



**RAAD VAN BEHEER**  
HOUDEN VAN HONDEN

**Breeding strategy  
brachycephalic pedigree dogs**

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## 1 Summary

In March 2019, the report "BREEDING BRACHYCEPHALIC DOGS" was published with enforcement criteria for the breeding of brachycephalic dogs.

The Dutch Kennelclub 'Raad van Beheer' supports the Minister in setting rules for the breeding of brachycephalic dogs. The Raad van Beheer plays a supervising role in breeding of pedigree dogs and therefore takes its responsibility, as expressed in "FairFok" (Fairbreeding), and will set additional requirements for issuing pedigree certificates.

In the future, breeders must demonstrate that brachycephalic dogs are proven free of conformation related problems. Healthier dogs will be used for breeding. Both crossbreeds and look-alikes will be eligible to enter the studbook in order to breed dogs with a longer muzzle.

The core of the report is a set of criteria about the conformation. When one is exceeded, this will lead to a prohibition of breeding, regardless of the other criteria. The criteria describe exaggerated conformations, which are not desirable within the breeds. That is the reason the Raad van Beheer wants to be supportive in monitoring the breeding stock of pedigree dogs.

The Raad van Beheer concurs with almost all criteria. The Raad van Beheer does not agree with the breeding-prohibiting criterion of the Craniofacial Ratio (CFR). This criterion would make it impossible to breed certain breeds while the prognostic value and the reproducibility of the CFR are being questioned among scientists. Moreover, it involves breeds that have had a place in Dutch society for decades and are highly appreciated for their character and appearance. The Raad van Beheer consider the CFR as a risk factor, so it is clear which breeds are at risk, but does not consider the CFR as a factor of the severity of the disorder BOAS or BOS. Scientific research support this.

The Raad van Beheer wants an exception for the regulated pedigree breeding, therefore these breeds can be bred in The Netherlands in a healthy form and with a longer muzzle. This is also important for selecting dogs in crossbreeding where it must be possible to breed again with dogs of the original breed. All brachycephalic dogs must meet additional requirements:

- Exercise tolerance test: good exercise tolerance, no abnormal breathing sounds and good temperature regulation. The test must be performed before the dog is used for breeding and repeated if the dog is intended to be used after the third year of life.
- ECVO eye examination: no eye disorders related to brachycephaly
- Physical examination by a veterinarian: general examination for breeding suitability, no obesity, no bulging eyes, no irritating nasal fold, no closed nostrils and assessment of the relative muzzle length, neck and chest circumference.

The Dutch Kennel Club is stricter in these rules, than the report "breeding brachycephalic dogs" prescribes.

Internationally there is a lot of interest into the problems that occur with the brachycephalic dogs. The Raad van Beheer discussed the problems in various international forums. For example, a strong plea was made during the international FCI judge meeting about not allowing French Bulldogs to win titles with too narrow nostrils and very little muzzle. By putting this on the agenda and criticizing it, people will think differently about how we should judge these dogs at exhibitions. A behavioral change among all stakeholders to a more normal image with less extreme short muzzles is needed.

The government regulations focus exclusively on Dutch breeders. We take our responsibility for breeders of pedigree dogs. Importing brachycephalic dogs and the husbandry is not regulated by government regulations. There is a considerable risk that people offering these dogs to the public will shift to foreign breeders and traders who are not hindered by any regulations. This does not improve the health and well-being of brachycephalic dogs in The Netherlands. Given the popularity of these dogs and the proportion of non-pedigree dogs, there is a high risk that health and well-being will become even worse. Implementing the regulations may therefore create the opposite effect, something the government and the kennel club want to avoid.

### **Additional measures for pedigree breeding**

This proposal assumes several brachycephalic dog breeds. There is no exception or other provisions for the individual breeds. The proposed measures are identical for all listed breeds.

The Craniofacial Ratio of less than 0.3 is considered by the ECGG (Utrecht University) to be an important criterion. However, we ask for an exception to this criterion if dogs with a CRF of less than 0.3, who demonstrably show no BOAS or BOS, can still be used to improve the population. Additional requirements are in place.

The additional requirements concern the following breeds:

- Affenpinscher
- Boston Terrier
- English Bulldog
- French Bulldog
- Griffon Belge
- Griffon Bruxellois
- Petit Brabançon
- Japanese Spaniel
- King Charles Spaniel
- Pug
- Pekingese
- Shih Tzu

This breeding strategy is not the end, but just the beginning. Breeders want to show that they breed as healthily as possible. The Raad van Beheer will support this by means of the 'health matrix', the publication of the results of screening examinations and, where necessary or desired, covenants with additional requirement for issuing pedigree certificates.

Proposal for standards by the Raad van Beheer

	Criterion	Enforcement standard	Proposal of the Dutch Kennelclub 'Raad van Beheer' for the breeding of brachycephalic dogs
1	Abnormal breathing sound (stridor)	At rest (not asleep) the dog makes strong sniffing, snoring or sawing noises, or there is a nasal, pharyngeal and / or laryngeal stridor at rest	Dogs are assessed both at rest and during exercise by a <b>veterinarian</b> when taking an exercise tolerance test. Same standard.
2	Nose opening	Mild stenosis = moderate narrowing of the nostrils.	Assessment of the nostrils by a <b>veterinarian</b> during a clinical examination. Same standards.
		severe stenosis = severe narrowing of the nostrils.	
3	Relative nose reduction	greater than 0.3 but less than 0.5	Use criterion to determine risk dogs that must meet additional measures.
		Less than or equal to 0.3	
4	Nasal fold	Nasal fold present but no visible contact of the hair with the conjunctiva or cornea of the eye, wet nasal fold hair or signs of inflammation	Evaluation of the nasal fold by a <b>veterinarian</b> during a clinical examination. Same standards.
		Nasal fold present and hair that from the nasal fold (may) touch the cornea or conjunctiva (wet nasal fold hair)	
5	Visibility of the whites of the eyes (the sclera) in the dog looking straight ahead	White of the eye visible in 2 or more quadrants-> shallow eye socket and / or large eyelids, with a poorly protected eyeball and an increased risk of developing corneal ulcers	Assessment of the eyes by a <b>veterinarian specialist</b> during an ECVO eye examination. Same standard.
6	Eyelid reflex: test whether the eyes can be closed	Eyelids cannot be closed completely	Assessment of the eyes by a <b>veterinarian specialist</b> during an ECVO eye examination. Same standard.
7	<b>Body Condition Score (BCS)</b>	Not specified in government criteria.	Assessment of the BCS by a <b>veterinarian</b> during a clinical examination. Dogs may not be obese (BCS> 7/9). Extra criterion.
8	<b>Exercise tolerance test</b>	Not stated in this form in government criteria.	Assessment by <b>veterinarian</b> in accordance with report. Extra criterion.
9	<b>Neck and chest circumference</b>	Not listed as an enforcement criterion.	Assessment by <b>veterinarian</b> Extra criterion.

