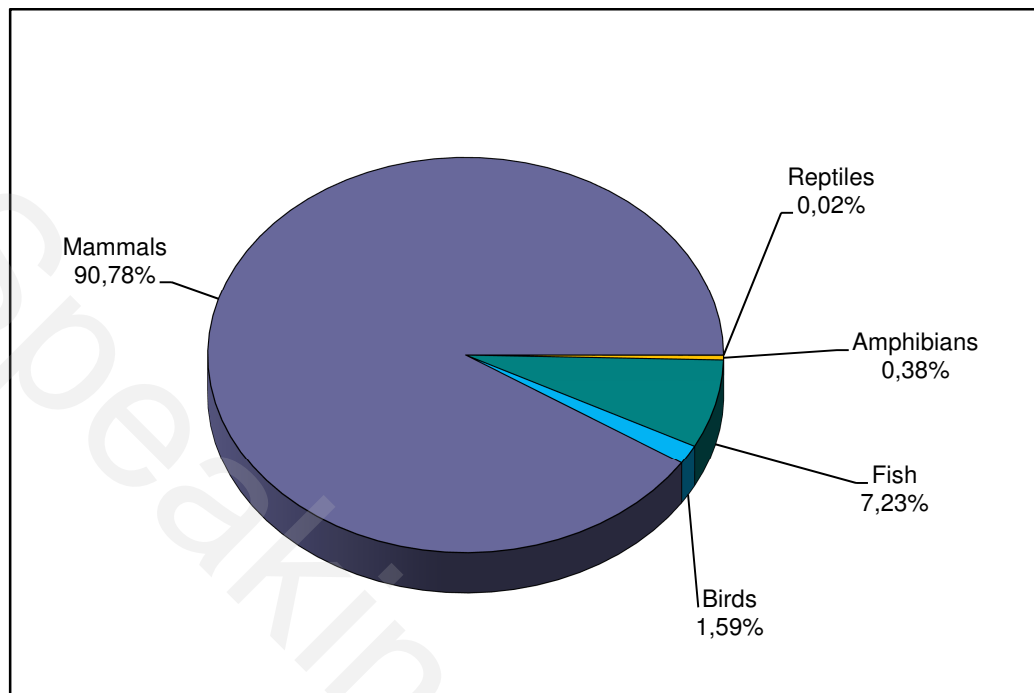


## 1. Animals used by species

Table 1: In total animals used by species

Animal Species	Number of Animals	%
Mice	2.005.097	72.83%
Rats	320.629	11.65%
Guinea-Pigs	18.523	0.67%
Hamsters (Syrian)	1.403	0.05%
Hamsters (Chinese)	30	0.00%
Mongolian gerbil	4.883	0.18%
Other Rodents	13.343	0.48%
Rabbits	107.652	3.91%
Cats	502	0.02%
Dogs	2.437	0.09%
Ferrets	207	0.01%
Other carnivores	686	0.02%
Horses, donkeys & cross-breeds	1.252	0.05%
Pigs	12.279	0.45%
Goats	942	0.03%
Sheep	1.719	0.06%
Cattle	3.762	0.14%
Prosimians	78	0.00%
Marmoset and tamarins	228	0.01%
Cynomolgus monkey	2.075	0.08%
Rhesus monkey	26	0.00%
Baboons	6	0.00%
Other Mammals	1.523	0.06%
Domestic fowl	29.703	1.08%
Other birds	13.970	0.51%
Reptiles	453	0.02%
Rana	143	0.01%
Xenopus	6.943	0.25%
Other Amphibians	3.305	0.12%
Zebra fish	118.423	4.30%
Other Fish	80.749	2.93%
Cephalopods	80	0.00%
<b>Total</b>	<b>2.753.051</b>	<b>100.00%</b>

*Animals used under § 7 (2) or § 4 (3) of the Animal Protection Act (excludes re-use)*

**Figure 1: Animals used by species groups**

*Animals used under § 7 (2) or § 4 (3) of the Animal Protection Act (excludes re-use)*

**Table 2: Animals used by species groups**

Species grouping Level 1	Number of Animals
Warm-blooded vertebrates	2.542.955
Cold-blooded vertebrates	210.016
Invertebrates	80
<b>Total</b>	<b>2.743.051</b>

Species grouping Level 2	Number of Animals
Mammals	2.499.282
Birds	43.673
Fish	199.172
Amphibians	10.391
Reptiles	453
Cephalopods	80
<b>Total</b>	<b>2.753.051</b>

Mammals	Number of Animals
Rodents	2.363.908
Rabbits	107.652
Carnivores	3.832
Equidae	1.252
Artiodactyla	18.702
Non-human primates	2.413
Other mammals	1.523
<b>Total</b>	<b>2.499.282</b>

Non-human primates	Number of Animals
Prosimians	78
New World Monkeys	228
Old World Monkeys	2.107
<b>Total</b>	<b>2.413</b>

*Animals used under § 7 (2) or § 4 (3) of the Animal Protection Act (excludes re-use)*

## 2. Origin of used Animals

Table 3: Origin of used animals in total

	Animals born in				Total
	the EU at a registered breeder	the EU but not at a registered breeder	rest of Europe	rest of the world	
Mice	1.950.849	45.795	318	8.135	2.005.097
Rats	315.442	2.370	55	2.762	320.629
Guinea-Pigs	18.406	117			18.523
Hamsters (Syrian)	1.403				1.403
Hamsters (Chinese)	30				30
Mongolian gerbil	4.525	290		68	4.883
Other Rodents	911	12.432			13.343
Rabbits	106.486	300		866	107.652
Cats	215	97		190	502
Dogs	389	789		1.259	2.437
Ferrets	145	24		38	207
Other carnivores	413	269	4		686
Horses, donkeys & cross-breeds	304	948			1.252
Pigs	9.131	3.148			12.279
Goats	61	881			942
Sheep	759	960			1.719
Cattle	1.959	1.803			3.762
Prosimians	78				78
Marmoset and tamarins	228				228
Cynomolgus monkey	94			1.981	2.075

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Rhesus monkey	26				26
Baboons	6				6
Other Mammals	300	1.195		28	1.523
Domestic fowl	24.167	5.536			29.703
Other birds	6.837	6.731	99	303	13.970
Reptiles	7	218		228	453
Rana	10	133			143
Xenopus	5.245	50		1.648	6.943
Other Amphibians	1.437	1629		239	3.305
Zebra fish	104.093	14.330			118.423
Other Fish	53.388	14.950	11.243	1.168	80.749
Cephalopods		48	32		80
<b>Total</b>	<b>2.607.355</b>	<b>115.043</b>	<b>11.751</b>	<b>18.913</b>	<b>2.753.051</b>

Animals used under § 7 (2) or § 4 (3) of the Animal Protection Act (excludes re-use)

Table 4 – 6: Origin of used animals by species groups

	Animals born in the EU at a registered breeder	Animals born in the EU but not at a registered breeder	Animals born in rest of Europe	Animals born in rest of the world	Total
Warm-blooded vertebrates	2.443.175	83.685	476	15.630	2.542.955
Cold-blooded vertebrates	164.180	31.310	11.243	3.283	210.016
Invertebrates		48	32		80
<b>Total</b>	<b>2.607.355</b>	<b>115.043</b>	<b>11.751</b>	<b>18.913</b>	<b>2.753.051</b>

	Animals born in the EU at a registered breeder	Animals born in the EU but not at a registered breeder	Animals born in rest of Europe	Animals born in rest of the world	Total
Mammals	2.412.171	71.418	377	15.327	2.499.282
Birds	31.004	12.267	99	303	43.673
Fish	157.481	29.280	11.243	1.168	199.172
Amphibians	6.692	1.812		1.887	10.391
Reptiles	7	218		228	453
Cephalopods		48	32		80
<b>Total</b>	<b>2.607.355</b>	<b>115.043</b>	<b>11.751</b>	<b>18.913</b>	<b>2.753.051</b>

	Animals born in the EU at a registered breeder	Animals born in the EU but not at a registered breeder	Animals born in rest of Europe	Animals born in rest of the world	Total
Rodents	2.291.566	61.004	373	10.965	2.363.908
Rabbits	106.486	300		866	107.652
Carnivores	1.162	1.179	4	1.487	3.832
Equidae	304	948			1.252
Artiodactyla	11.910	6.792			18.702
Non-human primates	443			1.981	2.413
Other mammals	300	1.195		28	1.523
<b>Total</b>	<b>2.412.171</b>	<b>71.418</b>	<b>377</b>	<b>15.327</b>	<b>2.499.282</b>

*Animals used under § 7 (2) or § 4 (3) of the Animal Protection Act (excludes re-use)*

### 3. Non-Human Primates by source and generation

Table 7: Generation of non-human primates

NHP Generation	Number of Animals
F0	0
F1	508
F2 or greater	1.210
Self-sustaining colony	695
<b>Total</b>	<b>2.413</b>

