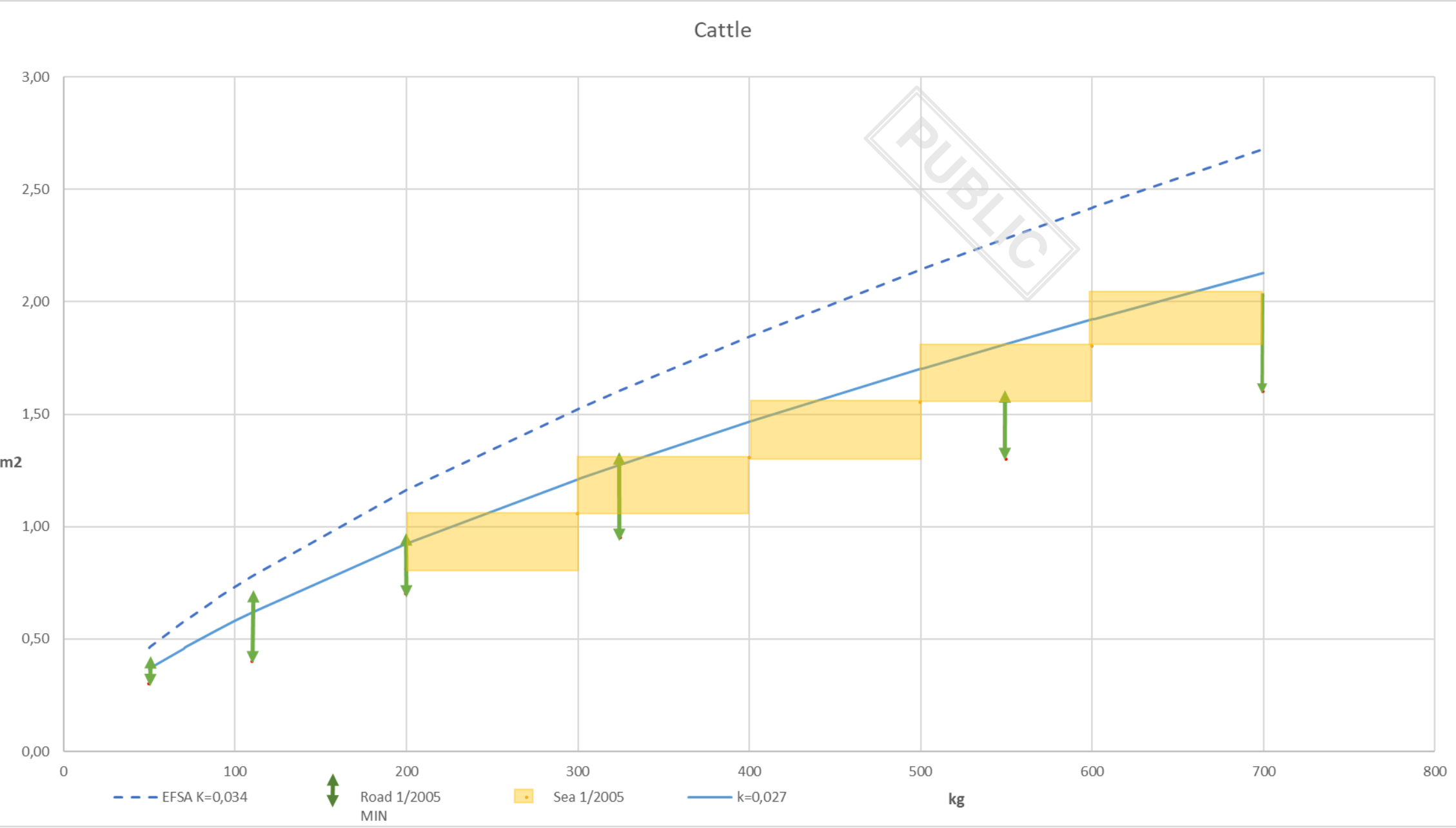
1. Keeping the approach of a **single k-value** for a given species

