

SECTION 2: ALL USES OF ANIMALS FOR RESEARCH, TESTING, ROUTINE PRODUCTION AND EDUCATION AND TRAINING PURPOSES - TRENDS

Excludes the uses of animals for the creation and maintenance of genetically altered animals.

FILTERS

- Reporting year:All
- Country:All
- EC ID:All
- File name:All
- EU Submission:Yes
- ID 1:All
- ID 2:All
- ID 3:All
- Species:All
- Other species:All
- Species grouping level 1:All
- Species grouping level 2:All
- Mammals:All
- Non-human primates:All
- Reuse:All
- Place of birth:All
- NHP Place of birth:All
- NHP Colony type: Self-sustaining colony:All
- NHP generation:All
- Genetic status:All
- Purpose:All
- Purpose category level 1:All
- Purpose category level 2:All
- Purpose category level 3:All
- Purpose category level 4:All
- Type of legislation:All
- Other legislation:All
- Origin of legislation:All
- Severity:All
- Custom severity:All
- Method of tissue sampling:All
- Severity of genotyping:All

ALL USES OF ANIMALS

Uses of animals by species

Species	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Mice	40580	53378	48631	47499	48855	54809	52874	50238	43123	37597
Rats	15672	15036	13467	10951	9960	10458	9845	8966	7256	6909
Guinea-Pigs	50	10	9	1	2	8	4	0	0	14
Hamsters (Syrian)	197	273	149	72	180	64	415	274	309	115
Other rodents	0	1364	690	2539	2315	4745	2018	1972	894	885
Rabbits	213	237	227	186	160	92	44	89	149	325
Cats	100	259	311	218	178	138	142	182	232	60
Dogs	2619	3961	3061	6297	2196	1283	1918	1209	767	931
Other carnivores	270	18	107	35	91	160	413	493	49	3
Horses, donkeys and cross-breeds	48	76	77	236	45	114	74	101	93	60
Pigs	479	611	632	958	919	772	448	385	321	387
Sheep	1128	1350	1319	1348	1243	692	625	564	473	445
Cattle	87	541	216	190	272	219	608	399	738	368
Other mammals	2880	103	1533	319	119	134	150	169	136	104
Domestic fowl	3646	8411	8485	5468	2785	5039	479	2393	2608	4271
Turkey	0	0	0	0	0	0	1	1	1	0
Other birds	717	501	404	1063	1296	1082	742	485	942	2992
Reptiles	0	0	0	30	0	0	0	0	0	0
Rana	10	2	0	0	0	0	0	0	240	0
Other amphibians	0	0	0	77	0	5	250	157	242	53
Zebra fish	10453	7483	6454	7339	8784	6062	7411	8668	6035	6643
Salmon, trout, chars and graylings	0	0	0	0	0	0	14006	4172	3345	16886
Other fish	7529	7279	11729	20700	13492	27100	302	1339	1166	986
Total	86678	100893	97501	105526	92892	112976	92769	82256	69119	80034
Excel										

Uses of animals by severity

Severity	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Non-recovery	4470	8908	8735	11048	4066	5107	6443	5590	4693	4719
Mild [up to and including]	45570	53017	46758	54237	52840	62222	55326	44034	38733	46893
Moderate	31105	30069	33282	33382	29618	40884	26313	29231	23497	26061
Severe	5533	8899	8726	6859	6368	4763	4687	3401	2196	2361
Total	86678	100893	97501	105526	92892	112976	92769	82256	69119	80034
Excel										

Proportions of uses of animals by severity

Severity	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Non-recovery	5.16%	8.83%	8.96%	10.47%	4.38%	4.52%	6.95%	6.8%	6.79%	5.9%
Mild [up to and including]	52.57%	52.55%	47.96%	51.4%	56.88%	55.08%	59.64%	53.53%	56.04%	58.59%
Moderate	35.89%	29.8%	34.14%	31.63%	31.88%	36.19%	28.36%	35.54%	33.99%	32.56%
Severe	6.38%	8.82%	8.95%	6.5%	6.86%	4.22%	5.05%	4.13%	3.18%	2.95%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Excel										

