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FIRST 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

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I. Introduction

The objective of this report is to implement Articles 13 and 26 of Directive 86/609/EEC¹ by informing the Council and Parliament of the number of animals used for experimental and other scientific purposes in the Member States in 1991.

To achieve this, the Commission asked the authorities responsible for implementing Directive 86/609/EEC to supply statistics for 1991.

Since the Directive contains no model tables for the statistics the Commission agreed with the competent authorities to use the models adopted in the Council of Europe Convention.

This exercise marks the first stage of research based on the compilation of statistics already familiar to the parties to the Council of Europe Convention, including the Community countries.

Nevertheless, the Commission and the Member States considered that a number of changes were needed to make these tables clearer. Adjustments were made to produce improved tables with a different layout. These will be applied initially by selected Member States on a trial basis before being used as widely as possible in the Commission's next report to the Council and Parliament.

¹ Official Journal No L 358, 18.12.1986.

II. STATISTICS

1. General

The Member States undertook to supply the Commission with the 1991 statistics, on the tables adopted by the Council of Europe, by 30 March 1993 at the latest.

For some Member States, nationwide collection of the statistics provided for by Directive 86/609/EEC was an unprecedented exercise.

The Commission therefore had numerous problems with harmonization of the data gathered and found it impossible to produce fully consistent, transparent Community-wide figures.

Also, the Commission has published the figures as supplied by the Member States without any changes.

Nevertheless, it has attempted to draw conclusions on the information supplied by each Member State, irrespective of the year covered or the number of tables completed.

Some of the figures in the tables from certain Member States appear incorrect. These are not simple miscalculations but misinterpretations by certain laboratories about how to complete the various tables. This is particularly true of the countries in which this data-gathering was a new activity.

Another important point is that the national figures do not give the full picture since many laboratories were unable to complete the tables or failed to return them to the authorities.

The principal reason for making this point is to avoid all possible misunderstandings about the significance of the apparent increase in the number of animals used likely to be revealed in future reports, because the 1991 data were incomplete.

It must also be remembered that this is the first time that the Commission has published statistics from the Member States on the number of animals used in such procedures.

This explains the absence of any comparison with previous years in this report.

However, this first report will provide the Commission with reference data allowing more detailed comments in its next report.

In particular, it will then be possible to assess the trend in the total number of animals used and to draw conclusions about the species chosen (Table 1). Tables 2, 3 and 4 in turn will allow assessment of the trends in the numbers of animals used for selected purposes, while Table 5 will reveal developments in procedures required by law.

It is therefore essential, particularly for interpretation of Tables 2, 3 and 4 (on selected purposes), for the European Centre for the Validation of Alternative Methods (ECVAM) to play an effective role in publication of the results and to use them to determine future policy on the development of alternative methods.

2. Situation in the Member States

Belgium

Belgium was unable to supply statistics since the relevant basic legislation has yet to be adopted.

Denmark

The Danish Ministry of Justice is responsible for administrative and legislative matters concerning the use of animals for research purposes. It could only supply data for Table 1 in the Council of Europe Convention.

TABLE 1 (Denmark)
The number and kinds of animals used in procedures in 1991

KIND OF ANIMAL	NUMBER
Mice (<i>Mus musculus</i>)	187 627
Rats (<i>Rattus norvegicus</i>)	87 083
Guinea pigs (<i>Cavia porcellus</i>)	8 162
Other rodents	3 247
Rabbits (<i>Oryctolagus cuniculus</i>)	6 299
Apes (<i>Hominoidea</i>)	89
Other simians (<i>Cercopithecoidea-Ceboidea</i>)	
Prosimians (<i>Prosimia</i>)	
Dogs (<i>Canis familiaris</i>)	332
Cats (<i>Felis catus</i>)	138
Other carnivores	0
Horses, donkeys and cross-breds (<i>Equidae</i>)	32
Pigs (<i>Sus</i>)	2 110
Goats and sheep (<i>Capra & ovis</i>)	135
Cattle (<i>Bos</i>)	221
Other mammals	403
Birds (<i>Aves</i>)	122
Reptiles (<i>Reptilia</i>)	8 370
Amphibians (<i>Amphibia</i>)	
Fish (<i>Pisces</i>)	
TOTAL	304 370

APPENDIX X

ANIMALS USED IN PROCEDURES DURING 1991.

