

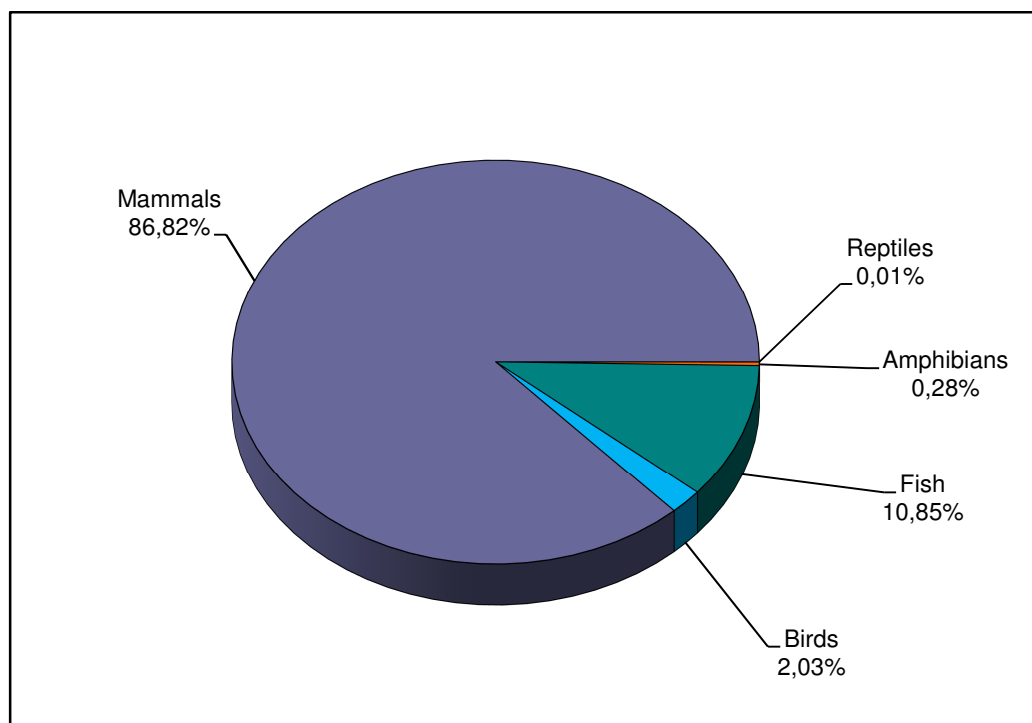
## 1. Animals used by species

Table 1: In total animals used by species

Animal Species	Number of Animals	%
Mice	1.959.169	70.05%
Rats	312.654	11.18%
Guinea-Pigs	14.569	0.52%
Hamsters (Syrian)	1.171	0.04%
Hamsters (Chinese)	8	0.00%
Mongolian gerbil	5.365	0.19%
Other Rodents	6.890	0.25%
Rabbits	95.736	3.42%
Cats	485	0.02%
Dogs	2.008	0.07%
Ferrets	122	0.00%
Other carnivores	447	0.02%
Horses, donkeys & cross-breeds	1.017	0.04%
Pigs	16.995	0.61%
Goats	235	0.01%
Sheep	3.684	0.13%
Cattle	4.713	0.17%
Prosimians	43	0.00%
Marmoset and tamarins	95	0.00%
Cynomolgus monkey	1.583	0.06%
Rhesus monkey	62	0.00%
Baboons	8	0.00%
Other Mammals	1.200	0.04%
Domestic fowl	39.442	1.41%
Other birds	17.315	0.62%
Reptiles	417	0.01%
Rana	932	0.03%
Xenopus	3.702	0.13%
Other Amphibians	3.182	0.11%
Zebra fish	193.089	6.90%
Other Fish	110.435	3.95%
<b>Total uses</b>	<b>2.796.773</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	2.485.016
Cold-blooded vertebrates	311.757
<b>Total</b>	<b>2.796.773</b>

Species grouping Level 2	Number of Animals
Mammals	2.428.259
Birds	56.757
Fish	303.524
Amphibians	7.816
Reptiles	417
<b>Total</b>	<b>2.796.773</b>

Mammals	Number of Animals
Rodents	2.299.826
Rabbits	95.736
Carnivores	3.062
Equidae	10.17
Artiodactyla	25.627
Non-human primates	1.791
Other mammals	1.200
<b>Total</b>	<b>2.428.259</b>

Non-human primates	Number of Animals
Prosimians	43
New World Monkeys	95
Old World Monkeys	1.653
<b>Total</b>	<b>1.791</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	1.915.898	36.004	456	6.811	1.959.169
Rats	308.400	1.851		2.403	312.654
Guinea-Pigs	14.566	3			14.569
Hamsters (Syrian)	1.171				1.171
Hamsters (Chinese)	2	6			8
Mongolian gerbil	4.918	447			5.365
Other Rodents	811	6.069		10	6.890
Rabbits	93.963	870		903	95.736
Cats	152	96	5	232	485
Dogs	262	858		888	2.008
Ferrets	76	30		16	122
Other carnivores	249	156	5	37	447
Horses, donkeys & cross-breeds	277	740			1.017
Pigs	11.351	5.644			16.995
Goats	99	136			235
Sheep	648	3.036			3.684
Cattle	3.306	1.407			4.713
Prosimians	43				43
Marmoset and tamarins	95				95
Cynomolgus monkey	33		2	1.548	1.583

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Rhesus monkey	37			25	<b>62</b>
Baboons	8				<b>8</b>
Other Mammals	240	954	2	4	<b>1.200</b>
Domestic fowl	30.971	8.471			<b>39.442</b>
Other birds	8429	8.421	350	115	<b>17.315</b>
Reptiles	9	223		185	<b>417</b>
Rana	2	930			<b>932</b>
Xenopus	2.232	250		1.220	<b>3.702</b>
Other Amphibians	933	2223		26	<b>3.182</b>
Zebra fish	177.097	15.992			<b>193.089</b>
Other Fish	72.832	26.321	8.631	2.651	<b>110.435</b>
<b>Total</b>	<b>2.649.110</b>	<b>121.138</b>	<b>9.451</b>	<b>17.074</b>	<b>2.796.773</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**

Species grouping Level 1	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	2.396.005	75.199	820	12.992	<b>2.485.016</b>
Cold-blooded vertebrates	253.105	45.939	8.631	4.082	<b>311.757</b>
<b>Total</b>	<b>2.649.110</b>	<b>121.138</b>	<b>9.451</b>	<b>17.074</b>	<b>2.796.773</b>

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

Species grouping Level 2	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	2.356.605	58.307	470	12.877	<b>2.428.259</b>
Birds	39.400	16.892	350	115	<b>56.757</b>
Fish	249.929	42.313	8.631	2.651	<b>303.524</b>
Amphibians	3.167	3.403		1.246	<b>7.816</b>
Reptiles	9	223		185	<b>417</b>
<b>Total</b>	<b>2.649.110</b>	<b>121.138</b>	<b>9.451</b>	<b>17.074</b>	<b>2.796.773</b>

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

Mammals	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	2.245.766	44.380	456	9.224	<b>2.299.826</b>
Rabbits	93.963	870		903	<b>95.736</b>
Carnivores	739	1.140	10	1.173	<b>3.062</b>
Equidae	277	740			<b>1.017</b>
Artiodactyla	15.404	10.223			<b>25.627</b>
Non-human primates	216		2	1.573	<b>1.791</b>
Other mammals	240	954	2	4	<b>1.200</b>
<b>Total</b>	<b>2.356.605</b>	<b>58.307</b>	<b>470</b>	<b>12.877</b>	<b>2.428.289</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	403
F2 or greater	910
Self-sustaining colony	478
<b>Total</b>	<b>1.791</b>

