

The Chicken of the Future

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Aviagen[®]



The Role of the **Primary Breeder**



**Evolve
breeding goals**
with new trends



**Develop
Technology**
to Target New Traits

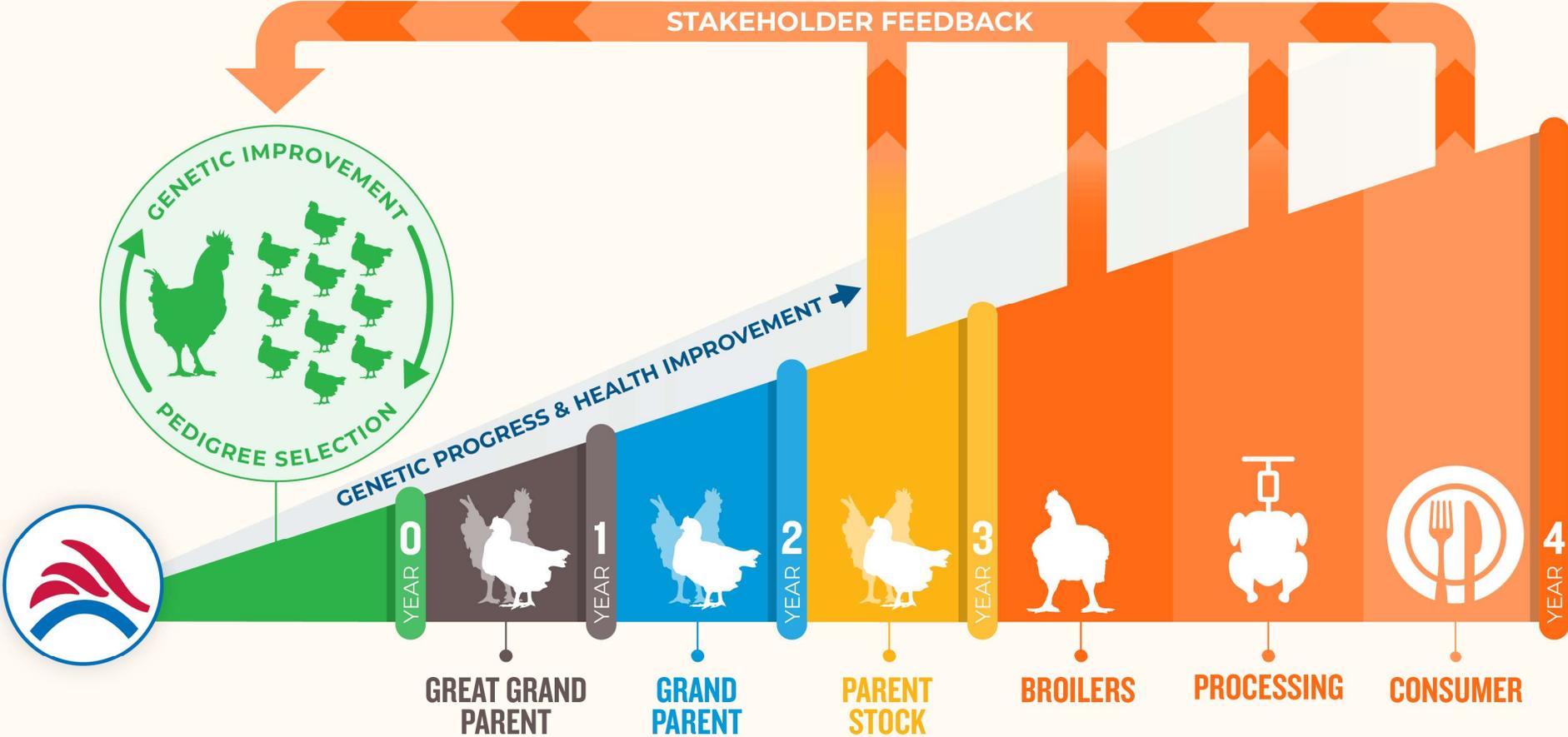


**Health,
Welfare &
Sustainability**

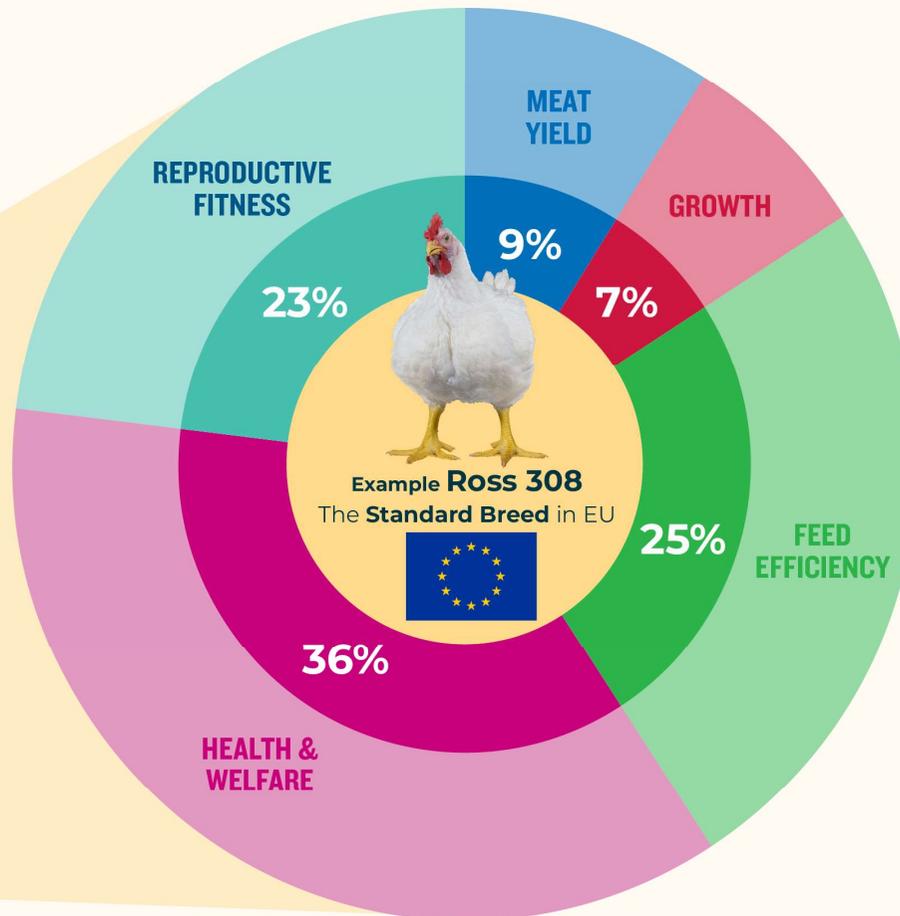


Breeding a Chicken that gives best Health and Welfare & Optimal Performance!