## 2 Introduction

The Raad van Beheer is the organization in The Netherlands that stands for the relationship between people and dogs. This not only involves all kinds of activities that you can do with your dog, such as hunting, tracking, rescue work, sports or showing, but also the breeding of healthy dogs. Cynology stands for everything that has to do with this special relationship.

On March 17, 2019, the Minister sent the report "BREEDING BRACHYCEPHALIC DOGS" from Utrecht University to the Dutch equivalent of the House of Commons. The report contains a nice overview of the literature, the measurement methods and the problems that can occur in dogs with an extremely short muzzle. The report is also the starting point for enforcement criteria for the Dutch enforcement agencies (LID and NVWA).

The criteria provide tools for breeding brachycephalic dogs. In this way, breeders and breed clubs of certain breeds can test their breeding policy against the criteria. Many of the enforcement criteria are also included in the breed standard as a (disqualifying) fault. Kennel clubs nationally, but also internationally, have been working for some time to combat exaggerations in appearance. The ideal appearance of dogs from brachycephalic breeds is that the nostrils are open, the eyes do not protrude, and the nasal fold is not a nuisance. In addition, dogs must be able to move normally and breathing problems must lead to disqualification and / or exclusion at an exhibition.

Internationally there is a lot of attention for the problems that occur with the brachycephalic breeds. The Raad van Beheer has spoken about the problems in various international forums. For example, a strong plea was made during the international FCI judges meeting about not allowing French Bulldogs to win titles with too narrow nostrils and very little muzzle. By putting this on the agenda and criticizing it, people change perspectives about how we should judge these dogs at exhibitions. A behavioral change amongst all stakeholders where the ideal has a less extreme short muzzle, is needed.

At meetings of the European Union, the Raad van Beheer has clearly stated that the appearance of dogs is only important once health and well-being are secured. Because dog breeding is international, it is important the same rules and standards are in force to improve health and well-being. The message from the Raad van Beheer is always that a dog must be functional. A dog must be able to run and play, while having enough air and having good temperature regulation.

When examining the report, we concluded that we want to go further, achieve more in certain areas. As the Raad van Beheer we have a key position, because the breeding clubs are represented through the Raad van Beheer and we record the ancestry. By issuing the pedigree certificate the new owner has the certainty that certain things have been checked. In addition, the Raad van Beheer offers to carry out a more extensive check for the brachycephalic breeds. In this way it is known that when a pedigree dog of these breeds is purchased the parents meet the criteria and that a check has taken place.

In the past, the Raad van Beheer has successfully set additional requirements. The Raad van Beheer received, for example, compliments about the covenant and thus the approach to health problems of the Cavalier King Charles Spaniel from of the former State Secretary Bleeker.

For years, breeders affiliated with the breed clubs have been subjected to additional requirements regarding health and well-being in addition to the central regulations of the Raad van Beheer. These additional requirements are described in a club breeding regulation (VFR). These club breeding regulations (VFRs) form the basis for the new, to be created, health matrix, when pedigree certificates are issued. This health matrix will be implemented next year. This makes it clear to every new owner whether the dog has passed the screening tests required for that breed. Here too we want to go one step further with the brachycephalic breeds, namely by no longer issuing a pedigree certificate if screening tests are not sufficient.

The Raad van Beheer, the breed clubs and the breeders are aware that these measures may cause fewer people to breed brachycephalic dogs. Dogs will disappear from the gene pool, including dogs with good characteristics. We are aware of that and we accept that. We choose to continue openly and transparently and to offer consumers a dog that has been carefully bred.

We also want to promote these measures within the international forums. This creates the opportunity that other kennel clubs will adopt the rules and that the health and well-being of these dogs will also improve beyond our borders and increase the chance of importing healthy dogs.

### 3. Scope

Article 3.4 Decree on Animal husbandry applies to anyone who breeds companion animals for business or hobby purposes, in order to prevent the health and welfare of the parent or offspring from being harmed. Companion animal breeding must be done in a responsible manner. Breeding by appearance should not lead to diminish health or well-being.

The report 'breeding brachycephalic dogs', describes the criteria that should be met when breeding brachycephalic dogs. The position of the government is that these criteria can be used for the enforcement of Article 3.4.

#### 3.1 Responsibility

The ultimate responsibility for breeding lies with the breeder. Within organized cynology in The Netherlands, the breeder is the owner of the bitch that is used for breeding (based on registration with the Raad van Beheer). The owner of the stud dog is also registered at the Raad van Beheer. Outside of organized cynology, the owner of the stud dog might be unknown. There is not necessarily a (good) registration, and it is not necessarily known that a litter is being bred.

The breed clubs affiliated with the Raad van Beheer all have the purpose of promoting the health and well-being of their breed. This translates into support for their members and into rules to which their members are bound. Violation can, in ultimate cases, lead to cancelling their membership.

The breed clubs therefore have no legal but a moral responsibility regarding compliance with article 3.4. However, the influence of the breed clubs is limited to its members. In addition, a breeder can always cancel the membership himself and is therefore no longer bound by the rules of the breed club.

One of the objectives of the Raad van Beheer is to promote the health and well-being of all purebred dogs (or preferably all dogs). This translates into support for the breed clubs and breeders in that area and into rules to which members of members and other recipients of services are bound. Violation can in the ultimate case lead to disqualification and therefore not being able to use services, such as requesting pedigree certificates.

The Raad van Beheer therefore also has no legal responsibility but does have a moral and social responsibility to commit itself to compliance with article 3.4. The authority of the Raad van Beheer is limited to its members and to recipients of its services.