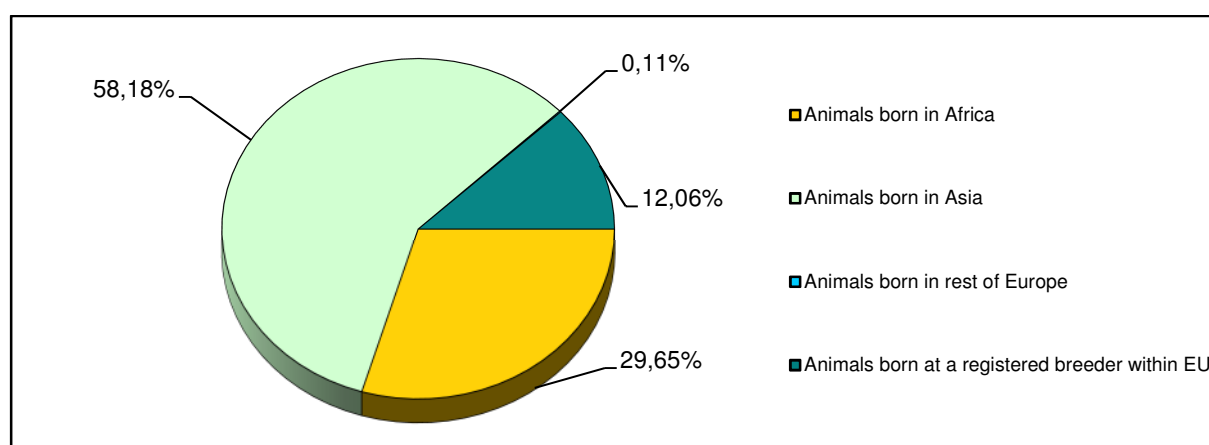
*Animals used under § 7 (2) or § 4 (3) of the Animal Protection Act (excludes re-use)*

Table 8: Origin of non-human primates

NHP Source (origin)	Number of Animals
Animals born at a registered breeder within EU	216
Animals born in rest of Europe	2
Animals born in Asia	1.042
Animals born in America	0
Animals born in Africa	531
Animals born elsewhere	0
<b>Total:</b>	<b>1.791</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	894.298	241.991	222.197	116	14.248	32.410	4	50.515	1.455.779
Rats	42.332	33.573	162.206	66	142	10.092	10	441	248.862
Guinea-Pigs	650	1.480	11.826			228			14.184
Hamsters (Syrian)	26	701	364			10			1.101
Hamsters (Chinese)						2			2
Mongolian gerbil	914	1.758	2.097			85			4.854
Other Rodents	3.043	188	3.334	70		4			6.639
Rabbits	1.248	1.155	95.685			251			98.339
Cats	48	278	379			61			766
Dogs	254	1.093	2.478			151			3.976
Ferrets	44	86							130
Other carnivores	88	3	383						474
Horses, donkeys & cross-breeds	937	266	40			52			1.295
Pigs	3.605	8.221	3.257	8		1.676			16.767
Goats	65	70	53			35			223
Sheep	225	2.619	714			192			3.750
Cattle	2.074	2.452	550			356			5.432

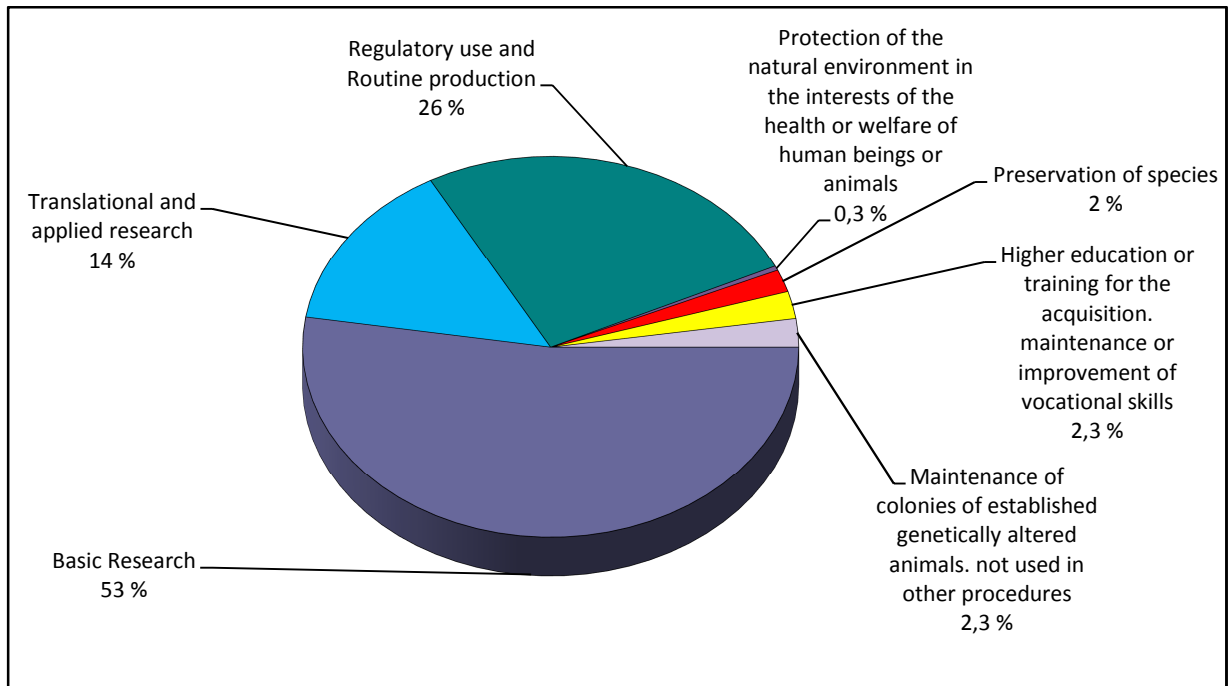
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Prosimians	117									<b>117</b>
Marmoset and tamarins	101	2	9			1				<b>113</b>
Cynomolgus monkey	60	242	1.756							<b>2.058</b>
Rhesus monkey	23	38	24			1				<b>86</b>
Vervets Chlorocebus spp.		18								<b>18</b>
Baboons	8									<b>8</b>
Other species of Old World Monkeys		18								<b>18</b>
Other Mammals	1.013	19	27	0	15	84				<b>1.158</b>
Domestic fowl	12.190	5.344	10.851	1.277	471	369				<b>30.502</b>
Other birds	10.354	4.641	520	890	61	274	14			<b>16.754</b>
Reptiles	146		300		0	8				<b>454</b>
Rana			80	850						<b>930</b>
Xenopus	4.950	25	205			115				<b>5.295</b>
Other Amphibians	532		72	2.053	12	6				<b>2.675</b>
Zebra fish	151.806	1.237	23.425	515		1.314				<b>178.297</b>
Other Fish	44.513	2.682	12.152	2.256	25.438	1.164				<b>88.205</b>
<b>Total</b>	<b>1.175.664</b>	<b>310.200</b>	<b>554.984</b>	<b>8.101</b>	<b>40.387</b>	<b>48.941</b>	<b>28</b>	<b>50.956</b>		<b>2.189.261</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	81.299	75.001	140.489	21.739	24.376	12.704	237.076	17.950	15.640	39.947	133.300	2.221	92.556	<b>84.298</b>
Rats	977	7.523	19.927	1.414	1.279	1.801	2.414	734	261	1.341	803	456	3.402	<b>42.332</b>
Guinea-Pigs	24			128		77	31	1	216		48	102	23	<b>650</b>
Hamsters (Syrian)								26						<b>26</b>
Mongolian gerbil			404				209		291				10	<b>917</b>
Other Rodents	75		2	74			9			58	78	2.743	4	<b>3.043</b>
Rabbits	44	160	7	4		262	153	1	37	2	39	9	530	<b>1.248</b>
Cats			2					14	1	16		5	10	<b>48</b>
Dogs		24	35		13	102	44		2				34	<b>254</b>
Ferrets			30								14			<b>44</b>
Other carnivores							50					33	5	<b>88</b>
Horses, donkeys & cross-breeds				292	4	31	155	321	3	57		6	68	<b>937</b>
Pigs	75	335	70	225	220	188	463	41		133	154	1.096	605	<b>3.605</b>
Goats							3			28		31	3	<b>65</b>
Sheep		60	9	14	7	59	31	1			22	8	14	<b>225</b>

