

New insights in alternative and organic poultry production systems

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The topic of this presentation

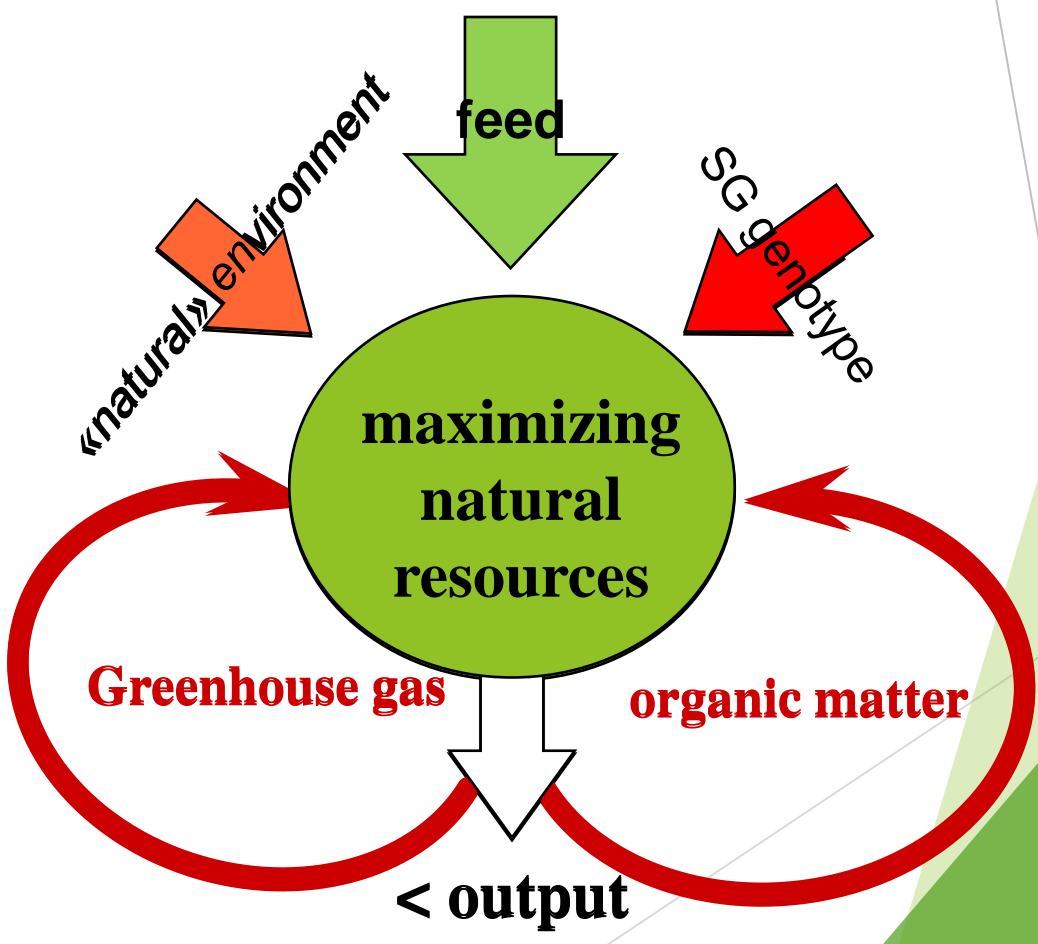
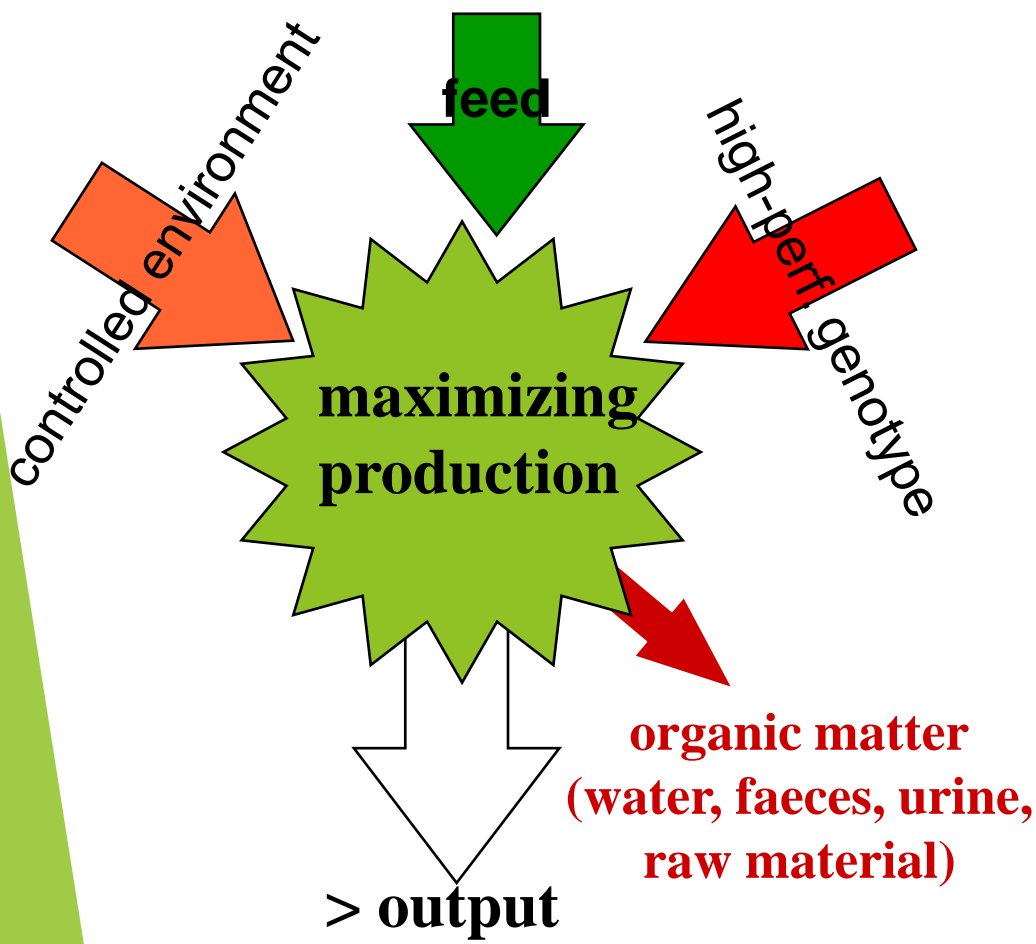


- ▶ **outline an Index of Adaptability of different meat-type poultry genotypes**
- ▶ **define a multicriteria approach for “One Welfare” in organic poultry**