Uses of animals by genetic status

Genetic status	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Not genetically altered	64285	73075	71470	81147	66596	87015	64266	55520	47428	60668
Genetically altered without a harmful phenotype	18016	20099	17743	19274	21149	20665	22834	22165	17925	16202
Genetically altered with a harmful phenotype	4377	7719	8288	5105	5147	5296	5669	4571	3766	3164
Total	86678	100893	97501	105526	92892	112976	92769	82256	69119	80034
Excel										

Proportions of uses of animals by genetic status

Genetic status	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Not genetically altered	74.17%	72.43%	73.3%	76.9%	71.69%	77.02%	69.28%	67.5%	68.62%	75.8%
Genetically altered without a harmful phenotype	20.78%	19.92%	18.2%	18.26%	22.77%	18.29%	24.61%	26.95%	25.93%	20.24%
Genetically altered with a harmful phenotype	5.05%	7.65%	8.5%	4.84%	5.54%	4.69%	6.11%	5.56%	5.45%	3.95%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Excel										

Reuse of animals

Reuse	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
No	85916	100148	97352	105176	92455	112415	91759	81490	68461	79510
Yes	762	745	149	350	437	561	1010	766	658	524
Total	86678	100893	97501	105526	92892	112976	92769	82256	69119	80034
Excel										

Proportions of reuse of animals

Reuse	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
No	99.12%	99.26%	99.85%	99.67%	99.53%	99.5%	98.91%	99.07%	99.05%	99.35%
Yes	0.88%	0.74%	0.15%	0.33%	0.47%	0.5%	1.09%	0.93%	0.95%	0.65%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Excel										

ALL USES OF ANIMALS BY SPECIES CATEGORY

Species category level 1

Species category	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Cold-blooded vertebrates	17992	14764	18183	28146	22276	33167	21969	14336	11028	24568
Warm-blooded vertebrates	68686	86129	79318	77380	70616	79809	70800	67920	58091	55466
Total	86678	100893	97501	105526	92892	112976	92769	82256	69119	80034
Excel										

Proportions of species category level 1

Species category	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Cold-blooded vertebrates	20.76%	14.63%	18.65%	26.67%	23.98%	29.36%	23.68%	17.43%	15.96%	30.7%
Warm-blooded vertebrates	79.24%	85.37%	81.35%	73.33%	76.02%	70.64%	76.32%	82.57%	84.04%	69.3%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Excel										

Species category level 2

Species category	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Amphibians	10	2	0	77	0	5	250	157	482	53
Birds	4363	8912	8889	6531	4081	6121	1222	2879	3551	7263
Fish	17982	14762	18183	28039	22276	33162	21719	14179	10546	24515
Mammals	64323	77217	70429	70849	66535	73688	69578	65041	54540	48203
Reptiles	0	0	0	30	0	0	0	0	0	0
Total	86678	100893	97501	105526	92892	112976	92769	82256	69119	80034
Excel										

Proportions of species category level 2

Species category	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Amphibians	0.01%	0%	0%	0.07%	0%	0%	0.27%	0.19%	0.7%	0.07%
Birds	5.03%	8.83%	9.12%	6.19%	4.39%	5.42%	1.32%	3.5%	5.14%	9.07%
Fish	20.75%	14.63%	18.65%	26.57%	23.98%	29.35%	23.41%	17.24%	15.26%	30.63%
Mammals	74.21%	76.53%	72.23%	67.14%	71.63%	65.22%	75%	79.07%	78.91%	60.23%
Reptiles	0%	0%	0%	0.03%	0%	0%	0%	0%	0%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Excel										