Although the breeder is ultimately responsible, fertility assistance by veterinarians is a very responsible task. If dogs cannot reproduce themselves due to their type and / or appearance, this should not be facilitated by veterinarians. Animals used for breeding must have a healthy constitution. Veterinarians can and must assess this.

Veterinarians should be better equipped for this. A training or course would contribute to this. The Raad van Beheer would like to assist in promoting this expertise and can make additional agreements with veterinarians. The Raad van Beheer wants to publish the results of the examinations.

### 3.2 Jurisdiction

The jurisdiction of the breed club is limited to their members. The board of the breed club has been given a mandate to perform acts and conversations on behalf of the collective of members. As in any form of democracy, this is focused on the collective interest and can sometimes go against an individual interest. However, this representation is limited to the affiliated members.

The same principle applies to the Raad van Beheer. The Raad van Beheer is also authorized to preserve the collective interests of its members.

In addition, the Raad van Beheer also provides services to non-members like, among other things, the issuance of pedigree certificates. Because they have a special status at the government (see the exception of pedigree dogs in earlier regulations with regard to high-risk dogs) and the Dutch Kennel Club is the only organization that can issue FCI pedigree certificates, it also has a representation of the recipients of those services.

The Raad van Beheer has successfully used this power in the past to reduce certain problems. For example, the Raad van Beheer has taken collective measures to secure the welfare of the bitch. This concerns measures whereby the bitch may not be too young or too old to have a litter. The number of litters is also limited, and special attention is paid to inbreeding restrictions due to the prohibition on breeding of closely related dogs. In addition, there are collective measures about the use of dogs with the Merle color. Although this is a very popular color, it is unwise from a health perspective to combine two dogs with this color. The combination is therefore prohibited within organized cynology. The Raad van Beheer monitors this measure.

The Raad van Beheer has covenants with breed clubs for specific breed-related problems. Additional conditions to issue a pedigree certificate are included in the covenant. The Raad van Beheer checks whether this obligation has been met before it proceeds to issue a pedigree certificate.

Finally, the Raad van Beheer is an ANBI organization (an organization for public benefit). This means that it represents a social interest.

## 4 Position of organized cynology

Organized cynology in The Netherlands is largely represented by the Raad van Beheer and its members. Part of this organized cynology concerns the breeding of purebred dogs with a pedigree certificate issued by the Raad van Beheer.



## 4.1 Market size

The total dog population in The Netherlands is estimated around 1.5 million dogs. The estimated growth per year is around 10%. These are an estimated 150,000 new dogs, mostly puppies.

Around 35,000 pedigree puppies are born every year and registered at the Raad van Beheer, a small proportion of which find their way abroad. That means every year about 115,000 puppies come onto the market that are not bred with a Raad van Beheer pedigree certificate. A small proportion of these are pedigree dogs imported from abroad, but the majority are dogs that are bred in The Netherlands without a pedigree or dogs that are bred and traded abroad. Where pedigree dogs bred in The Netherlands are subject to all sorts of rules and controls imposed by the Raad van Beheer, this does not apply to these non-pedigree dogs. The assumption that these non-pedigree dogs are healthier because they are crossbreeds is (usually) not valid. It often concerns so-called look-alikes, which are bred via the same process of selection of appearance.

## 4.2 Communicating vessels

Despite a market share of around 30%, the Raad van Beheer is often hold liable for the health and behavior of all dogs in The Netherlands. There is no organized point of contact for the remaining 70%. Not only does the Raad van Beheer and its members have no control over that 70%, they are part of a system of communicating vessels. Any additional obstacle to purchasing or breeding a pedigree dog, such as costs for health examinations that increase the price of a puppy, strict selection of buyers for suitability, etc. drive potential buyers to foreign pedigree breeders or to the non-regulated offer and breeders to the gray circuit without control, supervision and insight into the process. Countries such as Finland and Sweden, where the percentage of purebred dogs is close to 100%, are therefore in a much more favorable position to implement far-reaching measures. In The Netherlands, such a policy would only lead to a flight to a sector where the health and well-being of dogs is heavily dependent on merits. The report "as sick as a dog?", Published on June 19, 2019, shows that there are significantly more health and socialization problems in puppies bred outside The Netherlands.

Looking at the breeds affected by the enforcement criteria, it appears that they are already influenced by the effect of the communicating vessels. Although good statistics are lacking, the number of pedigree dogs of these breeds bred in The Netherlands has fallen sharply, while in the streets they are fashion dogs. Earlier research commissioned by the government to Utrecht University shows that the proportion of non-pedigree dogs of certain popular breeds is approaching 90%.

The consequence of these communicating vessels not only places limitations on the Raad van Beheer and its members in the pursuit of improving health and well-being, it will also seriously influence the effect of Article 3.4 and enforcement.

To start with, no obstacles are imposed on foreign breeders and traders by article 3.4, because this article only relates to dogs bred in The Netherlands (and not to selling and keeping them). In addition, there is also a large circuit in The Netherlands of illegal breeders or traders, who work unregistered and are therefore much more difficult to identify and control. In many cases these traders work via Marktplaats (Ebay), providing false information (for example, incorrect photos of parents), under false names and with temporary telephone numbers and addresses.

This creates the risk that enforcement will concentrate on the registered breeder who is already subject to a certain amount of regulation and control, while the unregistered breeders will continue

to do their work undisturbed without any scruples. The effect on the health and welfare of dogs in The Netherlands will be negative if these 70% to 90% of the market is not included in legislation and enforcement.

## 5 Breed specific measures for brachycephalic breeds monitored by the Raad van Beheer

The Raad van Beheer has the ambition to take steps to improve the health and well-being of the brachycephalic breeds, as indicated, among other things, in FairFok. Arrangements will be made with the breed clubs.

The involved breeders will be contacted. This will help to stress the necessity, explain the breeding strategy and will help with a broad support. The Raad van Beheer wants to take its responsibility. Arrangements between the Raad van Beheer and the relevant breed clubs will be formalized. Additional requirements for the pedigree certificate issue are included in a covenant. Before a breeder can request pedigree certificates for the offspring, the tests described below must be successfully completed.

Without a covenant, no pedigree certificates will be issued for these dogs. This regulation will therefore also apply to breeders who are not affiliated with a breed club.