MAIN TYPE PROCEDURES	Mice	Rats	Guinea-Pigs	Other Rodents	Rabbits	Apes	Dogs	Cats	Horses	Pigs	Goats Sheep	Cattle	Other Mammals	Birds	Other Vertebrates
A. Behavioural, stress induced studies	45.577	4.937		632	50					27			24		200
B. Biological control studies	33.712	37.814	2.915	1	821	9		44		165		88			
C. Dermatological studies	1.190		329		16					33			123		
D. Nutritional/metabolism studies	30	4.992								103	17	10	8		
E. Pharmacodynamic studies	35.094	11.555	1.203	2.440	572	16	29	43	6	216			60		
F. Pharmacokinetic studies	2.055	2.925		38	97		23			219	2	3			
G. Studies on effects of physical influence		601				11									
H. Immunological studies	13.032	2.701	592	31	1.141		4			49	25	76	5	38	5453
I. Infection-pathological studies	5.253	532	798	63	199	9	8			316		13	118	50	2500
J. Studies on effects of climate															
K. Organ-function studies	1.495	6.231	84	30	402	4	67	14		637	14	3	55	9	117
L. Toxicological studies	18.632	5.842	2.086	12	724	15	173			89				25	10
M. Tumorinduction/transplantation	20.033	2.123	139												
N. Others	11.524	6.830	16		2.277	25	28	37	26	256	77	28	10		90
Total	187.627	87.083	8.162	3.247	6.299	89	332	138	32	2.110	135	221	403	122	8370 ^{x)}
Animals not used for experimental and other scientific purposes:	74.175	29.858	4.671	622	3.928	7	6	2	4	465	7	157	1534	6508	370

x) Mostly fish in connection with examination and treatment of fish infectious diseases.

Germany

The tables supplied by Germany differ on various points from the models adopted by the Council of Europe. Details are given in the comments submitted with the statistics by the German authorities.

TABLE 1 (Germany)

The number and kinds of animals used in procedures in 1991*

KIND OF ANIMAL	NUMBER
Mice (<i>Mus musculus</i>)	1 223 741
Rats (<i>Rattus norvegicus</i>)	611 530
Guinea pigs (<i>Cavia porcellus</i>)	101 842
Other rodents	25 905
Rabbits (<i>Oryctolagus cuniculus</i>)	70 228
Apes (<i>Hominoidea</i>)	5
Other simians (<i>Cercopithecoidea-Ceboidea</i>)	1 547
Prosimians (<i>Prosimia</i>)	116
Dogs (<i>Canis familiaris</i>)	6 517
Cats (<i>Felis catus</i>)	1 921
Other carnivores	228
Horses, donkeys and cross-breds (<i>Equidae</i>)	217
Pigs (<i>Sus</i>)	12 158
Goats and sheep (<i>Capra & ovis</i>)	2 690
Cattle (<i>Bos</i>)	3 079
Other mammals	286
Birds (<i>Aves</i>)	87 621
Reptiles (<i>Reptilia</i>)	124
Amphibians (<i>Amphibia</i>)	6 568
Fish (<i>Pisces</i>)	246 387
TOTAL	2 402 710

* including the new "Laender"

TABLE 2 (Germany)

The number of animals used in procedures for selected purposes in 1991(1)

	Biological (including medical) studies of a fundamental nature	Discovery, development and quality control (including safety evaluation) of products or appliances for human and veterinary medicine	Diagnosis of disease (2)	Protection of man, animals and the environment by toxicological or other safety evaluations (3)	Education and training
All species	315 453	1 271 618	333 070	357 457	These data are not collected in Germany
Selected species					
Rodents and rabbits	283 833	1 226 207	287 016	125 629	
Dogs and cats	1 246	5 581	989	253	
Primates	481	1 006	211	20	

(1) including the new "Laender"

(2) research into or control of methods of diagnosis, disease prevention or treatment only.

(3) including animals not used for safety evaluations in the strict sense of the term.

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TABLE 3 (Germany)

The number of animals used in procedures for selected purposes for the protection of man, animals and the environment by toxicological or other safety evaluations in 1991(1)

Further classification of column 4 of Table 2 (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 and 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	51 087	70 456				235 914
Selected species						
Rodents and rabbits	37 350	49 614				38 665
Dogs and cats	184	34				35
Primates	20	0				0

(1) including the new "Laender"

(2) the data for columns 2 to 5 are not gathered separately in Germany.

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TABLE 5 (Germany)

The number of animals used in procedures required by law in 1991(1)

	Party only (2)	Other parties only(3)	Both (4)
All species			841 716
Selected species			
Rodents and rabbits			758 913
Dogs and cats			3 694
Primates			864

(1) including the new "Laender"

(2) procedures required by German law

(3) procedures required by the law of the other parties to the Council of Europe Convention

(4) procedures required by German law and by the law of the other parties to the Council of Europe Convention

These figures are exclusively for the procedures required by law for the notification or authorization of substances and products

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COMMENTS BY GERMANY ON THE RESULTS

The statistics include the new Länder.

The data for column 5 in Table 2 (education and training) and for Table 4 (on the number of animals used in procedures concerned with diseases and disorders) are not collected in Germany.

This is a result of the reservation entered by Germany concerning Article 27(2) at the time of signature of the Council of Europe Convention of 18 March 1986 for the protection of vertebrate animals used for experimental and other scientific purposes.

Spain

The statistics supplied by Spain are generally based on the models adopted by the Council of Europe.