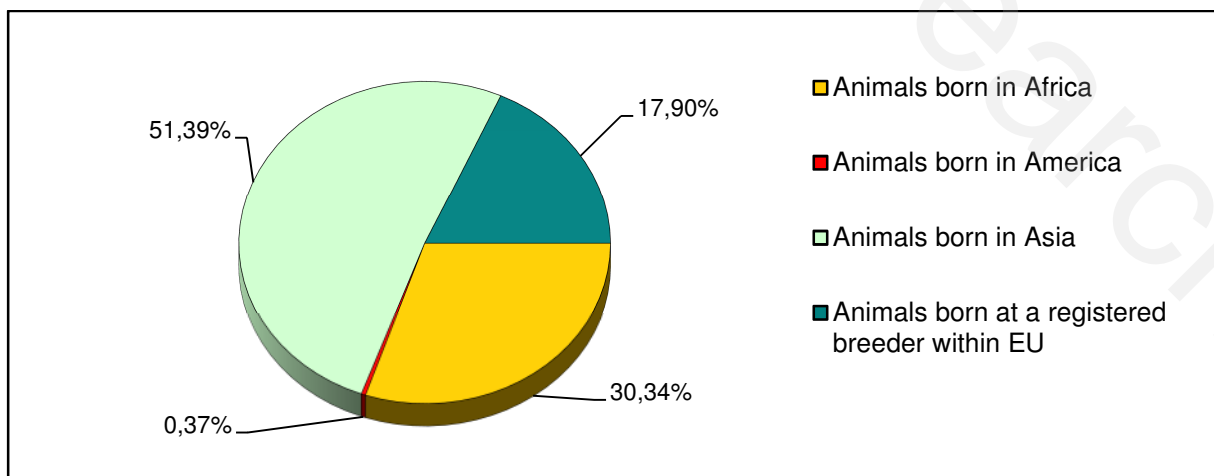
*Animals used under § 7 (2) or § 4 (3) of the Animal Protection Act (excludes re-use)*

Table 8: Origin of non-human primates

NHP Source (origin)	Number of Animals
Animals born at a registered breeder within EU	432
Animals born in rest of Europe	0
Animals born in Asia	1.240
Animals born in America	9
Animals born in Africa	732
Animals born elsewhere	0
<b>Total:</b>	<b>2.413</b>

*Animals used under § 7 (2) or § 4 (3) of the Animal Protection Act (excludes re-use)*

Figure 2: Origin of non-human primates (%)



*Animals used under § 7 (2) or § 4 (3) of the Animal Protection Act (excludes re-use)*

#### 4. Use of species in procedures by purposes

Table 9: Use of species in procedures by purposes

	Basic Research	Translational and applied research	Regulatory use and Routine production	Protection of the natural environment in the interests of the health or welfare of human beings or animals	Preservation of species	Higher education or training for the acquisition, maintenance or improvement of vocational skills	Forensic enquiries	Maintenance of colonies of established genetically altered animals, not used in other procedures	Total
Mice	811.744	237.638	271.384	74	6.511	31.654	4	41.813	<b>1.400.822</b>
Rats	38.003	41.473	171.452		32	11.311		1.047	<b>263.318</b>
Guinea-Pigs	588	3.415	13.827			407			<b>18.237</b>
Hamsters (Syrian)	6	654	646			84			<b>1.390</b>
Hamsters (Chinese)			30						<b>30</b>
Mongolian gerbil	1.074	1.702	1.713			79			<b>4.568</b>
Other Rodents	2.609	1.745	8.258	149		32			<b>12.793</b>
Rabbits	1.307	979	108.449			253			<b>110.988</b>
Cats	111	296	663			42			<b>1.112</b>
Dogs	433	1.022	2.880	6		150			<b>4.491</b>
Ferrets	48	182							<b>230</b>
Other carnivores	187	2	497						<b>686</b>
Horses, donkeys & cross-breeds	1.255	158	23			71			<b>1.507</b>
Pigs	2.771	4.166	3.885	32		1.451			<b>12.305</b>
Goats	70	757	55			22			<b>904</b>
Sheep	303	1.413	276			298			<b>2.290</b>

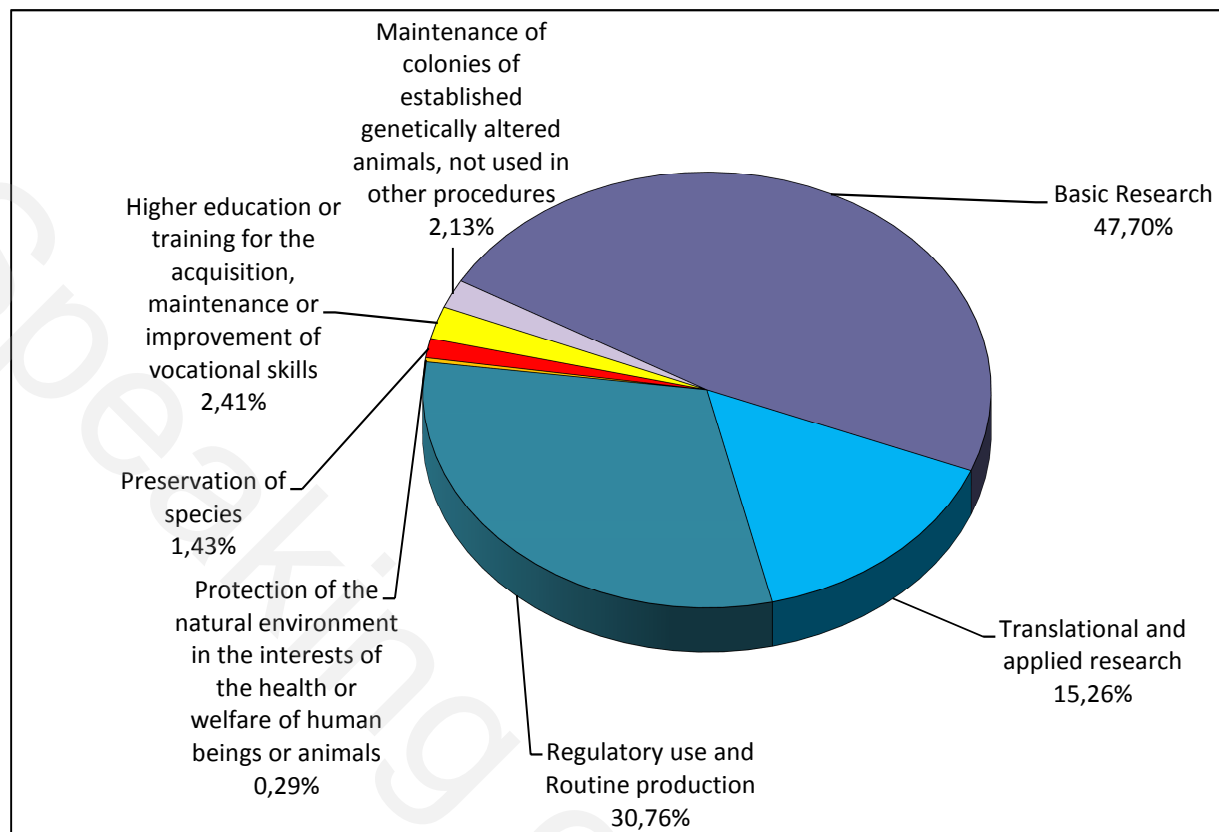
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Cattle	1.341	1.404	1.042			242			4.029
Prosimians	102								102
Marmoset and tamarins	123	3	160			6			292
Cynomolgus monkey	65	169	2.442			2			2.678
Rhesus monkey	21	13				5			39
Baboons		6							6
Other species of Old World Monkeys		1							1
Other Mammals	865	156	155	115	19	73			1.383
Domestic fowl	6.273	6.355	11.872		816	342			25.658
Other birds	7.897	4.008	1.459		141	147	11		13.663
Reptiles	150		300	43		8			501
Rana			132						132
Xenopus	3.821	81				136			4.038
Other Amphibians	1.150	18	60	951		11			2.190
Zebra fish	66.713	1.285	16.967	954		1.528		700	88.147
Other Fish	26.659	3.037	10.555	3.667	21.778	1.035			66.731
<b>Total</b>	<b>975.689</b>	<b>312.138</b>	<b>629.182</b>	<b>5.991</b>	<b>29.297</b>	<b>49.389</b>	<b>15</b>	<b>43.560</b>	<b>2.045.261</b>

Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)



Figure 3: Use of animals in procedures by purposes



*Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)*

Table 10: Use of species in basic research purposes

	Oncology	Cardio-vascular Blood and Lymphatic System	Nervous System	Respiratory System	Gastrointestinal System including Liver	Musculoskeletal System	Immune System	Urogenital/ Reproductive System	Sensory Organs (skin, eyes and ears)	Endocrine System/ Metabolism	Multisystemic	Ethology / Animal Behaviour / Animal Biology	Other basic research	Total
Mice	75.402	57.515	108.899	31.759	23.930	5.215	252.050	15.306	22.332	30.540	45.831	1.253	141.712	811.744
Rats	744	4.865	16.938	1.572	1.889	1.804	4.307	792	405	1.439	778	206	2.264	38.003
Guinea-Pigs	72			31			143		293			35	14	588
Hamsters (Syrian)			6											6
Mongolian gerbil			711		47		74		242				0	1.074
Other Rodents	103		4		6			20		129		2.347	0	2.609
Rabbits	51	435	11	35		75	1	73	103	0	148	5	370	1.307
Cats			7					14	44	30			16	111
Dogs		18	142		2	143	2	8	35	9	74			433
Ferrets			48											48
Other carnivores								4				173	10	187
Horses, donkeys & cross-breeds				31	88	96	17	80	621	86	25	4	207	1.255
Pigs	74	317	74	109	201	54	413	18	1	157	29	462	862	2.771
Goats											5	59	6	70
Sheep		19	16		13	129	33				21	28	44	303
Cattle		6	2		108		166	456		297	225	47	34	1.341

