

Research Expenditure for 3R Alternatives

A Review of National Public Funding Programmes in European Countries

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Summary

A survey of publicly funded research specifically targeting alternatives to animal testing was conducted over 2006/2007. Responses were received from 16 European countries (Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Hungary, Italy, Netherlands, Norway, Slovakia, Spain, Sweden, Switzerland and the United Kingdom). The responses were compiled by national agencies or national consensus platforms. The current annual total across the 16 countries was estimated as € 17 million. The largest contribution came from Germany with € 4.6 million (27% of the total). Also collated was information on the existence of a national strategy on alternatives research, the focus of any such strategies, the research priority setting process, stakeholder consultation in that process, project funding preferences or limits, coordination mechanisms and the separation of responsibilities of competent authorities (i.e. for research support, laboratory animal welfare and chemicals management). Countries with national strategies (France, Germany, the Netherlands, Sweden, Switzerland and the UK) are skewed towards the higher end of the spending distribution. These 6 countries account for over € 12 million, i.e. >70% of the overall total of national spending identified. Most countries have national consensus platforms. These should help to both stimulate stakeholder consultation and further national spending on alternatives research. The situation regarding the separation of responsibilities of competent authorities (i.e. for research support, laboratory animal welfare and chemicals management) is mixed. A degree of overlap exists in many cases. A research strategy that is receptive to and reflects regulatory developments – such as REACH with its marked resultant increase in animal use – is an obvious need that is as yet unmet in many of the countries surveyed. The need for a mechanism to collate details of active research projects within Europe as a whole was also identified.

Zusammenfassung: Eine Übersicht der nationalen öffentlichen Förderprogramme der Europäischen Länder

Eine Umfrage zu öffentlich geförderter Forschung an Alternativen zu Tierversuchen wurde 2006/2007 durchgeführt. Antworten wurden von 16 Europäischen Staaten erhalten (Belgien, Dänemark, Deutschland, Finnland, Frankreich, Holland, Italien, Norwegen, Österreich, Slowakei, Spanien, Schweden, Schweiz, Tschechische Republik, Ungarn, Vereinigtes Königreich). Die Antworten wurden von nationalen Agenturen oder nationalen Konsensus-Plattformen zusammengestellt. Die aktuelle Gesamtsumme, die die 16 Staaten ausgibt, wurde auf € 17 Millionen geschätzt. Der grösste Anteil dieser kam mit € 4,6 Millionen (27% der Gesamtsumme) aus Deutschland. Ferner wurden Informationen zur nationalen Strategie für alternative Forschung, zum Prozess der Schwerpunktsetzung in der Forschung, zur Konsultation mit Interessenvertretern bei diesem Prozess, zu Präferenzen und Limitationen bei der Projektfinanzierung, zu Koordinationsmechanismen und der Trennung von Verantwortlichkeiten bei den zuständigen Autoritäten (d.h. für Forschungsunterstützung, Tierschutz und Chemikalienverwaltung) zusammengestellt. Staaten mit nationalen Strategien (Deutschland, Frankreich, Holland, Schweden, Schweiz und Vereinigtes Königreich) gehören zu denen, die am meisten Geld zu diesem Zweck ausgeben. Diese 6 Staaten investieren zusammen mehr als € 12 Millionen, d.h. mehr als 70% der gesamten erfassten nationalen Ausgaben. Die meisten Staaten haben nationale Konsensus-Plattformen. Diese sollten helfen, sowohl die Konsultation von Interessenvertretern als auch weitere nationale Investitionen in Forschung an Alternativen anzuregen. Die Trennung der Verantwortlichkeiten zwischen den zuständigen Behörden (d.h. für Forschungsunterstützung, Tierschutz und Chemikalienverwaltung) ist unterschiedlich gelöst. In vielen Fällen gibt es eine teilweise Überlappung. Eine Forschungsstrategie, die für regulatorische Entwicklungen – wie REACH mit seiner markanten Steigerung des Tierverbrauchs – zugänglich ist und diese widerspiegelt, ist offensichtlich notwendig, aber in vielen der befragten Staaten nicht vorhanden. Ausserdem wurde ein Bedarf nach einem Mechanismus, durch den die Details von aktiven Forschungsprojekten in ganz Europa zusammengestellt werden können, identifiziert.

Keywords: survey, 3R alternatives research, funding, EU Member States



1 Introduction

Directive 86/609, the animal experimentation directive, states that EU Member States should encourage the development of new alternatives¹. Over the last 20 years there has been an increasing interest in developing and validating alternative methods based on the concept of the 3Rs. A significant early stimulus was the campaign against testing cosmetics on animals and, subsequently, European legislation outlining a timetable for the prohibition of such testing was adopted. More recently, the new European chemicals policy REACH² (Registration, Evaluation and Authorisation of Chemicals) has highlighted the urgent need for further progress in the development of alternatives in order to reduce the large projected animal use that will be its consequence³. One of the objectives of REACH is the “promotion of alternative methods for assessment of hazards of substances”. Under REACH, the Commission must publish a report every 5 years on the funding of alternative test methods. The first report is scheduled for 1 June 2012.

Sources of funding for research in alternatives are varied at present and include the European Commission (under successive Framework Programmes), industry (via programmes such as SCAAT) and national governments. Information on 3Rs research spending by national governments is incomplete and a recent comprehensive overview is lacking. The aim of the current project was to establish the state of national government support within the Member States of the European Union, Switzerland and Norway.

The project was carried out under the aegis of the Eurogroup for Animals and ecopa with support from Procter & Gamble. It is hoped that the results of this survey will assist both the European Commission and Member States in better

planning and cooperation in research in this area.

