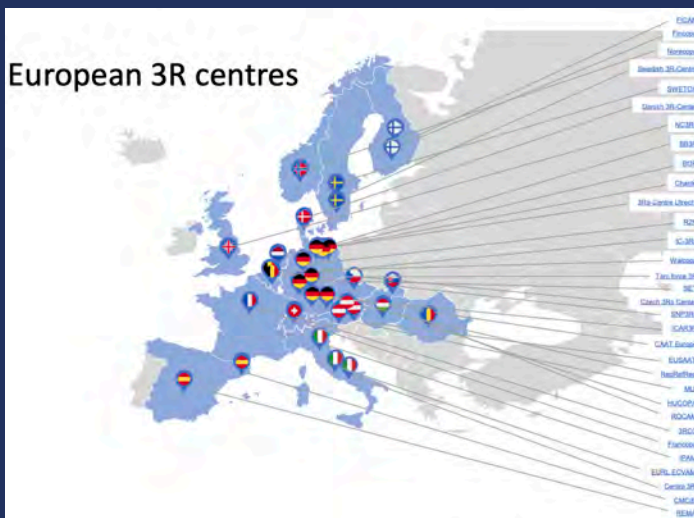
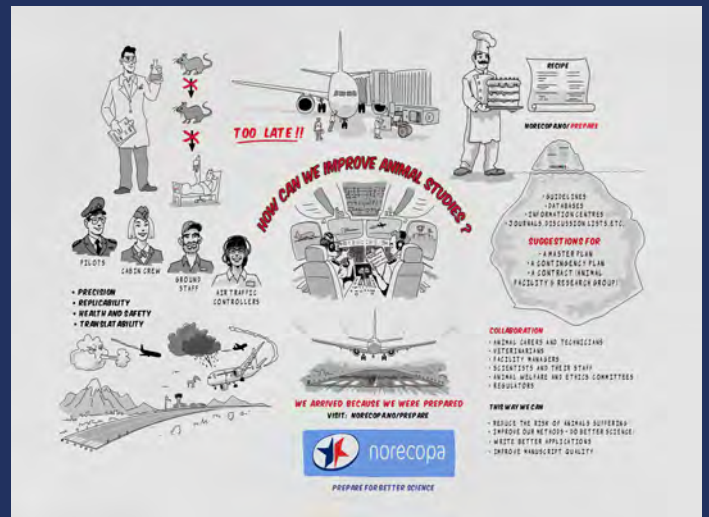


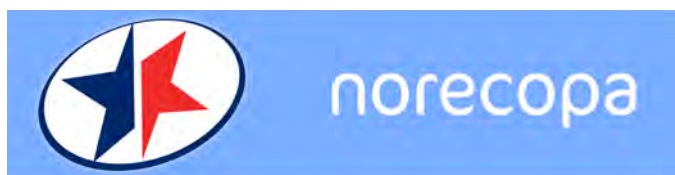


norecopa



Annual Report for 2019

Norecopa



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2019 in a nutshell

About Norecopa

Norecopa is a consensus platform¹ working to promote “the 3 R’s” (Replacement, Reduction, Refinement)² within animal research. Norecopa's structure and mission are described in more detail in the Appendix to this Report.

Norecopa was 12 years old on 10 October 2019. The organisation has made considerable progress in 2019.

In 2019 Norecopa’s Board approved a slogan to express its core aims and values in one concise statement:

Norecopa: PREPARE for better Science

What have we achieved?

Norecopa's most important milestones in 2019 have been:

- Further expansion of Norecopa’s website and the addition of an EU database
- International promotion of the PREPARE guidelines
- Creation of a website for the European Network of 3R Centres
- Participation in the triennial FELASA Congress

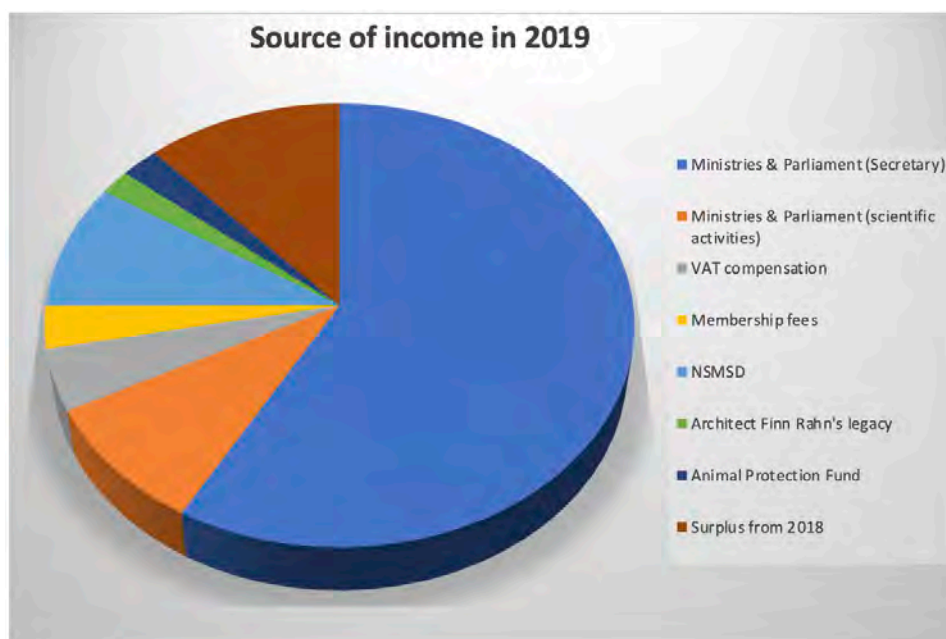
These milestones are described briefly in the main part of this Report. More details and Norecopa's additional activities are described in the Appendix.

Where has the money come from?

Norecopa receives core funding from two Ministries, which in 2019 financed Norecopa’s Secretary in a 100% position. In addition, Parliament allocated NOK 250,000 directly to Norecopa as a contribution towards its scientific activities. The rest of Norecopa’s activity was financed by membership fees and funds for which Norecopa had applied. More details are to be found in the Appendix.