Factors of production

Intensive

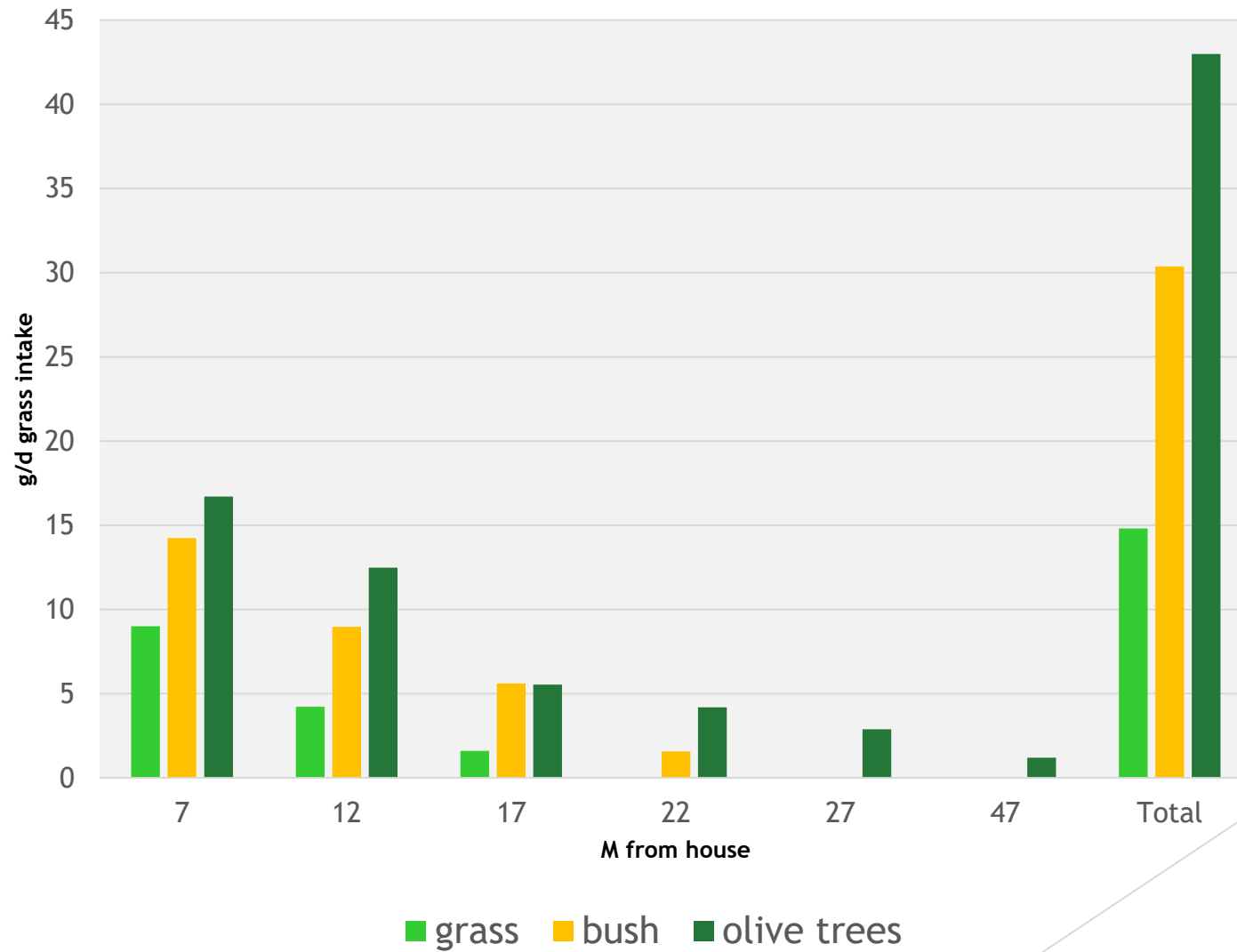
Extensive



Enrichment favouring use of paddocks



Grass intake (g/d)



Adaptability to OP

composite concept

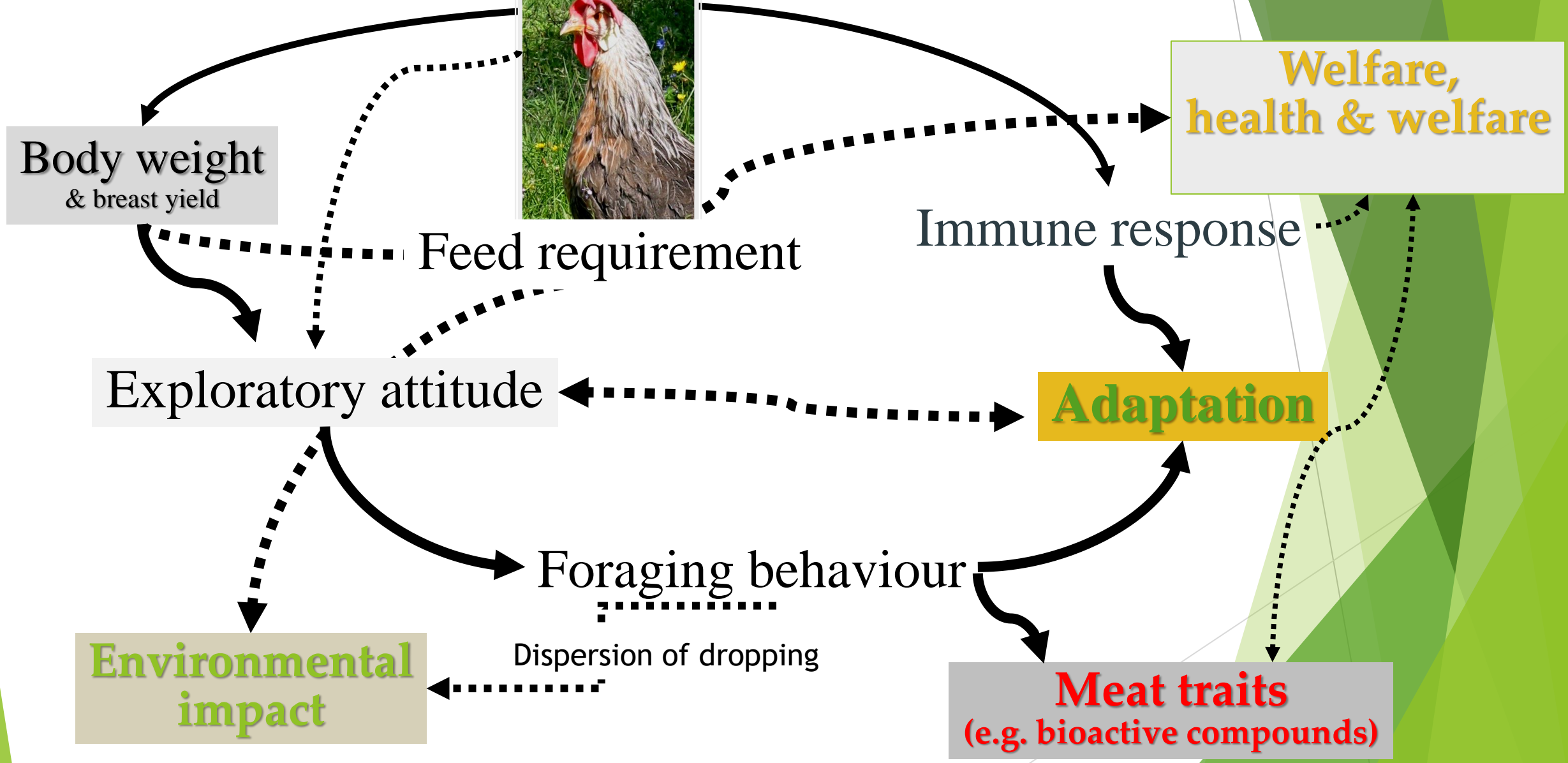
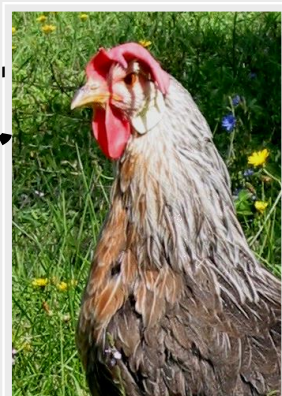
Direct traits