2 Methodology

In consultation with the European Commission (including ECVAM⁴, DG Research & DG Environment), Eurogroup for Animals, ecopa and representatives from industry, a questionnaire was drawn up in order to survey publicly funded research specifically targeting alternatives.

A broad range of questions was designed to establish the extent of government funding and also funding from other sources (e.g., European Commission, Industry and NGO's). Also collated was information on the existence of a national strategy on alternatives research, the focus of any such strategies, the research priority setting process, stakeholder consultation in that process, project funding preferences or limits, coordination mechanisms and the separation of responsibilities of competent authorities (i.e. for research support, laboratory animal welfare and chemicals management). It was determined that research into alternatives should not only include that involving *in vitro* and non-animal procedures, but also research into refinement and reduction techniques. The questionnaire is presented in Annex 1 (see www.altex.ch).

Following receipt of the completed questionnaires, the responses were evaluated and summarised according to a set of harmonised responses that would facilitate statistical analysis (Annex 2, see www.altex.ch). Each summary was then returned to the original respondents for confirmation. Tabulated responses and a summary have been compiled for each of the co-operating countries (see Section 4). A breakdown and analysis of the overall results was also conducted (see Section 5).

3 Summary of country responses

Responses were received from 16 countries, including those considered most likely to provide significant funding. A summary of the key points or observations for each country is provided below. The full responses for each country are provided in Annex 3 (see www.altex.ch).

Austria

Publicly supported alternatives research in Austria in 2006 is estimated at € 200,000. The average for 1992-2005 was reported as € 250,000 per annum. The federal ministries responsible for research support are the Ministry of Education, Science and Research, the Ministry for Health and Women, the Ministry for Economics and Labour and the Ministry for Agriculture, Forestry, Environment and Water. No other sources of funding were highlighted by the respondent. There is no existing national strategy in Austria with regard to coordination of research into 3R alternatives. Multi-stakeholder consultation takes place with regard to priority setting. There is no preference with regard to the magnitude of funding of the projects to be supported by public research support. No project funding limits are placed on the proportion of research that will be supported (i.e. up to 100%). There is a national consensus platform, ZET. There is partial overlap between the competent authorities for chemicals management (i.e. the Federal Ministry of Agriculture, Forestry, Environment and Water) and those responsible for animal testing procedures (i.e. the Ministry of Education, Science and Research, the Ministry for Health and Women, the Ministry for Economics and Labour and the Ministry for Agriculture, Forestry, Environment and Water).

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National Platform: ZET (Zentrum für Ersatz- und Ergänzungsmethoden zu Tierversuchen)

Link: <http://www.zet.or.at>

Belgium

No public funds specifically aimed at 3Rs research are available in Belgium. Recent

1 Official Journal L 358, 18/12/1986 P.0001-0028. Council Directive 86/609/EEC of 24 November 1986 on the approximation of laws, regulations and administrative provisions of the Member States regarding the protection of animals used for experimental and other scientific purposes (Article 23).

2 Official Journal L 396, 30/12/2006 P.0001-0849. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

3 The Impact of REACH. The Report of the CONAM/ecopa Chemical Policy Working Group March 2007 (EU 6th Framework Programme Project # LSSB-CT-2004-504776).

financing of research on 3Rs was possible through Public Contract Research. The funding, as far as research on alternatives is concerned, is allocated upon a project basis and selected by the National Research Committee. The amount of funds released depends on the nature and “lifespan” of the project. In 2005, an amount of € 400,000 was allocated to one project for a duration of 3 years and in 2006 two projects were selected for a total amount of € 116,000 for one year. This process for selection of projects continued in 2007. In addition, some NGO’s (such as BPAM⁵, APMA⁶ etc.) occasionally promote research or application of alternative methods in research or education. Belgium has no general national strategy as such. Research on alternative methods is promoted through a public contract committee (Public Contract Research) at the Federal Public Service Health, Food Chain Safety and Environment. Topics of projects may be selected by collaboration with local ethics committees of private, academic and public laboratories and the animal welfare officers in the laboratories. Replacement is the main focus of the research, but all three Rs are considered when public funds are made available. Once a project is underway, cooperation and coordination between research groups is possible, although there is no particular cooperation with other stakeholders. The contracts for research are approved by a specific evaluation committee of the public agency, namely the Federal Public Service Health, Food Chain Safety and Environment. The control of chemicals management and control of animal testing procedures lies with two other distinct departments of the same Federal Public Service.

Respondent: Jean Belot
(Jean.Belot@health.fgov.be)
National Platform: BPAM
Link: <http://www.fondation-prince-laurent.be>

Czech Republic

Publicly supported research into alternatives in the Czech Republic was esti-

mated at € 2,000 in 2006. The Ministry of Health and Ministry of Education have the responsibility for research support. No other sources of funds or funding were highlighted. There is currently no provision to match EU research support or indeed any indication of cooperation in this respect. There is a national strategy with regard to coordination of research into alternatives (although this is somewhat at odds with the estimate of publicly funded research into alternatives). This strategy is apparently focused on replacement. Priority setting is based on a consideration of societal and legislative needs and does entail an element of public consultation. There is no preference with regard to the magnitude of funding of the projects to be supported by public research support. No project funding limits are placed on the proportion of research that will be supported (i.e. up to 100%). There is a national consensus platform, CzeCopa. The competent authority for chemicals management is the same as that responsible for animal testing procedures (i.e. UKOZ, the Ministry of Agriculture).