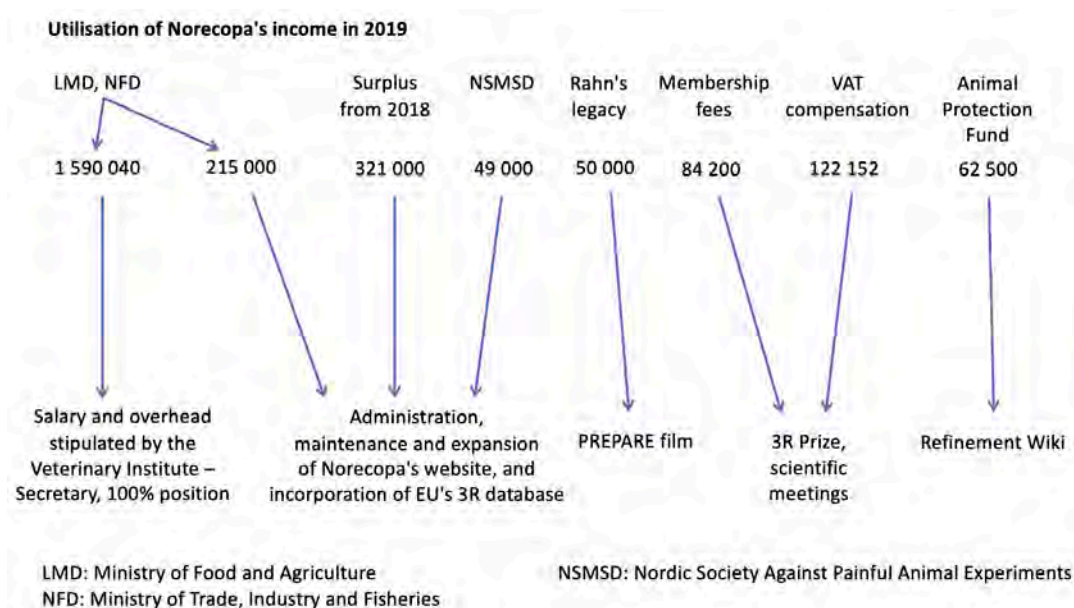
¹ <https://norecopa.no/about-norecopa/consensus>

² <https://norecopa.no/alternatives/the-three-rs>



What has the money been used for?

The diagram below indicates how Norecopa's income was deployed in 2019. Norecopa had one employee: Adrian Smith is Norecopa's Secretary, and he has worked in a 100% position.



Of Norecopa's total income from Parliament and other sources, 8% was used for office expenses and administration of the organisation, including legal and consultancy fees. The accounts are described in more detail in the Appendix.

Milestone: Further expansion of Norecopa's website and the addition of an EU database

The website norecopa.no is Norecopa's largest single resource, and is available free of charge. The website is organised as one large database, which at the end of 2019 had approximately 8,600 pages. According to Google Analytics there were 252,481 hits on the website in 2019, from 114,696 unique visitors representing most of the world's countries. The corresponding figures in 2018 were 175,208 hits and 76,590 unique visitors, giving increases of 44% and 50% respectively. This continues the trend from 2017 to 2018 (increases of 31% and 66%, respectively).

In addition to these visits, files on Norecopa's website were downloaded over 5,100 times. Approximately one quarter of these downloads were the PREPARE checklist, in one of the 21 languages in which it has been published³.

In 2019 Norecopa incorporated an inventory of 3R knowledge sources compiled by the EU Commission's Joint Research Centre (JRC) into the website. The inventory contains over 800 resources.

There is more information about the website in the Appendix.

Milestone: International promotion of the PREPARE guidelines

Norecopa's guidelines for planning animal experiments, PREPARE (*Planning Research and Experimental Procedures on Animals: Recommendations for Excellence*), were pre-published in the journal *Laboratory Animals* in 2017, and appeared in the April issue of the journal in 2018⁴. This paper is now the most cited paper in *Laboratory Animals* during the last three years⁵, and it has been downloaded over 12,000 times from the journal's website⁶.

PREPARE includes a 15-point checklist. This was translated into 4 additional languages in 2019, bringing the total number up to 21.

In 2019 Norecopa produced a short cartoon film illustrating the rationale behind the use of PREPARE⁷.

Norecopa's Secretary held a total of 18 oral presentations about PREPARE in 2019, in 13 countries. The number of endorsements of PREPARE by organisations and institutions continued to increase in 2019⁸.

Norecopa, in collaboration with Danish colleagues, organised two one-day courses on the design of animal experiments, using PREPARE as a framework, in Copenhagen and Trondheim.

The Appendix contains more information about these developments.

³ <https://norecopa.no/PREPARE/prepare-checklist>

⁴ <https://journals.sagepub.com/doi/10.1177/0023677217724823>

⁵ <https://journals.sagepub.com/home/lan>

⁶ <https://journals.sagepub.com/doi/metrics/10.1177/0023677217724823>

⁷ <https://norecopa.no/prepare/film>

⁸ <https://norecopa.no/PREPARE/endorsements>

Milestone: Creation of a website for the European Network of 3R Centres

Representatives from over 15 European 3R Centres met in Berlin in March 2019 to exchange ideas and investigate areas for further collaboration. The meeting was a follow-up of an initiative during the EUSAAT congress in Linz in 2018, and was hosted by the German 3R Centre BB3R (Berlin-Brandenburg Research Platform).

The Network has begun the process of constructing an application for a COST Action to support further activities.

On behalf of the Network, Norecopa has constructed an interactive map of the European 3R Centres, with links to descriptions of each Centre⁹.

More details are available in the Appendix.

Milestone: Participation in the triennial FELASA Congress

Norecopa's Secretary was involved in organisation of a session at the FELASA Congress in Prague¹⁰ in June 2019. The Congress attracted just over 2,000 delegates. He was an invited speaker and held three oral presentations, as well as presenting two posters (with co-authorship of a third).

He also participated in two networking meetings: one for the International Culture of Care Network¹¹ and one for the European 3R Centres¹² (see below). Norecopa hosts the websites of both these networks, and sponsored the cost of the room for the Culture of Care meeting.

In addition, he participated in a panel discussion on improving the reporting of animal experiments, arranged by Laboratory Animals Ltd.

The Appendix contains more information about the presentations at this Congress.

Oslo, March 2020

Bente Bergersen
(Head of the Board)

Siri Knudsen
(Board Member)

Børge N. Fredriksen
(Board Member)

Susanna Lybæk
(Board Member)

Adrian Smith (Secretary)

⁹ <https://norecopa.no/3REurope>

¹⁰ <http://www.felasa2019.eu>

¹¹ <https://norecopa.no/coc>

¹² <https://norecopa.no/overview-of-european-3r-centres>

Appendix

1) About the organisation

Norecopa's structure

Norecopa is an independent member organisation, registered in Brønnøysund Register Centre, with its own statutes¹³, and the Annual General Meeting as its highest authority¹⁴. Norecopa's Board represents four major stakeholders in animal research and testing:

- Regulators
- Industry
- Academia
- Animal welfare organisations

Norecopa is also a member of the European umbrella organisation for National Consensus Platforms, *ecopa (European Consensus-Platform on Alternatives)*¹⁵.

Norecopa has an Activity Plan¹⁶ which is approved at the Annual General Meetings. The plan was not updated in 2019.

Norecopa's Board and Annual General Meeting

Norecopa's Annual General Meeting was held on 4 June 2019 at Adamstua in Oslo. The Annual Report and accounts for 2018, and the Board's budget proposal for 2019, were approved. There were only 5 members eligible to vote at the Meeting, of whom one was a Board Member. Considering that the Annual General Meeting is Norecopa's highest organ, this number is extremely disappointing.

