COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels,. 26.04.1999
COM(1999)191 final

SECOND REPORT FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT ON THE STATISTICS ON THE NUMBER OF ANIMALS USED FOR EXPERIMENTAL AND OTHER SCIENTIFIC PURPOSES IN THE MEMBER STATES OF THE EUROPEAN UNION

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CONTENTS

I. INTRODUCTION

The objective of this report is to present to the Council and the European Parliament, pursuant to Article 26 of Directive 86/609/EEC[1], the statistical data on the number of animals used for experimental and other scientific purposes in the Member States of the European Union.

This report follows the first report, COM (94) 195 final, published in 1994 on the statistics on animals used in the Member States in 1991[2].

Directive 86/609/EEC does not specify a format nor the level of detail for the statistical data. However, in order to be able to consolidate a meaningful report on the EU situation the data needs to be presented in a harmonised manner. In 1997 after several years of discussion the national authorities competent for this Directive agreed on a uniform set of statistical tables (later in this report referred to as "EU tables"). These tables are being implemented in 1998 for the data collection to start in January 1999.

A similar reporting is required of the parties to the Council of Europe Convention ETS 123 on the protection of vertebrate animals used for experimental and other scientific purposes. The Convention defines a set of five tables for the statistical data collection (later referred to as "Convention tables").

Therefore, the data submitted for this report follow various different formats. In addition to the two formats described above, national formats (later referred to as "national tables") have been used by some Member States as well as formats used before the final set of tables which were agreed in 1997 (later referred to as "preceding tables").

The most frequently used format is that of the Council of Europe Convention ETS 123. Two Member States, namely France and Sweden, have already succeeded in introducing the uniform "EU tables" for this report.

The next report to the Council and the European Parliament, which will be available in the year 2000, will be based on the uniform data as agreed by the Member States in 1997.

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[1] O.J. Nr L358, 18.12.1986, p.1

[2] see also section 2.1 p.4

II. STATISTICS

1. General

Each Member State is requested, pursuant to Articles 13 and 26 of Directive 86/609/EEC, to submit to the Commission the statistical data on the animals used for experimental and other scientific purposes. This report contains data from the year 1996 with the exception of one Member State which reports data of 1997[3].

Council Resolution 86/C331/02[4] allows the use of animals in experiments for education and training, but where the purposes of such experiments are not covered by the Directive i.e. they are not experimental or scientific in the sense of the Directive, Member States will according to the resolution apply national provisions wich are no less severe than those of the Directive. Therefore, a number of Member States have also included animals covered by this Resolution in the report.

The aim of this report is to provide a general overview of the EU situation as an intermediate tool before the year 2000 when the first harmonised report will be published by the Commission. The compilation of the data was not an easy task bearing in mind the different ways in which the data were provided. Nevertheless, an attempt was made to provide some indication as to which species and for what purposes these animals are used in the EU.

For the interpretation of these data several factors have to be noted

- The previous report published in 1994 covered the year 1991, with two exceptions. Thus the summary table at EU level consisted of a mixture of data from the years 1990, 1991 and 1992. No data was provided by Belgium and Luxembourg.
- Three new Member States, namely Austria, Finland and Sweden who joined the EU since the publication of the previous report have now submitted their data for the first time.
- A number of Member States have changed the reporting criteria since the previous report. Consequently, no comparison is possible between these two sets of national data.
- Some Member States also report on animals which are from areas beyond the scope of the Directive and the Resolution, e.g. production of harmful mutant and transgenic animals. Therefore comparison of the total numbers from different Member States is not possible.

The total number of animals[5] in this report amounts to 11.6 million animals. For the reasons previously stated it should be emphasised that the total number as such has relatively little significance. In addition, this number consists of a variety of animal species of highly different nature such as cold-blooded animals like fish as well as

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[3] see page 68, paragraph 6

[4] O.J. Nr C331, 23.12.86, p. 2

[5] including 1997 data from France

superior mammals like non-human primates. The readers are invited to further examine the distribution between the different groups of species on page 13.

Taking all these factors into account one should be very cautious in making any conclusion or comparisons with the results presented in this report. Furthermore, no attempts should be made to compare the finding of this report with the report of 1994.

Nevertheless, some general observations can be made from a statistical point of view. These can be found in their relevant section under part 3 "Compilation and interpretation of the data" of II Statistics.

2. Structure of the report

The present report consists of two parts.

- The first part contains a global compilation for the European Union of the same statistical data provided by each Member State for 1996 except for France[6] who is reporting data of 1997 (point 3. "Compilation and interpretation of the data").

  Despite the fact that one Member State has reported data for 1997, this report is intended to give credit for the effort made by all the Member States to report statistical data on animals used for experimental and other scientific purposes.

  In order to achieve this objective, a series of table "*bis*" have been computed to take into account data submitted for 1996 and 1997. The readers are invited therefore to consider also tables 2 *bis*, 3 *bis* and 4 *bis* even though these tables are not correct from a statistical point of view and should therefore not be used for comparison purposes.

- The second part contains the relevant extracts of the data as submitted by Member States. For those Member States which included comments or conclusions with their data, the present report also contains a summary of these comments.

[6] see page 68, paragraph 6

3. Compilation and interpretation of the data

A. Data forwarded

The first table, showing the data provided by each Member State has been prepared to demonstrate which tables could be compiled for the European Union for 1996 (table 1 on next page).

Fourteen Member States reported the data for the year 1996.

The compilation and the interpretation of the data were voluntarily limited to the parameters which were reported by at least 9 Member States :

- ⇨ the kind[7] and number of animals used (14 Member States);
- ⇨ the number of animals versus the purpose of the procedure (13 Member States);
- ⇨ the number of animals used in toxicological and other safety evaluations : type of product tested versus species (11 Member States);
- ⇨ the number of animals used in procedures for studies on human and animal diseases : type of diseases versus species (9 Member States).

Given that there maybe additional national requirements regarding the reporting of animals used for experimental purposes, data provided to the Commission for the purposes of this report do not necessarily represent the full extent of the national statistics.

Some Member States which have used no animals for a specific purpose have omitted this purpose rather than reporting zero use. However, this does not mean that such purpose is not considered by the Member States in question.

When looking at the tables and graphical presentations presented below, one should always bear in mind these limitations in the data availability; it is therefore not possible to draw precise conclusions for the whole European Union.

[7] Kind : covers not only species but groups

Table 1

Data forwarded for 1996:	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK		Total "Y"
Report on 1996 data	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y		14
Kind of animals	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y		14
Number of animals	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y		14
Number of animals used in relation to their place of origin: Origin versus species		Y		Y				Y				Y	Y	Y	Y		7
Number of animals used in experiments for selected purpose: Purpose versus species	Y	Y	Y	Y	Y	*	Y	Y		Y	Y	Y	Y	Y	Y		13
Number of animals used in experiments for studies on human and animal diseases: Type of diseases versus species	Y	Y		Y	Y		Y			Y		Y	Y	Y			9
Number of animals used in production and quality control of products and devices for human medicine and dentistry and for veterinary medicine : Regulatory requirements versus species		Y												Y			2
Number of animals used in toxicological and other safety evaluations: Type of products versus species	Y	Y	Y	Y	Y		Y			Y		Y	Y	Y	Y		11
Number of animals used in toxicological and other safety evaluations: Regulatory requirements versus species		Y										Y		Y	Y		4
Number of animals used in toxicological and other safety evaluations: Types of test versus species	Y	Y										Y		Y	Y		5
Number of animals used in toxicological and other safety evaluations: Types of tests versus products	Y	Y										Y		Y			4
Number of animals used in toxicological and other safety evaluations: Types of tests versus regulatory requirements	Y	Y										Y					3
Number of animals used in experiments for studies on human and animal diseases: Type of diseases versus regulatory requirements	Y																1
General : Regulatory requirement versus species			Y	Y				Y		Y		Y	Y				6
Pharmaceuticals: Type of test versus species															Y		1

B. Species and number of animals used

The data

The details concerning the kind of animals used vary greatly from Member State to Member State.

Several Member States report groups of species, like "rodents and rabbits", or "dogs and cats".

Other Member States report very detailed information, giving the name of the species (e.g. "Quail : other species than *Coturnix coturnix*").

A particular problem concerning the zoological classification of the species was encountered : some classification systems place the Gibbons (*Hylobates hoolock, H. lar, H. syndactylus*, etc.) in the separate family of the Hylobatidae, which some naturalist would even exclude from the Anthropoïdea.

In order to handle these differences in the richness of the data details, a table was prepared to present all the figures reported by the Member States (table 2).

Some Member States reported species for which no animal was used.

- Chinese Hamsters *(Cricetulus griseus)*
- Camelids
- Other ungulates (not otherwise specified)
- Lemuridae
- New World Monkeys (not otherwise specified)
- Gibbons
- Pongidae (not otherwise specified)
- Octopus
- Cephalopods

To avoid confusion, these entries were not reported in Table 2.

In addition to the name of the species or group of species foreseen in the EU tables, more detailed data were introduced as needed, as well as the groups of species reported by some Member States. In table 2, the abbreviation "N.O.S." means "not otherwise specified".

Totals and sub-totals were also calculated (like "total rodents + lagomorphs") in order to provide a way to compare the data, at least for a certain level of grouping.

Table 2

Number and kind of animals used in procedures in 1996																	
Country:		B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Totals
	Animals:																
	Mice	430,172	194,257	729,612	9,689	231,949		26,735	379,327	1,000	244,799		34,851	36,244	131,496	1,501,735	3,951,886
	Rats	211,785	92,685	415,766	5,523	192,848		24,474	595,407		226,659		6,939	36,316	118,404	887,323	2,814,129
	Guinea-Pigs	40,656	11,907	50,059	1,280	26,824		1,531	57,850		11,956		3,080	1,904	10,807	103,273	321,137
	Golden Hamsters (Mesocricetus auratus)													40	551		591
N.O.S.	Hamsters	3,570	224						1,842				517			9,898	16,051
Sub-Total	Total Hamsters	3,570	224						1,842				517	40	551	9,898	16,642
	Gerbils	10,845						118								7,649	18,612
Grouping	Mice + Rats + Guinea-Pigs + Hamsters, etc.											183,940					183,940
N.O.S.	Rodents	1,512	501	23,839		1,428			2,380		7,905		100	719	500	3,589	42,453
Sub-Total	Total rodents	696,540	299,574	1,219,276	16,492	453,049		52,858	1,036,786	1,000	491,319	183,940	45,497	75,223	261,758	2,313,467	7,148,779
	Rabbits	13,208	7,939	36,834	599	28,901		2,067	35,070	3	9,401	16,700	1,070	1,536	5,164	35,291	195,783
Sub-Total	Total rodents + Lagomorphs	711,748	307,513	1,256,110	17,091	481,950		54,925	1,071,856	1,003	500,720	200,640	46,567	76,759	266,922	2,348,758	7,344,562
	Cats	284	169	1,010		88		181	270		444	2	8	5	382	1,509	4,352
	Beagles															6,567	6,567
N.O.S.	Dogs	2,553	248	4,515		712		332	984		1,243	272	36	97	695	180	11,867
Sub-Total	Total Dogs	2,553	248	4,515	2	712		332	984		1,243	272	36	97	695	6,747	18,436
	Ferets	16													97	2,244	2,357
N.O.S.	Carnivores	46	1,293	362		12					76			146	92	2,480	4,507
Sub-Total	Total carnivores	2,899	1,710	5,887	2	812		513	1,254		1,763	274	44	248	1,268	12,980	29,852
	Horses	87	22														109
N.O.S.	Horses, donkeys and cross breds			182		10		199	173		348		7	252	22	802	1,995
Sub-Total	Total horses, donkeys and cross breds	87	22	182		10		199	173		348		7	252	22	802	2,104

Table 2 (continued)

Number and kind of animals used in procedures in 1996																	
Country:		B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Totals
	Animals:																
	Pigs	5,606	6,281	9,571	30	3,031		124	1,094		10,164		808	488	2,589	7,530	47,316
	Goats	122	79					25	70				55		24	625	1,000
	Sheep	1,811	90					1,010	342				1,225		148	17,524	22,150
Grouping	Goats + Sheep			2,238	98	2,032					4,327			518			9,211
	Deer															250	250
	Bovine cattle	1,428				53					3,026		382	839	267		5,995
N.O.S.	Cattle		556	2,035				1,196	189							5,682	9,658
Grouping	Other ungulates than bovine	19															19
N.O.S.	Other ungulates																
Sub-Total	Total Artiodactyla	8,986	7,006	13,844	126	5,116		2,355	1,695		17,517		2,450	1,845	3,048	31,611	95,599
N.O.S.	Prosimians			155													155
Sub-Total	Total Prosimians			155													155
	Marmosets, tamarins															1,330	1,330
	Squirrel, owl and spider monkeys															18	18
	Ceboidae								38					8	22		68
Sub-Total	Total New World Monkeys								38					8	22	1,348	1,416
	Macaques															2,410	2,410
	Baboons															28	28
	Cercopithecoidae				2				734					9	24		789
N.O.S.	Old World Monkeys		18														18
Sub-Total	Total Old World Monkeys		18		2				734					9	24	2,438	3,225
Grouping	Old + New World Monkeys			1,364								116					1,480
	Chimpanzees											48					48
Sub-Total	Total Great Apes											48					48
Grouping	Pongidae + Gibbons (Hylobatidae?)	31															31
Sub-Total	Total Apes (Great Apes + Gibbons)	31										48					79
Grouping	Cercopithecidae + Pongidae	569				53											622
Sub-Total	Total Prosimians + Monkeys + Apes	600	18	1,519	2	53			772		1,082	164		17	46	3,786	8,059

Table 2 (continued)

Number and kind of animals used in procedures in 1996																	
Country:		B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Totals
	Animals:																
N.O.S.	Mammals		6	332		70			24		12		5	18	41	816	1,324
Sub-Total	Total mammals	724,320	316,275	1,279,874	17,221	488,011		57,992	1,075,774	1,003	521,442	201,078	49,073	79,139	271,345	2,398,753	7,481,300
	Quail (Coturnix coturnix)															317	317
N.O.S.	Quail	1,359							5				150			3,321	4,835
Sub-Total	Total Quail	1,359							5				150			3,638	5,152
	Turkeys															3,417	3,417
	Hens, chickens (Gallus)	52,708														96,010	148,718
Grouping	Poultry							94									94
N.O.S.	Birds	915	9,347	94,793	129	17,736			9,213		86,071		179	1,912	3,178	10,626	234,099
Sub-Total	Total birds	54,962	9,347	94,793	129	17,736		94	9,218		86,071		329	1,912	3,178	113,691	391,480
Grouping	Chickens + Sheep + Goats + Pigs + Bovine, etc.											1,471					1,471
Grouping	Horses + birds											118					118
	Reptiles	30		149		15			644		6				25		869
	Amphibians	2,207	506	14,581	1,470	60			3,064		4,753	627	78	3,167	5,433	12,505	48,451
	Rainbow trouts											352					352
N.O.S.	Fish	733,928	24,098	120,222	460	1,015		19,021	5,485		40,028	1,179	40	26,441	6,031	134,419	1,112,367
Sub-Total	Total fish	733,928	24,098	120,222	460	1,015		19,021	5,485		40,028	1,531	40	26,441	6,031	134,419	1,112,719
N.O.S.	Other animals	400															400
Total	Total all animals	1,515,867	350,226	1,509,619	19,280	506,837		77,107	1,094,185	1,003	652,300	204,825	49,520	110,659	286,012	2,659,368	9,036,808

Table 2 *bis*

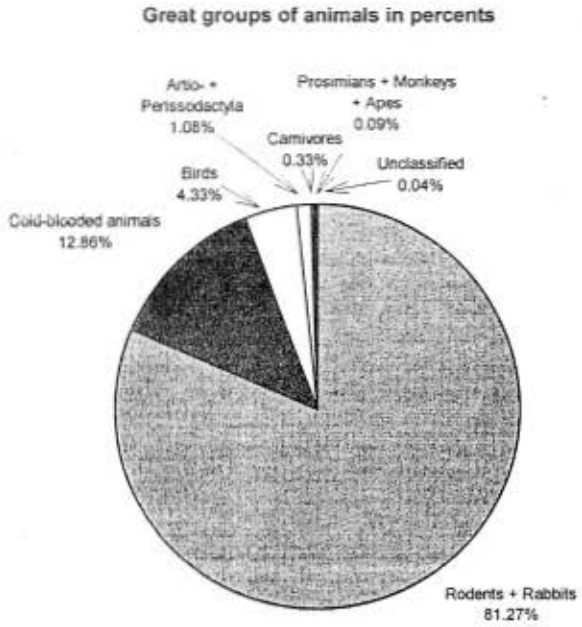
Number and kind of animals used in procedures in 1997		
Country:		F
	Animals:	
	Mice	1,787,200
	Rats	432,739
	Guinea-Pigs	102,208
	Golden Hamsters (Mesocricetus auratus)	19,342
N.O.S.	Hamsters	
Sub-Total	Total Hamsters	19,342
	Gerbils	
N.O.S.	Rodents	6,142
Sub-Total	Total rodents	2,347,631
	Rabbits	63,727
Sub-Total	Total rodents + Lagomorphs	2,411,358
	Cats	1,990
N.O.S.	Dogs	4,290
Sub-Total	Total Dogs	4,290
	Ferrets	82
N.O.S.	Carnivores	183
Sub-Total	Total carnivores	6,545
N.O.S.	Horses, donkeys and cross breds	2,174
	Pigs	9,927
	Goats	776
	Sheep	3,541
	Bovine cattle	1,636
Sub-Total	Total Artiodactyla	15,880
N.O.S.	Prosimians	82
Sub-Total	Total Prosimians	82
	Ceboidae	88
Sub-Total	Total New World Monkeys	88
	Cercopithecoidae	2,452
Sub-Total	Total Old World Monkeys	2,452
N.O.S.	Great Apes	0
Sub-Total	Total Prosimians + Monkeys + Apes	2,622
N.O.S.	Mammals	67
Sub-Total	Total mammals	2,438,646
	Quails (Coturnix coturnix)	1,907
N.O.S.	Birds	65,745
Sub-Total	Total birds	67,652
	Reptiles	48
	Amphibians	14,403
N.O.S.	Fishes	88,573
Sub-Total	Total fishes	88,573
Total	Total all animals	2,609,322

Treatment and interpretation of the data

The total number of animals reported for the year 1996 reaches 9,036,808 animals for the fourteen reporting Member States.

In order to present graphically the relative percentage of species, certain grouping was made (table 3 and figure 1).

Figure 1



Artio- and Perissodactyla group horses, donkeys and cross-breds (Perissodactyla), pigs goats, sheep, deer and bovine cattle (Artiodactyla).

Rodents and rabbits represent the great majority (82%) of animals used in laboratory procedures. Cold-blooded animals (fish, amphibians, etc.) represent 13%.

Carnivores like cats and dogs represent 0.33% and the total of prosimians, monkeys and apes amounts for 0.09% of the animals used.

Table 3

Number of animals:	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Totals
Rodents + Rabbits	711,748	307,513	1,258,110	17,091	481,950		54,925	1,071,856	1,003	500,720	200,640	46,567	76,759	266,922	2,348,758	7,344,562
Cold-blooded animals	736,165	24,604	134,952	1,930	1,090		19,021	9,193	0	44,787	2,158	118	29,608	11,489	146,924	1,162,039
Birds	54,982	9,347	94,793	129	17,736		94	9,218	0	86,071	0	329	1,912	3,178	113,691	391,480
Artio- + Perissodactyla	9,073	7,028	14,026	126	5,126		2,554	1,868	0	17,865	0	2,457	2,097	3,070	32,413	97,703
Carnivores	2,899	1,710	5,887	2	812		513	1,254	0	1,763	274	44	248	1,266	12,980	29,652
Prosimians + Monkeys + Apes	600	18	1,519	2	53		0	772	0	1,082	164	0	17	46	3,786	8,059
Unclassified	400	6	332	0	70		0	24	0	12	1,589	5	18	41	816	3,313
Totals:	1,515,867	350,226	1,509,619	19,280	506,837		77,107	1,094,185	1,003	652,300	204,825	49,520	110,659	286,012	2,659,368	9,036,808

In percents of the total:	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Means
Rodents + Rabbits	46.95	87.80	83.34	88.65	95.09		71.23	97.96	100.00	76.76	97.96	94.04	69.37	93.33	88.32	81.27
Cold-blooded animals	48.56	7.03	8.94	10.01	0.22		24.67	0.84	0.00	6.87	1.05	0.24	26.76	4.02	5.52	12.86
Birds	3.63	2.67	6.28	0.67	3.50		0.12	0.84	0.00	13.20	0.00	0.66	1.73	1.11	4.28	4.33
Artio- + Perissodactyla	0.60	2.01	0.93	0.65	1.01		3.31	0.17	0.00	2.74	0.00	4.96	1.90	1.07	1.22	1.08
Carnivores	0.19	0.49	0.39	0.01	0.16		0.67	0.11	0.00	0.27	0.13	0.09	0.22	0.44	0.49	0.33
Prosimians + Monkeys + Apes	0.04	0.01	0.10	0.01	0.01		0.00	0.07	0.00	0.17	0.08	0.00	0.02	0.02	0.14	0.09
Unclassified	0.03	0.00	0.02	0.00	0.01		0.00	0.00	0.00	0.00	0.78	0.01	0.02	0.01	0.03	0.04
Totals:	100	100	100	100	100		100	100	100	100	100	100	100	100	100	100

(2)

Table 3 *bis*

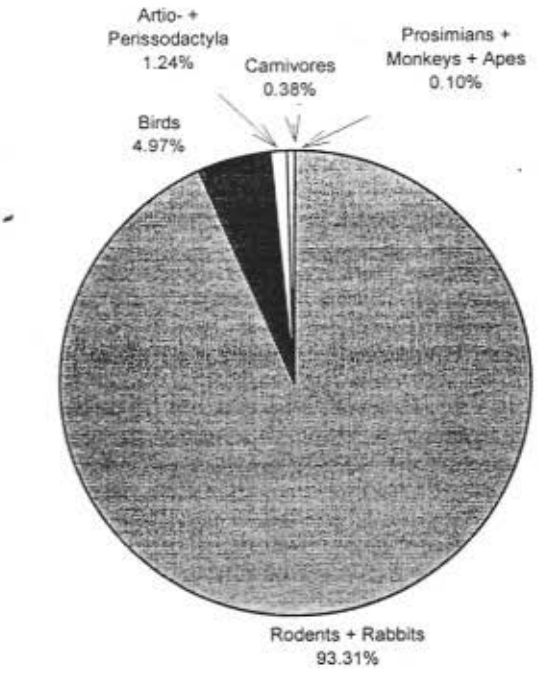
With data from France for year 1997																
Number of animals:	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Totals
Rodents + Rabbits	711,748	307,513	1,258,110	17,091	481,950	2,411,358	54,925	1,071,856	1,003	500,720	200,640	46,567	76,759	266,922	2,348,758	9,755,920
Cold-blooded animals	736,165	24,604	134,952	1,930	1,090	103,024	19,021	9,193	0	44,787	2,158	118	29,606	11,489	146,924	1,265,063
Birds	54,982	9,347	94,793	129	17,736	67,652	94	9,218	0	86,071	0	329	1,912	3,178	113,691	459,132
Artio- + Perissodactyla	9,073	7,028	14,026	126	5,126	18,054	2,554	1,868	0	17,865	0	2,457	2,097	3,070	32,413	115,757
Carnivores	2,899	1,710	5,887	2	812	6,545	513	1,254	0	1,763	274	44	248	1,266	12,980	36,197
Prosimians + Monkeys + Apes	600	18	1,519	2	53	2,622	0	772	0	1,082	164	0	17	46	3,786	10,681
Unclassified	400	6	332	0	70	67	0	24	0	12	1,589	5	18	41	816	3,380
Totals:	1,515,867	350,226	1,509,619	19,280	506,837	2,609,322	77,107	1,094,185	1,003	652,300	204,825	49,520	110,659	286,012	2,659,368	11,646,130

In percents of the total:	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Means
Rodents + Rabbits	46.95	87.80	83.34	88.65	95.09	92.41	71.23	97.96	100.00	76.76	97.96	94.04	69.37	93.33	88.32	83.77
Cold-blooded animals	48.56	7.03	8.94	10.01	0.22	3.95	24.67	0.84	0.00	6.87	1.05	0.24	26.76	4.02	5.52	10.86
Birds	3.63	2.67	6.28	0.67	3.50	2.59	0.12	0.84	0.00	13.20	0.00	0.66	1.73	1.11	4.28	3.94
Artio- + Perissodactyla	0.60	2.01	0.93	0.65	1.01	0.69	3.31	0.17	0.00	2.74	0.00	4.96	1.90	1.07	1.22	0.99
Carnivores	0.19	0.49	0.39	0.01	0.16	0.25	0.67	0.11	0.00	0.27	0.13	0.09	0.22	0.44	0.49	0.31
Prosimians + Monkeys + Apes	0.04	0.01	0.10	0.01	0.01	0.10	0.00	0.07	0.00	0.17	0.08	0.00	0.02	0.02	0.14	0.09
Unclassified	0.03	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.78	0.01	0.02	0.01	0.03	0.03
Totals:	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

If one considers only the warm-blooded animals, rodents and rabbits amount 93% of the total (figure 2).

Figure 2

Warm-blooded animals, in percents



In table 4, a tentative was made to represent the forwarded data under the form of a EU table. Some groups of animals reported by some Member States cannot enter such classification, but the total of animals in the table represents 8,838,465 cases out of 9,036,808 (97.8%).

