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EXECUTIVE SUMMARY

FECAVA, FVE Position Paper on breeding healthy dogs: the effect of selective breeding on the health and welfare of dogs

‘Health and welfare should go before looks, vets urge’

The breeding of dogs with excessive traits and/ or genetic disorders and the impact on their health and welfare has increasingly come into the spotlight over recent years. There has been an explosion in the popularity of certain breeds with exaggerated traits, especially of those with extreme brachycephalic conformation. While often popular with the public, such a conformation can lead to severe health and welfare issues. Although many good breeders and breed clubs work closely together with veterinarians and other stakeholders to improve the current situation, unfortunately this increased demand has also led to an escalation of numbers of dogs produced by unscrupulous breeders or puppy farms, with little concern about the health and welfare of the dogs.

Companion animal veterinarians are regularly faced with health and welfare problems in their patients that are breed related and have a strong genetic background. Selective breeding has become increasingly focused on the appearance and on the ‘popularity’ of certain breeds with little or no emphasis on performance, health or longevity.

Veterinarians have a duty to speak out, help raise awareness and ensure breed-related health and welfare problems are not ‘normalised’ or accepted as being ‘typical for the breed’.

Two fields can be targeted to help improve the situation: the demand and supply.

Demand

The breeding of certain types of dogs is clearly driven by consumer demand, and addressing this demand is essential. The popularity of certain breeds has further been enhanced by celebrities, social media, advertising and films. The most sustainable change is likely to happen by raising awareness and educating the public about certain breeds or types of dog that will likely suffer severe health and

welfare issues. The public should also be educated about all factors to be taken into account when choosing a puppy or dog.

Awareness-raising campaigns and the involvement of media and celebrities as role models are vital to establish a long-term solution, where future dog owners will choose healthy, happy* dogs fitting their lifestyle and become a responsible owner.

Supply

To improve the quality of dogs, breeding practices should be encouraged that put the health and welfare of dogs first. Breeding unhealthy phenotypes and genotypes must be avoided to prevent exaggerated physical traits and/or genetic disorders predisposing to health or welfare problems. Breeding standards should be revised and not be left open to interpretation allowing the perpetuation of traits with a negative impact on the health and welfare of the dogs. Education and raising awareness of all stakeholders involved is key. The mandatory registration of breeders, identification of dogs and the sharing of data on conformation-altering surgeries, caesarean sections as well as relevant pre-breeding screening programs would all contribute towards the breeding of quality dogs.

The veterinary profession recognises its responsibilities and urgently calls for all stakeholders to join forces towards a future with healthier and happier* dogs.

** to be understood as 'enjoying good welfare'*

POSITION PAPER

BREEDING HEALTHY DOGS: THE EFFECT OF SELECTIVE BREEDING ON THE HEALTH AND WELFARE OF DOGS.

The impact of genetic disorders¹ and the breeding of dogs² with excessive traits on the health and welfare of dogs has increasingly come into the spotlight over recent years. Companion animal veterinarians are regularly faced with health and welfare problems in their patients that are breed related and have a strong genetic background.

As advocates of animal health and welfare, veterinarians have a duty to speak up. They should help raise awareness and make sure breed-related health and welfare problems are not normalised and considered or seen as being ‘typical for the breed’.

The veterinary profession recognises its responsibilities and urgently calls for all stakeholders to join forces towards a future with healthier and happier* dogs.

BACKGROUND

The purpose of breeding dogs is to produce offspring with specific characteristics. The Fédération Cynologique Internationale (FCI) currently recognises 344 breeds^{3 4}. But not only purebred dogs⁵ are bred selectively: crossbreeds⁶ can be created to aim for a certain look and/or behaviour, sometimes referred to as ‘designer breeds’.

Originally, selective breeding⁷ was directed towards the abilities of the dog, for hunting, guarding and herding. Since the mid-19th century, dogs have been increasingly kept as companion animals. This meant selection has become more and more focused on the appearance and on the ‘popularity’ of certain breeds, with little or no emphasis on performance⁸, health or longevity.

Selective breeding has many advantages. It maintains a diversity of breeds creating a wide variety in appearance, temperament, function and utility; factors that all play a role in human–animal interactions⁹. It allows potential dog owners predict to some degree what kind of animal they buy. The natures of randomly bred dogs are less predictable, which may have implications for the relation between the animal and its owner¹⁰. Careful selection can also eliminate or reduce the prevalence of certain diseases.