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Prosimians			41									61		102
Marmoset and tamarins			22	42				54			5			123
Cynomolgus monkey			65											65
Rhesus monkey			21											21
Other Mammals			76		6	97	17	9	14	2	567	77		865
Domestic fowl			63		185		151		83	223	4	50	5.514	6.273
Other birds		35	110		5	1.133	30	10				6.508	66	7.897
Reptiles			106	30								14		150
Xenopus	100	70	335		28	44		186	89	358	254	223	2.134	3.821
Other Amphibians		7	19			382		0				420	322	1.150
Zebra fish	1.477	18.265	12.822		380	10.115	3.407	2.043	1.703	10.443	1.450	836	3.772	66.713
Other Fish	3.139		257	3			1.006	989	1.645	32	172	18.432	984	26.659
<b>Total</b>	<b>81.162</b>	<b>81.552</b>	<b>140.795</b>	<b>33.612</b>	<b>26.877</b>	<b>18.068</b>	<b>263.000</b>	<b>20.090</b>	<b>27.615</b>	<b>43.757</b>	<b>49.023</b>	<b>31.730</b>	<b>158.408</b>	<b>975.689</b>
<b>%</b>	<b>8.32%</b>	<b>8.36%</b>	<b>14.43%</b>	<b>3.44%</b>	<b>2.75%</b>	<b>1.85%</b>	<b>26.96%</b>	<b>2.06%</b>	<b>2.83%</b>	<b>4.48%</b>	<b>5.02%</b>	<b>3.25%</b>	<b>16.24%</b>	<b>100.00%</b>

Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)

Table 11: Use of species in translational and applied research purposes

	Human Cancer	Human Infectious Disorders	Human Cardiovascular Disorders	Human Nervous and Mental Disorders	Human Respiratory Disorders	Human Gastrointestinal Disorders including Liver	Human Musculoskeletal Disorders	Human Immune Disorders	Human Urogenital/Reproductive Disorders	Human Sensory Organ Disorders (skin, eyes and ears)	Human Endocrine/Metabolism Disorders	Other Human Disorders	Animal Diseases and Disorders	Animal Welfare	Diagnosis of diseases	Plant diseases	Non-regulatory toxicology and ecotoxicology	Total
Mice	113.721	17.404	11.782	32.621	10.068	6.279	1.527	12.899	4.336	1.466	12.987	1.288	4.506	547	2.830		3.377	237.638
Rats	1.288	335	3.150	14.059	3.288	2.333	1.277	1.129	957	672	7.287	741	802	24	170		3.961	41.473
Guinea-Pigs	2	264	280	340	1.643					192			59	240	365		30	3.415
Hamsters (Syrian)	26	572		52					4									654
Mongolian gerbil		1.069								12			621					1.702
Other Rodents		1.689											56					1.745
Rabbits	31	51	175	34		36	125	10		52			271		173	21		979
Cats													296					296
Dogs	20		12	119	90		2			1	51	8	643	4	52		20	1.022
Ferrets		162											20					182
Other carnivores													2					2
Horses, donkeys & cross-breeds							15	5					79	35	24			158
Pigs	98	42	254	6	108	88	36	8	3	21	40	186	2.271	462	97		446	4.166
Goats													750		7			757
Sheep	11	8	113	29	23		271						258		700			1.413

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Cattle													845	482	77			1.404
Marmoset and tamarins		2								1								3
Cynomolgus monkey			38	17	32			30		39	1					12		169
Rhesus monkey	3	6								4								13
Baboons			6															6
Other species of Old World Monkeys		1																1
Other Mammals		86						21					4	45				156
Domestic fowl		93											4.208	2.010	44			6.355
Other birds													3.922	86				4.008
Xenopus			44	25						12								81
Other Amphibians				18														18
Zebra fish			392	109						695							89	1.285
Other Fish													590	808			1.639	3.037
<b>Total</b>	<b>115.200</b>	<b>21.784</b>	<b>16.246</b>	<b>47.429</b>	<b>15.252</b>	<b>8.736</b>	<b>3.253</b>	<b>14.081</b>	<b>5.321</b>	<b>3.123</b>	<b>20.409</b>	<b>2.224</b>	<b>20.203</b>	<b>4.743</b>	<b>4.539</b>	<b>21</b>	<b>9.574</b>	<b>312.138</b>
<b>%</b>	<b>36.91%</b>	<b>6.98%</b>	<b>5.20%</b>	<b>15.19%</b>	<b>4.89%</b>	<b>2.80%</b>	<b>1.04%</b>	<b>4.51%</b>	<b>1.70%</b>	<b>1.00%</b>	<b>6.54%</b>	<b>0.71%</b>	<b>6.47%</b>	<b>1.52%</b>	<b>1.45%</b>	<b>0.01%</b>	<b>3.07%</b>	<b>100.00%</b>

Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)

**Table 12: Regulatory use of animals and routine production purposes**

	Quality control (incl batch safety and potency test- ing)	Other efficacy and tolerance testing	Toxicity and other safety testing includ- ing pharma- cology	Routine pro- duction	Total
Mice	137.844	35.904	93.903	3.733	<b>271.384</b>
Rats	63.578	3.768	103.855	251	<b>171.452</b>
Guinea-Pigs	8.518	73	5.227	9	<b>13.827</b>
Hamsters (Syrian)	350		296		<b>646</b>
Hamsters (Chinese)			30		<b>30</b>
Mongolian gerbil			1.546	167	<b>1.713</b>
Other Rodents			8.258		<b>8.258</b>
Rabbits	14.263	10	6.662	87.514	<b>108.449</b>
Cats	147	69	429	18	<b>663</b>
Dogs		272	2.608		<b>2.880</b>
Other carnivores	235	120	142		<b>497</b>
Horses, donkeys & cross-breeds	4		19		<b>23</b>
Pigs	567	2.365	918	35	<b>3.885</b>
Goats			50	5	<b>55</b>
Sheep	52	16	134	74	<b>276</b>
Cattle	466	264	299	13	<b>1.042</b>
Marmoset and tamarins			160		<b>160</b>
Cynomolgus mon- key			2.442		<b>2.442</b>
Other Mammals		63	77	15	<b>155</b>
Domestic fowl	9.308	2.323	192	49	<b>11.872</b>
Other birds		138	1.321		<b>1.459</b>
Reptiles				300	<b>300</b>
Rana			132		<b>132</b>
Other Amphibians			60		<b>60</b>
Zebra fish			16.967		<b>16.967</b>
Other Fish			10.555		<b>10.555</b>
<b>Total</b>	<b>235.332</b>	<b>45.385</b>	<b>256.282</b>	<b>92.183</b>	<b>629.182</b>
<b>%</b>	<b>37.40%</b>	<b>7.21%</b>	<b>40.73%</b>	<b>14.65%</b>	<b>100.00%</b>

Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)

**Table 13: Use of animals in quality control purposes**

	Batch safety testing	Pyrogenicity testing	Batch potency testing	Other quality controls	Total
Mice	25.705		112.139		137.844
Rats	4.316		59.262		63.578
Guinea-Pigs	3.603		4.906	9	8.518
Hamsters (Syrian)			350		350
Rabbits	188	6.992	7.042	41	14.263
Cats	50		97		147
Other carnivores	235				235
Horses, donkeys & cross-breeds	0		4		4
Pigs	377		150	40	567
Sheep			52		52
Cattle	34		432		466
Domestic fowl	9.260			48	9.308
<b>Total</b>	<b>43.768</b>	<b>6.992</b>	<b>184.434</b>	<b>138</b>	<b>235.332</b>
<b>%</b>	<b>18.60%</b>	<b>2.97%</b>	<b>78.37%</b>	<b>0.06%</b>	<b>100.00%</b>

Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)

**Table 14: Use of animals in routine production purposes**

	Blood based products	Monoclonal antibodies	Other product types	Total
Mice		894	2.839	3.733
Rats		6	245	251
Guinea-Pigs			9	9
Mongolian gerbil			167	167
Rabbits	86.084	16	1.414	87.514
Cats			18	18
Pigs	12		23	35
Goats	5			5
Sheep	61	1	12	74
Cattle			13	13
Other Mammals			15	15
Domestic fowl	24		25	49
Reptiles			300	300
<b>Total</b>	<b>86.186</b>	<b>917</b>	<b>5.080</b>	<b>92.183</b>
<b>%</b>	<b>93.49%</b>	<b>0.99%</b>	<b>5.51%</b>	<b>100.00%</b>

Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)

Table 15: Use of animals in toxicity and other safety testing by test type purposes