TABLE 1 (Spain)
The number and kinds of animals used in procedures in 1991

KIND OF ANIMAL	NUMBER
Mice (<i>Mus musculus</i>)	313 250
Rats (<i>Rattus norvegicus</i>)	135 659
Guinea pigs (<i>Cavia porcellus</i>)	17 464
Other rodents	1 201
Rabbits (<i>Oryctolagus cuniculus</i>)	17 307
Apes (<i>Hominoidea</i>)	0
Other simians (<i>Cercopithecoidea-Ceboidea</i>)	7
Prosimians (<i>Prosimia</i>)	18
Dogs (<i>Canis familiaris</i>)	1 497
Cats (<i>Felis catus</i>)	96
Other carnivores	70
Horses, donkeys and cross-breds (<i>Equidae</i>)	5
Pigs (<i>Sus</i>)	1 109
Goats and sheep (<i>Capra & ovis</i>)	728
Cattle (<i>Bos</i>)	74
Other mammals	0
Birds (<i>Aves</i>)	69 018
Reptiles (<i>Reptilia</i>)	0
Amphibians (<i>Amphibia</i>)	390
Fish (<i>Pisces</i>)	621
TOTAL	558 823

TABLE 2 (Spain)

The number of animals used in procedures for selected purposes in 1991

	Biological (including medical) studies of a fundamental nature	Discovery, 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	74 762	420 977	15 913	21 394	12 479
Selected species					
Rodents and rabbits	73 171	352 451	15 889	20 807	12 176
Dogs and cats	678	690	0	14	211
Primates	0	25	0	0	0

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TABLE 3(Spain)

The number of animals used in procedures for selected purposes for the protection of man, animals and the environment by toxicological or other safety evaluations in 1991

	Further classification of column 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 and 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	102	1 965	15 641	2 036	60	251
Selected species						
Rodents and rabbits	102	1 412	15 615	2 028	60	251
Dogs and cats	0	0	14	0	0	0
Primates	0	0	0	0	0	0

TABLE 4 (Spain)

The number of animals used in procedures concerned with diseases and disorders in 1991

	Cancer (excluding evaluations of carcinogenic hazards)	Cardiovascular diseases	Nervous and mental disorders	Other human and animal diseases
All species	18 939	27 819	133 546	230 389
Selected species				
Rodents and rabbits	17 886	27 157	133 615	162 945
Dogs and cats	39	600	12	371
Primates	0	0	18	7

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

TABLE 5 (Spain)

The number of animals used in procedures required by law in 1991

	Party only (1)	Other parties only(2)	Both (3)
All species	148 632	858	76 181
Selected species			
Rodents and rabbits	135 139	837	75 125
Dogs and cats	94	21	445
Primates	0	0	7

(1) procedures required by Spanish law

(2) procedures required by the law of the other parties to the Council of Europe Convention

(3) procedures required by Spanish law and by the law of the other parties to the Council of Europe Convention

France

France supplied statistics for 1990, although the tables differ from the models adopted by the Council of Europe on certain points.

These are indicated in the tables. Some of these differences are explained in the comments from the French authorities.

TABLE 1 (France)

The number and kinds of animals used in procedures in 1990

KIND OF ANIMAL	NUMBER	%
Mice (<i>Mus musculus</i>)	2 264 225	62,1
Rats (<i>Rattus norvegicus</i>)	871 789	23,9
Guinea pigs (<i>Cavia porcellus</i>)	147 495	4
Golden hamsters (<i>Mesocricetus auratus</i>)	26 054	0,7
Chinese hamsters (<i>Cricetulus griseus</i>)	356	<0,1
Other rodents	7 051	0,2
Rabbits (<i>Oryctolagus cuniculus</i>)	113 773	3,1
Prosimians (<i>Prosimii</i>)	332	<0,1
New World apes (<i>Ceboidea</i>)	448	<0,1
Old World apes (<i>Cercopithecoidea</i>)	2 340	0,1
Apes (<i>Hominoidea</i>)	12	<0,1
Dogs (<i>Canis familiaris</i>)	7 721	0,2
Cats (<i>Felis catus</i>)	2 808	0,1
Ferrets (<i>Mustela putorius furo</i>)	319	<0,1
Other carnivores	247	<0,1
Pigs (<i>Sus</i>)	15 467	0,4
Goats and sheep (<i>Capra & ovis</i>)	4 261	0,1
Cattle (<i>Bos</i>)	2 425	0,1
Horses, donkeys and cross-breds (<i>Equidae</i>)	258	<0,1
Other mammals	392	<0,1
Birds (<i>Aves</i>)	91 452	2,5
Reptiles (<i>Reptilia</i>)	852	<0,1
Amphibians (<i>Amphibia</i>)	30 690	0,8
Fish (<i>Pisces</i>)	54 941	1,5
TOTAL	3 645 708	100

TABLE 2 (France)