Supply chain



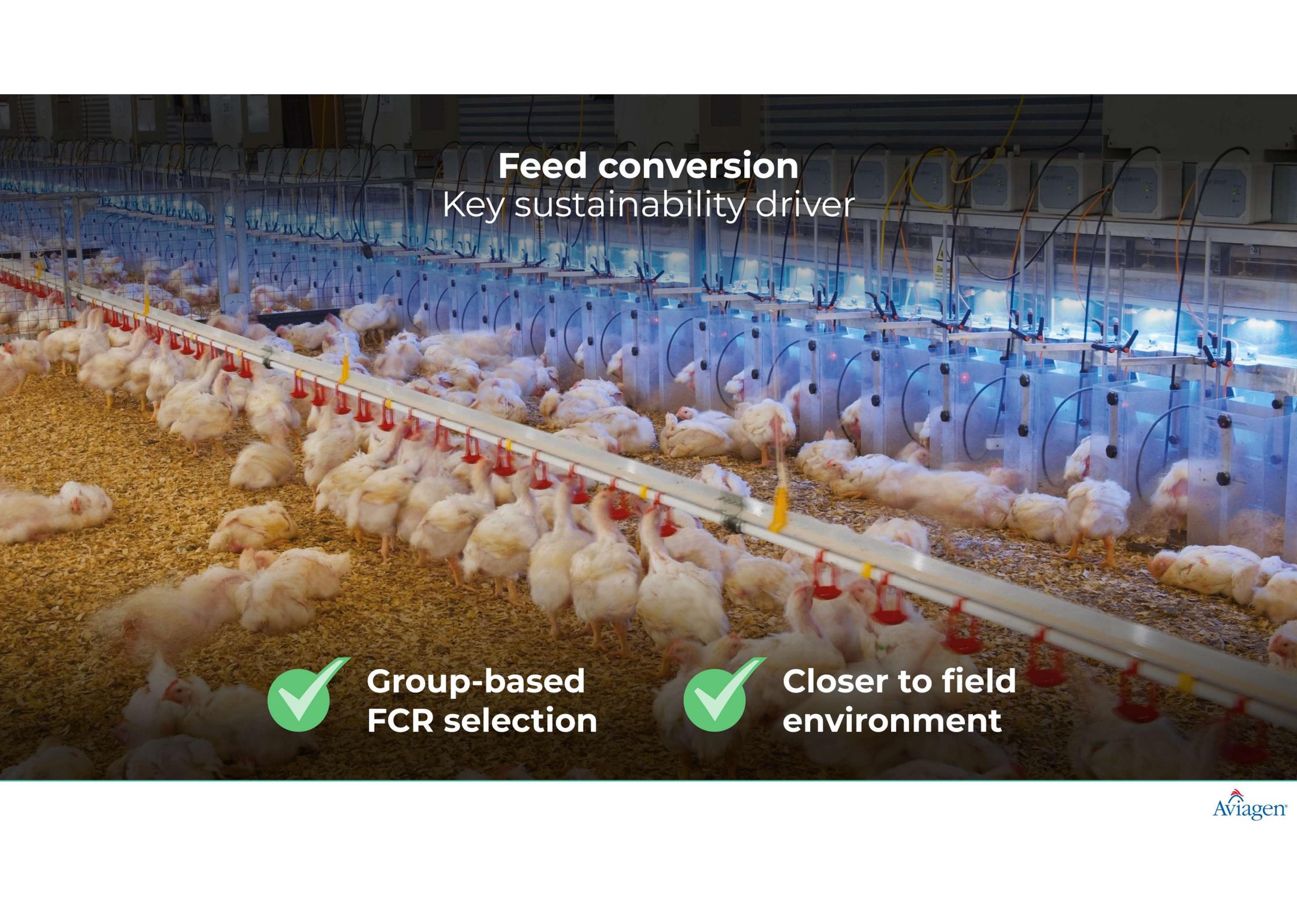
Balanced broiler selection



MAIN SELECTION PRIORITIES

- ✓ 1. Health and Welfare
- ✓ 2. Feed Efficiency
- ✓ 3. Breeder Performance

- ✓ Modern broilers are already selected for **welfare & health**
- ✓ **Continuous increase** in health, welfare and support characteristics over last 20 years and ongoing
- ✓ Selected for more than **40 characteristics**