	Acute and sub-acute	Skin irritation/corrosion	Skin sensitisation	Repeated dose toxicity	Carcinogenicity	Genotoxicity	Reproductive toxicity	Developmental toxicity	Neurotoxicity	Kinetics	Pharmacodynamics	Phototoxicity	Ecotoxicity	Target animal safety	Eye irritation/corrosion	Other toxicity/safety testing	Total
Mice	2.800		6.091	6.386	1.130	3.297	32			20.957	50.524		280	564		1.842	93.903
Rats	3.460	41	12	13.582	3.923	782	21.866	11.657	90	13.780	33.444	12		60		1.146	103.855
Guinea-Pigs	2		5.008							44	163					10	5.227
Hamsters (Syrian)		31		142						23	100						296
Hamsters (Chinese)						30											30
Mongolian gerbil											1.546						1.546
Other Rodents													5.089	314		2.855	8.258
Rabbits	84	803	59	276		58	299	2.449		366	1.891				225	152	6.662
Cats										305	77			23		24	429
Dogs	62			739						1.267	484			36		20	2.608
Other carnivores	58													84			142
Horses, donkeys & cross-breeds										19							19
Pigs	26	19		141						245	308			167		12	918
Goats										50							50
Sheep										57	21					56	134
Cattle										160	20			3		116	299
Marmoset and tamarins				42						35	22					61	160
Cynomolgus monkey				1.461			191	113		351	50					276	2.442



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Other Mammals														77			77
Domestic fowl									12			15	165				192
Other birds	40								21			1.260					1.321
Rana												132					132
Other Amphibians												60					60
Zebra fish								800				16.167					16.967
Other Fish	2.076											8.371	108				10.555
<b>Total</b>	<b>8.608</b>	<b>894</b>	<b>11.170</b>	<b>22.769</b>	<b>5.053</b>	<b>4.167</b>	<b>22.388</b>	<b>15.019</b>	<b>90</b>	<b>37.692</b>	<b>88.650</b>	<b>12</b>	<b>31.374</b>	<b>1.601</b>	<b>225</b>	<b>6.570</b>	<b>256.282</b>
<b>%</b>	<b>3.36%</b>	<b>0.35%</b>	<b>4.36%</b>	<b>8.88%</b>	<b>1.97%</b>	<b>1.63%</b>	<b>8.74%</b>	<b>5.86%</b>	<b>0.04%</b>	<b>14.71%</b>	<b>34.59%</b>	<b>0.00%</b>	<b>12.24%</b>	<b>0.62%</b>	<b>0.09%</b>	<b>2.56%</b>	<b>100.00%</b>

Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)

Table 16: Use of animals in repeated dose toxicity testing methods

	up to 28 days	29 - 90 days	> 90 days	Total
Mice	5.735	509	142	6.386
Rats	10.119	2.199	1.264	13.582
Hamsters (Syrian)	142			142
Rabbits	228	16	32	276
Dogs	557	107	75	739
Pigs	83	6	52	141
Marmoset and tamarins		6	36	42
Cynomolgus monkey	392	289	780	1.461
<b>Total</b>	<b>17.256</b>	<b>3.132</b>	<b>2.381</b>	<b>22.769</b>
<b>%</b>	<b>75.79%</b>	<b>13.76%</b>	<b>10.46%</b>	<b>100.00%</b>

Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)

Table 17: Use of animals in acute and subacute toxicity testing methods

	LD50. LC50	Other lethal methods	Non lethal methods	Total
Mice	192	117	2.491	2.800
Rats	1.233		2.227	3.460
Guinea-Pigs			2	2
Rabbits			84	84
Dogs			62	62
Carnivores	58			58
Pigs			26	26
Other birds			40	40
Other Fish	2.076			2.076
<b>Total</b>	<b>3.559</b>	<b>117</b>	<b>4.932</b>	<b>8.608</b>
<b>%</b>	<b>41.35%</b>	<b>1.36%</b>	<b>57.30%</b>	<b>100.00%</b>

Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)

Table 18: Use of animals in ecotoxicity testing methods

	Acute toxicity	Chronic toxicity	Reproductive ecotoxicity	Endocrine activity	Bioaccumulation	Other ecotoxicity	Total
Mice	280						280
Other Rodents						5.089	5.089
Domestic fowl	15						15
Other birds	464		796				1.260
Rana	132						132
Other Amphibians		60					60
Zebra fish	3.486	2.883	847	8.210	591	150	16.167
Other Fish	3.644	3.345		48	1.267	67	8.371
<b>Total</b>	<b>8.021</b>	<b>6.288</b>	<b>1.643</b>	<b>8.258</b>	<b>1.858</b>	<b>5.306</b>	<b>31.374</b>
<b>%</b>	<b>25.57%</b>	<b>20.04%</b>	<b>5.24%</b>	<b>26.32%</b>	<b>5.92%</b>	<b>16.91%</b>	<b>100.00%</b>

Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)

## 5. Use of species and severity

Table 19: Use of species and severity in total

	Non-recovery	%	Mild [up to and including]	%	Moderate	%	Severe	%	Total
Mice	758.240	37.33%	809.548	39.85%	366.475	18.04%	97.075	4.78%	<b>2.031.338</b>
Rats	77.546	23.77%	150.729	46.20%	92.753	28.43%	5.205	1.60%	<b>326.233</b>
Guinea-Pigs	1.576	8.38%	12.016	63.88%	1.765	9.38%	3.452	18.35%	<b>18.809</b>
Hamsters (Syrian)	68	4.83%	1.247	88.50%	93	6.60%	1	0.07%	<b>1.409</b>
Hamsters (Chinese)			30	100.00%					<b>30</b>
Mongolian gerbil	963	18.31%	3.007	57.19%	1.244	23.66%	44	0.84%	<b>5.258</b>
Other Rodents	625	4.66%	12.607	94.10%	151	1.13%	15	0.11%	<b>13.398</b>
Rabbits	1.224	1.10%	108.207	96.86%	1.973	1.77%	314	0.28%	<b>111.718</b>
Cats	17	1.53%	862	77.52%	183	16.46%	50	4.50%	<b>1.112</b>
Dogs	6	0.13%	3.993	88.91%	475	10.58%	17	0.38%	<b>4.491</b>
Ferrets	12	5.06%	190	80.17%	35	14.77%			<b>237</b>
Other carnivores	5	0.73%	327	47.67%	354	51.60%			<b>686</b>
Horses, donkeys & cross-breeds	63	4.13%	1.424	93.38%	38	2.49%			<b>1.525</b>
Pigs	3.146	23.81%	8.566	64.83%	1.407	10.65%	94	0.71%	<b>13.213</b>
Goats	49	5.14%	890	93.39%	11	1.15%	3	0.31%	<b>953</b>
Sheep	204	8.77%	1.104	47.44%	1.004	43.15%	15	0.64%	<b>2.327</b>
Cattle	173	4.17%	3.246	78.22%	670	16.14%	61	1.47%	<b>4.150</b>

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Prosimians			102	100.00%					102
Marmoset and tamarins	12	3.95%	216	71.05%	76	25.00%			304
Cynomolgus monkey	8	0.30%	1.828	68.13%	846	31.53%	1	0.04%	2.683
Rhesus monkey	6	13.33%	12	26.67%	27	60.00%			45
Baboons							6	100.00%	6
Other species of Old World Monkeys (Cercopithecoidea)			1	100.00%					1
Other Mammals	310	19.50%	1.065	66.98%	192	12.08%	23	1.45%	1.590
Domestic fowl	4.672	15.64%	22.586	75.60%	1.913	6.40%	703	2.35%	29.874
Other birds	972	6.80%	11.411	79.81%	1.910	13.36%	4	0.03%	14.297
Reptiles	257	33.95%	361	47.69%	139	18.36%			757
Rana	11	7.69%			132	92.31%			143
Xenopus	4.443	53.97%	3.624	44.02%	165	2.00%			8.232
Other Amphibians	1.300	39.33%	1.898	57.43%	107	3.24%			3.305
Zebra fish	37.733	31.22%	69.518	57.51%	11.923	9.86%	1.704	1.41%	120.878
Other Fish	20.699	25.62%	51.478	63.73%	3.779	4.68%	4.821	5.97%	80.777
Cephalopods	80	100.00%							80
<b>Total</b>	<b>914.420</b>	<b>32.65%</b>	<b>1.282.093</b>	<b>45.79%</b>	<b>489.840</b>	<b>17.49%</b>	<b>113.608</b>	<b>4.07%</b>	<b>2.799.961</b>

Animals used under § 7 (2) or § 4 (3) of the Animal Protection Act (includes re-use)