### 5.1 Exception for CFR <0.3

The Craniofacial Ratio of less than 0.3 is considered by the ECGG to be an important measure. However, we ask for an exception to this criterion in order to be able to use dogs with a CRF of less than 0.3, which demonstrably show no BOAS or BOS, to improve the population. In that case, additional measures do apply.

This concerns the following breeds:

- Affenpinscher
- Boston Terrier
- English Bulldog
- French Bulldog
- Griffon Belge
- Griffon Bruxellois
- Petit Brabançon
- Japanese Spaniel
- King Charles Spaniel
- Pug
- Pekingese
- Shih Tzu

This is in line with several scientific researches that the CFR sees as a risk factor, but not as a fact that has a direct relationship with BOAS and BOS. Therefore, the CFR should not be used as a breeding-prohibiting criterion.

### 5.2 Additional tests

The starting point of the measures is that the appearance of the dogs must not lead to health or welfare problems. The breeding strategy programs were drawn up in consultation with the breed clubs and tested by scientists.

Due to this measurable and transparent breeding strategy, the Raad van Beheer and the breed clubs believe an extension of the muzzle of these brachycephalic breeds will be achieved. As already indicated in Fairfok, the extremes of brachycephaly should disappear. It is important that the snout (muzzle) of the dog gives enough space to the structures of the anterior airways. Working on breed crossings and inspections of dogs will be an ongoing effort. It is important that the popularity of these breeds is considered. So, the dogs bred must resemble the breed, but with an extension of the muzzle length. Therefore, giving the consumer a choice. That choice is important because these regulations are limited to national borders, while the breeding of dogs is international.

### 5.3 Studbook registration

The Raad van Beheer will adjust the appendix of the studbook such that the progeny of crossbreeding can apply for a standardized registration procedure. Progeny of these crosses will be registered in the studbook (Appendix G-0) with the relevant breeds. This progeny will have to prove that they themselves have no health and welfare limiting characteristics, before allowing them to breed. In addition, the dogs will be judged by appearance by judges competent for that breed.

Dogs without a pedigree certificate but with characteristics of that breed can also be selected to request an Appendix G-0 pedigree certificate. Of course, these dogs are tested, so no health and welfare limiting characteristics are present, before they can be used for breeding. Breeders are given the opportunity to breed from these new insights and then register the dogs in Appendix G-0.

A frequently asked question, also to ourselves, is whether the Raad van Beheer should currently publish pedigree certificates for litters of brachycephalic breeds.

The issuing of such a pedigree certificate seems to be contrary to our wish to have the pedigree certificate guaranteeing for a dog that has been bred in the best possible way and to legitimize violation of article 3.4.

As soon as the measures proposed here are final, we can test the applications against the criteria in this new policy and issue a pedigree certificate based on the outcome. The decision whether to issue a pedigree certificate is therefore a problem for a limited period and our decision is not to refuse pedigree certificates at this time based on the following arguments:

- If these puppies do not get a pedigree certificate now, their ancestry will no longer be easily traceable in the future and this may have consequences for the possibilities to use them in breeding, without knowing whether we can judge whether or not these puppies meet the criteria to be defined. This could lead to unnecessary loss of suitable genetic material and genetic diversity;
- The puppies that are born now will receive a pedigree certificate; however, they will never be able to be used for breeding if they do not meet the new criteria;
- this policy, with arguments, will be clearly communicated through the channels of the Raad van Beheer so that potential buyers can become aware of this. At the same time, we will encourage breeders to hold off mating until the new policy is clear.

### 5.4 CFR determines additional examinations

Recent scientific research about the Craniofacial Ratio (CFR) propose to use this criterion as a risk factor and not as a breeding-prohibiting criterion. The CFR is a measure to predict the risk of developing problems (Packer RMA, Hendricks A, Tivers MS, Burn CC (2015). Impact of Facial Conformation on Canine Health: Brachycephalic Obstructive Airway Syndrome. PLoS ONE 10 (10): e0137496. doi: 10.1371 / journal.pone.0137496).

*Despite the strong relationship between CFR and BOAS risk, it is likely that other genetic and environmental factors will also contribute to the likelihood and severity of BOAS in individual*

*dogs.*

*We found some exceptional individuals that were unaffected by BOAS despite extreme brachycephaly (e.g. 18 individuals in Study 1, and 29 in Study 2, appeared unaffected despite having CFRs <0.2), that may have anatomical and/or physiological adaptations.*

In addition, scientists indicate that the CFR is not suitable as a breed prohibiting criterion, because both reproducibility and predictive value are insufficient. This has been demonstrated by Liu et al. From the University of Cambridge where many dogs have been examined. The number of dogs examined is much larger than the previous studies by Packer et al.

A previous study suggested that BOAS risk increases in dogs with relatively shorter muzzles (craniofacial ratio, CFR) and thicker necks, across different brachycephalic breeds: from extreme brachycephalic breeds such as the Pug (median CFR = 0.08) to moderate brachycephalic breeds such as the Staffordshire Bull Terrier (median CFR = 0.5).

In our study with large numbers of dogs of the three breeds, we obtained supportive data on NGR, but only a weak association of BOAS status with CFR in a single breed. Within breeds, the variations in CFR were very limited. CFR overlapped considerably between the different BOAS functional grades. Our findings on the reproducibility of these measures and the large differences in detailed conformation between brachycephalic dog breeds suggest that the true associations between CFR and BOAS for specific breeds may not be comparable to the findings in the Packer et al. (2015) study that compared multiple breeds with, in most cases, relatively small numbers of dogs. Anatomically, the CFR measurement cannot determine the main internal BOAS lesions along the upper airway.

Within cynology it is important to keep dogs with the right characteristics. Dogs that have a low CFR, but that show no problems, are interesting for breeding. Apparently, they have a genetic composition that protects them from the problems. It is precisely these dogs that should not be lost.

The CFR will be used to determine whether a dog should be subjected to additional investigations regarding brachycephaly, but not as a criterion to prohibit breeding with the dog. The owners of dogs with a low CFR (as indicated in the report) must show that the health and well-being of their dog is NOT limited by these external characteristics. By placing this responsibility with the owner, he becomes more aware of the problems that occur within these breeds. The responsibility is thus placed with the key person in the process.

The dogs will then have to show that they can breathe normally and without any problems, including the functionality of the front airways regarding temperature regulation. The exercise tolerance tests mentioned in the report will be used for this. The Raad van Beheer and the breed clubs think it is important that these tests are repeated during the life of the dog and set the validity of the fitness test to 3 years.