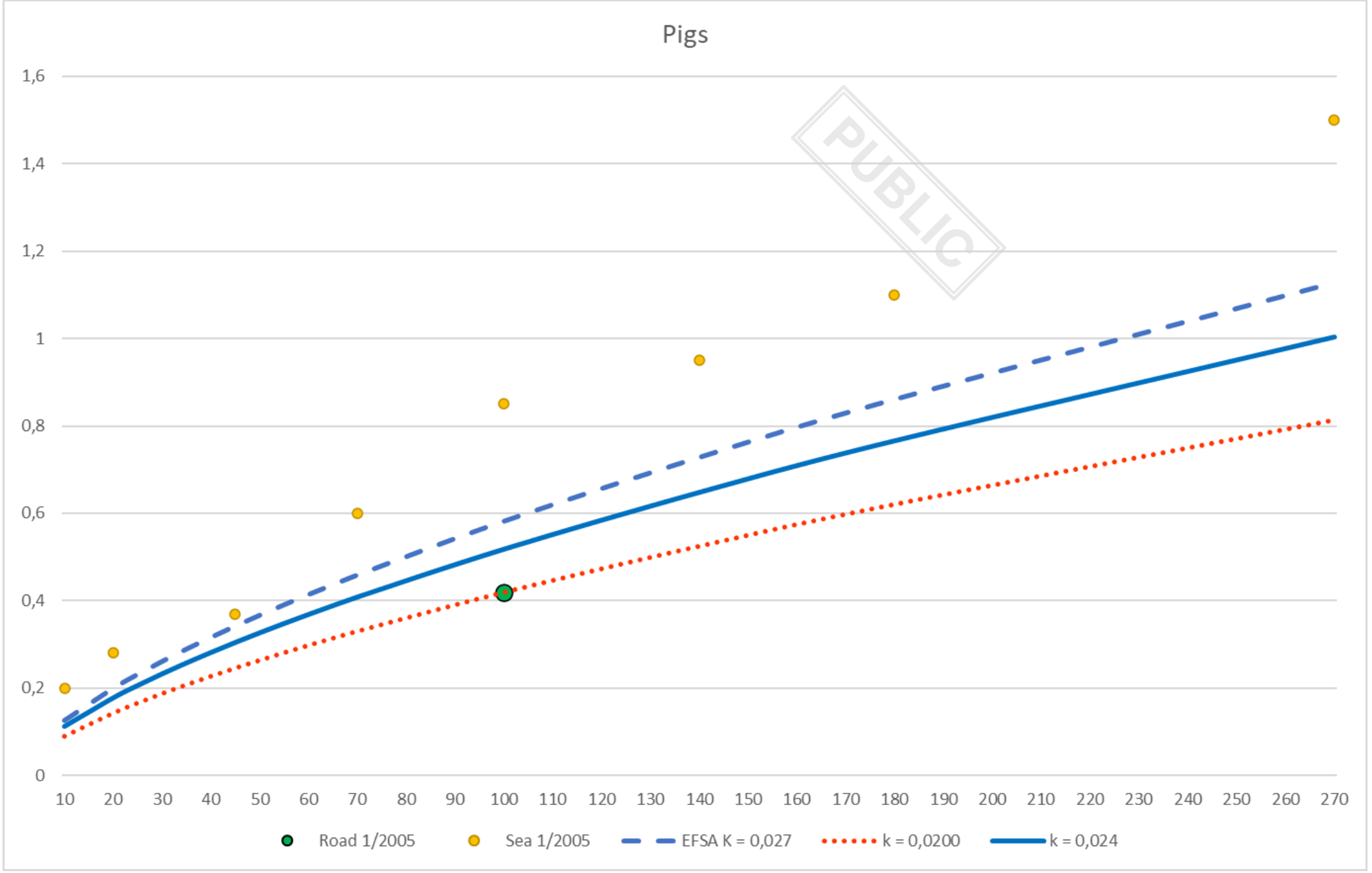
2. Fragment the rules based on **levels of risk** associated with the transport of different species