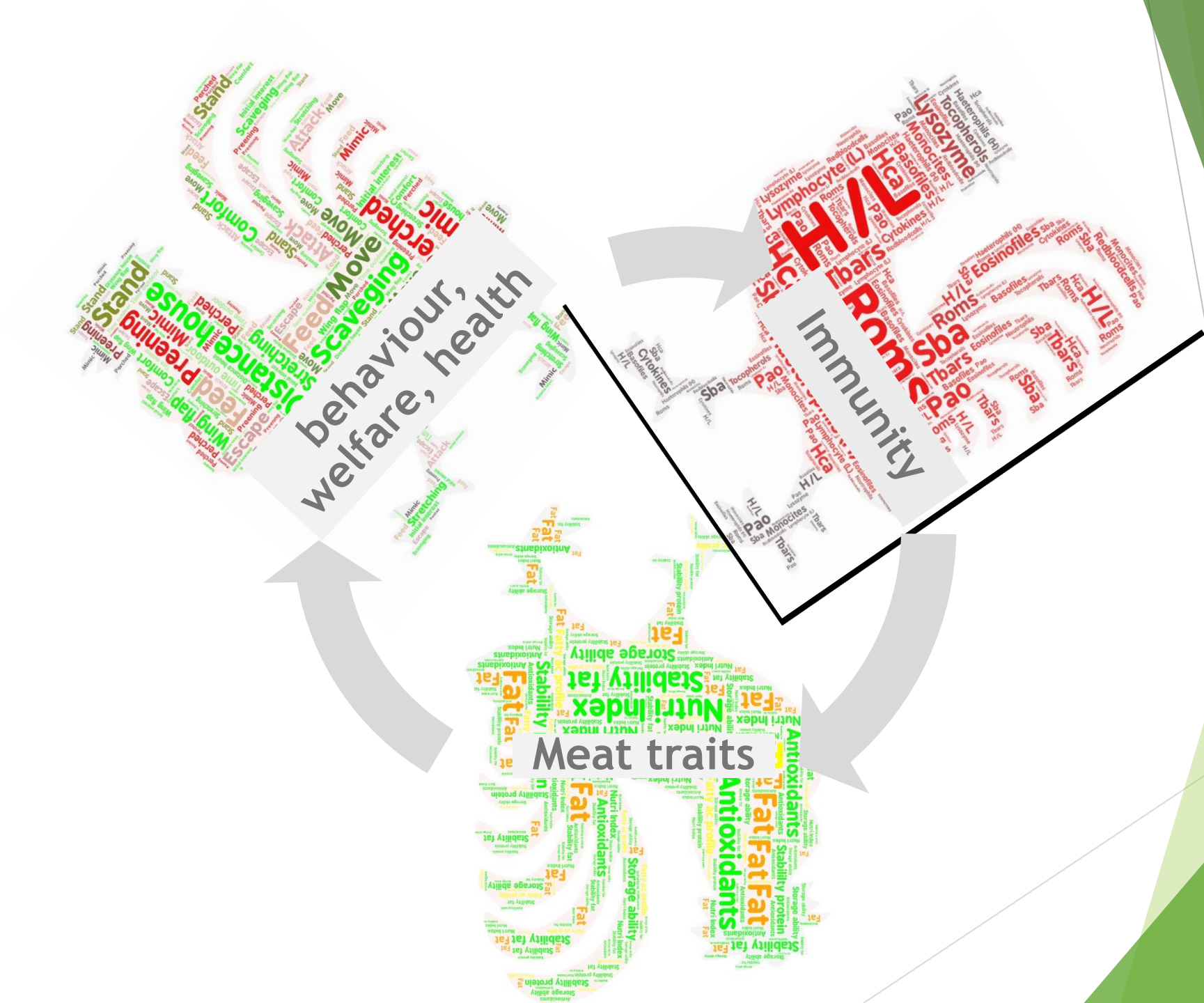
live weight
behaviour
immune response
thermotolerance
muscle traits

Indirect traits

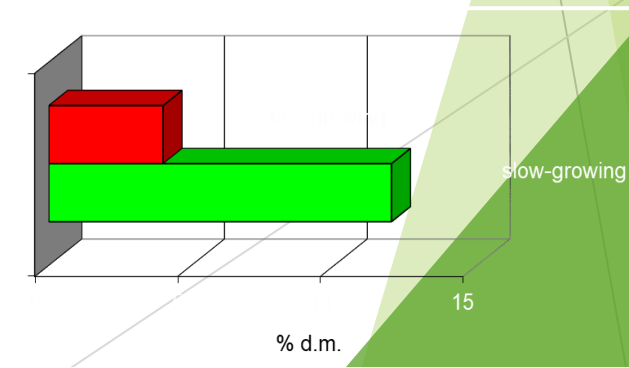
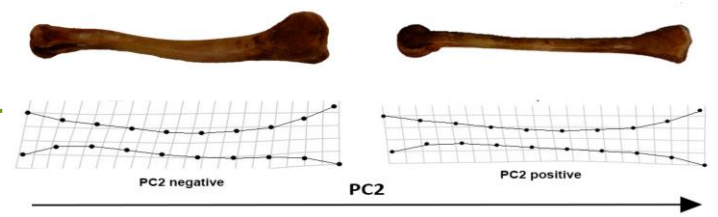
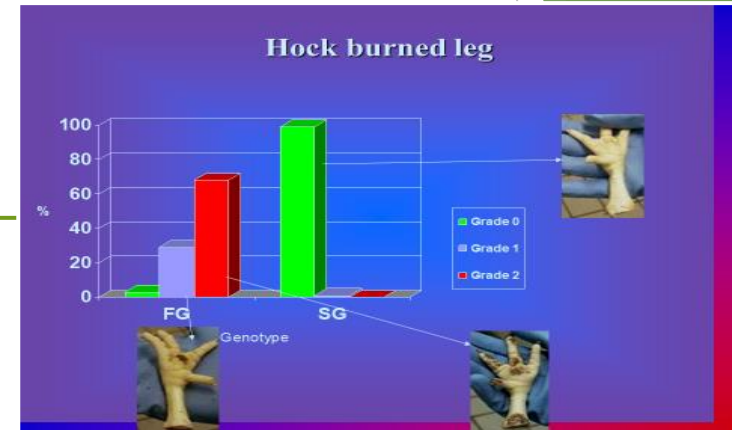
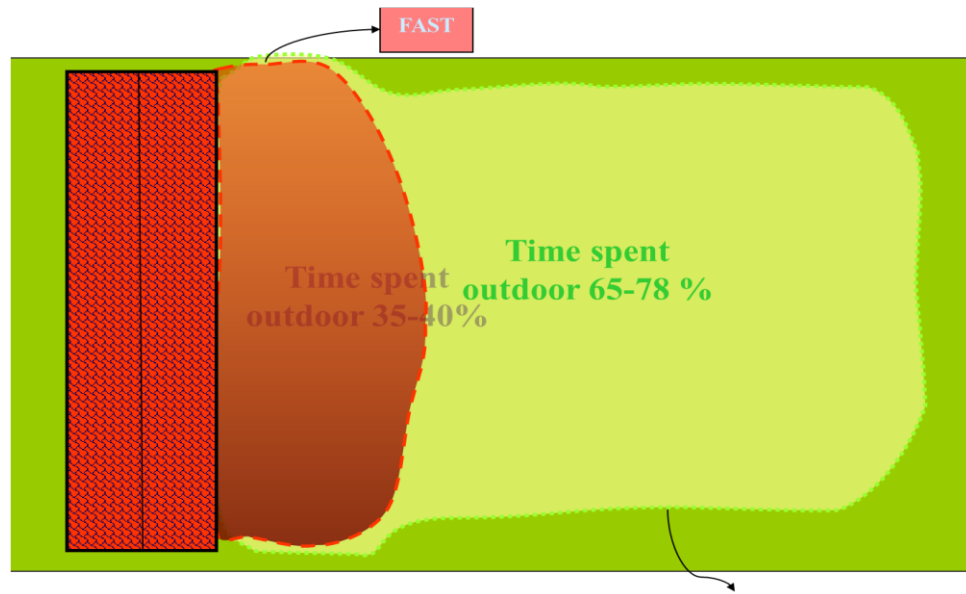
welfare & health
environmental impact
meat quality