The number of vertebrate animals used in 1990 by sector

	Rodents	Rabbits	Dogs	Cats	Primates	Other	Total
1. Basic research	1 048 915	32 749	586	967	703	51 274	1 135 194
2. Discovery, development, quality control (including safety evaluation) of medicines, products or appliances for human medicine (1)	1 839 558	56 669	5 025	468	2 231	14 343	1 918 294
3. Discovery, development, quality control (including safety evaluation) of medicines, products or appliances for veterinary medicine (1)	105 314	6 721	1 282	1 353	0	71 032	185 702
4. Implementation of diagnosis of disease (2)	132 810	2 039	0	0	1	14 191	149 041
5. Protection of man, animals and the environment (3)	54 541	4 959	282	0	320	4 511	64 613
6. Education and training	46 362	3 228	5	6	0	14 808	64 409
TOTAL	3 227 500	106 365	7 180	2 794	3 255	170 159	3 517 253

(1) "Product" means medicines, vaccines, serums, substances used for medical check-ups or diagnoses, materials employed in orthopaedics, odontology, etc.

(2) "Implementation" means use of animals to establish a diagnosis of a patient, production of monoclonal or polyclonal antibodies, etc.

(3) See Table 3 for details of the categories covered by this heading.

TABLE 3 (France)

Number of vertebrate animals used in 1990 for the protection of man, animals and the environment by toxicological or other safety evaluations (further classification of column 5 of Table 2)

Substances used or intended to be used mainly...	Rodents	Rabbits	Dogs	Cats	Primates	Other	TOTAL
1.in agriculture	13 405	1 123	90	0	0	6 534	21 152
2. in industry	23 415	1 790	12	0	2	2 047	27 264
3.in households	19 824	606	0	0	0	800	21 230
4.as cosmetics or toiletries	15 386	7 494	0	0	0	4 457	27 337
5.as additives in food for human consumption	3 529	0	0	0	0	0	3 529
6.potential or actual hazards of contaminants in the general environment(*)	3 048	0	0	0	0	3 304	6 352
TOTAL	78 607	11 013	102	0	0	17 142	106 864

(*) including harmful radiation

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TABLE 4 (France)

The number of vertebrate animals used in 1990 in human and veterinary medicine for fundamental research, research and development and quality control of products or appliances.

	Rodents	Rabbits	Dogs	Cats	Primates	Other	TOTAL
HUMAN MEDICINE							
1.CANCER (excluding evaluations of carcinogenic hazards)	180 938	9 771	688	62	401	7 526	199 386
2.Cardiovascular diseases	212 973	12 442	2 874	336	209	1 808	230 642
3.Nervous and mental disorders	735 256	1 719	444	223	553	5 818	744 013
4.Other human diseases	726 491	21 021	1 602	96	602	2 360	752 172
VETERINARY MEDICINE							
5.Animal diseases	99 904	4 126	1 235	1 313	0	58 557	165 135
TOTAL 1+2+3+4+5	1 955 562	49 079	6 843	2 030	1 765	76 069	2 091 348

TABLE 5 (France)

The number of vertebrate animals used in 1990 in procedures required by law

	Rodents	Rabbits	Dogs	Cats	Primates	Other	TOTAL
FRANCE only(1)	229 448	11 587	581	75	543	3 011	245 245
E.E.C.(2)	471 528	18 044	2 446	797	1 058	5 932	499 805
Non-EEC countries (3)	21 734	3 410	409	0	122	0	25 675
TOTAL	722 710	33 041	3 436	872	1 723	8 943	770 725

(1) Procedures required by French law

(2) Procedures required by the law of other EEC countries

(3) Procedures required by the law of non-EEC countries

COMMENTS BY FRANCE ON THE RESULTS

The vast majority (over 90%) of the animals used in 1990 were rodents.

Comparison with the results of the 1984 survey revealed that:

- The total number of animals used was down by 24.6% for all species combined.
- There were big reductions in the number of dogs (26%) and cats (38%) used.
- Paradoxically, there has been an increase in demand for commercial species, particularly pigs, but also ruminants and fish. There are several reasons for this. For one thing the availability of smaller breeds of pig (miniature pigs) has encouraged scientists to use them instead of carnivores and primates wherever possible. For another, the INRA's laboratories, which use large numbers of pigs, sheep, goats and fish for quantitative genetic engineering, nutritional science and animal husbandry, omitted these animals from the 1984 statistics since they were kept under normal livestock rearing conditions and were used only for non-invasive measurements (weight, feed consumption, etc.). Recent developments in research methods now call for more sophisticated biological analyses such as sampling of blood, biological tissues, etc. which have brought these animals into the field covered by the Directive.

Readers will note a discrepancy between the figures in line 5 of Table 2 on "Protection of man, animals and the environment" and in the more detailed analysis in Table 3. Exhaustive analysis revealed that 20 major laboratories amongst the 665 respondents had misunderstood how to complete Table 3.

One final significant finding is the gradual introduction of alternative methods and the concomitant reduction in the number of animals used.

Greece

The statistics supplied by Greece were based generally on the models adopted by the Council of Europe.