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Cattle		1	5		118	3	108	169		729	271	178	492	<b>2.074</b>
Prosimians			21						9			87		<b>117</b>
Marmoset and tamarins			6	60						23	12			<b>101</b>
Cynomolgus monkey			54				6							<b>60</b>
Rhesus monkey			18								5			<b>23</b>
Baboons							8							<b>8</b>
Other Mammals			131				6		33	12	9	726	96	<b>1.013</b>
Domestic fowl			18		4.657		935		291	758	1.198	944	3.389	<b>12.190</b>
Other birds		27	183			2	598		8	16		7.894	1.626	<b>10.354</b>
Reptiles		1	144									1		<b>146</b>
Xenopus		21	917			254	26	242		860	137	20	2.473	<b>4.950</b>
Other Amphibians						414						118		<b>532</b>
Zebra fish	672	23.847	18.791	419		5.590	11.116	4.936	3.855	74.478	1.798	1.004	5.300	<b>151.806</b>
Other Fish	1.992	177	405		462	35	947	1.635	7.952	254	192	17.546	12.916	<b>44.513</b>
<b>Total</b>	<b>85.158</b>	<b>107.177</b>	<b>181.668</b>	<b>24.369</b>	<b>31.136</b>	<b>21.522</b>	<b>254.388</b>	<b>26.071</b>	<b>28.599</b>	<b>118.712</b>	<b>138.080</b>	<b>35.228</b>	<b>123.556</b>	<b>1.175.664</b>
<b>%</b>	<b>7.24%</b>	<b>9.12%</b>	<b>15.45%</b>	<b>2.07%</b>	<b>2.65%</b>	<b>1.83%</b>	<b>21.64%</b>	<b>2.22%</b>	<b>2.43%</b>	<b>10.10%</b>	<b>11.74%</b>	<b>3.00%</b>	<b>10.51%</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 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
<b>Mice</b>	113.605	20.147	11.117	31.697	13.935	8.214	2.066	13.708	2.326	4.175	9.310	1.395	4.447	375	1.628		3.846	<b>241.991</b>
<b>Rats</b>	1.370	117	2.562	9.778	1.570	2.243	1.310	891	1.320	923	5.155	2.699	677		239		2.719	<b>33.573</b>
<b>Guinea-Pigs</b>	12	123	217		555					183					366		24	<b>1.480</b>
<b>Hamsters (Syrian)</b>	72	546		47					36									<b>701</b>
<b>Mongolian gerbil</b>		1.131											627					<b>1.758</b>
<b>Other Rodents</b>		173											15					<b>188</b>
<b>Rabbits</b>	78	57	172	21			120			81		8	381		220	17		<b>1.155</b>
<b>Cats</b>													278					<b>278</b>
<b>Dogs</b>	28		24	128	21			60		2	50		752		11		17	<b>1.093</b>
<b>Ferrets</b>		63											23					<b>86</b>
<b>Other carnivores</b>														3				<b>3</b>
<b>Horses, donkeys &amp; cross-breeds</b>								6					151		109			<b>266</b>
<b>Pigs</b>	107	4	391	65	40	98	48	42	35	35	109	83	3.161	3.752	243		8	<b>8.221</b>

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Goats		15											53		2			<b>70</b>
Sheep	11	25	113	7			28	2					1.848		585			<b>2.619</b>
Cattle		9											1.972	454	3		14	<b>2.452</b>
Marmoset and tamarins									2									<b>2</b>
Cynomolgus monkey	12	2	31	15	3			39	54	2	12	38					34	<b>242</b>
Rhesus monkey		36									2							<b>38</b>
Vervets Chlorocebus spp.		18																<b>18</b>
Other species of Old World Monkeys (Cercopithecoidea)		18																<b>18</b>
Other Mammals		1											18					<b>19</b>
Domestic fowl		91											3.308	1.939	6			<b>5.344</b>
Other birds													4.274	367				<b>4.641</b>
Xenopus				25														<b>25</b>
Zebra fish			164							1.073								<b>1.237</b>
Other Fish													1.132	312			1.238	<b>2.682</b>
<b>Total</b>	<b>115.295</b>	<b>22.576</b>	<b>14.791</b>	<b>41.783</b>	<b>16.124</b>	<b>10.555</b>	<b>3.572</b>	<b>14.748</b>	<b>3.773</b>	<b>6.474</b>	<b>14.638</b>	<b>4.223</b>	<b>23.117</b>	<b>7.202</b>	<b>3.412</b>	<b>17</b>	<b>7.900</b>	<b>310.200</b>
<b>%</b>	<b>37.17%</b>	<b>7.28%</b>	<b>4.77%</b>	<b>13.47%</b>	<b>5.20%</b>	<b>3.40%</b>	<b>1.15%</b>	<b>4.75%</b>	<b>1.22%</b>	<b>2.09%</b>	<b>4.72%</b>	<b>1.36%</b>	<b>7.45%</b>	<b>2.32%</b>	<b>1.10%</b>	<b>0.01%</b>	<b>2.55%</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 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	97.551	35.714	84.875	4.057	<b>222.197</b>
Rats	70.464	3.911	87.127	704	<b>162.206</b>
Guinea-Pigs	7.185	20	4.588	33	<b>11.826</b>
Hamsters (Syrian)	325		39		<b>364</b>
Mongolian gerbil			1.930	167	<b>2.097</b>
Other Rodents		30	3.304		<b>3.334</b>
Rabbits	3.208	163	4.153	88.161	<b>95.685</b>
Cats	23	113	216	27	<b>379</b>
Dogs		346	2.129	3	<b>2.478</b>
Other carnivores	243	107	33		<b>383</b>
Horses, donkeys & cross-breeds		10	30		<b>40</b>
Pigs	386	1.963	873	35	<b>3.257</b>
Goats				53	<b>53</b>
Sheep			64	650	<b>714</b>
Cattle	82	89	259	120	<b>550</b>
Marmoset and tamarins			9		<b>9</b>
Cynomolgus mon- key			1.756		<b>1.756</b>
Rhesus monkey			24		<b>24</b>
Other Mammals			8	19	<b>27</b>
Domestic fowl	7.030	2.990	358	473	<b>10.851</b>
Other birds			520		<b>520</b>
Reptiles				300	<b>300</b>
Rana			80		<b>80</b>
Xenopus			205		<b>205</b>
Other Amphibians			72		<b>72</b>
Zebra fish			23.425		<b>23.425</b>
Other Fish			12.152		<b>12.152</b>
<b>Total</b>	<b>186.497</b>	<b>45.456</b>	<b>228.229</b>	<b>94.802</b>	<b>554.984</b>
<b>%</b>	<b>33.60%</b>	<b>8.19%</b>	<b>41.12%</b>	<b>17.08%</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	18.619		78.932		97.551
Rats	369		70.095		70.464
Guinea-Pigs	1.131		6.051	3	7.185
Hamsters (Syrian)			325		325
Rabbits	178	347	67	2.616	3.208
Cats	23				23
Other carnivores	88		155		243
Pigs	386		0		386
Cattle	20		62		82
Domestic fowl	6.813		217		7.030
<b>Total</b>	<b>27.627</b>	<b>347</b>	<b>155.904</b>	<b>2.619</b>	<b>186.497</b>
<b>%</b>	<b>14.81%</b>	<b>0.19%</b>	<b>83.60%</b>	<b>1.40%</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		2.147	1.910	4.057
Rats		319	385	704
Guinea-Pigs	20	12	1	33
Mongolian gerbil			167	167
Rabbits	86.977	14	1.170	88.161
Cats	6		21	27
Dogs	3			3
Pigs	20		15	35
Goats	48		5	53
Sheep	632		18	650
Cattle	100		20	120
Other Mammals			19	19
Domestic fowl	433		40	473
Reptiles			300	300
<b>Total</b>	<b>88.239</b>	<b>2.492</b>	<b>4.071</b>	<b>94.802</b>
<b>%</b>	<b>0.93%</b>	<b>0.03%</b>	<b>0.04%</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	Ecotoxicity	Safety testing in food and feed area	Target animal safety	Eye irritation/corrosion	Other toxicity/safety testing	Total
Mice	1.172		4.563	4.231	719	1.535	102		80	16.391	54.838		15	188		1.041	<b>84.875</b>
Rats	2.994			12.262	80	1.208	13.436	11.426	86	12.010	32.284					1.341	<b>87.127</b>
Guinea-Pigs	16		4.026							67	479						<b>4.588</b>
Hamsters (Syrian)		24	15														<b>39</b>
Mongolian gerbil											1.930						<b>1.930</b>
Other Rodents	70											180		3.054			<b>3.304</b>
Rabbits	64	730		287			431	300		365	1.664				200	112	<b>4.153</b>
Cats										187				29			<b>216</b>
Dogs	3			690						855	509			54		18	<b>2.129</b>
Other carnivores														33			<b>33</b>
Horses, donkeys & cross-breeds										30							<b>30</b>
Pigs	4	4		174						227	374			78		12	<b>873</b>
Sheep										40			17			7	<b>64</b>
Cattle										82	15			65		97	<b>259</b>
Marmoset and tamarins										9							<b>9</b>
Cynomolgus monkey	24			1.304			31			374	23						<b>1.756</b>
Rhesus monkey				24													<b>24</b>



