MEMBER STATE NARRATIVE 2019

1. General information on any changes in trends observed since the previous reporting period.

Compared to 2018 (556,271 uses), there is a decrease of 11.20% in the number of uses for scientific purposesin 2019 (493,982 uses).

Number of use in 2017	Number of use in 2018	Number of use in 2019
543074	556271	493982

Since 2015, the number of re-use continues to decline. Compared to 2018 there is a decrease of 10.75% and even a decrease of 17.15% compared to the numbers of 2017.

Re-Use	Number of use in 2017	Number of use in 2018	Number of use in 2019
No	538043	551601	489814
Yes	5031	4670	4168
Total uses	543074	556271	493982

On the species grouping level, there are no significant changes.

Species	Number of use in 2017	Number of use in 2018	Number of use in 2019
Mammals	442398	454576	401065
Birds	46812	45412	41703
Fish	52462	54843	49807
Amphibians	1241	1116	1106
Reptiles	181	324	301
Cephalopods	0	0	0
Total uses	543094	556271	493982

Within the mammals category we notice that the increasing trend in the use of mice has come to an end in 2019. In 2019 the use of mice dropped (decrease of 10.48% compared to 2017 and 14.30% compared to 2018).

Other interesting trends in this category are the increasing use of cats and the decreasing use of dogs. Regarding the use of cats, it is important to note that the vast majority of projects involve the use of pets under treatment as patients at the veterinary clinic. They have a certain medical condition / disorder / disease or characteristic and are included in a study (after approval of the owner). For the animals, this means that, for example, a blood and / or urine sample is taken that must provide useful information within a study (and is not part of the standard treatment).

The decrease in the use of dogs can mainly be explained by the fact that fewer studies were carried out in 2019 in the field of Alzheimer's research (more specifically less research concerning the distribution in the body of test substances). A small majority of dogs were used in research conducted for the development of human drugs. Another large category includes, once again, pets that are being treated as patients in a veterinary clinic and are involved in scientific research.

Animal Species	Number of use in 2017	Number of use in 2018	Number of use in 2019
Mice	334054	348937	299038
Cats	61	34	227
Dogs	1856	1684	1302

In the birds category, there is a decrease for domestic fowl compared to 2018 (-9.98%). The use of other birds increased slightly (3.25%).

Animal Species	Number of use in 2017	Number of use in 2018	Number of use in 2019
Domestic fowl	39674	39203	35292
Other birds	7138	6209	6411

In the fish category, there was a decrease in the use of zebra fish in 2018 and an increase in 2019. This can partly be explained by efforts to make more use of animals at the larval stage (less than 6 days) in research on human diseases. However, testing showed that the results were less consistent and subsequently the use of zebrafish increased again in 2019.

The use of other fish decreased by 63.05% compared to 2018, due to a decreasing use of other fish in several research domains.

Animal Species	Number of use in 2017	Number of use in 2018	Number of use in 2019
Zebra fish	28435	25904	39115
Other Fish	24027	28939	10692

2. Information on significant increase or decrease in used animals in any of the specific areas and analysis of the reasons thereof.

Purpose Category	Number of use in 2017	Number of use in 2018	Number of use in 2019
Basic Research	272795	251704	222946
Translational and applied research	117258	121645	130724
Regulatory use and Routine production	141853	140896	115267
Protection of the natural environment in the interests of the health or welfare of human beings or animals	706	359	798
Preservation of species	151	5598	243
Higher education or training for the acquisition, maintenance or improvement of vocational skills	8051	7442	6287
Forensic enquiries	0	0	0
Maintenance of colonies of established genetically altered animals, not used in other procedures	2260	28627	17717
Non-EU Purpose	0	0	0
Total uses	**543074**	**556271**	**493982**

Between 2018 and 2019, basic research diminished by 11.43%. This was in particular due to decreases in the area of Oncology research and research on the Nervous System.

During the same time period Regulatory use and Routine production decreased by 18.19%. This is mostly explained by a decrease in the category of Other efficacy and tolerance testing (-50,65%) and Quality control (incl. batch safety and potency testing) (-30,32%). This was due to a temporary drop in projects within this category. It is expected that this number will increase again in 2020.

The number of procedures in the area of the Preservation of species went down. This is mainly due to the fact that a certain test, in which the fish safety of axial flow pumps was tested, has been completed in 2018.

The number of procedures concerning Maintenance of colonies of established genetically altered lines increased significantly in 2018 as the institutions were actively contacted at that time to explain the terminology. In 2019 the numbers for Maintenance went down again because several establishments adapted their procedures and now choose to combine identification and genotyping in one step.

3. Information on any changes in trends in actual severities and analysis of the reasons thereof.

Severity	Number of use in 2017	% in 2017	Number of use in 2018	% in 2018	Number of use in 2019	% in 2019
Non-recovery	26546	4,89%	20565	3,70%	14074	2,85%
Mild	297189	54,72%	311660	56,03%	284376	57,57%
Moderate	134577	24,78%	154633	27,80%	131963	26,71%
Severe	84762	15,61%	69413	12,48%	63569	12,87%
Total uses	543074	100,00%	556271	100,00%	493982	100,00%

Within the actual severities classification we note almost no changes. The percentages seem to be quite stable. There are no remarkable changes or trends.