The eyes will be examined by specialists (ECVO - European College of Veterinary Ophthalmologists), who record this through a standardized protocol. The Raad van Beheer receives the results from the specialists, registers the results and then publishes them on the website.

In addition to these characteristics, the Raad van Beheer and the breeders want to register more details in order to improve breeding and get more information for a breeding strategy. The collection of relevant data is essential. The central database, mentioned in the report, can be set up by the Raad van Beheer for pedigree dogs and should be filled with reliable information in collaboration

with veterinarians who carry out health examinations for the Raad van Beheer.

Although the following examinations will be mandatory before an animal can be used for breeding, both the Raad van Beheer and the breed clubs will make every effort to let all dogs (also non breeding animals) participate in the examinations. This makes it possible to make a baseline measurement and evaluations in the future.

A substantial part of the population will be measured at the beginning. The Raad van Beheer can invite both breeders and owners to participate in these tests. An effort will be made to offer this financially achievable to lower the threshold for participation. The aim is to investigate a considerable part of the population, in order to get statistically relevant data. An attempt will be made to examine dogs of different ages.

During the baseline measurement, the measurements will be taken in combination with an exercise tolerance test and a standardized eye examination.

The scope of the studies on the population is shown in the following diagram:

	Pedigree dogs	Non pedigree dogs
Breeding animals	100%	?
Import	100%	0%
Baseline	25% *	?

\* Initial estimate, the percentage strongly depends on the breed. The goal is to investigate a statistically relevant group. For the baseline measurement, owners will be contacted who are registered in the studbook. Breed clubs will promote this. We count on support from the KNMvD, the ECGG and the government for measuring non-pedigree dogs.

## 6 Tests that every dog must have successfully completed

For every brachycephalic dog of the specified breeds, so also for a dog that is not originally from The Netherlands, that is used for breeding, the following tests are mandatory:

### 1) Exercise Tolerance Test - extra standard

The temperature regulation is also checked with this test.

- 1000-meter walking test
- 6-minute test

Both tests are described in the report.

The tests may only be performed when the dog is at least 12 months old. The results are valid for a maximum of 3 years. This means that animals must repeat the test at older age.

### 2) ECVO eye examination

It must be demonstrated through this examination that there is no problem related to brachycephaly.

Dogs should not be used if they show the problems mentioned in the report: Keratoconjunctivitis Sicca, Trichiasis of the nasal fold, distichiasis leading to cornea (cornea) problems, ectopic cilia, entropion of the lower eyelid with corneal irritation or its consequences which has turned the cornea discolored.

When a veterinary intervention has taken place to perform a correction or when there has been a previous luxation of the eyeball, dogs may not be used for breeding. The examination must be carried out before breeding, it is not mandatory to repeat.

### 3) Clinical examination by a practicing veterinarian

In addition, the veterinarian will examine the following:

- a general examination on breeding suitability
- assessment of the nostrils
- assessment of the nasal fold
- assessment of whites of the eyes
- muzzle length assessment
- assessment of the Body Condition Score (extra standard)
- measuring the neck and chest circumference

The results of these investigations are valid for 12 months.

The veterinarian will use a form for this, issued by the Raad van Beheer. The form must be fully completed and signed by the veterinarian. At the breeding declaration this form must be in the possession of the Raad van Beheer and it will be decisive whether pedigree certificates will be issued for the progeny of the combination.

The owner is given the opportunity to perform a second opinion.

The assessment of these forms is based on the criteria below.

	Criterion	Enforcement standard	Proposal of the Dutch Kennelclub 'Raad van Beheer' for the breeding of brachycephalic dogs
1	Abnormal breathing sound (stridor)	At rest (not asleep) the dog makes strong sniffing, snoring or sawing noises, or there is a nasal, pharyngeal and / or laryngeal stridor at rest	Dogs are assessed both at rest and during exercise by a <b>veterinarian</b> when taking an exercise tolerance test. Same standard.
2	Nose opening	Mild stenosis = moderate narrowing of the nostrils.	Assessment of the nostrils by a <b>veterinarian</b> during a clinical examination. Same standards.
		severe stenosis = severe narrowing of the nostrils.	
3	Relative nose reduction	greater than 0.3 but less than 0.5	Use criterion to determine risk dogs that must meet additional measures.
		Less than or equal to 0.3	
4	Nasal fold	Nasal fold present but no visible contact of the hair with the conjunctiva or cornea of the eye, wet nasal fold hair or signs of inflammation	Evaluation of the nasal fold by a <b>veterinarian</b> during a clinical examination. Same standards.
		Nasal fold present and hair that from the nasal fold (may) touch the cornea or conjunctiva (wet nasal fold hair)	

5	Visibility of the whites of the eyes (the sclera) in the dog looking straight ahead	White of the eye visible in 2 or more quadrants-> shallow eye socket and / or large eyelids, with a poorly protected eyeball and an increased risk of developing corneal ulcers	Assessment of the eyes by a <b>veterinarian specialist</b> during an ECVO eye examination. Same standard.
6	Eyelid reflex: test whether the eyes can be closed	Eyelids cannot be closed completely	Assessment of the eyes by a <b>veterinarian specialist</b> during an ECVO eye examination. Same standard.
7	<b>Body Condition Score (BCS)</b>	Not specified in government criteria.	Assessment of the BCS by a <b>veterinarian</b> during a clinical examination. Dogs may not be obese (BCS> 7/9). Extra criterion.
8	<b>Exercise tolerance test</b>	Not stated in this form in government criteria.	Assessment by <b>veterinarian</b> in accordance with report. Extra criterion.
9	<b>Neck and chest circumference</b>	Not listed as an enforcement criterion.	Assessment by <b>veterinarian</b> Extra criterion.

With this proposal, the Raad van Beheer can ensure compliance with the criteria stated in the report. The dogs that are used for breeding are checked in advance for abnormal breathing sound, shape and structure of the nostrils, whether the nasal fold is irritating the eyes, but also whether the eyes bulge too much.

A veterinarian is pre-eminently suitable for assessing the health of the dog and is also the right person to record this well and clearly.

In addition, pedigree dogs have an 100% DNA parentage verification. All parent animals, all litters and all puppies are checked.