However, selective breeding can also have a negative impact on the health and welfare of the dogs, for example when selecting for certain traits, such as short muzzles, excess skin, dome-shaped heads, ‘droopy’ eyes, etc. While popular with the public, this can lead to severe health and welfare issues for the dogs involved. For example, the brachycephalic obstructive airway syndrome commonly occurs in ‘flat-faced’ breeds and can cause amongst others respiratory distress, eye problems and impaired thermoregulation.

Urgent action needed

In 1967, the World Small Animal Veterinary Association Committee appointed to consider Breed Standards in relation to the Health and Welfare of Dogs¹¹ stated:

'The meeting unanimously declares that concern for the health and welfare of dogs demands that breed standards should not include requirements and recommendations that hinder physiological function of organs and parts of the body.'

These words are just as true today as they were 50 years ago. In the past years, there has been an explosion in the popularity of breeds with extreme traits, especially those with extreme brachycephalic conformation¹². This increased demand has led to an escalation of numbers of dogs produced by unscrupulous breeders or puppy farms, with little concern about the health and welfare of the offspring.

HOW TO IMPROVE THE SITUATION?

There are two approaches to improve the situation. The first is to curb the demand: to educate the public, not to choose a breed or type of dog that will likely suffer severe health and welfare issues. The second is to improve the quality of the dogs supplied: to encourage breeding practices that put the health and welfare of the dogs first.

I. DEMAND

Although the issue is complex with many stakeholders involved, it is clearly driven by demand: what the consumer wants will be produced. Therefore, the most sustainable change is likely to happen by raising awareness and educating the public not to buy dogs of breeds with extreme hereditary traits and/ or genetic disorders that are likely to lead to animal health and welfare issues.

CONSIDERING THAT:

• Lack of expertise

The consumer is not an expert. It can be very difficult for them to judge whether they have bought a healthy dog or a 'defective product'¹³. They are often ignorant about problems facing certain breeds and find out when it is too late.

• Emotional factors

Buying a dog is often an **emotional and impulsive decision**, which makes the buyer less critical and more likely to end up with a 'defective product'. **While many ordinary products can be exchanged or returned for a refund this is often not so easy when it comes to dogs.** The legal guarantee period¹⁴¹⁵ during which product defects should be identified is not sufficient, as the period after which genetic diseases are revealed is often far longer. And since consumers become emotionally attached to the puppy, even if it turns out to be a 'defective product', they usually go to great expense to treat their dogs rather than seek refund.

Some owners may see themselves as compassionate care-givers and may seek out challenged dogs. Others will not be swayed by health and welfare issues when choosing a certain breed.

Certain consumers that have bought a dog of a certain breed in the past and have experienced breed-related problems were found to nevertheless often buy the same breed a second time. Different explanations have been proposed regarding the apparent paradox that people acquire types or breeds of dogs predisposed to disease and welfare problems, while at the same time caring deeply about their

dogs¹⁶.

- Fashion

Specific breeds are often ‘promoted’ by celebrities, thereby increasing their popularity. They are in fashion and people follow, and the impact on the demand of a certain breed is enormous. **The media also heavily influence the demand for certain breeds**, e.g. by using them in advertisements, commercials and movies. The release of movies featuring dogs is often associated with an increase in the popularity of featured breeds, for up to 10 years after movie release¹⁷. Social media also play an important role. The fact that many dogs of fashionable breeds have their own Facebook and Twitter accounts, sometimes with millions of followers, certainly contributes to their popularity.

Banning a breed is not the solution, as breeders are merely responding to consumer’s demands. It will affect the good willing breeders most. In the case of a ban, look-alike dogs are likely to be bred outside the official breeding organisations, with no standards or supervision. It is also likely that the breed will be replaced and other problem breeds will become fashionable.

THE FOLLOWING RECOMMENDATIONS APPLY TO THE DEMAND:



1. **Raising awareness and education of the public - both children and adults - is essential** to ensure that the consumers are able to make informed decisions when purchasing a dog. Awareness-raising campaigns should be as broad as possible, involving newspapers, the Internet, social media, radio, television and schools. It should establish a long-term solution; whereby future dog owners will not only choose to buy or adopt a healthy dog that fits their lifestyle but also become a responsible owner¹⁸. The veterinary profession should play an active role in the education of the public and in awareness campaigns working closely with other stakeholders.