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Other Mammals	8																	<b>8</b>
Domestic fowl									20				338					<b>358</b>
Other birds	159											241	54	66				<b>520</b>
Rana												80						<b>80</b>
Xenopus												205						<b>205</b>
Other Amphibians												72						<b>72</b>
Zebra fish	100							6.190				17.135						<b>23.425</b>
Other Fish	2.641											9.511						<b>12.152</b>
<b>Total</b>	<b>7.255</b>	<b>758</b>	<b>8.604</b>	<b>18.972</b>	<b>799</b>	<b>2.743</b>	<b>14.000</b>	<b>17.916</b>	<b>166</b>	<b>30.657</b>	<b>92.116</b>	<b>27.424</b>	<b>86</b>	<b>3.905</b>	<b>200</b>	<b>2.628</b>	<b>228.229</b>	
<b>%</b>	<b>0.03%</b>	<b>0.00%</b>	<b>0.04%</b>	<b>0.08%</b>	<b>0.00%</b>	<b>0.01%</b>	<b>0.06%</b>	<b>0.08%</b>	<b>0.00%</b>	<b>0.13%</b>	<b>0.40%</b>	<b>0.12%</b>	<b>0.00%</b>	<b>0.02%</b>	<b>0.00%</b>	<b>0.01%</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 16: Use of animals in repeated dose toxicity testing methods**

	up to 28 days	29 - 90 days	> 90 days	Total
Mice	3.705	448	78	<b>4.231</b>
Rats	7.927	3.500	835	<b>12.262</b>
Rabbits	178	16	93	<b>287</b>
Dogs	466	64	160	<b>690</b>
Pigs	142		32	<b>174</b>
Cynomolgus monkey	282	439	583	<b>1.304</b>
Rhesus monkey		24		<b>24</b>
<b>Total</b>	<b>12.700</b>	<b>4.491</b>	<b>1.781</b>	<b>18.972</b>
<b>%</b>	<b>66.94%</b>	<b>23.67%</b>	<b>9.39%</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)*

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

	LD50. LC50	Other lethal methods	Non lethal methods	Total
Mice	322	59	791	<b>1.172</b>
Rats	1.131	242	1.621	<b>2.994</b>
Guinea-Pigs	10		6	<b>16</b>
Other Rodents	70			<b>70</b>
Rabbits			64	<b>64</b>
Dogs			3	<b>3</b>
Pigs			4	<b>4</b>
Cynomolgus monkey			24	<b>24</b>
Other birds			159	<b>159</b>
Zebra fish	96		4	<b>100</b>
Other Fish	2.641			<b>2.641</b>
<b>Total</b>	<b>4.278</b>	<b>301</b>	<b>2.676</b>	<b>7.255</b>
<b>%</b>	<b>58.97%</b>	<b>4.15%</b>	<b>36.88%</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
Other Rodents						180	<b>180</b>
Other birds	241						<b>241</b>
Rana	80						<b>80</b>
Xenopus	205						<b>205</b>
Other Amphibians	72						<b>72</b>
Zebra fish	2.804	7.758	1.465	4.640	468		<b>17.135</b>
Other Fish	2.787	3.049		1.300	2.363	12	<b>9.511</b>
<b>Total</b>	<b>6.189</b>	<b>10.807</b>	<b>1.465</b>	<b>5.940</b>	<b>2.831</b>	<b>192</b>	<b>27.424</b>
<b>%</b>	<b>22.57%</b>	<b>39.41%</b>	<b>5.34%</b>	<b>21.66%</b>	<b>10.32%</b>	<b>0.70%</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	162.994	11,20%	834.151	57,30%	367.494	25,24%	91.140	6,26%	<b>1.455.779</b>
Rats	19.278	7,75%	120.641	48,48%	105.708	42,48%	3.235	1,29%	<b>248.862</b>
Guinea-Pigs	552	3,89%	8.586	60,53%	1.208	8,52%	3.838	27,06%	<b>14.184</b>
Hamsters (Syrian)	5	0,45%	1.000	90,83%	96	8,72%			<b>1.101</b>
Hamsters (Chinese)	2	100,00%							<b>2</b>
Mongolian gerbil	198	4,09%	2.861	58,94%	1.766	36,38%	29	0,50%	<b>4.854</b>
Other Rodents	4	0,06%	6.442	97,03%	63	0,95%	130	1,96%	<b>6.639</b>
Rabbits	38.028	38,67%	57.764	58,74%	2.342	2,38%	203	0,21%	<b>98.339</b>
Cats	23	3,00%	674	87,99%	69	9,01%			<b>766</b>
Dogs	13	0,33%	3.524	88,75%	405	10,07%	34	0,86%	<b>3.976</b>
Ferrets	20	15,38%	56	43,08%	49	37,69%	5	3,85%	<b>130</b>
Other carnivores			270	56,96%	204	43,04%			<b>474</b>
Horses, donkeys & cross-breeds	19	1,50%	1.256	96,93%	20	1,57%			<b>1.295</b>
Pigs	2.091	12,50%	11.772	70,15%	2.622	15,66%	282	1,69%	<b>16.767</b>
Goats			162	72,65%	61	27,35%			<b>223</b>
Sheep	163	4,35%	2.850	76,00%	719	19,17%	18	0,48%	<b>3.750</b>
Cattle	4	0,07%	4.852	89,32%	511	9,41%	65	1,20%	<b>5.432</b>

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Prosimians			117	100,00%					<b>117</b>
Marmoset and tamarins	32	28,32%	42	37,17%	39	34,51%			<b>113</b>
Cynomolgus monkey	3	0,15%	958	46,55%	1.097	53,30%			<b>2.058</b>
Rhesus monkey			51	59,30%	33	38,37%	2	2,33%	<b>86</b>
Vervets Chlorocebus spp.			18	100,00%					<b>18</b>
Baboons							8	100,00%	<b>8</b>
Other species of Old World Monkeys (Cercopithecoidea)			18	100,00%					<b>18</b>
Other Mammals	19	1,66%	982	85,91%	141	11,02%	16	1,40%	<b>1.158</b>
Domestic fowl	715	2,40%	26.920	90,18%	1.870	6,26%	997	3,34%	<b>30.502</b>
Other birds	665	4,02%	13.781	82,04%	2.223	13,43%	85	0,51%	<b>16.754</b>
Reptiles	33	7,27%	317	69,82%	104	22,91%			<b>454</b>
Rana	850	91,40%					80	8,60%	<b>930</b>
Xenopus	207	9,07%	4.409	83,69%	174	3,32%	205	3,91%	<b>5.295</b>
Other Amphibians	550	20,56%	2.125	79,44%					<b>2.675</b>
Zebra fish	3.435	1,93%	154.514	86,66%	11.229	6,30%	9.119	5,12%	<b>178.297</b>
Other Fish	4.476	5,10%	73.779	83,56%	4.617	5,26%	5.333	6,08%	<b>88.205</b>
<b>Total</b>	<b>234.679</b>	<b>10,72%</b>	<b>1.334.894</b>	<b>60,98%</b>	<b>504.864</b>	<b>23,06%</b>	<b>114.824</b>	<b>5,24%</b>	<b>2.189.261</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)*