Uses of mammals

Species	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Mice	40580	53378	48631	47499	48855	54809	52874	50238	43123	37597
Rats	15672	15036	13467	10951	9960	10458	9845	8966	7256	6909
Guinea-Pigs	50	10	9	1	2	8	4	0	0	14
Hamsters (Syrian)	197	273	149	72	180	64	415	274	309	115
Other rodents	0	1364	690	2539	2315	4745	2018	1972	894	885
Rabbits	213	237	227	186	160	92	44	89	149	325
Cats	100	259	311	218	178	138	142	182	232	60
Dogs	2619	3961	3061	6297	2196	1283	1918	1209	767	931
Other carnivores	270	18	107	35	91	160	413	493	49	3
Horses, donkeys and cross-breeds	48	76	77	236	45	114	74	101	93	60
Pigs	479	611	632	958	919	772	448	385	321	387
Sheep	1128	1350	1319	1348	1243	692	625	564	473	445
Cattle	87	541	216	190	272	219	608	399	738	368
Other mammals	2880	103	1533	319	119	134	150	169	136	104
Total	64323	77217	70429	70849	66535	73688	69578	65041	54540	48203

Excel

Proportions of uses of mammals

Species	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Mice	63.09%	69.13%	69.05%	67.04%	73.43%	74.38%	75.99%	77.24%	79.07%	78%
Rats	24.36%	19.47%	19.12%	15.46%	14.97%	14.19%	14.15%	13.79%	13.3%	14.33%
Guinea-Pigs	0.08%	0.01%	0.01%	0%	0%	0.01%	0.01%	0%	0%	0.03%
Hamsters (Syrian)	0.31%	0.35%	0.21%	0.1%	0.27%	0.09%	0.6%	0.42%	0.57%	0.24%
Other rodents	0%	1.77%	0.98%	3.58%	3.48%	6.44%	2.9%	3.03%	1.64%	1.84%
Rabbits	0.33%	0.31%	0.32%	0.26%	0.24%	0.12%	0.06%	0.14%	0.27%	0.67%
Cats	0.16%	0.34%	0.44%	0.31%	0.27%	0.19%	0.2%	0.28%	0.43%	0.12%
Dogs	4.07%	5.13%	4.35%	8.89%	3.3%	1.74%	2.76%	1.86%	1.41%	1.93%
Other carnivores	0.42%	0.02%	0.15%	0.05%	0.14%	0.22%	0.59%	0.76%	0.09%	0.01%
Horses, donkeys and cross-breeds	0.07%	0.1%	0.11%	0.33%	0.07%	0.15%	0.11%	0.16%	0.17%	0.12%
Pigs	0.74%	0.79%	0.9%	1.35%	1.38%	1.05%	0.64%	0.59%	0.59%	0.8%
Sheep	1.75%	1.75%	1.87%	1.9%	1.87%	0.94%	0.9%	0.87%	0.87%	0.92%
Cattle	0.14%	0.7%	0.31%	0.27%	0.41%	0.3%	0.87%	0.61%	1.35%	0.76%
Other mammals	4.48%	0.13%	2.18%	0.45%	0.18%	0.18%	0.22%	0.26%	0.25%	0.22%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Excel										

Uses of non-human primates

Species
No data available in table
Excel

Proportions of uses of non-human primates

Species
No data available in table
Excel

USES OF ANIMALS BY MAIN CATEGORIES OF SCIENTIFIC PURPOSES

Uses of animals by main categories of scientific purposes

Purpose	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Basic Research	53378	52105	54625	58571	54268	63641	52247	39636	33735	43560
Translational and applied research	25270	39974	33315	37275	32823	44065	34578	35247	29469	30788
Regulatory use and Routine production	5364	7026	7895	7481	3754	4210	2474	1933	2383	1314
Protection of the natural environment in the interests of the health or welfare of human beings or animals	1455	0	0	0	0	0	0	300	591	1410
Preservation of species	41	35	60	46	76	0	20	52	57	244
Higher education or training for the acquisition, maintenance or improvement of vocational skills	1170	1753	1606	2153	1971	1060	0	0	0	0
Higher education	0	0	0	0	0	0	334	942	315	584
Training for the acquisition, maintenance or improvement of vocational skills	0	0	0	0	0	0	3116	4146	2569	2134
Total	86678	100893	97501	105526	92892	112976	92769	82256	69119	80034
Excel										