There were no Board Member elections at the Annual General Meeting¹⁷ in 2019, so the Board still comprises the following Members:

Bente Bergersen, Norwegian Food Safety Authority, (Head of the Board)**

deputy: Gunvor Knudsen, Norwegian Food Safety Authority**

Børge N. Fredriksen, Pharmaq AS*

deputy: Ann Cathrin Einen, MSD Animal Health*

Siri Knudsen, University of Tromsø*

deputy: Chris Noble, Nofima*

Susanna Lybæk, Norwegian Animal Protection Alliance**

deputy: Birgitte Fineid, Norwegian Society for Protection of Animals**

*until 2020 **until 2022

¹³ <https://norecopa.no/vedtekter>

¹⁴ <https://norecopa.no/no/om-norecopa/årsmøter>

¹⁵ <http://www.ecopa.eu>

¹⁶ <https://norecopa.no/aktivitetsplan>

¹⁷ <https://norecopa.no/styre-og-sekretariat>

All the documents and minutes from the Meeting are available on Norecopa's website¹⁸.

Three Board Meetings were held in 2019 (on 5 February, 6 May and 2 September). The minutes of these meetings are available on Norecopa's website¹⁹.

Norecopa's Election Committee

The Election Committee up until the Annual General Meeting in 2019 consisted of:

- Bjørn Groven, Norwegian Food Safety Authority (leader, representative for the regulators)
- Simon Wadsworth, Cargill Aqua Nutrition (representative for industry)
- Tore Kristiansen, Institute of Marine Research (representative for academia)
- Adeleid Haugen, Norwegian Animal Protection Alliance (representative for animal welfare organisations)

The Annual General Meeting elected a new Committee on 4 June 2019, for two years:

- Dag Atle Tuft, Norwegian Food Safety Authority (representative for the regulators)
- Trygve Poppe, Pharmaq AS (representative for industry)
- Marianne Waldum Furnes, NTNU (representative for academia)
- Adeleid Haugen, Norwegian Animal Protection Alliance (representative for animal welfare organisations)

The Secretariat

Norecopa's secretariat is affiliated to the Norwegian Veterinary Institute, who therefore have responsibility for Norecopa's personnel and accounts. The position as Secretary is located under the Section for Animal Health, Wildlife and Welfare. The Secretary receives support from the Institute's Administration, among other things to issue invoices.

Adrian Smith has been permanently employed as Norecopa's Secretary in a 50% position since 2008. In agreement with Norecopa's Board, he works from home. In 2019 he worked in a 100% position, thanks to a decision by Parliament during the budgetary debate in December 2018.

¹⁸ <https://norecopa.no/arsmoter>

¹⁹ <https://norecopa.no/styrereferater>

Work conditions, equality and environmental impact

In 2019 Norecopa had one male employee in a 100% position. He had an agreement with the Norwegian Veterinary Institute permitting him to work from home. Norecopa's Board consists of one man and three women (one of the latter being Head of the Board). No injuries or accidents to the employees were registered in 2019, nor were complaints about the working environment registered. Norecopa does not perform tasks which can cause significantly detrimental effects to the environment.

Norecopa's members

At the end of 2019, 42 institutions or departments were full members of Norecopa, and 23 private persons were associate members. These figures were unchanged from 2018. The majority of the large research institutions in Norway are members of Norecopa. No increases in fees were made in 2019. The membership fee is NOK 2,000 for institutions or departments, and NOK 200 for private persons. The fees for private persons have been unchanged since Norecopa was founded in 2007.

2) Finances

Accounts for 2019

Norecopa's core funding comes from the Ministry of Agriculture and Food (Landbruks- og matdepartementet) and from the Ministry of Trade, Industry and Fisheries (Nærings- og Fiskeridepartementet). This is provided via funds given to the Veterinary Institute to enable them to carry out tasks for the Government. In December 2018 Parliament voted to allocate a 100% position to Norecopa's secretariat in 2019. The Veterinary Institute runs Norecopa's accounts as a project, which meant that the cost of the secretarial position was stipulated by them to be NOK 1,590,040 in 2019. This amount covers not only the Secretary's salary, but also the Institute's overhead for the position.

In addition to covering this cost, Parliament allocated NOK 250,000 directly to Norecopa as a contribution towards its scientific activities. The rest of Norecopa's activity in 2019 was financed by membership fees and funds for which Norecopa has applied from external sources. For the fiscal year of 2019 these external contributions amounted to a total of NOK 889,852. This includes a surplus of NOK 321,856 from 2018, which was largely due to donations which arrived very late in the year. The accounts for 2019 show a surplus of NOK 35,362 which was carried over to 2020.

In addition to the accounts within the Norwegian Veterinary Institute which cover the Parliamentary contributions, Norecopa has, after seeking legal advice, opened a bank account in 2019 in Sparebanken Sør, for the receipt and use of donated funds from external sources. This account is monitored by an independent accounting company (Saldo Regnskap, Risør). The purpose of the account is to ensure that any surplus from such donations is carried over to the following year in its entirety. In 2019 this bank account received NOK 250,000 from the Nordic Society Against Painful Animal Experiments (NSMSD)²⁰ for updating the NORINA database, and NOK 62,500 from the Norwegian Animal Protection Alliance's Animal Protection Fund²¹ for creation of a Refinement Wiki. At the end of 2019 this account had a surplus of NOK 211,195. The surplus was due to the fact that much of the work on the NORINA database in 2019 was conducted using a donation from NSMSD which arrived too late in 2018 to be used that year.

Regnskap for Norecopa 2017-2019

Utgifter	Regnskap 2019	Regnskap 2018	Regnskap 2017
1 Deltagelse på ecopas årsmøte	0,00	0,00	0,00
Drift av sekretariatet			
2 Bokførte utgifter til sekretærstilling (Adrian Smith)	1 590 040,00	1 508 140,00	1 201 000,20
3 Bokførte utgifter til konsulentstilling (Karin Smith og etterfølgere)	136 609,39	0,00	647 250,80
4 Kontoutgifter	24 723,62	8 465,65	62 068,95
4a Høstkonferanse	1 243,05	6 873,79	6 806,02
4b Kjøp og oppgradering av datamaskin og programvare	11 479,82	17 881,86	98 205,34
Trykningsutgifter			
5 Materiale til årsmøtet			
6 Øvrig informasjonsmateriale*	74 050,86	36 960,58	3 049,16
7 Medlemsavgift ecopas	982,43	962,25	898,65
8 Faglige reiser inkl. 10-års jubileum & høste	117 667,60	90 184,85	165 596,54
Nettsider			
9 Lysbilder og supportmateriale	78 973,64	97 531,40	112 808,40
Videnskapsutvikling, møterapporter	183 062,52		
10 Donasjonsregistrering	8 481,25	8 601,25	7 679,60
Styremøter, årsmøte og høsting			
11 Styremøter	28 058,68	1 401,12	23 248,57
11 Aktiviteter (seminarer og Norecopa seminarer)	27 269,12	1 401,12	23 248,57
12 Møter og konferanser	896,96		
13 Behandling			
15 Aktiviteter	6 927,82	8 231,48	7 278,88
Øvrig faglig aktivitet	150 254,00	104 998,33	258 778,71
14 Utbetaling av JPI prosjekt	30 949,58		30 000,00
16 Aktiviteter og foretak			
16 Annet (se i tillegg til regnskapsnotene)	45 636,21	8 750,00	
17 Vase			
18 SANTECH-Fish	402,02		40 960,28
19 Nytt nettsted**	71 484,38	60 646,88	82 817,58
20 PREPARE	2 078,26	37 791,48	57 154,88
21 Norecopa-møter			40 218,52
Sum utgifter uten tilleggsnoter	811 792,35		
Sum utgifter tilleggsnoter	18 946,80		
Sum utgifter i konsolidert med tilleggsnoter	830 739,15		
Sum utgifter i konsolidert med tilleggsnoter	830 739,15		
Sum utgifter	2 382 885,72	1 884 576,88	2 491 390,28
Inntekter			
22 Tilskudd fra LMD (støttetiltakene i årsmøtet)	-1 340 040,00	-1 509 140,00	-1 309 000,00
23 Medlemsavgifter	-122 152,00	-150 610,00	-118 814,00
24 Tilskudd fra Norecopa (Norecopa) (Norecopa) (Norecopa) (Norecopa)	-50 000,00	-114 065,00	-22 538,88
25 Tilskudd fra Norecopa (Norecopa)		-250 000,00	-337 425,00
26 SANTECH-Fish			-143 352,82
27 Nytt nettsted (Norecopa) (Norecopa) (Norecopa) (Norecopa)		-18 398,90	-122 063,88
28 PREPARE	-89 000,00	-82 000,00	-22 262,73
29 Medlemsavgift, fullt medlemskap	-89 000,00	-82 000,00	-43 090,00
30 Medlemsavgift, assosiert medlemskap	-4 200,00	-4 200,00	-4 600,00
31 Underforbruk fra året før	-321 856,62	-80 000,00	-148 424,56
Sum inntekter	-2 418 248,62	-2 186 433,50	-2 254 421,97
Resultat	35 362,90	321 856,62	-236 968,31

