



**CODE •**  
**EFABAR**

The commitment  
to responsible breeding

**Species Specific Template**  
**Code EFABAR**  
**POULTRY**



**Code EFABAR 2020**

**Company:** \_\_\_\_\_



## POULTRY

### 1. Impact and structure of breeding in the EU poultry industry

In poultry, the twentieth century saw a move from pure breeding to crossbreeding. This utilised hybrid vigour and allowed different selection emphasis to be applied to male and female lines. Most table eggs today come from specialised crossbred laying hens, and poultry meat is mainly produced from crossbred meat-type broilers, turkeys and ducks. Within the segment of crossbred lines, there are a wide variety of lines that result in poultry with a variety of colours of the bird and/or the eggs or meat, various growth rates of broiler lines, from slow growing lines to fast growing lines, various characteristics for growth rate, egg production and performance qualities. Other poultry species such as geese, guinea fowl, ostriches and pigeons serve niche markets.

During at least the last five to six decades, poultry breeding companies have steadily broadened their breeding goals and have worked towards improving various traits such as health, welfare and performance characteristics simultaneously. The science which underpins that animal breeding (and associated technologies) has been used to identify avian and genetic line characteristics required for more robust selection strategies. Now, many welfare and sustainability traits, such as cardiovascular function, skeletal strength, feed efficiency, and liveability are included in breeding goals of genetic lines for crossbred poultry. Each poultry breeding company, collects a large amount of data on a variety of traits for each bird including information on welfare, health, fitness, reproduction and production efficiency. The major achievement of this is that it is now possible, and common practice, to improve at the same time traits that are antagonistic, i.e., when you improve the one it is likely it will have a negative effect on the other trait. This is often the case with production and health or welfare traits.

Nowadays, the breeding goal is made more sustainable by including both types of traits and to select all in the desirable direction so that both types of traits will improve. This principle is then applied across the whole breeding goal of 30 to 40 traits, all of which are under selection simultaneously. The desired balance is maintained within specific bio secure breeding populations to optimize avian health, to limit inbreeding, and to achieve high selection intensities. This is based on proper statistical methodology, accurate data recording infrastructure and continuous improvement of accuracy of measurement of each characteristic within the breeding population for each genetic line.

Breeding companies maintain primary breeding lines to produce commercially available crossbred lines with various traditional and modern selection methodologies. Breeding companies also maintain various experimental or control lines, to evaluate the potential of new crossbred lines and to ensure they can supply future needs, while keeping the rate of inbreeding below 1% per annum.

Europe is the main source of ownership of the world's poultry breeding stock. Continuing concentration has led to the current situation that only three groups of primary breeders account for about 90 % of the layers, broilers and turkeys produced annually on the global scale. Most breeding companies do offer several different strain crosses to satisfy a range of customer demands. These breeding companies do not only sell genetically improved animals but also provide technical service to their customers and to the customers of their customers. In the definition of their breeding goals they consider customer, policy, consumer and societal developments and requirements. Alongside with the use of Code EFABAR, the poultry breeding companies are committed increasingly to transparency often publishing their breeding improvements in technical and peer reviewed articles and presenting their breeding programs at industry meetings and scientific seminars. Thus, they are committed to the whole food supply chain.

In line with the International Egg Commission (IEC) plus the International Poultry Council (IPC) and the Food and Agriculture Organization of the United Nations (FAO) joint declaration on sustainability, the poultry sector is committed to the sustainable development of the sector, delivering benefits for both the planet and people globally through focusing on seven of the Sustainability Development Goals:



Goal 2 – Zero hunger: Sharing good practices and promoting sustainable production; eggs and poultry meat are sustainable, affordable sources of the highest quality protein for everyone;



Goal 3 – Good health and well-being: Promoting poultry and eggs a healthy choice and sharing good management and manufacturing practices;



Goal 4 – Quality education: Building capacity to ensure high quality and sustainable production;



Goal 9 – Industry, innovation and infrastructure: Supporting innovative and sustainable industrialisation while ensuring good health and welfare, developing the infrastructure for developing nations;



Goal 12 – Responsible consumption and production: Building trust and transparency in our food supply chains is essential;



Goal 13 – Climate action: Reducing inputs and outputs of greenhouse gases and other emissions whilst ensuring the same output;



Goal 17 – Partnerships for the goals: Collectively managing the future of our planet and its inhabitants is vital to the success of the sustainability agenda.

## 2. Introduction

*Give a brief description of the governance policy of the Breeding Company (BC)<sup>1</sup> regarding the societal challenges as mentioned in the Code EFABAR General Document. Besides the 6 pillars of the Code EFABAR, take also Food Security into consideration.*

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<sup>1</sup> Breeding companies include all organisations responsible for breeding and reproduction of farm animals (e.g., primary breeding, herdbook keeping, artificial insemination, embryo technology, hatchery, (grand) parent genetics, data recording).



### 3. SUSTAINABILITY

#### A. Food Safety and Public Health

Breeding Element	Has the BC implemented this element in its breeding program, directly or indirectly? Yes/No	If yes, how has the BC implemented this element in its breeding program? If no, does the BC plan to address it in its breeding program in the next 3 years? If no, why not?
Reduction of use of antibiotics and lowering the antimicrobial resistance (e.g. breeding more disease resistant and robust animals)	<i>To be filled by the company</i>	<i>To be filled in by the company</i>
Meat quality (related to food safety and public health) (e.g. minimizing the spreading of zoonotic diseases through meat)		
Egg quality (related to food safety and public health)		

Management element	Yes/No	If yes, give a short explanation If no, explain why not?
Has the BC a biosecurity policy on its own premises (to avoid spreading zoonoses) and is it implemented?		
Has the BC an antimicrobial policy on its own premises and is it implemented?		
Has the BC, as part of their biosecurity processes, procedures to reduce the potential risk of contamination from staff and equipment?		