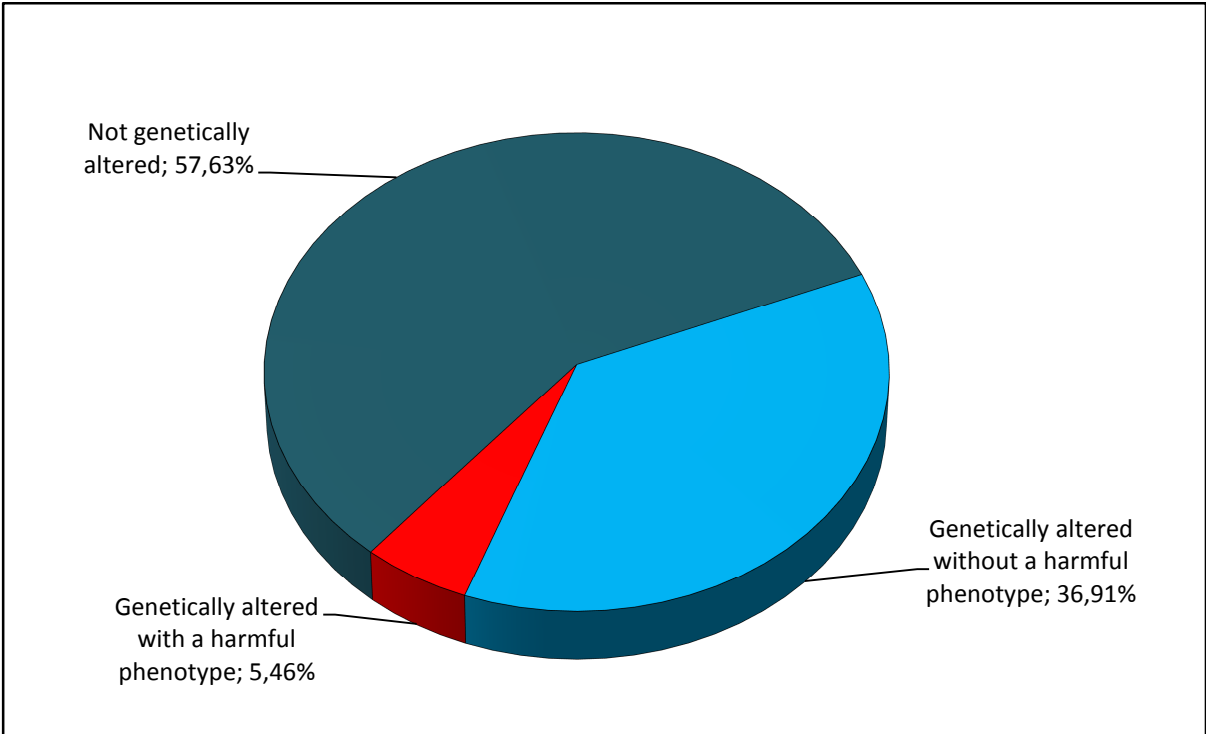
## 6. Use of species and genetic status

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	951.165	894.315	147.269	<b>1.992.749</b>
Rats	305.331	8.382	3.644	<b>317.357</b>
Guinea-Pigs	14.760			<b>14.760</b>
Hamsters (Syrian)	1.173			<b>1.173</b>
Hamsters (Chinese)	8			<b>8</b>
Mongolian gerbil	5.779			<b>5.779</b>
Other Rodents	6.989			<b>6.989</b>
Rabbits	99.014	23	47	<b>99.084</b>
Cats	766			<b>766</b>
Dogs	3.977			<b>3.977</b>
Ferrets	136			<b>136</b>
Other carnivores	474			<b>474</b>
Horses, donkeys & cross-breeds	1.317			<b>1.317</b>
Pigs	17.084	236	114	<b>17.434</b>
Goats	271			<b>271</b>
Sheep	3.781			<b>3.781</b>
Cattle	5.432			<b>5.432</b>
Prosimians	117			<b>117</b>
Marmoset and tamarins	126			<b>126</b>
Cynomolgus monkey	2.074			<b>2.074</b>
Rhesus monkey	97			<b>97</b>
Vervets Chlorocebus spp.	21			<b>21</b>
Baboons	9			<b>9</b>
Other species of Old World Monkeys	18			<b>18</b>
Other Mammals	1.267			<b>1.267</b>
Domestic fowl	39.826	339		<b>40.165</b>
Other birds	17.625			<b>17.625</b>
Reptiles	722			<b>722</b>
Rana	932			<b>932</b>
Xenopus	6.041	52		<b>6.093</b>
Other Amphibians	2.917	279		<b>3.196</b>
Zebra fish	59.912	135.852	4.227	<b>199.991</b>
Other Fish	95.990	14.124	532	<b>110.646</b>
<b>Total</b>	<b>1.645.151</b>	<b>1.053.602</b>	<b>155.833</b>	<b>2.854.586</b>
<b>%</b>	<b>57.63%</b>	<b>36,91%</b>	<b>5.46%</b>	<b>100.00%</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)*

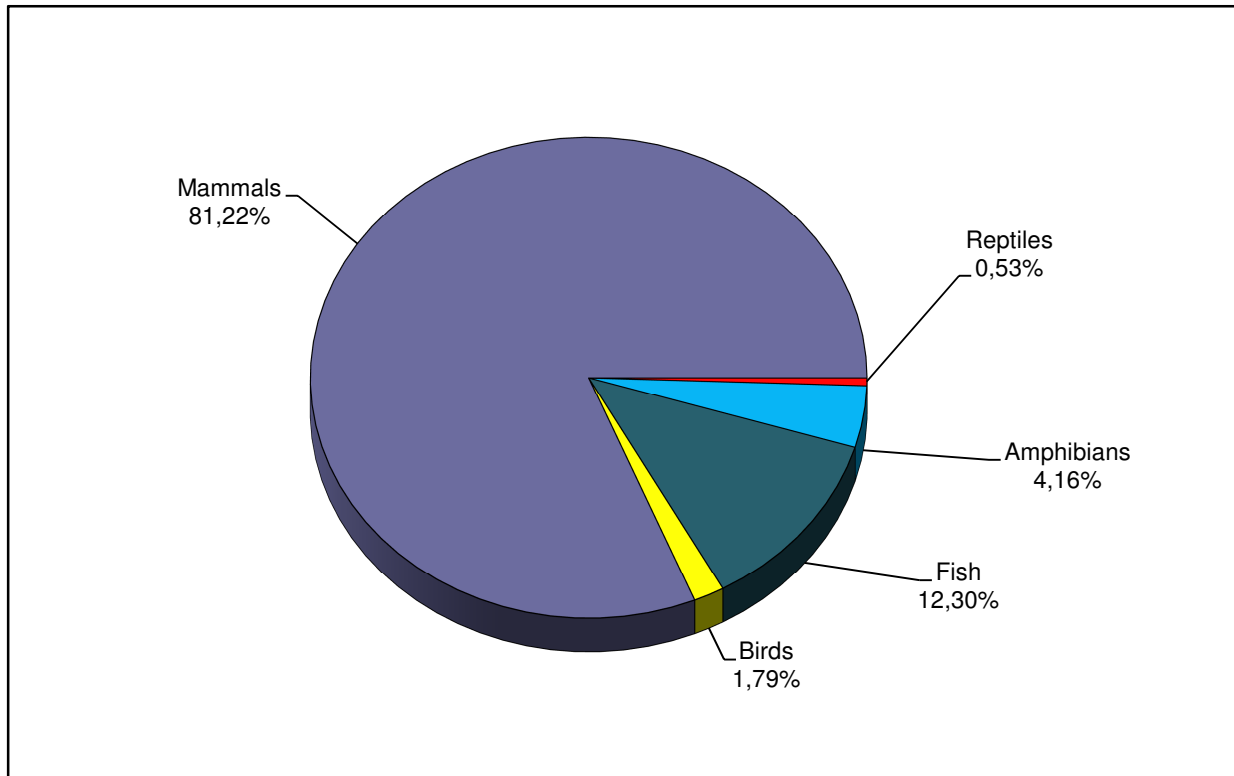
## 7. Use of Species and re-use

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

	(Naive) First use	Re-uses	Total
Mice	1.959.169	33.580	<b>1.992.749</b>
Rats	312.654	4.703	<b>317.357</b>
Guinea-Pigs	14.569	191	<b>14.760</b>
Hamsters (Syrian)	1.171	2	<b>1.173</b>
Hamsters (Chinese)	8		<b>8</b>
Mongolian gerbil	5.365	414	<b>5.779</b>
Other Rodents	6.890	99	<b>6.989</b>
Rabbits	95.736	3.348	<b>99.084</b>
Cats	485	281	<b>766</b>
Dogs	2.008	1.969	<b>3.977</b>
Ferrets	122	14	<b>136</b>
Other carnivores	447	27	<b>474</b>
Horses, donkeys & cross-breeds	1.017	300	<b>1.317</b>
Pigs	16.995	439	<b>17.434</b>
Goats	235	36	<b>271</b>
Sheep	3.684	97	<b>3.781</b>
Cattle	4.713	719	<b>5.432</b>
Prosimians	43	74	<b>117</b>
Marmoset and tamarins	95	31	<b>126</b>
Cynomolgus monkey	1.583	491	<b>2.074</b>
Rhesus monkey	62	35	<b>97</b>
Vervets Chlorocebus spp.		21	<b>21</b>
Baboons	8	1	<b>9</b>
Other species of Old World Monkeys		18	<b>18</b>
Other Mammals	1.200	67	<b>1.267</b>
Domestic fowl	39.442	723	<b>40.165</b>
Other birds	17.315	310	<b>17.625</b>
Reptiles	417	305	<b>722</b>
Rana	932		<b>932</b>
Xenopus	3.702	2.391	<b>6.093</b>
Other Amphibians	3.182	14	<b>3.196</b>
Zebra fish	193.089	6.902	<b>199.991</b>
Other Fish	110.435	211	<b>110.646</b>
<b>Total uses</b>	<b>2.796.773</b>	<b>57.813</b>	<b>2.854.586</b>