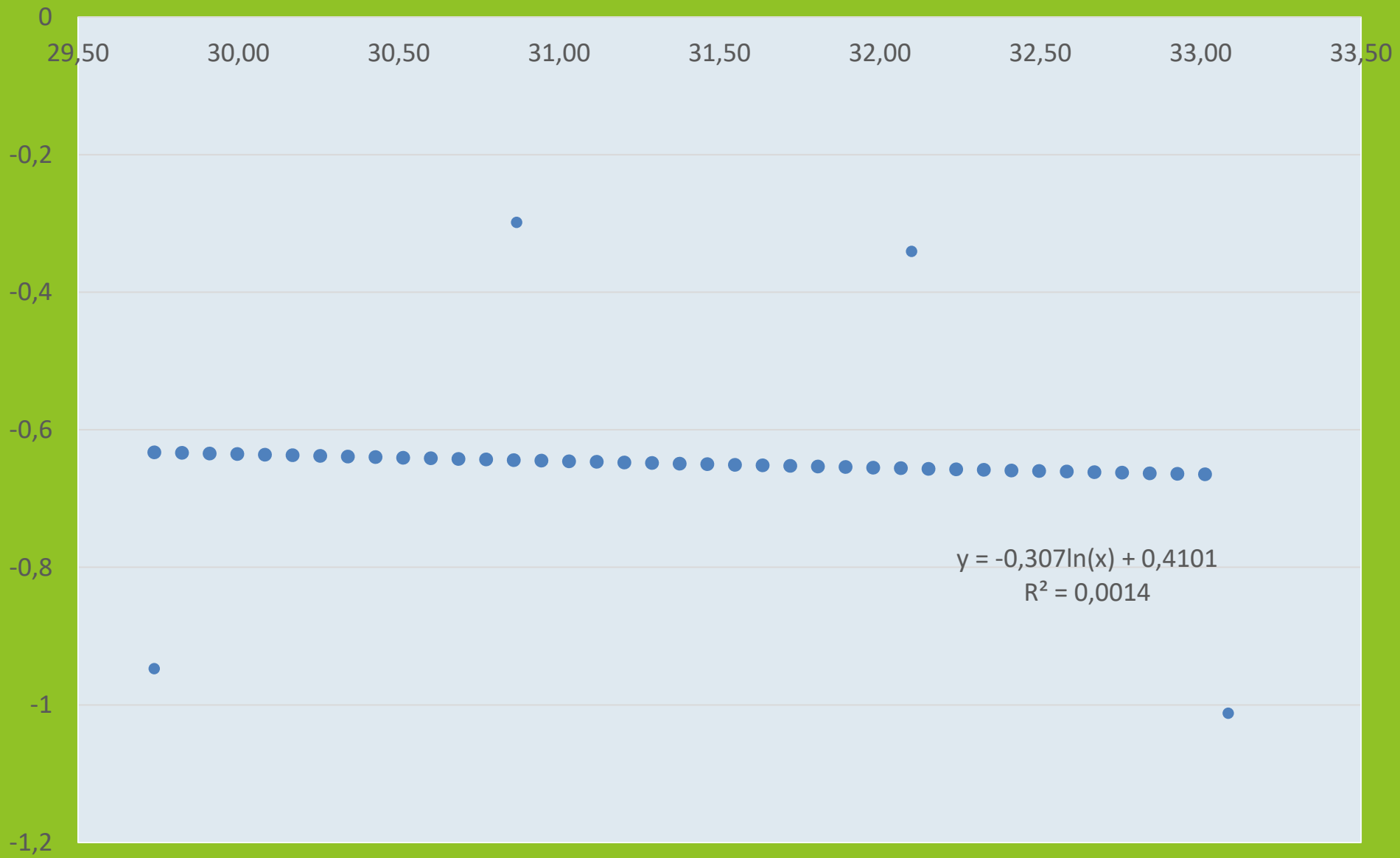
Genetic strain



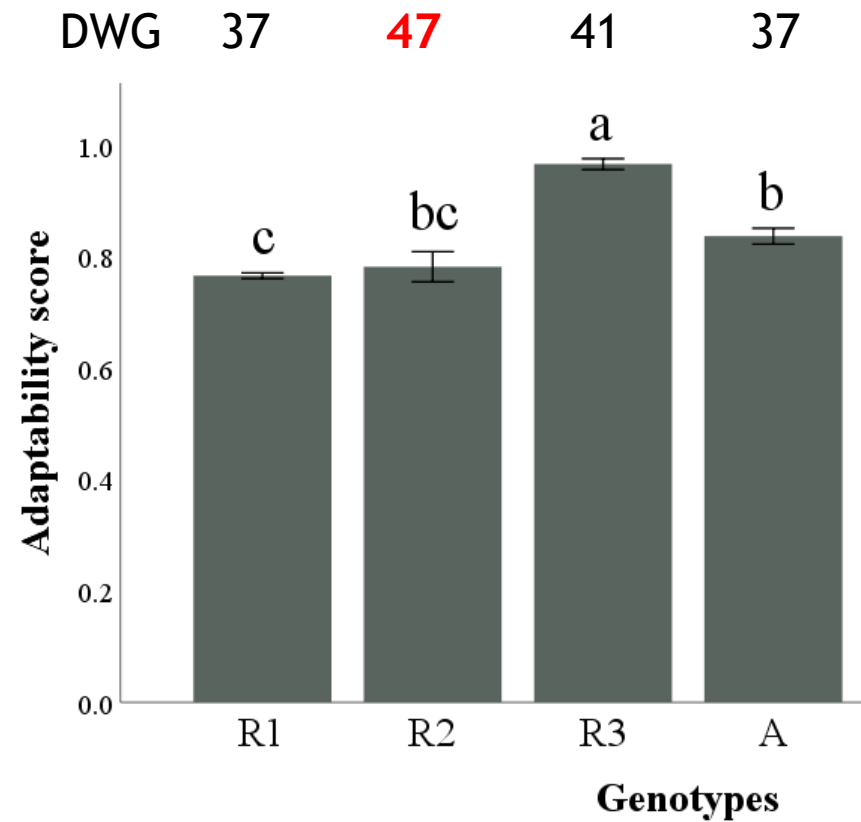


Behaviour and associated traits of FG



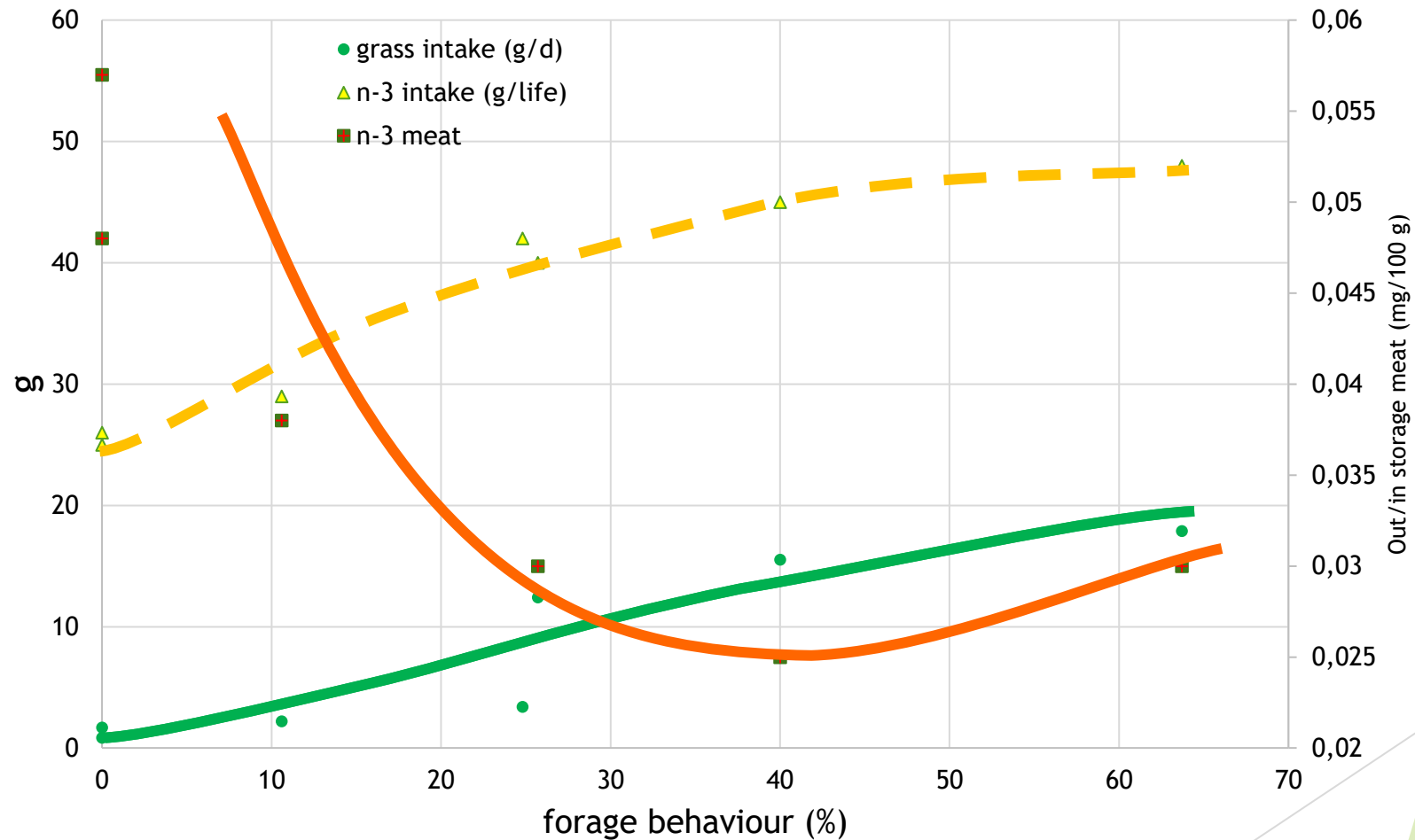


Whithin SG (\approx weight gain)