* 2019 var det 87 000 av dette til sekretariatet og PREPARE

** 2019 var dette installasjonen av ELIS database over informasjonelle IR-mesurer

Regnskap for Norecopas private midler i 2019:

Prosjekt 1: Oppdatering/vedlikehold av NORINA

Inntekter	Nordisk Samfunn Mot Smertefølelser Dyreforskning	250 000,00
Utgifter	Billett	38 750,00
	Bankkomisjoner	90,00
	Renter	35,00
Resultat		211 195,00

Prosjekt 2: Installasjon av Refinement Wiki

Inntekter	Dyrevelfondet	62 500,00
Utgifter	Billett	82 500,00
Resultat		0,00

²⁰ <http://www.nsmsd.no>

²¹ https://www.dyrever.no/dyrevernfondet/about_the_norwegian_animal_protection_fund

The accounts for 2019 were controlled by Norecopa's accountant, Jon Li Tjørsvaag. Norecopa's funds from Parliament form part of the Veterinary Institute's accounts, and they are therefore also controlled by the Office of the General Auditor of Norway. The necessary conditions for the continued existence of Norecopa are present.

In Norecopa's experience it is extremely difficult to run an effective organisation on the 50% position which was initially provided by the Ministries. Extra funds have been provided annually, from 2013 onwards, by the Standing Parliamentary Committee on Business and Industry (Næringskomitéen). These have given Norecopa much greater scope for its activities. The fact that Norecopa had a full-time secretarial position and "starting capital" of NOK 250,000 in 2019, thanks to this Parliamentary support, gave the Norecopa the necessary room to achieve the milestones described in the first part of this Report.

Summary of external funding in 2019

1. The proposals for the State Budget for 2019 from the Standing Parliamentary Committee for Business and Industry ²² were approved by Parliament, so that Norecopa was allocated a 100% secretarial position and NOK 250,000 towards its activities.
2. In 2018 Norecopa signed a 3-year agreement with the Nordic Society Against Painful Animal Experiments²³ (NSMSD) to finance the work of maintaining and developing the NORINA database²⁴. This agreement is for NOK 250,000 per year.
3. Norecopa applied to the Norwegian Gaming and Foundation Authority for compensation for Value Added Tax payments in 2018, and received NOK 122,152 in December 2019, a decrease of 6% compared to the previous year.
4. Norecopa applied to the Norwegian Animal Protection Alliance's Animal Protection Fund (Dyrevernfondet)²⁵ for a total of NOK 1,077,375 for 7 projects. The Fund donated NOK 62,500 for the creation of a Refinement Wiki.
5. In 2018 Norecopa applied to Architect Finn Rahn's legacy²⁶ for a total of NOK 370,000 for three projects:
 - a. to make two cartoon films (one on the PREPARE guidelines and one describing how to use the Norecopa website),
 - b. to renew the software for Norecopa's discussion forum,
 - c. to expand the part of Norecopa's website which describes homemade educational materials.

²² <https://www.stortinget.no/no/Saker-og-publikasjoner/Publikasjoner/Innstillinger/Stortinget/2017-2018/inns-201718-008s>

²³ <http://www.nsmsd.no>

²⁴ <https://norecopa.no/NORINA>

²⁵ https://www.dyrevern.no/dyrevernfondet/about_the_norwegian_animal_protection_fund

²⁶ <https://www.vetnett.no/stipender-og-legater>

Norecopa received NOK 50,000 that could be used to finance one of these projects. They were used to finance the cartoon film about the PREPARE guidelines described below. The funds from Finn Rahn's legacy arrived late in 2018 to be entered into the accounts that year, and they figure therefore in the accounts for 2019.

Norecopa is extremely grateful to all those who support the organisation.

3) Activities designed to achieve Norecopa's aims

Norecopa's website

Norecopa has had its own website, <https://norecopa.no>, since February 2008. In addition, the suffices .info, .com, .eu, .net, .org and .cn are registered for the domain name. In 2019 the website has largely been updated by Norecopa's Secretary and (in the case of the NORINA database) by Elisabeth Pagels (Bitfarm AS). The program Google Analytics is installed to monitor the use of the website.

Norecopa uses two companies, NetLab and Bitfarm, to maintain and expand the website. Norecopa has a support and licensing agreement with Bitfarm. The company Webhuset is used to register Norecopa's domains, and Getonnet provides the software for the discussion forum run by Norecopa (see below).

The statistics for 2019 show that the website is in use in most countries of the world:





Norecopa's website includes several databases. Among these are NORINA²⁷, which contains information on products which can be used as alternatives or supplements to animals in education and teaching, and TextBase²⁸, which contains information on literature within laboratory animal science. In 2018 the Nordic Society Against Painful Animal Experiments (NSMSD) renewed their support of Norecopa for the work of maintaining and updating these databases. In 2019, most of the work of updating the NORINA database has been performed by Elisabeth Pagels, in accordance with a 3-year agreement with the IT company Bitfarm which was signed at the end of 2018. Much of the work in 2019 has involved removal of old records about products which are no longer available. At the end of 2019 NORINA contained information on approximately 3,000 products, while TextBase had approximately 1,600 records.

In addition to the website, Norecopa runs a **closed discussion forum** via email for persons with specific responsibilities for animal research at the country's research animal facilities. This is the only possibility that this group has to discuss matters of interest. In 2019 the list had 44 members.