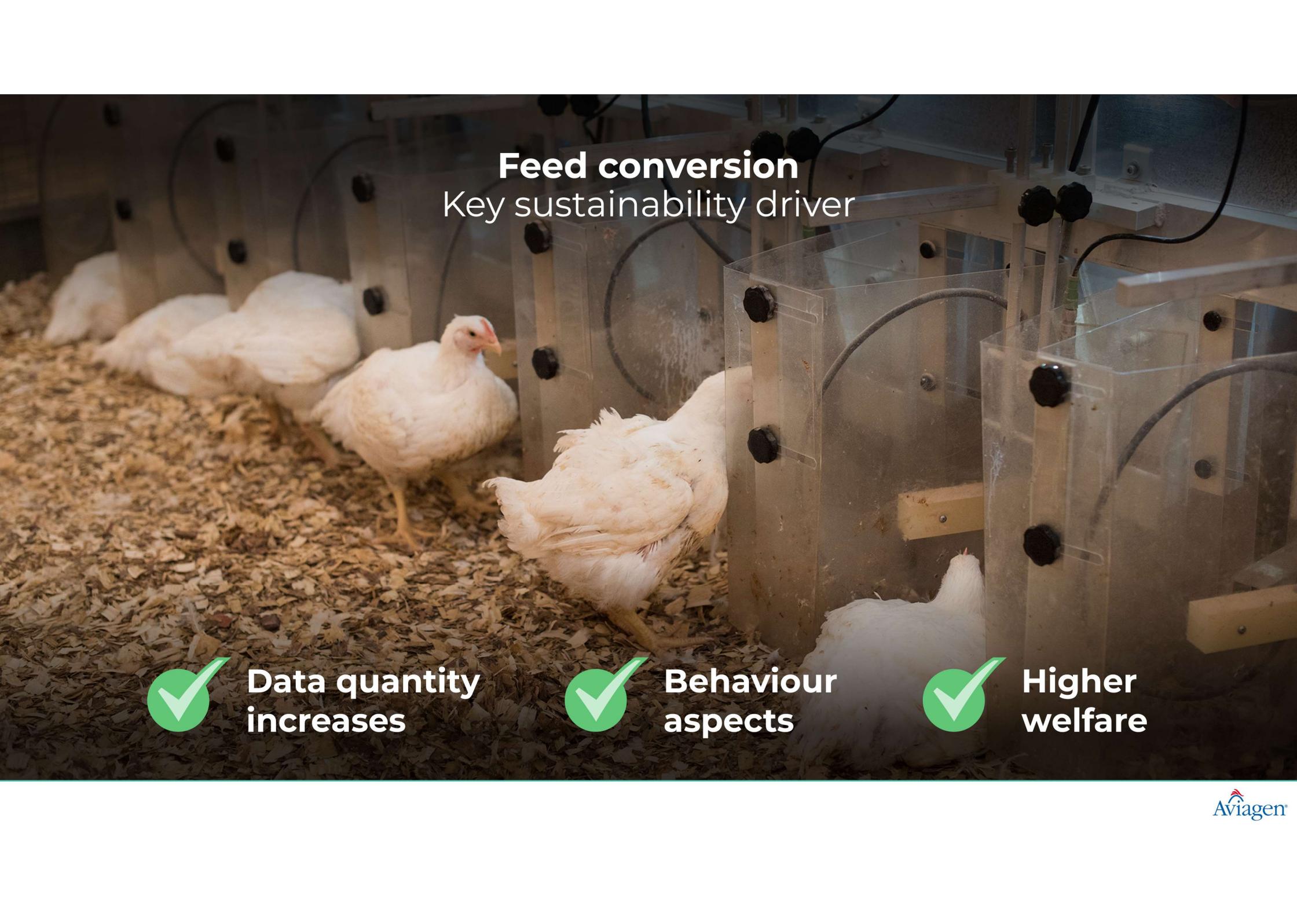
Feed conversion
Key sustainability driver