### 6.1 Natural mating and birth

The Raad van Beheer and the breed clubs finds it is essential that natural mating and natural birth are encouraged. The Raad van Beheer will check and no longer allow mating if a dog has already had two caesarean sections. The Raad van Beheer will therefore not allow more than two litters per bitch for these breeds, unless the breeder indicates that the birth took place naturally. This will then be randomly checked by an employee within 10 days after birth.

Natural mating is promoted. Unfortunately, a reliable check is not possible here.

The Raad van Beheer hopes that veterinarians will play a greater role in minimizing inseminations and cesarean sections and take their responsibility. In our opinion, this is a task for the government to realize this.

### 6.2 Arrangements using covenants

Additional health examinations still apply to some of the mentioned breeds, as laid down in the club breeding regulations. These additional health examinations can be included in the breed-specific covenant the monitoring and enforcement can take place at the Raad van Beheer. Subsequently additional efforts are done to improve health besides the reduction of BOAS and BOS.

### 6.3 Import

Foreign dogs must comply with these rules before they can be used for breeding in The Netherlands. The Raad van Beheer wants to go even further and only register dogs of these breeds that enter The

Netherlands at an older age when the measurements are met. Therefore, every dog of the mentioned breeds, of 12 months and older, that is imported must comply with the proposed measures. In this way, the Raad van Beheer offers a much broader impact than the proposals in the report "breeding brachycephalic dogs". Certain breeds have more than 60% of the ancestors from abroad. The Raad van Beheer plays an important role in the internationalization of the measures.

## 6.4 Exhibitions

Judges are not allowed to reward dogs that show exaggerated characteristics that could limit health and well-being. Extensive training and mandatory documentation of specific breeds thereby guarantee the Dutch judges will judge according to the Dutch policy. To be sure that these dogs are judged by well-trained judges, judges will only be allowed originating from The Netherlands or from a country that has a policy on breed specific interventions for assessing appearance (for example the Scandinavian countries).

## 7 Behavioral change

To achieve success, it is important that the behavior of both breeders and the new owners will change. The government has instructed Utrecht University to draw up criteria. With these criteria it is possible to hold people accountable for violations.

However, more is needed to achieve the desired behavioral change. The Raad van Beheer wants to initiate this change for the breeding of pedigree dogs.

The Raad van Beheer wants to achieve this with the following actions:

- Realize awareness of the brachycephalic problems among the various parties.
- A change of perception. This is done, among other things, by having the dogs examined. In addition, owners are approached to have their (non-breeding) dog examined.
- Involve veterinarians in the assessment of the problems and have the dogs assessed with a fixed protocol. Recent research from England indicates that the problems with brachycephalic dogs are underestimated by their owners.
- An extra course / training for veterinarians for the assessment of the problems. The Raad van Beheer can then show which veterinarians have followed this additional learning course.
- Stimulating the natural birth of puppies. A caesarean section in an animal in need must be performed. If this was necessary a second time, an animal may no longer be used for breeding. The Raad van Beheer will check a natural birth (randomly) within 10 days after the birth. Registration and reporting in possible cooperation with veterinarians play a role in this.
- Transparency. The Raad van Beheer will publish the results of the examinations on its website "Generations & Health Online".
- Issue certificates of performed examinations. Breed clubs and breeders have asked the Raad van Beheer whether they can receive proof of the examination results. This allows them to show (potential) new owners that they have met the requirements.
- Information and communication by the Raad van Beheer: The Raad van Beheer can inform the breeders who have bred a litter in recent years and inform them of the new rules through their own media.
- Information and communication by breed clubs and other members of the Raad van Beheer: The breed clubs will bring the rules to the attention of the affiliated breeders.
- Implementation and contribution by breeders. Breeders go with their potential breeding animals to the veterinarian for the exercise tolerance test, the clinical examination and the ECVO eye test. The costs for the tests will be done at the breeder expense.
- Checking the results. The control of the results of the examinations is carried out at the office of the Raad van Beheer. Based on the number of litters in the last 10 years, it is estimated



that there will be around 700 matings per year. The audit will be implemented within the existing procedures. The Raad van Beheer will use its own resources for this.

By organizing a baseline measurement, the policy can be followed properly, and adjustments can be made if necessary. All breeding animals that are used in The Netherlands for the breeding of pedigree dogs and for which pedigree certificates are requested for the offspring, will be checked.

## 8 Risks

The Raad van Beheer influences the issuing of pedigree certificates to dogs whose parents meet the criteria. The Raad van Beheer has no influence on other dogs. With non-pedigree dogs we see many side effects, such as:

- Husbandry of dogs that have health and welfare problems that are the result of their appearance is not prohibited. Only breeding of these dogs is not permitted in The Netherlands.
- It is possible that Dutch breeders will offer the dogs using a foreign address.
- Brachycephalic dogs can be imported from other countries. The report "as sick as a dog?" recently presented to the Dutch' House of Commons indicates that dogs from abroad are less healthy and less social.
- Veterinarians will be asked to perform corrective operations on animals at a young age to adjust appearance and the dogs may meet the criteria later in life.
- Owners who prefer a brachycephalic dog because of their character and behavior are now being forced to fetch a dog from abroad or choose another type of dog that may not fit well in terms of character and behavior.

### 8.1 Inequality

The rules only apply to Dutch breeders. Free movement of people and animals applies within the European Union. With these rules, Dutch breeders are strongly disadvantaged compared to fellow breeders in the surrounding countries. This inequality can also lead to a lower degree of acceptance of the measures.

## 9 Preconditions

The differences mentioned in this document in the treatment between (pedigree) dogs bred in The Netherlands and dogs that are imported from abroad, can form an obstruction in the implementation of the measures proposed by us. In addition, it is likely to have a negative effect on the health of the total population of dogs in The Netherlands.

The Raad van Beheer and its affiliated breed clubs therefore see it as a condition for success that additional measures are taken to eliminate this inequality and to regulate the health of the imported dogs.

Therefore, we call on the Minister to reflect on adequate additional measures and regulations. It is also important to realize that The Netherlands is not an island. A future-proof approach requires international attention and cooperation. Recently, the Ministry and the Raad van Beheer have worked together to bring this problem to the attention. We urgently request that this collaboration be continued in order to draw attention to this problem internationally and to keep it that way.

