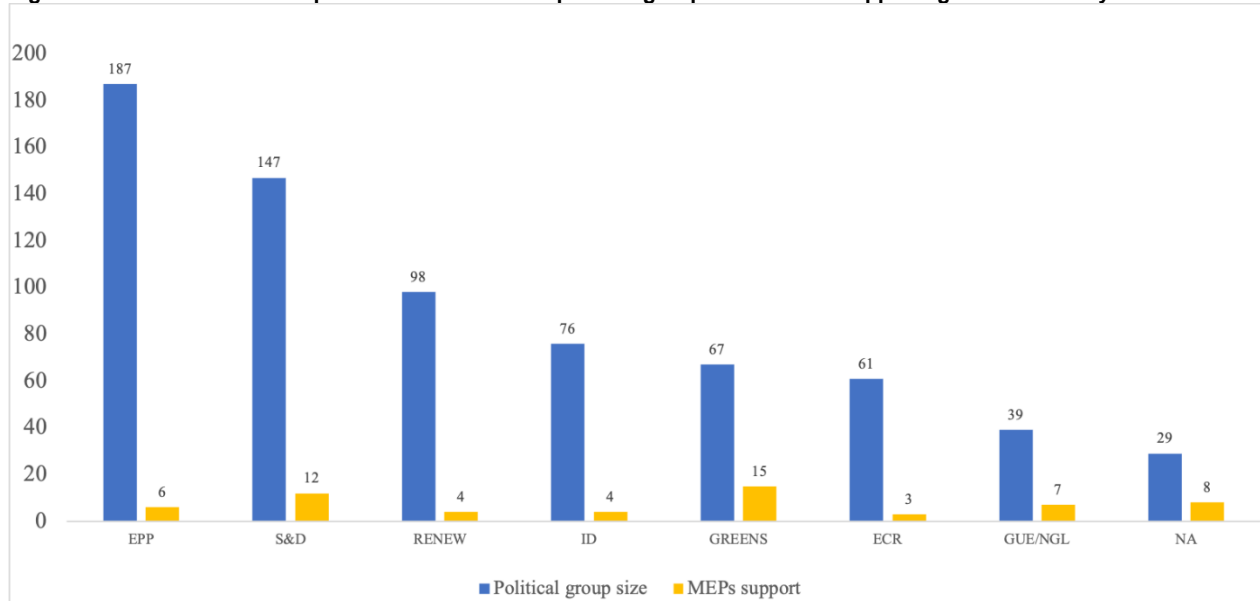


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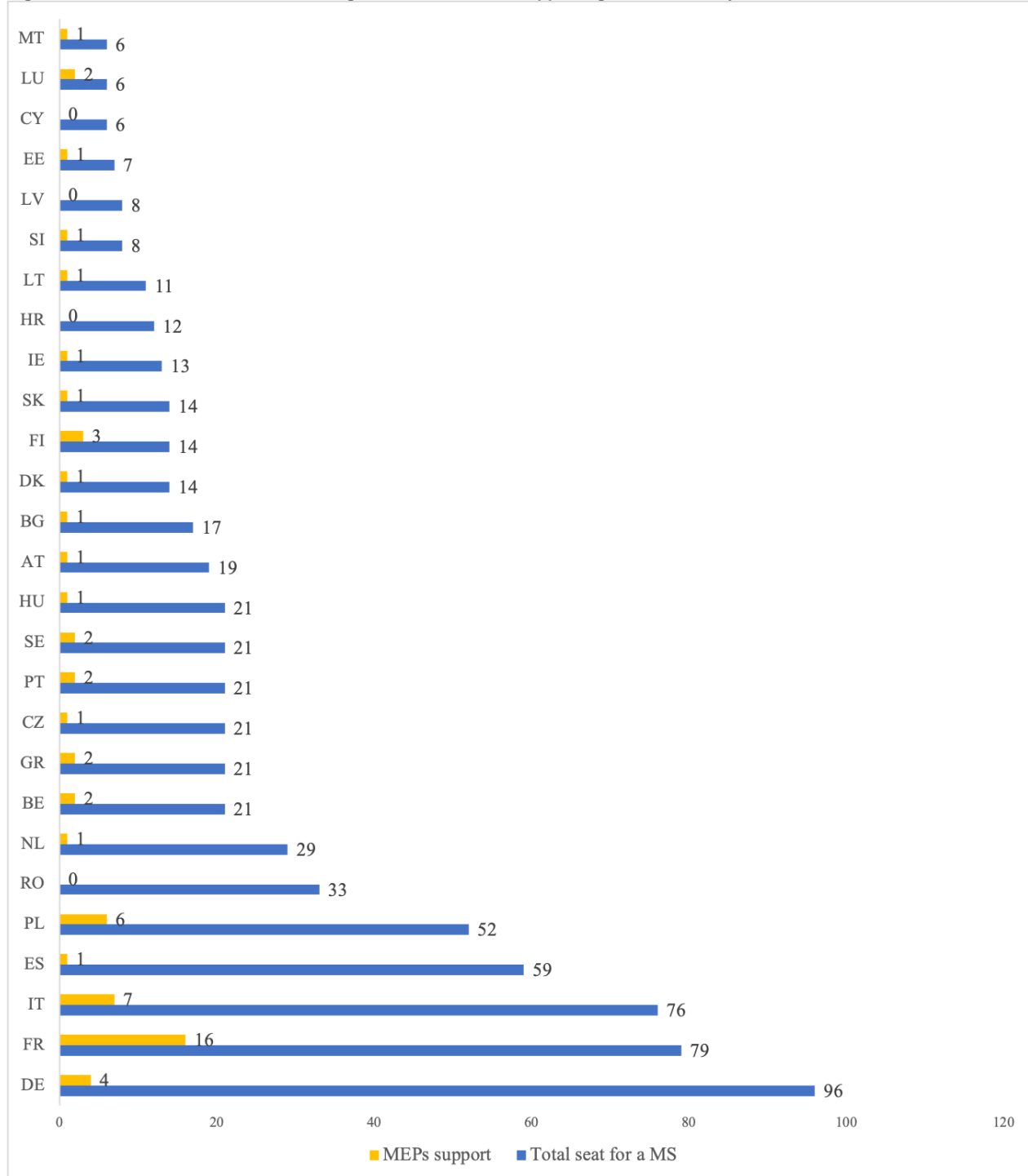
Supplementary Data

Fig. S1: 2020 Post-Brexit European Parliament size of political groups vs MEPs in support against laboratory animal use