Norecopa continues to finance the website of the project **ENRICH Fish**²⁹, which was concluded in 2017. The main aim of ENRICH Fish was to improve the environmental conditions during laboratory experiments on Atlantic salmon, which are the most commonly used research animals in Norway. ENRICH Fish was a collaboration between Norecopa, Nofima Tromsø and the Institute of Marine Research, with funds from the Research Council of Norway.

²⁷ <https://norecopa.no/norina-database>

²⁸ <https://norecopa.no/textbase-database>

²⁹ <https://norecopa.no/fish/projects/enrich-fish>

Norecopa's AGM and scientific meeting

Norecopa arranged its Annual General Meeting at Adamstua in Oslo on 4 June 2019, followed by a scientific seminar³⁰.

The seminar consisted of the following presentations:

- Dr. Jane Hurst from Liverpool University spoke on *Mouse handling made easy – Reducing anxiety in mice and their handlers*³¹
- Senior First Officer Jake Hannabuss³², TUI Airlines, discussed *Aviation and animal research - Can we learn from one another? Human factors, a pilot's perspective*
- Dr. Henna-Kaisa Wigren³³ from the University of Helsinki spoke on *Sleep and Circadian Rhythms: why should we care?*



Professor Jane Hurst from Liverpool University presented the results of her research on reducing anxiety in mice and their handlers, at the scientific seminar after Norecopa's Annual General Meeting on 4 June 2019.

The PREPARE guidelines for planning animal research and testing

Endorsements of PREPARE are now increasing steadily. Examples from 2019 include the following:

- The UK Home Office has updated its guidance on writing project licence applications.³⁴ Their application template³⁵ specifically mentions PREPARE as guidance for planning animal research and testing.

³⁰ <https://norecopa.no/about-norecopa/annual-meetings>

³¹ <https://nc3rs.org.uk/news/results-mouse-studies-deeply-affected-way-animals-are-handled>

³² <https://www.linkedin.com/in/jake-hannabuss-09a09272>

³³ <https://www.helsinki.fi/en/atom/138821>

³⁴ <https://www.gov.uk/government/publications/animal-testing-and-research-improve-your-project-licence-application>

³⁵ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/670717/Annotated_PPL_v2.0_171221.pdf

- The European Federation of Pharmaceutical Industries and Associations (EFPIA) issued a statement in 2019 which concluded that EFPIA companies support the use of the PREPARE guidelines when considering study design and reporting/publication of in vivo research³⁶.
- The UK Research Integrity Office published a Primer on Research Involving Animals which states that the PREPARE guidelines represent current best practice for laboratory animal science³⁷.
- The Senate Commission on Animal Protection and Experimentation³⁸ of the central independent German Research Foundation (DFG)³⁹ has cited PREPARE in its *Guidance on the 3Rs and the validity of animal experiments*.
- The Association for the Study of Animal Behaviour (ASAB) and the Animal Behavior Society (ABS) have endorsed PREPARE in their common guidelines for behavioural research⁴⁰.

A larger list of endorsements is available on Norecopa's website⁴¹.

The PREPARE checklist was translated into Dutch, Korean, Latvian and Turkish in 2019, bringing the total number of versions up to 21. In addition, the French translation was improved. We are grateful to our colleagues in these countries for invaluable help.

In 2019 Norecopa began to offer one-day courses entitled *Are you PREPARED? How to design animal experiments*. The first course was held in Copenhagen on 19 March 2019, and the second in Trondheim on 17 September 2019, both in collaboration with Scanbur Academy⁴². Norecopa's Secretary held a simplified course for scientists in Luxembourg on 7 November 2019. Norecopa plans to arrange more of these courses in the future. We thank Kirsten Bayer Anderson (Scanbur) for her administrative work and for her presentation on non-technical summaries, and Axel Kornerup Hansen (Copenhagen University), Birgitte Kousholt (Århus University) and Tine Larsen (Scanbur) for their presentations.

³⁶ <https://efpia.eu/media/413434/experimental-design-workshop-report.pdf>

³⁷ <https://ukrio.org/wp-content/uploads/UKRIO-Research-Integrity-a-primer-on-research-involving-animals-V1.0-Feb-2019.pdf>

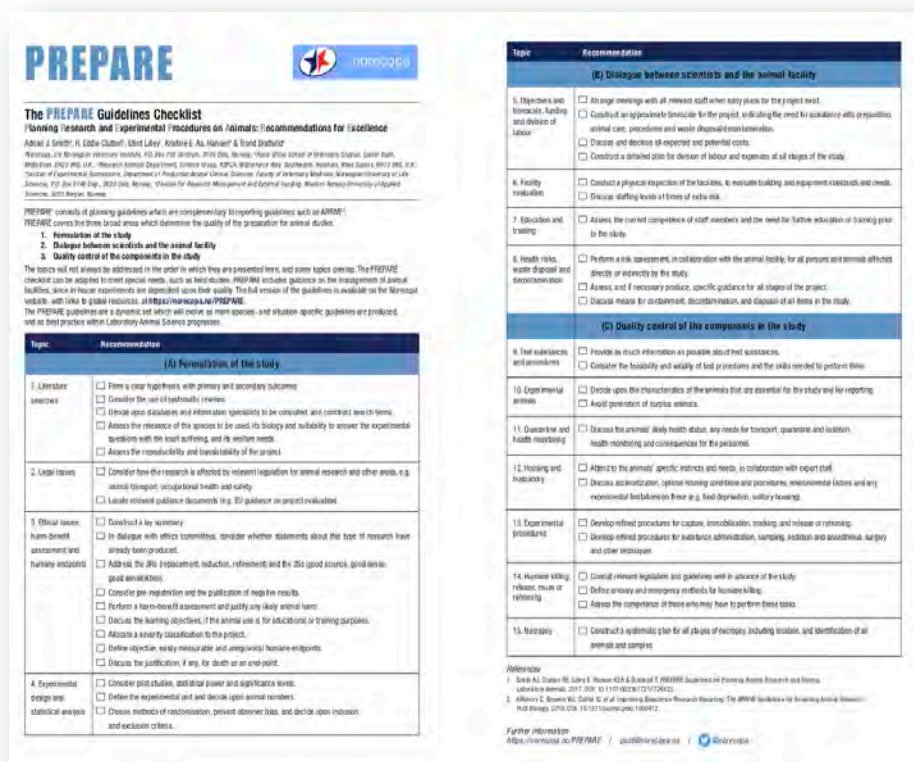
³⁸ https://www.dfg.de/en/dfg_profile/statutory_bodies/senate/animal_protection/index.html

³⁹ https://www.dfg.de/en/dfg_profile/mission/what_is_the_dfg/index.html

⁴⁰ <https://norecopa.no/3r-guide/guidelines-for-the-treatment-of-animals-in-behavioural-research-and-teaching>

⁴¹ <https://norecopa.no/prepare/endorsements>

⁴² <https://www.scanbur.com/academy>



Norecopa's Secretary held a total of 18 oral presentations in 2019 about PREPARE, in 13 countries. Most of these were held by travelling to the venues (in Austria, Belgium, the Czech Republic, Denmark, Finland, Germany, Japan, Luxembourg, Norway, South Korea and Sweden), while one was a pre-recorded presentation via the Internet (ESLAV/ECLAM Summer School, Stockholm). In addition, poster presentations were given in Austria, Belgium, the Czech Republic and Denmark. The Secretary also lectured on PREPARE and alternatives to animal research on a course in Laboratory Animal Science for researchers in Tromsø.