TABLE 1 (Greece)
The number and kinds of animals used in procedures in 1991

KIND OF ANIMAL	NUMBER	%
Mice (<i>Mus musculus</i>)	17 146	67,4
Rats (<i>Rattus norvegicus</i>)	5 468	21,5
Guinea pigs (<i>Cavia porcellus</i>)	430	1,7
Other rodents	0	0
Rabbits (<i>Oryctolagus cuniculus</i>)	631	2,5
Apes (<i>Hominoidea</i>)	0	0
Other simians (<i>Cercopithecoidea-Ceboidea</i>)	0	0
Prosimians (<i>Prosimia</i>)	0	0
Dogs (<i>Canis familiaris</i>)	5	<0,1
Cats (<i>Felis catus</i>)	0	0
Other carnivores	0	0
Horses, donkeys and cross- breds (<i>Equidae</i>)	1	<0,1
Pigs (<i>Sus</i>)	95	0,3
Goats and sheep (<i>Capra & ovis</i>)	105	0,4
Cattle (<i>Bos</i>)	0	0
Other mammals	0	0
Birds (<i>Aves</i>)	228	0,9
Reptiles (<i>Reptilia</i>)	0	0
Amphibians (<i>Amphibia</i>)	1 330	5,2
Fish (<i>Pisces</i>)	0	0
TOTAL	25 439	100

TABLE 2 (Greece)

The number of animals used in procedures for selected purposes in 1991

	Biological (including medical) studies of a fundamental nature	Discovery, 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	13 195	5 244	4 419	536	1 771
Selected species					
Rodents and rabbits	13 187	5 061	4 197	522	435
Dogs and cats	5	0	0	0	0
Primates	0	0	0	0	0

TABLE 3 (Greece)

The number of animals used in procedures for selected purposes for the protection of man, animals and the environment by toxicological or other safety evaluations in 1991

	Further classification of column 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 and 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	342	20	0	0	0	174
Selected species						
Rodents and rabbits	342	20	0	0	0	160
Dogs and cats	0	0	0	0	0	0
Primates	0	0	0	0	0	0

TABLE 4 (Greece)

The number of animals used in procedures concerned with diseases and disorders in 1991

	Cancer (excluding evaluations of carcinogenic hazards)	Cardiovascular diseases	Nervous and mental disorders	Other human and animal diseases
All species	6 033	222	1 237	4 100
Selected species				
Rodents and rabbits	6033	222	1 237	3 686
Dogs and cats	0	0	0	5
Primates	0	0	0	0

TABLE 5 (Greece)

The number of animals used in procedures required by law in 1991

	Party only (1)	Other parties only(2)	Both (3)
All species	2 040	0	0
Selected species			
Rodents and rabbits	2 040	0	0
Dogs and cats	0	0	0
Primates	0	0	0

(1) procedures required by Greek law

(2) procedures required by the law of the other parties to the Council of Europe Convention

(3) procedures required by Greek law and by the law of the other parties to the Council of Europe Convention

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Ireland

The tables submitted by Ireland differ from the models adopted by the Council of Europe.

TABLE 1 (Ireland)

The number of animals used in procedures in 1991

Kind of animal	Number of procedures		Number of animals used	With anaesthesia (licence only)	Without anaesthesia (licence only)	With anaesthesia but with permitted recovery (Cert.B)	Demonstrations (Cert.C)
	Injections	Other					
Mice	1 594	196	17 550	246	16 941	363	201
Rats	1 077	1 395	3 053	933	1 809	311	52
Guinea pigs	55	13	423	0	415	8	0
Other rodents	226	18	249	77	172	0	0
Rabbits	672	295	1 112	90	935	87	6
Dogs	0	38	45	2	0	43	2
Cats	0	17	17	17	0	0	0
Donkeys	1	0	10	0	10	0	0
Horses	5	13	24	3	11	10	0
Pigs	4	91	153	78	32	43	0
Cattle	1 367	2 897	1 488	0	1434	54	8
Sheep	10 522	172	990	0	764	226	0
Other mammals	256	252	37	0	37	0	0
Birds	0	17	44	44	0	0	0
Other amphibians	0	4	4	4	0	0	4
TOTAL	15 779	5 418	25 199	1 494	22 560	1 145	273

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TABLE 2 (Ireland)

The number of animals used in procedures for selected purposes in 1991

Purpose of the procedure	Kind of animal					
	Rodents and rabbits	Dogs and cats	Horses, donkeys and other livestock	Primates	Other	TOTAL
Development of products used in medicine	12 176	0	260	0	31	12 467
Development of products used in veterinary medicine	207	0	59	0	0	266
Diagnosis of disease	270	0	534	0	0	804
Study of cardiovascular diseases	245	22	0	0	0	267
Study of cancer	334	0	0	0	0	334
Study of mental disorders	2385	0	0	0	0	2 385
Other diseases	608	9	43	0	11	671
Education and training	3 984	17	675	0	0	4 676
Other purposes	2 178	14	1 094	0	43	3 329
TOTAL	22 387	62	2 665	0	85	25 199

Italy

The tables submitted by Italy differ from the models adopted by the Council of Europe.