**Group-based
FCR selection**



**Closer to field
environment**



Feed conversion
Key sustainability driver



**Data quantity
increases**

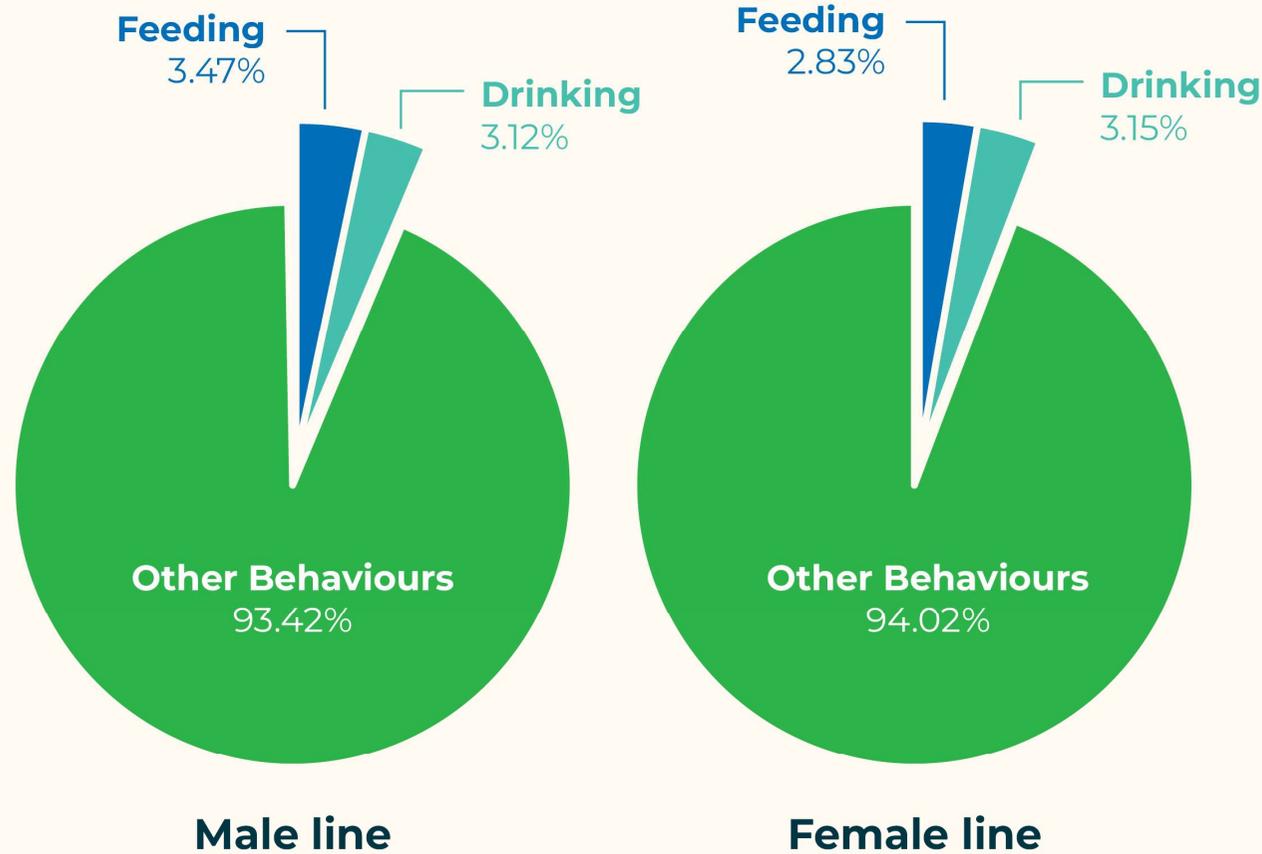


**Behaviour
aspects**



**Higher
welfare**

Time Spent Drinking & Feeding

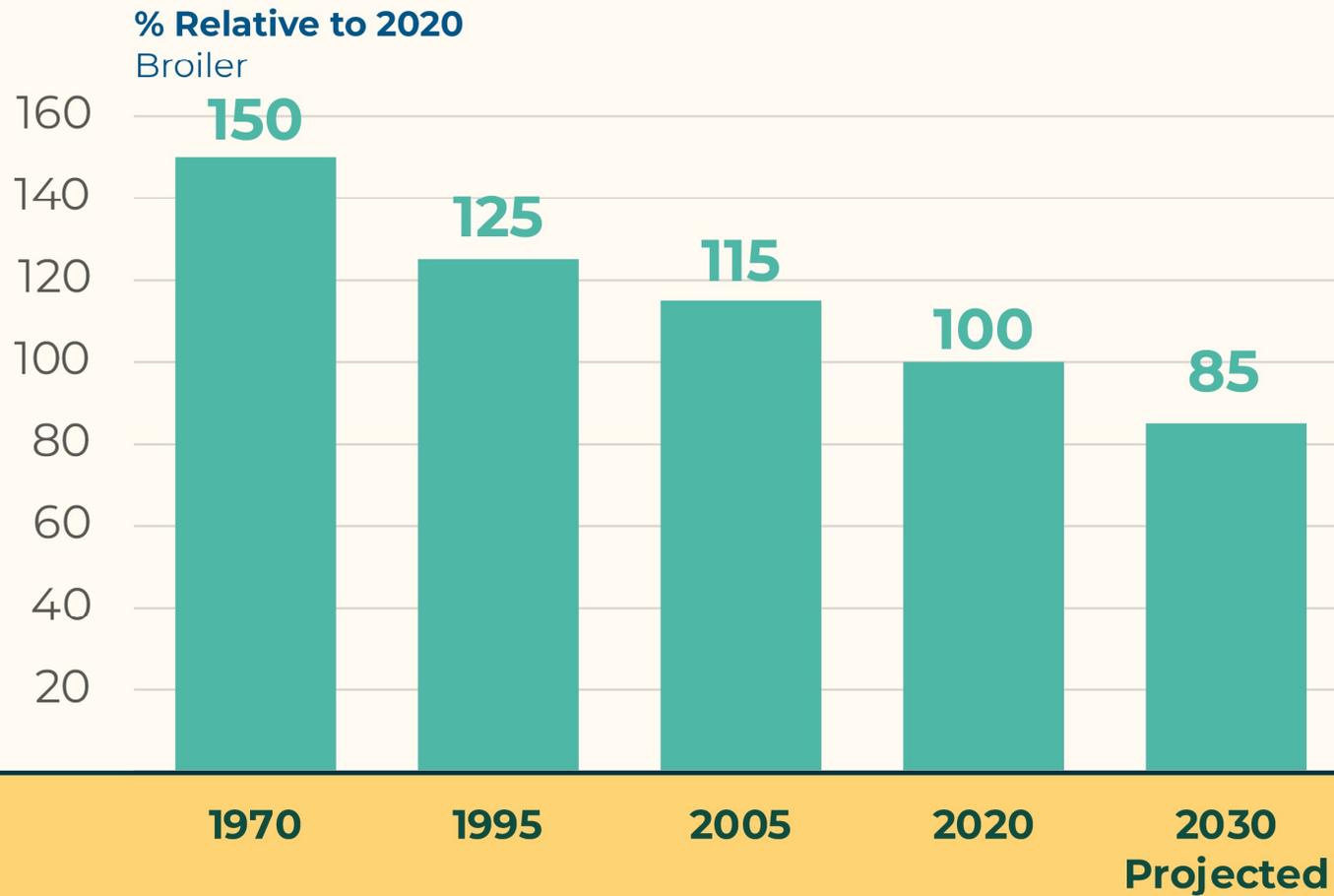


Based on the **No. hours light available** (18hrs)