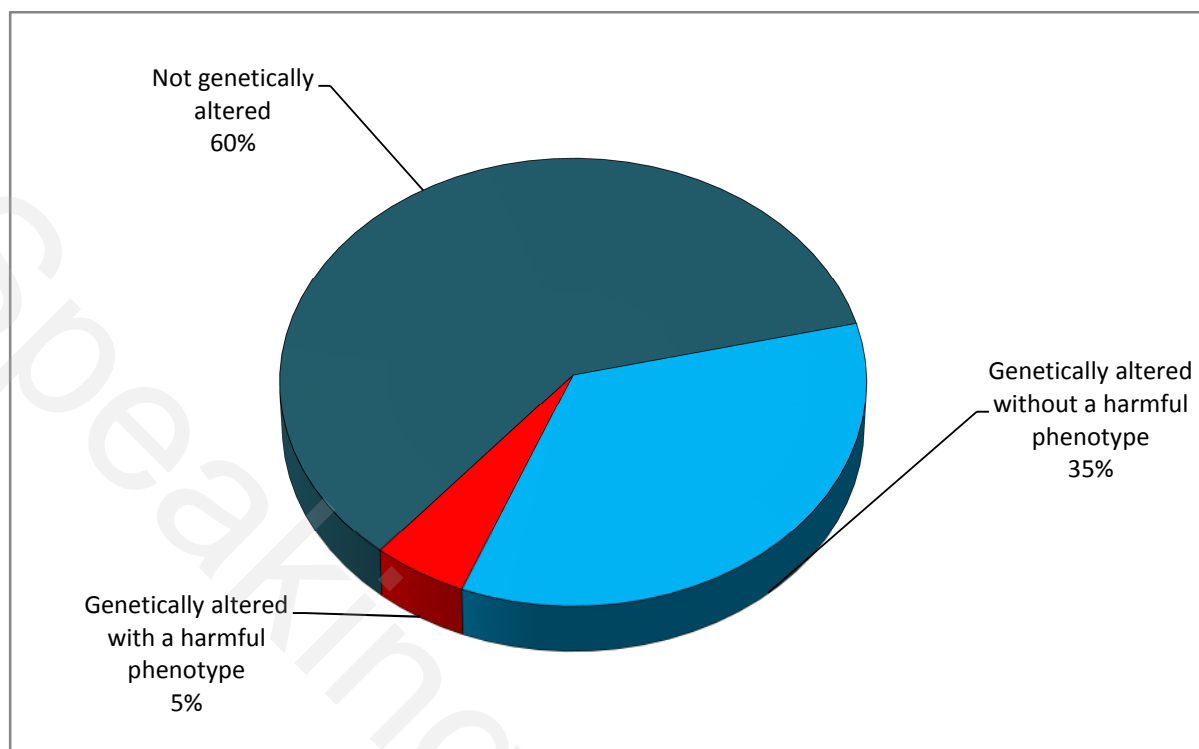
## 6. Use of species and genetic status

Table 20: Use of species and genetic status in total

	Not genetically altered	Genetically altered without a harmful phenotype	Genetically altered with a harmful phenotype	Total
Mice	1.005.176	917.359	108.803	2.031.338
Rats	313.437	9.472	3.324	326.233
Guinea-Pigs	18.809			18.809
Hamsters (Syrian)	1.409			1.409
Hamsters (Chinese)	30			30
Mongolian gerbil	5.258			5.258
Other Rodents	13.398			13.398
Rabbits	111.635		83	111.718
Cats	1.112			1.112
Dogs	4.491			4.491
Ferrets	237			237
Other carnivores	686			686
Horses, donkeys & cross-breeds	1.525			1.525
Pigs	12.935	180	98	13.213
Goats	953			953
Sheep	2.327			2.327
Cattle	4.149	1		4.150
Prosimians	102			102
Marmoset and tamarins	304			304
Cynomolgus monkey	2.683			2.683
Rhesus monkey	45			45
Baboons	6			6
Other species of Old World Monkeys (Cercopithecoidea)	1			1
Other Mammals	1.590			1.590
Domestic fowl	29.874			29.874
Other birds	14.297			14.297
Reptiles	757			757
Rana	143			143
Xenopus	8.228	4		8.232
Other Amphibians	3.184	121		3.305
Zebra fish	48.437	70.747	1.694	120.878
Other Fish	76.761	3.410	606	80.777
Cephalopods	80			80
<b>Total</b>	<b>1.684.059</b>	<b>1.001.294</b>	<b>114.608</b>	<b>2.799.961</b>

*Animals used under § 7 (2) or § 4 (3) of the Animal Protection Act (includes re-use)*

Figure 4: Use of animals: genetic status



*Animals used under § 7 (2) or § 4 (3) of the Animal Protection Act (includes re-use)*

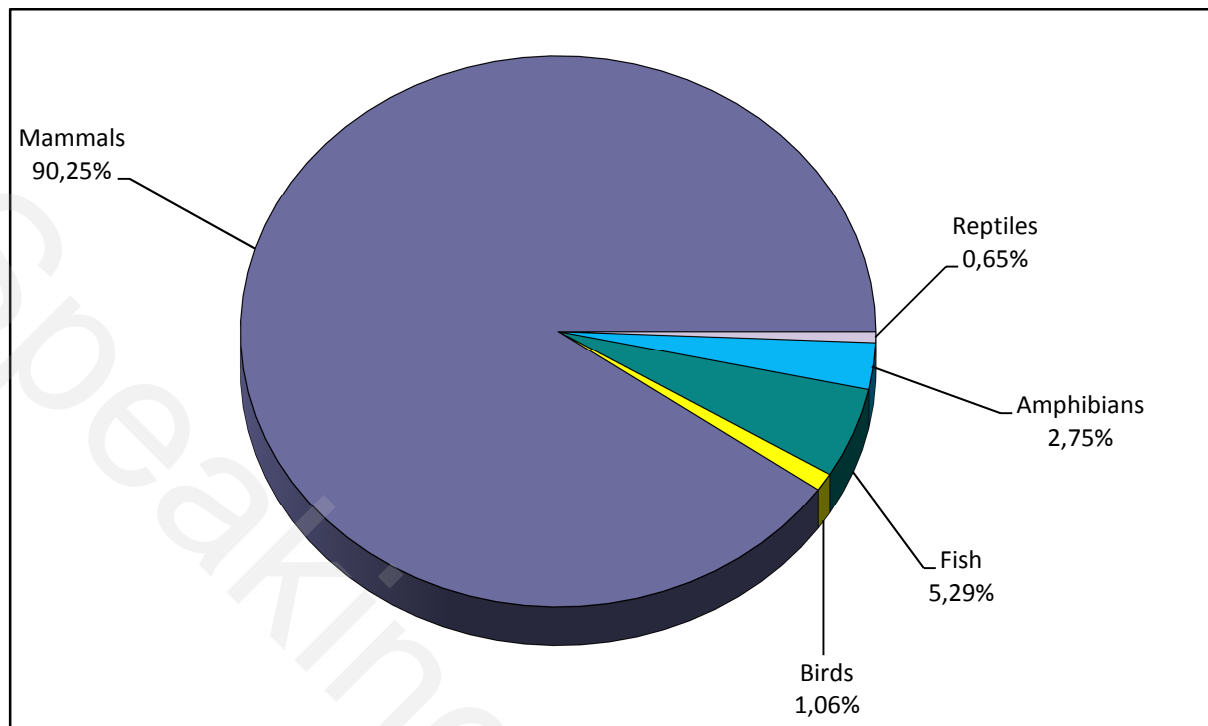
## 7. Use of Species and re-use

Table 21: Use of species and re-use in total

	(Naive) First use	Re-uses	Total
Mice	2.005.097	26.241	2.031.338
Rats	320.629	5.604	326.233
Guinea-Pigs	18.523	286	18.809
Hamsters (Syrian)	1.403	6	1.409
Hamsters (Chinese)	30		30
Mongolian gerbil	4.883	375	5.258
Other Rodents	13.343	55	13.398
Rabbits	107.652	4.066	111.718
Cats	502	610	1.112
Dogs	2.437	2.054	4.491
Ferrets	207	30	237
Other carnivores	686		686
Horses, donkeys & cross-breeds	1.252	273	1.525
Pigs	12.279	934	13.213
Goats	942	11	953
Sheep	1.719	608	2.327
Cattle	3.762	388	4.150
Prosimians	78	24	102
Marmoset and tamarins	228	76	304
Cynomolgus monkey	2.075	608	2.683
Rhesus monkey	26	19	45
Baboons	6		6
Other species of Old World Monkeys		1	1
Other Mammals	1.523	67	1.590
Domestic fowl	29.703	171	29.874
Other birds	13.970	327	14.297
Reptiles	453	304	757
Rana	143		143
Xenopus	6.943	1.289	8.232
Other Amphibians	3.305		3.305
Zebra fish	118.423	2.455	120.878
Other Fish	80.749	28	80.777
Cephalopods	80		80
<b>Total uses</b>	<b>2.753.051</b>	<b>46.910</b>	<b>2.799.961</b>