Some countries and organisations are already very active in setting up awareness campaigns and education programs, while others need to be encouraged to increase their activities. Sharing good practices should be promoted.

2. **Future dog owners**

Future dog owners should be strongly advised to seek advice **BEFORE buying a dog** to understand the health and welfare needs of their proposed purchase, to meet their expectations and to avoid any disappointment afterwards. Consulting a **veterinarian about health and welfare issues related to a breed of choice should be promoted.**

Veterinarians should advise against buying animals with extreme conformations. They should raise awareness among future dog owners to make sure they **buy a healthy dog**, whether pedigree or otherwise.

3. **Dog owners**

Veterinarians should ensure breed-related health and welfare problems are not normalised and considered as ‘typical for the breed’ for example the snoring in brachycephalic dogs. Vets should educate their clients about any problem the dog suffers from and explain the impact it might have on the dog’s welfare.

Veterinarians should also **inform their clients about breeding restrictions** if a dog undergoes surgical correction of extreme traits or other problems linked to conformation. This also applies to dogs that are medically treated- or should be. Breeders cannot leave the dog untreated in order to avoid exclusion of the dog from breeding.

In countries where no breeding restrictions exist, veterinarians should strongly advise against breeding and promote **neutering** at the time of corrective surgery or caesarean section if good practice and national legislation allows.

Veterinarians should also **record these conditions in the medical record** of the dog, **report corrective surgeries to central registries** wherever these are available and national legislation allows.

4. **Puppy contracts**

Professional veterinary organisations should institute and promote **veterinary health certificates and/or puppy contracts** such as those developed in Sweden and the UK¹⁹. A Puppy Contract is an invaluable tool to help future dog owners to ask all the right questions when choosing a puppy, in order to help avoid the problems that can arise from buying a puppy from an irresponsible breeder. A Puppy Contract gives all the information they need, as well as specific checklists to ensure they are buying a healthy, happy and well-socialised puppy.

5. **Pre-breeding health screening parents**

Healthy breeding animals produce healthier puppies, therefore there should be a requirement of pre-breeding health screening for parents of puppies offered for sale. Prospective dog owners should be made aware of these pre-breeding health screenings, than they can request the results from breeders. Buyers should insist on seeing the bitch when buying a puppy.

6. **Celebrity endorsement**

The huge impact celebrities have on the popularity of a certain dog breed makes them ideal role models for awareness campaigns. Just as they have boosted the popularity of certain breeds, celebrities should be **recruited to highlight breed-related health and welfare issues** and asked to be involved in promoting the buying of healthy and happy dogs.

7. **Advertising and media**

Producers of media, including advertisers, magazines, radio, TV and film should be made aware of the health and welfare issues of which some of the popular breeds suffer. They should be asked to **refrain from using any of these breeds in commercial activities or movies** to avoid enhancing their popularity.

There should be a review of the portrayal of dogs in movies and media. In toys, cartoons and film, dogs are often depicted with oversized eyes, massive heads and other exaggerated characteristics that may appeal to people, especially children - and that may influence them to seek out live animals that resemble these caricatures.

II. SUPPLY

For selective breeding, the most important selection criteria should be the health and welfare of the dog. Breeding should ensure the health and welfare of the bitch, the stud dog and the offspring.

CONSIDERING THAT:

- **Responsibility**

The health and welfare of a dog and any offspring it may produce, for the duration of its life, is essentially the responsibility of owners.

- **Breeding standards**

The breeding standards are international and are commonly written by the official **breeding** organisation of the country of origin of each breed. Many national breeding organisations are member of an umbrella organisation like FCI²⁰ (America and the UK have their own organisations: AKC²¹, and the UK KC²²) and some have Assured Breeder Schemes²³.

Purebred pedigree dogs are bred according to these breed standards. All other dogs are bred outside the official breeding organisations and the origin and quality of these dogs is very varied. Dogs may even originate from so-called puppy farm and/or be legally or illegally imported from abroad²⁴. The percentage of pedigree dogs differs per country but is often only a small percentage of the total number dogs of the same breed type, especially in the case of so-called popular breeds.