Relatively small proportion of day spent feeding & drinking

Majority of time spent with other activities/behaviours

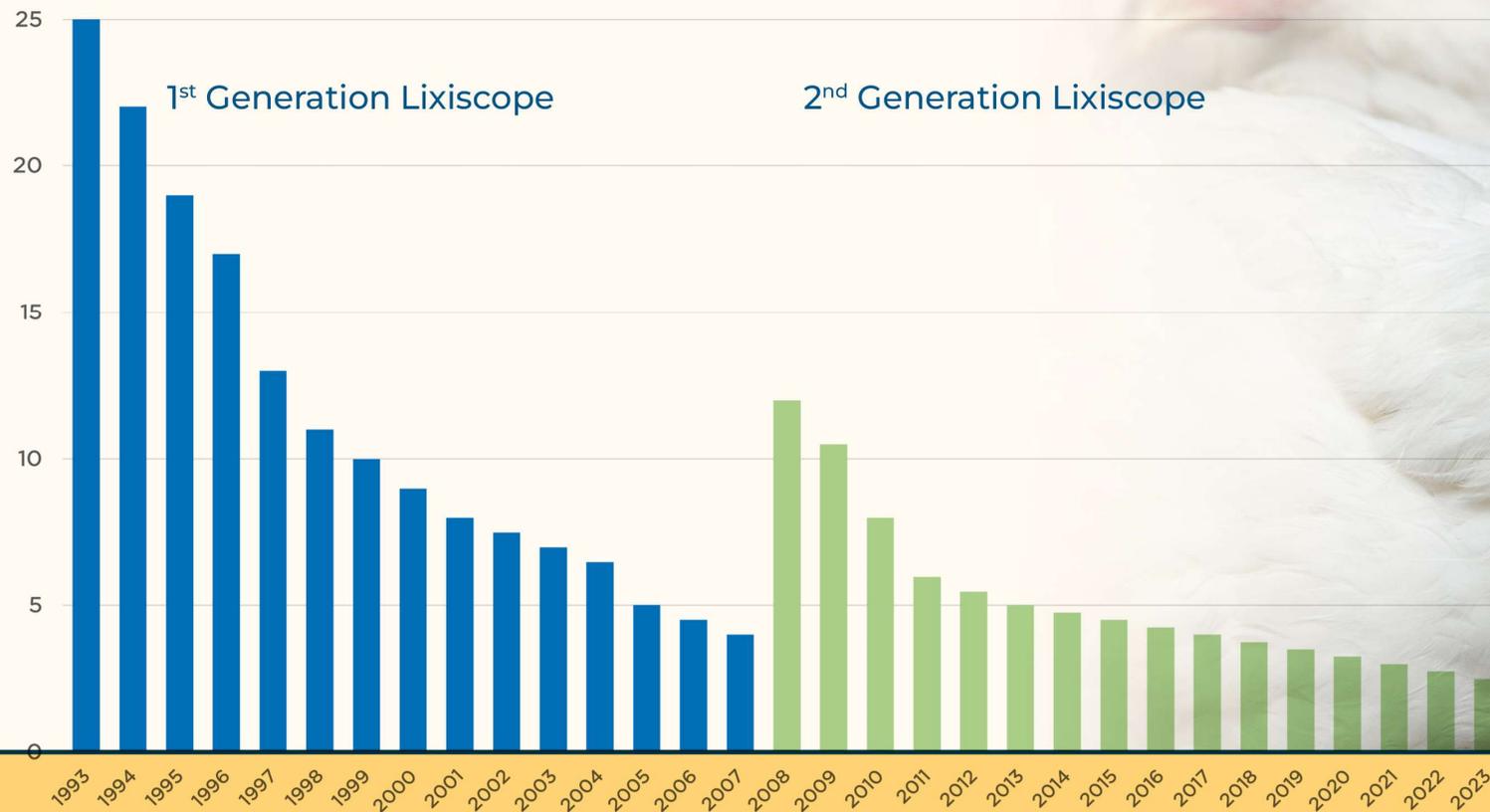
Genetic Selection gives **lower carbon Footprint**



Selection gives approx.
1% reduction in CO₂
footprint per year!