Table 4

Species or group of species	Number															
	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Totals
Mice (Mus musculus)	430,172	194,257	729,612	9,689	231,949		26,735	379,327	1,000	244,799		34,851	36,244	131,496	1,501,735	3,951,866
Rats (Rattus norvegicus)	211,785	92,685	415,766	5,523	192,848		24,474	595,407		226,659		6,939	36,316	118,404	687,323	2,614,129
Guinea-Pigs (Cavia porcellus)	40,656	11,907	50,059	1,280	26,824		1,531	57,850		11,956		3,090	1,904	10,807	103,273	321,137
Hamsters (All species of hamsters)	3,570	224						1,842				517	40	551	9,898	16,642
Other Rodents (other Rodentia)	12,357	501	23,839		1,428		118	2,360		7,905		100	719	500	11,238	61,065
Rabbits (Oryctolagus cuniculus)	13,208	7,939	38,834	599	28,901		2,067	35,070	3	9,401	16,700	1,070	1,536	5,164	35,291	195,783
Cats (Felis catus)	284	169	1,010		88		181	270		444	2	8	5	382	1,509	4,352
Dogs (Canis familiaris)	2,553	248	4,515	2	712		332	984		1,243	272	36	97	695	6,747	18,436
Ferrets (Mustela putorius furo)	16													97	2,244	2,357
Other Carnivores (other Carnivoria)	46	1,293	362		12					76			146	92	2,480	4,507
Horses, donkeys and cross breds (Equidae)	87	22	182		10		199	173		348		7	252	22	802	2,104
Pigs (Sus)	5,606	6,281	9,571	30	3,031		124	1,094		10,164		808	488	2,589	7,530	47,316
Goats (Capra)	122	79					25	70				55		24	625	1,000
Sheep (Ovis)	1,811	90					1,010	342				1,225		148	17,524	22,150
Cattle (Bos)	1,428	556	2,035		53		1,196	189		3,026		362	839	287	5,682	15,653
Prosimians (Prosimia)			155													155
New World Monkeys (Ceboidea)								38					8	22	1,348	1,416
Old World Monkeys (Cercopithecoidea)		18		2				734					9	24	2,438	3,225
Apes (Hominoidea)	31										48					79
Other Mammals (other Mammalia)		6	332		70			24		12		5	18	41	1,066	1,574
Quail (Coturnix coturnix)															317	317
Other birds (other Aves)	54,982	9,347	94,793	129	17,736		94	9,218		86,071		329	1,912	3,178	113,374	391,163
Reptiles (Reptilia)	30		149		15			644		6				25		869
Amphibians (Amphibia)	2,207	506	14,581	1,470	60			3,064		4,753	627	78	3,167	5,433	12,505	48,451
Fish (Pisces)	733,928	24,098	120,222	460	1,015		19,021	5,485		40,028	1,531	40	26,441	6,031	134,419	1,112,719
TOTAL	1,514,879	350,226	1,506,017	19,184	504,752		77,107	1,094,185	1,003	646,891	19,180	49,520	110,141	286,012	2,659,368	8,838,465
Not above (grouping)																
Mice + Rats + Guinea-Pigs + Hamsters, etc.											183,940					183,940
Goats + Sheep			2,238	96	2,032					4,327			518			9,211
Other ungulates than bovine	19															19
Old + New World Monkeys			1,364								116					1,480
Cercopithecidae + Pongidae	569				53											622
Chickens + Sheep + Goats + Pigs + Bovine, etc.											1,471					1,471
Apes + prosimians + other simians										1,082						1,082
Horses + birds											118					118
Other animals	400															400
TOTAL	988		3,602	96	2,085					5,409	185,645		518			198,343
GENERAL TOTAL	1,515,867	350,226	1,509,619	19,280	506,837		77,107	1,094,185	1,003	652,300	204,825	49,520	110,659	286,012	2,659,368	9,036,808

Table 4 *bis*

With data from France for year 1997																
Species or group of species	1996	1996	1996	1996	1996	1997	1996	1996	1996	1996	1996	1996	1996	1996	1996	
	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Totals
Mice (Mus musculus)	430,172	194,257	729,612	9,689	231,949	1,787,200	26,735	378,327	1,000	244,799		34,851	36,244	131,496	1,501,735	5,739,066
Rats (Rattus norvegicus)	211,785	92,685	415,766	5,523	192,848	432,739	24,474	595,407		226,859		6,939	36,316	118,404	887,323	3,046,868
Guinea-Pigs (Cavia porcellus)	40,856	11,907	50,059	1,280	26,824	102,206	1,531	57,850		11,956		3,090	1,904	10,807	103,273	423,345
Hamsters (All species of hamsters)	3,570	224				19,342		1,842				517	40	551	9,896	35,984
Other Rodents (other Rodentia)	12,357	501	23,839		1,428	6,142	118	2,360		7,905		100	719	500	11,238	67,207
Rabbits (Oryctolagus cuniculus)	13,208	7,939	38,834	599	28,901	63,727	2,067	35,070	3	9,401	16,700	1,070	1,536	5,164	35,291	259,510
Cats (Felis catus)	284	169	1,010		88	1,980	181	270		444	2	8	5	382	1,509	6,342
Dogs (Canis familiaris)	2,553	248	4,515	2	712	4,290	332	984		1,243	272	36	97	695	6,747	22,726
Ferrets (Mustela putorius furo)	16					82								97	2,244	2,439
Other Carnivores (other Carnivoria)	46	1,293	362		12	183				76			146	92	2,480	4,690
Horses, donkeys and cross breds (Equidae)	87	22	182		10	2,174	199	173		348		7	252	22	802	4,278
Pigs (Sus)	5,606	6,281	9,571	30	3,031	9,927	124	1,094		10,164		806	488	2,589	7,530	57,243
Goats (Capra)	122	79				776	25	70				55		24	625	1,776
Sheep (Ovis)	1,811	90				3,541	1,010	342				1,225		148	17,524	25,691
Cattle (Bos)	1,428	556	2,035		53	1,636	1,196	189		3,026		362	839	287	5,682	17,289
Prosimians (Prosimia)			155			82										237
New World Monkeys (Ceboidea)						88		38					8	22	1,348	1,504
Old World Monkeys (Cercopithecoidea)		18		2		2,452		734					9	24	2,438	5,677
Apes (Hominoidea)	31										48					79
Other Mammals (other Mammalia)		6	332		70	67		24		12		5	18	41	1,066	1,641
Quail (Coturnix coturnix)						1,907									317	2,224
Other birds (other Aves)	54,962	9,347	94,793	129	17,736	65,745	94	9,218		86,071		329	1,912	3,178	113,374	456,908
Reptiles (Reptilia)	30		149		15	48		644		6				25		917
Amphibians (Amphibia)	2,207	506	14,581	1,470	60	14,403		3,064		4,753	627	78	3,167	5,433	12,505	62,854
Fish (Pisces)	733,928	24,098	120,222	460	1,015	88,573	19,021	5,485		40,028	1,531	40	26,441	6,031	134,419	1,201,292
TOTAL	1,514,879	350,226	1,506,017	19,184	504,752	2,609,322	77,107	1,094,185	1,003	646,891	19,180	49,520	110,141	286,012	2,659,368	11,447,787
Not above (grouping)																
Mice + Rats + Guinea-Pigs + Hamsters, etc.											183,940					183,940
Goats + Sheep			2,238	96	2,032					4,327			518			9,211
Other ungulates than bovine	19															19
Old + New World Monkeys			1,364								116					1,480
Cercopithecidae + Pongidae	569				53											622
Chickens + Sheep + Goats + Pigs + Bovine, etc.											1,471					1,471
Apes + prosimians + other simians										1,082						1,082
Horses + birds											118					118
Other animals	400															400
TOTAL	988		3,602	96	2,085					5,409	185,645		518			198,343
GENERAL TOTAL	1,515,867	350,226	1,509,619	19,280	506,837	2,609,322	77,107	1,094,185	1,003	652,300	204,825	49,520	110,659	286,012	2,659,368	11,646,130

C. *Purposes of the procedures*

The data

Thirteen Member States reported the purposes of the procedures versus the species used.

For some Member States, the total of animals when reporting the purpose of the test is not the same as when reporting only the kind of animals. The total of animals when reporting the purposes of the tests is 8,819,712 animals.

The terminology used when reporting the purposes varies from Member State to Member State, and it should be noted that the term 'other' has different meanings accordingly.

Table 5 lists the terms which were used as well as the Member States using them. For some Member States (Belgium, Denmark, Greece, Austria and Spain), the terms used are translated from the original languages.

Treatment and interpretation of the data

Although knowing that there is a risk of misinterpretation, these different descriptions presented by the Member States were grouped according to table 6.

A tentative was made to represent the forwarded data under the form of a standard table (table 7). Some groups of animals cannot enter this classification : 31% of the reported cases do not fit in this table.

Classification based on other groups was searched, in order to include all the data reported; these groups are presented in table 8. From this last table, some graphical presentations were drawn (figures 3 and 4).

Table 5

	Countries	Terminology used when reporting the purposes
EU Table	B, DK, IRL, P, S, UK	Biological studies of a fundamental nature
EU Table	DK, S	Research and development of products and apparatus for human medicine and dentistry
EU Table	DK, S	Production and quality control of products and apparatus for human medicine and dentistry
EU Table	DK, S	Research and development of products and apparatus for veterinary medicine
EU Table	DK, S	Production and quality control of products and apparatus for veterinary medicine
EU Table	DK, P, S	Toxicological and other safety evaluation [including safety evaluation of products and appliances for human medicine and dentistry and veterinary medicine]
EU Table	B, DK, D, EL, E, IRL, NL, P, FIN	Diagnosis of disease
EU Table	B, DK, EL, E, IRL, NL, P, FIN	Education and training
EU Table	B, DK, EL, IRL, P, FIN	Other
	A	Medical or training purpose
	A	Protection of man or the environment
	A	Regulatory ordinance purpose
	B, I	Research and development and quality control of products and apparatus for human and veterinary medicine and dentistry
	B, IRL	Toxicological and other safety evaluation
	B	Development of mutants and trans-genic organisms
	B	Use of animals to keep and produce biological material
	NL, D, EL, E, FIN	Biological (including medical) studies of a fundamental nature
	EL, FIN	Research into, development and quality control (not including safety evaluations) of products and appliances for human and veterinary medicine
	EL, FIN	Protection of man and the environment by toxicological or safety evaluation (including safety evaluation of products or appliances for human and veterinary medicine)
	IRL, P	Research, development and quality control of apparatus and products used in human medicine and dentistry
	IRL, P	Research, development and quality control of apparatus and products used in veterinary medicine
	IRL	Study of diseases
	IRL	Immunological studies
	D, E, NL	Discovery development and quality control (including safety evaluation) of products or appliances for human and veterinary medicine
	D, E, NL	Protection of man, animals and their environment by toxicological or other safety evaluation
	S	Research and development of products and devices for human medicine and dentistry and for veterinary medicine (excluding toxicological and other safety evaluations)
	UK	Applied studies - human medicine or dentistry
	UK	Applied studies - veterinary medicine
	UK	Protection of man, animals or environment
	UK	Education
	UK	Training
	UK	Forensic enquiries
	UK	Direct diagnostic
	UK	Breeding

Table 6

Purposes: Grouping the descriptions used						
	Biological studies of a fundamental nature	Research and development and quality control of products and apparatus for human and veterinary medicine and dentistry	Toxicological and other safety evaluation [including safety evaluation of products and appliances for human medicine and dentistry and veterinary medicine]	Diagnosis of disease	Education and training	Other
Other terms used:						
Research and development of products and apparatus for human medicine and dentistry		X				
Production and quality control of products and apparatus for human medicine and dentistry		X				
Research and development of products and apparatus for veterinary medicine		X				
Production and quality control of products and apparatus for veterinary medicine		X				
Medical or training purpose					X	
Protection of man or the environment			X			
Regulatory ordinance purpose			X			
Research and development and quality control of products and apparatus for human and veterinary medicine and dentistry		X				
Toxicological and other safety evaluation			X			
Development of mutants and transgenic organisms						X
Use of animals to keep and produce biological material						X
Biological (including medical) studies of a fundamental nature	X					
Research into, development and quality control (not including safety evaluations) of products and appliances for human and veterinary medicine		X				
Protection of man and the environment by toxicological or safety evaluation (including safety evaluation of products or appliances for human and veterinary medicine)			X			
Research, development and quality control of apparatus and products used in human medicine and dentistry		X				
Research, development and quality control of apparatus and products used in veterinary medicine		X				
Study of diseases				X		
Immunological studies						X
Discovery development and quality control (including safety evaluation) of products or appliances for human and veterinary medicine		X				
Protection of man, animals and their environment by toxicological or other safety evaluation			X			
Research and development of products and devices for human medicine and dentistry and for veterinary medicine (excluding toxicological and other safety evaluations)		X				
Applied studies - human medicine or dentistry		X				
Applied studies - veterinary medicine		X				
Protection of man, animals or environment			X			
Education					X	
Training					X	
Forensic enquiries						X
Direct diagnostic				X		
Breeding						X

Table 7

Kind of animals and purpose: grouping the purposes descriptions							
Species or group of species	Biological studies of a fundamental nature	Research and development and quality control of products and apparatus for human and veterinary medicine and dentistry	Toxicological and other safety evaluation [including safety evaluation of products and appliances for human medicine and dentistry and veterinary medicine]	Diagnosis of disease	Education and training	Other	Total
Mice (Mus musculus)	771,822	1,288,811	85,304	75,329	7,584	469,723	2,698,573
Rats (Rattus norvegicus)	391,291	935,946	148,010	9,177	11,579	241,014	1,737,017
Guinea-Pigs (Cavia porcellus)	16,451	132,037	35,078	2,717	449	13,457	200,189
Hamsters (All species of hamsters)	8,481	6,428	850	55	215	573	16,602
Other Rodents (other Rodentia)	7,281	18,295	1,376	62	47	113	27,174
Rabbits (Oryctolagus cuniculus)	18,782	35,539	33,701	6,233	1,809	26,445	122,509
Cats (Felis catus)	1,619	925	75	7	36	143	2,805
Dogs (Canis familiaris)	741	7,776	2,928	26	328	68	11,867
Ferrets (Mustela putorius furo)	904	1,399		34	20		2,357
Other Carnivores (other Carnivoria)	3,648	197		66			3,911
Horses, donkeys and cross breds (Equidae)	197	534	51	396	65	69	1,312
Pigs (Sus)	9,276	5,827	608	886	1,483	5,952	24,032
Goats (Capra)	561	80	20	141	119	79	1,000
Sheep (Ovis)	9,620	7,105	11	2,929	712	1,828	22,205
Cattle (Bos)	3,309	4,207	49	1,075	97	908	9,645
Prosimians (Prosimia)							
New World Monkeys (Ceboidea)	389	982	12			25	1,408
Old World Monkeys (Cercopithecoidea)	300	2,451	389	44		34	3,218
Apes (Hominoidea)	31	245	211			183	670
Other Mammals (other Mammalia)	977	114	51				1,142
Quail (Coturnix coturnix)	64	229	24				317
Other birds (other Aves)	64,528	68,027	6,202	5,406	936	45,423	190,522
Reptiles (Reptilia)	674					25	699
Amphibians (Amphibia)	14,487	93	5,660	50	4,018	94	24,402
Fish (Pisces)	175,444	23,365	54,090	8,207	1,681	661,766	924,553
TOTAL	1,500,677	2,540,612	374,700	112,840	31,178	1,467,922	6,028,129
Not above (grouping)							
Mice + Rats + Guinea-Pigs + Hamsters, etc.			149,680		34,260		183,940
Reported as total rodents + lagomorphs	606,375	1,227,069	82,528	223,572	19,147	451	2,159,142
Other carnivores, incl. group Cats + dogs	1,469	4,685	400	681	309		7,544
Other ungulates						19	19
Cercopithecidae + Pongidae	53				41		94
Chikens + Sheep + Goats + Pigs + Bovine, etc.			321		1,150		1,471
Apes + prosimians + other simians	414	2,059	19	210			2,702
Horses + birds					118		118
Other animals	97,584	129,022	151,795	51,064	5,751	1,337	436,553
Total 'not above'	705,895	1,362,835	384,743	275,527	60,776	1,807	2,791,583
Great total	2,206,772	3,903,447	759,443	388,367	91,954	1,469,729	8,819,712
Great total of animals:	8,819,712						
Total in the frame:	6,028,129						
Not in the frame:	2,791,583						

Table 8

Kind of animals and purpose: grouping the animals, grouping the purposes							
Species or group of species	Biological studies of a fundamental nature	Research and development and quality control of products and apparatus for human and veterinary medicine and dentistry	Toxicological and other safety evaluation (including safety evaluation of products and appliances for human medicine and dentistry,and veterinary medicine)	Diagnosis of disease	Education and training	Other	Total
Rodents + Rabbits	1,820,483	3,644,125	536,527	317,145	75,090	751,776	7,145,146
Carnivores	8,381	14,962	3,403	614	693	211	28,464
Artio- + Perissodactyla	22,963	17,753	739	5,427	2,476	8,855	58,213
Prosimians + Monkeys + Apes	1,187	5,737	631	254	41	242	8,092
Birds	64,592	68,256	6,226	5,406	936	45,423	190,839
Fish	175,444	23,365	54,090	8,207	1,681	661,766	924,553
Other cold-blooded than fish	15,161	93	5,660	50	4,018	119	25,101
Unclassified	96,561	129,136	152,167	51,064	7,019	1,337	439,284
Total	2,206,772	3,903,447	759,443	388,367	91,954	1,469,729	8,819,712

Figure 3

Purposes

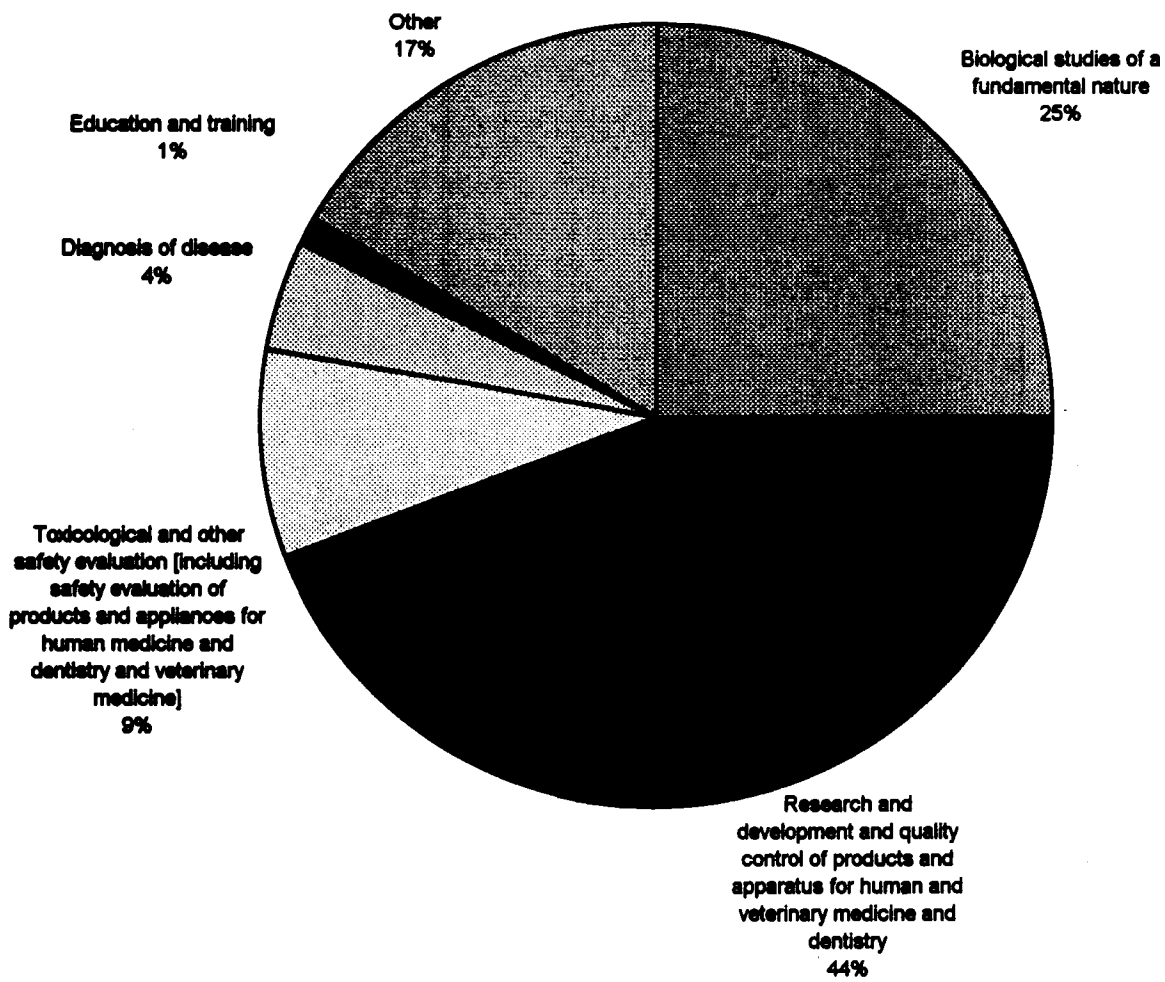
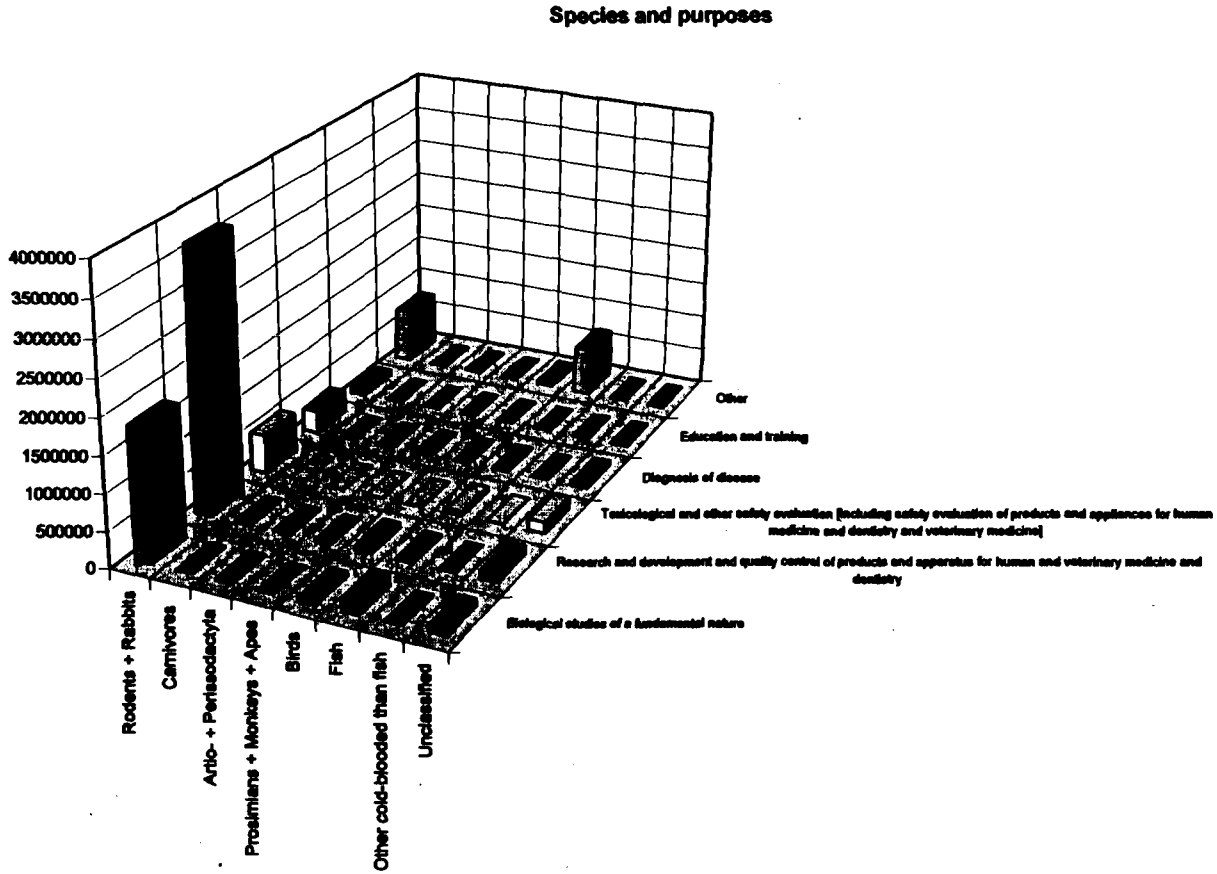


Figure 4


Species and purposes
4000000
3500000
3000000
2500000
2000000
1500000
1000000
500000
0
Rodents + Rabbits
Carnivores
Artio- + Perisodactyls
Prosimians + Monkeys + Apes
Birds
Fish
Other cold-blooded than fish
Unclassified
Other
Education and training
Diagnosis of disease
Toxicological and other safety evaluation [including safety evaluation of products and appliances for human medicine and dentistry and veterinary medicine]
Research and development and quality control of products and apparatus for human and veterinary medicine and dentistry
Biological studies of a fundamental nature

Research and development, quality control of products and apparatus for human and veterinary medicine and dentistry represent 44% of the purposes for testing, followed by the fundamental research 25%.

No conclusive trends may be drawn for the distribution of the species versus the purpose of the procedure (figure 4), except that rodents and rabbits are always the most used animals for all purposes.

D. Toxicological and safety evaluations : kind of products

The data

The data, as indicated in table 1, concern only 11 Member States. The cases reported here are a sub-set of the total of the animal experimentations. The total number of animals reported by the ten Member States is 1,043,327.

Here also, the type of products or groups reported differs from Member State to Member State (table 9).

Table 9

	Toxicological evaluations: kind of products
B, EL, FIN, S	Human and veterinary medicine
B, DK, D, EL, E, NL, P, FIN, S, UK	Agriculture
B, DK, E, NL, P, FIN, S, UK	Industrial products
B, DK, E, NL, P, FIN, S, UK	Household products
B, DK, E, NL, P, FIN, S, UK	Cosmetics
B, DK, E, NL, P, FIN, S	Food additives - human
B, DK, P, S	Food additive - animal
B, DK, P, UK	Tobacco products
B, DK, D, EL, E, NL, P, FIN, S, UK	Other substances which could be harmful for the environment
B, DK, IRL, P, S, UK	Other
D	Sum households + cosmetics + food additives (human) + industrial products
DK, P	Human medicine and dentistry
DK, P	Veterinary medicine
IRL	Food
UK	Food additives + other foodstuff
UK	Pharmaceutical safety / efficacy evaluation + medical devices safety

Treatment and interpretation of the data

Some Member States include items relating to medicine and pharmacy in the details, other do not. The description of the species is often limited to 3 main groups.

The totals of the figures are shown in table 10; no conclusions can be drawn, mainly because the item "medicine" is reported by seven Member States only.

Table 10

Number and kind of animals used versus type of products								
	B, DK, EL, P, FIN, S, UK	B, DK, D, EL, E, NL, P, FIN, S, UK	B, DK, E, NL, P, FIN, S, UK	B, DK, E, NL, P, FIN, S, UK	B, DK, E, NL, P, FIN, S, UK	B, DK, E, IRL, NL, P, FIN, S, UK	B, DK, D, EL, E, IRL, NL, P, FIN, S, UK	
Animals:	All medicine and pharmacy	Agriculture	Industrial	Household	Cosmetics	All food	Other substances which could be harmful for the environment	All others or other grouping
Rodents and lagomorphs	478,797	84,514	85,103	2,062	4,823	8,745	14,199	101,106
Carnivores (cats, dogs)	6,457	843	11	84		12		171
Prosimian, Monkeys, Apes	2,940					7	12	54
All others	35,739	39,121	11,113	424		4,408	126,961	35,621
Total	523,933	124,478	96,227	2,570	4,823	13,172	141,172	136,952
Total on this table:	1,043,327							

Important remark

The second row in table 10 indicates the Member States which have reported a number of animal used or no animal use for type of products.

E. Number of animals used in procedures for studies on human and animal diseases : types of diseases versus species

The data

As indicated in table 1, these data are reported by nine Member States only, reaching a total of 1,285,148 animals. The terminology and the groups used for reporting are not the same, as shown in table 11. The species are most often limited to three main groups.

Table 11

Type of diseases versus species	
B, DK, EL, E, IRL, NL, P, FIN, S	Human cardiovascular diseases
B, DK, EL,P, FIN	Human respiratory diseases
B, DK, EL, E, FIN, NL, P, IRL, S	Human nervous and mental disorders
B, DK, EL, E, IRL, NL, P, FIN, S	Human cancer (excluding evaluation of carcinogenic hazards)
B, DK, EL, P, FIN, S	Other human diseases
B, DK, EL, P, FIN, S	Animal diseases
EL, IRL, NL	Other
E	All other (human and animals)

Treatment and interpretation of data

In table 12, data were grouped according to what is common to the nine Member States reporting on this parameter, thus grouping in the same category "other" the human respiratory diseases, the other human diseases and the animal diseases.