However, even breeders of non-pedigree dogs tend to follow the official breed standards. This means breeding organisations and kennel clubs have a huge responsibility regarding the health and welfare of all dogs of the breed, irrespective of whether the dogs are pedigrees. As stewards for all dogs of a certain breed type, they also have a moral responsibility for non-pedigree dogs. This is also mentioned in the statutes of many of these organisations.

- **Designer breeds**

Contrary to popular belief, **popular crossbreeds or so-called ‘designer breeds’ are not healthier than pedigree dogs.** Any dog type, whether pedigree, crossbreed or otherwise, selected for extreme traits may face the same issues as a pedigree dog. In fact, as these breeds are not recognised or overseen by the FCI and national kennel clubs, they might face even more problems than pedigree dogs.

- **Stakeholders**

Many different stakeholders are involved in breeding dogs and influence the selection of the dogs. Strategies to improve the health and welfare of dogs may need to be specifically targeted at certain groups.

- **Elective caesarean sections and conformation-altering surgery**

Due to their anatomical conformation, many dogs of certain breeds **cannot mate nor give birth in a natural manner.** In some breeds it has become common practice to use artificial insemination, while caesarean sections have become the rule, and are often even planned ahead.

Many dogs of breeds with extreme conformational traits need to undergo **surgical procedures** to correct these disorders. Rather than being exceptional, such procedures seem to have become the norm in certain breeds.

Although dogs having undergone such procedures should not be used for breeding or showing, many do so, especially if there is no official register where veterinarians, breeders and/or owners can declare such a procedure.

THE FOLLOWING RECOMMENDATIONS APPLY TO THE SUPPLY:

1. An integrated, comprehensive, long-term approach is recommended, taking all factors into account. For the success of such an approach, good collaboration and communication between all stakeholders is essential²⁵.
2. **Education and raising awareness of breeders, breed organisations, show judges and other stakeholders is key** to ensure that breed-related health problems are not normalised and considered as 'typical for the breed'. Any breed-related deformity and disorder should be acknowledged as such. Veterinarians should work together with other experts in the field to advise all stakeholders about health and welfare issues in dogs with extreme breed-related traits and/or genetic disorders.
Show judges' first priority should be **to promote functionally healthy dogs**. Judges should be trained in this respect and this breeding objective should be highly prioritised within the national and international breeding organisations.
Some countries and organisations are already very active in setting up awareness campaigns and education programs²⁶. Sharing good practices would be very helpful and should be promoted.
3. **Breeding organisations should revise the breeding standards to help prevent selection for excessive conformational traits.** The requirements and recommendations should not be open to interpretation allowing traits with a negative impact on the health and welfare of the dogs. Breed standards should preferably include evidence-based limits on physical features (e.g. muzzle length). If needed, approaches such as outcrossing should be considered.
4. **Further research is needed** to determine evidence-based limits on physical features to eliminate or reduce the prevalence of certain diseases and improve function, health and welfare.
5. To ensure the health and wellbeing of pedigree and other selectively bred dogs, genetic diversity needs to be understood and appropriately preserved and optimised to improve health and welfare outcomes for the dogs. The **selection** of unhealthy phenotypes and genotypes must be discouraged and exaggerated physical traits predisposing to health or welfare problems must be avoided. The most important **selection criterion** should be the health and welfare of the dog. A moderation of selection against extreme morphology predisposing to disease is recommended. Solutions such as evidence-based cross-breeding programs should be considered, in particular for breeds with a narrow gene pool. Together with other experts in the field veterinarians should be involved giving advice regarding potential breeding stock.
6. Professional veterinary organisations and/or universities should work together with national and international breeding organisations and other stakeholders to develop

evidence-based international standardised protocols for the examination of breeding animals, e.g. regarding respiratory function and thermoregulation.

