

4. Promotion of the 3Rs and non-animal research methods

Of the more than 23 million animals impacted by science in the EU in 2017, 162 424 of them are used for the primary purpose of education and training. There is also a lack of knowledge about non-animal approaches, not only in schools and universities but also throughout researchers' professional lives.

A [culture shift](#) needs to start in school and extend to universities, where animals are still routinely used in life sciences curricula. Students get used to practising a myriad of procedures on animals, where [alternative teaching methods](#) are available, [reinforcing a culture](#) that accepts the use of animals as mere tools. With these educational practices, old habits and ways of conducting research are being reinforced in a new generation of researchers and healthcare professionals.

There are three major challenges to the adoption of animal-free educational models: (1) lack of knowledge of, or confidence in, existing animal-free teaching and training methods; (2) slow adaptation and development of technology to new training needs (e.g. new therapy); and (3) different mindsets in education and training of (veterinary) healthcare professionals and life scientists.

Educational professionals often [resist](#) alternatives, stating diminished effectiveness and increased costs or time investments as reasons, even though studies have shown that well-designed teaching methods not reliant on the harmful use of animals can be [beneficial](#) not only to the animals but also to students, and that in countries where the use of animals in education is reduced to close to zero, there is no evidence that the students who are being trained are less capable or qualified.

In the same way that students should be versed in animal-free science as part of their curriculum, fully-fledged scientists should also have the knowledge, resources and continuous training they need to be able to source, use and further develop non-animal methods.

At the moment, the adoption of non-animal methods is slow. The reasons identified for such delays include a lack of knowledge; researchers do not tend to receive continuous training throughout their careers, and there is also a need to keep research and education institutions up-to-date on non-animal approaches.

This could be addressed by national and international knowledge-sharing platforms, regular and accessible training courses, and continuous update of life sciences curricula to introduce existing non-animal approaches and present the pros and cons of different methods.

What does the public think?

Overall, the majority of the public is [opposed](#) to animal experimentation which is conducted for reasons which have no connection with life-threatening diseases, suggesting their opposition to animals used for purposes such as education and training.

Students and faculty alike have been [speaking up](#) against enforcing the use of animals in education. The universities and [countries](#) that are taking steps to allow individuals to object are more in line with broader public [opinion](#) than those who continue to force their students to practice on animals.

A British [survey](#) in 2018 found low public awareness of government work on the [3Rs](#): the

replacement, reduction and refinement of the use of animals in research, education and testing. Fewer than one in ten respondents knew more than a little about government work to replace, reduce or refine the use of animals in scientific research. Similarly, nine out of ten had not heard of the UK's National Centre for the 3Rs. But the same survey also found that only 15% of respondents 'are not bothered' if animals are used in scientific research.

Policy - current state of play

EU Directive 2010/63/EU on the protection of animals used for scientific purposes is built on the principle of the 3Rs, but some Member States are still struggling to adopt and promote humane methods in the education and training programmes of future researchers and healthcare providers. The Member States face three major challenges in the adoption of an animal-free educational model: a lack of knowledge of or trust in existing animal-free teaching and training methods; slow adaptation and development of technology to new training needs; and different mindsets in education and training of (veterinary) healthcare professionals and life scientists.

Under article 47 of this Directive, European Commission and the Member States are responsible for promoting alternatives to the use of animals in research, education, and testing. In these last years, the European Commission, through its European Union Reference Laboratory for alternatives to animal testing (EURL ECVAM), has commissioned a training course on [The Three Rs and Animal Use in Science](#), available to educators at the European Schoolnet Academy. EURL ECVAM has also produced in 2019 a database of the available [3Rs courses](#) in the Member States. In 2020 the Commission's ECVAM should release its first [reviews of non-animal methods](#) used in research of specific disease areas.

Similarly, some Member States have also been promoting 3R alternative methods by, for example, (1) creating national dedicated 3R centres, (2) creating national websites with centralised information on alternatives in a common language, (3) promoting platforms, working groups, training courses and workshops on the 3Rs, (4) giving research prizes, and (5) creating databases or search engines dedicated to alternative methods. However, other Member States are lagging behind.

Previous work and databases on alternative approaches did not have much impact. To avoid this, it is important that this recent work continues to be promoted by the Commission, Member States, and every stakeholder, guaranteeing continuous engagement from all parties.

Eurogroup for Animals

Eurogroup for Animals and our member organisations want the European Commission and the Member States to agree on a strategy to phase out the use of animals in education and training. To that end, we are working with other expert organisations to define the essential elements of such a strategy.

Together with our member organisations, Eurogroup for Animals will promote the dissemination of ambitious training courses on the 3Rs, and workshops on non-animal approaches in life sciences for (future) life scientists.