...Gives **strong improvement** in leg health

Ross 308 Tibial Dyschondroplasia %

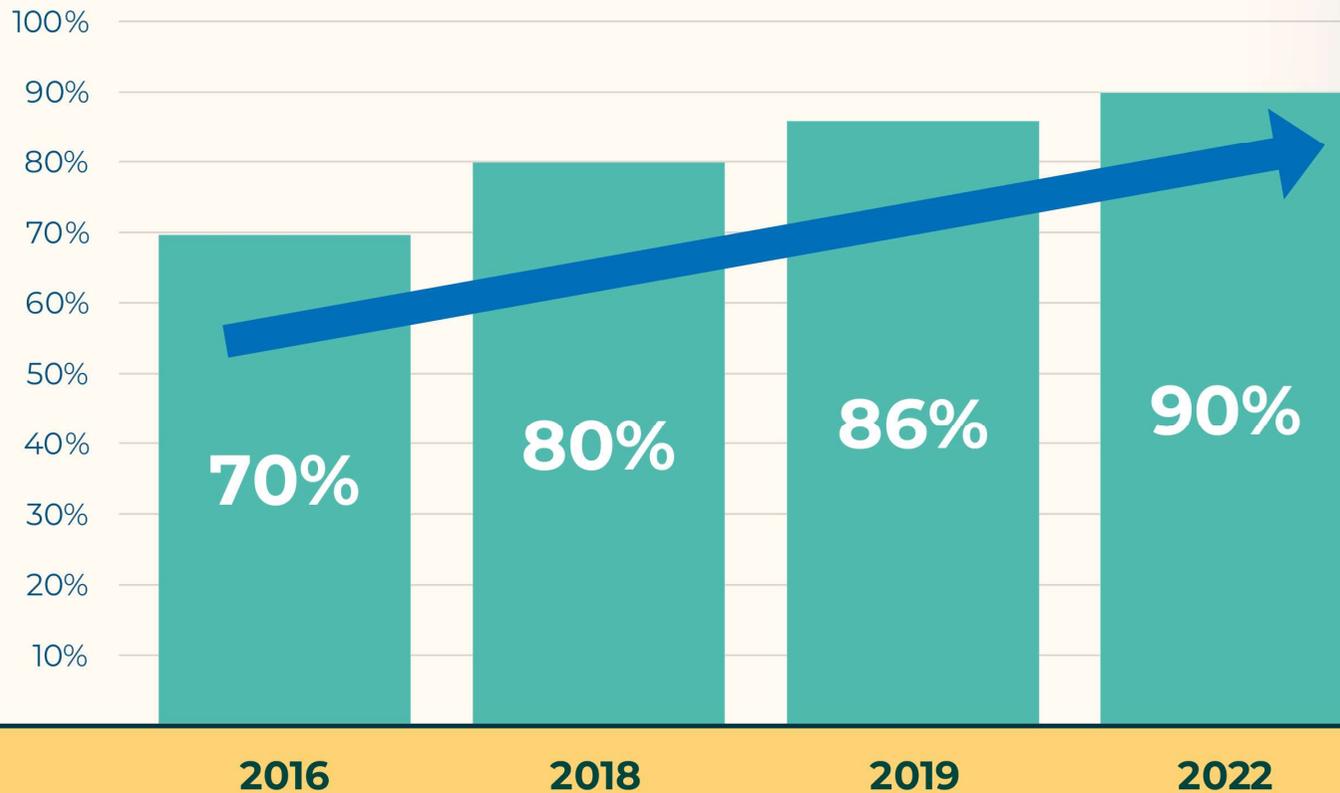


Note Reduced mineral contents in diets for selection purposes



Field tests ensure that **real progress is delivered**

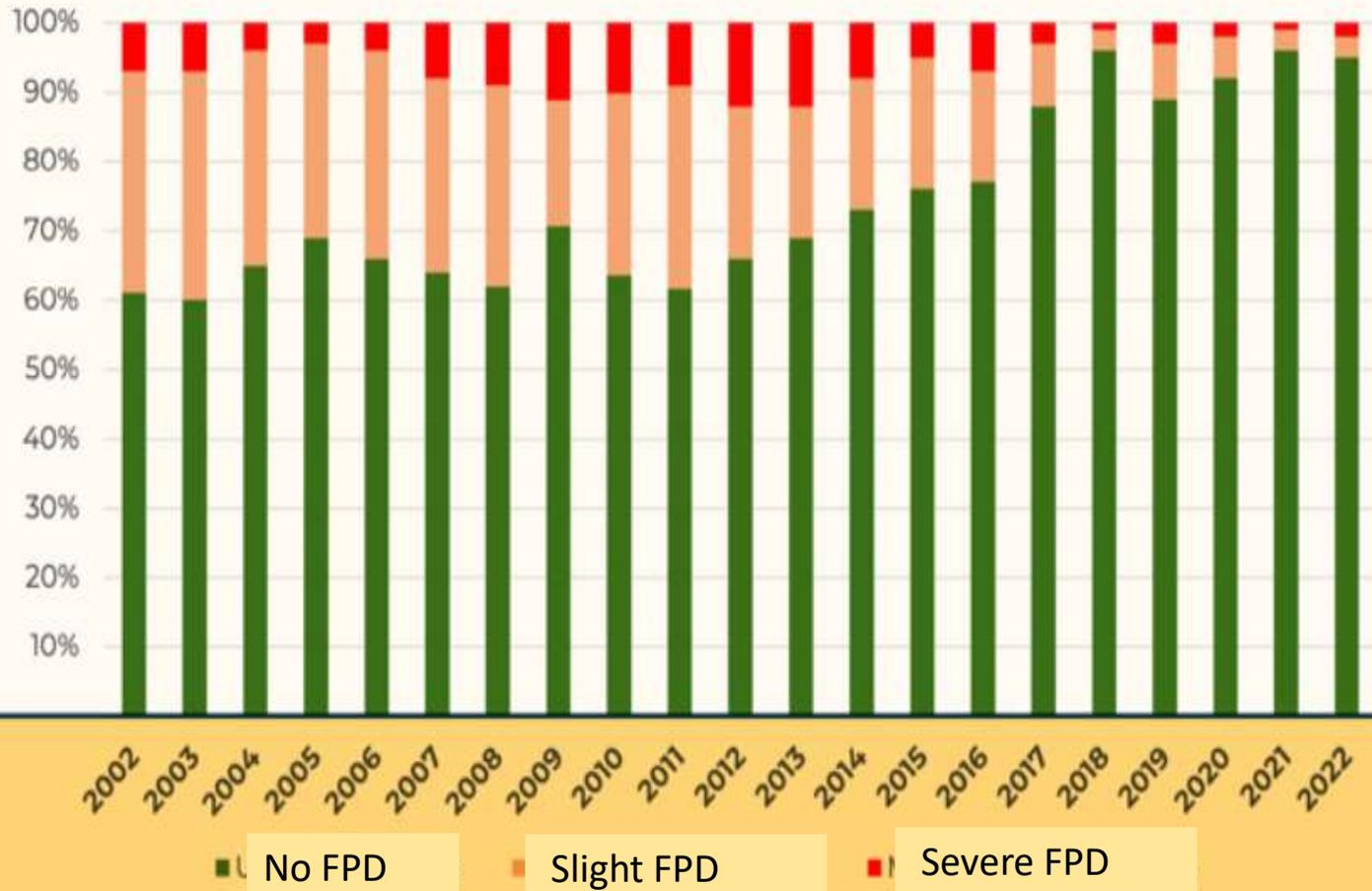
% Birds with acceptable gait scores of Ross 308 broilers (Bristol scores 0-3).
Fixed weights at 2.3kg, RSPCA method (RSPCA breed protocol, 2017). Aviagen trials farm. During 2020 and 2021 no measurements could be made due to Covid-19 related travel restrictions.



**3.3%
improvement
per year!**



Genetics and good monitoring systems =
Ensures delivery of welfare progress



- ✓ Breeding for foot pad health in combination with good Management actions has **delivered Real Welfare Benefits**
- ✓ Appropriate and detailed Monitoring Systems are **Crucial for success**

Source: Official Swedish Industry Data on Foot Pad Dermatitis Incidence

Multi-environment selection

Selection under **optimum environment**

- Selection candidates
- Genetic potential
- Heart-lung function
- Leg strength
- Liveability & growth
- Antibiotics/coccidiostat free



Birds in Pedigree Environment grown under clean/optimal conditions

Multi-environment selection

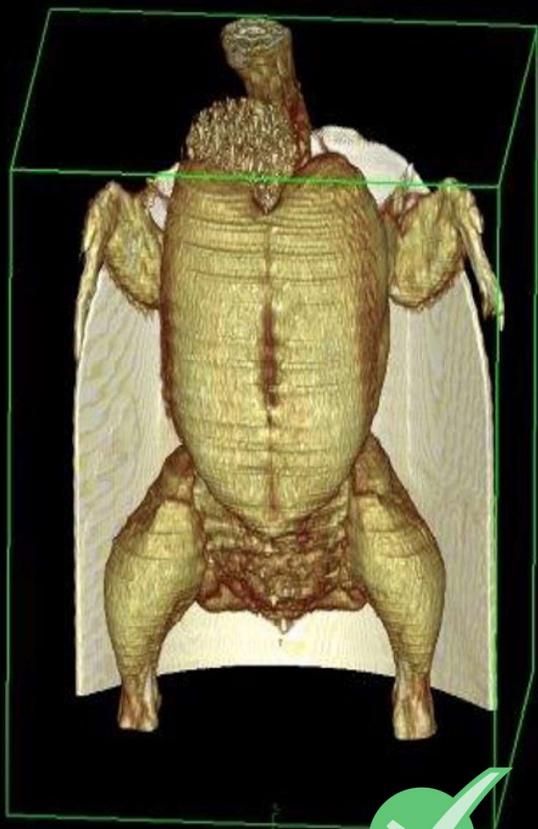
Selection under **(Sib)** challenge environment