Also, the official data are incomplete, as explained in the table below.

TABLE 1 (Italy)

The number of animals used in procedures in 1990, 1991 and 1992

Species or group of species	1990		1991		1992	
	Official data	Official data plus 50%*	Official data	Official data plus 40%*	Official data	Official data plus 30%*
Rats	239 915	359 872	321 635	450 289	362 629	471 417
Mice	169 153	253 729	294 345	412 083	453 495	589 543
Guinea pigs	13 109	19 663	20 696	28 974	68 487	88 033
Hamsters	1 400	2 100	15 760	22 064	12 960	16 848
Rabbits	7 484	11 226	28 754	40 255	79 603	103 483
Dogs	934	1 301	1 144	1 601	10 270	13 351
Cats	265	398	325	465	468	608
Pigs	300	450	155	217	601	841
Goats and sheep	3	4,50	5	7	1 265	
Others	Primates	100	Primates	155	Primates	1 455
	Ferrets	10				
	Minipigs	50	Minipigs	183		
	Marmosets	150	Marmosets	136		
					Horses	140
					Frogs	590
					Sheep	19
					Buffalo	11
					Chickens	390

* The official data from the Ministry of Health are incomplete since certain companies and laboratories failed to send it their statistics. The Ministry therefore made rough estimates for each year providing a more realistic picture.

Luxembourg

No statistics were received from Luxembourg.

The Netherlands

The tables submitted provided full statistics and are based on the model.

TABLE 1 (The Netherlands)
The number and kinds of animals used in procedures in 1991

KIND OF ANIMAL	Number
Mice (<i>Mus musculus</i>)	378 834
Rats (<i>Rattus norvegicus</i>)	286 276
Guinea pigs (<i>Cavia porcellus</i>)	19 044
Other rodents	9 384
Rabbits (<i>Oryctolagus cuniculus</i>)	13 060
Primates *	611
Dogs (<i>Canis familiaris</i>)	2 078
Cats (<i>Felis catus</i>)	542
Other carnivores	407
Horses, donkeys and cross-breds (<i>Equidae</i>)	151
Pigs (<i>Sus</i>)	7 876
Goats and sheep (<i>Capra & ovis</i>)	1 796
Cattle (<i>Bos</i>)	2 386
Other mammals	71
Birds (<i>Aves</i>)	90 676
Reptiles (<i>Reptilia</i>)	162
Amphibians (<i>Amphibia</i>)	4 810
Fish (<i>Pisces</i>)	57 894
TOTAL	876 058

* including apes, other simians and prosimians

TABLE 2 (The Netherlands)

The number of animals used in procedures for selected purposes in 1991

	Biological (including medical) studies of a fundamental nature	Discovery, 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	433 417	332 974	22 041	73 283	14 343
Selected species					
Rodents and rabbits	366 570	284 676	21 317	24 994	9 041
Dogs and cats	1 527	988	0	97	501
Primates	511	96	0	0	4

TABLE 3 (The Netherlands)

The number of animals used in procedures for selected purposes for the protection of man, animals and the environment by toxicological or other safety evaluations in 1991

	Further classification of column 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 and 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	16 191	23 622	0	248	1 095	32 127
Selected species						
Rodents and rabbits	2 252	15 488	0	248	1 043	6 963
Dogs and cats	66	0	0	0	0	31
Primates	0	0	0	0	0	0

TABLE 4 (The Netherlands)

The number of animals used in procedures concerned with diseases and disorders in 1991

	Cancer (excluding evaluations of carcinogenic hazards)	Cardiovascular diseases	Nervous and mental disorders	Other human and animal diseases
All species	108 205	21 739	11 907	150 550
Selected species				
Rodents and rabbits	108 005	20 665	11 728	135 926
Dogs and cats	61	248	92	450
Primates	82	0	16	326

TABLE 5 (The Netherlands)

The number of animals used in procedures required by law in 1991

	Party only (1)	Other parties only(2)	Both (3)
All species	13 288	1 673	201 238
Selected species			
Rodents and rabbits	10 164	391	166 527
Dogs and cats	10	11	444
Primates	1	0	26

(1) procedures required by Dutch law

(2) procedures required by the law of the other parties to the Council of Europe Convention

(3) procedures required by Dutch law and by the law of the other parties to the Council of Europe Convention

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Portugal

The tables submitted by Portugal are based on the models adopted by the Council of Europe. However, the data are incomplete as not all laboratories sent the Portuguese authorities their results. Two other points to note are that Table 5 is missing and that the data refer to 1992.