Respondent: Dagmar Jírová
(jirova@szu.cz)
National Platform: CzeCopa
Link: <http://www.czecopa.cz>

Denmark

In 2005 the Danish Government’s Research Council for Independent Research (DFF) spent € 120 million on research, of which € 3.3 million went to alternatives. Between 2005 and 2008 the Danish Research Council for Strategic Research (DSF) planed to spend some € 47 million. It appears that there is no national strategy as such, although the two bodies (DFF and DSF) co-operate in setting research priorities. Project funding will vary depending on the project and other factors but can be up to 100%. Stakeholder co-operation and coordination does take place, but the extent of the involvement depends on the project. The two research councils (DFF and DSF) fall under the Ministry of Science and it is clear that Denmark has a strong commitment to funding research into alter-

natives. The commitment in monetary terms is second only to Germany. The Ministries of Health and Environmental Protection share the legal responsibility for controlling chemicals management and animal testing procedures. A Danish platform (Dacopa) was set up recently and is seeking to improve communication with the Ministry of Science (Danish Research Co-ordination Committee).

Respondent: Lise Garkier Hendriksen
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National Platform: Dacopa
Link: Not available

Finland

In the years 2004-2005, the total amount of public funds spent on research into alternatives was € 40,000. Of this some € 34,000 came from the Ministry of Agriculture and about € 6,000 from the Julia von Wendt Foundation (in some years this sum can be up to € 8,000). The Ministry of Agriculture will fund research into all the 3Rs, but the Foundation will only fund research into Replacement. Other funding can come from the National Technology Agency (TEKES). This funding is used to develop *in vitro* methods for studies of drug development and safety, but no figures are available. No national strategy exists beyond a government policy that requires that the number of animal experiments be reduced. All the 3Rs are given as priorities, but the greatest emphasis is on replacement. Stakeholder consultation takes place with the pharmaceutical industry in particular (representatives sit on the advisory board of TEKES), but also with academia in the development and planning of *in vitro* studies. There is also a national consensus platform for promoting alternatives, Fincopa. The Ministry of Agriculture and Forestry is responsible for supporting research and animal welfare and it also controls animal testing procedures. Chemicals management is divided between the Ministry of Social and Health Affairs (pharmaceuticals), the Ministry of Environment plus the Ministry of Social and Health Affairs (biocides and industrial chemicals) and the Ministry of Trade and Industry (cosmetics). Two recent government reports have suggested that financing of research into alternatives should be considerably

5 Belgian Platform for Alternative Methods to animal testing

6 Action préventive contre le martyre des animaux de laboratoire



increased and that there should be better co-ordination of replacement research. A National Centre for the Studies of Alternatives to Animal Experimentation has also been proposed.

Respondent: Hanna Tähti

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National Platform: Fincopa

Link: <http://www.uta.fi/jarjestot/fincopa>

France

Current national funding of alternatives in France is potentially of the order of € 2.75 million *per annum* (€ 0.3 million from AFFSAPS⁷, € 2 million from ANR⁸ and € 0.45 million from funds to support “Pôles de Compétitivité”). It appears that there is a national strategy coordinated by the national platform (established in the form of a GIS or Groupement d’Intérêt Scientifique) that has an apparent focus on replacement. Project funding will vary depending on the project and other factors but can be up to 100% for the public sector, but lesser amounts for the private sector (i.e. 30%). The Ministries of Agriculture and Research have responsibility for animal testing procedures and the Ministry for Health, Industry and Environment for chemicals management.

Respondent: Bernard Andrieux

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National Platform: In process of being established as a “Groupement d’Intérêt Scientifique” (GIS)

Link: Not available

Germany

Germany is actively involved in the funding of research into alternatives, with an allocation of just over € 4 million per year of public funds directly flowing into alternative research and approximately € 150,000 through industry. National strategies are in place through the Bundesministerium für Bildung und Forschung (BMBF, Education and Research) and ZEBET (Bundesinstitut für Risikobewertung). Here funding is allocated to research projects incorporating the 3Rs. Priority setting is at a national level and is set by expert committees. Stakeholders

are involved and may represent academia, industry and scientists. Generally, funding preference is given to larger projects. In academia up to 100% support can be allocated and 50% in industry. Many government institutes are responsible for research support, including BMBF, Bundesministerium für Ernährung, Landwirtschaft und Verbraucherschutz (BMELV), and BfR (Bundesinstitut für Risikobewertung). The Bundesministerium für Umwelt (Ministry for the Environment) is responsible for chemicals management and the BMELV holds the responsibility for animal testing procedures.

Respondent: Gerhard Stiens

(Gerhard.stiens@bmelv.bund.de)

National Platform: SET

Link: <http://www.stiftung-set.de>

Hungary

In Hungary, public funds specifically targeted at research into alternatives are estimated at € 40,000 in 2005. Other potential sources were also highlighted by the respondent i.e. National Office for Research & Technology (NKTH) and Hungarian Scientific Research Foundation (OTKA). There is no existing national strategy in Hungary with regard to coordination of research into alternatives. There is a national consensus platform, Hucopa.

Respondent: Balogh Lajos

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National Platform: Hucopa (Magyarországi Konszenzus Platform az Alternatív Módszerekért Egyesület)

Link: <http://www.hucopa.hu>

Italy

In Italy, there are no public funds specifically available for alternatives to animal testing. However, there are non-profit organizations, such as CELLTOX (Italian Association of *in vitro* Toxicology) or IPAM (Italian platform on Alternative Methods) that provide financial support by means of fellowships or other initiatives to promote research on alternative methods. Private enterprise generally supports the annual national meetings

of IPAM and CELLTOX (with contributions varying between € 500 to € 4,000 per meeting). There is no existing national strategy in Italy with regard to funding for research into alternative methods. The responsibility for research support lies with the Ministry of University and Research. The Ministry of Health has regulatory responsibilities, including implementation of Directive 86/609. Apparently, there is no formal cooperation or coordination between the different authorities on this issue. According to the chair of the Italian platform IPAM, “the willingness” towards alternative methods needs to be encouraged in Italy.

