COUNCIL ON ANIMAL AFFAIRS

VISIBLE CHANGE: BIOTECHNOLOGY AND ANIMAL EXHIBITIONS

SUMMARY

Object and activities of the Council

The Council on Animal Affairs (Raad voor Dierenaangelegenheden RDA) is an independent expert body that provides the Minister of Economic Affairs with solicited and unsolicited advice on multidisciplinary issues relating to animal welfare, including animal health. The Council currently has approximately forty members with very varied backgrounds and fields of expertise, who participate in a personal capacity and without outside influence.

The Council on Animal Affairs considers issues across the full spectrum of animal policy, covering domesticated and captive animals, non-captive wild animals, hobby animals, companion animals, farm animals and laboratory animals.

The Council presents the outcomes of its deliberations in advisory reports. An advisory report summarises the scientific and social background of an issue, and presents advice on the directions that policy should take and on approaches to the resolution of dilemmas. Consensus is not essential: an advisory report may contain minority views.

Foreword

Although this Advisory Report arose from a single permit application, its applicability and scope go much further. Much national and European legislation is already in place for the treatment of animals, the organisation of exhibitions and working with genetically modified organisms. But the Dutch legislation, primarily set down in the Animals Act (*Wet dieren*), the Environmental Management Act (*Wet milieubeheer*), the Animal Experiments Act (*Wet op de dierproeven*) and the Flora and Fauna Act (*Flora- en faunawet*), still leaves certain matters open to question, particularly where the various acts overlap and where it concerns the question of in which development stage an embryo becomes an organism.

The Minister of Economic Affairs therefore asked the Council for Animal Matters to prepare an Advisory Report on this theme. The Council hopes that the present summary will reach a wider public.

The Hague, June 2015

Frauke Ohl, Chair

Marc Schakenraad, First Secretary

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Visible change: biotechnology and animal exhibitions

Advisory report request

Issue: Are there ethical or societal considerations that necessitate the creation of new laws or regulations that set down whether genetically modified organisms may be exhibited and under which conditions?

Background: A Museum in The Hague requested a permit to exhibit a work of art that incorporated genetically modified organisms (Arabidopsis thaliana and zebrafish embryos) during an exhibition on the theme of art and nature. This was reason for the Minister for Agriculture to submit a request for advice to the Council for Animal Matters. At the same time, the Minister for the Environment requested an advice on the same theme from the Netherlands Commission on Genetic Modification (COGEM), which advice has since been published.

Considerations: The background to this advice was an extraordinary situation: an exhibition where genetically modified embryos of zebrafish were to be displayed. This called the attention of both Ministries to a hiatus in the regulations. 'There is legislation on biotechnology and there is legislation on exhibiting animals,' explains Dr Franck Meijboom, the chair of the forum that prepared this Council advice, 'however there are no rules for combining the two.'

Photo: William Hoogteyling

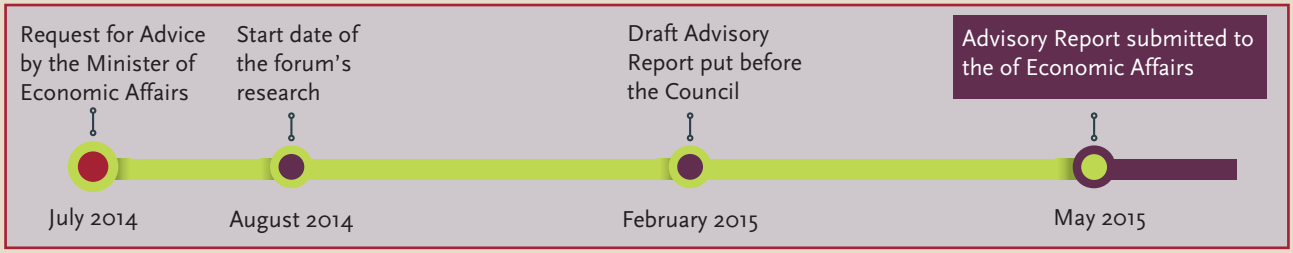
Franck Meijboom

Moreover, there was some ambiguity about the scope of the Animals Act, in which many aspects of animal welfare are regulated. 'A zebrafish is a vertebrate, which means it experiences pain and so is covered by the Animals Act. Strictly speaking, however, this does not apply to the embryo of a zebrafish. It proved that there was very little in the legislation to define what constitutes an organism and what does not.'