We also ask the Minister to remind the various stakeholders of their responsibility for equal treatment. Recently the Journal of Veterinary Medicine has indicated that the Dutch enforcement

agency (NVWA) will not prosecute veterinarians who perform fertility assistance and insemination in brachycephalic dogs. This cannot be the intention, on the contrary, a proactive alert from the veterinarians should be issued, whereby a duty to report is more in line than promoting an attitude to turn a blind eye to these procedures.

We plead for mandatory reporting of corrective procedures, caesarean sections and insemination by veterinarians. These veterinary interventions limit natural selection and ensure that animals that are biologically unable to live healthily and multiply, are maintained. Healthy breeding is only accomplished when everyone works together and takes responsibility. We urge the Minister to also address the responsibility of veterinarians.

To perform a good baseline measurement, it is important that the non-pedigree dogs are included. We ask the Minister to help think about how these owners can be approached. Again, we see a role for the veterinarians. Veterinarians also assess non-pedigree dogs. The Raad van Beheer would like to try to collect that information so that a good representation of the population can be formed with the aim of monitoring whether the policy provides the desired improvement in the area of well-being and health of the dogs.

## 10 Conclusion

The Raad van Beheer requests an exception for pedigree dog breeding to use dogs that are healthy, but have a CFR of less than 0.3, for breeding. The Raad van Beheer will check whether the breeders are keeping to the agreements. The Raad van Beheer will only issue pedigree certificates if the parents meet the conditions.

In addition, we draw attention to the side effects that the regulations can cause and the inequality that this entails. The government remains responsible for the enforcement of both import dogs and dogs that are bred in The Netherlands but are not under the influence of the Raad van Beheer.

It is important that the popularity of these breeds is taken into consideration. Fortunately, The Netherlands is not known for an enormous rise in popularity of these breeds (see appendix for number of registrations) as seen in England, for example. Such an increase in popularity causes people to breed these dog breeds for economic reasons, whereby the health and well-being of the dogs is often not a priority.

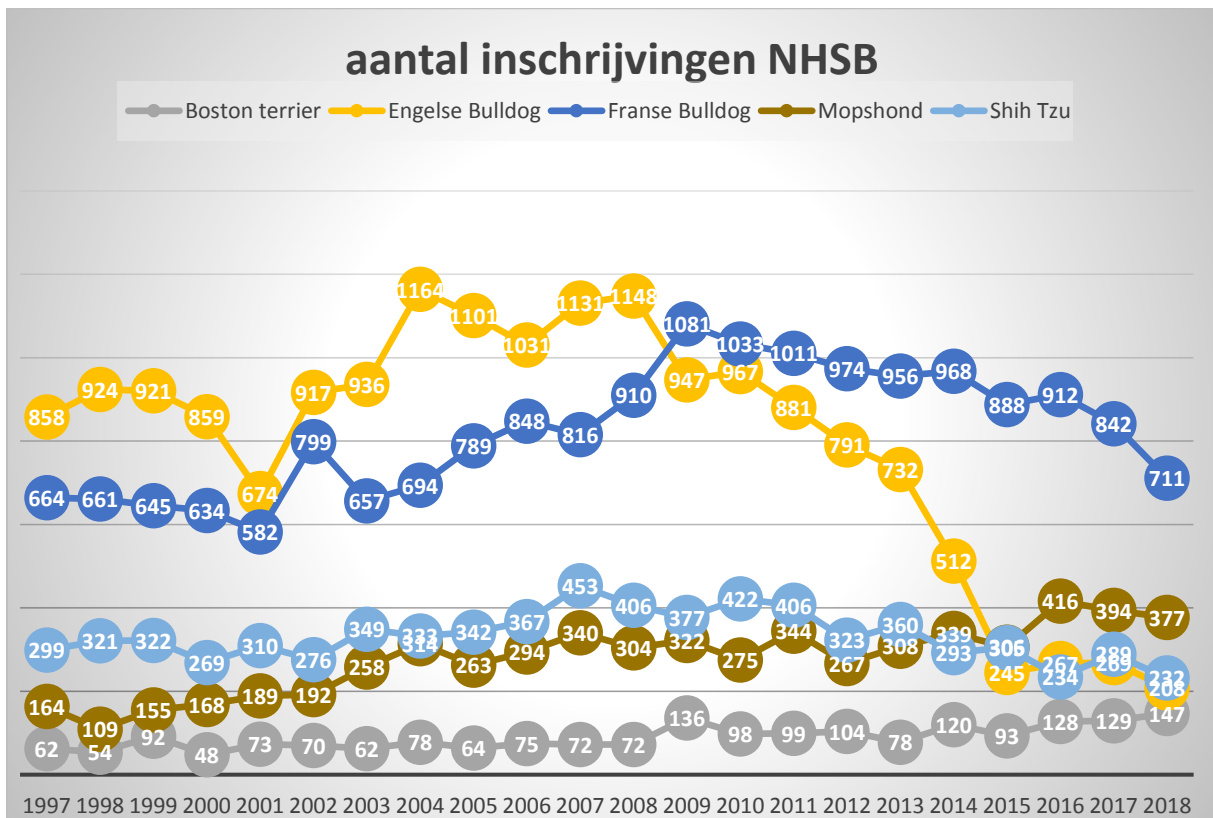
For a success in The Netherlands it is essential that the bred dogs continue to resemble the breed concerned in appearance and behavior, but with an extension of the muzzle length. In this way the consumer has a choice. This choice is of utmost importance because the regulations are limited to national borders.

This breeding strategy is not the end, but the beginning. Breeders want to show they breed as healthy as possible and have clearly demonstrated their commitment and unity during our meetings and consultations. Knowing about earlier contradictions, this shows that the desired behavioral change is taking place rapidly within this group.