TABLE 1 (Portugal)

The number and kinds of animals used in procedures in 1992

KIND OF ANIMAL	NUMBER
Mice (Mus musculus)	72 599
Rats (Rattus norvegicus)	2 944
Guinea pigs (Cavia porcellus)	3 412
Other rodents	1 675
Rabbits (Oryctolagus cuniculus)	2 180
Apes (Hominoidea)	0
Other simians (Cercopithecoidea-Ceboidea)	0
Prosimians (Prosimia)	1
Dogs (Canis familiaris)	123
Cats (Felis catus)	0
Other carnivores	0
Horses, donkeys and cross-breds (Equidae)	3
Pigs (Sus)	779
Goats and sheep (Capra & ovis)	716
Cattle (Bos)	530
Other mammals	0
Birds (Aves)	1 398
Reptiles (Reptilia)	4
Amphibians (Amphibia)	553
Fish (Pisces)	200
TOTAL	87 117

TABLE 2 (Portugal)

The number of animals used in procedures for selected purposes in 1992

	Biological (including medical) studies of a fundamental nature	Discovery, 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	12 677	3 161	4 905	528	413
Selected species					
Rodents and rabbits	10726	64 435	4 348	428	333
Dogs and cats	33	3	10	0	17
Primates	1	0	0	0	0

TABLE 3 (Portugal)

The number of animals used in procedures for selected purposes for the protection of man, animals and the environment by toxicological or other safety evaluations in 1992

	Further classification of column 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 and 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	98	52	0	0	280	100
Selected species						
Rodents and rabbits	98	52	0	0	280	0
Dogs and cats	0	0	0	0	0	0
Primates	0	0	0	0	0	0

TABLE 4 (Portugal)

The number of animals used in procedures concerned with diseases and disorders in 1992

	Cancer (excluding evaluations of carcinogenic hazards)	Cardiovascular diseases	Nervous and mental disorders	Other human and animal diseases
All species	3 977	223	0	5 490
Selected species				
Rodents and rabbits	3 977	214	100	5 300
Dogs and cats	0	8	0	21
Primates	0	1	0	0

United Kingdom

The tables supplied by the United Kingdom are based on the models adopted by the Council of Europe. However, Table 5 is incomplete, as explained in the comments from the UK authorities.

TABLE 1 (United Kingdom)
The number and kinds of animals used in procedures in 1991

KIND OF ANIMAL	NUMBER
Mice (<i>Mus musculus</i>)	1 694 505
Rats (<i>Rattus norvegicus</i>)	872 622
Guinea pigs (<i>Cavia porcellus</i>)	129 158
Other rodents	19 707
Rabbits (<i>Oryctolagus cuniculus</i>)	44 442
Apes (<i>Hominoidea</i>)	0
Other simians (<i>Cercopithecoidea-Ceboidea</i>)	2 727
Prosimians (<i>Prosimia</i>)	1
Dogs (<i>Canis familiaris</i>)	7 620
Cats (<i>Felis catus</i>)	2 807
Other carnivores	3 002
Horses, donkeys and cross-breds (<i>Equidae</i>)	643
Pigs (<i>Sus</i>)	8 335
Goats and sheep (<i>Capra & ovis</i>)	14 910
Cattle (<i>Bos</i>)	6 041
Other mammals	1 808
Birds (<i>Aves</i>)	227 972
Reptiles (<i>Reptilia</i>)	11
Amphibians (<i>Amphibia</i>)	13 530
Fish (<i>Pisces</i>)	131 927
TOTAL	3 181 768

TABLE 2 (United Kingdom)

The number of animals used in procedures for selected purposes in 1991

	Biological (including medical) studies of a fundamental nature	Discovery, 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	633 197	1 514 954	26 770	250 304	12 010
Selected species					
Rodents and rabbits	548 907	1 391 084	22 465	179 221	9 049
Dogs and cats	1 670	7 323	6	812	36
Primates	479	1 938	0	251	0

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TABLE 3 (United Kingdom)

The number of animals used in procedures for selected purposes for the protection of man, animals and the environment by toxicological or other safety evaluations in 1991

	Further classification of column 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 and 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	75 834	85 316	1 789	3 082	10 855	58 459
Selected species						
Rodents and rabbits	61 267	82 862	1 789	3 082	10 715	11 815
Dogs and cats	633	44	0	0	105	0
Primates	0	0	0	0	0	0

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TABLE 4 (United Kingdom)

The number of animals used in procedures concerned with diseases and disorders in 1991

	Cancer (excluding evaluations of carcinogenic hazards)	Cardiovascular diseases	Nervous and mental disorders	Other human and animal diseases
All species	182 681	220 367	544 806	1 382 622
Selected species				
Rodents and rabbits	181 924	198 621	520 866	1 211 289
Dogs and cats	51	3 363	1 073	4 430
Primates	186	411	496	1 444

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TABLE 5 (United Kingdom)

The number of animals used in procedures required by law in 1991

	All countries (1)
All species	665 830
Selected species	
Rodents and rabbits	355 999
Dogs and cats	3 569
Primates	1 284

(1) procedures required by UK and international law.