7. Professional veterinary organisations and/or universities should work together with national and international breeding organisations and other stakeholders to **set up relevant screening programmes (pre-breeding examinations)**. Each breed could have breed-specific pre-breeding health screening requirements based on the morphology and identified genetic disorders of the breed. Veterinarians should take an active role in pre-breeding examinations, including for breeders of crossbreeds committed to breeding healthy dogs.
8. Professional veterinary organisations and/or universities should set up and/or promote sufficient undergraduate and post graduate **training for veterinarians** allowing an increasing number of veterinarians to take a more active part in providing breeding advice to breeders, breeder organisations and judges, related to extreme traits, genetic disorders and screening procedures.
9. Breeders and veterinarians should not consider **caesarean sections** 'normal' or 'breed typical'. Caesarean sections are an emergency procedure and any bitch that cannot give natural birth due to anatomical or inherited features should be excluded from further breeding²⁷. If the breeder expects the bitch to need caesarean section beforehand, the bitch should not be mated. Any dog should be able to give birth naturally.
10. Veterinarians should **not perform artificial insemination** to overcome physical disabilities of the dog²⁸ and consider it an accepted necessity for certain breeds. Any dog should be able to mate naturally.
11. Although individual dogs with extreme breed-related conformation may require **surgical procedures** to correct these, these dogs should not be used for further breeding. In countries where no breeding restrictions exist, veterinarians should strongly advise against breeding and may **advise neutering** at the time of surgery if good practice and national legislation allows.
12. Professional veterinary organisations should work together with national breeding organisations and other stakeholders to set up **registers of conformation-altering surgeries and caesarean sections** as well as **relevant pre-breeding screening programs**.
13. Professional veterinary organisations should promote and participate in systems allowing the **gathering and sharing of data from veterinary practices** regarding health and welfare-related issues in dogs with extreme conformations and/or genetic disorders.
14. **Deter unscrupulous breeders** through the **mandatory permanent identification and mandatory registration** of all dogs in Europe. This is essential to ensure traceability, combat fraud, avoid public health risks and to help eliminate or reduce genetic disorders. A centralised European database such as Europetnet is needed to improve the exchange of information in existing databases. Microchipping should be the identification method of choice as the use of a transponder offers the most advantages for a pan-European system.
15. **Legislation should ensure all aspects of animal welfare are maintained**, not just physical but also behavioural and psychological. Prosecution of breeders who knowingly produce unhealthy dogs should be considered. To be effective and protect animal welfare

standards in dog breeding and trading all legislation should be enforced. Harsh penalties should apply if the rules are breached, as breeding and trading dogs can be a highly lucrative business²⁹. The level of such penalties must be an effective deterrent.

TO CONCLUDE

The veterinary profession has an important role to play **and calls for all stakeholders to join forces. Good collaboration and communication between all stakeholders is essential to work towards a future** in which healthy dogs naturally produce healthy puppies. Urgent action is needed to ensure the health and welfare of dogs that are the result of selective breeding. **Education and raising awareness of ALL involved is key.**

Breed-related health and welfare problems should not be normalised or considered as ‘typical for the breed’. The most important breeding selection criteria should be the health and welfare of the dog.

The issue is demand driven: what the public wants will be produced. Awareness-raising campaigns and the involvement of celebrities as role models are essential to establish a long-term solution, where future dog owners will choose healthy, happy* dogs fitting their lifestyle and become a responsible owner.

** to be understood as ‘enjoying good welfare’*

ANNEX:

FVE, UEVP AND FECAVA call upon:

➤ **Veterinary Organisations and/ or regulatory authorities**

- to enhance **communication and cooperation** with all other parties involved
- to collaborate with the FCI and the Kennel Clubs in order to breed **functionally healthy dogs** taking into account animal welfare
- to participate in **education and awareness campaigns** and to promote responsible pet ownership
- to **share good practices**
- to call upon their members to **promote breeding functionally healthy dogs** taking into account animal welfare
- to promote future dog owners **to consult a veterinarian** about health and welfare issues related to a breed of choice.
- to institute and promote **veterinary health certificates and/or puppy contracts**
- to promote **pre-breeding health screenings**
- **to work together with celebrities** to highlight breed-related health and welfare issues.
- to make producers of **media**, including advertisers, magazines, radio, TV and film aware of the health and welfare issues of which some of the popular breeds suffer.
- to promote and/or facilitate **life-long learning of veterinary surgeons** on breed-related health and welfare problems
- to **set up relevant screening programmes (pre-breeding examinations)** together with national and international breeding organisations and/or universities and other stakeholders
- to work together with national breeding organisations and other stakeholders to set up **registers of conformation-altering surgeries and caesarean sections** as well as **relevant pre-breeding screening programs**.
- to promote and participate in systems allowing the **gathering and sharing of data from veterinary practices** regarding health and welfare-related issues in dogs with extreme conformations and/or genetic disorders if national legislation allows

➤ **Veterinarians**

- **to work together with other experts** in the field to advise all stakeholders about health and welfare issues in dogs with extreme breed-related traits and/or genetic disorders.