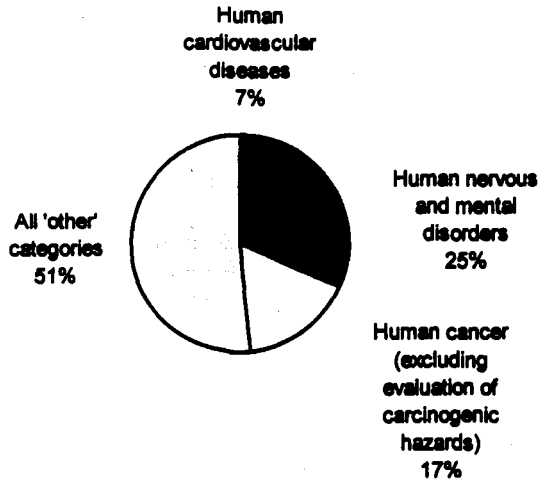
Table 12

Study of diseases:					
Species or group of species	Human cardiovascular diseases	Human nervous and mental disorders	Human cancer (excluding evaluation of carcinogenic hazards)	All 'other' categories	Total
Total Rodents + Lagomorphs	82,219	307,760	210,220	349,056	949,255
Total dogs and cats	679	186	6	1,646	2,517
Prosimians + Monkeys + Apes		83	43	450	576
Other animals	8,038	7,113	3,240	314,409	332,800
Total	90,936	315,142	213,509	665,561	1,285,148

By doing this, the category "other" reaches 51% of the cases. The only trend which is shown in table 12 and in figure 5 is that the studies on human nervous and mental disorders could use more animals than those concerning human cancers or cardio-vascular diseases.

Figure 5

Study of diseases



4. Situation in the Member States

BELGIUM

Comments made by Belgian authorities

The Belgian authorities have provided information relating to the comparison of the data between 1995 and 1996.

Representativeness for 1996 : the statistical data provided by the Belgian institutions are reported to reach 99.7%.

1. Reduction of almost 8 % of the total number of experimental animals used.
2. Reduction of almost 44 % of the number of rodents (rats and mice).
3. Reduction of 47 % of the number of cats.
4. Slight decrease (3.3 %) of the number of dogs.
5. Increase of the number of agriculture animals used :
   - pigs: 133 %
   - sheep: 53 %
   - bovines: 84 %
6. Increase of 180 % of the use of primates.

   This increase however concerns essentially the use of imported cercopithecoidea from which a substantial part is intended for the development, the manufacturing and the control of human vaccines such as antipolyo vaccine. This use means rapid sacrifice for the supply of organs and manipulations causing little pain.
7. The number of poultry used remains stable.
8. Increase of 124 % of use of fish (concerns only a limited number of users).

The number of experimental animals used is globally showing a favourable decrease trend of almost 10 % between 1995 and 1996, taking into account the more complete data for 1996.

The number of companion animal species used is also decreasing, but more so for cats than for dogs.

The use of primates remains important, apparently even increasing, however this use concerns essentially imported cercopithecoidea which are intended for the development, the manufacturing and the control of very important human vaccines. These importations are not continuous but are occurring by batches and the use of primates may overlap from one year to the next.

Finally the trend in the use of experimental animals would seem to show a shift from "sensitive" species as perceived by the general public such as companion animal species towards less "sensitive" species such as animals used in agriculture i.e. the pigs.

Statistical data submitted

The statistical data have been submitted by the "Ministère des Classes Moyennes et de l'Agriculture" (*Ministry of Middle Classes and Agriculture*).

The statistical data of Belgium are essentially following the preceding tables of the Commission (see Introduction). Tables 2B and 4 are in accordance with national requirements.

Table 1	number of animals used in experiments for selected purposes (purposes versus species)
Table 2A	number of animals used in experiments for studies on human and animal diseases (diseases versus species)
Table 2B	number of animals used in experiments for studies on human and animal diseases (diseases versus regulatory requirements)
Table 3A	number of animals in toxicological and other safety evaluations (types of tests versus species)
Table 3B	number of animals in toxicological and other safety evaluations (products versus species)
Table 3C	number of animals in toxicological and other safety evaluations (products versus types of tests)
Table 3D	number of animals in toxicological and other safety evaluations (types of tests versus regulatory requirements)
Table 4	number of animals used for the maintenance and the production of biological material (types of biological material versus species).

(3)

TABLE 1. NUMBER OF ANIMALS USED IN EXPERIMENTS FOR SELECTED PURPOSES
BELGIUM 1996

PURPOSES Species	Biological studies of a fundamental nature	Research and development and quality control of products and apparatus for human and veterinary medicine and dentistry	Diagnosis of disease	Toxicological and other safety evaluations	Development of mutants and trans-genic organisms	Use of animals to keep and produce biological material	Education and training	Other, e.g. eco-toxico-logical studies	TOTAL
Mice	68.303	288.218	22.305	7.292	20.897	20.664	2.493		430.172
Rats	38.945	153.623	71	13.778		1.307	3.853	208	211.785
Guinea-Pigs	1.405	38.024	199	198		749	81		40.656
Hamsters	729	1.916	11	224		573	117		3.570
Gerbils	38	10.777				30			10.845
Other Rodents	275	1.134				70	33		1.512
Rabbits	2.968	3.547	30	1.264	183	3.456	240	1.520	13.208
Cats	164	80	5				10	25	284
Dogs	517	906	3	920			171	36	2.553
Ferrets	16								16
Other Carnivores	46								46
Horses		9	11			23	44		87
Pigs	1.213	493	10	100		44	152	3.594	5.606
Goats	3	10				23	86		122
Sheep	499	166	26	11		24	111	974	1.811
Bovine cattle	317	397	33	17		41	38	585	1.428
Other ungulates								19	19
Primates:									
a) Prosimians (Lemuridae)									
b) Gibbons + Pongidae	31								31
c) Other Cercopi-thecidae (Ceboidae)	53	245		47		183	41		569
Other Mammals									
Quail	1.359								1.359
Hens, chickens	8.512	4.333	325			114	540	38.884	52.708
Other Birds	304	524				30	17	40	915
Reptiles	30								30
Amphibians	270						1.937		2.207
Fish	91.855	13		1.937	69		881	639.173	733.928
Other animals	400								400
TOTAL	218.252	504.415	23.029	25.788	21.149	27.331	10.845	685.058	1.515.867

TABLE 2A: NUMBER OF ANIMALS USED IN EXPERIMENTS FOR STUDIES ON HUMAN AND ANIMAL DISEASES
BELGIUM 1996

CATEGORIES Species	Human cardiovascular diseases	Human respiratory diseases	Human nervous and mental disorders	Human cancer (excluding evaluations of carcinogenic hazards)	Other human diseases	Animal diseases	TOTAL
Mice	8.697	5.621	53.811	33.395	215.399	14.399	331.322
Rats	14.194	4.263	46.903	6.611	83.551	295	155.817
Guinea-Pigs	1.355	3.083	2.144	2	30.711	1.442	38.737
Hamsters	168	157			232	2.283	2.840
Gerbils			5.371	2.690	716	2.049	10.826
Other Rodents					1.204		1.204
Rabbits	693	807	130	180	1.788	459	4.057
Cats			9		40	104	153
Dogs	470	80	16	4	162	384	1.116
Ferrets					16		16
Other Carnivores			23			23	46
Horses						20	20
Pigs	454	10			25	760	1.249
Goats						3	3
Sheep	82				75	177	334
Bovine cattle						713	713
Other ungulates							0
Primates: a) Prosimians (Lemuridae) b) Gibbons + Pongidae c) Other Cercopithecidae (Ceboidae)			10		407		417
Other Mammals							0
Quail					220		220
Hens, chickens					6	4.740	4.746
Other Birds					103	592	695
Reptiles							0
Amphibians							0
Fish			10			555	565
Other animals							0
TOTAL	26.113	14.021	108.427	42.882	334.655	28.998	555.096

TABLE 2B: NUMBER OF ANIMALS USED IN EXPERIMENTS FOR STUDIES ON HUMAN AND ANIMAL DISEASES
BELGIUM 1996

Categories Regulatory requirements	Human cardiovascular diseases	Human respiratory diseases	Human nervous and mental disorders	Human cancer (excluding evaluations of carcinogenic hazards)	Other human diseases	Animal diseases	TOTAL
National regulations only	580		256	1.919	2.129	4.213	9.097
EU legislation	72			1.800	107	12.131	14.110
Other international legislation							0
Any combination of above	200		2.527	4.835	114.348	465	122.375
No regulatory requirements	28.028	11.328	104.699	34.393	211.624	11.835	401.907
TOTAL	28.880	11.328	107.482	42.947	328.208	28.644	547.489

TABLE 3A: NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS
BELGIUM 1996

Types of tests / Species	Acute (14 days) and sub-acute (28 days) toxicity, inhalation, oral and dermal			Skin irritation	Skin sensitisation	Eye irritation	Sub-chronic and chronic toxicity (more than 28 days)				Reproductive toxicity	Toxicity to water	Other	TOTAL
	LD50 LC50	Other lethal methods	Non lethal clinical signs methods				Sub-chronic and chronic toxicity	Carcinogenicity	Developmental toxicity	Mutagenicity				
Mice	600	426	1.599				647			1.084		13.310	1.913	19.579
Rats	24	1.029	3.734				1.959	3.257	1.009	122	1.255		4.322	16.711
Guinea-Pigs		60	32		42							4.370	363	4.867
Hamsters			166					58						224
Gerbils														0
Other Rodents														0
Rabbits		100	493	73	4	14	196		250			609	1.273	3.012
Cats														0
Dogs		21	587				277						23	908
Ferrets														0
Other Carnivores														0
Horses														0
Pigs			46										4	50
Goats														0
Sheep													11	11
Bovine cattle														0
Other ungulates														0
Primates: a) *Prosimians* (Lemuridae)														
b) Gibbons + Pongidae														
c) Other Cercopithecidae (Cebоidae)		4	3				40					187		234
Other Mammals														0
Quail														0
Hens, chickens														0
Other Birds														0
Reptiles														0
Amphibians														0
Fish		600					600					438		1.638
Other animals														0
TOTAL	624	2.240	6.660	73	46	14	3.719	3.315	1.259	1.206	1.255	18.914	7.909	47.234

TABLE 3B: NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS
BELGIUM 1996

Safety evaluations of / Species	products or appliances for human medicine and dentistry and veterinary medicine	products used or intended to be used mainly in agriculture	products used or intended to be used mainly in industry	products used or intended to be used mainly in the household	products used or intended to be used mainly as cosmetics or toiletries	products used or intended to be used mainly as additives in food for human consumption	products used or intended to be used mainly as additives in food for animal consumption	Tobacco products	Potential contaminants in the general environment which do not appear in other columns	Other toxicological or safety evaluations	TOTAL
Mice	22.436		605							7	23.048
Rats	15.375	24	22			79	409	520		372	16.801
Guinea-Pigs	4.891										4.891
Hamsters	46		136		58						240
Gerbils											0
Other Rodents											0
Rabbits	3.137										3.137
Cats											0
Dogs	925										925
Ferrets											0
Other Carnivores											0
Horses											0
Pigs	100										100
Goats											0
Sheep	11										11
Bovine cattle	17										17
Other ungulates											0
Primates: a) Prosimians (Lemuridae) b) Gibbons + Pongidae c) Other Cercopithecidae (Ceboidae)	234										234
Other Mammals											0
Quail											0
Hens, chickens											0
Other Birds	20										20
Reptiles											0
Amphibians											0
Fish	422	1.277							288		1.987
Other animals											0
TOTAL	47.614	1.301	763	0	58	79	409	520	288	379	51.411

TABLE 3C: NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS
BELGIUM 1996

Safety evaluations of / Species	products or appliances for human medicine and dentistry and veterinary medicine	products used or intended to be used mainly in agriculture	products used or intended to be used mainly in industry	products used or intended to be used mainly in the household	products used or intended to be used mainly as cosmetics or toiletries	products used or intended to be used mainly as additives in food for human consumption	products used or intended to be used mainly as additives in food for animal consumption	Tobacco products	Potential contaminents in the general environment which do not appear in other columns	Other toxicological or safety evaluations	TOTAL
LD50 LC50	600	624									1.224
Other lethal methods	1.658										1.658
Non lethal clinical signs methods	7.232	14	522								7.768
Skin irritation	73										73
Skin sensitisation	46										46
Eye irritation	14										14
Sub-chronic and chronic toxicity	2.550	600						520		49	3.719
Carcinogenicity	3.178				58	79					3.315
Developmental toxicity	850						409				1.259
Mutagenicity	965		241								1.206
Reproductive toxicity	1.255										1.255
Toxicity to water									238		238
Other	26.475	77								332	26.884
TOTAL	44.896	1.315	763	0	58	79	409	520	238	381	48.659

TABLE 3D: NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS
BELGIUM 1996

Types of tests / Regulatory requirements	Acute (14 days) and sub-acute (28 days) toxicity, inhalation, oral and dermal			Skin irritation	Skin sensitisation	Eye irritation	Sub-chronic and chronic toxicity (more than 28 days)				Reproductive toxicity	Toxicity to water	Other	TOTAL
	LD50 LC50	Other lethal methods	Non lethal clinical signs methods				Sub-chronic and chronic toxicity	Carcinogenicity	Developmental toxicity	Mutagenicity				
National regulations	600		18				649						31	1.298
EU legislation	624		19	7	4	3						6.006		6.663
Other international legislation		72	20									100	1.204	1.396
Any combination of above		1.518	5.147	66	42	11	2.550	3.257	850	1.206	1.255		19.086	34.988
No regulatory requirements		50	1.474				520		409	58		188	1.631	4.330
TOTAL	1.224	1.640	6.678	73	46	14	3.719	3.257	1.259	1.264	1.255	6.294	21.952	48.675

TABLE 4. NUMBER OF ANIMALS USED FOR THE MAINTENANCE AND PRODUCTION OF BIOLOGICAL MATERIAL BELGIUM 1996

Type of biological material Species	Production of neoplasm	Serums, vaccines, monoclonal and polyclonal antibodies	Production of infectious agents	Production of mutants and transgenic organisms	Production of other biological material	TOTAL
Mice	439	15151	2201	1732	811	20334
Rats	16	196	767		870	1849
Guinea-Pigs		438	33		193	664
Hamsters			574		1	575
Gerbils			49			49
Other Rodents			70			70
Rabbits	12	3416	14		126	3568
Cats						0
Dogs						0
Ferrets						0
Other Carnivores						0
Horses		1	4		22	27
Pigs		18			26	44
Goats	2	20	3			25
Sheep	6	6	10		33	55
Bovine cattle	58		54		6	118
Other ungulates						0
Primates: a) Prosimians (Lemuridae) b) Gibbons + Pongidae c) Other Cercopithecidae (Ceboidae)		174			9	183
Other Mammals						0
Quail						0
Hens, chickens		248	175		41	464
Other Birds			6		24	30
Reptiles						0
Amphibians						0
Fish	8463					8463
Other animals						0
TOTAL	8996	19668	3960	1732	2162	36518

DENMARK

Comments made by Danish authority

In addition to the tables 1 to 9 presented below, the Danish authority provided additional tables ensuring the comparability with the national tables previously used. A *caveat* is made about the comparison of data from one year to another and on the differences in what is recorded.

When comparing figures from before and after 1994, please note that the scope of the law on animal experiments was extended in 1994 to cover some mildly distressing tests, as the pain, suffering or fear caused by a needle being inserted into the animal's body is now regarded as the threshold for an activity to be covered by the rules for animal experiments. Activities involving pain, suffering or fear of this level or a higher level are regarded as animal experiments. This may have led to an increase in figures across the groups, but in particular it has led to an increase in the proportion of fish included in the total. Following an interpretation by the Ministry of Justice Ruling in a letter of 28 April 1997, however, **a major part** of fish (which are marked in connection with fishing tests) will be excluded from the statistics from 1997.

More detailed comments are made on the use of animals:

The figures show that a number of assumptions expressed by the public on the use of animals in experiments are inaccurate. Around 32% of the animals used have been involved in experiments in the field of basic biological research. A similar number have been used in connection with testing and developing medicines and medical products for humans and animals. 4% of the animals have been used in production and quality tests on medicines and medical products, and 5% have been used in toxicological tests. Almost 60% of the animals have been used in experiments carried out by industry, in particular by the pharmaceuticals industry. These tests are usually carried out in accordance with the legal requirements to carry out production and quality tests on new products or products already on the market. The number of animals used for production and quality tests other than those required by law is modest.

It is interesting to note that around half the animals used in tests relating to illnesses in humans and animals (a total of 175,113) have been used in studies into nervous and mental illnesses. Only 15% have been used in studies into illnesses in animals. The large number used in studies into nervous and mental illnesses is due to the fact that this is a very important field for the large Danish pharmaceuticals industry. It is surprising to note, however, that only just over 10% of animals used in studies into illnesses have been used in cancer research.

A modest number of animals (a total of 17,277 or around 5%) have been used in toxicological tests - rather fewer than anticipated. The number of animals used in the two potentially distressing toxicological tests, skin and eye irritation (so-called Draize tests) was 255 and 79 animals respectively, in particular rabbits, i.e. a very modest number, not least in the light of aspects of the public debate on animal experiments. The number of pigs used (6,281) continues to rise, and more than half are used in basic

biological research. A modest number of pigs (360) have been used in toxicological tests. It must be assumed that they have replaced the use of dogs in this connection.

More than 75% of the animals used in toxicological tests have been involved in tests on medicines for humans and animals. The other animals have mainly been used in tests on industrial chemicals, cosmetics and food and animal feed additives. A total of 692 animals, 202 rats and 490 guinea-pigs, have been used in toxicological tests on cosmetics. This corresponds to 0.2% of all the animals used in experiments.

The guinea-pigs have been used in tests for skin allergies, whereas the rats have been used in subacute and subchronic toxicological tests.

Of the 248 dogs used, half were used in toxicological tests, and the rest in basic biological research and in testing and developing medicines.

169 cats were used in 1996, in types of tests which could not be carried out on other species. A considerable number were used to develop feline vaccines.

Statistical data submitted

The annual report on the statistics on experimental animals used in Denmark in 1996 has been submitted by "Dyreforsøgstilsynet" (± *Inspection of experimental animals*).

The format of Danish data for 1996 follows exactly the preceding tables of the Commission (see Introduction).

Table 1	Number of animals used in experiments for selected purposes (purposes versus species)
Table 2	Number of animals used in experiments for studies on human and animal diseases (main categories versus species)
Table 3	Number of animals used in production and quality control of products and apparatus for human medicine and dentistry and veterinary medicine (regulatory requirements versus species)
Table 4	Number of animals used in toxicological and other safety evaluations (products versus species)
Table 5	Number of animals used in toxicological and other safety evaluations (regulatory requirements versus species)
Table 6	Number of animals used in toxicological and other safety evaluations (types of tests versus species)
Table 7	Number of animals used in toxicological and other safety evaluations (types of tests versus products)
Table 8	Number of animals used in toxicological and other safety evaluations (types of tests versus regulatory requirements)
Table 9	Number of animals used in relation with their place of origin (origin versus species)

TABLE 1 :
NUMBER OF ANIMALS USED IN EXPERIMENTS FOR SELECTED PURPOSES
DENMARK 1996

1.1 Species:	1.2 Biological studies of a fundamental nature	1.3 Research and development of products and apparatus for human medicine and dentistry	1.4 Production and quality control of products and apparatus for human medicine and dentistry	1.5 Research and development of products and apparatus for veterinary medicine	1.6 Production and quality control of products and apparatus for veterinary medicine	1.7 Toxicological and other safety evaluation [including safety evaluation of products and appliances for human medicine and dentistry and veterinary medicine]	1.8 Diagnosis of disease	1.9 Education and training	1.10 Other	1.11 Total
1.a. Mice	56.606	73.775	30.681	2.455	1.097	6.662	16.875	539	5.567	194.257
1.b. Rats	23.227	35.829	22.856	0	5.462	3.786	692	626	207	92.685
1.c. Guinea-Pigs	204	1.733	5.302	9	754	3.302	540	22	41	11.907
1.d. Hamsters	219	5	0	0	0	0	0	0	0	224
1.e. Other Rodents	170	331	0	0	0	0	0	0	0	501
1.f. Rabbits	453	1.619	2.288	33	7	1.035	2.020	93	391	7.939
1.g. Cats	65	14	15	22	0	0	2	0	51	169
1.h. Dogs	24	78	0	0	0	128	0	18	0	248
1.i. Ferrets	0	0	0	0	0	0	0	0	0	0
1.j. Other Carnivores	1.076	0	0	197	0	0	20	0	0	1.293
1.k. Horses	2	0	0	2	0	0	5	11	2	22
1.l. Pigs	3.407	598	3	506	345	360	452	591	19	6.281
1.m Goats	6	9	0	0	0	4	54	0	6	79
1.n. Sheep	49	0	0	0	30	0	11	0	0	90
1.o. Bovine cattle	365	3	0	3	114	0	27	35	9	556
1.p. Prosimians	0	0	0	0	0	0	0	0	0	0
1.q. New World Monkeys	0	0	0	0	0	0	0	0	0	0
1.r. Old World Monkeys	14	0	4	0	0	0	0	0	0	18
1.s. Apes	0	0	0	0	0	0	0	0	0	0
1.t. Other Mammals	6	0	0	0	0	0	0	0	0	6
1.u. Quail	0	0	0	0	0	0	0	0	0	0
1.v. Other Birds	8.792	0	0	0	0	0	484	0	71	9.347
1.w. Reptiles	0	0	0	0	0	0	0	0	0	0
1.x. Amphibians	450	6	0	0	0	0	50	0	0	506
1.y. Fish	16.701	0	0	1.047	0	2.000	4.350	0	0	24.098
1.z. TOTAL	111.836	114.000	61.149	4.274	7.809	17.277	25.582	1.935	6.364	350.226

TABLE 2 :
NUMBER OF ANIMALS USED IN EXPERIMENTS FOR STUDIES ON HUMAN AND ANIMAL DISEASES
DENMARK 1996

2.1 Species:	2.2 Human cardiovascular diseases	2.3 Human respiratory diseases	2.4 Human nervous and mental disorders	2.5 Human cancer (excluding evaluations of carcinogenic hazards)	2.6 Other human diseases	2.7 Animal diseases	2.8 Total
2.a. Mice	666	414	65.070	18.510	19.439	19.672	123.771
2.b. Rats	2.460	702	24.492	1.394	10.804	35	39.887
2.c. Guinea-Pigs	0	489	200	0	1.024	621	2.334
2.d. Hamsters	0	0	0	0	32	0	32
2.e. Other Rodents	0	0	331	0	0	0	331
2.f. Rabbits	1.297	34	0	4	361	163	1.859
2.g. Cats	1	0	34	0	44	24	103
2.h. Dogs	0	0	23	0	46	0	69
2.i. Ferrets	0	0	0	0	0	0	0
2.j. Other Carnivores	0	0	0	0	0	263	263
2.k. Horses	0	0	0	0	0	0	0
2.l. Pigs	274	51	7	10	429	1.817	2.588
2.m Goats	2	0	0	0	7	0	9
2.n. Sheep	0	0	0	0	18	12	30
2.o. Bovine cattle	0	0	0	3	0	211	214
2.p. Prosimians	0	0	0	0	0	0	0
2.q. New World Monkeys	0	0	0	0	0	0	0
2.r. Old World Monkeys	0	0	0	0	12	0	12
2.s. Apes	0	0	0	0	0	0	0
2.t. Other Mammals	0	0	0	0	0	0	0
2.u. Quail	0	0	0	0	0	0	0
2.v. Other Birds	0	0	0	0	0	1.214	1.214
2.w. Reptiles	0	0	0	0	0	0	0
2.x. Amphibians	0	0	0	0	0	0	0
2.y. Fish	0	0	0	0	0	2.397	2.397
2.z. TOTAL	4.700	1.690	90.157	19.921	32.216	26.429	175.113

TABLE 3:
NUMBER OF ANIMALS USED IN PRODUCTION AND QUALITY CONTROL OF PRODUCTS AND APPARATUS FOR HUMAN MEDICINE AND DENTISTRY AND VETERINARY MEDICINE
DENMARK 1996

3.1. Species:	3.2. National regulations only	3.3. EU and EP regulations only	3.4. EU third party regulations only	3.5. Non-EU third party regulations only	3.6. Any combination of 3.2 / 3.3 / 3.4 / 3.5	3.7. No regulatory requirements	3.8. Total
3.a. Mice	824	97	0	8.471	22.196	190	31.778
3.b. Rats	24	5.796	0	64	22.434	0	28.318
3.c. Guinea-Pigs	726	0	0	1.385	3.218	727	6.056
3.d. Hamsters	0	0	0	0	0	0	0
3.e. Other Rodents	0	0	0	0	0	0	0
3.f. Rabbits	0	29	0	1.412	840	14	2.295
3.g. Cats	2	3	0	10	0	0	15
3.h. Dogs	0	0	0	0	0	0	0
3.i. Ferrets	0	0	0	0	0	0	0
3.j. Other Carnivores	0	0	0	0	0	0	0
3.k. Horses	0	0	0	0	0	0	0
3.l. Pigs	270	0	0	0	38	40	348
3.m Goats	0	0	0	0	0	0	0
3.n. Sheep	0	0	0	0	0	30	30
3.o. Bovine cattle	24	0	0	0	0	90	144
3.p. Prosimians	0	0	0	0	0	0	0
3.q. New World Monkeys	0	0	0	0	0	0	0
3.r. Old World Monkeys	0	0	0	0	0	4	4
3.s. Apes	0	0	0	0	0	0	0
3.t. Other Mammals	0	0	0	0	0	0	0
3.u. Quail	0	0	0	0	0	0	0
3.v. Other Birds	0	0	0	0	0	0	0
3.w. Reptiles	0	0	0	0	0	0	0
3.x. Amphibians	0	0	0	0	0	0	0
3.y. Fish	0	0	0	0	0	0	0
3.z. TOTAL	1.870	5.925	0	11.342	48.726	1.095	68.958

TABLE 4:
NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS
DENMARK 1996

4.1. Species:	4.2. Products/ substances or appliances for human medicine and dentistry	4.3. Products/ substances or appliances for veterinary medicine	4.4. Products/ substances used or intended to be used mainly in agriculture	4.5. Products/ substances used or intended to be used mainly in industry	4.6. Products/ substances used or intended to be used mainly in the household	4.7. Products/ substances used or intended to be used mainly as cosmetics or toiletries	4.8. Products/ substances used or intended to be used mainly as additives in food for human consumption	4.9. Products/ substances used or intended to be used mainly as additives in food for animal consumption	4.10. Tobacco products	4.11. Potential or actual contaminants in the general environment which do not appear in other columns	4.12. Other toxico-logical or safety evaluations	4.13. Total
4.a. Mice	6.022	160	0	22	0	0	25	30	0	0	403	6.662
4.b. Rats	2.301	0	0	563	0	202	201	65	0	0	454	3.786
4.c. Guinea-Pigs	1.577	0	0	220	0	490	0	0	0	0	1.015	3.302
4.d. Hamsters	0	0	0	0	0	0	0	0	0	0	0	0
4.e. Other Rodents	0	0	0	0	0	0	0	0	0	0	0	0
4.f. Rabbits	512	72	0	36	0	0	0	6	0	4	405	1.035
4.g. Cats	0	0	0	0	0	0	0	0	0	0	0	0
4.h. Dogs	128	0	0	0	0	0	0	0	0	0	0	128
4.i. Ferrets	0	0	0	0	0	0	0	0	0	0	0	0
4.j. Other Carnivores	0	0	0	0	0	0	0	0	0	0	0	0
4.k. Horses	0	0	0	0	0	0	0	0	0	0	0	0
4.l. Pigs	352	0	0	0	0	0	0	0	0	0	8	360
4.m Goats	0	0	0	0	0	0	0	0	0	0	4	4
4.n. Sheep	0	0	0	0	0	0	0	0	0	0	0	0
4.o. Bovine cattle	0	0	0	0	0	0	0	0	0	0	0	0
4.p. Prosimians	0	0	0	0	0	0	0	0	0	0	0	0
4.q. New World Monkeys	0	0	0	0	0	0	0	0	0	0	0	0
4.r. Old World Monkeys	0	0	0	0	0	0	0	0	0	0	0	0
4.s. Apes	0	0	0	0	0	0	0	0	0	0	0	0
4.t. Other Mammals	0	0	0	0	0	0	0	0	0	0	0	0
4.u. Quail	0	0	0	0	0	0	0	0	0	0	0	0
4.v. Other Birds	0	0	0	0	0	0	0	0	0	0	0	0
4.w. Reptiles	0	0	0	0	0	0	0	0	0	0	0	0
4.x. Amphibians	0	0	0	0	0	0	0	0	0	0	0	0
4.y. Fish	0	2.000	0	0	0	0	0	0	0	0	0	2.000
4.z. TOTAL	10.982	2.232	0	841	0	692	226	101	0	4	2.289	17.277