Respondent: Annalaura Stamatii

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National Platform: IPAM

Link: <http://www.ipam.it>

Netherlands

Public funds for alternatives in the Netherlands were estimated at € 797,000 in 2006 and € 1,297,000 for 2007-2009. The majority of this estimated budget corresponds to the Dutch research programme on alternatives to animal testing (“Dierproeven Begrensd II”). The budget for DB II is provided by the Ministries of Health, Education and Defence. Only earmarked national budgets are included, as there are no figures available for the investments by industry and academia in the development of alternative methods. Within DB II there is encouragement to cooperate as much as possible with other European institutions (EP, and ECVAM) and OECD. The national strategy in the Netherlands focuses on the 3Rs with an emphasis on guideline testing and development of research models. The priority setting is undertaken by the Dutch National Platform (Platform for Alternatives to Animal testing) and ZonMW, an Independent National Health Council. Key persons of industry, welfare & academia are consulted. There is no preference for either large or small projects. Projects are selected on their relevance for the programme DB II and their scientific quality. Limitation is only related to the size of the budget. The maximum percentage

⁷ Agence française de sécurité sanitaire des produits de santé

⁸ French National Research Agency

of funding is 75% of the total project costs. To ensure the commitment of the research organisation to the project, a financial contribution of the research organisation is required. Grants range from € 20,000 to € 350,000. Stakeholder co-operation and coordination is present, including a consultative role for the Dutch Platform. In the Netherlands, the institute(s) responsible for research support on alternatives to animal testing are mainly embedded within the Ministry of Health, Welfare & Sport; Ministry of Education, Culture & Science; Ministry of Defence; Ministry of Spatial Planning, Housing and Environment; Ministry of Agriculture, Nature & Food Quality. The competent authority (CA) for chemicals management lies with the Ministry of Environment, whilst the CA for animal testing procedures lies with the Ministry of Health.

Respondent: Iris Arendzen
(Iris.arendzen@vwa.nl)
National Platform: NCP (PAD)
Link: <http://www.nca-nl.org>

Norway

Norway is not a member of the European Union. No public funds are made available specifically for research into alternatives, but there are other sources. In 2006 the Norwegian Food Safety Authority (FSA) spent approx. € 70,000 to continue the work of establishing a National Platform for Alternatives in Norway in 2007. Some of this money will be used to fund research projects within the 3Rs. A state fund for alternatives is being planned. The Norwegian Research Council provides information about the availability of EU funding for research projects. This body also sets the priorities for research in Norway. There is no national strategy as yet. There is regular stakeholder consultation involving industry, academia and animal welfare. A national consensus platform is in the process of being formed. The FSA falls under the Ministry of Agriculture and Food and is responsible for supporting research. The Ministry of the Environment is responsible for chemicals management, but delegates the work to the

Pollution Control Agency. Control of animal testing procedures is delegated to the Norwegian Animal Research Authority and the FSA by the Ministry of Agriculture and Food.

Respondent: Live Kleveland
(live@dyrevernulliansen.org)
National Platform: To be established in 2007
Link: <http://oslovet.veths.no/fag.aspx?fag=56>

Slovakia

Slovakia has allocated public funding of between € 28,000 and € 280,000 a year to the development of alternatives. There is no set amount and it obviously varies noticeably from year to year. No national strategy is in place. Most funding is allocated to reduction and replacement. Refinement is addressed more at an ethical and legislative level. Stakeholders may be consulted, although no defined procedure exists. When stakeholders are consulted, they usually represent research institutes and universities with occasional participation by industry. When allocating funding for projects, smaller projects are generally preferred and these projects are funded up to 100%. There are a number of institutes responsible for providing research support and they include the Agency for Support of Science and Technology, Slovak Academy of Science, Agency of Universities and Minister of Education, Scientific Agency of the Ministry of Health and the Ministry of the Environment. The Ministry of the Environment is responsible for both chemicals management and animal testing procedures.

Respondent: Maria Dusinska
(mdu@nilu.no)
National Platform: No national platform
Link: Not available

Spain

There is no specific programme within the national agencies dedicated to funding research on alternative methods. Research projects specifically dedicated to alternatives are a minority. However, many research projects make use of alternative

methods and are thus financed by other rationale. The total expenditure on all general research is estimated at € 4,000 million per year. An estimation of the total annual budget for *in vitro* alternatives is € 500,000. No systematic policy exists in Spain to match EU supported projects. There are some additional funds (“*Complimentary Actions*”) available to support research teams participating in European projects. There is no national strategy for alternatives. A systematic procedure for priority setting and for allowing stakeholder consultation in priority setting is also lacking. Most basic research projects receive 100% funding support. Technological projects with the participation of industries normally receive partial funding. The project funding limits are a function of the number of researchers and FTE dedicated to the project. Most bio-research projects exclusively involve academic institutes (research institutes and universities) with a low participation from industry. Research is mainly governed and supported by the National Research Programs Authority (General Directorate of Research and Technology in the Ministry of Education and Research). The responsibility for safety of new and existing chemicals, biocides, cosmetics, food additives and food, and drugs lies with different Ministries. The Environmental Health sub-directorate deals with the evaluation of new and existing chemicals, biocides, testing methods (EU and OECD). Agrochemicals (under Directive 91/414) are dealt with by the Ministry of Agriculture, although the human health effect evaluation is conducted by the Ministry of Health. Conversely, when the Ministry of Health is the competent authority, the evaluation of ecotoxicity and environmental safety is delegated to the Ministry of the Environment. Responsibility for animal experimentation falls under a specific sub-directorate in the Ministry of Agriculture, which also deals with other veterinary aspects.