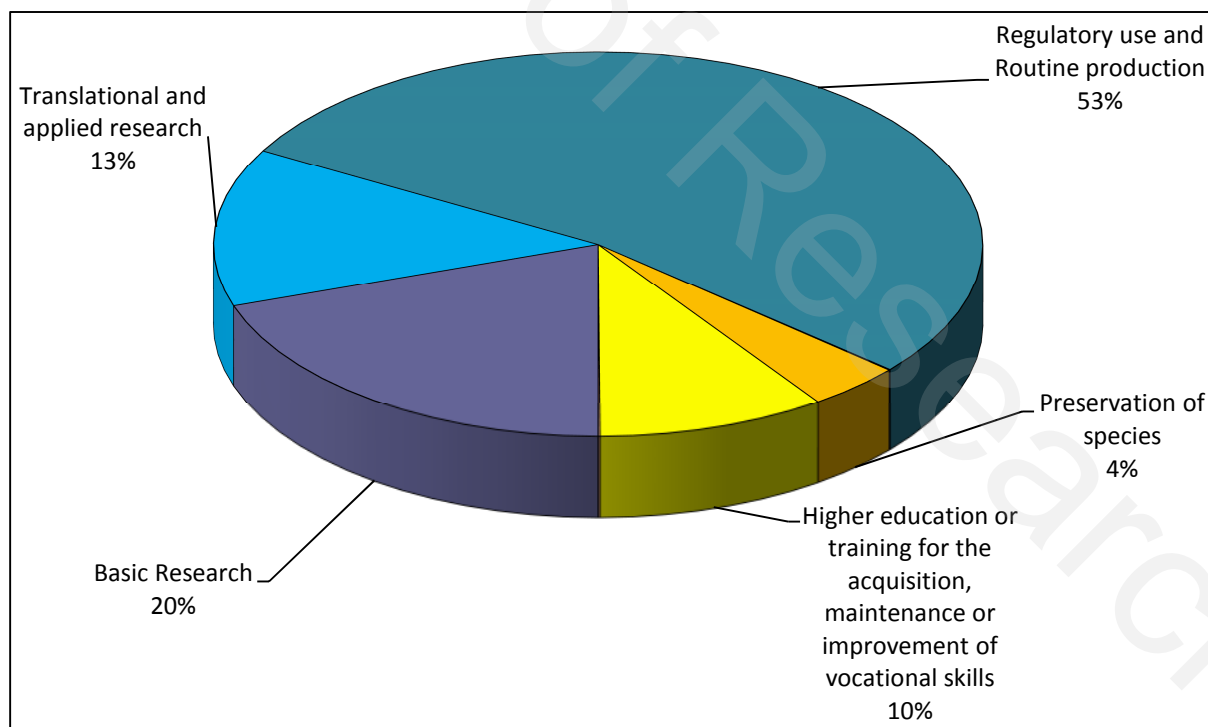
*Animals used under § 7 (2) or § 4 (3) of the Animal Protection Act (includes re-use)*

Figure 5: Use of species groups and re-use



*Animals used under § 7 (2) or § 4 (3) of the Animal Protection Act (includes re-use)*

Figure 6: Primary purpose and re-use



*Animals used under § 7 (2) or § 4 (3) of the Animal Protection Act (includes re-use)*



## 8. Purposes and severity

Table 22: Purpose and severity

	Non-recovery	Mild [up to and including]	Moderate	Severe	Total
Basic Research	118.935	637.679	199.722	19.353	975.689
Translational and applied research	22.878	157.810	122.213	9.237	312.138
Regulatory use and Routine production		408.851	136.431	83.900	629.182
Protection of the natural environment in the interests of the health or welfare of human beings or animals	27	5.234	718	12	5.991
Preservation of species	4.417	24.372	508		29.297
Higher education or training for the acquisition, maintenance or improvement of vocational skills	13.459	24.349	11.484	97	49.389
Forensic enquiries	4	11			15
Maintenance of colonies of established genetically altered animals, not used in other procedures		23.787	18.764	1.009	43.560
<b>Total</b>	<b>159.720</b>	<b>1.282.093</b>	<b>489.840</b>	<b>113.608</b>	<b>2.045.261</b>
<b>%</b>	<b>7.81%</b>	<b>62.69%</b>	<b>23.95%</b>	<b>5.55%</b>	<b>100.00%</b>

*Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)*

Table 23: Basic research purposes and severity

	Non-recovery	Mild [up to and including]	Moderate	Severe	Total
Oncology	7.090	38.996	33.294	1.782	81.162
Cardiovascular Blood and Lymphatic System	13.907	45.617	19.862	2.166	81.552
Nervous System	20.685	72.947	43.392	3.771	140.795
Respiratory System	2.837	23.522	6.993	260	33.612
Gastrointestinal System including Liver	6.594	12.016	7.846	421	26.877
Musculoskeletal System	3.906	10.255	3.632	275	18.068
Immune System	31.748	168.103	55.902	7.247	263.000
Urogenital/ Reproductive System	5.673	10.882	3.340	195	20.090
Sensory Organs (skin, eyes and ears)	4.479	17.205	3.428	2.503	27.615
Endocrine System/ Metabolism	4.155	30.276	9.244	82	43.757
Multisystemic	2.496	42.330	4.024	173	49.023
Ethology / Animal Behaviour / Animal Biology	185	28.205	3.312	28	31.730
Other basic research	15.180	137.325	5.453	450	158.408
<b>Total</b>	<b>118.935</b>	<b>637.679</b>	<b>199.722</b>	<b>19.353</b>	<b>975.689</b>
<b>%</b>	<b>12.19%</b>	<b>65.36%</b>	<b>20.47%</b>	<b>1.98%</b>	<b>100.00%</b>

*Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)*

**Table 24: Basic research: species and severity**

	Non-recovery	Mild [up to and including]	Moderate	Severe
Mice	104.891	512.275	177.730	16.848
Rats	5.546	15.731	14.480	2.246
Guinea-Pigs	139	421	28	
Hamsters (Syrian)		6		
Mongolian gerbil	247	393	433	1
Other Rodents		2.466	143	
Rabbits	294	718	293	2
Cats	17	60	34	
Dogs		433		
Ferrets	5	32	11	
Other carnivores	5	157	25	
Horses, donkeys & cross-breeds	2	1.230	23	
Pigs	607	1.877	283	4
Goats		70		
Sheep	23	144	134	2
Cattle	12	1.195	134	
Prosimians		102		
Marmoset and tamarins		86	37	
Cynomolgus monkey	3	10	52	
Rhesus monkey			21	
Other Mammals	23	654	177	11
Domestic fowl	182	5.637	225	229
Other birds	306	5.804	1.787	
Reptiles	1	10	139	
Xenopus	170	3.498	153	
Other Amphibians	176	929	45	
Zebra fish	4.469	59.044	3.190	10
Other Fish	1.817	24.697	145	
<b>Total</b>	<b>118.935</b>	<b>637.679</b>	<b>199.722</b>	<b>19.353</b>

*Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)*

Table 25: Translational and applied research: purposes and severity

	Non-recovery	Mild [up to and including]	Moderate	Severe	Total
Human Cancer	1.385	47.791	64.089	1.935	115.200
Human Infectious Disorders	3.187	11.518	5.917	1.162	21.784
Human Cardiovascular Disorders	4.388	6.891	3.998	969	16.246
Human Nervous and Mental Disorders	4.334	28.319	14.172	604	47.429
Human Respiratory Disorders	991	7.994	5.025	1.242	15.252
Human Gastrointestinal Disorders including Liver	820	5.436	2.388	92	8.736
Human Musculoskeletal Disorders	49	483	2.540	181	3.253
Human Immune Disorders	2.321	5.043	6.645	72	14.081
Human Urogenital/Reproductive Disorders	332	1.065	3.809	115	5.321
Human Sensory Organ Disorders (skin, eyes and ears)	424	1.986	712	1	3.123
Human Endocrine/Metabolism Disorders	1.169	15.713	3.517	10	20.409
Other Human Disorders	335	729	1.151	9	2.224
Animal Diseases and Disorders	439	14.705	3.180	1.879	20.203
Animal Welfare	181	3.560	928	74	4.743
Diagnosis of diseases	1.731	1.097	994	717	4.539
Plant diseases			21		21
Non-regulatory toxicology and ecotoxicology	792	5.480	3.127	175	9.574
<b>Total</b>	<b>22.878</b>	<b>157.810</b>	<b>122.213</b>	<b>9.237</b>	<b>312.138</b>
<b>%</b>	<b>7.00%</b>	<b>50.00%</b>	<b>39.00%</b>	<b>3.00%</b>	<b>100.00%</b>

Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)

**Table 26: Translational and applied research: species and severity**

	Non-recovery	Mild [up to and including]	Moderate	Severe
Mice	14.257	110.911	104.659	7.811
Rats	5.765	23.369	11.830	509
Guinea-Pigs	850	1.611	645	309
Hamsters (Syrian)	32	586	36	
Mongolian gerbil		956	706	40
Other Rodents		1.729	1	15
Rabbits	132	193	613	41
Cats		214	82	
Dogs		903	117	2
Ferrets		158	24	
Other carnivores		2		
Horses, donkeys & cross-breeds	35	108	15	
Pigs	750	2.989	340	87
Goats		750	7	
Sheep	39	583	779	12
Cattle	32	980	331	61
Marmoset and tamarins			3	
Cynomolgus monkey		169		
Rhesus monkey		7	6	
Other Old World Monkeys				6
Other Mammals		1		
Domestic fowl	80	76		
Other birds	104	4.693	1.293	265
Rana	20	3.984	4	
Xenopus		69	12	
Other Amphibians		18		
Zebra fish	392	871	8	14
Other Fish	390	1.880	702	65
<b>Total</b>	<b>22.878</b>	<b>157.810</b>	<b>122.213</b>	<b>9.237</b>

*Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)*

**Table 27: Regulatory use/routine production purposes and severity**

	Non-recovery	Mild [up to and including]	Moderate	Severe	Total
Routine production		88.347	2.904	932	<b>92.183</b>
Quality control (incl batch safety and potency testing)		119.903	45.518	69.911	<b>235.332</b>
Other efficacy and tolerance testing		20.807	24.100	478	<b>45.385</b>
Toxicity and other safety testing including pharmacology		179.794	63.909	12.579	<b>256.282</b>
<b>Total</b>	<b>0</b>	<b>408.851</b>	<b>136.431</b>	<b>83.900</b>	<b>629.182</b>
<b>%</b>	<b>0.00%</b>	<b>64.98%</b>	<b>21.68%</b>	<b>13.33%</b>	<b>100.00%</b>

*Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)*

**Table 28: Regulatory use/routine production: species and severity**

	Non-recovery	Mild [up to and including]	Moderate	Severe
Mice		142.464	57.158	71.762
Rats		106.167	63.299	1.986
Guinea-Pigs		9.626	1.058	3.143
Hamsters (Syrian)		588	57	1
Hamsters (Chinese)		30		
Mongolian gerbil		1.635	75	3
Other Rodents		8.251	7	
Rabbits		107.120	1.058	271
Cats		546	67	50
Dogs		2.507	358	15
Other carnivores		168	329	
Horses, donkeys & cross-breeds		23		
Pigs		3.161	721	3
Goats		48	4	3
Sheep		218	57	1
Cattle		837	205	
Marmoset and tamarins		124	36	
Cynomolgus monkey		1.647	794	1
Other Mammals		128	15	12
Domestic fowl		11.268	395	209
Other birds		1.340	115	4
Reptiles		300		
Rana			132	
Other Amphibians			60	
Zebra fish		6.562	8.725	1.680
Other Fish		4.093	1.706	4.756
<b>Total</b>	<b>0</b>	<b>408.851</b>	<b>136.431</b>	<b>83.900</b>

*Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)*

**Table 29: Quality control purposes and severity**

	Non-recovery	Mild [up to and including]	Moderate	Severe	Total
Batch safety testing		40.753	2.667	348	<b>43.768</b>
Pyrogenicity testing		6.847	145		<b>6.992</b>
Batch potency testing		72.174	42.706	69.554	<b>184.434</b>
Other quality controls		129		9	<b>138</b>
<b>Total</b>	<b>0</b>	<b>119.903</b>	<b>45.518</b>	<b>69.911</b>	<b>235.332</b>
<b>%</b>	<b>0.00%</b>	<b>50.95%</b>	<b>19.34%</b>	<b>29.71%</b>	<b>100.00%</b>

*Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)*

**Table 30: Routine production purposes and severity**

	Non-recovery	Mild [up to and including]	Moderate	Severe	Total
Blood based products		86.155	28	3	<b>86.186</b>
Monoclonal antibodies				917	<b>917</b>
Other product types		2.192	2.876	12	<b>5.080</b>
<b>Total</b>	<b>0</b>	<b>88.347</b>	<b>2.904</b>	<b>932</b>	<b>92.183</b>
<b>%</b>	<b>0.00%</b>	<b>95,84%</b>	<b>3,15%</b>	<b>1,01%</b>	<b>100.00%</b>

*Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)*

**Table 31: Toxicity and other safer testing by test type purposes and severity**

	Non-recovery	Mild [up to and including]	Moderate	Severe	Total
Acute and sub-acute		4.814	1.417	2.377	<b>8.608</b>
Skin irritation/corrosion		855	39		<b>894</b>
Skin sensitisation		10.353	817		<b>11.170</b>
Eye irritation/corrosion		117	108		<b>225</b>
Repeated dose toxicity		14.459	7.761	549	<b>22.769</b>
Carcinogenicity		4.068	938	47	<b>5.053</b>
Genotoxicity		4.022	112	33	<b>4.167</b>
Reproductive toxicity		20.378	1.777	233	<b>22.388</b>
Developmental toxicity		14.033	168	818	<b>15.019</b>
Neurotoxicity		90			<b>90</b>
Kinetics		29.201	7.720	771	<b>37.692</b>
Pharmaco-dynamics (incl safety pharmacology)		52.134	32.338	4.178	<b>88.650</b>
Phototoxicity			12		<b>12</b>
Ecotoxicity		17.135	10.675	3.564	<b>31.374</b>
Target animal safety		1.576	25		<b>1.601</b>
Other toxicity/safety testing		6.559	2	9	<b>6.570</b>
<b>Total</b>	<b>0</b>	<b>179.794</b>	<b>63.909</b>	<b>12.579</b>	<b>256.282</b>
<b>%</b>	<b>0.00%</b>	<b>70.15%</b>	<b>24.94%</b>	<b>4.91%</b>	<b>100%</b>

*Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)*

**Table 32: Repeated dose toxicity testing methods and severity**

	Non-recovery	Mild [up to and including]	Moderate	Severe	Total
up to 28 days		10.540	6.198	518	17.256
29 - 90 days		2.755	360	17	3.132
> 90 days		1.164	1.203	14	2.381
<b>Total</b>	<b>0</b>	<b>14.459</b>	<b>7.761</b>	<b>549</b>	<b>22.769</b>
<b>%</b>	<b>0.00%</b>	<b>63.50%</b>	<b>34.09%</b>	<b>2.41%</b>	<b>100.00%</b>

Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)

**Table 33: Acute and subacute toxicity testing methods and severity**

	Non-recovery	Mild [up to and including]	Moderate	Severe	Total
LD50. LC50	3	316	1.021	2.222	3.559
Other lethal methods		91	14	12	117
Non lethal methods		4.407	382	143	4.932
<b>Total</b>	<b>0</b>	<b>4.814</b>	<b>1.417</b>	<b>2.377</b>	<b>8.608</b>
<b>%</b>	<b>0.00%</b>	<b>55.92%</b>	<b>16.46%</b>	<b>27.61%</b>	<b>100.00%</b>

Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)

**Table 34: Ecotoxicity testing methods and severity**

	Non-recovery	Mild [up to and including]	Moderate	Severe	Total
Acute toxicity		5.052	586	2.383	8.021
Chronic toxicity		3.425	1.704	1.159	6.288
Reproductive ecotoxicity		1.627		16	1.643
Endocrine activity		720	7.538		8.258
Bioaccumulation		1.012	840	6	1.858
Other ecotoxicity		5.299	7		5.306
<b>Total</b>	<b>0</b>	<b>17.135</b>	<b>10.675</b>	<b>3.564</b>	<b>31.374</b>
<b>%</b>	<b>0.00%</b>	<b>54.62%</b>	<b>34.02%</b>	<b>11.36%</b>	<b>100.00%</b>

Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)

## 9. Purposes and testing by type of legislation

Table 35: Regulatory use and routine production purposes: type of legislation

	Quality control (incl batch safety and potency test- ing)	Other efficacy and tolerance testing	Toxicity and other safety testing includ- ing pharma- cology	Routine pro- duction	Total	%
Legislation on medicinal prod- ucts for human use	211.744	39.422	150.988	39.383	441.537	70.18%
Legislation on medicinal prod- ucts for veterinary use and their resi- dues	22.741	3.572	11.604	262	38.179	6.07%
Medical devices legislation	847	2	9.643	50.764	61.256	9.74%
Industrial chemi- cals legislation			50.563		50.563	8.04%
Plant protection product legislation			31.544		31.544	5.01%
Biocides legislati- on		859	341		1.200	0.19%
Food legislation including food contact material			38		38	0.01%
Feed legislation including legisla- tion for the safety of target animals. workers and envi- ronment		1.386	252		1.638	0.26%
Other legislation		144	1.309	1.774	3.227	0.51%
<b>Total</b>	<b>235.332</b>	<b>45.385</b>	<b>256.282</b>	<b>92.183</b>	<b>629.182</b>	<b>100.00%</b>

Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)



**Table 36: Quality control purposes: type of legislation**

	Batch potency testing	Batch safety testing	Other quality controls	Pyrogenicity testing	Total
Legislation on medicinal products for human use	179.560	25.744	9	6.431	<b>211.744</b>
Legislation on medicinal products for veterinary use and their residues	4.588	18.024	89	40	<b>22.741</b>
Medical devices legislation	286		40	521	<b>847</b>
Food legislation including food contact material					
Other legislation					
<b>Total</b>	<b>184.434</b>	<b>43.768</b>	<b>138</b>	<b>6.992</b>	<b>235.332</b>

*Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)*

**Table 37: Routine production purposes: type of legislation**

	Blood based products	Monoclonal antibodies	Other product types	Total
Legislation on medicinal products for human use	38.394	416	573	<b>39.383</b>
Legislation on medicinal products for veterinary use and their residues			262	<b>262</b>
Medical devices legislation	47.789	50	2.925	<b>50.764</b>
Other legislation	3	451	1.320	<b>1.774</b>
<b>Total</b>	<b>86.186</b>	<b>917</b>	<b>5.080</b>	<b>92.183</b>

*Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)*

Table 38: Toxicity and other safety testing by test type purposes: type of legislation