TABLE 5:
NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS
DENMARK 1996

5.1. Species:	5.2. National regulations only	5.3. EU and EP regulations only	5.4. EU third party regulations only	5.5. Non-EU third party regulations only	5.6. Any combination of 5.2 / 5.3 / 5.4 / 5.5	5.7. No regulatory requirements	5.8. Total
5.a. Mice	3.444	838	70	416	1.541	369	6.678
5.b. Rats	48	1.131	0	1.004	985	602	3.770
5.c. Guinea-Pigs	30	660	25	1.549	758	280	3.302
5.d. Hamsters	0	0	0	0	0	0	0
5.e. Other Rodents	0	0	0	0	0	0	0
5.f. Rabbits	0	192	10	426	234	173	1.035
5.g. Cats	0	0	0	0	0	0	0
5.h. Dogs	0	0	0	128	0	0	128
5.i. Ferrets	0	0	0	0	0	0	0
5.j. Other Carnivores	0	0	0	0	0	0	0
5.k. Horses	0	0	0	0	0	0	0
5.l. Pigs	0	39	0	300	21	0	360
5.m Goats	0	0	0	0	0	4	4
5.n. Sheep	0	0	0	0	0	0	0
5.o. Bovine cattle	0	0	0	0	0	0	0
5.p. Prosimians	0	0	0	0	0	0	0
5.q. New World Monkeys	0	0	0	0	0	0	0
5.r. Old World Monkeys	0	0	0	0	0	0	0
5.s. Apes	0	0	0	0	0	0	0
5.t. Other Mammals	0	0	0	0	0	0	0
5.u. Quail	0	0	0	0	0	0	0
5.v. Other Birds	0	0	0	0	0	0	0
5.w. Reptiles	0	0	0	0	0	0	0
5.x. Amphibians	0	0	0	0	0	0	0
5.y. Fish	0	0	0	0	0	2.000	2.000
5.z. TOTAL	3.522	2.860	105	3.823	3.539	3.428	17.277

TABLE 6:
NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS
DENMARK 1996

6.1. Species:	6.2. Acute and sub-acute toxicity testing methods (including limit test)			6.3. Skin irrita-tion	6.4. Skin sensiti-sation	6.5. Eye irrita-tion	6.6. Sub-chronic and chronic toxicity				6.7. Reproductive toxicity	6.8. Toxicity to aquatic vertebrates not included in other columns	6.9. Other	6.10. Total
	6.2.1 LD50, LC50	6.2.2 Other lethal methods	6.2.3 Non lethal clinical signs methods				6.6.1 Sub-chronic and chronic toxicity	6.6.2 Carcino-genicity	6.6.3 Develop-mental toxicity	6.6.4 Muta-genicity				
6.a. Mice	116	3.454	1.946	0	0	0	158	0	0	356	0	0	512	6.542
6.b. Rats	53	129	1.431	3	0	0	1.182	0	560	0	295	0	253	3.906
6.c. Guinea-Pigs	0	0	722	45	2.255	0	0	0	0	0	0	0	280	3.302
6.d. Hamsters	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.e. Other Rodents	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.f. Rabbits	0	0	133	207	4	79	8	0	128	0	0	0	476	1.035
6.g. Cats	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.h. Dogs	0	0	2	0	0	0	122	0	0	0	0	0	4	128
6.i. Ferrets	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.j. Other Carnivores	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.k. Horses	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.l. Pigs	0	0	240	0	0	0	44	0	16	0	0	0	60	360
6.m Goats	0	0	0	0	0	0	0	0	0	0	0	0	4	4
6.n. Sheep	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.o. Bovine cattle	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.p. Prosimians	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.q. New World Monkeys	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.r. Old World Monkeys	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.s. Apes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.t. Other Mammals	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.u. Quail	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.v. Other Birds	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.w. Reptiles	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.x. Amphibians	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.y. Fish	0	0	0	0	0	0	0	0	0	0	0	2.000	0	2.000
6.z. TOTAL	169	3.583	4.474	255	2.259	79	1.514	0	704	356	295	2.000	1.589	17.277

TABLE 7:
NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS
DENMARK 1996

7.1. Products:	7.2. Acute and sub-acute toxicity testing methods (including limit test)			7.3. Skin irritation	7.4. Skin sensitisation	7.5. Eye irritation	7.6. Sub-chronic and chronic toxicity				7.7. Reproductive toxicity	7.8. Toxicity to aquatic vertebrates not included in other columns	7.9. Other	7.10. Total
	7.2.1 LD50, LC50	7.2.2 Other lethal methods	7.2.3 Non lethal clinical signs methods				7.6.1 Sub-chronic and chronic toxicity	7.6.2 Carcinogenicity	7.6.3 Developmental toxicity	7.6.4 Mutagenicity				
7.a. Products / substances or appliances for human medicine and dentistry	156	3.573	3.508	44	859	0	1.240	0	381	356	0	0	931	11.048
7.b. Products / substances or appliances for veterinary medicine	0	0	172	0	0	0	0	0	0	0	0	2.000	60	2.232
7.c. Products / substances used or intended to be used mainly in agriculture	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.d. Products / substances used or intended to be used mainly in industry	0	0	174	0	220	0	0	0	272	0	175	0	0	841
7.e. Products / substances used or intended to be used mainly in the household	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.f. Products / substances used or intended to be used mainly as cosmetics or toiletries	0	0	36	0	490	0	166	0	0	0	0	0	0	692
7.g. Products / substances used or intended to be used mainly as additives in food for human consumption	0	0	162	0	0	0	48	0	0	0	0	0	16	226
7.h. Products / substances used or intended to be used mainly as additives in food for animal consumption	0	0	101	0	0	0	0	0	0	0	0	0	0	101
7.i. Tobacco products	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.j. Potential or actual contaminents in the general environment which do not appear in other columns	0	0	0	4	0	0	0	0	0	0	0	0	0	4
7.k. Other toxicological or safety evaluations	13	10	375	186	690	58	60	0	51	0	120	0	570	2.133
7.l. TOTAL	169	3.583	4.528	234	2.259	58	1.514	0	704	356	295	2.000	1.577	17.277

TABLE 8:
NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS
DENMARK 1996

8.1. Regulatory requirements:	8.2. Acute and sub-acute toxicity testing methods (including limit test)			8.3. Skin irritation	8.4. Skin sensitisation	8.5. Eye irritation	8.6. Sub-chronic and chronic toxicity				8.7. Reproductive toxicity	8.8. Toxicity to aquatic vertebrates not included in other columns	8.9. Other	8.10. Total
	8.2.1 LD50, LC50	8.2.2 Other lethal methods	8.2.3 Non lethal clinical signs methods				8.6.1 Sub-chronic and chronic toxicity	8.6.2 Carcinogenicity	8.6.3 Developmental toxicity	8.6.4 Mutagenicity				
8.a. National regulations only	156	3.286	0	0	30	0	0	0	0	0	175	0	50	3.697
8.b. EU and EP regulations only	0	0	860	31	660	21	426	0	597	60	0	0	30	2.685
8.c. EU third party regulations only	0	0	70	8	25	0	0	0	0	0	0	0	2	105
8.d. Non-EU third party regulations only	13	30	1.273	210	1.508	58	482	0	100	0	0	0	149	3.823
8.e. Any combination of 8.a / 8.b / 8.c / 8.d	0	267	1.775	6	36	0	378	0	7	296	0	0	774	3.539
8.f. No regulatory requirements	0	0	508	0	0	0	228	0	0	0	120	2.000	572	3.428
8.g. TOTAL	169	3.583	4.486	255	2.259	79	1.514	0	704	356	295	2.000	1.577	17.277

TABLE 9
NUMBER OF ANIMALS USED IN RELATION WITH THEIR PLACE OF ORIGIN
DENMARK 1996

9.1. Species:	9.2. Animals coming from registered breeding or supplying establishments within the EU	9.3. Animals coming from other sources within the EU	9.4. Anmals coming from non-EU countries which are Parties to Convention ETS 123 of the Council of Europe	9.5. Animals coming from non-EU countries which are not Parties to Convention ETS 123 of the Council of Europe	9.6. Re-used animals	9.7. Total
9.a. Mice	193.101	828	199	124		194.252
9.b. Rats	93.335	241	150	0		92.726
9.c. Guinea-Pigs	11.238	729	0	0		11.967
9.d. Hamsters	224	0	0	0		224
9.e. Rabbits	7.673	68	0	0	165	7.906
9.f. Cats	164	5	0	0	10	179
9.g. Dogs	202	0	34	12	6	254
9.h. Prosimians	0	0	0	0	0	0
9.i. New World Monkeys	0	0	0	0	0	0
9.j. Old World Monkeys	4	0	0	14	0	18
9.k. Apes	0	0	0	0	0	0
9.l. Quail	0	0	0	0		0
9.m TOTAL	304.941	1.871	383	150	181	307.526

ETS 123 Council of Europe Convention of 24 of November 1986 concerning the approximation of the administrative rules of Member States for the protection of animals used for experiments and other scientific purposes with detailed rules in Annex II for housing and care of animals.

GERMANY

Comments made by German authorities

The legal basis for the collection of data is the Regulation of 1 April 1988 on vertebrate animals used in animal experiments. The tables which are added as an annex to this Regulation differ from the tables of the Council of Europe. Consequently the data provided to the Commission do not represent the full extent of the national statistics.

German authorities are also reminding the Commission that they do not collect data concerning the number of animals used for education and training purposes as well as experimental animals used for studies on human and animal diseases (Table 4 of the Council of Europe).

This derives from the reservation expressed by Germany for the ratification of the convention relating to Article 27 (2) b on the number of animals used for medical, education and training purposes also in relation to Article 28 (1) and (2) concerning submission and publication of the data.

The number of vertebrate animals necessary for experiments, which are collected according to the Regulation, has decreased from about 2.4 million to about 1.5 million from 1991 to 1996. This is a reduction of about 37%. In 1996 the number of animals for experiments decreased by more than 8% in comparison to the previous year.

Statistical data submitted

The statistical data of Germany have been submitted by the "Bundesministerium für Ernährung, Landwirtschaft und Forsten" (*Ministry for Food, Agriculture and Forestry*).

The tables of statistics submitted by Germany for 1996 follow essentially the format of the Convention tables for the Council of Europe (ETS 123) (see Introduction).

The following tables have been provided :

Table 1	The numbers, kinds and sources of animals used in procedures
Table 2	The number of animals used in procedures for selected purposes
Table 3	The number of animals used in procedures for selected purposes for the protection of man, animals and the environment by toxicological or safety evaluation (including safety evaluation of products or appliances for human and veterinary medicine)
Table 5	The number of animals used in procedures required by law

Table 1

The numbers, kinds and sources of animals used in procedures during 1996 in Germany

	Total	From [1] breeding or user establ. registered within the Party	From [1] other parties to the Convention	From [1] other sources	Re-used
Mice	729.612				
Rats	415.766				
Guinea pigs	50.059				
Golden hamsters [2]					
Other rodents	23.839				
Rabbits	38.834				11.874
Prosimians	155				0
New World Monkeys [3]					
Old World Monkeys [3]	1.364				256
Apes	0				0
Dogs	4.515				574
Cats	1.010				97
Other carnivores	362				
Horses, donkeys and cross breds	182				
Pigs	9.571				
Goats and sheeps	2.238				
Cattle	2.035				
Other mammals	332				
Quail [4]					
Other birds	94.793				
Reptiles	149				
Amphibians	14.581				
Fish	120.222				
Total	1.509.619				

[1] The Order of 1 August 1988 on the notification of vertebrates used in experiments does not provide the legal basis for collecting information on the sources of animals.

[2] Animals of this specis are counted under "other rodents".

[3] New World and Old World Monkeys are counted together as "other simians".

[4] These Animals are not counted separately, but under "birds".

Table 2

The number of animals used in procedures for selected purposes during 1996 in Germany

			Selected species		
		All species	Rodents and rabbits	Dogs and cats	Primates
1	Biological (including medical) studies of a fundamental nature	308.569	266.606	761	248
2	Research into, development and quality control (including safety evaluation) of products or appliances for human and veterinary medicine	739.948	707.035	3.765	1.127
3	Diagnosis of disease [1]	247.453	198.396	658	204
4	Protection of man, animals and the environment by toxicological or safety evaluation [2]	181.137	57.333	360	12
5	Education and training [3]				
6	Others				

[1] These data refer only to vertebrates used in procedures for research into or testing of methods of diagnosis, preventive or curative treatment.

[2] These data include - in a relatively low proportion - also animals, which have not been used for safety evaluations in the proper sense, but f. ex. for efficacy testing.

[3] The Animal Welfare Act of 1986 does not provide the legal basis to collect statistical information in this field.

Table 3

The number of animals used in procedures for selected purposes for the protection of man, animals and the environment by toxicological or safety evaluation during 1996 in Germany (including safety evaluation of products or appliances for human and veterinary medicine [1])

			Selected species		
		All species	Rodents and rabbits	Dogs and cats	Primates
1	Substances used or intended to be used mainly in agriculture	41.903	23.764	286	0
2	Substances used or intended to be used mainly in households [1]				
3	Substances used or intended to be used mainly as cosmetics or toiletries [1]				
4	Substances used or intended to be used mainly as additives in food for human consumption [1]	58.417	26.648	74	0
5	Substances used or intended to be used mainly in industry which do not appear in rows 1, 2, 3 and 4 [1]				
6	Potential or actual hazards of contaminants in the general environment which do not appear in the other rows	80.817	6.921	0	12
7	Safety evaluation of products or appliances for human or veterinary medicine [1]				

[1] Informations on this aspect are not collected separately.

Table 5

The number of animals used in procedures required by law during 1996 in Germany

				Selected species		
			All species	Rodents and rabbits	Dogs and cats	Primates
1	Party only					
2	Other Parties and other States	Other Parties or member States				
		Other States				
3	Both (1 + 2): Party and other Parties/States		543.380	482.053	3.154	395
4	Total		543.380	482.053	3.154	395

Note: These data refer to statutory testing for notification or authorization of substances or products.

GREECE

Statistical data submitted

The data submitted by Greece for 1996 have been provided by the Υπουργειο Γεωργιας, Γεν. Δ/Νση Κτηνιατρικης (*Ministry of Agriculture, Veterinary*).

The data are presented in the format of the Convention tables for the Council of Europe (ETS 123) (see Introduction) with a little difference regarding the headings of the rows of Table 5 relating to the number of animals used in procedures for regulatory requirements.

Table 1	The numbers, kinds and sources of animals used in procedures
Table 2	The numbers of animals used in procedures for selected purposes
Table 3	The number of animals used in procedures for selected purposes for the protection of man, animals and the environment by toxicological or safety evaluation
Table 4	The number of animals used in procedures concerned with diseases and disorders
Table 5	The number of animals used in procedures required by law

TABLE 1

THE NUMBERS, KINDS AND SOURCES OF ANIMALS USED IN PROCEDURES DURING 1996 IN GREECE

	TOTAL	From breeding or user establ. registered within the Party	From other parties to the Convention	From other sources	Re-used
Mice (Mus musculatus)	9.689	9.689			
Rats (Rattus norvegicus)	5.523	5.323	200		
Guinea pigs (Cavia porcellus)	1280	1.280			
Golden hamsters (Mesocricetus auratus)					
Other rodents (other Rodentia)					
Rabbits (Oryctolagus cuniculus)	599	599			55
Prosimians (Prosimia)					
New World Monkeys (Ceboidea)					
Old World Monkeys (Cercopithecoidea)	2		2		
Apes (Hominoidea)					
Dogs (Canis familiaris)	2	2			
Cats (Felix catus)					
Other carnivores (other Carnivora)					
Horses, donkeys and cross breds (Equidae)					
Pigs (Sus)	30	30			
Goats & Sheeps (Capra & Ovis)	96	96			
Cattle (Bos)					
Other mammals (other Mammalia)					
Quail (Coturnix coturnix)					
Other birds (other Aves)	129	129			
Reptiles (Reptilia)					
Amphibians (Amphibia)	1470	1470			
Fish (Pisces)	460	460			
TOTAL	19280	19.078	202		55

TABLE 2

THE NUMBER OF ANIMALS USED IN PROCEDURES FOR SELECTED PURPOSES DURING 1996 IN GREECE

			SELECTED SPECIES		
		ALL SPECIES	Rodents and rabbits	Dogs and cats	Primates
1	Biological (including medical) studies of a fundamental nature	2.773	2.574		2
2	Research into, development and quality control (not including safety evaluation) of products or appliances for human and veterinary medicine	165	165		
3	Diagnosis of disease	11.402	11.341		
4	Protection of man, animals and the environment by toxicological or safety evaluation (including safety evaluation of products or appliances for human and veterinary medicine)	1.724	1.724		
5	Education and training	1.631	951	2	
6	Others	1585	336		

TABLE 3

THE NUMBER OF ANIMALS USED IN PROCEDURES FOR SELECTED PURPOSES FOR THE PROTECTION OF MAN, ANIMALS AND THE ENVIRONMENT BY TOXICOLOGICAL OR SAFETY EVALUATION DURING 1996 IN GREECE

			SELECTED SPECIES		
		ALL SPECIES	Rodents and rabbits	Dogs and cats	Primates
1	Substances used or intended to be used mainly in agriculture	608	608		
2	Substances used or intended to be used mainly in households				
3	Substances used or intended to be used mainly as cosmetics or toiletries				
4	Substances used or intended to be used mainly as additives in food for human consumption				
5	Substances used or intended to be used mainly in industry which do not appear in rows 1, 2, 3 and 4				
6	Potential or actual hazards of contaminants in the general environment which do not appear in the other rows	3	3		
7	Safety evaluation of products or appliances for human or veterinary medicine	1.113	1.113		

TABLE 4

THE NUMBER OF ANIMALS USED IN PROCEDURES CONCERNED WITH DISEASES AND DISORDERS DURING 1996 IN GREECE

			SELECTED SPECIES		
		ALL SPECIES	Rodents and rabbits	Dogs and cats	Primates
1	Human cancer (excluding evaluations of carcinogenic hazards)	664	664		
2	Cardiovascular human diseases	2.657	2.657		
3	Nervous and mental human disorders	798	798		
4	Other human diseases	6.577	6.577		
5	Animal diseases	706	645		

TABLE 5

THE NUMBER OF ANIMALS USED IN PROCEDURES REQUIRED BY LAW DURING 1996 IN GREECE

			SELECTED SPECIES		
		ALL SPECIES	Rodents and rabbits	Dogs and cats	Primates
1	National legislation	600	600		
2	European legislation	25	25		
3	Other Parties legislation	20	20		
4	National, European and other Parties legislation (1 + 2)	76	76		
5	TOTAL	721	721		

SPAIN

Statistical data submitted

The statistical data for 1996 sent by Spain have been provided by the "Ministerio de Agricultura, Pesca y Alimentación, Dirección General de Sanidad de la Producción Agraria, Subdirección General de Sanidad Animal (*Ministry of Agriculture, Fishing and Food, Directorate General of Agrarian Production Health, Subdirectorate General of Animal Health*).

The statistical data follow essentially the Convention tables for the Council of Europe (ETS 123) (see Introduction).

Table 1	The numbers, kinds of animals used in procedures
Table 2	The numbers of animals used in procedures for selected purposes
Table 3	The number of animals used in procedures for selected purposes for the protection of man, animals and the environment by toxicological or safety evaluation
Table 4	The number of animals used in procedures concerned with diseases and disorders
Table 5	The number of animals used in procedures required by law

TABLE 1

THE NUMBER AND KINDS OF ANIMALS USED IN PROCEDURES DURING 1996 IN SPAIN

Mice (*Mus musculus*)	231.949
Rats (*Rattus norvegicus*)	192.848
Guinea pigs (*cavia porcellus*)	26.824
Other rodents (other *Rodentia*)	1.428
Rabbits (*Oryctolagus cuniculus*)	28.901
Apes (*Hominoidea*)	–
Other Monkeys (*cercopithecoidea* and *Ceboidea*)	53
Prosimians (*Prosimia*)	–
Dogs (*Canis familiaris*)	712
Cats (*Felix catus*)	88
Other carnivores (*other Carnívora*)	12
Horses, donkeys and cross breds (*Equidae*)	10
Pigs (*Sus*)	3.031
Goats & Sheeps (*Capra and Ovis*)	2.032
Cattle (*Bos*)	53
Other mammals (other *Mamalia*)	70
Birds (*Aves*)	17.736
Reptiles (*Reptilia*)	15
Amphibians (*Amphibia*)	60
Fish (*Piscis*)	1.015
TOTAL	**506.837**

(5)

TABLE 2

THE NUMBER OF ANIMALS USED IN PROCEDURES FOR SELECTED PURPOSES DURING 1996 IN SPAIN

Biological (including medical) studies of a fundamental nature	.....
Research into, development and quality control (including safety evaluation) of products or appliances for human and veterinary medicine	.....
Diagnosis of disease	.....
Protection of man, animals and the environment by toxicological or other safety evaluations	.....
Education and training	.....

All species	78.828	244.164	9.482	4.329	13.755

Selected species

Rodents and rabbits	76.441	237.919	8.004	4.024	11.351
Dogs and cats	168	14	11	—	38
Primates	22	—	—	—	—

TABLE 3

THE NUMBER OF ANIMALS USED FOR SELECTED PURPOSES FOR THE PROTECTION OF MAN, ANIMALS AND THE ENVIRONMENT BY TOXICOLOGICAL OR OTHER SAFETY EVALUATIONS DURING 1996 IN SPAIN

Further classification of item 4 of Table 2	
Substances used or intended to be used mainly in agriculture	
Substances used or intended to be used mainly in industry	
Substances used or intended to be used mainly in households	
Substances used or intended to be used mainly as cosmetics or toiletries	
Substances used or intended to be used mainly as additives in food for human consumption	
Potential or actual hazards of contaminants in the general environment	

All species	101	746	—	1.126	1.767	1.235

Selected species

Rodents and rabbits	101	441	—	1.126	1.235
Dogs and cats	—	—	—	—	—
Primates	—	—	—	—	—

TABLE 4

THE NUMBER OF ANIMALS USED IN PROCEDURES CONCERNED WITH DISEASES AND DISORDERS DURING 1996 IN SPAIN

Cancer (excluding evaluations of carcinogenic hazards)	
Cardiovascular diseases	
Nervous and mental disorders	
Other human diseases and animal diseases	

All species	5.259	9.570	40.719	94.413

Selected species

Rodents and rabbits	4.259	8.316	38.675	88.291
Dogs and cats	85	87	44	206
Primates	—	—	—	31

Note:

When a procedure covers cancer under any item from 2 to 4, the cancer classification should take precedence.

TABLE 5

THE NUMBER OF ANIMALS USED IN PROCEDURES REQUIRED BY LAW DURING 1996 IN SPAIN

	Party only	Other parties only	Both
All species			

Selected species

Rodents and rabbits			
Dogs and cats			
Primates			

FRANCE

Comments made by French authorities

In compliance with Articles 13 and 26 of Directive 86/609/EEC of 24 November 1986, France has decided to carry out a statistical survey on the use of vertebrate animals for experimental or other scientific purposes once every three years.

Such surveys have been made in 1990 and in 1993.

Given that no statistical table model was required in the above mentioned Directive, the European Commission has requested from the Member States to comply with the tables of Annex B to the European Convention (ETS 123) on the protection of vertebrate animals used for experimental purposes, adopted by the Committee of Ministers of the Council of Europe on the 31 May 1985.

Since 1993, the Commission and the majority of the Member States' authorities considered that is was appropriate to detail data collected and to create standardised set of statistical tables. To this end, a working group was created which has met several times.

A preliminary agreement on an harmonised system of tables was obtained by the Member States in April 1997.

France committed herself to comply with the new harmonised structure for this second report of the Commission on the use of laboratory animals. The English version of the standardised tables was sent to the Member States in May 1997, but the French version was only available in October 1997. In order to provide the most recent and meaningful data, and with the agreement of the Commission, the collection of the data concerned the year 1997.

It is reminded that the euthanasia of animals by "human" methods in order to obtain tissues, cells and organic liquids is not considered as an experiment within the meaning of the Directive, thus they are not reported in the tables presented.

Finally it will be noted that in certain tables, the totals calculated along the rows and in columns may be slightly inferior to the data appearing in the columns "TOTAL" of the same tables.

The discrepancies observed are explained by the fact that certain reporting institutions have not split the data for animals which they have indicated directly in the column "TOTAL" of these tables.

Statistical data submitted

The statistical data have been submitted by the "Ministère de l'Education Nationale, de la Recherche et de la Technologie" (*Ministry of National Education, Research and Technology*).

The data reported concern the year 1997 and are presented in the EU table format (see Introduction).