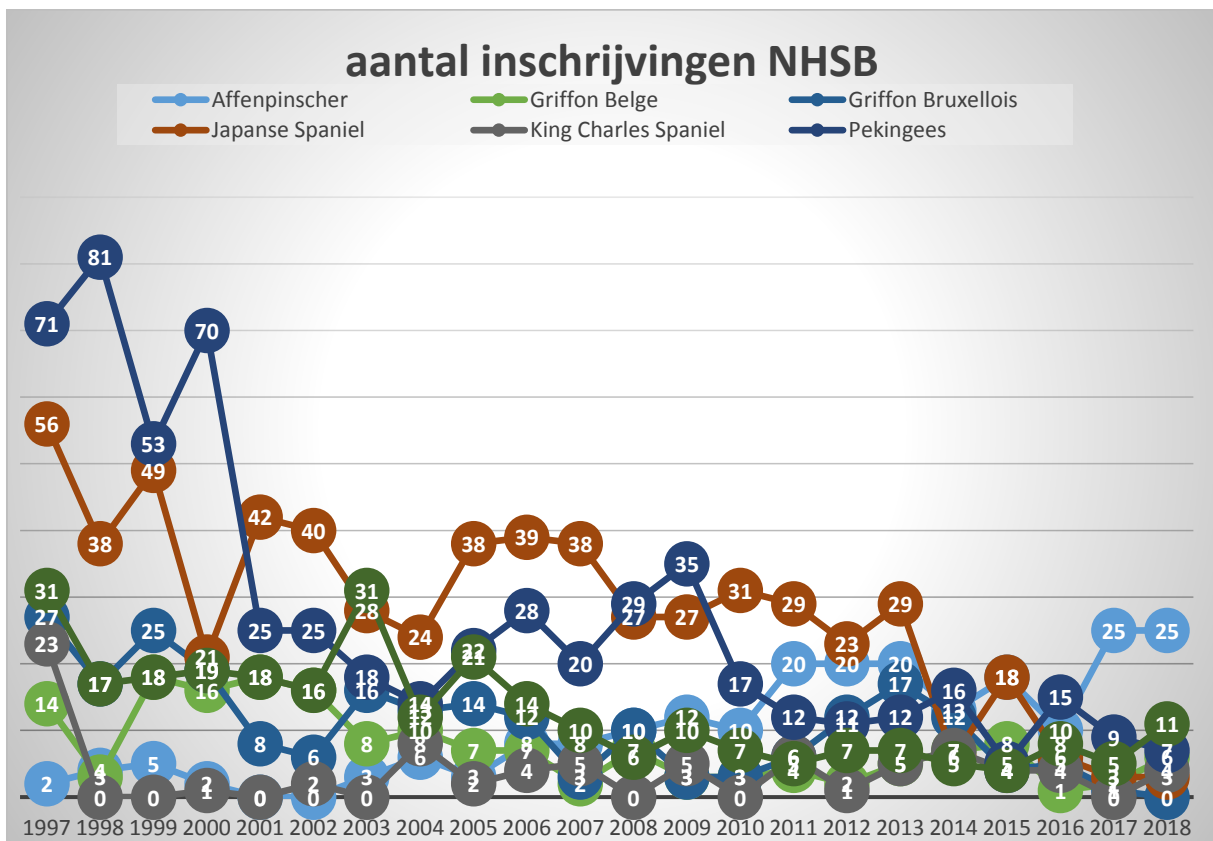
The Raad van Beheer will support the ambition to breed as healthily as possible by means of the health matrix, the publication of the results of screening examinations and, where necessary or desirable, drawing covenants if additional conditions are required to issue the pedigree certificate. By working together as a government, scientists, breeders, breed clubs, veterinarians and kennel club, but also with international stakeholders, it is possible to make a difference for brachycephalic dogs.

We have the same goal: A healthy and social dog.

## Appendix 1 (studbook registrations)



Number of registrations of the breeds with more than 100 registrations per year



Number of registrations of breeds with fewer than 100 registrations per year

## Appendix 2 (examples of brachycephalic dogs from report and examples of pedigree dogs)



Report indicates that there is variation in muzzle length within the different French Bulldogs



Pedigree French Bulldog example (source: : <http://www.hawbucks.nl/franse-bulldog/yara/>)



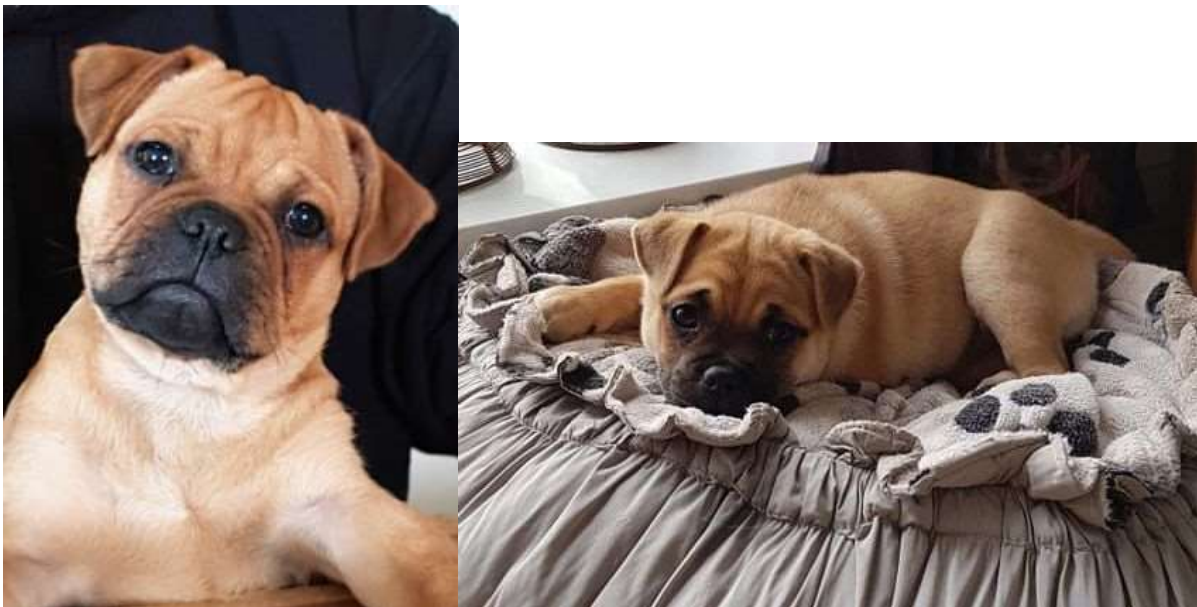
Examples of pugs in the report



Example of a pedigree pug with nice open nostrils and some muzzle length



Example of a pedigree English Bulldog with some muzzle length and open nostrils



Offspring of crossbreeding: pug x shiba. Source: <https://dogzine.nl/index.php/nl/nieuwsartikelen/outcross-mopshond-een-feit>