4. Particular efforts to promote the principle of replacement, reduction and refinement and its impacts on statistics if any.

Continuation of the RE-Place project (creation of a database that brings together expertise on alternative methods for animal testing) and funding of several specific 3R research projects. No impact on the statistics has yet been noted.

5. Further breakdown on the use of "other" categories if a significant proportion of animal use is reported under this category.

1. Other fish

   21,5% of the fishes are reported under the "other" category.
   Taking into account the categories of fish for which at least 5 uses have been registered, the other fishes are mostly Cyprinidae (24%) and Salmonidae (24%), followed by Anguillidae (13%), Cichlidae (12%) and Nothobranchiidae (8%).

Other fish	Number of uses	Other fish	Number of uses
Cyprinus carpio	2561	*Lactoria cornuta*	5
Oncorhynchus mykiss	1658	*Metynnis hypsauchen*	5
Anguilla anguilla	1384	*Piaractus brachypomus*	5
Oreochromis niloticus	1235	*Pygopristis denticulata*	5
Nothobranchius furzeri	868	*Synodontis nigriventris*	5
Salmo salar	590	*Ostracion solorensis*	4
Scortum barcoo	576	*Synodontis soloni*	4
Clarias gariepinus	443	*Dascyllus trimaculatus*	3
Thymallus thymallus	295	*Myloplus rubripinnis*	3
Kryptolebias marmoratus	270	*Schistura denisoni*	3
Gasterosteus aculeatus	212	*Serrasalmus maculatus*	3
Lota lota	135	*Synodontis ilebrevis*	3
Sander lucioperca	85	*Yasuhikotakia morleti*	3
Pleuronectes platessa	54	*Ancistrus dolichopterus*	2
Raja clavata	39	*Epalzeorhynchos bicolor*	2
Dicentrarchus labrax	37	*Helostoma temminkii*	2
Pseudotropheus saulosi	26	*Maylandia zebra*	2
Neogobius melanostomus	23	*Pygocentrus piraya*	2
Raja brachyura	18	*Serrasalmus elongatus*	2
Parophidion vassali	16	*Catoprion mento*	1
Psetta maxima	15	*Colossoma macropomum*	1
Pygocentrus nattereri	14	*Corydoras sp.*	1
Raja undulata	13	*Hyphessobrycon sp.*	1
Raja montagui	12	*Methynnis lippincottianus*	1
Synodontis grandiops	11	*Puntigrus tetrazona*	1
Haplochromis sp. tomato	10	*Pygocentrus cariba*	1
Microsynodontis batesi	8	*Raja microocellata*	1
Myloplus schomburgkii	6	*Serrasalmus manueli*	1
Alosa fallax	5	*Synodontis victoriae*	1

2. Other amphibians

23.96% of the amphibians are reported under the "other" category.
They are mostly Ranidae (*Lithobates catesbeianus*) (80% of other amphibians),
Ceratophrydae (in order of importance: *Ceratophrys cranwelli, Ceratophrys cornuta,
Ceratophrys ornata, Lepidobatrachus laevis, Ceratophrys aurita, Chacophrys pierotti*
and *Ceratophrys stolzmanni*) (19%) and Microhylidae (*Dyscophus guineti)* (<1%).

Other amphibians	Number of uses
Lithobates catesbeianus larve	200
Ceratophrys cranwelli	12
Lithobates catesbeianus adult	12
Ceratophrys cornuta	9
Ceratophrys ornata	9
Lepidobatrachus laevis	9

Ceratophrys aurita	6
Chacophrys pierotti	4
Ceratophrys stolzmanni	2
Dyscophus guineti	2

3. Other birds

15,37% of the birds are reported under the "other" category.

They are mostly Paridae (*Parus major*) (43% of other birds) and Phasianidae (*Meleagris gallopavo* and *Coturnix japonica*) (41% of other birds).

The other birds are members of Anatidae (14%), Fringillidae (Serinus canaria) (1%), Columbidae (<1%), Estrildidae (*Taeniopygia guttata*) (<1%), Laridae (*Larus fuscus*) (<1%) and Sturnidae (*Sturnus vulgaris*) (<1%).

Other birds	Number of uses
Parus major	2916
Meleagris gallopavo	2562
Anatidae	970
Coturnix japonica	186
Serinus canaria	90
Columbidae	24
Taeniopygia guttata	10
Larus fuscus	5
Sturnus vulgaris	4

6. Details on cases where the 'severe' classification is exceeded, whether pre-authorised or not, covering the species, numbers, whether prior exemption was authorised, the details of the use and the reasons why 'severe' classification was exceeded.

As in previous years, there were no cases in which the 'severe' classification was exceeded.