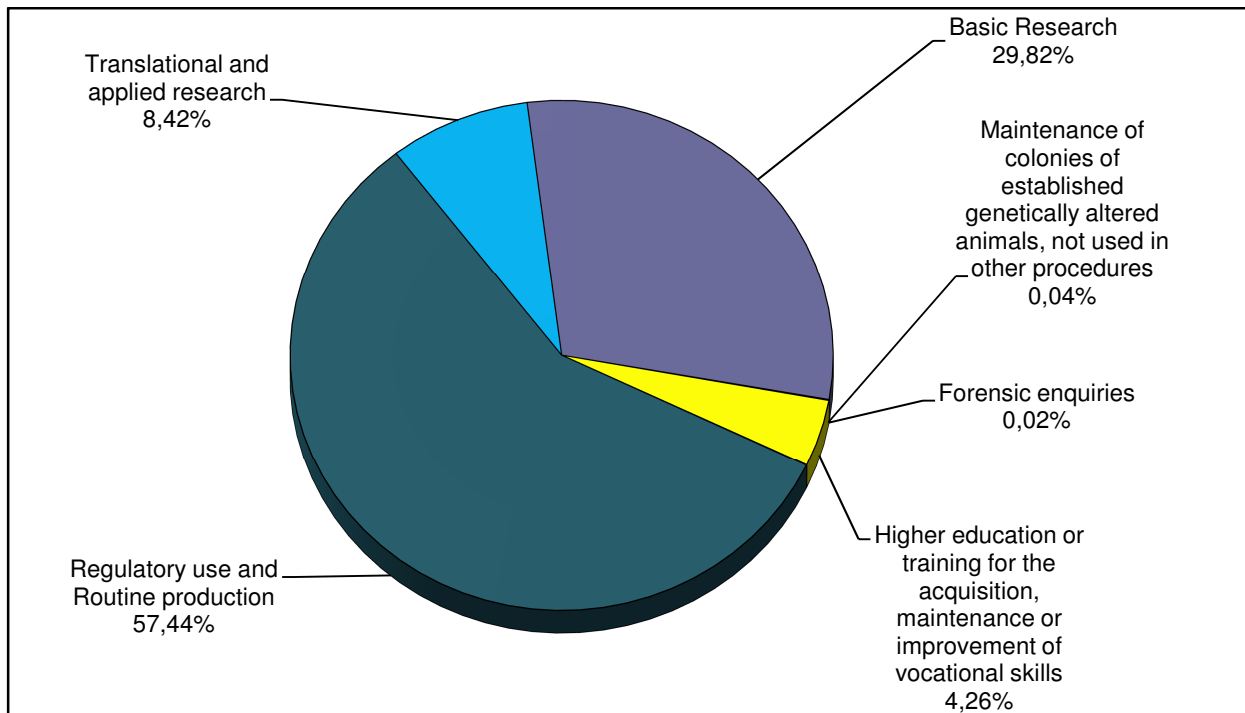
*Animals used under § 7 (2) or § 4 (3) of the Animal Protection Act (includes re-use)*

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) of the Animal Protection Act (excludes animals used under § 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	147.278	776.667	229.676	22.043	<b>1.175.664</b>
Translational and applied research	28.791	147.634	125.223	8.552	<b>310.200</b>
Regulatory use and Routine production	40.025	294.077	138.721	82.161	<b>554.984</b>
Protection of the natural environment in the interests of the health or welfare of human beings or animals	1.513	5.998	514	76	<b>8.101</b>
Preservation of species	2.263	37.411	697	16	<b>40.387</b>
Higher education or training for the acquisition, maintenance or improvement of vocational skills	14.020	28.388	6.405	128	<b>48.941</b>
Forensic enquiries	4	14	10		<b>28</b>
Maintenance of colonies of established genetically altered animals, not used in other procedures	785	44.705	3.618	1.848	<b>50.956</b>
<b>Total uses</b>	<b>234.679</b>	<b>1.334.894</b>	<b>504.864</b>	<b>114.824</b>	<b>2.189.261</b>
<b>%</b>	<b>10.73%</b>	<b>60.97%</b>	<b>23.06%</b>	<b>5.24%</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 23: Basic research purposes and severity