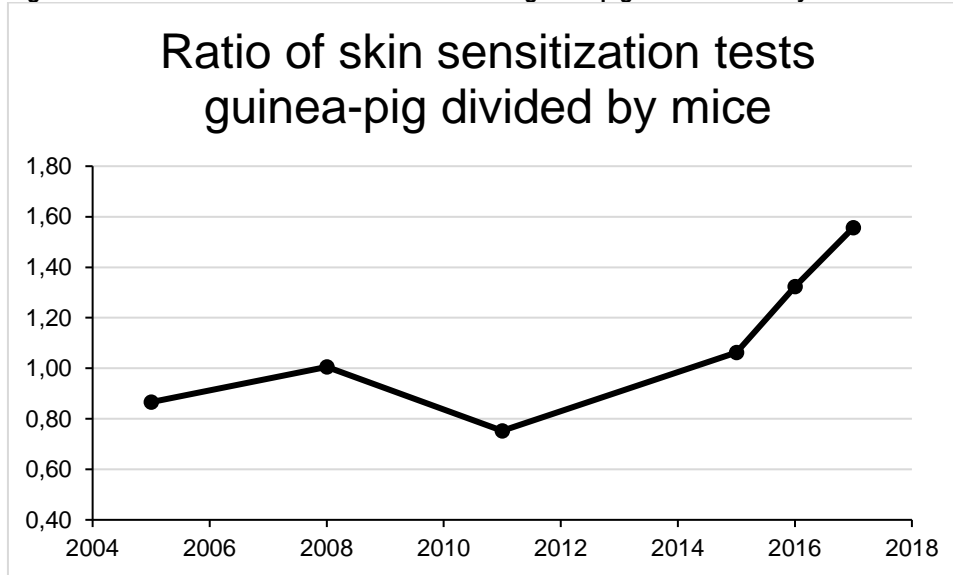
EPP, European People's Party; S&D, Socialists & Democrats; Renew, Renew Europe; ID, Identity and Democracy; ECR, European Conservatives and Reformists; GUE, Confederal Group of the European United Left/Nordic Green Left; NA, Non-Affiliated