	Legislation on medicinal products for human use	Legislation on medicinal products for veterinary use and their residues	Medical devices legislation	Industrial chemicals legislation	Plant protection product legislation	Biocides legislation	Food legislation including food contact material	Feed legislation including legislation for the safety of target animals, workers and environment	Other legislation	Total
Acute and sub-acute	1.019	355	2.649	2.175	2.224		38		148	8.608
Skin irritation/corrosion	22		722	127	23					894
Skin sensitisation	1.190	35	4.855	4.394	681				15	11.170
Eye irritation/corrosion	4		36	169	16					225
Repeated dose toxicity	15.013	2.209	298	4.354	895					22.769
Carcinogenicity	356		374	1.213	3.110					5.053
Genotoxicity	660		269	1.978	1.260					4.167
Reproductive toxicity	1.618	839		17.502	2.429					22.388
Developmental toxicity	113			14.422	484					15.019
Neurotoxicity	0			10	80					90
Kinetics	35.509	1.509	3	100	571					37.692
Pharmaco-dynamics (incl safety pharmacology)	86.553	2.043	13		29				12	88.650
Phototoxicity	12									12
Ecotoxicity	6.835	2.879	294	3.598	16.573	51		252	892	31.374
Target animal safety	340	947			314					1.601
Other toxicity/safety testing	1.744	788	130	521	2.855	290			242	6.570
<b>Total</b>	<b>150.988</b>	<b>11.604</b>	<b>9.643</b>	<b>50.563</b>	<b>31.544</b>	<b>341</b>	<b>38</b>	<b>252</b>	<b>1.309</b>	<b>256.282</b>

Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)

**Table 39: Repeated dose toxicity purposes: type of legislation**

	up to 28 days	29 - 90 days	> 90 days	Total
Legislation on medicinal products for human use	11.674	1.144	2.195	<b>15.013</b>
Legislation on medicinal products for veterinary use and their residues	1679	408	122	<b>2.209</b>
Medical devices legislation	104	194		<b>298</b>
Industrial chemicals legislation	3.084	1.246	24	<b>4.354</b>
Plant protection product legislation	715	140	40	<b>895</b>
<b>Total</b>	<b>17.256</b>	<b>3.132</b>	<b>2.381</b>	<b>22.769</b>

*Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)*

**Table 40: Acute and subacute toxicity testing methods: type of legislation**

	LD50, LC50	Other lethal methods	Non lethal methods	Total
Legislation on medicinal products for human use	11	79	929	<b>1.019</b>
Legislation on medicinal products for veterinary use and their residues	355			<b>355</b>
Medical devices legislation			2.649	<b>2.649</b>
Industrial chemicals legislation	1.183		992	<b>2.175</b>
Plant protection product legislation	2.010		214	<b>2.224</b>
Food legislation including food contact material		38		<b>38</b>
Other legislation			148	<b>148</b>
<b>Total</b>	<b>3.559</b>	<b>117</b>	<b>4.932</b>	<b>8.608</b>

*Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)*

**Table 41: Ecotoxicity purposes: type of legislation**

	Acute toxicity	Chronic toxicity	Reproductive ecotoxicity	Endocrine activity	Bioaccumulation	Other ecotoxicity	Total
Legislation on medicinal products for human use	20	1.173		5.530	112		<b>6.835</b>
Legislation on medicinal products for veterinary use and their residues	30			2.320	529		<b>2.879</b>
Medical devices legislation	294						<b>294</b>
Industrial chemicals legislation	2.648	600	200			150	<b>3.598</b>
Plant protection product legislation	3.898	4.515	1.443	408	1.166	5.143	<b>16.573</b>
Biocides legislation					51		<b>51</b>
Feed legislation including legislation for the safety of target animals, workers and environment	252						<b>252</b>
Other legislation	879					13	<b>892</b>
<b>Total</b>	<b>8.021</b>	<b>6.288</b>	<b>1.643</b>	<b>8.258</b>	<b>1.858</b>	<b>5.306</b>	<b>31.374</b>

*Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)*

## 10. Purposes and origin of legislative requirement

Table 42: Regulatory use and routine production: origin of legislative requirement

	Quality control (incl batch safety and potency testing)	Other efficacy and tolerance testing	Toxicity and other safety testing including pharmacology	Routine production	Total
Legislation satisfying EU requirements	220.128	28.810	254.152	90.743	593.833
Legislation satisfying national requirements only [within EU]		16.575	1.383	1.440	19.398
Legislation satisfying Non-EU requirements only	15.204		747		15.951
<b>Total</b>	<b>235.332</b>	<b>45.385</b>	<b>256.282</b>	<b>92.183</b>	<b>629.182</b>

Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)

Table 43: Toxicity and other safety testing: origin of legislative requirement

	Legislation satisfying EU requirements	Legislation satisfying national requirements only [within EU]	Legislation satisfying Non-EU requirements only	Total
Acute and sub-acute	8.386	186	36	8.608
Skin irritation/corrosion	872	19	3	894
Skin sensitisation	11.032	15	123	11.170
Eye irritation/corrosion	222		3	225
Repeated dose toxicity	22.697		72	22.769
Carcinogenicity	5.053			5.053
Genotoxicity	4.167			4.167
Reproductive toxicity	22.386		2	22.388
Developmental toxicity	15.019			15.019
Neurotoxicity	90			90
Kinetics	37.650	30	12	37.692
Pharmaco-dynamics (incl safety pharmacology)	88.229		421	88.650
Phototoxicity	12			12
Ecotoxicity	30.226	1.133	15	31.374
Target animal safety	1.541		60	1.601
Other toxicity/safety testing	6.570			6.570
<b>Total</b>	<b>254.152</b>	<b>1.383</b>	<b>747</b>	<b>256.282</b>

Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)

**Table 44: Repeated dose toxicity: origin of legislative requirement**

	up to 28 days	29 - 90 days	> 90 days	Total
Legislation satisfying EU requirements	17.184	3.132	2.381	<b>22.697</b>
Legislation satisfying national requirements only [within EU]				
Legislation satisfying Non-EU requirements only	72			<b>72</b>
<b>Total</b>	<b>17.256</b>	<b>3.132</b>	<b>2.381</b>	<b>22.769</b>

*Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)*

**Table 45: Acute and subacute toxicity testing: origin of legislative requirement**

	LD50, LC50	Other lethal methods	Non lethal methods	Total
Legislation satisfying EU requirements	3.543	79	4.764	<b>8.386</b>
Legislation satisfying national requirements only [within EU]		38	148	<b>186</b>
Legislation satisfying Non-EU requirements only	16		20	<b>36</b>
<b>Total</b>	<b>3.559</b>	<b>117</b>	<b>4.932</b>	<b>8.608</b>

*Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)*

**Table 46: Ecotoxicity testing: origin of legislative requirement**

	Acute toxicity	Chronic toxicity	Endocrine activity	Bioaccumulation	Other ecotoxicity	Total
Legislation satisfying EU requirements	6.886	6.288	8.258	1.858	5.293	<b>28.583</b>
Legislation satisfying national requirements only [within EU]	1120				13	<b>1.133</b>
Legislation satisfying Non-EU requirements only	15					<b>15</b>
<b>Total</b>	<b>8.021</b>	<b>6.288</b>	<b>8.258</b>	<b>1.858</b>	<b>5.306</b>	<b>29.731</b>

*Animals used under § 7 (2) of the Animal Protection Act (excludes animals used under § 4 (3) of the Animal Protection Act, includes re-use)*

Table 47: Animals used under § 7 (2) and § 4 (3) of the Animal Protection Act by species

	Animals used under § 7 (2) Animal Protection Act	Animals used under § 4 (3) Animal Protection Act	Total
Mice	1.400.882	630.516	2.031.338
Rats	263.318	62.915	326.233
Guinea-Pigs	18.237	572	18.809
Hamsters (Syrian)	1.390	19	1.409
Hamsters (Chinese)	30		30
Mongolian gerbil	4.568	690	5.258
Other Rodents	12.793	605	13.398
Rabbits	110.988	730	111.718
Cats	1.112		1.112
Dogs	4.491		4.491
Ferrets	230	7	237
Other carnivores	686		686
Horses, donkeys & cross-breeds	1.507	18	1.525
Pigs	12.305	908	13.213
Goats	904	49	953
Sheep	2.290	37	2.327
Cattle	4.029	121	4.150
Prosimians	102		102
Marmoset and tamarins	292	12	304
Cynomolgus monkey	2.678	5	2.683
Rhesus monkey	39	6	45
Baboons	6		6
Other species of Old World Monkeys (Cercopithecoidea)	1		1
Other Mammals	1.383	207	1.590
Domestic fowl	25.658	4.216	29.874
Other birds	13.663	634	14.297
Reptiles	501	256	757
Rana	132	11	143
Xenopus	4.038	4.194	8.232
Other Amphibians	2.190	1.115	3305
Zebra fish	88.147	32.731	120.878
Other Fish	66.731	14.046	80.777
Cephalopods		80	80
<b>Total</b>	<b>2.045.261</b>	<b>754.700</b>	<b>2.799.961</b>

Animals used under § 7 (2) or § 4 (3) of the Animal Protection Act (includes re-use)