	Non-recovery	Mild [up to and including]	Moderate	Severe	Total
Oncology	8.889	39.005	34.653	2.611	<b>85.158</b>
Cardiovascular Blood and Lymphatic System	14.761	65.962	23.513	2.941	<b>107.177</b>
Nervous System	40.196	84.470	52.318	4.684	<b>181.668</b>
Respiratory System	1.538	16.495	6.043	293	<b>24.369</b>
Gastrointestinal System including Liver	5.599	17.073	8.380	84	<b>31.136</b>
Musculoskeletal System	3.857	12.144	5.150	371	<b>21.522</b>
Immune System	53.787	155.437	57.334	6.830	<b>254.388</b>
Urogenital/Reproductive System	8.250	13.013	4.039	769	<b>26.071</b>
Sensory Organs (skin, eyes and ears)	3.514	21.699	3.129	257	<b>28.599</b>
Endocrine System/Metabolism	3.215	103.260	12.044	193	<b>118.712</b>
Multisystemic	5.198	121.846	9.592	1.444	<b>138.080</b>
Ethology / Animal Behaviour / Animal Biology	1.443	30.098	3.686	1	<b>35.228</b>
Other basic research	16.031	96.165	9.795	1.565	<b>123.556</b>
<b>Total uses</b>	<b>147.278</b>	<b>776.667</b>	<b>229.676</b>	<b>22.043</b>	<b>1.175.664</b>
<b>%</b>	<b>12.53%</b>	<b>66.06%</b>	<b>19.54%</b>	<b>1.87%</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	Total
Mice	130.801	539.709	204.501	19.287	<b>894.298</b>
Rats	9.464	15.948	15.871	1.049	<b>42.332</b>
Guinea-Pigs	141	418	91		<b>650</b>
Hamsters (Syrian)		26			<b>26</b>
Mongolian gerbil	165	276	472	1	<b>914</b>
Other Rodents	2	2.998	13	30	<b>3.043</b>
Rabbits	39	835	374		<b>1.248</b>
Cats		48			<b>48</b>
Dogs		226	26	2	<b>254</b>
Ferrets	20	19		5	<b>44</b>
Other carnivores		88			<b>88</b>
Horses, donkeys & cross-breeds		917	20		<b>937</b>
Pigs	517	2.658	429	4	<b>3.605</b>
Goats		65			<b>65</b>
Sheep	31	112	82		<b>225</b>
Cattle	4	1.953	117		<b>2.074</b>
Prosimians		117			<b>117</b>
Marmoset and tamarins	32	41	28		<b>101</b>
Cynomolgus monkey	3	4	53		<b>60</b>
Rhesus monkey		3	18	2	<b>23</b>
Baboons				8	<b>8</b>
Other Mammals	19	865	129		<b>1.013</b>
Domestic fowl	211	11.011	28	940	<b>12.190</b>
Other birds	556	7.656	1.942		<b>10.354</b>
Reptiles	33	9	104		<b>146</b>
Xenopus	405	4.375	170		<b>4.950</b>
Other Amphibians		532			<b>532</b>
Zebra fish	3.066	143.870	4.704	166	<b>151.806</b>
Other Fish	1.769	41.688	507	549	<b>44.513</b>
<b>Total uses:</b>	<b>147.278</b>	<b>776.667</b>	<b>229.676</b>	<b>22.043</b>	<b>1.175.664</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	2.021	40.951	70.966	1.357	<b>115.295</b>
Human Infectious Disorders	4.424	10.175	6.723	1.254	<b>22.576</b>
Human Cardiovascular Disorders	4.363	5.724	3.900	804	<b>14.791</b>
Human Nervous and Mental Disorders	6.196	25.614	9.597	376	<b>41.783</b>
Human Respiratory Disorders	2.191	9.712	3.673	548	<b>16.124</b>
Human Gastrointestinal Disorders including Liver	1.053	6.027	3.166	309	<b>10.555</b>
Human Musculoskeletal Disorders	2	775	2.674	121	<b>3.572</b>
Human Immune Disorders	2.116	5.142	6.942	548	<b>14.748</b>
Human Urogenital/Reproductive Disorders	851	506	2.259	157	<b>3.773</b>
Human Sensory Organ Disorders (skin, eyes and ears)	1.848	3.038	1.581	7	<b>6.474</b>
Human Endocrine/Metabolism Disorders	766	12.070	1.686	116	<b>14.638</b>
Other Human Disorders	206	573	3.362	82	<b>4.223</b>
Animal Diseases and Disorders	1.171	16.241	3.662	2.043	<b>23.117</b>
Animal Welfare	16	6.404	709	73	<b>7.202</b>
Diagnosis of diseases	128	1.105	1.424	755	<b>3.412</b>
Plant diseases		17			<b>17</b>
Non-regulatory toxicology and ecotoxicology	1.439	3.560	2.899	2	<b>7.900</b>
<b>Total</b>	<b>28.791</b>	<b>147.634</b>	<b>125.223</b>	<b>8.552</b>	<b>310.200</b>
<b>%</b>	<b>9.28%</b>	<b>47.59%</b>	<b>40.37%</b>	<b>2.76%</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	Total
Mice	21.673	103.782	109.290	7.246	241.991
Rats	5.061	18.490	9.590	432	33.573
Guinea-Pigs	340	419	520	201	1.480
Hamsters (Syrian)		605	96		701
Mongolian gerbil		455	1.276	27	1.758
Other Rodents		188			188
Rabbits	128	294	583	150	1.155
Cats		238	40		278
Dogs		1.013	56	24	1.093
Ferrets		37	49		86
Other carnivores			3		3
Horses, donkeys & cross-breeds	14	252			266
Pigs	294	6.522	1.130	275	8.221
Goats		18	52		70
Sheep	60	1.971	570	18	2.619
Cattle		2.028	359	65	2.452
Marmoset and tamarins			2		2
Cynomolgus monkey		239	3		242
Rhesus monkey		23	15		38
Vervets Chlorocebus spp.		18			18
Other species of Old World Monkeys (Cercopithecoidea)		18			18
Other Mammals		19			19
Domestic fowl	322	3.787	1.193	42	5.344
Other birds	50	4.516	3	72	4.641
Xenopus		25			25
Zebra fish	64	1.173			1.237
Other Fish	785	1.504	393		2.682
<b>Total uses:</b>	<b>28.791</b>	<b>147.634</b>	<b>125.223</b>	<b>8.552</b>	<b>310.200</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	38.530	54.166	2.098	8	94.802
Quality control (incl batch safety and potency testing)	392	72.237	51.928	61.940	186.497
Other efficacy and tolerance testing	708	21.629	21.521	1.598	45.456
Toxicity and other safety testing including pharmacology	395	146.045	63.174	18.615	228.229
<b>Total</b>	<b>40.025</b>	<b>294.077</b>	<b>138.721</b>	<b>82.161</b>	<b>554.984</b>
<b>%</b>	<b>7.21%</b>	<b>52.99%</b>	<b>25.00%</b>	<b>14.80%</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	Total
Mice	564	113.850	45.169	62.614	222.197
Rats	1.477	80.054	78.975	1.700	162.206
Guinea-Pigs	12	7.605	572	3.637	11.826
Hamsters (Syrian)		364		364	
Mongolian gerbil		2.088	8	1	2.097
Other Rodents		3.184	50	100	3.334
Rabbits	37.791	56.472	1.369	53	95.685
Cats	23	327	29	379	
Dogs	13	2.134	323	8	2.478
Other carnivores		182	201		383
Horses, donkeys & cross-breeds		40			40
Pigs	145	2.117	992	3	3.257
Goats		53			53
Sheep		662	52		714
Cattle		515	35		550
Prosimians					
Marmoset and tamarins			9		9
Cynomolgus monkey		715	1.041		1.756
Rhesus monkey		24			24
Other Mammals		2	9	16	27
Domestic fowl		10.446	390	15	10.851
Other birds		286	221	13	520
Reptiles		300			300
Rana				80	80
Xenopus				205	205
Other Amphibians		72			72
Zebra fish		7.956	6.521	8.948	23.425
Other Fish		4.629	2.755	4.768	12.152
<b>Total uses:</b>	<b>40.025</b>	<b>294.077</b>	<b>138.721</b>	<b>82.161</b>	<b>554.984</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	392	26.788	363	84	27.627
Pyrogenicity testing		110	237		347
Batch potency testing		42.723	51.328	61.853	155.904
Other quality controls		2.616		3	2.619
<b>Total</b>	<b>392</b>	<b>72.237</b>	<b>51.928</b>	<b>61.940</b>	<b>186.497</b>
<b>%</b>	<b>0.21%</b>	<b>38.73%</b>	<b>27.84%</b>	<b>33.21%</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	37.778	50.433	28		88.239
Monoclonal antibodies	670	1.801	21		2.492
Other product types	82	1.932	2.049	8	4.071
<b>Total</b>	<b>38.530</b>	<b>54.166</b>	<b>2.098</b>	<b>8</b>	<b>94.802</b>
<b>%</b>	<b>40.64%</b>	<b>57.14%</b>	<b>2.21%</b>	<b>0.01%</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		2.699	1.984	2.572	7.255
Skin irritation/corrosion		715	43		758
Skin sensitisation		7.225	1.369	10	8.604
Eye irritation/corrosion		66	134		200
Repeated dose toxicity		11.517	6.960	495	18.972
Carcinogenicity		658	95	46	799
Genotoxicity		2.542	118	83	2.743
Reproductive toxicity		12.320	1.669	11	14.000
Developmental toxicity		11.086	1.180	5.650	17.916
Neurotoxicity		163	3		166
Kinetics	85	24.399	5.848	325	30.657
Pharmaco-dynamics (incl safety pharmacology)	240	53.681	35.098	3.097	92.116
Ecotoxicity		12.823	8.278	6.323	27.424
Safety testing in food and feed area		15	71		86
Target animal safety		3.873	32		3.905
Other toxicity/safety testing	70	2.263	292	3	2.628
<b>Total uses</b>	<b>395</b>	<b>146.045</b>	<b>63.174</b>	<b>18.615</b>	<b>228.229</b>
<b>%</b>	<b>0.17%</b>	<b>63.99%</b>	<b>27.68%</b>	<b>8.16%</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 32: Repeated dose toxicity testing methods and severity**

	Non-recovery	Mild [up to and including]	Moderate	Severe	Total
up to 28 days		8.179	4.044	477	<b>12.700</b>
29 - 90 days		2.512	1.964	15	<b>4.491</b>
> 90 days		826	952	3	<b>1.781</b>
<b>Total</b>	<b>0</b>	<b>11.517</b>	<b>6.960</b>	<b>495</b>	<b>18.972</b>
<b>%</b>	<b>0.00%</b>	<b>60.71%</b>	<b>36.69%</b>	<b>2.61%</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 33: Acute and subacute toxicity testing methods and severity**

	Non-recovery	Mild [up to and including]	Moderate	Severe	Total
LD50. LC50		565	1.404	2.309	<b>4.278</b>
Other lethal methods		59		242	<b>301</b>
Non lethal methods		2.075	580	21	<b>2.676</b>
<b>Total</b>	<b>0</b>	<b>2.699</b>	<b>1.984</b>	<b>2.572</b>	<b>7.255</b>
<b>%</b>	<b>0.00%</b>	<b>37.20%</b>	<b>27.35%</b>	<b>35.45%</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		2.094	577	3.518	<b>6.189</b>
Chronic toxicity		3.016	5.039	2.752	<b>10.807</b>
Reproductive ecotoxicity			1.465		<b>1.465</b>
Endocrine activity		5.887		53	<b>5.940</b>
Bioaccumulation		1.684	1.147		<b>2.831</b>
Other ecotoxicity		142	50		<b>192</b>
<b>Total</b>	<b>0</b>	<b>12.823</b>	<b>8.278</b>	<b>6.323</b>	<b>27.424</b>
<b>%</b>	<b>0.00%</b>	<b>46.76%</b>	<b>30.19%</b>	<b>23.06%</b>	<b>100.00%</b>