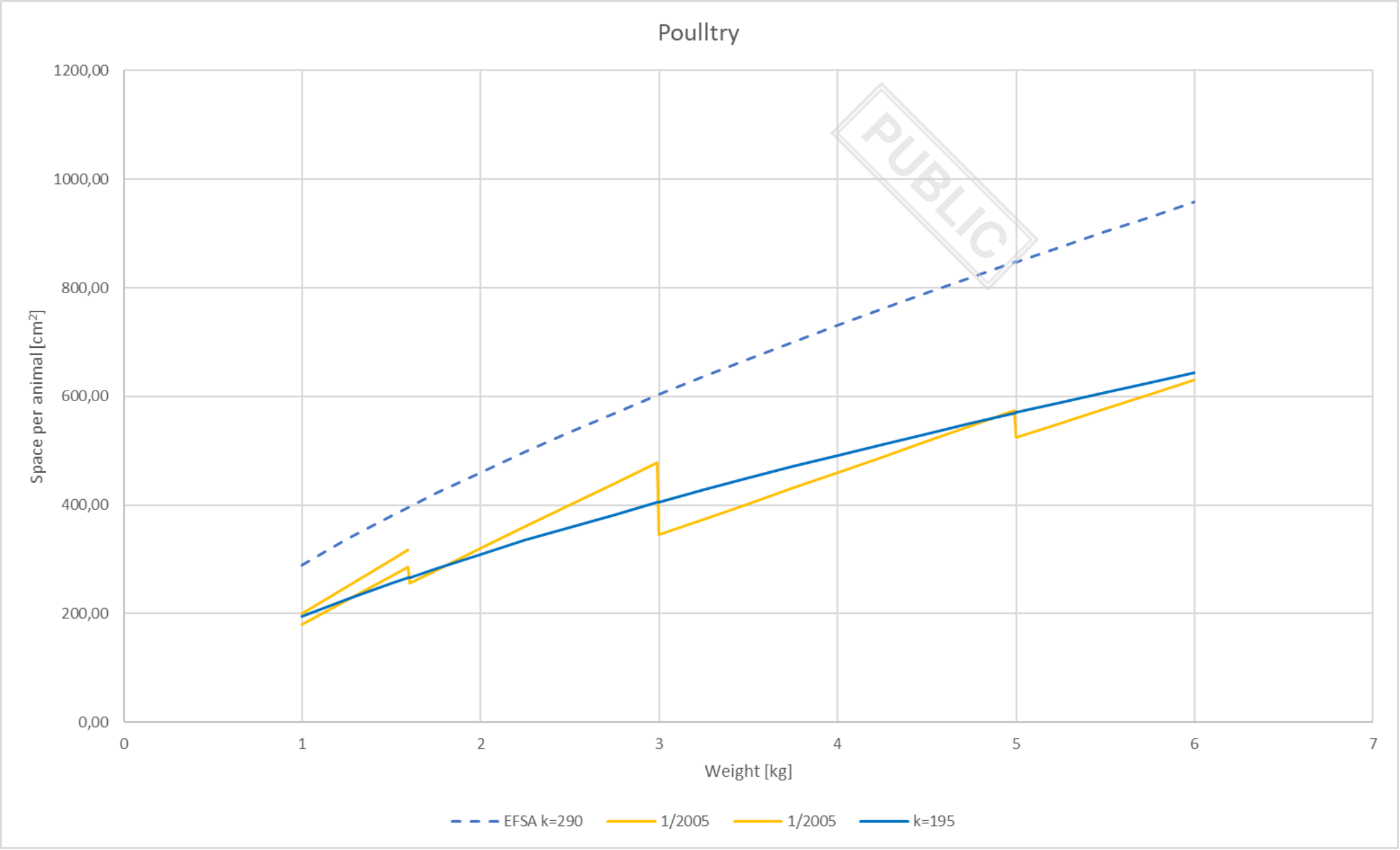
K- values solution

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Approach 1: single k-value per species


Cattle
3,00
2,50
2,00
1,50
1,00
0,50
0,00
m2
0
100
200
300
400
500
600
700
800
kg
EFSA K=0,034
Road 1/2005 MIN
Sea 1/2005
k=0,027
PUBLIC


Pigs
1,6
1,4
1,2
1
0,8
0,6
0,4
0,2
0
10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270
Road 1/2005
Sea 1/2005
EFSA K = 0,027
k = 0,0200
k = 0,024
PUBLIC


Poulltry
1200,00
1000,00
800,00
600,00
400,00
200,00
0,00
Space per animal [cm²]
0
1
2
3
4
5
6
7
Weight [kg]
EFSA k=290
1/2005
1/2005
k=195
PUBLIC

K-values solution

PUBLIC

Approach 2: multiple k-values per species

Risk levels

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Time spent on the means of transport

Road transport only

- <9h, 12h, 21h

Road transport combined

- Road + short ro-ro (ro-ro less than X hours)
- Road + long ro-ro
- Road + livestock vessel

Other risks

Thermoregulation

- Shorn sheep vs fleeced sheep

Pregnant animals

Multiple k-values

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	k- values					
Uninterrupted time on a means of transport[1]	**Cattle***	**Pigs***	**Small ruminants****	**Horses***	**Poultry**	**Farmed lagomorphs**
< 9h						
9-12h						
12-21h						
>21h						

Corrections (increase in %) for:
* Pregnant animals
** Fleeced sheep

[1] Except aircraft

Categories

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Uninterrupted time on a means of transport	Examples
< 9h	short road journeys, with or without a short leg on a ro-ro (e.g. 30 min ro-ro)
9-12h	short road journeys, with or without a short leg on a ro-ro, transport of poultry (if ≤12h)
12-21h	long journeys by road, short journeys with longer legs on a ro-ro (e.g. more than 3h)
>21h	Long or short journeys combined with long ro-ro journeys (e.g. 18h on a ro-ro), livestock vessels


Cattle
3,00
2,50
2,00
1,50
1,00
0,50
0,00
m2
0
100
200
300
400
500
600
700
800
kg
> 21h
12 - 21h
9 – 12h
< 9h
PUBLIC