BASIC RESEARCH RELATED USES

Basic research related uses

Purpose	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Oncology	3983	3677	6529	3499	5932	6369	6461	5757	6735	5806
Cardiovascular Blood and Lymphatic System	5000	4831	5098	3453	2896	7794	7343	5590	4272	4342
Nervous System	13921	13692	10383	8598	9768	9087	7459	6900	5364	3872
Respiratory System	0	258	80	150	872	314	271	1330	260	218
Gastrointestinal System including Liver	363	501	545	419	1632	1219	1176	956	738	930
Musculoskeletal System	701	562	337	557	54	187	79	226	203	101
Immune System	10074	8772	10325	11553	5120	2639	4497	5078	2737	2484
Urogenital/Reproductive System	328	524	181	4985	6815	14525	1193	752	396	587
Sensory Organs (skin, eyes and ears)	1223	310	268	481	1497	944	763	993	2168	1001
Endocrine System/Metabolism	1283	1383	900	2268	2588	3887	1900	1951	1827	1706
Developmental Biology	0	0	0	0	0	0	21	10	50	614
Multisystemic	6836	9673	6005	8641	7701	4667	3901	3641	3128	2337
Ethology / Animal Behaviour /Animal Biology	9425	7376	7546	12417	8948	11731	8243	3637	4240	19562
Other basic research	241	546	6428	1550	445	278	8940	2815	1617	0
Total	53378	52105	54625	58571	54268	63641	52247	39636	33735	43560
Excel										

TRANSLATIONAL AND APPLIED RESEARCH RELATED USES

Translational and applied research related uses

Purpose	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Human Cancer	2375	3325	5016	4177	3243	3564	3707	3906	4363	4656
Human Infectious Disorders	0	995	860	2481	907	854	1769	2430	840	2625
Human Cardiovascular Disorders	603	676	662	671	648	462	465	504	202	226
Human Nervous and Mental Disorders	15878	20831	19579	17395	17893	19968	16926	13714	12596	10438
Human Respiratory Disorders	62	0	0	0	0	0	12	84	0	0
Human Gastrointestinal Disorders including Liver	24	74	117	74	59	182	61	1118	566	67
Human Musculoskeletal Disorders	16	1204	605	346	876	522	254	734	1060	708
Human Immune Disorders	24	0	71	264	390	275	439	173	55	49
Human Urogenital/Reproductive Disorders	0	0	8	42	2	18	170	111	214	33
Human Sensory Organ Disorders (skin, eyes and ears)	893	1552	470	2462	2243	2524	2433	3501	2801	3058
Human Endocrine/Metabolism Disorders	66	386	371	1066	621	697	1658	1587	817	699
Other Human Disorders	23	586	755	198	1226	1648	2688	2917	1903	2754
Animal Diseases and Disorders	4593	9869	4384	6946	3818	10473	3144	2800	2563	2787
Animal Nutrition	0	0	0	0	0	0	335	1459	177	54
Animal Welfare	444	199	226	133	302	234	118	56	1090	2623
Diagnosis of diseases	127	89	123	459	318	439	253	120	59	11
Non-regulatory toxicology and ecotoxicology	142	188	68	561	277	2205	146	33	163	0
Total	25270	39974	33315	37275	32823	44065	34578	35247	29469	30788
Excel										

ROUTINE PRODUCTION USES

Routine production uses

Purpose	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Blood based products	0	317	296	1476	1196	866	311	241	228	216
Monoclonal and polyclonal antibodies (excluding ascites method)	0	0	0	0	0	0	465	446	372	408
Other product types	1250	1140	1180	0	0	6	0	0	0	0
Total	1250	1457	1476	1476	1196	872	776	687	600	624
Excel										

REGULATORY USES

Regulatory uses

Purpose	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Quality control (incl batch safety and potency testing)	1576	2645	3395	4478	1425	1276	171	150	0	0
Other efficacy and tolerance testing	0	8	156	218	70	12	0	0	0	0
Toxicity and other safety testing including pharmacology	2538	2916	2868	1309	1063	2050	1527	1096	1783	690
Total	4114	5569	6419	6005	2558	3338	1698	1246	1783	690
Excel										