Respondent: Eugenio Vilanova Gisbert
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National Platform: REMA
Link: <http://tox.umh.es/rema/REMAEnglish.html>



Sweden

In Sweden public funds are distributed for research into alternatives by the Swedish Animal Welfare Agency (SAWA)⁹. Each year from 2004 onwards the amount has been in the order of € 1.6 million (15 million SEK). In addition, annually, about € 100,000 comes from the Swedish Pharmaceutical industry and a similar sum from the Swedish Fund for Research to Animal Experiments. There is a national strategy and research has been focussed on all 3Rs. The intention is to bring about a decrease in the use of laboratory animals. The SAWA sets the priorities for this research and consults stakeholders through a scientific advisory committee. This committee is made up of experts in different biomedical fields, representatives from government agencies, animal welfare representatives and the pharmaceutical industry. Some projects have been jointly funded by both the Swedish government and the European Union. The amount of funding will vary depending on the project but can be as high as 100%. SAWA is responsible for research. Chemicals management falls under the Swedish Chemical Inspectorate and control of animal testing procedures under the Swedish Medical Products Agency.

Respondent: Hanna Augustsson (Hanna. Augustsson@djurskyddsmyndigheten.se)
National Platform: Swecopa
Link: <http://www.swecopa.se>

Switzerland

Switzerland is not a member of the European Union. The sum allocated to the funding has remained consistent for the past two decades. Approximately € 270,000 *per annum* is specifically allocated to the development of alternative methods. Funding is also made available through other sources, mainly from industry and private foundations. This amount has also remained consistent in recent decades. All 3Rs are supported when funding allocation is decided, mostly with projects focusing on research and

drug development. The priorities are set by the 3R Research Foundation at the national level. Stakeholders from all related sectors are actively consulted and are represented on a Scientific Expert Board. There is no preference as to the size of projects funded, but generally those funded receive between 80 and 100% support. Switzerland has a national platform, the 3R Research Foundation. The Institutes responsible for research support are the Bundesamt für Veterinärwesen and Interpharma. The competent authority responsible for chemicals management is the Bundesamt für Gesundheit (Ministry for Health) and for animal testing procedures the Bundesamt für Veterinärwesen.

Respondent: Peter Maier
 (peter.maier@swissonline.ch)
National Platform: 3R Research Foundation (research.3r@bluewin.ch)
Link: <http://www.forschung3r.ch>

United Kingdom

In the United Kingdom, government funding for research to develop 3Rs methods is available from the National Centre for the Replacement, Refinement, and Reduction of Animals in Research (NC3Rs), Research Councils such as BBSRC¹⁰ and MRC¹¹ and some other government institutes and departments. Funding is also provided through a number of other sources, including industry, professional associations, private foundations and NGOs, sometimes in collaboration. The respondents indicated that it was difficult to provide an estimate of total public funds dedicated to alternatives research. This is partly because there is no single specific department responsible for the allocation of funding for alternatives research. It is known that in 2005, the NC3Rs provided direct funding for 3Rs projects to a total of approximately € 1.5 million. Both large and small projects are considered. Funding decisions depend on the scientific quality of proposals and their likely impact on the 3Rs. Public funding providers usu-

ally allocate a total of up to 80% of the amount requested. NC3Rs has a strategic plan which focuses on all 3Rs. In setting priorities, the NC3Rs consults stakeholders representing all relevant fields (i.e. animal welfare, industry, academia and the government). At the time of compilation, the UK ecopa-affiliated platform was the Boyd Group. The Home Office is responsible for the regulation of animal testing procedures.

Respondent: mail@boyd-group.demon.co.uk (in association with NC3Rs)
National Platform: Boyd Group
Links: <http://www.boyd-group.demon.co.uk> & www.nc3rs.org.uk

4 Results and analysis

4.1 Country and year of reporting

Responses were received from respondents in 16 countries i.e. Austria (2006), Belgium (not reported), Czech Republic (2006), Denmark (2005), Finland (2005), France (2006), Germany (2006), Hungary (2005), Italy (not reported), Netherlands (2006), Norway (2006), Slovakia (not reported), Spain (not reported), Sweden (2004), Switzerland (2006) and the United Kingdom (2005).

Response	%
2004	6
2005	25
2006	44
Not known/ No responses	25

4.2 Publicly funded alternatives research

Assuming that the reported national totals are indicative of annual commitments, total publicly funded research specifically targeting 3Rs alternatives across the 16 countries stands at approximately € 17 million per annum. It ranges from € 0 in Italy to € 4.6 million (equivalent to 27% of the total) in Germany (see Fig. 1, Fig. 2). Comparative annual figures from another source are available for Germany (€ 4 - 5 million), Netherlands (€ 500,000 - 900,000), Italy (€ 0), Sweden (€ 260,000 - €

⁹ Since 2006, the responsibility for allocating research funding for alternatives in Sweden no longer lies with SAWA.