- Brothers and Sisters
- Robustness
- Gut and Digestive Function
- Immune Function
- Liveability, Uniformity & Growth
- Antibiotics/Coccidiostat Free

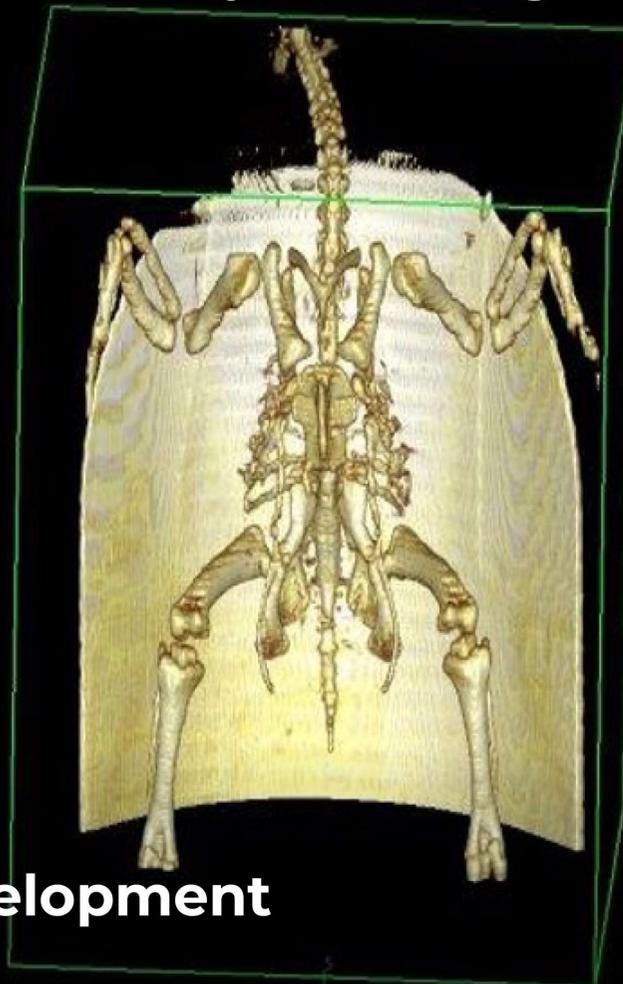


Birds in Sib Environment grown under direct challenge for Cocci, APECs and *Enterococci spp.*

Medical imaging applied to Poultry Breeding



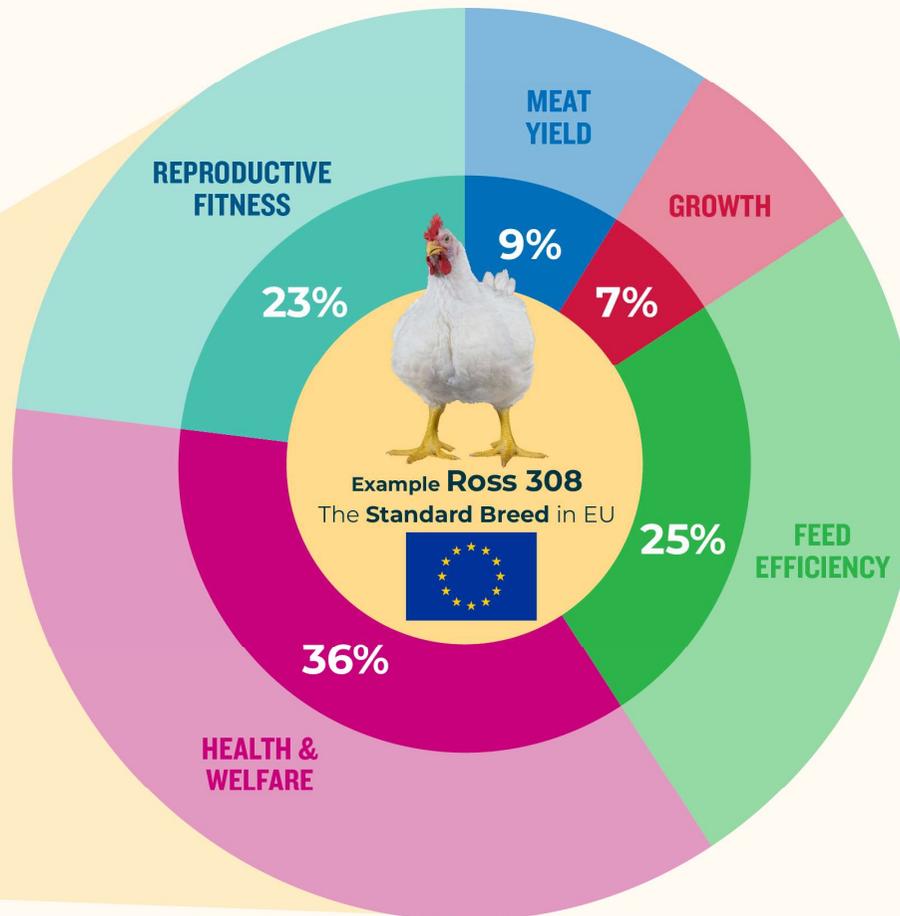
Skeletal Development



Factors included in breeder selection



Balanced broiler selection



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**New Needs
=
New Breeds?**

What **drives** the slower-growing and coloured bird segment?