- to enhance **communication and cooperation** with all other parties involved
- to participate in **education and awareness campaigns** and to promote responsible pet ownership
- **to ensure breed-related health and welfare problems are not normalised**
- to **educate their clients** regarding breed-related health and welfare issues
- **to advise future owners** on health and welfare issues related to a breed of choice
- **to advise against buying animals with extreme conformations.**
- To take an active role in **pre-breeding examinations**
- To be involved, together with other experts in the field **give advice regarding potential breeding stock.**
- To inform their clients about **breeding restrictions** or **promote neutering** if a dog undergoes surgical correction of extreme traits or other problems linked to conformation if good practice and national legislation allows.
- To make future owners aware of **pre-breeding health screenings**, of which they can request the results from breeders
- **to record extreme traits or other problems linked to conformation** in the medical record of the dog,
- **to report data** regarding health and welfare-related issues in dogs with extreme conformations and/or genetic disorders **to central registries** wherever these are available and national legislation allows.
- To **not perform artificial insemination** to overcome physical inabilities of the dog³⁰ and consider it an accepted necessity for certain breeds
- To consider **caesarean sections as an emergency** procedure
- To **advise against any (further) breeding** if a bitch cannot give natural birth due to anatomical or inherited features
- to commit to **life-long learning** on breed-related health and welfare problems and breeding advice
- To promote **mandatory permanent identification and mandatory registration of all dogs**
- to be alert for animal cruelty and possible cases of neglect and **to speak up** against owners, breeders, traders and other parties that would endanger animal health and welfare as well as public health

➤ **Breeding associations**

- to **prioritise to breed functionally healthy dogs** taking into account animal welfare and call upon their members to do so
- to **educate and raise awareness** amongst their members regarding health and welfare issues
- **to ensure breed-related health and welfare problems are not normalised**
- to closely work with **veterinary organisations and/ or regulatory authorities and veterinary surgeons**
- to enhance **communication and cooperation** with all other parties involved

- **to share good practices**
- to participate as organisation in **education and awareness campaigns** and to promote responsible pet ownership
- **to revise the breeding standards** to help prevent selection for excessive conformational traits.
- to work together with researchers to set **evidence based limits on physical features**
- to collaborate with researchers to provide further **science-based information** for breeding healthy dogs
- **to train show** judges to make it their first priority **to promote functionally healthy dogs** taking into account animal welfare
- **to set up relevant screening programmes (pre-breeding examinations)** together with veterinary organisations and/or universities and other stakeholders
- to promote solutions such as **evidence-based cross-breeding and genetic testing.**
- **to promote and support the health and welfare of ALL dogs**
- to be alert for animal cruelty and possible cases of neglect and **to speak out** against breeders, traders and other parties that would endanger animal health and welfare as well as public health

➤ **Dog breeders**

- To consider **the health and welfare** of the dog **the most important selection criteria** in case of breeding.
- to breed under circumstances that **do not compromise the health and welfare of the bitch, the stud dog and the offspring.**
- to consider solutions such as **evidence-based cross-breeding**
- to ensure **breed-related health and welfare problems are not normalised**
- to work closely with **veterinary surgeons and all other parties** involved
- **to share good practices**
- to participate in **education and awareness campaigns** and to promote responsible pet ownership
- to obtain and keep their animals as a **responsible owner**
- to ensure all dogs are correctly **identified and registered**
- to be alert for **animal cruelty** and possible cases of neglect and to **speak out** against other breeders, traders and other parties that would endanger animal health and welfare as well as public health

➤ **Dog owners and future dog owners**

- to **consult a veterinary surgeon before buying** a dog
- to obtain and look after their animals as a **responsible owner**
- to have their dogs **identified and registered**

- to be alert for **animal cruelty** and possible cases of neglect and to **speak out** against breeders, traders and other parties that would endanger animal health and welfare as well as public health, and inform the competent authorities