Regulatory uses by type of legislation

Type of legislation ♦	2015 ♦	2016 ♦	2017 ♦	2018 ♦	2019 ♦	2020 ♦	2021 ♦	2022 ♦	2023 ♦	2024 ♦
Feed legislation including legislation for the safety of target animals, workers and environment	0	0	32	47	0	0	0	0	0	0
Legislation on medicinal products for human use	2458	2875	2992	1349	2542	3312	1641	1232	1749	690
Legislation on medicinal products for veterinary use and their residues	1656	2694	3395	4609	16	26	57	14	34	0
Total	4114	5569	6419	6005	2558	3338	1698	1246	1783	690
Excel										

Proportions of regulatory uses by type of legislation

Type of legislation ♦	2015 ♦	2016 ♦	2017 ♦	2018 ♦	2019 ♦	2020 ♦	2021 ♦	2022 ♦	2023 ♦	2024 ♦
Feed legislation including legislation for the safety of target animals, workers and environment	0%	0%	0.5%	0.78%	0%	0%	0%	0%	0%	0%
Legislation on medicinal products for human use	59.75%	51.63%	46.61%	22.46%	99.37%	99.22%	96.64%	98.88%	98.09%	100%
Legislation on medicinal products for veterinary use and their residues	40.25%	48.37%	52.89%	76.75%	0.63%	0.78%	3.36%	1.12%	1.91%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Excel										

Regulatory uses by regulatory requirement

Type of requirement	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Legislation satisfying EU requirements	4114	5569	6419	6005	2558	3338	1698	1246	1783	690
Total	4114	5569	6419	6005	2558	3338	1698	1246	1783	690
Excel										

Proportions of regulatory uses by regulatory requirement

Type of requirement	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Legislation satisfying EU requirements	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Excel										

REGULATORY USES: QUALITY CONTROL (INCLUDING BATCH SAFETY AND POTENCY TESTING)

Regulatory uses: Quality control

Purpose	2015	2016	2017	2018	2019	2020	2021	2022
Batch safety testing	0	0	0	4478	1425	1276	171	150
Batch potency testing	1576	2645	3395	0	0	0	0	0
Total	1576	2645	3395	4478	1425	1276	171	150
Excel								

REGULATORY USES: TOXICITY AND OTHER SAFETY TESTING INCLUDING PHARMACOLOGY

Regulatory uses: Toxicity

Purpose	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Acute and sub-acute	50	49	0	15	10	0	0	0	0	0
Skin irritation/corrosion	10	0	0	0	0	0	0	0	0	0
Skin sensitisation	40	0	0	0	0	0	0	0	0	0
Repeated dose toxicity	94	196	134	102	26	220	195	143	84	117
Kinetics	590	850	1171	259	396	1709	1201	920	1426	521
Pharmaco-dynamics (incl safety pharmacology)	1754	1821	1556	933	631	121	131	33	273	52
Other toxicity/safety testing	0	0	7	0	0	0	0	0	0	0
Total	2538	2916	2868	1309	1063	2050	1527	1096	1783	690
Excel										

REGULATORY USES : TOXICITY AND OTHER SAFETY TESTING INCLUDING PHARMACOLOGY: ACUTE AND SUB-ACUTE TOXICITY TESTING METHODS

Regulatory uses: Toxicity: Acute and sub-acute

Purpose	2015	2016	2018	2019
LD50, LC50	0	9	0	0
Other lethal methods	0	0	0	10
Non lethal methods	50	40	15	0
Total	50	49	15	10
Excel				

REGULATORY USES: TOXICITY AND OTHER SAFETY TESTING INCLUDING PHARMACOLOGY: REPEATED DOSE TOXICITY

Regulatory uses: Toxicity: Repeated dose

Purpose ♦	2015 ♦	2016 ♦	2017 ♦	2018 ♦	2019 ♦	2020 ♦	2021 ♦	2022 ♦	2023 ♦	2024 ♦
up to 28 days	94	100	134	0	26	220	195	143	84	117
29 - 90 days	0	0	0	6	0	0	0	0	0	0
> 90 days	0	96	0	96	0	0	0	0	0	0
Total	94	196	134	102	26	220	195	143	84	117
Excel										

REGULATORY USES: TOXICITY AND OTHER SAFETY TESTING INCLUDING PHARMACOLOGY: ECOTOXICITY

Regulatory uses: Toxicity: Ecotoxicity

Purpose	
No data available in table	
Excel	