COMMENTS BY THE UNITED KINGDOM ON THE RESULTS

1. The figures for Great Britain and Northern Ireland have been combined.
2. The returns relate to "animals" rather than "procedures" as required by the Convention. All the GB figures use animals but some of the Northern Ireland figures are based on procedures. This introduces an insignificant error because total Northern Ireland use is only 0.5% of the UK total.
3. In Table 4, Column 2, the figures include both cardiovascular and respiratory diseases. It was impossible to distinguish between these categories in these returns at present.
4. In Table 5, it was impossible to distinguish between the various categories of legal requirement set out in the Convention tables. Only a single figure could be given for all procedures performed for a legislative purpose.

3. General conclusions

The summary table set out below has been developed by Commission services on the basis of Table 1 submitted by the Member States.

The statistical data concerning the number of animals used for experimental and other scientific purposes in Belgium and in Luxembourg do not appear in the table.

Indeed these two countries have not been able to submit the required information because they have not taken the necessary legal steps allowing them to collect the data.

Moreover, the statistical data submitted by certain Member States is not complete. It can thus be considered that the actual total number of animals used is higher than the number mentioned in the summary table.

On that subject, it should be noted that for several Member States, nationwide collection of statistical data had never been undertaken before.

Presumably, a certain number of laboratories were not or could not be contacted and questioned about the number and species of animals used.

This brings us to conclude that it is very likely that the future statistical report, which will eventually become a routine exercise, will indicate an increase of the total number of animals used.

Quite obviously, this will be due to the improvement of the data collection system.

The objective of the report will then be to determine how and why laboratory animals are used in Member States and to design trends which occur over a specific period of time.

However, this exercise will only be possible once the statistical data submitted by Member States is complete and systematically collected.

On the other hand, a general tendency towards the reduction of the number of animals used as well as the reduction of pain caused to these animals is to be noticed within the European Union and in other countries of the world.

This is partly due to the development and introduction of alternative methods to animal experimentation.

It is also to be expected that, as ECVAM becomes better established and more operational, its activities will be complementary to those initiated in the Member States in view of the three R's principle, i.e: "Reduction, Refinement and Replacement".

The total number of animals used in 1991 (1) in the Member States (2)

Species or group of species	Number										
	Germany	Denmark	Spain	France	Greece	Ireland	Italy	Nether-lands	Portugal	United Kingdom	Total EEC
Mice (<i>Mus musculus</i>)	1 223 741	187 627	313 250	2 264 225	17 146	17 550	321 635	378 834	72 599	1 694 505	6 491 112
Rats (<i>Rattus norvegicus</i>)	611 530	87 083	135 659	871 789	5 468	3 053	294 345	286 276	2 944	872 622	3 170 769
Guinea pigs (<i>Cavia porcellus</i>)	101 842	8 162	17 464	147 495	430	423	20 696	19 044	3 412	129 158	448 126
Other rodents	25 905	3 247	1 201	33 461	0	249	15 760	9 384	1 675	19 707	110 589
Rabbits (<i>Oryctolagus cuniculus</i>)	70 228	6 299	17 307	113 773	631	1 112	28 754	13 060	2 180	44 442	297 786
Apes (<i>Hominoidea</i>)	5	89	0	12	0		291	611	0	0	8 545
Other simians (<i>Cercopithecoidea-Caboidea</i>)	1 547		7	2 788	0				0	2 727	
Prosimians (<i>Prosimia</i>)	116		18	332	0				1	1	
Dogs (<i>Canis familiaris</i>)	6 517	332	1 497	7 721	5	45	1 144	2 078	123	7 620	27 082
Cats (<i>Felis catus</i>)	1 921	138	96	2 808	0	17	325	542	0	2 807	8 591
Other carnivores	228	0	70	566	0			407	0	3 002	4 273
Horses, donkeys and cross-breds (<i>Equidae</i>)	217	32	5	258	1	34		151	3	643	1 344
Pigs (<i>Sus</i>)	12 158	2 110	1 109	15 467	95	153	338	7 876	779	8 335	48 420
Goats and sheep (<i>Capra & ovis</i>)	2 690	135	728	4 261	105	990	5	1 796	716	14 910	26336
Cattle (<i>Bos</i>)	3 079	221	74	2 425	0	1 488		2 386	530	6 041	16 244
Other mammals	286	403	0	392	0	37		71	0	1 808	2 997
Birds (<i>Aves</i>)	87 621	122	69 018	91 452	228	44		90 676	1 398	227 972	568 531
Reptiles (<i>Reptilia</i>)	124	8 370	0	852	0			162	4	11	1 153
Amphibians (<i>Amphibia</i>)	6 568		390	30 690	1 330	4		4 810	553	13 530	66 245
Fish (<i>Pisces</i>)	246 387		621	54 941	0			57 894	200	131 927	491 970
TOTAL	2 402 710	304 370	558 823	3 645 708	25 439	25 199	683 293	876 058	87 117	3 181 768	11 790 485

- (1) the data submitted by Portugal relate to 1992
the data submitted by France relate to 1990
- (2) Luxembourg and Belgium did not supply any data
- (3) the shaded areas on the chart indicate that the information is not available

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