MARKET MOVEMENT

Historic slow market expansion

Supermarkets looking for USPs
Sell to economically strong consumer



Traditional customers

Taste-texture difference



NEW: AGGRESSIVE ROUTE



Current developments in the market



Reflected in the **EFSA report**
– extreme recommendations

50g/day daily gain
currently 60-65g/day

11kg/m²
currently 38-42kg/m²



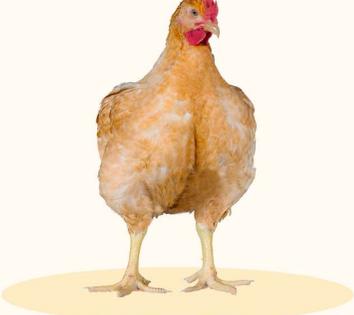
**Need to have a fact-based
and objective discussion**

about how to deliver real
welfare benefits to EU – Role of
the Poultry Sector Associations



**Changing from
conventional to
slower-growing is
not the way forward
to deliver real welfare
benefits and to retain
self-sufficiency of
production in EU**

If market requires – we have options

Breed	 Ross 308 	 Rustic Gold 	 Ranger Classic 	 Ranger Gold 
ECC approved	-			
Gain (g/d)	66	52	49	44
FCR (2.5kg)	1.53	1.75	1.80	1.87
Breast Yield % (2.5kg)	25.3	23.2	22.3	20.9
CO₂ impact (stocking density 30kg m²)	100	124	128	135

Years of **protecting the planet** for future generations at stake

TODAY

Conventional birds
40kg/m² stocking density



⚠ Emissions would increase by
12,327,300 tonnes of CO₂



⚠ It would require building an
additional 10,584 houses in EU

PROPOSED

50g/day 30kg/m²



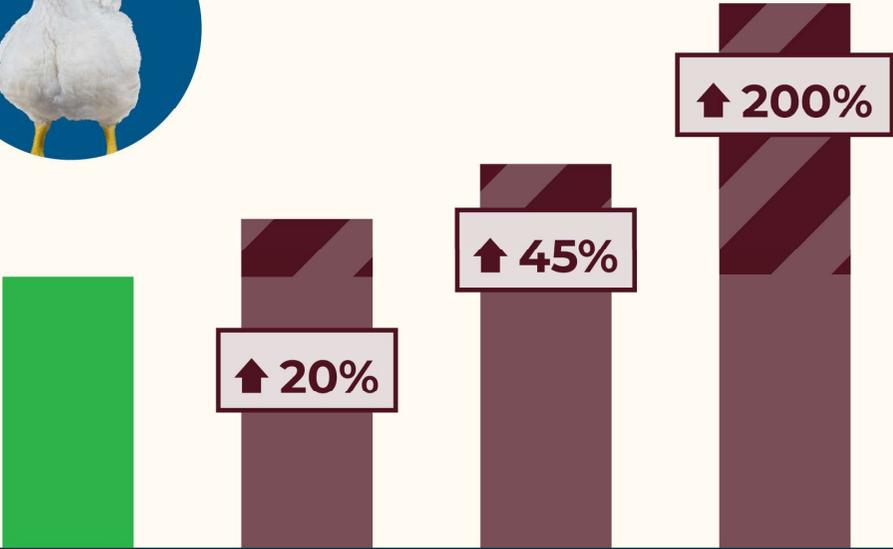
⚠ Using a 50g/day bird means
a step back of more than 20
years of environmental and
economic sustainability

*Leinonen, 2023 – personal communication

**Based on Resource Requirement – Housing – EU27
(total output 13,697,000 Tonnes broiler meat per year).

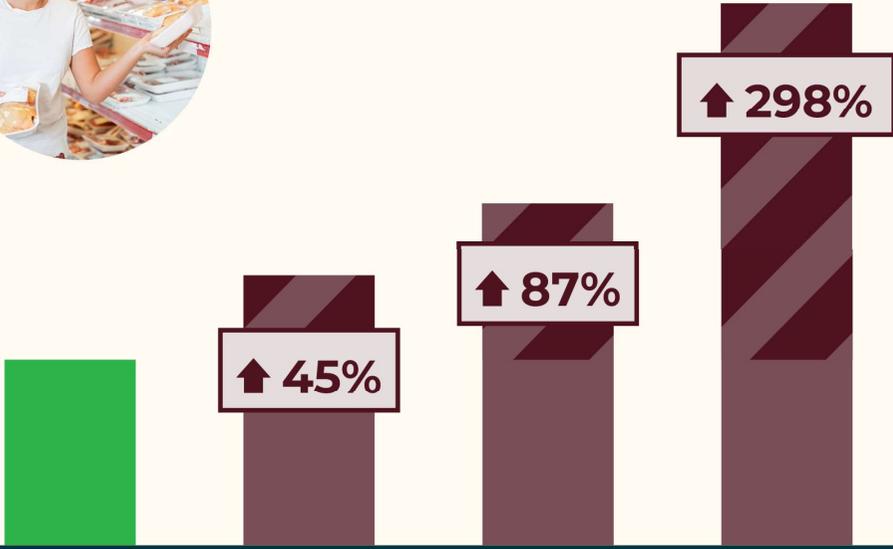
Dramatically Increased Cost will Drive **Socio-Economic Division**

Live bird cost = cost to grow the bird



Conventional (60-65g/d) Dutch retail (50g/d) Beter Leven 1* (45g/d) Organic (35g/d)

Breast fillet cost



Conventional (60-65g/d) Dutch retail (50g/d) Beter Leven 1* (45g/d) Organic (35g/d)

Live cost Source: <https://edepot.wur.nl/518522>
 Breast meat cost adapted from above report with field data for meat yields



EU Self-Sufficiency **in grave danger** with a move to 50g/day birds

TODAY

Conventional birds
40kg/m² stocking density



Export

EU Self Sufficiency



113%

PROPOSED

50g/day 30kg/m²



Imported meat

Lower welfare standards
than current EU rules

EU Self Sufficiency



63%



10,538 additional houses
required = not feasible



Our work for now and the future



We as Primary Breeders
**cater for a Diversifying
World Broiler Market**



Broadened selection goals
focused on welfare, health
& sustainability



**Continued investment
in new technology**
crucial to target increasingly
complex traits



**Pro-Active Breed
Development**
in partnership with our
customers to cover new
trends & market requirements