Fig. 2: 2020 Post-Brexit MS National Delegation size vs MEPs support against laboratory animal use



MT, Malta; LU, Luxembourg; CY, Cyprus; EE, Estonia; LV, Latvia; SI, Slovenia; LT, Lithuania; HR, Croatia; IE, Ireland; SK, Slovakia; FI, Finland; DK, Denmark; BG, Bulgaria; AT, Austria; HU, Hungary; SE, Sweden; PT, Portugal; CZ, Czech Republic; GR, Greece; BE, Belgium; NL, Netherlands; RO, Romania; PL, Poland; ES, Spain; IT, Italy; FR, France; DE, Germany

Fig. 3: Ratio of skin sensitization tests in the EU in guinea-pigs vs mice in the years 2005 to 2017



The analysis assumes 25 mice and 30 guinea-pigs are used per test, respectively, thus reflecting the proportion of substances tested in either animal species.

Tab. S1: The six questions addressed to Member States to explain statistics narratives

1. General information on any changes in trends observed since the previous reporting period.	4. Particular efforts to promote the principle of replacement, reduction and refinement and its impacts on statistics if any.
2. Information on significant increase or decrease in use animals in any of the specific areas and analysis of the reasons thereof.	5. Further breakdown on the use of “other” categories if a significant proportion of animal use is reported under this category.
3. Information on any changes in trends in actual severities and analysis of the reasons thereof.	6. Details on cases where the “severe” classification is exceeded, whether pre-authorized or not, covering the species, numbers, whether prior exemption was authorised, the details of the use and the reasons why “severe” classification was exceeded.

Tab. S2: Detailed scoring 3Rs activities as provided by the competent authorities to the Member States

	Lithuania	Netherlands	United Kingdom	Malta	Portugal	Slovenia	Bulgaria	Latvia	Czech Republic	Cyprus	Hungary	Ireland	Estonia	Greece	Austria	Romania	Slovakia	Spain	Croatia	Luxembourg	Poland	France	Belgium	Denmark	Finland	Germany	Italy	Sweden	%	
Education and training	-	-	-	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	0	0	1	0	1	1	1	44
Communication, promotion, dissemination, workshops, conferences, database	-	-	-	0	0	0	0	0	0	0	0	1	1	0	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	56
Funding, awards	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	24
National/local 3Rs center	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	1	24

Tab. S3: Member States submitting effort to ensure the promotion of alternative approaches and the dissemination of information

Time period	2010-2014	-2017	-2020
MS who submitted a report on 3Rs to COM	Belgium, Czech Republic, Denmark, Finland, France, Germany, Latvia, Lithuania, Slovakia, Slovenia, Sweden, UK	Belgium, Finland, Greece, Italy, Slovakia, Sweden	Belgium, Bulgaria, Denmark, Greece, Slovakia, Slovenia
Number of MS who submitted a report on 3Rs to COM	11 out of 28 MS submitted at least one report	6 out of 28 MS submitted at least one report	5 out of 27 MS submitted at least one report