Adaptability index is more affected **by specific traits of genotype** than by **DWG**

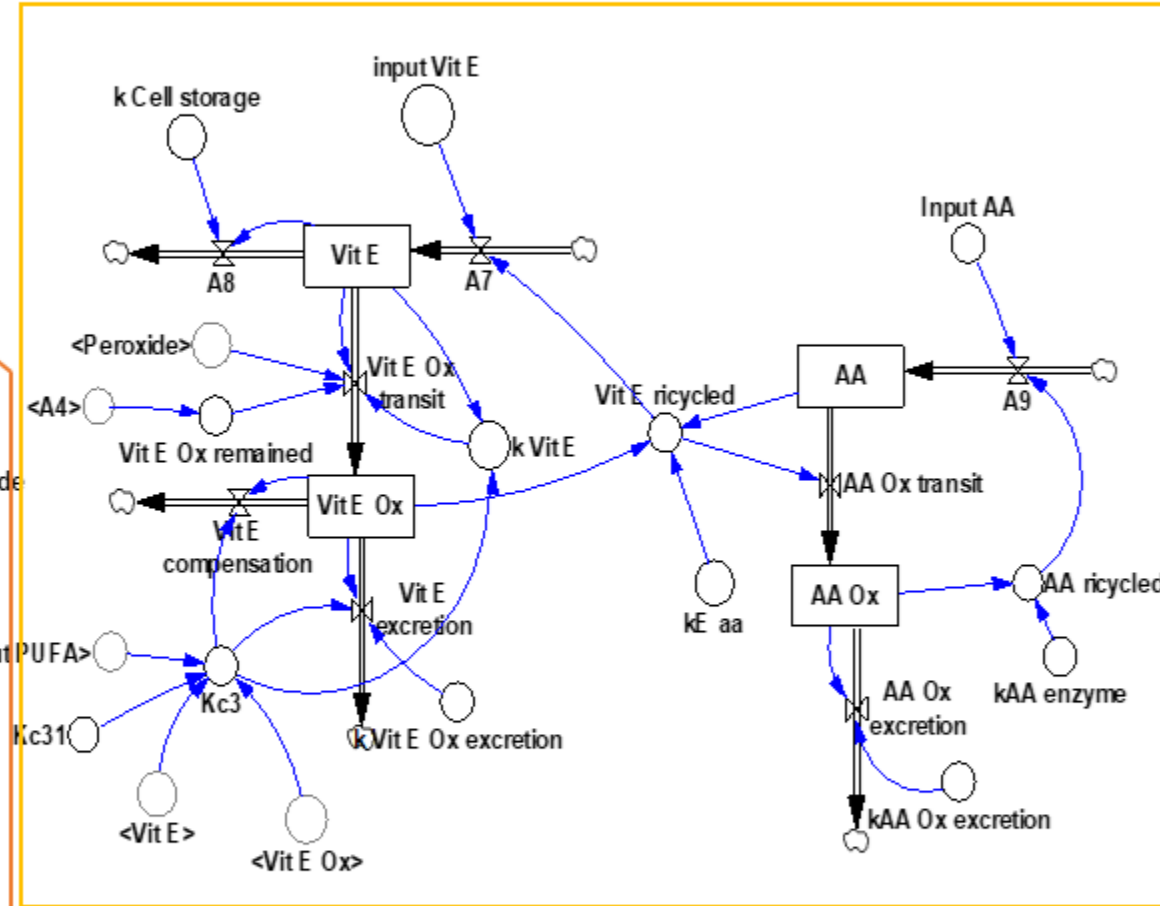
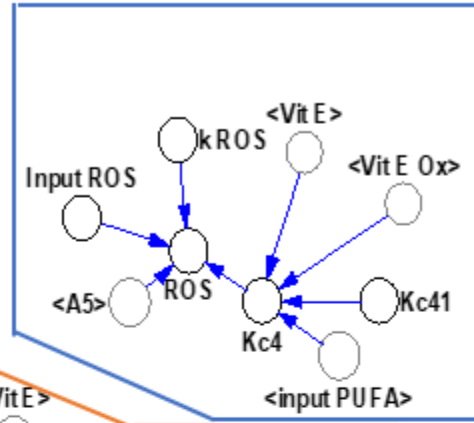
Forage behavior, grass and n-3 intake and body storage in different poultry strains