In 2019 Norecopa commissioned a 3-minute cartoon film describing the rationale behind the PREPARE guidelines. The project was funded by Architect Finn Rahn's legacy⁴³. The artwork was carried out by Per Trystad⁴⁴ and the commentary was recorded by Norecopa's Secretary in collaboration with IVIO⁴⁵. The illustration below is a summary of the film:

⁴³<https://www.vetnett.no/stipender-og-legater>

⁴⁴<http://www.trystad.com>

⁴⁵<https://www.ivio.no>



Norecopa's 3R Prize

Norecopa's 3R Prize⁴⁶ of NOK 30,000 was awarded for the ninth time at the Annual Meeting and Scientific Seminar in Oslo on 4 June 2019.

This year's winner was Arne Olav Melleby at Oslo University Hospital Ullevål, for his work in developing a better operating technique⁴⁷ for mice in research on chronic cardiac failure. A paper describing the technique, where he is lead author, has been published⁴⁸. This method, which has already been adopted abroad, can nearly halve the number of mice needed for this operation and also drastically reduce the number of post-operative mortalities. Significantly, the technique also creates a more standardised model of cardiac failure, which again reduces the number of animals needed in each study.

Member of Parliament Morten Ørsal Johansen⁴⁹ handed over the Diploma for the award (see the photo on the Report cover).

⁴⁶ <https://norecopa.no/about-norecopa/3r-prize>

⁴⁷ <https://academic.oup.com/view-large/figure/121560799/cvy141f1.tif>

⁴⁸ <https://academic.oup.com/circovascres/article/114/12/1680/5033447>

⁴⁹ <https://www.stortinget.no/no/Representanter-og-komiteer/Representantene/Representantfordeling/Representant/?perid=MOJ>

The FELASA Congress

The triennial FELASA congress took place in Prague on 10-13 June and attracted just over 2,000 delegates⁵⁰. It proved to be a significant opportunity for Norecopa to present its work. During the Congress, Norecopa's secretary held three oral presentations:

1. *Research and management of wild animals: Politics, ethics and the 3Rs* (written in collaboration with Jon M. Arnemo)⁵¹
2. *PREPARE before you ARRIVE: Good reporting relies on good planning*⁵²
3. *Norecopa: experiences in building 3R databases and international networks*⁵³

In addition, Norecopa had two poster presentations and was co-author of a third:

1. *The Norecopa website: A collection of global 3R resources*⁵⁴
2. *Planning, conducting and reporting farm animal research*, in collaboration with Eddie Clutton, Marianne Oropeza-Moe and Corina Berset⁵⁵
3. *'One Europe': The challenge of consistency in severity classification*, in collaboration with Anne Zintzsch, Nikolaos Kostomitsopoulos and Jan-Bas Prins⁵⁶

Norecopa launched three new resources at the FELASA congress, described below:

1. A compilation of severity classification guidelines
2. An interactive map of European 3R Centres
3. Integration of the EU Inventory of 3R resources in the Norecopa website

A compilation of severity classification systems

Norecopa's Secretary and co-workers assembled and published a compilation of severity classification systems which have been published for use in Europe to meet the requirement in EU Directive 2010/63 for classification of procedures into mild, moderate or severe⁵⁷. Experience suggests that severity classification is still insufficiently harmonised within the EU. Consistent severity assessment and classification of procedures are essential for the ethical review process and for informing the general public about the harms inflicted on research animals. This work was a collaboration with Anne Zintzsch (at that time coordinator

⁵⁰ <http://felasa2019.eu>

⁵¹ <https://norecopa.no/wild>

⁵² <https://norecopa.no/prepareFELASA>

⁵³ <https://norecopa.no/experience>

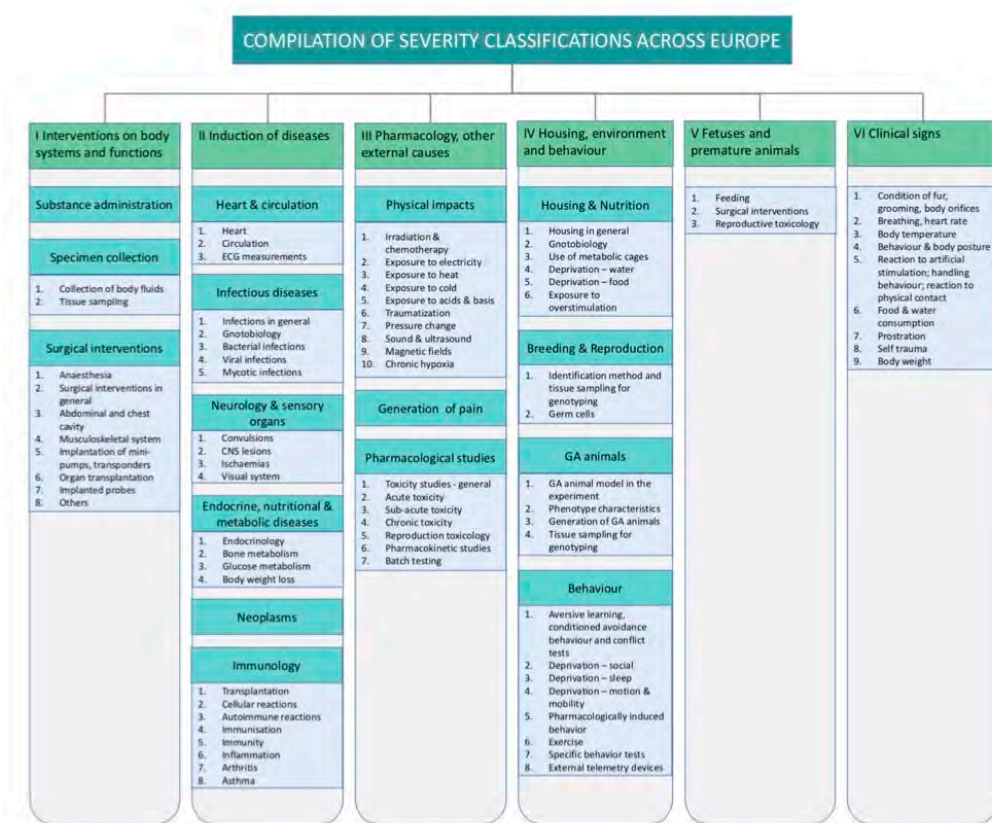
⁵⁴ <https://norecopa.no/website>

⁵⁵ <https://norecopa.no/farm>

⁵⁶ <https://norecopa.no/OneEurope>

⁵⁷ <https://norecopa.no/legislation/eu-directive-201063>

of the 3R Centre ICAR3R⁵⁸ in Giessen), Jan-Bas Prins (Leiden University Medical Centre and the Francis Crick Institute) and Nikolaos Kostomitsopoulos (Biomedical Research Foundation of the Academy of Athens). The overview will aid identification of areas where more research is needed, and will stimulate discussion so that additional information is submitted. This will hopefully lead to the refinement of the criteria used for severity classification.