The forum focussed on the question of whether existing laws and regulations were adequate to answer this question, explains Meijboom, who works with the faculties of Veterinary Medicine and Humanities of Utrecht University. If new regulations were required, then these would need to answer to a wide range of societal opinions and considerations. These are in turn influenced by the various conditions, sectors, species of animals and the goals of the different exhibitions.

'We found that there was legislation for the individual components of the issue, but the biotechnology laws did not cover the question of exhibitions and the regulations for exhibitions did not take into account that biotechnology could be part of an exhibition.' The forum considered that, where this was an issue, the various legislation would need to be applied in conjunction. 'If you do that, then you will generally have sufficient foundation to make a judgement.' However, some points still remain open to discussion, such as: "When is an exhibition justified?", or: "Does the fact that we can do it mean that we should do it?", or: "Under which provisions and conditions is an organism deserving of protection?" The Advisory Report recommends that such discussions be conducted on a case by case basis.

Recommendations: Accord a prominent role to the individual responsibility and common sense of the involved parties. New legislation is not required; the current legislation provides sufficient coverage, and in particular in the areas of human and environmental safety, animal welfare and biotechnology in animals. In most cases this legislation will be sufficient, as long as it is applied in conjunction. Artists that wish to exhibit such organisms should be required to provide a clear justification of their reasons for doing so (especially as part of the requisite permit applications).



Summary of the Advisory Report

This Advisory Report contains recommendations on the ethical and societal aspects of exhibiting genetically modified organisms (GMOs). In this context, exhibitions are described as structured presentations of objects to the pubic; i.e. an exhibition is a means of displaying such objects and not an objective in itself.

This request for advice concerns three themes: the use of genetic modification, the use of animals and the use of an exhibition as medium. Each theme gives rise to different political and societal questions. Together, the three themes lead to societal and ethical questions, because:

- GMOs are socially controversial
- some animal species or stages of development are not legally considered to be animals or laboratory animals, while a section of society does believe these organisms are deserving of protection (such as the first phase of embryonic development)
- there are differences of opinion on the use of exhibitions for this objective (and hence also on the ethical question of whether there are limits to what may be exhibited)

Ethical issue

This Advisory Report charts the societal and ethical questions that are raised with regard to exhibiting genetically modified organisms. It does not contain any opinions on art policy in the Netherlands.

These three themes are already covered to a large extent by various Dutch and European legislation. This legislation can be divided into regulations relating to authorisations for certain activities and regulations that lay down conditions for using animals in a certain setting. The first category of regulations are covered by the Environmental Management Act and the GMO Decree (*Regeling ggo*) based on this Act, the Animals Act (where this concerns biotechnology in animals), the Animal Experiments Act, and the Flora and Fauna Act. The second category of regulations are covered by the Animals Act (where this concerns exhibiting animals) and the ban on cruelty to animals.

Because this topic is so complex, the Council conducted a comprehensive study of the existing legislation and regulations. It proves that only the Animals Act and the Animal Experiments Act provide instruments for taking ethical considerations into account in a decision on exhibitions of GMO animals.

However, the scope of the Animal Experiments Act is limited, and hence also the ability to make an ethical assessment on the basis of this Act. An exhibition will not normally involve animal testing, unless the exhibition meets the requirements under which such testing may be conducted, for example for educational purposes.

The Animals Act provides sufficient instruments to decide if genetic modification is socially acceptable for a certain objective on the basis of an ethical assessment. In certain cases such an assessment will be unnecessary,

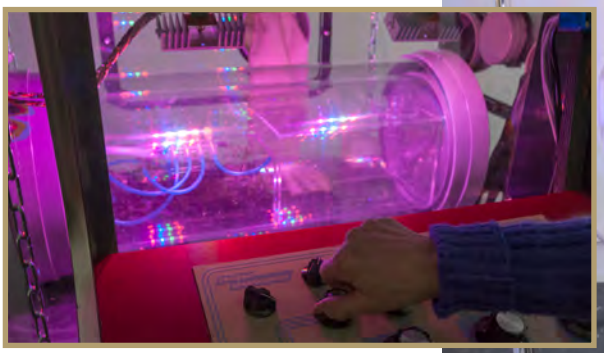
because in these cases the exhibition of GMOs will already be prohibited (for example for sport or entertainment), or in fact already permitted (biomedical applications).

The Environmental Management Act and the GMO Decree (and the GMO Regulation based on this Decree) do not provide for such an ethical assessment. This means that a permit application may not be assessed for social desirability. Only the risks for humans and the environment may be taken into account on the basis of this legislation.