The following tables are available :

Table 1	Number of animals used in relation with their place of origin (origin versus species)
Table 2	Number of animals used in experiments for selected purposes (purpose versus species)
Table 3	Number of animals used in toxicological and other safety evaluations (products versus species)
Table 4	Number of animals used in experiments for studies on human and animal diseases (main categories versus species)
Table 5	Number of animals used in production and quality control of products and devices for human medicine and dentistry and for veterinary medicine (regulatory requirements versus species)
Table 6	Number of animals used in toxicological and other safety evaluations (regulatory requirements versus species)
Table 7	Number of animals used in toxicological and other safety evaluations (types of tests versus species)
Table 8	Number of animals used in toxicological and other safety evaluations (types of tests versus products)

FRANCE 1997

TABLE 1: NUMBER OF ANIMALS USED IN RELATION TO THEIR PLACE OF ORIGIN

Origin versus species

1.1 Species	1.2 Total	1.3 Animals coming from registered breeding or supplying establishments within the reporting country	1.4 Animals coming from elsewhere in the EC	1.5 Animals coming from Member Countries of the Council of Europe which are parties to the Convention ETS 123 (excluding EC Member States)	1.6 Animals coming from other origins	1.7 Re-used animals
1.a. Mice (*Mus musculus*)	1 787 200	1 760 000	4 676	1 361	21 163	
1.b. Rats (*Rattus norvegicus*)	432 739	412 404	2 305	2 891	15 139	
1.c. Guinea-Pigs (*Cavia porcellus*)	102 208	98 380	3 505	53	270	
1.d. Hamsters (*Mesocricetus*)	19 342	18 876	300	9	157	
1.e. Other Rodents (other *Rodentia*)	6 142					
1.f. Rabbits (*Oryctolagus cuniculus*)	63 727	65 449	1 032	20	134	2 908
1.g. Cats (*Felis catus*)	1 990	887	831	415	83	227
1.h. Dogs (*Canis familiaris*)	4 290	2 564	86	364	1 458	183
1.i. Ferrets (*Mustela putorius furo*)	82	68			13	
1.j. Other Carnivores (other *Carnivora*)	183					
1.k. Horses, donkeys and cross breds (*Equidae*)	2 174					
1.l. Pigs (*Sus*)	9 927					
1.m. Goats (*Capra*)	776					
1.n. Sheep (*Ovis*)	3 541					
1.o. Cattle (*Bos*)	1 636					
1.p. Prosimians (*Prosimia*)	82	82				
1.q. New World Monkeys (*Ceboidea*)	88		88			
1.r. Old World Monkeys (*Cercopithecoidea*)	2 452	355		17	223	146
1.s. Apes (*Hominoidea*)	0					
1.t. Other Mammals (other *Mammalia*)	67					
1.u. Quail (*Coturnix coturnix*)	1 907	1 656			251	
1.v. Other birds (other *Aves*)	65 745					
1.w. Reptiles (*Reptilia*)	48					
1.x. Amphibians (*Amphibia*)	14 403					
1.y. Fish (*Pisces*)	88 573					
1.z. TOTAL	2 609 322					

Note 1: **Column 1.5 concerns only those Member Countries of the Council of Europe which, at the beginning of the reporting period, are Parties to the Convention ETS 123. Thus an updated list of those countries has to be used when filling in this column.**

Note 2: **Only the white boxes need to be completed.**

Note 3: **The number of re-used animals in column 1.7 should be excluded from the total in the column 1.2**

TABLE 2: NUMBER OF ANIMALS USED IN EXPERIMENTS FOR SELECTED PURPOSES

Purpose versus species

2.1 Species	2.2 Biological studies of a fundamental nature	2.3 Research and development of products and devices for human medicine and dentistry and for veterinary medicine (excluding *toxicological and* other safety evaluations counted in column 2.6)	2.4 Production and quality control of products and devices for human medicine and dentistry	2.5 Production and quality control of products and devices for veterinary medicine	2.6 Toxicological and other safety evaluations (including safety evaluation of products and devices for human *medicine* and dentistry and for veterinary medicine)	2.7 Diagnosis of disease	2.8 Education and training	2.9 Other	2.10 Total
2.a. Mice	261 440	658 059	642 840	71 771	92 888	34 537	16 754	8 911	1 787 200
2.b. Rats	100 410	211 728	35 864	2 167	52 421	1 438	25 013	3 698	432 739
2.c. Guinea-Pigs	3 023	33 125	52 041	1 790	11 962	42	218	7	102 208
2.d. Hamsters	7 249	4 640	893	5 537	1 001	10	7	3	19 342
2.e. Other Rodents	276	4 713	25	117	826	8		177	6 142
2.f. Rabbits	5 789	9 732	35 251	890	8 240	1 975	1 058	792	63 727
2.g. Cats	84	912	94	761	130		7		1 990
2.h. Dogs	118	1 961	41	542	1 517		111		4 290
2.i. Ferrets	8	32	25	15					82
2.j. Other Carnivores	84	51	28	5	5		6	3	183
2.k. Horses, donkeys and cross breds	47	193	408	76	11	35	1 400	4	2 174
2.l. Pigs	1 308	2 677	103	1 667	201	314	697	2 959	9 927
2.m. Goats	468	15	8	19	15	10	25	216	776
2.n. Sheep	1 438	495	201	193	50	304	181	679	3 541
2.o. Cattle	178	891	22	434	19	58	23	10	1 636
2.p. Prosimians	82								82
2.q. New World Monkeys		88							88
2.r. Old World Monkeys	278	120	1 523		494		22	13	2 452
2.s. Apes									0
2.t. Other Mammals	61	3							67
2.u. Quail	1 839	17					48		1 907
2.v. Other birds	18 622	11 572	12 385	18 057	2 446	2 154	505	4	65 745
2.w. Reptiles	39	5							48
2.x. Amphibians	1 409	181	96	17	16	8	12 666	10	14 403
2.y. Fish	6 007	51 728	22 491	3 975	1 467	315	1 218	1 372	88 573
2.z. TOTAL	410 257	992 938	804 343	108 033	173 709	41 216	59 962	18 864	2 609 322

TABLE 3: NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS

Products versus species

3.1 Species	3.2 Products/ substances or devices for human medicine and dentistry and for veterinary medicine	3.3 Products/ substances used or intended to be used mainly in agriculture	3.4 Products/ substances used or inteded to be used mainly in industry	3.5 Products/ substances used or intended to be used mainly in the household	3.6 Products/ substances used or intended to be used mainly as cosmetics or toiletries	3.7 Products/ substances used or intended to be used mainly as additives in food for human consumption	3.8 Products/ substances used or intended to be used mainly as additives in food for animal consumption	3.9 Potential or actual contaminents in the general environment which do not appear in other columns	3.10 Other toxicological or safety evaluations	3.11 Total
3.a. Mice	90 849	8	8	14	158	614	8	31	1 197	92 888
3.b. Rats	47 355	697	275	5	1 317	325	5	142	2 300	52 421
3.c. Guinea-Pigs	8 743	611	147		1 301	53			1 107	11 962
3.d. Hamsters	579				25	397				1 001
3.e. Other Rodents	826									826
3.f. Rabbits	5 206	89	136	29	2 191	51	79	29	430	8 240
3.g. Cats	116								5	130
3.h. Dogs	1 396		5						115	1 517
3.i. Ferrets										0
3.j. Other Carnivores	4									5
3.k. Horses, donkeys and cross breds	10									11
3.l. Pigs	137						34		30	201
3.m. Goats	13									15
3.n. Sheep	47									50
3.o. Cattle	8						11			19
3.p. Prosimians										0
3.q. New World Monkeys										0
3.r. Old World Monkeys	494									494
3.s. Apes										0
3.t. Other Mammals										0
3.u. Quail										0
3.v. Other birds	641						1 471	333		2 446
3.w. Reptiles										0
3.x. Amphibians	14									16
3.y. Fish	177	118			4			181	978	1 467
3.z. TOTAL	156 616	1 525	576	52	5 001	1 444	1 612	719	6 164	173 709

TABLE 4: NUMBER OF ANIMALS USED IN EXPERIMENTS FOR STUDIES ON HUMAN AND ANIMAL DISEASES

Main categories versus species

4.1 Species	4.2 Human cardiovascular diseases	4.3 Human nervous and mental disorders	4.4 Human cancer (excluding evaluations of carcinogenic hazards or risks)	4.5 Other human diseases	4.6 Studies specific to animal diseases	4.7 Total
4.a. Mice	27 170	344 227	141 911	392 680	48 047	954 036
4.b. Rats	57 234	136 021	14 181	98 753	7 386	313 576
4.c. Guinea-Pigs	6 660	14 368	1 040	11 296	2 826	36 190
4.d. Hamsters	2 587	678	198	5 568	2 868	11 899
4.e. Other Rodents	18	4 416	30	376	156	4 997
4.f. Rabbits	4 303	1 670	489	6 828	4 206	17 496
4.g. Cats	10	59	17	80	829	996
4.h. Dogs	749	80	59	346	845	2 079
4.i. Ferrets	5	7	19	6	3	40
4.j. Other Carnivores	8	47	14	48	18	135
4.k. Horses, donkeys and cross breds	13	71	21	76	94	275
4.l. Pigs	966	146	65	429	2 693	4 299
4.m. Goats	12	70	21	76	314	493
4.n. Sheep	125	269	79	429	1 335	2 237
4.o. Cattle	18	102	30	111	865	1 127
4.p. Prosimians	5	28	8	30	11	82
4.q. New World Monkeys		88				88
4.r. Old World Monkeys	5	117	13	249	14	398
4.s. Apes						0
4.t. Other Mammals	4	22	6	24	8	64
4.u. Quail	110	623	183	702	238	1 856
4.v. Other birds	267	1 524	445	1 826	28 285	32 348
4.w. Reptiles	3	15	4	16	6	44
4.x. Amphibians	73	606	152	609	158	1 598
4.y. Fish	338	1 913	563	2 081	53 155	58 050
4.z. TOTAL	100 683	507 167	159 548	522 645	154 360	1 444 403

TABLE 5: NUMBER OF ANIMALS USED IN PRODUCTION AND QUALITY CONTROL OF PRODUCTS AND DEVICES FOR HUMAN MEDICINE AND DENTISTRY AND FOR VETERINARY MEDICINE

Regulatory requirements versus species

5.1 Species	5.2 National legislation specific to a single EC Member State 1)	5.3 EC legislation including European Pharmacopoeia (requirements)	5.4 Member Country of Council of Europe (but not EC) legislation 2)	5.5 Other legislation	5.6 Any combination of 5.2/ 5.3/ 5.4/ 5.5	5.7 No regulatory requirements	5.8 Total
5.a. Mice	37 725	453 511	814	10 264	175 053	37 243	714 611
5.b. Rats	8 411	15 276	28	3 325	9 101	1 889	38 031
5.c. Guinea-Pigs	52	43 316		604	9 636	223	53 831
5.d. Hamsters	632	5 479		86	12	220	6 430
5.e. Other Rodents	11	77		4	41	7	142
5.f. Rabbits	3 280	21 047	32	9 171	2 053	558	36 141
5.g. Cats		605		7	109	132	855
5.h. Dogs		388			28	164	583
5.i. Ferrets		38					40
5.j. Other Carnivores	3	18			9		33
5.k. Horses, donkeys and cross breds	124	233	3	10	96	17	484
5.l. Pigs	23	1 208		6	56	476	1 770
5.m. Goats		14			8		27
5.n. Sheep	21	288		6	67	10	394
5.o. Cattle		444			8		456
5.p. Prosimians							0
5.q. New World Monkeys							0
5.r. Old World Monkeys		1 523					1 523
5.s. Apes							0
5.t. Other Mammals							0
5.u. Quail							0
5.v. Other birds	3	26 006			11	4 420	30 442
5.w. Reptiles							0
5.x. Amphibians	9	61		3	33	6	113
5.y. Fish	115	13 388	14	43	12 834	72	26 466
5.z. TOTAL	50 418	582 924	902	23 534	209 158	45 440	912 376

Examples:
5.2 - France is testing due to a UK (or FR) specific requirement
5.3 - UK is testing according to EC legislation
5.4 - Spain is testing due to a Hungarian requirement
5.5 - Sweden is testing due to a US specific requirement
5.6 - Germany is testing due to a Czech requirement (also an EC requirement)

Note: **columns 5.2 - 5.5 refer to the legislation imposing that the test be carried out and not to the body which has issued the actual test method, guideline or protocol.**
Example: a test required by French legislation and carried out in Belgium according to an ISO protocol must be coded as a national (FR) legislative requirement and be entered into column 5.2 in the tables submitted by Belgium.

Footnotes:
1) EC Member States: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom

2) Member Countries of Council of Europe (non-EC): Albania, Andorra, Bulgaria, Croatia, Cyprus, Czech Rep., Estonia, Hungary, Iceland, Latvia, Liechtenstein, Lithuania, Malta, Moldova, Norway, Poland, Romania, Russia, San Marino, Slovakia, Slovenia, Switzerland, 'the former Yugoslav Rep. of Macedonia', Turkey, Ukraine

TABLE 6: NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS

Regulatory requirements versus species

6.1 Species		6.2 National legislation specific to a single EC Member State 1)	6.3 EC legislation including European Pharmacopoeia (requirements)	6.4 Member Country of Council of Europe (but not EC) legislation 2)	6.5 Other legislation	6.6 Any combination of 6.2/ 6.3/ 6.4/ 6.5	6.7 No regulatory requirements	6.8 Total
6.a.	Mice	1 383	38 654	58		35 436	17 356	92 888
6.b.	Rats	762	13 906	834		31 907	5 012	52 421
6.c.	Guinea-Pigs		1 848			7 894	2 219	11 962
6.d.	Hamsters	422	302			277		1 001
6.e.	Other Rodents	8	264	8		413	133	826
6.f.	Rabbits	102	3 665	1 154		2 638	21	8 240
6.g.	Cats		42			65	23	130
6.h.	Dogs		141			1 226		1 517
6.i.	Ferrets							0
6.j.	Other Carnivores						5	5
6.k.	Horses, donkeys and cross breds					4	7	11
6.l.	Pigs		56			33	112	201
6.m.	Goats		5			7		15
6.n.	Sheep		13			5	31	50
6.o.	Cattle		6			10	3	19
6.p.	Prosimians							0
6.q.	New World Monkeys							0
6.r.	Old World Monkeys					494		494
6.s.	Apes							0
6.t.	Other Mammals							0
6.u.	Quail							0
6.v.	Other birds		272			7	2 166	2 446
6.w.	Reptiles							0
6.x.	Amphibians		5			8	3	16
6.y.	Fish	13	403	13		629	409	1 467
6.z.	TOTAL	2 693	59 586	2 072		81 058	28 300	173 709

Examples:
6.2 - France is testing due to a UK (or FR) specific requirement
6.3 - UK is testing according to EC legislation
6.4 - Spain is testing due to a Hungarian requirement
6.5 - Sweden is testing due to a US specific requirement
6.6 - Germany is testing due to a Czech requirement (also an EC requirement)

Note: columns 6.2 - 6.5 refer to the legislation imposing that the test be carried out and not to the body which has issued the actual test method, guideline or protocol.
Example: a test required by French legislation and carried out in Belgium according to an ISO protocol must be coded as a national (FR) legislative requirement and be entered into column 6.2 in the tables submitted by Belgium.

Footnotes:
1) EC Member States: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom

2) Member Countries of Council of Europe (non-EC): Albania, Andorra, Bulgaria, Croatia, Cyprus, Czech Rep., Estonia, Hungary, Iceland, Latvia, Liechtenstein, Lithuania, Malta, Moldova, Norway, Poland, Romania, Russia, San Marino, Slovakia, Slovenia, Switzerland, 'the former Yugoslav Rep. of Macedonia', Turkey, Ukraine

TABLE 7: NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS

Types of tests versus species

7.1 Species		7.2 Acute and sub-acute toxicity testing methods (including limit test)			7.3 Skin irritation	7.4 Skin sensitisation	7.5 Eye irritation	7.6 Sub-chronic and chronic toxicity	7.7 Carcino-genicity	7.8 Develop-mental toxicity	7.9 Muta-genicity	7.10 Repro-ductive toxicity	7.11 Toxicity to aquatic vertebra-tes not included in other columns	7.12 Other	7.13 Total
		7.2.1. LD50, LC50	7.2.2 Other lethal methods	7.2.3 Non lethal clinical signs methods											
7.a.	Mice	6 710	7 573	21 611	126	11 269	126	7 298	3 487	126	2 227	561	126	31 648	92 888
7.b.	Rats	976	4 580	13 320	12	110	12	10 714	477	803	3 197	4 528	12	13 680	52 421
7.c.	Guinea-Pigs	160	200	2 193	55	4 269	40	1 176	120	40	80	160	40	3 426	11 962
7.d.	Hamsters	33		180	25			91				33		639	1 001
7.e.	Other Rodents	39	41	190	8	74	8	132	25	8	17	228	8	48	826
7.f.	Rabbits	5	49	382	1 036	691	1 272	225	30	334	20	5	10	3 742	8 240
7.g.	Cats	7	7	30		12		21	4		3	7		39	130
7.h.	Dogs		9	575		16		705	5		4			183	1 517
7.i.	Ferrets														0
7.j.	Other Carnivores													5	5
7.k.	Horses, donkeys and cross breds													11	11
7.l..	Pigs							50						147	201
7.m.	Goats			3										12	15
7.n.	Sheep			3										42	50
7.o.	Cattle			4				3						12	19
7.p.	Prosimians														0
7.q.	New World Monkeys														0
7.r.	Old World Monkeys		47	28				419							494
7.s.	Apes														0
7.t.	Other Mammals														0
7.u.	Quail														0
7.v.	Other birds			1 208				270						964	2 446
7.w.	Reptiles														0
7.x.	Amphibians			4				3						5	16
7.y.	Fish	12	14	66	3	26	3	104	9	3	6	162	973	86	1 467
7.z.	TOTAL	7 947	12 526	39 801	1 269	16 476	1 465	21 219	4 159	1 318	5 554	5 870	1 173	54 932	173 709

TABLE 8: NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS

Types of tests versus products

8.1 Products	8.2 Acute and sub-acute toxicity testing methods (including limit test)			8.3 Skin irritation	8.4 Skin sensitisation	8.5 Eye irritation	8.6 Sub-chronic and chronic toxicity	8.7 Carcino genicity	8.8 Develop-mental toxicity	8.9 Muta-genicity	8.10 Repro-ductive toxicity	8.11 Toxicity to aquatic vertebra-tes not included in other columns	8.12 Other	8.13 Total
	8.2.1. *LD50, LC50*	8.2.2 *Other lethal methods*	8.2.3 Non lethal clinical signs methods											
8.a. Products/substances or devices for human medicine and dentistry and for veterinary medicine	6 753	11 267	37 208	449	13 088	543	20 587	4 105	1 125	5 518	5 552	185	52 434	158 814
8.b. Products/substances used or intended to be used mainly in agriculture	8	329	229	25	628	37	115	6		4	76		254	1 711
8.c. Products/substances used or intended to be used mainly in industry	194	95	49	53	165	58	58				19		58	749
8.d. Products/substances used or intended to be used mainly in the household														0
8.e. Products/substances used or intended to be used mainly as cosmetics or toiletries	718	30	934	706	1 898	789	173	18	6	12	56	6	290	5 636
8.f. Products/substances used or intended to be used mainly as additives in food for human consumption	8	616	49	11	71	14	58		176				601	1 604
8.g. Products/substances used or intended to be used mainly as additives in food for animal consumption			561		18		110						1 067	1 756
8.h. Potential or actual contaminents in the general environment which do not appear in other columns		10	543				58			4	112	972	84	1 783
8.i. Other toxicological or safety evaluations	250	169	229	22	590	21	60	6			19		141	1 507
8.j. TOTAL	7 947	12 526	39 802	1 269	16 476	1 465	21 219	4 159	1 318	5 554	5 872	1 173	54 929	173 709

IRELAND

Comments made by the authorities of Ireland

Note: If the licence is held alone without Certificate, the animal must be kept in anaesthesia throughout the whole of the experiment, and if the pain is likely to continue after the effect of the anaesthetic has ceased, or if any serious injury has been inflicted on the animal, it must be killed before the anaesthesia has passed off.

Certificate A dispenses altogether from the obligation to use anaesthetic. It will be necessary in cases of simple inoculation calculated to give pain but not involving any surgical operation.

Certificate B dispenses altogether from the obligation to kill the animal before the anaesthetic has passed off, it is necessary therefore whenever the initial operation is to be done under anaesthetics, but the animal is to be allowed to survive.

Certificate C is necessary for experiments illustrating lectures.

Certificate E is never held alone, but is necessary whenever an experiment is to be performed on a Dog or Cat under Certificate A.

Certificate EE is never held alone, but is necessary whenever an experiment is to be performed on a Dog or Cat under Certificate B.

Certificate F is necessary whenever an experiment is to be performed on a Horse, Ass or Mule.

Statistical data submitted

The statistical data of 1996 of Ireland have been provided by the Department of Health.

The data submitted are complying with national tables :

Table I	contains the total number of animals used in 1996 in scientific procedures versus species.
Tables II	contain the number of animals used for selected purposes with additional break down versus species :
– part i	concerns rodents and lagopeds;
– part ii	concerns domestic animals;
– part iii	concerns other domestic animals and fish.
Table III	contains the number of animals used anaesthetized according to certificates or licences versus species.
Table IV	concerns the number of genetically modified animals.
Table V	shows the trends in the number of animals used in scientific procedures in the years 1987 to 1996.

TABLE I

The number and species of live animals used in scientific procedures in year ending 31 December 1996.

IRELAND 1996

Species	Number	% of total
Mice	26,735	34.7
Rats	24,474	31.7
Guinea Pigs	1,531	1.9
Gerbils	118	0.1
Rabbits	2,067	2.7
Dogs	332	0.4
Cats	181	0.2
Pigs	124	0.2
Horses, Donkeys & Crossbreeds	199	0.3
Goats	25	0
Sheep	1,010	1.3
Cattle	1,196	1.5
Birds (Poultry)	94	0.1
Fish	19,021	24.7
TOTAL	**77,107**	

TABLE II - part (i)

IRELAND 1996		Mice	Rats	Guinea pigs	Gerbils	Rabbits
Research, development and quality control of apparatus and products	Used in human medicine and dentistry	17,499	15,873	1,350		1,890
	Used in veterinary medicine	362	82		66	2
Diagnosis of disease		46	16	100	42	4
Study of diseases	Cardio-vascular		757	6		15
	Cancer	2,630		15		1
	Mental	456	3,697			2
	Other	1,810	824	10	10	43
Biological studies of a fundamental nature		1,363	1,823			50
Immunological studies		573	155			57
Toxicological and other safety evaluations	Food	1,740	262			
	Other					
Teaching, learning, education		179	388	50		3
Other		77	597			
TOTAL		26,735	24,474	1,531	118	2,067

TABLE II – part (ii)

IRELAND 1996		Dogs	Cats	Pigs	Horses	Sheep
Research, development and quality control of apparatus and products	Used in human medicine and dentistry	29		64		
	Used in veterinary medicine	273	181	20	127	199
Diagnosis of disease						
Study of diseases	Cardio-vascular	20				
	Cancer					
	Mental					
	Other			26		10
Biological studies of a fundamental nature		7			14	415
Immunological studies					7	16
Toxicological and other safety evalations	Food					
	Other				51	
Teaching, learning, education		3		14		340
Other						30
TOTAL		332	181	124	199	1,010

TABLE II – part (iii)

IRELAND 1996		Cattle	Goats	Poultry	Fish	TOTAL
Research, development and quality control of apparatus and products	Used in human medicine and dentistry					36,705
	Used in veterinary medicine	620		40		1,972
Diagnosis of disease			25	5	150	388
Study of diseases	Cardio-vascular					798
	Cancer					2,646
	Mental					4,155
	Other	7				2,740
Biological studies of a fundamental nature		500		49	31	4,252
Immunological studies		56				864
Toxicological and other safety evalations	Food					2,002
	Other					51
Teaching, learning, education		2				979
Other		11			* 18,840	19,555
TOTAL		1,196	25	94	19,021	77,107

* to assess the level of infestation of sea lice.

TABLE III

IRELAND 1996

SPECIES	1 With anaesthesia (licence only)	2 Without anaesthesia (Certificate A)	3 With anaesthesia but with permitted recovery (Certificate B)	4 Demonstrations (Certificate C)	TOTAL (1 + 2 + 3)
Mice	1,126	24,081	1,528	153	26,735
Rats	18,778	3,499	2,197	261	24,474
Guinea pigs	31	1,500		8	1,531
Gerbils	118				118
Rabbits	167	1,857	43	5	2,067
Dogs	23	280	29	3	332
Cats		181			181
Pigs	22	78	24	2	124
Horses, Donkeys & Crossbreeds		199			199
Sheep	10	523	477	2	1,010
Cattle	48	840	308	2	1,196
Goats		25			25
Poultry		63	31		94
Fish		6	19,015		19,021
TOTAL	**20,323**	**33,132**	**23,652**	**436**	**77,107**

TABLE IV

Genetically modified animals

IRELAND 1996

Species	With genetic defect	Transgenic	Total
Mice	135	522	**657**
Rats	38	0	**38**

TABLE V

The number and species of live animals used in scientific procedures in the years 1987 - 1996

IRELAND	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MICE	5657	21832	19348	23470	17550	15739	20427	18535	21963	26735
RATS	7120	4767	6273	5391	3053	2559	12712	13456	16637	24474
GUINEA PIGS	335	521	557	617	423	464	1812	1400	2665	1531
OTHER RODENTS	999	630	638	192	249	202	630	385	164	118
RABBITS	2521	1444	1469	1801	1112	1586	2050	1945	2484	2067
DOGS	174	146	257	204	45	90	241	245	172	332
CATS	49	33	33	33	17	8	0	60	60	181
HORSES, DONKEYS AND CROSSBREEDS	8	22	233	43	34	21	220	94	29	199
PIGS	693	25	175	109	153	197	288	180	133	124
SHEEP	8515	818	1156	1001	990	836	1085	786	1164	1010
CATTLE	5192	1993	1622	1629	1488	538	2250	2593	1217	1196
OTHER MAMMALS	7	126	116	10	37	38	14	0	12	0
BIRDS	1136	1	168	13	44	41	442	48	86	94
FISH	250	0	110	900	0	150	62	9076	9820	19021
AMPHIBIANS	10	538	0	0	4	0	11	0	0	0
TOTAL	**32666**	**32896**	**32155**	**35413**	**25199**	**22469**	**42244**	**48803**	**56606**	**77157**

ITALY

Statistical data submitted

The statistical data of 1996 of Italy have been submitted by the "Ministero della Sanità" (*Ministry of Health).*

The tables follow essentially the format of the preceding tables of the Commission (see Introduction).

Data of tables 2 and 3 are not available in Italy.

Table 1	number of animals used in experiments for selected purposes (purposes versus species)
Table 4	number of animals used in relation with their place of origin (origin versus species)
Not numbered table	number of animals used in experiments versus legislative requirements in relation to all kinds of study.

Table 1	concerns number of animals used in experiments for selected purposes versus species (this table follows the model of Table 1 of the old Community statistical tables of 1996, but columns 1.3, 1.4, 1.5 and 1.6 have been merged).
Table 4	concerns number of animals used in relation with their place of origin versus species (this table is a mixture of Table 9 of the old statistical tables of the Community of 1996 and of Table 1 of the Council of Europe).
Not numbered table	concerns total number of animals used in experiments versus legislative requirements in relation to all kinds of study.

TABLE 1. NUMBER OF ANIMALS USED IN EXPERIMENTS FOR SELECTED PURPOSES

ITALY, YEAR 1996

Purpose versus species

SPECIES	Biological studies of a fundamental nature	Research, development and quality control of products and apparatus for human medicine and dentistry and veterinary medicine excluding safety evaluation	Diagnosis of disease	Toxicological and other safety evaluations including safety evaluation of products and appliances for human medicine and dentistry and veterinary medicine	Education and training	Other*	TOTAL
Mice	88616	180658	7081	34890	252	67830	379327
Rats	41222	327655	487	24020	1020	201003	595407
Guinea-Pigs	2751	9584	710	3762	—	12118	28925
Hamsters	797	530	1	514	—	—	1842
Other Rodents	26	2311	10	—	—	13	2360
Rabbits	3556	8678	113	8162	—	20541	41070
Cats	240	4	—	—	—	26	270
Dogs	20	301	—	659	—	4	984
Ferrets	—	—	—	—	—	—	—
Other Carnivores	—	—	—	—	—	—	—
Horses, Donkeys and Cross Breeds	—	150	—	—	—	23	173
Pigs	126	196	3	20	60	689	1094
Goats	46	—	—	—	—	24	70
Sheep	111	4	—	—	—	227	342
Cattle	49	8	—	—	—	132	189
Primates							776
a. *Prosimians (Prosimia)*	—	—	—	—	—	—	
b. New World Monkeys (Ceboidea)	—	1	—	12	—	25	
c. Old World Monkeys (Cercopithecoidea)	165	165	—	374	—	34	
d. Apes (Hominoidea)	—	—	—	—	—	—	
Other Mammals	24	—	—	—	—	—	24
Quail	5	—	—	—	—	—	5
Other Birds	2871	1590	36	88	—	4628	9213
Reptiles	644	—	—	—	—	—	644
Amphibians	2918	19	—	—	15	94	3046
Fish	4232	—	—	187	150	916	5485
TOTAL	148419	531854	8441	72708	1497	308327	1071246

* Including animals used for other purposes (quality control, test of pyrogens and production of antibodies).