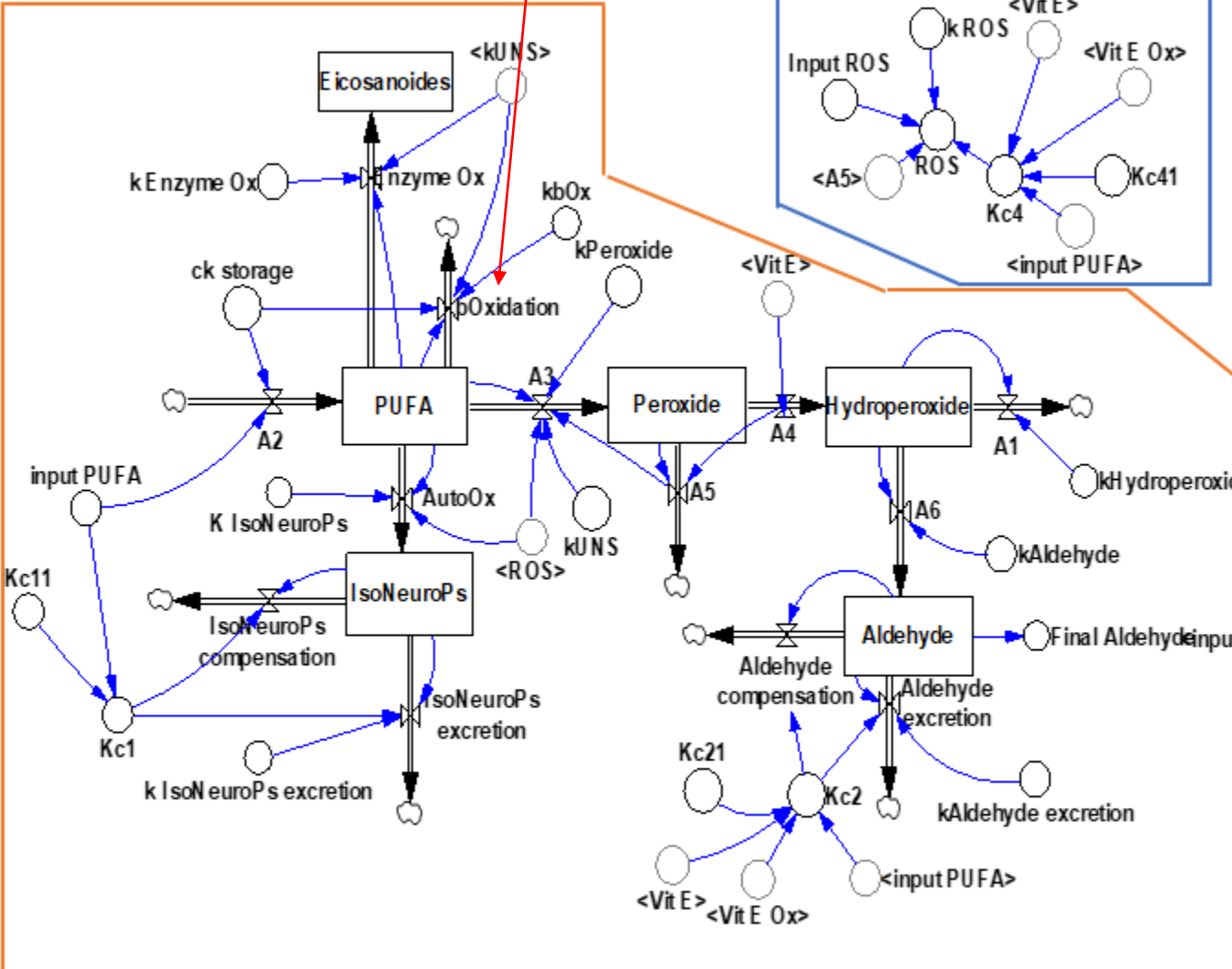
Kinetic Activity

Foraging

Energy



Body-----meat



The background features abstract, overlapping geometric shapes in various shades of green, ranging from light lime to dark forest green. These shapes are primarily located on the left and right sides of the frame, creating a modern, layered effect. The central area is a plain white space where the text is located.