¹⁰ Biotechnology and Biological Sciences Research Council

¹¹ Medical Research Council

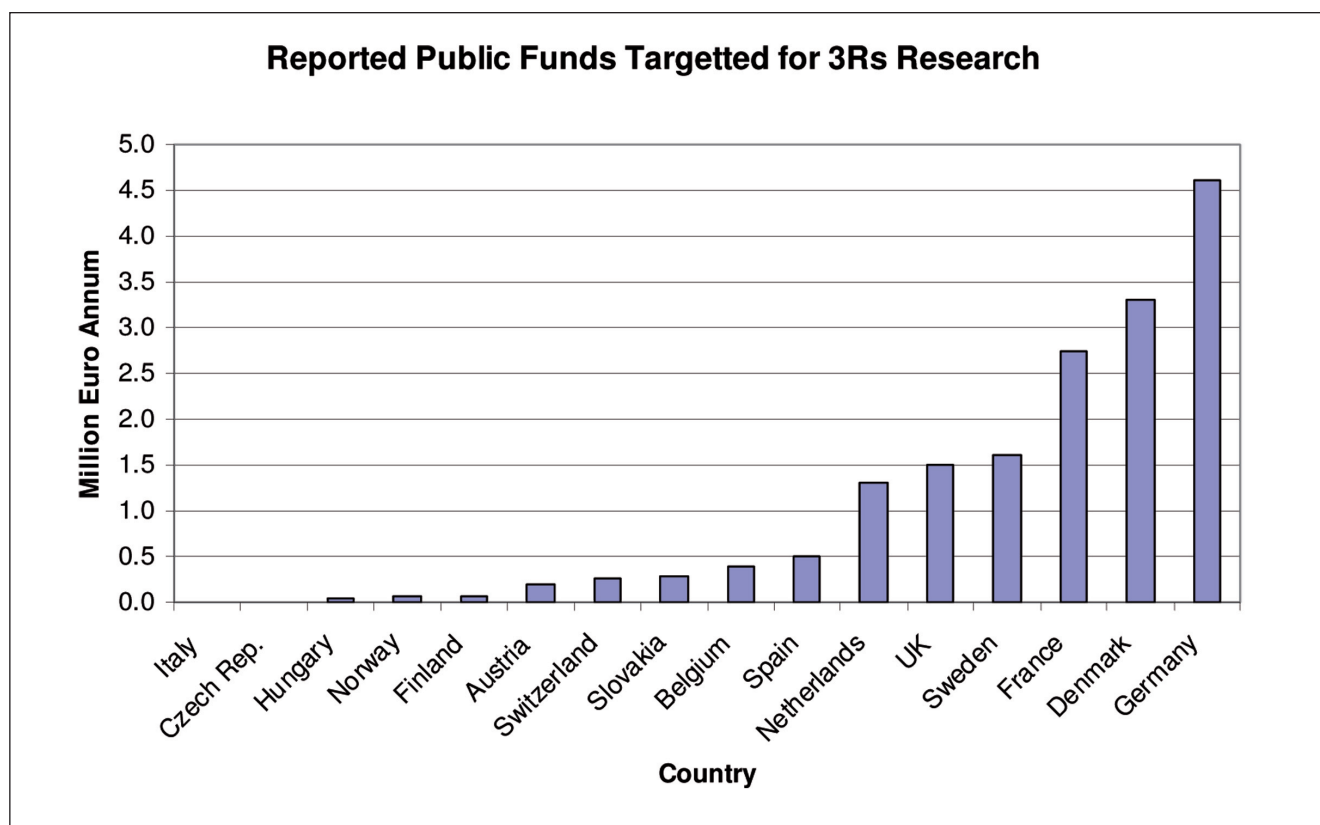


Fig. 1: Reported public funds targeted for 3Rs research in European countries (year varies between 2004-2006).