TABLE 4. NUMBER OF ANIMALS USED IN RELATION WITH THEIR PLACE OF ORIGIN

ITALY, YEAR 1996

Origin versus species

SPECIES	Animals coming from registered breeding or supplying establishments within the EEC	Animals coming from other sources within the EEC	Animals coming from non-EEC countries	TOTAL
Mice	378708	88	531	379327
Rats	594404	775	228	595407
Guinea-Pigs	28925	—	—	28925
Hamsters	1470	—	372	1842
Other Rodents	2344	—	16	2360
Rabbits	38809	2261	—	41070
Cats	256	14	—	270
Dogs	984	—	—	984
Ferrets	—	—	—	—
Other Carnivores	—	—	—	—
Horses, Donkeys and Cross Breeds	173	—	—	173
Pigs	911	183	—	1094
Goats	48	22	—	70
Sheep	275	67	—	342
Cattle	153	36	—	189
Primates				778
a. Prosimians (Prosimia)	—	—	—	
b. New World Monkeys (Ceboidea)	—	—	38	
c. Old World Monkeys (Cercopithecoidea)	215	—	523	
d. Apes (Hominoidea)	—	—	—	
Other Mammals	—	24	—	24
Quail	5	—	—	5
Other Birds	7478	1737	—	9213
Reptiles	173	441	30	644
Amphibians	1525	1402	119	3046
Fish	5044	441	—	5485
TOTAL	1061698	7491	1857	1071246

NUMBER OF ANIMALS USED IN EXPERIMENTS VERSUS LEGISLATIVE REQUIREMENTS IN RELATION TO ALL KINDS OF STUDIES

ITALY 1996

ALL SPECIES	National legislation only	EEC legislation	Other international legislation	Any combination of the above	No legislative requirements	Not Specified Data	TOTAL
TOTAL 1995	74395	121419	—	183969	264277	312234	956294
TOTAL 1996	72303	73706	—	151458	289197	484582	1071246

LUXEMBOURG

Statistical data submitted

The data have been provided by the permanent representation of Luxembourg to the European Union.

The data provided for 1996 are only describing the number of animals used by species. (table entitled « Statistics concerning the use of laboratory animals in Luxembourg »).

STATISTICS CONCERNING THE USE OF LABORATORY ANIMALS IN LUXEMBOURG

	Mice	Rats	Guinea-Pigs	Rabbits
1995	1.000	0	0	2
1996	1.000	0	0	3
1997	2.000	0	0	3

NETHERLANDS

Comments made by Dutch authorities

The data reported for 1996 concern 98 establishments involved in experiments on animals.

There is a decrease in the number of animals (5,552) used for experiments when reporting according to the Dutch registration system also including animals killed without any previous intervention, for example for obtaining primary cell culture).

1995	1996
746,726	741,174

There is an increase in the number of animals (19,586) used for experimental purposes when reporting according to the Council of Europe Convention tables.

1995	1996
632,714	652,300

In 1996 there was an increase in the use of rats, primates, cats, dogs, other carnivores, pigs, goats/sheep, cattle, birds and amphibians.

Statistical data submitted

The statistical data have been submitted by the Veterinary Public Health Inspectorate in the Netherlands.

The statistical data of 1996 are contained in the annual report prepared by the Netherlands.

The statistical tables presented by the Netherlands follow essentially the Convention tables for the Council of Europe (ETS 123) (see Introduction) :

Table 1: the number and species of animals used in procedures

Table 2: number of animals used in procedures for selected purposes

Table 3: number of animals used in procedures concerned with diseases and disorders

Table 4: number of animals used in procedures required by law.

TABLE 1

The number and species of animals used in procedures in the Netherlands in 1996

Mice *(Mus musculus)*	244,799
Rats *(Rattus norvegicus)*	226,659
Guinea pigs *(Cavia porcellus)*	11,956
Other rodents (other *Rodentia*)	7,905
Rabbits *(Oryctolagus cuniculus)*	9,401
Primates *	1,082
Dogs *(Canis familiaris)*	1,243
Cats *(Felis catus)*	444
Other carnivores (other *Carnivora*)	76
Horses, donkeys & cross-bred *(Equidae)*	348
Pigs *(Sus)*	10,164
Goats and sheep *(Capra & Ovis)*	4,327
Cattle *(Bos)*	3,026
Other mammals (other *Mammalia*)	12
Birds *(Aves)*	86,071
Reptiles *(Reptilia)*	6
Amphibians *(Amphibia)*	4,753
Fish *(Pisces)*	40,028
Total	652,300

* Including apes, prosimians and other simians

TABLE 2

Number of animals used in procedures for selected purposes in the Netherlands in 1996

Purposes	All species	Selected species		
		Rodents & Rabbits	Dogs & Cats	Primates
1. Biological (including medical) studies of a fundamental nature	264,082	214,707	499	128
2. Discovery development and quality control (including safety evaluation of products or appliances for human and veterinary medicine	332,689	258,293	896	931
3. Diagnosis of disease	5,916	5,398	12	6
4. Protection of man, animals and their environment by toxicological or other safety evaluations				
a. Substances used or intended to be used mainly in agriculture	10,174	2,331		
b. Substances used or intended to be used mainly in industry	14,778	11,185		
c. Substances used or intended to be used mainly in households	6	6		
d. Substances used or intended to be used mainly as cosmetics or toiletries	313	313		
e. Substances used or intended to be used mainly as additives in food for human consumption	1,955	1,927		7
f. Potential or actual hazards of contaminants in the general environment	14,032	818		
5. Education and training	6,639	4,290	268	

TABLE 3

Number of animals used in procedures concerned with diseases and disorders in the Netherlands in 1996

Diseases and disorders	All species	Selected species		
		Rodents & Rabbits	Dogs & Cats	Primates
1. Cancer (excluding evaluation of carcinogenic hazards)	74,112	74,003	3	35
2. Cardiovascular diseases	23,507	22,741	180	
3. Nervous and mental disorders	9,431	9,237	106	40
4. Other human and animal diseases	59,122	55,095	131	17

TABLE 4

Number of animals used in procedures required by law in the Netherlands in 1996

Diseases and disorders	All species	Selected species		
		Rodents & Rabbits	Dogs & Cats	Primates
1. The Netherlands only	6,145	4,661		130
2. Other countries only	460	24		
3. Both	235,153	184,354	513	104

AUSTRIA

Statistical data submitted

The statistics on the number of animals used in Austria in 1996 were transmitted by the Bundesministerium für Wissenschaft und Verkehr (*Federal Ministry for Science and Transport).* The data are published in the Amtsblatt zur Wiener Zeitung (Official Journal of the Vienna newspaper).

Each ministerial division involved in experimentation with animals is reporting separately the number of animals used per species or group of species with respect to the following selected purposes in accordance with §16 (1) of BGBl Nr 501/1989 :

- total number of experimental animals used per species
- number of experimental animals used for medical or educational purposes per species
- number of experimental animals used for the protection of man or the environment per species
- number of experimental animals used pursuant laws, ordinance or regulatory purposes per species.

The statistical data provided by Austria to the Commission are directly taken from the Official Journal of the Vienna newspaper and do not fit into any of the formats currently used for the presentation of the data i.e. Council of Europe Convention (ETS123) or Community proposals. The translation of the Official Journal is presented below.

OFFICIAL JOURNAL OF THE No 142, Sunday 22 June 1997

"WIENER ZEITUNG" NEWSPAPER

Notice pursuant to § 16(2) Animal Experimentation Act,

Federal Law Gazette No 501/1989

Pursuant to § 16(2) Animal Experimentation Act, Federal Law Gazette No 501/1989, the Federal Ministers with competence in each case have to prepare statistics on the species and number of experimental animals used, classified in accordance with § 16(1) Animal Experimentation Act [i.e. by (a) numbers and species of all experimental animals used; (b) numbers and species of experimental animals used for medical or training purposes; (c) numbers and species of experimental animals used for protection of human beings or the environment and (d) numbers and species of experimental animals used pursuant to laws and ordinances or pursuant to judicial order]; such statistics have to be published in the "Official Journal of the Wiener Zeitung" by 30 June each year in the form of joint statistics covering the previous calendar year.

Pursuant to § 16(2) Animal Experimentation Act, Federal Law Gazette No 501/1989, the following statistics on the use of experimental animals in 1996 are published on the basis of the reports made:

I.

Federal Chancellor's Office in veterinary and nutritional matters including food control:

Total number pursuant to § 16(1)(a):

None.

II.

Federal Ministry for Economic Affairs in trade and industry matters:

Total number pursuant to § 16(1)(a):

None.

III.

Federal Ministry for Labour, Health and Social Affairs in health matters:

Total number pursuant to § 16(1)(a):

Rodents (mouse, rat, hamster, guinea pig, etc.): 151 021
Rabbits: 13 848
Dogs: 247
Apes and monkeys: 164 (including 48 chimpanzees)
Agricultural livestock (hens, sheep, goats, pigs, cattle, etc.): 366
Amphibians: 6
Fish: 153

of which:

Pursuant to § 16(1)(b):

Rodents (mouse, rat, hamster, guinea pig, etc.): 10 782
Rabbits: 361
Agricultural livestock (hens, sheep, goats, pigs, cattle, etc.): 105
Amphibians: 6

Pursuant to § 16(1)(c):

Rodents (mouse, rat, hamster, guinea pig, etc.): 19 014
Rabbits: 156
Dogs: 115
Apes and monkeys: 110
Agricultural livestock (hens, sheep, goats, pigs, cattle, etc.): 148
Fish: 153

Pursuant to § 16(1)(d):

Rodents (mouse, rat, hamster, guinea pig, etc.): 121 225
Rabbits: 13 331
Dogs: 132
Apes and monkeys: 54 (including 48 chimpanzees)
Agricultural livestock (hens, sheep, goats, pigs, cattle, etc.): 113

IV.

Federal Ministry for Environment, Youth and the Family in matters concerning environmental protection measures:

Total number pursuant to § 16(1)(a):

Rodents (mice, rats, guinea pigs): 1 441
Rabbits: 160
Fish: 189

All of the abovementioned experimental animals were used in accordance with § 16(1)(d).

V.

Federal Ministry for Agriculture and Forestry in matters of federal scientific institutions for which the Federal Ministry for Agriculture and Forestry has responsibility:

Total number pursuant to § 16(1)(a):

Fish (rainbow trout): 352

All of the abovementioned experimental animals were used in accordance with § 16(1)(d).

VI.

Federal Ministry for Science and Transport in matters of higher education and of the Austrian Academy of Sciences:

Total number pursuant to § 16(1)(a):

Rodents (mouse, rat, hamster, guinea pig, etc.): 30 478
Rabbits: 2 692
Cats: 2
Dogs: 25
Agricultural livestock (hens, sheep, goats, pigs, cattle, etc.): 1 105
Amphibians: 621
Fish: 637
Other animals, i.e. horses, birds: 118

of which:

Pursuant to § 16(1)(b):

Rodents (mouse, rat, hamster, guinea pig, etc.): 23 478
Rabbits: 763
Cats: 2
Dogs: 25
Agricultural livestock (hens, sheep, goats, pigs, cattle, etc.): 1 045
Amphibians: 125
Fish: 637
Other animals, i.e. horses, birds: 118

Pursuant to § 16(1)(c):

Rodents (mice): 5
Agricultural livestock (hens): 60
Amphibians: 496
Fish: 200

Pursuant to § 16(1)(d):

Rodents (mouse, rat, hamster, guinea pig, etc.): 6 995
Rabbits: 1 929

Vienna, 12 June 1997.

For the Federal Minister for Women's Affairs and Consumer Protection:
Dr Bobek

For the Federal Minister for Labour, Health and Social Affairs
Dr Michtner

For the Federal Minister for Economic Affairs
Dr Pöltl

For the Federal Minister for Environment, Youth and the Family
Dr Unterpertinger

For the Federal Minister for Agriculture and Forestry
Dipl.-Ing. Fuhrmann

For the Federal Minister for Science and Transport
Dr Frühauf

PORTUGAL

Statistical data submitted

The statistical data have been submitted by the "Ministério da Agricultura, Desenvolvimentos Rural e das Pescas – Direcção Geral de Veterinária" (*Ministery of Agriculture, of Rural Development and of Fisheries*).

The statistical tables concerning the data collected in 1996 in Portugal follow the preceding tables of the Commission (see Introduction).

Table 1	Number of animals used in experiments for selected purposes (purposes versus species)
Table 2	Number of animals used in experiments for studies on human and animal diseases (main categories versus species)
Table 3	Number of animals used in investigation/experimentation required by legislation (regulatory requirements versus species)
Table 4	Number of animals used in toxicological and other safety evaluations (products versus species)
Table 5	Number of animals used in toxicological and other safety evaluations (regulatory requirements versus species)
Table 6	Number of animals used in toxicological and other safety evaluations (types of tests versus species)
Table 7	Number of animals used in toxicological and other safety evaluations (types of tests versus products)
Table 8	Number of animals used in toxicological and other safety evaluations (types of tests versus regulatory requirements)
Table 9	Number of animals used in relation with their place of origin (origin versus species)

GENERAL DIRECTORATE OF VETERINARY

TABLE 1 – NUMBER OF ANIMALS USED IN EXPERIMENTS FOR SELECTED PURPOSES

PORTUGAL
YEAR 1996

1 Species	2 Biological studies of a fundamental nature	3 Research, development and quality control of products and apparatus for human medicine and dentistry excluding safety evaluations	4 Research, development and quality control of products and apparatus for veterinary medicine excluding safety evaluations	5 Diagnosis of disease	6 Toxicological and other safety evaluations of products and appliances for human medicine and dentistry and veterinary medicine	7 Education and training	8 Other	9 Total
Mice (*Mus musculus*)	9403	628	10923	8271	3626	435	# 1565	34851
Rats (*Rattus norvegicus*)	5014	586			182	875	282	6939
Guinea-Pigs (*Cavia porcellus*)	422	34	1282	816	65	46	425	3090
Hamsters	517							517
Other Rodents (other *Rodentia*)		20			70	10		100
Rabbits	169	12	629	133		101	26	1070
Cats	6					2		8
Dogs		7				29		36
Ferrets								
Other Carnivores								
Horses, donkeys and cross breds (*Equidae*)	1			4			2	7
Pigs (*Sus*)	400		48			356	4	808
Goats (*Capra*)	5					33	17	55
Sheep (*Ovis*)	397	2	89			241	496	1225
Bovine cattle (*Bos*)	346					16		362
Prosimians (*Prosimia*)								
New World Monkeys (*Ceboidea*)								
Old World Monkeys (*Cercopithecoidea*)								
Apes (*Hominoidea*)								
Other Mammals (other *Mammalia*)	5							5
Quail						* 150		150
Other Birds	16		146	11		6		179
Reptiles (*Reptilia*)								
Amphibians (*Amphibia*)	66					12		78
Fish (*Pisces*)					40			40
TOTAL	16767	1289	13117	9235	3983	2312	2817	49520

Remarks : # - 1500 used for obtaining antibodies; * - embryonated eggs

GENERAL DIRECTORATE OF VETERINARY

TABLE 2 – NUMBER OF ANIMALS USED IN EXPERIMENTS FOR STUDIES ON HUMAN AND ANIMAL DISEASES

PORTUGAL
YEAR 1996

1 Species	2 Human cardiovascular diseases	3 Human respiratory diseases	4 Human nervous and mental disorders	5 Human cancer (excluding evaluations of carcinogenic hazards)	6 Other human diseases	7 Animal diseases	8 TOTAL
Mice (*Mus musculus*)				50	6746	3610	10406
Rats (*Rattus norvegicus*)	# 38	60	10		1037		1145
Guinea-Pigs (*Cavia porcellus*)		186			84	328	598
Hamsters					370		370
Other Rodents (other *Rodentia*)							
Rabbits	90	2			183	28	303
Cats	# 30						30
Dogs							
Ferrets							
Other Carnivores							
Horses, donkeys and cross breds (*Equidae*)							
Pigs (*Sus*)	5						5
Goats (*Capra*)							
Sheep (*Ovis*)	16						16
Bovine cattle (*Bos*)							
Prosimians (*Prosimia*)							
New World Monkeys (*Ceboidea*)							
Old World Monkeys (*Cercopithecoidal*)							
Apes (*Hominoidea*)							
Other Mammals (other *Mammalia*)							
Quail							
Other Birds		10				1	11
Reptiles (*Reptilia*)							
Amphibians (*Amphibia*)							
Fish (*Pisces*)							
TOTAL	179	258	10	50	8420	3967	12884

Remarks: # - Studies on central regulation (C.N.S.) of the cardiovascular apparatus, in relation with hypertension.

GENERAL DIRECTORATE OF VETERINARY

TABLE 3 – NUMBER OF ANIMALS USED IN INVESTIGATION/EXPERIMENTATION REQUIRED BY LEGISLATION

PORTUGAL
YEAR 1996

1 Species	2 National regulations	3 Community regulations	4 Third countries legislation	5 Combination	6 No regulatory requirements	7 TOTAL
Mice (*Mus musculus*)	15405	6457		140	2334	24336
Rats (*Rattus norvegicus*)	1563	123		380	146	2212
Guinea-Pigs (*Cavia porcellus*)	1286	4				1290
Hamsters	257					257
Other Rodents (other *Rodentia*)		80			20	100
Rabbits	741	26			15	782
Cats						
Dogs	7					7
Ferrets						
Other Carnivores						
Horses, donkeys and cross breds (*Equidae*)						
Pigs (*Sus*)	64					64
Goats (*Caprni*)						
Sheep (*Ovis*)	123				40	163
Bovine cattle (*Bos*)						
Prosimians (*Prosimia*)						
New World Monkeys (*Ceboidea*)						
Old World Monkeys (*Cercopithecoidal*)						
Apes (*Hominoidea*)						
Other Mammals (other *Mammalia*)						
Quail						
Other Birds	# 146	6				152
Reptiles (*Reptilia*)						
Amphibians (*Amphibia*)						
Fish (*Pisces*)		40				40
TOTAL	19592	6736		520	2555	29403

Remarks: # - 10 doves

GENERAL DIRECTORATE OF VETERINARY

TABLE 4 – NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS

PORTUGAL
YEAR 1996

1 Species	2 Substances for human medicine and dentistry excluding safety evaluation	3 Substances for veterinary medicine excluding safety evaluation	4 Substances used or intended to be used mainly in agriculture	5 Substances used or intended to be used mainly in industry	6 Substances used or intended to be used mainly in household	7 Substances used or intended to be used mainly as cosmetics or toiletries	8 Substances used or intended to be used mainly as additives in food for human consumption	9 Substances used or intended to be used mainly as additives in food for animal consumption	10 Tobacco products	11 Potential or actual contaminents in the general environment which do not appear in other columns	12 Other toxicological or safety evaluations	13 Total
Mice (*Mus musculus*)	641	530	100							121	2365	3757
Rats (*Rattus norvegicus*)	1402		50									1452
Guinea-Pigs (*Cavia porcellus*)											829	829
Hamsters												
Other Rodents (other *Rodentia*)											70	70
Rabbits			15								141	156
Cats												
Dogs												
Ferrets												
Other Carnivores												
Horses, donkeys and cross breds (*Equidae*)												
Pigs (*Sus*)											48	48
Goats (*Capra*)												
Sheep (*Ovis*)											59	59
Bovine cattle (*Bos*)												
Prosimians (*Prosimia*)												
New World Monkeys (*Ceboidea*)												
Old World Monkeys (*Cercopithecoidah*)												
Apes (*Hominoidea*)												
Other Mammals (other *Mammalia*)												
Quail												
Other Birds											# 32	32
Reptiles (*Reptilia*)												
Amphibians (*Amphibia*)												
Fish (*Pisces*)										40		40
TOTAL	2043	530	165							161	3544	6443

Remarks: # - 2 doves

GENERAL DIRECTORATE OF VETERINARY

TABLE 5 – NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS

PORTUGAL
YEAR 1996

1 Species	2 National regulations	3 Community regulations	4 Third countries legislation	5 Combination	6 No regulatory requirements	7 TOTAL
Mice (*Mus musculus*)	6130	3441		20	60	9651
Rats (*Rattus norvegicus*)				12	13	25
Guinea-Pigs (*Cavia porcellus*)	760	4		65		829
Hamsters						
Other Rodents (other *Rodentia*)		70				70
Rabbits	141					141
Cats						
Dogs						
Ferrets						
Other Carnivores						
Horses, donkeys and cross breds (*Equidae*)						
Pigs (*Sus*)	48					48
Goats (*Caprae*)						59
Sheep (*Ovis*)	59					
Bovine cattle (*Bos*)						
Prosimians (*Prosimia*)						
New World Monkeys (*Ceboidea*)						
Old World Monkeys (*Cercopithecoidal*)						
Apes (*Hominoidea*)						
Other Mammals (other *Mammalia*)						
Quail						
Other Birds	# 32					32
Reptiles (*Reptilia*)						
Amphibians (*Amphibia*)						
Fish (*Pisces*)		40				40
TOTAL	7170	3555		97	73	10895

Remarks: # - 2 doves

GENERAL DIRECTORATE OF VETERINARY

TABLE 6 – NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS

PORTUGAL
YEAR 1996

1 Species	2 Acute (14 days) and sub-acute (28 days) toxicity testing methods (including limit test)			3 Skin irritation	4 Skin sensitisation	5 Eye irritation	6 Sub-chronic and chronic toxicity (more than 28 days)				7 Reproductive toxicity	8 Toxicity to aquatic vertebrates not included in other columns	9 Other tests	10 Total
	2.1 LD50 LC50	2.2. Other lethal methods	2.3 Non lethal clinical signs methods				6.1 Sub-chronic toxicity	6.2 Carcinogenicity	6.3 Developmental toxicity	6.4 Mutagenicity				
Mice (*Mus musculus*)	550	1110	20										190	1870
Rats (*Rattus norvegicus*)			25								50			75
Guinea-Pigs (*Cavia porcellus*)													69	69
Hamsters														
Other Rodents (other *Rodentia*)	35										35			70
Rabbits														
Cats														
Dogs														
Ferrets														
Other Carnivores														
Horses, donkeys and cross breds (*Equidae*)														
Pigs (*Sus*)														
Goats (*Capra*)														
Sheep (*Ovis*)														
Bovine cattle (*Bos*)														
Prosimians (*Prosimia*)														
New World Monkeys (*Ceboidea*)														
Old World Monkeys (*Cercopithecoidal*)														
Apes (*Hominoidea*)														
Other Mammals (other *Mammalia*)														
Quail														
Other Birds	15													15
Reptiles (*Reptilia*)														
Amphibians (*Amphibia*)														
Fish (*Pisces*)	40													40
TOTAL	640	1110	45								85		259	2139

TABLE 7 – NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS

PORTUGAL
YEAR 1996

1 Species	2 Acute (14 days) and sub-acute (28 days) toxicity testing methods (including limit test)			3 Skin irri-tation	4 Skin sensiti-sation	5 Eye irri-tation	6 Sub-chronic and chronic toxicity (more than 28 days)				7 Repro-ductive toxicity	8 Toxicity to aquatic vertebrates not included in other columns	9 Other tests
	2.1 LD50 LC50	2.2. Other lethal methods	2.3 Non lethal clinical signs methods				6.1 Sub-chronic toxicity	6.2 Carcino-genicity	6.3 Develop-mental toxicity	6.4 Muta-genicity			
Substances for human medicine and dentistry excluding safety evaluation	20		45										79
Substances for veterinary medicine excluding safety evaluation													
Substances used or intended to be used mainly in agriculture											50		
Substances used or intended to be used mainly in industry													
Substances used or intended to be used mainly in household													
Substances used or intended to be used mainly as cosmetics or toiletries													
Substances used or intended to be used mainly as additives in food for human consumption													
Substances used or intended to be used mainly as additives in food for animal consumption													
Tobacco products													
Potential or actual contaminents in the general environment which do not appear in other columns	35	106									35		15
Other toxicological or safety evaluations												40	70
TOTAL	55	106	45								85	40	164

GENERAL DIRECTORATE OF VETERINARY

TABLE 8 – NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS

PORTUGAL
YEAR 1996

1 Species	2 Acute (14 days) and sub-acute (28 days) toxicity testing methods (including limit test)			3 Skin irri-tation	4 Skin sensiti-sation	5 Eye irri-tation	6 Sub-chronic and chronic toxicity (more than 28 days)				7 Repro-ductive toxicity	8 Toxicity to aquatic vertebrates not included in other columns	9 Other tests	10 Total
	2.1 LD50 LC50	2.2. Other lethal methods	2.3 Non lethal clinical signs methods				6.1 Sub-chronic toxicity	6.2 Carcino-genicity	6.3 Develop-mental toxicity	6.4 Muta-genicity				
National regulations														
European regulations	35	106									35	40	54	270
Third countries legislation														
Combination	20		45										65	130
No regulatory requirements	20		13										40	73
TOTAL	75	106	58								35	40	159	473

GENERAL DIRECTORATE OF VETERINARY

TABLE 9 – NUMBER OF ANIMALS USED IN RELATION WITH THEIR PLACE OF ORIGIN

PORTUGAL
YEAR 1996

1 Species	2 Animals coming from registered breeding or supplying establishments within the EU	3 Animals coming from other sources within the EU	4 Animals coming from non-EU countries	5 TOTAL
Mice (*Mus musculus*)	11470	620		12090
Rats (*Rattus norvegicus*)	5091	786		5877
Guinea-Pigs (*Cavia porcellus*)	334	130		464
Hamsters	687			687
Rabbits	178	46		224
Cats	8			8
Dogs	7			7
Prosimians (*Prosimia*)				
New World Monkeys (*Ceboidea*)				
Old World Monkeys (*Cercopithecoidal*)				
Apes (*Hominoidea*)				
Quail	# 150	# 16		166
TOTAL	17925	1598		19523

FINLAND

Statistical data submitted

The statistical data of 1996 submitted by Finland have been provided by the Ministry of Agriculture and Forestry, Veterinary and Food Department.

The tables of statistics submitted by Finland for 1996 follow essentially the format of the Convention tables for the Council of Europe (ETS 123) (see Introduction).

Table 1	The numbers, kinds and sources of animals used in procedures
Table 2	The number of animals used in procedures for selected purposes
Table 3	The number of animals used in procedures for selected purposes for the protection of man, animals and the environment by toxicological or safety evaluation
Table 4	The number of animals used in procedures concerned with diseases and disorders
Table 5	The number of animals used in procedures required by law

APPENDIX

Finland 1996

TABLES OF APPENDIX B **The numbers, kinds and sources of animals used in procedures during (year) in (Party)**

TABLE 1

	Total	From [1] breeding or user establ. registered within the Party	From other parties to the Convention	From other sources	Re-used
Mice (Mus musculus)	36244	29547	6553	131	
Rats (Rattus norvegicus)	36316	24919	7978	645	
Guinea pigs (Cavia porcellus)	1904	1112	792		
Golden hamsters (Mesocricetus auratus)	40	20	20		
Other rodents (other Rodentia)	719				
Rabbits (Oryctolagus cuniculus)	1536	997	531		58
Prosimians (Prosimia)					
New World Monkeys (Ceboidea)	8	8			
Old World Monkeys (Cercopithecoidea)	9		1		8
Apes (Hominoidea)					
Dogs (Canis familiaris)	97	47	50		
Cats (Felix catus)	5	5			5
Other carnivores (other Carnivora)	146				
Horses, donkeys and cross breds (Equidae)	252				
Pigs (Sus)	488				
Goats & Sheep (Capra & Ovis)	518				
Cattle (Bos)	839				
Other mammals (other Mammalia)	18				
Quail (Coturnix coturnix)					
Other birds (other Aves)	1912				
Reptiles (Reptilia)					
Amphibians (Amphibia)	3167				
Fish (Pisces)	26441				
Total	110659				

[1] Directly or indirectly (see article 21 with the addition of Primates)

TABLE 2

The number of animals used in procedures for selected purposes
during (year) in (Party)

FINLAND 1996

			Selected species		
		All species	Rodents and rabbits	Dogs and cats	Primates
1	Biological (including medical) studies of a fundamental nature	51 190	46 047	41	16
2	Research into, development and quality control (not including safety evaluation) of products or appliances for human and veterinary medicine	45 869	23 657	10	1
3	Diagnosis of disease	1 274	433		
4	Protection of man, animals and the environment by toxicological or safety evaluation (including safety evaluation of products or appliances for human and veterinary medicine)	6 294	2 867	40	
5	Education and training	3 182	2 555	1	
6	Others	203	115		

(8)

TABLE 3

The number of animals used in procedures for selected purposes for the protection of man, animals and the environment by toxicological or safety evaluation during (year) in (Party) (including safety evaluation of products or appliances for human and veterinary medicine)

FINLAND 1996

				Selected species		
			All species	Rodents and rabbits	Dogs and cats	Primates
	1	Substances used or intended to be used mainly[1] in agriculture	1 340	140		
	2	Substances used or intended to be used mainly[1] in households	12	12		
	3	Substances used or intended to be used mainly[1] as cosmetics or toiletries				
	4	Substances used or intended to be used mainly[1] as additives in food for human consumption				
	5	Substances used or intended to be used mainly[1] in industry which do not appear in rows 1, 2, 3 and 4	105	468		
	6	[2]Potential or actual hazards of contaminants in the general environment which do not appear in the other rows	941	286		
	7	Safety evaluation of products or appliances for human or veterinary medicine	11 437	3 397	40	

[1] The primary purpose for which it will be used as envisaged at the time when testing was performed.