The compilation consists of an analysis of 5 sets of guidance for severity classification, which have been divided into 6 major groups of interventions or conditions, with a total of 84 sub-groups.

An interactive map of European 3R Centres

On behalf of the Network, Norecopa has constructed an interactive map of the European 3R Centres, with links to descriptions of each Centre⁵⁹. The map is depicted on the Report's cover.

⁵⁸ https://www.uni-giessen.de/faculties/f10/departments/clinic/animal-welfare-and-3r-centre/icar3r-en?set_language=en

⁵⁹ <https://norecopa.no/3REurope>

Integration of the EU Inventory of 3R resources in the Norecopa website

Norecopa integrated an inventory of 3R knowledge sources compiled by the EU Commission's Joint Research Centre (JRC) into the Norecopa website and search engine. The inventory was based upon data from a survey in 2016. The inventory contains over 800 resources. A description of the inventory, the background for the survey and information on how to access the database is available⁶⁰. By incorporating the dataset into the Norecopa database, it can be searched using all the filters available to the intelligent search engine. Norecopa is most grateful to the Universities Federation for Animal Welfare (UFAW)⁶¹, who sponsored this work with £1,500. This amount is not mentioned specifically in the diagram earlier in the Report describing utilisation of Norecopa's income, since it was received late in 2018 and became part of the surplus which was carried over to 2019.

Participation in other scientific meetings

Norecopa's Secretary was an invited speaker at the following scientific meetings in 2019, in addition to the FELASA congress:

1. A course for researchers at Karolinska Institutet in Stockholm on 28 January 2019.
2. A seminar at the University of Oulu on 31 January 2019.
3. A meeting of European 3R Centres in Berlin on 14-15 March 2019.
4. A seminar at the University of Gothenburg on 26 March 2019.
5. A course for researchers at the University of Tromsø on 11 March 2019.
6. A meeting for Universities in South West England in Bristol on 4 April 2019.
7. The annual meeting of the International Society for Transgenic Technology⁶² in Kobe, Japan, 7-10 April 2019.
8. A 2-day symposium in Seoul on 14-15 May 2019 which celebrated the 60th Anniversary of the publication of Russell and Burch's book on the three Rs. In addition, he attended a Memorial Day on 13 May to mark the use of laboratory animals in research (see the photo on the Report's cover).
9. The annual symposium of the Belgian Council for Laboratory Animal Science (BCLAS) in Blankenberge, Belgium on 20-21 May 2019. BCLAS had chosen PREPARE as the theme of their symposium.

⁶⁰ <https://norecopa.no/european-commission-inventory-of-3rs-knowledge-sources>

⁶¹ <https://www.ufaw.org.uk/>

⁶² <https://www.transtechsociety.org/index.php>

10. The ESLAV/ECLAM Summer School⁶³ in Stockholm in June 2019. This was pre-recorded (with a soundtrack) since he was on vacation⁶⁴.
11. A Baltic Summer School in Estonia for behavioural neuroscientists⁶⁵ on 30 August 2019.
12. The University of Bergen's seminar on severity and humane endpoints in fish research⁶⁶ on 4 October 2019.
13. The 22nd European Congress on Alternatives to Animal Testing (the EUSAAT congress)⁶⁷ in Linz, 10-13 October 2019. In addition, he displayed posters about PREPARE and Norecopa, and participated in a Round Table discussion about the work of European 3R Centres. The European network of 3R Centres held a meeting during the Congress, and discussed the interactive map and webpages which Norecopa has produced for this network⁶⁸.
14. A seminar for over 300 scientists, technicians and animal welfare committee members⁶⁹ at the University Hospital in Leuven, Belgium on 17 October 2019.
15. Luxembourg's first 3R Symposium⁷⁰ on 7 November (keynote speaker). The next day he held a three-hour workshop for 25 young scientists on design of animal experiments, using PREPARE as a framework.
16. The Danish 3R-Center's annual 3R Symposium on 12-13 November 2019, which attracted 230 participants. He exhibited two posters at the symposium and held a 30-minute oral presentation entitled *How to improve scientific validity and animal welfare: guidelines for animal research*⁷¹. During the poster presentations⁷², he showed the 3-minute cartoon film about PREPARE⁷³.

Norecopa's Secretary also attended the annual Animal Science Meeting in London on 6 December 2019, arranged jointly by the Home Office and Royal Society of Biology. He distributed a flyer about Norecopa's activities.

Co-author of the PREPARE guidelines, Senior Scientific Officer Elliot Lilley from the RSPCA, promoted PREPARE at the 6th Sino-British International Forum on Laboratory Animal Science in Nanjing, China on 22-24 May 2019.

⁶³ <http://eslav-eclam.org/education/eslav-eclam-summer-school/module-4-experimental-and-surgical-techniques-design-and-conduct-of-research/>

⁶⁴ <https://norecopa.no/ESLAV2019>

⁶⁵ <https://www.helsinki.fi/en/research/doctoral-education/doctoral-schools-and-programmes/doctoral-school-in-health-sciences/doctoral-programme-brain-mind/courses-and-events#section-65146>

⁶⁶ <https://www.uib.no/fg/dyreavdelingen/124207/severity-and-humane-endpoints-fish-research>

⁶⁷ <http://eusaat-congress.eu>

⁶⁸ <https://norecopa.no/overview-of-european-3r-centres>

⁶⁹ <https://gbiomed.kuleuven.be/english/corefacilities/research-involving-laboratory-animals/symposium-17-10-2019>

⁷⁰ <http://sante.public.lu/fr/agenda/conferences/2019/11/first-luxembourg-3R-symposium/index.html>

⁷¹ <https://norecopa.no/Copenhagen2019>

⁷² https://3rcenter.dk/fileadmin/user_upload/Editor/images/Om_Danmarks_3R-Center/Symposium/Symposium_2019/Praesentationer_2019/Postersession.pdf

⁷³ <https://vimeo.com/358069203>

Contact meetings

Parliament

Norecopa's Secretary has continued to maintain contact with Members of Parliament, in order to increase the political interest for the 3Rs, and to demonstrate the need for further resources to the work on alternatives to animal experiments.

On 15 October 2019, Norecopa's Secretary held a presentation (2:37:20 into this recording⁷⁴) and submitted a memorandum⁷⁵ during a hearing on the Government's budgetary proposal for 2020 arranged by the Parliamentary Standing Committee for Business and Industry. This Committee is the one which discusses the part of the budget from which Norecopa's funds come.

The Research Council and NENT

Norecopa continues to liaise with the Research Council of Norway. In 2018 the Council announced funds for a programme called INFRASTRUKTUR. Norecopa applied for funding to strengthen the secretariat, secure the long-term work of maintaining its database, and to create a Wiki for sharing information on methods for refining animal experiments. The programme attracted 92 applications. Norecopa was informed in 2019 that its application was unsuccessful. Work on the Wiki was later started using a grant from the Animal Protection Fund of the Norwegian Animal Protection Alliance (see below).