#### B. Product Quality

Breeding Element	Has the BC implemented this element in its breeding program, directly or indirectly? Yes/No	If yes, how has the BC implemented this element in its breeding program? If not, does the BC plan to address this element in its breeding program in the next 3 years? If no, why not?
Carcass quality including meat quality		
Egg quality		
Specific products for specific consumers (if applicable for the BC)		

C. Genetic diversity

Breeding Element	Has the BC implemented this element in its breeding program, directly or indirectly? Yes/No	If yes, how has the BC implemented this element in its breeding program? If no, does the BC plan to address this element in its breeding program in the next 3 years? If no, why not?
Genetic diversity within purebred lines		
Conservation of genes of purebred lines (in situ or ex situ)		
Preventing inbreeding (balancing rate of inbreeding with rate of genetic change)		

Management Element	Yes/No	If yes, give a short explanation If no, explain why not?
Does the company maintain non-core product lines?		
Does the company hold lines in suitable locations to ensure security of the genetic diversity?		
Does the BC have or contribute to a gene bank for commercial breeds?		
Does the BC contribute to the conservation of genes of rare and threatened breeds?		



**D. Resource Efficiency**

<b>Breeding Element</b>	<b>Has the BC implemented this element in its breeding program, directly or indirectly? Yes/No</b>	<b>If yes, how has the BC implemented this element in its breeding program? If no, does the BC plan to address this element in its breeding program in the next 3 years? If no, why not?</b>
Longevity and/or liveability		
High saleable egg number (egg income/number per hen housed)		
Hatchability		
Growth rate		
Feed efficiency (related to upcoming lack of resources)		
Robustness		

<b>Management element</b>	<b>Yes/No</b>	<b>If yes, give a short explanation If no, explain why not?</b>
Has the BC a resource efficiency policy on its own premises and is it implemented?		
Has the BC procedures for processing of or reuse of residual products?		

## E. Environment

<b>Breeding Element</b>	<b>Has the BC implemented this element in its breeding program, directly or indirectly? Yes/No</b>	<b>If yes, how has the BC implemented this element in its breeding program? If no, does the BC plan to address this element in its breeding program in the next 3 years? If no, why not?</b>
Reduction N and P emission (consider the reusability of these elements in the manure)		
Reduction of Green House Gas (GHG) emission		
Reduction NH3 emission		
Adaptation to different environments (climate change)		

<b>Management element</b>	<b>Yes/No</b>	<b>If yes, give a short explanation If no, explain why not?</b>
Has the BC an environment policy on its own premises and is it implemented?		
Has the BC has a policy to reduce carbon footprint?		

## F. Animal Health and Welfare

<b>Breeding Element</b>	<b>Has the BC implemented this element in its breeding program, directly or indirectly? Yes/No</b>	<b>If yes, how has the BC implemented this element in its breeding program? If no, does the BC plan to address this element in its breeding program in the next 3 years? If no, why not?</b>
Monogenic traits/defects		
Leg strength		
Osteoporosis in laying hens		
Cardiovascular capacity and function		
Cannibalism, feather pecking		
Disease resistance		
Behaviour		
Gut health and bird physiology		
Keel Bone Damage in laying hens		



Management element	Yes/No	If yes, give a short explanation If no, explain why not?
Has the BC a biosecurity policy on its own premises (to avoid diseases and the spreading of diseases to other premises) and is it implemented?		
Has the BC a welfare policy on its own premises making a reference to the Five Freedoms and is the welfare policy implemented?		
Does the company have a policy for treatment of flocks with antibiotics?		
Has the BC a specific policy on how to house its animals in each specific stage of an animal's life (to ensure proper care and complying with the animal's intrinsic needs) and is it implemented?		
Has the BC a policy in place to periodically train and update its animal care takers on how to manage and handle the animals and is it implemented?		
Has the BC a policy on how to handle its animals prior to and during transport and is it implemented?		
Has the BC measures in place that ensure and is it implemented proper zoning of different production stages on its own premises?		
Has the BC compartmentalised its breeding operations?		



#### 4. TECHNOLOGIES

##### A. Breeding technologies

Element	Is the BC using these breeding technologies in its breeding practices? Yes/No	If yes, give a short explanation. If no, why not? Any examples?
Genomics		
Chick sexing		
Sibling (Genotype by Environment) testing		
Challenge tests (health & welfare)		
Transgenesis		
Metabolomics, proteomics, transcriptomics		
Gene editing		

##### B. Reproduction Technologies

Element	Is the BC using these (reproduction) technologies in its reproduction practices? Yes/No	If yes, give a short explanation. If no, why not? Any examples?
Artificial insemination (AI)		
Embryo sexing / in ovo sexing		
Controlled feeding (attention for welfare)		
Karyotyping/FISH-test		



### C. Monitoring Technologies

Element	Is the BC exploring new technologies? Yes/No	If yes, give a short explanation. If no, why not? Any examples?
Exploring new monitoring technologies to improve welfare and robustness		

### D. Innovation and public perception

Element	Is the BC investing in innovation? Yes/No	If yes, give a short explanation. If no, why not? Any examples?
Does the BC invest in research and development, and/or collaborate with research institutes on traits important to the breeding program?		
Does the BC take a proactive approach to adopting new techniques and technologies?		
Does the BC take action to engage with society?		

## 5. Certification

We herewith declare that the content of this template expresses the breeding and reproduction policy of the company

Place:

Date:

Name and signature:

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### European Forum of Farm Animal Breeders (EFFAB)

We herewith state that this template complies with the CODE EFABAR Version 2020

Place: Brussels

Period of validity:

Ana Granados Chapatte, EFFAB, Director