➤ **Universities, educators, researchers**

- to enhance **communication and cooperation** with all other parties involved
- to participate in **education and awareness campaigns** and to promote responsible pet ownership
- to promote and/or facilitate sufficient undergraduate and post graduate **training for veterinarians on breed-related health and welfare problems and breeding advise**
- to determine **evidence-based limits on physical features or develop function tests**
- **to promote** and/or facilitate **further research** to eliminate or reduce the prevalence of certain diseases and improve function, health and welfare.
- to work together with professional veterinary organisations, national and international breeding organisations and other stakeholders to develop **evidence-based international standardised protocols for the examination of breeding animals**

➤ **Non-Governmental Organisations (NGOs)**

- **to join forces** with other NGO's and stakeholders in contributing to public awareness and education about obtaining, keeping and breeding dogs
- to be alert for **animal cruelty** and possible cases of neglect and **to speak out** against breeders, traders and other parties that would endanger animal health and welfare as well as public health

➤ **Producers of media, including advertisement, magazines, radio, TV and film**

- to participate in education and awareness campaigns and to promote responsible pet ownership
- to **refrain from using any popular compromised breeds in commercial activities like advertisement or movies**
- to review the portrayal of dogs with exaggerated characteristics in movies and others media and start avoiding using these caricatures.

➤ **Politicians, legislators and administrators**

- to propose, at EU and national level, relevant **harmonised legislation to raise the standard regarding the breeding and online trade of dogs.**
- to take all necessary measures **to enforce legislation** and protect animal welfare standards in dog breeding and trading establishments across Europe.

- to apply **harsh penalties** if the rules are breached, as breeding and trading puppies is a highly lucrative business and the level of penalties must be an effective deterrent.
- to provide **sufficient means and resources** for educating the consumer and promoting responsible ownership
- to **promote and support** the breeding of functionally healthy dogs
- to make both **identification and registration of dogs in Europe mandatory**
- at EU level to come forward with a **Community Animal Welfare Law**, which includes companion animal issues such as breeding

References

¹ **Genetic disease:** Genetic disease is a broad terminology that has been applied to anything from monogenetic conditions caused by specific genes and mutation, e.g., CLAD in Irish setters and numerous PRA variants, to those simply indicated to have a genetic component in their aetiology based on breed predisposition or a familiar pattern of segregation, e.g., complex diseases like lymphocytic thyroiditis, atopic dermatitis and diabetes mellitus in many breeds

² This paper focuses on dogs, which does not exclude the fact that the health and welfare of other companion animal species like cats and rabbits can also be affected by selective breeding

³ Both Darwin and Linnaeus described less than 20 types of dogs. Since the mid-19th century and the establishment of Kennel Clubs, pedigree dog registries and so-called breed standards, the number of populations defined as breeds have increased dramatically.

⁴ The international organisation Federation Cynologique International (FCI) <http://www.fci.be/en/Presentation-of-our-organisation-4.html>

⁵ The dog population in the Western world can be divided into four groups: purebred pedigree dogs; dogs that are purebred and belong to a specific breed but that lack a pedigree; so-called designer breed that are selectively crossed between one or more breeds; and random or accidental crosses between breeds – from Companion Animal Ethics, - Peter Sandøe, Sandra Corr, and Clare Palmer -2016 publication of the Universities Federation for Animal Welfare (UFAW)

⁶ Selectively or random crossed between one or more breeds

⁷ Deliberately producing offspring, typically through intentional mating or insemination. Definition from Companion Animal Ethics, - Peter Sandøe, Sandra Corr, and Clare Palmer -2016 publication of the Universities Federation for Animal Welfare (UFAW)

⁸ Canine Genetic Health - Roles and Responsibilities of the veterinary profession - Åke Hedhammar DVM, PhD, Professor Internal Medicine – small animals, Dipl. ECVIM (CA), Department of Clinical Sciences, Swedish University of Agricultural Sciences, Uppsala, Sweden – Published in the European Journal of Companion Animal practice (EJCAP) – October 2013.