Distinguishing by development stage

With regard to the development stage of an animal, the Animal Experiments Act only applies to living, non-human vertebrates, including larvae that can feed themselves, foetuses of mammals from the final stage of normal embryonic development, live cephalopods and all other invertebrates that probably suffer during animal experiments as designated by governmental decree. Animals that are used for animal experiments

Artist Adam Zaretsky with the installation in which he aimed to show Zebrafish, injected with genetically modified algae. The museums license application for showing the installation was the reason for this Advisory Report. In the end, the piece was exhibited without the Zebrafish.



Photos: Ed Jansen

Photo: Naturalis

After his life at the service of science, the genetically modified bull Herman spent a year and a half, until 2004, at the Museum for natural history Naturalis in Leiden. In stuffed shape, he can still be seen there nowadays.

in an earlier development stage (i.e. the first two stages of embryonic development) are covered by the Animal Experiments Act if they are intended to be kept alive after that development stage and could potentially suffer pain, anxiety or permanent damage due to the animal experiments.

The section on biotechnology in animals in the Animals Act applies to both vertebrates and invertebrates. The permit obligation also applies to the application of biotechnology techniques on animal embryos. Bacteria, however, are not considered to be animals and so these regulations do no apply to this category.

The Council considered the question of whether there are reasons to widen the scope of the current legislation to include these aspects, and which ethical aspects might play a role.

They noted that there are fundamentally differing opinions in the Netherlands with regard to the position of animals and the degree to which they need to be protected. The starting point of the current legislation is the intrinsic value of an animal, which is completely separate from its commodity value. This starting point is broadly shared, however it is not the only argument in this issue and nor does it contain an answer to the question of whether

insensitive animals and embryos should also be protected. This also explains why the ethical discussion on the position of animals continues today, for example on the issue of using biotechnology on embryos as a form of 'bio art'.

Is the current legislation sufficient?

The Council subsequently considered whether there was sufficient reason to change the current legislation on the basis of these opinions. The conclusion was that the legislation currently does not need to be modified especially for exhibits of genetically modified organisms. In the first place, there are other uses of animals outside of the sphere of bio art that also entail moral obligations towards animals and that are also not covered by legislation. If the regulations are changed then this would also influence the regulations with regard to these other uses, while in most cases these regulations are sufficient as they are.

Wikimedia Commons, Karoloo7

Bred specimen of Zebrafish for science purposes.

In the second place, the current legislation already provides means of answering concerns with regard to bio art involving genetic modification and embryos. In light of the various opinions on the importance of protecting embryos, this will not immediately lead to an alternative permit application process.

In the third place, the public values concerned, such as public health, environmental care or animal welfare, are already covered in various legislation. Where no public values are involved, the Dutch government has a tradition of regulatory restraint.

So in most cases, the current legislation already provides sufficient instruments for the assessment of permit applications. This is particularly the case where:

- biotechnological activities with a risk for humans and the environment are involved
- animals are involved that are covered by the Animal Experiments Act and the Animals Act and whereby there is a risk for the health, welfare and integrity of the animal
- biotechnological procedures on animals and embryos are involved that fall under the 'Biotechnology in animals' section of the Animals Act

Accountability

It is important to take the existing diversity of opinions seriously when considering the policy and legislation on this issue, however on the basis of its research, the Council sees no reason to widen the scope of the current legislation and regulations. This scope is based on the position of the animal, the safety of humans and the environment and the importance of maintaining consistence and a level playing field.

The organiser of an exhibition or an artist exhibiting there is required by the law to safeguard the welfare and integrity of any animals they use. Moreover, biotechnology professionals, artists and exhibition organisers also have an ethical and social responsibility to justify their use of animals. In light of the diversity of public opinion, alongside the legal requirements, they also need to provide transparent justification of their decisions.

The Council therefore recommends requesting that a 'Reflection' and 'Justification' be submitted with each permit application, analogous with the 'Non Technical Summary' that is currently a compulsory part of permit applications for animal experiments. If a permit is granted, then this Reflection should be made available to the public.

The Animals Act requires permit applications for the genetic modification of organisms to be assessed on an individual basis. Nevertheless, in light of the 'No, unless' policy, the Council recommends providing permit applicants with a clearer explanation of which applications of genetic modification are considered socially acceptable in advance. This could help to prevent unnecessary and unjustified permit applications.

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