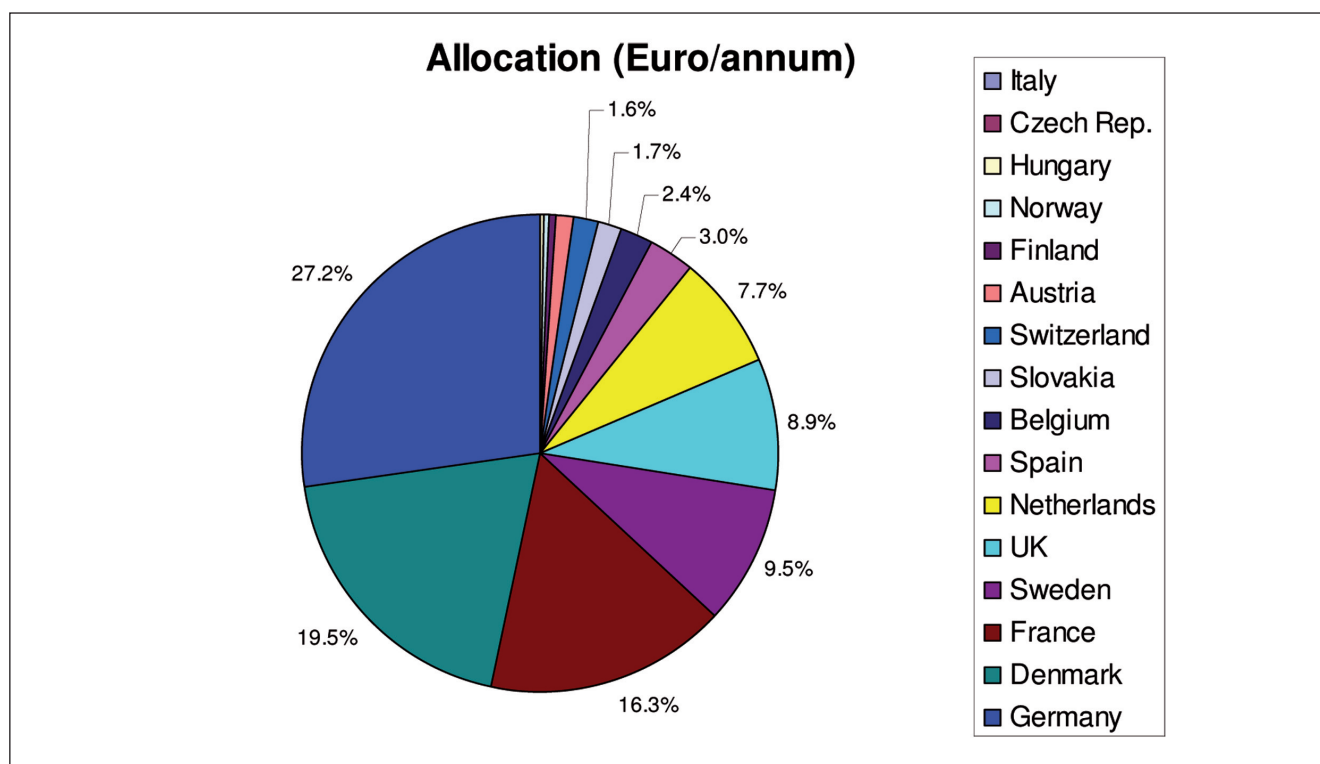


Fig. 2: Relative importance of allocation of public funds to alternatives research in different European countries (reference year varies).



370,000)¹². It is worth noting that the figures reported here relate specifically to research funds directly targeted at the 3Rs. It is highly likely that significant public research funds are being applied – albeit indirectly – in other allied fields that are of benefit to the 3Rs. For example, in the case of the UK such support was estimated to be in the range of £ 2 - 10 million (€ 2.6 - 13.2 million) per annum in 2003¹³. This can be contrasted with the known direct support of € 1.5 million reported here for the UK in 2005.

The responses related to the provision of public funds for alternatives research can be categorised as follows:

Response	%
No specific allocation for alternatives	19
Specific allocation for alternatives	69
Alternatives supported indirectly	12
Not known/ No responses	0

For 19% of the countries (i.e. Austria, Italy and Spain), respondents reported that there was no specific allocation of research support to alternatives. This contrasted with the 69% of countries (i.e. Czech Republic, Hungary, Norway, Finland, Switzerland, Slovakia, the Netherlands, Sweden, Denmark, Germany and the UK) for which a specific allocation was reported. Indirect support (i.e. that not specifically allocated for 3Rs) for alternatives was reported in 2 countries (i.e. Belgium and France).

4.3 Mechanisms to match EU funding

The responses relating to the provision of public funds to match funding for alternatives research from EU (i.e. via Framework Programmes) can be categorised as follows:

Response	%
No policy	50
Policy to avoid cofunding	6
Policy to provide matched funding	19
Not known/ No responses	0

In nearly half the countries, respondents indicated that there was no systematic policy. In 6% of countries (i.e. Germany) there was a policy to avoid cofunding. In 19% of countries (i.e. Hungary, the Netherlands and Sweden), there was a policy to provide matched funding. No response or not known was forthcoming from 25% of countries (Austria, Belgium, Switzerland and the UK). In the case of the UK, the situation was mixed with some matching of support – though only on an *ad hoc* basis.

4.4 National strategy for alternatives research

The responses detailing the existence of a national strategy to coordinate alternatives research are provided below:

Response	%
No national strategy	63
Existing national strategy	37
Not known / No responses	0

In 63% of the countries (i.e. Austria, Belgium, Czech Republic, Denmark, Finland, Hungary, Italy, Norway, Slovakia and Spain) respondents indicated that there was no national strategy. In 37% of the countries (i.e. France, Germany, the Netherlands, Sweden, Switzerland and the UK), the respondents reported the evolution or existence of a national strategy.

4.5 Focus of national strategy

Of those countries for which the existence of a national strategy was reported, most respondents indicated that the strategy in each country (i.e. Germany, the Netherlands, Sweden, Switzerland and the UK)

was based on all 3Rs. In France, there appears to be a focus on replacement.

Response	%
Not applicable as no strategy	63
All 3Rs	31
Reduction, Replacement	0
Replacement	6
Not known / No responses	0

4.6 Priority setting

When the respondents were asked about the process of research priority setting, 50% of the countries (i.e. Denmark, France, Germany, Netherlands, Norway, Sweden, Switzerland and the UK) indicated that this was coordinated at national level. No response or not known was the response of 38% of the respondents (i.e. Austria, Czech Republic, Finland, Hungary, Italy and Slovakia). In Belgium, priority setting is apparently set at institutional level, whilst the respondent from Spain indicated that there was no priority setting at all in that country.

Response	%
No priority setting	6
Institutional level	6
Regional level	0
National level	50
Not known / No responses	38

4.7 Stakeholder consultation

The extent of stakeholder consultation in the research priority setting process indicated that partial consultation was to be found in 25% of countries (i.e. Belgium, Finland, Slovakia and Sweden) and full consultation was to be found in 50% of countries (i.e. Austria, Czech Republic, France, Germany, the Netherlands, Norway, Switzerland and the UK). No response or not known was forthcoming from 19% of respondents (i.e. Denmark, Hungary and Italy). Only for Spain did the respondent indicate that no stakeholder consultation took place in the research priority setting process.

Response	%
No	6
Partial	25
All Partners	50
Not known / No responses	19

¹² Platforms and Funds for Alternatives to Animal Experimentation. Report from ecopa and the National Reference Centre for Laboratory Animal Science and Alternatives of the Norwegian School of Veterinary Science. July 2005.