[2] When substances belonging to the categories in the other rows in this table require testing as contaminants (e.g. leakage or release leading to the pollution of the environment) this testing should be recorded in row 6.

TABLE 4

The number of animals used in procedures concerned with diseases and disorders[1] during (year) in (Party)

FINLAND 1996

		All species	Selected species		
			Rodents and rabbits	Dogs and cats	Primates
1	Human cancer (excluding evaluations of carcinogenic hazards)	2 153	1 594		8
2	Cardiovascular human diseases	4 116	4 880		
3	Nervous and mental human disorders	4 727	8 109		
4	Other human diseases	12 142	14 460		1
5	Animal diseases	470	244		

Note: When a procedure covers cancer under any item from 2 to 4, the canceer classification should take precedence.

[1] If the type of human disease or disorder is not precisely known, the data should be entered in row 4.

TABLE 5

The number of animals used in procedures required by law during (year) in (Party)

FINLAND 1996

			All species	Selected species		
				Rodents and rabbits	Dogs and cats	Primates
1	Party only		14 409	14 455	50	
2	Other Parties and other States	Other Parties or member States				
		Other States				
3	Both (1 + 2): Party and other Parties/States		3 656	3 316		
4	Total		18 065	17 771	50	

SWEDEN

Comments made by Swedish authorities

Sweden indicated that in tables 7 and 8, the data for sub-acute toxicity testing is counted together with sub-chronic and chronic toxicity testing and *not* with acute testing. This is due to the procedure of collecting the data for 1996. Since the methods used in sub-acute toxicity testing is not reported, Sweden can only distinguish the following for the animals concerned:

Species	Sub-acute toxicity	Sub-chronic and chronic toxicity	Total
Mice	561	81	642
Rats	1,523	1,091	2,614
Rabbits	10	0	10
Cats	0	44	44
Dogs	185	113	298
Total	2,279	1,329	3,608

Statistical data submitted

The statistical data submitted by Sweden were provided by the National Board for Laboratory Animals of the Ministry of Agriculture.

The statistical data for 1996 follow the EU tables of statistics of 1997.

Table 1	Number of animals used in relation with their place of origin (origin versus species)
Table 2	Number of animals used in experiments for selected purposes (purpose versus species)
Table 3	Number of animals used in toxicological and other safety evaluations (products versus species)
Table 4	Number of animals used in experiments for studies on human and animal diseases (main categories versus species)
Table 5	Number of animals used in production and quality control of products and devices for human medicine and dentistry and for veterinary medicine (regulatory requirements versus species)
Table 6	Number of animals used in toxicological and other safety evaluations (regulatory requirements versus species)
Table 7	Number of animals used in toxicological and other safety evaluations (types of tests versus species)
Table 8	Number of animals used in toxicological and other safety evaluations (types of tests versus products)

SWEDEN 1996

TABLE 1: NUMBER OF ANIMALS USED IN RELATION TO THEIR PLACE OF ORIGIN

Origin versus species

1.1 Species	1.2 Total	1.3 Animals coming from registered breeding or supplying establishments within the reporting country	1.4 Animals coming from elsewhere in the EC	1.5 Animals coming from Member Countries of the Council of Europe which are parties to the Convention ETS 123 (excluding EC Member States)	1.6 Animals coming from other origins	1.7 Re-used animals
1.a. Mice (*Mus musculus*)	131 496	86 787	43 137	25	1 547	
1.b. Rats (*Rattus norvegicus*)	118 404	69 724	48 203	200	277	
1.c. Guinea-Pigs (*Cavia porcellus*)	10 807	3 314	7 493	0	0	
1.d. Hamsters (*Mesocricetus*)	551	439	112	0	0	
1.e. Other Rodents (other *Rodentia*)	500					
1.f. Rabbits (*Oryctolagus cuniculus*)	5 164	4 967	197	0	0	104
1.g. Cats (*Felis catus*)	382	382	0	0	0	2
1.h. Dogs (*Canis familiaris*)	695	539	133	23	0	155
1.i. Ferrets (*Mustela putorius furo*)	97	97	0	0	0	1
1.j. Other Carnivores (other *Carnivora*)	92					
1.k. Horses, donkeys and cross breds (*Equidae*)	22					
1.l. Pigs (*Sus*)	2 589					
1.m. Goats (*Capra*)	24					
1.n. Sheep (*Ovis*)	148					
1.o. Cattle (*Bos*)	287					
1.p. Prosimians (*Prosimia*)	0	0	0	0	0	0
1.q. New World Monkeys (*Ceboidea*)	22	22	0	0	0	0
1.r. Old World Monkeys (*Cercopithecoidea*)	24	19	0	0	5	23
1.s. Apes (*Hominoidea*)	0	0	0	0	0	0
1.t. Other Mammals (other *Mammalia*)	41					
1.u. Quail (*Coturnix coturnix*)	0	0	0	0	0	
1.v. Other birds (other *Aves*)	3 178					
1.w. Reptiles (*Reptilia*)	25					
1.x. Amphibians (*Amphibia*)	5 433					
1.y. Fish (*Pisces*)	6 031					
1.z. TOTAL	286 012					

Note: The number of re-used animals in column 1.7 should be excluded from the total in the column 1.2

SWEDEN 1996

TABLE 2: NUMBER OF ANIMALS USED IN EXPERIMENTS FOR SELECTED PURPOSES

Purpose versus species

2.1 Species	2.2 Biological studies of a fundamental nature	2.3 Research and development of products and devices for human medicine and dentistry and for veterinary medicine (excluding toxicological and other safety evaluations counted in column 2.6)	2.4 Production and quality control of products and devices for human medicine and dentistry	2.5 Production and quality control of products and devices for veterinary medicine	2.6 Toxicological and other safety evaluations (including safety evaluation of products and devices for human medicine and dentistry and for veterinary medicine)	2.7 Diagnosis of disease	2.8 Education and training	2.9 Other	2.10 Total
2.a. Mice	50 988	63 809	5 291	4 110	3 993	1 516	1 153	636	131 496
2.b. Rats	66 922	39 488	3 880	0	4 607	1 653	1 751	103	118 404
2.c. Guinea-Pigs	1 530	4 507	2 947	118	1 507	31	43	124	10 807
2.d. Hamsters	374	149	0	0	0	12	16	0	551
2.e. Other Rodents	312	188	0	0	0	0	0	0	500
2.f. Rabbits	1 757	2 295	557	0	196	101	49	209	5 164
2.g. Cats	244	94	0	0	44	0	0	0	382
2.h. Dogs	12	222	0	0	376	3	82	0	695
2.i. Ferrets	94	3	0	0	0	0	0	0	97
2.j. Other Carnivores	92	0	0	0	0	0	0	0	92
2.k. Horses, donkeys and cross breds	4	2	0	4	0	0	0	12	22
2.l. Pigs	1 547	203	0	0	0	220	308	311	2 589
2.m. Goats	15	0	0	0	0	0	0	9	24
2.n. Sheep	22	64	0	0	0	0	3	59	148
2.o. Cattle	115	2	55	0	0	57	6	52	287
2.p. Prosimians	0	0	0	0	0	0	0	0	0
2.q. New World Monkeys	22	0	0	0	0	0	0	0	22
2.r. Old World Monkeys	11	13	0	0	0	0	0	0	24
2.s. Apes	0	0	0	0	0	0	0	0	0
2.t. Other Mammals	41	0	0	0	0	0	0	0	41
2.u. Quail	0	0	0	0	0	0	0	0	0
2.v. Other birds	1 303	722	48	0	0	0	0	1105	3 178
2.w. Reptiles	0	0	0	0	0	0	0	25	25
2.x. Amphibians	433	0	0	0	5000	0	0	0	5 433
2.y. Fish	3 281	0	0	0	2750	0	0	0	6 031
2.z. TOTAL	129 119	111 761	12 778	4 232	18 473	3 593	3 411	2 645	286 012

SWEDEN 1996

TABLE 3: NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS

Products versus species

3.1 Species	3.2 Products/ substances or devices for human medicine and dentistry and for veterinary medicine	3.3 Products/ substances used or intended to be used mainly in agriculture	3.4 Products/ substances used or inteded to be used mainly in industry	3.5 Products/ substances used or intended to be used mainly in the household	3.6 Products/ substances used or intended to be used mainly as cosmetics or toiletries	3.7 Products/ substances used or intended to be used mainly as additives in food for human consumption	3.8 Products/ substances used or intended to be used mainly as additives in food for animal consumption	3.9 Potential or actual contaminents in the general environment which do not appear in other columns	3.10 Other toxicological or safety evaluations	3.11 Total
3.a. Mice	3 246	0	157	0	0	0	157	0	433	3 993
3.b. Rats	3 371	0	0	0	0	0	28	1 208	0	4 607
3.c. Guinea-Pigs	0	0	0	0	0	0	0	1 507	0	1 507
3.d. Hamsters	0	0	0	0	0	0	0	0	0	0
3.e. Other Rodents	0	0	0	0	0	0	0	0	0	0
3.f. Rabbits	196	0	0	0	0	0	0	0	0	196
3.g. Cats	44	0	0	0	0	0	0	0	0	44
3.h. Dogs	376	0	0	0	0	0	0	0	0	376
3.i. Ferrets	0	0	0	0	0	0	0	0	0	0
3.j. Other Carnivores	0	0	0	0	0	0	0	0	0	0
3.k. Horses, donkeys and cross breds	0	0	0	0	0	0	0	0	0	0
3.l. Pigs	0	0	0	0	0	0	0	0	0	0
3.m. Goats	0	0	0	0	0	0	0	0	0	0
3.n. Sheep	0	0	0	0	0	0	0	0	0	0
3.o. Cattle	0	0	0	0	0	0	0	0	0	0
3.p. Prosimians	0	0	0	0	0	0	0	0	0	0
3.q. New World Monkeys	0	0	0	0	0	0	0	0	0	0
3.r. Old World Monkeys	0	0	0	0	0	0	0	0	0	0
3.s. Apes	0	0	0	0	0	0	0	0	0	0
3.t. Other Mammals	0	0	0	0	0	0	0	0	0	0
3.u. Quail	0	0	0	0	0	0	0	0	0	0
3.v. Other birds	0	0	0	0	0	0	0	0	0	0
3.w. Reptiles	0	0	0	0	0	0	0	0	0	0
3.x. Amphibians	0	0	0	0	0	0	0	5 000	0	5 000
3.y. Fish	0	0	130	0	0	0	2 620	0	0	2 750
3.z. TOTAL	7 233	0	287	0	0	0	2 805	7 715	433	18 473

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TABLE 4: NUMBER OF ANIMALS USED IN EXPERIMENTS FOR STUDIES ON HUMAN AND ANIMAL DISEASES

Main categories versus species

4.1 Species		4.2 Human cardiovascular diseases	4.3 Human nervous and mental disorders	4.4 Human cancer (excluding evaluations of carcinogenic hazards or risks)	4.5 Other human diseases	4.6 Studies specific to animal diseases	4.7 Total
4.a.	Mice	4 411	15 432	38 189	56 257	5 689	119 978
4.b.	Rats	7 192	29 191	25 843	42 320	2 658	107 204
4.c.	Guinea-Pigs	499	2 923	0	4 946	92	8 460
4.d.	Hamsters	26	0	18	491	0	535
4.e.	Other Rodents	57	228	21	180	0	486
4.f.	Rabbits	1 004	550	147	2 784	15	4 500
4.g.	Cats	73	62	0	132	60	327
4.h.	Dogs	85	42	2	84	24	237
4.i.	Ferrets	2	94	0	1	0	97
4.j.	Other Carnivores	0	0	0	0	0	0
4.k.	Horses, donkeys and cross breds	0	0	0	0	10	10
4.l.	Pigs	946	18	0	568	66	1 598
4.m.	Goats	1	0	0	0	0	1
4.n.	Sheep	64	0	0	18	7	89
4.o.	Cattle	0	0	0	2	174	176
4.p.	Prosimians	0	0	0	0	0	0
4.q.	New World Monkeys	0	22	0	0	0	22
4.r.	Old World Monkeys	0	11	0	13	0	24
4.s.	Apes	0	0	0	0	0	0
4.t.	Other Mammals	0	0	0	0	0	0
4.u.	Quail	0	0	0	0	0	0
4.v.	Other birds	56	0	0	724	330	1 110
4.w.	Reptiles	0	0	0	0	0	0
4.x.	Amphibians	0	0	0	0	0	0
4.y.	Fish	0	26	0	0	800	826
4.z.	TOTAL	14 416	48 599	64 220	108 520	9 925	245 680

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TABLE 5: NUMBER OF ANIMALS USED IN PRODUCTION AND QUALITY CONTROL OF PRODUCTS AND DEVICES FOR HUMAN MEDICINE AND DENTISTRY AND FOR VETERINARY MEDICINE

Regulatory requirements versus species

5.1 Species	5.2 National legislation specific to a single EC Member State 1)	5.3 EC legislation including European Pharmacopoeia (requirements)	5.4 Member Country of Council of Europe (but not EC) legislation 2)	5.5 Other legislation	5.6 Any combination of 5.2/ 5.3/ 5.4/ 5.5	5.7 No regulatory requirements	5.8 Total
5.a. Mice	0	357	0	0	8 987	57	9 401
5.b. Rats	0	28	0	1 768	2 074	10	3 880
5.c. Guinea-Pigs	0	4	0	0	3 035	26	3 065
5.d. Hamsters	0	0	0	0	0	0	0
5.e. Other Rodents	0	0	0	0	0	0	0
5.f. Rabbits	0	0	0	0	507	50	557
5.g. Cats	0	0	0	0	0	0	0
5.h. Dogs	0	0	0	0	0	0	0
5.i. Ferrets	0	0	0	0	0	0	0
5.j. Other Carnivores	0	0	0	0	0	0	0
5.k. Horses, donkeys and cross breds	0	0	0	0	0	4	4
5.l. Pigs	0	0	0	0	0	0	0
5.m. Goats	0	0	0	0	0	0	0
5.n. Sheep	0	0	0	0	0	0	0
5.o. Cattle	0	0	0	0	0	55	55
5.p. Prosimians	0	0	0	0	0	0	0
5.q. New World Monkeys	0	0	0	0	0	0	0
5.r. Old World Monkeys	0	0	0	0	0	0	0
5.s. Apes	0	0	0	0	0	0	0
5.t. Other Mammals	0	0	0	0	0	0	0
5.u. Quail	0	0	0	0	0	0	0
5.v. Other birds	0	0	0	0	48	0	48
5.w. Reptiles	0	0	0	0	0	0	0
5.x. Amphibians	0	0	0	0	0	0	0
5.y. Fish	0	0	0	0	0	0	0
5.z. TOTAL	0	389	0	1 768	14 651	202	17 010

Footnotes:

1) EC Member States: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom

2) Member Countries of Council of Europe (non-EC): Albania, Andorra, Bulgaria, Croatia, Cyprus, Czech Rep., Estonia, Hungary, Iceland, Latvia, Liechtenstein, Lithuania, Malta, Moldova, Norway, Poland, Romania, Russia, San Marino, Slovakia, Slovenia, Switzerland, 'the former Yugoslav Rep. of Macedonia', Turkey, Ukraine

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TABLE 6: NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS

Regulatory requirements versus species

6.1 Species	6.2 National legislation specific to a single EC Member State 1)	6.3 EC legislation including European Pharmacopoeia (requirements)	6.4 Member Country of Council of Europe (but not EC) legislation 2)	6.5 Other legislation	6.6 Any combination of 6.2/ 6.3/ 6.4/ 6.5	6.7 No regulatory requirements	6.8 Total
6.a. Mice	226	0	0	0	2 917	850	3 993
6.b. Rats	808	20	0	192	3 159	428	4 607
6.c. Guinea-Pigs	252	0	0	0	0	1 255	1 507
6.d. Hamsters	0	0	0	0	0	0	0
6.e. Other Rodents	0	0	0	0	0	0	0
6.f. Rabbits	0	0	0	0	196	0	196
6.g. Cats	0	44	0	0	0	0	44
6.h. Dogs	0	0	0	0	376	0	376
6.i. Ferrets	0	0	0	0	0	0	0
6.j. Other Carnivores	0	0	0	0	0	0	0
6.k. Horses, donkeys and cross breds	0	0	0	0	0	0	0
6.l. Pigs	0	0	0	0	0	0	0
6.m. Goats	0	0	0	0	0	0	0
6.n. Sheep	0	0	0	0	0	0	0
6.o. Cattle	0	0	0	0	0	0	0
6.p. Prosimians	0	0	0	0	0	0	0
6.q. New World Monkeys	0	0	0	0	0	0	0
6.r. Old World Monkeys	0	0	0	0	0	0	0
6.s. Apes	0	0	0	0	0	0	0
6.t. Other Mammals	0	0	0	0	0	0	0
6.u. Quail	0	0	0	0	0	0	0
6.v. Other birds	0	0	0	0	0	0	0
6.w. Reptiles	0	0	0	0	0	0	0
6.x. Amphibians	0	0	0	0	0	5 000	5 000
6.y. Fish	2 020	600	0	0	0	130	2 750
6.z. TOTAL	3 306	664	0	192	6 648	7 663	18 473

Footnotes:

1) EC Member States: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom

2) Member Countries of Council of Europe (non-EC): Albania, Andorra, Bulgaria, Croatia, Cyprus, Czech Rep., Estonia, Hungary, Iceland, Latvia, Liechtenstein, Lithuania, Malta, Moldova, Norway, Poland, Romania, Russia, San Marino, Slovakia, Slovenia, Switzerland, 'the former Yugoslav Rep. of Macedonia', Turkey, Ukraine

TABLE 7: NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS

Types of tests versus species

7.1 Species		7.2 Acute toxicity testing methods (including limit test) * for sub-acute toxicity see 7.6			7.3 Skin irritation	7.4 Skin sensitisation	7.5 Eye irritation	7.6 Sub-chronic and chronic toxicity * including sub-acute toxicity	7.7 Carcinogenicity	7.8 Developmental toxicity	7.9 Mutagenicity	7.10 Reproductive toxicity	7.11 Toxicity to aquatic vertebrates not included in other columns	7.12 Other	7.13 Total
		7.2.1. LD50, LC50	7.2.2 Other lethal methods	7.2.3 Non lethal clinical signs methods											
7.a.	Mice	95	298	1 759	0	433	0	642*	0	0	750	0	0	16	3 993
7.b.	Rats	0	1 202	96	0	0	0	2 614*	0	470	0	123	0	102	4 607
7.c.	Guinea-Pigs	0	252	0	137	1 118	0	0	0	0	0	0	0	0	1 507
7.d.	Hamsters	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.e.	Other Rodents	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.f.	Rabbits	0	0	0	67	0	0	10*	0	119	0	0	0	0	196
7.g.	Cats	0	0	0	0	0	0	44	0	0	0	0	0	0	44
7.h.	Dogs	0	0	18	0	0	0	298*	0	0	0	0	0	60	376
7.i.	Ferrets	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.j.	Other Carnivores	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.k.	Horses, donkeys and cross breds	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.l..	Pigs	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.m.	Goats	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.n.	Sheep	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.o.	Cattle	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.p.	Prosimians	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.q.	New World Monkeys	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.r.	Old World Monkeys	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.s.	Apes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.t.	Other Mammals	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.u.	Quail	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.v.	Other birds	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.w.	Reptiles	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.x.	Amphibians	0	0	0	0	0	0	0	0	0	0	0	5 000	0	5 000
7.y.	Fish	600	0	130	0	0	0	0	0	340	0	0	1 680	0	2 750
7.z.	TOTAL	695	1 752	2 003	204	1 551	0	3 608*	0	929	750	123	6 680	178	18 473

TABLE 8: NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS

Types of tests versus products

8.1 Products	8.2 Acute toxicity testing methods (including limit test) * for sub-acute toxicity see 8.6			8.3 Skin irritation	8.4 Skin sensitisation	8.5 Eye irritation	8.6 Sub-chronic and chronic toxicity * including sub-acute toxicity	8.7 Carcinogenicity	8.8 Developmental toxicity	8.9 Mutagenicity	8.10 Reproductive toxicity	8.11 Toxicity to aquatic vertebrates not included in other columns	8.12 Other	8.13 Total
	8.2.1. LD50, LC50	8.2.2 Other lethal methods	8.2.3 Non lethal clinical signs methods											
8.a. Products/substances or devices for human medicine and dentistry and for veterinary medicine	95	759	1 797	67	0	0	3 040*	0	589	593	115	0	178	7 233
8.b. Products/substances used or intended to be used mainly in agriculture	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8.c. Products/substances used or intended to be used mainly in industry	0	0	130	0	0	0	0	0	0	157	0	0	0	287
8.d. Products/substances used or intended to be used mainly in the household	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8.e. Products/substances used or intended to be used mainly as cosmetics or toiletries	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8.f. Products/substances used or intended to be used mainly as additives in food for human consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8.g. Products/substances used or intended to be used mainly as additives in food for animal consumption	600	0	0	0	0	0	157*	0	340	0	8	1 680	0	2 785
8.h. Potential or actual contaminents in the general environment which do not appear in other columns	0	993	76	137	1 118	0	411*	0	0	0	0	5 000	0	7 735
8.i. Other toxicological or safety evaluations	0	0	0	0	433	0	0	0	0	0	0	0	0	433
8.j. TOTAL	695	1 752	2 003	204	1 551	0	3 608*	0	929	750	123	6 680	178	18473

UNITED KINGDOM

Comments made by United Kingdom authorities

The comments from Great Britain and from Northern Ireland appear below. Most of their conclusions are referring to procedures (the present report is based on the number of animals).

Great Britain

Some 2.65 million animals were used for the first time in procedures started in 1996 (Table 1a). This was 7,800 more than in 1995, reflecting the overall slight rise in the number of procedures started.

General

- 2.7 million scientific procedures were started in 1996, slightly more (0.2 per cent) than in 1995 (figure 1).
- Commercial concerns carried out just under half of them (figure 4), down 2 per cent compared with 1995 (table 23).
- 4 in 5 procedures were carried out on mice or rats (figure 2), the same as in 1995 (table 20).
- Fundamental biological research, or applied studies in human medicine or dentistry, or veterinary medicine accounted for 2.0 million, or 75 per cent of procedures. The remaining procedures were carried out mainly for safety evaluation, and breeding of harmful mutant or genetically manipulated animals (table 1).
- 65 per cent of all procedures (1,767,000) used no anaesthesia (tables 7 and 17), usually because the procedure was considered so minor that anaesthesia was inappropriate. This is the same proportion as in 1995 (table 22).
- 4,400 procedures involved non-human primates, a decrease of about 7 per cent from 1995.
- Five sixths of all primates on which procedures were carried out were obtained from within the UK and just over a quarter from the licensees' own establishments (table 2).
- The number of procedures involving genetically normal animals fell by 87,000 (4 per cent).
- Nearly 234,000 procedures (9 per cent) involved animals with a harmful genetic defect (table 3), over 7,000 more than in 1995.
- Over 300,000 procedures (11 per cent) involved genetically manipulated animals (table 3), about 86,000 more than in 1995.

Studies other than toxicology or other safety or efficacy evaluation

- Just under three quarters of all procedures started in 1996 (just under 2 million) were in this category.

Of these:

- about 505,000 or 25 per cent were for the purpose of pharmaceutical research and development while a further quarter were almost equally divided between immunology and cancer research (table 5);
- just over 60 per cent of non-toxicology procedures used no anaesthesia (table 7);
- just over 40 per cent were for the purposes of production of biological materials or breeding of harmful mutant or genetically manipulated animals (table 8);

Toxicology or other safety or efficacy evaluation

- Just over one quarter of all procedures started in 1996 (720,000) investigated toxicity, or were for evaluating the safety or efficacy of products.

Of these:

- over 40 per cent used mice and about 35 per cent used rats (table 10);
- over 62 per cent were for evaluating the safety and efficacy of pharmaceutical products (table 10);
- 78 per cent were performed to comply with legislation or regulations in force (table 11);
- just over three quarters used no anaesthesia (table 17);
- 2,800 were for testing cosmetics (table 14), up 900 from 1995.

Northern Ireland

The number of animals used for the first time was 13,342. This is in comparison to 10,481 used in 1995 (Table 1a).

Commentary

The main features of the statistics for 1996 were:

(a) The number of scientific procedures started was 15,291, a rise of 2,681 on the previous year (Tables 1, 2 and 3).

(b) The number of animals used for the first time was 13,342. This is in comparison to 10,481 used in 1995 (Table 1a).

(c) The species of animals involved in the largest number of procedures in 1996 were mouse (35 per cent), rat (21 per cent) and domestic fowl (12 per cent). Between 1995 and 1996 there was a fall in the number of procedures on rabbit (down 281) cattle (down 135) and fish (down 106). There was also a fall in pig (down 82), equids (down 47) and goat (down 3). Increases were recorded for mouse (up 2,880) and domestic fowl (up 128). There were no procedures carried out on primates or hamster (Table 1 and 3).

(d) Just under 10,400 procedures started in 1996 used animals acquired from designated establishments in Northern Ireland or from establishments within the United Kingdom. Only 23 procedures used animals from sources outside the European Union and 4,878 procedures used animals not listed in Schedule 2 of the Act (Table 2).

(e) In 1996 171 (1 per cent) of procedures started involved animals with a harmful genetic defect, 29 less than in 1995. The animals concerned were rat (141) and mice (30). There were 2,255 mice and 16 rats involved in transgenic procedures. The majority of procedures started in 1996 (84 per cent) involved normal animals (Table 3).

(f) In 1996 3,216 procedures (28 per cent of the total) were concerned with the immune system; 2,134 (18 per cent) with the nervous system and 1,817 (16 per cent) were aimed at more than one body system. Some 1,490 procedures (13 per cent) were those in which the body system or systems affected were either not predictable or not relevant (Table 4).

(g) Most procedures (74 per cent) were so minor that the use of anaesthesia was not appropriate. About 26 per cent of procedures started in 1996 (7 per cent lower than in 1995) either used anaesthesia with recovery or were procedures in which the anaesthesia was terminal. Only 63 of these procedures, also used a neuromuscular blocking agent (Tables 7 and 16).