The Norwegian Food Safety Authority (Mattilsynet)

In 2019 Norecopa was again invited to a liaison meeting with the Authority's animal research team. The meeting was held on 24 May in Oslo, after which the Norwegian regulatory authorities added a link to the PREPARE guidelines to their application form for animal studies.

The National Committee for the Protection of Animals Used for Scientific Purposes

Norecopa's Secretary was invited to two meetings of the National Committee⁷⁶ in 2019. The Committee met for the first time on 10 April 2019. Norecopa was present at its meetings on 28 May in Bergen and on 21 November 2019 in Oslo.

⁷⁴ <https://www.stortinget.no/no/Hva-skjer-pa-Stortinget/Videoarkiv/Arkiv-TV-sendinger/?mbid=/2019/H264-full/Hoeringssal2/10/15/Hoeringssal2-20191015-101025.mp4&msid=275&dateid=10004347>

⁷⁵ <https://norecopa.no/media/8302/norecopa-innlegg-horingen-naeringskomiteen-151019.pdf>

⁷⁶ <https://norecopa.no/legislation/norway/nasjonal-komite-om-beskyttelse-av-dyr-som-brukes-i-forskning>

Collaboration with the other Nordic 3R Centres

Denmark's 3R-Center

Norecopa's Secretary has had close contact with the Danish 3R-Center⁷⁷ since 2013 when he was elected onto its Board. In 2017 the entire Board was re-elected for 4 more years. The Board functions also as the Danish National Committee for Laboratory Animals and Alternatives. He participates in these meetings as a private individual, not as a representative of Norecopa, but the experience from this work is valuable for Norecopa as well. In 2019 he participated in 3 board meetings. He also participated in the Centre's annual 3R Symposium, where he gave an oral presentation and exhibited two posters. The Symposium was held in Copenhagen on 12-13 November⁷⁸ and attracted 230 delegates.

Other activities in 2019

1. Norecopa's Secretary has participated in a network about "Culture of Care", which was established after the FELASA congress in Brussels in June 2016. Norecopa's secretary has constructed the website for the network⁷⁹, and has spent time in 2019 on updating it.
2. Norecopa received NOK 62,500 in sponsorship from the Animal Protection Fund managed by the Norwegian Animal Protection Alliance⁸⁰ (Dyrevernalliansen) to install the necessary software on its website to run a Wiki⁸¹. This will be used to develop a Refinement Wiki for the international research animal community. The first steps of installing the software and establishing a test user group were taken at the end of 2019.
3. The Association for the Study of Animal Behaviour (ASAB) and the Animal Behavior Society (ABS) publish jointly guidelines for behavioural research each year in the journal *Animal Behaviour*. Norecopa's secretary offered to assist with updating the links in the guidelines in 2019. A new version has been published⁸².
4. Norecopa's Secretary is part of a Working Group which in 2019 started the task of providing advice on updating the Guidance Document on how to complete an ethics self-assessment when applying for funds from the Horizon 2020 programme⁸³.
5. Norecopa's Secretary sought advice from Quality Manager Lone Sønnichsen at the Danish Veterinary Association on promotion of Norecopa. This advice has been extremely useful.

⁷⁷ <http://www.3rcenter.dk>

⁷⁸ <https://3rcenter.dk/arrangementer/symposium-2019>

⁷⁹ <https://norecopa.no/coc>

⁸⁰ <https://www.dyrevern.no/english>

⁸¹ <https://en.wikipedia.org/wiki/Wiki>

⁸² <https://www.sciencedirect.com/science/article/pii/S0003347218304019>

⁸³ http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/ethics/h2020_hi_ethics-self-assess_en.pdf

Norecopa's publications in 2019

Newsletter

Since 2008 Norecopa's Secretary has sent electronic newsletters to all members and other interested parties. In 2019 seven newsletters were issued. The newsletters have been published in English since June 2017. All of them are archived on Norecopa's website⁸⁴, so that their content is searchable, which increases their value. The number of subscribers increased by nearly 30% in 2019, from 608 in December 2018 to 782 in December 2019.



Scientific papers

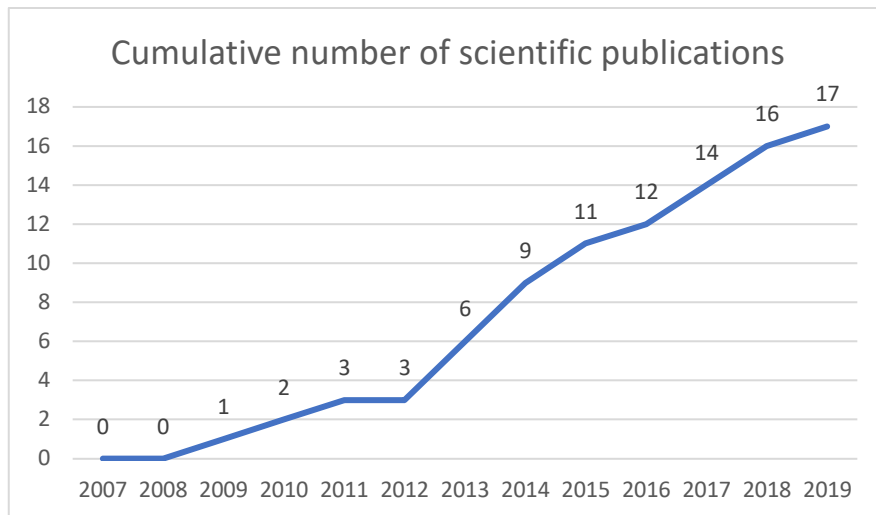
Norecopa's Secretary has published the following scientific paper in 2019:

Smith AJ & Lilley E (2019): The Role of The Three Rs in Improving the Planning and Reproducibility of Animal Experiments. *Animals*, 9(11). doi: 10.3390/ani9110975⁸⁵

In addition to this publication, he has written chapters for three books which are due to be published in 2020.

⁸⁴ <https://norecopa.no/news/newsletters>

⁸⁵ <https://www.mdpi.com/2076-2615/9/11/975>



Norecopa's Secretary has also acted as reviewer for the journals *ALTEX* and *Animals*.

Chronicles and newspaper letters

Norecopa has not had the capacity to write chronicles in 2019. Norecopa's Secretary was interviewed by Nature in August 2019 in connection with an article about the use of animal registries to reduce bias in animal research⁸⁶.

Norecopa and social media

Norecopa has had a Facebook profile⁸⁷ since May 2013. The profile had 627 followers at the beginning of January 2019. By the end of the year this number had risen to 671.

Norecopa opened a Twitter account in 2016 under the name @norecopa⁸⁸. The Secretary also posts information about Norecopa on his page at LinkedIn⁸⁹.

⁸⁶ <https://www.nature.com/articles/d41586-019-02676-4>

⁸⁷ <https://www.facebook.com/Norecopa>

⁸⁸ <https://twitter.com/norecopa>

⁸⁹ <https://www.linkedin.com/in/adrian-smith-bb567b5a>

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