¹³ House of Commons Hansard, 15 Dec 2003 (Column 634W);

<http://www.publications.parliament.uk/pa/cm200304/cmhansrd/vo031215/text/31215w02.htm>

4.8 Project magnitude preference

The majority of respondents indicated that in most countries (i.e. Belgium, Denmark, Finland, Germany, the Netherlands, Norway, Sweden, Switzerland and the UK) there was no explicit preference regarding the magnitude of alternatives research projects. Only the respondents from France and Slovakia indicated a preference. All other respondents indicated not known or did not provide a response.

Response	%
No preference	56
Preference	13
Not known / No responses	31

4.9 Project funding limits

These limits relate to the proportion of total research project costs available from public funding. Respondents from 31% of countries indicated that there were no known limits regarding alternatives research support in their respective countries (i.e. Austria, Czech Republic, Denmark, Norway and Slovakia). In contrast, half the respondents indicated that limits did exist in their countries (i.e. Belgium, Finland, France, Germany, the Netherlands, Sweden, Switzerland and the UK). Such limits were variable and ranged from 30-60% in France, 75% in the Netherlands, 30-100% in Sweden, 80-100% in Switzerland and 80% in the UK. In Germany, a limit of 50% was highlighted for public support of research within industrial institutions. All other respondents indicated not known or did not provide a response (i.e. Hungary, Italy and Spain).

Response	%
No limits (up to 100%)	31
Limit	50
Not known / No responses	19

4.10 Cooperation and coordination in research

Respondents from Belgium, Norway and Slovakia (19%) indicated that co-

operation in research was only at the institutional level. The respondents from Denmark, Finland, France, Germany, the Netherlands, Sweden and Switzerland (44%) indicated that cooperation was coordinated via a responsible agency or via the respective national platforms. In the cases of Austria, Czech Republic, Hungary, Italy, Spain and the UK (37%), the respondents indicated not known or did not provide a response.

Response	%
No	0
Between Institutions Only	19
Via Agencies or Platforms	44
Not known / No responses	37

4.11 National consensus platforms

The only country without a national platform is Slovakia. Respondents from all other countries indicated the existence of a national consensus platform.

Response	%
No (no national platform exists)	6
Yes (national platform exists)	94
Not known / No responses	0

4.12 Separation of responsibility between competent authorities

In the case of 44% of countries (i.e. Finland, France, Germany, the Netherlands, Norway, Sweden, the UK), the respondents indicated that the competent authorities for chemicals management were separate from those responsible for animal welfare procedures. In the case of 37% of countries (i.e. Austria, Belgium, Czech Republic, Slovakia, Spain and Switzerland) there was some degree of overlap in the responsibility of the competent authorities regarding these two responsibilities. In the remaining cases of Denmark, Hungary and Italy (19%), the respondents indicated not known or did not provide a response.

Response	%
Separate	44
Overlap	37
Not known / No responses	19

5 Summary and conclusions

- 1) A survey of publicly funded research specifically targeting alternatives was conducted. Responses were received from 16 European countries (Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Hungary, Italy, Netherlands, Norway, Slovakia, Spain, Sweden, Switzerland and the United Kingdom). The responses were compiled by national agencies or national platforms.
- 2) Total 3Rs alternatives research support across the 16 countries was estimated as € 17 million and is comparable in magnitude with annual spending under FP programmes. FP6 provides a total of € 80 million over five years to 13 projects that actively involve ECVAM¹⁴.
- 3) The largest reported direct funding for 3Rs came from Germany with € 4.6 million (27% of the total), Denmark with € 3.3 million (20%) and France with € 2.75 million (16%).
- 4) In many countries there are a variety of public funding bodies. This means that sources of direct funding for 3Rs are disparate and potentially difficult to track with complete accuracy. Other – often significant – indirect support relevant to the 3Rs is also available in some countries. This was well illustrated by the example of the UK.
- 5) Countries with national alternatives funding strategies (France, Germany, the Netherlands, Sweden, Switzerland and the UK) are skewed towards the higher end of the spending distribution. These 6 countries account for € 12 million i.e. >70% of the overall total of national spending identified.
- 6) Where national strategies exist, they predominantly encompass all 3Rs (refinement, reduction and replacement), rather than focus on replacement. It is unclear whether there is a consistent rationale based on an as-

¹⁴ European Research for Product Safety: Reducing Animal Testing Through Innovation. Press Release from European Commission MEMO/07/149 24 April 2007: <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/07/149&format=HTML&aged=0&language=EN&guiLanguage=en>



sumption that application of a 3R- as opposed to a 1R-approach is more likely to impact on overall animal use.

- 7) There is perhaps a missed opportunity to leverage EU funding. Most countries have no policy or a policy to avoid matched funding. This latter situation is apparently the case in Germany. The country that devotes most to national spending on alternatives (i.e. 27% of the reported total).
- 8) Stakeholder consultation in research priority setting seems to be relatively common (if sometimes not always systematic or comprehensive).
- 9) Most respondent countries already have or are in the process of establishing national consensus platforms (the exception is Slovakia). The platforms should help to stimulate stakeholder consultation, better research coordination and further national spending on alternatives research.
- 10) The situation regarding the separation of responsibilities of competent authorities (i.e. for research support, laboratory animal welfare and chemicals management) is mixed. A degree of overlap exists in many cases. A research strategy that is receptive to and reflects regulatory developments – such as REACH with its marked resultant increase in animal use – is an obvious need that is as yet unmet in many of the countries surveyed.
- 11) A system needs to be established whereby results and information generated, through the different projects funded in the Member States, are congregated and available to ensure alternatives are further developed or implemented where possible. A directory of active research projects would obviously be useful.

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<http://www.ecopa.eu>

<http://www.eurogroupforanimals.org>

http://www.pg.com/science/animal_alt.jhtml

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