One welfare

One welfare

Human
welfare

Animal
welfare

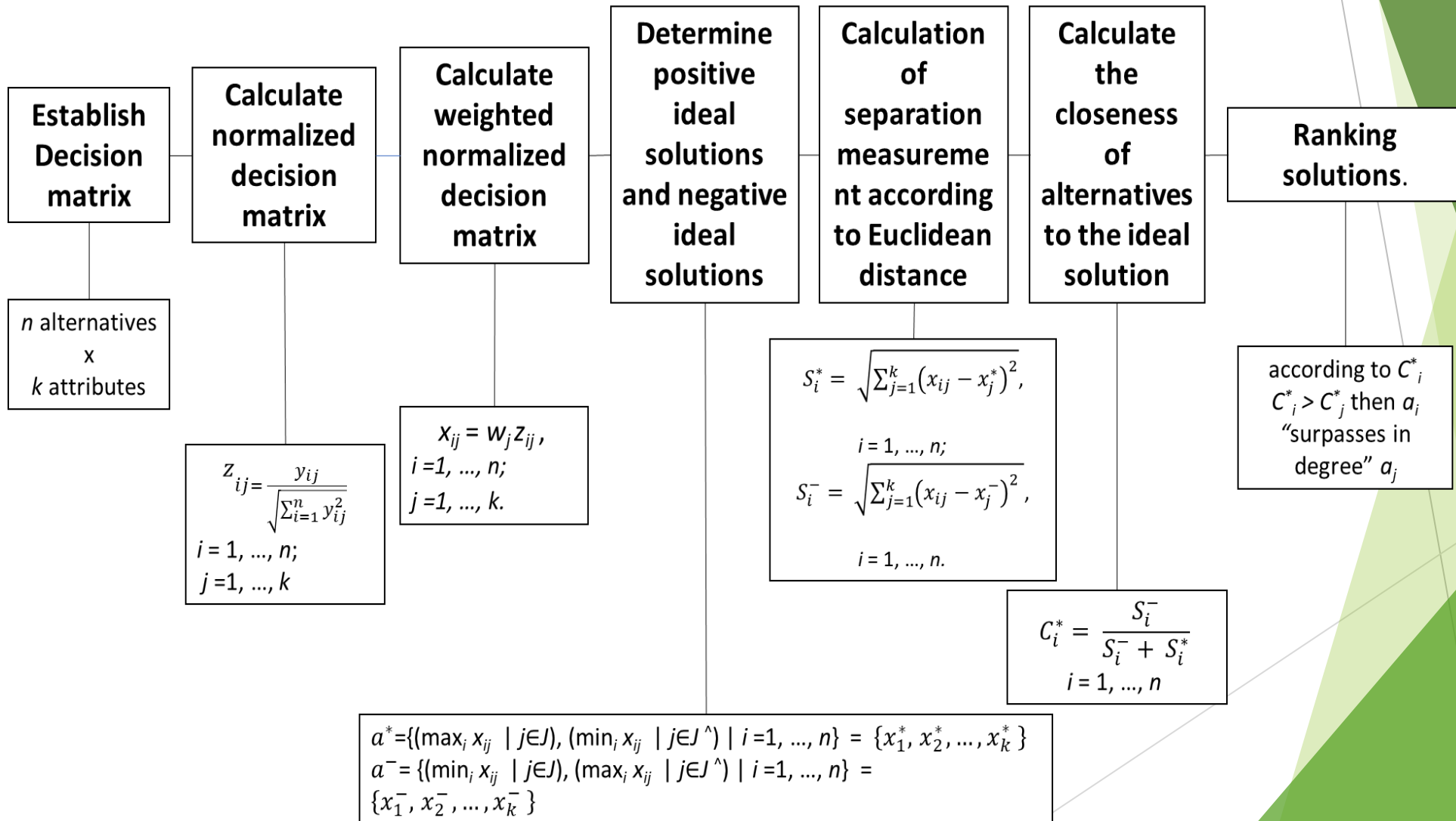


Environmental
aspects

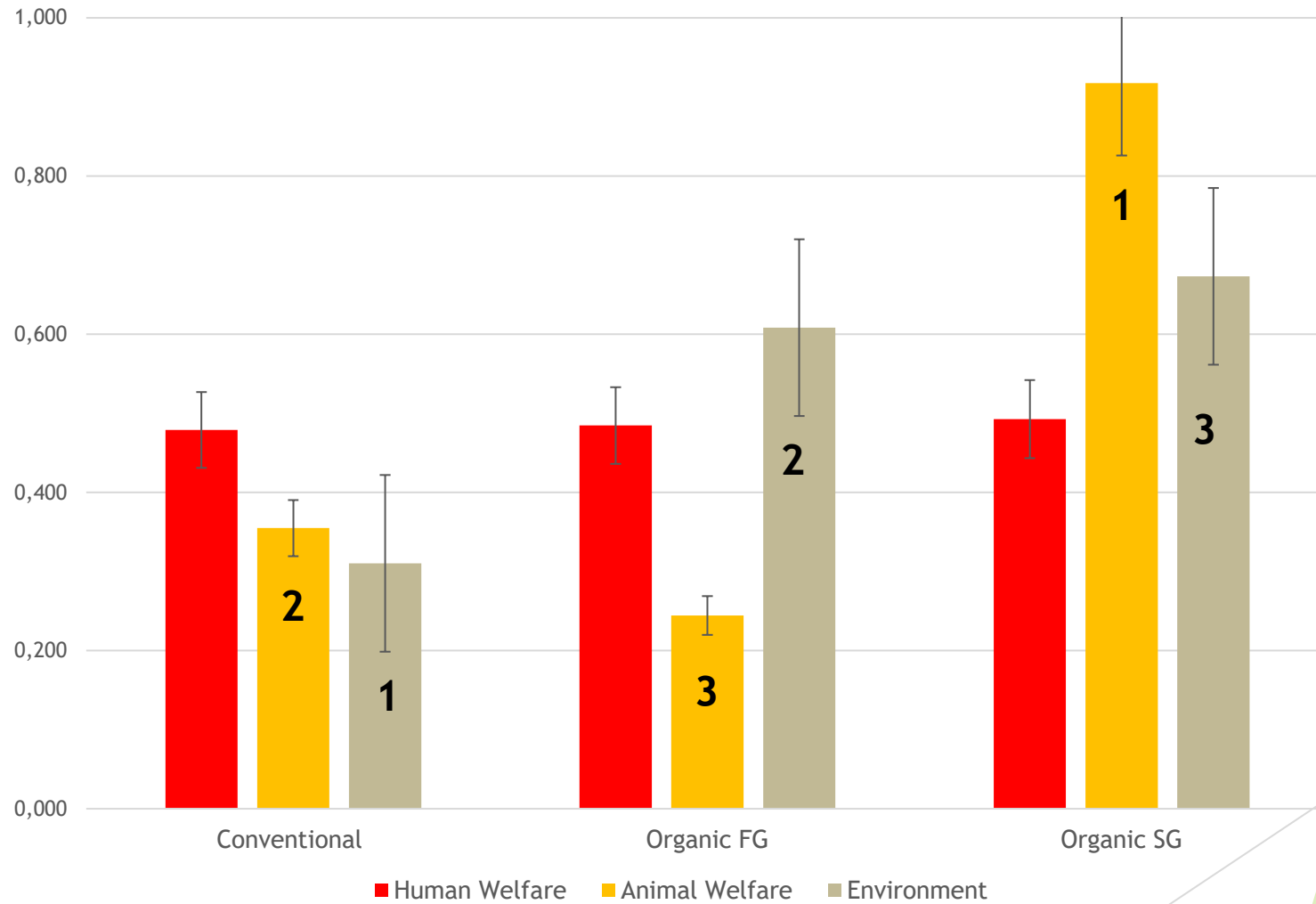
Human Welfare			Animal Health & Welfare			Environmental Aspects		
index labor safety	landscape	net income per kilos	Moving	stocking dens	time spending outdoor	Land Use	Respiratory inorganic	Climate change
feed conversion	final weight		mortality rate	Severe foot pad lesions		Acidification	Fossil fuel	Biodiversity
tenderness	fat content	n-3 fatty acids	breast blister					

Table 1: One Welfare Framework: dimensions and potential criteria.