Animals used under § 7 (2) of the Animal Protection Act (excludes and 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 testing)	Other efficacy and tolerance testing	Toxicity and oth- er safety testing including phar- macology	Routine production	Total
Legislation on medicinal prod- ucts for human use	167.797	38.719	142.357	39.586	<b>388.459</b>
Legislation on medicinal prod- ucts for veterinary use and their resi- dues	18.454	2.375	6.255	2.701	<b>29.785</b>
Medical devices legislation		163	6.326	49.737	<b>56.226</b>
Industrial chemi- cals legislation			36.967	602	<b>37.569</b>
Plant protection product legislation			33.574	45	<b>33.619</b>
Biocides legislati- on		808	1.096	173	<b>2.077</b>
Food legislation including food contact material				3	<b>3</b>
Feed legislation including legisla- tion for the safety of target animals. workers and envi- ronment		2.982	86		<b>3.068</b>
Other legislation	246	409	1.568	1.955	<b>4.178</b>
<b>Total</b>	<b>186.497</b>	<b>45.456</b>	<b>228.229</b>	<b>94.802</b>	<b>554.984</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	147.200	17.681	2.569	347	167.797
Legislation on medicinal products for veterinary use and their residues	8.637	9.817			18.454
Medical devices legislation	67	129	50		246
<b>Total</b>	<b>155.904</b>	<b>27.627</b>	<b>2.619</b>	<b>347</b>	<b>186.497</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	38.523	683	380	39.586
Legislation on medicinal products for veterinary use and their residues	1.901	800		2.701
Medical devices legislation	47.809	70	1.858	49.737
Industrial product legislation		287	315	602
Plant protection product legislation			45	45
Biocides legislation			173	173
Food legislation including food contact material			3	3
Other legislation	6	652	1.297	1.955
<b>Total of uses:</b>	<b>88.239</b>	<b>2.492</b>	<b>4.071</b>	<b>94.802</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	Feed legislation including legislation for the safety of target animals, workers and environment	Other legislation	Total
Acute and sub-acute	2.184	57	516	1.192	3.100	163		43	<b>7.255</b>
Skin irritation/corrosion	58		609	39	42			10	<b>758</b>
Skin sensitisation	886	48	3.437	3.260	951	22			<b>8.604</b>
Eye irritation/corrosion	6		24	131	39				<b>200</b>
Repeated dose toxicity	12.993	538	80	3.575	1.786				<b>18.972</b>
Carcinogenicity	283			80	436				<b>799</b>
Genotoxicity	817	84		366	795	681			<b>2.743</b>
Reproductive toxicity	1.711			11.354	935				<b>14.000</b>
Developmental toxicity	830	600	1.040	9.258	6.188				<b>17.916</b>
Neurotoxicity				83	83				<b>166</b>
Kinetics	28.894	1.035	58	28	642				<b>30.657</b>
Pharmaco-dynamics (incl safety pharmacology)	89.710	2.376			10			20	<b>92.116</b>
Ecotoxicity	2.236	708	290	7.601	15.447	230		912	<b>27.424</b>
Safety testing in food and feed area							86		<b>86</b>
Target animal safety		785			3.120				<b>3.905</b>
Other toxicity/safety testing	1.749	24	272					583	<b>2.628</b>
<b>Total of uses:</b>	<b>142.357</b>	<b>6.255</b>	<b>6.326</b>	<b>36.967</b>	<b>33.574</b>	<b>1.096</b>	<b>86</b>	<b>1.568</b>	<b>228.229</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	9.105	2.557	1331	<b>12.993</b>
Legislation on medicinal products for veterinary use and their residues	256	160	122	<b>538</b>
Medical devices legislation		80		<b>80</b>
Industrial chemicals legislation	1.849	1.438	288	<b>3.575</b>
Plant protection product legislation	1.490	256	40	<b>1.786</b>
<b>Total</b>	<b>12.700</b>	<b>4.491</b>	<b>1.781</b>	<b>18.972</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	30	59	2.095	<b>2.184</b>
Legislation on medicinal products for veterinary use and their residues	57			<b>57</b>
Medical devices legislation	504		12	<b>516</b>
Industrial chemicals legislation	991		201	<b>1.192</b>
Plant protection product legislation	2.533	242	325	<b>3.100</b>
Biocides legislation	163			<b>163</b>
Other legislation			43	<b>43</b>
<b>Total of uses:</b>	<b>4.278</b>	<b>301</b>	<b>2.676</b>	<b>7.255</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		2.009			227		<b>2.236</b>
Legislation on medicinal products for veterinary use and their residues	100				608		<b>708</b>
Medical devices legislation	12	108			170		<b>290</b>
Industrial chemicals legislation	2.034	3.311	1.465		791		<b>7.601</b>
Plant protection product legislation	3.081	5.379		5.940	867	180	<b>15.447</b>
Biocides legislation	62				168		<b>230</b>
Other legislation	900					12	<b>912</b>
<b>Total</b>	<b>6.189</b>	<b>10.807</b>	<b>1.465</b>	<b>5.940</b>	<b>2.831</b>	<b>192</b>	<b>27.424</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	186.333	34.645	225.329	55.678	501.985
Legislation satisfying national requirements only [within EU]	20	10.811	1.363	39.124	51.318
Legislation satisfying Non-EU requirements only	144		1.537		1.681
<b>Total</b>	<b>186.497</b>	<b>45.456</b>	<b>228.229</b>	<b>94.802</b>	<b>554.984</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	7.158	43	54	7.255
Skin irritation/corrosion	758			758
Skin sensitisation	8.133		471	8.604
Eye irritation/corrosion	105		95	200
Repeated dose toxicity	18.610	40	322	18.972
Carcinogenicity	799			799
Genotoxicity	2.743			2.743
Reproductive toxicity	14.000			14.000
Developmental toxicity	17.916			17.916
Neurotoxicity	166			166
Kinetics	30.575	60	22	30.657
Pharmaco-dynamics (incl safety pharmacology)	91.480	120	516	92.116
Ecotoxicity	26.320	1.094	10	27.424
Safety testing in food and feed area	86			86
Target animal safety	3.858		47	3.905
Other toxicity/safety testing	2.622	6		2.628
<b>Total</b>	<b>225.329</b>	<b>1.363</b>	<b>1.537</b>	<b>228.229</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	12.578	4.251	1.781	<b>18.610</b>
Legislation satisfying national requirements only [within EU]	40			<b>40</b>
Legislation satisfying Non-EU requirements only	82	240		<b>322</b>
<b>Total</b>	<b>12.700</b>	<b>4.491</b>	<b>1.781</b>	<b>18.972</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	4.278	301	2.579	<b>7.158</b>
Legislation satisfying national requirements only [within EU]			43	<b>43</b>
Legislation satisfying Non-EU requirements only			54	<b>54</b>
<b>Total</b>	<b>4.278</b>	<b>301</b>	<b>2.676</b>	<b>7.255</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	Reproductive ecotoxicity	Endocrine activity	Bioaccumulation	Other ecotoxicity	Total
Legislation satisfying EU requirements	5.097	10.807	1.465	5.940	2.831	180	<b>26.320</b>
Legislation satisfying national requirements only [within EU]	1.082					12	<b>1.094</b>
Legislation satisfying Non-EU requirements only	10						<b>10</b>
<b>Total</b>	<b>6.189</b>	<b>10.807</b>	<b>1.465</b>	<b>5.940</b>	<b>2.831</b>	<b>192</b>	<b>27.424</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)*

## 11. Animals used under § 7 (2) and § 4 (3) of the Animal Protection Act

Table 47: Animals used under § 7 (2) or § 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	1.455.779	536.970	<b>1.992.749</b>
Rats	248.862	68.495	<b>317.357</b>
Guinea-Pigs	14.184	576	<b>14.760</b>
Hamsters (Syrian)	1.101	72	<b>1.173</b>
Hamsters (Chinese)	2	6	<b>8</b>
Mongolian gerbil	4.854	925	<b>5.779</b>
Other Rodents	6.639	350	<b>6.989</b>
Rabbits	98.339	745	<b>99.084</b>
Cats	766		<b>766</b>
Dogs	3.976	1	<b>3.977</b>
Ferrets	130	6	<b>136</b>
Other carnivores	474		<b>474</b>
Horses, donkeys & cross-breeds	1.295	22	<b>1.317</b>
Pigs	16.767	667	<b>17.434</b>
Goats	223	48	<b>271</b>
Sheep	3.750	31	<b>3.781</b>
Cattle	5.432		<b>5.432</b>
Prosimians	117		<b>117</b>
Marmoset and tamarins	113	13	<b>126</b>
Cynomolgus monkey	2.058	16	<b>2.074</b>
Rhesus monkey	86	11	<b>97</b>
Vervets Chlorocebus spp.	18	3	<b>21</b>
Baboons	8	1	<b>9</b>
Other species of Old World Monkeys	18		<b>18</b>
Other Mammals	1.158	109	<b>1.267</b>
Domestic fowl	30.502	9.663	<b>40.165</b>
Other birds	16.754	871	<b>17.625</b>
Reptiles	454	268	<b>722</b>
Rana	930	2	<b>932</b>
Xenopus	5.295	798	<b>6.093</b>
Other Amphibians	2.675	521	<b>3.196</b>
Zebra fish	178.297	21.694	<b>199.991</b>
Other Fish	88.205	22.441	<b>110.646</b>
<b>Total</b>	<b>2.189.261</b>	<b>665.325</b>	<b>2.854.586</b>

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