(h) Just over 1,900 (15 per cent) of the procedures started in 1996 used a technique identified on the code list to record the procedures as being of particular interest. The more common techniques involved interference with the special senses : sight, hearing, smell or taste, (576) and training stimuli (451) (Table 9).

(i) Of the 15,291 procedures started, only 19 per cent concerned toxicology studies (Tables 10, 11, 12 and 16). The number of animals used in such work was over 1,000, with fish (50 per cent) being the largest numbers used (Table 10a).

(j) The 2,917 procedures involving toxicology were performed in order to comply with the provisions of one of the following Acts/Orders or equivalent overseas legislation: Medicines Act 1968, Health and Safety at Work (Northern Ireland) Order 1978, Agriculture (Poisonous Substances) Act (Northern Ireland) 1954, The Food Safety (Northern Ireland) Order 1991 or other legislation or regulations. Of these procedures 2,171 (74 per cent) were used for pharmaceutical safety (Table 11).

(k) In 1996, 50 per cent of the projects on which procedures were started were based at universities (including medical schools) and they accounted for 70 per cent of the procedures. Projects at government departments accounted for 43 per cent of the projects started, and 23 per cent of procedures. At commercial concerns projects accounted for 5 per cent of projects started and 7 per cent of procedures (Table 17).

(l) Returns were received in respect of 171 project licences in 1996, the same number as in 1995. Some project licence holders would have made two returns for 1996, one relating to the expiring licence and one to the successor licence. A total of 108 licences started procedures in 1996 and 63 (37 per cent) started no procedures (Table 17).

(m) The number of Personal Licencees authorised to carry out regulated procedures under the Act fell to 458, a reduction of 17 on 1995 (Table 19).

Statistical data submitted

The statistical data of the United Kingdom have been presented in 2 annual reports; for Great Britain, the report has been provided by the Home Office and for Northern Ireland, the report has been provided by the Department of Health and Social Services.

The United Kingdom has a very comprehensive set of statistical tables. The following tables have been taken into account for the global compilation of the data in the first part of this report :

Great Britain and Northern Ireland

Table 1a : Animals by species of animal and primary purpose of procedure (Number of animals)

Table 5a : Animals (non-toxicology) by species of animal and field of research (Number of animals)

Table 10a : Animals (toxicology) by species of animal and toxicological purpose (Number of animals)

Table 1a Animals by species of animal and primary purpose of the procedure

Great Britain 1996

Number of animals

Species of animal	Primary purpose of the procedure									Total
	Fundamental biological research	Applied studies -human medicine or dentistry	Applied studies -veterinary medicine	Protection of man, animals or environment	Education	Training	Forensic enquiries	Direct diagnosis	Breeding	
Mammal										
Mouse	494,096	569,042	39,829	26,991	2,533	-	-	14,241	349,658	1,496,390
Rat	211,309	325,774	4,638	101,299	1,390	1,665	8	980	37,027	684,090
Guinea-pig	10,084	62,217	4,176	26,244	207	-	-	290	-	103,218
Hamster	5,845	3,031	797	112	82	-	-	31	-	9,898
Gerbil	4,193	3,129	15	-	4	-	-	-	-	7,341
Other rodent	2,066	174	-	1,306	-	-	-	-	-	3,546
Rabbit	9,744	12,208	1,721	7,448	185	-	34	3,729	28	35,097
Cat	900	254	261	31	22	-	-	-	41	1,509
Dog										
Beagle	123	5,531	303	598	-	-	-	-	-	6,555
Greyound	-	-	-	-	-	-	-	-	-	-
Other including cross-bred dogs	38	10	104	-	-	-	-	-	28	180
Ferret	794	1,394	2	-	20	-	-	34	-	2,244
Other carnivore	2,414	-	-	-	-	-	-	46	-	2,460
Horse, donkey and cross-bred equids	176	36	198	-	10	-	-	376	-	796
Pig	2,367	1,741	1,460	128	2	-	-	165	1,291	7,154
Goat	486	24	37	16	-	-	-	55	-	618
Sheep	7,925	2,999	3,242	-	17	-	2	2,869	-	17,054
Cattle	1,387	28	2,644	32	-	-	8	924	-	5,023
Deer	248	-	2	-	-	-	-	-	-	250
Camelid	-	-	-	-	-	-	-	-	-	-
Other ungulate	-	-	-	-	-	-	-	-	-	-
Primate										
Prosimian	-	-	-	-	-	-	-	-	-	-
New world monkey										
marmoset, tamarin	353	977	-	-	-	-	-	-	-	1,330
Squirrel, owl, spider monkey	14	4	-	-	-	-	-	-	-	18
Other new world monkey	-	-	-	-	-	-	-	-	-	-

Table 1a *(Continued)*

Great Britain 1996

Number of animals

Species of animal	Primary purpose of the procedure									Total
	Fundamental biological research	Applied studies -human medicine or dentistry	Applied studies -veterinary medicine	Protection of man, animals or environment	Education	Training	Forensic enquiries	Direct diagnosis	Breeding	
Old world monkey										
Macaque	110	2,241	-	15	-	-	-	44	-	2,410
Baboon	-	28	-	-	-	-	-	-	-	28
Other Old world monkey	-	-	-	-	-	-	-	-	-	-
Ape										
Gibbon	-	-	-	-	-	-	-	-	-	-
Great ape	-	-	-	-	-	-	-	-	-	-
Other mammal	650	106	6	51	-	-	-	-	-	813
Bird										
Domestic fowl (*Gallus domesticus*)	32,205	964	55,222	932	223	-	-	4,141	551	94,238
Turkey	357	-	2,865	134	-	-	-	35	-	3,391
Quail (*Coturnix coturnix*)	64	-	229	24	-	-	-	-	-	317
Quail (spp,other than *Coturnix coturnix*)	334	-	-	2,987	-	-	-	-	-	3,321
Other bird	7,719	-	780	2,061	-	-	-	66	-	10,626
Reptile										
Any reptilian species	-	-	-	-	-	-	-	-	-	-
Amphibian										
Any amphibian species	10,148	68	-	164	1,923	-	-	-	-	12,303
Fish										
Any fish species	59,263	78	22,227	45,752	13	-	-	3,707	2,768	133,808
Cephalopod										
Octopus vulgaris	-	-	-	-	-	-	-	-	-	-
Total	865,412	992,058	140,758	216,325	6,631	1,665	52	31,733	391,392	2,646,026

Table 5a Animals (non-toxicology) by species of animal and field of research

Great Britain 1996

Number of animals

Species of animal	Field of research												
	Anatomy	Physiology	Biochemistry	Psychology	Pathology	Immunology	Microbiology	Parasitology	Pharmacology	Pharmaceutical R&D	Therapeutics	Clinical medicine	Clinical surgery
Mammal													
Mouse	106,993	32,755	6,435	5,142	11,237	221,926	50,046	40,502	22,999	249,343	21,547	5,350	495
Rat	28,395	60,949	28,798	14,421	7,785	14,214	1,142	3,225	45,238	179,530	778	3,134	3,035
Guinea-pig	57	2,160	301	20	520	1,513	1,879	995	4,466	39,564	485	124	-
Hamster	952	1,968	655	257	-	33	286	1,339	261	2,364	63	-	-
Gerbil	119	247	28	757	40	-	-	1,621	850	3,639	-	-	-
Other rodent	-	15	-	4	-	2	1,508	311	-	119	-	-	-
Rabbit	107	3,050	1,083	68	397	4,481	713	193	2,422	4,342	210	901	375
Cat	30	427	-	-	13	242	12	8	235	184	24	8	-
Dog													
Beagle	-	57	22	-	-	78	-	-	6	904	-	75	27
Greyhound	-	-	-	-	-	-	-	-	-	-	-	-	-
Other including cross-bred dogs	-	-	-	-	8	13	-	-	25	-	-	8	9
Ferret	103	473	-	3	-	18	30	-	479	1,017	-	-	-
Other carnivore	139	87	-	-	-	-	46	22	-	-	-	-	-
Horse, donkey and cross-bred equids	27	66	6	-	28	74	373	52	18	78	-	3	-
Pig	305	542	92	44	174	520	577	137	18	559	1,483	215	244
Goat	-	225	8	-	63	50	4	125	14	3	-	-	13
Sheep	547	2,883	252	159	162	1,828	1,573	1,579	150	2,955	-	562	126
Cattle	7	351	4	-	2	1,308	325	360	70	733	26	-	2
Deer	-	104	-	-	-	-	2	-	-	-	-	-	-
Camelid	-	-	-	-	-	-	-	-	-	-	-	-	-
Other ungulate	-	-	-	-	-	-	-	-	-	-	-	-	-
Primate													
Prosimian	-	-	-	-	-	-	-	-	-	-	-	-	-
New world monkey													
marmoset, tamarin	30	48	18	117	8	35	2	-	80	224	-	28	-
Squirrel, owl, spider monkey	-	9	-	-	-	-	-	5	-	4	-	-	-
Other new world monkey	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 5a *(Continued)*

Great Britain 1996

Number of animals

Species of animal	Field of research													Total
	Dentistry	Genetics	Molecular biology	Cancer research	Nutrition	Zoology	Botany	Animal science	Ecology	Animal welfare	Other	Tobacco	Alcohol	
Mammal														
Mouse	9	32,689	91,812	242,752	1,723	371	75	5,107	261	522	48,583	-	1,468	1,200,142
Rat	271	1,115	7,396	11,923	6,890	16	9	-	-	57	14,790	-	754	433,865
Guinea-pig	-	-	-	560	68	-	-	-	-	129	46	-	-	52,887
Hamster	-	-	-	112	110	161	-	2	-	-	-	-	-	8,563
Gerbil	-	-	-	-	-	-	-	-	-	-	-	-	-	7,301
Other rodent	-	98	-	-	-	207	-	-	-	-	-	-	-	2,264
Rabbit	24	12	220	847	3	-	81	42	15	28	102	-	-	19,716
Cat	-	54	-	-	80	-	-	-	-	-	-	-	-	1,317
Dog														
Beagle	-	-	-	6	-	-	-	-	-	-	-	-	-	1,175
Greyhound	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other including cross-bred dogs	-	28	-	-	89	-	-	-	-	-	-	-	-	180
Ferret	-	-	-	-	-	-	-	-	-	-	-	-	-	2,123
Other carnivore	-	1,308	-	-	-	552	-	18	288	-	-	-	-	2,460
Horse, donkey and cross-bred equids	-	-	-	-	15	-	-	1	-	-	-	-	-	741
Pig	-	311	50	56	151	-	-	48	-	206	44	-	-	5,776
Goat	-	-	1	-	50	-	-	16	-	-	-	-	-	572
Sheep	-	930	-	-	607	-	-	1,467	32	204	16	-	-	16,032
Cattle	-	202	40	58	552	-	-	144	6	89	-	-	-	4,279
Deer	-	69	-	-	40	-	-	-	9	24	-	-	-	248
Camelid	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other ungulate	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Primate														
Prosimian	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New world monkey														
marmoset, tamarin	-	-	-	8	-	-	-	-	-	-	-	-	-	598
Squirrel, owl, spider monkey	-	-	-	-	-	-	-	-	-	-	-	-	-	18
Other new world monkey	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 5a Animals (non-toxicology) by species of animal and field of research *(Continued)*

Great Britain 1996

Number of animals

Species of animal	Field of research												
	Anatomy	Physiology	Biochemistry	Psychology	Pathology	Immunology	Microbiology	Parasitology	Pharmacology	Pharmaceutical R&D	Therapeutics	Clinical medicine	Clinical surgery
Old world monkey													
Macaque	13	66	-	22	-	136	101	-	-	-	-	44	-
Baboon	-	-	-	-	-	28	-	-	-	-	-	-	-
Other old world monkey	-	-	-	-	-	-	-	-	-	-	-	-	-
Other mammal	244	75	-	22	-	12	-	6	-	-	-	-	-
Bird													
Domestic fowl (*Gallus domesticus*)	998	2,982	8,581	3,028	2,858	2,991	12,546	26,095	508	14,036	-	110	-
Turkey	-	79	-	-	-	65	590	420	-	-	594	-	-
Quail (*Coturnix coturnix*)	-	-	-	40	-	-	74	-	24	-	-	-	-
Quail (spp,other than *Coturnix coturnix*)	-	154	-	-	-	-	-	-	-	-	-	-	-
Other bird	20	699	-	550	260	27	492	-	-	-	65	-	-
Reptile													
Any reptilian species	-	-	-	-	-	-	-	-	-	-	-	-	-
Amphibian													
Any amphibian species	2,769	2,652	456	326	120	131	-	355	477	70	-	-	-
Fish													
Any fish species	3,130	15,670	285	4,919	9,445	9,313	4,247	2,565	-	720	7,162	-	-
Total	144,985	126,793	47,024	29,899	33,120	259,038	76,568	79,915	78,340	500,388	32,437	10,562	4,326

Table 5a *(Continued)*

Great Britain 1996 — Number of animals

Species of animal	Field of research													Total
	Dentistry	Genetics	Molecular biology	Cancer research	Nutrition	Zoology	Botany	Animal science	Ecology	Animal welfare	Other	Tobacco	Alcohol	
Old world monkey														
Macaque	-	-	-	-	-	-	-	-	-	-	-	-	-	382
Baboon	-	-	-	-	-	-	-	-	-	-	-	-	-	28
Other old world monkey	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other mammal	-	-	354	-	-	49	-	-	23	-	-	-	-	785
Bird														
Domestic fowl (*Gallus domesticus*)	-	1,304	24	165	4,603	253	-	151	-	856	-	-	-	82,089
Turkey	-	9	-	-	230	-	-	100	-	84	-	-	-	2,171
Quail (*Coturnix coturnix*)	-	-	-	-	-	-	-	-	-	-	-	-	-	136
Quail (spp,other than *Coturnix coturnix*)	-	-	-	-	-	-	-	-	-	180	-	-	-	334
Other bird	-	470	-	-	-	3,000	-	-	1,396	1,201	-	-	-	8,180
Reptile														
Any reptilian species	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amphibian														
Any amphibian species	-	4	254	218	-	48	-	-	4,299	-	-	-	-	12,179
Fish														
Any fish species	-	1,477	10	-	8,313	1,798	-	35	8,634	474	7	-	-	78,202
Total	304	40,080	100,161	256,705	23,524	6,453	165	7,131	14,963	4,054	63,588	-	2,222	1,944,745

Table 10a Animals (toxicology) by species of animal and toxicological purpose

Great Britain 1996 — Number of animals

Species of animal	Toxicology or other safety/efficacy evaluation							
	General safety/efficacy evaluation							
	Pollution	Agriculture	Industry	Household	Food additives	Other foodstuffs	Finished cosmetics	Cosmetics ingredients
Mammal								
Mouse	217	9,592	8,498	296	106	1,432	-	-
Rat	989	38,731	41,752	1,342	1,577	607	34	801
Guinea-pig	-	6,427	16,600	364	52	-	162	1,441
Hamster	6	-	40	-	-	-	-	-
Gerbil	-	-	-	-	-	-	-	-
Other rodent	884	-	-	-	-	-	-	-
Rabbit	-	2,631	4,358	42	38	4	24	172
Cat	-	-	-	-	-	-	-	-
Dog								
Beagle	-	557	11	84	12	-	-	-
Greyound	-	-	-	-	-	-	-	-
Other including cross-bred dogs	-	-	-	-	-	-	-	-
Ferret	-	-	-	-	-	-	-	-
Other carnivore	-	-	-	-	-	-	-	-
Horse, donkey and cross-bred equids	-	-	-	-	-	-	-	-
Pig	-	64	-	-	-	-	-	-
Goat	-	13	-	-	-	-	-	-
Sheep	-	-	-	-	-	-	-	-
Cattle	-	32	-	-	-	-	-	-
Deer	-	-	-	-	-	-	-	-
Camelid	-	-	-	-	-	-	-	-
Other ungulate	-	-	-	-	-	-	-	-
Primate								
Prosimian	-	-	-	-	-	-	-	-
New world monkey								
marmoset, tamarin	-	-	-	-	-	-	-	-
Squirrel, owl, spider monkey	-	-	-	-	-	-	-	-
Other new world monkey	-	-	-	-	-	-	-	-

Table 10a *(Continued)*

Great Britain 1996

Number of animals

Species of animal	Toxicology or other safety/efficacy evaluation									Total
	Pharmaceutical safety/efficacy evaluation				Other purposes					
	Safety testing	Efficacy testing	Quality control	ADME and residue	Toxicology research	Tobacco safety	Medical device safety	Method development	Other	
Mammal										
Mouse	50,727	118,674	54,836	6,610	15,614	-	1,602	16,093	11,951	296,248
Rat	91,125	29,094	5,529	16,690	12,968	-	524	1,561	6,901	250,225
Guinea-pig	6,153	8,688	7,465	119	498	-	1,793	334	235	50,331
Hamster	6	795	66	276	69	-	16	50	11	1,335
Gerbil	-	-	-	-	40	-	-	-	-	40
Other rodent	-	-	-	-	-	-	-	-	398	1,282
Rabbit	3,779	1,278	1,875	159	2	-	493	103	423	15,381
Cat	143	18	-	31	-	-	-	-	-	192
Dog										
Beagle	4,070	-	-	561	-	-	-	20	65	5,380
Greyound	-	-	-	-	-	-	-	-	-	-
Other including cross-bred dogs	-	-	-	-	-	-	-	-	-	-
Ferret	115	-	6	-	-	-	-	-	-	121
Other carnivore	-	-	-	-	-	-	-	-	-	-
Horse, donkey and cross-bred equids	6	-	-	49	-	-	-	-	-	55
Pig	516	501	-	199	8	-	41	49	-	1,378
Goat	6	24	-	3	-	-	-	-	-	46
Sheep	383	427	7	205	-	-	-	-	-	1,022
Cattle	183	290	10	229	-	-	-	-	-	744
Deer	2	-	-	-	-	-	-	-	-	2
Camelid	-	-	-	-	-	-	-	-	-	-
Other ungulate	-	-	-	-	-	-	-	-	-	-
Primate										
Prosimian	-	-	-	-	-	-	-	-	-	-
New world monkey										
marmoset, tamarin	610	-	-	73	-	-	-	13	36	732
Squirrel, owl, spider monkey	-	-	-	-	-	-	-	-	-	-
Other new world monkey	-	-	-	-	-	-	-	-	-	-

Table 10a Animals (toxicology) by species of animal and toxicological purpose *(Continued)*

Great Britain 1996 — Number of animals

Species of animal	Toxicology or other safety/efficacy evaluation							
	General safety/efficacy evaluation							
	Pollution	Agriculture	Industry	Household	Food additives	Other foodstuffs	Finished cosmetics	Cosmetics ingredients
Old world monkey								
Macaque	-	-	-	-	-	-	-	-
Baboon	-	-	-	-	-	-	-	-
Other Old world monkey	-	-	-	-	-	-	-	-
Other mammal	24	-	-	-	-	-	-	-
Bird								
Domestic fowl (*Gallus domesticus*)	-	768	-	-	-	-	-	-
Turkey	-	-	-	-	-	-	-	-
Quail (*Coturnix coturnix*)	-	24	-	-	-	-	-	-
Quail (spp,other than *Coturnix coturnix*)	-	2,967	20	-	-	-	-	-
Other bird	181	1,438	-	-	-	-	-	-
Reptile								
Any reptilian species	-	-	-	-	-	-	-	-
Amphibian								
Any amphibian species	52	72	-	-	-	-	-	-
Fish								
Any fish species	33,337	4,870	6,960	412	-	-	-	-
Total	35,690	68,186	78,239	2,540	1,785	2,043	220	2,414

Table 10a *(Continued)*

Great Britain 1996 — Number of animals

Species of animal	Toxicology or other safety/efficacy evaluation									Total
	Pharmaceutical safety/efficacy evaluation				Other purposes					
	Safety testing	Efficacy testing	Quality control	ADME and residue	Toxicology research	Tobacco safety	Medical device safety	Method development	Other	
Old world monkey										
Macaque	1,864	26	-	133	-	-	-	2	3	2,028
Baboon	-	-	-	-	-	-	-	-	-	-
Other Old world monkey	-	-	-	-	-	-	-	-	-	-
Other mammal	-	-	-	-	-	-	-	-	4	28
Bird										
Domestic fowl (*Gallus domesticus*)	2,285	7,907	499	392	24	-	-	-	274	12,149
Turkey	118	1,040	-	62	-	-	-	-	-	1,220
Quail (*Coturnix coturnix*)	155	-	-	-	-	-	-	-	-	179
Quail (spp,other than *Coturnix coturnix*)	-	-	-	-	-	-	-	-	-	2,987
Other bird	144	639	-	-	-	-	-	44	-	2,446
Reptile										
Any reptilian species	-	-	-	-	-	-	-	-	-	-
Amphibian										
Any amphibian species	-	-	-	-	-	-	-	-	-	124
Fish										
Any fish species	838	6,220	-	-	980	-	-	664	1,325	55,606
Total	163,228	175,621	70,293	25,791	30,203	-	4,469	18,933	21,626	701,281

TABLE 1a Animals by species and primary purpose of the procedure

Northern Ireland 1996

Number of animals

Species	Fundamental biological research	Applied studies – human medicine or dentistry	Applied studies – veterinary medicine	Protection of man, animals or environment	Education	Forensic	Direct diagnosis	Breeding	Total
Mouse	2447	160	274	110	0	0	98	2256	5345
Rat	2829	178	22	76	11	0	0	117	3233
Guinea-Pig	55	0	0	0	0	0	0	0	55
Hamster	0	0	0	0	0	0	0	0	0
Gerbil	158	0	150	0	0	0	0	0	308
Other rodent	43	0	0	0	0	0	0	0	43
Rabbit	85	9	44	0	14	0	42	0	194
Dog - Beagle	0	0	12	0	0	0	0	0	12
Dog - Greyhound	0	0	0	0	0	0	0	0	0
Dog - Other	0	0	0	0	0	0	0	0	0
Other carnivore	20	0	0	0	0	0	0	0	20
Horse, donkey etc	0	0	6	0	0	0	0	0	6
Pig	216	0	150	0	0	0	10	0	376
Goat	0	0	0	0	0	0	7	0	7
Sheep	202	0	255	0	0	0	13	0	470
Cattle	230	0	388	0	0	14	27	0	659
Other mammal	3	0	0	0	0	0	0	0	3
Domestic fowl	702	0	793	0	0	0	277	0	1772
Turkey	0	0	0	0	0	0	26	0	26
Amphibian	202	0	0	0	0	0	0	0	202
Fish	81	0	0	530	0	0	0	0	611
TOTAL	7273	347	2094	716	25	14	500	2373	13342

TABLE 5a Animals (non-toxicology) by species of animal and field of research

Northern Ireland 1996

Number of animals

Species	Field of Research											
	Anatomy	Physiology	Biochemistry	Psychology	Pathology	Immunology	Microbiology	Parasitology	Pharmacology	Pharmaceu-tical R&D	Clinical medicine	Clinical surgery
Mouse	0	171	100	115	562	60	378	78	0	21	121	0
Rat	249	739	42	953	272	49	0	154	282	204	117	24
Guinea-Pig	4	33	0	0	0	16	2	0	0	0	0	0
Hamster	0	0	0	0	0	0	0	0	0	0	0	0
Gerbil	0	0	0	158	0	0	0	150	0	0	0	0
Other rodent	0	0	0	0	0	0	0	0	0	0	0	0
Rabbit	0	10	15	0	0	37	29	0	46	0	0	0
Dog - Beagle	0	0	0	0	0	0	0	0	0	0	0	0
Dog - Greyhound	0	0	0	0	0	0	0	0	0	0	0	0
Dog - Other	0	0	0	0	0	0	0	0	0	0	0	0
Other carnivore	0	0	0	0	0	0	0	0	0	0	0	0
Horse, donkey etc	0	0	0	0	0	0	0	0	0	0	0	0
Pig	0	59	0	8	0	7	57	0	35	0	0	0
Goat	0	0	0	0	0	0	0	0	0	0	0	0
Sheep	0	0	29	96	0	0	5	172	0	0	0	0
Cattle	0	0	15	0	22	4	45	145	48	0	0	0
Other mammal	0	0	0	0	0	0	0	0	0	0	0	0
Domestic fowl	0	0	4	250	222	0	708	6	0	0	0	0
Turkey	0	0	0	0	0	0	26	0	0	0	0	0
Amphibian	0	0	0	202	0	0	0	0	0	0	0	0
Fish	0	0	0	81	0	0	0	0	0	0	0	0
TOTAL	253	1012	205	1863	1078	173	1250	705	411	225	238	24

TABLE 5a Animals (non-toxicology) by species of animal and field of research *(Continued)*

Northern Ireland 1996 — Number of animals

Species	Field of Research										
	Dentistry	Genetics	Molecular biology	Cancer research	Nutrition	Zoology	Animal science	Ecology	Animal welfare	Other	Total
Mouse	0	104	36	3417	0	0	72	0	0	0	5235
Rat	35	0	0	0	15	0	22	0	0	0	3157
Guinea-Pig	0	0	0	0	0	0	0	0	0	0	55
Hamster	0	0	0	0	0	0	0	0	0	0	0
Gerbil	0	0	0	0	0	0	0	0	0	0	308
Other rodent	0	0	0	0	0	43	0	0	0	0	43
Rabbit	0	0	0	0	12	0	5	0	0	33	187
Dog - Beagle	0	0	0	0	0	0	0	0	0	0	0
Dog - Greyhound	0	0	0	0	0	0	0	0	0	0	0
Dog - Other	0	0	0	0	0	0	0	0	0	0	0
Other carnivore	0	0	0	0	0	0	0	20	0	0	20
Horse, donkey etc	0	0	0	0	0	0	0	0	0	0	0
Pig	0	10	0	0	86	0	35	0	29	0	326
Goat	0	0	0	0	0	0	0	0	0	7	7
Sheep	0	0	0	0	54	0	24	0	0	7	387
Cattle	0	0	0	0	117	0	74	0	0	0	470
Other mammal	0	0	0	0	0	0	0	3	0	0	3
Domestic fowl	0	0	94	0	348	0	123	0	0	17	1772
Turkey	0	0	0	0	0	0	0	0	0	0	26
Amphibian	0	0	0	0	0	0	0	0	0	0	202
Fish	0	0	0	0	0	0	0	0	0	0	81
TOTAL	35	114	130	3417	632	43	355	23	29	64	12279

TABLE 10a Animals (toxicology) by species of animal and toxicological purpose

Northern Ireland 1996 — Number of animals

Species	Toxicology or other safety/efficacy evaluation					Total
	Agriculture	Safety testing	Efficacy testing	ADME & residue	Other	
Mouse	0	0	0	0	110	110
Rat	0	0	0	0	76	76
Guinea-pig	0	0	0	0	0	0
Hamster	0	0	0	0	0	0
Gerbil	0	0	0	0	0	0
Other rodent	0	0	0	0	0	0
Rabbit	0	7	0	0	0	7
Dog - Beagle	0	0	0	12	0	12
Dog - Greyhound	0	0	0	0	0	0
Dog - Other	0	0	0	0	0	0
Other carnivore	0	0	0	0	0	0
Horse, donkey etc	0	6	0	0	0	6
Pig	0	0	0	50	0	50
Goat	0	0	0	0	0	0
Sheep	30	0	0	53	0	83
Cattle	0	29	42	118	0	189
Other mammal	0	0	0	0	0	0
Domestic fowl	0	0	0	0	0	0
Turkey	0	0	0	0	0	0
Amphibian	0	0	0	0	0	0
Fish	530	0	0	0	0	530
TOTAL	560	42	42	233	186	1063