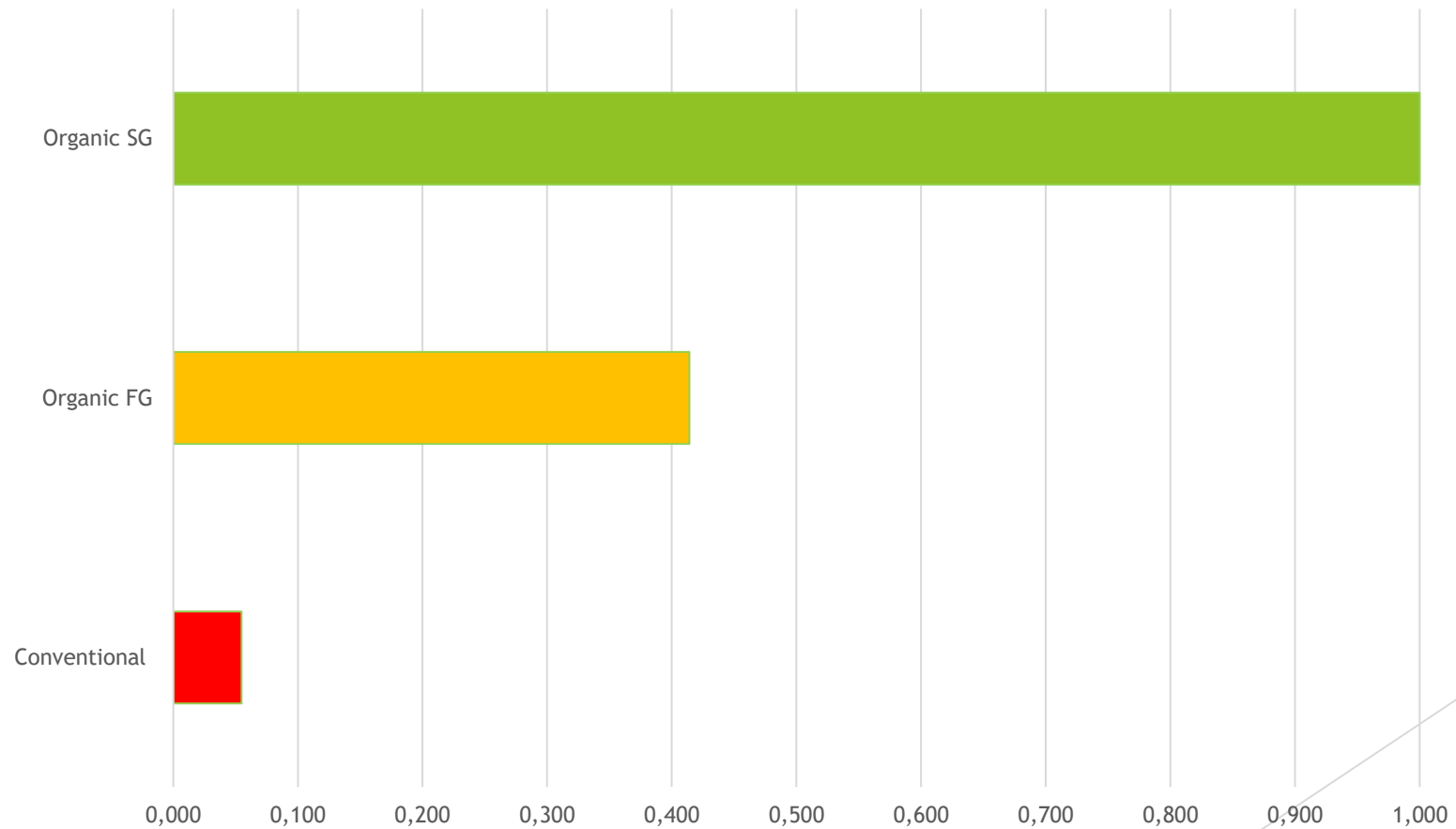
Multicriteria analysis



Result (per pillar) after standardization



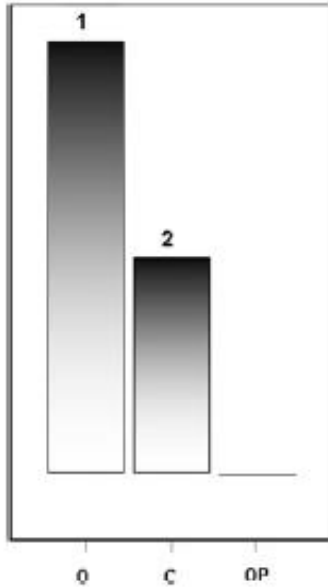
After final MCDA Ranking



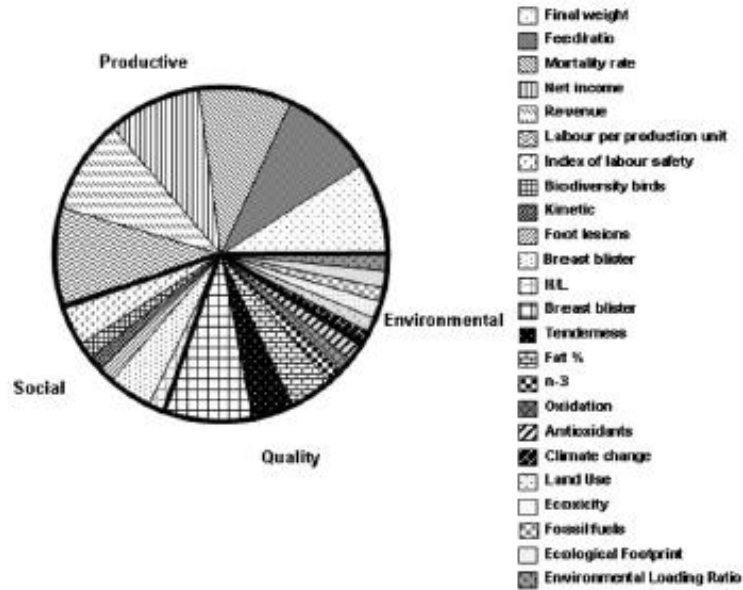
Point of view

farmers

a Final ranking



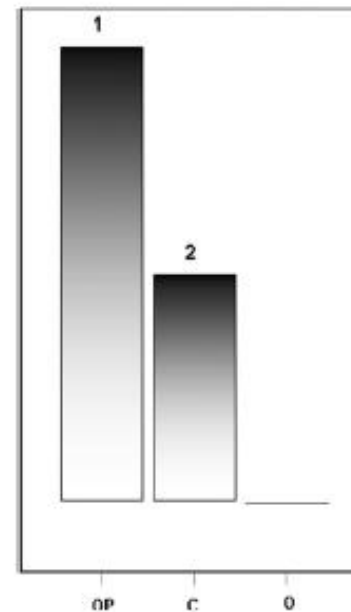
b Weight of each indicator



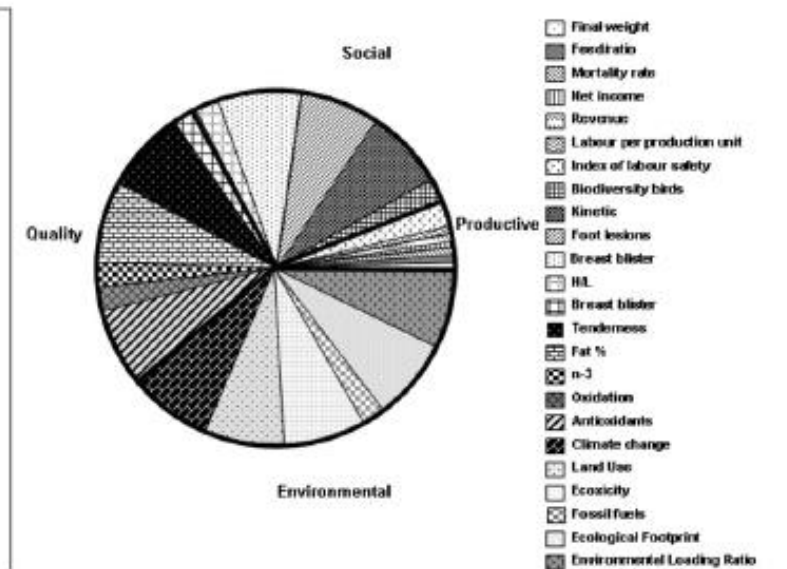
c List of indicators

citizens

a Final ranking



b Weight of each indicator



c List of indicators

Take home message

▶ Adaptability

- ▶ Outdoor enrichments (trees, bushes)
- ▶ Foraging is a pre-requisite
- ▶ To maximize nutritional benefits of meat, chickens should also have good storage ability of nutrients

▶ One welfare

- ▶ Develop models relatively simple and shared by stakeholder to improve the strenght of the estimation
- ▶ try to find common point of views (citizens vs producers)



Prof. Alessandro
Dal Bosco



Prof Lucia
Rocchi



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Dr. Alice
Cartoni Mancinelli



Dr. Elisa
Angelucci



Dr. Diletta
Chiattelli

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