Tab. S4: Comparison of animal use in 15 EU Member States 2017 vs. 2018

State	Country Code	2017	2018
Austria	AUT	264,071	237,727
Belgium	BEL	543,074	556,271
Croatia	HRV	28,534	25,816
Czech Republic	CZE	241,712	231,850
Estonia	EST	3,146	3,000
Finland	FIN	102,575	110,723
Germany	DEU	2,068,813	2,098,234
Greece	GRC	46,730	45,790
Ireland	IRL	242,302	199,800
Luxembourg	LUX	25,841	14,656
Poland	POL	156,234	153,435
Slovak Republic	SVK	15,603	17,592
Slovenia	SVN	5,142	5,104
Spain	ESP	802,976	836,096
United Kingdom	GBR	3,789,373	3,519,917
Total		8,336,126	8,056,011

Data from Speaking for Research (<https://speakingofresearch.com/facts/animal-research-statistics/>), which collated by 23 Mar 2020 national statistics for 15 EU member states. These 15 countries represent 68.9% of animal use in the EU in 2017. Overall, there was a 3.4% decline from 2017 to 2018.

Tab. S5: Numbers of animals used for regulatory purposes by MS in 2015-2017

State	2015	2016	2017	Difference between 2015 and 2016	Difference between 2016 and 2017
Austria	31,789	36,202	26,569	4,413	-9,633
Belgium	146,804	132,925	141,853	-13,879	8,928
Bulgaria	1,000	180	4,126	-820	3,946
Croatia	3,321	988	2,182	-2,333	1,194
Cyprus	0	0	0	0	0
Czechia	61,272	74,739	54,133	13,467	-20,606
Denmark	22,956	21,532	19,865	-1,424	-1,667
Estonia	0	0	112	0	112
Finland	5,364	7,026	7,895	1,662	869
France	572,144	517,479	574,030	-54,665	56,551
Germany	629,182	554,982	556,946	-74,200	1,964
Greece	7,589	6,630	6,887	-959	257
Hungary	84,310	62,895	58,007	-21,415	-4,888
Ireland	157,872	170,976	194,816	13,104	23,840
Italy	211,615	226,969	225,842	15,354	-1,127
Latvia	0	0	0	0	0
Lithuania	0	230	0	230	-230
Luxemburg	0	0	0	0	0
Malta	0	0	0	0	0
Netherlands	137,291	142,733	122,247	5,442	-20,486
Poland	29,475	26,157	24,762	-3,318	-1,395
Portugal	1,382	185	298	-1,197	113
Romania	7,498	5,402	2,522	-2,096	-2,880
Slovakia	2,048	2,987	2,822	939	-165
Slovenia	6,757	4,491	2,183	-2,266	-2,308
Spain	133,876	132,505	120,192	-1,371	-12,313
Sweden	2,188	2,599	2,424	411	-175
United Kingdom	556,113	539,454	505,504	-16,659	-33,950

Tab. S6: Animal use in Europe from 2008-2017 for regulatory toxicology most relevant to the development and validation of alternative test methods

Skin irritation	2008	2011	2015	2016	2017
mice	926	64	-	-	28
rats	768	1,490	400	163	244
guinea pig	140	88	19	-	-
hamsters	22	11	139	215	131
rabbits	4,200	3,151	4,182	2,832	3,691
pigs	115	45	33	12	26
Skin sensitization	2008	2011	2015	2016	2017
mice	16,742	16,846	21,683	19,931	16,478
rats	1,465	64	69	-	-
guinea pig	20,198	15,214	27,653	31,638	30,785
hamsters	-	-	7	15	-
rabbits	32	44	129	54	68
pigs		-	8	7	26
Eye irritation	2008	2011	2015	2016	2017
mice	30	30	-	-	-
rats	78	-	49	-	-
guinea pig	6	-	22	21	
hamsters	-	-	-	-	-
rabbits	2,105	2,080	1,447	1,054	814