⁹ Companion Animal Ethics, - Peter Sandøe, Sandra Corr, and Clare Palmer -2016 publication of the Universities Federation for Animal Welfare (UFAW)

¹⁰ There is some evidence that crossbred dogs are more often euthanased for behavioural reasons than purebred from Mikkelsen, J. & Lund, J.D. (2000) Euthanasia of dogs due to behavioural problems; an epidemiological study of dogs in Denmark, with a special focus on problems of aggression – Published in the European Journal of Companion Animal practice 10 (EJCAP)

¹¹ 1969 Journal of Small Animal Practice Vol.10

¹² French bulldogs set to knock labradors off top spot and become the UK's most popular canine – The Telegraph 12-02-2017: <http://www.telegraph.co.uk/news/2017/02/12/french-bulldogs-set-knock-labradors-top-spot-become-uks-popular/>

¹³ Article 13 of the Treaty on the Functioning of the EU clearly reads "... shall, since animals are sentient beings, ... ", so according to European legislation they are considered sentient beings. Nevertheless, in most countries in the trade laws they are still considered « goods » in certain circumstances". https://ec.europa.eu/food/animals/welfare_en

¹⁴ http://ec.europa.eu/consumers/consumer_rights/rights-contracts/sales-guarantee/index_en.htm

¹⁵ In the European Union the consumer is protected by a legal guarantee period of two years¹⁵. However, 'the product defects' should be identified in the first six-months after purchase. If it is identified after six months, but within the two-year legal **period** the consumer must be able to prove that the defect existed at the time of delivery.

¹⁶ Why do people buy dogs with potential welfare problems related to extreme conformation and inherited disease? A representative study of Danish owners of four small dog breeds - P. Sandøe, S. V. Kondrup, P. C. Bennett, B. Forkman, I Meyer, H. F. Proschowsky, J. A. Serpell, T. B. Lund

¹⁷ (2014) Dog Movie Stars and Dog Breed Popularity: A Case Study in Media Influence on Choice - Stefano Ghirlanda, Alberto Acerbi, Harold Herzog
<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0106565>

¹⁸ CARODOG. <http://www.carodog.eu>

¹⁹ <https://puppycontract.rspca.org.uk/home>

²⁰ <http://www.fci.be/en/Presentation-of-our-organisation-4.html>

²¹ <http://www.akc.org/about/mission/>

²² <https://www.thekennelclub.org.uk>

²³ <https://www.thekennelclub.org.uk/breeding/assured-breeder-scheme/>

²⁴ Working towards responsible dog trade in Europe - The position of the veterinary profession in Europe - 'Profit should never take priority over animal health and welfare' - Position paper of the FVE, UEVP and FECAVA
http://www.fve.org/uploads/publications/docs/066_working_towards_responsible_dog_trade_adoptedfvefe_cavaga.pdf

²⁵ Where possible to coordinate resources and provide a single national platform for collated information that highlights all resources available, making it easily accessible to interested stakeholders.

²⁶ **Germany** : « Nicht süß sondern gequält" : <http://www.wir-sind-tierarzt.de/2016/10/btk-flyer-qualzucht-bei-mops-und-co/>

Netherlands: KNMvD standpunt over brachycephale honden en katten: <https://www.knmvd.nl/over-ons/standpunten/item/10889458/Standpunt-over-brachycephale-honden-en-katten>

Portugal: Posição APMVEAC relativa a raças braquicéfalas :

http://www.apmveac.pt/site/upload/files/braqui_prvet.pdf

Switzerland : Positionspapier de SVK-ASMPV Kürzköpfigkeit bei hunden

http://www.apmveac.pt/site/upload/files/braqui_prvet.pdf

UK : Brachycephalic working group : <https://www.vet.cam.ac.uk/boas/resources-1/brachycephalic-working-group-bwg>

BVA policy position on brachycephalic dogs : <https://www.bva.co.uk/news-campaigns-and-policy/policy/companion-animals/brachycephalic-dogs/#policy>

BSAVA statement on inherited diseases and exaggerated characteristics <https://www.bva.co.uk/news-campaigns-and-policy/policy/companion-animals/brachycephalic-dogs/#policy>

²⁷ FCI breeding strategies Article 6: A bitch should be excluded from further breeding if she is unable to give natural birth, due to anatomy or inherited inertia, or if she is unable to take care of the newborn puppies, due to mentality or inherited agalactia. <http://www.fci.be/en/Breeding-42.html>

²⁸ FCI breeding strategies Article 6: Any dog should be able to mate naturally. Artificial insemination should not be used to overcome physical disabilities of the dog. <http://www.fci.be/en/Breeding-42.html>

²⁹ European Commission. 2015. Study on in the welfare of dogs and cats involved in commercial practice.